

How to configure interconnection between core switches



AI Overview

Core switches are typically interconnected using Layer 3 links with redundancy and link aggregation to ensure high availability, traffic isolation, and efficient routing.

Layer 2 vs Layer 3 Interconnection

Layer 3 links are generally recommended between core switches to limit broadcast domains, improve control over routing, and support advanced protocols like BGP or MPLS. L3 links allow for better QoS management, load balancing, and failover in case of link or device failure. Routing protocols such as OSPF, EIGRP, or BGP can be run over these links to summarize networks and provide high availability. Layer 2 links can be used in specific scenarios, such as connecting clusters or firewalls that require VRRP or shared VLANs. However, L2 links expand VLANs across both core switches, which can increase broadcast traffic and potential spanning-tree loops. If L2 links are used, it is recommended to define SVIs as passive in routing protocols to avoid routing core-to-core traffic through VLANs meant for clusters.

Redundancy and High Availability

To ensure resilience, core switches can be configured as a VSX pair or MC-LAG setup. This involves creating a link aggregation (LAG) interface between the core switches, which serves as the inter-switch link (ISL). This configuration allows loop-free forwarding, efficient load balancing, and continuous connectivity even if one core switch loses external network peering

Article Content

Mar 12, 2026

Core Switch and Access Switch configuration

10-04-2017 06:11 AM What configuration have you got at the moment? Exactly what are you trying to achieve on the core switch?

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Configure Inter VLAN Routing with Multiple Switches

With multiple switches generally you still set one switch (your core or distribution) switch as the switch operating at

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Can Switches Interconnect Different Network Segments? (With

So, how to configure this interconnection between different network segments? The engineers of Nethub

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Solved: Redundancy 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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How to configure a primary and secondary core switches in 6500

Core switch: 6500 Primary and Secondary:- This means that when you have 2 core switches connected between each

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Configure Spanning Tree for inter-vlan routing core switch and L2 ...

Layer 3 core switch: Cisco SG550xg: Vlan 10, 20, 30, 40, 50 interfaces (SVI) with inter-vlan routing enabled Layer 2

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Distribution & Core layer switch configuration

Hi, I have 6500, 4500 & 3500 switches. I want to configure 6500 as core, 4500 as distribution & 3500 as access layer

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To configure TRUNK Links from Distribution to Core or just ACCESS

Aloha jrdlaroya, I would use L2 trunks between Access and Distribution only and L3 links between distribution and core. In addition, I

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Solved: Core Switch

I suggest you create SVIs on the core switches, establish port-channels between the core switches and create a

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Core Switch vs. Distribution Switch vs. Access Switch

Core Switch vs. Distribution Switch vs. Access Switch: Understand Their Roles in Ethernet Networks Ethernet networks are growing

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Solved: Redundant links between switches

So in my building I have a switch closet on each floor with a stack of 3750's. Each floor switch stack has a single fiber

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How to Connect Two Switches Together: A Comprehensive Guide

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

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Best practices when configuring an Access switch stack to Core

Only a few access switches connect to the Core stack to communicate with servers that connect to the core. It's setup differently than

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Inter-VLAN routing on Core vs Distribution switches

We're currently upgrading our flat L2 switch topology to a three-tier design using SG-class switches in a building

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How To Connect A Network Switch To Another Network Switch

Learn how to connect a network switch to another network switch with this comprehensive guide. Understand the

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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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Cisco core switches high availability

Hello everyone, In my campus network i have cisco 2960x as access switches and one cisco 3750 as core switch

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How to Connect Multiple Switches together

The post introduces how to connect multiple switches together by three methods including cascade, stack, and cluster.

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Network with inter vlan routing

Is this good topology to doing redundancy network with 2 gateway and 2 core switches ? How to configure switches to

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Configuring the Core Switch

Configuring the Core Switch Context In this scenario, IP addresses of the interfaces connecting the core switch to the

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How to configure two Core switches in a network with intervlan routing ...

Dear All, Hi Friends, i have two 3750 switches. I configured intervlan routing between three vlans which are

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How to Connect Multiple Ethernet Switches

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

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Core Switch & Access Switch Connections

I want to get 2x Cisco Catalyst WS-C3750X-24T-S Switches (and stack them). ESX servers, other servers and routers

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Designing a redundant switching infrastructure

Your core switches appear to be a core/distribution setup and you really want to separate your core switches so they

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Configuring the Core Switch

Configure interfaces for interconnecting the core switch with BRASs. # Create interconnection VLANs on the core

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Introduction to Core Switch Configuration

In this switching, transmission is determined not only by MAC address (layer 2 bridge) or source/destination address (layer 3

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What is optimal way to connect two core switch/routers

I'm fighting all kind of STP and HSRP glitches, and I'm guessing that my connections between the core switches are

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How to Connect Multiple Ethernet Switches Using Fiber

If you have multiple Ethernet switches that need to be connected over long distances, fiber is obviously a preferred

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Core Switches: The Pillar of Network Infrastructure

Get a closer look at core switches: the nerve centers of network infrastructure that enhance performance and facilitate

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layer 3 connection between core and distribution switch

If I have suppose 30 vlans terminating on a distribution switch, how do I advertise them to a core switch through a

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Two-Tier Core

To establish a VSX relationship between the core switches, create a link aggregation (LAG) interface for assignment

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Configuring Interconnection Interfaces and Routes for the Core Switch ...

In this example, Internet access traffic of users passes through the BRAS, and then reaches the egress network of the firewall

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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

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Dynamic Routing Approach between Core-Switch and WAN-Routers

01-22-2021 02:50 PM Since your routing between the L3 core switches and the routers, and have two paths (direct switch<>router

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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

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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

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Deploying MCLAG topologies | FortiSwitch 7.6.1

Use the following procedure to deploy tier-2 and tier-3 MCLAG peer groups from the FortiGate switch controller without the need for

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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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