

Threat Level

**Red** 

Hiveforce Labs

## THREAT ADVISORY

**M** ATTACK REPORT

# **ToyMaker: Unveiling the Role of Initial Access Brokers in Ransomware Attacks**

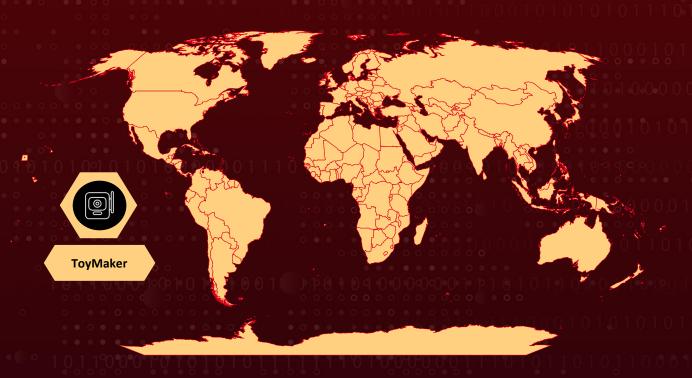
# Summary

**Attack Commenced: 2023 Targeted Region: Worldwide Targeted Platform: Windows Threat Actor:** ToyMaker

Malware: LAGTOY, Cactus ransomware Targeted Industry: Critical infrastructure

Attack: In 2023, ToyMaker, an Initial Access Broker, breached a critical infrastructure network using a custom backdoor called LAGTOY. The actor harvested credentials and established persistence before handing off access to the Cactus ransomware group. Weeks later, Cactus conducted reconnaissance, deployed remote tools, and executed a ransomware attack. The operation shows coordinated collaboration between initial access brokers and ransomware operators.

#### **X** Attack Regions



#### **Attack Details**

#1

A sophisticated cyberattack campaign in 2023 involved an Initial Access Broker (IAB) known as ToyMaker, who collaborates with ransomware groups, notably the Cactus gang. In this significant breach of a critical infrastructure organization, ToyMaker was identified as the actor responsible for the initial compromise. The breach was executed by exploiting internet-facing vulnerabilities and deploying a custom backdoor tool named "LAGTOY." This implant enabled ToyMaker to gain persistent access to the network through reverse shell connections and remote command execution.

#2

Following the initial infiltration, ToyMaker focused on credential extraction and lateral movement within the environment. The actor used forensic memory analysis tools, including Magnet RAM Capture, to harvest credentials, which were then used to create and maintain fake user accounts. These steps helped solidify ToyMaker's foothold in the network while setting the stage for the subsequent ransomware phase. After conducting these preparatory actions, ToyMaker ceased activity, suggesting a clear role as the access enabler.

#3

Several weeks later, the <u>Cactus ransomware</u> gang leveraged the access previously established by ToyMaker. Cactus initiated comprehensive network reconnaissance and deployed a variety of remote management tools, including eHorus, RMS, and AnyDesk, to maintain access. They eventually executed the ransomware payload, exfiltrated sensitive data, and deleted shadow volume copies to prevent data recovery. The progression of this attack illustrates a well-planned and methodical handoff between ToyMaker and Cactus, indicative of organized collaboration.

### Recommendations



**Patch Internet-Facing Systems Promptly:** Regularly identify and patch vulnerabilities in internet-facing services, applications, and operating systems. Prioritize updates for critical infrastructure components and use vulnerability scanning tools to assess exposure.



**Implement Network Segmentation:** Isolate critical systems from user-accessible environments and limit lateral movement through strict access controls and internal firewalls. Enforce the principle of least privilege for user and service accounts.

Deploy Endpoint Detection and Response (EDR) Tools: Use advanced EDR solutions to detect and respond to suspicious behaviors, including credential dumping tools and custom backdoors like LAGTOY. Monitor for unusual PowerShell or command-line activity.



Monitor and Restrict Remote Access Tools: Audit and restrict the use of remote access tools such as AnyDesk, RMS, and eHorus. Implement application allowlisting and alert on unauthorized installations of remote administration software.



Harden Credential Security: Enforce strong authentication mechanisms, including multi-factor authentication (MFA), especially for remote access and privileged accounts. Regularly rotate passwords and monitor for signs of credential misuse.

#### Potential MITRE ATT&CK TTPs

<u>TA0010</u>	<u>TA0040</u>	<u>TA0001</u>	<u>TA0002</u>
Exfiltration	Impact	Initial Access	Execution
<u>TA0007</u>	<u>TA0008</u>	<u>TA0009</u>	<u>TA0011</u>
Discovery	Lateral Movement	Collection	Command and Control
<u>TA0003</u>	<u>TA0004</u>	<u>TA0005</u>	<u>TA0006</u>
Persistence	Privilege Escalation	Defense Evasion	Credential Access
<u>T1190</u>	<u>T1562.001</u>	<u>T1562</u>	<u>T1082</u>
Exploit Public-Facing Application	Disable or Modify Tools	Impair Defenses	System Information Discovery
<u>T1590</u>	<u>T1136</u>	<u>T1003</u>	<u>T1560</u>
Gather Victim Network Information	Create Account	OS Credential Dumping	Archive Collected Data
<u>T1048</u>	<u>T1543</u>	<u>T1018</u>	<u>T1070</u>
Exfiltration Over Alternative Protocol	Create or Modify System Process	Remote System Discovery	Indicator Removal
<u>T1070.007</u>	<u>T1070.009</u>	<u>T1608.001</u>	<u>T1070.003</u>
Clear Network Connection History and Configurations	Clear Persistence	Upload Malware	Clear Command History

<u>T1608</u>	<u>T1218.007</u>	<u>T1218</u>	<u>T1053</u>
Stage Capabilities	Msiexec	System Binary Proxy Execution	Scheduled Task/Job
<u>T1053.005</u>	<u>T1021.004</u>	<u>T1021</u>	<u>T1222</u>
Scheduled Task	SSH	Remote Services	File and Directory Permissions Modification
<u>T1222.001</u>	<u>T1059.003</u>	<u>T1098</u>	<u>T1490</u>
Windows File and Directory Permissions Modification	Windows Command Shell	Account Manipulation	Inhibit System Recovery

#### **X** Indicators of Compromise (IOCs)

TYPE	VALUE
SHA256	fdf977f0c20e7f42dd620db42d20c561208f85684d3c9efd12499a35 49be3826, 0a367cc7e7e297248fad57e27f83316b7606788db9468f59031fed8 11cfe4867, 0bcfea4983cfc2a55a8ac339384ecd0988a470af444ea8f3b597d5fe 5f6067fb, 5831b09c93f305e7d0a49d4936478fac3890b97e065141f82cda9a0 d75b1066d, 691cc4a12fbada29d093e57bd02ca372bc10968b706c95370daeee 43054f06e3, 70077fde6c5fc5e4d607c75ff5312cc2fdf61ea08cae75f162d30fa74 75880de, a95930ff02a0d13e4dbe603a33175dc73c0286cd53ae4a141baf99a e664f4132, c1bd624e83382668939535d47082c0a6de1981ef2194bb4272b62e cc7be1ff6b
IPv4	209[.]141[.]43[.]37, 194[.]156[.]98[.]155, 158[.]247[.]211[.]51, 39[.]106[.]141[.]68, 47[.]117[.]165[.]166, 195[.]123[.]240[.]2, 75[.]127[.]0[.]235, 149[.]102[.]243[.]100,

ТҮРЕ	VALUE
IPv4	206[.]188[.]196[.]20, 51[.]81[.]42[.]234, 178[.]175[.]134[.]52, 162[.]33[.]177[.]56, 64[.]52[.]80[.]252, 162[.]33[.]178[.]196, 103[.]199[.]16[.]92

#### **References**

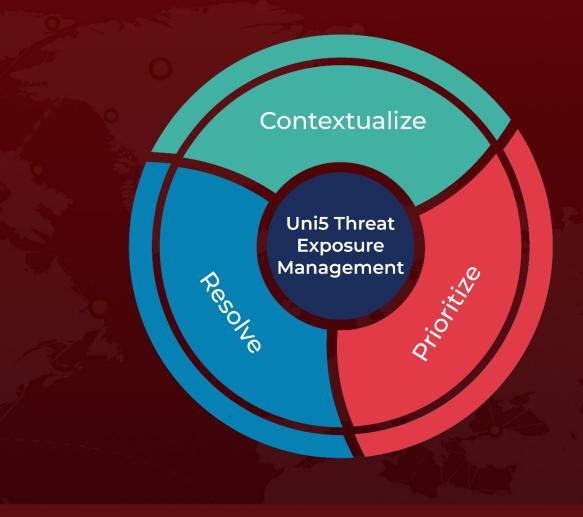
https://blog.talosintelligence.com/introducing-toymaker-an-initial-access-broker/

https://www.hivepro.com/cactus-ransomware-emerges-as-new-threat-targeting-large-enterprises/

#### What Next?

At <u>Hive Pro</u>, it is our mission to detect the most likely threats to your organization and to help you prevent them from happening.

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