

HiveForce Labs

THREAT ADVISORY

 **ATTACK REPORT**

MacSync A Notarized macOS Malware That Slips Past Gatekeeper

Date of Publication

December 26, 2025

Admiralty Code

A1

TA Number

TA2025390

Summary

First Seen: 2025

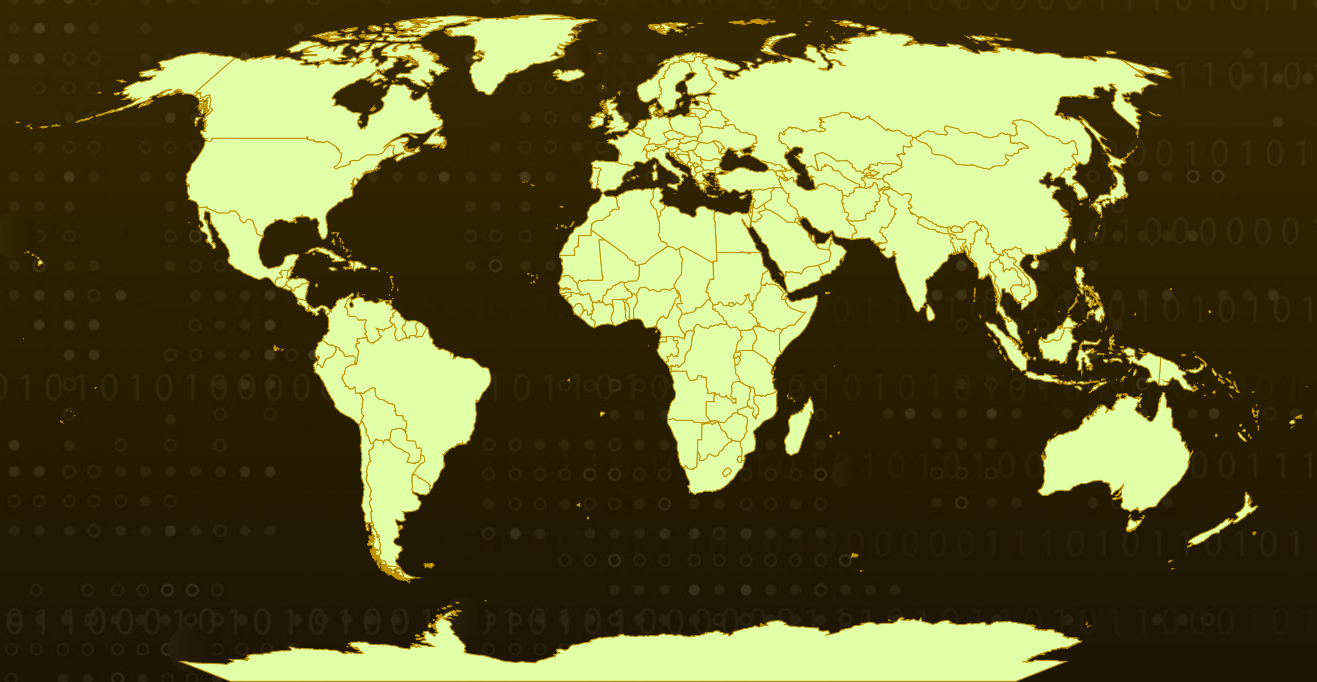
Malware: MacSync Stealer

Affected OS: macOS

Targeted Region: Worldwide

Attack: MacSync Stealer is an advanced macOS information-stealing malware that abuses Apple's code-signing and notarization processes to bypass Gatekeeper protections without user interaction. By leveraging trusted digital signatures, decoy files, and execution-chain cleanup, this latest variant demonstrates a significant evolution in macOS malware delivery and underscores the growing risk posed by notarized threats targeting sensitive user and enterprise data.

Attack Regions



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Attack Details

#1

MacSync Stealer represents a marked escalation in macOS malware sophistication. It is delivered as a fully code-signed and notarized Swift application capable of deploying malicious payloads without any user interaction, effectively bypassing traditional trust signals relied upon by macOS users.

#2

The latest variant masquerades as a legitimate messaging application installer distributed via the domain zkcall[.]net. Because the application carries valid digital signatures and has passed Apple's notarization process, Gatekeeper raises no warnings during installation, allowing the infection to proceed silently.

#3

Once executed, the dropper retrieves an obfuscated script from its command-and-control infrastructure. A Swift-based helper, runtimectl, orchestrates the entire infection chain: verifying internet connectivity, executing credential-harvesting routines, and exfiltrating sensitive information.

#4

To further evade detection, the malware inflates its DMG size to over 25 MB by embedding decoy PDF files, removes execution artifacts after use, and performs connectivity checks to avoid sandboxed analysis environments. The result is a stealthy, trust-abusing delivery mechanism that exploits Apple's security model rather than breaking it, highlighting a shift toward abuse of legitimate platform protections as an attack vector.

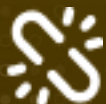
Recommendations



Strengthen Notarization Review Processes: Expand analysis of notarized applications to detect obfuscated scripts, suspicious network behavior, and abnormal bundle inflation tactics commonly used by advanced macOS malware.



Enforce Runtime Behavioral Monitoring: Deploy endpoint security solutions capable of monitoring post-installation behavior, including script execution, credential access, and unauthorized data exfiltration, rather than relying solely on pre-execution trust signals.



Monitor for Artifact Cleanup and Evasion Tactics: Detect behaviors such as script self-deletion, decoy file usage, and environment checks that indicate attempts to evade sandboxing or forensic analysis.



Potential MITRE ATT&CK TTPs

<u>TA0002</u> Execution	<u>TA0003</u> Persistence	<u>TA0005</u> Defense Evasion	<u>TA0006</u> Credential Access
<u>TA0007</u> Discovery	<u>TA0009</u> Collection	<u>TA0011</u> Command and Control	<u>TA0010</u> Exfiltration
<u>T1059</u> Command and Scripting Interpreter	<u>T1543</u> Create or Modify System Process	<u>T1553</u> Subvert Trust Controls	<u>T1553.002</u> Code Signing
<u>T1553.001</u> Gatekeeper Bypass	<u>T1027</u> Obfuscated Files or Information	<u>T1027.010</u> Command Obfuscation	<u>T1140</u> Deobfuscate/Decode Files or Information
<u>T1497</u> Virtualization/Sandbox Evasion	<u>T1497.001</u> System Checks	<u>T1070</u> Indicator Removal	<u>T1070.004</u> File Deletion
<u>T1036</u> Masquerading	<u>T1071</u> Application Layer Protocol	<u>T1071.001</u> Web Protocols	<u>T1555</u> Credentials from Password Stores
<u>T1005</u> Data from Local System	<u>T1041</u> Exfiltration Over C2 Channel		

✂ Indicators of Compromise (IOCs)

TYPE	VALUE
Filename	zk-call-messenger-installer-3.9.2-lts.dmg, co.runtime.helper.b3f9a2.dmg
SHA256	be961ec5b9f4cc501ed5d5b8974b730dabcdf7e279ed4a8c037c67b5b935d51a, 4ae745bc0e4631f676b3d0a05d5c74e37bdfc8da3076208b24e73e5bbea9178f, ecfaa20f25e11878686249c7094706bc3dcd2dc0ace0f2932a39d1bfdac85863, 7cfe0b119e616ac81ddb1767a5c7f40bec67d91fdd66e53490c0225789537073, 06c74829d8eee3c47e17d01c41361d314f12277d899cc9dfa789fe767c03693e, c4d3e5cdb264eded917cd61b8131c40715c0ee3f4d2c94c84d60fa295ca4ed97, 9990457feac0cd85f450e60c268ddf5789ed4ac81022b0d7c3021d7208ebccd3, 9d43e059111460c4f81351a062fb7eb7dbfd34988a06d756c7206f330c06cb42, 2e671bd9673d174de9b4ad8fd03049859e1d2d17ac9bc49ecc5d736505002937
URL	hxxps[:]//gatemadenp.]space/curl/985683bd660c0c47c6be513a2d1f0a554d52d241714bb17fb18ab0d0f8cc2dc6
Domains	focusgroovy[.]com zkcall[.]net

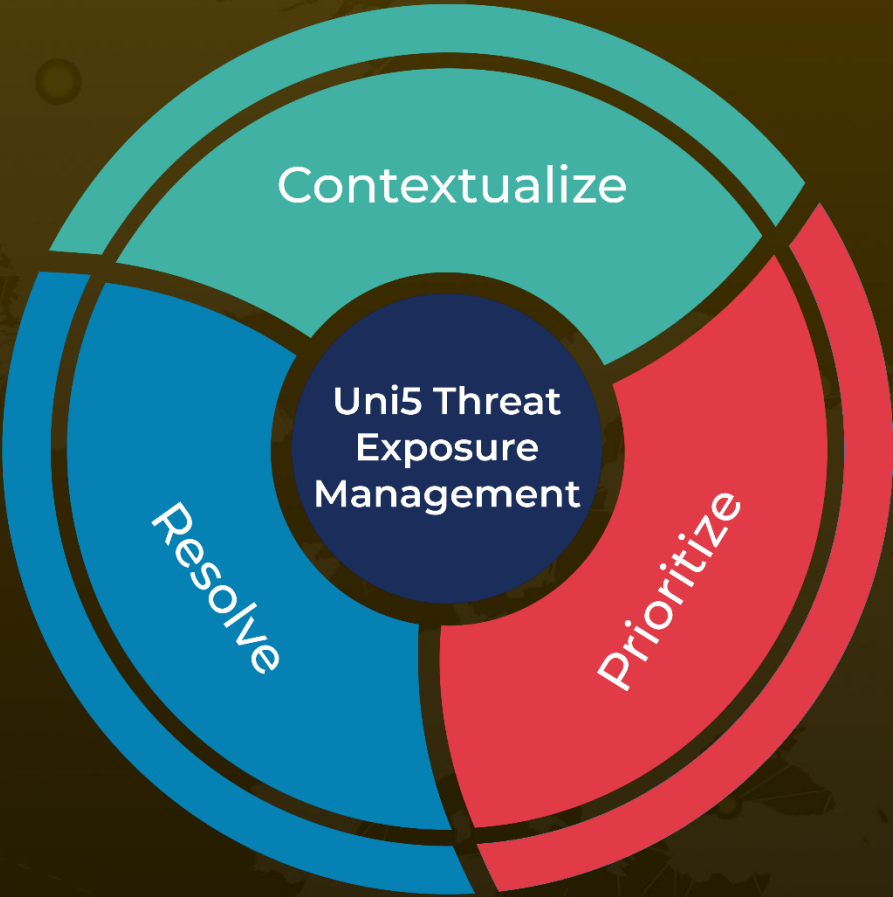
✂ References

<https://www.jamf.com/blog/macsync-stealer-evolution-code-signed-swift-malware-analysis/>

What Next?

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