StorPool and Mellanox Provide a Simple, Quick Solution for Cloud Builders

Mellanox Ethernet products reduce networking complexity when companies build their own clouds with StorPool's high-performance and scalable distributed storage solution.

Challenged by exponential growth in the demand for performance and capacity by business applications, companies are struggling to scale with their traditional data center infrastructure, which is often centered on proprietary storage systems, which are difficult and costly to scale up. Such efforts are often associated with heavy investment in excessive hardware and software that may not be needed today, and with high operation costs in deploying and maintaining the system.

To address this challenge, StorPool provides simple-to-scale, fast storage software that allow cloud builders to run data storage on standard hardware. With StorPool's solution, companies can build and manage their own cloud infrastructure at scale, without having to follow complex procedures. More importantly, companies can add performance and capacity only when it's needed in a "pay-as-you-grow" model.

StorPool Distributed Storage

In contrast to traditional centralized storage systems, StorPool's storage solution consists of a cluster of server nodes running on commodity x86 hardware. Standard storage devices (HDDs/SSDs) are directly attached to these nodes. The StorPool software creates a shared pool from these distributed storage devices, and aggregates their performance and capacity to applications where storage is "virtualized" as local storage volumes.

When more performance/capacity is needed, additional server nodes and storage devices can be added on the fly, transparent to upper-layer applications. The data is "sliced" into chunks and copies are distributed among the servers in the cluster to guarantee a high level of redundancy and increasing the overall performance of the system.

StorPool is designed to replace high-end storage arrays or all-flash arrays, so it focuses on high-performance primary storage uses cases. These workloads require ultra-low latency networking switches with significant bandwidth to provide highly-reliable, scalable, and high-performance block storage.
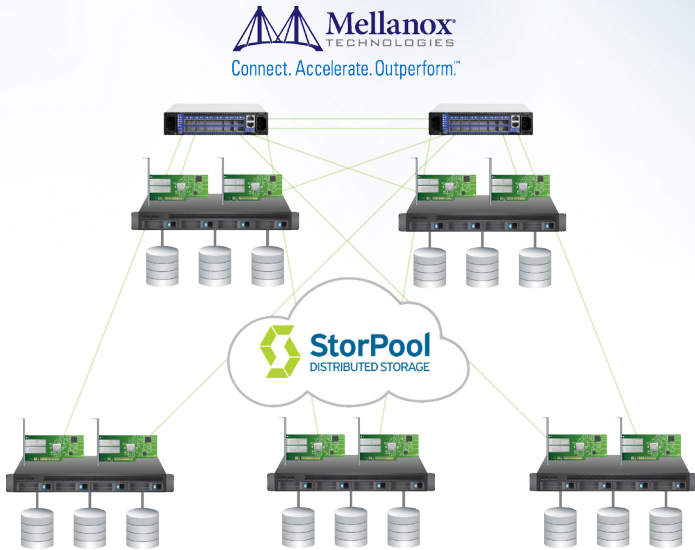
Mellanox Ethernet Switches

For ultra-low latency and easy-to-use networking, StorPool selected Mellanox SwitchX® Ethernet switches as its default choice (see the StorPool system requirements at https://StorPool.com/resources/system-requirements/).

In StorPool's recommended topology, a cluster of several servers usually handle both storage and compute (converged). Each server with dual Mellanox NICs is connected to two Mellanox Ethernet switches for redundancy and load balancing (usually 40/56GbE). In other words, Mellanox Ethernet products power the network end-to-end.

"StorPool is building the next generation distributed storage software. It surpasses other alternatives in efficiency and performance and allows building true hyper-converged solutions. The partnership between StorPool, S3S and Mellanox guarantees that customers get a proven storage solution in a simple and cost-effective fashion".

- Boyan Ivanov, CEO

Mellanox Ethernet switches provide low latency, simplicity, and flexibility at a competitive cost, and match well with the StorPool solution:

- Mellanox switches operate without the need for user intervention, saving a lot of hassle and effort in configuring, managing and troubleshooting the network.

- Mellanox switches provide consistent low latency across different packet sizes and have zero packet loss. The switch ports can run at 10/40/56GbE, and offer the flexibility to enable various configurations.

- All these advantages come at a very competitive price, ultimately increasing the customer's return on investment.

Conclusion

Connected by Mellanox Ethernet switches, a cluster of standard x86 servers running StorPool distributed storage software provides a unique converged/integrated infrastructure solution for companies who build their own public or private clouds. The StorPool solution allows customers to run compute (virtual machines, applications, databases, etc.) on the same servers as storage, while the Mellanox Ethernet solution offers the most efficient and fastest network without the associated complexity. Combined, the StorPool/Mellanox solution allows customers to achieve unmatched levels of utilization and performance, and to significantly reduce the data center's total cost of ownership, thereby boosting ROI.

The complete solution with StorPool storage systems and Mellanox Ethernet switches/NICs is integrated and built by Server Storage Solutions (S3S), one of the largest server/storage solution providers and integrators in Europe.

For more information about StorPool Distributed Storage, see https://storpool.com/.

For Pricing & Sales information of S3S, see website www.s3s.eu or check out https://www.s3s.eu/storpool.

The complete portfolio of Mellanox Ethernet products is available at http://www.mellanox.com/page/products_overview.