



CHAPTER 1

Configuration Limits

The features supported by the Cisco Nexus 5000 Series Switch have maximum configuration limits. Some of these limits apply only when one or more Cisco Nexus 2000 Series Fabric Extender units are attached to the switch. For some of the features, we have verified configurations that support limits less than the maximum. [Table 1-1](#) lists the Cisco verified limits and maximum limits for switches running Cisco NX-OS Release 4.0.x.

Table 1-1 Configuration Limits

Feature	Verified Limit	Maximum Limit
Fabric Extender per switch	12 units	N/A
VLANs per switch ¹	256	1024 minus the number of configured VSANs
Ethernet MTU	9,216 bytes	9,216 bytes (ASIC limit)
STP logical interface instances	3,000 instances Only 2,500 can be true STP bridge to STP bridge connections	N/A
MST instances per switch (every instance is RSTP enabled)	64	64 (IEEE standard)
Station Table ²	16,000 entries	32,000 entries
IP Multicast addresses (IGMP snooping)	1,000 addresses	1,000 addresses
VSANs per switch ³	32	1024 minus the number of configured VLANs
Device Aliases per fabric	8,000	8,000
Event Traps - forward via Email	4 destinations	50 destinations
Switches in a single physical fabric or VSAN	50	239
Domains per VSAN	40	239
Native FC links per switch	16 ⁴	16 ⁴
FLOGIs or FDISCs per NPV port group	62	100
Zones per virtual or physical F port (includes all VSANs)	32	2,048 per ASIC
Zone sets per switch (includes all VSANs)	500	1,000

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Table 1-1 Configuration Limits (continued)

Feature	Verified Limit	Maximum Limit
Zone members per physical fabric (includes all VSANs)	8,000	20,000
Zones per switch (includes all VSANs)	8,000	8,000
Maximum diameter of a SAN Fabric	3 hops	12 hops
FSPF interface instances per switch	256	4,096 ⁵
ISL instances per switch	256	256 (up to 8 Fibre Channel interfaces, each with up to 32 VSAN instances)
Virtual interfaces	52 virtual Fibre Channel interfaces	52 virtual Fibre Channel interfaces
QoS System Classes	5 user-configurable classes	5 user-configurable classes
VLAN ACL (VACL) entries for the whole switch	1,024	1,024
Port ACL (PACL) entries per physical Ethernet interface	128	128
ACL Accounting	32	32
Fibre Channel Flows	32	32
EtherChannels and SAN port channels	4 SAN port channels and 12 EtherChannels	16 port channels (any combination of SAN port channels and EtherChannels)
SPAN Sessions ⁶	2 active sessions	18 sessions configured (2 active)
Egress SPAN sources	2	2

1. The entire 4094 VLAN ID space is supported.
2. Station table contains all unicast Ethernet MAC addresses and Ethernet multicast addresses.
3. The entire 4094 VSAN ID space is supported.
4. Requires two N5K-M1008 expansion modules.
5. This is the number of Extended ISLs (16) times the number of VSANs (256).
6. Only one SPAN session is supported for all the host interfaces on the same Fabric Extender. A Fabric Extender host interface cannot be configured as a SPAN destination.