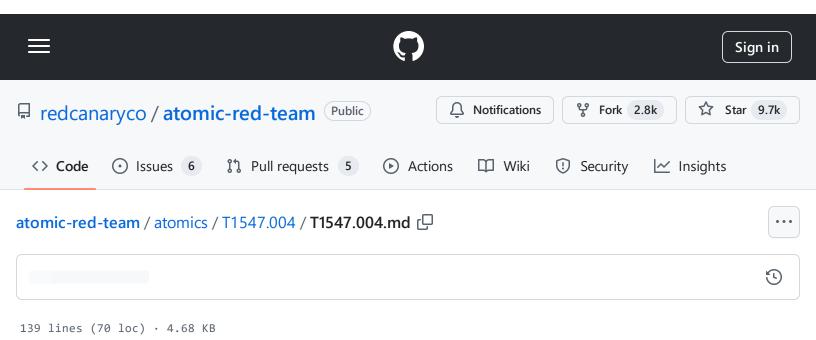
atomic-red-team/atomics/T1547.004/T1547.004.md at f339e7da7d05f6057fdfcdd3742bfcf365fee2a9 · redcanaryco/atomic-red-team · GitHub - 31/10/2024 20:20 https://github.com/redcanaryco/atomic-red-team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1547.004/T1547.004.md#atomic-test-3---winlogon-notify-key-logon-persistence---powershell



T1547.004 - Winlogon Helper DLL

Description from ATT&CK

Adversaries may abuse features of Winlogon to execute DLLs and/or executables when a user logs in. Winlogon.exe is a Windows component responsible for actions at logon/logoff as well as the secure attention sequence (SAS) triggered by Ctrl-Alt-Delete. Registry entries in

HKLM\Software[\\Wow6432Node\\]\Microsoft\Windows NT\CurrentVersion\Winlogon\ and
HKCU\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\ are used to manage additional helper programs and functionalities that support Winlogon.(Citation: Cylance Reg Persistence Sept 2013)

Malicious modifications to these Registry keys may cause Winlogon to load and execute malicious DLLs and/or executables. Specifically, the following subkeys have been known to be possibly vulnerable to abuse: (Citation: Cylance Reg Persistence Sept 2013)

- Winlogon\Notify points to notification package DLLs that handle Winlogon events
- Winlogon\Userinit points to userinit.exe, the user initialization program executed when a user logs on
- Winlogon\Shell points to explorer.exe, the system shell executed when a user logs on

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Adversaries may take advantage of these features to repeatedly execute malicious code and establish persistence.

Atomic Tests

- Atomic Test #1 Winlogon Shell Key Persistence PowerShell
- Atomic Test #2 Winlogon Userinit Key Persistence PowerShell
- Atomic Test #3 Winlogon Notify Key Logon Persistence PowerShell

Atomic Test #1 - Winlogon Shell Key Persistence - PowerShell

PowerShell code to set Winlogon shell key to execute a binary at logon along with explorer.exe.

Upon successful execution, PowerShell will modify a registry value to execute cmd.exe upon logon/logoff.

Supported Platforms: Windows

auto_generated_guid: bf9f9d65-ee4d-4c3e-a843-777d04f19c38

Inputs:

Name	Description	Туре	Default Value
binary_to_execute	Path of binary to execute	Path	C:\Windows\System32\cmd.exe

Attack Commands: Run with powershell!

Set-ItemProperty "HKCU:\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\" "SI

Cleanup Commands:

Atomic Test #2 - Winlogon Userinit Key Persistence - PowerShell

PowerShell code to set Winlogon userinit key to execute a binary at logon along with userinit.exe.

Upon successful execution, PowerShell will modify a registry value to execute cmd.exe upon logon/logoff.

Supported Platforms: Windows

auto_generated_guid: fb32c935-ee2e-454b-8fa3-1c46b42e8dfb

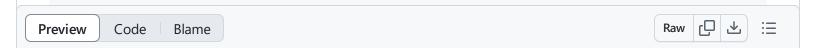
Inputs:

Name	Description	Туре	Default Value	
binary_to_execute	Path of binary to execute	Path	C:\Windows\System32\cmd.exe	

Attack Commands: Run with powershell!

Set-ItemProperty "HKCU:\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\" "U: 🚨

Cleanup Commands:



Atomic Test #3 - Winlogon Notify Key Logon Persistence - PowerShell

PowerShell code to set Winlogon Notify key to execute a notification package DLL at logon.

Upon successful execution, PowerShell will modify a registry value to execute atomicNotificationPackage.dll upon logon/logoff.

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Supported Platforms: Windows

auto_generated_guid: d40da266-e073-4e5a-bb8b-2b385023e5f9

Inputs:

	Name	Description	Туре	Default Value
bina	ry_to_execute	Path of notification package to execute	Path	C:\Windows\Temp\atomicNotificationPackage.dll

Attack Commands: Run with powershell!

New-Item "HKCU:\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\Notify" -For Set-ItemProperty "HKCU:\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\Noti

Cleanup Commands:

Remove-Item "HKCU:\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\Notify" - |