

## Server connected to switch via trunk port



### Overview

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

### Key Takeaways

A server can be connected to a switch trunk port by configuring the switch port as a trunk and setting up VLAN subinterfaces on the server to handle multiple VLANs.

#### Switch Configuration for Trunk Ports

A trunk port on a switch carries traffic for multiple VLANs using IEEE 802.1Q tagging. To configure a switch port as a trunk:

- Set the port mode to trunk: `switchport mode trunk`
- Specify allowed VLANs: `switchport trunk allowed vlan 10,20,30`
- Configure the native VLAN for untagged traffic: `switchport trunk native vlan 1`
- If using EtherChannel, ensure the physical interfaces and the port-channel configuration match, and use `channel-group xx mode on` for static or `mode active` for LACP negotiation .

Trunk ports are typically used to connect network infrastructure devices, but servers can also act as trunk hosts if they are configured to handle multiple VLANs .

#### Server Configuration for VLAN Trunking

On a Linux server, VLAN trunking is implemented by creating tagged VLAN subinterfaces on the physical NIC connected to the trunk port:

- The physical interface (e.g., eth0) does not need an IP address; it handles untagged traffic for the native VLAN.
- Create subinterfaces for each VLAN: eth0.10, eth0.20, eth0.30, each with its own IP address and VLAN ID.
- Example configuration snippet using networkd:

```
ethernets: eth0: dhcp4: false  
vlans: eth0.10: id: 10 link: eth0 addresses: [10.10.0.1/24]  
eth0.20: id: 20 link: eth0 addresses: [10.20.0.1/24]  
eth0.30: id: 30 link: eth0 addresses: [10.30.0.1/24]
```

This allows the server to send and receive traffic for multiple VLANs over a single physical link .

#### Common Issues and Troubleshooting

- Suspended ports: Often caused by misalignment between physical interfaces and port-channel configuration. Ensure the switch and server configurations match, especially for EtherChannel or LACP settings .
- Native VLAN mismatch: The native VLAN must be the same on both ends of the trunk to avoid spanning-tree loops .
- Trunk negotiation: If the server does not support DTP, use static trunking (switchport nonegotiate) on the switch .
- Load sharing: For multiple trunk links, configure STP port priorities or path costs to control which trunk carries traffic for specific VLANs .

#### Key Takeaways

- Trunk ports allow a single physical link to carry multiple VLANs.
- Servers must be configured with VLAN subinterfaces to handle tagged traffic.
- Ensure VLAN IDs, native VLAN, and EtherChannel settings are consistent between the switch and server.
- Proper configuration prevents suspended ports, spanning-tree loops, and VLAN misrouting.

## Article Content

### VLAN Trunking Overview: Trunk Port vs. Access Port

This allows you to connect several switches with Ethernet ports and allocate traffic among all the ports, relieving switch

#### Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

## Contact Us

Continue your research online:

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

Technical inquiry: <https://coetzerinvestments.co.za/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

