

Security Bulletin

Multiple vulnerabilities in NVIDIA HPC IB switches and Connect-X

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TLP:CLEAR

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List of changes

Version	Date	Description
0.1	2024/09/26	Initial Eviden version
0.2	2024/10/31	Table with products modified
0.3	2024/11/13	Improving description of vulnerabilities
2.4	2025/02/18	TLP changed for CLEAR,

Executive summary

NVIDIA reported about pre-disclosure Security Bulletin for Connect-X and BlueField – July and August 2024

In a patch planned for September 2024, NVIDIA plans to fix components used in Eviden products in the form of IBMS 6.10: ConnectX4Lx, ConnectX5, ConnectX6, ConnectX7.

Vulnerability Info

CVE No.	CVSS Score	Type of Vulnerability
CVE-2024-0101	7.5	Protection Mechanism Failure
CVE-2024-0104	8.8	Improper Access Control
CVE-2024-0105	8.9	Denial of service, data tampering, and limited information disclosure
CVE-2024-0106	8.7	Data tampering, denial of service, information disclosure
CVE-2024-0113	8.5	Improper Limitation of a Pathname to a Restricted Directory ("Path Traversal")

Eviden is liaising closely with its suppliers and investigating the exact nature of these vulnerabilities to provide validated remediation.

CVE-2024-0101

NVIDIA Mellanox OS, ONYX, Skyway, MetroX-2 and MetroX-3 XC contain a vulnerability in ipfilter, where improper ipfilter definitions could enable an attacker to cause a failure by attacking the switch. A successful exploit of this vulnerability might lead to denial of service.

CVE-2024-0104

NVIDIA Mellanox OS, ONYX, Skyway, MetroX-2 and MetroX-3 XC contain a vulnerability in the LDAP AAA component, where a user can cause improper access.

A successful exploit of this vulnerability might lead to information disclosure, data tampering, and escalation of privileges.

CVE-2024-0105

NVIDIA Connect-X Firmware contains a vulnerability where an attacker may cause an improper handling of insufficient privileges issue. A successful exploit of this vulnerability may lead to denial of service, data tampering, and limited information disclosure.

CVE-2024-0106

NVIDIA Connect-X Firmware contains a vulnerability where an attacker may cause an improper handling of insufficient privileges issue. A successful exploit of this vulnerability may lead to denial of service, data tampering, and limited information disclosure.

CVE-2024-0113

NVIDIA Mellanox OS, ONYX, Skyway, and MetroX-3 XCC contain a vulnerability in the web support, where an attacker can cause a CGI path traversal by a specially crafted URI. A successful exploit of this vulnerability might lead to escalation of privileges and information disclosure.

Affected products

Products	Fixed version	Status	Comments
IBMS	6.10	Fixed	

Although Eviden tries to provide accurate and complete information, Eviden shall not be liable if the above table is incomplete or erroneous. During its vulnerability analysis process, the information in this document is subject to change without notice to reflect new results of this analysis.

TBD (to be defined) indicates that a new technical state fixing the vulnerabilities is under study.

Unpatched means that the vulnerability is presumably present, but there is no plan to provide a fix. This can be investigated on demand.

Recommendations

Eviden recommends applying its upgrades as they are made available.

Available Vendor Patches

Validated upgrade is available.

Available Workarounds

No workaround is available.

Available Mitigations

No mitigation identified.

Available Exploits/PoC

Eviden is not aware of any exploitation of the reported vulnerabilities.

References

1. https://nvidia.custhelp.com/app/answers/detail/a_id/5562

Glossary of terms

Term	Description
Mitigation	Refers to a setting, common configuration, or general best-practice, existing in a default state that could reduce the severity of exploitation of a vulnerability
Neutralization	The neutralization phase is the decision-making process during which the risk posed by an incident is evaluated.
PoC	Proof of Concept
Remediation	The remediation phase ends with the delivering of a qualified solution/update fixing the vulnerability without regression.
TI	Threat Intelligence
TLP	Traffic Light Protocol (TLP) FIRST Standards Definitions and Usage Guidance — Version 2.0. https://www.first.org/tlp/
Workaround	Refers to a setting or configuration change that does not correct the underlying vulnerability but would help block known attack vectors before you apply the update

About this document

Eviden continuously monitors the security of its products. This Security Bulletin is shared under the constraints of the FIRST Traffic Light Protocol version 2.0 (TLP) to bring the attention of owners of the potentially affected Eviden products. Eviden recommends that all product owners determine whether the described situation is applicable to their individual case and take appropriate action.

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- Neutralization security bulletins are numbered 0.x
- Privately disclosed Remediation security bulletins are numbered 1.x
- Publicly disclosed Remediation security bulletins are numbered 2.x

Updated versions of this document can be found on:

- <https://support.bull.com/ols/product/security/psirt>

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