Hewlett Packard Enterprise | ARISTA

Arista 7500E Data Center Switch Series

Product highlights

Performance
- 30 terabits per second fabric capacity
- Up to 14.4 billion packets per second
- Up to 3.84 terabit per second per slot
- 1152 wire-speed 10GbE ports
- 288 wire-speed 40GbE ports
- 96 wire-speed 100GbE ports
- Under 4 microsecond latency (64 bytes)

High hardware availability
- 2+2 grid redundant power system
- 1+1 supervisor redundancy
- N+1 fabric module redundancy
- N+1 fan module redundancy

Virtualization and provisioning
- CloudVision
- VXLAN for next generation DC
- LANZ for microburst detection
- VM Tracer
- Zero touch provisioning (ZTP)
- Advanced event monitoring
- sFlow® (RFC3176)
- IEEE 1588 PTP

Scalable architecture
- Dense 40GbE and 100GbE
- Deep packet buffer (18 GB per line card)
- 9216 virtual output queues per port

Resilient control plane
- Quad-core hyper-threaded x86 CPU
- 16 GB DRAM/4 GB Flash
- Dual supervisor modules
- User applications can run in a VM

Overview

HPE and Arista share a common vision around the need to deliver secure hybrid IT solutions and experiences built on industry-leading software-defined infrastructure—helping customers to operate their workloads with speed and agility to grow their business. This partnership will provide our customers with proven networking solutions that are superior to legacy alternatives and that complement HPE compute, storage, virtualization, and cloud offerings.

Designed for large virtualized data centers and cloud networks, the Arista 7500E series modular switches are the industry's highest performance data center switches. Available in a compact 7RU (4-slot) or 11RU (8-slot), they combine scalable L2 and L3 resources with advanced features for network monitoring, precision timing, and network virtualization to deliver scalable and deterministic network performance for mission-critical data center, enterprise, and HPC environments.

The Arista 7500E is the second generation of the 7500 series and delivers seamless upgrades ensuring investment protection of first-generation fabrics, line cards, and common equipment, while setting a new standard for performance, density, reliability, and power efficiency. The Arista 7500E series offers over 30 Tbps of total capacity for 1152 ports of 10GbE or 288 ports of 40GbE and support for 96 ports of wire-speed 100GbE with a broad choice of interface types that support flexible combinations of 10G, 40G, and 100G modes on a single port.

With front-to-rear airflow, redundant and hot swappable supervisor, power, fabric and cooling modules, the system is purpose-built for data centers. The 7500E series is energy efficient with typical power consumption of under 4 watts per port for a fully loaded chassis. All these attributes make the Arista 7500E an ideal platform for building reliable, low latency, resilient, and highly scalable data center networks.

Figure 1: Arista 7500E series modular data center switches

Arista Extensible Operating System (EOS)

All Arista products, including the 7500E series, run the same Arista EOS software, binary image simplifying network administration with a single standard across all switches. Arista EOS is a modular switch operating system with a unique state sharing architecture that cleanly separates switch state from protocol processing and application logic. Built on top of a standard Linux® kernel, all EOS processes run in their own protected memory space and exchange state through an in-memory database. This multi-process state sharing architecture provides the foundation for in-service-software updates and self-healing resiliency, together with stateful switchover without the loss of data plane forwarding.

Arista EOS enables advanced monitoring and automation capabilities, such as zero touch provisioning, LANZ, VM Tracer and Linux based tools to be run natively on the switch.

Data center class design
- 7RU or 11RU chassis options
- Front-to-rear airflow for enhanced cooling
- 4W per 10GbE port typical power for lower cost of ownership
- Up to 4608 ports per 44U rack

Arista Extensible Operating System
- Single binary image
- Fine-grained truly modular network OS
- Stateful fault containment (SFC)
- Stateful fault repair (SFR)
- Full access to Linux shell and tools
- Extensible platform—bash, python, C++

Scaling data center performance

- The Arista 7500E delivers true line rate non-blocking switching capacity to enable dramatically faster and simpler network designs for data centers, which lowers network capital and operational expenses. When used in conjunction with Arista 7050 or 7150 10G leaf switches and Arista's Multi-Chassis Link Aggregation (MLAG) technology, a pair of 7508E switches can support over 6000 servers with a leaf and spine active/active L2 network topology.

A combination of 16 Arista 7508E switches in a spine at Layer 3 scales the network up to over 18,000 10G servers in a fully non-blocking, low-latency, two-stage network that provides predictable and consistent application performance. The flexibility of the L2 and L3 multi-path design options, combined with support for open standards, provides maximum flexibility, scalability, and network-wide virtualization. Arista EOS advanced features provide control and visibility with single point of management.

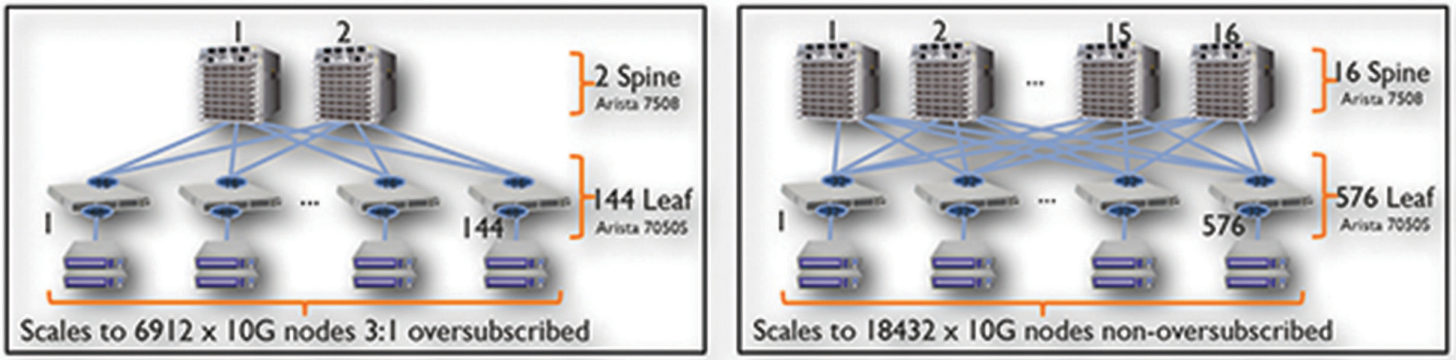

Figure 2: Arista leaf-spine two-tier network architecture

Software-defined networking

Arista Software Defined Cloud Networking (SDCN) combines the principles that have made cloud computing the unstoppable force that it is—automation, self service provisioning, and linear scaling of both performance and economics—with the trend in software-defined networking that delivers: network virtualization, custom programmability, simplified architectures, and lower CAPEX. This combination creates a proven software foundation for raising the value of the network for both the enterprise and service provider data center. This new architecture for the most mission-critical location within the IT infrastructure simplifies management and provisioning, speeds up service delivery, lowers costs, and creates opportunities for competitive differentiation, while putting control and visibility back in the hands of the network and systems administrators.

The four pillars of Arista's Software Defined Cloud Networking:
Universal cloud network—Scalable standards-based MLAG at Layer 2, ECMP for Layer 3, and VXLAN for maximum flexibility

Cloud control—Standards-based AEM, ZTP/ZTR, LANZ, and DANZ

Network-wide virtualization—Multi-vendor API support with eAPI, VXLAN, and NSX, and other encapsulation techniques

Network applications and automated management—Network applications; single point of management and open—OpenStack®, OpenVirtualSwitch, and OVSDB

Deterministic network performance

The Arista 7500E series uses a deep buffer virtual output queue (VOQ) architecture that eliminates head-of-line (HOL) blocking and virtually eliminates packet drops even in the most congested network scenarios. An advanced traffic scheduler fairly allocates bandwidth between all virtual output queues while accurately following queue disciplines including weighted fair queueing, fixed priority, or hybrid schemes including 802.1Qaz ETS. As a result, the Arista 7500E can handle the most demanding data center requirements with ease, including mixed traffic loads of real-time, multicast, and storage traffic, while still delivering low latency.

Maximum flexibility

- 128-way ECMP and 128-way MLAG to provide scalable designs and balance traffic evenly across large scale two-tier leaf-spine designs
- VoQ architecture and deep packet buffering to eliminate head-of-line blocking
- Flexible allocation of L2 and L3 forwarding table resources for more design choice
- Wide choice of dense 10G/40G/100G modules and MPO ports for single-port multi-speed flexibility
- VXLAN and virtualization features to enable next-generation data center designs

- PTP, sFlow, DANZ and multi-port mirroring to detect micro-burst congestion and provide network-wide visibility and monitoring
- ACL scalability with up to 12K entries per forwarding engine and 72K ACL entries per module

Enhanced features for high-performance networks

The Arista 7500E delivers a suite of advanced traffic control and monitoring features to improve the agility of modern high-performance environments, with solutions for data monitoring, precise timing, and next-generation virtualization.

Precise data analysis

Arista Latency Analyzer (LANZ) and Precision Data Analyzer (DANZ) are integrated features of EOS. DANZ provides a solution to monitoring and visibility challenges at 10/40/100Gbps, giving IT operations the ability to proactively deliver feedback on congestion events, filter, replicate, aggregate, and capture traffic without affecting production performance. LANZ provides precise real-time monitoring of micro-burst and congestion events before they impact applications, with the ability to identify the sources and capture affected traffic for analysis.

Precision timing (IEEE 1588)

Arista's hardware derived Precision Time Protocol solution provides a robust mechanism for accurate in-band time distribution in high-performance environments. The system clock can be synchronized using the supervisor module clock input port with a PPS source or IEEE 1588 PTP.

Virtualization

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and emerging encapsulation technologies such as VXLAN. The 7500E builds on the valuable tools already provided by the Arista VM Tracer suite to integrate directly into encapsulated environments. Offering a wire-speed gateway between VXLAN and traditional L2/3 environments, the 7500E allows for seamless integration of non-VXLAN-aware devices—including servers, firewalls, and load-balancers—and provides the ability to leverage VXLAN as a standards-based L2 extension technology for non-MPLS environments.

Arista Event Management (AEM)

Simplifying the overall operations, AEM provides the tools to customize alerts and actions. AEM is a powerful and flexible set of tools to automate tasks and customize the behavior of EOS and the operation of the overall data center switching infrastructure. AEM allows operators to fully utilize the intelligence within EOS to respond to real-time events, automate routine tasks, and automate actions based on changing network conditions.

Line card modules

Wire-speed line cards deliver up to 14.4 billion packets per second of forwarding with a distributed virtual output queue architecture and lossless fabric that eliminates head-of-line blocking and provides fairness across all ports. Line cards contains up to 18 GB of packet memory for approximately 40msec of traffic buffer per ingress port, virtually eliminating packet drops in congestion scenarios. Line cards connect to all fabric modules in a non-blocking full mesh.

The Arista 7508 and 7504 chassis can be populated with any combination of line cards. For environments requiring the highest performance as well as scalability, a range of speed and interface options is available, addressing dense 1/10G, 40G, and 100G with full support for industry standard connections and comprehensive layer 2 and 3 features for flexible deployment choice.

Embedded optics combined with MPO interfaces provide a multi-speed port (MXP) capability that increases system density with a choice of 10G/40G/100G interfaces. MXP ports support a mix and match option of 12 x 10G, 3 x 40G or 1x 100G per port. With support for up to 400 m over multi-mode fiber, MXP ports provide high density and seamless migration from 10G to 100G without replacing transceivers or lowering system density.

Line cards with CFP2 and QSFP support industry standard 100G optics for both single and multi-mode fiber for distances up to 40 km.

Figure 3: 12-port 100GbE QSFP line card for broad interface choice and high density
- QSFP optics for flexible 10G, 40G, and 100G with standards compliant optic

Figure 4: 12-port 100GbE SR10 MXP line card with embedded optics
- Maximum 96 100GbE, 288 40GbE, and 1152 10GbE ports
- Up to 300/400m on OM3/OM4 for standards compliant 10G, 40G, and 100G

Figure 5: 6-port 100GbE CFP2 line card for flexible range of 100G, 40G, and 10G ports
- CFP2 optics for standards compliant LR4, SR10, and ER4 interfaces

Figure 6: 36-port QSFP+ 40G line card for 10G/40G
- 288 40GbE or 1152 10GbE ports with QSFP+ optics and breakout cables
- Choice of copper, multimode, and single-mode with 40G and 10G options

Figure 7: 48-port SFP+ for 1/10GbE and 2-port 100GbE SR10 MXP line card
- Up to 72 10G ports per line card or 48 1/10GbE ports and flexible 40G/100G
- Two MXP ports allow choice of 2 x 100GbE, 6 x 40GbE, or 24 x 10GbE

Figure 8: 48-port SFP+ line card for wire-speed 1/10GbE and consistent features
- Dense 10G with deep buffers, broadest range of 1GbE and 10GbE transceivers

Figure 9: 48-port 10GBASE-T line card for 100M/1/10GbE and consistent features
- Dense 10G with deep buffers, flexible 100M to 10G mixed speeds

Designed for high availability and manageability

The Arista 7500E series switches are designed for continuous operations with system-wide monitoring of both hardware and software components, simple serviceability, and provisioning to prevent single points of failure. The hardware supports high availability with hot-swap of all components with redundant supervisors, power supplies, fabric, and cooling modules. Fabric N+1 redundancy provides zero loss of performance with deterministic degradation, and integrated fan systems provide dynamic temperature control combined with N+1 redundancy. The 7500E offers 2+2 power redundancy that supports both power-source and power-supply redundancy.

The Arista EOS software supports stateful failover between the dual redundant supervisors as well as self-healing stateful fault containment (SFC), stateful fault repair (SFR), and live patching through in-service-software updates to help ensure continuous service.

The Arista 7500E lowers total cost of ownership with its efficiency. With power per port as low as 4W per 10GbE port, and with front-to-rear cooling to optimize the data center environment, the 7500E is a highly reliable, dense, and power efficient modular switch.

7500E chassis, 8-slot and 4-slot

The 7500E chassis provides room for two supervisor modules, four or eight line card modules, four power supply modules, and six fabric modules. The 7504 chassis fits into 7-rack units while the 7508 chassis fits into 11U of a standard data center rack. Supervisor and line card modules plug in from the front, while the fabric and power supply modules are inserted from the rear. The midplane is completely passive and provides control plane connectivity to each of the fabric and line card modules. The system design is optimized for data center deployments with front-to-rear airflow.

Figure 10: Arista 7500 Series Chassis

7500E supervisor module

The supervisor modules for the 7500E series run Arista Extensible Operating System (EOS) and handle all control plane and management functions of the system. One supervisor module is needed to run the system and a second can be added for stateful 1+1 redundancy. Each supervisor module takes up only a half slot resulting in very efficient use of space and a higher density design. The quad-core x86 CPU with 16 GB of DRAM and an optional SSD provides the control plane performance needed to run an advanced data center switch scaling to over 1000 physical ports and thousands of virtual ports. A pulse per second clock input port enables synchronizing with an external source to improve the accuracy of monitoring tools.

Figure 11: Arista 7500 Series supervisor

7500E fabric module

At the heart of the 7500E series is the fabric. It interconnects all line cards in a non-blocking architecture irrespective of the traffic pattern, providing a full 5.12 Tbps per fabric module. Each line card module connects to the fabric with multiple links, and data packets are spread across the links to fully utilize the fabric capacity. Unlike hash-based selection of fabric links, the 7500E architecture provides 100% efficient connectivity from any port to any other port with no drops. The fabric modules are always active-active, provide N+1 redundancy, and can be hot- swapped with zero performance degradation. The fabric modules for the 7508E and the 7504E are different, based on the size of the chassis, and both integrate a fan assembly for flexible and redundant cooling.

Figure 12: Arista 7500 Series fabric modules

7500E power supply module

The 7500E series switches are equipped with four 2900W AC power supplies. The power supplies are 2+2 grid redundant and hot-swappable. The power supplies are gold climate saver rated and have an efficiency of over 90% with single stage conversion to the internal 12V DC voltage.

Figure 13: Arista 7500 Series power supply

Features overview

Layer 2 features
- 802.1w Rapid Spanning Tree
- 802.1s Multiple Spanning Tree Protocol
- Rapid Per VLAN Spanning Tree (RPVST+)
- 4096 VLANs
- Q-in-Q
- 802.3ad Link Aggregation/LACP
  - 64 ports/channel
  - 256 groups per system (1152 groups*)
- Multi-Chassis Link Aggregation (MLAG)
  - Uses IEEE 802.3ad LACP
  - 128 ports per MLAG
- 802.1Q VLANs/Trunking
- 802.1AB Link Layer Discovery Protocol
- 802.3x Flow Control
- Jumbo Frames (9216 Bytes)
- IGMP v1/v2/v3 Snooping
- Storm Control
- 802.1 AVB

Layer 3 features
- Static routes
- Routing protocols: OSPF, OSPFv3, BGP, MP-BGP, IS-IS, and RIPv2
- 128-way Equal Cost Multipath Routing (ECMP)
- VRF
- BFD
- IGMP v2/v3
- PIM-SM PIM-SSM
- Anycast RP (RFC 4610)
- MSDP
- VRRP
- Virtual ARP (VARP)
- Policy Based Routing (PBR)
- Route maps

Advanced monitoring and provisioning
- Latency analyzer and microburst detection (LANZ)
  - Configurable congestion notification (CLI, Syslog)
  - Streaming events (GPB encoded)
  - Capture/mirror of congested traffic*
- Zero touch provisioning (ZTP)
- Advanced mirroring
  - Port mirroring (16 sessions)
  - Enhanced Remote Port Mirroring*
  - SPAN/TAP M:N Aggregation
  - L2/3/4 filtering*
- Advanced Event Management suite (AEM)
  - CLI Scheduler
  - Event Manager
  - Event Monitor
  - Linux tools
- Integrated packet capture/analysis with TCPDump
- Restore and configure from USB
- RFC 3176 sFlow
- Optional SSD for logging and data capture
- IEEE 1588 PTP*

Virtualization support
- VXLAN Gateway (draft-mahlingam-dutt-dcops-vxlan-01)
- VXLAN Tunnel Endpoint
- VXLAN Bridging
- VM Tracer VMware® Integration
  - VMware vSphere® support
  - VM Auto Discovery
  - VM Adaptive Segmentation
  - VM Host View

Security features
- Ingress and Egress ACLs using L2, L3, L4 fields
- ACL Logging and Counters
- Control Plane Protection (CPP)
- DHCP Relay
- MAC Security
- TACACS+
- RADIUS
- ARP trapping and rate limiting

Quality of service (QoS) features
- Up to 8 queues per port
- Strict priority queueing
- 802.1p based classification
- DSCP based classification and remarking*
- Egress shaping/WRR
- Policing/shaping
- Rate limiting*
- Explicit Congestion Notification (ECN)
- Per-Priority Flow Control (PFC)
- 802.1Qaz Enhanced Transmission Selection (ETS)*
- Data Center Bridging Extensions (DCBX)*

Network management
- CloudVision Task-Oriented Multi-Device CLI
- 100/1000 Management Port
- RS-232 Serial Console Port
- USB Port
- SNMP v1, v2, v3
- Management over IPv6
- Telnet and SSHv2
- Syslog
- AAA
- Industry Standard CLI
- Beacon LED for system identification

Extensibility
- Linux tools
  - Bash shell access and scripting
  - RPM support
  - Custom kernel modules
- Software-defined networking (SDN)
  - eAPI
  - OpenStack Neutron Support

* Not currently supported in EOS

- Programmatic access to system state
  - Python
  - C++
  - eAPI
  - OpenStack Neutron Support
- Native KVM/QEMU support

Line card features
- 9216 Byte Jumbo Frame Support
- 8 priority queues per port
- 1152 Link Aggregation Groups (LAG)
- 32 ports per LAG
- 128K-256K MAC addresses
- 128K ARP entries
- 128K-256K IPv4 host routes
- 64K IPv4 unicast LPM
- 12K-16K IPv6 unicast LPM routes
- 128K-256K IPv6 unicast host routes
- 12K-256K multicast routes
- 12,000 ACL entries per forwarding engine
- Up to 72,000 ACL entries per line card

Fabric features
- 30 terabit/sec capacity
- 3.84 terabit/sec per line card
- 5.12 terabit/sec per fabric module
- N+1 redundant
- Non-blocking
- Virtual output queueing
- Self-healing
- Distributed scheduler
- WFQ, CIR*, ETS*, fixed priority

Standards compliance
- 802.1D Bridging and Spanning Tree
- 802.1p QOS/COS
- 802.1Q VLAN Tagging
- 802.1w Rapid Spanning Tree
- 802.1s Multiple Spanning Tree Protocol
- 802.1AB Link Layer Discovery Protocol
- 802.3ad Link Aggregation with LACP
- 802.3x Flow Control
- 802.3ab 1000BASE-T
- 802.3z Gigabit Ethernet
- 802.3ae 10 Gigabit Ethernet
- 802.3ba 40 Gigabit Ethernet
- 802.3ba 100 Gigabit Ethernet
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 2461 Neighbor Discovery for IP Version 6 (IPv6)
- RFC 2462 IPv6 Stateless Address Autoconfiguration
- RFC 2463 Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification
- IEEE 1588-2008 Precision Time Protocol

SNMP MIBs
- RFC 3635 EtherLike-MIB
- RFC 3418 SNMPv2-MIB
- RFC 2863 IF-MIB
- RFC 2864 IF-INVERTED-STACK-MIB
- RFC 2096 IP-FORWARD-MIB
- RFC 4363 Q-BRIDGE-MIB
- RFC 4188 BRIDGE-MIB
- RFC 2013 UDP-MIB
- RFC 2012 TCP-MIB
- RFC 2011 IP-MIB
- RFC 2790 HOST-RESOURCES-MIB
- RFC 3636 MAU-MIB
- RMON-MIB
- RMON2-MIB
- HC-RMON-MIB
- LLDP-MIB
- LLDP-EXT-DOT1-MIB
- LLDP-EXT-DOT3-MIB
- ENTITY-MIB
- ENTITY-SENSOR-MIB
- ENTITY-STATE-MIB
- ARISTA-ACL-MIB
- ARISTA-QUEUE-MIB
- RFC 4273 BGP4-MIB
- RFC 4750 OSPF-MIB
- ARISTA-CONFIG-MAN-MIB
- ARISTA-REDUNDANCY-MIB
- RFC 2787 VRRPv2MIB
- MSDP-MIB
- PIM-MIB
- IGMP-MIB
- IPMROUTE-STD-MIB
- SNMP Authentication Failure trap
- ENTITY-SENSOR-MIB support for DOM (Digital Optical Monitoring)
- User configurable custom OIDs

See EOS release notes for latest supported MIBs

* Not currently supported in EOS

Technical specifications

Chassis	DCS-7508	DCS-7504
Supervisor slots	2	2
Line card slots	8	4
Fabric module slots	6	6
Power supply slots	4	4
Physical dimensions (HxWxD)	19.1" x 19" x 30" (48.5 x 48.3 x 76.2 cm)	12.25" x 19" x 30" (31.15 x 48.3 x 76.2 cm)
Weight (chassis only)	95 lbs (43.1 kg)	76.5 lbs (34.7 kg)
Weight (fully configured system)	300 lbs (136 kg)	210 lbs (95 kg)
Maximum 10GbE port density	1,152 ports	576 ports
Maximum 40GbE port density	288 ports	144 ports
Maximum 100GbE port density	96 ports	48 ports
Maximum throughput/pps	30 Tbps/14.4 Bpps	15 Tbps/7.2 Bpps
Max power consumption	5,790W	3,010W

Fabric module	DCS-7508E-FM	DCS-7504E-FM
Redundancy	5+1	5+1
Dimensions (HxWxD)	2.5 x 14 x 10.25 in (6.4 x 35.6 x 26 cm)	2.5 x 8.5 x 10.25 in (6.4 x 21.5 x 26 cm)
Weight	10 lb (4.5 kg)	6.5 lb (2.8 kg)
Typical power (Maximum)*	155W (195W)	80W (105W)
Integrated fan module	Yes	Yes
Chassis support	DCS-7508	DCS-7504

Line card	7500E-12CQ	7500E-12CM	7500E-36Q	7500E-6C2	7500E-72S	7500E-48S	7500E-48T
Ports	12 QSFP100 (40G/100G)	12 MXP (10G/40G/100G)	36 QSFP+ (10G/40G)	6 CFP2 (10G/40G/100G)	48 SFP+ (1G/10G) 2 MXP (10G/40G/100G)	48 SFP+ (1G/10G)	48 10GBASE-T (100M/1G/10G)
Max 10GbE	48	144	144	60	72	48	48
Max 40GbE	12	36	36	12	6	-	-
Max 100GbE	12	12	-	6	2	-	-
Port buffer	18 GB	18 GB	18 GB	9 GB	9 GB	9 GB	6 GB
Weight	14 lb (6.4 kg)	15.5 lb (7.0 kg)	15 lb (6.8 kg)	12.4 lb (5.6 kg)	13 lb (5.9 kg)	12.5 lb (5.7 kg)	13 lb (5.9 kg)
Typical (max) power*	414W (486W)	408W (495W)	450W (556W)	300W (320W)	212W (305W)	197W (285W)	318W (332W)
Dimensions (WxHxD)	17.5 x 1.75 x 23 in (44.5 x 4.5 x 58.4 cm)						
Chassis support	DCS-7508 and DCS-7504						

*Typical power consumption is measured at 25°C ambient with 50% load on all ports.

Physical characteristics

Supervisor module	DCS-7500E-SUP
Processor	2.6 GHz, Quad Core, x86, 64-bit
System memory	16 GB
Flash storage memory	4 GB
RS-232 serial ports	One (RJ-45)
100/1000 management ports	Two (RJ-45)
USB 2.0 interface	Two
SSD storage	100 GB optional
Physical dimensions (WxHxD)	8.5 x 1.75 x 23 in (21. 6 x 4.4 x 58.4 cm)
Weight	5 lb (2.4 kg)
Typical power (maximum)	105W (112W)
Chassis support	DCS-7508 and DCS-7504

PWR-2900AC power supply specifications

Input circuit (max)	200-240V, 16A (20A UL)
Input frequency	50-60 Hz, single phase AC
Output power	2900W
Input connector	IEC 240 C19
Size (WxHxD)	4.25" x 3.25" x 10" (10.8 x 8.3 x 25.4cm)
Weight	5.3 lbs (2.4 kg)
Chassis support	DCS-7508 and DCS-7504

Environmental characteristics

Operating temperature	0 to 40˚C (32 to 104˚F)
Storage temperature	-40˚C to 70˚C (-40˚F to 158˚F)
Relative humidity	5% to 95%
Operating altitude	0 to 10,000 ft (0–3,000 m)
Airflow	Maximum 800 CFM @ 40 ˚C/typical 600 CFM @ 25 ˚C

Standards compliance

EMI	FCC Part 15 Class A, ICES-003 Class A, VCCI Class A
Safety	Safety IEC/UL/CSA/EN 60950 CE, UL, cTUVus, TUV Mark
Other	ROHS compliant

Supported optics and cables

Interface type	QSFP+ ports
40GBASE-CR4	0.5m-5m QSFP+ to QSFP+
40GBASE-AOC	3m to 100 m
40GBASE-UNIV	150 m (OM3)/150 m (OM4), 500 m (SM)
40GBASE-SRBD	100 m (OM3)/150 m (OM4)
40GBASE-SR4	100 m (OM3)/150 m (OM4)
40GBASE-XSR4	300 m (OM3)/400 m (OM4)
40GBASE-PLRL4	1 km (1 km 4x10G LR/LRL)
40GBASE-PLR4	10 km (10 km 4x10G LR/LRL)
40GBASE-LRL4	1 km
40GBASE-LR4	10 km
40GBASE-ER4	40 km

Interface type	SFP+ ports
10GBASE-CR	SFP+ to SFP+: 0.5m-5m
10GBASE-AOC	SFP+ to SFP+: 3 m-30 m
10GBASE-SRL	100 m (OM3)/150 m (OM4)
10GBASE-SR	300 m (OM3)/400 m (OM4)
10GBASE-LRL	1 km
10GBASE-LR	10 km
10GBASE-ER	40 km
10GBASE-ZR	80 km
10GBASE-DWDM	80 km
100Mb TX, 1GbE SX/LX/TX	Yes

Interface type	100G CFP2 Ports	100G QSFP Ports*
100GBASE-XSR10	300 m OM3/400 m OM4 Parallel MMF	-
100GBASE-SR4	-	100 m OM3/150 m OM4 Parallel MMF
100GBASE-LR4	10 km SM duplex	10 km SM duplex
100GBASE-LRL4		2 km SM duplex
100GBASE-ER4	40 km SM duplex	
100GBASE-CWDM4	-	2 km SM duplex
100GBASE-PSM4	-	500 m SM Parallel
100GBASE-AOC	-	3 m to 30 m
100GBASE-CR4	-	1 m to 3 m

* Not currently supported in EOS

7504E chassis

Product description	Arista SKU	HPE SKU
Arista 7504E 4PSU 6Fab 1Sup M AC Bndl	DCS-7504E-BND-D	JH823A
Arista 7504E 4xPSU 6xFabE 1xSupE Bndl	DCS-7504E-BND	JH533A

7508E chassis

Product description	Arista SKU	HPE SKU
Arista 7508E 4PSU 6Fab 1Sup2 M AC Bndl	DCS-7508E-BND-D	JH826A
Arista 7508E 4xPSU 6xFabE 1xSupE Bndl	DCS-7508E-BND	JH534A
Arista 7508E Fabric E Module	DCS-7508E-FM	JL388A

7500E supervisor, line card, and fabric modules

Product description	Arista SKU	HPE SKU
Arista 7500E Series Supervisor Module	DCS-7500E-SUP	JH535A
Arista 7500E Series 36QSFP+ Module	DCS-7500E-36Q-LC	JH536A
Arista 7500E Series 48SFP+ Module	DCS-7500E-48S-LC	JH537A
Arista 7500E Series 48XGT Module	DCS-7500E-48T-LC	JH538A
Arista 7500E Series 48SFP+ 2SR10 Module	DCS-7500E-72S-LC	JH539A
Arista 7500E Series 12QSFP Module	DCS-7500E-12CQ-LC	JH540A
Arista 7500E Series 12QSP+ MPO Module	DCS-7500E-12CM-LC	JH541A
Arista 7500E Series 6CFP2 Module	DCS-7500E-6C2-LC	JH542A
Arista 7504E Fabric E Module	DCS-7504E-FM	JL387A

EOS licensing for modular switches

Product description	Arista SKU	HPE SKU
Arista Enhanced Mod-1 LTU	LIC-MOD-1-E	JH545A
Arista Virtualization SW Mod-1 LTU	LIC-MOD-1-V	JH717A
Arista Provisioning SW Mod-1 LTU	LIC-MOD-1-Z	JH718A
Arista Expanded L3 Mod-1 LTU	LIC-MOD-1-FLX	JH543A
Arista Enhanced Mod-2 LTU	LIC-MOD-2-E	JH546A
Arista Virtualization SW Mod-2 LTU	LIC-MOD-2-V	JH719A
Arista Provisioning SW Mod-2 LTU	LIC-MOD-2-Z	JH720A
Arista Expanded L3 Mod-2 LTU	LIC-MOD-2-FLX	JH544A
Arista MACsec SW Mod-1 LTU	LIC-MOD-1-MACSEC	JH716A

7500E support

Product description	Arista SKU	HPE SKU
Arista 7504E 2H SW 1M Support LTU	SVC-7504E-1M-2H	JH462A
Arista 7504E 4H SW 1M Support LTU	SVC-7504E-1M-4H	JH461A
Arista 7504E NBD SW 1M Support LTU	SVC-7504E-1M-NB	JH460A
Arista 7508E 2H SW 1M Support LTU	SVC-7508E-1M-2H	JH459A
Arista 7508E 4H SW 1M Support LTU	SVC-7508E-1M-4H	JH458A
Arista 7508E NBD SW 1M Support LTU	SVC-7508E-1M-NB	JH457A

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Support
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+1-800-633-3600

HPE Networking Sales
+1-888-269-4073

Service and Support

HPE Pointnext's full portfolio of Consulting services as well as Support Services are available. The support services include Installation and Startup Services, Next Business Day Exchange, Next Business Day Onsite and 24x7 Onsite parts, Engineer and 4-hour committed response as well as Datacenter Care and Flex Capacity. (Arista A-Care services can also be purchased. Learn more at **arista.com**). For service depot locations, please see: **arista.com/en/service**.

Warranty

The Arista 7500E switches come with a one-year limited hardware warranty that covers parts, repair, or replacement with a 10-business-day turnaround after the unit is received. Learn more at **arista.com**.

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