

Сравнение систем Hitachi NAS между собой

	Hitachi NAS Platform 3080 G2	Hitachi NAS Platform 3090 G2	Hitachi NAS Platform 4040	Hitachi NAS Platform 4060	Hitachi NAS Platform 4080	Hitachi NAS Platform 4100
Hardware Specifics						
Rack Height	3U	3U	3U	3U	3U	3U
Power Supply	Dual	Dual	Dual	Dual	Dual	Dual
Memory on Main FPGA Board (MFB)	22GB/2GB NVRAM	22GB/2GB NVRAM	22GB/2GB NVRAM	26GB/4GB NVRAM	26GB/4GB NVRAM	68GB/8GB NVRAM
Memory on Main Motherboard (MMB)	8GB	8GB	8GB	16GB	16GB	32GB
Performance						
Random I/O: Dual- Node1	80,279	189,994	130	147,957	209,519	293,128
Throughput: MB/sec (mixed workloads 75/25 read/write)	700	1,25	700	1	1,5	2
Power and Cooling2						
Number of Cooling Fans	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap
Number of Power Supplies	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap	2 - Hot Swap
Voltage Range	110 VAC - 2.3A/2.8A	110 VAC - 2.3A/2.8A	110 VAC - 2.3A / 2.8A	100 VAC - 3.5A	100 VAC - 3.5A	100 VAC - 3.5A
	208 VAC - 1.2A/1.5A	208 VAC - 1.2A/1.5A	208 VAC - 1.2A / 1.5A	110 VAC - 3.2A	110 VAC - 3.2A	110 VAC - 3.2A
	230 VAC - 1.1A/1.4A	230 VAC - 1.1A/1.4A	230 VAC - 1.1A / 1.4A	200 VAC - 1.8A	200 VAC - 1.8A	200 VAC - 1.8A
				208 VAC - 1.7A	208 VAC - 1.7A	208 VAC - 1.7A
				240 VAC - 1.5A	240 VAC - 1.5A	240 VAC - 1.5A
Power Supply Rating	450W	450W	450w	550W	550W	550W
Average Thermal (BTU/hour)	853	853	853	888	888	888
Max. Thermal (BTU/hour)	1057	1057	1057	1194	1194	1194
Max. Power Usage	310W	310W	310W	350W	350W	350W
Dimensions						
Height/Width/Depth	3U, 5.1 in. (130mm)/17.2 in. (437mm)/27 in. (685mm)	3U, 5.1 in. (130mm)/ 17.2 in. (437mm)/27 in. (685mm)	3U, 5.1 in. (130mm)/ 17.2 in. (437mm)/27 in. (685mm)	3U, 5.1 in. (130mm)/ 17.2 in. (437mm)/27 in. (685mm)	3U, 5.1 in. (130mm)/ 17.2 in. (437mm)/27 in. (685mm)	3U, 5.1 in. (130mm)/ 17.2 in. (437mm)/27 in. (685mm)
Weight	55 lbs. (25kg)	55 lbs. (25kg)	55 lbs. (25kg)	55 lbs. (25kg)	55 lbs. (25kg)	55 lbs. (25kg)

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Regulatory Compliance						
	RoHS 6	RoHS 6	RoHS 6	RoHS 6	RoHS 6	RoHS 6
	China RoHS Labeled	China RoHS Labeled	China RoHS Labeled	China RoHS Labeled	China RoHS Labeled	China RoHS Labeled
	Safety	Safety	Safety	Safety	Safety	Safety
	EU: EN 60950-1, Low Voltage 73/23/EEC	EU: EN 60950-1, Low Voltage 73/23/EEC	EU: EN 60950-1, Low Voltage 73/23/EEC	EU: EN 60950-1, Low Voltage 73/23/EEC	EU: EN 60950-1, Low Voltage 73/23/EEC	EU: EN 60950-1, Low Voltage 73/23/EEC
	Canada: CSA 60950-1	Canada: CSA 60950-1	Canada: CSA 60950-1	Canada: CSA 60950-1	Canada: CSA 60950-1	Canada: CSA 60950-1
	US: UL 60950-1	US: UL 60950-1	US: UL 60950-1	US: UL 60950-1	US: UL 60950-1;	US: UL 60950-1;
	EMC	EMC	EMC	EMC	EMC	EMC
	EU: 55022 Class A, 55024, EN61000	EU: 55022 Class A, 55024, EN61000	EU: 55022 Class A, 55024, EN61000	EU: 55022 Class A, 55024, EN61000	EU: 55022 Class A, 55024, EN61000	EU: 55022 Class A, 55024, EN61000
	US: FCC Part 15 Subpart B, Class A	US: FCC Part 15 Subpart B, Class A	US: FCC Part 15 Subpart B, Class A	US: FCC Part 15 Subpart B, Class A	US: FCC Part 15 Subpart B, Class A	US: FCC Part 15 Subpart B, Class A
	Japan: VDDI Class A	Japan: VDDI Class A	Japan: VDDI Class A	Japan: VDDI Class A	Japan: VDDI Class A	Japan: VDDI Class A
Software Specifics						
Max. # of Nodes per Cluster	2	4	2	2	4	8
Support Jumbo Frames	Yes	Yes	Yes	Yes	Yes	Yes
Max. # of File Systems	1283	1283	1283	1283	1283	1283
Max. # of Enterprise Virtual Servers (EVS)	64	64	64	64	64	64
Max. File System Pool Size	256TB	256TB	256TB	256TB	256TB	256TB
Max. Storage Pool Size	1PB	1PB	1PB	1PB	1PB	1PB
Max. Usable Capacity and Single Namespace	4PB4	8PB5	4PB5	8PB5	16PB5	32PB5
Max. # of Entries per Directory	16M7	16M7	16M7	16M7	16M7	16M7
Max. # of Snapshots per File System	1024	1024	1024	1024	1024	1024
Max. # of Writable File Clones	No Limit8	No Limit8	No Limit8	No Limit8	No Limit8	No Limit8
Max. # of Virtual Volumes	10	10	10	10	10	10

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Max. # of User/Group Quotas	100	100	100	100	100	100
Max. # of IP Addresses per Hitachi NAS Node and Cluster	256	256	256	256	256	256
Max. # of IP Addresses per EVS	32	32	32	32	32	32
Number of Global Symlinks	10	10	10	10	10	10
Max. # of CNS Links	500	500	500	500	500	500
Max. # Logical Units (LUNs)	5129	5129	5129	5129	5129	5129
Max. LUN Size	64TB	64TB	64TB	64TB	64TB	64TB
Number of LUNs per Stripe Set	32	32	32	32	32	32
Number of LUNs per Storage System Fibre Channel Target Port	32	32	32	32	32	32
Protocol Limits						
Max. # SMB Shares	10	10	10	10	10	10
Max. # NFS Exports	10	10	10	10	10	10
Max. # Connections (NFS/SMB)	15,0001	30,0001	24,0001	45,000 (64,000 with tuning enabled. Consult GSS before enabling tuning)	45,000 (64,000 with tuning enabled. Consult GSS before enabling tuning)	64
Max. # Concurrent Open Files per Node: SMB	22,5	90	72	227,000 / (565,000 with tuning enabled. Consult GSS before enabling tuning)	227,000 (565,000 with tuning enabled. Consult GSS before enabling tuning)	1,178,000 (1,500,000 with tuning enabled. Consult GSS before enabling tuning)
Max. # Concurrent FTP Clients	100	100	100	100	100	100
SMB/NFS File Name Length	255 Characters	255 Characters	255 Characters	255 Characters	255 Characters	255 Characters
SMB Path Name Length	65,535 Characters	65,535 Characters	65,535 Characters	65,535 Characters	65,535 Characters	65,535 Characters
NFS Path Name Length	1024 Characters	1024 Characters	1024 Characters	1024 Characters	1024 Characters	1024 Characters
iSCSI Targets per EVS	32	32	32	32	32	32

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Protocol Limits						
iSCSI LUNs per Target	32	32	32	32	32	32
iSCSI Sessions per Target	64	64	64	64	64	64
iSCSI LUN Size	Max. Size = Available Space on File System	Max. Size = Available Space on File System	Max. Size = Available Space on File System	Max. Size = Available Space on File System	Max. Size = Available Space on File System	Max. Size = Available Space on File System
Network Limits for Sharing						
Number of VLANs	256	256	256	256	256	256
1Gb Ethernet Ports	6	6	6	N/A	N/A	N/A
10Gb Ethernet Ports	2	2	2	4	4	4
Storage Management Utility (SMU) Limits						
External SMU: Number of Managed Entities	Max. 511	Max. 511	Max. 511	Max. 511	Max. 511	Max. 511
Internal SMU: Number of Managed Servers	1 - Local Only	1 - Local Only	1 - Local Only	1 - Local Only	1 - Local Only	1 - Local Only
Hitachi Storage Support						
Hitachi Adaptable Modular Storage 2000 Family	Yes	Yes	Yes	Yes	Yes	Yes
Hitachi Unified Storage 100 Series	Yes	Yes	Yes	Yes	Yes	Yes
Hitachi Unified Storage VM	Yes	Yes	Yes	Yes	Yes	Yes
Hitachi Virtual Storage Platform G1000 Series	Yes12	Yes12	Yes12	Yes12	Yes12	Yes12
Included in Hitachi NAS Platform Operating System						
Protocol	NFS/SMB/FTP	NFS/SMB/FTP	NFS/SMB/FTP	NFS/SMB/FTP	NFS/SMB/FTP	NFS/SMB/FTP
Number of EVS	2	2	2	2	2	2
Replication	Optional	Optional	Optional	Optional	Optional	Optional
Storage Pool	Yes	Yes	Yes	Yes	Yes	Yes
Quick Snapshot Restore	Optional	Optional	Optional	Optional	Optional	Optional
File System Rollback (FSR)	Yes	Yes	Yes	Yes	Yes	Yes
Virtual Volume	Yes	Yes	Yes	Yes	Yes	Yes
WFS-2	Yes	Yes	Yes	Yes	Yes	Yes
TFS	Yes	Yes	Yes	Yes	Yes	Yes

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File System Auditing	From v6.5	From v6.5	From v6.5	Yes	Yes	Yes
Dynamic Read/Write Balancing	Yes	Yes	Yes	Yes	Yes	Yes
Nondisruptive Cluster Upgrades (NDU)	Yes	Yes	Yes	Yes	Yes	Yes
Sparse File Reporting	Yes	Yes	Yes	Yes	Yes	Yes
RADIUS User Authentication	Yes	Yes	Yes	Yes	Yes	Yes
Optional Licenses						
Additional Protocol	Yes	Yes	Yes	Yes	Yes	Yes
Additional EVS	Yes	Yes	Yes	Yes	Yes	Yes
Replication	Yes	Yes	Yes	Yes	Yes	Yes
File System Recover From Snapshot	Yes	Yes	Yes	Yes	Yes	Yes
WORM (write once, read many)	Yes	Yes	Yes	Yes	Yes	Yes
Quick Snapshot Restore	Yes	Yes	Yes	Yes	Yes	Yes
iSCSI	Yes	Yes	Yes	Yes	Yes	Yes
Data Migrator Feature	Yes	Yes	Yes	Yes	Yes	Yes
Cross Volume Link (XVL)	Yes	Yes	Yes	Yes	Yes	Yes
Virtual Server Security (Multitenancy feature included as part of license)	Yes	Yes	Yes	Yes	Yes	Yes
Primary Data Deduplication Premium	Yes	Yes	Yes	Yes	Yes	Yes
Cluster (High Availability, HA)	Yes	Yes	Yes	Yes	Yes	Yes
Cluster Name Space (CNS)	Yes	Yes	Yes	Yes	Yes	Yes
Cluster Read Cache	Yes	Yes	Yes	Yes	Yes	Yes
Server Farm Migration (SFM)	Yes	Yes	Yes	Yes	Yes	Yes
File / Directory Clone	Yes8	Yes8	Yes8	Yes8	Yes8	Yes8
Performance Accelerator	No	Yes13	No13	No	No	No
Universal Migrator	Yes8	Yes8	Yes8	Yes8	Yes8	Yes8
EVS Security	Yes	Yes	Yes	Yes	Yes	Yes

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Model Upgrade License	No	No	Yes	No	No	No
Upgrade Paths						
To HNAS 3080/HUS M1	—	—	—	System Swap	System Swap	System Swap
To HNAS 3090/HUS M2	System Swap	—	—	System Swap	System Swap	System Swap
To HNAS 4040	System Swap	System Swap	—	—	—	—
To HNAS 4060	System Swap	System Swap	System Swap	—	License Key	System Swap
To HNAS 4080	System Swap	System Swap	System Swap	License Key	—	System Swap
To HNAS 4100	System Swap	System Swap	System Swap	System Swap	System Swap	—

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