Overview

Arista 7300 Data Center Switch Series

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.

The Arista 7300 Series modular switches are part of the Arista portfolio of data center switches. The 7300 Series with 7300X Series line cards increase flexibility and scalability for data center switches supporting both leaf and spine and SplineTM applications for collapsed end of row and aggregation. The 7300X systems share a common architecture with the Arista 7050X and 7250X Series and offer a choice of three modular systems, a 4-slot, 8-slot and 16 slot that support advanced features for network monitoring, precision timing and network virtualization to deliver scalable high performance for software defined cloud networking.

Increased adoption of 10 Gigabit Ethernet servers and applications requiring higher bandwidth is driving rapid adoption of 10 and 40 Gigabit Ethernet switching. The 7300 Series support a choice of high density line cards in combination with wire speed layer 2/3/4 performance that provides a flexible combination of 100M, 1G, 10G and 40G switching to design large leaf and spine networks for scale-out of east-west traffic patterns with low latency and power efficiency.

With reversible front-to-rear or rear-to-front airflow, redundant and hot swappable supervisor, power, fabric and cooling modules the system is purpose built for data centers. The 7300 Series is energy efficient with typical power consumption of under 3 watts per 10GbE port for a fully loaded chassis. All of these attributes make the Arista 7300 Series an ideal platform for building reliable, low latency, resilient and scalable data center networks. Combined with Arista EOS the 7300 Series delivers advanced features for big data, cloud, virtualized and traditional designs.

Arista 7300X Series Modular Data Center Switches

Product Highlights

Performance
- Over 40 Terabits per second fabric capacity
- Up to 30 billion packets per second
- Up to 2.56 Terabit per second per line card
- Wire speed L2 and L3 forwarding
- 2,048 wire-speed 10GbE ports
- 512 wire-speed 40GbE ports

Resilient Control Plane
- Quad-core Hyper-threaded x86 CPU
- 16GB DRAM / 4GB Flash
- Dual Supervisor modules
- User applications can run in a VM

Data Center Class Design

Overview

- Latency below 2usec

High Availability
- 1+1 Supervisor redundancy
- N+N Grid redundant power system
- N+1 Fan module redundancy
- Redundant fabric modules

Cloud Networking Ready
- VXLAN and VM Tracer
- OpenFlow, DirectFlow and eAPI
- 12MB Dynamic Buffer per port group

Advanced Provisioning & Monitoring
- CloudVision
- Zero Touch Provisioning (ZTP)
- LANZ for microburst detection
- DANZ Advanced Mirroring for visibility
- sFlow
- Self-configure and recover from USB
- Advanced Event Monitoring

- 8RU, 13RU or 21RU chassis options
- Front-to-back or back-to-front reversible airflow for optimized cooling
- Under 3W per 10GbE port typical power for lower cost of ownership
- Dense 10GbE and 40GbE

Arista Extensible Operating System
- Single binary image for all products
- 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++

Arista Extensible Operating System (EOS)

All Arista products including the 7300 Series runs 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.

Scaling Data Center Performance

The Arista 7300X Series delivers wire speed switching at later 2 and layer 3 to enable dramatically faster and simpler network designs for data centers that lowers network capital and operational expenses. When used in conjunction with Arista 1G and 10G leaf switches and Arista's Multi-Chassis Link Aggregation (MLAG) technology, a pair of 7300X Switches can support over 12,000 Servers with a leaf and spine active/active L2 network topology. A combination of 16 7300X in a spine at Layer 3 scales the network up to over 32K 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 provides control, and visibility with single point of management.
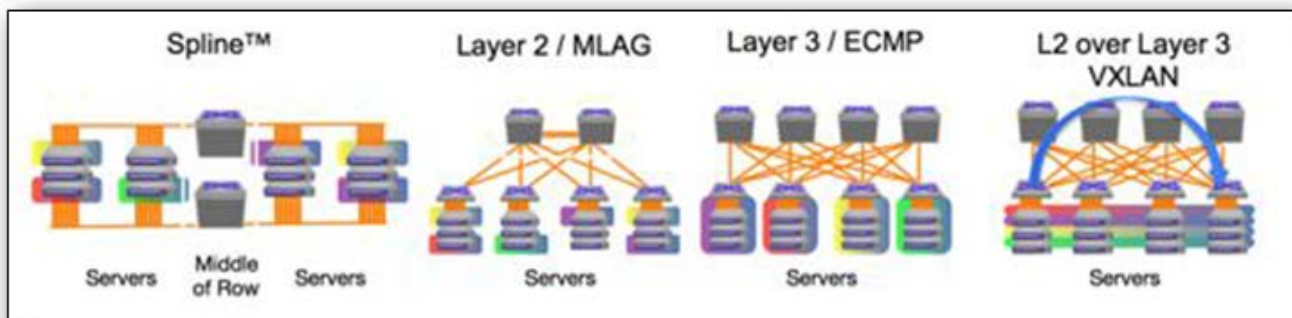
Arista Leaf-Spine Two-Tier and Spline One-Tier Network Architectures

Overview

Software Defined Cloud Networks

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 coupled with the trend in Software Defined Networking that delivers: network virtualization, custom programmability, simplified architectures, and lower capital expenditure. This combination creates a best-in-class software foundation for maximizing the value of the network to both the enterprise and service provider data center. A new architecture for the most mission-critical location within the IT infrastructure that 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 most 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 - Openflow, Openstack, OpenVirtualSwitch and OVSDB

Dynamic Buffer Allocation

In cut-through mode, the Arista 7300X series switches forward packets with a latency of less than 2 usec. Upon congestion, the packets are buffered in shared packet memory that has a total size of 12 Mbytes. Unlike other architectures that have fixed per-port packet memory, the 7300X Series use Dynamic Buffer Allocation (DBA) to allocate up to 6MB of packet memory to a single port for lossless forwarding.

Maximum Flexibility for Scale Out Network Designs

Scale out network designs enable solutions to start small and evolve over time. A simple two-way design can grow as wide as 64-way without significant changes to the architecture. The 7300X Series include enhancements that allow for flexible scale-out designs:

- 64-way ECMP and 64-way MLAG to provide scalable designs and balance traffic evenly across large scale 2 tier leaf-spine designs
- Flow based FDLB architecture to balance large flows and dynamic packet buffering to absorb congestion from microbursts
- Flexible allocation of L2 and L3 forwarding table resources for more design choice
- Wide choice of dense 10GbE and 40GbE modules with broad range of optics and cables for multi-speed flexibility
- VXLAN routing, bridging and gateway for physical to virtualization communication to enable next generation data center designs
- DANZ, sFlow, and multi-port mirroring to detect micro-burst congestion and provide network wide visibility and monitoring

Enhanced Features for High Performance Networks

The Arista 7300X Series 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.

Smart System Upgrade

Smart System Upgrade is a network application designed to address one of the most complicated and challenging tasks facing data center administrators - network infrastructure maintenance. Changes to the underlying network infrastructure can affect large numbers of devices and cause significant outages. SSU provides a fully customizable suite of features that tightly couples data center infrastructure to technology partners allowing for intelligent insertion and removal, programmable updates to software releases and open integration with application and infrastructure elements.

Precise Data Analysis

Arista Latency Analyzer (LANZ) is an integrated feature of EOS. 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.

Virtualization

Overview

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and emerging encapsulation technologies such as VXLAN. The 7300 Series 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 7300 Series makes integration of non-VXLAN aware devices including servers, firewalls and load-balancers seamless and provides the ability to leverage VXLAN as a standards based L2 extension technology for non-MPLS environments.

Advanced 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.

Unified Forwarding Table
Cloud network scalability is directly impacted by the size of a switches forwarding tables. In many systems a 'one size fits all' approach is adopted using discrete fixed size tables for each of the common types of forwarding entry. The Arista 7300X leverages a common Unified Forwarding Table for the L2 MAC, L3 Routing, L3 Host and IP Multicast forwarding entries, which can be partitioned per entry type. The ideal size of each partition varies depending on the network deployment scenario. The flexibility of the UFT coupled with the range of pre-defined configuration profiles available on the 7300X ensures optimal resource allocation for all network topologies and network virtualization technologies. Algorithmic Longest Prefix Match (ALPM) allows for the shared UFT to be expanded to contain up to 128K longest prefix match (LPM) route entries.

Designed for High Availability and Manageability
The Arista 7300 Series 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 redundancy provides deterministic degradation and integrated reversible fan systems for dynamic temperature control combined with N+1 redundancy. Each of the 7300 Series offers power redundancy that supports both power source and power supply redundancy. The Arista EOS software enabled 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 7300 lowers total cost of ownership as it is designed to be efficient with power per port as low as 3W per 10GbE port which combined with reversible cooling to for both leaf and spine data center deployment produces the most reliable, dense and power efficient modular switch.

7300X Architecture
The 7300X Series architecture is designed around an internal clos with line cards and fabric modules fully interconnected to deliver a low latency fully non-blocking system. Each line card has self-contained switch modules and interconnect via the vertical fabric modules for over 40 Tbps of switching capacity. Dual redundant supervisor modules provide centralized control plane and management functionality.

7300 Chassis - 16-slot, 8-slot and 4-slot
The Arista 7300 chassis provides room for two supervisor modules, four, eight or 16 line card modules, multiple power supply modules, and four fabric modules. The 7304 chassis fits into 8 rack units while the 7308 chassis fits into 13U and the 7316 chassis fits in 21 RU of a standard data center rack. Supervisor and line card modules plug in from the front, as do power supply modules, while the fabric and fan 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 is optimized for data center deployments with front-to-rear and rear to front airflow options

Arista 7300X Series Chassis

Overview

Line Card Modules

Wire-speed line cards deliver up to 1.92 Billion packets per second of forwarding with a single stage architecture that delivers provides fair access to all ports. Line cards contains up to 24MB of packet memory that ensures up to 6MB for any single port for lossless forwarding. Each line card connects to all fabric modules in a non-blocking full mesh and leverages flow based dynamic load balancing to improve the fabric efficiency by reducing the probability of hash polarization.

The Arista 7300 Series can be populated with any combination of line cards. For environments requiring the highest performance combined with scalability a range of both copper and fiber options is available addressing dense 1G/10G and 10G/40G with full support for industry standard connections and comprehensive layer 2 and 3 features for flexible deployment choice.

32 port QSFP+ 40G line card for 10G/40G

- 32 40GbE or 128 10GbE ports with QSFP+ optics and breakout cables
- Choice of Copper, Multimode and Single-mode with 40G and 10G options
- 1.92Bpps and under 12W per 40G port

48 port SFP+ for 1/10GbE and 4 port 40GbE QSFP+

- 64 10G ports per line card or 48 1/10GbE ports and flexible 10G/40G
- Four QSFP+ ports allow choice of 4 x 40GbE or 16 x 10GbE
- 960Mpps and under 3W per 10G port

48 port 10GBASE-T for 100M/1G/10GbE and 4 port 40GbE QSFP+

- Up to 64 10G ports per line card or
- 48 100/1G/10GbE ports and 4 ports of 10/40G
- Four QSFP+ ports allow choice of 4 x 40GbE or 16 x 10GbE
- 960Mpps and under 5W per 10G port

7300 Supervisor Module

The supervisor modules for the 7300 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 16GB of DRAM and an optional SSD provides the control plane performance needed to run an advanced data center switch scaling to over 2,000 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 network timing and monitoring tools.

Arista 7300X Series Supervisor

7300 Fabric and Fan Module

At the heart of the 7300 series is the fabric. It interconnects all line cards in a non-blocking architecture irrespective of the traffic pattern providing a full 2.56 Tbps of forwarding to

Overview

each line card module. Each line card module connects to the fabric with multiple links and flows are spread across these paths to efficiently utilize the available fabric capacity. The fabric modules are always active-active, providing high availability and can be hot-swapped with graceful performance degradation. The fabric modules for the three chassis are different based on the size of the chassis and each accommodate a set of individual hot-swap fan modules. The fan modules support forward and reverse airflow and provide redundant cooling. Each fan module can be independently replaced without any impact of the system.

7300 Power Supply Module

The 7300 series switches are equipped with a choice of reversible airflow direction 3000W AC or 2700W DC power supplies. The power supplies provide load sharing, support grid redundancy and are hot-swappable to eliminate downtime when replacing power supplies. A maximum of 4 power supplies are used on the 7304, up to 6 power supplies on the 7308 and up 8 power supplies on the 7316, with 6 on the front and an additional 2 on the rear.

The AC power supplies are platinum climate saver rated and have an efficiency of over 93% with single stage conversion to the internal DC voltage. The DC power supplies require inputs at-48V DC to deliver up to 2700W. The 7300 Series uses multiple small power supplies which allows for incremental provisioning and smaller input circuits. Variable power supply fan speeds ensure power supply efficiency is optimized and reduces noise in data center environments.

Arista 7300X Series Fabric/Fan and Fans

Arista 7300X Series Power Supplies

* Not currently supported in EOS

Features and Benefits (Arista 7300 Series)

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
    - 1024 groups per system
- Multi-Chassis Link Aggregation (MLAG)
    - 64 ports per MLAG
- Custom LAG Hashing
- Resilient LAG Hashing
- 802.1AB Link Layer Discovery Protocol
- 802.3x Flow Control
- Jumbo Frames (9216 Bytes)
- IGMP v1/v2/v3 snooping

- Advanced Monitoring and Aggregation
    - Port Mirroring 4 to 128 (4 active sessions per ASIC)
    - L2/3/4 Filtering on Mirror Sessions*
    - Mirror to EOS/SSD*
- Advanced Event Management suite (AEM)
    - CLI Scheduler
    - Event Manager
    - Event Monitor
    - Linux tools
- Optional SSD for logging and data capture
- Integrated packet capture/analysis with TCPDump
- RFC 3176 sFlow
- Restore & configure from USB
- Blue Beacon LED for system identification
- Software Defined Networking (SDN)
    - Openflow 1.0 *

Overview

- Storm Control
- RAIL

Layer 3 Features

- Routing Protocols: OSPF, OSPFv3, BGP, MP-BGP, IS-IS, and RIPv2
- 64-way Equal Cost Multipath Routing (ECMP)
- Resilient ECMP Routes
- VRF
- BFD
- Route Maps
- IGMP v2/v3
- PIM-SM / PIM-SSM
- Anycast RP (RFC 4610)
- VRRP
- Virtual ARP (VARP)
- Policy Based Routing (DirectFlow)
- uRPF
- Selective Route Download

Advanced Monitoring and Provisioning

- Zero Touch Provisioning (ZTP)
    - Latency Analyzer and Microburst Detection (LANZ) *
    - Configurable Congestion Notification (CLI, Syslog)
    - Streaming Events (GPB Encoded)
    - Capture/Mirror of congested traffic

- Arista DirectFlow *
- eAPI
- OpenStack Neutron Support

Virtualization Support

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

Security Features

- IPv4 / IPv6 Ingress & Egress ACLs using L2, L3, L4 fields
- MAC ACLs
- ACL Drop Logging
- ACL Counters
- Control Plane Protection (CPP)
- DHCP Relay / Snooping
- MAC Security
- TACACS+
- RADIUS

* Not currently supported in EOS

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Quality of Service (QoS) Features
- Up to 8 queues per port
- 802.1p based classification
- DSCP based classification and remarking *
- Explicit Congestion Notification (ECN) *
- QoS interface trust (COS / DSCP)
- Strict priority queueing
- Weighted Round Robin (WRR) Scheduling
- Per-Priority Flow Control (PFC) *
- Data Center Bridging Extensions (DCBX)
- 802.1Qaz Enhanced Transmissions Selection (ETS) *
- ACL based DSCP Marking *
- ACL based Policing *
- Policing/Shaping
- Rate limiting
- Audio Video Bridging (AVB) *

Network Management
- CloudVision
- 10/100/1000 Management Port
- RS-232 Serial Console Port
- USB Port
- SNMP v1, v2, v3
- Management over IPv6
- Telnet and SSHv2
- Syslog
- AAA
- Industry Standard CLI

Extensibility
- Linux Tools
  - Bash shell access and scripting
  - RPM support
  - Custom kernel modules
- Programmatic access to system state
  - Python
  - C++
- Native KVM/QEMU support

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
- 802.3ab 1000BASE-T

- 802.3z Gigabit Ethernet
- 802.3ae 10 Gigabit Ethernet
- 802.3ba 40 Gigabit Ethernet
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 4861 Neighbor Discovery for IP Version 6 (IPv6)
- RFC 4862 IPv6 Stateless Address Autoconfiguration
- RFC 4443 Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification

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

Configuration

Ordering Information

Description	Arista SKU	HPE SKU
Switch		
Arista 7304X chassis bundle. Includes 7304 chassis, 2x3000PS, 4xFabrics/fans, 1x Supervisor (F‑R)	DCS‑7304X‑BND‑D‑R	JH815A
Arista 7308X chassis bundle. Includes 7308 chassis, 4xDC PS, 4xFabrics/fans, 1x Supervisor (F‑R)	DCS‑7308X‑BND‑DC‑F	JH816A
Arista 7308X chassis bundle. Includes 7308 chassis, 4xDC PS, 4 Fabrics/fans, 1x Supervisor (R‑F)	DCS‑7308X‑BND‑DC‑R	JH817A
Arista 7308X chassis bundle. Includes 7308 chassis, 4 x 3000W PS, 4 Fabrics/fans, 1x Supervisor with SSD (R‑F)	DCS‑7308X‑BND‑D‑R	JH819A
Arista 7308XT chassis bundle. Includes 7308 chassis, 4x3000PS, 4 Fabrics/fans, 1x Supervisor (R‑F)	DCS‑7304XT‑BND‑F	JH927A
Arista 7304XT chassis bundle. Includes 7304 chassis, 2x3000PS, 4xFabrics/fans, 1x Supervisor (F‑R)	DCS‑7308XT‑BND‑D‑F	JH930A
Arista 7304X chassis bundle. Includes 7304 chassis, 2x3000PS, 4xFabrics/fans, 1x Supervisor (R‑F)	DCS‑7304X‑BND‑R	JH550A
Arista 7308X chassis bundle. Includes 7308 chassis, 4 x 3000W PS, 4 Fabrics/fans, 1x Supervisor (F‑R)	DCS‑7308X‑BND‑F	JH551A
Arista 7308X chassis bundle. Includes 7308 chassis, 4x3000PS, 4 Fabrics/fans, 1x Supervisor (R‑F)	DCS‑7308X‑BND‑R	JH552A
Arista 7304X 2x PSU 4x Fabric Supervisor Back‑to‑Front DC Bundle	DCS‑7304X‑BND‑DC‑R	JH813A
Arista 7304X chassis bundle. Includes 7304 chassis, 2xDC PS, 4xFabrics/fans, 1x Supervisor (F‑R)	DCS‑7304X‑BND‑DC‑F	JH812A

NOTE: Switches sold in the US are manufactured at a US facility and comply with TAA requirements.

Arista 7300 Line Cards

Description	Arista SKU	HPE SKU
Supervisor module for 7300 Series chassis, with SSD	DCS‑7300‑SUP‑D	JH811A
Arista 7300X 48‑port 10GbE SFP+ & 4 port 40GbE QSFP+ linecard (spare) Min 1/Max 48 SFP+ 10G Transceivers Min 1/Max 4 QSFP+ 40G Transceivers	DCS‑7300X‑64S‑LC	JH555A
Arista 7300X 48‑port RJ45 10GBASE‑T & 4 port 40GbE QSFP+ linecard (spare) Min 1/Max 4 QSFP+ 40G Transceivers	DCS‑7300X‑64T‑LC	JH556A
Arista 7300X 32‑port 40GbE QSFP+ linecard (spare) Min 1/Max 32 QSFP+ 40G Transceivers	DCS‑7300X‑32Q‑LC	JH557A

Arista 7300 Licenses

Description	Arista SKU	HPE SKU
Arista Expanded L3 Software Mod-1 E-LTU	LIC-MOD-1-FLX	JH543AAE

Configuration

Arista Expanded L3 Software Mod-2 E-LTU	LIC-MOD-2-FLX	JH544AAE
Arista Enhanced Software Mod-1 E-LTU	LIC-MOD-1-E	JH545AAE
Arista Enhanced Software Mod-2 E-LTU	LIC-MOD-2-E	JH546AAE
Arista MACsec Software Mod-1 E-LTU	LIC-MOD-1-MACSEC	JH716AAE
Arista Virtualization Software Mod-1 E-LTU	LIC-MOD-1-V	JH717AAE
Arista Provisioning Software Mod-1 E-LTU	LIC-MOD-1-Z	JH718AAE
Arista Virtualization Software Mod-2 E-LTU	LIC-MOD-2-V	JH719AAE
Arista Provisioning Software Mod-2 E-LTU	LIC-MOD-2-Z	JH720AAE
Arista FlexRoute L3 Lite Software Mod-1 E-LTU	LIC-MOD-1-FLX-L	JQ045AAE
Arista FlexRoute L3 Lite Software Mod-2 E-LTU	LIC-MOD-2-FLX-L	JQ046AAE
Arista FlexRoute L3 Lite Software Fix-2 E-LTU	LIC-FIX-2-FLX-L	JQ049AAE

Arista 7300 Service

Arista A-Care 7308X NBD Software 1 Month Support E-LTU	SVC-7308X-1M-NB	JH466AAE
Arista A-Care 7308X 4H Software 1 Month Support E-LTU	SVC-7308X-1M-4H	JH467AAE
Arista A-Care 7308X 2H Software 1 Month Support E-LTU	SVC-7308X-1M-2H	JH468AAE
Arista A-Care 7304X NBD Software 1 Month Support E-LTU	SVC-7304X-1M-NB	JH469AAE
Arista A-Care 7304X 4H Software 1 Month Support E-LTU	SVC-7304X-1M-4H	JH470AAE
Arista A-Care 7304X 2H Software 1 Month Support E-LTU	SVC-7304X-1M-2H	JH471AAE
Arista A-Care 7308XT NBD Software 1 Month Support E-LTU	SVC-7308XT-1M-NB	JH902AAE
Arista A-Care 7308XT 4H Software 1 Month Support E-LTU	SVC-7308XT-1M-4H	JH903AAE
Arista A-Care 7308XT 2H Software 1 Month Support E-LTU	SVC-7308XT-1M-2H	JH904AAE
Arista A-Care 7304XT NBD Software 1 Month Support E-LTU	SVC-7304XT-1M-NB	JH905AAE
Arista A-Care 7304XT 4H Software 1 Month Support E-LTU	SVC-7304XT-1M-4H	JH906AAE
Arista A-Care 7304XT 2H Software 1 Month Support E-LTU	SVC-7304XT-1M-2H	JH907AAE

Warranty, service, and support

The Arista 7500SE 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.
All technical, hardware, and software support for Arista products is provided directly by Arista and not HPE. Consult the Arista Customer Support page for contact information: arista.com/en/support/customer-support. Services may be purchased from HPE or Arista to extend your support coverage and software upgrades. Support will be provided by Arista for these services. For details on Arista warranty and support, see: arista.com/assets/data/pdf/Warranty.pdf
Services may be purchased from HPE or Arista to extend your support coverage and software upgrades. Support will be provided by Arista for these services. For details on Arista warranty and support, see: arista.com/assets/data/pdf/Warranty.pdf

Technical Specifications

Technical Specifications

Chassis	DCS-7308	DCS-7304
Supervisor slots	2	2
Linecard Slots	8	4
Fabric Module Slots	4	4
Power Supply Slots	6	4
Fan Modules	16	8
Physical Dimensions (HxWxD)	22.53" x 17.36" x 23.74" (57.2 x 44.1 x 60.3cm)	13.86" x 17.36" x 23.74" (35.2 x 44.1 x 60.3cm)
Rack Space	13RU	8RU
Weight (Chassis only)	110 lbs (49.9 kg)	78 lbs (35.3 kg)
Weight (Fully configured system)	299 lbs (135.6 kg)	188.4 lbs (85.45 kg)
Maximum 10GbE Port Density	1,024 Ports	512 Ports
Maximum 40GbE Port Density	256 Ports	128 Ports
Maximum Throughput / Packets per Second	20 Tbps / 15 Bpps	10 Tbps / 7.5 Bpps
Maximum Power Consumption	6000W	3000W

Fabric Module	DCS-7308X-FM	DCS-7304X-FM
Redundancy	Graceful Degradation	Graceful Degradation
Physical Dimensions (HxWxD)	17.3" x 3.7" x 11.8" (43.9 x 9.4 x 30cm)	11.80" x 3.70" x 10.27" (30x 9.4 x 26.1cm)
Weight	17.3 lbs (7.8 kg)	10.2 lbs (4.6 kg)
Typical Power (Maximum)	195W (343W)	97.5W (172W)
Chassis Support	DCS-7308	DCS-7304

Linecard Module	DCS-7300X-32Q-LC	DCS-7300X-64S-LC	DCS-7300X-64T-LC
Ports	32 QSFP+ (10G/40G)	48 SFP+ & 4 QSFP+	48 10GBASE-T & 4 QSFP+
Max 10GbE	128 (via splitter cables)	64 (16 via splitter cables)	64 (16 via splitter cables)
Max 40GbE	32	4	4
Port Buffer	24MB	12MB	12MB
Weight	10.2 lbs (4.6 kg)	9.6 lbs (4.35kg)	10.2 lbs(4.6kg)

Technical Specifications

Typical (Maximum) Power *	219W (372W)	166W (232W)	290W (430W)
Physical Dimensions (WxHxD)		11.83" x 17.11" x 1.73" (30 x 43.5 x 4.4 cm)	
Chassis Support		DCS-7316, DCS-7308 and DCS-7304	

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

Physical Characteristics

Supervisor Module	DCS-7300-SUP
Processor	2.6GHz, 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)	1.73" x 8.24" x 11.84" (4.4 x 21 x 30.1cm)
Weight	4.2 lbs (1.9 kg)
Typical Power (Maximum)	65W (80W)
Chassis Support	DCS-7316, DCS-7308 and DCS-7304

Power Supply Specifications		
Model	**3000W AC**	**2700W DC**
Input Voltage	200 - 240V, 16A (20A North America)	-48-60V DC, 80A
Input Frequency	50/60 Hz, single phase AC	DC
Output Power	3000W (2550W in reverse)	2700W

Technical Specifications

Input Connector	IEC 320 C19	AWG #4-3
Efficiency (Typical)	Over 93% Platinum	-
Size (WxHxD)	2.75" x 4.13" x 11.65" (7.0 x 10.5 x 29.6cm)	
Weight	5.5 lbs (2.49 kg)	
Chassis Support	DCS-7316, DCS-7308 and DCS-7304	

Supported Optics and Cables		
Interface Type	**SFP+ ports**	**QSFP+ ports**
40GBASE-CR4	-	0.5m-7m QSFP+ to QSFP+
40GBASE-AOC		3m to 100m
40GBASE-UNIV		150m (OM3) / 150m (OM4) 500m (SM)
40GBASE-SRBD		100m (OM3) /150m (OM4)
40GBASE-SR4	-	100m (OM3) /150m (OM4)
40GBASE-XSR4	-	300m (OM3) /400m (OM4)
40GBASE-PLRL4	-	1km (1km 4x10G LR/LRL)
40GBASE-PLR4	-	10km (10km 4x10G LR/LRL)
40GBASE-LRL4	-	1km
40GBASE-LR4	-	10km
40GBASE-ER4	-	40km
10GBASE-CR	SFP+ to SFP+: 0.5m-5m	0.5m-5m QSFP+ to 4 x SFP+
10GBASE-AOC	SFP+ to SFP+: 3m-30m	
10GBASE-SRL	100m	-
10GBASE-SR	300m	-
10GBASE-LRL	1km	
10GBASE-LR	10km	-
10GBASE-ER	40km	-
10GBASE-ZR	80km	
10GBASE-DWDM	80km	-

Technical Specifications

100Mb TX, 1GbE SX/LX/TX	Yes	-

Standards Compliance		
EMC	Emissions: FCC, EN55022, EN61000-3-2, EN61000-3-3 or EN61000-3-11, EN61000-3-12 (as applicable) Immunity: EN55024 Emissions and Immunity: EN300 386	
Safety	UL/CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all country differences	
Certifications	North America (NRTL) European Union (EU) BSMI (Taiwan) C-Tick (Australia) CCC (PRC) MSIP (Korea) EAC (Customs Union) VCCI (Japan)	
European Union Directives	2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 2011/65/EU RoHS Directive 2012/19/EU WEEE Directive	

Environmental Characteristics	
Operating Temperature	0 to 40°C (32 to 104°F)
Storage Temperature	-25 to 70°C (-13 to 158°F)
Relative Humidity	5 to 95%
Operating Altitude	0 to 10,000 ft, (0-3,000m)

Technical Specifications

Summary of Changes

Date	Version History	Action	Description of Change
04-Dec-2017	From Version 2 to 3	Added	SKUs added: JH543AAE, JH544AAE, JH545AAE, JH546AAE, JH716AAE, JH717AAE, JH718AAE, JH719AAE, JH720AAE, JQ045AAE, JQ046AAE, JQ049AAE, JH466AAE, JH467AAE, JH468AAE, JH469AAE, JH470AAE, JH471AAE, JH902AAE, JH903AAE, JH904AAE, JH905AAE, JH906AAE, JH907AAE
03-Jul-2017	From Version 1 to 2	Added	SKUs added: JQ045A, JQ046A
06-Mar-2017	Version 1	Created	Document creation.

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