

Microsoft Outlook Elevation of Privilege Vulnerability

No-interaction, zero day vulnerability exploited in the wild

<https://msrc.microsoft.com/blog/2023/03/microsoft-mitigates-outlook-elevation-of-privilege-vulnerability/>
 CVEs: CVE-2023-23397

CVE-2023-23397 is a critical elevation of privilege (EoP) vulnerability in Microsoft Outlook. It is a zero-touch exploit, meaning the security flaw requires no user interaction to be abused. All supported versions of Microsoft Outlook for Windows are affected including other versions of Microsoft Outlook such as Android, iOS, Mac, as well as Outlook on the web.

Background CVE-2023-23397 is a critical privilege elevation/authentication bypass vulnerability in Outlook, released as part of the March Patch Tuesday set of fixes. Threat actors are exploiting this vulnerability by sending a malicious email which again, does not need to be opened. From here, attackers may capture Net-NTLMv2 hashes, which enable authentication in Windows environments. This allows threat actors to potentially authenticate themselves and escalate privileges, or further compromise the environment.

Announced March 14, 2023: Microsoft Mitigates Outlook Elevation of Privilege Vulnerability
<https://msrc.microsoft.com/blog/2023/03/microsoft-mitigates-outlook-elevation-of-privilege-vulnerability/>

Latest Developments March 24, 2023: Microsoft released guidance for investigating attacks using CVE-2023-23397
<https://www.microsoft.com/en-us/security/blog/2023/03/24/guidance-for-investigating-attacks-using-cve-2023-23397/>

FortiGuard Labs recommends users to follow vendor guidelines for patching affected versions of Outlook. Microsoft has also provided a PowerShell script designed to scan emails, calendar entries, and task items, and to verify if they have the malicious property.
<https://github.com/microsoft/CSS-Exchange/blob/a4c096e8b6e6eddeba2f42910f165681ed64adf7/docs/Security/CVE-2023-23397.md>

PROTECT

Countermeasures across the security fabric for protecting assets, data and network from cybersecurity events:

Reconnaissance

Weaponization

Delivery

AV

Detects and blocks known malware payloads related to CVE-2023-23397

 FortiGate DB 91.01825	 FortiWeb DB 91.01825	 FortiClient DB 91.01825	 FortiSASE DB 91.01825	 FortiCASB DB 91.01825	 FortiCWP DB 91.01825	 FortiADC DB 91.01825
 FortiProxy DB 91.01825						

Vulnerability

Detects vulnerable instances of Microsoft Outlook (CVE-2023-23397)

 FortiClient DB 1.418

AV (Pre-filter)

Detects and blocks known malware payloads related to CVE-2023-23397

 FortiEDR DB 91.01825	 FortiSandbox DB 91.01825	 FortiNDR DB 91.01825
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Behavior Detection

Behavior Detection Engine detects unknown and 0day threats

 FortiSandbox v4.0+	 FortiMail v7.0+
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Anti-spam

Detects and filters spam from mailboxes

 FortiMail v7.0+

Exploitation

IPS

Detects and blocks attack attempts related to CVE-2023-23397

 FortiGate DB 23.518	 FortiSASE DB 23.518	 FortiNDR DB 23.518	 FortiADC DB 23.518	 FortiProxy DB 23.518
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Installation

C2

Action

DETECT

Find and correlate important information to identify an outbreak, the following updates are available to raise alert and generate reports:

IOC

 FortiAnalyzer DB 0.02506	 FortiSIEM DB 0.02506	 FortiSOCaaS DB 0.02506
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Outbreak Detection

 FortiAnalyzer DB 1.00096

Threat Hunting

 FortiAnalyzer v6.4+

Content Update

 FortiSIEM DB 313

RESPOND

Develop containment techniques to mitigate impacts of security events:

Automated Response

Services that can automatically respond to this outbreak.

 FortiXDR

Assisted Response Services

Experts to assist you with analysis, containment and response activities.

 Incident Response	 FortiRecon: ACI
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RECOVER

Improve security posture and processes by implementing security awareness and training, in preparation for (and recovery from) security incidents:

InfoSec Services

Security readiness and awareness training for SOC teams, InfoSec and general employees.

 Response Readiness

IDENTIFY

Identify processes and assets that need protection:

Attack Surface Monitoring (Inside & Outside)

Security reconnaissance and penetration testing services, covering both internal & external attack vectors, including those introduced internally via software supply chain.

 Security Rating	 FortiRecon: EASM
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Additional Resources

- FortiGuard Threat Signal** <https://www.fortiguard.com/threat-signal-report/5061>
- Security Week** <https://www.securityweek.com/microsoft-no-interaction-outlook-zero-day-exploited-since-last-april/>
- The Stack** <https://thetack.technology/critical-microsoft-outlook-vulnerability-cve-2023-23397/>
- Bleeping Computer** <https://www.bleepingcomputer.com/news/microsoft/microsoft-fixes-outlook-zero-day-used-by-russian-hackers-since-april-2022/>
- The Hacker News** <https://thehackernews.com/2023/03/microsoft-warns-of-stealthy-outlook.html>

Learn more about [FortiGuard Outbreak Alerts](#)