

Marvell® 88NR2241 Intelligent NVMe Switch

NVMe switch to enable servers and storage systems with greater SSD functionality and performance enhancements

Overview

The Marvell® 88NR2241 is an intelligent NVMe switch that enables data centers to aggregate, increase reliability and manage resources between multiple NVMe SSD controllers. By extending Marvell SATA/SAS legacy controllers feature set into the NVMe space, the 88NR2241 creates enterprise-class performance, system reliability, redundancy, and serviceability with consumer-class NVMe SSDs.

The NVMe switch has DRAM less architecture and support low latency NVMe transactions with minimum overhead. It can

virtualize the SSDs at the back end, and as such the storage can be presented to the host is not limited by the feature set of the SSD. The NVMe switch can provide additional NVMe features beyond what the device can support such as multiple namespaces, reservations and NVMe-MI.

With the RAID feature set, the 88NR2241 can virtualize multiple attached physical back-end devices into a single logical unit for the purposes of data redundancy (RAID 1), performance improvement (RAID0), or both (RAID10).

Application Diagram



Target Applications

- NVMe server boot cards
- NVMe dual-port enablement
- SSD QoS in Virtual Machines
- EDSFF and NGSFF storage cards