

Arista 7010X Series 48 x 1G

Data centers demand high performance networking solutions. The Arista 7010X family of Ethernet switches combine a compact form factor, low power and cooling with performance, scalability, availability and operational ease to meet the demands of todays higher performance enterprises.

High Performance

- Up to 296Gbps throughput
- Up to 220 million packets per second
- Wire speed L2 and L3 forwarding
- •4MB packet buffer
- · Low power draw at less than 0.3W/Gbps

Feature Rich

- VXLAN and EVPN
- CloudVision
- Rich L2 and L3 features
- Zero Touch Provisioning (ZTP)
- Hitless MLAG ISSU
- AEM proactive management
- •sFlow for network visibility
- OpenStack, eAPI, Directflow
- •LANZ for microburst detection
- Extensible platform bash, python, C++

High Scalability

- Up to 64K MAC entries
- Up to 16K IPv4 Routes
- Up to 32K IPv4 Host Routes
- Up to 6K IPv6 Routes
- Up to 16K IPv6 Host Routes
- •64-way ECMP
- •64-port MLAG

Data Center Optimized

- Four uplinks for ECMP and MLAG
- Load sharing internal redundant power supplies
- Field replaceable redundant fan module with two fans
- Field reversible fan module for rear-to-front or front-to-rear cooling
- 2 post and zero RU mounting

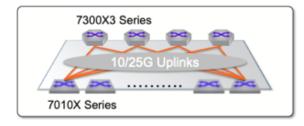
Arista 7010X Series Introduction

The Arista 7010X offers a purpose built high performance and power efficient solution for high density data center deployments. With 48 ports of 10/100/1000 and 4 integrated 1/10/25GbE SFP28 ports the switch delivers non-blocking forwarding of 296Gbps combined with feature rich L2 and L3 switching. A natural extension to the 7050X Series the 7010X are members of the Arista portfolio of data center switches.

Offering a choice of two models the 7010X Series supports both AC or DC power. Both models have 48 RJ45 ports for 10/100/1000 Ethernet and 4 SFP28 ports for 1G, 10G and 25G uplinks using a wide range of optics and cables that enables integration with a higher performance spine with up to 100G.

7010X Deployment Scenarios

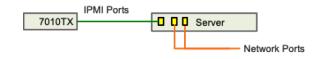
The Arista 7010X series delivers line rate switching at layer 2 and layer 3 to enable simpler network designs for data centers that lowers the network capital and operational expenses. When used in conjunction with the Arista 7000 series of fixed and modular switches it allows networks to scale to over 55,000 1G servers in a high performance and low-latency two-tier 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.

- Open standards based L2 and L3 with monitoring and visibility features for virtualized server environments
- Software Defined Networking support for DirectFlow and eAPI
- Enterprise server top of rack supporting 1G connections with EOS feature consistency and full L2 / L3, VXLAN and EVPN features
- ECMP designs cost-effective multi-pathing using open protocols

The 7010X provides for the consistent application of access controls, network security features and remote monitoring to protect access to both dedicated management interfaces and restrict access to authorized users of out-of-band networks. Arista 7010X with EOS provides rich features that are applied to both the management networks and the production data center networks.



Arista 7010X: High performance, feature rich, power efficient, open extensibility

ARISTA

7010X Series

Maximum Flexibility

Scale out network designs enable solutions to start small and evolve over time. A simple two-way design can grow without significant changes to the architecture. The Arista 7010X include enhancements that allow for flexible scale-out designs including ECMP, MLAG and EVPN / VXLAN.

Key Advantages

Arista 7010X Series support hot-swappable fan modules and power supply redundancy, EOS high availability, a choice of L2 and L3 multipathing designs and powerful EOS innovations for provisioning, visibility, performance monitoring and virtualization.

Leaf Spine L3 ECMP Design with no Oversubscription									
7010TX Leaf w/ 7050SX3	4608								
7010TX Leaf w/ 7050CX3	6144								
7010TX Leaf w/ 7060CX	6144								
7010TX Leaf w/ 7280R3	9216								
7010TX Leaf w/ 7304X3	24576								
7010TX Leaf w/ 7504R3	368	64							
7010TX Leaf w/ 7308X3		49152							
7010TX Leaf w/ 7804R3		55296							
7010TX Leaf w/ 7508R3			73728						
7010TX Leaf w/ 7808R3				110592					
7010TX Leaf w/ 7816R3								221184	
	D 50	000	100	000	1500	00 200	000	2500	00

Redundant Power Supplies - The 7010X Series feature internal redundant, load-sharing AC or DC power supplies to maintain uninterrupted operations. Thanks to the compact design the 7010X Series requires significantly less power than solutions with less performance and features.

Hot Swappable Fan Module - featuring two fans providing sufficient cooling even if one of the fans were to fail. Reversible fan module provides both front to rear and rear to front airflow.

Multi-chassis Link Aggregation (MLAG) - MLAG enables the network administrator to use all interconnects in an active/active, Layer-2 topology. MLAG and Spanning Tree work together - ports remain active/active, while STP only kicks in during a misconfiguration. This enables an increase in cross-sectional bandwidth, and faster failover times measured in the 100s of milliseconds for link or node failure.

MLAG ISSU - With MLAG ISSU both members of an MLAG system can be upgraded independently. Mission critical traffic can be configured as a link aggregate across both switch members, ensuring minimal disruption during the upgrade process.

Equal Cost Multi Pathing (ECMP) - All paths between spine and leaf run active/active utilizing standard routing protocols like BGP and OSPF with ECMP used to run all paths in active/active mode.

IPv4 and IPv6 Routing Support - IPv4 and IPv6 Layer 3 routing (OSPF, BGP, ISIS and PIM) is available in the Enhanced Routing license, enabling highly resilient multi-path networks.

VXLAN Routing and Bridging - For physical to virtualization communication in next generation data center designs.

Zero Touch Provisioning (ZTP) - ZTP enables switches to be physically deployed without any configuration. With ZTP, a switch loads its image and configuration from a centralized location within the network. This simplifies deployment, enabling network engineering resources to be used for more productive tasks.

In addition to the EOS foundation technologies outlined, Arista Software Defined Cloud Networking (SDCN) incorporates various other technologies that enable scale-out automated network designs - AEM, CloudVision, RAIL, eAPI, OpenStack, and VMTracer.

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

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