

S10L2

Analisi dinamica

Identificare eventuali azioni del malware sul file system utilizzando ProcessMonitor (procmon) ,Identificare eventuali azioni del malware su processi e thread utilizzando ProcessMonitor.

SOLUZIONE

Come prima cosa mettiamo la nostra macchina in sicurezza quindi,eliminiamo la connessione e eventuali cartelle condivise,una volta fatto ciò procediamo ad analizzare il malware in questione.

16:05...	Malware_U3...	1832	Load Image	C:\Windows\SysWOW64\psapi.dll	SUCCESS	Image Base: 0x77a...
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	Desired Access: R...
16:05...	Malware_U3...	1832	QueryBasicInfor...	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	CreationTime: 21/1...
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	Desired Access: R...
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.wind...	FILE LOCKED WI...	SyncType: SyncTy...
16:05...	Malware_U3...	1832	QueryStandarld...	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	AllocationSize: 532...
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	SyncType: SyncTy...
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	Desired Access: R...
16:05...	Malware_U3...	1832	QueryBasicInfor...	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	CreationTime: 21/1...
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.wind...	SUCCESS	

Possiamo notare che il malware carica una libreria (psapi.dll) la quale fornisce funzioni per ottenere informazioni sui processi e sui moduli in esecuzione nel sistema,quindi sta cercando di raccogliere informazioni.

16:05...	Malware_U3...	1832	Load Image	C:\Windows\SysWOW64\psapi.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	QueryBasicInfor...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	FILE LOCKED WI...	
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	QueryBasicInfor...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	FILE LOCKED WI...	
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	QueryBasicInfor...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	QueryStandarld...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CloseFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	QueryBasicInfor...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFile	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	SUCCESS	
16:05...	Malware_U3...	1832	CreateFileMapp...	C:\Windows\winsxs\x86_microsoft.windows.common-controls_6595b64144ccf1df_5.82.7601.17514_none_ec83dfa859149a\comctl32.dll	FILE LOCKED WI...	

Dopodichè va a modificare la libreria 'comctl32.dll' per eseguire il proprio codice e inoltre invoca anche la libreria 'acngenral.dll' per eludere le misure di sicurezza.

16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\AppPatch\AcXtmal.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\mpr.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\SortServer20...	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\shunimpl.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\dwmmapi.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\sfsc_os.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInformationFile	lows\SysWOW64\sfsc.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\msacm32.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\AppPatch\AcGenral.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\winspool.drv	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\AppPatch\AcLayers.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\userenv.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\samcli.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\winmm.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\apphelp.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\profapi.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\uxtheme.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\version.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\System32\wow64win.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\System32\wow64.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\System32\wow64cpu.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\cryptbase.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\sspicli.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\imm32.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\sechost.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\oleaut32.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\devobj.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\kernel32.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\ole32.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\shell32.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\crypt32.dll	SUCCESS	Name: \Windows\...
16:05:...	Malware_U3_...	1832	QueryNameInfo...	C:\Windows\SysWOW64\advapi32.dll	SUCCESS	Name: \Windows\...

Una volta che ha completato queste operazioni, il malware va a ottenere informazioni su varie librerie e si posiziona in una cartella di sistema in modo tale da avviarsi ogni volta che noi accendiamo il pc.

Regshot

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Regshot 1.9.0 x64 ANSI
Comments:
Date/Time: 2024/2/13 15:40:01 , 2024/2/13 15:40:24
Computer: USER-PC , USER-PC
Username: user , user

-----
Keys added: 3
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Plain\{B56E99E4-C87A-4E5A-98A6-9601B1DDC805}
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tasks\{B56E99E4-C87A-4E5A-98A6-9601B1DDC805}
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tree\{D55AFD0E-4777-48E9-BECD-499F8A7D4E9E}

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Values added: 6
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tasks\{B56E99E4-C87A-4E5A-98A6-9601B1DDC805}\Path: ""\{D55AFD0E-4777-4
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tasks\{B56E99E4-C87A-4E5A-98A6-9601B1DDC805}\Hash: E4 E8 8C DD 35 0F
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tasks\{B56E99E4-C87A-4E5A-98A6-9601B1DDC805}\Triggers: 15 00 00 00 C
35 00 45 00 37 00 7D 00 00 00 00 00
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tasks\{B56E99E4-C87A-4E5A-98A6-9601B1DDC805}\dynamicInfo: 03 00 00 C
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tree\{D55AFD0E-4777-48E9-BECD-499F8A7D4E9E}\Id: "{B56E99E4-C87A-4E5A-
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Schedule\TaskCache\Tree\{D55AFD0E-4777-48E9-BECD-499F8A7D4E9E}\Index: 0x00000003

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Values modified: 15

```

Attraverso un tool chiamato *regshot* andiamo a effettuare un'istantanea delle modifiche fatte dal malware una volta eseguito, e come possiamo notare ha effettuato 15 modifiche al sistema.

Considerazioni finali

Il malware in questione è un keylogger perchè va a modificare **comctl32.dll**, la quale intercetta l'input dell'utente. Mentre **psapi.dll** importata dal malware va a identificare in quali finestre si verificano gli inserimenti da tastiera e inoltre va a fare una **scalata dei privilegi** inserendosi all'interno di una directory di sistema in modo tale da avviarsi all'avvio del pc.