Co-Authored by:

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## **#StopRansomware: Akira Ransomware**

#### **SUMMARY**

Note: This joint Cybersecurity Advisory (CSA) is part of an ongoing #StopRansomware effort to publish advisories for network defenders that detail various ransomware variants and ransomware threat actors. These #StopRansomware advisories include recently and historically observed tactics, techniques, and procedures (TTPs) and indicators of compromise (IOCs) to help organizations protect against ransomware. Visit stopransomware.gov to see all #StopRansomware advisories and to learn more about other ransomware threats and no-cost resources.

The United States' Federal Bureau of Investigation (FBI), Cybersecurity and Infrastructure Security Agency

# Actions to take today to mitigate cyber threats from Akira ransomware:

- Prioritize remediating <u>known exploited</u> vulnerabilities.
- Enable <u>multifactor authentication</u> (MFA) for all services to the extent possible, particularly for webmail, VPN, and accounts that access critical systems.
- Regularly patch and update software and applications to their latest version and conduct regular vulnerability assessments.

(CISA), Europol's European Cybercrime Centre (EC3), and the Netherlands' National Cyber Security Centre (NCSC-NL) are releasing this joint CSA to disseminate known Akira ransomware IOCs and TTPs identified through FBI investigations as recently as February 2024 and trusted third party reporting.

Since March 2023, Akira ransomware has impacted a wide range of businesses and critical infrastructure entities in North America, Europe, and Australia. In April 2023, following an initial focus on Windows systems, Akira threat actors deployed a Linux variant targeting VMware ESXi virtual machines. As of January 1, 2024, the ransomware group has impacted over 250 organizations and claimed approximately \$42 million USD in ransomware proceeds.

Early versions of the Akira ransomware variant were written in C++ and encrypted files with a <code>.akira</code> extension; however, beginning in August 2023, some Akira attacks began deploying Megazord, using Rust-based code which encrypts files with a <code>.powerranges</code> extension. Akira threat actors have continued to use both Megazord and Akira, including Akira\_v2 (identified by trusted third party investigations) interchangeably.

To report suspicious or criminal activity related to information found in this joint Cybersecurity Advisory, contact <u>your local FBI field office</u> or CISA's 24/7 Operations Center at <u>Report@cisa.gov</u> or (888) 282-0870. When available, please include the following information regarding the incident: date, time, and location of the incident; type of activity; number of people affected; type of equipment used for the activity; the name of the submitting company or organization; and a designated point of contact.

This document is marked TLP:CLEAR. Recipients may share this information without restriction. Information is subject to standard copyright rules. For more information on the Traffic Light Protocol, see <u>cisa.gov/tlp</u>.

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The FBI, CISA, EC3, and NCSC-NL encourage organizations to implement the recommendations in the Mitigations section of this CSA to reduce the likelihood and impact of ransomware incidents.

#### **TECHNICAL DETAILS**

**Note:** This advisory uses the MITRE ATT&CK® for Enterprise framework, version 14. See MITRE ATT&CK for Enterprise for all referenced tactics and techniques.

#### **Initial Access**

The FBI and cybersecurity researchers have observed Akira threat actors obtaining initial access to organizations through a virtual private network (VPN) service without multifactor authentication (MFA) configured[1], mostly using known Cisco vulnerabilities [T1190] CVE-2020-3259 and CVE-2023-20269.[2],[3],[4] Additional methods of initial access include the use of external-facing services such as Remote Desktop Protocol (RDP) [T1133], spear phishing [T1566.001][T1566.002], and the abuse of valid credentials [T1078].[4]

## **Persistence and Discovery**

Once initial access is obtained, Akira threat actors attempt to abuse the functions of domain controllers by creating new domain accounts [T1136.002] to establish persistence. In some instances, the FBI identified Akira threat actors creating an administrative account named itadm.

According to FBI and open source reporting, Akira threat actors leverage post-exploitation attack techniques, such as Kerberoasting[5], to extract credentials stored in the process memory of the Local Security Authority Subsystem Service (LSASS) [T1003.001].[6] Akira threat actors also use credential scraping tools [T1003] like Mimikatz and LaZagne to aid in privilege escalation. Tools like SoftPerfect and Advanced IP Scanner are often used for network device discovery (reconnaissance) purposes [T1016] and net Windows commands are used to identify domain controllers [T1018] and gather information on domain trust relationships [T1482].

See Table 1 for a descriptive listing of these tools.

#### **Defense Evasion**

Based on trusted third party investigations, Akira threat actors have been observed deploying two distinct ransomware variants against different system architectures within the same compromise event. This marks a shift from recently reported Akira affiliate activity. Akira threat actors were first observed deploying the Windows-specific "Megazord" ransomware, with further analysis revealing that a second payload was concurrently deployed in this attack (which was later identified as a novel variant of the Akira ESXi encryptor, "Akira\_v2").

As Akira threat actors prepare for lateral movement, they commonly disable security software to avoid detection. Cybersecurity researchers have observed Akira threat actors using PowerTool to exploit the Zemana AntiMalware driver[4] and terminate antivirus-related processes [T1562.001].

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## **Exfiltration and Impact**

Akira threat actors leverage tools such as FileZilla, WinRAR [T1560.001], WinSCP, and RClone to exfiltrate data [T1048]. To establish command and control channels, threat actors leverage readily available tools like AnyDesk, MobaXterm, RustDesk, Ngrok, and Cloudflare Tunnel, enabling exfiltration through various protocols such as File Transfer Protocol (FTP), Secure File Transfer Protocol (SFTP), and cloud storage services like Mega [T1537] to connect to exfiltration servers.

Akira threat actors use a double-extortion model [T1657] and encrypt systems [T1486] after exfiltrating data. The Akira ransom note provides each company with a unique code and instructions to contact the threat actors via a .onion URL. Akira threat actors do not leave an initial ransom demand or payment instructions on compromised networks, and do not relay this information until contacted by the victim. Ransom payments are paid in Bitcoin to cryptocurrency wallet addresses provided by the threat actors. To further apply pressure, Akira threat actors threaten to publish exfiltrated data on the Tor network, and in some instances have called victimized companies, according to FBI reporting.

## **Encryption**

Akira threat actors utilize a sophisticated hybrid encryption scheme to lock data. This involves combining a ChaCha20 stream cipher with an RSA public-key cryptosystem for speed and secure key exchange [T1486]. This multilayered approach tailors encryption methods based on file type and size and is capable of full or partial encryption. Encrypted files are appended with either a .akira or .powerranges extension. To further inhibit system recovery, Akira's encryptor (w.exe) utilizes PowerShell commands to delete volume shadow copies (VSS) on Windows systems [T1490]. Additionally, a ransom note named fn.txt appears in both the root directory (C:\Users).

Trusted third party analysis identified that the Akira\_v2 encryptor is an upgrade from its previous version, which includes additional functionalities due to the language it's written in (Rust). Previous versions of the encryptor provided options to include arguments at runtime, which included:

- -p --encryption path (targeted file/folder paths)
- -s --share\_file (targeted network drive path)
- -n --encryption\_percent (percentage of encryption)
- --fork (create a child process for encryption

The additional inclusion of threads allows the actor to have more granular control over the number of CPU cores in use, increasing the speed and efficiency of the encryption process. The new version also adds a layer of protection, utilizing the Build ID as a run condition, to hinder dynamic analysis. The encryptor is unable to execute successfully without the specific unique Build ID. The ability to deploy against only virtual machines using "vmonly" and the ability to stop running virtual machines with "stopvm" functionalities have also been observed implemented for Akira\_v2. After encryption, the Linux ESXi variant may include the file extension "akiranew" or an added file named "akiranew.txt" as a ransom note in directories where files were encrypted with the new nomenclature.

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## **Leveraged Tools**

Table 1 lists publicly available tools and applications Akira threat actors have used, including legitimate tools repurposed for their operations. Use of these tools and applications should not be attributed as malicious without analytical evidence to support threat actor use and/or control.

Table 1: Tools Leveraged by Akira Ransomware Actors

Name	Description
AdFind	AdFind.exe is used to query and retrieve information from Active Directory.
Advanced IP Scanner	A network scanner is used to locate all the computers on a network and conduct a scan of their ports. The program shows all network devices, gives access to shared folders, and provides remote control of computers (via RDP and Radmin).
AnyDesk	A common software that can be maliciously used by threat actors to obtain remote access and maintain persistence [T1219]. AnyDesk also supports remote file transfer.
<u>LaZagne</u>	Allows users to recover stored passwords on Windows, Linux, and OSX systems.
PCHunter64	A tool used to acquire detailed process and system information [T1082].[7]
PowerShell	A cross-platform task automation solution made up of a command line shell, a scripting language, and a configuration management framework, which runs on Windows, Linux, and macOS.
<u>Mimikatz</u>	Allows users to view and save authentication credentials such as Kerberos tickets.
Ngrok	A reverse proxy tool [T1090] used to create a secure tunnel to servers behind firewalls or local machines without a public IP address.
RClone	A command line program used to sync files with cloud storage services [T1567.002] such as Mega.
SoftPerfect	A network scanner (netscan.exe) used to ping computers, scan ports, discover shared folders, and retrieve information about network devices via Windows Management Instrumentation (WMI), Simple Network Management Protocol (SNMP), HTTP, Secure Shell (SSH) and PowerShell. It also scans for remote services, registry, files, and performance counters.
WinRAR	Used to split compromised data into segments and to compress [T1560.001] files into .RAR format for exfiltration.
WinSCP	Windows Secure Copy is a free and open source SSH File Transfer Protocol, File Transfer Protocol, WebDAV, Amazon S3, and secure copy protocol client. Akira threat actors have used it to transfer data [T1048] from a compromised network to actor-controlled accounts.

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## **Indicators of Compromise**

**Disclaimer:** Investigation or vetting of these indicators is recommended prior to taking action, such as blocking.

Table 2: Malicious Files Affiliated with Akira Ransomware

File Name	Hash (SHA-256)	Description
w.exe	d2fd0654710c27dcf37b6c1437880020 824e161dd0bf28e3a133ed777242a0c a	Akira ransomware
Win.exe	dcfa2800754e5722acf94987bb03e814 edcb9acebda37df6da1987bf48e5b05e	Akira ransomware encryptor
AnyDesk.exe	bc747e3bf7b6e02c09f3d18bdd0e64ee f62b940b2f16c9c72e647eec85cf0138	Remote desktop application
Gcapi.dll	73170761d6776c0debacfbbc61b6988c b8270a20174bf5c049768a264bb8ffaf	DLL file that assists with the execution of AnyDesk.exe
Sysmon.exe	1b60097bf1ccb15a952e5bcc3522cf5c 162da68c381a76abc2d5985659e4d38 6	Ngrok tool for persistence
Config.yml	Varies by use	Ngrok configuration file
Rclone.exe	aaa647327ba5b855bedea8e889b3fafd c05a6ca75d1cfd98869432006d6fecc9	Exfiltration tool
Winscp.rnd	7d6959bb7a9482e1caa83b16ee01103 d982d47c70c72fdd03708e2b7f4c552c 4	Network file transfer program
WinSCP-6.1.2- Setup.exe	36cc31f0ab65b745f25c7e785df9e72d1 c8919d35a1d7bd4ce8050c8c068b13c	Network file transfer program
Akira_v2	3298d203c2acb68c474e5fdad8379181 890b4403d6491c523c13730129be3f7 5 0ee1d284ed663073872012c7bde7fac 5ca1121403f1a5d2d5411317df282796 c	Akira_v2 ransomware
Megazord	ffd9f58e5fe8502249c67cad0123ceeea a6e9f69b4ec9f9e21511809849eb8fc dfe6fddc67bdc93b9947430b966da287 7fda094edf3e21e6f0ba98a84bc53198 131da83b521f610819141d5c740313c e46578374abb22ef504a7593955a65f0 7	Akira "Megazord" ransomware

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File Name	Hash (SHA-256)	Description
	9f393516edf6b8e011df6ee991758480	
	c5b99a0efbfd68347786061f0e04426c	
	9585af44c3ff8fd921c713680b0c2b3bb	
	c9d56add848ed62164f7c9b9f23d065	
	2f629395fdfa11e713ea8bf11d40f6f240	
	acf2f5fcf9a2ac50b6f7fbc7521c83	
	7f731cc11f8e4d249142e99a44b9da7a	
	48505ce32c4ee4881041beeddb3760b	
	е	
	95477703e789e6182096a09bc98853e	
	0a70b680a4f19fa2bf86cbb9280e8ec5	
	а	
	0c0e0f9b09b80d87ebc88e2870907b6c	
	acb4cd7703584baf8f2be1fd9438696d	
	C9c94ac5e1991a7db42c7973e328fce	
	eb6f163d9f644031bdfd4123c7b3898b	
	0	
	aaa6041912a6ba3cf167ecdb90a434a	
VeeamHax.exe	62feaf08639c59705847706b9f492015	Plaintext credential leaking tool
	d	
Veeam-Get-	18051333e658c4816ff3576a2e9d97fe	PowerShell script for obtaining and
Creds.ps1	2a1196ac0ea5ed9ba386c46defafdb88	decrypting accounts from Veeam
		servers
PowershellKer	5e1e3bf6999126ae4aa52146280fdb91	Kerberos ticket dumping tool from LSA
beros	3912632e8bac4f54e98c58821a307d3	cache
TicketDumper	2	
sshd.exe	8317ff6416af8ab6eb35df3529689671a	OpenSSH Backdoor
	700fdb61a5e6436f4d6ea8ee002d694	
sshd.exe	8317ff6416af8ab6eb35df3529689671a	OpenSSH Backdoor
	700fdb61a5e6436f4d6ea8ee002d694	Openicer i Backacci
ipscan-3.9.1-	892405573aa34dfc49b37e4c35b6555	Network scanner that scans IP
setup.exe	43e88ec1c5e8ffb27ab8d1bbf90fc6ae0	addresses and ports
File Name	Hash (MD5)	Description
winrar-x64-	7a647af3c112ad805296a22b2a276e7	Network file transfer program
623.exe	С	Tetti sik ille danolor program

Table 3: Commands Affiliated with Akira Ransomware

Persistence and Discovery		
nltest /dclist: [T1018]		
nltest /DOMAIN_TRUSTS [T1482]		
net group "Domain admins" /dom [T1069.002]		
net localgroup "Administrators" /dom [T1069.001]		
tasklist [T1057]		
rundll32.exe c:\Windows\System32\comsvcs.dll, MiniDump ((Get-Process Isass).ld) C:\windows\temp\lsass.dmp full [T1003.001]		
Credential Access		
Creuerillal Access		
cmd.exe /Q /c esentutl.exe /y		
cmd.exe /Q /c esentutl.exe /y "C:\Users\ <username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default-</firefox_profile_id></username>		
cmd.exe /Q /c esentutl.exe /y  "C:\Users\ <username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default- release\key4.db" /d  "C:\Users\<username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default-</firefox_profile_id></username></firefox_profile_id></username>		
cmd.exe /Q /c esentutl.exe /y  "C:\Users\ <username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default- release\key4.db" /d  "C:\Users\<username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default- release\key4.db.tmp"</firefox_profile_id></username></firefox_profile_id></username>		
cmd.exe /Q /c esentutl.exe /y  "C:\Users\ <username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default-release\key4.db" /d  "C:\Users\<username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default-release\key4.db.tmp"  Note: Used for accessing Firefox data.</firefox_profile_id></username></firefox_profile_id></username>		
cmd.exe /Q /c esentutl.exe /y  "C:\Users\ <username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default-release\key4.db" /d  "C:\Users\<username>\AppData\Roaming\Mozilla\Firefox\Profiles\<firefox_profile_id>.default-release\key4.db.tmp"  Note: Used for accessing Firefox data.  cmd.exe /Q /c esentutl.exe /y</firefox_profile_id></username></firefox_profile_id></username>		

## **Impact**

powershell.exe -Command "Get-WmiObject Win32\_Shadowcopy | Remove-WmiObject" [T1490]

## MITRE ATT&CK TACTICS AND TECHNIQUES

See Tables 4 -12 for all referenced Akira threat actor tactics and techniques for enterprise environments in this advisory. For assistance with mapping malicious cyber activity to the MITRE ATT&CK framework, see CISA and MITRE ATT&CK's <u>Best Practices for MITRE ATT&CK Mapping</u> and CISA's <u>Decider Tool</u>.

Table 4: Initial Access

Technique Title	ID	Use
Valid Accounts	<u>T1078</u>	Akira threat actors obtain and abuse credentials of existing accounts as a means of gaining initial access.

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Technique Title	ID	Use
	T4400	Akira threat actors exploit
Exploit Public Facing Application	<u>T1190</u>	vulnerabilities in internet-facing
		systems to gain access to systems.
		Akira threat actors have used remote
External Remote Services	<u>T1133</u>	access services, such as RDP/VPN
		connection to gain initial access.
Phiching: Spearphiching		Akira threat actors use phishing
Phishing: Spearphishing Attachment	T1566.001	emails with malicious attachments to
Attaciment		gain access to networks.
		Akira threat actors use phishing
Phishing: Spearphishing Link	T1566.002	emails with malicious links to gain
		access to networks.

**Table 5: Credential Access** 

Technique Title	ID	Use
OS Credential Dumping	<u>T1003</u>	Akira threat actors use tools like Mimikatz and LaZagne to dump credentials.
OS Credential Dumping: LSASS Memory	T1003.001	Akira threat actors attempt to access credential material stored in the process memory of the LSASS.

Table 6: Discovery

Technique Title	ID	Use
		Akira threat actors use tools to scan
System Network Configuration	T1016	systems and identify services running
Discovery	<u>11010</u>	on remote hosts and local network
		infrastructure.
		Akira threat actors use tools like
System Information Discovery	<u>T1082</u>	PCHunter64 to acquire detailed
		process and system information.
		Akira threat actors use the net
Domain Trust Discovery	<u>T1482</u>	Windows command to enumerate
		domain information.
		Akira threat actors use the Tasklist
Process Discovery	<u>T1057</u>	utility to obtain details on running
		processes via PowerShell.

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Technique Title	ID	Use
Permission Groups Discovery: Local Groups	<u>T1069.001</u>	Akira threat actors use the net localgroup /dom to find local system groups and permission settings.
Permission Groups Discovery: Domain Groups	T1069.002	Akira threat actors use the net group /domain command to attempt to find domain level groups and permission settings.
Remote System Discovery	<u>T1018</u>	Akira threat actors use nltest / dclist to amass a listing of other systems by IP address, hostname, or other logical identifiers on a network.

#### Table 7: Persistence

Technique Title	ID	Use
Create Account: Domain Account	<u>T1136.002</u>	Akira threat actors attempt to abuse the functions of domain controllers by creating new domain accounts to establish persistence.

#### Table 8: Defense Evasion

Technique Title	ID	Use
Impair Defenses: Disable or	T1562.001	Akira threat actors use BYOVD
Modify Tools	11302.001	attacks to disable antivirus software.

#### **Table 9: Command and Control**

Technique Title	ID	Use
Remote Access Software	<u>T1219</u>	Akira threat actors use legitimate desktop support software like AnyDesk to obtain remote access to victim systems.
Proxy	<u>T1090</u>	Akira threat actors utilized Ngrok to create a secure tunnel to servers that aided in exfiltration of data.

#### Table 10: Collection

Technique Title	ID	Use
Archive Collected Data:	<u>T1560.001</u>	Akira threat actors use tools like
Archive via Utility		WinRAR to compress files.

#### Table 11: Exfiltration

Technique Title	ID	Use
Exfiltration Over Alternative	<u>T1048</u>	Akira threat actors use file transfer tools like WinSCP to transfer data.
Protocol  Transfer Data to Cloud Account	<u>T1537</u>	Akira threat actors use tools like
		CloudZilla to exfiltrate data to a cloud
		account and connect to exfil servers
Exfiltration Over Web Service: Exfiltration to Cloud Storage	<u>T1567.002</u>	they control.  Akira threat actors leveraged RClone
		to sync files with cloud storage
		services to exfiltrate data.

Table 12: Impact

Technique Title	ID	Use
Date Encrypted for Impact	<u>T1486</u>	Akira threat actors encrypt data on
		target systems to interrupt availability
		to system and network resources.
Inhibit System Recovery	<u>T1490</u>	Akira threat actors delete volume
		shadow copies on Windows systems.
Financial Theft	<u>T1657</u>	Akira threat actors use a double-
		extortion model for financial gain.

## **MITIGATIONS**

#### **Network Defenders**

The FBI, CISA, EC3, and NCSC-NL recommend organizations apply the following mitigations to limit potential adversarial use of common system and network discovery techniques, and to reduce the risk of compromise by Akira ransomware. These mitigations align with the Cross-Sector Cybersecurity Performance Goals (CPGs) developed by CISA and the National Institute of Standards and Technology (NIST). The CPGs provide a minimum set of practices and protections that CISA and NIST recommend all organizations implement. CISA and NIST based the CPGs on existing cybersecurity frameworks and guidance to protect against the most common and impactful threats and TTPs. Visit CISA's <a href="Cross-Sector Cybersecurity Performance Goals">Cross-Sector Cybersecurity Performance Goals</a> for more information on the CPGs, including additional recommended baseline protections.

- **Implement a recovery plan** to maintain and retain multiple copies of sensitive or proprietary data and servers in a physically separate, segmented, and secure location (e.g., hard drive, storage device, the cloud) [CPG 2.F, 2.R, 2.S].
- Require all accounts with password logins (e.g., service accounts, admin accounts, and domain admin accounts) to comply with NIST's <u>standards</u>. In particular, require employees to

- use long passwords and consider not requiring recurring password changes, as these can weaken security [CPG 2.C].
- **Require multifactor authentication** for all services to the extent possible, particularly for webmail, virtual private networks, and accounts that access critical systems [CPG 2.H].
- Keep all operating systems, software, and firmware up to date. Timely patching is one of
  the most efficient and cost effective steps an organization can take to minimize its exposure to
  cybersecurity threats. Prioritize patching known exploited vulnerabilities in internet-facing
  systems. [CPG 1.E].
- **Segment networks** to prevent the spread of ransomware. Network segmentation can help prevent the spread of ransomware by controlling traffic flows between—and access to—various subnetworks and by restricting adversary lateral movement [CPG 2.F].
- Identify, detect, and investigate abnormal activity and potential traversal of the
  indicated ransomware with a networking monitoring tool. To aid in detecting the
  ransomware, implement a tool that logs and reports all network traffic, including lateral
  movement activity on a network. Endpoint detection and response (EDR) tools are particularly
  useful for detecting lateral connections as they have insight into common and uncommon
  network connections for each host [CPG 3.A].
- **Filter network traffic** by preventing unknown or untrusted origins from accessing remote services on internal systems. This prevents threat actors from directly connecting to remote access services that they have established for persistence.
- Install, regularly update, and enable real time detection for antivirus software on all hosts.
- Review domain controllers, servers, workstations, and active directories for new and/or unrecognized accounts [CPG 1.A, 2.O].
- **Audit user accounts** with administrative privileges and configure access controls according to the principle of least privilege [CPG 2.E].
- Disable unused ports [CPG 2.V].
- Consider adding an email banner to emails received from outside of your organization [CPG 2.M].
- Disable hyperlinks in received emails.
- Implement time-based access for accounts set at the admin level and higher. For example, the Just-in-Time (JIT) access method provisions privileged access when needed and can support enforcement of the principle of least privilege (as well as the Zero Trust model). This is a process where a network-wide policy is set in place to automatically disable admin accounts at the Active Directory level when the account is not in direct need. Individual users may submit their requests through an automated process that grants them access to a specified system for a set timeframe when they need to support the completion of a certain task.
- Disable command-line and scripting activities and permissions. Privilege escalation and lateral movement often depend on software utilities running from the command line. If threat actors are not able to run these tools, they will have difficulty escalating privileges and/or moving laterally [CPG 2.E, 2.N].

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• **Maintain offline backups of data,** and regularly maintain backup and restoration [CPG 2.R]. By instituting this practice, the organization helps ensure they will not be severely interrupted, and/or only have irretrievable data.

• Ensure all backup data is encrypted, immutable (i.e., cannot be altered or deleted), and covers the entire organization's data infrastructure [CPG 2.K, 2.L, 2.R].

#### **VALIDATE SECURITY CONTROLS**

In addition to applying mitigations, the FBI, CISA, EC3, and NCSC-NL recommend exercising, testing, and validating your organization's security program against the threat behaviors mapped to the MITRE ATT&CK for Enterprise framework in this advisory. The FBI, CISA, EC3 and NCSC-NL recommend testing your existing security controls inventory to assess how they perform against the ATT&CK techniques described in this advisory.

#### To get started:

- 1. Select an ATT&CK technique described in this advisory (see Tables 4 -12).
- 2. Align your security technologies against the technique.
- 3. Test your technologies against the technique.
- 4. Analyze your detection and prevention technologies' performance.
- 5. Repeat the process for all security technologies to obtain a set of comprehensive performance data.
- 6. Tune your security program, including people, processes, and technologies, based on the data generated by this process.

The FBI, CISA, EC3, and NCSC-NL recommend continually testing your security program, at scale, in a production environment to ensure optimal performance against the MITRE ATT&CK techniques identified in this advisory.

## **RESOURCES**

- <u>Stopransomware.gov</u> is a whole-of-government approach that gives one central location for ransomware resources and alerts.
- Resource to mitigate a ransomware attack: <u>#StopRansomware Guide</u>.
- No cost cyber hygiene services: <u>Cyber Hygiene Services</u>, <u>Ransomware Readiness</u> <u>Assessment</u>.

## **REFERENCES**

- [1] Fortinet: Ransomware Roundup Akira
- [2] Cisco: Akira Ransomware Targeting VPNs without MFA
- [3] <u>Truesec: Indications of Akira Ransomware Group Actively Exploiting Cisco AnyConnect CVE-2020-3259</u>
- [4] TrendMicro: Akira Ransomware Spotlight

- [5] CrowdStrike: What is a Kerberoasting Attack?
- [6] Sophos: Akira, again: The ransomware that keeps on taking
- [7] Sophos: Akira Ransomware is "bringin' 1988 back"

## REPORTING

Your organization has no obligation to respond or provide information back to the FBI in response to this joint CSA. If, after reviewing the information provided, your organization decides to provide information to the FBI, reporting must be consistent with applicable state and federal laws.

The FBI is interested in any information that can be shared, to include boundary logs showing communication to and from foreign IP addresses, a sample ransom note, communications with Akira threat actors, Bitcoin wallet information, decryptor files, and/or a benign sample of an encrypted file.

Additional details of interest include: a targeted company point of contact, status and scope of infection, estimated loss, operational impact, transaction IDs, date of infection, date detected, initial attack vector, and host- and network-based indicators.

The FBI, CISA, EC3, and NCSC-NL do not encourage paying ransom as payment does not guarantee victim files will be recovered. Furthermore, payment may also embolden adversaries to target additional organizations, encourage other criminal actors to engage in the distribution of ransomware, and/or fund illicit activities. Regardless of whether you or your organization have decided to pay the ransom, the FBI and CISA urge you to promptly report ransomware incidents to the FBI's <a href="Internet Crime Complain Center (IC3)">Internet Crime Complain Center (IC3)</a>, a local <a href="FBI Field Office">FBI Field Office</a>, or CISA via the agency's <a href="Incident Reporting System">Incident Reporting System</a> or its 24/7 Operations Center (<a href="report@cisa.gov">report@cisa.gov</a> or (888) 282-0870).

## **DISCLAIMER**

The information in this report is being provided "as is" for informational purposes only. The FBI, CISA, EC3, and NCSC-NL do not endorse any commercial entity, product, company, or service, including any entities, products, or services linked within this document. Any reference to specific commercial products, processes, or services by service mark, trademark, manufacturer, or otherwise, does not constitute or imply endorsement, recommendation, or favoring by the FBI or CISA.

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## **VERSION HISTORY**

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