

Can aggregation switches prevent loops



Overview

The aggregation switch also uses the Spanning Tree Protocol (STP) to prevent network loops and ensure that data is transmitted only through the most efficient path. Aggregated Ethernet Link Protection is a mechanism to provide link-level redundancy and fast failover for aggregated Ethernet links, ensuring continuous traffic flow even if one or more physical links in the aggregation fail. Link Protection for MPLS LSPs: On Juniper EX Series switches and routers. Network loops occur when there are multiple paths between two points in a network, leading to data continuously circulating and potentially causing significant issues such as performance degradation, unexpected port blockages, complete network outages, and device crashes. Each aggregation switch and its connected access switches form independent MSTP regions, in which each aggregation switch acts as the root bridge. STP works by creating a loop-free logical topology from a physical topology that may contain loops. With spanning tree enabled it sends one of the ports into a blocking stage in order to prevent a loop. The election takes place via information (every vendor is different in.



Article Content

Feb 17, 2026

Spanning Tree (STP) Limitations

You can tweak some of STP's timers to reduce the convergence time, but that's it. Equal-Cost MultiPath (ECMP) To prevent loops, STP blocks all redundant links,

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Fix Network Loops: Step-by-Step Guide

If left unresolved, network loops can disrupt communication, slow down network performance, and even crash switches or routers. This guide will help you detect

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What Is an Aggregation Switch?

Spanning Tree Protocol (STP): Prevents network loops that can cause broadcast storms. Routing Protocols: Enables intelligent forwarding of traffic based on network topology. Choosing the

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What Is Loop Prevention on a Network Switch and How It Prevents

Network loops are typically caused by incorrect cabling that creates circular connections between one or more switches. They are usually prevented or resolved using advanced features

Aug 07, 2025

Understand and Mitigate Network Loops (STP)

Focus on areas with third-party switches or devices that make their own mesh networks, like Sonos, as they often have misconfigurations leading to loops.

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Configuring Loop Prevention on AOS-CX

LAGs can connect two switches to provide a higher-bandwidth connection to a public network. on which loop protection is enabled. is useful when spanning tree protocols cannot prevent loops at the edge

Sep 11, 2025

Solved: Access layer

Looking for some advice on what would be the best approach to prevent physical loops at the access layer. Our existing design is quite simple, it consists of several switches acting as layer 2

Oct 18, 2025

What Is an Aggregation Switch and How to Choose?

An aggregation switch is a network device that consolidates traffic from multiple access switches, wireless access points, or other edge devices and

Jun 14, 2026

Configuring Loop Prevention on AOS-CX

Loop protection and spanning tree are always disabled by default on AOS-CX switches. To configure loop protection and spanning tree for switches provisioned in the UI groups, complete the following

Mar 30, 2026

Everything You Need to Know About Aggregation Switch

The aggregation switch also uses the Spanning Tree Protocol (STP) to prevent network loops and ensure that data is transmitted only through the most

Mar 14, 2026

Link aggregation groups | FortiSwitch 7.6.4 | Fortinet Document Library

For LAG control, the FortiSwitch unit supports the industry-standard Link Aggregation Control Protocol (LACP). The FortiSwitch unit supports LACP in active and passive modes. In active mode, you can

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Configuration for Loop Prevention on the Underlay Network

Each aggregation switch and its connected access switches form independent MSTP regions, in which each aggregation switch acts as the root bridge. If the underlay network uses a two-layer physical

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Loop Prevention in Networks: Strategies and Best Practices

To prevent network loops and their associated problems, several techniques and protocols can be implemented. These methods ensure that redundant paths can be used for failover

Jan 02, 2026

What are Switching Loops? Preventing & Resolving

What are Switching Loops? Switching loops occur in computer networks when multiple switches are connected in a way that creates redundant paths between devices. While redundancy is good for

Dec 19, 2025

Switching Loops: The Best Practices To Avoid Them

Understand how switching loops are created and learn the best practices for preventing them using the spanning tree protocol and portfast mode.

Aug 05, 2025

STP: Preventing Network Loops

Introduction to STP and Loop Prevention Without proper safeguards, interconnected switches can create digital gridlock. Redundant paths between

Nov 13, 2025

Aggregated Ethernet Link Protection | Junos OS | Juniper Networks

In the context of aggregated Ethernet links (such as LAGs or aggregated Ethernet interfaces), Juniper's link protection mechanisms work together with these protocols to provide fast failover and loop

May 31, 2026

Link aggregation groups | FortiSwitch 7.2.8 | Fortinet Document Library

Link aggregation groups This section provides information on how to configure a link aggregation group (LAG). For LAG control, the FortiSwitch unit supports the industry-standard Link

Feb 22, 2026

How to Prevent Network Loops: Complete Guide

For example, if two switches are connected with multiple cables without the implementation of loop prevention mechanisms, a loop can form. Improper

Aug 06, 2025

Link Aggregation Switches: A Guide to LACP, LAG, and

Provide network redundancy and throughput enhancements with link aggregation techniques, including link aggregation switching and dynamic link aggregation.

Apr 11, 2026

My ethernet switch has a "loop prevention" feature. Why would

It's normally impossible to get a bridging loop without another switch at the end of the connection unless you plug a cable from one port directly into another port on the same switch.

Mar 19, 2026

Layer 2 Loop Avoidance: Three Switches in Series

Generally this requires ports to connect to the same two switches, meaning, you can't spread a LAG with LACP between multiple switches. LACP would prevent a loop when connecting

Contact Us

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