Dell Technologies NVMe IP SAN Solution

Accelerate the evolution of your storage connectivity with a modern, automated, and secure solution

Introduction
Enterprises are being challenged to modernize IT infrastructures to keep up with the growing data storage and traffic demands of today’s workloads and applications while preparing for the future. The market is shifting towards next-generation disaggregation and composability of compute, storage, and networking infrastructures as customers move to a software-defined-data center (SDDC).

The rapid adoption of NVMe all-flash arrays within storage platforms helps enhance the workload performance. In addition, new open standards like NVMe over Fabrics (NVMe-oF) that leverage transport such as TCP/IP along with the rapid integration of higher Ethernet-based speeds like 25GbE/100GbE and 400GbE are paving the way for modern, cost-effective storage interconnect offerings that can easily scale up and out to help meet these demands.

Modern infrastructures are critical for the high-performance access, delivery, and response times needed to lead in today’s business marketplace. Dell Technologies is driving products and services by a vision of well-engineered solutions that can deliver both operational and infrastructure efficiencies with leading-edge technologies, automation, and global support and services.

Challenges
While transitioning toward next-generation, software-defined technologies, enterprise organizations are looking for storage connectivity solutions that not only meet the exploding data and traffic demands but will also scale to meet demands in the future. Second, there is a strong desire for these new storage interconnect solutions to help reduce CAPEX and OPEX-related costs with open standard-based products that incorporate automation capabilities much like existing Fibre Channel offerings. The final challenge encompasses a modern end-to-end storage solution that is tested and validated across compute, storage, and networking platforms and is backed by global support and services.

An End-to-End NVMe IP SAN solution from Dell Technologies
Dell Technologies has engineered a complete end-to-end NVMe/TCP solution to help provide enterprise organizations with the agility to stay ahead of growing workload demands with modern, automated, and secure storage connectivity both today and as they migrate to extended hybrid clouds.

NVMe IP SAN Solution With Dell Technologies

Agility with cutting edge NVMe storage technology providing secure, policy-driven storage and adaptive connectivity that easily scales up and out with significant cost savings

Automation of complex storage and fabric tasks and management to help simplify deployment and life cycle management tasks of storage connectivity through autonomous operations

Reliability with global support and services across a tightly integrated server, storage, and networking solution to increase performance and availability
This solution consists of the following components. We are committed to expanding the NVMe/TCP ecosystem and the automation to help make the most of NVMe/TCP technology.

- **SmartFabric Storage Software**
  The Dell Technologies SmartFabric Storage Software (SFSS) product is a standards-based centralized discovery controller for NVMe/TCP hosts (servers) and subsystems (storage). SFSS is a stand-alone software solution packaged as a containerized application enabling an end-to-end automated and integrated NVMe-oF solution running TCP over an Ethernet fabric. The key functions of SFSS are policy-driven to help automate NVMe over TCP endpoint discovery, registration, connectivity, and zoning.

- **Servers: PowerEdge and VxRail solutions**
  To give you the choice and flexibility, Dell Technologies expands the NVMe/TCP validation to VxRail solutions and PowerEdge servers - running VMware ESXi 7.0U3 or later, or SUSE Linux Enterprise Server 15 SP4 - to enable the transfer of data and commands between a host server and a target storage device.

- **Storage: PowerStore and PowerMax**
  To boost your workload performance with faster, more cost-effective networks, PowerStore and PowerMax support NVMe/TCP technology to allow hosts to access storage systems across a network fabric using the NVMe protocol.
E-Lab Qualified
Components of the NVMe IP SAN have been qualified by E-lab allowing customers to deploy an end-to-end validated solution.

Dell Services
Organizations deploying solutions based on Dell Technologies products are never alone: Dell Technologies provides a comprehensive set of deployment and support options covering the entire lifecycle of the enterprise IT investment.

Services such as planning and design, deployment and integration, and education are just a few offerings within a comprehensive set of customer services available. Dell ProDeploy and ProDeploy Plus provide full-service installation and configuration of both hardware and system software by certified deployment engineers. Dell Technologies delivers single vendor support, eliminating the usual headaches encountered when dealing with a multi-vendor solution.

Summary
Whatever the size of your organization, Dell Technologies NVMe IP SAN solutions can help you derive the full value out of your server, storage, and networking investments. We offer proven end-to-end solutions, comprehensive global services, and a vision that sets the pace in a rapidly changing industry. To find out how we can help you and your network, contact your Dell Technologies representative today.

One of the industry’s first end-to-end NVMe/TCP solutions

Nearly 25% the cost of a comparative Fibre Channel implementation