

Dual-core Layer 3 Switch



Article Overview

A dual-core Layer 3 switch is a high-performance network switch capable of routing and switching at Layer 3, using dual-core processors to enhance throughput, reliability, and scalability.

Overview

A Layer 3 switch operates at the network layer (Layer 3) of the OSI model, enabling it to perform IP routing in addition to traditional Layer 2 switching functions like MAC address-based forwarding . Dual-core Layer 3 switches incorporate two processing cores, which allow simultaneous handling of multiple routing and switching tasks, improving packet forwarding speed, low latency, and network resiliency .

Key Features

- **High Throughput and Low Latency:** Dual-core processors enable faster packet processing, making these switches suitable for core or distribution layers in enterprise networks .
- **Advanced Routing:** Supports static routing, dynamic routing protocols (OSPF, EIGRP, BGP), and inter-VLAN routing, allowing efficient traffic management across subnets .
- **Scalability:** Many dual-core Layer 3 switches offer modular or stackable designs, supporting high port density and expansion for growing networks .
- **Redundancy and Reliability:** Dual-core architecture provides failover capabilities, ensuring continuous operation even if one core is under heavy load or fails .
- **Enhanced Security and QoS:** Supports access control lists (ACLs), VLAN segmentation, and quality of service (QoS) for prioritizing critical traffic

Article Content

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Fixed Port L3 Managed Ethernet Switches

HPE Networking CW 2150 Switch Series HPE Networking CW 2150 Switch Series empowers your business with reliable, high

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Core Switch vs. Distribution Switch vs. Access Switch

There are different types of enterprise switches that perform various roles in these layer-based or hierarchical ethernet networks.

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Layer 3 switches explained

Layer 3 switches are explained in this tip, including the difference between a switch, a router and a Layer 3 switch.

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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

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What is Layer 3 Switch and How Does it Works?

An introduction to Layer 3 switch and how it works within the network to further understand its benefits and capabilities.

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Amazon : Cisco Layer 3 Switches

Browse Layer 3 managed switches from Cisco. Offers reliable performance, redundancy, and comprehensive network features.

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What Is A Layer 3 Switch? And Advantages Of Layer 3 Switch

Learn about what is a Layer 3 switch? It is a device that combines the high-speed data forwarding of a switch with the

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28-Port Layer 3 Stackable Managed Gigabit Switch

DGS-3630 Series - Gigabit Layer 3 Stackable Managed Switches Designed specifically for Small to Medium Businesses, Enterprises

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Layer 3 Managed Ethernet Switches

PLANET Technology offers Layer 3 Managed Ethernet Switches for enhanced network management, featuring advanced capabilities

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Core Differences Between Layer 2 and Layer 3 Switches

Layer 3 Switch · Layer Positioning: The network layer (Layer 3) of the OSI model, integrating switching and routing

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Three-Layer Model

The Cisco hierarchical model can help you design, implement, and maintain a scalable, reliable, cost-effective hierarchical

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Difference between layer-2 and layer-3 switches

Layer 2 switches operate at the data link layer, forwarding data based on MAC addresses, while layer 3 switches route

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Layer 3 Switches

Upgrade your network with Dell Layer 3 Switches. Experience efficient data routing and enhanced performance for your business

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Fixed Port L3 Managed Ethernet Switches

These fully managed, stackable Layer 3 switches deliver enterprise-grade features without the complexity

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Layer 3 Managed Switches

Moxa's Layer 3 managed switches feature industrial-grade reliability, multicast availability, and security enhancements based on the

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Cisco Switch Selector

9-Tbps/chassis switching capacity DNA Center, SD-Access, E-LLW This is the next generation of modular Gigabit and Multigigabit

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Three-tier switch networks: LANCOM Systems GmbH

Efficiently plan and implement 3-tier switch architectures with core, aggregation, and access switches from LANCOM!

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L3 SWITCHES

The L3 switch is ideal for service provider edge aggregation, enterprise wiring closets, data center aggregation, and network core

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Layer 3 Switching

Layer 3 Switching – Routing Between VLANs on Modern Multilayer Switches In today's high-performance networks, speed,

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How to Choose Layer-3 /Core Switches for Enterprise Networks□

However, they are also more expensive than fixed switches. In order to guarantee the availability of the network, it is

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Multilayer switch

Multi-layer switching combines layer-2, -3 and -4 switching technologies and provides high-speed scalability with low latency. Multi

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Multilayer switch

Switching uses different kinds of network switches. A standard switch is known as a layer-2 switch and is commonly found in nearly

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Best Layer 3 Switch of 2026: Tested and Reviewed

In this guide, we've tested and reviewed the best layer 3 switch on the market to help you choose the right one for your

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Two-tier and three-tier switch architectures

1) Core switches Core switches represent the heart of the network and are the top layer of a three-tier network. With its high

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L3 switch models

Hi all, I am looking for some Cisco switch model suggestion for my core switch model We are building a site with 12

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28-Port Layer 3 Stackable Managed Gigabit Switch

The DGS-3630 Series allows multiple switches to be combined to form a single physical or virtual stack.

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Understanding Layer 3 Switches: A Comprehensive Guide

How Do Layer 3 Switches Work? Layer 3 switches operate by combining the functionality of Layer 2 switching and

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Layer 3 Switch (2026) zum Bestpreis | idealo

Sobald ein Switch über besondere Management-Funktionen verfügt – wie das Filtern von Adressen oder Priorisieren von Ports –

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Best Layer 3 Switches to Enhance Network Performance.

Layer 3 switches offer advanced technologies and features, making them an ideal choice for large enterprises and

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ECS4620-28F

ECS4620-28F is a compact but high-performance Gigabit Ethernet Layer 3 switch featuring 28 ports; with

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What Is a Layer 3 Switch? Features, Benefits, and Use Cases

Learn what a Layer 3 switch is, how it works, and why it's a common solution for enterprise networks needing speed,

Contact Us

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