

Core Switch Virtualization Settings

Article Overview

To adjust virtualization on a core switch, you typically configure features like StackWise Virtual, VLAN virtualization, and Layer 3 interface settings to enable a single logical switch from multiple physical devices.

Enable StackWise Virtual

For Cisco Catalyst switches, StackWise Virtual allows two physical switches to operate as a single logical switch, sharing a control and management plane. To configure it:

- o Connect the two switches using the recommended Ethernet links.
- o Enable StackWise Virtual on both switches.
- o Ensure that MAC addresses for SVIs or routed ports are consistent across the switches, particularly the first four most significant bytes (4MSB) if Layer 3 injected packets are used.
- o Avoid enabling FIPS 140-2 simultaneously, as it is mutually exclusive with Secure StackWise Virtual.
- o Only 128-bit authorization keys are supported, and DAD links are not compatible with StackWise Virtual .

Configure VLANs and VPN Instances

- o Create interconnection VLANs on the core switch and assign interfaces to these VLANs.
- o Bind VLANIF interfaces to VPN instances to isolate traffic between public networks and firewall return paths.
- o Configure OSPF or other routing protocols to ensure proper connectivity between user networks and egress networks .

Layer 3 and Redundancy Considerations

- o Fine-tune First Hop Redundancy Protocol (FHRP) and PIM timers for rapid fault detection and recovery.
- o Align FHRP priorities with STP root priorities to prevent loops and ensure consistent Layer 2 and Layer 3 operation.
- o Ensure that all SVIs or routed ports that require Layer 3 injected packets follow the MAC address consistency rules .

CPU Virtualization (Optional)

If the core switch supports virtualized network functions or hypervisor-based services, you may need to enable CPU virtualization in the BIOS/UEFI:

- o For Intel CPUs, enable VT-x; for AMD CPUs, enable SVM Mode.

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o This allows the switch or associated virtual machines to efficiently utilize CPU resources for virtualized workloads .

Summary

Adjusting virtualization on a core switch involves:

- o Enabling StackWise Virtual for logical switch operation.
- o Configuring VLANs, VLANIF interfaces, and VPN instances for traffic isolation.
- o Fine-tuning Layer 3 protocols and redundancy mechanisms.
- o Optionally enabling CPU virtualization if running virtualized network functions. Following these steps ensures optimized performance, high availability, and proper traffic segmentation on a virtualized core switch.

N Port virtualization (NPV) reduces the number of Fibre Channel domain IDs in SANs. Switches operating in the NPV mode do not

Choose Switch > Interface from the navigation pane on the left, select the Eth-Trunk interfaces connecting the core

Enabling virtualization on your Windows 10 PC is pretty straightforward, but it requires a quick trip into your

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

Enabling virtualization in Windows 10 might seem like a deep dive into your computer's core settings, but as you've

CloudEngine 16800, 12800, 9800, 8800, 7800, 6800, and 5800 Series Switches Typical Configuration Examples (V100 and V200)

Learn how to enable or disable hardware virtualization technology on your computer in the BIOS. Virtualization Technology might be

Enable Virtualization on Windows - Microsoft Support Learn how to enable virtualization through the UEFI (or BIOS)

If the virtualization option is missing or greyed out, the cause may be an outdated BIOS, unsupported processor,

Enabling virtualization in BIOS involves accessing your system's firmware, locating the virtualization support

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setting

Enable or disable CPU virtualization in UEFI BIOS firmware on your Windows PC. Find VT-x/SVM, change settings, and verify in

Memory Integrity is part of Windows Core Isolation and helps protect your system from blocking malicious attacks. It

While the core process is similar across all systems, the exact location of settings and terminology varies by

If you have an Intel CPU and uninstalling Hyper-V didn't solve your problem---or your virtualization app reported that

How to Enable Virtualization in BIOS or UEFI After determining that virtualization is not enabled on your computer, but

Look for the virtualization setting. Find the option or menu where you can enable virtualization. The name varies by

Web: <https://www.kremngroup.co.za>

