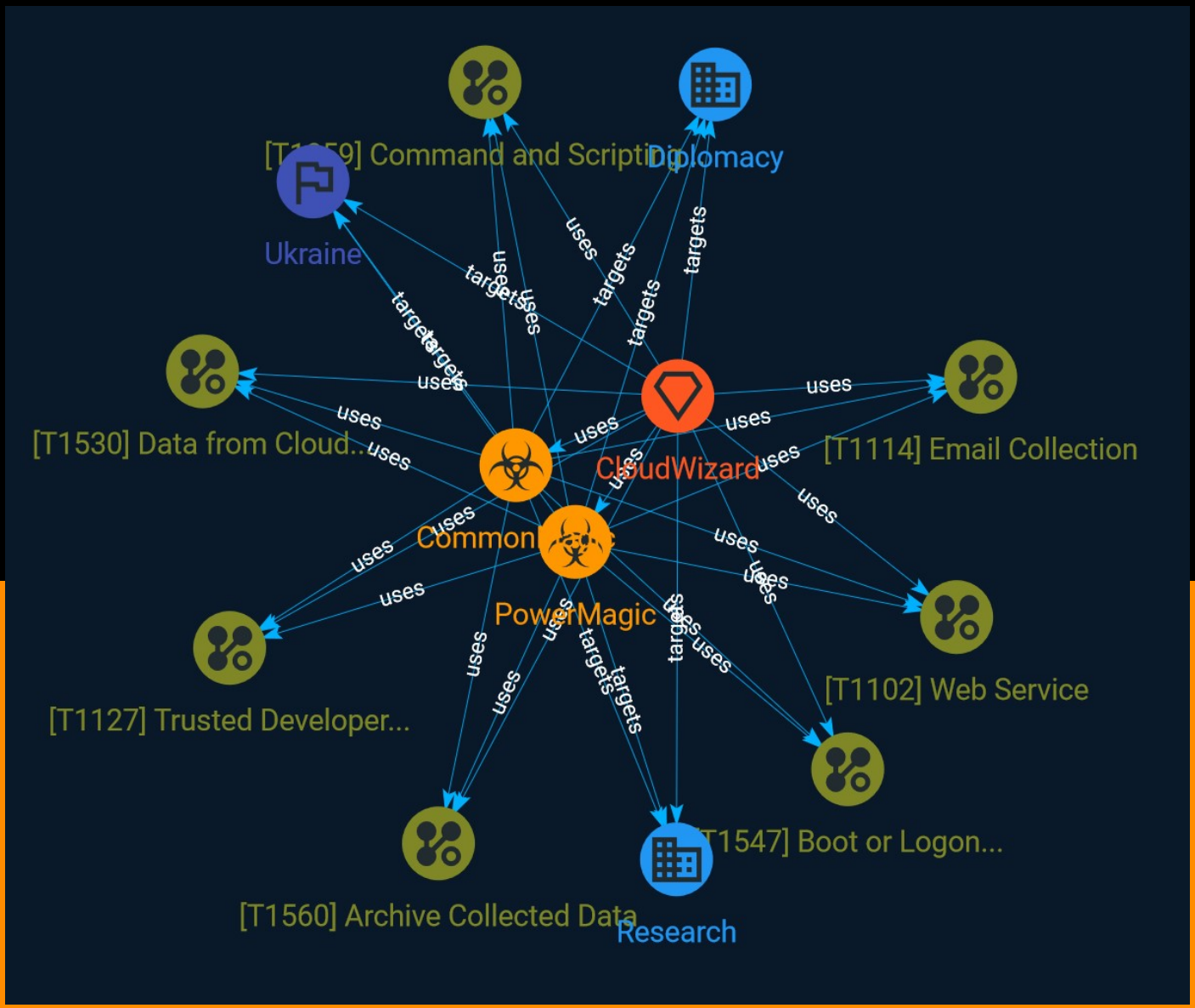
Jun 24 2023

NETMANAGEIT

Intelligence Report

Analysis of the CloudWizard APT framework



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Overview

Description

In March 2023, SecureList discovered a previously unknown cyber-attack (APT) campaign in the region of the Russo-Ukrainian conflict that involved the use of malware such as PowerMagic and CommonMagic.

Confidence

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

15 / 100

Attack-Pattern

Name

Boot or Logon Autostart Execution

ID

T1547

Description

Adversaries may configure system settings to automatically execute a program during system boot or logon to maintain persistence or gain higher-level privileges on compromised systems. Operating systems may have mechanisms for automatically running a program on system boot or account logon.(Citation: Microsoft Run Key)(Citation: MSDN Authentication Packages)(Citation: Microsoft TimeProvider)(Citation: Cylance Reg Persistence Sept 2013)(Citation: Linux Kernel Programming) These mechanisms may include automatically executing programs that are placed in specially designated directories or are referenced by repositories that store configuration information, such as the Windows Registry. An adversary may achieve the same goal by modifying or extending features of the kernel. Since some boot or logon autostart programs run with higher privileges, an adversary may leverage these to elevate privileges.

Name

Data from Cloud Storage

ID

T1530

Description

Adversaries may access data from improperly secured cloud storage. Many cloud service providers offer solutions for online data object storage such as Amazon S3, Azure Storage, and Google Cloud Storage. These solutions differ from other storage solutions (such as SQL or Elasticsearch) in that there is no overarching application. Data from these solutions can be retrieved directly using the cloud provider's APIs. In other cases, SaaS application providers such as Slack, Confluence, and Salesforce also provide cloud storage solutions as a peripheral use case of their platform. These cloud objects can be extracted directly from their associated application.(Citation: EA Hacked via Slack - June 2021)(Citation: SecureWorld - How Secure Is Your Slack Channel - Dec 2021)(Citation: HackerNews - 3 SaaS App Cyber Attacks - April 2022)(Citation: Dark Clouds_Usenix_Mulazzani_08_2011) Adversaries may collect sensitive data from these cloud storage solutions. Providers typically offer security guides to help end users configure systems, though misconfigurations are a common problem.(Citation: Amazon S3 Security, 2019)(Citation: Microsoft Azure Storage Security, 2019)(Citation: Google Cloud Storage Best Practices, 2019) There have been numerous incidents where cloud storage has been improperly secured, typically by unintentionally allowing public access to unauthenticated users, overly-broad access by all users, or even access for any anonymous person outside the control of the Identity Access Management system without even needing basic user permissions. This open access may expose various types of sensitive data, such as credit cards, personally identifiable information, or medical records.(Citation: Trend Micro S3 Exposed PII, 2017) (Citation: Wired Magecart S3 Buckets, 2019)(Citation: HIPAA Journal S3 Breach, 2017) (Citation: Rclone-mega-extortion_05_2021) Adversaries may also obtain then abuse leaked credentials from source repositories, logs, or other means as a way to gain access to cloud storage objects.

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

Archive Collected Data

ID

T1560

Description

An adversary may compress and/or encrypt data that is collected prior to exfiltration. Compressing the data can help to obfuscate the collected data and minimize the amount of data sent over the network. Encryption can be used to hide information that is being exfiltrated from detection or make exfiltration less conspicuous upon inspection by a defender. Both compression and encryption are done prior to exfiltration, and can be performed using a utility, 3rd party library, or custom method.

Name

Command and Scripting Interpreter

ID

T1059

Description

Adversaries may abuse command and script interpreters to execute commands, scripts, or binaries. These interfaces and languages provide ways of interacting with computer systems and are a common feature across many different platforms. Most systems come with some built-in command-line interface and scripting capabilities, for example, macOS and Linux distributions include some flavor of [Unix Shell](https://attack.mitre.org/techniques/T1059/004) while Windows installations include the [Windows Command Shell](https://attack.mitre.org/techniques/T1059/003) and [PowerShell](https://attack.mitre.org/

techniques/T1059/001). There are also cross-platform interpreters such as [Python] (https://attack.mitre.org/techniques/T1059/006), as well as those commonly associated with client applications such as [JavaScript](https://attack.mitre.org/techniques/T1059/007) and [Visual Basic](https://attack.mitre.org/techniques/T1059/005). Adversaries may abuse these technologies in various ways as a means of executing arbitrary commands. Commands and scripts can be embedded in [Initial Access](https://attack.mitre.org/tactics/TA0001) payloads delivered to victims as lure documents or as secondary payloads downloaded from an existing C2. Adversaries may also execute commands through interactive terminals/shells, as well as utilize various [Remote Services](https://attack.mitre.org/techniques/T1021) in order to achieve remote Execution. (Citation: Powershell Remote Commands)(Citation: Cisco IOS Software Integrity Assurance - Command History)(Citation: Remote Shell Execution in Python)

Name

Web Service

ID

T1102

Description

Adversaries may use an existing, legitimate external Web service as a means for relaying data to/from a compromised system. Popular websites and social media acting as a mechanism for C2 may give a significant amount of cover due to the likelihood that hosts within a network are already communicating with them prior to a compromise. Using common services, such as those offered by Google or Twitter, makes it easier for adversaries to hide in expected noise. Web service providers commonly use SSL/TLS encryption, giving adversaries an added level of protection. Use of Web services may also protect back-end C2 infrastructure from discovery through malware binary analysis while also enabling operational resiliency (since this infrastructure may be dynamically changed).

Name

Trusted Developer Utilities Proxy Execution

ID

T1127

Description

Adversaries may take advantage of trusted developer utilities to proxy execution of malicious payloads. There are many utilities used for software development related tasks that can be used to execute code in various forms to assist in development, debugging, and reverse engineering.(Citation: engima0x3 DNX Bypass)(Citation: engima0x3 RCSI Bypass)(Citation: Exploit Monday WinDbg)(Citation: LOLBAS Tracker) These utilities may often be signed with legitimate certificates that allow them to execute on a system and proxy execution of malicious code through a trusted process that effectively bypasses application control solutions.

Sector

Name
Diplomacy
Description
Public or private entities which are actors of or involved in international relations activities.
Name
Research
Description
Private and public entities such as university research centers, labs, experimental centers etc. (except for defense, diplomacy and healthcare).

Intrusion-Set

Name
CloudWizard

Country

Name
Ukraine

Malware

Name
PowerMagic

Name
CommonMagic

External References

- https://otx.alienvault.com/pulse/646cde441c44d14ce5c9c7e7
- https://securelist.com/cloudwizard-apt/109722/