



Arista 7320X Series

## Arista 7320 X-Series Introduction

The Arista 7320X Series are the benchmark for performance, scale and power efficiency in modular data center switches. Adoption of 25G servers is accelerating the need for flexible, dense 100GbE/40GbE solutions with support for both 10GbE and 25GbE speeds. The Arista 7320X Series extends the industry leading 7300 Series with increased performance, scalability, density and features designed for software driven cloud networking.

The Arista 7320X Series are a range of modular systems, a 4-slot and 8-slot, with a choice of native 100GbE and 40GbE interfaces for high performance, low latency and scalable multilayer switching powered by Arista EOS, the worlds most advanced network operating system.

## High Performance

- 50Tbps system capacity
- Up to 38 billion packets per second
- Wire speed unicast & multicast
- Class leading latency
- High density 40G/100G
- 16MB buffer per port group
- Under 17W per 100G port

## Feature Rich

- High Availability
- DC optimized airflow
- Rich L2 and L3 features
- 64-Way MLAG
- 128-Way ECMP
- VXLAN and VMTracer
- Zero Touch Provisioning
- Smart System Upgrade
- Hitless MLAG ISSU

## High Scalability

- Wirespeed L2 and L3 forwarding
- 256 x 100G and 40G
- Quad 10G and 25G - 1024 ports
- Scalable Spine and Spline designs
- UFT: MAC 136K / IPv4 Hosts 104K
- ALPM: Max Routes: 128K IPv4 / 84K IPv6

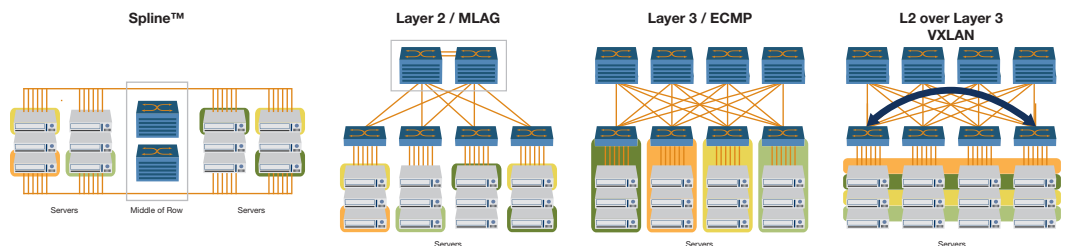
## Advanced Monitoring

- CloudVision
- LANZ microburst detection
- AEM proactive management
- sFlow for network visibility
- SSD for local monitoring
- VM Tracer integration
- RAIL for Big Data and Hadoop

## 7320X Deployment Scenarios

Scale out network designs allow solutions to start small and expand over time; simple highly scalable one and two-tier network designs are built with MLAG, ECMP and VXLAN technologies.

### Cloud Networking: 2-tier Leaf/Spine or 1-tier Collapsed Spine



The 7320X Series are ideal for a number of deployment scenarios inside the data center. With a choice of systems each capable of high density 100G and 40G they are ideal for use as a single tier collapsed leaf and spine or at the spine layers of two-tier networks. The Arista universal network architecture is optimized for all application types ranging from large cloud to enterprise deployments. The following are a selection of use cases:

- Collapsed Spline™ server access as middle of row or end of row supporting full range of, 10G, 25G and 40G connection options
- Leaf-Spine — open standards based L2 and L3 with monitoring and visibility features — LANZ, DANZ, Tracers
- ECMP designs up to 128-way — cost-effective 100GbE multi-pathing using open protocols
- Software Defined Networking — with support for VXLAN, OpenFlow, DirectFlow, and eAPI
- Cloud Scale modular switch with high availability features and choice of 40G and 100G density up to 256 x 40G or 100G and full L2 and L3 features
- Grid / HPC — designs requiring cost effective and power efficient systems to enable non-blocking or minimal over-subscription
- Spine for hadoop and big data applications with east-west connectivity
- Directly connected 25GbE, 40GbE and 50GbE attached storage – dense NFS systems, requiring high performance and predictable latency

## Arista EOS

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.

## 7320X Series Systems

Arista 7320 Series support redundant hot-swappable power supplies, fabric and fan redundancy, EOS high availability, a choice of L2 and L3 multi-pathing designs and powerful EOS innovations for visibility, application level performance monitoring and virtualization.

Feature	Description
CloudVision	Network-wide workflow automation and workload orchestration as a turnkey solution for Cloud Networking
Wirespeed VXLAN Gateway	Seamless integration between VXLAN and L2/L3 environments, physical and virtualized networks
Smart System Upgrade	Optimized SW upgrades to reduce the impact of software upgrades and avoid network convergence
128-way ECMP and 64-way MLAG	Improve network scalability and balance traffic across large-scale leaf-spine designs or server load balancers
Latency Analyzer	A solution to improve monitoring and visibility at both 100G and 40G for congestion from persistent or microbursts.
Cloud Control	Support for Openflow and OpenStack automation and self-service provisioning with cloud scale economics
Scalable Tables — ALPM and UFT	Flexible allocation of L2 and L3 forwarding table resources for greater design choice

	7328X	7324X
Linecards	8	4
100G Ports	256	128
40G Ports	256	128
10G Ports	1024	512
25G Ports	1024	512
50G Ports	512	256
System Capacity	50Tbps / 38Bpps	25Tbps / 19Bpps
Total Buffer	256MB	128MB
Latency	2 $\mu$ s	2 $\mu$ s
Size	13RU	8RU

7320X-32C QSFP100 line cards provide a wide range of interfaces. With 32 QSFP100 based ports the module supports a flexible combination of 32 x 100GbE or 40GbE with QSFP transceivers and cables or up to a full 128x 10GbE or 25GbE with breakout cables and optics.

