

QNAP and Mellanox Boosting Enterprise-Class NAS Performance



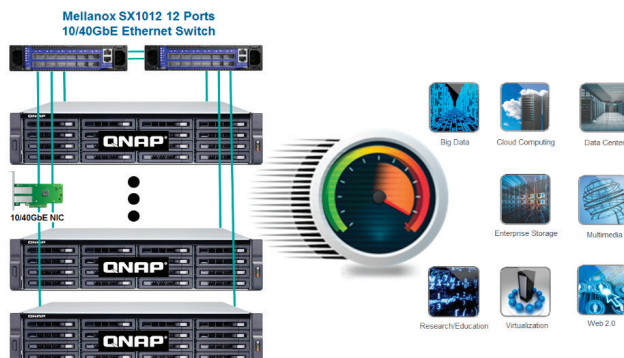
Introduction

QNAP NAS is designed to optimize Enterprise IT infrastructure with ease and efficiency by supporting united storage pools with comprehensive RAID types, providing IT administrators with great flexibility in arranging suitable data protection levels, and managing and deploying storage capacity efficiently. QNAP NAS meets various enterprise infrastructure needs. With large storage capacity and excellent file transfer speeds, it can serve as an ideal backup center.

The 40GbE-ready enterprise-class NAS boosts mission-critical IT performance. QNAPTDS-16489U, an all-around application server and storage, supports Mellanox 40GbE Ethernet to drive unrivaled performance for big data computing and virtualization environments. Other QNAP NAS devices, including TVS-ECx80U-SAS R2, TS-ECx80U R2, SS-x79U-SAS, and the TVS-x71U series, can also deliver breakthrough performance with 10/40GbE network using Mellanox Ethernet end-to-end interconnection solutions to accelerate intensive virtualization applications or video editing workflows.

Solution Overview

QNAP furthers its innovation into Enterprise servers, and introduces the TDS-16489U, a powerful Double Server that integrates an application server and a storage server into a single chassis to optimize mission-critical tasks and achieving



“Mellanox Ethernet switches and network adapters provide innumerable advantages in achieving the highest performance with QNAP’s Enterprise-class NAS series. We are amazed at how well the Mellanox SX1012 complements our Enterprise-class NAS with its ultra-low latency, scalability and uncompromising performance, and we believe that this QNAP-Mellanox combination will provide incredible benefits for corporate and enterprise customers.”

*- David Tsao
Product Manager, QNAP*

unrivaled performance for big data computing. Featuring Auto Tiering, 12Gb/s SAS drives, and 40GbE networking, the TDS-16489U performs as a scalable, integrated storage solution for enterprises to fulfill the requirements of cross-platform file sharing, backups, and iSCSI and virtualization applications, above and beyond the basic everyday enterprise needs.

Two Mellanox SX1012 12-port 40GbE switches are installed in a 1 RU slot and are connected to QNAP TDS-16489U systems. Mellanox Ethernet switch solutions greatly simplify networks for a scale-out Enterprise IT infrastructure. The MLAG (Multi-Chassis Link Aggregation) protocol runs on two SX1012s to support High Availability. The 40GbE ports can be used to connect to the QNAP TDS-16489U and to the original IT fabric. Storage, in general, requires

predictable low latency and high bandwidth. The SX1012 cut-through switching provides ultra-lower latency (220 nanoseconds) at all packet sizes.

Furthermore, the SX1012 has the option to scale with splitter cables to provide 48 10GbE ports, supporting additional nodes in fabric expansion.

QNAP Enterprise-Class NAS Features

File Storage & Sharing

Supports SMB/CIFS, AFP, NFS, and iSCSI, for a wide range of compatibility.

Storage Management

Supports comprehensive RAID types with great flexibility in arranging suitable data protection levels. The QTS Storage Manager makes it simple for IT administrators to create a unified Storage Pool to efficiently manage and deploy storage capacity.

Backup & Recovery

QNAP NAS performs as an ideal backup center, with large storage capacity and excellent file transfer speeds to greatly assist enterprises with backup tasks.

Virtualization

VMware® Ready™, Citrix® Ready™, and Microsoft® Hyper-V® compatible

Privileges & Security

QNAP NAS supports numerous functions to provide security for the system, data access, and stored files.

Network

QNAP NAS provides numerous functions for network settings. It supports DDNS, IPv6, multiple LAN, and wireless LAN functionalities.

Management

The user-friendly, Web-based operating system provides intuitive system management with a very easy learning curve.

Productivity

QNAP NAS is more than just storage. It also provides useful enterprise applications, including Web server and printer server. There are also hundreds of apps available from the App Center to provide near-unlimited functionality for the NAS.

Mellanox 10/40GbE Ethernet Switches and Adapters

Mellanox Ethernet switches and network adapters achieve significantly higher throughput for high-performance applications and virtualization acceleration. Enterprises can greatly benefit from the fast, flexible Mellanox networking

with QNAP 10/40GbE-ready NAS products for boosting their mission-critical IT performance.

- Up to 48x10GbE ports:

SX1012 has the option to scale with splitter cables, supporting additional nodes in the cluster.

- Two SX1012s in 1RU rack space:

The half width, 1RU form factor allows the installation of two SX1012s side-by-side in a 1RU slot to support HA.

- 40/56GbE ready:

SX1012 provides the extra bandwidth needed for connecting NAS.

- Ultra-low latency and zero packet drop at any packet size:

No-jitter and best-in-class performance meets the requirements by real-time applications.

- Simple to use and manage:

Web-based network management GUI makes it easier to configure and monitor networking devices; REST-based APIs support integration into 3rd-party management software.

In addition, Mellanox 10/40G network adapters accelerate storage nodes by delivering high network performance and offloading network functions to improve CPU utilization for applications.

About QNAP

QNAP Systems, Inc., as its brand promises, is a “Quality Network Appliance Provider,” aiming to deliver comprehensive offerings of cutting edge network attached storage (NAS) and network video recorder (NVR) solutions, featuring ease-of-use, robust operation, large storage capacity, and trustworthy reliability. QNAP integrates technologies and designs to bring forth quality products that effectively improve business efficiency on file sharing, virtualization applications, storage management, and surveillance in business environments, as well as enrich entertainment life for home users with the offering of a fun multimedia center experiences. Headquartered in Taipei, QNAP delivers its solutions to the global market with non-stop innovation. More information is available at www.qnap.com.

About Mellanox

Mellanox Technologies is a leading supplier of end-to-end Ethernet interconnect solutions and services for enterprise data centers, Web 2.0, cloud, storage, and financial services. More information is available at www.mellanox.com.



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