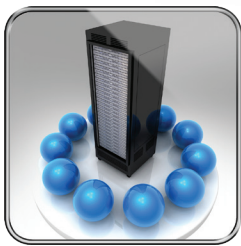




Zadara and Mellanox Deliver Higher Performance Storage for Data Centers and Clouds

Mellanox iSER-based 40G Ethernet Solution Boosts Zadara Storage Performance by 3-10X



"With Mellanox-based iSER, we were able to achieve performance increases of 3-10X. The SX1012 provides unmatched value."

-- Nelson Nahum, CEO, Zadara Storage

Background

As a rule, traditional storage solutions lack the scalability and flexibility to support the expansion of enterprise IT infrastructures. They always require large up-front capital expenditures, multi-year planning cycles, expensive daily maintenance, and disruptive upgrades. As a result, more and more enterprise customers have adopted cloud services as an alternative. However, for many enterprises, business critical applications must still run in their on-premises data centers. Such customers demand a scalable and cost effective storage solution for their data centers while keeping enterprise-class performance, reliability, and security intact.

Powered by Mellanox's 40G end-to-end Ethernet solution, Zadara Storage met these requirements by offering an on-premises-as-a-service solution. The Zadara solution provisions dedicated resources to applications with predictable performance and Quality of Service. Such guaranteed performance, virtualization, and isolation enable data centers to grow only when necessary, without any limit.

The Zadara Storage solution can run on premise within customer datacenters as well as on public clouds. Zadara customers gain the benefit of seamlessly replicating between their data centers and the cloud at the click of a button.

Zadara Storage Solution

Zadara Storage provides high-performance, highly-available file and block storage through its patented, software-defined Virtual Private Storage Arrays (VPSA™). A VPSA has its own resources – dual controllers and a choice of storage devices – and

is connected to standard x86 servers using iSCSI or NFS over 40G Ethernet fabric. Dedicated VPSAs can be created by each user for specific applications. In this scale-out multi-tenant architecture, Zadara Storage can scale to petabytes of storage and support hundreds of applications.

As an enterprise storage solution, Zadara Storage offers enterprise-class features such as controller failover, snapshot, cloning, replication, remote mirroring, data protection, and encryption. In addition, the Zadara solution supports data reduction techniques such as thin provisioning to achieve cost efficiency.

Zadara Storage is designed to deliver guaranteed performance and service levels to individual applications. VPSAs are defined and managed by software so that the storage device mix is tailored to the individual customer demand – workload and



budget. Zadara Storage can service demanding workloads in primary storage as well as backup and repository workloads in secondary storage. VPSAs for different workloads are isolated from each other.

Guaranteed high performance of a scale-out storage solution depends on a reliable, high performance network. Mellanox 40G Ethernet switches and network adapters deliver the guaranteed networking performance for Zadara Storage. Workloads demanding ultra-low latency are further accelerated by iSER (iSCSI Extensions for RDMA) over RoCE (RDMA over Converged Ethernet) capability in the Mellanox solution.

Mellanox iSER-based 40G Ethernet Solution

Mellanox makes industry-leading high performance end-to-end Ethernet products, from switches and network adapter cards to cables and transceiver modules. Leveraging its market-proven RDMA technology, Mellanox Ethernet adapters push the latency envelope further with the support of RoCE and iSER over RoCE. Its SwitchX®-2 Ethernet switches support true cut-through latency and run at full 40G line rate without any packet loss.

The Mellanox Ethernet solution delivers the following benefits:

- Latency acceleration for storage servers – iSER over RoCE support in Mellanox network adapters, significantly reducing the latency and offloading the CPU
- Highest and most predictable network performance – no packet drops and 220ns network latency at any packet size and workload
- Ideal TOR switch for storage –
 - » Small footprint: two 12-port switches side-by-side in 1RU
 - » Simple to use and flexible for various configurations: 12 ports support 1G/10G/40G, with the option to scale 12 x 40G ports to 48 ports with split cables
- Best price/performance Ethernet solution – Best performance/latency, compact design, and low power consumption, improving rack and server efficiency, thereby reducing the TCO

Conclusion

Providing enterprise storage as a service, Zadara Storage offers enterprise customers a scalable and pay-as-you-grow storage platform for both on-premises data centers and the cloud, without losing enterprise-class features required by their customers. To meet demanding application needs, more and more businesses are implementing Zadara's iSER connectivity options powered by Mellanox's 40G Ethernet solution. As the result, customers see up to 10X performance improvement. Combined, the Zadara and Mellanox solution delivers best-in-class performance and helps customers achieve operational and cost efficiency.

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.

About Zadara Storage

Zadara Storage offers enterprise storage-as-a-service, delivering high-performance, highly available file and block storage. The company's patented software-defined Virtual Private Storage Arrays™ (VPSA™) deliver flexible multi-tenant enterprise SAN and NAS technology for petascale primary and secondary storage. Visit www.zadarastorage.com.



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