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Cisco Nexus 3000 Series Configuration Limits for Cisco NX-OS Release 5.0(3)U1(1a)

Release Date: April 22, 2011
Part Number: OL-24970-02

This document describes the Cisco Cisco Nexus 3000 Series switch configuration limits for Cisco NX-OS Release 5.0(3)U1(1a). Use this document in combination with documents listed in the [“Related Documentation”](#) section on page 3.

Contents

This document includes the following sections:

- [Introduction, page 1](#)
- [Layer 2 and Layer 3 Topology Configuration Limits, page 2](#)
- [Related Documentation, page 3](#)

Introduction

The Cisco Nexus 3064PQ switch is a high-performance, high-density, ultra-low-latency Ethernet switch that is part of the new Cisco Nexus 3000 Series switches. This compact one-rack-unit (1 RU) form factor 1- and 10-Gigabit Ethernet switch provides line-rate Layer 2 and 3 switching. The switch runs the industry-leading Cisco NX-OS software operating system. The Cisco Nexus 3065PQ is well suited for financial co-location deployments that require support for robust unicast and multicast routing protocol features at ultra-low latencies.



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Layer 2 and Layer 3 Topology Configuration Limits

This section describes the configuration limits in topologies that include Layer 2 and Layer 3 feature configurations. Table 1-1 shows the Layer 2 and Layer 3 configuration limits for Cisco NX-OS Release 5.0(3)U1(1a):

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

Feature	Cisco Nexus 3000 Platform	
	Verified Topology ¹	Maximum Limits ²
Active VLANs per switch	4,000 ³	4,000 ³
MTU	9,216	9,216
STP logical interfaces	9,000	9,000
MST instances	64	64
MAC table size	32,000	128,000
EtherChannels	8	32 (with the maximum of 16 port members per EtherChannel)
Number of switch port EtherChannels	16	16
SPAN sessions	2 active sessions	4 active sessions ⁴
Layer 3 physical interfaces	64	64
Layer 3 SVI, subinterfaces, EtherChannels	1,024	1024
VRF	200	1,024
IPv4 hosts	8,192	8,192
IPv4 routes (LPM)	8,192	8,192
Multicast routes	2,048	4,000
IGMP Snooping groups	3,000	4,000
ECMP	8-way	32-way
TCAM entries for ACL	2,000 ingress, 1,000 egress	2,000 ingress, 1,000 egress
HSRP	255	500
VRRP	255 ⁵	255 ⁵
Configurable QoS groups	8	8

1. Verified Topology—Indicates the verified scaling capabilities with **all listed features enabled at the same time**. The numbers listed here exceed that 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.
2. Maximum Limits—Indicates the maximum scale capability tested for the corresponding feature **individually**. This number is the absolute maximum currently supported by Cisco NX-OS Release 5.0(3)U1(1a) software for the corresponding feature. If the hardware is capable of a higher scale, future software releases may increase this maximum limit.
3. 507 VLANs in PVRST mode, 512 VLANs in RPVST mode where 507 are user defined VLANs, and 4,000 VLANs in MST mode.
4. 4 active SPAN sessions with the SPAN source in a single direction (RX only or TX only in each span session. 2 active SPAN sessions with the SPAN source in both RX and TX directions.
5. A combination of HSRP and VRRP groups, where the total is 255.

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**Note**

If your scale requirements exceed either the Verified Topology or the Maximum Limits, 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.

Related Documentation

Documentation for the Cisco Nexus 3000 Series Switch is available at the following URL:

http://www.cisco.com/en/US/products/ps11541/tsd_products_support_series_home.html

The following are related Cisco Nexus 3000 Series documents:

Release Notes

Cisco Nexus 3000 Series Release Notes for Cisco NX-OS Release 5.0(3)U1(1)

Configuration Guides

Cisco Nexus 3000 Series Configuration Limits for Cisco NX-OS Release 5.0(3)U1(1)

Cisco Nexus 3000 Series NX-OS Layer 2 Switching Configuration Guide

Cisco Nexus 3000 Series NX-OS Multicast Routing Configuration Guide

Cisco Nexus 3000 Series NX-OS Quality of Service Configuration Guide

Cisco Nexus 3000 Series NX-OS Security Configuration Guide

Cisco Nexus 3000 Series NX-OS System Management Configuration Guide

Cisco Nexus 3000 Series NX-OS Unicast Routing Configuration Guide

Cisco Nexus 3000 Series NX-OS Fundamentals Configuration Guide

Installation and Upgrade Guides

Cisco Nexus 3000 Series Hardware Installation Guide

Regulatory Compliance and Safety Information for the Cisco Nexus 3000 Series Switches

Licensing Guide

Cisco NX-OS Licensing Guide

Command References

Cisco Nexus 3000 Series NX-OS Command Reference

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Technical References

Cisco Nexus 3000 Series MIBs Reference

Error and System Messages

Cisco NX-OS System Messages Reference

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