Cisco Nexus 3000 Series NX-OS Verified Scalability Guide, Release 9.3(5)

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(5).

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**
ARP	Maximum: 32,768; Verified 32,000	Maximum: 4,096; Verified 4,000

Feature	Nexus 34180YC	
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	Maimum: 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 3108PC-V	Nexus 3108TC-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
BGPv6 (non-vPC)	128	Not applicable	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
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
EtherChannel 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
HSRPv6	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 3064PQ) 16,000 (All other Nexus 3000 Series platforms)	8,000 (Nexus 3064PQ) 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.) 16384 (Multicast is 0.)	16384 (Multicast is 0.)	16,384 (Multicast is 0.)	200000 (default system routing mode); 138200 (ALPM routing mode)	Not applicable
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.)	100000 (default system routing mode); 13596 (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 3108PC-V	Nexus 3110BTC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
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) and 7680 (with system urpf enabled)	15,360 (with system urpf disabled)	15,360 (with system urpf disabled)	4000 (with system urpf disabled)	14,327 (with URPF enabled) 28,660 (with URPF disabled)	4,000 (with system urpf disabled)	28000 (default system routing mode); 130000 (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 URPF 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)
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

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 3108PC-V	Nexus 3108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
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
IPv6 LPM >64 (IPv6 carve value 1024)	Not applicable	Not applicable	1024 (with system urpf disabled) and 512 (with system urpf enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	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 3108PC-V	Nexus 3108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
IPv4 LPM routes (IPv6 carve value 2048)	Not applicable	64K (with system urpf disabled) 32K (with system urpf enabled)	8K (with system urpf disabled) and 4K (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 2048)	Not applicable	5K (with system urpf disabled) 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	Not applicable
IPv6 LPM <=64 (IPv6 carve value 2048	Not applicable	Not applicable	4K (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
IPv6 LPM >64 (IPv6 carve value 2048)	Not applicable	Not applicable	2K (with system urpf disabled) and 1K (with system urpf enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	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
IPv4 LPM routes (IPv6 carve value 3072)	Not applicable	32K (with system urpf disabled)	4K(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
IPv6 LPM routes (IPv6 carve value 3072)	Not applicable	15K (with system urpf disabled)		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 3072)	Not applicable	Not applicable	2K (with system urpf disabled) and 0 (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 >64 (IPv6 carve value 3072)	Not applicable	Not applicable	3072(with system urpf disabled) and 0 (with system urpf enabled)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 3108PC-V	Nexus 3108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
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, sub-interfaces and EtherChannels	1024	1024	1024	1024	1024	1024	1024	1024	1024	255	1024	1024	1024
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

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 3108PC-V	Nexus 3108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
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
Multicast routes	4,000 (Nexus 3064PQ) 8,000 (All other Nexus 3000 Series platforms) (hash table and there will be more collisions after 80%)	4,000 (Nexus 3064PQ) 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 EtherChannels	64	Not applicable	Not applicable	32	32	32	32	32	32	Not applicable	32	32	32

Feature	Nexus 3000	Nexus 3100 (ALPM Mode)	Nexus 3100 (Non-ALPM Mode)	Nexus 3132Q	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 3108PC-V	Nexus 3108TC-V	Nexus 3132C-Z	Nexus 3232C	Nexus 3264C-E	Nexus 3264Q-S
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
OSPFv3	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
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 upto 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	Nexuss 31108PC-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
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 31108PC-V / 31108TC-V	Nexus 3264C-E
Layer 2VNI	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 3132C-Z	Nexus 3132Q	Nexus 3132Q-V	Nexus 3172Q	Nexus 31108PC-V / 31108TC-V	Nexus 3264C-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
BGPv4 neighbors **Note** These values are for vPC only.	97	97	128	97	97	97	13
BGPv6 **Note** These 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

Feature	Nexus 3064	Nexus 3132Q-V	Nexus 3132Q-X	Nexus 3172PQ	Nexus 31108PC-V	Nexus 31108TC-V	Nexus 3548P
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
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
VXLAN Flood and Learn						
Overlay MAC addresses	Not applicable	Not applicable	2000	Not applicable	Not applicable	Not applicable
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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