

# Interoperability of Core Layer 3 Switches



## Overview

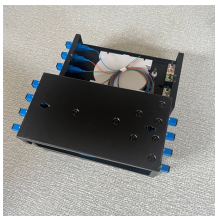
This document describes the interoperation between H3C switches and third-party devices, as well as configuration of the associated parameters for interoperation. This preface includes the following topics about the documentation: This documentation is intended for: . A scalable enterprise switching architecture, or enterprise switching architecture, consists of three functional layers: 1. Access Layer - Endpoint connectivity and PoE power engineering (IEEE 802. Aggregation Layer - Inter-VLAN routing, policy enforcement, bandwidth. This document provides reference architectures for configuring networks for small campuses, large campuses, small software-defined (SD) branches, medium SD-branches, and large SD-branches. The following major topics are included: • Data. With the Fortinet solution for integrated networking using FortiLink, the core layer always comprises a set of two to four FortiGate devices and two very high-speed FortiSwitch units, which support a large number of 100-GbE and/or 40-GbE ports with enough capacity to grow the links between them and. Understanding the Backbone of Your Network A core switch in networking serves as the high-capacity backbone, italic centralizing data flow and ensuring efficient communication between

different network segments. Simply put, it's the kingpin that keeps your network humming. You may also want to. Recommended to keep at default of 9578 unless intermediate devices don't support jumbo frames. This is useful to optimize server-to-server and application performance. Avoid fragmentation when possible.

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Explore enterprise switching architecture and see how core, aggregation, and access layers integrate with PoE, oversubscription, and design examples.



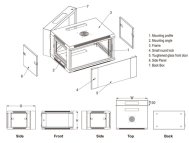
Data Center Multi-Tier Model Design  
Data Center Multi-Tier Design Overview  
Data Center CORE Layer  
Data Center Aggregation Layer  
Data Center Access Layer  
The data center core layer provides a fabric for high-speed packet switching between multiple aggregation modules. This layer serves as the gateway to the campus core where other modules connect, including, for example, the extranet, WAN, and Internet edge. All links connecting the data center core are terminated at Layer 3 and typically use 10 Gig...  
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Fortinet Documentation



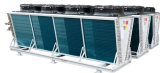
Unlike access or distribution switches, a core switch is optimized for Layer 3 performance, modular scalability, and redundancy. In smaller networks, it may be combined with the distribution layer in a ...



The L3 switch is ideal for service provider edge aggregation, enterprise wiring closets, data center aggregation, and network core deployment. These switches bring a high level of security and traffic ...



In a large data center, a single pair of data center core switches typically interconnect multiple aggregation modules using 10 GigE Layer 3 interfaces. The recommended platform for the ...



The most appropriate FortiSwitch unit to form the core layer must have many 100 gigabit Ethernet ports to address the aggregation layer and distribute a few 100-GbE ports towards the core FortiGate ...



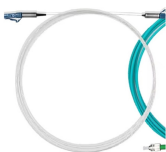
To achieve backbone speeds, a core switch must operate at Layer 3 of the OSI model, bridging the gap between traditional MAC-based switching and IP-based routing.



Use L3 interfaces only for data VLANs. This helps in separating management traffic from user data. In case of switch stacks, ensure that the management IP subnet does not overlap with the subnet of ...



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Using this design, you can go up to eight switches and never need more than 4x10-GbE ports per switch to interconnect other access-layer switches or the aggregation layer.



Unlike access switches, which connect directly to end-user devices, the core switch focuses on aggregating and routing traffic between other switches, minimizing latency and ...

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