



# SharxDC and Mellanox Provide Integrated Hyperconverged Infrastructure Solutions

## OVERVIEW

The Sharx Base platform is an extremely scalable and high performance Hyperconverged infrastructure (HCI) solution. Implemented on the latest HCI technologies, the Sharx Base pools IT resources to support a myriad of corporate applications with efficiency, serving as the foundation of the corporate private cloud. Integrated with Mellanox Ethernet Storage Fabric, the Sharx Base platform ensures a high level of productivity and scalability for the corporate applications, with quick deployment and control over resources.

## SOLUTION

The Sharx Base platform from SharxDC is a HCI solution based on deep-level integration of computing capacities, distributed storage and network fabric into a coherent system, in a single control panel.

The SharxDC solution ensures high-speed data access, reliable storage, failure safety and is developed in accordance with the most stringent information security requirements. The Sharx Base platform is based on KVM, an open source hypervisor, and may be scaled from three to several dozens of nodes.

Mellanox Ethernet switches lay the network foundation for the HCI solution, providing ultra-low latency and maximum throughput without packet loss. Based on the Leaf-Spine architecture, the network fabric by Mellanox switches allows for optimum scalability of the Sharx Base platform, from a single three-server rack to multiple server racks in a data center, and makes the network truly transparent for corporate applications.

The Mellanox Spectrum SN2010 and SN2100 switches fit perfectly into the hyperconverged architecture. A SN2010 leaf switch provides 18 native 10/25GbE ports and four 40/100GbE ports in a half-width, 1U form factor. Two SN2010 switches can be installed side-by-side to provide high availability (HA) at the ToR, insomuch that the SN2010 is an ideal switch for three blocks (twelve servers) of Sharx Base per rack. The Spectrum SN2100 are used as spine switches and have sixteen 10/25/40/50/100GbE ports each.

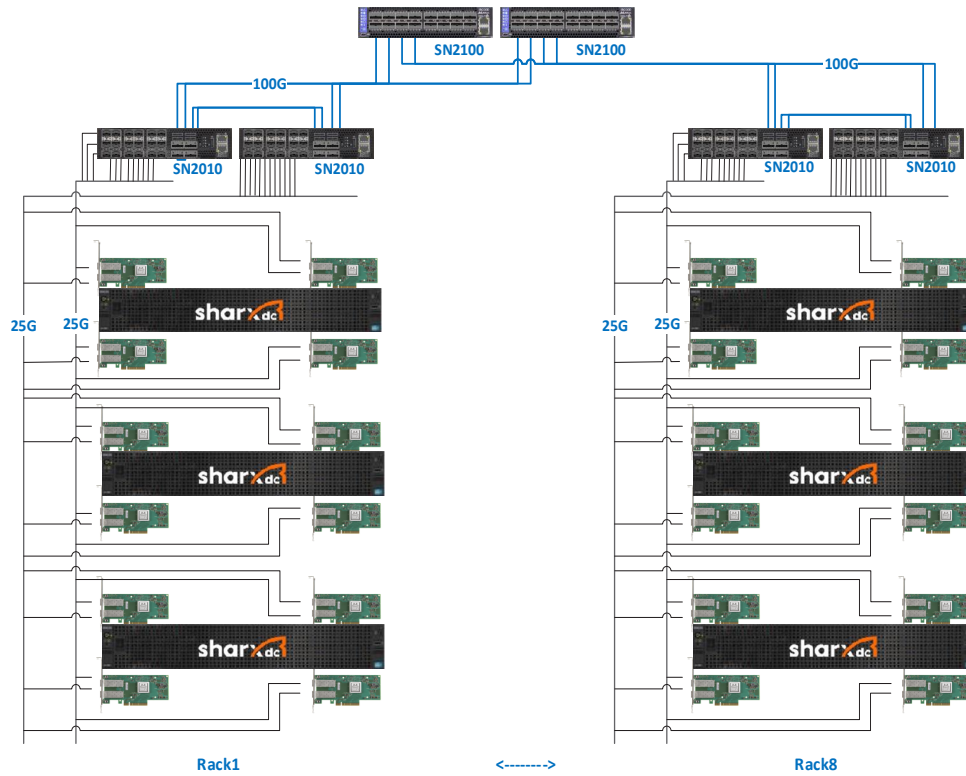
To scale a Sharx Base platform with more than 8 racks, Spectrum SN2100 should be used as a leaf switch and SN2700 as a spine.

All Sharx Base servers are equipped with Mellanox ConnectX®-5 Dual Port 25Gbit/s network adapter cards.

## HIGHLIGHTS

- SharxDC HCI integrated with Mellanox networking for modern high performance corporate applications
- 25/100G Mellanox switching with ultra-low latency, significant bandwidth
- Simple to deploy and operate
- Flexible to support various rack configurations and easily scalable
- Comprehensive solution for private cloud

The integrated SharxDC and Mellanox solution allows customers to achieve a high level of performance and resource usage efficiency, as well as to considerably reduce the data center's Total Cost of Ownership (TCO), maximizing the return on investment (ROI).



**Figure 1: Co-Designed Solution Architecture: SharxDC and Mellanox**

## CONCLUSION

The integrated SharxDC and Mellanox solution provides a hyperconverged infrastructure for the modern datacenter that allows organizations to build the following:

- Virtual data center,
- Efficient and failure safe platform for databases and data analysis,
- Safe private and public cloud,
- Scalable VDI infrastructure,
- Flexible development and testing environment.

### About SharxDC

SharxDC is a tech company that offers a modern solution based on its own hyperconverged platform (HCI), which allows the IT companies to optimize costs on the creation, deployment and operation of IT services.

This solution ensures high infrastructure flexibility, low total cost of ownership and a reliable platform for a broad spectrum of corporate applications.

See more at <http://www.sharxdc.ru>

### About Mellanox

Mellanox Technologies (NASDAQ: MLNX) is a leading supplier of end-to-end Ethernet and InfiniBand intelligent interconnect solutions and services for servers, storage, and hyperconverged infrastructure. Mellanox offers a selection of high performance solutions: network adapters, switches, cables, software and silicon for a wide range of markets including high performance computing, enterprise data centers, Web 2.0, cloud, storage, network security, telecom and financial services. More information is available at [www.mellanox.com](http://www.mellanox.com).