



Cisco Nexus 3548 Switch Verified Scalability Guide for Cisco NX-OS Release 5.0(3)A1(1) and 5.0(3)A1(2)

Verified Scalability 2

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Verified Scalability

Cisco Nexus 3548 Switch Verified Scalability for NX-OS Releases

This document lists the Cisco verified limits for topologies that include Layer 2 and Layer 3 feature configurations.

In the following tables, the Verified Topology column lists the verified scaling capabilities with all listed features enabled at the same time. The numbers listed here exceed those used by most customers in their topologies. The scale numbers listed here are not the maximum verified values if each feature is viewed in isolation.

The Verified Maximum column lists the maximum scale capability tested for the corresponding feature individually. This number is the absolute maximum currently supported by the Cisco NX-OS Release software for the corresponding feature. If the hardware is capable of a higher scale, future software releases may increase this verified maximum limit.



Note

If your scale requirements exceed either the Verified Topology or the Verified Maximum limit, please contact your Cisco representative. Based on your requirements, it may be possible to validate support for your requirement, as long as the scale capability of the hardware is not exceeded.

Cisco NX-OS Release 5.0(3)A1(1)

Table 1: Cisco NX-OS Release 5.0(3)A1(1) Layer 2 and Layer 3 Topology Configuration Limits

Feature	Verified Topology	Verified Maximum
Active VLANs per switch	512 ¹	512 ²
MTU	9,216	9,216
STP logical interfaces	2,500	9,000
MST instances	63	64
MAC table size	8,192	65,532
Port Channels	8	24
Number of member ports per Port Channel	16	24
Number of system logging destination ports	0	8

Feature	Verified Topology	Verified Maximum
SPAN sessions	4 active sessions ³	4 active bi-directional sessions ⁴ 1 destination ports per session
Layer 3 physical interfaces	10	48
Layer 3 SVI, subinterfaces, EtherChannels	256	1,024
VRF	10	200
IPv4 hosts	4,096	65,536
IPv4 routes (LPM)	8192 (Normal Traffic Forwarding mode) 4096 (Warp mode)	16,384 (Normal Traffic Forwarding mode) 4096 (Warp mode)
Multicast routes	7,990	8,192
IGMP Snooping groups	3,000	8,000
ECMP ⁵	2-way	32-way
TCAM entries for ACL	384 ingress (Normal Traffic Forwarding mode) 128 ingress (Warp mode)	3,000 ingress, 1,000 egress
HSRP	256	500
VRRP	250 ⁶	250 ⁷
Configurable QoS groups	4	4
BGP neighbors	85	85
OSPF neighbors	150 (in a single area, area 0)	150 (in a single area, area 0)
PIM neighbors	250	250
NAT translations	—	1023

¹ 507 VLANs in PVRST mode. 512 VLANs in RPVST mode where 507 are user-defined VLANs, and 512 VLANs in MST mode.

² 507 VLANs in PVRST mode. 512 VLANs in RPVST mode where 507 are user-defined VLANs, and 4,000 VLANs in MST mode.

³ Allows same SPAN source in a single direction in 2 SPAN sessions with difference destinations.

⁴ 4 active SPAN sessions regardless of the direction of the SPAN session.

⁵ Only supported in Normal Traffic Forwarding mode.

⁶ A combination of HSRP and VRRP groups, where the total is 250.

⁷ A combination of HSRP and VRRP groups, where the total is 250.

Cisco NX-OS Release 5.0(3)A1(2)

Table 2: Cisco NX-OS Release 5.0(3)A1(2) Layer 2 and Layer 3 Topology Configuration Limits

Feature	Verified Topology	Verified Maximum
Active VLANs per switch	512 ⁸	512 ⁹
MTU	9,216	9,216
STP logical interfaces	2,500	9,000
MST instances	63	64
MAC table size	8,192	65,532
Port Channels	8	24
Number of member ports per Port Channel	16	24
Number of system logging destination ports	0	8
SPAN sessions	4 active sessions 10	4 active bi-directional sessions ¹¹ 1 destination ports per session
Layer 3 physical interfaces	10	48
Layer 3 SVI, subinterfaces, EtherChannels	256	1,024
VRF	10	200
IPv4 hosts	4,096	65,536
IPv4 routes (LPM)	8192 (Normal Traffic Forwarding mode) 4096 (Warp mode)	24,000 (Normal Traffic Forwarding mode) 4096 (Warp mode)
Multicast routes	7,990	8,192
IGMP Snooping groups	3,000	8,192
ECMP ¹²	2-way	32-way
TCAM entries for ACL	384 ingress (Normal Traffic Forwarding mode) 128 ingress (Warp mode)	3,000 ingress, 1,000 egress

Feature	Verified Topology	Verified Maximum
HSRP	256	500
VRRP	250 ¹³	250 ¹⁴
Configurable QoS groups	4	4
BGP neighbors	85	85
OSPF neighbors	150 (in a single area, area 0)	150 (in a single area, area 0)
PIM neighbors	250	250
NAT translations	—	1023

⁸ 507 VLANs in PVRST mode. 512 VLANs in RPVST mode where 507 are user-defined VLANs, and 512 VLANs in MST mode.

⁹ 507 VLANs in PVRST mode. 512 VLANs in RPVST mode where 507 are user-defined VLANs, and 4,000 VLANs in MST mode.

¹⁰ Allows same SPAN source in a single direction in 2 SPAN sessions with difference destinations.

¹¹ 4 active SPAN sessions regardless of the direction of the SPAN session.

¹² Only supported in Normal Traffic Forwarding mode.

¹³ A combination of HSRP and VRRP groups, where the total is 250.

¹⁴ A combination of HSRP and VRRP groups, where the total is 250.

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