

Grasshopper Module Guide - NULL v2.0

December 2013

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1 Overview

NULL is a module that lays down and executes a payload. When a payload is chosen to use this module, NULL will drop the payload to disk, execute it, and exit immediately. Note that the payload is not deleted.

As of version 2.0, NULL can optionally also lay down (but not execute) an arbitrary number of other user provided files.

This module is meant to be used with either one-shot tools (e.g., a survey tool) or with payloads that provide their own persistence separate from Grasshopper, allowing existing tools to make use of the Grasshopper Rule Engine and payload obfuscation.

NULL supports 32- and 64-bit EXE payloads only.

2 Installation

NULL will deploy and execute an EXE payload at a user-specified location on the target filesystem. NULL does not provide any soft persistence, nor will it delete the payload after execution.

2.1 Configuration

The following fields are configured at build time to specify NULL's installation behavior.

Field	Default	Description
Payload Path	<i>None</i>	Path to Payload EXE on target started by NULL If the path does not exist, it is created.
Additional Files	<i>None</i>	Local and remote paths for any desired additional files.

3 Payload Execution

The payload is executed once as a normal process at the privilege level of the Grasshopper process. All additional files are dropped before the payload is dropped. If any file is not able to be dropped for any reason, all dropped files will be securely deleted and the payload will not be executed.

The NULL module does not need to uninstall; it does not leave any stubs and does not provide any persistence. The payload is responsible for removing itself from the target.

3.1 Run Once

The NULL module implements the 'run_once' interface, indicating that the payload will be executed one and only one time.

Any payload using this module must also be designated as using the 'run_once' interface.

4 Footprint

The NULL module writes an unobfuscated payload to the target filesystem. The path is specified by the user at build time. This file will not be deleted by Grasshopper.

The process of the payload executable is visible in the Task Manager during execution.

5 Receipt XML Format

NULL's configuration is recorded in the Grasshopper receipt at build time under build.xml. An example and description of the xml format is provided below.

5.1 XML Example

```
<PersistModule>
  <UUID>9d03da02ab3a47d7bd28c9a776ba9806</UUID>
  <Null>
    <PayloadPath>C:\Target\payload.exe</PayloadPath>
  </Null>
</PersistModule>
```

5.2 Field Definitions

UUID

The universally unique identifier for the module variant used in the build.

Null

The configuration information used by the NULL module.

PayloadPath

The path to the payload on the target deployed by NULL.

Appendix A:

Appendix B: Change Log

Date	Change Description	Authority
05/2012	Document Initialization	235567 9
09/2012	Update for Grasshopper v1.0 Phase 2 Delivery	235567 9
11/2012	Update for Grasshopper v1.0.1 Delivery	235567 9