Edge-corE®
NETWORKS

OPEN NETWORK SOLUTIONS

FOR CLOUD DATA CENTER AND ENTERPRISE

SONiC

OPEN PLATINUM

OPEN Compute Project
SOLUTION PROVIDER

ONF
Open Networking Foundation
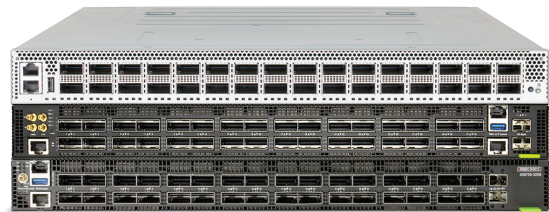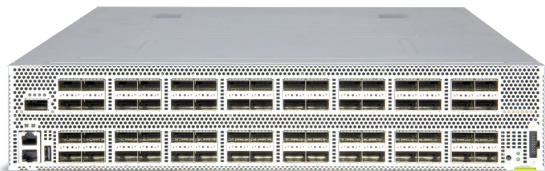
TELECOM INFRA PROJECT

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 group 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 initial OCP-accepted design contributions: a 10Gbe TOR switch wich was the first switch ever accepted by OCP, 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 enter, 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's value added distributor, integrator, and reseller partners provide a full set of services and IT infrastructures to support the requirements of cloud service providers, big data companies, telecom operators and enterprises.
◆ Edgecore has contributed the first 400G open networking switch to OCP to lead the open networking innovation.

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 switches support the broadest set of commercial and open source NOS and SDN software choices in the industry, providing customers with alternatives to meet their specific requirements, and offering network management and cloud orchestration flexibility for enterprises, data centers, and telecommunication service providers.

For more Commercial Networking Operating System information, please visit:
https://www.edge-core.com/partners.php?id=1

Enterprise SONiC Distribution by Edgecore is a hardended, open distribution of SONiC (Software for Open Networking in the Cloud) which runs on Edgecore Open Networking switches.

For more Enterprise SONiC Distribution by Edgecore information, please visit SONiC webpage:
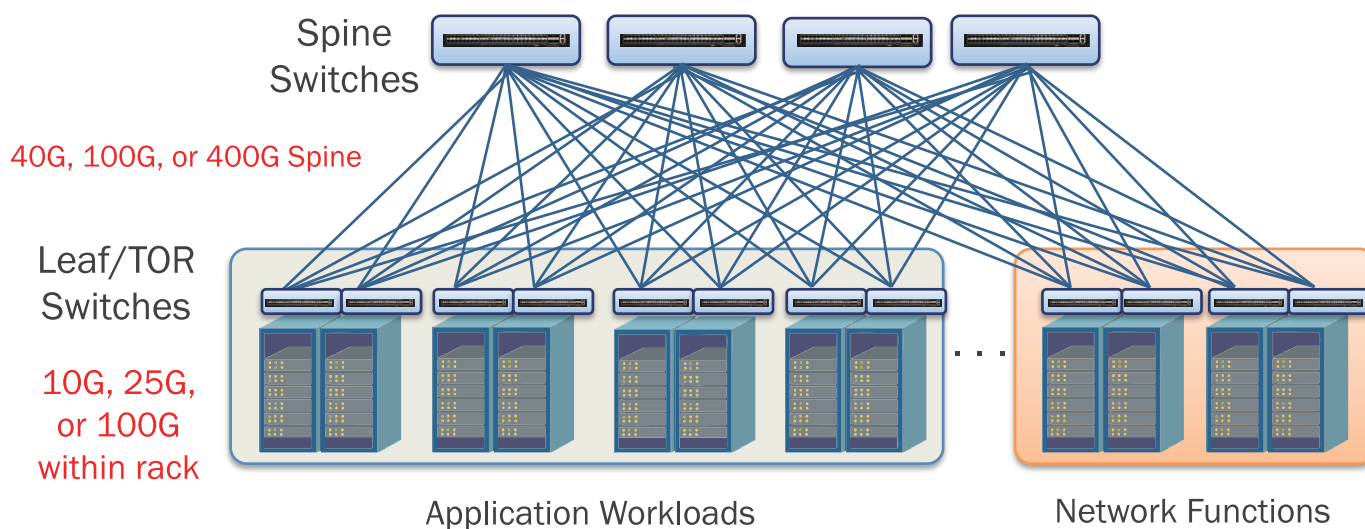https://www.edge-core.com/productsList.php?cls=509&cls2=510

Open Source Software

Edgecore is the leading network contributor to current open-source software communities including OCP , ONF, TIP, DENT and Microsoft SONiC. 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.

◆ **Open Network Foundation's (ONF's) Stratum.** Open source, silicon-independent switch operating system for software-defined networks Backed by a broad spectrum of organizations from across the networking industry, Stratum is building an open, minimal, production-ready distribution for switches.

◆ **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 SONiC community is being led by Microsoft and many other key players, including Edgecore, to deliver a robust, proven software infrastructure to enable customers to build highly scalable, data center networks. Containing proven Layer-2 and Layer-3 protocols, along with a modern micro-services architecture, customers can extend the functionality of SONiC to meet their specific use case.

Leaf and Spine Topology for Data Center or CORD

Spine Switches

40G, 100G, or 400G Spine

Leaf/TOR Switches

10G, 25G, or 100G within rack

Application Workloads

Network Functions

- 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, 25G or 100G server connections; and 40G, 100G and 400G uplink connections to spine switches.

Edge-corE ®
NETWORKS

Open Cloud Switches

Data Center TOR and Spine
1G, 1G PoE, 10G, 25G, 100G, 400G

Edge-corE NETWORKS ®

400G Leaf/Spine Switches

DCS240
High-performance 400G Design

32 x 400G QSFP56-DD ports
Switch silicon: Broadcom Trident 4
CPU: Intel Pentium D-1519

DCS510
First Open 400G Switch
OPEN ACCEPTED

32 x 400G QSFP56-DD ports
Switch silicon: Broadcom Tomahawk 3
CPU: Intel Xeon D-1518
IEEE1588v2 and SyncE
Open source and Commercial software

DCS810
P4 Programmable chipset

32 x 400G QSFP56-DD ports
Switch silicon: Intel Tofino 2 128Q
CPU: Intel Pentium D-1517
Open source and Commercial software

Data Center Interconnect

Cassini AS7716-24SC
Open Packet Transponder

BC AWARD Best Choice AWARD — Jury's Special

16 x 100G switch ports
8 modules for 2 x 100GbE or 1 x DCO
Switch silicon: Broadcom Tomahawk+
DCO from multiple partners

TELECOM INFRA PROJECT

100G Leaf/Spine Switches

DCS204
Enhanced Buffer, Table Sizes
OPEN ACCEPTED

32 x 100G QSFP28, 2 x 10G SFP+ ports
Switch silicon: Broadcom Trident 3
CPU: Intel Xeon D-1518
Open source and Commercial software

DCS500
Wider Spine Network
OPEN ACCEPTED

64 x 100G QSFP28 ports
Switch silicon: Broadcom Tomahawk 2
CPU: Intel Xeon D-1518
Open source and Commercial software

DCS501
First Open 100G Switch
OPEN ACCEPTED

32 x 100G QSFP28 ports
Switch silicon: Broadcom Tomahawk
CPU: Intel Atom C2538
Open source and Commercial software

10G/25G Leaf Switches

DCS203
Enhanced Buffer, Table Sizes

48 x 25G SFP28, 8 x100G QSFP28
2 x 10G management ports
Switch silicon: Broadcom Trident 3
CPU: Intel Xeon D-1518
Open source and Commercial software

DCS800
2 Pipeline and P4 Programmable

32 x 100G QSFP28 ports
Switch silicon: Intel Tofino 32D
(2 pipeline)
CPU: Intel Pentium D1517
DC power sku available
Open source and Commercial software

DCS801
4 Pipeline and P4 Programmable Leaf

32 x 100G QSFP28 ports
Switch silicon: Intel Tofino 32Q
CPU: Intel Xeon D-1548
Open source and Commercial software

DCS802
4 Pipeline and P4 Programmable

65 x 100G QSFP28 ports
Switch silicon: Intel Tofino 64Q
CPU: Intel Pentium D-1517
Open source and Commercial software

10G Switches

DCS200 Series
Enhanced Buffer, Table Sizes

DCS201: 48 x 10G SFP+,
6 x 100G QSFP28 ports
DCS202: 48 x 10GBASE-T,
6 x 100G QSFP28 ports
Switch silicon: Broadcom Trident 3
CPU: Intel Atom /Denverton C3558
Open source and Commercial Software

DCS200 Series
Entry 10G Leaf
OPEN ACCEPTED

DCS208 : 48 x 10G SFP+,
6 x 40G QSFP+ ports
DCS209 : 48 x 10GBASE-T,
6 x 40G QSFP+ ports
Switch silicon: Broadcom Trident 2+
CPU: Intel Atom C2538
Open source and Commercial software

1G Switches

EPS201
Mgmt Switch

48 x 1G BASE-T + 4 x 25G SFP28,
2 x 100G QSFP28 ports
Switch silicon: Broadcom Trident 3
CPU: Atom C3558
Open source and Commercial software

EPS202
Mgmt Switch, PoE Switch

48 x 1G BASE-T PoE, 4 x 25G SFP28,
2 x 100G QSFP28 ports
Switch silicon:Broadcom Trident 3
CPU:Intel Atom C3558
Open source and Commercial software

EPS203
Mgmt Switch, PoE Switch

36 x 2.5G BASE-T, 12 x 10GBASE-T,
4 x 25G SFP28, 2 x 100G QSFP28 ports
Switch Silicon: Broadcom Trident 3
CPU: Intel Atom C3558
Open source and Commercial software

AS4610 Series
Mgmt Switch, PoE Switch
OPEN ACCEPTED

24/48 x 1G BASE-T, 4 x 10G SFP+ ports
24/48 x 1G BASE-T PoE, 4 x 10G SFP+ ports
Switch silicon: Broadcom Helix4
CPU: Embedded ARM Cortex A9
Open source and Commercial software