FORTINET

FortiGuard Labs Outbreak Alerts

Cisco IOS XE Web UI Attack

Multiple 0-Day vulnerabilities on Cisco IOS XE Web UI

https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-iosxe-webui-privesc-j22SaA4z

CVEs: CVE-2023-20198,CVE-2023-20273

Active exploitation of a previously unknown vulnerabilities in the Web User Interface (Web UI) of Cisco IOS XE software when exposed to the internet or untrusted networks. According to open source articles, thousands of vulnerable devices have been compromised.

Background

Cisco IOS XE is the internetworking operating system used by the Next-Generation Cisco Systems such as routers and switches. The Web User Interface (WebUI) provides simplified deployment and manageability of the devices.

According to the vendor report, this vulnerability (CVE-2023-20198) allows a remote, unauthenticated attacker to create an account on an affected system. The attacker can then use that account to gain control of the affected system including installing a backdoor.

Next, the attacker can use the new unauthorized local user account to exploit a second previously unknown vulnerability (CVE-2023-20273) in another component of the WebUI feature. This allows the adversary to inject commands with elevated (root) privileges, giving them the ability to run arbitrary commands on the device.

Latest Developments

- June 24, 2025: The Canadian Centre for Cyber Security and the U.S. Federal Bureau of Investigation (FBI) have issued an advisory warning of cyber attacks mounted by the China-linked Salt Typhoon actors to breach major global telecommunications providers as part of a cyber espionage campaign.
  https://www.cyber.gc.ca/en/guidance/cyber-threat-bulletin-prc-cyber-actors-target-telecommunications-companies-global-cyberespionage-campaign
- October 20, 2023: Cisco identified an additional vulnerability (CVE-2023-20273) that is exploited to deploy the implant. Fixes for both CVE-2023-20198 and CVE-2023-20273 are estimated to be available on October 22 according to the vendor advisory. Please see the following link for software fix availability:
  https://www.cisco.com/c/en/us/support/docs/ios-nx-os-software/ios-xe-dublin-17121/221128-software-fix-availability-for-cisco-ios.html
- October 19, 2023: CISA added CVE-2023-20198 to its known exploited list (KEV) Catalog.
  https://www.cisa.gov/known-exploited-vulnerabilities-catalog
- October 16, 2023: Cisco released an advisory for CVE-2023-20198
  https://sec.cloudapps.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-iosxe-webui-privesc-j22SaA4z
- October 16, 2023: Cisco Talos released a detailed blog about the CVE-2023-20198 vulnerability and its active exploitation.
  https://blog.talosintelligence.com/active-exploitation-of-cisco-ios-xe-software/
- October 16, 2023: FortiGuard Labs released a Threat Signal for the vulnerability (CVE-2023-20198)
  https://www.fortiguard.com/threat-signal-report/5293

PROTECT

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

Lure

Detects attack attempts related to Cisco IOS XE Web Attack and prevents lateral movement on the network segment

- FortiDeceptor — *v3.3+*

Decoy VM

Detects attack attempts related to Cisco IOS XE Web Attack and prevents lateral movement on the network segment

- FortiDeceptor — *v3.3+*

AV

Detects known malware related to the Outbreak

- FortiADC — *v6.6+*
- FortiCASB — *v6.6+*
- FortiCWP — *v6.6+*
- FortiClient — *v6.6+*
- FortiGate — *v6.6+*
- FortiMail — *v6.6+*
- FortiProxy — *v6.6+*
- FortiSASE — *v6.6+*
- FortiWeb — *v6.6+*

IPS

Detects and blocks attack attempts leveraging the vulnerability

- FortiADC — *DB 25.661*
- FortiGate — *DB 25.661*
- FortiNDR — *DB 25.661*
- FortiProxy — *DB 25.661*
- FortiSASE — *DB 25.661*

Web App Security

Detects and blocks attack attempts leveraging the vulnerability

- FortiADC — *DB 1.00046*
- FortiWeb — *DB 0.00361*

DETECT

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

IOC

- FortiAnalyzer
- FortiSOCaaS
- FortiSIEM
- FortiSOAR

Outbreak Detection

- FortiAnalyzer — *DB 2.00023*

Threat Hunting

- FortiAnalyzer — *v6.4+*

RESPOND

Develop containment techniques to mitigate impacts of security events:

Automated Response

Services that can automaticlly respond to this outbreak.

- FortiXDR

Assisted Response Services

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

- Incident Response
- FortiRecon: ACI

RECOVER

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

NOC/SOC Training

Train your network and security professionals and optimize your incident response to stay on top of the cyberattacks.

- NSE Training
- Response Readiness

End-User Training

Raise security awareness to your employees that are continuously being targeted by phishing, drive-by download and other forms of cyberattacks.

- Security Awareness & Training

IDENTIFY

Identify processes and assets that need protection:

Attack Surface Hardening

Check Security Fabric devices to build actionable configuration recommendations and key indicators.

- Security Rating

Business Reputation

Know attackers next move to protect against your business branding.

- FortiRecon: EASM

Additional Resources

Dark Reading	https://www.darkreading.com/vulnerabilities-threats/critical-unpatched-cisco-zero-day-bug-active-exploit
Security Week	https://www.securityweek.com/tens-of-thousands-of-cisco-devices-hacked-via-zero-day-vulnerability/
Security Week	https://www.securityweek.com/number-of-cisco-devices-hacked-via-unpatched-vulnerability-increases-to-40000/
Cisco	https://www.cisco.com/c/en/us/support/docs/ios-nx-os-software/ios-xe-dublin-17121/221128-software-fix-availability-for-cisco-ios.html

Learn more about FortiGuard Outbreak Alerts

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