

# The aggregation layer requires a Layer 3 switch



## Overview

An aggregation switch operates at Layer 2 or Layer 3 of the OSI model, depending on the configuration and topology of the network. They support link aggregation protocols such as Link Aggregation Control Protocol (LACP) and Static Link Aggregation, which allow multiple physical. Switch aggregation refers to the concept of consolidating multiple access layer switches into a single aggregation layer switch in a traditional three-tier network design. Its primary goal is to increase network scalability by providing a single place to interconnect multiple access switches and the core layer. They function as gateways to collect routing information in a point of delivery (PoD). Access layer: Access switches connect to PMs and VMs, add or remove virtual. This chapter covers the design recommendations for a data center design deployment consisting of a Cisco Nexus® 7000 Series Switch at the aggregation layer and a Cisco Nexus 5000 Series Switch at the access layer.



## Article Content

Jun 12, 2026

Data Center Aggregation Layer Design and Configuration with ...

This chapter covers the design recommendations for a data center design deployment consisting of a Cisco Nexus® 7000 Series Switch at the aggregation layer and a Cisco Nexus 5000 Series Switch at

Oct 28, 2025

SMB Network Design: Core vs. Distribution vs. Access Switches

Core Layer: The high-speed backbone, often connecting multiple distribution switches. Distribution Layer: The middle ground that aggregates access layer traffic, applying routing and

Oct 02, 2025

What is an Aggregation Switch? | Features and Practical Benefits

Additionally, the access switch includes user management features like address authentication, user authentication, and user information collection in addition to offering sufficient

Jul 19, 2025

Cisco Switch Layer2 Layer3 Design and Configuration

Configuration of Layer3 Aggregation Switch Configuration of Layer2 Access Switches Configuration of Router For Internet Access Switch model used: Cisco ME-C3750-24TE (IOS image c3750me-i5k91-mz.122-55.SE6.bin) Step1: Access, management and logging configuration username admin privilege 15 secret Strongpasshere <--- creates user admin with highest privilege 15 logging buffered 1024000 debugging <--- enables logging using the local storage. The See more on networkstraining Fortinet Documentation

Aggregation layer | FortiSwitch 7.6.0 | Fortinet Document Library

Multiple blocks of pairs of aggregation switches extend the design of this key layer if there are more than 24 floors or buildings in the campus. This layer is also where data center services are provided.

Mar 18, 2026

LANCOM Tech Paper Two-Tier and Three-Tier Switch Architectures

The aggregation or distribution switches are the intermediary layer between the core and access layers. The lowest tier is the access layer, which is used to connect all of the various end devices, such as

Jan 12, 2026

### Link Aggregation: What is it, and How Does it Work?

Link aggregation is a way of bundling a bunch of individual Ethernet links together so they act like a single logical link. Learn more on the Auvik blog

Feb 03, 2026

### 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 configuration and topology of the network. The

Jul 27, 2025

### What is an Aggregation Switch?

The aggregation switch is located in the middle of the network architecture, which is equivalent to a middle-level manager of a company. It

Mar 17, 2026

### Data Center Multi-Tier Model Design

Note Because active-standby service modules require Layer 2 adjacency between their interfaces, the Layer 3 access design does not permit

Jun 14, 2026

### What is Switch Aggregation, Its Role and Selection Advice

Switch aggregation refers to the concept of consolidating multiple access layer switches into a single aggregation layer switch in a traditional three-tier network design.

Jun 03, 2026

### Traditional Three-Layer Network Architecture

In most cases, aggregation switches form the boundary between Layer 2 and Layer 3 networks. The downstream devices connected to the aggregation switches are

Jul 13, 2025

### Understanding Switch Aggregation: A Comprehensive

QSFPTEK: How to Choose the Best Aggregation Switch?: This source provides a comprehensive guide on choosing the best aggregation switch,

Aug 19, 2025

██ v1.14.49 released. TL;DR: v2 provider/model catalog APIs ...

- App UI now remembers selected model variants, adds mod+number project switching, persists todo dock collapse state, and unmounts closed side/review panels.
- Streaming text

Feb 27, 2026

### What is an Aggregation Switch?

Unlike the core switch, the aggregation switch can choose either the layer 2 switch or the layer 3 switch. When the layer 2 switches are selected, the

Sep 22, 2025

### Back Button

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

May 11, 2026

### How do I know if I need a layer 3 switch?

However, I'm not sure if what I need is a layer 3 or a level 2 switch. From what I understand a layer 3 switch does routing between VLANs. I don't think I need this at the moment but as I said I'm not sure

Dec 08, 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 topology and configuration requirements.

Dec 24, 2025

### Aggregation Layer

The aggregation layer traditionally would be a switch, although Layer 3 (network) routing, which would make it a router, is sometimes included in modern systems.

Jul 10, 2025

OptiLink v1.14.49 released. TL;DR: v2 provider/model catalog APIs ...

- Fixes wide-character prompt cursor math, prompt history movement, concurrent submit races, keymap fallback diagnostics, project-scoped events, and workspace sync flicker. [OptiLink](#) & [OptiLink](#) • App UI

Jan 05, 2026

### Layer 3 Switching

Layer 3 Switching - Routing Between VLANs on Modern Multilayer Switches In today's high-performance networks, speed, segmentation, and scalability are crucial—especially in environments

Jan 08, 2026

What Is an Aggregation Switch?

An aggregation switch sits between access layer switches and the core network, acting as an intermediary. It collects traffic from multiple access switches, aggregates it, and then forwards

Feb 11, 2026

Data Center Design: Basic 3 Layers, Core, Aggregation,

Key Features of 3 layers design of Data Center: Data center network is divided into 3 standard three-layer structure. The layering is mainly based on the

Feb 15, 2026

\$LSCC KEY READ-THROUGHS FROM LATTICE

Management also highlighted that Lattice's role is expanding into secure boot, power sequencing, platform management, I/O aggregation, sensor bridging, and control. Transmission

Nov 27, 2025

Switch Pro Aggregation

Does anyone have experience with the Switch Pro Aggregation and routing? The store description says it is "a fully managed, Layer 3 switch" but the USW Pro's page says the same thing without

Apr 02, 2026

Layer 3 Etherchannel on Cisco IOS Switch

This lesson explains how to configure Layer 3 Etherchannel on Cisco IOS Catalyst Switches.

Dec 19, 2025

Switch Features: Managed vs Unmanaged, Aggregation, Layer 2 vs Layer 3 ...

Learn the difference between managed and unmanaged switches, and how switch aggregation can enhance your network performance. We also cover the key distinctions between Layer 2 and Layer 3 switc ...

Jan 14, 2026

In-depth analysis: What is an aggregation switch?

In many network constructions, we have all heard of switches. So do you really understand switches? Why are aggregation switches often overlooked?

Oct 16, 2025

The Features and Differences Between Core Switches and

As the aggregation point of access switches, the aggregation switch is required with the ability to process the access layer information and submits it to the upstream chain of the core layer.

## Contact Us

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