



PRODUCTS

# Aurora 820

- ✓ • Intel Xeon-D 1527 CPU
- ✓ • ONIE Pre-loaded
- ✓ • Broadcom Tomahawk3
- ✓ • 32 × 400G

Description	Specification
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The Aurora 820 is a high-density 400GbE switch capable to meet tomorrow’s data center scale and bandwidth. The next-gen Hyperscale fabrics will rely on 400GbE avoiding costly topology changes and diving deeper into IO intensive workloads such as Deep Learning and NVMe storage networks.

32 QSFP-DD interfaces are backward compatible with QSFP28 and provide a flexible solution for any data center, enterprise, or CSP environment supporting break-out configuration with up to 128x 100G ports.

Consistent latency and 12.8Tbps throughput deliver wire-speed Layer 2 and Layer 3 performance. Traffic instrumentation, automation, and visibility features are the key to managing the massive scale and bandwidth of the upcoming networks.

The system has BMC (Baseboard Management Controller) embedded to provide server-style management in the Ethernet switch. Besides the health monitoring of the temperature, power status, and cooling fans; BMC also aids in the deployment and management of software and hardware assets.

## Key features

- ✓ New Elephant Flow feature can detect high-bandwidth, long-lived flows and take QoS actions to protect Mice Flows
- ✓ More than doubles the IP route forwarding scale compared to previous Aurora devices
- ✓ Dynamic Load Balancing and Dynamic Group Multipathing enhance ECMP
- ✓ New shared-buffer architecture offers 4X higher burst absorption and improved performance for ROCEv2 workloads
- ✓ Over 40 percent reduction in power per port compared to previous Tomahawk devices

## Simplified deployment

- ✓ With full Open Network Install Environment (ONIE) support, network operators can install the target Network Operating Systems (NOS) as part of data center provisioning, in the fashion that servers are provisioned.

## Network monitoring

- ✓ Tomahawk 3 introduces Broadview™ Gen3, which includes the latest cloud-scale instrumentation and telemetry features, such as inband telemetry, latency distribution histograms, and more.

## Performance

- ✓ 32x 400GbE QSFP-DD ports in 1 RU  
Up to 128x 100G ports via break-out cables
- ✓ 12.8Tbps Broadcom Tomahawk BCM56980
- ✓ 8 billion packets per second
- ✓ Intel Xeon processor D-1527 with four cores for application deployment improves control-plane performance
- ✓ Up to 32GB of DDR4 memory (16GB default)
- ✓ Configurable pipeline latency enabling sub-700 ns port-to-port operation

## Reliable hardware platform

- ✓ Redundant 1300W 1+1 power
- ✓ Redundant N+1 cooling

## Network OS (NOS) options

- ✓ ICOS - Web-scale NOS with traditional L2/L3 functions and management, with an API structure for third-party apps and integration with provisioning and orchestration systems.

Latest ICOS release runs in OS-as-a-service mode and supports the use of Linux shell tools for management, provisioning,

application deployment and orchestration enabling customer a seamless path to network modernization for network virtualization, SDN, SDDC, and NFV.

- ✓ Open Network Linux is a Linux distribution for "bare metal" switches, that is, network forwarding devices built from commodity components. ONL uses ONIE to install onto on-board flash memory. Open Network Linux is a part of the Open Compute Project and is a component in a growing collection of open source and commercial projects.



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