

Hiveforce Labs

# THREAT ADVISORY

 **VULNERABILITY REPORT**

## Fortinet Addressed Critical RCE FortiNAC Vulnerability

Date of Publication

June 27, 2023

Admiralty Code

A1

TA Number

TA2023280







# Summary

**First Seen:** June 19, 2023

**Affected Product:** FortiNAC

**Impact:** The vulnerabilities allow attackers to gain unauthorized access, and remote code execution, compromising network security and potentially exposing sensitive data.

## CVEs

| CVE            | NAME                                         | AFFECTED PRODUCTS | ZERO-DAY                                                                            | CISA                                                                                  | PATCH                                                                                 |
|----------------|----------------------------------------------|-------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CVE-2023-33299 | FortiNAC Remote Code Execution Vulnerability | FortiNAC          |   |   |   |
| CVE-2023-33300 | FortiNAC Command Injection Vulnerability     | FortiNAC          |  |  |  |

## Vulnerability Details

### #1

Fortinet has released patches for a critical vulnerability in its FortiNAC network access control solution. The vulnerability tracked as CVE-2023-33299 with a CVSS score of 9.6, involves the deserialization of untrusted data that can lead to remote code execution. An attacker could exploit this vulnerability to execute unauthorized code or commands through specially crafted requests to the TCP/1050 service. The affected versions of FortiNAC include 7.2.1, 9.4.2, 9.2.7, 9.1.9, and all 8.x iterations. Fortinet has addressed the issue with the release of FortiNAC versions 7.2.2, 9.4.3, 9.2.8, and 9.1.10, excluding the 8.x versions.

# #2

Additionally, Fortinet resolved another vulnerability, CVE-2023-33300, which involves a medium-severity command injection via FortiNAC's TCP/5555 service. This vulnerability allows an unauthenticated attacker to copy local files to other directories on the device through specially crafted input fields. However, access to the copied data requires an existing foothold and sufficient privileges on the device. The issue was fixed with the release of FortiNAC versions 7.2.2 and 9.4.4.

## Vulnerability

| CVE ID         | AFFECTED PRODUCTS                                                                                                                                                                                                                                                                                                                                                                                     | AFFECTED CPE                                  | CWE ID  |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------|
| CVE-2023-33299 | FortiNAC : 9.4.2, 9.4.1, 9.4.0, 9.2.7, 9.2.6, 9.2.5, 9.2.4, 9.2.3, 9.2.2, 9.2.1, 9.2.0, 9.1.9, 9.1.8, 9.1.7, 9.1.6, 9.1.5, 9.1.4, 9.1.3, 9.1.2, 9.1.1, 9.1.0, 8.8.9, 8.8.8, 8.8.7, 8.8.6, 8.8.5, 8.8.4, 8.8.3, 8.8.2, 8.8.11, 8.8.10, 8.8.1, 8.8.0, 8.7.6, 8.7.5, 8.7.4, 8.7.3, 8.7.2, 8.7.1, 8.7.0, 8.6.5, 8.6.4, 8.6.3, 8.6.2, 8.6.1, 8.6.0, 8.5.4, 8.5.3, 8.5.2, 8.5.1, 8.5.0, 8.3.7, 7.2.1, 7.2.0 | cpe:2.3:a:fortinet:fortinac:9.4.2:*:*:*:*:*:* | CWE-502 |
| CVE-2023-33300 | FortiNAC : 9.4.3, 9.4.2, 9.4.1, 9.4.0, 7.2.1, 7.2.0                                                                                                                                                                                                                                                                                                                                                   | cpe:2.3:a:fortinet:fortinac:9.4.2:*:*:*:*:*:* | CWE-77  |

# Recommendations



**Apply the latest patches:** Ensure that you promptly apply the security updates provided by Fortinet for FortiNAC. Upgrade to the recommended versions (FortiNAC 9.4.4 or above, FortiNAC 9.2.8 or above, FortiNAC 9.1.10 or above, and FortiNAC 7.2.2 or above) to address the identified vulnerabilities. Keeping the software up to date with the latest patches is crucial to prevent potential exploitation.



**Limit exposure to the public internet:** As mentioned, one of the vulnerabilities (CVE-2023-33299) requires access to the TCP/1050 service. To reduce the risk of exploitation, restrict external access to this service by implementing proper network segmentation and firewall rules. Minimizing exposure of critical services to the public internet helps mitigate potential attacks.



**Enforce strong access controls:** Implement strict access controls and authentication mechanisms for FortiNAC deployments. Utilize strong passwords, two-factor authentication, and role-based access control (RBAC) to ensure that only authorized personnel can access and make changes to the FortiNAC system.

## Potential MITRE ATT&CK TTPs

|                                                               |                                                          |                                                     |                                               |
|---------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------|
| <b><u>TA0002</u></b><br>Execution                             | <b><u>TA0010</u></b><br>Exfiltration                     | <b><u>TA0007</u></b><br>Discovery                   | <b><u>TA0009</u></b><br>Collection            |
| <b><u>TA0005</u></b><br>Defense Evasion                       | <b><u>T1190</u></b><br>Exploit Public-Facing Application | <b><u>T1082</u></b><br>System Information Discovery | <b><u>T1005</u></b><br>Data from Local System |
| <b><u>T1016</u></b><br>System Network Configuration Discovery | <b><u>T1059</u></b><br>Command and Scripting Interpreter | <b><u>T1083</u></b><br>File and Directory Discovery |                                               |



## Patch Link

<https://www.fortiguard.com/psirt/FG-IR-23-074>

<https://www.fortiguard.com/psirt/FG-IR-23-096>

## References

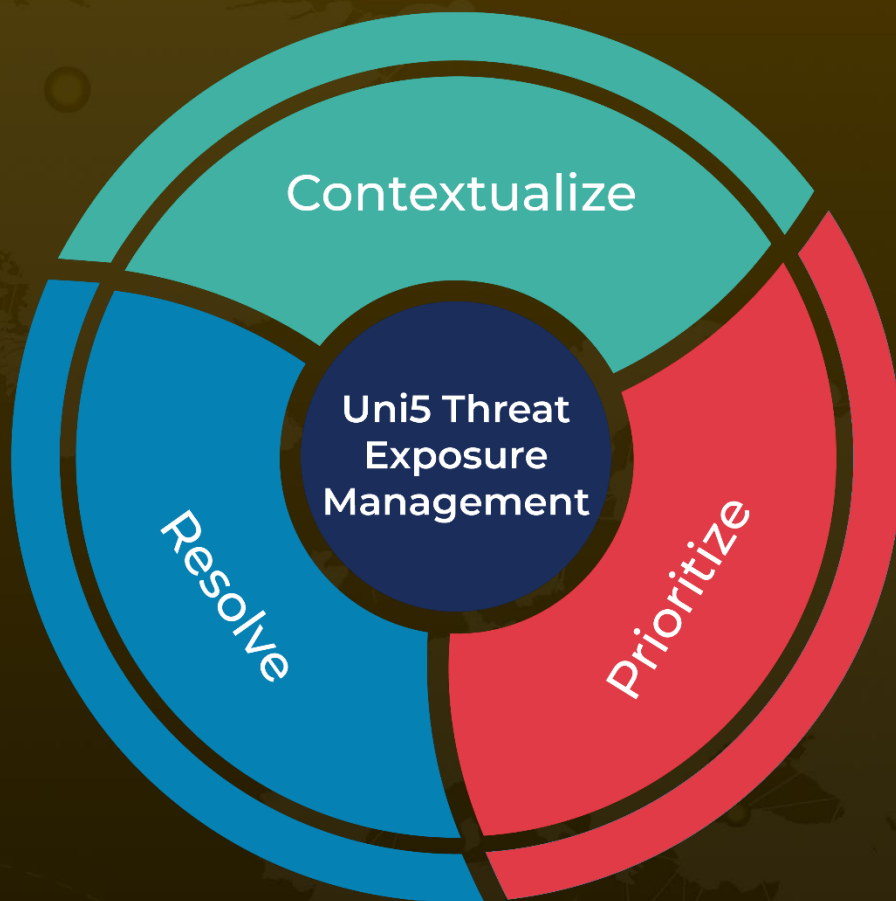
<https://www.securityweek.com/fortinet-patches-critical-rce-vulnerability-in-fortinac/>

<https://www.bleepingcomputer.com/news/security/fortinet-fixes-critical-fortinac-remote-command-execution-flaw/>

# What Next?

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