

Redundancy of two access layer switches



Overview

Various redundancy solutions are available for networking two switches, including the Spanning Tree Protocol (STP), which is less effective, and better options such as the Virtual Port Channel (VPC), or stacking. In this tech paper, you will learn about the key protocols for building a redundant network and discover—based on five examples—how to design highly available three-tier or two-tier networks using LANCOM products. This paper is part of the series “switching solutions”. By connecting a switch to two. My concern is to get more and more details about how we can get redundancy between two switches or two routers using L2 or L3 protocols/technology. Different ways to get. How do you or would you accomplish access layer redundancy for hosts that need high up time?

Keep in mind a limited budget (up to \$2000 per switch, but hoping to stay as low as possible), requiring gigabit speed. Let's say I have a 10 hosts, a mix of servers and video production clients that need. All switches are SG200-class and most of them are daisy-chained with a single 1GB uplink to an adjoining location (but that's another story where we'll eventually consider a redundant core switch with fiber connects to each).



Article Content

Mar 07, 2026

What Is an Aggregation Switch and How to Choose?

This enhances bandwidth, redundancy, and ensures failover capability in case of a link failure. Aggregation switches are widely deployed in

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Layer 2 Redundancy | pfSense Documentation

Other Single Points of Failure Layer 2 Redundancy The diagrams earlier in this chapter did not describe layer 2 (switch) redundancy, to avoid

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and Layer 3 in Access Layer

Figure 4-13 presents the scope of the Layer 2 domain (s) from the servers to the aggregation switches. Redundancy in the Layer 2 domain is achieved mainly by using spanning tree, whereas in Layer 3,

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High Availability

Distributed VLANs on Access Switches Use Rapid STP (RSTP) as the version of STP. Provide a Layer 2 trunk between the two distribution switches to avoid unexpected traffic paths and multiple

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How to Configure Redundant Switches in Your Network

Let's dive into a detailed, step-by-step guide on setting up redundant switches, covering both the hardware setup and software configurations. Remember, while the process may seem

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How to Set Up a Redundant Network Switch Configuration

Monitoring and Maintaining Redundant Switches With your redundant network switch configuration in place, ongoing monitoring and maintenance are paramount to ensure long-term

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design for redundancy of access switch

Its very difficult to provide redundancy at the access layer as most end devices (PC, Printers, Laptop, etc..) have only one NIC and therefore can only be

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Layer 2 Switching Loops in Network Explained

If switches work in the core layer, it could bring the entire network down. To avoid this situation, administrators use backup links. However, using more

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Switch Redundancy and Management

server, CDP where not needed) Use SSH v2 for all management access Implement ACLs to restrict management plane access Enable port security on access layer switches Use DHCP snooping,

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LAN Switching with Redundant Links | NetworkAcademy.IO

All LAN switching examples up until now were with simple LAN topologies. In the real world, every network topology uses redundant devices and links because

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Designing a redundant switching infrastructure

The hardware bought was out of my hands, but it's fairly decent high-end switching that should be able to achieve what we require. See below diagram to hopefully aid my description (Layer

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Redundanzkonzepte für hierarchische Switch-Netzwerke

In diesem Techpaper lernen Sie die wichtigsten Protokolle für ein redundantes Netzwerk kennen und sehen anhand von fünf Beispielen, wie Sie hochverfügbare Three-Tier- oder Two-Tier-Netzwerke mit

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Redundancy concepts for hierarchical switch networks

Various redundancy solutions are available for networking two switches, including the Spanning Tree Protocol (STP), which is less effective, and better options such as the Virtual Port Channel (VPC), or

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4.1.1.1 Redundancy at OSI Layers 1 and 2

Multiple cabled paths between switches provide physical redundancy in a switched network. This improves the reliability and availability of the network. Having alternate physical paths for data to

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Multi-chassis link aggregation group

Multi-chassis link aggregation group A multi-chassis link aggregation group (MLAG or MC-LAG) is a type of link aggregation group (LAG) with constituent ports that terminate on separate chassis, primarily

Jul 28, 2025

What is the correct way to configure redundant access switches ...

What I'd like to know is: if I buy two Layer 3 switches such as the SG550X, what is the best way to configure redundancy to the servers they're connected to? The best option I found was

Jul 27, 2025

Solved: Different way to create redundancy between two Switches (at ...

We all know about redundancy being the best part to keep your network active and health all the time. My concern is to get more and more details about how we can get redundancy between

Jul 31, 2025

Data Center Network Switch Design

Redundancy and High Availability: Deploy redundant core switches, use dynamic routing protocols (such as OSPF, BGP) and link aggregation (LACP) to enhance network reliability.

Feb 04, 2026

Best way to create redundancy with 2x layer 2 Cisco

Hi, I have the below set up that and I'm trying to work out the best way to make the switches redundant so if one fails, comms are still available for

Nov 16, 2025

Access, Distribution, and Core Layers Explained

This tutorial provides an overview of the access, distribution, and core layers and explains two-tier and three-tier campus LAN designs.

Jun 11, 2026

Switch Redundancy at Access Layer

Spanning Tree will protect against loops and therefore allows multiple paths in a switch fabric, and therefore redundancy between the access layer and the core.

Dec 16, 2025

Switch Block Redundancy

In the diagram on the right, where is the redundancy? In the first diagram (on the right) your distribution switches normally will have a VLAN interface associated to the mentioned VLANs (A and B), so both

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How to provide access layer redundancy? : r/networking

How do you or would you accomplish access layer redundancy for hosts that need high up time? Keep in mind a limited budget (up to \$2000 per switch, but hoping

Contact Us

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