Send documentation comments to mdsfeedback-doc@cisco.com

Cisco MDS NX-OS Release 5.0(x) Configuration Limits

Revised: January 2012, Cisco MDS NX-OS Release 5.0(x)

The features supported by Cisco MDS NX-OS have maximum configuration limits. Some of the features have configuration limits less than the maximum limits. The following table lists the known feature configuration limits for Release 5.0(x) and lists the maximum configuration limits for the features.

Feature	Verified Configuration Limit for Release NX-OS 5.0(x)	Maximum Configuration Limit
VSANs	80 VSANs per physical fabric	4000 VSANs per physical fabric
Switches in a single MDS physical fabric or VSAN	60 switches per fabric (75 switches per fabric[1])	239 switches
PortChannels and member ports in PortChannels	For MDS 91xx switches, 16 PortChannels with 16 members ports in all PortChannels (you can have 16 PortChannels, each with 1 member, or 1 PortChannel with 16 members). For MDS 95xx switches, 256 PortChannels, 16 members maximum in a single port channel.	For MDS 91xx switches, 16 PortChannels with 16 members ports in all PortChannels (you can have 16 PortChannels, each with 1 member, or 1 PortChannel with 16 members). For MDS 95xx switches, 256 PortChannels, 16 members maximum in a single port channel.
Switches in multivendor switch fabric	32 switches per VSAN	239 switches
SSH	61 sessions	64 sessions
Domains per VSAN	60 domains per VSAN (75 domains per VSAN[1])[2]	239 domains
FCNS entries per fabric	10 K per fabric	10 K per fabric
Device alias[3]	8 K per fabric	20 K per fabric

Send documentation comments to mdsfeedback-doc@cisco.com

Feature	Verified Configuration Limit for Release NX-OS 5.0(x)	Maximum Configuration Limit
Zone members	16,000 zone members per physical fabric (includes all VSANs)	20,000 zone members per physical fabric (includes all VSANs)
Zones	8000 zones per switch (includes all VSANs)	8000 zones per switch (includes all VSANs)
Zone sets	500 zone sets per switch (includes all VSANs)	1000 zone sets per switch (includes all VSANs)
Supported hops for all major storage, server, and HBA vendors	7 hops (diameter of the SAN fabric)	12 hops
IVR zone members	4000 IVR zone members per physical fabric	20,000 IVR zone members per physical fabric in Cisco NX-OS Release 3.0(3) and later 10,000 IVR zone members per physical fabric prior to Cisco NX-OS Release 3.0(3)
IVR zones	2000 IVR zones per physical fabric	8000 IVR zones per physical fabric in Cisco NX-OS Release 3.0(3) and later 2000 IVR zones per physical fabric prior to Cisco NX-OS Release 3.0(3)
IVR zone sets	32 IVR zone sets per physical fabric	32 IVR zone sets per physical fabric
IVR service groups	16 service groups per physical fabric	16 service groups per physical fabric
FLOGIs or FDISC per NPV port[4] group.	For 9148 Switches: 114	For 9148 Switches: 114
FLOGIs or FDISC per NPV port group.	For 9124/9134 Switches: 89	For 9124/9134 Switches: 89
NPV switches per NPV core switch	105	105
FLOGIs per line card on NPV core switch	400	400
FLOGIs per NPV core switch	2000	2000
CFS Peer Limit	80	80
ISL instances per switch[5]	Up to 200 ISLs, each with 16 VSANs, for a total of 3200 port-VSAN instances. You can configure more than 200 ISLs with fewer than 16 VSANs, or fewer than 200 ISLs with more than 16 VSANs, within the total ports per VSAN instance limit of 3200.	Up to 200 ISLs, each with 16 VSANs, for a total of 3200 port-VSAN instances. You can configure more than 200 ISLs with fewer than 16 VSANs, or fewer than 200 ISLs with more than 16 VSANs, within the total ports per VSAN instance limit of 3200.

Send documentation comments to mdsfeedback-doc@cisco.com

Feature	Verified Configuration Limit for Release NX-OS 5.0(x)	Maximum Configuration Limit
IP ports per switch	No limits	No limits
Fibre Channel modules versus IPS modules per switch	No limits	No limits
iSCSI and iSLB sessions per IP port	500 sessions	500 sessions
iSCSI and iSLB sessions per switch	5000 sessions	5000 sessions
iSCSI and iSLB initiators supported in physical fabric	2000 initiators	2000 initiators
iSCSI and iSLB initiators supported per port	200 initiators	200 initiators
iSCSI and iSLB targets per physical fabric (virtual and initiator targets)	6000 targets	6000 targets
ISLB VRRP	20 per switch	20 per switch
Event Traps–forward via e-mail	1 destination	1 destination
Maximum latency (round-trip time) and packet drop supported on FCIP links **Note** The limit is the same regardless whethere latency and packet drop conditions exist together or only one of them exists.	100 ms round trip and 0.05% packet drop	100 ms round trip and 0.05% packet drop

1. Certain design considerations must be met to reach this limit. We recommend that you have the large fabric design validated by Cisco Advanced Services.
2. NPV switches do not have a domain ID and do not count towards the maximum limit.
3. Device aliases can be restricted to switches where zoning is done and activated. Distributing device alias fabric-wide might result in unnecessary consumption of resources for the database.
4. The NPV port group is a set of front panel NPV ports that share the same set of forwarding resources in a switch. Each switch has a different set of port groups. The mapping from a port to a port group is platform specific. You can display this mapping by using the **show npv internal info** command. For more information on this **show** command, refer to the *Cisco MDS 9000 Family Command Reference Guide*.
5. This is the number of trunking-enabled ISL ports multiplied by the number of VSANs in the switch.

Send documentation comments to mdsfeedback-doc@cisco.com