

Article Overview

Mapping on core switches involves assigning traffic from specific ports to VLANs or subnets to ensure proper segmentation, routing, and security across the network.

Understanding Core Switch Mapping

Core switches act as the backbone of an enterprise network, aggregating traffic from distribution and access layers while providing high-speed Layer 3 routing and redundancy . Mapping on these switches typically involves:

- o VLAN Mapping: Assigning incoming traffic from a port to a specific VLAN based on criteria such as source MAC address or port configuration .
- o Inter-VLAN Routing: Configuring Switch Virtual Interfaces (SVIs) on the core switch to route traffic between VLANs, enabling communication across different subnets .
- o Port-Based Mapping: Directing traffic from multiple VLANs through a single physical port while maintaining logical separation .

Steps to Perform VLAN Mapping on Core Switches

- o Identify VLANs and Subnets: Determine which VLANs will be used and their corresponding IP subnets. For example, VLAN 10 for Finance and VLAN 20 for IT .
- o Configure VLANs on the Core Switch: Create VLANs using the switch's CLI or management interface.
vlan 10name Financevlan 20name IT
- o Assign Switchports to VLANs: Map physical or logical ports to the appropriate VLANs. For port-based mapping, configure the switch to check the source MAC or other criteria to assign traffic dynamically .
interface Ethernet1/1switchport mode accessswitchport access vlan 10
- o Configure SVIs for Inter-VLAN Routing: Enable Layer 3 routing by creating SVIs for each VLAN and assigning IP addresses.
interface vlan 10ip address 192.168.10.1/24no shutdowninterface vlan 20ip address 192.168.20.1/24no shutdown
- o Enable Routing Protocols if Needed: For larger networks, configure OSPF, EIGRP, or static routes to ensure proper traffic forwarding between VLANs and external networks .
- o Verify and Test: Use commands like show vlan, show ip route, and ping to confirm that traffic is correctly mapped and routed.

Best Practices

- o Redundancy: Deploy core switches in HA pairs using VRRP or HSRP to maintain uptime .

How to perform mapping on core switches

- o Security: Use VLAN mapping to isolate sensitive traffic and prevent unauthorized access .
- o Documentation: Maintain a clear mapping table of ports, VLANs, and SVIs to simplify troubleshooting and future upgrades .
- o Scalability: Plan VLANs and mappings to accommodate growth without exceeding switch capacity. By following these steps, administrators can ensure that core switches efficiently manage traffic, maintain security, and provide reliable inter-VLAN communication across the enterprise network.

Configuring the Core Switch Context In this scenario, IP addresses of the interfaces connecting the core switch to the

"Gateway + Core Switch + Aggregation Switch + Access Switch + WAC + AP + AR180"
Networking: Local Entire Network

Dear All, Hi Friends, i have two 3750 switches. I configured intervlan routing between three vlans which are

Configuring VLAN Mapping The Cisco 2520 Connected Grid Switch (CGS 2520) supports VLAN mapping (or VLAN ID translation)

Hi folks - don't flame me too bad but some questions rolling around I have to ask on how you do this in the real world. I

In this article, you'll learn: How to remap or reconfigure the button inputs for supported controllers on Nintendo Switch. How to save

Looking at the interfaces, the IP addresses and subnets, as well as the routing configuration, you should be able to

Hier sollte eine Beschreibung angezeigt werden, diese Seite l sst dies jedoch nicht zu.

We're currently upgrading our flat L2 switch topology to a three-tier design using SG-class switches in a building

Two-tier and three-tier switch architectures When structuring the logical architecture of an enterprise network, decisive factors

Cisco configure VLAN on Core Switch Information Technologies Cambodia 1.19K

This article provides instructions on how to configure the VLAN mapping settings on Sx350, SG350X, and

How to perform mapping on core switches

Sx550X

If you're looking to configure a switch for the first time, this post is for you. Learn step-by-step configuration commands

This example shows how to map VLAN IDs 2 to 6 in the customer network to VLANs 101 to 105 in the service-provider network

This lab simulates a real-world enterprise network upgrade involving the replacement and configuration of core switches, port

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