OcNOS Aggregation Router (AGGR)

November 2023

TOTAL NETWORK DISAGGREGATION

Take control of your network with Total Network Disaggregation from IP Infusion. Complex networks simplified with open standards.

IP Infusion's Aggregation Software Solution

IP Infusion provides comprehensive carrier-grade capabilities to enable broadband aggregation and edge routing through its OcNOS Network Operating System (NOS). The solution combines traffic interfaces to provide higher aggregated capacities required for next-generation networks. IP Infusion software helps manage high volumes of traffic for applications such as mobility, cloud networking, video and gaming.

The exponential growth in network traffic due to digital collaboration offerings for remote work applications has increased the need for managing data and performance efficiently. Evolving data-intensive customer applications requires service providers to deliver on-demand high-performance services in a reliable, efficient and secure manner.

IP Infusion's deployment-ready software solution for aggregation routing has been extensively validated for the following network scenarios:

Broadband Aggregation Solution

- Fixed Wireless Aggregation
- Mobile Network Aggregation
- Passive Optical Network Aggregation
- Ethernet & Cable Internet Aggregation

Edge Routing Solution

- Provider Network
- Routed Optical Network
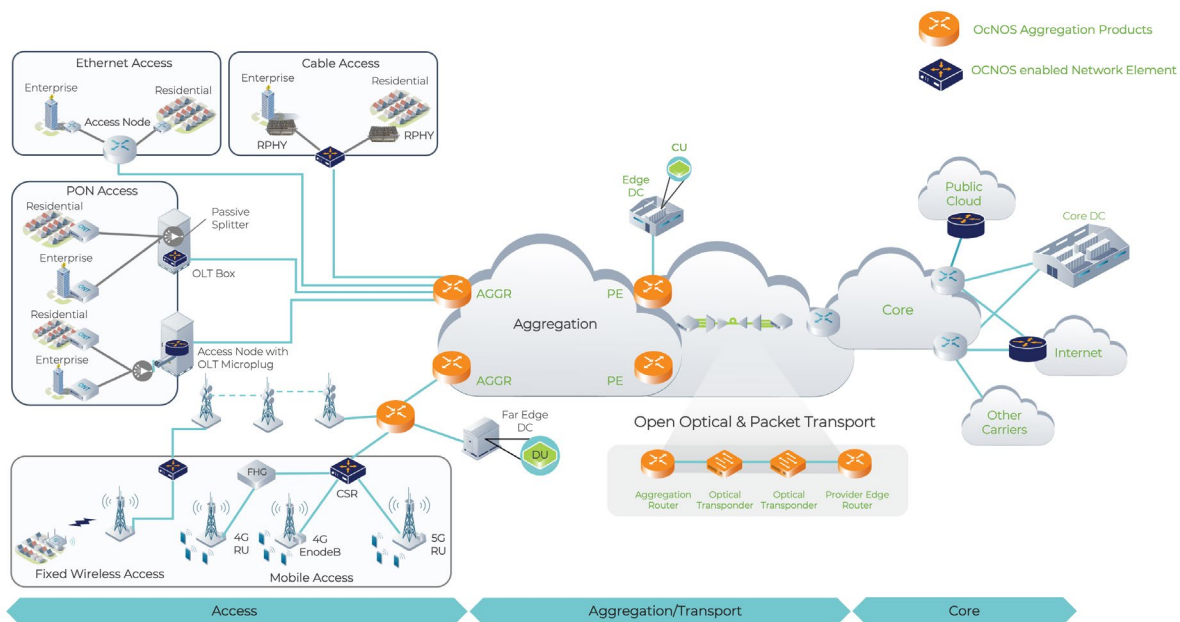
OcNOS Software

OcNOS (Open Compute Network Operating System) is an industry-leading Network Operating System (NOS) providing the most complete carrier-grade disaggregated solution for service providers.

OcNOS-based solutions have been widely deployed in access, aggregation, transport and data center use cases for simplified operations and automation. It provides extensive programmability for end-to-end network management and orchestration. OcNOS features a single software image that runs across the entire portfolio of Open Compute platforms from leading vendors. This guarantees consistent operations, workflow automation and high availability, while significantly reducing operational expenses.

OcNOS provides industry standard CLIs, supports standard MIBs as well as the latest network management tools. Its integrated centralized management and provisioning layer allows for transaction-based configuration and device feature modelling. OcNOS is a modular, multi-tasking NOS, with tight integration capabilities on commodity hardware. This design allows for scaled and performance critical deployments.

OcNOS benefits include:

- Fully validated and hardened carrier-grade solutions

- Breaks vendor lock-in

- Scalable software for Terabit switching bandwidth

- Lower TCO: Up to 65-75% savings against Traditional Tier-1 vendors

- A broad ecosystem of technology and integration partners

OcNOS key highlights include:

- Packaged solutions for faster deployment and shorter time-to-revenue

- Advance data models for network automation, orchestration, and control

- Standard Cisco-like CLI

- Flexible deployment: OcNOS Service Provider Solutions addressing different use cases across the Service Provider network

- World-class 24/7/365 support

Aggregation Router

The OcNOS Aggregation Router fits seamlessly with traditional services like Layer 2 VPN (L2VPN), Layer 3 VPN (L3VPN), Virtual Private Wire Service (VPWS) and Virtual Private LAN Service (VPLS). It provides advanced services like Ethernet VPN (EVPN) with traditional and next-generation transport including Multiprotocol Label Switching (MPLS), Virtual Extensible LAN (VxLAN), Segment Routing (SR) and SRv6. It allows for migration paths between traditional and next-generation transports and services.
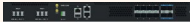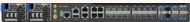
OcNOS for Aggregation Router Key Benefits

Following are key benefits of the OcNOS Aggregation Router:

- Efficiently aggregate traffic at scale of up to 14.4 Tbps
- Proven migration for legacy services
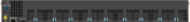- Enables hardware independence delivering faster roll-out of new services and shorter time-to-market
- Simplify operations to reduce Total Cost of Ownership (TCO)

OcNOS Aggregation Router Hardware Platforms

The following hardware platforms are supported.

AGGREGATION ROUTER		
32 Gbps (Qumran-UX)	**64 Gbps (Qumran-UX)**	**120 Gbps (Qumran-UX)**
UfiSpace S9502-12SM UfiSpace S9502-16SMT	Edgecore AS5915-18X UfiSpace S9501-18SMT	UfiSpace S9501-28SMT
300 Gbps (Qumran-AX)	**360 Gbps (Qumran-2U)**	**800 Gbps (Qumran-MX)**
Edgecore AS7315-27X Edgecore AS7315-30X Edgecore AS7316-26XB UfiSpace S9500-22XST UfiSpace S9500-30XS	UfiSpace S9510-30XC	Edgecore AS5912-54X Edgecore AS5916-54XKS-OT Edgecore AS5916-54XKS
800 Gbps (Qumran-2A)	**2.4 Tbps (Qumran-2C)**	**4.8 Tbps (Qumran-2C)**
Edgecore A7535-28XB UfiSpace S9510-28DC	Edgecore AS7946-30XB Edgecore AS7946-74XKSB UfiSpace S9600-32X UfiSpace S9600-72XC	UfiSpace S9600-56DX UfiSpace S9600-64X
		14.4 Tbps (Jericho-2C+)
		UfiSpace S9610-36D

Relevant Links

DATASHEET	FEATURE MATRIX	HARDWARE COMPATIBILITY LIST	OCNOS-AGGR CONFIGURATION GUIDE

Contact us today to learn more about the OcNOS Aggregation Router.

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