




# CISCO NX-OS Software User Guide

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## CISCO NX-OS Software



## Specifications:

- **Product:** Cisco Nexus 3000 Series
- **Software:** NX-OS Release 9.3(12)

## Product Information:

The Cisco Nexus 3000 Series NX-OS Verified Scalability Guide provides validated scalability limits for supported platforms. These values have been verified by Cisco and may increase over time with additional testing.

## Usage Instructions

### Layer 2 Switching:

The Nexus 34180YC supports the following:

- 4K MSTP, 4K RSTP (Generic Profile Mode)
- 4K MSTP, 1K RSTP (L3 Heavy Profile Mode)
- 507 RSTP and 4K MSTP (Generic Profile Mode)
- 507 RSTP and 2K MSTP (L3 Heavy Profile Mode)
- MAC Address Table: 32K (Generic Profile Mode), 4K (L3 Heavy Profile Mode)

### Layer 3 Switching:

The Nexus 34180YC supports the following:

- ARP IPv4 LPM: Maximum 32,768; Verified 32,000
- IPv4 hosts: Maximum 4,096; Verified 4,000
- Nhop ECMP: Maximum 17,408; Verified 15,500 (90% hash collision)

### Unicast Routing:

The Nexus 3000 series supports various models with different capabilities for VLANs per switch and BFD/BFDv6 neighbors.

## Introduction

The values provided in this guide should not be interpreted as theoretical system limits for Cisco Nexus 3000 Series hardware or Cisco NX-OS software. These limits refer to values that have been validated by Cisco. They can increase over time as more testing and validation is done.

## Verified Scalability Limits

- The tables in this section list the Cisco verified scalability limits for Cisco NX-OS Release 9.3(12).
- These limits are validated with a unidimensional configuration. The values provided in these tables focus on the scalability of one particular feature at a time.
- Each number is the absolute maximum currently supported by this Cisco NX-OS release for the corresponding feature. If the hardware is capable of a higher scale, future software releases might increase this verified maximum limit.
- Results might differ from the values listed here when trying to achieve maximum scalability with multiple features enabled.

## Note

1. Verified limits are provided only for supported platforms.
2. If a feature is not supported for a particular platform, the verified limit is not provided.
3. If the verified maximum values are exceeded in an ALPM or a non-ALPM mode, you get a table full syslog even in the hash collision scenario.
4. For Verified Maximum, 16 path ECMP is tested with 40K IPv4 and 40K IPv6.
5. 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.

**Table 1: Layer 2 Switching Verified Scalability Limits (Unidimensional)**

Feature	Nexus 34180YC
Port VLAN combinations	4K MSTP, 4K RSTP (Generic Profile Mode ) ; 4K MSTP, 1K RSTP ( L3 Heavy Profile Mode )
Active VLANs per switch	507 RSTP and 4K MSTP ( Generic Profile Mode) ; 507 RSTP and 2K MSTP ( L3 Heavy Profile Mode )
MAC Address Table	32K ( Generic Profile Mode ) ; 4K ( L3 Heavy Profile Mode)

**Table 2: Layer 3 Switching Verified Scalability Limits (Unidimensional)**

Feature	Nexus 34180YC	
Routing Mode	Default	LPM Heavy

Feature	Nexus 34180YC	
ARP	Maximum: 32,768; Verified 32,000	Maximum: 4,096; Verified 4,000
IPv4 LPM	Maximum: 17,408; Verified 15,500 ( 90% hash collision)	Max: 65,536; Verified 55,700 (85% hash collision)
IPv4 hosts	Maximum: 32,768; Verified 32,000	Maximum: 65,536; Verified 60, 000 (hash collision)
Nhop	Maximum: 32,768; Verified 32,000	Maximum: 4,096; Verified 4,000
ECMP	Maximum: 256; Verified 255	Maximum: 256; Verified 255

**Table 3: Unicast Routing Verified Scalability Limits (Unidimensional)**

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
Active VLANs per switch	4000	Not applicable	Not applicable	507 (RSTP) and 4013 (MSTP)	507 (RSTP) and 4013 (MSTP)	507 (RSTP) and 4013 (MSTP)	507 (RSTP) and 4013 (MSTP)	507 (RSTP) and 4013 (MSTP)	507 (RSTP) and 4013 (MSTP)	507 (RSTP) and 3831 (MSTP)	507 (RPVST) and 3967 (MSTP)	507 (RSTP) and 4013 (MSTP)	507 (RSTP) and 4013 (MSTP)
BFD neighbors	64	64	Not applicable	104	104	104	104	104	104	104	104	104	104
BFDv6 neighbors	64	64	Not applicable	104	104	104	104 (with TCAM carving of redirect region to 512)	104 (with TCAM carving of redirect region to 512)	84 (without any TCAM carving)	85 (without TCAM carving)	85 (without TCAM carving)	85 (without TCAM carving)	85 (without TCAM carving)
BGP neighbors	Not applicable	Not applicable	Not applicable	140	140	140	140	140	140	140	140	140	140
BGPv4 neighbors (vPC)	141	Not applicable	Not applicable	128	128	128	128	128	128	128	256	128	128

BGPv4 neighbors (non-vPC)	141	Not applicable	Not applicable	141	141	141	141	141	141	141	141	141	141
BGPv6 (vPC)	128	128	Not applicable	128	128	128	128	128	128	512	512	128	128

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
BGPv6 (non-vPC)	128	Not applicable	Not applicable	128	128	128	128	128	128	512	512	128	128
BGP6	128	128	Not applicable	128	128	128	128	128	128	128	512	512	128
Configurable QoS groups	8	Not applicable	Not applicable	8	8	8	8	8	8	8	8	8	8
Ether Channel Members	32	Not applicable	Not applicable	32	32	32	32	24	24	32	32	32	32
ECMP paths	16	16	16	16	16	16	16	16	16	16	24	16	16
ECMP	64-way	64-way	Not applicable	64-way	64-way	64-way	64-way	64-way	64-way	64-way	64-way	64-way	64-way
HSRP	500	500	Not applicable	500	500	500	500	500	500	500	400	500	500

HSRP v6	500	500	Not applicable	500	500	500	490	490	490	490	490	400	400
IGMP Snooping groups	8000	Not applicable	Not applicable	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
IPv4 hosts	8,000 (Nexus 3064 PQ) 16,000 (All other Nexus 3000 Series platforms)	8,000 (Nexus 3064 PQ) 16,000 (All other Nexus 3000 Series platforms)	Not applicable	16,384 (Multicast is 0.)	16,384 (Multicast is 0.)	16,384 (Multicast is 0.)	16,384 (Multicast is 0.)	16,384 (Multicast is 0.)	16,384 (Multicast is 0.)	16,384 (Multicast is 0.)	16,384 (Multicast is 0.)	20000 (default system routing mode); 138200 (ALPM routing mode)	Not applicable

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
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IPv6 host routes	8,000	8,000	Not applicable	4096 (4096 is reserved for multicast.)	4096 (4096 is reserved for multicast.)	4096 (4096 is reserved for multicast.)	4096 (4096 is reserved for multicast.)	4096 (4096 is reserved for multicast.)	4096 (4096 is reserved for multicast.)	4096 (4096 is reserved for multicast.)	4096 (4096 is reserved for multicast.)	10000  (default system routing mode); 13596 (ALPM routing mode)	Not applicable
IPv4 LPM routes (No IPv6 carving)	16K (with system urpf disabled) and 8192  (with system urpf enabled)	128K (with system urpf disabled)  64K (with system urpf enabled)	16K (with system urpf disabled) and 8K (with system urpf enabled)	15,360 (with system urpf disabled) and 7680 (with system urpf enabled)	15,360 (with system urpf disabled) and 7680 (with system urpf enabled)	15,360 (with system urpf disabled)	15,360 (with system urpf disabled)	15,360 (with system urpf disabled)	4000 (with system urpf disabled)	14,327 (with URP F enabled) 28,660 (with URP F disabled)	12,000 (with system urpf disabled)	28000 (default system routing mode); 13000 (ALPM routing mode)	Not applicable
IPv6 LPM routes (No IPv6 carving)	80K (with system urpf disabled)  20K (with system urpf enabled)	80K (with system urpf disabled)  20K (with system urpf enabled)	0 (with both, system urpf disabled and enabled)	Not applicable	Not applicable	Not applicable	Not applicable	6,144 (with system urpf disabled)	6,144 (with system urpf disabled)	12288 (with URP F disabled)	4,000 (with system urpf disabled)	13000 (default system routing mode); 10200 (ALPM routing mode)	6,144 (with system urpf disabled)

IPv6 LPM ≤64 (no IPv6 carving)	8K (with system urpf disabled) and 4K (with system urpf enabled)	8K (with system urpf disabled) and 4K (with system urpf enabled)	8K (with system urpf disabled) and 4K (with system urpf enabled)	6144 (with system urpf disabled) and 2048 (with system urpf enabled)	6144 (with system urpf disabled) and 2048 (with system urpf enabled)	6144 (with system urpf disabled) and 2048 (with system urpf enabled)	6144 (with system urpf disabled)	6144 (with system urpf disabled)	6144 (with system urpf disabled)	12,288 (with system urpf disabled)	12,288 (with system urpf disabled)	12000 (default system routing mode); 9000 (ALPM routing mode)	6,144 (with system urpf disabled)
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Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
IPv6 LPM >64 and ≤127	8K (with system urpf disabled) and 4K (with system urpf enabled)	8K (with system urpf disabled) and 4K (with system urpf enabled)	Not applicable	256 (with system urpf disabled) and 128 (with system urpf enabled)	256 (with system urpf disabled) and 128 (with system urpf enabled)	256 (with system urpf disabled) and 128 (with system urpf enabled)	Not applicable	1024	1024	1024	1024	1000 (default system routing mode); 1200 (ALPM routing mode)	1024



IPv4 LPM routes (IPv6 carve value 1024)	Not applicable	96K (with system urpf disabled)	12K (with system urpf disabled) and 6K (with system urpf enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
IPv6 LPM routes (IPv6 carve value 1024)	Not applicable	5K (with system urpf disabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
IPv6 LPM <=64 (IPv6 carve value 1024)	Not applicable	Not applicable	6K (with system urpf disabled) and 2K (with system urpf enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

<b>Feature</b>	<b>Nexus 3000</b>	<b>Nexus 3100 (ALPM Mode)</b>	<b>Nexus 3100 (Non-ALPM Mode)</b>	<b>Nexus 3132Q</b>	<b>Nexus 3132Q-V</b>	<b>Nexus 3132Q-X</b>	<b>Nexus 3172PQ</b>	<b>Nexus 31108PC-V</b>	<b>Nexus 31108TC-V</b>	<b>Nexus 3132C-Z</b>	<b>Nexus 3232C</b>	<b>Nexus 3264C-E</b>	<b>Nexus 3264Q-S</b>
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[illegible]





IPv4 LPM  Routes(IPv6 carve value 4096)	Not applicable	Not applicable	0 (with both, system urpf disabled and enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
IPv6 LPM  <=64 (IPv6 carve value 4096)	Not applicable	Not applicable	0 (with both, system urpf disabled and enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
IPv6 LPM  >64 (IPv6 carve value 4096)	Not applicable	Not applicable	4096 (with system urpf disabled) and 2048 (with system urpf enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Layer 3 physical interfaces	Not applicable	Not applicable	Not applicable	64	64	64	24	24	24	Not applicable	Not applicable	24	Not applicable
Layer 3 SVI, subinterfaces EtherChannels	1024	1024	1024	1024	1024	1024	1024	1024	1024	255	1024	1024	1024

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
MAC table size (non-vPC)	128,000	294912	Not applicable	131,072	131,072	131,072	98000	98000	98000	98000	Not applicable	40000 (default system routing mode); 40000 (ALPM routing mode); 195000 (L2 mode)	30000
MAC table size (vPC)	128,000	Not applicable	Not applicable	131,072	131,072	131,072	98000	98000	98000	98000	Not applicable	40000 (default system routing mode); 40000 (ALPM routing mode); 195000 (L2 mode)	30000

MST instances	65	Not applicable	Not applicable	65	65	65	65	65	65	65	65	65	65
MTU	Not applicable	Not applicable	Not applicable	9216	9216	9216	9216	9216	9216	Not applicable	Not applicable	Not applicable	Not applicable

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
Multicast routes	4,000 (Nexus 3064 PQ) 8,000 (All other Nexus 3000 Series platforms) (hash table and there will be more collisions after 80%)	4,000 (Nexus 3064 PQ) 8,000 (All other Nexus 3000 Series platforms) (hash table and there will be more collisions after 80%)	Not applicable	8000 routes (hash table and there will be more collisions after 80%)	8000 routes (hash table and there will be more collisions after 80%)	8000 routes (hash table and there will be more collisions after 80%)	8000 routes (hash table and there will be more collisions after 80%)	8000 routes (hash table and there will be more collisions after 80%)	8000 routes (hash table and there will be more collisions after 80%)	8000 routes (hash table and there will be more collisions after 80%)	8000 routes (hash table and there will be more collisions after 80%) 4000 (ALPM mode)	8000 routes (hash table and there will be more collisions after 80%) 4000 (ALPM mode)	8000 routes (hash table and there will be more collisions after 80%) 4000 (ALPM mode)
Switch port Ether Channels	64	Not applicable	Not applicable	32	32	32	32	32	32	Not applicable	32	32	32

Number of system logging destination ports	8	Not applicable	Not applicable	8	8	8	8	8	8	Not applicable	8	8	8
OSPF neighbors	128	Not applicable	128	128	128	128	Not applicable	128	128	128	128	128	128
OSPF v3	128	Not applicable	128	128	128	128	Not applicable	128	128	128	128	128	128
sFlow	64	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
SNMP Servers	Not applicable	Not applicable	Not applicable	8	8	8	8	8	8	8	8	10	10
SPAN sessions	2 active sessions	Not applicable	Not applicable	2 active sessions	2 active sessions	2 active sessions	2 active sessions	2 active sessions	2 active sessions	Not applicable	2 active sessions	2 active sessions	2 active sessions



Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
SSH	Not applicable	Not applicable	Not applicable	32	32	32	32	32	32	Not applicable	32	32	32
STP logical interfaces	9000	Not applicable	Not applicable	9000	9000	9000	9000	9000	9000	9000	9000	12000	12000
TCAM entries for ACL	1664 ingress and 1024 egress	Not applicable	Not applicable	2048 ingress and 512 egress	2048 ingress and 512 egress	2048 ingress and 512 egress	2048 ingress and 512 egress	2048 ingress and 512 egress	2048 ingress and 512 egress	Not applicable	2048 ingress and 512 egress	768 ingress and 768 egress	768 ingress and 768 egress
Telnet session	Not applicable	Not applicable	Not applicable	64	64	64	64	64	64	Not applicable	64	32	32
VRF	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
VRRP	255	255	Not applicable	255	255	255	255	255	255	255	255	255	255

#### Note

- The IPv4/IPv6 host routes and the IPv4 multicast routes share the same hardware table. Limits are provided for both the default line card mode and the max host line card mode.
- You can configure up to 2034 Layer 2 VNIs with 32 static ingress replication peers on the following Cisco Nexus 3000 Series platforms:
  - C3132Q-V
  - C31108TC-V
  - C31108PC-V

**Table 4: VXLAN Flood and Learn Verified Scalability Limits**

Feature	Nexus 3132C-Z	Nexus 3132Q	Nexus 3132Q-V	Nexus 3172Q	Nexus 31108 PC-V / 31108TC-V	Nexus 3264C-E
Layer 2 VNI	640	640	640	640	640	640
Underlay multicast groups	128	128	128	128	128	128
Overlay MAC addresses	64,000	64,000	64,000	64,000	64,000	64,000

Feature	Nexus 3132C-Z	Nexus 3132Q	Nexus 3132Q-V	Nexus 3172Q	Nexus 31108 PC-V / 31108TC-V	Nexus 3264C-E
VTEPS	128	128	128	128	128	128
Ingress replication peers	128	128	128	128	128	128
Ingress replication Layer 2 VNIs	384	384	384	384	384	384
MAC addresses for ingress replication	64,000	64,000	64,000	64,000	64,000	64,000
Local MAC (MAC on vpc leg)	64,000	64,000	64,000	64,000	64,000	64,000
Port VLAN translations in a port	100	100	100	100	100	100

**Table 5: VXLAN BGP eVPN Multicast Replication with Routing Verified Scalability Limits**

Feature	Nexus 3132C-Z	Nexus 3132Q	Nexus 3132Q-V	Nexus 3172Q	Nexus 31108 PC-V / 31108TC-V	Nexus 3264C-E
Layer 2 VNI	640	Not applicable	640	Not applicable	640	Not applicable
Layer 3 VNI/VRFs	160	Not applicable	160	Not applicable	160	Not applicable
Underlay multicast groups	320	Not applicable	320	Not applicable	320	Not applicable
Overlay MAC addresses	64,000	Not applicable	64,000	Not applicable	64,000	Not applicable
VTEPs	32	Not applicable	32	Not applicable	32	Not applicable
Local MAC (MAC on vpc /access leg)	64,000	Not applicable	64,000	Not applicable	64,000	Not applicable
IPv4 host routes	8,000	Not applicable	8000	Not applicable	8000	Not applicable
IPv6 host routes	4,000	Not applicable	4000	Not applicable	4000	Not applicable

**Table 6: VXLAN BGP eVPN BGP Ingress Replication with Routing Verified Scalability Limits**

Feature	Nexus 3132 C-Z	Nexus 3132 Q	Nexus 3132 Q-V	Nexus 3172 Q	Nexus 31108PC-V / 31108TC-V	Nexus 3264 C-E
Layer 2 VNI	640	Not applicable	640	Not applicable	640	Not applicable
Layer 3 VNI vrf	160	Not applicable	160	Not applicable	160	Not applicable
Underlay multicast groups	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Overlay MAC addresses	64,000	Not applicable	64,000	Not applicable	64,000	Not applicable
VTEPs	32	Not applicable	32	Not applicable	32	Not applicable
Local MAC addresses	64,000	Not applicable	64,000	Not applicable	64,000	Not applicable
IPv4 host routes	8000	Not applicable	8000	Not applicable	8000	Not applicable
IPv6 host routes	4000	Not applicable	4000	Not applicable	4000	Not applicable

## Verified Topology Limits

The tables in this section list the verified scaling capabilities with all listed features enabled at the same time. The scale numbers listed here exceed those used by most customers in their topologies. These numbers are not the maximum verified values if each feature is viewed in isolation.

### Note

- The scale numbers in the Verified Topology Limits tables are for the Non-ALPM mode and the default IPv6 LPM carve value is 256 for all the platforms.
- For the verified topology scale numbers for 3132Q platform, refer to the scale numbers for 3132Q-X platform since they are identical for both these platforms.
- All the scale numbers are with Unicast RPF disabled.

**Table 7: Verified Topology Limits**

Feature	Nexus 3064	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3548P
Active VLANs per switch	507 (MSTP)	507 (MSTP)	507 (MSTP)	507 (MSTP)	507 (MSTP)	507 (MSTP)	205(RSTP)
BFD neighbors	64	64	64	64	64	64	2

Feature	Nexus 3064	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3548P
BGPv4 neighbors <b>Note</b> The values are for vPC only	97	97	128	97	97	97	13
BGPv6 <b>Note</b> The values are for vPC only	33	33	64	33	33	33	Not applicable
EtherChannel Members	18	16	16	18	10	16	12
ECMP	32-way	32-way	32-way	32-way	32-way	32-way	Not applicable
HSRP	100	100	100	100	100	100	50
HSRPv6	100	100	100	100	100	100	Not applicable
IGMP Snooping groups	1000	1000	1000	1000	1000	1000	1500
IPv4 hosts	4000	4000	4000	4000	4000	4000	4000
IPv6 host routes	1500 (with system urpf disabled)	1400	1400	1400	1400	1300	Not applicable
Layer 3 SVI, subinterfaces EtherChannels	360	355	355	355	355	355	100
MAC table size (vPC)	40,000	40,960	40,960	40,000	40,000	40,000	4600
MST instances	65	65	65	65	65	65	Not applicable

Multicast routes	2000	2000 routes (without TCAM carving)	2200 routes (without TCAM carving)	2000 routes	2000 routes	2000 routes	3200
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Feature	Nexus 3064	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3548P
Multicast NAT translations	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	400
Number of switch port EtherChannels	8	7	7	8	8	7	5
OSPF neighbors	8	9	9	9	9	9	3
OSPFv3	8	9	9	9	9	9	Not applicable
PBR entries	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	50
STP logical interfaces	395 (MST mode)	329 (MST mode)	329 (MST mode)	395 (MSTP)	395 (MSTP)	200 (MSTP)	415 (RSTP)
Unicast NAT translations	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	250
VRF	2	2	2	2	2	2	13
VRRP	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	50
VRRPv3	200	200	200	200	200	200	Not applicable

**Table 8: Verified Topology Limits**

Feature	Nexus 3064	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3548P
IPv4 LPM routes (No IPv6 carving)	4000	4000	4000	4000	4000	4000	2000
IPv6 LPM <=64	4000	4000	4000	4000	4000	4000	Not applicable
IPv6 LPM >64 and <=127	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**Table 9: Verified Topology Limits**

Feature	Nexus 3064	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V
<b>VXLAN Flood and Learn</b>						
Overlay MAC addresses	Not applicable	Not applicable	2000	Not applicable	Not applicable	Not applicable

Feature	Nexus 3064	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V
Layer 2 VNI	Not applicable	Not applicable	200	Not applicable	Not applicable	Not applicable
Underlay multicast groups	Not applicable	Not applicable	100	Not applicable	Not applicable	Not applicable
Ingress replication peers	Not applicable	Not applicable	100	Not applicable	Not applicable	Not applicable
Ingress replication Layer 2 VNIs	Not applicable	Not applicable	100	Not applicable	Not applicable	Not applicable

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## FAQ

### What should I do if my scale requirements exceed the verified limits?


If your scale requirements exceed the Verified Topology or the Verified Maximum limit, please contact your Cisco representative. They may be able to validate support for your requirements based on hardware capabilities.

### How are verified limits determined?

Verified limits are established through testing and validation by Cisco specifically for supported platforms. These limits are subject to change with further testing.



## Documents / Resources

	<a href="#">CISCO NX-OS Software</a> [pdf] User Guide NX-OS Software, Software
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## References

- [User Manual](#)

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