NETWORKS

Open Network Switches

Data Center TOR and Spine, Telecom, and Enterprise
1G, 1G PoE, 10G, 40G, 25/50/100G

100GbE Data Center Switch						
Model Number	Fixed Ports:	Performance	Switch Silicon	CPU	Airflow	OCP Status
AS7712-32X	32 x 100GbE QSFP28	Switching: 3.2 Tbps MAC: 8k Min./128kmax. Packet Buffer :16MB	Broadcom BCM56960 Tomahawk 3.2 Tbps	Intel Atom C2538	Port-to-power or power-to-port	Approved

40GbE Data Center Switch						
Model Number	Fixed Ports:	Performance	Switch Silicon	CPU	Airflow	OCP Status
AS6812-32X	32 x 40GbE QSFP+	Switching:1.2 Tbps MAC: 32k min./288k max Packet Buffer: 16MB	Broadcom BCM56860 Trident II+ 1.25 Tbps	Intel Atom C2538	Port-to-power or power-to-port	
AS6712-32X	32 x 40GbE QSFP+	Switching:1.28 Tbps MAC: 32k min./288k max Packet Buffer: 12MB	Broadcom BCM56850 Trident II 1.28 Tbps	Intel Atom C2538	Port-to-power or power-to-port	Approved

10GbE Data Center Switches						
Model Number	Fixed Ports:	Performance	Switch Silicon	CPU	Airflow	OCP Status
AS5812-54X	48 x 10G SFP + (each port supporting 10GbE or 1GbE) + 6 x 40 Gbe QSFP+ (each supporting 40GbE or 4 x 10GbE via break-out cable)	Switching 720 Gbps MAC: 32k min./288k max Packet Buffer: 16MB	Broadcom BCM56846 Trident II+ 720 Gbps	Intel Atom C2538		
AS5812-54T	48 x 10GbE Base-T, each supporting 10GbE or 1GbE + 6 x 40G QSFP+, each supporting 40GbE or 4 x 10GbE via break-out cables.	Switching:720 Gbps MAC: 32K min./288K max. Packet Buffer: 16MB	Broadcom BCM56846 Trident II + 720 Gbps			
AS5712-54X	48 x 10G SFP+ (each supporting 10 GbE or 1 GbE) + 6 x 40GbE QSFP+ (each supporting 40 GbE or 4 x 10 GbE via break-out cables.	Switching:720 Gbps MAC: 32k min./288k max Packet Buffer: 12MB	Broadcom BCM56854 Trident II 720 Gbps	Intel Atom C2538	Port-to-power or power-to-port	Approved. First OCP approved switch in industry
AS5710-54X				Freescale P2041		

Please reference **Big Cloud Fabric Hardware Compatibility List** and **Big Monitoring Fabric Hardware Compatibility List** for details on supported hardware platforms.

ORSA-1U: Open Rack Switch Adapter. Mechanical tray to install any 1U 19'' rack-mountable switch in Open Rack.

Additional information
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big switch
n e t w o r k s

NETWORKS

Open Networking Solutions
for
Data Center, Telecom, Enterprise
from
Edgecore Networks
The Open Networking Leader

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Open Networking Benefits

Open networking is helping to transform the way IT is deployed and used by many types of businesses. Open networks are based on networking hardware whose designs are fully open-sourced, with a choice of independent open software for NOS, SDN, virtualization and cloud orchestration.

For years, hyperscale data center operators have been enjoying the benefits of open networking: automated and accelerated provisioning of network capacity and services, greater control over the development of enhanced network services, flexibility to work with best-in-class suppliers, reduced network equipment expenses, and reduced operating expenses. These open network benefits are now available for many more network use cases.

Public and private cloud data centers of all sizes are being deployed with network fabrics built from open TOR and spine switches. Open networks are addressing telecommunications service provider requirements for new central office architectures, managed services delivery, monitoring and analytics networks, and Internet exchanges. Enterprises are deploying open network solutions outside their data centers, in distribution facilities, Power-over-Ethernet networks for wireless access and security applications, and campus networks.

Edgecore Networks, Leadership in Open Networking

Together with its technology and integration partners, Edgecore Networks delivers leading open networks solutions for cloud data center, telecommunications and enterprise customers.

◆ Edgecore is an Accton company, leveraging the network technology, development and manufacturing capabilities of Accton Technology, the leading network ODM.
◆ Edgecore supplies Facebook and other hyperscale cloud operators with open network switches that meet the most demanding performance, scale and reliability requirements.
◆ Edgecore is a leader in the OCP Networking Project, with a full set of open switches based on its OCP-accepted design contributions: a 10GbE TOR switch which was the first switch ever accepted by OCP, a cost-optimized 40GbE switch, and two 100GbE switches based on switch silicon from different vendors allowing network operators to increase capacity with infrastructures based on 25G and 100G.
◆ Edgecore has contributed to OCP new classes of open hardware platforms to extend open networking to additional use cases in the data center, and beyond to the service provider edge and the enterprise access network. Those platforms include the Open Modular Platform supporting up to 512-ports of 100GbE for data center spine and core network applications, high-buffer switches for data center interconnect and service provider edge applications, and the industry'sfirst open WiFi Access Points and PoE access switches to bring open networking to enterprise access networks.
◆ Edgecore switches support the broadest set of commercial and open source software choices in the industry, providing customers with alternatives to meet their specific requirements.
◆ Edgecore leads the industry in working with partners and industry groups to validate and make open networks deployable, for example as a charter member of UNH-IOL Open Networking Test Services Consortium which validates interoperability among open network switches, NOS, cables, optics, and NICs.
◆ Edgecore's value added distributor, integrator, and reseller partners provide a full set of services and IT infrastructure to support the requirements of cloud service providers, big data companies, telecom operators, and enterprises.

Big Switch Networks :

Big Monitoring Fabric™ and Big Cloud Fabric™ SDN applications through SwitchLight OS® on Edgecore switches.

Big Cloud Fabric™ is the industry's first data center fabric built using Edgecore open networking switches and SDN controller technology. Embracing hyperscale data center design principles, the Big Cloud Fabric solution enables rapid innovation, ease of provisioning and management, while reducing overall costs, making it ideal for current and next generation data centers.

Big Monitoring Fabric™ is a next-generation Network Packet Broker (NPB) that's been designed from the ground-up to build a pervasive visibility and security fabric. Using an SDN-centric architecture, Big Mon enables scale-out fabric for enterprise-wide monitoring, single pane of glass for operational simplicity, and multi-tenancy for multiple IT teams (NetOps, DevOps, SecOps) to simultaneously perform network monitoring using out-of-band or inline tools and policies.

Learn more: www.bigswitch.com

Open Source Software

Edgecore is an active member of the OpenSwitch, OCP and ONF open software communities. Edgecore switches offer a choice of open source software distributions that provide network operators and ISVs with open platforms to enable value-add application development.

◆ **OpenSwitch.** A full function L2 and L3 NOS with programmatic interfaces launched by HP with Accton as a charter member of the OpenSwitch community.
◆ **Open Network Foundation's (ONF's) Atrium.** Open-source SDN distribution providing OpenFlow switch agent managed by the ONOS OpenFlow SDN controller with BGP routing applications.
◆ **Open Network Linux (ONL).** The OCP reference NOS, providing a standard platform for forwarding agents including OpenFlow and agents to program switch silicon.
◆ **Software for Open Networking in the Cloud (SONiC).** The cross-platform modular operating system for networks, contributed to OCP by Microsoft and its co-contributors, will be supported on Edgecore switches.

Leaf and Spine Topology for Data Center or CORD
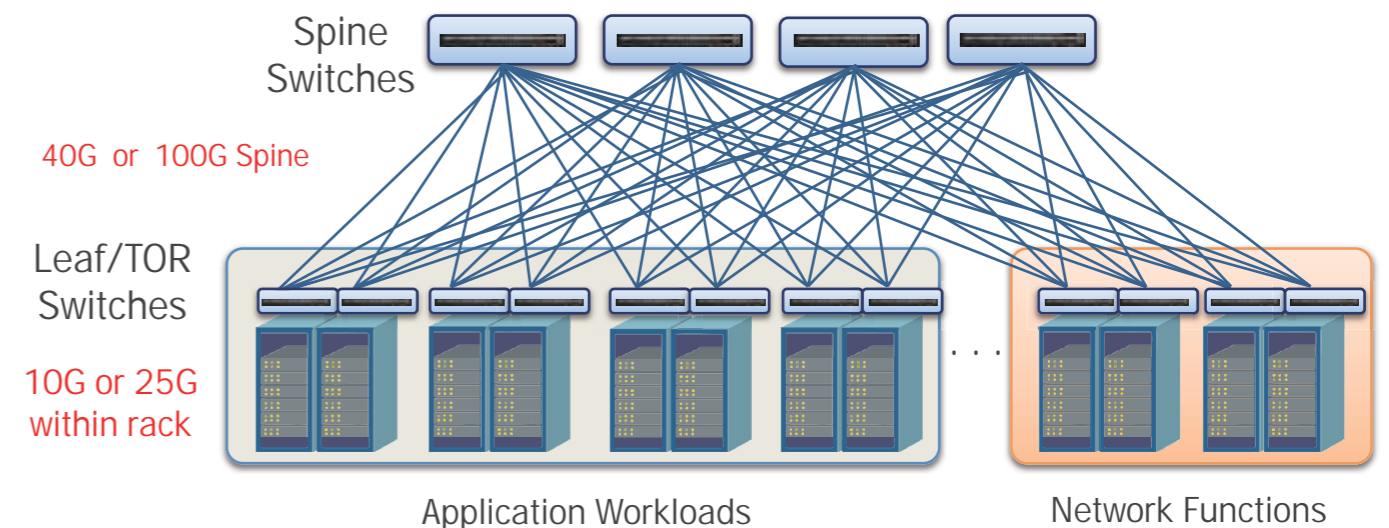
- Leaf and spine architecture scales from few racks with L2 fabric to thousands of racks with L3 fabric.
- Edgecore open switches provide choice of 1G, 10G or 25G server connections; and 10G, 40G,and 100G spine network.
- Folded CLOS fabric provides network underlay supporting SDN, virtualization and cloud orchestration software options.

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