

What is the function of a front-end aggregation switch



Article Overview

A front-end aggregation switch consolidates traffic from multiple access switches and forwards it efficiently to the core network, enhancing bandwidth, scalability, and network performance.

Core Function

A front-end aggregation switch acts as an intermediary between access switches and core switches. Its primary role is to aggregate traffic from multiple access-layer devices, such as PCs, IP phones, wireless access points, and other edge devices, and forward it to the core layer for further routing or processing . By doing so, it reduces the number of direct connections required to the core, simplifying network design and improving manageability .

Traffic Management and Policy Enforcement

Beyond simple traffic forwarding, aggregation switches often support advanced Layer 2 and Layer 3 features, including:

- VLAN segmentation to separate traffic logically for security and performance .
 - Quality of Service (QoS) to prioritize critical traffic such as voice or video .
 - Access control lists (ACLs) for security enforcement .
 - Inter-VLAN routing to enable communication between different network segments .
- These capabilities allow the aggregation switch to control and optimize traffic flow,...

Article Content

Oct 27, 2025

Why You Need a Fiber Aggregation Switch and How it Can ...

A: A network device referred to as the fiber aggregation switch consolidates links from several access switches to a

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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

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What is an Aggregate Switch?

An aggregate switch is a high-capacity network switch that consolidates connections from multiple access switches,

Jan 21, 2026

Aggregation Switch

An aggregation switch refers to a type of switch used to connect multiple ToR switches to a core switch/router in a cloud data center

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What is an aggregation switch?

An aggregation switch is a network device that consolidates and manages traffic from multiple access switches before forwarding it to

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Switch Engine v33.2.1 User Guide

The aggregation switches are configured to act as multi-function EAPS nodes to provide L2 connectivity services. After EAPS and L2

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What is Aggregation Switch? Role in Network Connection

Aggregation Switch plays an important role in the aggregation layer, supporting the connection and management of

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Which Aggregation Switch to Choose?

This article provides an in-depth exploration of aggregation switches, including their functions, how they operate, their

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What Is an Aggregate Switch?

Discover the role of an aggregation switch and its function in a network. Explore differences between aggregation, access, and core

Apr 10, 2026

Aggregation layer | FortiSwitch 7.4.0 | Fortinet Document Library

Aggregation layer platforms The most appropriate FortiSwitch unit to form the aggregation layer comprises many 10/40 gigabit

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Which Aggregation Switch to Choose?

In modern network architecture, aggregation switches are critical components. They not only enhance network

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Aggregation Switch

An Aggregation or "Top-of-Rack" switch is designed to connect everything in a rack at high speeds, then have an even bigger pipe

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Network switch

A network switch (also called switching hub, bridging hub, Ethernet switch, and—by the IEEE — MAC

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Aggregation Switch: Increasing the Priority of Special Traffic

Aggregation Switch: Increasing the Priority of Special Traffic Networking Requirements Core switches set up a CSS that functions as

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What is an Aggregation Switch?

As the physical entity of the aggregation layer, the aggregation switch's primary function is

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What is an Aggregate Switch?

What is the difference between an aggregate switch and a core switch? An aggregate switch consolidates traffic from

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Everything You Need to Know About Aggregation Switch

The primary function of an aggregation switch is to aggregate and forward data from multiple network devices, such as

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What is an Aggregation Switch?

The aggregation switch is located in the middle of the network architecture, which is

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Understanding Switch Aggregation: A Comprehensive Guide

A: An access switch is typically located at the edge of the network and connects end-user devices, while an

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Aggregation Switches

Data Aggregation: The primary function of an aggregation switch is to gather traffic from multiple access switches,

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The Features and Differences Between Core Switches and Aggregation Switches

As the aggregation point of access switches, the aggregation switch is required with the ability to process the access layer

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What Is an Aggregation Switch and How It Works

An aggregation switch sits in the middle tier of a network, collecting traffic from multiple smaller access switches and

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Core, Aggregation, or Access Switches? Choose the

Discover the crucial differences between core, aggregation, and access switches.
Find out

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Core, Aggregation, or Access Switches? Choose the

Selecting between core, aggregation, and access switches is not only technical — it's

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What is Switch Aggregation, Its Role and Selection Advice

When an aggregation switch receives data from access switches, it performs local routing, filtering, load balancing,

Contact Us

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