



Threat Level



Amber

HiveForce Labs

# THREAT ADVISORY



ATTACK REPORT

## **FBot's Arsenal against the SaaS Giants**

Date of Publication

January 12, 2024

Admiralty Code

A1

TA Number

TA2024012

# Summary

**First Appearance:** July 2022

**Malware:** FBot

**Affected Platform:** AWS, Office365, PayPal, Sendgrid, and Twilio.

**Attack Region:** Worldwide

**Attack:** FBot, a Python-based exploit tool, has systematically targeted critical infrastructures, spanning from web servers and cloud services to content management systems (CMS) and major Software as a Service (SaaS) platforms. Its primary objective is to infiltrate these services, acquiring credentials to subsequently monetize unauthorized access by selling it to other malicious entities.

## Attack Regions



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# Attack Details

## #1

A Python-based exploit tool, known as FBot, has systematically targeted a spectrum of critical infrastructures, including web servers, cloud services, content management systems (CMS), and prominent Software as a Service (SaaS) platforms such as Amazon Web Services (AWS), Microsoft 365, PayPal, Sendgrid, and Twilio.

## #2

The overarching objective of the FBot utility is to compromise cloud-based, SaaS, and web services by acquiring credentials and subsequently capitalize on this unauthorized access by selling it to other malicious actors. Distinguished by its modest footprint in comparison to analogous tools, FBot suggests a potential origin in private development, accompanied by a more targeted approach to distribution.

## #3

FBot is primarily designed to empower threat actors to hijack cloud, SaaS, and web services, with a secondary emphasis on acquiring accounts to orchestrate spamming attacks. The salient features of FBot include the orchestration of credential harvesting tailored for spamming assaults, tools for hijacking AWS accounts, and functionalities facilitating attacks on PayPal and diverse SaaS accounts.

## #4

In addition to generating API keys for AWS and Sendgrid, FBot incorporates an array of capabilities, encompassing the generation of random IP addresses, execution of reverse IP scanning, and validation of PayPal accounts along with their associated email addresses. Notably, FBot does not delete the compromised account leveraged by the attacker for initial access. The tool also exhibits several attributes strategically aimed at targeting payment services and SaaS configurations.

# Recommendations



**Enhanced Credential Security:** Regularly update and strengthen passwords for all accounts, especially those associated with cloud services, SaaS platforms, and web servers. Enable multi-factor authentication (MFA) to add a layer of security.



**Monitoring and Logging:** Implement robust monitoring and logging mechanisms to detect any suspicious activity or unauthorized access to your accounts. Regularly review access logs and audit trails for unusual patterns or login locations.



**Vendor Security Assessment:** If relying on third-party services like SaaS platforms, perform regular security assessments on their infrastructure and practices. Verify the security measures implemented by vendors, especially those handling sensitive data.

# Potential MITRE ATT&CK TTPs

<b><u>TA0001</u></b> Initial Access	<b><u>TA0002</u></b> Execution	<b><u>TA0003</u></b> Persistence	<b><u>TA0005</u></b> Defense Evasion
<b><u>TA0006</u></b> Credential Access	<b><u>TA0007</u></b> Discovery	<b><u>TA0009</u></b> Collection	<b><u>TA0010</u></b> Exfiltration
<b><u>T1526</u></b> Cloud Service Discovery	<b><u>T1580</u></b> Cloud Infrastructure Discovery	<b><u>T1098</u></b> Account Manipulation	<b><u>T1136.003</u></b> Cloud Account
<b><u>T1530</u></b> Data from Cloud Storage	<b><u>T1212</u></b> Exploitation for Credential Access	<b><u>T1098.001</u></b> Additional Cloud Credentials	<b><u>T1496</u></b> Resource Hijacking

## Indicators of Compromise (IOCs)

TYPE	VALUE
<b>SHA1</b>	1ad78e99918fd66ed43d42a93d2f910a2173b3c5, 2becd32162b2b0cb1afc541e33ace3a29dad96f1, 8ba3fca4deada6dbdc94b17a0c3c55a0b785331e

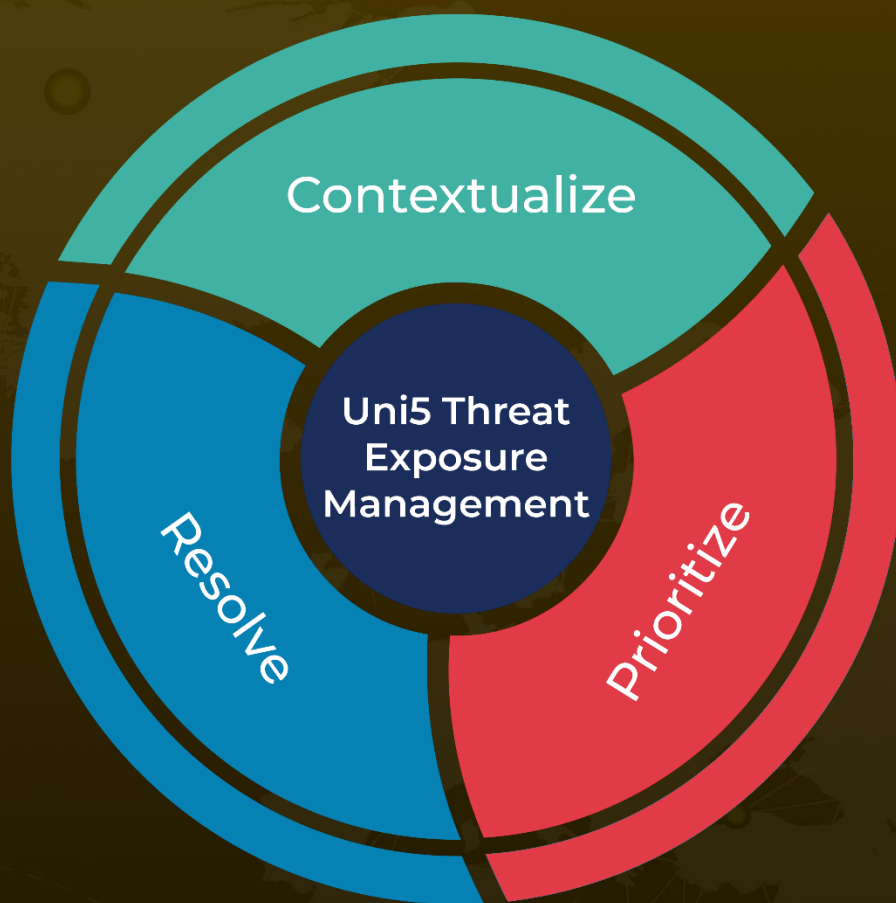
## References

<https://www.sentinelone.com/labs/exploring-fbot-python-based-malware-targeting-cloud-and-payment-services/>

# What Next?

At Hive Pro, 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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