

Configuration Guidelines for Aggregation Layer Switches



Article Overview

Aggregation layer switches consolidate traffic from access switches, provide redundancy, and enable Layer 2 and Layer 3 services with VLANs, port channels, and QoS.

Core Functions of Aggregation Switches

Aggregation switches sit between the access and core layers, consolidating traffic from multiple access switches and forwarding it to the core. They typically operate at Layer 2 and Layer 3, supporting routing, traffic filtering, load balancing, multicast control, and QoS to ensure efficient and reliable network performance . They also provide redundancy to prevent single points of failure and maintain high availability .

Key Configuration Components

1. VLAN and Layer 2 Configuration

- Define VLANs for different departments or services.
- Configure trunk ports to carry multiple VLANs between access and aggregation switches.
- Implement EAPS (Ethernet Automatic Protection Switching) or similar protocols for fault isolation and loop prevention .
- 2. Layer 3 Interfaces and Routing
- Assign SVIs (Switched Virtual Interfaces) for inter-VLAN routing.
- Configure default routes to the core or upstream routers....

Article Content

Jul 05, 2026

Configuring Link Aggregation Group (LAG) on a Switch

Article ID:2860 Configuring Link Aggregation Group (LAG) on a Switch Objective Link Aggregation Group (LAG)

Aug 24, 2025

Everything You Need to Know About Aggregation Switch

An aggregation switch operates at Layer 2 or Layer 3 of the OSI model, depending on the

Jun 07, 2026

Link Aggregation Configuration

S300, S500, S2700, S3700, S5700, S6700, S7700, and S9700 Series Switches Typical Configuration Examples (V200) This

Nov 07, 2025

What is Switch Aggregation, Its Role and Selection Advice

This article wraps up "what is switch aggregation" and suggestions for choosing an aggregation switch. By

Jul 21, 2026

Configure an Aggregate Interface Group

This procedure describes configuration steps only for the Palo Alto Networks firewall. You must also configure the aggregate group

May 05, 2026

Layer-2 Link Aggregation Configuration

Link aggregation, also called trunking, is an optional feature available on the Ethernet switch and is used with Layer 2 Bridging. Link

Feb 17, 2026

Standalone AC Solution: Aggregation Switches Function as Gateways

In this example, aggregation switches set up stacks that function as gateways for wired and wireless users on the entire network and

Jan 14, 2026

Link Aggregation: Static vs Dynamic, LACP, and MLAG

Understand how link aggregation (LACP, MLAG, static vs dynamic) improves bandwidth

Nov 26, 2025

Port Aggregation Configurations

Port aggregation is useful for implementing load balancing and provides a redundant link backup. To allow port aggregation, the

Oct 26, 2025

Link Aggregation, LAG, LACP and MLAG in 2026: Design, Best

This guide explains how they work, static vs LACP, load balancing, server NIC bonding, STP interaction, and design

May 11, 2026

Configuring LAG Settings on a Switch through the Command Line ...

This document explains how to configure LAG on a switch through the Command Line Interface (CLI). If you are

Dec 04, 2025

Configuring Link Aggregation Group and Link Aggregation Control

This chapter describes Link Aggregation Group, Link Aggregation Control Protocol, and manual load balancing. This chapter also

Aug 02, 2025

Aggregated Ethernet LACP for Switches | Junos OS | Juniper Networks

Learn about aggregated Ethernet LACP, and how to configure LACP and LACP link protection.

Apr 04, 2026

Aggregation Switch: Increasing the Priority of Special Traffic

Deployment Procedure Configure devices at core, aggregation, and access layers to ensure connectivity of the basic network. For

Sep 11, 2025

How To Set Up Switch Link Aggregation

Managed switches provide many advantages for a growing network, including support for VLANs, QoS, and Trunking. I touched on

Dec 25, 2025

Layer 2 Configuration Guide, Cisco IOS XE 17.14.x (Catalyst 9200 Switches)

This chapter describes how to configure the EtherChannels on the Cisco Catalyst Switches.

May 07, 2026

Link Aggregation and Ethernet Bonding Feature Overview and ...

Introduction and overview This guide includes two sample configurations for Link Aggregation Control Protocol (LACP), or dynamic

Jan 21, 2026

Cisco Data Center Infrastructure 2.5 Design Guide

The recommended platform for the enterprise data center core layer is the Cisco Catalyst 6509 with the Sup720

Mar 26, 2026

Link Aggregation: Static vs Dynamic, LACP, and MLAG Configuration

This article provides a comprehensive explanation of link aggregation — covering LACP, static vs dynamic link

May 19, 2026

AOS-CX 10.13 Link Aggregation Guide (All AOS-CX Series Switches)

While creating the layer 2 aggregate interface, the system automatically creates a layer 2 dynamic aggregation group numbered the

Apr 23, 2026

Configuring Link Aggregation Group and Link Aggregation Control

Link Aggregation Group and Link Aggregation Control Protocol Configuration Procedures Cost savings resulting from use of existing

Nov 22, 2025

What Is an Aggregation Switch and How to Choose?

These aggregation switches typically operate at Layer 2 or Layer 3 of the OSI model, depending on the network

Jan 29, 2026

Aggregation layer | FortiSwitch 7.2.3 | Fortinet Document Library

Aggregation layer The aggregation (sometimes also called distribution) layer is a real crossroad. Its primary goal is to increase

Feb 09, 2026

Layer 2 Configuration Guide, Cisco IOS XE 17.13.x (Catalyst 9200 Switches)

You can execute this command on more than one switch to configure multiple backup root switches. Use the same network diameter

Feb 12, 2026

3 Steps of Cisco LACP Config | Link Aggregation

In this LACP Cisco Configuration Example, we will learn How to Configure Link Aggregation Control

Aug 27, 2025

Link Aggregation and Load Balancing

Link Aggregation and Load Balancing Last updated Jun 16, 2026 Save as PDF Table of contents Link bonding Load

Apr 30, 2026

Switch Engine v33.2.1 User Guide

Designing and Configuring the Aggregation Layer The network switches in the aggregation layer provide additional resiliency

Aug 13, 2025

What are Link Aggregation Groups (LAGs) and how do they work with

What are Link Aggregation Groups (LAGs) and how do they work with my managed switch? Link aggregation lets a

Sep 10, 2025

Aggregated Ethernet Interfaces Overview

You can configure LAGs to connect a QFX Series product or an EX4600 switch to other switches, like aggregation switches, servers,

Sep 09, 2025

Configuration Guide for Cisco NCS 4000 Series

This chapter describes the procedures to configure Link Aggregation on Cisco NCS 4000 Series routers. Link

Nov 23, 2025

Data Center Aggregation Layer Design and Configuration with ...

Introduction This chapter covers the design recommendations for a data center design deployment consisting of a Cisco Nexus®

Mar 23, 2026

Multichassis Link Aggregation User Guide for Routing and Switching

You can choose either to configure the Virtual Router Redundancy Protocol (VRRP) over the integrated routing and

Contact Us

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

Website: <https://iiss.co.za>

Email: sales@iiss.co.za

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg, 2196, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

