

NETMANAGEIT

Intelligence Report

Zloader Learns Old Tricks

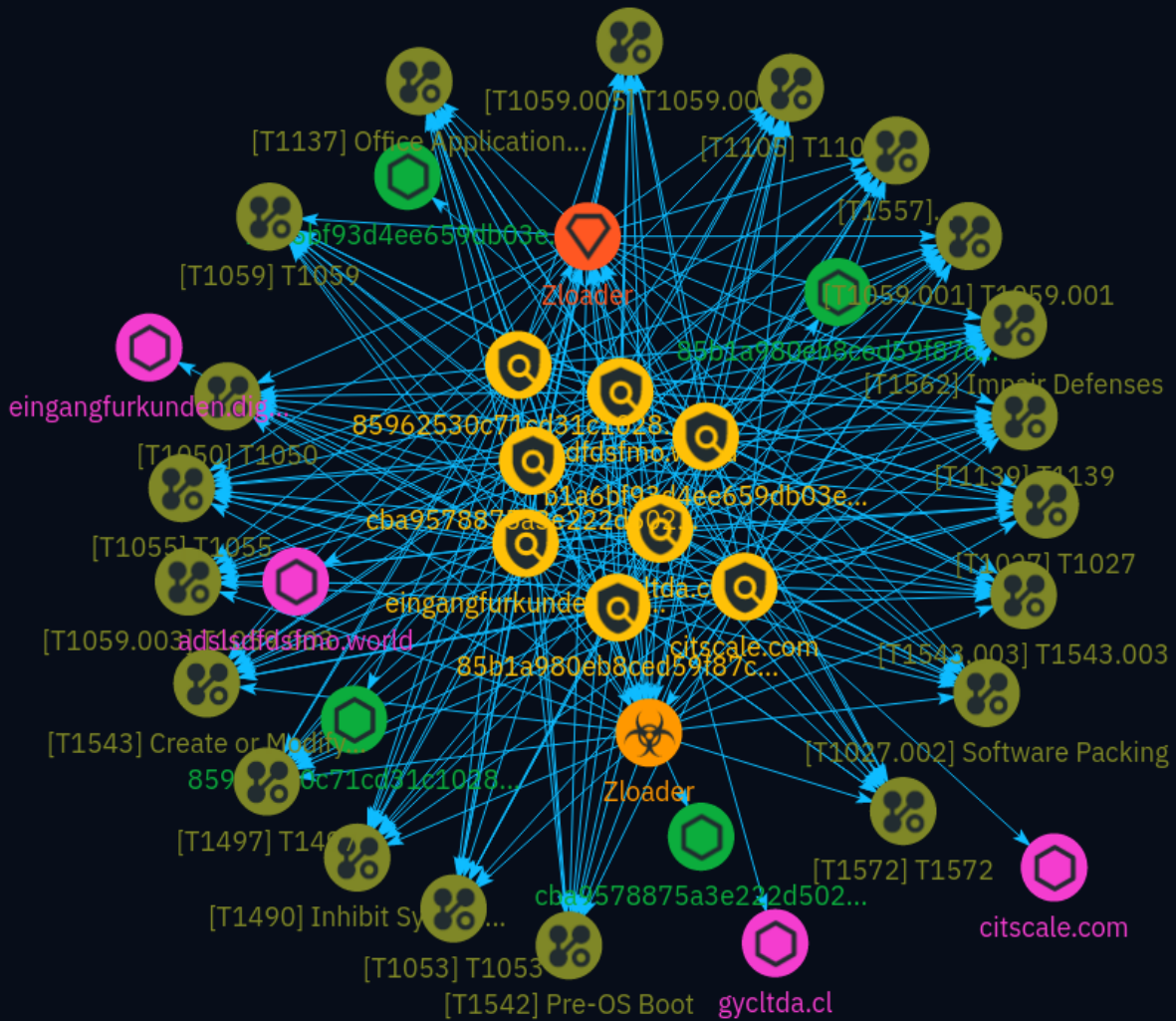


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Overview

Description

Zloader (a.k.a. Terdot, DELoader, or Silent Night) is a modular trojan based on leaked Zeus source code. Zloader has continued to evolve since its resurrection around September 2023 after an almost two-year hiatus. The latest version, 2.4.1.0, introduces a feature to prevent execution on machines that differ from the original infection. This anti-analysis technique was present in the original Zeus 2.X code but implemented differently.

Confidence

This value represents the confidence in the correctness of the data contained within this report.

100 / 100

Content

N/A

Indicator

Name

gycltda.cl

Pattern Type

stix

Pattern

[domain-name:value = 'gycltda.cl']

Name

eingangfurkunden.digital

Pattern Type

stix

Pattern

[domain-name:value = 'eingangfurkunden.digital']

Name

adslsdfsfmo.world

Pattern Type

stix

Pattern

[domain-name:value = 'adslsdfdsfmo.world']

Name

citscale.com

Pattern Type

stix

Pattern

[domain-name:value = 'citscale.com']

Name

cba9578875a3e222d502bb6a85898939bb9e8e247d30fcc0d44d83a64919f448

Pattern Type

stix

Pattern

[file:hashes!'SHA-256' =
'cba9578875a3e222d502bb6a85898939bb9e8e247d30fcc0d44d83a64919f448']

Name

b1a6bf93d4ee659db03e51a3765d4d3c2ee3f1b56bd9b701ab5939d63f57d9ee

Pattern Type

stix

Pattern

[file:hashes!'SHA-256' =
'b1a6bf93d4ee659db03e51a3765d4d3c2ee3f1b56bd9b701ab5939d63f57d9ee']

Name

85b1a980eb8ced59f87cb5dd7702e15d6ca38441c4848698d140ffd37d2b55e6

Pattern Type

stix

Pattern

[file:hashes!'SHA-256' =
'85b1a980eb8ced59f87cb5dd7702e15d6ca38441c4848698d140ffd37d2b55e6']

Name

85962530c71cd31c102853d64a8829f93b63bd1406bdec537b9d8c200f8f0bcc

Pattern Type

stix

Pattern

[file:hashes!'SHA-256' =
'85962530c71cd31c102853d64a8829f93b63bd1406bdec537b9d8c200f8f0bcc']

Attack-Pattern

Name

T1050

ID

T1050

Name

T1139

ID

T1139

Name

Inhibit System Recovery

ID

T1490

Description

Adversaries may delete or remove built-in data and turn off services designed to aid in the recovery of a corrupted system to prevent recovery.(Citation: Talos Olympic Destroyer 2018)

(Citation: FireEye WannaCry 2017) This may deny access to available backups and recovery options. Operating systems may contain features that can help fix corrupted systems, such as a backup catalog, volume shadow copies, and automatic repair features. Adversaries may disable or delete system recovery features to augment the effects of [Data Destruction](https://attack.mitre.org/techniques/T1485) and [Data Encrypted for Impact](https://attack.mitre.org/techniques/T1486).(Citation: Talos Olympic Destroyer 2018)

(Citation: FireEye WannaCry 2017) Furthermore, adversaries may disable recovery notifications, then corrupt backups.(Citation: disable_notif_synology_ransom) A number of native Windows utilities have been used by adversaries to disable or delete system recovery features: * `vssadmin.exe` can be used to delete all volume shadow copies on a system - `vssadmin.exe delete shadows /all /quiet` * [Windows Management Instrumentation](https://attack.mitre.org/techniques/T1047) can be used to delete volume shadow copies - `wmic shadowcopy delete` * `wbadmin.exe` can be used to delete the Windows Backup Catalog - `wbadmin.exe delete catalog -quiet` * `bcdedit.exe` can be used to disable automatic Windows recovery features by modifying boot configuration data - `bcdedit.exe /set {default} bootstatuspolicy ignoreallfailures & bcdedit /set {default} recoveryenabled no` * `REAgentC.exe` can be used to disable Windows Recovery Environment (WinRE) repair/recovery options of an infected system * `diskshadow.exe` can be used to delete all volume shadow copies on a system - `diskshadow delete shadows all` (Citation: Diskshadow) (Citation: Crytox Ransomware) On network devices, adversaries may leverage [Disk Wipe](https://attack.mitre.org/techniques/T1561) to delete backup firmware images and reformat the file system, then [System Shutdown/Reboot](https://attack.mitre.org/techniques/T1529) to reload the device. Together this activity may leave network devices completely inoperable and inhibit recovery operations. Adversaries may also delete “online” backups that are connected to their network – whether via network storage media or through folders that sync to cloud services.(Citation: ZDNet Ransomware Backups 2020) In cloud environments, adversaries may disable versioning and backup policies and delete snapshots, machine images, and prior versions of objects designed to be used in disaster recovery scenarios.(Citation: Dark Reading Code Spaces Cyber Attack) (Citation: Rhino Security Labs AWS S3 Ransomware)

Name

T1059.005

ID

T1059.005

Description

Adversaries may abuse Visual Basic (VB) for execution. VB is a programming language created by Microsoft with interoperability with many Windows technologies such as [Component Object Model](<https://attack.mitre.org/techniques/T1559/001>) and the [Native API](<https://attack.mitre.org/techniques/T1106>) through the Windows API. Although tagged as legacy with no planned future evolutions, VB is integrated and supported in the .NET Framework and cross-platform .NET Core.(Citation: VB .NET Mar 2020)(Citation: VB Microsoft) Derivative languages based on VB have also been created, such as Visual Basic for Applications (VBA) and VBScript. VBA is an event-driven programming language built into Microsoft Office, as well as several third-party applications.(Citation: Microsoft VBA) (Citation: Wikipedia VBA) VBA enables documents to contain macros used to automate the execution of tasks and other functionality on the host. VBScript is a default scripting language on Windows hosts and can also be used in place of [JavaScript](<https://attack.mitre.org/techniques/T1059/007>) on HTML Application (HTA) webpages served to Internet Explorer (though most modern browsers do not come with VBScript support). (Citation: Microsoft VBScript) Adversaries may use VB payloads to execute malicious commands. Common malicious usage includes automating execution of behaviors with VBScript or embedding VBA content into [Spearphishing Attachment](<https://attack.mitre.org/techniques/T1566/001>) payloads (which may also involve [Mark-of-the-Web Bypass](<https://attack.mitre.org/techniques/T1553/005>) to enable execution).(Citation: Default VBS macros Blocking)

Name

Software Packing

ID

T1027.002

Description

Adversaries may perform software packing or virtual machine software protection to conceal their code. Software packing is a method of compressing or encrypting an executable. Packing an executable changes the file signature in an attempt to avoid signature-based detection. Most decompression techniques decompress the executable code in memory. Virtual machine software protection translates an executable's original code into a special format that only a special virtual machine can run. A virtual machine is then called to run this code.(Citation: ESET FinFisher Jan 2018) Utilities used to perform software packing are called packers. Example packers are MPRESS and UPX. A more comprehensive list of known packers is available, but adversaries may create their own

packing techniques that do not leave the same artifacts as well-known packers to evade defenses.(Citation: Awesome Executable Packing)

Name

T1059.003

ID

T1059.003

Description

Adversaries may abuse the Windows command shell for execution. The Windows command shell ([cmd](https://attack.mitre.org/software/S0106)) is the primary command prompt on Windows systems. The Windows command prompt can be used to control almost any aspect of a system, with various permission levels required for different subsets of commands. The command prompt can be invoked remotely via [Remote Services](https://attack.mitre.org/techniques/T1021) such as [SSH](https://attack.mitre.org/techniques/T1021/004).(Citation: SSH in Windows) Batch files (ex: .bat or .cmd) also provide the shell with a list of sequential commands to run, as well as normal scripting operations such as conditionals and loops. Common uses of batch files include long or repetitive tasks, or the need to run the same set of commands on multiple systems. Adversaries may leverage [cmd](https://attack.mitre.org/software/S0106) to execute various commands and payloads. Common uses include [cmd](https://attack.mitre.org/software/S0106) to execute a single command, or abusing [cmd](https://attack.mitre.org/software/S0106) interactively with input and output forwarded over a command and control channel.

Name

T1059.001

ID

T1059.001

Description

Adversaries may abuse PowerShell commands and scripts for execution. PowerShell is a powerful interactive command-line interface and scripting environment included in the Windows operating system.(Citation: TechNet PowerShell) Adversaries can use PowerShell to perform a number of actions, including discovery of information and execution of code. Examples include the `Start-Process` cmdlet which can be used to run an executable and the `Invoke-Command` cmdlet which runs a command locally or on a remote computer (though administrator permissions are required to use PowerShell to connect to remote systems). PowerShell may also be used to download and run executables from the Internet, which can be executed from disk or in memory without touching disk. A number of PowerShell-based offensive testing tools are available, including [Empire](<https://attack.mitre.org/software/S0363>), [PowerSploit](<https://attack.mitre.org/software/S0194>), [PoshC2](<https://attack.mitre.org/software/S0378>), and PSAttack.(Citation: Github PSAttack) PowerShell commands/scripts can also be executed without directly invoking the `powershell.exe` binary through interfaces to PowerShell's underlying `System.Management.Automation` assembly DLL exposed through the .NET framework and Windows Common Language Interface (CLI).(Citation: Sixdub PowerPick Jan 2016)(Citation: SilentBreak Offensive PS Dec 2015)(Citation: Microsoft PSfromCsharp APR 2014)

Name

Pre-OS Boot

ID

T1542

Description

Adversaries may abuse Pre-OS Boot mechanisms as a way to establish persistence on a system. During the booting process of a computer, firmware and various startup services are loaded before the operating system. These programs control flow of execution before the operating system takes control.(Citation: Wikipedia Booting) Adversaries may overwrite data in boot drivers or firmware such as BIOS (Basic Input/Output System) and The Unified Extensible Firmware Interface (UEFI) to persist on systems at a layer below the operating system. This can be particularly difficult to detect as malware at this level will not be detected by host software-based defenses.

Name

T1059

ID

T1059

Description

Adversaries may abuse command and script interpreters to execute commands, scripts, or binaries. These interfaces and languages provide ways of interacting with computer systems and are a common feature across many different platforms. Most systems come with some built-in command-line interface and scripting capabilities, for example, macOS and Linux distributions include some flavor of [Unix Shell](<https://attack.mitre.org/techniques/T1059/004>) while Windows installations include the [Windows Command Shell](<https://attack.mitre.org/techniques/T1059/003>) and [PowerShell](<https://attack.mitre.org/techniques/T1059/001>). There are also cross-platform interpreters such as [Python](<https://attack.mitre.org/techniques/T1059/006>), as well as those commonly associated with client applications such as [JavaScript](<https://attack.mitre.org/techniques/T1059/007>) and [Visual Basic](<https://attack.mitre.org/techniques/T1059/005>). Adversaries may abuse these technologies in various ways as a means of executing arbitrary commands. Commands and scripts can be embedded in [Initial Access](<https://attack.mitre.org/tactics/TA0001>) payloads delivered to victims as lure documents or as secondary payloads downloaded from an existing C2. Adversaries may also execute commands through interactive terminals/shells, as well as utilize various [Remote Services](<https://attack.mitre.org/techniques/T1021>) in order to achieve remote Execution. (Citation: Powershell Remote Commands)(Citation: Cisco IOS Software Integrity Assurance - Command History)(Citation: Remote Shell Execution in Python)

Name

T1027

ID

T1027

Description

Adversaries may attempt to make an executable or file difficult to discover or analyze by encrypting, encoding, or otherwise obfuscating its contents on the system or in transit. This is common behavior that can be used across different platforms and the network to evade defenses. Payloads may be compressed, archived, or encrypted in order to avoid detection. These payloads may be used during Initial Access or later to mitigate detection. Sometimes a user's action may be required to open and [Deobfuscate/Decode Files or Information](<https://attack.mitre.org/techniques/T1140>) for [User Execution](<https://attack.mitre.org/techniques/T1204>). The user may also be required to input a password to open a password protected compressed/encrypted file that was provided by the adversary. (Citation: Volexity PowerDuke November 2016) Adversaries may also use compressed or archived scripts, such as JavaScript. Portions of files can also be encoded to hide the plain-text strings that would otherwise help defenders with discovery. (Citation: Linux/Cdorked.A We Live Security Analysis) Payloads may also be split into separate, seemingly benign files that only reveal malicious functionality when reassembled. (Citation: Carbon Black Obfuscation Sept 2016) Adversaries may also abuse [Command Obfuscation](<https://attack.mitre.org/techniques/T1027/010>) to obscure commands executed from payloads or directly via [Command and Scripting Interpreter](<https://attack.mitre.org/techniques/T1059>). Environment variables, aliases, characters, and other platform/language specific semantics can be used to evade signature based detections and application control mechanisms. (Citation: FireEye Obfuscation June 2017) (Citation: FireEye Revoke-Obfuscation July 2017)(Citation: PaloAlto EncodedCommand March 2017)

Name

T1497

ID

T1497

Description

Adversaries may employ various means to detect and avoid virtualization and analysis environments. This may include changing behaviors based on the results of checks for the presence of artifacts indicative of a virtual machine environment (VME) or sandbox. If the adversary detects a VME, they may alter their malware to disengage from the victim or conceal the core functions of the implant. They may also search for VME artifacts before dropping secondary or additional payloads. Adversaries may use the information learned from [Virtualization/Sandbox Evasion](<https://attack.mitre.org/techniques/T1497>) during automated discovery to shape follow-on behaviors.(Citation: Deloitte Environment

Awareness) Adversaries may use several methods to accomplish [Virtualization/Sandbox Evasion](<https://attack.mitre.org/techniques/T1497>) such as checking for security monitoring tools (e.g., Sysinternals, Wireshark, etc.) or other system artifacts associated with analysis or virtualization. Adversaries may also check for legitimate user activity to help determine if it is in an analysis environment. Additional methods include use of sleep timers or loops within malware code to avoid operating within a temporary sandbox. (Citation: Unit 42 Pirpi July 2015)

Name

T1105

ID

T1105

Description

Adversaries may transfer tools or other files from an external system into a compromised environment. Tools or files may be copied from an external adversary-controlled system to the victim network through the command and control channel or through alternate protocols such as [ftp](<https://attack.mitre.org/software/S0095>). Once present, adversaries may also transfer/spread tools between victim devices within a compromised environment (i.e. [Lateral Tool Transfer](<https://attack.mitre.org/techniques/T1570>)). On Windows, adversaries may use various utilities to download tools, such as `copy`, `finger`, [certutil](<https://attack.mitre.org/software/S0160>), and [PowerShell](<https://attack.mitre.org/techniques/T1059/001>) commands such as `Invoke-WebRequest` and `Invoke-WebRequest`. On Linux and macOS systems, a variety of utilities also exist, such as `curl`, `scp`, `sftp`, `tftp`, `rsync`, `finger`, and `wget`. (Citation: t1105_lolbas) Adversaries may also abuse installers and package managers, such as `yum` or `winget`, to download tools to victim hosts. Adversaries have also abused file application features, such as the Windows `search-ms` protocol handler, to deliver malicious files to victims through remote file searches invoked by [User Execution](<https://attack.mitre.org/techniques/T1204>) (typically after interacting with [Phishing](<https://attack.mitre.org/techniques/T1566>) lures). (Citation: T1105: Trellix_search-ms) Files can also be transferred using various [Web Service](<https://attack.mitre.org/techniques/T1102>)s as well as native or otherwise present tools on the victim system. (Citation: PTSecurity Cobalt Dec 2016) In some cases, adversaries may be able to leverage services that sync between a web-based and an on-premises client, such as Dropbox or OneDrive, to transfer files onto victim systems. For example, by compromising a cloud account and logging into the

service's web portal, an adversary may be able to trigger an automatic syncing process that transfers the file onto the victim's machine.(Citation: Dropbox Malware Sync)

Name

T1572

ID

T1572

Description

Adversaries may tunnel network communications to and from a victim system within a separate protocol to avoid detection/network filtering and/or enable access to otherwise unreachable systems. Tunneling involves explicitly encapsulating a protocol within another. This behavior may conceal malicious traffic by blending in with existing traffic and/or provide an outer layer of encryption (similar to a VPN). Tunneling could also enable routing of network packets that would otherwise not reach their intended destination, such as SMB, RDP, or other traffic that would be filtered by network appliances or not routed over the Internet. There are various means to encapsulate a protocol within another protocol. For example, adversaries may perform SSH tunneling (also known as SSH port forwarding), which involves forwarding arbitrary data over an encrypted SSH tunnel. (Citation: SSH Tunneling) [Protocol Tunneling](<https://attack.mitre.org/techniques/T1572>) may also be abused by adversaries during [Dynamic Resolution](<https://attack.mitre.org/techniques/T1568>). Known as DNS over HTTPS (DoH), queries to resolve C2 infrastructure may be encapsulated within encrypted HTTPS packets.(Citation: BleepingComp Godlua JUL19) Adversaries may also leverage [Protocol Tunneling](<https://attack.mitre.org/techniques/T1572>) in conjunction with [Proxy](<https://attack.mitre.org/techniques/T1090>) and/or [Protocol Impersonation](<https://attack.mitre.org/techniques/T1001/003>) to further conceal C2 communications and infrastructure.

Name

T1055

ID

T1055

Description

Adversaries may inject code into processes in order to evade process-based defenses as well as possibly elevate privileges. Process injection is a method of executing arbitrary code in the address space of a separate live process. Running code in the context of another process may allow access to the process's memory, system/network resources, and possibly elevated privileges. Execution via process injection may also evade detection from security products since the execution is masked under a legitimate process. There are many different ways to inject code into a process, many of which abuse legitimate functionalities. These implementations exist for every major OS but are typically platform specific. More sophisticated samples may perform multiple process injections to segment modules and further evade detection, utilizing named pipes or other inter-process communication (IPC) mechanisms as a communication channel.

Name

Impair Defenses

ID

T1562

Description

Adversaries may maliciously modify components of a victim environment in order to hinder or disable defensive mechanisms. This not only involves impairing preventative defenses, such as firewalls and anti-virus, but also detection capabilities that defenders can use to audit activity and identify malicious behavior. This may also span both native defenses as well as supplemental capabilities installed by users and administrators. Adversaries may also impair routine operations that contribute to defensive hygiene, such as blocking users from logging out of a computer or stopping it from being shut down. These restrictions can further enable malicious operations as well as the continued propagation of incidents.(Citation: Emotet shutdown) Adversaries could also target event aggregation and analysis mechanisms, or otherwise disrupt these procedures by altering other system components.

Name

T1053

ID

T1053

Description

Adversaries may abuse task scheduling functionality to facilitate initial or recurring execution of malicious code. Utilities exist within all major operating systems to schedule programs or scripts to be executed at a specified date and time. A task can also be scheduled on a remote system, provided the proper authentication is met (ex: RPC and file and printer sharing in Windows environments). Scheduling a task on a remote system typically may require being a member of an admin or otherwise privileged group on the remote system.(Citation: TechNet Task Scheduler Security) Adversaries may use task scheduling to execute programs at system startup or on a scheduled basis for persistence. These mechanisms can also be abused to run a process under the context of a specified account (such as one with elevated permissions/privileges). Similar to [System Binary Proxy Execution](<https://attack.mitre.org/techniques/T1218>), adversaries have also abused task scheduling to potentially mask one-time execution under a trusted system process. (Citation: ProofPoint Serpent)

Name

Office Application Startup

ID

T1137

Description

Adversaries may leverage Microsoft Office-based applications for persistence between startups. Microsoft Office is a fairly common application suite on Windows-based operating systems within an enterprise network. There are multiple mechanisms that can be used with Office for persistence when an Office-based application is started; this can

include the use of Office Template Macros and add-ins. A variety of features have been discovered in Outlook that can be abused to obtain persistence, such as Outlook rules, forms, and Home Page.(Citation: SensePost Ruler GitHub) These persistence mechanisms can work within Outlook or be used through Office 365.(Citation: TechNet O365 Outlook Rules)

Name

T1543.003

ID

T1543.003

Description

Adversaries may create or modify Windows services to repeatedly execute malicious payloads as part of persistence. When Windows boots up, it starts programs or applications called services that perform background system functions.(Citation: TechNet Services) Windows service configuration information, including the file path to the service's executable or recovery programs/commands, is stored in the Windows Registry. Adversaries may install a new service or modify an existing service to execute at startup in order to persist on a system. Service configurations can be set or modified using system utilities (such as `sc.exe`), by directly modifying the Registry, or by interacting directly with the Windows API. Adversaries may also use services to install and execute malicious drivers. For example, after dropping a driver file (ex: `.sys``) to disk, the payload can be loaded and registered via [Native API](<https://attack.mitre.org/techniques/T1106>) functions such as `CreateServiceW()` (or manually via functions such as `ZwLoadDriver()` and `ZwSetValueKey()`), by creating the required service Registry values (i.e. [Modify Registry](<https://attack.mitre.org/techniques/T1112>)), or by using command-line utilities such as `PnPUtil.exe``.(Citation: Symantec W.32 Stuxnet Dossier)(Citation: CrowdStrike DriveSlayer February 2022)(Citation: Unit42 AcidBox June 2020) Adversaries may leverage these drivers as [Rootkit](<https://attack.mitre.org/techniques/T1014>)s to hide the presence of malicious activity on a system. Adversaries may also load a signed yet vulnerable driver onto a compromised machine (known as "Bring Your Own Vulnerable Driver" (BYOVD)) as part of [Exploitation for Privilege Escalation](<https://attack.mitre.org/techniques/T1068>).(Citation: ESET InvisiMole June 2020)(Citation: Unit42 AcidBox June 2020) Services may be created with administrator privileges but are executed under SYSTEM privileges, so an adversary may also use a service to escalate privileges. Adversaries may also directly start services through [Service Execution](<https://attack.mitre.org/techniques/T1569/002>). To make detection analysis more challenging, malicious services may also incorporate [Masquerade

Task or Service](<https://attack.mitre.org/techniques/T1036/004>) (ex: using a service and/or payload name related to a legitimate OS or benign software component). Adversaries may also create 'hidden' services (i.e., [Hide Artifacts](<https://attack.mitre.org/techniques/T1564>)), for example by using the ``sc sdset`` command to set service permissions via the Service Descriptor Definition Language (SDDL). This may hide a Windows service from the view of standard service enumeration methods such as ``Get-Service``, ``sc query``, and ``services.exe``.(Citation: SANS 1)(Citation: SANS 2)

Name

Create or Modify System Process

ID

T1543

Description

Adversaries may create or modify system-level processes to repeatedly execute malicious payloads as part of persistence. When operating systems boot up, they can start processes that perform background system functions. On Windows and Linux, these system processes are referred to as services.(Citation: TechNet Services) On macOS, launchd processes known as [Launch Daemon](<https://attack.mitre.org/techniques/T1543/004>) and [Launch Agent](<https://attack.mitre.org/techniques/T1543/001>) are run to finish system initialization and load user specific parameters.(Citation: AppleDocs Launch Agent Daemons) Adversaries may install new services, daemons, or agents that can be configured to execute at startup or a repeatable interval in order to establish persistence. Similarly, adversaries may modify existing services, daemons, or agents to achieve the same effect. Services, daemons, or agents may be created with administrator privileges but executed under root/SYSTEM privileges. Adversaries may leverage this functionality to create or modify system processes in order to escalate privileges.(Citation: OSX Malware Detection)

Name

Adversary-in-the-Middle

ID

T1557

Description

Adversaries may attempt to position themselves between two or more networked devices using an adversary-in-the-middle (AiTM) technique to support follow-on behaviors such as [Network Sniffing](<https://attack.mitre.org/techniques/T1040>), [Transmitted Data Manipulation](<https://attack.mitre.org/techniques/T1565/002>), or replay attacks ([Exploitation for Credential Access](<https://attack.mitre.org/techniques/T1212>)). By abusing features of common networking protocols that can determine the flow of network traffic (e.g. ARP, DNS, LLNMR, etc.), adversaries may force a device to communicate through an adversary controlled system so they can collect information or perform additional actions.(Citation: Rapid7 MiTM Basics) For example, adversaries may manipulate victim DNS settings to enable other malicious activities such as preventing/redirecting users from accessing legitimate sites and/or pushing additional malware.(Citation: ttint_rat)(Citation: dns_changer_trojans)(Citation: ad_blocker_with_miner) Adversaries may also manipulate DNS and leverage their position in order to intercept user credentials, including access tokens ([Steal Application Access Token](<https://attack.mitre.org/techniques/T1528>)) and session cookies ([Steal Web Session Cookie](<https://attack.mitre.org/techniques/T1539>)). (Citation: volesty_0day_sophos_FW)(Citation: Token tactics) [Downgrade Attack](<https://attack.mitre.org/techniques/T1562/010>)s can also be used to establish an AiTM position, such as by negotiating a less secure, deprecated, or weaker version of communication protocol (SSL/TLS) or encryption algorithm.(Citation: mitm_tls_downgrade_att)(Citation: taxonomy_downgrade_att_tls)(Citation: tlseminar_downgrade_att) Adversaries may also leverage the AiTM position to attempt to monitor and/or modify traffic, such as in [Transmitted Data Manipulation](<https://attack.mitre.org/techniques/T1565/002>). Adversaries can setup a position similar to AiTM to prevent traffic from flowing to the appropriate destination, potentially to [Impair Defenses](<https://attack.mitre.org/techniques/T1562>) and/or in support of a [Network Denial of Service](<https://attack.mitre.org/techniques/T1498>).

Intrusion-Set

Name
Zloader

Malware

Name
Zloader

Domain-Name

Value

gycltda.cl

eingangfurkunden.digital

citscale.com

adslsdfsfmo.world

StixFile

Value

cba9578875a3e222d502bb6a85898939bb9e8e247d30fcc0d44d83a64919f448

b1a6bf93d4ee659db03e51a3765d4d3c2ee3f1b56bd9b701ab5939d63f57d9ee

85b1a980eb8ced59f87cb5dd7702e15d6ca38441c4848698d140ffd37d2b55e6

85962530c71cd31c102853d64a8829f93b63bd1406bdec537b9d8c200f8f0bcc

External References

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- <https://www.zscaler.com/blogs/security-research/zloader-learns-old-tricks>
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- <https://otx.alienvault.com/pulse/66310325d40474f335fa82f6>