





Edgecore Switches with Aviz ONES Orchestration, Visibility, and Assurance for Ready-to-Deploy SONiC Networks

Edgecore Switches Use Cases with SONiC

Edgecore Networks provides a full line of open networking switches from 1G, 10G, 25G, 100G to 400G switches for use cases, such as data centers, enterprises, retails and high-performance computing. Community SONiC has been further tested and hardened to ensure production-ready deployment on all Edgecore open networking 1G-400G switches. To ensure the ease-of-deployment, Edgecore's SONiC is validated with a variety of optics and cable delivered from Edgecore as well as other industry sources. This ensures that the overall system – switch hardware, NOS and connectivity are proven to work together, removing concerns about platform level interoperability. Edgecore open networking switches, coupled with Aviz ONES orchestration, provide an unmatched level of visibility, assurance, and ease of deployment for SONiC networks. With a robust use cases like data center and retail/enterprise, the combination of Edgecore Networks and Aviz Networks enable business to build and manage networks that are scalable, efficient, and future-proof.

Use Case	Speed of Switch	Applied Features
 Data Center	10G/25G/100G	<ul style="list-style-type: none"> Clos (ToR/leaf/spine) architecture EVPN/VxLAN, SAG, MCLAG
 Enterprise	1G/10G	<ul style="list-style-type: none"> Company Network <ul style="list-style-type: none"> Manage data plane of servers Provide management network data path for the management servers VLAN, LACP, MCLAG
 Retail/ Enterprise	1G (with PoE)	<ul style="list-style-type: none"> Connect to company WAN for remote management PoE network with Wi-Fi, VoIP phone Management VRF, NAT, LACP
 High Performance Computing	100G/400G	<ul style="list-style-type: none"> Full mesh EVPN/VxLAN, SAG, DFMA, telemetry Programmable fabric

Routing on Host Fabric

As the Networks are getting simpler, some Data center operators who have adopted IP BGP in their switch stacks find that Routing on the Host (RoH) is a way to go. With RoH the Networks are designed as pure Layer 3 fabric while BGP extended to the TOR/Leaf Edges. Border Gateway Protocol (BGP) has proven to be an ideal routing protocol for the IP fabric due to its maturity, ubiquity, and robust

features. A data center design must facilitate scaling out (horizontally) to accommodate additional workloads quickly and with minimal impact on network operations. Routing on the host facilitates scaling out. RoH also enhances flexibility by enabling subnet freedom for hosts across the IP fabric. Hosts can be redeployed anywhere and keep the same IP addresses. The IP fabric uses BGP to communicate new routes to the host. Hosts are bound to the leaf switches per rack and migration of the host while keeping the same IP address provides fulfils mobility of workload and application use case in data centers

EVPN VXLAN Fabric

EVPN VXLAN provides a scalable, high-performance, and secure way to extend Layer 2 Ethernet networks over a Layer 3 IP network infrastructure. EVPN VXLAN is mostly used for multi-tenant environments where each tenant can have its own virtual network which is isolated from other tenants' networks. EVPN VXLAN can also be used to connect multiple data centers (DCI), allowing them to appear as a single logical data center with a unified network infrastructure. This enables workload mobility and disaster recovery scenarios, where workloads can be seamlessly migrated between data centers without impacting network connectivity. Aviz ONES Solution support VXLAN EVPN with Symmetric and Asymmetric IRB fabric services orchestration

Aviz SONiC Stack for Edgecore Switches

Aviz Networks empowers customers to build a modern, scalable data center, with the same paradigms of manageability, clustering, monitoring, and orchestration as those applied at the server and virtual machine layer to the



network, and enabling them to realize the full promise of open-source NOS over Edgecore switches.

The solution fully supports Edgecore switches with open-source SONiC distribution enabled by the Aviz ONES platform. Working closely with Edgecore, Aviz provides level 1 to level 3 support, and a variety of different support package options with different SLAs. The support package includes bug fixes and patch releases, enabling an enterprise- class solution.

Aviz ONES Key features

Functions	ONES on Edgecore Switches
Deployment Quality	Ongoing qualified SONiC builds for specific use cases
Orchestration (Intent Based)	Fabric Manager for BGP, VXLAN and other protocols
Visibility (Telemetry)	Streaming of 200+ data points for Protocols, Platform and Traffic
Assurance	Latency and performance monitoring between any two endpoints in DC
NetOps APIs	Multi-NOS normalized APIs for seamless migration and interoperability
Deployment	Multiple deployment options with enterprise grade security compliance
Support	24x7 support with end-to-end SLAs

Why SONiC?

- NOS Standardization offers control and flexibility
- Enables in-house innovation opportunities
- Improved operational efficiency
- CAPEX optimization with Lowest TCO
- Multiple choices for supply chain diversification

Requirements for Successful SONiC Deployment

- Customer-driven quality standards
- 24x7 enterprise grade support
- Multi-NOS networking stack

- Hybrid-cloud ready networking stack
- Integration ready APIs for existing NetOps
- Ease of procurement from multiple vendors

Solving SONiC Challenges with Aviz

- Pre-deployment network assessment
- Development of multi-vendor SONiC fabric
- Continuous SONiC qualification
- Pre-deployment APIs & tooling integration
- Unified Inventory management for hardware
- Unified fabric management for NOS layer
- Real-time normalized multi-vendor telemetry
- 24x7 Post-deployment support
- End-to-end SLAs for rapid issue resolution

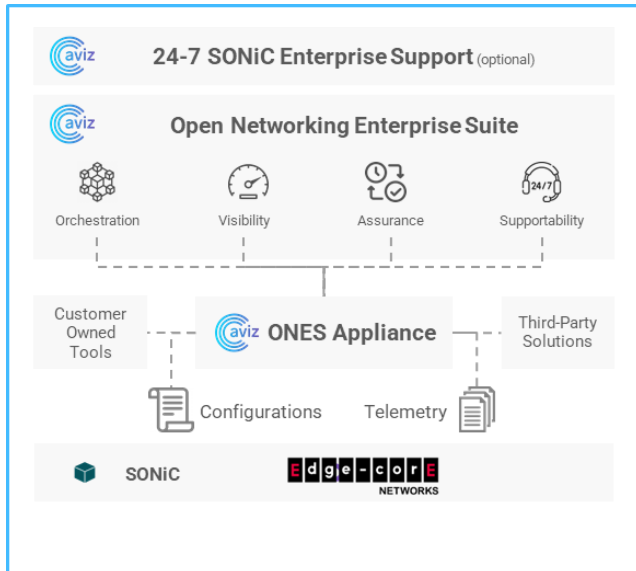
Edgecore Switch Options over ONES

Vendor	SKU	Port Speed	Port config
Edgecore	EPS201 AS4630-54TE	1GbE	48x1GbE + 2x100GbE
Edgecore	EPS202 AS4630-54PE	1GbE	48x1GbE + 2x100GbE
Edgecore	DCS202 AS5835-54T	10GbE	48x10GbE + 6x100GbE
Edgecore	DCS208 AS5812-54X	10GbE	48x10GbE + 6x40GbE
Edgecore	DCS201 AS5835-54X	25GbE	48x25GbE + 6x100GbE
Edgecore	DCS203 AS7326-56X	25GbE	48x25GbE + 8x100GbE
Edgecore	DCS204 AS7726-32X	100GbE	32x100GbE
Edgecore	DCS501 AS7712-32X	100GbE	32x100GbE
Edgecore	DCS500 AS7816-64X	100GbE	64x100GbE

What Customers are Saying?

“As an early adopter, we needed help with SONiC NOS validation, orchestration, visibility, and above all 24x7 support to manage our DC network fabric. Aviz brings expertise and insights needed to accelerate our SONiC Journey. No one else comes close in facilitating SONiC deployments.”

ONES Architecture Diagram



How to start & where to buy?

Book the Demo and POC today at ONE Center for SONiC. You will get instant access to:

- SONiC readiness report for your network architecture and use cases along with TCO savings
- [Maximizing SONiC Success: A F500 Customer Case Study](#) from Aviz Networks
- SONiC first networking stack, ONES, designed for migrating and transforming your network to SONiC
- Ready to use APIs for integration, and 24x7 SLA backed support
- Easy procurement process from existing channels or new channels

For more information, please check:

1. <https://support.aviznetworks.com/hc/en-us>
2. <https://www.edge-core.com/productsKind.php?cls=1>