

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

Jul 26, 2025

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

Dec 15, 2025

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

Apr 16, 2026

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

Aug 29, 2025

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

Jun 17, 2026

What is Aggregation Switch? Role in Network Connection

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

May 19, 2026

Which Aggregation Switch to Choose?

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

Aug 09, 2025

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

Nov 03, 2025

Which Aggregation Switch to Choose?

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

Nov 18, 2025

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

Jul 29, 2025

Network switch

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

Mar 19, 2026

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

Jul 10, 2026

What is an Aggregation Switch?

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

Jul 02, 2026

What is an Aggregate Switch?

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

Sep 23, 2025

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

Apr 18, 2026

What is an Aggregation Switch?

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

Oct 15, 2025

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

Dec 26, 2025

Aggregation Switches

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

Oct 16, 2025

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

Aug 05, 2025

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

Sep 03, 2025

Core, Aggregation, or Access Switches? Choose the

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

May 21, 2026

Core, Aggregation, or Access Switches? Choose the

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

Aug 12, 2025

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

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

Website: <https://www.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.

