Switch with Dual WAN Access

Overview

UniFi WAN Switching Multi-WAN. You can configure the router with multiple Internet access methods, so that when one type of Internet access is not availabl.

Key Takeaways

A switch with dual WAN access allows multiple internet connections to be managed for redundancy, failover, or load balancing, typically using VLANs or dual WAN routers.

Dual WAN Overview

Dual WA

N setups enable a network to use two separate internet connections simultaneously. This provides failover protection if one ISP goes down and can also allow load balancing to distribute traffic across both connections.

Dual WA

N can be implemented using either a dual WAN router or a managed switch with VLANs. Using a Dual WAN RouterDual WAN routers, such as the TP-Link ER707-M2 or Peplink B-One, support two WAN ports and can automatically switch between ISPs if one fails. Key features include: Failover Mode: Automatically switches to the secondary WAN when the primary fails.

Load Balancing: Distributes traffic across both WANs to optimize bandwidth.

VP

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N and Security Options: Supports multiple VPN tunnels and secure connections for business networks. Flexible Configuration: Can handle multiple LAN clients, Wi-Fi, and USB WAN connections. Using a Managed Switch with VLANsIf you want to connect multiple routers or devices to a single switch, a managed switch can segregate traffic using VLANs.

Steps include: Create VLANs for each WAN connection (e.g., VLAN 10 for ISP A, VLAN 20 for ISP B). Assign ports to the appropriate VLANs and set the PVID (Port VLAN ID). Connect routers to the VLAN-assigned ports so each router communicates with the correct WAN.

This method allows multiple downstream routers to share WAN connections while maintaining separation and security. Note that using an unmanaged switch is possible, but all traffic is broadcast to all devices, which can create potential security risks.

High-

Availability Considerations

For enterprise or rack-mounted setups, devices like Ubiquiti 10G SFP+ WAN Switches provide redundant power supplies and can link dual gateways to a single ISP with high availability. Features include: Full-duplex 10 GbE throughputRedundant AC inputs for power reliabilityShadow mode and MC-LAG to eliminate single points of failureSummaryFor small offices or home networks, a dual WAN router is the simplest solution for failover and load balancing. For larger networks, a managed switch with VLANs or enterprise WAN switches can provide more granular control and high availability.

Always consider security, redundancy, and traffic management when designing a dual WAN network. By combining dual WAN routers with managed switches, you can achieve a robust, flexible network that maximizes uptime and optimizes bandwidth usage.

Article Content

How To Set Up Your Dual-WAN Router

Many dual WAN routers'' default load balancing algorithm equally distribute traffic over both WAN connections. If your Internet connection speeds are not the same, your router needs to know both

[Wireless Router] Dual WAN introduction and setup ...

5. In Dual WAN Mode, select Failover. Select Failover mode to use a secondary WAN for backup network access. When Primary WAN loses internet connection, the router would switch to Secondary

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MultiWAN with RouterOS

Title: MultiWAN with RouterOS Welcome: This article aims to bring clarity to the daunting and confusing task of routing multiple WAN and ISP provider connections in and out of your network.

Dual-WAN vs. Link Aggregation, Explained

Learn all about the differences (and similarities) between Dual-WAN and Link Aggregation, and the steps to set them up in your supported hardware.

Best Dual Wan Routers (Best Business Firewall VPN Routers in 2024)

Choosing the best dual-WAN router may prove to be a bit difficult considering that this type of devices weren''t created for home use, their functionality and complexity being far beyond the

Multiple WAN connections on same switch

Is it possible to have multiple WAN connections to one dumb switch that has multiple downstream routers connected to the switch? Each WAN has multiple IPs and I have a bunch of

Best Dual WAN Load Balancing Routers For Multiple Internet

In this article, we help you find the best Dual WAN Load Balancing Routers for Home office or small businesses. Easy to configure and scalable solutions.

Dual / Multi WAN Router : A Complete Guide

Dual-WAN or multi-WAN is an increasingly common feature that you find on many high-end Wi-Fi routers in the market. However, not everyone needs this feature, nor is it worth upgrading

The Best Dual Wan Router: Buyer''s Guide in 2026

Best Dual-WAN Security: CISCO DESIGNED Rv320 Dual Wan VPN Router The Cisco Designed RV320 Dual WAN VPN Router is a compact, desktop-class router aimed at small businesses and home

DrayTek Vigor ADSL Routers, Firewalls and Networking Products

DrayTek networking products including routers, switches, access points, firewalls, VPN, central management, and 4G/5G connectivity solutions.

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