PENGUIN ARCTICA 4804X

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Cost-effective switch platform with a choice of Software Defined Networking options

Penguin Arctica switches are cost effective L2/L3 top-of-rack switches. Arctica switches are based on industry leading 'merchant silicon': The Broadcom Apollo2/Trident+ chipset used in switches from all major switch vendors. Unlike the switch offerings from established tier 1 vendors Arctica switches are truly open, enabling customer to deploy the firmware stack or SDN solution best suited for the environment.

Penguin Computing recommends Cumulus Linux, the industry's first true Linux network operating system that radically reduces operational expenses by simplifying network management. Penguin Arctica switches are available with Cumulus Linux preloaded, backed by hardware and software support options.

The Arctica 4808x is a 48 Port 1U Top of Rack Data Center 10GbE switch with advanced DCB features. Serviceability features include redundant fans and power supplies. Penguin Arctica product line includes also full list of cabling and transceiver options for copper and optical connectivity.

Physical Dimensions

- 1.73" (H) x 17.3" (W) x 17" (D)

Features

- Interfaces - 48 SFP+ 10GbE Ports, 4 QSFP+ 40GbE Ports, Management (1000Base-T) and Console Ports (RJ45), USB (Type A)
- Switching Capacity - 1.28Tbps, 9MByte Buffer
- Latency - <1us port to port
- CPU – P2020 800MHz-1.2GHz Dual Core PowerPC, 2-4GB ECC DDR3-667, 1GB NAND Flash, 512Mb NOR Flash
- Routing Tables - MAC 128K, L3 16K, Bridges 4K, Virtual Ports 4K
- Jumbo Packet 12K bytes
- Content Aware Processing - Layer 2-7 packet classification
- Transceivers - SFP: GbE optical / copper, SFP+: 10GbE SR to 300m, LR to 10km, and DAC (to 7m passive), QSFP+ (up to Class 4 power): SR4 to 150m, LR4 to 10km, and DAC (to 5m passive)

Traffic Management

- Class of Service based queuing
- DWRR, WRR Strict Priority scheduling policies
- ACL-based policies
- Bandwidth allocation based on port group

Layer Two- Cumulus Linux

- 802.1d Bridging
- 802.1w Rapid Spanning Tree Protocol
- Bridge Assurance
- BPDU Guard
- IPv6 Router Advertisement Guard
- 802.1q VLAN Trunks
- 802.3ad Link Aggregation
- 802.1ab Link Layer Discovery Protocol
- IPv6 Neighbor Discovery
- Unicast / broadcast storm control

Layer Three - Cumulus Linux

- OSPF v2/v3
- BGP v4/v6
- ECMP

Management & Monitoring

- Extensible and user customizable via multiple scripting engines, including Bash, Python, Perl and Ruby.
- SNMP v2/v3 monitoring
- SPAN/ERSPAN capture
- Packet, bu!er and queue counters

Contact

For more information, please contact sales@penguincomputing.com

Penguin servers have been tested for compatibility with all major commercial and freely available Linux distributions and are available with Red Hat Enterprise Linux, SuSE Linux Enterprise Server or CentOS pre-installed.

Penguin Computing specializes in delivering turn-key High Performance Computing clusters that include software solutions for cluster and workload management, high performance intercon- nects, storage systems and a power delivery infrastructure. All components are integrated in rack enclosures, configured for optimal performance by Penguin's HPC experts and ready to use

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