Validate Nexus 2000 Fabric Extenders Supported/Unsupported Topologies

Contents

Introduction

This document describes various topologies supported when Nexus 2000 Fabric Extender (FEX) switches are connected to parent switches or to end hosts.

Background Information

It is strongly recommended to always cross reference this document with the Cisco NX-OS specific release notes in order to avoid any confusion.

Terminology

Static Pinning Mode or Port Channel Mode

Cisco Nexus 2000 Series NX-OS Fabric Extender Software Configuration Guide for Cisco Nexus 5000 Series Switches, Release 4.0 provides the details and more information.

Active-Active FEX (FEX-AA)

A FEX that is connected to both Virtual Port Channel (VPC) peers via port channel.

Active/Standby Host

A host that has one Network Interface Card (NIC) in active mode and the other in standby mode.

Active/Active Host

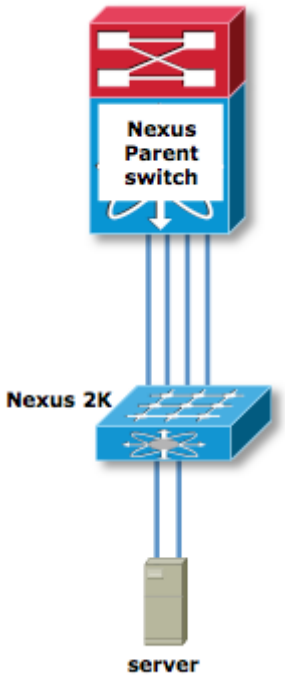
A host that has both NICs in active mode.

FEX Topologies

You can see a simplified representation of various topologies that correspond to platform support. This document does not cover any configuration steps.

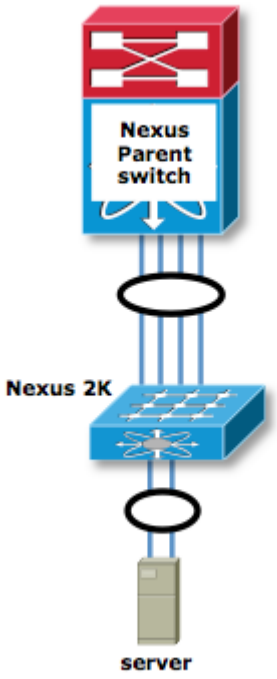
The release notes per platform/NX-OS version can override the information on this page.

Single Homed Host and FEX (Static Pinning Mode) Design



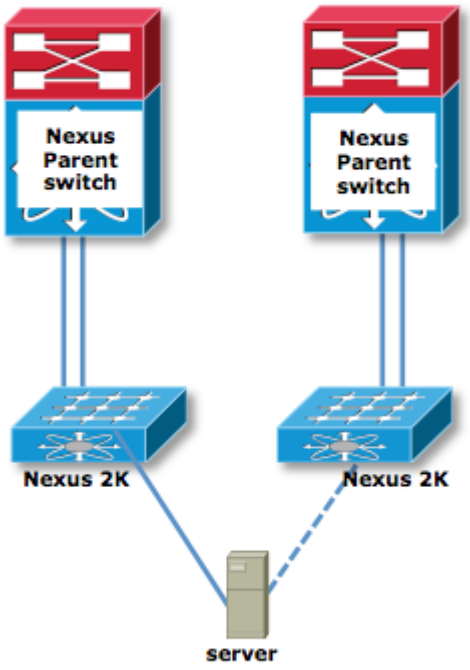
Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Not Supported
Nexus 9K	Any	Not Supported

Single Homed Host and FEX (Port Channel Mode) Design



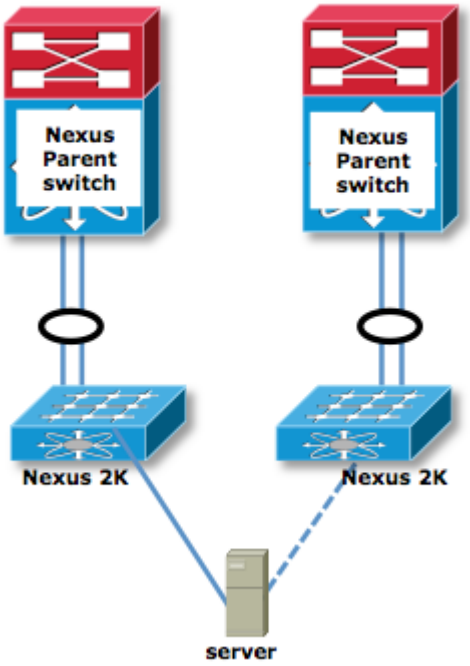
Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Supported
Nexus 9K	Any	Supported

Dual-Homed Host (Active/Standby) and Single Homed FEX (Static Pinning Mode) Design



Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Not Supported
Nexus 9K	Any	Not Supported

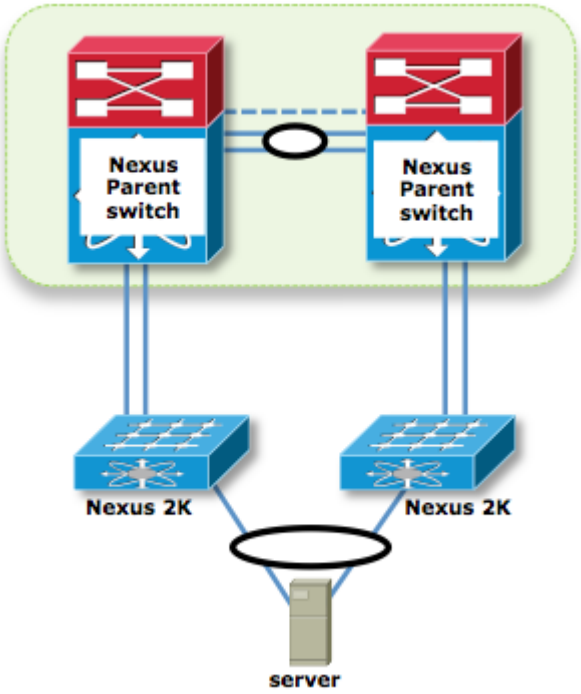
Dual-Homed Host (Active/Standby) and Single Homed FEX (Port Channel Mode) Design



Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Supported*
Nexus 9K	Any	Supported

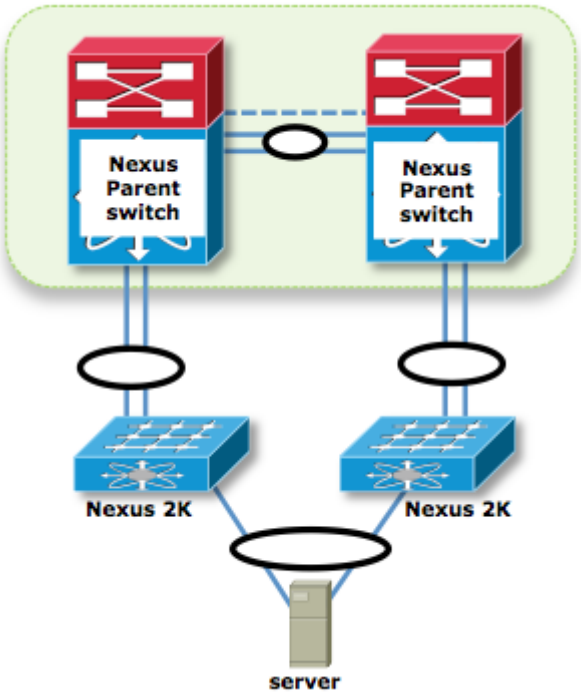
* With single and two VDCs.

Host VPC (Single Link) and FEX Single Homed (Static Pinning Mode) Straight Through Design



Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Not Supported
Nexus 7K	Any	Not Supported
Nexus 9K	Any	Not Supported

Host VPC (Single Link) and FEX Single Homed (Port Channel Mode) Straight Through Design

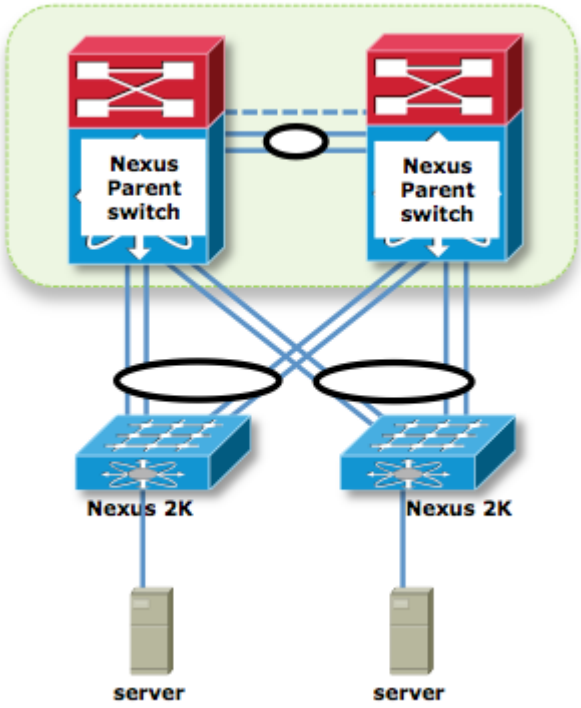


Platform	Code	Comment

Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Supported*
Nexus 9K	Any	Supported

* With host interface (HIF) in port channel mode.

Single Homed Host and Active-Active FEX (VPC) Design



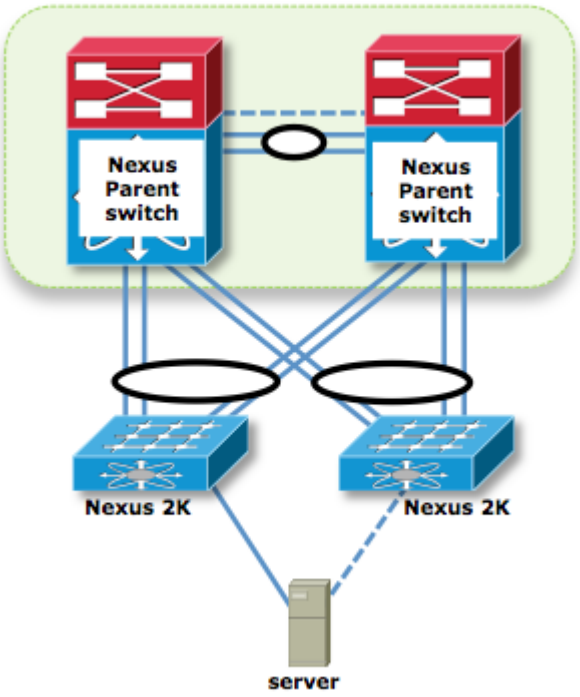
Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Supported*
Nexus 9K	Any	Supported**

* Supported in Release 7.2 and later.

** Supported in Release 7.0(3)I5(2) and later. Support is for N93XX models only as listed in the release notes.

** FEX vPC is not supported between any model of FEX and the Cisco Nexus 9500 platform switches as the parent switches.

Dual Homed Host (Active/Standby) and Active-Active FEX (VPC) Design



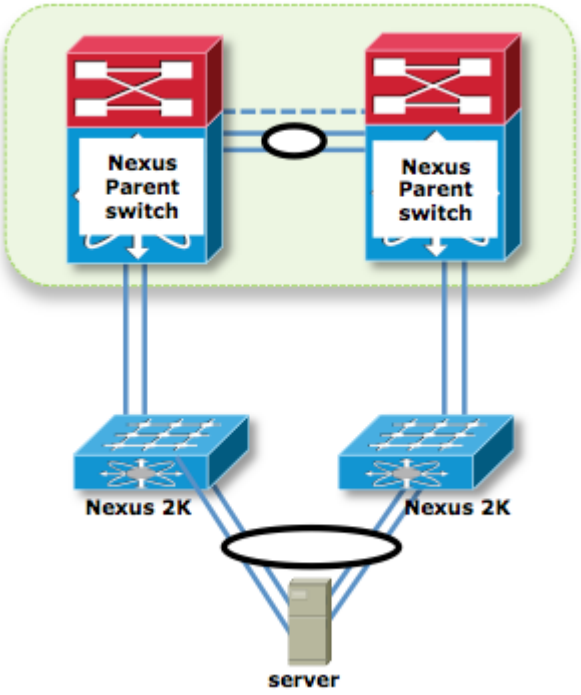
Platform	Code	Comment
Nexus 5K	any	Supported
Nexus 6K	any	Supported
Nexus 7K	any	Supported*
Nexus 9K	any	Supported**

* Supported in Release 7.2 and later.

** Supported in Release 7.0(3)I5(2) and later. Support is for N93XX models only as listed in the release notes.

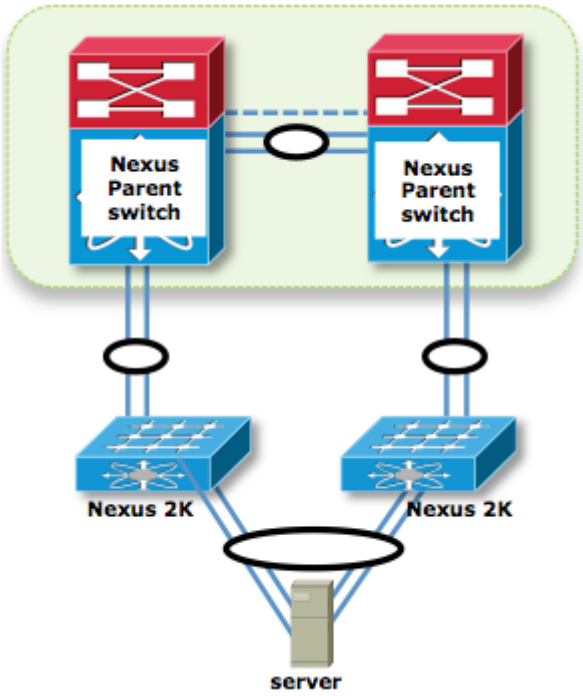
** FEX vPC is not supported between any model of FEX and the Cisco Nexus 9500 platform switches as the parent switches.

Host VPC (Dual Links) and FEX Single Homed (Static Pinning Mode) Straight Through VPC Design



Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Not Supported
Nexus 9K	Any	Not Supported

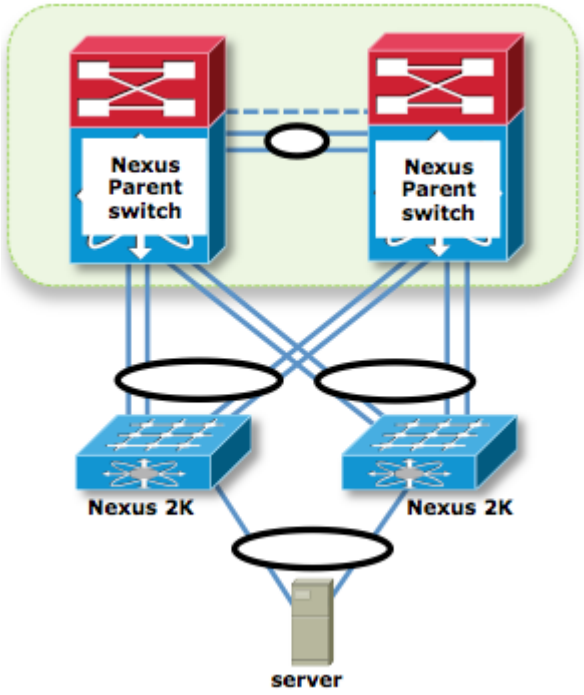
Host VPC (Dual Links) and FEX Single Homed (Port Channel Mode) Straight Through VPC Design



Platform	Code	Comment
Nexus 5K	Any	Supported

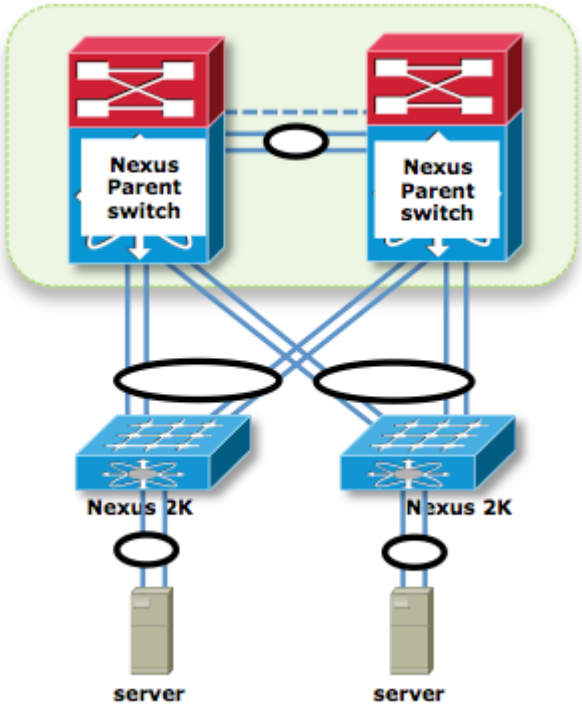
Nexus 6K	Any	Supported
Nexus 7K	Any	Supported
Nexus 9K	Any	Supported

Host VPC (Single Link) and Active-Active FEX with FEX HIF VPC PO (Enhanced VPC) Design



Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Not Supported
Nexus 9K	Any	Not Supported

Host Port Channel and Active-Active FEX Design



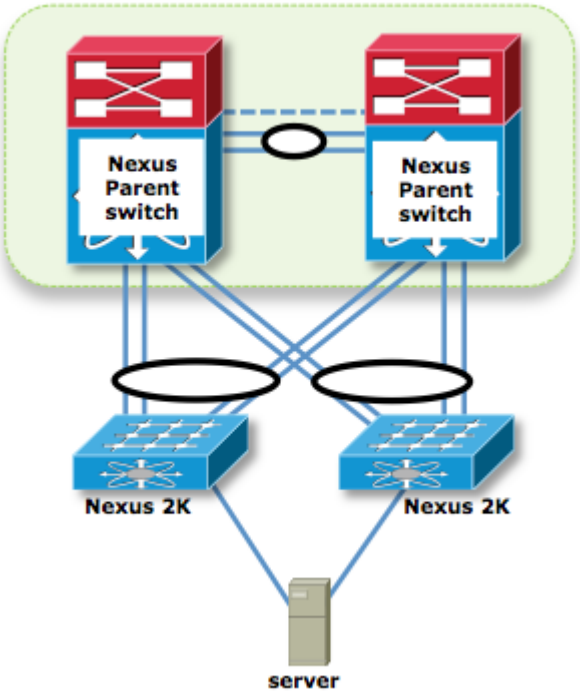
Platform	Code	Comment
Nexus 5K	Any	Supported
Nexus 6K	Any	Supported
Nexus 7K	Any	Supported*
Nexus 9K	Any	Supported**

* Support introduced from Release 7.x.

** Supported in Release 7.0(3)I5(2) and later. Support is for N93XX models only as listed in the release notes.

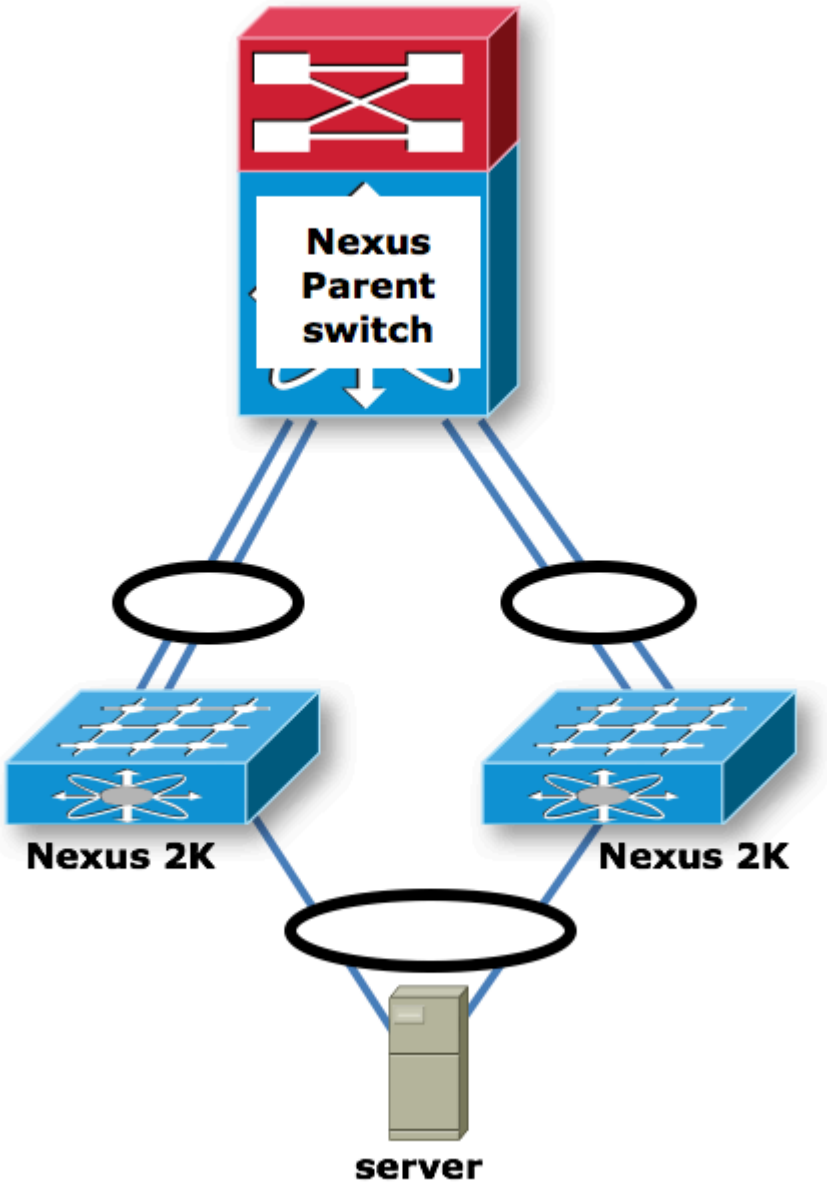
** FEX vPC is not supported between any model of FEX and the Cisco Nexus 9500 platform switches as the parent switches.

Dual Homed Host (Active/Active) and Active-Active FEX Design



Platform	Code	Comment
Nexus 5K	Any	Not Supported
Nexus 6K	Any	Not Supported
Nexus 7K	Any	Not Supported
Nexus 9K	Any	Not Supported

Single Parent Nexus Switch: Host VPC and FEX Single Homed Straight Through Design



Platform	Code	Comment
Nexus 5K	Any	Not Supported
Nexus 6K	Any	Not Supported
Nexus 7K	Any	Not Supported
Nexus 9K	Any	Not Supported

Summary

The listed topologies are to validate any specific design options that you plan to implement.

Related Information

- **Nexus 9000 Series Switch FEX Support**

- **Technical Support & Documentation - Cisco Systems**