

Wolf in Sheep's Clothing: Your Next APT is Already Whitelisted

CREAT

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Public Release Version

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Trust-Based Security Creates Problems

Whitelisting depends on the accurate characterization of code's intended use

Inherited –Is the developer trustworthy?

Behavior –Is the behavior seemingly benevolent?

Crowdsourced Trust –Do many people trust this application?

Can you accurately characterize the use of code?

Benevolent Design

!=

Benevolent Use

A History of Abuse



APTs and Targeted Attacks

Interpreters -for ease and power!

Machete – Bring all that you need!

Python interpreter for ease of coding

Flame – Prepare for every eventuality!

Lua interpreter for modular design

APRIL

Admin Tools –Management for all!

SkeletonKey –PSEXEC is vital in SK's lateral movement towards the target domain controller to allow the attacker's authentic

MiniDuke/CosmicDuke –Windows Task Scheduler for persistence and malware operations scheduling

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Wipers

Sabotage -- Powered by Eldos RawDisk



Security

Safe

Certificate

Trusted

File

Original file name: eld-rdsk.sys
Vendor: EldoS Corporation
Application: RawDisk

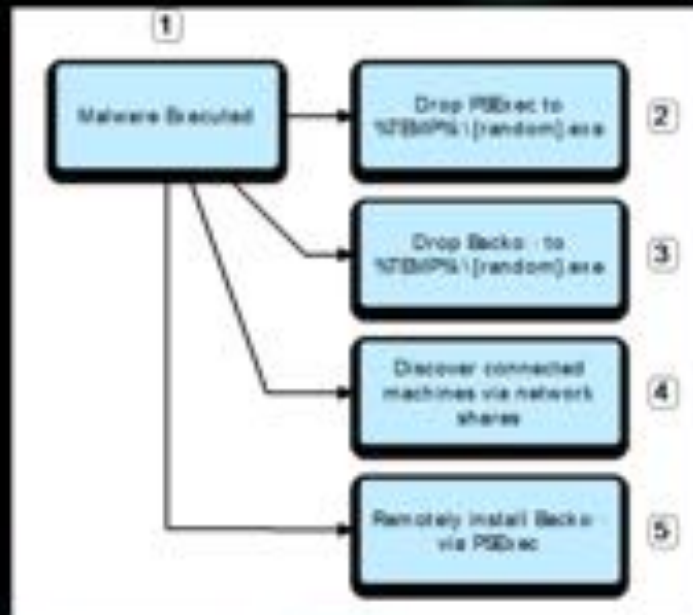
Name: data0008
Type: PE/DYS
Size: 23.71 KB
Version: 2.1.21.86

MD5: 5AEAC618E2998086972115804C2E844
SHA1: 887C80C41F726FCC8418FF95FC5A07823C2886C4
Added: 7/23/2010 8:28:00 PM

Abusing RawDisk lib to evade NTFS permissions

Point-of-Sale Malware

Backoff – Abusing psexec



Banking Trojans

Antirootkits – A story of friendly fire



Repurposing antirootkit tools to remove security software

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BITSAdmin

Second-Step Payload –Powered by Microsoft!

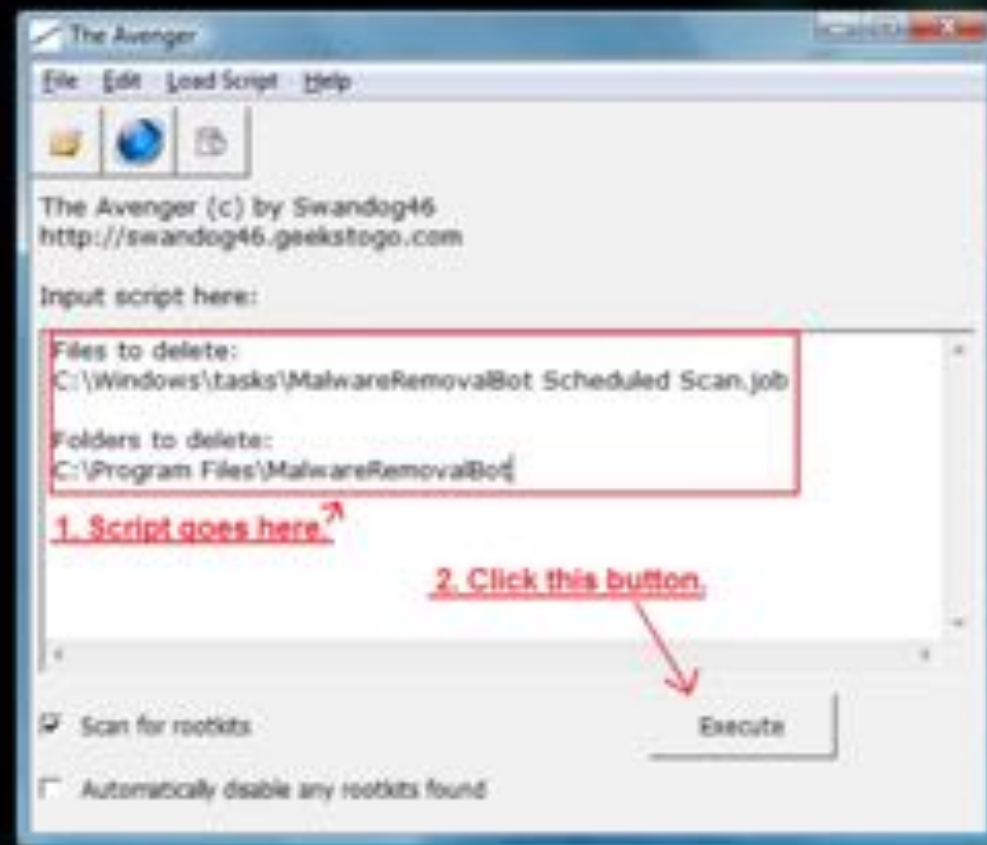


Look no further than your own OS!

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Antirootkits -- A story of friendly fire



Repurposing antirootkit tools to remove security software

BITSAdmin

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```
C:\>bitsadmin /list

BITSADMIN version 3.0 [ 7.5.7601 ]
BITS administration utility.
(C) Copyright 2000-2006 Microsoft Corp.

BITSAdmin is deprecated and is not guaranteed to be available in future version
of windows.
Administrative tools for the BITS service are now provided by BITS Powershell c
dlets.

{42D36E88-607A-40A3-8224-6671722F218E} 'getsome' SUSPENDED 0 / 1 0 / UNKNOWN
Listed 1 job(s).

C:\>
```



Look no further than your own OS!

Ransomware

ACCDFISA

Winrar –efficiently taking what you love!



Abusing access control tools

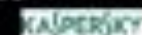


CTB-Locker

Trust, trust everywhere!



WinRAR, Zlib, and... sdelete



ACCDFISA

Winrar --efficiently taking what you love!



Abusing access control tools

CTB-Locker

Trust, trust everywhere!



WinRAR, Zlib, and... sdelete

A History of Abuse



What Good is Flagging 'Riskware'?

Legal necessity for dealing with litigious developers

Huge delay period for detection with no agreement across security vendors

... And I absolutely agree with you! Moreover, when you disable the riskware detection in KAV 6, it still counts all the riskware as a threat (however, automatically excluding it). So you have something like:

Threats found: 10
Unthreatened: 0

... when all the "threats found" are just riskware, **detection of which you wanted to disable ;-)**

Dubious categories like 'Riskware', 'Suspicious', and 'HackTool' are often placeholders

Users put in effort into circumventing any blocking and detection of riskware

The Interim Solution – DEFAULT DENY

Custom-Tailored Application Control

Hint: Password protect your configuration manager

A Necessary Paradigm Shift

Move away from 'All-Purpose Computing'



**Hone Down Your Toolkit
or
Get Shankered with it!**

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