Jun 24 2023

NETMANAGEIT

Intelligence Report

APT28 leverages multiple phishing techniques to target Ukrainian civil society

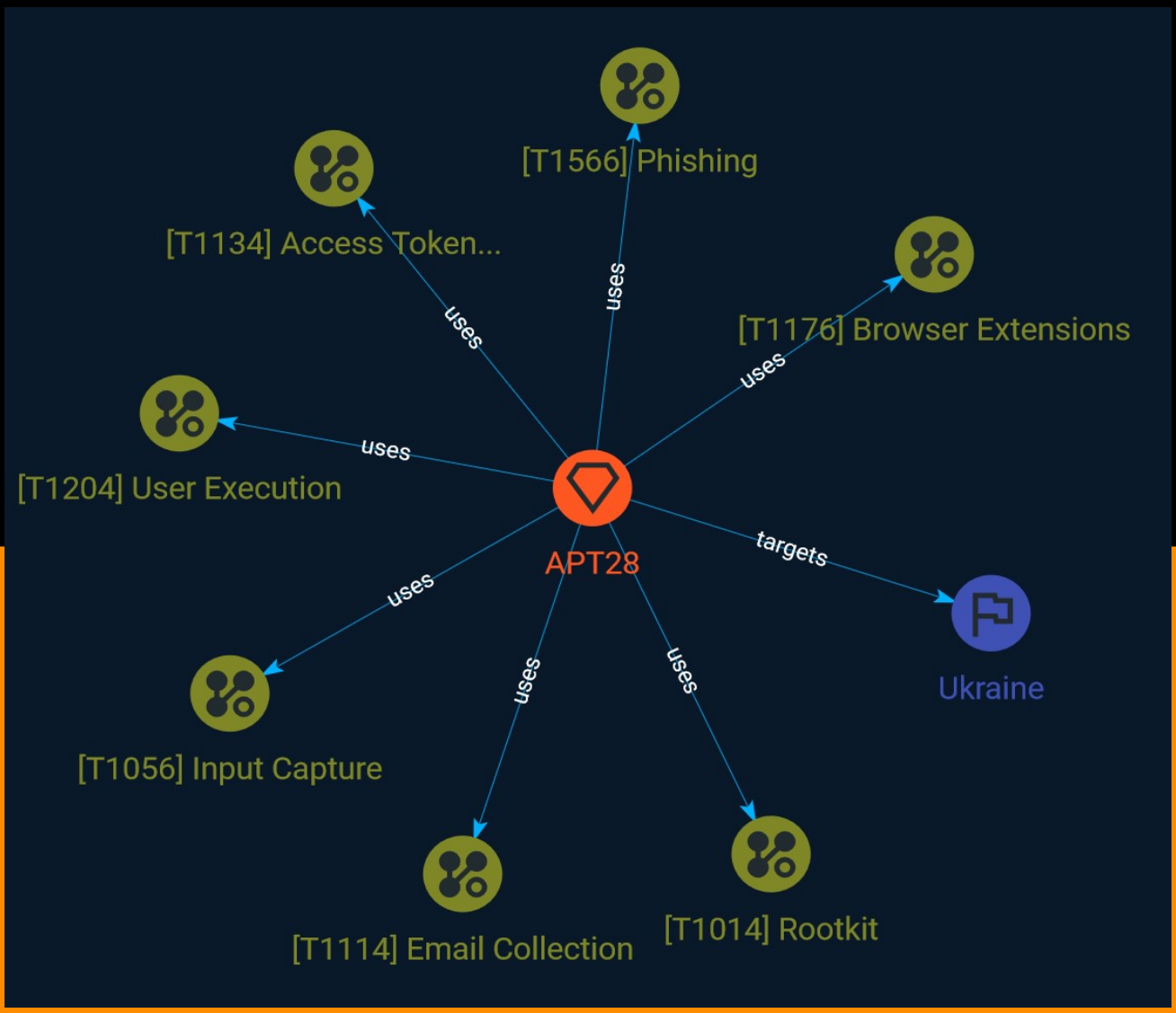

Table of contents

Overview

- Description 3
- Confidence 3

Entities

- Attack-Pattern 4
- Intrusion-Set 9
- Country 10

External References

- External References 11

Overview

Description

Russian cyber-espionage group APT28 leverages multiple phishing techniques to target Ukrainian civil society

Confidence

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

15 / 100

Attack-Pattern

Name
Input Capture
ID
T1056
Description
Adversaries may use methods of capturing user input to obtain credentials or collect information. During normal system usage, users often provide credentials to various different locations, such as login pages/portals or system dialog boxes. Input capture mechanisms may be transparent to the user (e.g. [Credential API Hooking](https://attack.mitre.org/techniques/T1056/004)) or rely on deceiving the user into providing input into what they believe to be a genuine service (e.g. [Web Portal Capture](https://attack.mitre.org/techniques/T1056/003)).
Name
Phishing
ID
T1566
Description

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

Name

Rootkit

ID

T1014

Description

Adversaries may use rootkits to hide the presence of programs, files, network connections, services, drivers, and other system components. Rootkits are programs that hide the existence of malware by intercepting/hooking and modifying operating system API calls that supply system information. (Citation: Symantec Windows Rootkits) Rootkits or rootkit enabling functionality may reside at the user or kernel level in the operating system or lower, to include a hypervisor, Master Boot Record, or [System Firmware](https://attack.mitre.org/techniques/T1542/001). (Citation: Wikipedia Rootkit) Rootkits have been seen for Windows, Linux, and Mac OS X systems. (Citation: CrowdStrike Linux Rootkit) (Citation: BlackHat Mac OSX Rootkit)

Name

User Execution

ID

T1204

Description

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

Name

Browser Extensions

ID

T1176

Description

Adversaries may abuse Internet browser extensions to establish persistent access to victim systems. Browser extensions or plugins are small programs that can add functionality and customize aspects of Internet browsers. They can be installed directly or through a browser's app store and generally have access and permissions to everything that the browser can access.(Citation: Wikipedia Browser Extension)(Citation: Chrome Extensions Definition) Malicious extensions can be installed into a browser through malicious app store downloads masquerading as legitimate extensions, through social engineering, or by an adversary that has already compromised a system. Security can be limited on browser app stores so it may not be difficult for malicious extensions to defeat automated scanners.(Citation: Malicious Chrome Extension Numbers) Depending on the browser, adversaries may also manipulate an extension's update url to install updates from an adversary controlled server or manipulate the mobile configuration file to silently install additional extensions. Previous to macOS 11, adversaries could silently install browser extensions via the command line using the `profiles` tool to install malicious `.mobileconfig` files. In macOS 11+, the use of the `profiles` tool can no longer install configuration profiles, however `.mobileconfig` files can be planted and installed with user interaction.(Citation: xorrior chrome extensions macOS) Once the extension is installed, it can browse to websites in the background, steal all information that a user enters into a browser (including credentials), and be used as an installer for a RAT for persistence. (Citation: Chrome Extension Crypto Miner)(Citation: ICEBRG Chrome Extensions)(Citation: Banker Google Chrome Extension Steals Creds)(Citation: Catch All Chrome Extension) There have also been instances of botnets using a persistent backdoor through malicious Chrome extensions.(Citation: Stantinko Botnet) There have also been similar examples of extensions being used for command & control.(Citation: Chrome Extension C2 Malware)

Name

Email Collection

ID

T1114

Description

Adversaries may target user email to collect sensitive information. Emails may contain sensitive data, including trade secrets or personal information, that can prove valuable to adversaries. Adversaries can collect or forward email from mail servers or clients.

Name

Access Token Manipulation

ID

T1134

Description

Adversaries may modify access tokens to operate under a different user or system security context to perform actions and bypass access controls. Windows uses access tokens to determine the ownership of a running process. A user can manipulate access tokens to make a running process appear as though it is the child of a different process or belongs to someone other than the user that started the process. When this occurs, the process also takes on the security context associated with the new token. An adversary can use built-in Windows API functions to copy access tokens from existing processes; this is known as token stealing. These token can then be applied to an existing process (i.e. [Token Impersonation/Theft](https://attack.mitre.org/techniques/T1134/001)) or used to spawn a new process (i.e. [Create Process with Token](https://attack.mitre.org/techniques/T1134/002)). An adversary must already be in a privileged user context (i.e. administrator) to steal a token. However, adversaries commonly use token stealing to elevate their security context from the administrator level to the SYSTEM level. An adversary can then use a token to authenticate to a remote system as the account for that token if the account has appropriate permissions on the remote system.(Citation: Pentestlab Token Manipulation) Any standard user can use the `runas` command, and the Windows API functions, to create impersonation tokens; it does not require access to an administrator account. There are also other mechanisms, such as Active Directory fields, that can be used to modify access tokens.

Intrusion-Set

Name

APT28

Description

[APT28](https://attack.mitre.org/groups/G0007) is a threat group that has been attributed to Russia's General Staff Main Intelligence Directorate (GRU) 85th Main Special Service Center (GTsSS) military unit 26165.(Citation: NSA/FBI Drovorub August 2020)(Citation: Cybersecurity Advisory GRU Brute Force Campaign July 2021) This group has been active since at least 2004.(Citation: DOJ GRU Indictment Jul 2018)(Citation: Ars Technica GRU indictment Jul 2018)(Citation: Crowdstrike DNC June 2016)(Citation: FireEye APT28)(Citation: SecureWorks TG-4127)(Citation: FireEye APT28 January 2017)(Citation: GRIZZLY STEPPE JAR)(Citation: Sofacy DealersChoice)(Citation: Palo Alto Sofacy 06-2018)(Citation: Symantec APT28 Oct 2018)(Citation: ESET Zebrocy May 2019) [APT28](https://attack.mitre.org/groups/G0007) reportedly compromised the Hillary Clinton campaign, the Democratic National Committee, and the Democratic Congressional Campaign Committee in 2016 in an attempt to interfere with the U.S. presidential election. (Citation: Crowdstrike DNC June 2016) In 2018, the US indicted five GRU Unit 26165 officers associated with [APT28](https://attack.mitre.org/groups/G0007) for cyber operations (including close-access operations) conducted between 2014 and 2018 against the World Anti-Doping Agency (WADA), the US Anti-Doping Agency, a US nuclear facility, the Organization for the Prohibition of Chemical Weapons (OPCW), the Spiez Swiss Chemicals Laboratory, and other organizations.(Citation: US District Court Indictment GRU Oct 2018) Some of these were conducted with the assistance of GRU Unit 74455, which is also referred to as [Sandworm Team](https://attack.mitre.org/groups/G0034).

Country

Name
Ukraine

External References

- https://otx.alienvault.com/pulse/64676e2dffb6057207af2037
- https://blog.sekoia.io/apt28-leverages-multiple-phishing-techniques-to-target-ukrainian-civil-society/