

# 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<br>MAC: 8k Min./128kmax.<br>Packet Buffer: 16MB    | Broadcom BCM56960 Tomahawk 3.2 Tbps    | Intel Atom C2538             | Port-to-power or power-to-port      | Approved  |
| AS7512-32X                 | 32 x 100GbE QSFP28   | Switching: 3.2 Tbps<br>MAC: 256k min./768k max.<br>Packet Buffer: 24MB | Cavium. Xpliant CNX88091               | Intel Atom C2538             |                                     | Submitted                                       |
| 40GbE Data Center Switch   |  |  |  |                              |                                     |   |
| Model Number               | Fixed Ports:   | Performance  | Switch Silicon                         | CPU                          | Airflow                             | OCP Status                                      |
| AS6712-32X                 | 32 x 40GbE QSFP+   | Switching: 1.28 Tbps<br>MAC: 32k min./288k max<br>Packet Buffer: 12MB  | Broadcom BCM56850 Trident II 1.28 Tbps | Intel Atom C2538             | Port-to-power or power-to-port      | Approved  |
| Wedge-16X                  | 16 x 40GbE QSFP+   | Switching: 640 Gbps<br>MAC: 32k min./288k max<br>Packet Buffer: 12MB   |  | Intel Atom                   | Port-to-power                       | Approved  |
| 10GbE Data Center Switches |  |  |  |                              |                                     |   |
| Model Number               | Fixed Ports:   | Performance  | Switch Silicon                         | CPU                          | Airflow                             | OCP Status                                      |
| 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<br>MAC: 32k min./288k max<br>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              |                                     |   |
| AS5610-52X                 | 48 x 10GbE SFP+ (PHY-Less, each supporting 10 GbE or 1 GbE) plus 4 x 40GbE QSFP+, each supporting 40 GbE or 4 x 10 GbE via break-out cables. | Switching: 640 Gbps<br>MAC: 128k<br>Packet Buffer: 9MB                 | Broadcom BCM56846 Trident+ 640 Gbps    | Freescale P2020              |                                     |   |
| 1GbE Data Center Switches  |  |  |  |                              |                                     |   |
| Model Number               | Fixed Ports:   | Performance  | Switch Silicon                         | CPU                          | Airflow                             | OCP Status                                      |
| AS4610-54T/54P             | 48 x 1GbE Base-T + 4 x 10 GbE SFP+ plus 2 x 20GbE QSFP+  | Switching: 128 Gbps<br>MAC: 96k<br>Packet Buffer: 4MB                  | Broadcom BCM56342 Helix4               | Dual-core ARM Cortex A9 1GHz | Port-to-power                       | Submitted                                       |
| AS4610-30T/30P             |  |  |  |                              |                                     |   |
| AS4600-54T                 | 48 x 1GbE Base-T + 4 x 10 GbE SFP+   | Switching: 168 Tbps<br>MAC: 176k<br>Packet Buffer: 4MB                 | Broadcom Apollo2 BCM56540              | Freescale P2020              | Port-to-power wer and power-to-port |   |

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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# Open Networking Solutions

for  
Data Center, Telecom, Enterprise  
from

**Edgecore Networks**

The Open Networking Leader



## 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's first 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.

## Commercial Networking Operating System Options

All Edgecore open network switches support the Open Network Install Environment (ONIE) for automated loading of compatible NOS software. Edgecore open network switches are supported by the following commercial software.

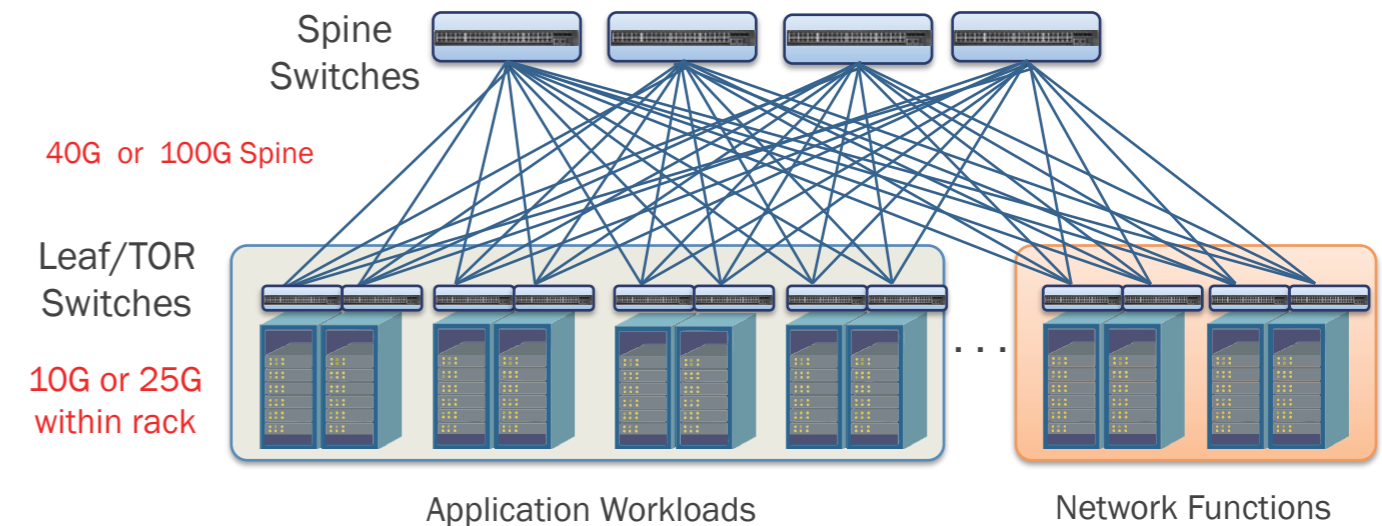
- ◆ **Big Switch Networks** : Big Monitoring Fabric™ and Big Cloud Fabric™ SDN applications through SwitchLight OS® agent on Edgecore switches.
- ◆ **Cumulus® Linux®** : Web-scale Linux operating system, enabling use of Linux tools for management, provisioning, monitoring, application development, and orchestration.
- ◆ **IP Infusion OcNOS™**: Full function L2 and L3 NOS with MPLS and OAM features applicable to service provider networks.
- ◆ **Pica8® PicOS™**: Hybrid NOS supporting traditional L2 and L3 protocols, plus SDN functionality through OpenFlow™ interface to centralized controller applications.
- ◆ **Snappy Ubuntu Core from Canonical** : Network device specific Ubuntu OS supporting open source and commercial NOS options, plus VNF applications.

## 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.

**Edge-core**  
NETWORKS