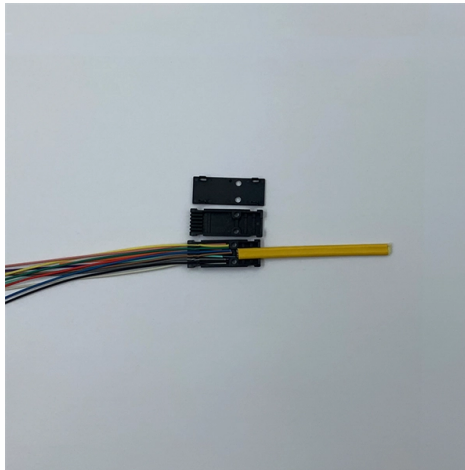


Is it necessary to enable STP on the core switch



AI Overview

Yes, enabling STP on core switches is generally necessary to prevent Layer 2 loops and ensure network stability, even in highly redundant environments. Why STP is Important on Core Switches STP (Spanning Tree Protocol) is a Layer 2 protocol that prevents network loops by selectively blocking redundant paths while allowing one active path between switches. Even if your core switches are primarily routing traffic at Layer 3, any Layer 2 connections or VLANs traversing the core can form loops, which could lead to broadcast storms, MAC table instability, and network outages. Enabling STP ensures that the network can self-heal if a link fails or a new switch is added.

Core Switch Considerations

- Root Bridge Placement:** In a core network, it is recommended to configure the core switch as the root bridge for all VLANs to optimize path selection and minimize convergence time.
- Redundant Links:** Core switches often have multiple uplinks and interconnections. STP ensures that only one path is active at a time, preventing loops while maintaining redundancy.
- vPC or Multi-Chassis Designs:** If using Cisco Nexus vPC pairs, STP should still be enabled, but the bridge priority should be synchronized across the pair so that external devices see a single root bridge.
- Best Practices** Use Rapid PVST+ or MSTP instead of classic STP to reduce convergence time and CPU load on core switches.
- Limit VLANs on trunk links** to only those required, which reduces STP processing overhead.
- Avoid disabling STP** entirely on core switches, as even a single misconnected device can create a network-wide broadcast storm.
- Configure secondary root bridges** for redundancy in case the primary root fails.

Conclusion Enabling STP on core switches is strongly recommended. It acts as a failsafe against accidental loops, ensures proper Layer 2 redundancy, and maintains network stability. While careful design with Layer 3 rout...

Article Content

Spanning tree. Just enable it blindly across all switches, or ...

Spanning tree. Just enable it blindly across all switches, or does it require planning or special consideration? Archived post. New comments cannot be posted and votes cannot be cast.

Do we need STP (spanning tree protocol)?

I recommend keeping STP enabled. There is no sense in disabling it in a properly designed network. I see no disadvantage other than the delay of a link-up situation which can be

Cisco Spanning Tree Protocol Guide (STP Examples and Configuration)

Spanning Tree Protocol (STP) ensures a loop-free topology in a local area network (LAN) made up of switches. It is desirable to have redundant links in a switched LAN so that a single link failure cannot

Understanding Spanning Tree Protocol (STP): A

STP might feel like old news, but it's still one of the most critical safety nets in traditional switching environments. As networks grow more complex,

Do I need STP enabled on all switches in a loop?

If all your switches use STP a loop isn't that bad (it's definitely suboptimal, but there are times when you can't get around it), but then you'll need switches with STP support, and with it enabled and properly

6 Common Spanning Tree Problems and How to Avoid Them

Enable STP on all switches to ensure your network is protected against loops. Instead of disabling STP due to delays, use the PortFast feature on Cisco switches (or equivalent features on

Understanding Spanning Tree Protocol (STP) & Best Practices

By default, STP-enabled switches use the Bridge ID and MAC address of a switch to automatically elect a root bridge, using BPDUs. This isn't the best practice, as you want the root bridge to be near the

Does it make sense to enable STP if I have only one managed switch?

Because, if you change this question a bit: Does it make sense to enable STP if only two switches are managed? Yes, it does. Spanning Tree obviously works best in a topology where every switch

Networking Basics: How to Configure Spanning Tree Protocol

Spanning Tree Protocol (STP) is essential for maintaining a robust and reliable network infrastructure. Learn how to configure it and ensure a loop-free and efficient network.

Does STP need to be applied to an entire network?

In my setup, the network's core router (MikroTik hEX S) has switching hardware acceleration which would drastically lower CPU consumption from switching tasks. This interests me

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STP question: Should I disable STP on the uplink port to the ...

Something I forgot to mention is that I have other switches connected to the old HP 5412 switch (some old HP procurve and cisco catalyst). And if I keep STP enabled between the old infra and new

Spanning Tree: Yay or Nay? : r/networking

But I forgot the switch I took it from was the core switch and so I took stp root. It was fine for like 18 weeks or so until an issue and instead of failing to the 8196 root, aka the secondary core, my 4096

When to use STP or NOT!

Hello, I have a large L2 switched network comprising of one C4507-R switch with about 190 ports. There is no redundancy in the network - that is no other main switches - we have only the

STP Explained: Port Roles, RSTP, Hardening on Cisco

We will work through what STP solves, how the algorithm picks a root and elects ports, the variants you need to know in 2026, and the hardening features (PortFast, BPDU Guard, Root

STP Spanning Tree Protocol step by step » CiscoForAll

STP is enabled by default for all VLANs in a switch. To change the priority to a lower value for root switch elections, use one of the following commands: Switch (config)# spanning-tree vlan 1 priority

STP on every switch?? (noob alert) : r/networking

STP on every switch?? (noob alert) Hello Networkers, do i enable and configure (M)STP for every switch on the network (include access layer switches? i.e. Name, priority and instance (am considering to

Spanning Tree Protocol (STP) on Cisco Switches ...

Discover how to configure and optimize Spanning Tree Protocol (STP) on Cisco switches. This guide covers core concepts, Cisco-specific settings, and best practices to prevent loops and keep your

Spanning Tree Protocol: Loop Prevention and Setup Tips

Most modern switches support STP, but you want to verify and enable it. Enabling a switch involves a few configuration commands on each switch, often through a command-line

Configure Spanning Tree Protocol (STP) on a Switch

Step 4. Choose the STP Operation Mode. Classic STP — provides a single path between any two endpoints, eliminating and preventing networking loops. Rapid STP — RSTP

How to Configure Spanning Tree Protocol (STP) on Cisco Switches | Step ...

Discover how to configure and optimize Spanning Tree Protocol (STP) on Cisco switches. This guide covers core concepts, Cisco-specific settings, and best practices to prevent loops and keep your

How To Enable 3D in Google Maps on Mobile and Desktop

Street View combo: Seamlessly switch for close up, ground level views. How to Enable Google Maps 3D on Desktop Step 1: Go to maps.google . Step 2: Enter a place in the search

Configure STP Settings on a Cisco Business Switch through the CLI

Note: Enabling this feature checks if a root port or an alternate root port receives Bridge Protocol Data Units (BPDUs). Step 11. Enter the exit command to go back to the Privileged EXEC

Contact Us

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