

Information Point Access Layer Switch



AI Overview

An Information Point Access Layer Switch is a network device at the edge of a LAN that connects end-user devices to the broader network, providing high port density, PoE support, and uplink connectivity to distribution or core layers.

Role and Function

An access layer switch operates at the network edge, directly connecting devices such as computers, IP phones, wireless access points, cameras, IoT devices, and printers to the network. It serves as the first point of network access for end users, handling VLAN placement, local traffic forwarding, and sometimes Power over Ethernet (PoE) to power connected devices. These switches are critical for ensuring reliable connectivity and efficient data transmission to higher layers of the network.

Deployment in Hierarchical Networks

In a three-tier hierarchical network, the access layer sits below the distribution layer and core layer. Access switches forward traffic upstream to distribution or core switches, which aggregate and route data across the network. They are often deployed in Intermediate Distribution Frames (IDFs) on each floor or area of a building, with uplinks connecting to aggregation or distribution switches to ensure redundancy and high availability.

Key Features

- **Port Density:** Access switches typically come in 24- or 48-port models, allowing multiple devices to connect simultaneously.
- **Port Speed:** Commonly support 1G ports for standard devices and multi-gigabit ports (2.5G, 5G) for high-throughput devices like Wi-Fi 7 access points.

Article Content

Switches in Computer Networks

Switches are networking devices operating at layer 2 or a data link layer of the OSI model. They connect devices in a network and

Different Types of Network Switches

PoE lets you power a device—such as an IP phone, surveillance camera, or wireless access point—over the cable that is used for

Core Switch vs. Distribution Switch vs. Access Switch

The access layer consists of layer 3 switches, which take routed and switched data packets from the distribution switches and then

What Is an Access Switch? The Definitive Edge Network Guide

An access switch connects directly to endpoint devices such as desktop computers, VoIP phones, Wi-Fi access

Network Devices Explained: Routers, Switches, APs

This guide walks through the eight core network devices you meet first: routers, Layer 2 and Layer 3 switches, next

Data Center Network Switch Design

This Article Applies to: All Omada switches. Design: In a large network, we will have different types of switches

What Is an Access Layer Switch? Guide complet

An access layer switch is the entry point for users and devices into your network—and a critical piece of both performance and

Understanding the Hierarchical Switch Layers: Access ...

The three-tier switch hierarchy — Access, Distribution, and Core — is not just a technical blueprint, but a strategic

Network Switches: The Backbone Of Modern Connectivity

Network switches use MAC addresses to intelligently forward data packets from the source device to the intended

Access layer | FortiSwitch 7.6.0 | Fortinet Document Library

Access layer The access layer is where endpoints (such as phones, laptops, video-conferencing sets, printers, IoT sensors, IP

Data Center Access Layer Design

Each access layer design model is covered in more detail in the remainder of this chapter. Note It might be more

What Is an Access Switch? The Definitive Edge Network Guide

An access switch is a network edge device that directly connects end-user hardware such as computers, IP phones,

Access Layer Security Design

Access Layer Security Design One of the most vulnerable points of the network is the access edge. The access layer is where end

Core, Distribution, and Access Layer Explained with Examples ...

The access layer: Where users meet the network The access layer is where end-user devices connect to the network.

Layer 2, Layer 3, and Layer 4 Switches

Therefore, Layer 2 switches are used to provide cheap and easy workgroup connectivity, and Layer 3 switches are used to segment

CCNP SWITCH (Version 7) - Chapter 2: Network Design Fundamentals

Contents Campus Network Structure Hierarchical Network Design 1 Access, Distribution and Core Layer (Backbone)

What is the Access Switch?

What is the Access Switch? A typical enterprise hierarchical LAN campus network design includes an access layer, distribution layer,

Choose access layer switch for the access layer network

What is the main function of an access layer? What does an access layer switch do? How to choose the right network

How to Choose the Right Access Layer Switch?

Learn 8 key factors—ports, PoE, speed, security & TCO—to choose the right access layer switch and future-proof

Core Switch vs Access Switch | Definitions and Key Differences

This article focuses on the hierarchical internetworking and core switch vs access switch differences. We also

What is a Network Switch and How Does it Work?

A Layer 2 switch operates at Layer 2 of OSI model, which is the Data Link Layer. The switch forwards data packets

Data Center Access Layer Design

Overview of Access Layer Design Options Access layer switches are primarily deployed in Layer 2 mode in the data center. A Layer

Understanding the Role of an Access Switch in Your Network

Explore the crucial role of an access switch in your network. Learn how it connects end-users and devices via

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