

Multi-WAN Access Switch



Overview

Use an additional USW-WAN switch for deployments with multiple ISPs. Faster replacement and priority support, covered for 5 years.

Key Takeaways

A Multi-WAN access switch allows a network to use multiple internet connections simultaneously, providing failover, load balancing, and improved reliability for critical applications.

Overview

A Multi-WAN access switch is a networking device that supports multiple Wide Area Network (WAN) connections, enabling a single network to connect to more than one internet service provider (ISP) at the same time. This setup ensures continuous internet availability, higher bandwidth, and better traffic management, which is essential for businesses that cannot afford downtime.

Key Features

Failover: Automatically switches traffic to a backup WAN if the primary connection fails, minimizing downtime. **Load Balancing:** Distributes network traffic across multiple WANs based on configurable rules, improving bandwidth utilization and reducing congestion. **Traffic Prioritization:** Certain WANs can be dedicated to specific applications, such as VoIP, video streaming, or IoT devices, ensuring performance for critical services.

Multiple WA

N Types: Supports various connection types including Ethernet, DSL, LTE/4G/5G, and PPPoE, allowing flexible deployment. Monitoring and Detection: Uses ping or HTTP checks to monitor WAN health and automatically reroute traffic when a connection is unavailable.

Benefits

High Availability: Ensures uninterrupted internet access even if one ISP experiences outages. Scalability: Additional WAN connections can be added as network demands grow. Optimized Performance: Load balancing and traffic management improve overall network efficiency and user experience.

Cost Efficiency: Allows combining multiple lower-cost ISPs to achieve higher bandwidth without relying on a single expensive provider.

Practical Considerations

Configuration Complexity: Multi-WAN setups require careful planning to assign traffic rules, failover priorities, and load balancing weights. Application Sensitivity: Some latency-sensitive applications may experience brief disruptions during WAN failover due to TCP session handling. Hardware Selection: Devices range from small business routers like Cisco RV340 or Peplink Balance 310X to enterprise-grade solutions like MikroTik CCR series or UniFi Gateways.

Conclusion

A Multi-WAN access switch is ideal for businesses or networks that require high reliability, redundancy, and optimized bandwidth. By combining multiple internet connections, it ensures continuous connectivity, supports critical applications, and allows flexible traffic management, making it a key component in modern network infrastructure.

Article Content

UniFi WAN Switch

Use an additional USW-WAN switch for deployments with multiple ISPs. Faster replacement and priority support, covered for 5 years. 10G SFP+ WAN Switch linking two Shadow Mode High Availability

UniFi WAN Switching

Multi-WAN. You can configure the router with multiple Internet access methods, so that when one

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Amazon : Dual Wan Router

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The Top 5 Load Balancing Routers of 2026 | DROAM

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While my WAN is only Gigabit, I have my servers connected to the Dream Router 7 over 2.5Gb Ethernet with the Unifi Flex Mini 2.5G switch, which

An Overview of High Availability in UniFi - Ubiquiti Help Center

The Enterprise Campus 24/48 switches provide 25G uplinks, hot-swappable power supplies and fans, and PoE+++ (90W) to support high-performance devices. Their redundant architecture ensures

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[OpenWrt Wiki] mwan3 (Multi WAN load balancing/failover)

Pre-configuration Creating additional WAN interfaces Prepare and verify the default routing table for WAN interfaces Verify outbound traffic on each WAN interface Test external DNS/mail/etc.

10 Best Dual WAN Routers That'll Never Leave You Offline

Dual WAN routers solve this problem by automatically switching between two internet connections, keeping you online through ISP outages.

Cisco Catalyst SD-WAN (Software-Defined WAN)

Connect any user to any application, anywhere. Harness integrated multi-cloud capabilities, robust security and predictive intelligence to let your network handle the heavy lifting. Build your path to a

Routers and SD-WAN appliances

Cisco Meraki MX security and SD-WAN appliances Build a complete SD-Branch on a cloud-first platform with secure SD-WAN, access, and IoT.

Cisco Catalyst SD-WAN Design Guide

This design guide provides an overview of the Cisco Catalyst SD-WAN solution. It discusses the architecture and components of the solution, including control plane, data plane,

Multi-WAN

On the left side of the web Admin Panel, go to NETWORK -> Multi-WAN. You can configure the router with multiple Internet access methods, so that when one type of Internet access is not available, it

WAN Technologies Overview (1.1) > WAN Concepts | Cisco Press

Core router/Multilayer switch: This router or multilayer switch resides within the middle or backbone of the WAN, rather than at its periphery. To fulfill this role, a router or multilayer switch

What is SD-WAN? | Glossary | HPE

A Software-defined Wide Area Network (SD-WAN) is the foundational component of Secure Access Service Edge (SASE), using a virtual WAN architecture to leverage any combination

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