

Fujitsu - NexentaStor Reference Architecture Datasheet

Fujitsu and Nexenta Deliver Highly Available, Full-featured, Unified Storage



NexentaStor is Nexenta’s flagship Software-Defined Storage (SDS) platform, allowing thousands of customers all around the world to transform their storage infrastructure, increase flexibility and agility, simplify management and dramatically reduce costs without compromising on availability, reliability, or functionality.

Running on Fujitsu hardware, NexentaStor delivers unified file and block storage services, scales from tens of terabyte to petabyte configurations, and includes all data management functionality. NexentaStor is Software-Defined Storage with SMARTS: Security, Manageability, Availability, Reliability, (lower) TCO, and Scalability.

Leveraging ZFS hybrid storage pools and other value-added enhancements, Fujitsu and Nexenta reference architectures are Flash-ready. Write-intensive SSDs are used as ZFS intent-log to reduce write latency and read-intensive SSDs are used as a cache to reduce read latency and improve performance. The hybrid Flash system was designed to achieve the right balance of cost and performance for any given workload.

Fujitsu and Nexenta reference architectures are ideally suited to support demanding enterprise applications in physical or virtual infrastructure, virtual desktop infrastructure, high performance digital media applications, and large-scale archive repositories. Fujitsu and Nexenta reference architectures configurations scale up to 135TB of storage raw capacity.

There are three main reference architecture building blocks: storage controller (RX300 S8), storage enclosures (JX40), and NexentaStor 4.0 software.

Features

Unified File and Block Services

- 10GbE NFSv3, NFSv4
- 10GbE CIFS, SMB 2.1
- 10GbE iSCSI
- 8Gbps Fibre Channel

Data Availability and Integrity

- Active/Active controllers
- ZFS 256-bit block level checksums
- RAID 10 and multi-parity software RAID (n+1, n+2, n+3)
- Asynchronous replication

Data Services and Optimization

- Flash and HDD hybrid pools
- ZFS Copy On Write
- Unlimited writable snapshots
- Thin provisioning
- Inline data compression

Scalability and Management

- 20TB to 1.5PB raw capacity
- CLI and Web UI
- SNMP and REST API

Fujitsu Reference Architectures

	NF-90	NF-135
Raw Capacity	90TB	135TB
Data Drive #	90	135
Form Factor (total system)	12U	16U
Memory (total system)	192GB	
Read Cache	400GB	
10GbE port	4	
Software	NexentaStor 4.0	
Protocol	NFS v3, v4, SMB 2.1, FC, iSCSI	
Client OS	RHEL, Windows, VMware, Hyper-V, OpenStack, CloudStack	
Controller	2x RX300 S8	
CPU	E5-2620v2, 2.1GHz, 4-core, 2-socket	
DRAM	96 (12x 8GB)	
Boot Drive	2TB (2x 1TB SAS 7.2k 3.5)	
SAS HBA	2x LSI 9207-8e	3x LSI 9207-8e
NIC	1x X520 10GbE DA/SFP+	
Storage Enclosure	4x JX40	6x JX40
Data HDD	1TB SAS 7.2k 2.5"	
L2ARC	1x Up to 400GB SSD	
ZIL/SLOG	4x 200GB SSD	6x 200GB SSD



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