# Monitoring the performance of aggregation switches




## Overview

What is an Aggregate Switch?

How do I monitor the performance of an aggregate switch?

Performance can be monitored using Simple Network Management Protocol.

## Key Takeaways

Effective monitoring of aggregation switches ensures optimal network performance, prevents bottlenecks, and maintains high availability through real-time tracking of traffic, bandwidth, and hardware health.

### Understanding Aggregation Switches

Aggregation switches consolidate traffic from multiple access switches, wireless access points, or edge devices and forward it to core switches or routers, providing high-bandwidth links and reducing network complexity. They support link aggregation protocols like LACP and static link aggregation, which enhance bandwidth, redundancy, and failover capabilities. Key functions include routing and forwarding, traffic filtering, load balancing, multicast control, and quality of service (QoS) management.

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

## Key Metrics to Monitor

Monitoring aggregation switches involves tracking several critical performance indicators: Bandwidth Utilization: Measure the amount of traffic passing through each port and aggregated link to identify potential congestion. Port Status and Utilization: Track open/closed ports, port errors, and utilization rates to detect misconfigurations or hardware issues. Packet Loss and Latency: Monitor for dropped packets or delays that could indicate network bottlenecks or failing links.

Redundancy and Failover: Ensure that aggregated links are functioning correctly and that traffic reroutes automatically in case of a link failure. Hardware Health: Monitor CPU, memory, and temperature of the switch to prevent failures due to resource exhaustion. Traffic Patterns: Analyze which applications or devices generate the most traffic to optimize load balancing and QoS.

Monitoring Tools and TechniquesSNMP (Simple Network Management Protocol): Collects real-time data on switch performance, port status, and bandwidth usage. NetFlow/IPFIX: Provides detailed traffic analysis and helps identify top talkers and traffic anomalies.

## PRT

G Network Monitor: Offers comprehensive monitoring of switches, including bandwidth, port utilization, packet loss, and alerts for unusual activity.

## SPAN Ports and TA

Ps: Use Switched Port Analyzer (SPAN) or network TAPs to mirror traffic to monitoring devices for deeper packet-level analysis.

## Best Practices

Set Thresholds and Alerts: Configure alerts for high bandwidth usage, port errors, or hardware issues to enable proactive intervention. Regular Performance Reviews: Analyze historical data to identify trends, optimize traffic distribution, and plan for capacity upgrades. Redundancy Testing: Periodically test failover mechanisms to ensure aggregated links provide continuous network availability.

Centralized Management: Use management software to monitor multiple aggregation switches as a single entity, simplifying administration and troubleshooting. By continuously monitoring these metrics and employing robust tools, network administrators can maintain high performance, prevent downtime, and ensure the scalability and reliability of their network infrastructure.

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

## Article Content

What is an Aggregate Switch?

How do I monitor the performance of an aggregate switch? Performance can be monitored using Simple Network Management Protocol (SNMP) and other network management tools.

Cisco Nexus 9000 Series NX-OS System Management Configuration

Use this task to configure TAP aggregation policies on IPv4 and MAC ACLs, and to apply or attach these policies to interfaces as required for traffic monitoring and redirection.

Aggregator Network TAPs | Garland Technology

Aggregator or regeneration network test access points (TAPs) are used to capture 100% full duplex network traffic; the traffic can then be sent to multiple monitoring appliances to analyze your network.

What Is an Aggregation Switch and How to Choose?

Discover the role of aggregation switches. Explore differences between aggregation, access, and core switches, and choose the right model for your network.

Aggregation Switch

An aggregation switch refers to a type of switch used to connect multiple ToR switches to a core switch/router in a cloud data center network. It enables high-bandwidth aggregation ports to be

What Is an Aggregation Switch?

How do I monitor the performance of an aggregation switch? Network monitoring tools can be used to track key performance indicators (KPIs) such as CPU utilization, memory usage, and

Advancing Network Monitoring with Packet-Level Records and

Operating on the data plane of P4-programmable switches, HybridMon enables fine-grained, practical, and flexible network monitoring at Tbps speeds.

Core, Aggregation, or Access Switches? Choose the

Discover the crucial differences between core, aggregation, and access switches. Find out which type can best transform your network''s

Network Switch Monitoring Tools and Maximizing Their Effectiveness

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

Network switch monitoring tools transform reactive management into proactive operations. These specialized platforms track switch performance metrics, analyze traffic patterns, detect anomalies,

HPE Aruba Networking CX 6300 Switch Series

This data sheet describes key features, supported standards and specifications for the HPE Aruba Networking CX 6300 Switch Series ideal for enterprise access and aggregation networks.

TechTarget

TechTarget provides purchase intent insight-powered solutions to identify, influence, and engage active buyers in the tech market.

WebProcure

WebProcure offers best-in-class functionality, reaching end-to-end from requester to procurement buyer to merchant, and all the way back! Designed specifically for the public sector.

OneUptime | The Open-Source Observability Platform

Catch outages in seconds, page the right engineer, and keep customers in the loop — one open-source platform that replaces your monitoring, incident management, and status page stack.

Fortune 500s Switch to ISP Aggregation Partnerships

Learn why major enterprises are abandoning traditional vendor management for ISP aggregation partnerships to improve network reliability and cut costs.

Link Aggregation: What is it, and How Does it Work?

Link aggregation is a way of bundling a bunch of individual (Ethernet) links together so they act as a single logical link. A fundamental for effective

Understanding Switch Aggregation: A Comprehensive

Performance Monitoring: The switches should have features that enable real-time monitoring of network performance. This will help identify any

Campus Switches RG-S6120-20XS4VS2QXS 20-Port 10G

RG-S6120-20XS4VS2QXS 20-Port 10GE Layer 3 Managed Core and Aggregation Switch A Red Dot Design Award winner. Recommended core or aggregation switch for small and medium-sized

Stackable L3 Managed Switch Datasheet

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

Overview TP-Link''s Omada Stackable L3 switches provide a wide range of switches, from Gigabit RJ45 ports to 25 Gbps SFP28 slots. They can be used at the core layer, aggregation layer,

## Contact Us

Continue your research online:

Website: https://explosivefunctions.co.za
Technical inquiry: https://explosivefunctions.co.za/contact.html
EU project coordination: Parque das Nações, Lisbon, Portugal

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 EXF OPTICAL NETWORKS - All rights reserved