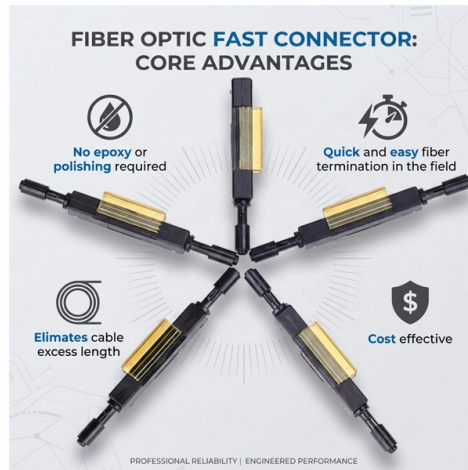


Configuring a trunk on a switch s optical port



Overview

Configuring Access and Trunk Interfaces Ethernet interfaces can be configured either as access ports or trunk ports.

Key Takeaways

To configure a Cisco switch optical port as a trunk, set the interface to trunk mode, specify 802.1Q encapsulation, and define allowed VLANs.

- Access the Switch CLI
- Connect via console, SSH, or Telnet.
- Enter privileged EXEC mode:

enable

- Enter global configuration mode:

configure terminal

- Select the Optical Interface
- Identify the optical port (e.g., GigabitEthernet1/1 or TenGigabitEthernet1/1):

interface GigabitEthernet1/1

- Specify Trunk Encapsulation
- Set the encapsulation to IEEE 802.1Q (industry standard):

switchport trunk encapsulation dot1q

- Note: Some older switches may require enabling dot1q explicitly before trunking.
- Set the Port to Trunk Mode
- Configure the interface as a permanent trunk:

switchport mode trunk

- Avoid dynamic modes (dynamic auto or dynamic desirable) for security and predictability.
- Configure Allowed VLANs
- Specify which VLANs can traverse the trunk:

switchport trunk allowed vlan 10,20,30

- This ensures only required VLAN traffic passes through the trunk.
- Set the Native VLAN
- For security, assign a native VLAN that is unused:

switchport trunk native vlan 1001

- Frames without a VLAN tag will be assigned to this VLAN.
- Verify the Configuration
- Exit interface configuration mode:

end

- Check trunk status:

show interfaces trunkshow running-config

- Save the Configuration

write memory or

copy running-config startup-config

Best Practices

- Disable DTP if connecting to non-Cisco devices to prevent unwanted trunk negotiation.
- Ensure VLAN consistency on both ends of the trunk to avoid spanning-tree loops.
- Use 802.1Q instead of ISL for interoperability with modern devices.

- Verify loop-free topology before enabling trunking on production networks. By following these steps, the optical port will carry traffic for multiple VLANs, enabling efficient inter-switch communication and VLAN extension across the network .

Article Content

Trunk Port Configuration 802.1Q — Cisco IOS | NetsTuts

Using the IEEE 802.1Q standard, the switch inserts a 4-byte VLAN tag into each Ethernet frame so the receiving switch knows which

Trunk Port setting on Ethernet switch

One ethernet switch will be placed on 8/F and one in-house fibre would be wired for the connection between 25/F and

VLAN Trunking | Switchport Mode Trunk

What we're looking at here is Cisco's recommended best practices for trunk implementation. Look at interface Ethernet 1/1,

Cisco Nexus 5000 Series NX-OS Software Configuration Guide

Understanding Access and Trunk Interfaces Ethernet interfaces can be configured either as access ports or a trunk

Configuring Access and Trunk Interfaces

Configuring Access and Trunk Interfaces Ethernet interfaces can be configured either as access ports or trunk ports. Trunks carry the

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