

# Nexus 2000 Fabric Extenders Supported/Unsupported Topologies

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## Introduction

The document describes the various topologies supported when the Nexus 2000 Fabric Extender switches (FEX) used when it is connected to the parent switches or to the end hosts.

It is strongly recommended to always cross reference this document with the NXOS specific release notes to avoid any confusion.

## Terminology

### Static Pinning mode or Port channel mode

The link provides the [details](#) and more

### 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

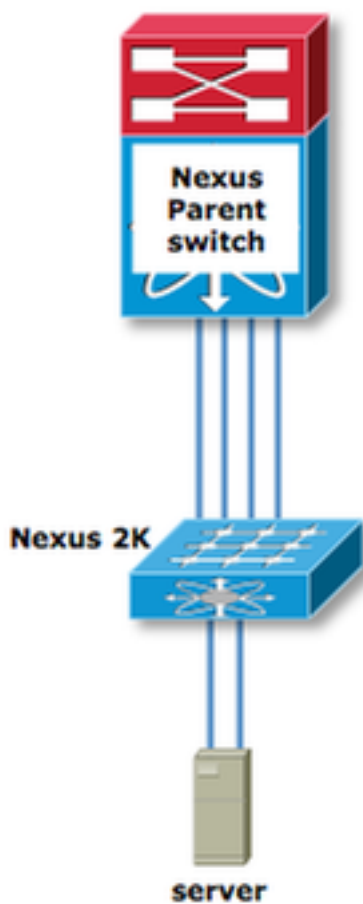
A host that has both NIC in active mode

## FEX Topologies

You will see simplified representation of various topologies that corresponds platform support. This document does not cover any configuration steps.

The release notes per platform/NXOS version will override the information on this page.

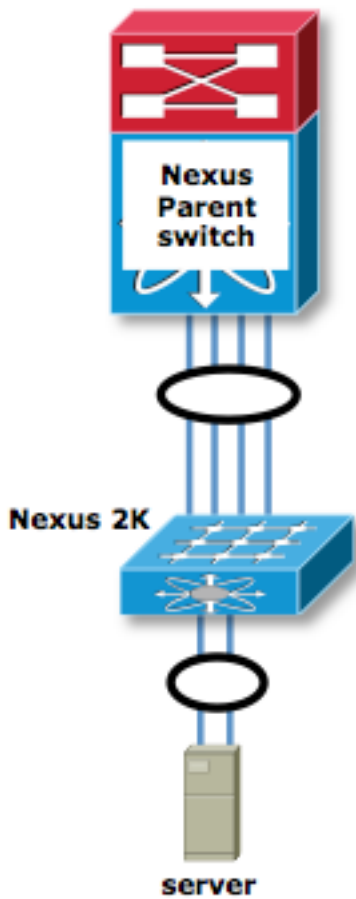
### Single Homed Host and FEX (Static Pinning Mode) Design



#### Platform Code comment

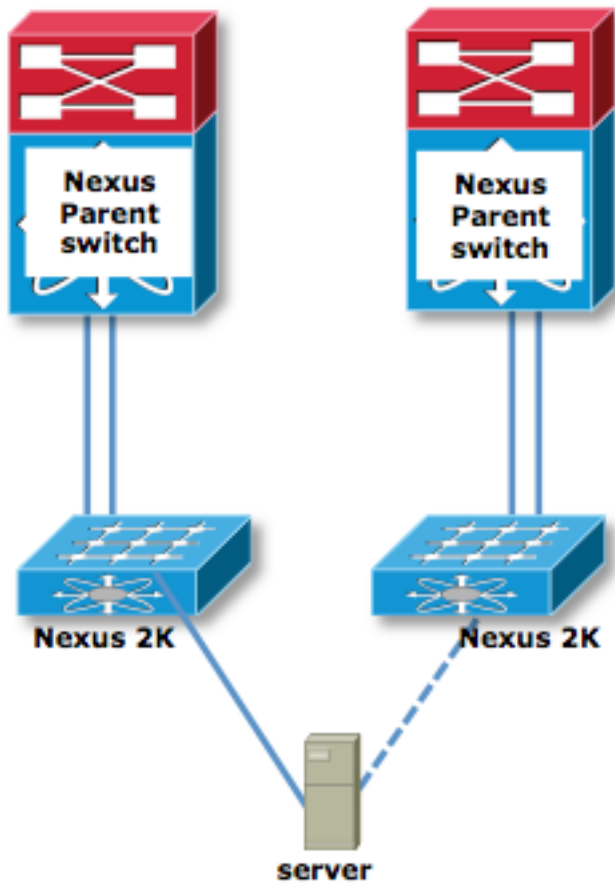
Nexus 5K any	Supported
Nexus 6K any	Supported
Nexus 7K any	Not Supported
Nexus 9K any	Not Supported

### 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

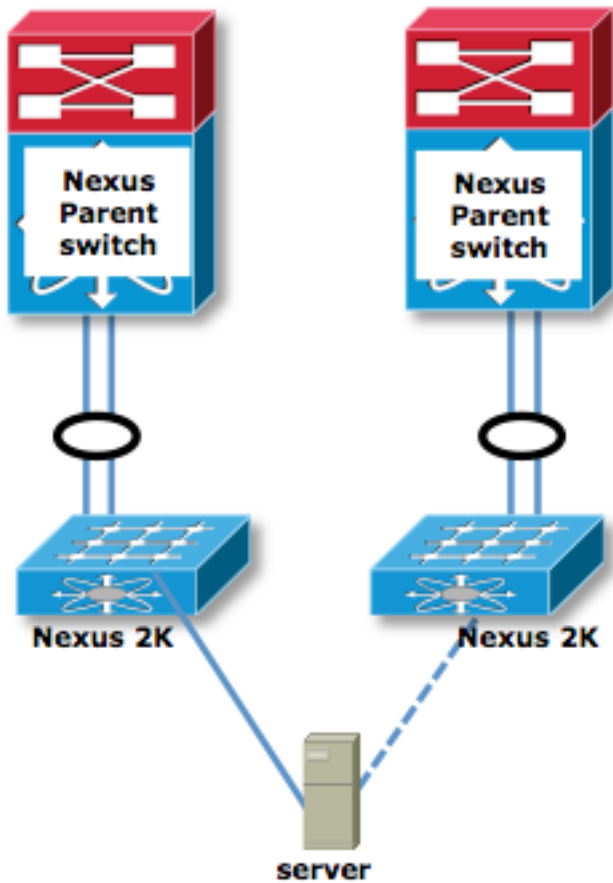
## Dual-Homed Host (Active/Standby) and Single Homed FEX (Static Pinning Mode) Design



**Platform Code comment**

Nexus 5K any	Supported
Nexus 6K any	Supported
Nexus 7K any	Not Supported
Nexus 9K any	Not Supported

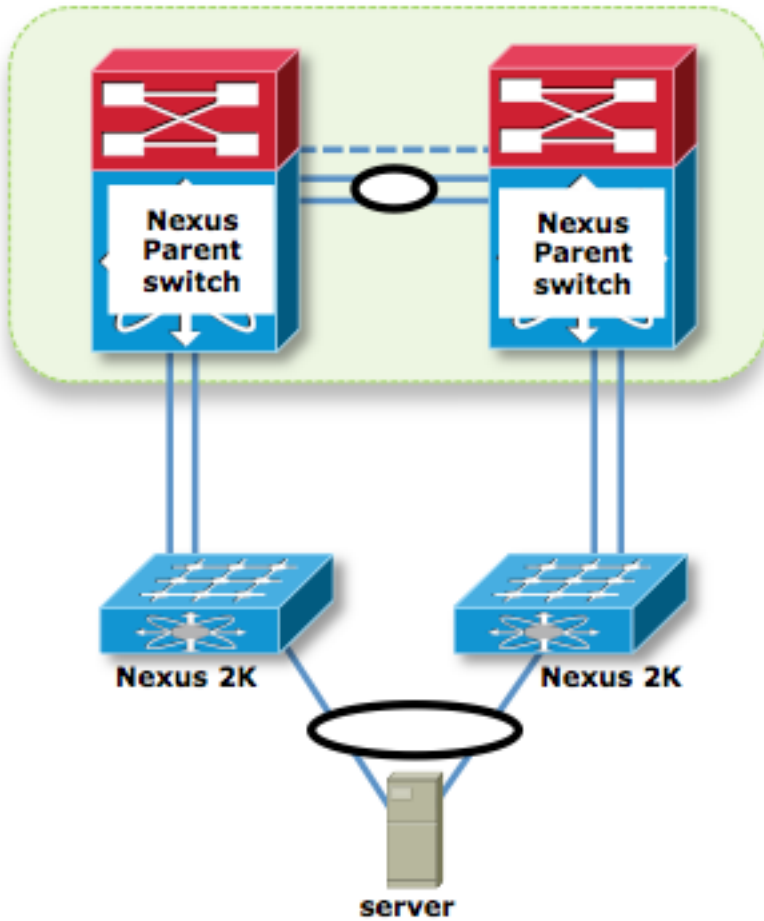
**Dual-Homed Host (Active/Standby) and Single Homed FEX (Port Channel Mode) Design**



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

\*(with single and two VDC's)

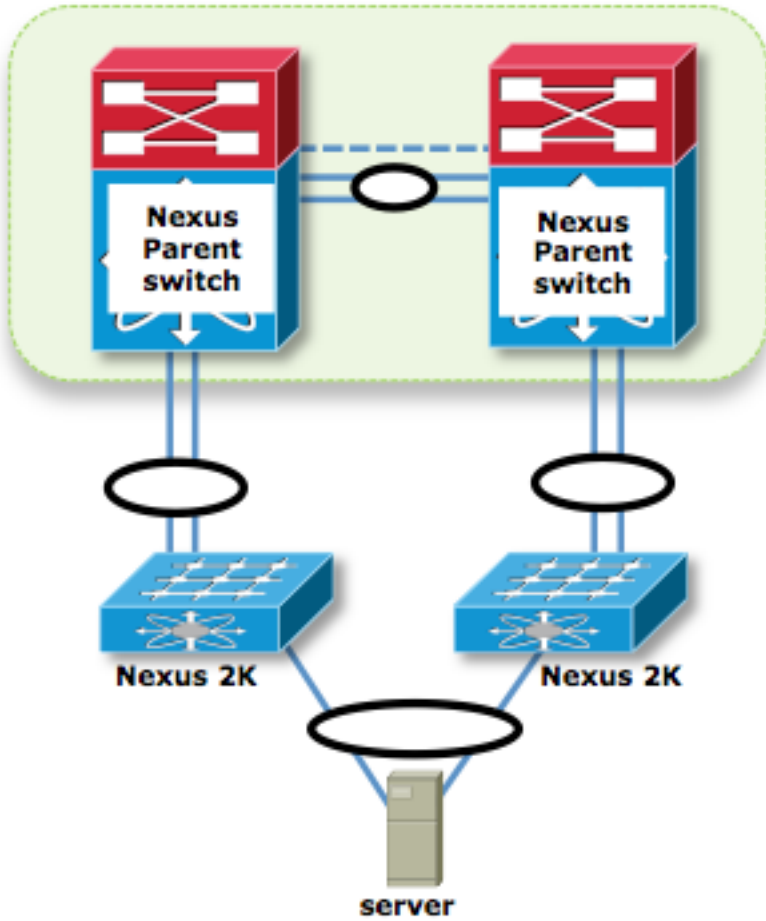
**Host VPC (Single Link) and FEX Single Homed (Static Pinning Mode) Straight through Design**



**Platform Code comment**

Nexus 5K any	Supported
Nexus 6K any	Not Supported
Nexus 7K any	Not Supported
Nexus 9K any	Supported

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

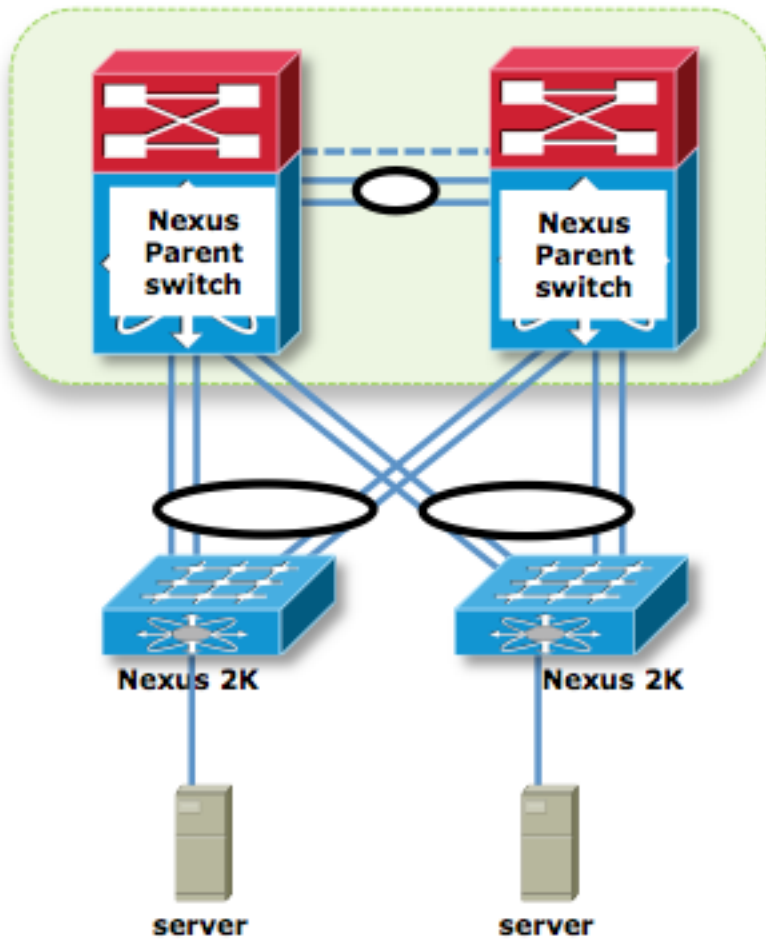


**Platform Code comment**

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

\*with 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**

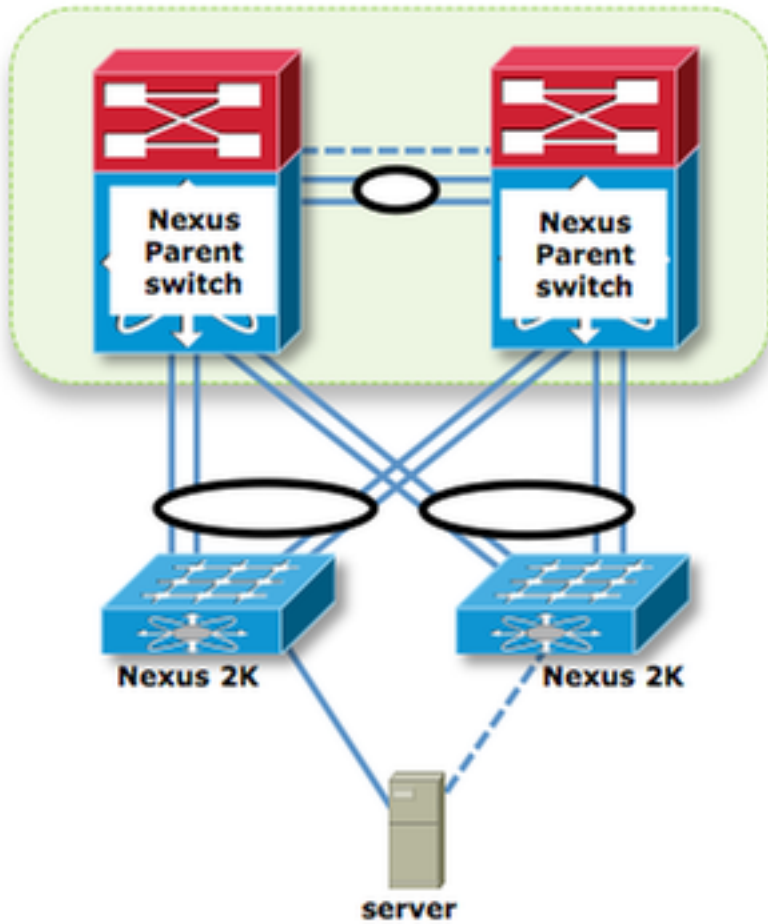
\*Supported in 7.2 and later

\*\* Supported in 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**

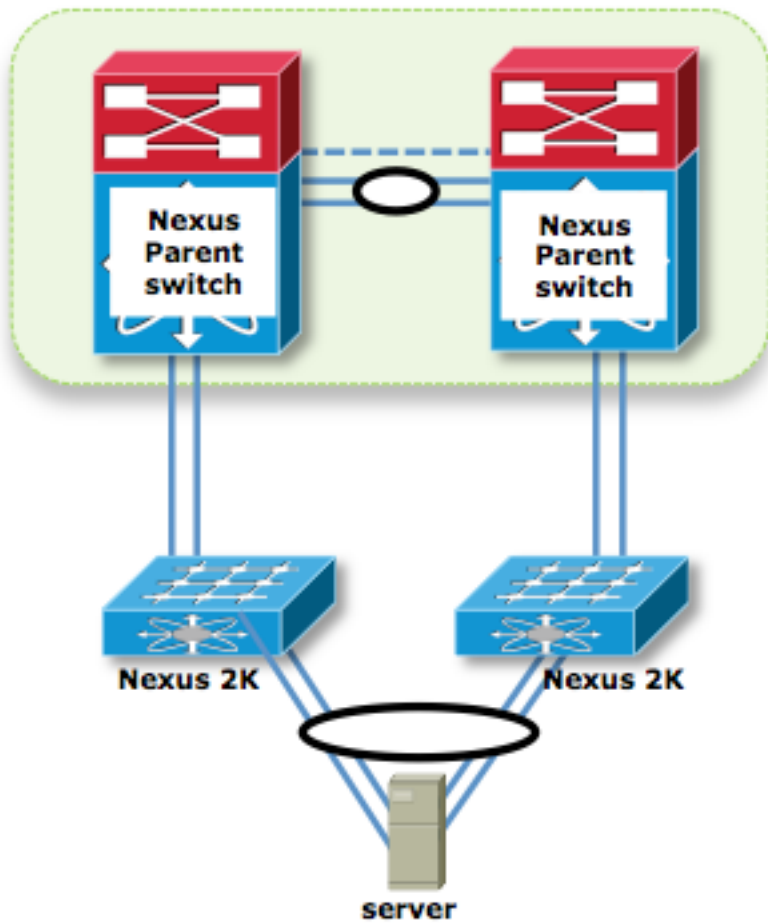
Nexus 5K any	Supported
Nexus 6K any	Supported
Nexus 7K any	Supported*
Nexus 9K any	Supported**

\*Supported in 7.2 and later

\*\* Supported in 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.

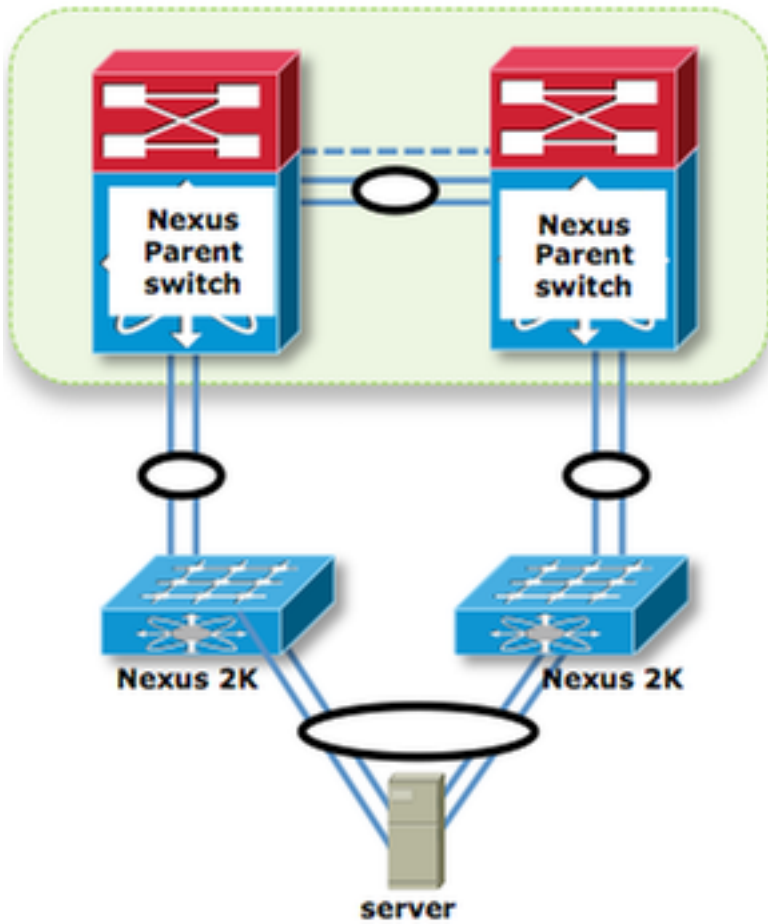
**Host VPC (Dual Links) and FEX Single Homed (Static Pinning Mode) Straight through VPC Design**



**Platform Code comment**

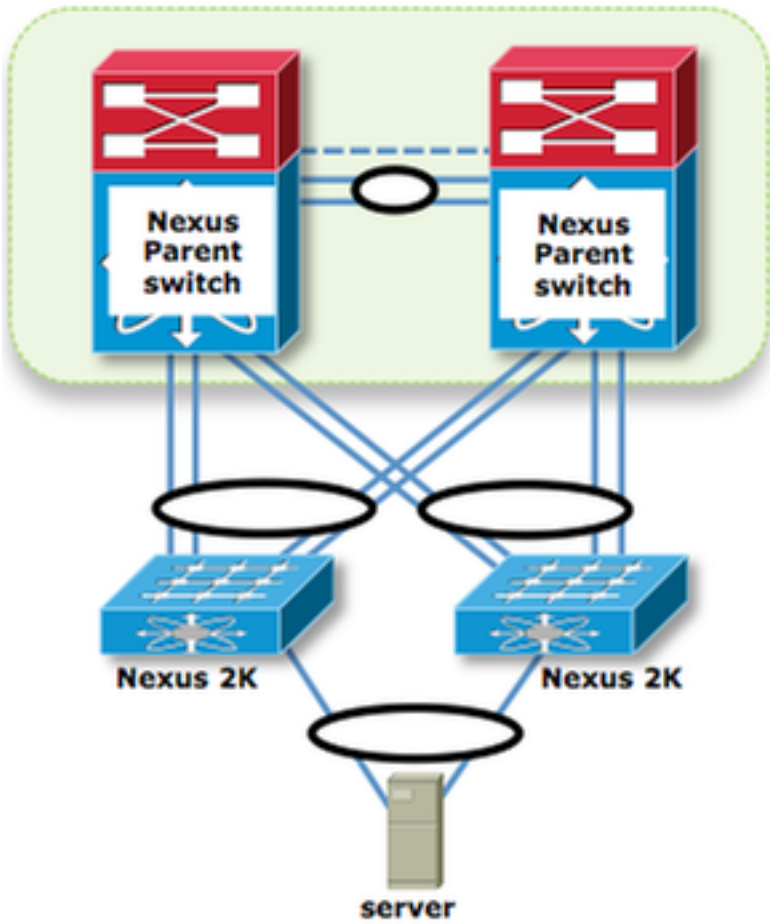
Nexus 5K any	Supported
Nexus 6K any	Supported
Nexus 7K any	Not Supported
Nexus 9K any	Not Supported

**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

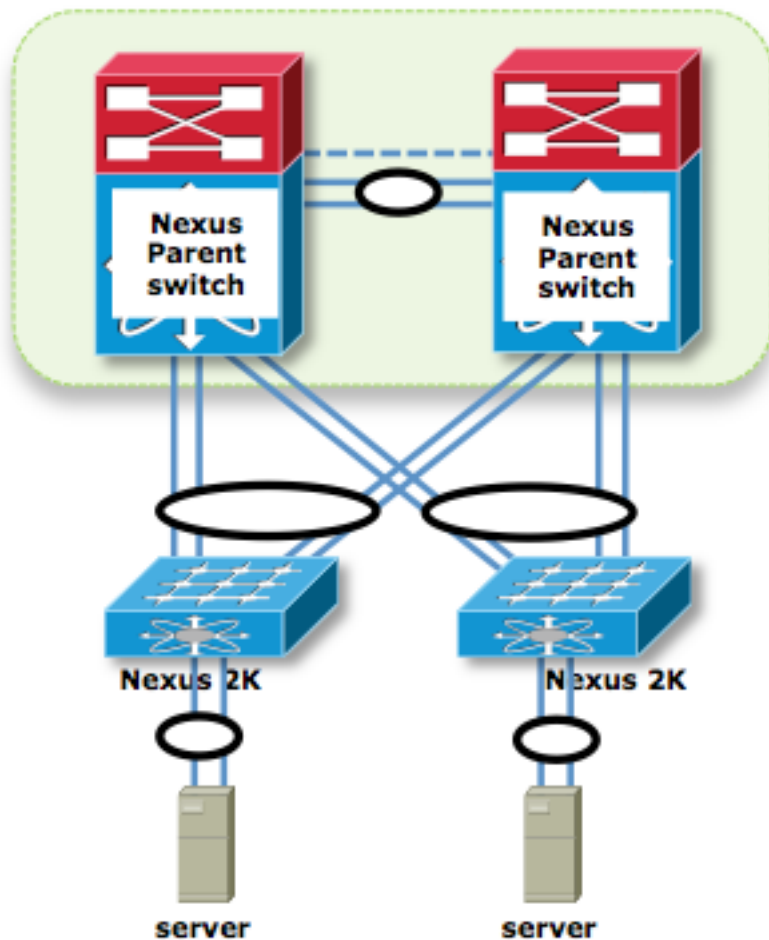
## Host VPC (Single Link) and Active-Active FEX with FEX HIF VPC PO(Enhanced VPC) Design



**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

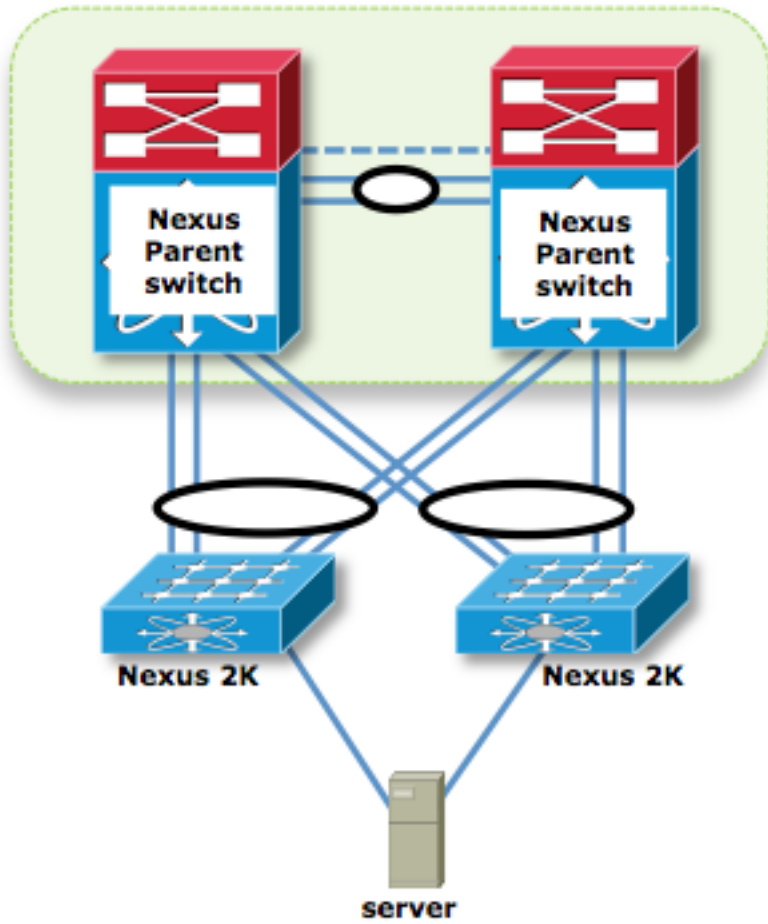
Nexus 5K any	Supported
Nexus 6K any	Supported
Nexus 7K any	Supported*
Nexus 9K any	Supported**

\* Support introduced from 7.x release

\*\* Supported in 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.

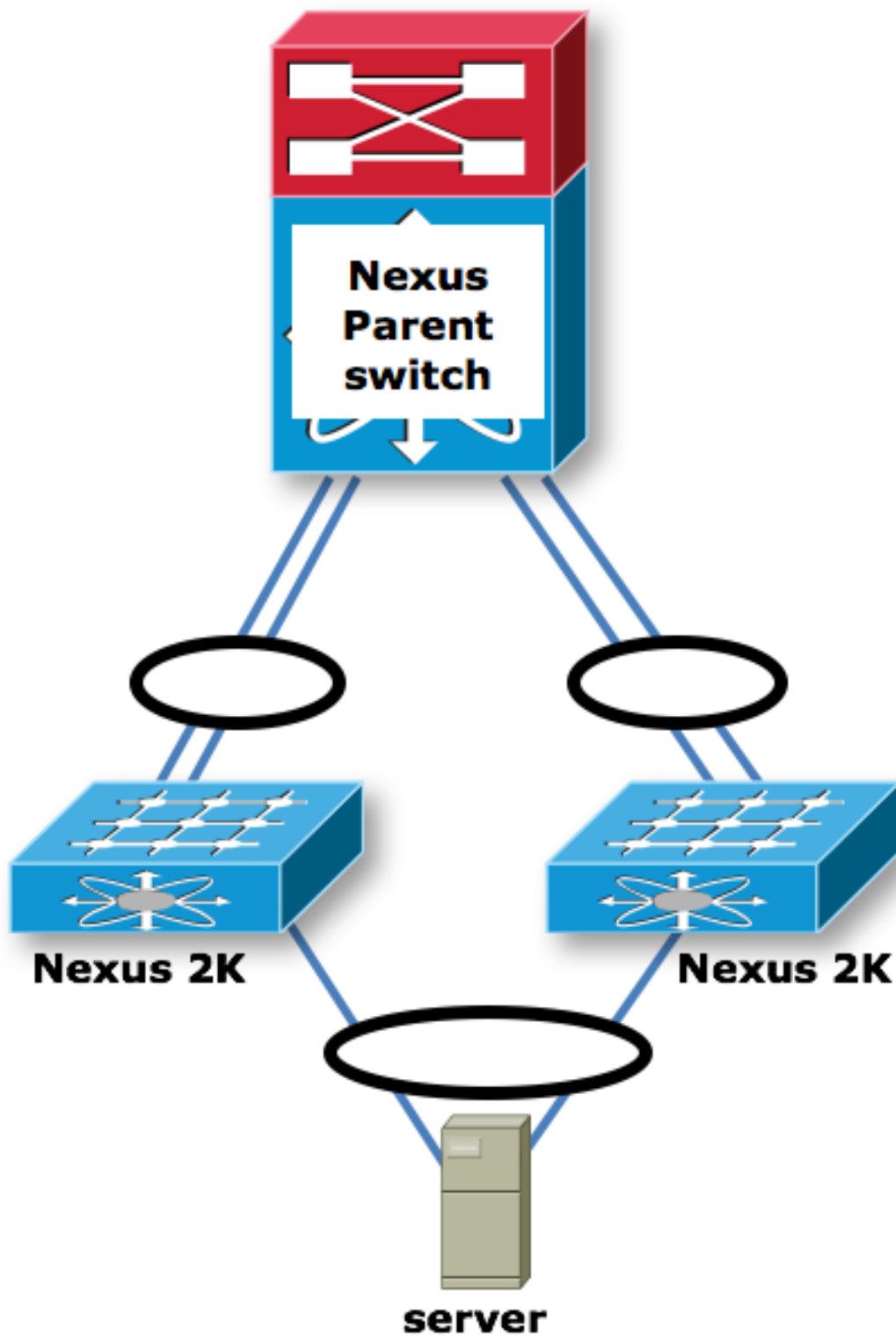
### Dual Homed Host (Active/Active) and Active-Active FEX Design



**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.

## References

[Nexus 9000 Series Switch FEX Support](#)