

The core switch cannot connect to other VLANs after partitioning them



Overview

Learn how to troubleshoot VLAN and switch problems in the first of this two-part series by Joe Rinehart. Video Tutorial.

Key Takeaways

If a core switch cannot connect to other VLANs after partitioning, the issue is usually due to misconfigured VLANs, trunk ports, or missing routing information. Verify VLAN Configuration

Ensure that all VLANs are properly created on the core switch and that each port is assigned to the correct VLAN. For access ports, confirm the configuration with commands like `switchport mode access` and `switchport access vlan X`. For trunk ports, verify that the trunk allows all necessary VLANs and uses the correct encapsulation (typically 802.1Q) with commands such as `switchport trunk allowed vlan` and `switchport trunk encapsulation dot1q`.

Check Inter-VLAN Routing

For devices in different VLANs to communicate, the core switch must have routing enabled. On Layer 3 switches, ensure that each VLAN has a Switched Virtual Interface (SVI) configured with the correct IP subnet and that the interface is up. Note that some switches, like HP Procurve, may not bring up a VLAN interface until a device is connected to that VLAN. Confirm that a default gateway exists and that static or dynamic routes are correctly configured so traffic can reach all VLANs.

Inspect Trunk Links and Port Modes

Trunk links between switches or between a switch and a router must be properly configured. Mismatched trunking types or missing VLANs on the trunk can block traffic. Verify that the trunk ports on both ends allow the same VLANs and that the encapsulation matches . If using a router-on-a-stick setup, ensure each router sub-interface has the correct VLAN tag and IP address .

Validate IP Addressing

Devices in each VLAN must have IP addresses within the correct subnet. Incorrect IP addresses or subnet masks can prevent inter-VLAN communication. Check that each SVI and host device has the proper IP configuration .

Additional Considerations

- If using virtualized environments (e.g., ESXi), ensure that virtual portgroups are configured with the correct VLAN IDs and that physical switch ports are trunked appropriately .
- Check for spanning tree or port errors that may disable ports. Resetting ports with shutdown/no shutdown can resolve some issues .
- Remove any conflicting static routes that may misdirect traffic between VLANs . By systematically verifying VLAN creation, trunk configuration, routing, and IP addressing, you can identify and resolve the connectivity issues preventing the core switch from communicating across VLANs.

Article Content

Can't ping from core switch to other VLANs.

Hi all, Here is my network diagram: From the core switch, I can only ping to vlan 1 (10.65.0.0/24). I can't ping to other

VLAN Not Connect

We have several VLANs on the core and now i want to move two VLAN (vlan 163 and vlan 160) from core to the

Common Problems with Inter-VLAN Routing and How to Fix Them

Inter-VLAN routing allows devices in different VLANs to talk to each other. This is very useful for managing traffic and keeping

VLAN Configuration Guide

If you plan to configure many VLANs on the device and to not enable routing, you can set the Switch Database

The core switch cannot connect to other VLANs after partitioning

Pinging between VLANs or capturing traffic between VLANs shows packet loss, even though the physical NICs (vmmnics) are reported

The core switch cannot connect to other VLANs after partitioning them

By systematically verifying VLAN creation, trunk configuration, routing, and IP addressing, you can identify and resolve the

Troubleshooting VLAN Connectivity Issues

There can be a few different causes for VLAN connectivity issues: Incorrect configurations of the virtual portgroups and

Fix VLAN Misconfiguration: Step-by-Step Guide

If all tests pass, your VLAN misconfiguration is resolved! Get Expert IT Support for VLAN & Network Issues Still facing VLAN

Troubleshooting VLAN Connectivity Issues

There can be a few different causes for VLAN connectivity issues: Incorrect configurations of the virtual portgroups and

Troubleshooting Common VLAN and SVI Configuration

A VLAN is a subgroup within a switch that segregates network traffic, enhancing security and

How to Troubleshoot Common VLAN Interface Issues | NSC

With these specific troubleshooting methods tailored to the most common VLAN issues, network administrators can

Troubleshooting VLANs

Troubleshooting a VLAN problem involves gathering information about the configuration and connectivity of individual devices and

Tech4mint

We would like to show you a description here but the site won't allow us.

VLAN Configurations: Setting and Troubleshooting | NSC

Enable Trunking: On a Cisco switch, enter the interface mode and use the command switchport mode trunk to enable

A sysadmin's guide to troubleshooting VLANs

An ARP entry also isn't populating for the host that you're trying to ping, so there's likely some kind of layer two issue,

Configuring a new core switch with VLANs

It is enough that each device in each of the four VLANs/networks to have as a default gateway the IP address assigned

Configuring VLANs

If you plan to configure many VLANs on the device and to not enable routing, you can set the Switch Database Management (SDM)

Troubleshooting VLANs & Trunks

This lesson explains the most common VLAN and trunking issues and how to fix them.

Troubleshooting VLAN and Switch Problems

Learn how to troubleshoot VLAN and switch problems in the first of this two-part series by Joe Rinehart. Video Tutorial.

Setting up Two Vlan on Two Switches

Which means, some devices will connect to Vlan 100 and some on Vlan 200 based on your configuration of these

Inter-VLAN Routing: Connect VLAN-to-VLAN Communication

Normally, devices in one VLAN cannot reach devices in another VLAN. Inter-VLAN routing makes communication

Troubleshooting VLANs & Trunks

This lesson explains the most common VLAN and trunking issues and how to fix them.

Troubleshooting VLAN and Switch Problems

Learn how to troubleshoot VLAN and switch problems in the first of this two-part series by Joe Rinehart. Video Tutorial.

Setting up Two Vlan on Two Switches

Which means, some devices will connect to Vlan 100 and some on Vlan 200 based on your configuration of these

Inter-VLAN Routing: Connect VLAN-to-VLAN Communication

Normally, devices in one VLAN cannot reach devices in another VLAN. Inter-VLAN routing makes communication

Inter-VLAN Routing: RoAS, SVIs & What Breaks First

Learn inter-VLAN routing with step-by-step Cisco configs for router-on-a-stick and Layer 3 SVIs. Includes HSRP

VLAN Naming, Ranges, and Management Best Practices

Deep dive into VLAN naming conventions, the difference between standard and extended range VLANs, and best

Best Practices for Inter-VLAN Routing in CISCO

However, VLANs are isolated from one another by default, meaning devices in different VLANs cannot communicate unless we

VLAN Setup Best Practices: Real-World Advice from Our Instructors

The UniFi ecosystem offers incredible VLAN flexibility — but it pays to follow best practices. Start small, plan your IP

Troubleshooting VLAN Switch Problems: No Connectivity

Learn how to troubleshoot VLAN and switch problems in the conclusion of this two-part series by seasoned Cisco

Virtual LAN (VLAN)

VLAN 1 (Default VLAN): The default VLAN on Cisco switches and all switch ports are assigned to VLAN 1 by default. It

switch

In my previous understanding, there is no way to communicate between two VLANs using only layer 2. After all, this is

How to span vlans across core layer in core/distribution/access campus ...

If you need to extend a few vlans then you can do this but still route for all other vlans ie. you would configure your

Communication between different VLAN

3. native VLAN can access other VLANs under the same layer 2 switch There is native vlan hack when u connect 2

Configure Inter VLAN Routing with Multiple Switches

With multiple switches generally you still set one switch (your core or distribution) switch as the switch operating at

Fix VLAN Misconfiguration: Step-by-Step Guide

If all tests pass, your VLAN misconfiguration is resolved! Get Expert IT Support for VLAN & Network Issues Still facing VLAN

Troubleshooting VLAN Connectivity Issues

There can be a few different causes for VLAN connectivity issues: Incorrect configurations of the virtual portgroups and

Troubleshooting Common VLAN and SVI Configuration

A VLAN is a subgroup within a switch that segregates network traffic, enhancing security and

How to Troubleshoot Common VLAN Interface Issues | NSC

With these specific troubleshooting methods tailored to the most common VLAN issues, network administrators can

Troubleshooting VLANs

Troubleshooting a VLAN problem involves gathering information about the configuration and connectivity of individual devices and

Tech4mint

We would like to show you a description here but the site won't allow us.

VLAN Configurations: Setting and Troubleshooting | NSC

Enable Trunking: On a Cisco switch, enter the interface mode and use the command switchport mode trunk to enable

A sysadmin's guide to troubleshooting VLANs

An ARP entry also isn't populating for the host that you're trying to ping, so there's likely some kind of layer two issue,

Configuring a new core switch with VLANs

It is enough that each device in each of the four VLANs/networks to have as a default gateway the IP address assigned

Configuring VLANs

If you plan to configure many VLANs on the device and to not enable routing, you can set the Switch Database Management (SDM)

Troubleshooting VLANs & Trunks

This lesson explains the most common VLAN and trunking issues and how to fix them.

Troubleshooting VLAN and Switch Problems

Learn how to troubleshoot VLAN and switch problems in the first of this two-part series by Joe Rinehart. Video Tutorial.

Setting up Two Vlans on Two Switches

Which means, some devices will connect to Vlan 100 and some on Vlan 200 based on your configuration of these

Inter-VLAN Routing: Connect VLAN-to-VLAN Communication

Normally, devices in one VLAN cannot reach devices in another VLAN. Inter-VLAN routing makes communication

Can't ping from core switch to other VLANs.

Hi all, Here is my network diagram: From the core switch, I can only ping to vlan 1 (10.65.0.0/24). I can't ping to other

VLAN Not Connect

We have several VLANs on the core and now i want to move two VLAN (vlan 163 and vlan 160) from core to the

Common Problems with Inter-VLAN Routing and How to Fix Them

Inter-VLAN routing allows devices in different VLANs to talk to each other. This is very useful for managing traffic and keeping

VLAN Configuration Guide

If you plan to configure many VLANs on the device and to not enable routing, you can set the Switch Database

The core switch cannot connect to other VLANs after partitioning

Pinging between VLANs or capturing traffic between VLANs shows packet loss, even though the physical NICs (vmnics) are reported

The core switch cannot connect to other VLANs after partitioning them

By systematically verifying VLAN creation, trunk configuration, routing, and IP addressing, you can identify and resolve the

Troubleshooting VLAN Connectivity Issues

There can be a few different causes for VLAN connectivity issues: Incorrect configurations of the virtual portgroups and

switch inaccessible when one VLAN added

What error did the core and access switch show in the logs. My prediction is that it is a spanning tree issue - on

Configuring new core network, but having VLAN issues | Network

So I'm in the process of upgrading my network core from a non-Aruba switch pair to a CX8325 VSX pair. Downstream

Troubleshooting VLAN Communication Issues in Cisco Switches

Discover how to troubleshoot VLAN communication issues on Cisco switches and resolve common network

Can't ping from core switch to other VLANs.

Hi all, Here is my network diagram: From the core switch, I can only ping to vlan 1 (10.65.0.0/24). I can't ping to other

VLAN Not Connect

We have several VLANs on the core and now i want to move two VLAN (vlan 163 and vlan 160) from core to the

Common Problems with Inter-VLAN Routing and How to Fix Them

Inter-VLAN routing allows devices in different VLANs to talk to each other. This is very useful for managing traffic and keeping

VLAN Configuration Guide

If you plan to configure many VLANs on the device and to not enable routing, you can set the Switch Database

The core switch cannot connect to other VLANs after partitioning

Pinging between VLANs or capturing traffic between VLANs shows packet loss, even though the physical NICs (vmnics) are reported

The core switch cannot connect to other VLANs after partitioning them

By systematically verifying VLAN creation, trunk configuration, routing, and IP addressing, you can identify and resolve the

Troubleshooting VLAN Connectivity Issues

There can be a few different causes for VLAN connectivity issues: Incorrect configurations of the virtual portgroups and

switch inaccessible when one VLAN added

What error did the core and access switch show in the logs. My prediction is that it is a spanning tree issue - on

Configuring new core network, but having VLAN issues | Network

So I'm in the process of upgrading my network core from a non-Aruba switch pair to a CX8325 VSX pair. Downstream

Troubleshooting VLAN Communication Issues in Cisco Switches

Discover how to troubleshoot VLAN communication issues on Cisco switches and resolve common network

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://danialonso.es>

Technical inquiry: <https://danialonso.es/contact.html>

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

