

Internal SSD Issue with Mellanox InfiniBand Switches



ALERT! Certain Nvidia (formerly Mellanox) switches are subject to internal SSD failure, causing the switch to fail without warning and data access to be lost.

Issue Summary

Certain Nvidia (formerly Mellanox) InfiniBand switches are subject to an issue with the internal SSD controller firmware that can potentially impact the functionality of the switch. This issue causes very high erase rates on the SSD, which can prematurely cause the drive to fail.

Since the internal SSD stores the MLNX-OS software and related files, the switch requires SSD access to operate. Even in a redundant configuration, it is possible for the drives in both switches to fail simultaneously, taking out both switches without warning. Data access is lost until switch function is restored.

Affected Products

This issue affects managed EDR switches with the following Mellanox switch model numbers: SB7700, SB7780, SB7800, and CS75XX. These models map to the following DDN part numbers:

Nvidia/Mellanox Model Number	DDN Part Numbers
SB7700-ES2F	SW100IBGE-36PTP, SWIB-100-QSFP-36-B, SWIB-36-QSFP28-M-2-C
SB7700-ES2R	SW100IBGE-36PTC, SWIB-EDR-770036
SB7780-ES2F	SW-100G-IB-7780
SB7790-ES2F	SW100IBGE-36PTU, SWIB-100-QSFP-36-A, SWIB-36-QSFP28-U-2-C
SB7800-ES2F	SW100IBGE-36PTP, SWIB-100-QSFP-36-B, SWIB-36-QSFP28-M-2-C
SB7890-ES2F	SW100IBGE-36PTU, SWIB-100-QSFP-36-A, SWIB-36-QSFP28-U-2-C
CS7500	SWIB-MCS7500
CS7520	SWIB-MCS7520, SW-MCS7520, SW-MSB7520BDL, SW-MSB7520BDL-S

Resolution

Corrective SSD controller firmware and installation instructions are available directly from Nvidia. The firmware fix is available as part of a dedicated standalone image for all supported Mellanox OS releases.

For a detailed firmware upgrade procedure, please refer to the following link:

https://mellanox.my.salesforce.com/sfc/p/500000007heg/a/1T000000RWxi/SatcfRAQG6pAWe8Hw6qiwQtu5g_twqdECCdF0m9xjs

Password: EibJhNkn

For the firmware image file, please refer to the following link:

<https://mellanox.my.salesforce.com/sfc/p/500000007heg/a/1T000000RWuO/kGifAfa8Z620mlI0G8YsO6enIAavSeiu8cKPjM4c43M>

Password: uoGAspZg

For any question or concern, please contact Nvidia directly at networking-support@nvidia.com.

Contacting DDN Technical Support

Please contact DDN Technical Support at any time if you have questions or need assistance. Support can be reached by phone, by email, or on the web as listed below.

Web

DDN Community Support Portal <https://community.ddn.com/login>
Portal Assistance webportal.support@ddn.com

Telephone

DDN Support Worldwide Directory <https://www.ddn.com/support/global-services-overview/>

Email

Support Email support@ddn.com

Bulletins & Notices

Support Bulletins <http://www.ddn.com/support/technical-support-bulletins>
End-of-Life Notices <http://www.ddn.com/support/end-of-life-notices>
Release Notes <https://community.ddn.com/login>
TSB Subscription Requests support-tsb@ddn.com