

Configuring the Core Switch for Internal and External Networks



Article Overview

A core switch can be configured to manage internal and external networks by creating VLANs, binding interfaces to VPN instances, and setting up OSPF routing for connectivity and isolation.

Core Switch Role

A core switch serves as the high-capacity backbone of an enterprise network, aggregating traffic from distribution switches and routing it efficiently across internal and external networks. It focuses on high-speed forwarding and delegates complex policy enforcement to lower layers to maintain wire-speed performance and low latency .

Steps to Configure Internal and External Networks

1. Interface and VLAN Configuration

- Internal Network (User Network):
 - Create VLANs on the core switch for interconnection with distribution switches or BRAS devices.
 - Assign interfaces connecting to these devices to the corresponding VLANs.
 - Create VLANIF interfaces and bind them to a VPN instance (e.g., vpn1) to isolate internal traffic from external routes .
- External Network (Egress/Firewall):
 - Similarly, create VLANs for interfaces connecting to firewalls or egress routers.

Article Content

What Is a Core Switch in Networking?

What Is a Core Switch in Networking? Understanding the Backbone of Your Network A core switch in networking

SME Network Solution Typical Configuration Examples

Support Documentation Enterprise Network Solution Horizontal Solutions CloudCampus SME Configuration & Commissioning

Allow routing via Internal firewall for Core switch & Internet firewall

Hi, we have below architecture in which routing between different firewall take place via Internal firewalls only. We have

Hyper-V Desktop Edition SwitchNetwork Types Explained

This specific routing allows your VMs to freely communicate with each other and with external internet networks. We will be

Designing and Configuring the Core Layer with EAPS

The core switches provide high performance backbone routing between the edge, aggregation, data center, and external Internet

Networking in Hyper-V

In Chapter 3, we're diving into an essential part of virtualization: Networking in Hyper-V. We'll cover the basics of

How to Configure a Cisco Switch in 10 Steps

Configuring a Cisco switch properly means your network can make connections efficiently. In this step-by-step guide,

What Is a Core Switch?

Conclusion: Is It Time for a Core Switch? If your organization requires high-speed, always-on network connectivity, a core switch is

Set up a NAT network | Microsoft Learn

NAT Overview NAT gives a virtual machine access to network resources using the host computer's IP address and a

What is a Core Switch | Functions and Difference over Normal Switch

What is a core switch and how it works? This article builds the basics of this kind of switch for the ones who don't

Configuring the Core Switch

This document describes the deployment roadmap and guide for the VXLAN networking scenario of high-quality 10 Gbps office

Core network components | Microsoft Learn

A core network also allows you to scale your network as your organization grows and IT requirements change. For

Hyper-V networking: The three virtual switches that fuel connectivity

There are three virtual switches that power the Microsoft Hyper-V networking environment. Learn about configuring

Campus LAN Core and Distribution Switches

Cisco Catalyst and Meraki Campus LAN core and distribution switches are scalable, secure network switches with exceptional

Cisco configure VLAN on Core Switch

Cisco configure VLAN on Core Switch InformationTechnologies Cambodia 1.19K

Core Switch vs. Distribution Switch vs. Access Switch

Core Switch vs. Distribution Switch vs. Access Switch: Understand Their Roles in Ethernet Networks Ethernet networks are growing

How to configure a Cisco Layer3 Switch-InterVLAN ...

The above feature means that you can implement Layer 3 functionality in your network without using a regular router. If you don't

How to Create Internal Virtual Switch in Hyper-V | Easy!

Creating an Internal Switch with Hyper-V is very simple. Before making this network structure, you can take a look at

Introduction to Core Switch Configuration

A switch that functions as part of a router and operates at the third layer of the OSI network standard model, the network layer. The

Hyper-V Networking Guide: A Step-by-Step Implementation Walk

Hyper-V allows VMs to communicate with each other, the host machine, and external networks. Configuring and

Guide to Basic Switch Configuration | Auvik

Switch configuration on your own can seem like a daunting task. Use this handy guide to get your network switch up

Network switch

A network switch (also called switching hub, bridging hub, Ethernet switch, and—by the IEEE — MAC bridge) is networking

How to Configure Virtual Switches in Hyper-V (2025)

Complete guide to Hyper-V virtual switches. Configure External, Internal & Private switches with step-by-step

Configuring the Core Switch

In this scenario, IP addresses of the interfaces connecting the core switch to the BRASs and firewalls and OSPF need

Overview of networking in Hyper-V

Hyper-V networking involves configuring virtual switches to manage communication between VMs, the host, and

Hyper-V Virtual Switches: Types and Configuration

Discover the 3 types of Hyper-V virtual switches: external, internal and private. Learn how to create and configure

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://jrsekwele.co.za>

Email: info@jrsekwele.co.za

Phone: +31-20-794-2536

Address: Herengracht 47, 1015 BB Amsterdam, Netherlands

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