Top 5 Reasons to Introduce SmartFabric Storage Software

How to transition to a high-performance and cost-effective SAN based on NVMe standards

5

SmartFabric Storage Software is an innovative software product from Dell Technologies that enables an end-to-end automated and integrated NVMe over Ethernet fabric connecting NVMe hosts and targets using NVMe/TCP

1 | Purpose-built storage protocol

Non-volatile Memory express (NVMe) is a protocol that was designed to replace the SCSI protocol and allows end users the maximum benefit from Solid State Drives (SSDs). Today the NVMe protocol is widely used in a variety of modern servers and storage systems with SSD drives across the industry and has been extended to work across a SAN with NVMe/TCP.

2 | Standards-based centralized discovery controller for NVMe/TCP

SmartFabric Storage Software is a standards-based, stand-alone containerized software package (e.g. running on a VM on VMware ESX or Linux enabling an end-to-end automated and integrated NVMe-oF Ethernet fabric running over TCP. The key functions of SmartFabric Storage Services are policy-driven to help automate NVMe-oF storage service discovery, end-point registration, connectivity and zoning services.

3 | Provides Fibre Channel-like Automation

SmartFabric Storage Software helps to automate most of the normal manual configuration steps for an NVMe/TCP storage network.

4 | Lower latency and higher throughput

NVMe as a protocol provides lower latency than legacy storage communication protocols, while also providing higher throughput due to its multi-queue architecture. When SmartFabric Storage Software is deployed across an Ethernet-based SAN, NVMe/TCP provides comparable transport performance when tested against Fibre Channel and outperforms iSCSI. Please review NVMe Protocol Transport Performance White Paper

5 | Fully tested and validated across Dell NVMe servers and block-based storage portfolio as well as some 3rd party servers and switches

Integral centerpiece of one of the industry's first end-to-end NVMe/TCP solutions including Dell PowerEdge running VMware ESXi or Linux, Dell PowerStore, Dell PowerSwitch and a centralized discovery controller the Dell SmartFabric Storage Software. The entire solution has been qualified by Dell Technologies E-Lab allowing customers to deploy an end-to-end validated solution and is backed by a comprehensive set of deployment and support options covering the entire lifecycle of the enterprise IT investment.

For more details about our validated ecosystem, including 3rd party servers and switches, please refer to:

NVMe/TCP Host/Storage Interoperability
NVMe/ TCP Switch Interoperability

Learn more about Dell Technologies SmartFabric Storage Software solution

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