

Does the core switch have a built-in firewall



Overview

In the hierarchical network model, the core layer, where the core switch resides, is the backbone of the network.

Key Takeaways

Core switches do not have a built-in firewall; they are designed for high-speed routing and switching, while firewalls are separate devices for security enforcement. Core Switch Functionality

A core switch serves as the backbone of a network, interconnecting distribution and access layer switches and handling large volumes of traffic with low latency and high reliability. Core switches are optimized for Layer 3 routing, VLAN segmentation, ACLs, and high-speed forwarding, but they are not designed to perform deep packet inspection or enforce firewall policies. They may include features like access control lists (ACLs) and 802.1X authentication, which provide basic traffic filtering, but these are not equivalent to a full firewall.

Firewall Placement in Network Architecture



Firewalls are typically deployed in front of the core switch or at the aggregation layer to protect the network from external threats and control traffic between security zones . In enterprise networks, the firewall handles security policies, intrusion prevention, and traffic inspection, while the core switch focuses on high-speed packet forwarding and inter-VLAN routing . Some designs may use VLANs or VRFs on the core switch to segment traffic, but the firewall remains the primary device for enforcing security rules.

Summary

While core switches are critical for network performance and scalability, they do not replace firewalls. Organizations should deploy dedicated firewall devices to manage security, with the core switch providing high-speed connectivity and routing between network segments . ACLs on the core switch can complement firewall policies but cannot provide the same level of protection.

Article Content

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Solved: Core Switch or No

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Routing on firewall or core switches? : r/networking

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What Is a Core Switch?

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Core layer | FortiSwitch 7.6.0 | Fortinet Document Library

The FortiGate devices in the core layer can use FGCP in active-passive mode with two to four firewalls or in active-active mode for

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Single firewall with 2 core switches

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switching

If you are provides internet connectivity through firewall and you needs to filter all traffic in common manner for all

What is the best practices for Users Getaway! Core Switch or Firewall

It also depends on whether you have any single points of failure. If you have a single firewall, but a fully redundant

Firewall at Edge vs Core : r/networking

Obviously I would think having a firewall at the Core switch is ideal, however sometimes this may not be possible, (depending where

Internal Firewall vs. ACLs on Core Switches : r/networking

It depends. If you need granular, per workload access control, and Layer 7 inspection then its firewall. ACLs are okay for general

Connecting two buildings with a Core Switch and Fortigate Firewall ...

I have two buildings that have different vlans in them. I have a cisco core switch 4500 on one building and access

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Solved: Why a coresetch?

Hi, Core switch is a switch, usually a L3, which is placed in the core layer of a hierarchical

Network Trio: Firewall vs Switch vs Router | Field Engineer

There are 3 main pieces of equipment, known as the network trio that are needed to secure a network. We take an in

Can I place a firewall behind the core switch with a public ip

An example would be you have a /28 and take the top half, use a /30 for the p2p and a /30 to give the new firewall

Solved: Firewall to 2 core switches

Look at this picture and tell me, is it possible to add another core switch and have them wired to firewall so, that it could

Recommendation for a connection between Core Switch and Firewall

Hello, I am asking myself what others recommend for the connection between core switch and Firewall. The setup is

Network Design

I'd say make them on switches if your firewall can't handle that or if you don't need firewalling between those different VLANs (at least

Differences among Firewalls, Routers, and Switches

In an increasingly interconnected world, the security and efficiency of computer networks

Switch versus firewall security

I have a client who recently implemented a managed security platform which places a sensor inline with LAN traffic in

Adding a Core Switch with Layer 3

Yes, a layer 3 switch is much better at routing vlan traffic vs a firewall. Yes, you'll need to add routes to your local

Cisco Secure Firewall Advanced Threat Protection

Cisco's Secure Firewall hardware and software options enhance your security to block more threats and swiftly respond to breaches.

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Our current Core router setting: 3750 sw -> Meraki MS450 Lan port -> Firewall (192.168.1.2) Config: ip classless ip

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We have a dedicated "outside" switch that the router and both firewalls plug into and that into both the VMWare environment and our

Should I build a VLAN between firewall and core layer 3 switch?

With that being said, we currently don't have any issues that I'm aware of, but with the new firewall going into place,

Core layer | FortiSwitch 7.6.0 | Fortinet Document Library

Each aggregation switch requires 5x100-GbE links to the other switches. With the use of a core layer, each aggregation switch only

Difference between a core switch and "normal" switch?

Typically you'd have your layer 3 switch (es) doing internal routing, and a router/firewall doing WAN/internet routing. I imagine the

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