Configuration of 2 core switches

Article Overview

Two core switches can be configured as a high-availability pair using VSX or stacking, with LAGs for inter-switch links and VLANs for Layer 2/Layer 3 traffic.

Step 1: Plan the Topology

Before configuration, determine the network topology:

o Decide whether to use VSX (Virtual Switching Extension) for independent control planes or stacking for a single logical switch.
o Identify primary and secondary roles if using VSX.
o Plan inter-switch links (ISL) using LAGs for redundancy.
o Define VLANs for access, transit, and routed traffic between the core switches and upstream networks .

Step 2: Configure Management Interfaces

o Assign IP addresses to the management VLAN on each switch.
o Ensure connectivity between switches for keepalive messages (VSX) or stack communication.
o Example for Aruba VSX:
o Switch 1: VLAN 3999, IP 172.16.10.10/24
o Switch 2: VLAN 3999, IP 172.16.10.11/24 .

Step 3: Configure Inter-Switch Links (LAG)

o Create a Link Aggregation Group (LAG) on both switches for the inter-switch link.
o Assign the LAG as the VSX data plane ISL or stack connection.
o Enable LACP active mode for dynamic link aggregation.
o Example:
interface lag 128 no shutdown description VSX-ISL vlan trunk allowed all lacp mode active

Step 4: Configure VSX or Stack

o VSX:
o Assign roles: one switch as primary, the other as secondary.
o Configure VSX keepalive using the OOB management interface.
o Synchronize features like STP, LLDP, and MC-LAG interfaces.
o Example:
vsx role primaryinter-switch-link lag 128keepalive peer 172.16.10.11 source 172.16.10.10vsx-sync vsx-global

o Stacking:
o Assign stack member IDs and priorities.
o Connect stack cables and power on switches.
o Verify stack formation and master switch election .

Step 5: Configure VLANs and Routing

o Create VLANs for access and transit traffic.
o Configure Switch Virtual Interfaces (SVIs) for Layer 3 routing.
o Assign default gateways for hosts in each VLAN.
o Example for Nexus:
interface vlan 10 ip address 192.168.1.1/24interface vlan 20 ip address 192.168.2.1/24ip route 0.0.0.0/0 10.0.0.2

Step 6: Verify and Save Configuration

o Check LAG status, VSX synchronization, or stack health.
o Test inter-VLAN routing and connectivity to upstream networks.
o Save the configuration to prevent loss after reboot:
write memorycopy running-config startup-config

Key Considerations

o Always configure redundant paths to prevent single points of failure.
o Use MultiEdit or CLI for bulk configuration with syntax checking (Aruba CX).
o Monitor VSX or stack logs for errors during initial deployment.
o Ensure consistent VLAN and VRF assignments across both switches . By following these steps, your two core switches will operate as a resilient, high-availability pair capable of handling Layer 2 aggregation, inter-VLAN routing, and seamless failover.

Berg IT Training - In this CCST and CCNA introductory-level video, I perform a line-by

Unlike other lower class switch vendors (which are plug-and-play), the Cisco switch needs some initial basic configuration in order to

Hello everyone, I have a customes have just bougth ttwo switches core (L3), his today diagram network is: Access

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We have two 4507s at our core, running HSRP. We have three other 4507s at the edge, plus eight 2950s. All edge switches and

Hi, I want to add some redundancy to my network by adding one more core switch. The problem is that I have only

Cascade vs Stack vs Cluster: Learn how to connect multiple Ethernet switches, compare the key differences, and

FAQs 1. How to reset the Cisco switch configuration? To reset a Cisco switch configuration, enter the privileged EXEC mode and use

Configure Two-Tier core switches as a VSX pair for Layer 2 aggregation of the data center access switches, IP data

Hello Everyone, I am working on one design and need support for connectivity between two core switches and router.

If you"re looking to configure a switch for the first time, this post is for you. Learn step-by-step configuration commands

"Gateway + Core Switch + Access Switch + AP + AR180" Networking: Huawei eKit Cloud Management "Gateway + Core Switch +

Here"s the Cisco CLI Switch Command cheat sheet you need for configuring and managing Cisco switches The Cisco

Make sure you designate the primary root bridge and the secondary on your core switches and configure the

With a routed access design, you"d configure a default gateway per access switch then route the connections to both cores. The

I"m going to use two XOS based core switches, and a pair of X435 switches in my example below, you can

How to connect two switches together? Are you looking to expand your network infrastructure and connect multiple

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