

Interconnection between 2 core switches



AI Overview

Core switches are typically interconnected using multiple high-speed links with VLAN trunking and static or dynamic routing to ensure redundancy and high availability.

Key Considerations

1. Physical Connectivity: Use fiber optic links for long-distance or high-bandwidth connections between core switches. Single-mode fiber is preferred for distances over a few hundred meters, while multi-mode fiber works for shorter distances. Pre-terminated fiber cables with LC or SC connectors simplify installation and reduce errors. For redundancy, deploy at least two physical links, ideally across different linecards or port groups to avoid a single point of failure.

2. VLAN and Trunk Configuration: Create a transport VLAN dedicated to inter-switch communication. Assign IP addresses to the VLAN interfaces on each switch for routing purposes. Configure the interconnect ports as trunk ports and allow the transport VLAN along with any other VLANs that need to traverse the link. Ensure that VLAN IDs are unique and consistent across both switches to prevent MAC address conflicts.

3. Routing Between Switches: If each core switch manages its own VLANs, use static routes or a dynamic routing protocol (e.g., OSPF or EIGRP) over the transport VLAN to enable inter-VLAN communication. For example, on CS1, you might configure `ip route 12.0.0.0 255.255.255.0 10.0.0.2` pointing to CS2's transport VLAN IP. Verify connectivity with ping tests and check MAC address tables to ensure proper forwarding.

4. Redundancy and Bandwidth Aggregation: Consider link aggregation (LACP) to combine multiple physical links into a single logical interface, increasing bandwidth and providing failover. Avoid single-link interconnects, as they create a bottleneck and a single point of failure.

5. Topology Choices:...

Article Content

Jun 29, 2026

2 Fiber uplink connection between Core switches & Distribution Switches ...

I have 2 core switches (Catalyst 4506 models) in the data center with HSRP Configuration it is both connected with a

Sep 05, 2025

HSRP between 2 access switches and 2 core switches

Hi I am looking for running HSRP between 2 access switches and 2 core switches for client PC and Server network's

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Distribution switches interconnection. : r/networking

Cisco books probably still suggest you have a "fast core switching layer" but I think it's outdated design to have separate core layer

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routing at the distributionCore switch

If you just created it on core 1 your static routes on core 2 would not have a valid next hop because core 2 needs an

Aug 03, 2025

Integration between two entities having different Core switches

Edited For explanation: Hi, We were trying to integrate two entity having different Core switches at both sites. Demo

Nov 12, 2025

What Is a Core Switch? Network Backbone Architecture Guide

Discover what a core switch does in a 3-tier network model. Learn about ASIC routing, collapsed core vs dedicated

Jul 03, 2026

How do I setup two switches together?

How to Setup Two Switches Together Setting up two switches together can be a crucial step in expanding your

Nov 17, 2025

Solved: interconnecting two core switches

Solved: Hi all, I need to connect two Cisco C4500X, using a 1000BaseLH transceiver. Each core switch manage its

Mar 25, 2026

Core Switch Vs Distribution Switch Vs Access Switch□What

Core Switch Vs Distribution Switch Vs Access Switch□What's the difference□ Ethernet networks are expanding and their designs

Aug 09, 2025

How to Connect Two Switches Together: A Comprehensive Guide

Cascading can be achieved between switches or between switches and hubs from different manufacturers using a

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Connecting Switches Together

I'm going to show you really quickly the process for connecting switches together and how

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Core Switch vs. Distribution Switch vs. Access Switch

The layer 2 switches collect the data from core switches, identify the type of data packet and the address of the access device.

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How to Connect Multiple Ethernet Switches Using Fiber

In cases where the distance between switches exceeds the total cable length, you can use the LC-LC coupler to

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How to Connect Multiple Ethernet Switches

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

Apr 03, 2026

L3 or L2 Link between Core Switches

You can keep a routed interconnection between your core routers to carry the core-to-core traffic, and at the same

Apr 15, 2026

Solved: interconnecting two core switches

Yes, I'm connecting a pair of switches configured in VSS mode to another pair of switches configured in VSS mode. I

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Connecting two core switches : r/networking

Whats the best way of connecting two different end points like in my case Office and LAB environment? Keep them separated as

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InterVLAN routing using Layer 3 switch | NetworkAcademy.IO

Without the correct gateway, devices can only talk to others on the same VLAN. Key Takeaways Layer 3 switches can perform both

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Solved: Redunancy with two switches core

Hello everyone, I have a customer who has just bought two switches core (L3), his today diagram network is: Access

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L3 or L2 Link between Core Switches

Routing between the core switches will then be through this L2 interconnection and through the SVIs. What is even

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Connecting two core switches : r/networking

Both Office and Lab network have switches in spine (access layer) where servers or desktops are connected. As Edge core is

Dec 05, 2025

Cross Connects in the Data Center

In the data center space, cross connects and interconnects via patch panels are commonly

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How To Connect Two Switches Together In a Network

There are three main types of switches - unmanaged, managed and smart switches. In this article, we will focus on

Jul 15, 2026

Connecting Two Network Switches Together

In this video we take a look at the different ways of connect 2 switches together. There

Sep 06, 2025

Multiple connections between two switches

I was able to walk someone through restoring connectivity between the two switches using a pre-existing CAT5e

Jun 27, 2026

How to Connect Multiple Ethernet Switches

This article will explore three common connection methods: switch cascading, switch stacking, and switch clustering,

Contact Us

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