

Raytheon

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PlugX 7.0

For
SIRIUS Task Order PIQUE

Submitted to:
U.S. Government

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1.0 (U) Analysis Summary

(S//NF) The following report discusses a variant of PlugX a previously reported remote access tool (RAT). This RAT abuses perfectly valid signed binaries to perform the attack. It is also stated that it has the ability to defeat UAC in Windows 7.

(S//NF) It is assumed in the report that this PlugX variant is delivered as embedded archive inside a PDF or Office document. When the archive extracts, one of the files is a signed file taken from a software bundle from McAfee. This McAfee file is bundled with a custom DLL which McAfee does not check for validity. This DLL then executes resulting in code being loaded and executed in memory which not detected by virus scanners at the time of this report. When running under Window 7 this PlugX variant is described as defeating UAC however no further details are provided.

(S//NF) Once the RAT is fully up and running it communicates with C&C servers over port 443 and provides typical PlugX capabilities such as disk functions, screen capture, remote desktop, shell, telnet, registry edit, etc. The RAT maintains persistency through the use of registry keys or optionally installing as a service.

(S//NF) Unfortunately this report did not detail the mechanism whereby UAC is defeated. However, the successful technique of loading a custom DLL from a signed McAfee executable is worthy of a POC. We recommend the custom DLL loading from a signed McAfee executable be developed as a PoC. However, prior to assigning this as an official PoC project, we recommend research be conducted to ensure the technique hasn't been patched and is still viable.

2.0 (U) Description of the Technique

(S//NF) The technique mentioned uses a signed McAfee executable to load a custom DLL without detection.

3.0 (U) Identification of Affected Applications

(U) Windows

4.0 (U) Related Techniques

(S//NF) Remote Access Tool and covert DLL loading.

5.0 (U) Configurable Parameters

(U) None

6.0 (U) Exploitation Method and Vectors

(S//NF) This PlugX variant is assumed to be delivered via a malicious attachment. The machine is then exploited by loading a custom DLL from a valid signed executable.

7.0 (U) Caveats

(U) None.

8.0 (U) Risks

(S//NF) There is a risk that current McAfee executables have patched this vulnerability as this report is over two years old. We recommend this technique be researched to ensure it hasn't been patched.

9.0 (U) Recommendations

(S//NF) We recommend the custom DLL loading from a signed McAfee executable be developed as a PoC. However, prior to assigning this as an official PoC project, we recommend research be conducted to ensure the technique hasn't been patched and is still viable.