

How to connect two core switches



Article Overview

The optimal way to connect two core switches is to use a combination of Layer-3 point-to-point links for routing and Layer-2 trunks for VLAN traffic, ensuring redundancy and proper spanning tree configuration.

Connection Methods

1. Layer-3 Point-to-Point Links: For core switches, it is recommended to establish Layer-3 connections using dedicated VLAN interfaces (SVIs) or routed ports. Each link should have its own subnet and IP addresses, allowing the switches to route traffic efficiently without creating Layer-2 loops. This approach reduces STP complexity and avoids broadcast storms between cores (Cisco community guidance).
2. Layer-2 Trunks: In addition to Layer-3 links, a Layer-2 trunk can be configured between the core switches to carry multiple VLANs. This trunk allows VLAN traffic to traverse both switches while maintaining VLAN separation. It is common to create a dedicated VLAN for the point-to-point link to simplify management and avoid conflicts with production VLANs.
3. Redundancy and Spanning Tree:
 - Use Rapid-PVST or MSTP to manage Layer-2 loops.
 - Define primary and secondary root bridges for each VLAN to control traffic paths.
 - Align HSRP or VRRP active gateways with the spanning tree topology to ensure optimal routing for end devices.
4. Stacking vs Cascading:
 - Stacking: If the switches support stacking, use stacking ports and cables to create a single logical switch. This provides high bandwidth and simplified management but requires switches from the same vendor.

Article Content

Using Eth-Trunk to Connect Two Access Switches to a Core Switch ...

As shown in Figure 3-11, access switches SwitchB and SwitchC of the data center connect to core switch SwitchA. SwitchB and

Connecting Multiple switches to core : r/networking

I've worked in large manufacturing facilities where the Core is connected to Distribution switches and they connect the standard layer

Using Eth-Trunk to Connect Two Access Switches to a Core Switch ...

More and more users connecting to the network want to communicate with each other. The links between SwitchA and SwitchB, and

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