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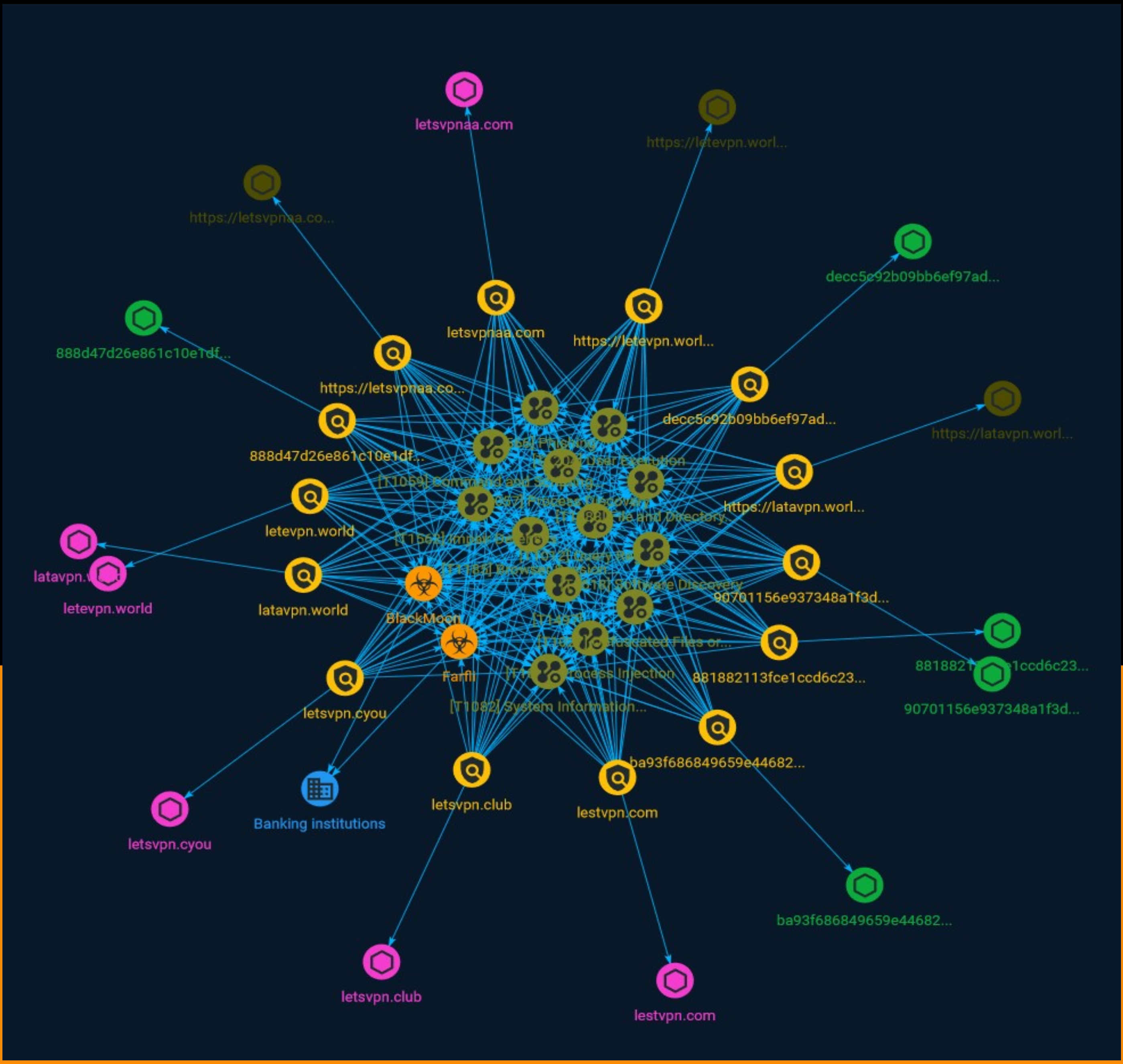
NETMANAGEIT

Intelligence Report

New Malware Campaign Targets LetsVPN Users



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Overview

Description

Recently, researchers discovered the existence of numerous counterfeit LetsVPN websites while conducting a routine threat-hunting exercise. These fraudulent sites share a common user interface and are deliberately designed to distribute malware, masquerading as the genuine LetsVPN application.

Confidence

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

15 / 100

Attack-Pattern

Name
Process Discovery
ID
T1057
Description
Adversaries may attempt to get information about running processes on a system. Information obtained could be used to gain an understanding of common software/applications running on systems within the network. Adversaries may use the information from [Process Discovery](https://attack.mitre.org/techniques/T1057) during automated discovery to shape follow-on behaviors, including whether or not the adversary fully infects the target and/or attempts specific actions. In Windows environments, adversaries could obtain details on running processes using the [Tasklist](https://attack.mitre.org/software/S0057) utility via [cmd](https://attack.mitre.org/software/S0106) or `Get-Process` via [PowerShell](https://attack.mitre.org/techniques/T1059/001). Information about processes can also be extracted from the output of [Native API](https://attack.mitre.org/techniques/T1106) calls such as `CreateToolhelp32Snapshot`. In Mac and Linux, this is accomplished with the `ps` command. Adversaries may also opt to enumerate processes via /proc. On network devices, [Network Device CLI](https://attack.mitre.org/techniques/T1059/008) commands such as `show processes` can be used to display current running processes.(Citation: US-CERT-TA18-106A)(Citation: show_processes_cisco_cmd)
Name
Virtualization/Sandbox Evasion

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

Browser Session Hijacking

ID

T1185

Description

Adversaries may take advantage of security vulnerabilities and inherent functionality in browser software to change content, modify user-behaviors, and intercept information as part of various browser session hijacking techniques.(Citation: Wikipedia Man in the Browser) A specific example is when an adversary injects software into a browser that allows them to inherit cookies, HTTP sessions, and SSL client certificates of a user then use the browser as a way to pivot into an authenticated intranet.(Citation: Cobalt Strike Browser Pivot)(Citation: ICEBRG Chrome Extensions) Executing browser-based behaviors such as pivoting may require specific process permissions, such as `SeDebugPrivilege` and/or high-integrity/administrator rights. Another example involves pivoting browser traffic from the adversary's browser through the user's browser by setting up a proxy which will redirect web traffic. This does not alter the user's traffic in any way, and the proxy connection can be severed as soon as the browser is closed. The adversary assumes the security context of whichever browser process the proxy is injected into. Browsers typically create a new process for each tab that is opened and permissions and certificates are separated accordingly. With these permissions, an adversary could potentially browse to any resource on an intranet, such as [Sharepoint](https://attack.mitre.org/techniques/T1213/002) or webmail, that is accessible through the browser and which the browser has sufficient permissions. Browser pivoting may also bypass security provided by 2-factor authentication.(Citation: cobaltstrike manual)

Name

Query Registry

ID

T1012

Description

Adversaries may interact with the Windows Registry to gather information about the system, configuration, and installed software. The Registry contains a significant amount of information about the operating system, configuration, software, and security.(Citation: Wikipedia Windows Registry) Information can easily be queried using the [Reg](https://attack.mitre.org/software/S0075) utility, though other means to access the Registry exist. Some of the information may help adversaries to further their operation within a network. Adversaries may use the information from [Query Registry](https://attack.mitre.org/techniques/T1012) during automated discovery to shape follow-on behaviors, including whether or not the adversary fully infects the target and/or attempts specific actions.

Name

Process Injection

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

Phishing

ID

T1566

Description

Adversaries may send phishing messages to gain access to victim systems. All forms of phishing are electronically delivered social engineering. Phishing can be targeted, known as spearphishing. In spearphishing, a specific individual, company, or industry will be targeted by the adversary. More generally, adversaries can conduct non-targeted phishing, such as in mass malware spam campaigns. Adversaries may send victims emails containing malicious attachments or links, typically to execute malicious code on victim systems. Phishing may also be conducted via third-party services, like social media platforms. Phishing may also involve social engineering techniques, such as posing as a trusted source, as well as evasive techniques such as removing or manipulating emails or metadata/headers from compromised accounts being abused to send messages (e.g., [Email Hiding Rules](https://attack.mitre.org/techniques/T1564/008)).(Citation: Microsoft OAuth Spam 2022)(Citation: Palo Alto Unit 42 VBA Infostealer 2014) Another way to accomplish this is by forging or spoofing(Citation: Proofpoint-spoof) the identity of the sender which can be used to fool both the human recipient as well as automated security tools.(Citation: cyberproof-double-bounce) Victims may also receive phishing messages that instruct them to call a phone number where they are directed to visit a malicious URL, download malware,(Citation: sygnia Luna Month)(Citation: CISA Remote Monitoring and Management Software) or install adversary-accessible remote management tools onto their computer (i.e., [User Execution](https://attack.mitre.org/techniques/T1204)).(Citation: Unit42 Luna Moth)

Name

Software Discovery

ID

T1518

Description

Adversaries may attempt to get a listing of software and software versions that are installed on a system or in a cloud environment. Adversaries may use the information from [Software Discovery](https://attack.mitre.org/techniques/T1518) during automated discovery to shape follow-on behaviors, including whether or not the adversary fully infects the target and/or attempts specific actions. Adversaries may attempt to enumerate software for a variety of reasons, such as figuring out what security measures are present or if the compromised system has a version of software that is vulnerable to [Exploitation for Privilege Escalation](https://attack.mitre.org/techniques/T1068).

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
User Execution

ID
T1204

Description
An adversary may rely upon specific actions by a user in order to gain execution. Users may be subjected to social engineering to get them to execute malicious code by, for example, opening a malicious document file or link. These user actions will typically be observed as follow-on behavior from forms of [Phishing](https://attack.mitre.org/techniques/T1566). While [User Execution](https://attack.mitre.org/techniques/T1204) frequently occurs shortly after Initial Access it may occur at other phases of an intrusion, such as when an adversary places a file in a shared directory or on a user's desktop hoping that a user will click on it. This activity may also be seen shortly after [Internal Spearphishing](https://attack.mitre.org/techniques/T1534). Adversaries may also deceive users into performing actions such as enabling [Remote Access Software](https://attack.mitre.org/techniques/T1219), allowing direct control of the system to the adversary, or downloading and executing malware for [User Execution](https://attack.mitre.org/techniques/T1204). For example, tech support scams can be facilitated through [Phishing](https://attack.mitre.org/techniques/T1566), vishing, or various forms of user interaction. Adversaries can use a combination of these methods, such as spoofing and promoting toll-free numbers or call centers that are used to direct victims to malicious websites, to deliver and execute payloads containing malware or [Remote Access Software](https://attack.mitre.org/techniques/T1219).(Citation: Telephone Attack Delivery)

Name
Obfuscated Files or Information
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
Command and Scripting Interpreter
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

File and Directory Discovery

ID

T1083

Description

Adversaries may enumerate files and directories or may search in specific locations of a host or network share for certain information within a file system. Adversaries may use the information from [File and Directory Discovery](https://attack.mitre.org/techniques/T1083) during automated discovery to shape follow-on behaviors, including whether or not the adversary fully infects the target and/or attempts specific actions. Many command shell utilities can be used to obtain this information. Examples include `dir`, `tree`, `ls`, `find`, and `locate`.(Citation: Windows Commands JPCERT) Custom tools may also be used to gather file and directory information and interact with the [Native API](https://attack.mitre.org/techniques/T1106). Adversaries may also leverage a [Network Device CLI](https://attack.mitre.org/techniques/T1059/008) on network devices to gather file and directory information (e.g. `dir`, `show flash`, and/or `nvram`).(Citation: US-CERT-TA18-106A)

Name

System Information Discovery

ID

T1082

Description

An adversary may attempt to get detailed information about the operating system and hardware, including version, patches, hotfixes, service packs, and architecture. Adversaries may use the information from [System Information Discovery](https://attack.mitre.org/techniques/T1082) during automated discovery to shape follow-on behaviors, including whether or not the adversary fully infects the target and/or attempts specific actions. Tools such as [Systeminfo](https://attack.mitre.org/software/S0096) can be used to gather detailed system information. If running with privileged access, a breakdown of system data can be gathered through the `systemsetup` configuration tool on macOS. As an example, adversaries with user-level access can execute the `df -aH` command to obtain currently mounted disks and associated freely available space. Adversaries may also leverage a [Network Device CLI](https://attack.mitre.org/techniques/T1059/008) on network devices to gather detailed system information (e.g. `show version`).(Citation: US-CERT-TA18-106A) [System Information Discovery](https://attack.mitre.org/techniques/T1082) combined with information gathered from other forms of discovery and reconnaissance can drive payload development and concealment.(Citation: OSX.FairyTale)(Citation: 20 macOS Common Tools and Techniques) Infrastructure as a Service (IaaS) cloud providers such as AWS, GCP, and Azure allow access to instance and virtual machine information via APIs. Successful authenticated API calls can return data such as the operating system platform and status of a particular instance or the model view of a virtual machine.(Citation: Amazon Describe Instance)(Citation: Google Instances Resource)(Citation: Microsoft Virutal Machine API)

Sector

Name

Banking institutions

Description

Credit institutions whose business consists in receiving repayable funds from the public and granting credit. As the bank of banks, central banks are included in this scope.

Indicator

Name

https://letsvpnaa.com/letsv-vpn3.2.5.exe

Pattern Type

stix

Pattern

[url:value = 'https://letsvpnaa.com/letsv-vpn3.2.5.exe']

Name

90701156e937348a1f3d2ad50f0f38b4071acaaa38f4d58a91889153317443c2

Pattern Type

stix

Pattern

[file:hashes.'SHA-256' = '90701156e937348a1f3d2ad50f0f38b4071acaaa38f4d58a91889153317443c2']

Name

letsvpn.cyou
Pattern Type
stix
Pattern
[domain-name:value = 'letsvpn.cyou']
Name
https://letevpn.world/kuailian.zip
Pattern Type
stix
Pattern
[url:value = 'https://letevpn.world/kuailian.zip']
Name
ba93f686849659e446821b6d19edf43775a28d93975eed14a68a8102b6486927
Pattern Type
stix
Pattern
[file:hashes.'SHA-256' = 'ba93f686849659e446821b6d19edf43775a28d93975eed14a68a8102b6486927']

Name

letevpn.world

Pattern Type

stix

Pattern

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

Name

https://latavpn.world/letsvpn-latest.exe

Description

#TEL:Sigattr:Win32/IndigoRoseInstaller

Pattern Type

stix

Pattern

[url:value = 'https://latavpn.world/letsvpn-latest.exe']

Name

letsvpn.club

Pattern Type

stix

Pattern
[domain-name:value = 'letsvpn.club']
Name
letsvpnaa.com
Pattern Type
stix
Pattern
[domain-name:value = 'letsvpnaa.com']
Name
881882113fce1ccd6c236e9c23ae5d25638bf7d2930772d7b01f627156558d2e
Pattern Type
stix
Pattern
[file:hashes.'SHA-256' = '881882113fce1ccd6c236e9c23ae5d25638bf7d2930772d7b01f627156558d2e']
Name
latavpn.world
Pattern Type

stix

Pattern

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

Name

decc5c92b09bb6ef97ad68caf0ec802c530aa8974cd6a90ab313c8a309bf27f3

Pattern Type

stix

Pattern

[file:hashes.'SHA-256' = 'decc5c92b09bb6ef97ad68caf0ec802c530aa8974cd6a90ab313c8a309bf27f3']

Name

lestvpn.com

Pattern Type

stix

Pattern

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

Name

888d47d26e861c10e1df3ff81dac7c198e5edd4092b03eaf45c0ba329890e50a

Description
#TEL:Sigattr:Win32/IndigoRoseInstaller SHA256 of 51fc61ce15b2c0fbd44608dd0a0667a505c2d40c

Pattern Type
stix

Pattern
[file:hashes.'SHA-256' = '888d47d26e861c10e1df3ff81dac7c198e5edd4092b03eaf45c0ba329890e50a']

Malware

Name
Farfli

Name
BlackMoon

Domain-Name

Value
letsvpn.club
letevpn.world
latavpn.world
lestvpn.com
letsvpn.cyou
letsvpnaa.com

StixFile

Value
881882113fce1ccd6c236e9c23ae5d25638bf7d2930772d7b01f627156558d2e
ba93f686849659e446821b6d19edf43775a28d93975eed14a68a8102b6486927
90701156e937348a1f3d2ad50f0f38b4071acaaa38f4d58a91889153317443c2
decc5c92b09bb6ef97ad68caf0ec802c530aa8974cd6a90ab313c8a309bf27f3
888d47d26e861c10e1df3ff81dac7c198e5edd4092b03eaf45c0ba329890e50a

External References

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