

NetApp Fabric Attached Storage Controller "Maximums" Information

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Max # of Raw Terabytes Storage Using Fibre Channel Disks	33 Raw with External 300GB Disks, 50 Raw with External 450GB Disks, 67 Raw with External 600GB Disks	100 Raw with 300GB Disks, 151 Raw with 450GB Disks, 201 Raw with 600GB Disks	151 Raw with 300GB Disks, 227 Raw with 450GB Disks, 302 Raw with 600GB Disks	126 Raw with 300GB Disks, 189 Raw with 450GB Disks, 252 Raw with 600GB Disks	201 Raw with 300GB Disks, 302 Raw with 450GB Disks, 403 Raw with 600GB Disks	252 Raw with 300GB Disks, 378 Raw with 450GB Disks, 504 Raw with 600GB Disks	72 Raw with 300GB Disks, 108 Raw with 450GB Disks, 144 Raw with 600GB Disks	180 Raw with 300GB Disks, 270 Raw with 450GB Disks, 360 Raw with 600GB Disks	288 Raw with 300GB Disks, 432 Raw with 450GB Disks, 576 Raw with 600GB Disks	252 Raw with 300GB Disks, 378 Raw with 450GB Disks, 504 Raw with 600GB Disks	252 Raw with 300GB Disks, 378 Raw with 450GB Disks, 504 Raw with 600GB Disks	350 Raw with 300GB Disks, 529 Raw with 450GB Disks, 604 Raw with 600GB Disks	350 Raw with 300GB Disks, 529 Raw with 450GB Disks, 705 Raw with 600GB Disks	302 Raw with 300GB Disks, 453 Raw with 450GB Disks, 604 Raw with 600GB Disks	352 Raw with 300GB Disks, 529 Raw with 450GB Disks, 604 Raw with 600GB Disks	350 Raw with 300GB Disks, 529 Raw with 450GB Disks, 705 Raw with 600GB Disks
Max # of Terabytes Storage Using SATA Disks	24 Raw with internal 2TB Disks, 224 Raw with 112 External 2TB Disks In 8 x DS14; 192 Raw with 96 External 2TB Disks in DS4243; 272 Raw Total (12 Internal + 124 External: 2 x DS14 + 4 x DS4243)	336 Raw with 1TB Disks, 672 Raw with 2TB Disks	504 Raw with 1TB Disks, 1008 Raw with 2TB Disks	420 Raw with 1TB Disks, 840 Raw with 2TB Disks	672 Raw with 1TB Disks, 1344 Raw with 2TB Disks	840 Raw with 1TB Disks, 1680 Raw with 2TB Disks	240 Raw with 1TB Disks, 480 Raw with 2TB Disks	600 Raw with 1TB Disks, 1200 Raw with 2TB Disks	960 Raw with 1TB Disks, 1920 Raw with 2TB Disks	840 Raw with 1TB Disks, 1680 Raw with 2TB Disks	840 Raw with 1TB Disks, 1680 Raw with 2TB Disks	1008 Raw with 1TB Disks, 2016 Raw with 2TB Disks	1176 Raw with 1TB Disks, 2352 Raw with 2TB Disks	1200 Raw with 1TB Disks, 2400 Raw with 2TB Disks	1440 Raw with 1TB Disks, 2880 Raw with 2TB Disks	1440 Raw with 1TB Disks, 2880 Raw with 2TB Disks
Max # of Terabytes Storage Using SAS Disks	5.4 Raw with Internal 450GB Disks, 7.2 Raw with Internal 600GB Disks, 64 Raw with External/Internal Combined	100 Raw with 300GB Disks, 151 Raw with 450GB Disks, 201 Raw with 600GB Disks	151 Raw with 300GB Disks, 226 Raw with 450GB Disks, 302 Raw with 600GB Disks	126 Raw with 300GB Disks, 189 Raw with 450GB Disks, 252 Raw with 600GB Disks	201 Raw with 300GB Disks, 302 Raw with 450GB Disks, 403 Raw with 600GB Disks	252 Raw with 300GB Disks, 378 Raw with 450GB Disks, 504 Raw with 600GB Disks	72 Raw with 300GB Disks, 108 Raw with 450GB Disks, 144 Raw with 600GB Disks	180 Raw with 300GB Disks, 270 Raw with 450GB Disks, 360 Raw with 600GB Disks	288 Raw with 300GB Disks, 432 Raw with 450GB Disks, 576 Raw with 600GB Disks	252 Raw with 300GB Disks, 378 Raw with 450GB Disks, 504 Raw with 600GB Disks	252 Raw with 300GB Disks, 378 Raw with 450GB Disks, 504 Raw with 600GB Disks	302 Raw with 300GB Disks, 453 Raw with 450GB Disks, 604 Raw with 600GB Disks	352 Raw with 300GB Disks, 529 Raw with 450GB Disks, 705 Raw with 600GB Disks	360 Raw with 300GB Disks, 540 Raw with 450GB Disks, 720 Raw with 600GB Disks	432 Raw with 300GB Disks, 648 Raw with 450GB Disks, 864 Raw with 600GB Disks	432 Raw with 300GB Disks, 648 Raw with 450GB Disks, 864 Raw with 600GB Disks
Max # of Physical Disk Drives Supported (Note for SSD: Maximum of 96 drives per controller for supported platforms; configurations require at least one stack of HDD shelves)	12 Internal, 136 Total (12 Internal + 124 External: 2 x DS14 + 4 x DS4243)	336	504	420	672 Supports SSD	840 Supports SSD	240	600 Supports SSD	960 Supports SSD	840 Supports SSD	840 Supports SSD	1008 Supports SSD	1176 Supports SSD	1200 SAS/SATA (1008 FC) Supports SSD	1440 SAS/SATA (1176 FC) Supports SSD	1440 SAS/SATA (1176 FC) Supports SSD
Max # of Disk Drives Per Backend Disk Loop (DS14)	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
Max # of Disk Drives Per Backend Disk Stack (DS4243)	136	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240
Max # of Raw Terabytes Supported	272	672	1008	840	1344	1680	480	1200	1920	1680	1680	2016	2352	2400	2880	2880
Max # of Aggregates Per Controller	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Max # of Traditional Volumes	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Max # of FlexVol Volumes Per Controller	200	500	500	500	500	500	200	500	500	500	500	500	500	500	500	500
Max Size Of A Single Aggregate, Non-Dense (Non-Deduplicated) FlexVol or Traditional Volume	30TB	50TB	50TB	50TB	50TB	70TB	50TB	50TB	70TB	70TB	70TB	100TB	100TB	100TB	100TB	100TB
Max Size of Dense Volume (Data Deduplicated Volume)	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB
Max Total Data Size in Volume with Deduplication	30TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB	32TB
Max # of Concurrent Scheduled or Manual Data Deduplication Processes	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Max File Size (32-bit or 64-bit)	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB
Max # of Snapshots Per Controller	51,000	127,500	127,500	127,500	127,500	127,500	51,000	127,500	127,500	127,500	127,500	127,500	127,500	127,500	127,500	127,500
Max # of Snapshots Per Volume	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
Max Character Length For Snapshot Names	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
Max # of FlexClones Per Volume	199	499	499	499	499	499	199	499	499	499	499	499	499	499	499	499
Max # of FlexClones Per File/LUN	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit	No limit
Max # of FlexCache Volumes Per Controller	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Max # of Qtrees Per Volume	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995	4,995
Max # of RAID Groups Per System	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Max # of RAID Groups Per Aggregate	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
Max # of FC Disks Per RAID Group - RAID-DP	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Max # of FC Disks Per RAID Group - RAID4	8	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Max # of SATA Disks Per RAID Group - RAID-DP	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Max # of SATA Disks Per RAID Group - RAID4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Max # of SAS Disks Per RAID Group - RAID-DP	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Max # of SAS Disks Per RAID Group - RAID4	8	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Max # of SSD Disks Per RAID Group - RAID-DP	-	-	-	-	28	28	-	28	28	-	28	28	28	28	28	28
Max # of SSD Disks Per RAID Group - RAID4	-	-	-	-	14	14	-	14	14	-	14	14	14	14	14	14
Max Memory Per Controller	4GB	4GB	8GB	4GB	8GB	16GB	4GB	8GB	16GB	16GB	16GB	32GB	32GB	32GB	48GB	96GB
Max Memory Per HA/Cluster Pair	8GB	8GB	16GB	8GB	16GB	32GB	8GB	16GB	32GB	32GB	32GB	64GB	64GB	64GB	96GB	192GB
Max Number Of Expansion Slots Per Controller	-	4 PCIe (1 used by NVRAM/Cluster Interconnect)	4 PCIe (1 used by NVRAM/Cluster Interconnect)	4 PCIe (3 full height, full length)	4 PCIe (3 full height, full length)	4 PCIe (3 full height, full length)	2 PCIe (1 - full height, full length; 1 - 3/4 length)	6 PCIe (2 internal, 4 in IOXM module)	6 PCIe (2 internal, 4 in IOXM module)	6 PCIe & 3 PCI-X (1 PCIe used by NVRAM/Cluster Interconnect)	6 PCIe & 3 PCI-X (1 PCIe used by NVRAM/Cluster Interconnect)	6 PCIe & 3 PCI-X (1 PCIe used by NVRAM/Cluster Interconnect)	6 PCIe & 3 PCI-X (1 PCIe used by NVRAM/Cluster Interconnect)	2 PCIe custom (1 used by NVRAM/Cluster Interconnect) & 12 PCIe	4 PCIe custom (1 used by NVRAM/Cluster Interconnect) & 12 PCIe	4 PCIe custom (1 used by NVRAM/Cluster Interconnect) & 12 PCIe
Max Number Of Expansion Slots Per HA/Cluster Pair	-	8 PCIe (2 used by NVRAM/Cluster Interconnects)	8 PCIe (2 used by NVRAM/Cluster Interconnects)	8 PCIe (6 full height, full length)	8 PCIe (6 full height, full length)	8 PCIe (6 full height, full length)	4 PCIe (2 - full height, full length; 2 - 3/4 length)	12 PCIe (4 internal, 8 in IOXM modules)	12 PCIe (4 internal, 8 in IOXM modules)	12 PCIe & 6 PCI-X (2 PCIe used by NVRAM/Cluster Interconnects)	12 PCIe & 6 PCI-X (2 PCIe used by NVRAM/Cluster Interconnects)	12 PCIe & 6 PCI-X (2 PCIe used by NVRAM/Cluster Interconnects)	12 PCIe & 6 PCI-X (2 PCIe used by NVRAM/Cluster Interconnects)	4 PCIe custom (2 used by NVRAM/Cluster Interconnects) & 12 PCIe	8 PCIe custom (2 used by NVRAM/Cluster Interconnects) & 24 PCIe	8 PCIe custom (2 used by NVRAM/Cluster Interconnects) & 24 PCIe
Max # Of Built-In SAS Ports Per Controller	1 3Gb 2 3Gb	-	-	-	-	-	2 6Gb 4 6Gb	2 6Gb 4 6Gb	2 6Gb 4 6Gb	-	-	-	-	8 6Gb 0 or 4 6Gb 0 or 24 6Gb	0 or 4 6Gb 0 or 24 6Gb	0 or 4 6Gb 0 or 24 6Gb
Max # Of SAS Ports Per Controller	1 3Gb	12	12	16	16	16	10	10 (26 w/IOXM)	10 (26 w/IOXM)	20	20	20	20	20	36	36
Max # Of SAS Ports Per HA	2 3Gb	24	24	32	32	32	20	20 (52 w/IOXM)	20 (52 w/IOXM)	40	40	40	40	40	72	72
NVRAM Size Per Controller	512MB (NVMEM)	512MB	512MB	512MB	2GB	2GB	512MB (NVMEM)	1GB (NVMEM)	2GB (NVMEM)	512MB	512MB	2GB	2GB	4GB	4GB	4GB
Max # Of Built-In Ethernet Ports Per Controller	4 GbE	4 GbE	4 GbE	2 GbE	2 GbE	2 GbE	2 GbE	2 GbE	2 GbE	6 GbE	6 GbE	6 GbE	6 GbE	2 GbE, 4 10GbE	2 GbE, 4 10GbE	2 GbE, 4 10GbE
Max # Of Built-In Ethernet Ports Per HA	8 GbE	8 GbE	8 GbE	4 GbE	4 GbE	4 GbE	4 GbE	4 GbE	4 GbE	12 GbE	12 GbE	12 GbE	12 GbE	4 GbE, 8 10GbE	4 GbE, 8 10GbE	4 GbE, 8 10GbE
Max # Of Ethernet Ports Per (onboard + expansion ports) Per Controller	4 GbE	16 GbE, 6 10GbE	16 GbE, 6 10GbE	18 GbE, 8 10GbE	18 GbE, 8 10GbE	18 GbE, 8 10GbE	10 GbE, 4 10GbE	10 GbE, 4 10GbE	10 GbE, 4 10GbE	30 GbE, 20 10GbE	30 GbE, 20 10GbE	30 GbE, 20 10GbE	30 GbE, 20 10GbE	18x (GbE and 10GbE adapter based) 22x (onboard + adapter based)	18x (GbE and 10GbE adapter based) 22x (onboard + adapter based)	18x (GbE and 10GbE adapter based) 22x (onboard + adapter based)
Max # Of Ethernet Ports (onboard + expansion ports) Per HA	8 GbE	32 GbE, 12 10GbE	32 GbE, 12 10GbE	36 GbE, 16 10GbE	36 GbE, 16 10GbE	36 GbE, 16 10GbE	20 GbE, 8 10GbE	20 GbE, 8 10GbE	20 GbE, 8 10GbE	60 GbE, 40 10GbE	60 GbE, 40 10GbE	60 GbE, 40 10GbE	60 GbE, 40 10GbE	36x (GbE and 10GbE adapter based) 44x (onboard + adapter based)	36x (GbE and 10GbE adapter based) 44x (onboard + adapter based)	36x (GbE and 10GbE adapter based) 44x (onboard + adapter based)
Max # Of Configurable Network Interfaces/IPs Per Controller	128	256	512	256	512	512	256	512	512	512	512	512	512	512	512	512
Max # Of Configurable Network Interfaces/IPs Per HA	256	512	1024	512	1,024	1,024	512	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024
Max # of Network Interfaces in A Single VIF	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Max # VLANs Single Controller (Noted value minus total # of physical interfaces, vifs, vh and loopback interfaces supported by the storage system)	128	256	512	256	512	512	256	512	512	512	512	512	512	512	512	512
Max # VLANs Per HA (Noted value minus total # of physical interfaces, vifs, vh and loopback interfaces supported by the storage system)	256	512	1024	512	1024	1024	512	1024	1024	1024	1024	1024	1024	1024	1024	1024
Max # Of Performance Acceleration Modules (PAM Cards) Per Controller	-	1	2	2	2	4	1	2	2	4	4	5	5	3	6	8
Max # Of Flash Cache Cards Per Controller	-	-	2 (256GB)	1 (256GB)	2 (256GB)	2 (256GB)	1 (256GB)	2 (256GB) or 1 (512GB)	2 (512GB)	2 (512GB)	2 (512GB)	4 (512GB)	4 (512GB)	3 (512GB)	6 (512GB)	8 (512GB)



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Max # of Symmetrizers Per Controller	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Max # of Concurrent Console Sessions Open	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Max # of Telnet or SSH Interactive Sessions Open	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Max Timeout For Telnet or SSH Session (In Hours)	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596
Max # of Modes In A Volume	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion	2 Billion
Max # of Subdirectories In A Directory	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998	99,998
Max # of Concurrent RSH or SSH Sessions	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Max # of FTP Connections Per Controller	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Max FTP File Name Length In Characters	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
Max # of Admin Users Per Controller	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
Max # of vFilers Per Controller	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Max # of Permission Tracing Filters Per vFiler	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Max Lifetime Of Account Passwords In Days	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295
Max # of CIFS Connections Per Controller	41,200	64,000	96,000	64,000	96,000	64,000	96,000	64,000	96,000	64,000	96,000	64,000	96,000	64,000	96,000	96,000
Max # of CIFS Shares Per Controller	82,400	128,000	192,000	128,000	192,000	128,000	192,000	128,000	192,000	128,000	192,000	128,000	192,000	128,000	192,000	192,000
Max # of CIFS Share Connections Per Controller	164,800	256,000	384,000	256,000	384,000	256,000	384,000	256,000	384,000	256,000	384,000	256,000	384,000	256,000	384,000	384,000
Max # of CIFS Open Files Per Controller	824,000	1,280,000	1,920,000	1,280,000	1,920,000	1,280,000	1,920,000	1,280,000	1,920,000	1,280,000	1,920,000	1,280,000	1,920,000	1,280,000	1,920,000	1,920,000
Max # of CIFS Locked Files Per Controller	910,016	1,411,072	2,116,608	1,411,072	2,116,608	1,411,072	2,116,608	1,411,072	2,116,608	1,411,072	2,116,608	1,411,072	2,116,608	1,411,072	2,116,608	2,116,608
Max # of CIFS Locks Per Controller	182,032	2,822,144	4,233,216	2,822,144	4,233,216	2,822,144	4,233,216	2,822,144	4,233,216	2,822,144	4,233,216	2,822,144	4,233,216	2,822,144	4,233,216	4,233,216
Max # of CIFS Permission Tracing Filters (sectrace) Per Controller	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Max # of Files Per Managed Quota Instance	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295	4,294,967,295
Max # of NFSv3/NFSv4 Exports/Mounts Per Controller	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240
Max NFSv4 ACL Size (ACEs)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Max # of Auxiliary UNIX Groups Supported For A User Using Kerberos V5 Authentication (Non-FlexCache)	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Max # of Auxiliary UNIX Groups Supported For A User Using Kerberos V5 Authentication (Using FlexCache)	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Max # of Auxiliary UNIX Groups Supported For A User WITHOUT Kerberos V5 Authentication	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Max NFSv3/NFSv4 Per Client Statistics Collections Per Controller	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Max NFSv3 Mounts Recorded In rmtab (For showmount -d) Per Controller	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Max letclexports Character Entry Size Per Controller	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096
Max letclexports Number of Entries Per Controller	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240
Max letcpasswd Character Entry Per Line Per Controller	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Max letcgroup Character Entry Per Line Per Controller	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Max letchosts Characters Per Line Per Controller	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022
Max # of Aliases in letchosts Per Controller	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Max Character Entry For letcnetgroup Per Controller	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096	4,096
Max letcnetgroup Nesting Limit Per Controller	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Max Number Of DNS Servers Listed In letcresolv.conf Per Controller	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Max Character Domain Name Length In letcresolv.conf Per Controller	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Max Line Size In Characters letcresolv.conf Per Controller	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
Max Search Domains Per Controller	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Maximum number of entries in letcnsnapmirror.conf	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024
Max # of Concurrent Tape Drive Connections Per Controller	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Max # of Concurrent Backup or Restore Operations Per Controller	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Max # of NDMP Sessions Per Controller Without NearStore Personality	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max # of NDMP Sessions Per Controller With NearStore Personality	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Max # of Qtree Replications Per Volume Per Controller	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
Max # SnapVault Replications Per Volume Per Controller	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
Max # of Concurrent SnapVault Targets	64	128	256	128	256	256	256	256	256	192	192	256	256	256	256	256
Max concurrent replication ops without Nearstore Personality: Volume SnapMirror Source	50	50	50	50	50	50	50	50	50	100	100	150	150	150	150	150
Max concurrent replication ops without Nearstore Personality: Volume SnapMirror Destination	50	50	50	50	50	50	50	50	50	100	100	150	150	150	150	150
Max concurrent replication ops without Nearstore Personality: Synchronous SnapMirror Source	16	16	16	16	16	16	16	16	16	24	24	32	32	32	32	32
Max concurrent replication ops without Nearstore Personality: Synchronous SnapMirror Destination	16	16	16	16	16	16	16	16	16	24	24	32	32	32	32	32
Max concurrent replication ops without Nearstore Personality: Qtree SnapMirror Source	64	64	64	64	64	64	64	64	64	96	96	128	128	128	128	128
Max concurrent replication ops without Nearstore Personality: Qtree SnapMirror Destination	64	64	64	64	64	64	64	64	64	96	96	128	128	128	128	128
Max concurrent replication ops without Nearstore Personality: SnapVault Source	64	64	64	64	64	64	64	64	64	96	96	128	128	128	128	128
Max concurrent replication ops without Nearstore Personality: SnapVault Destination	64	64	64	64	64	64	64	64	64	96	96	128	128	128	128	128
Max concurrent replication ops without Nearstore Personality: Open Systems SnapVault Destination	16	16	16	16	16	16	16	16	16	24	24	32	32	32	32	32
Max concurrent replication ops with Nearstore Personality: Volume SnapMirror Source	50	50	50	50	50	50	50	50	50	100	100	150	150	150	150	150
Max concurrent replication ops with Nearstore Personality: Volume SnapMirror Destination	100	100	100	100	100	100	100	100	100	200	200	300	300	300	300	300
Max concurrent replication ops with Nearstore Personality: Synchronous SnapMirror Source	16	16	16	16	16	16	16	16	16	24	24	32	32	32	32	32
Max concurrent replication ops with Nearstore Personality: Synchronous SnapMirror Destination	16	16	16	16	16	16	16	16	16	24	24	32	32	32	32	32
Max concurrent replication ops with Nearstore Personality: Qtree SnapMirror Source	160	160	160	320	320	384	120	320	320	384	384	512	512	512	512	512
Max concurrent replication ops with Nearstore Personality: Qtree SnapMirror Destination	160	160	160	320	320	384	120	320	320	384	384	512	512	512	512	512
Max concurrent replication ops with Nearstore Personality: SnapVault Source	160	160	160	320	320	384	120	320	320	384	384	512	512	512	512	512
Max concurrent replication ops with Nearstore Personality: SnapVault Destination	160	160	160	320	320	384	120	320	320	384	384	512	512	512	512	512
Max concurrent replication ops with Nearstore Personality: Open Systems SnapVault Destination	64	64	64	64	128	128	64	128	128	96	96	128	128	128	128	128



NetApp Fabric Attached Storage Controller "Maximums" Information

																
Single Controller	Maximum Number of LUNs Per Controller	1,024	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048
	Maximum FC Queue Depth Available Per Port	1,720	1,720	1,720	1,966	1,966	1,966	1,966	1,966	1,966	1,966	1,966	1,966	1,966	1,966	1,966
	Maximum Number of LUNs per Volume	1,024	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048
	Maximum FC Port Fan-In	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
	Maximum Connected Hosts Per Controller (FC)	128	256	256	256	256	256	256	256	256	256	256	256	256	256	256
	Maximum Connected Hosts Per Controller (iSCSI)	128	256	256	256	256	256	256	512	256	256	512	512	256	512	512
	Maximum Number of Igroups Per Controller	256	256	256	256	256	256	256	512	256	1,024	1,024	1,024	1,024	1,024	1,024
	Maximum Number of Initiators Per Igroup	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
	Maximum Number of LUN Mappings Per Controller	4,096	4,096	4,096	4,096	4,096	4,096	4,096	8,192	8,192	8,192	8,192	8,192	4,096	8,192	8,192
	Maximum Length of LUN Pathname	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
	Maximum LUN Size	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB
HA Pair	Maximum Built-in FC Target Ports Per Controller	2 4Gb SFP	4 2Gb SFP	4 4Gb SFP	4 4Gb SFP	4 4Gb SFP	4 4Gb SFP	2 4Gb SFP	2 4Gb SFP	2 4Gb SFP	8 2Gb SFP	8 4Gb SFP	8 2Gb SFP	8 4Gb SFP	4 or 8 8Gb SFP+	4 or 16 8Gb SFP+
	Maximum Expansion Card FC Target Ports Per Controller	-	12 4Gb SFP	12 4Gb SFP	16 4Gb SFP	16 4Gb SFP	16 4Gb SFP	8 4Gb SFP	8 4Gb (24 w/OXM)	16 2Gb SFP	16 4Gb SFP	16 2Gb SFP	16 4Gb SFP	16 4Gb SFP or 8 8Gb SFP+	24 4Gb SFP or 24 8Gb SFP+	24 4Gb SFP or 24 8Gb SFP+
	Maximum Usable FC Target Ports Per Controller	2	12	12	16	16	16	10	10 (24 w/OXM)	16	16	16	16	24	24	24
	Maximum number of LUNs per HA Pair/Cluster	1,024	2,048	2,048	2,048	2,048 (4,096 PVR)	2,048 (4,096 PVR)	2,048	2,048	2,048 (4,096 PVR)	2,048 (4,096 PVR)	2,048 (4,096 PVR)	2,048 (4,096 PVR)	2,048 (4,096 PVR)	2,048 (4,096 PVR)	2,048 (4,096 PVR)
	Maximum FC Queue Depth Available Per Port	1,720	1,720	1,720	1,966	1,966	1,966	1,966	1,966	1,966	1,720	1,720	1,720	1,966	1,966	1,966
	Maximum Number of LUNs Per Volume	1,024	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048
	Maximum FC port Fan-In	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
	Maximum connected hosts Per HA Pair/Cluster (FC)	128	256	256	256	256 (512 PVR)	256 (512 PVR)	256	256	256 (512 PVR)	256 (512 PVR)	256 (512 PVR)	256 (512 PVR)	256 (512 PVR)	512	512
	Maximum connected hosts per HA Pair (iSCSI)	128	512	512	512	512	512	512	512	1,024	512	1,024	1,024	512	1,024	1,024
	Maximum number of Igroups per HA Pair	256	256	256	256	256 (512 PVR)	256 (512 PVR)	512	512	1,024	2,048	2,048	2,048	2,048	2,048	2,048
	Maximum Number of Initiators Per Igroup	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
	Maximum Number of LUN Mappings Per HA Pair	4,096	4,096	4,096	4,096	4,096 (8,192 PVR)	4,096 (8,192 PVR)	4,096	4,096	8,192	8,192	8,192	8,192	8,192	8,192	8,192
HA Pair	Maximum Length of LUN Pathname	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
	Maximum LUN size	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB	16TB
	Maximum Built-in FC Target Ports Per HA Pair	4	8	8	8	8	8	4 4Gb SFP	4 4Gb SFP	4 4Gb SFP	16 2Gb SFP	16 4Gb SFP	16 2Gb SFP	16 4Gb SFP	8 or 16 8Gb SFP+	8 or 32 8Gb SFP+
	Maximum Expansion Card FC Target ports Per HA Pair	-	24 4Gb SFP	24 4Gb SFP	32 4Gb SFP	32 4Gb SFP	32 4Gb SFP	20 4Gb SFP	16 4Gb SFP (48 w/OXM)	16 4Gb SFP (48 w/OXM)	32 2Gb SFP	32 4Gb SFP	32 2Gb SFP	32 4Gb SFP	32 4Gb SFP or 16 8Gb SFP+	48 4Gb SFP or 48 8Gb SFP+
	Maximum Usable FC Target Ports Per HA Pair	4	24	24	20	32	32	20	48	48	32	32	32	32	48	48
	Max # Of iSCSI Connections Per Session	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
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Host operating system configuration limits for iSCSI and FC

Parameter	Operating System					
	Windows	Linux	HP-UX	Solaris	AIX	ESX
Visible target ports per host	28	16	16	16	16	16
LUNs per host	64 (Windows 2000) 128 (Windows 2003) 255 (Windows 2008)	1024 Devices max (Where each path to a LUN is a device)	11v2: 512 11v3: 1024	512	128	3.x: 256 4.x: 256 Local drives, CDRom, and so on count against this value.
Paths per LUN	8 (Max of 1024 per host)	8 (Max of 1024 per host)	11v2: 8 11v3: 32	16	16	3.x: 8 4.x: 8 (Max of 1024 per host)
Maximum LUN size	16TB	16TB	11v2: 2 TB 11v3: 16 TB	16TB	16TB	2 TB