Jun 12 2023

NETMANAGEIT

Intelligence Report

A Truly Graceful Wipe Out

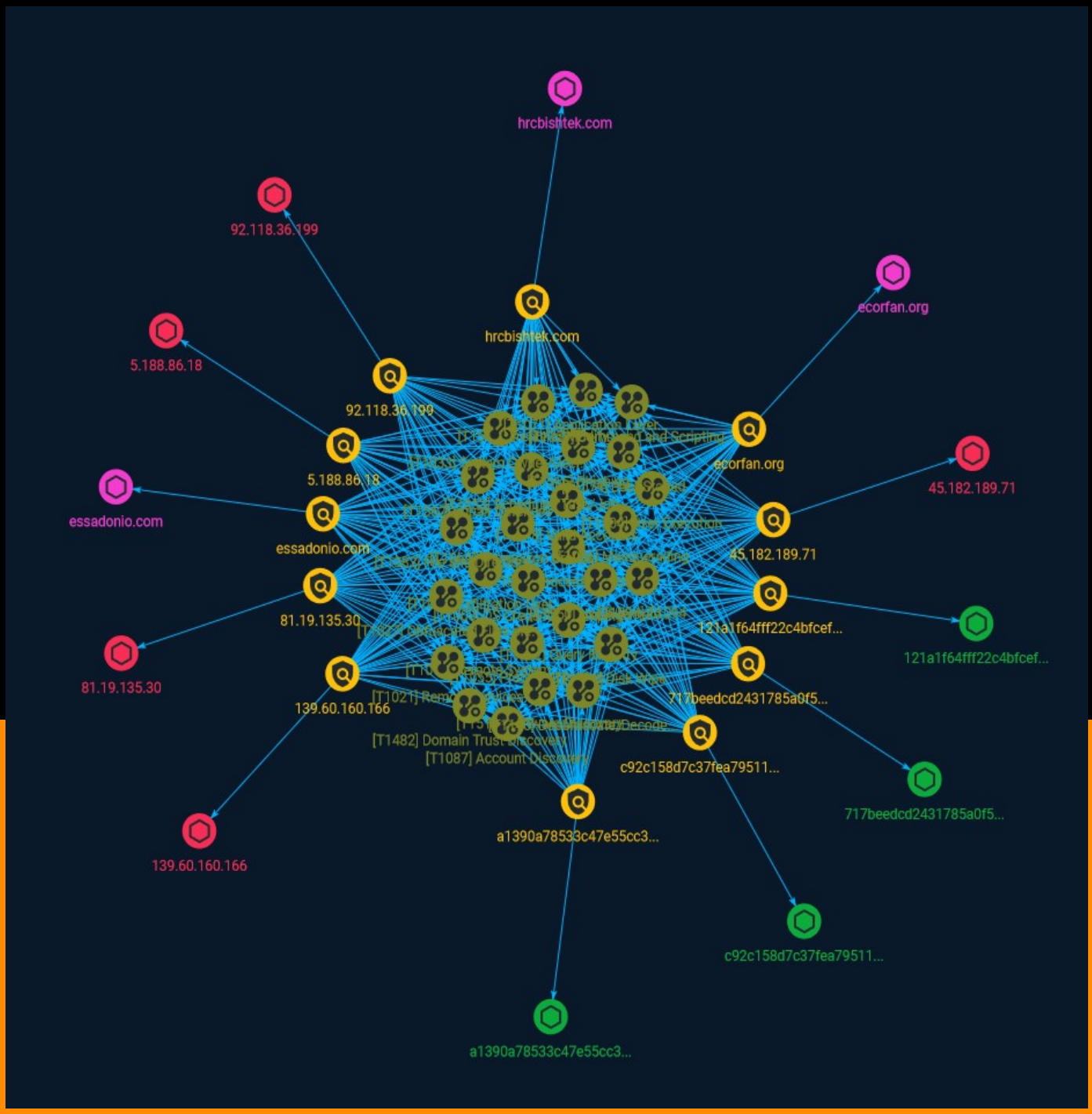

Table of contents

Overview

Entities

Observables

External References

Overview

Description

In this case, Truebot was delivered through a Traffic Distribution System (TDS) reported by Proofpoint as “404 TDS”. This campaign, observed in May 2023, leveraged email for the initial delivery mechanism. After clicking-through the link in an email, the victim would be redirected through a series of URLs before being presented a file download at the final landing page.

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

OS Credential Dumping

ID

T1003

Description

Adversaries may attempt to dump credentials to obtain account login and credential material, normally in the form of a hash or a clear text password, from the operating system and software. Credentials can then be used to perform [Lateral Movement](https://attack.mitre.org/tactics/TA0008) and access restricted information. Several of the tools mentioned in associated sub-techniques may be used by both adversaries and professional security testers. Additional custom tools likely exist as well.

Name

Valid Accounts

ID

T1078

Description

Adversaries may obtain and abuse credentials of existing accounts as a means of gaining Initial Access, Persistence, Privilege Escalation, or Defense Evasion. Compromised credentials may be used to bypass access controls placed on various resources on systems within the network and may even be used for persistent access to remote systems and externally available services, such as VPNs, Outlook Web Access, network devices, and remote desktop.(Citation: volexity_0day_sophos_FW) Compromised credentials may also grant an adversary increased privilege to specific systems or access to restricted areas of the network. Adversaries may choose not to use malware or tools in conjunction with the legitimate access those credentials provide to make it harder to detect their presence. In some cases, adversaries may abuse inactive accounts: for example, those belonging to individuals who are no longer part of an organization. Using these accounts may allow the adversary to evade detection, as the original account user will not be present to identify any anomalous activity taking place on their account.(Citation: CISA MFA PrintNightmare) The overlap of permissions for local, domain, and cloud accounts across a network of systems is of concern because the adversary may be able to pivot across accounts and

systems to reach a high level of access (i.e., domain or enterprise administrator) to bypass access controls set within the enterprise.(Citation: TechNet Credential Theft)

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

Permission Groups Discovery

ID

T1069

Description

Adversaries may attempt to discover group and permission settings. This information can help adversaries determine which user accounts and groups are available, the membership of users in particular groups, and which users and groups have elevated permissions. Adversaries may attempt to discover group permission settings in many different ways. This data may provide the adversary with information about the

compromised environment that can be used in follow-on activity and targeting.(Citation: CrowdStrike BloodHound April 2018)

Name

Masquerading

ID

T1036

Description

Adversaries may attempt to manipulate features of their artifacts to make them appear legitimate or benign to users and/or security tools. Masquerading occurs when the name or location of an object, legitimate or malicious, is manipulated or abused for the sake of evading defenses and observation. This may include manipulating file metadata, tricking users into misidentifying the file type, and giving legitimate task or service names. Renaming abusable system utilities to evade security monitoring is also a form of [Masquerading](https://attack.mitre.org/techniques/T1036).(Citation: LOLBAS Main Site)

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

Scheduled Task/Job

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

Use Alternate Authentication Material

ID

T1550

Description

Adversaries may use alternate authentication material, such as password hashes, Kerberos tickets, and application access tokens, in order to move laterally within an environment and bypass normal system access controls. Authentication processes generally require a valid identity (e.g., username) along with one or more authentication factors (e.g., password, pin, physical smart card, token generator, etc.). Alternate authentication material is legitimately generated by systems after a user or application successfully authenticates by providing a valid identity and the required authentication factor(s). Alternate authentication material may also be generated during the identity creation process. (Citation: NIST Authentication)(Citation: NIST MFA) Caching alternate authentication material allows the system to verify an identity has successfully authenticated without asking the user to reenter authentication factor(s). Because the alternate authentication must be maintained by the system—either in memory or on disk—it may be at risk of being stolen through [Credential Access](https://attack.mitre.org/tactics/TA0006) techniques. By stealing alternate authentication material, adversaries are able to bypass system access controls and authenticate to systems without knowing the plaintext password or any additional authentication factors.

Name

Exfiltration Over Alternative Protocol

ID

T1048

Description

Adversaries may steal data by exfiltrating it over a different protocol than that of the existing command and control channel. The data may also be sent to an alternate network location from the main command and control server. Alternate protocols include FTP, SMTP, HTTP/S, DNS, SMB, or any other network protocol not being used as the main command and control channel. Adversaries may also opt to encrypt and/or obfuscate these alternate channels. [Exfiltration Over Alternative Protocol](https://attack.mitre.org/techniques/T1048) can be done using various common operating system utilities such as [Net](https://attack.mitre.org/software/S0039)/SMB or FTP.(Citation: Palo Alto OilRig Oct 2016) On macOS and Linux `curl` may be used to invoke protocols such as HTTP/S or FTP/S to exfiltrate data from a system.(Citation: 20 macOS Common Tools and Techniques) Many IaaS and SaaS platforms (such as Microsoft Exchange, Microsoft SharePoint, GitHub, and AWS S3) support the direct download of files, emails, source code, and other sensitive

information via the web console or [Cloud API](https://attack.mitre.org/techniques/T1059/009).

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

Remote System Discovery

ID

T1018

Description

Adversaries may attempt to get a listing of other systems by IP address, hostname, or other logical identifier on a network that may be used for Lateral Movement from the current system. Functionality could exist within remote access tools to enable this, but utilities available on the operating system could also be used such as [Ping](https://

attack.mitre.org/software/S0097) or `net view` using [Net](https://attack.mitre.org/software/S0039). Adversaries may also analyze data from local host files (ex: `C:\Windows\System32\Drivers\etc\hosts` or `/etc/hosts`) or other passive means (such as local [Arp](https://attack.mitre.org/software/S0099) cache entries) in order to discover the presence of remote systems in an environment. Adversaries may also target discovery of network infrastructure as well as leverage [Network Device CLI](https://attack.mitre.org/techniques/T1059/008) commands on network devices to gather detailed information about systems within a network (e.g. `show cdp neighbors`, `show arp`).(Citation: US-CERT-TA18-106A)(Citation: CISA AR21-126A FIVEHANDS May 2021)

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

Disk Wipe

ID

T1561

Description

Adversaries may wipe or corrupt raw disk data on specific systems or in large numbers in a network to interrupt availability to system and network resources. With direct write access to a disk, adversaries may attempt to overwrite portions of disk data. Adversaries may opt to wipe arbitrary portions of disk data and/or wipe disk structures like the master boot record (MBR). A complete wipe of all disk sectors may be attempted. To maximize impact on the target organization in operations where network-wide availability interruption is the goal, malware used for wiping disks may have worm-like features to propagate across a network by leveraging additional techniques like [Valid Accounts](https://attack.mitre.org/techniques/T1078), [OS Credential Dumping](https://attack.mitre.org/techniques/T1003), and [SMB/Windows Admin Shares](https://attack.mitre.org/techniques/T1021/002).(Citation: Novetta Blockbuster Destructive Malware) On network devices, adversaries may wipe configuration files and other data from the device using [Network Device CLI](https://attack.mitre.org/techniques/T1059/008) commands such as `erase`.(Citation: erase_cmd_cisco)

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

Account Discovery

ID

T1087

Description

Adversaries may attempt to get a listing of valid accounts, usernames, or email addresses on a system or within a compromised environment. This information can help adversaries determine which accounts exist, which can aid in follow-on behavior such as brute-forcing, spear-phishing attacks, or account takeovers (e.g., [Valid Accounts](https://attack.mitre.org/techniques/T1078)). Adversaries may use several methods to enumerate accounts, including abuse of existing tools, built-in commands, and potential misconfigurations that leak account names and roles or permissions in the targeted environment. For examples, cloud environments typically provide easily accessible interfaces to obtain user lists. On hosts, adversaries can use default [PowerShell](https://attack.mitre.org/techniques/T1059/001) and other command line functionality to identify accounts. Information about email addresses and accounts may also be extracted by searching an infected system's files.

Name

System Owner/User Discovery

ID

T1033

Description

Adversaries may attempt to identify the primary user, currently logged in user, set of users that commonly uses a system, or whether a user is actively using the system. They may do

this, for example, by retrieving account usernames or by using [OS Credential Dumping](https://attack.mitre.org/techniques/T1003). The information may be collected in a number of different ways using other Discovery techniques, because user and username details are prevalent throughout a system and include running process ownership, file/directory ownership, session information, and system logs. Adversaries may use the information from [System Owner/User Discovery](https://attack.mitre.org/techniques/T1033) during automated discovery to shape follow-on behaviors, including whether or not the adversary fully infects the target and/or attempts specific actions. Various utilities and commands may acquire this information, including `whoami`. In macOS and Linux, the currently logged in user can be identified with `w` and `who`. On macOS the `dscl . list /Users | grep -v '_'` command can also be used to enumerate user accounts. Environment variables, such as `%USERNAME%` and `$USER`, may also be used to access this information. On network devices, [Network Device CLI](https://attack.mitre.org/techniques/T1059/008) commands such as `show users` and `show ssh` can be used to display users currently logged into the device.(Citation: show_ssh_users_cmd_cisco)(Citation: US-CERT TA18-106A Network Infrastructure Devices 2018)

Name

T1094

ID

T1094

Name

Remote Services

ID

T1021

Description

Adversaries may use [Valid Accounts](https://attack.mitre.org/techniques/T1078) to log into a service that accepts remote connections, such as telnet, SSH, and VNC. The adversary may then perform actions as the logged-on user. In an enterprise environment, servers and workstations can be organized into domains. Domains provide centralized

identity management, allowing users to login using one set of credentials across the entire network. If an adversary is able to obtain a set of valid domain credentials, they could login to many different machines using remote access protocols such as secure shell (SSH) or remote desktop protocol (RDP).(Citation: SSH Secure Shell)(Citation: TechNet Remote Desktop Services) They could also login to accessible SaaS or IaaS services, such as those that federate their identities to the domain. Legitimate applications (such as [Software Deployment Tools](https://attack.mitre.org/techniques/T1072) and other administrative programs) may utilize [Remote Services](https://attack.mitre.org/techniques/T1021) to access remote hosts. For example, Apple Remote Desktop (ARD) on macOS is native software used for remote management. ARD leverages a blend of protocols, including [VNC](https://attack.mitre.org/techniques/T1021/005) to send the screen and control buffers and [SSH](https://attack.mitre.org/techniques/T1021/004) for secure file transfer. (Citation: Remote Management MDM macOS)(Citation: Kickstart Apple Remote Desktop commands)(Citation: Apple Remote Desktop Admin Guide 3.3) Adversaries can abuse applications such as ARD to gain remote code execution and perform lateral movement. In versions of macOS prior to 10.14, an adversary can escalate an SSH session to an ARD session which enables an adversary to accept TCC (Transparency, Consent, and Control) prompts without user interaction and gain access to data.(Citation: FireEye 2019 Apple Remote Desktop)(Citation: Lockboxx ARD 2019)(Citation: Kickstart Apple Remote Desktop commands)

Name

Application Layer Protocol

ID

T1071

Description

Adversaries may communicate using OSI application layer protocols to avoid detection/network filtering by blending in with existing traffic. Commands to the remote system, and often the results of those commands, will be embedded within the protocol traffic between the client and server. Adversaries may utilize many different protocols, including those used for web browsing, transferring files, electronic mail, or DNS. For connections that occur internally within an enclave (such as those between a proxy or pivot node and other nodes), commonly used protocols are SMB, SSH, or RDP.

Name

Deobfuscate/Decode Files or Information

ID

T1140

Description

Adversaries may use [Obfuscated Files or Information](https://attack.mitre.org/techniques/T1027) to hide artifacts of an intrusion from analysis. They may require separate mechanisms to decode or deobfuscate that information depending on how they intend to use it. Methods for doing that include built-in functionality of malware or by using utilities present on the system. One such example is the use of [certutil](https://attack.mitre.org/software/S0160) to decode a remote access tool portable executable file that has been hidden inside a certificate file.(Citation: Malwarebytes Targeted Attack against Saudi Arabia) Another example is using the Windows `copy /b` command to reassemble binary fragments into a malicious payload.(Citation: Carbon Black Obfuscation Sept 2016) Sometimes a user's action may be required to open it for deobfuscation or decryption as part of [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)

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

Data Staged

ID

T1074

Description

Adversaries may stage collected data in a central location or directory prior to Exfiltration. Data may be kept in separate files or combined into one file through techniques such as [Archive Collected Data](https://attack.mitre.org/techniques/T1560). Interactive command shells may be used, and common functionality within [cmd](https://attack.mitre.org/software/S0106) and bash may be used to copy data into a staging location.(Citation: PWC Cloud Hopper April 2017) In cloud environments, adversaries may stage data within a particular instance or virtual machine before exfiltration. An adversary may [Create Cloud Instance](https://attack.mitre.org/techniques/T1578/002) and stage data in that instance.(Citation: Mandiant M-Trends 2020) Adversaries may choose to stage data from a victim network in a centralized location prior to Exfiltration to minimize the number of connections made to their C2 server and better evade detection.

Name

Domain Trust Discovery

ID

T1482

Description

Adversaries may attempt to gather information on domain trust relationships that may be used to identify lateral movement opportunities in Windows multi-domain/forest environments. Domain trusts provide a mechanism for a domain to allow access to resources based on the authentication procedures of another domain.(Citation: Microsoft Trusts) Domain trusts allow the users of the trusted domain to access resources in the trusting domain. The information discovered may help the adversary conduct [SID-History Injection](https://attack.mitre.org/techniques/T1134/005), [Pass the Ticket](https://attack.mitre.org/techniques/T1550/003), and [Kerberoasting](https://attack.mitre.org/techniques/T1558/003).(Citation: AdSecurity Forging Trust Tickets)(Citation: Harmj0y Domain Trusts) Domain trusts can be enumerated using the `DSEnumerateDomainTrusts()` Win32 API call, .NET methods, and LDAP.(Citation: Harmj0y Domain Trusts) The Windows utility [Nltest](https://attack.mitre.org/software/S0359) is known to be used by adversaries to enumerate domain trusts.(Citation: Microsoft Operation Wilysupply)

Indicator

Name
c92c158d7c37fea795114fa6491fe5f145ad2f8c08776b18ae79db811e8e36a3
Description
TEL:Trojan:Win32/SuspLDAPQuery.A SHA256 of 4f4f8cf0f9b47d0ad95d159201fe7e72fbc8448d
Pattern Type
stix
Pattern
[file:hashes.'SHA-256' = 'c92c158d7c37fea795114fa6491fe5f145ad2f8c08776b18ae79db811e8e36a3']
Name
5.188.86.18
Description
ISP: Global Layer B.V. **OS:** None ---------- Hostnames: ---------- Domain c31d19e23ed2 version: v1.0 ncalrpc: umpo bdaa0970-413b-4a3e-9e5d-f6dc9d7e0760 version: v1.0 ncalrpc: um annotation: Base Firewall Engine API provider: BFE.DLL ncalrpc: LRPC-0d7dc187739ceadea8 29770a8f-829b-41 b5ce-4916-a3d6-449fa428a007 version: v0.0 ncalrpc: LRPC-26c7df79d393305b64 ncalrpc: OLECDBB1EE51709ED

Pattern Type

stix

Pattern

[ipv4-addr:value = '5.188.86.18']

Name

45.182.189.71

Description

ISP: DataHome S.A. **OS:** None ---------- Hostnames: - rprotecruuio.com - www.rprotec

Pattern Type

stix

Pattern

[ipv4-addr:value = '45.182.189.71']

Name

139.60.160.166

Description

ISP: HOSTKEY **OS:** Windows (Build 10.0.14393) ---------- Hostnames: ----------
OLEA8EACF7671EEBE257B0EEFB0CCC8 ncacn_np: \\WIN-I698G2JPMRK\pipe\LSM_API_service ncalrpc: LSMApi
ncacn_ip_tcp: 139.60.160.166:49666 ncalrpc: LRPC-535b216d507c9e4e9b ncalrpc: ubpmtaskhostchannel ncacn
ncacn_np: \\WIN-I698G2JPMRK\PIPE\atsvc ncalrpc: OLE8D26CC9989D36356AED0A391B875 ncalrpc: senssvc n
samsrv.dll ncacn_ip_tcp: 139.60.160.166:49668 ncalrpc: samss lpc ncalrpc: SidKey Local End Point ncalrpc: pro

\x0b\x12\x7f\x15\x00@\x10\x05m\x0b\xf4f\x04\xd0\x04\xd0\x00\x01\x00\x02\x00\x00\x00\x00\x00\x0
``` ---------- **5985:** ``` HTTP/1.1 404 Not Found Content-Type: text/html; charset=us-ascii Server: Mi

Pattern Type

stix

Pattern

[ipv4-addr:value = '139.60.160.166']

Name

hrcbishtek.com

Pattern Type

stix

Pattern

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

Name

717beedcd2431785a0f59d194e47970e9544fbf398d462a305f6ad9a1b1100cb

Description

SHA256 of 96b95edc1a917912a3181d5105fd5bfad1344de0

Pattern Type

stix
```

Pattern
[file:hashes.'SHA-256' = '717beedcd2431785a0f59d194e47970e9544fbf398d462a305f6ad9a1b1100cb']
Name
essadonio.com
Pattern Type
stix
Pattern
[domain-name:value = 'essadonio.com']
Name
ecorfan.org
Pattern Type
stix
Pattern
[domain-name:value = 'ecorfan.org']
Name
a1390a78533c47e55cc364e97af431117126d04a7faed49390210ea3e89dd0e1
Pattern Type
stix

Pattern

[file:hashes.'SHA-256' = 'a1390a78533c47e55cc364e97af431117126d04a7faed49390210ea3e89dd0e1']

Name

92.118.36.199

Description

ISP: Alviva Holding Limited **OS:** Windows (Build 10.0.14393) ---------- Hostnames: ----- f6dc9d7e0760 version: v1.0 ncalrpc: actkernel ncalrpc: umpo 3b338d89-6cfa-44b8-847e-531531bc9992 version OLEE7289871094EDD227377B0552B23 ncalrpc: IUserProfile2 c36be077-e14b-4fe9-8abc-e856ef4f048b version: v ncacn_ip_tcp: 92.118.36.199:49665 ncacn_np: \\WIN-8IGLKR28G7U\pipe\eventlog ncalrpc: eventlog 3c4728c5- Desktop LRPC interface provider: winlogon.exe ncalrpc: WMsgKRpc056B7542 b1ef227e-dfa5-421e-82bb-67a6a

Pattern Type

stix

Pattern

[ipv4-addr:value = '92.118.36.199']

Name

121a1f64fff22c4bfcef3f11a23956ed403cdeb9bdb803f9c42763087bd6d94e

Pattern Type

stix

Pattern

[file:hashes.'SHA-256' = '121a1f64fff22c4bfcef3f11a23956ed403cdeb9bdb803f9c42763087bd6d94e']

Name
81.19.135.30
Description
CC=RU ASN=AS209588 Flyservers S.A.
Pattern Type
stix
Pattern
[ipv4-addr:value = '81.19.135.30']

Domain-Name

Value
essadonio.com
hrcbishtek.com
ecorfan.org

StixFile

Value
121a1f64fff22c4bfcef3f11a23956ed403cdeb9bdb803f9c42763087bd6d94e
a1390a78533c47e55cc364e97af431117126d04a7faed49390210ea3e89dd0e1
c92c158d7c37fea795114fa6491fe5f145ad2f8c08776b18ae79db811e8e36a3
717beedcd2431785a0f59d194e47970e9544fbf398d462a305f6ad9a1b1100cb

IPv4-Addr

Value
139.60.160.166
92.118.36.199
5.188.86.18
81.19.135.30
45.182.189.71

External References

- https://otx.alienvault.com/pulse/64877fcf823431cc11354174
- https://thedfirreport.com/2023/06/12/a-truly-graceful-wipe-out/