Netberg Aurora 810

- ONIE Pre-loaded
- Intel Tofino 2 IFP
- Programmable pipelines by P4
- SONiC-ready
- Ubuntu-ready
- SDN-ready
- X86 Linux apps

The Aurora 810 has a 12.8T Intel Tofino 2 Intelligent Fabric Processor at its heart. It's a programmable switch with 32 x 400GbE QSFP-DD interfaces, each supporting breaking out to four subinterfaces for high-density leaf deployment.

With quad programmable packet processing pipelines and 20 Match Action Unit stages per pipe, Aurora 810 delivers unmatched flexibility to the network. Besides high-performance switching, its Protocol-independent switch architecture (PISA) enables adjusting protocols in software, precise control over packets, deep packet inspection, unorthodox traffic management techniques, load balancing, and much more.

The Aurora 810 supports IEEE 1588-2008 PTPv2 to achieve clock accuracy in the sub-microsecond range. All of its ports are PTP-enabled for critical 5G carrier routing, media/ broadcast, and BNG applications.

The Intel® Tofino™ 2 Intelligent Fabric Processor doubles its switching capacity over the first generation and provides far more packet processing resources to handle the most demanding workloads in distributed applications, virtual machine scaling, artificial intelligence, and serverless deployments.

Highlights:

- Interfaces: 32x 400G QSFP-DD Ports, Management (1000Base-T), mini-USB Console Port, USB2.0 (Type A)
- Intel Xeon D-2123IT CPU
- 32GB DRAM, 128GB m.2 SSD
- Intel Tofino 2 IFP BFN-T20-128Q
- Switching Capacity: 12.8Tbps, 64MB Packet Buffer
- Quad pipelines/20 MAU stages
- 1600W 1+1 RPSU, 100V~240V AC / 50~60Hz
- 6 N+1 redundant fans, Front-to-Back/Back-to-Front Airflow
- Fan LED, System status LED, PSU status LED, Power LED
- Operating temperature: 0~45°C
- Operating humidity: 20-95% maximum relative humidity (non-condensing)
- FCC, CE, RoHS6

About us

Netberg is a provider of advanced hardware solutions for data centers and enterprises worldwide. With vast expertise in hardware and software, we aim to provide the best solutions for servers, Ethernet switches and routers, telecom solutions, and custom HW/SW products. More information about Netberg available at www.netbergtw.com

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NETBERG

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SONiC – a collection of networking software components required to have a fully functional L3 device.
It is designed to meet the requirements of a cloud data center.
It is fully open-sourced at OCP.

- BGP
- ECMP
- LAG
- LLDP
- QoS - ECN
- QoS - RDMA
- Priority Flow Control
- WRED
- COS
- SNMP
- Syslog
- Sysdump
- NTP
- COPP
- DHCP Relay Agent
- SONiC to SONiC upgrade
- One Image
- VLAN
- ACL permit/deny
- IPv6
- Tunnel Decap
- Mirroring
- Post Speed Setting
- BGP Graceful restart helper
- BGP MP
- Fast Reload
- PFC WD
- TACACS+
- MAC Aging
- LACP Fallback
- MTU Setting
- Vlan Trunk
- IPv6 ACL
- BGP/Neighbor-down fib-accelerate
- Port breakout
- Dynamic ACL Upgrade
- SWSS Unit Test Framework (best effort)
- ConfigDB Framework
- Critical Resource Monitoring
- MAC Aging
- IPv6 ACL
- BGP/Neighbor-down fib-accelerate
- PFC WD
- gRPC
- Dtel support
- Sensor transceiver monitoring
- LLDP extended MIB: lldpremtable, lldplocporttable, lldpremmanaddrtable, lldplocmanaddrtable, lldplocporttable, lldpLocalSystemData
- Debian Kernel 4.9
- Warm Reboot
- Incremental Config (IP, LAG, Port shut/unshut)
- Asymmetric PFC
- PFC Watermark
- Routing Stack Graceful Restart
- Basic VRF and L3 VXLAN
- FRR as default routing stack
- Everflow enhancement
- Egress ACL bug fix and ACL CLI enhancement
- L3 RIF counter support
- PMon Refactoring
- BGP-EVPN support(type 5), (related HLD Fpmsyncd,Vxlanmgr,template)

STRATUM

The Stratum project broadens the scope of SDN to include full lifecycle control, configuration and operations interfaces.

Envisioned as a key software component of SDN solutions of the future, Stratum implements the latest SDN-centric northbound interfaces, including P4, P4Runtime, gNMI/OpenConfig, and gNOI.
It does not embed control protocols, but instead is designed to support either an external Network OS or to work with NOS functions running on the same embedded switch.

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