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PRODUCTS

Aurora 830

- Intel Xeon-D 1527 CPU
- ONIE Pre-loaded
- Broadcom Trident4
- ✓ Programmable pipelines by NPL

Description

Specification





The Aurora 830 is a high-density 400GbE switch designed to address performance, capacity, and service requirements of the next-gen networks as well as high-bandwidth enterprise and 5G applications. It's based on the StrataXGS® Trident4 series and delivers fully user-programmable forwarding and instrumentation capabilities while offering minimal power consumption and latency.

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.

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Aurora 830 has extensive features to address the rapidly increasing scale of data center network deployments and distributed computing applications. These features include flexible in-band and streaming telemetry, large scale forwarding databases with flexible allocations to allow tailoring to the required application, and support for the latest in data center protocols.

To enable high network utilization, Aurora 830 features a wide variety of load balancing and congestion management technologies including Dynamic Load Balancing, Dynamic Group Multipathing, Resilient Hashing, Latency-Based ECN marking, and Elephant Flow detection/re-prioritization.

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.

Aurora 830 is programmed using the NPL high-level language. For more information on NPL, please visit https://nplang.org/(https://nplang.org/).

Runtime programmability allows numerous functions to be updated while the switch is in operation, with no downtime. For example, access control policy tables, size, and type of telemetry metadata, packet trace, and packet drop can all be modified with no disturbance to packet flow. The result is a dramatic reduction in operational complexity, higher network flexibility, and higher network availability.

Key features

- ✓ Compiler-programmable packet processing
- ✓ Flexibility to implement advanced network functionality such as DDoS protection, application load balancing, and large-scale NAT
- ✓ Advanced instrumentation including programmable in-band and streaming telemetry
- ✓ Industry-leading packet buffer and database sizes
- ✓ Extensive programmable in-band telemetry including support for IFA 2.0 (In-band Flow Analyzer version 2)
- ✓ A wide variety of load balancing and congestion management features including Dynamic Load Balancing, Dynamic Group
 Multipathing, Resilient Hashing, Latency-Based ECN marking, and Elephant Flow detection and re-prioritization

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

✓ Broadview™ Gen 4 integrated network instrumentation feature set and software suite, providing full visibility to network operators into packet flow behavior, traffic management state, and switch internal performance

Performance

- ✓ 32x 400GbE QSFP-DD ports in 1 RU

 Up to 128x 100G ports via break-out cables
- ✓ 12.8Tbps Broadcom Trident4 BCM56880
- ✓ Intel Xeon processor D-1527 with four cores for application deployment improves control-plane performance

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✓ Up to 32GB of DDR4 memory (16GB default)

Reliable hardware platform

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



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