

ONTAP 9.0 Maximum Configurations Guide																									
4 Node Clusters (Single Node Cluster Use Node Scope, 2 Node Clusters Use HA Pair Scope)																									
Category	Description	Scope	Code Enforced	Scales by Scope	Platform Agnostic	Cluster Maximum	Primary Platforms				Miscable Platforms														
							FAS2220		FAS2240		FAS2520		FAS2552		FAS2554		FAS3220		FAS3250		FAS3270		FAS8020		
							Memory 6GB/node Platform Maximum	Platform Maximum	Memory 6GB/node Platform Maximum	Platform Maximum	Memory 16GB/node Platform Maximum	Platform Maximum	Memory 16GB/node Platform Maximum	Platform Maximum	Memory 16GB/node Platform Maximum	Platform Maximum	Memory 12GB/node Platform Maximum	Platform Maximum	Memory 20GB/node Platform Maximum	Platform Maximum	Memory 20GB/node Platform Maximum	Platform Maximum	Memory 24GB/node Platform Maximum		
Supported ONTAP 9.0 Versions >=																									
1	Core	Maximum number of nodes - NAS	N/A Node HA Pair Cluster	N/A N/A N/A No	N/A N/A N/A No	N/A N/A N/A No	4 (FAS2520 = 2)	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
2	Core	Maximum number of storage virtual machines (SVMs) - NAS	N/A Node HA Pair Cluster	N/A N/A N/A No	N/A N/A N/A No	N/A N/A N/A No	512	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
3	Core	Maximum number of LIFs - NAS	N/A Node HA Pair Cluster	N/A Yes No No	N/A N/A N/A No	N/A N/A Yes Yes	1024	N/A 256 256 256	N/A 256 256 256	N/A 256 256 256	N/A 256 256 256	N/A 256 256 256	N/A 512 512 512	N/A 512 512 512	N/A 512 512 512										
4	Core	Maximum number of connections - NAS	N/A Node Cluster	N/A Yes No	N/A N/A No	N/A N/A No	N/A	10,000 10,000	10,000 10,000	10,000 10,000	10,000 10,000	10,000 10,000	10,000 10,000	100,000 100,000	100,000 100,000										
5	Core	Maximum number of flexible volumes - NAS	N/A Node HA Pair Cluster	N/A Yes Yes Yes	N/A N/A N/A No	N/A N/A Yes No	4,000	N/A 500 1,000	N/A 500 1,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 500 1,000	N/A 1,000 2,000	N/A 1,000 2,000										
6	Core	Maximum number of lock manager locked objects (CIFS and NFS combined)	N/A Node HA Pair Cluster	N/A Yes Yes Yes	N/A N/A N/A No	N/A N/A Yes No	1,400,000	N/A 70,000 70,000	N/A 70,000 70,000	N/A 600,000 600,000	N/A 600,000 600,000	N/A 400,000 400,000	N/A 700,000 700,000	N/A 700,000 700,000	N/A 800,000 900,000										
7	NFS	Maximum number of export policies	N/A Node HA Pair Cluster	N/A N/A No No	N/A N/A Yes Yes	N/A N/A Yes Yes	4,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000										
8	NFS	Maximum number of export rules	N/A Node HA Pair Cluster	N/A N/A No No	N/A N/A N/A N/A	N/A N/A N/A N/A	70,000	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
9	NFS	Maximum NFSv4 access control entries	N/A Node HA Pair Cluster	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
10	NFS	Maximum number of client objects	N/A Node HA Pair Cluster	N/A Yes Yes Yes	N/A N/A No No	N/A N/A No No	N/A	10,000 10,000	10,000 10,000	10,000 10,000	10,000 10,000	10,000 10,000	100,000 100,000	100,000 100,000	100,000 100,000										
11	NFS	Maximum number of pNFS objects	N/A Node HA Pair Cluster	N/A Yes Yes Yes	N/A N/A No No	N/A N/A No No	1,048,576	N/A 524,288 524,288	N/A 524,288 524,288	N/A 524,288 524,288	N/A 524,288 524,288	N/A 524,288 524,288	N/A 524,288 524,288	N/A 524,288 524,288	N/A 1,024,000 1,024,000										
12	WAFL	Maximum size of a 64-bit aggregate	Aggregate Node HA Pair Cluster	Yes N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	120TB N/A N/A N/A	120TB N/A N/A N/A	120TB N/A N/A N/A	120TB N/A N/A N/A	120TB N/A N/A N/A	180TB N/A N/A N/A	240TB N/A N/A N/A	240TB N/A N/A N/A										
13	WAFL	Maximum size of a 64-bit volume	Volume Node HA Pair Cluster	Yes N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	60TB N/A N/A N/A	60TB N/A N/A N/A	60TB N/A N/A N/A	60TB N/A N/A N/A	60TB N/A N/A N/A	70TB N/A N/A N/A	70TB N/A N/A N/A	70TB N/A N/A N/A										
14	WAFL	Maximum file size in a 64-bit volume	File Node HA Pair Cluster	Yes N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A										
15	WAFL	Maximum number of volume Snapshot™ copies	Volume Node HA Pair Cluster	Yes N/A Yes Yes	N/A N/A Yes Yes	N/A N/A No No	N/A	255 127,500 255,000	255 127,500 255,000	255 255,000 510,000	255 255,000 510,000	255 255,000 510,000	255 255,000 510,000	255 255,000 510,000	255 255,000 510,000										
16	WAFL	Maximum character length for Snapshot copy names	Snapshot Node HA Pair Cluster	Yes N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	255 N/A N/A N/A	255 N/A N/A N/A	255 N/A N/A N/A	255 N/A N/A N/A	255 N/A N/A N/A	255 N/A N/A N/A	255 N/A N/A N/A	255 N/A N/A N/A										
17	WAFL	Maximum number of hard links	File Node HA Pair Cluster	Yes N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	100,000 N/A N/A N/A	100,000 N/A N/A N/A	100,000 N/A N/A N/A	100,000 N/A N/A N/A	100,000 N/A N/A N/A	100,000 N/A N/A N/A	100,000 N/A N/A N/A	100,000 N/A N/A N/A										
18	WAFL	Maximum number of inodes/files	Volume Node HA Pair Cluster	Yes N/A No N/A	N/A N/A No Yes	N/A N/A No Yes	N/A	2,000,000,000 50,000,000,000	2,000,000,000 50,000,000,000	2,000,000,000 50,000,000,000	2,000,000,000 50,000,000,000	2,000,000,000 50,000,000,000	2,000,000,000 50,000,000,000	2,000,000,000 50,000,000,000	2,000,000,000 50,000,000,000										
19	WAFL	Maximum number of qtree	Volume Node HA Pair Cluster	Yes N/A No No	N/A N/A No Yes	N/A N/A No Yes	400,000	4,995 100,000 200,000	4,995 100,000 200,000	4,995 100,000 200,000	4,995 100,000 200,000	4,995 100,000 200,000	4,995 100,000 200,000	4,995 100,000 200,000	4,995 100,000 200,000										
20	WAFL	Maximum number of concurrent DataMotion™ for Volumes (vol move) operations	Node HA Pair Cluster	Yes Yes N/A	N/A N/A N/A	N/A N/A N/A	N/A	8 16	8 16	8 16	8 16	8 16	8 16	8 16	8 16										
21	Quality of Service	Maximum number of policy groups	N/A Node HA Pair Cluster	N/A N/A Yes No	N/A N/A Yes No	N/A N/A Yes No	12,000	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
22	Quality of Service	Maximum number of QoS user workloads	Policy Group Node HA Pair Cluster	Yes Yes Yes No	N/A N/A No N/A	N/A N/A No N/A	12,000	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
23	Quality of Service	Maximum number of nodes participating in QoS	N/A Node HA Pair Cluster	N/A N/A N/A No	N/A N/A N/A N/A	N/A N/A N/A N/A	4	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
24	Quality of Service	Maximum number of QoS autovolume workloads	N/A Node HA Pair Cluster	N/A Yes Yes No	N/A N/A No Yes	N/A N/A No Yes	12,000	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
25	Quality of Service	Maximum number of QoS system workloads	N/A Node HA Pair Cluster	N/A Yes Yes No	N/A N/A No Yes	N/A N/A No Yes	5,000	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
26	SAN	Maximum number of nodes - SAN	N/A Node HA Pair Cluster	N/A N/A N/A No	N/A N/A N/A No	N/A N/A N/A No	4	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A										
27	SAN	Maximum number of storage virtual machines (SVMs) - SAN	N/A Node HA Pair Cluster	N/A No N/A No	N/A N/A N/A No	N/A N/A N/A No	500	N/A 32 64	N/A 125 250	N/A 125 250	N/A 125 250	N/A 125 250	N/A 125 250	N/A 125 250	N/A 125 250										
28	SAN	Maximum number of flexible volumes - SAN	N/A Node HA Pair Cluster	N/A Yes Yes Yes	N/A N/A N/A No	N/A N/A Yes No	4,000	N/A 500 1,000	N/A 500 1,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 1,000 2,000	N/A 500 1,000	N/A 1,000 2,000	N/A 1,000 2,000										
29	SAN	Maximum number of LUNs	N/A Volume Node HA Pair Cluster	N/A N/A No No	N/A N/A N/A No	N/A N/A No Yes	8,192	N/A 512 1,024	N/A 512 2,048	N/A 512 2,048	N/A 512 2,048	N/A 512 2,048	N/A 512 2,048	N/A 512 2,048	N/A 512 2,048										
30	SAN	Maximum number of LUN mappings	N/A Node HA Pair Cluster	N/A N/A No No	N/A N/A N/A No	N/A N/A N/A No	8,192	N/A 1,024 2,048	N/A 2,048 4,096	N/A 2,048 4,096	N/A 2,048 4,096	N/A 2,048 4,096	N/A 8,192 16,384	N/A 8,192 16,384	N/A 8,192 16,384										
31	SAN	Maximum LUN size	LUN Node HA Pair Cluster	No N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A	16TB N/A N/A N/A										
32	SAN	Maximum FC queue depth available	Port Node HA Pair Cluster	No N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	N/A 2,048 N/A	N/A 2,048 N/A	N/A 2,048 N/A	N/A 2,048 N/A	N/A 2,048 N/A	N/A 2,048 N/A	N/A 2,048 N/A	N/A 2,048 N/A										
33	SAN	Maximum ITNs	Port Node HA Pair Cluster	No N/A No Yes	N/A N/A Yes No	N/A N/A Yes No	8,192	N/A 2,048 4,096	N/A 2,048 4,096	N/A 2,048 4,096	N/A 2,048 4,096	N/A 2,048 4,096	N/A 8,192 8,192	N/A 8,192 8,192	N/A 8,192 8,192										
34	SAN	Maximum number of LIFs - iSCSI	Portset Node HA Pair Cluster	No N/A No Yes	N/A N/A No Yes	N/A N/A No Yes	2,048	32 32 256	32 32 256	32 32 256	32 32 256	32 32 256	32 32 512	32 32 512	32 32 1024										
35	SAN	Maximum number of LIFs - FCP	Portset Node HA Pair Cluster	No N/A No Yes	N/A N/A No Yes	N/A N/A No Yes	2,048	N/A 32 512	N/A 32 512	N/A 32 512	N/A 32 512	N/A 32 512	N/A 32 512	N/A 32 512	N/A 32 512										
36	SAN	Maximum number of groups	N/A Node HA Pair Cluster	N/A No No Yes	N/A N/A N/A No	N/A N/A N/A No	4,096	256 512	256 1,024	256 1,024	256 1,024	256 1,024	256 2,048	256 2,048	256 2,048										
37	SAN	Maximum number of initiators	igroup Node HA Pair Cluster	No N/A No Yes	N/A N/A N/A No	N/A N/A N/A No	4,096	128 512	256 1,024	256 1,024	256 1,024	256 2,048	256 2,048	256 2,048	256 2,048										
38	SAN	Maximum number of portsets	N/A Node HA Pair Cluster	N/A No No Yes	N/A N/A N/A No	N/A N/A N/A No	4,096	256 512	256 1,024	256 1,024	256 1,024	256 1,024	256 2,048	256 2,048	256 2,048										
39	SAN	Maximum number of iSCSI sessions	N/A Node HA Pair Cluster	N/A No No Yes	N/A N/A N/A No	N/A N/A N/A No	8,192	1,024 2,048	2,048 4,096	2,048 4,096	2,048 4,096	2,048 4,096	2,048 4,096	2,048 4,096	2,048 4,096										
40	CIFS	Maximum number of connected shares	N/A Node HA Pair Cluster	N/A No N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	N/A 100,000	N/A 100,000	N/A 40															

