

VDURA ActiveStor InfiniBand Router 500

Scalable, Cost-Effective, and High-Performance Connectivity to InfiniBand Network Fabric

The ActiveStor® InfiniBand® Router 500 (ASR-500) is the VDURA®-certified gateway appliance that provides seamless connectivity between InfiniBand-based compute clusters and Ethernet-based VDURA ActiveStor Ultra storage solutions. The ASR-500 is built to meet the massive throughput demands of high-speed HPC systems in scientific and technical computing, mathematical modeling and software simulation, high-performance data analytics, and AI/ML applications.

ASR-500 nodes have both Ethernet and InfiniBand network interfaces and are configured to route IP traffic between the two. The ASR-500 enclosure can be configured with up to four ASR-500 nodes, providing cost-effective, high-performance, and low-latency InfiniBand fabric connectivity to your VDURA ActiveStor storage solutions.

With the addition of ASR-500 nodes, VDURA HPC storage solutions gain scalable, high-bandwidth, fault-tolerant networking paths to compute clusters that use InfiniBand in manufacturing, life sciences, financial services, energy, universities, government and media & entertainment industries.

ASR-500 InfiniBand Router Node

ASR-500 InfiniBand Router nodes are industry-standard compute server nodes. ASR-500 nodes run the OpenSUSE Leap 15 operating system and have been configured and tested for CPU strength, DRAM capacities, and networking bandwidth.

The ASR-500 InfiniBand Router is available in four configurations of varying node counts. See the “ASR-500 Models” section for specific models and configuration details.

ASR-500 Enclosure

The ASR-500 enclosure is a 2U, four-node 19” rackmount enclosure. The enclosure ships populated with matching ASR-500 InfiniBand Router nodes.



Figure 1. ASR-500 enclosure, front view.

Each ASR-500 enclosure includes two redundant Titanium-level 96% energy efficient power supplies. Should one power supply fail, the other can continue to power the entire enclosure.

High Availability, Balanced Performance, and Interoperability

Multiple VDURA ASR-500 ActiveStor InfiniBand Routers can be combined with optional Ethernet switches to provide automated and seamless data path failover for continuous network access. This solution also provides data path load balancing for optimal performance. The ASR-500 InfiniBand Router is compatible with all HDR100/EDR InfiniBand networks, ensuring the highest levels of system interoperability.

ASR-500 Models

ASR-500 InfiniBand Router nodes typically are ordered in multiples of two per rack of ASU-150 storage and are shipped with all nodes pre-installed in an ASR-500 enclosure.

ASR-500 Model	IB and Ethernet Ports
1 node	2x HDR100/EDR 2x 100 GbE
2 node	4x HDR100/EDR 4x 100 GbE
3 node	6x HDR100/EDR 6x 100 GbE
4 node	8x HDR100/EDR 8x 100 GbE



Timely, High-Quality Service and Support

Unlike open-source solutions and even commercial alternatives from broad portfolio vendors, VDURA offers timely, world-class L1-L4 support.

More Information and Ordering Details

For more information and ASR-500 ordering details, contact your local VDURA representative.

ASR-500 Specifications

ASR-500 Enclosure	
Hardware	19" rackmount chassis with rails
Power Supplies	2x 2200 W Titanium-level
Height	3.46 inches (88 mm)–2 rack units
Width	17.24 inches (438 mm)
Depth	29.92 inches (760 mm)
Operating Temp.	0–35°C (32–95°F)
Non-operating Temp.	–40–60°C (–40–140°F)
Operating Humidity	8–90% (non-condensing)
Input Line Voltage	220–240 VAC, 50–60 Hz

ASR-500 Node	
PanFS Compatibility	PanFS 10.0.0 or higher
Operating System	OpenSUSE Leap 15.2
Network Bandwidth	100 Gb/s per port 200 Gb/s via dual ports 400 Gb/s via quad ports
Network Ports	ConnectX-6 VPI Adapter Card, HDR100 EDR IB, 100 GbE, dual-port 2x NVIDIA Mellanox ECAT 1x Intel i350 SIOM, RJ45, GbE, dual-port
NVMe	1x 480 GB M.2 NVMe SSD

About VDURA



VDURA is at the forefront of AI and HPC data storage and management, catering to on-premises, public cloud, and hybrid environments. Renowned for its unparalleled blend of performance, durability, and reliability, our Data Platform builds upon our legacy as pioneers and leaders in parallel NAS technology. Offering a unique integration of diverse storage media within a single architecture and global namespace, VDURA empowers customers with unmatched flexibility, simplicity, and cost-effectiveness. Our integrated approach ensures the highest levels of data protection, integrity, and availability, fueling relentless innovation in AI and HPC. Explore more at www.VDURA.com.

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