

Information According to Data OnTap 7.3.1 Documentation

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NetApp Fabric Attached Storage Controller "Maximums" Information

Information According to Data OnTape 7.3.1 Documentation		FAS2020	FAS2050	FAS3020	FAS3040	FAS3050	FAS3070	FAS3140	FAS3160	FAS3170	FAS6030	FAS6040	FAS6070	FAS6080
		LUN Connection Information												
Single Controller	Maximum number of LUNs per controller	1024	1024	1024	2048	1024	2048	2048	2048	2048	2048	2048	2048	2048
	Maximum number of LUNs per volume	1024	1024	1024	2048	1024	2048	2048	2048	2048	2048	2048	2048	2048
	Maximum FC port Fan-In	16	16	64	64	64	64	64	64	64	64	64	64	64
	Maximum connected hosts per controller (FC)	24	32	256	256	256	256	256	256	256	256	256	256	256
	Maximum connected hosts per controller (iSCSI)	24	32	64	256	128	256	256	256	256	256	256	512	512
	Maximum number of igroups per controller	256	256	256	256	256	256	256	256	256	256	256	256	256
	Maximum number of initiators per igroup	256	256	256	256	256	256	256	256	256	256	256	256	256
	Maximum number of LUN mappings per controller	4096	4096	4096	4096	4096	4096	4096	4096	4096	8192	8192	8192	8192
	Maximum length of LUN pathname	255	255	255	255	255	255	255	255	255	255	255	255	255
	Maximum LUN size	8TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB
HA Pair	Maximum FC queue depth available per port	737	737	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
	Maximum Built-In FC target ports per controller	2	2	4	4	4	4	4	4	4	8	8	8	8
	Maximum Expansion Card FC Target ports per controller	N/A	4	4	12	4	12	16	16	16	16	16	16	16
	Maximum Usable FC target ports per controller (Can't Mix Built-In & Expansion Card Target Ports)	2	4	4	12	4	12	16	16	16	16	16	16	16
	Maximum number of LUNs per HA Pair/Cluster	1024	1024	1024	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
	Maximum number of LUNs per volume	1024	1024	1024	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
	Maximum FC port Fan-In	16	16	64	64	64	64	64	64	64	64	64	64	64
	Maximum connected hosts per HA Pair/Cluster (FC)	24	32	256	256	256	256	256	256	256	256	256	256	256
	Maximum connected hosts per HA Pair/Cluster (iSCSI)	24	32	128	512	256	512	512	512	512	512	512	1024	1024
	Maximum number of igroups per HA Pair/Cluster	256	256	256	256	256	256	256	256	256	256	256	256	256
HA Pair	Maximum number of initiators per igroup	256	256	256	256	256	256	256	256	256	256	256	256	256
	Maximum number of LUN mappings per HA Pair/Cluster	4096	4096	4096	4096	4096	4096	4096	4096	4096	8192	8192	8192	8192
	Maximum length of LUN pathname	255	255	255	255	255	255	255	255	255	255	255	255	255
	Maximum LUN size	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB	12TB
	Maximum FC queue depth available per port	737	737	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
	Maximum Built-In FC target ports per HA	4	4	8	8	8	8	8	8	8	16	16	16	16
	Maximum Expansion Card FC Target ports per HA	N/A	8	8	24	8	24	32	32	32	32	32	32	32
	Maximum Usable FC target ports per HA Pair/Cluster (Can't Mix Built-In & Expansion Card Target Ports)	4	8	8	24	8	24	32	32	32	32	32	32	32
	Maximum number of LUNs per HA Pair/Cluster	1024	1024	1024	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
	Maximum number of LUNs per volume	1024	1024	1024	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
Max # Of iSCSI Connections Per Session		32	32	32	32	32	32	32	32	32	32	32	32	32

Concurrent Replication Transfer Information

Maximum number of concurrent replication operations without NearStore personality license

Storage System Model	Volume SnapMirror		Synchronous SnapMirror		Qtree SnapMirror		SnapVault		Open Systems SnapVault
	SRC	DSTN	SRC	DSTN	SRC	DSTN	SRC	DSTN	
FAS2020	8	8	8	8	16	16	16	16	8
FAS2050	8	8	8	8	32	32	32	32	8
FAS3020	50	50	16	16	64	64	64	64	16
FAS3040	50	50	16	16	64	64	64	64	16
FAS3070	50	50	16	16	64	64	64	64	16
FAS3140	50	50	16	16	64	64	64	64	16
FAS3160	50	50	16	16	64	64	64	64	16
FAS3170	50	50	16	16	64	64	64	64	16
FAS6030	100	100	24	24	96	96	96	96	24
FAS6040	100	100	24	24	96	96	96	96	24
FAS6070	150	150	32	32	128	128	128	128	32
FAS6080	150	150	32	32	128	128	128	128	32

Host operating system configuration limits for iSCSI and FC

Parameter	Operating System					
	Windows	Linux	HP-LUX	Solaris	AIX	VMware
Visible target ports per host	16	16	16	16	16	16
LUNs per host	64 (Windows 2000) 128 (Windows 2003)	128	512	512	128	128 (Ver. 2.x) 256 (Ver. 3.x)
Paths per LUN	8	4	8 ¹	16	16	4 (Ver. 2.x) 8 (Ver. 2.x)
Max LUN size ²	2 TB 12 TB (Windows 2003 or later)	2 TB	2 TB	1023 GB 12 TB ³	1 TB 12 TB ³	2 TB

¹ More paths are possible, but pvlincs only utilizes eight.² The maximum LUN sizes are due to restrictions at the operating system level, not the storage system level.³ Supported with Solaris 9, VMM, EPL, and appropriate patches.⁴ Supported with AIX 5.2ML7 or later and AIX 5.3ML3 or later.

Data ONTAP 7.3				Data ONTAP 7.2.4 or later	
Disk Size	Disk Type	Right-Sized Capacity	Max Data + Parity Drives per Aggregate with RAID-DP Size ≤ 16	Max Data Drives per Aggregate	Max Data + Parity Drives per Aggregate
36GB	FC	33.2GB	565	493	483
72GB		66.4GB	282	246	241
144GB	FC / SAS	132.8GB	141	123	120
300GB		285.6GB	71	61	59
450GB	SATA	408.2GB	46	40	39 ¹
250GB		206.4GB	91	79	78
320GB		267.9GB	71	61	61
500GB		413.1GB	45	39	39
750GB		620.6GB	30	26	26
1TB		827.6GB	23	19	19

¹ The 450GB FC drives require Data ONTAP 7.2.5.1 or later.

SnapVault for NetBackup Concurrent Transfer Information

Maximum number of concurrent replication operations with NearStore personality license

Storage System Model	Volume SnapMirror		Synchronous SnapMirror		Qtree SnapMirror		SnapVault		Open Systems SnapVault
	SRC	DSTN	SRC	DSTN	SRC	DSTN	SRC	DSTN	
FAS2020	8	8	8	8	40	40	40	40	16
FAS2050	8	16	8	8	80	80	80	80	32
FAS3020	50	100	16	16	80	80	80	80	32
FAS3040	50	100	16	16	160	160	160	160	64
FAS3050	50	100	16	16	120	120	120	120	64
FAS3070	50	100	16	16	320	320	320	320	128
FAS3140	50	100	16	16	256	256	256	256	64
FAS3160	50	100	16	16	320	320	320	320	128
FAS3170	50	100	16	16	384	384	384	384	128
FAS6030	100	200	24	24	384	384	384	384	96
FAS6040	100	200	24	24	384	384	384	384	96
FAS6070	150	300	32	32	512	512	512	512	128
FAS6080	150	300	32	32	512	512	512	512	128

SRC – Source, DSTN – Destination

Maximum number of concurrent streams with NearStore license

Model	Maximum number of concurrent transfers supported for SnapVault for NetBackup
FAS3020	32
FAS3040	64
FAS3050	64
FAS3070	128
FAS3140	64
FAS3160	128
FAS3170	128
FAS6030	96
FAS6040	96
FAS6070	128
FAS6080	128
R200 (no NearStore license)	128

Maximum volume size allowed for different storage systems, with and without deduplication

Storage System Model	Maximum size of volume without deduplication (TB)	Maximum size of volume with deduplication (TB)	Total data size of volume with deduplication (TB)
FAS2020	16	1	17
FAS2050	16	2	18
FAS3020	16	2	18
FAS3040	16	4	20
FAS3050	16	3	19
FAS3070	16	16	32
FAS3140	16	4	20
FAS3160	16	16	32
FAS3170	16	16	32
FAS6030	16	16	32
FAS6040	16	16	32
FAS6070	16	16	32
FAS6080	16	16	32
R200	16	4	20

^{*} Maximum number of valid entries in /etc/snapmirror.conf is 1,024