

How to configure a dual-convergence switch



AI Overview

Dual-convergence switches can be configured using dual-homing, MLAG, or vPC to achieve redundancy, load balancing, and high availability. Understanding Dual-Convergence involves connecting a network device, such as a switch, to two upstream devices to ensure redundancy and continuous network availability. This setup allows traffic to reroute automatically if one link or switch fails, improving reliability and bandwidth utilization. Common implementations include:

- Multi-Chassis Link Aggregation (MLAG) for Arista switches
- Virtual Port Channels (vPC) for Cisco Nexus switches
- Dual-homing with HSRP or VRRP for gateway redundancy

Hardware and Protocol Requirements

- Switch Compatibility:** Ensure both switches support MLAG or vPC and run identical firmware versions for stability.
- Redundancy Protocols:** Use HSRP or VRRP for Layer 3 gateway failover.
- Link Aggregation:** Configure LACP or static port channels to aggregate multiple physical links into a single logical link.
- Peer Links:** For vPC, establish a peer-keepalive link to monitor the health of the vPC pair.

Step-by-Step Configuration Overview

- Prepare the Switches**
 - Verify firmware versions and hardware compatibility.
 - Clear existing configurations if necessary.
 - Ensure VLANs and IP addressing plans are defined.
- Configure Port Channels**
 - Aggregate physical interfaces into a port channel using LACP or static mode.
 - Assign the port channel to the appropriate VLANs or trunk mode.
- Enable MLAG or vPC**
 - Arista MLAG:** Enable MLAG on both switches, define a peer link, and configure MLAG interfaces.
 - Cisco vPC:** Enable the vPC feature, configure the peer link, and set up the peer-keepalive link.
- Configure Redundancy Protocols**
 - Set up HSRP or VRRP on the Layer 3 interfaces to provide a virtual gateway IP.
 - Ensure timers and priorities are configured for fast failover.
- Connect Downstream Devices**

Article Content

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Configuration synchronization enables you to propagate, synchronize, and commit configurations from one device to another. You can log into any one of those devices to manage all devices, thus having

Campus 3.0 Virtual Switching System Design Guide

BFD configuration for dual-active differs from normal BFD configuration on a standard interface. The BFD session connectivity between switches is needed only during dual-active conditions.

How to configure Double-Sided vPC in Cisco Nexus

Virtual port channel (vPC) typically used for providing active-active connection from switch to end-point devices. However, due to it provide loop free design, we can configure one vPC

H3C Data Center Switches M-LAG Configuration Guide-6W100

To enable IPv4 and IPv6 users to access the external network through the gateways, configure the same IPv4 address, MAC address, IPv6 address, and IPv6 link-local address for VLAN-interface 100

MLAG High Availability Explained – How Link Aggregation Plus Works

MLAG allows two switches to act as one logical device, providing both link-level and device-level redundancy. This article explains how MLAG works, its architecture, and how it

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High Availability has become part of the Cisco DNA and is being deployed on all levels of products In this session, Our focus will be to learn about the existing and new High Availability features present

EOS 4.36.1F

Deploying MLAG removes over-subscription by configuring an MLAG link between two aggregation switches to create a single logical switching instance that utilizes all connections to the switches.

High Availability in Layer 2 Networks Using Active-Active Bridging for ...

This example shows how to configure Dynamic Host Configuration Protocol (DHCP) relay on EX9200 switches with the multichassis link aggregation (MC-LAG) feature using Virtual Router Redundancy

Cisco Nexus 9000 Series NX-OS Interfaces Configuration Guide,

This chapter describes how to configure port channels and to apply and configure the Link Aggregation Control Protocol (LACP) for more efficient use of port channels in the Cisco NX-OS

How to Configure Dual Homing in Enterprise Networks | NSC

Successfully configuring dual homing in your enterprise network fundamentally bolsters network reliability and performance. This comprehensive guide provides a structured

Cisco Nexus 9000 Series NX-OS Interfaces Configuration Guide,

See the Cisco Nexus 9000 Series NX-OS Layer 2 Switching Configuration Guide for information about configuring static MAC addresses on Layer 3 port channels. See the "Configuring

Configuring Multiple Switches

I am currently researching the best way to configure 4 switches. I am still learning the finer points of networking and have had mixed opinions on the following question. Should i Daisy

Cisco Nexus 9000 Series NX-OS Interfaces Configuration Guide,

When you configure LACP vPC convergence on a Cisco Nexus 9000 switch, it waits until all the VLANs are initialized and programmed and then send LACP sync PDU, which will start

Setting Up Multiple Networks on a Single Router & Switch | Dual

In this tutorial, I demonstrate how to efficiently create and configure two separate networks using just one router and one switch. Whether you're setting up VLANs or experimenting with sub

Multi-chassis Link Aggregation Group

MLAG (Multi-chassis Link Aggregation Group) implementation in RouterOS allows configuring LACP bonds on two separate devices, while the client device believes to be connected to

NVIDIA Enterprise Support Portal | Rack Solution Using SN2100

This post discusses a simple rack solution using two Mellanox SN2100 (16 100GbE ports) switches and up to 48 servers installed with ConnectX-4 Lx. The post assumes that the reader

Dual-Switch Configuration

Dual-Switch Configuration This example shows a dual-switch configuration, with the servers configured in between the two switches as the "bump". Each server is dual homed. LBG are formed in a

Design and Configuration Guide: Best Practices for Virtual Port ...

Allows dual-homed servers to operate in active-active mode Provides fast convergence upon link or device failure Offers dual active/active default gateways for servers vPC also leverages native split

How to change from Dual monitor to Single in Windows 10

We show you how to disable one monitor in a dual monitor setup & change from dual monitor to single using Windows 10 Settings or NVIDIA Control Panel.

Configuring LACP Graceful Convergence for Cisco Switches

Configuring Port Channels Disabling LACP Graceful Convergence This example shows how to set the LACP port priority for Ethernet interface 1/4 to 40000: switch# configure terminal switch (config)#

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://umele-pestovani.eu>

Email: info@umele-pestovani.eu

Phone: +49 152 287 6349

Address: Neue Mainzer Straße 66-68, 60311 Frankfurt am Main, Germany

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