

# HPE Networking Comware Switch Series 7500X

HPE Networking Comware Switch Chassis Ethernet 3 slots 7503X (R8N49A)



## What's new

- Higher bandwidth of 480 Gbps/slot and increased scalability with up to 288K MAC, up to 104K ARP and up to 256K FIB (depending on the LPU and operational mode) for enhanced switch performance.
- Multiple interface options of 1/10/40/100 GbE with higher port counts of up to 40\*100G across the 3 models to meet varying network scale demands.
- Virtual Extensible LAN (VXLAN) with Ethernet VPN (BGP EVPN) allows greater flexibility, better performance with wire speed, better scalability and enhanced security.

## Overview

The HPE FlexNetwork 7500X Switch Series delivers versatile, multi-layered, high performance, modular switches for enterprise LAN edge, aggregation and core layers. It offers 1/10/40/100GbE connectivity with PoE/PoE+ models to meet both existing and future requirements. Higher switching bandwidth (480Gbps/slot) and L2/L3 routing services support mission-critical environments. Virtual Extensible LAN (VXLAN) and Ethernet VPN (BGP EVPN) offer greater scalability and better utilization of available network paths. Application telemetry provides real time switch capacity and utilization. Support for IPv4/IPv6, MPLS/VPLS features provide investment protection and an easy transition from IPv4 to IPv6 networks. HPE Intelligent Resilient Fabric (IRF) enables flatter and more agile networks. HPE Intelligent Management Center (IMC) provides a single view of the entire network. Ease of maintenance is enabled with Graceful Insertion and Removal (GIR) and In Service Software Update (ISSU).

- Enhanced programmability for faster time to service and integration into modern tools (Puppet/Chef/Ansible) with CLI, SNMPv2/v3, full Netconf/Yang models, Rest APIs, and scripting (python).
- Comprehensive security at every layer including micro-segmentation which enables grouping of endpoints based on specific criteria.
- Enhanced Media Delivery Index (eMDI) to monitor audio-video quality and locate faults. Multicast DNS (mDNS) for endpoints to find a device/service in a local network with no preconfigured name server.

## Features

### Powerful Performance

The HPE FlexNetwork 7500X Switch series offers up to 480 Gbps of switching capacity per slot that is three times the switching capacity of HPE FlexNetwork 7500 Switch series at 160 Gbps per slot.

It offers up to 40x100GbE / 240x40GbE / 480x10GbE / 480x1GbE ports or a combination of these, along with PoE/PoE+ support with up to 1440W power per slot for IP phones, cameras, and future high-density Internet of Things (IoT) deployments.

Supports switching capacity of up to 9.6Tbps for enhanced performance of mission critical environments. Up to 288K MAC, up to 104K ARP, and up to 256K FIB tables allow higher scalability, depending on the LPU and operational mode chosen during first installations.

Enhanced Media Delivery Index (eMDI) monitors audio and video service quality. It locates faults by analyzing specific TCP/RTP packets of each node in an IP network in real time to solve packet loss, packet sequence errors, and jitters.

The HPE FlexNetwork 7500X Switch Series provides Flexible authentication options including 802.1X, MAC and Web Authentication and Endpoint Admission Defense, delivering greater security and policy-driven application authentication.

### High Resiliency and Scalability

The HPE FlexNetwork 7500X Switch series offers high availability with redundant power modules, fan trays, hot-swappable interface modules, and power module self-protection mechanisms.

Intelligent Resilient Framework (IRF) virtualizes up to four physical switches into one for simpler, flatter, more agile and highly available networks.

Virtual Routing Redundancy Protocol (VRRP) creates redundant and highly available routed environments with groups of two routers, ensuring continuous packet forwarding in the event of a single failed router.

Graceful Insertion and Removal (GIR) minimizes service interruption by instructing affected protocols to isolate the device for maintenance/upgrade and alter to the redundant path. GIR supports: LACP, BGP, IS-IS, OSPF, and OSPFv3.

Virtual Extensible LAN (VXLAN) and Ethernet VPN (BGP EVPN) enable greater network integration flexibility, improved performance, better scalability without redesigning the underlay network, restrict attacks with enhanced security, especially in spine-leaf architectures.

### Robust Quality of Service (QoS)

The HPE FlexNetwork 7500X Switch series supports operations, administration, and maintenance (OAM), Rapid Ring Protection Protocol (RRPP), multi-level QoS, MPLS and VPLS, and In-Service Software Upgrade (ISSU) for business continuity and improving manageability.

Micro-segmentation enables grouping of endpoints based on specific criteria for application of group-based policies, implemented by using PBR / QoS / PacketFilter.

No hidden costs with the license-free L2 / L3 feature set which includes IPv6, MPLS functionality and robust QoS. It also supports varying security management login, RADIUS, SSH, TACACS/TACACS+ to protect and control change management access.

Multicast DNS (mDNS) is a zero-configuration networking (zeroconf) protocol. It enables endpoint devices to automatically discover available services advertised by mDNS service providers without using preconfigured name servers such as DNS Multicast.

Advanced distributed denial of service (DDOS) protection, such as DHCP Snooping, IP Source Guard, and ARP Protection, and flexible traffic controls, such as policy-based routing, QoS, and ACLs are available to manage end-to-end application priorities.



### Simplified Management

The HPE FlexNetwork 7500X Switch Series can be seamlessly managed with HPE Intelligent Management Center (IMC) to provide end-to-end network transparency with a consistent network experience.

Provides multiple management interfaces such as the console port, out-of-band management Ethernet port, and USB port. It also supports configuration and management from CLI or a general-purpose web-based manager.

Single IP address to manage the whole IRF fabric, simplifying device and topology management, improving operating efficiency, and lowering network maintenance cost

Supports multiple access methods, including SNMPv1/v2c/v3, Telnet, SSH 2.0 and SSL to facilitate centralized discovery, monitoring, and secure management of networking devices. It also provides complete session logging to aid problem identification and resolution.

Supports entire set of programming tools from legacy CLI/SNMP to full Netconf/Yang model. Rest APIs combined with scripting (python) allow inclusion of these switches into modern toolchains (Puppet/Chef/Ansible playbooks).

## Technical specifications

## HPE Networking Comware Switch Chassis Ethernet 3 slots 7503X

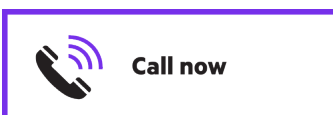
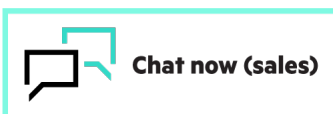
<b>Product Number</b>	R8N49A
<b>Differentiator</b>	5-slot horizontal chassis, 5U, with 3 I/O and 2 fabric slots (half slots)
<b>Ports</b>	3 I/O module slots Supports a maximum of 12 100 GbE ports or 72 40GbE ports or 144 10GbE ports or 144 1GbE ports or 144 Fiber Ethernet ports, or a combination
<b>Memory and processor</b>	Flash 2GB, SDRAM 2GB
<b>Throughput</b>	2160 Mpps
<b>Routing/switching capacity</b>	2.88Tbps
<b>Stacking capabilities</b>	4
<b>Management features</b>	IMC—Intelligent Management Center; Command-line interface; Web browser; Out-of-band management (serial RS-232c); SNMP manager; Telnet; Terminal interface (serial RS-232c); Modem interface; IEEE 802.3 Ethernet MIB; Ethernet interface MIB.
<b>Input voltage</b>	100–120/200–240VAC rated depending on power supply chosen
<b>Operating temperature</b>	32°F to 113°F (0°C to 45°C)
<b>Power consumption</b>	637W Dynamic power consumption (max)
<b>Heat dissipation</b>	Up to 2173 BTU/hr depending on modules chosen
<b>Product dimensions (metric)</b>	43.6 x 42.0 x 21.6 cm
<b>Weight</b>	< 35 kg shipping weight



For additional technical information, available models and options, please reference the [QuickSpecs](#)

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## HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

### Consulting services

Experts can help you map out your path to hybrid cloud and optimize your operations.

### Managed services

HPE runs your IT operations, giving you unified control, so you can focus on innovation.

### Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

- HPE Complete Care Service: a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.
- HPE Tech Care Service: the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

### Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

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Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.

The Defective Media Retention (DMR) service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. Comprehensive Defective Material Retention (CDMR) allows you to keep all data retentive components.

## HPE GreenLake

HPE GreenLake edge-to-cloud platform is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like **IT financing solutions**, please explore them [here](#).

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Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

Image may differ from the actual product [PSN1014132936ZAEN](#), October, 2024.