



OcNOS for Service Providers (OcNOS-SP)

February 2025

TOTAL NETWORK DISAGGREGATION

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

IP Infusion's OcNOS for Service Providers

IP Infusion provides comprehensive carrier-grade capabilities to enable Service Providers with Access, Cell Site Router and Aggregation use-cases with its OcNOS-SP Networking Operating System. OcNOS-SP delivers the most comprehensive disaggregated NOS based on open standards delivering features, services and transports on COTS platforms to Service Providers. 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 Service Providers has been extensively validated for the following network scenarios:

Access

- Fixed Wireless Access
- Mobile Access
- PON Access
- Cable Access
- Ethernet Access

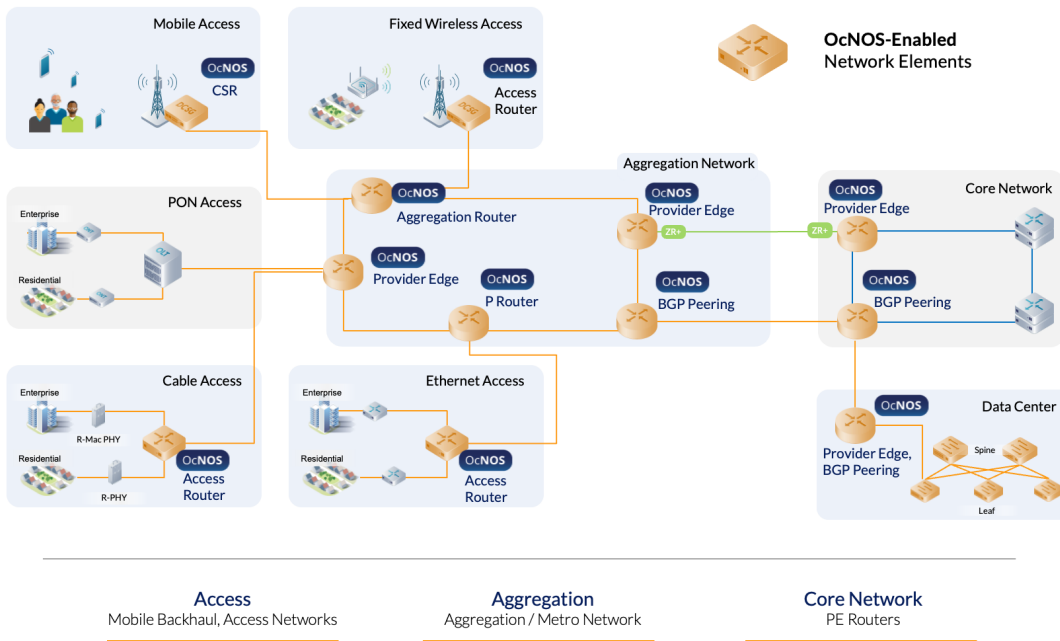
CSR

Timing & Synchronization

- Grand Master Clock (GM)
- Boundary Clock (BC)
- Transparent Clock (TC)

Aggregation

- Provider Edge (PE) Router
- Provider (P) Router
- BGGP Peering
- Data Center Interconnect



OcNOS-SP Use Cases

- Access Network
 - Fixed Wireless Access
 - PON Access
 - Cable Access
 - Mobile Access
 - Ethernet Access
- Cell Site Router
 - Grand Master Clock
 - Boundary Clock
 - Transparent Clock
- Aggregation Router
 - Provider Edge Router
 - Provider Router
 - BGP Peering
 - Data Center Interconnect

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
- Industry Standard CLI
- Flexible deployment: OcNOS Service Provider Solutions addressing different use cases across the Service Provider network
- World-class 24/7/365 support

OcNOS SP Solutions

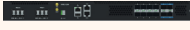








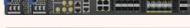

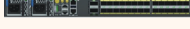













The OcNOS SP Routers fits seamlessly with traditional services like Layer 2 VPN (L2VPN), Layer 3 VPN (L3VPN), Virtual Private Wire Service (VPWS), Virtual Private LAN Service (VPLS), and Timing for CSR. It provides advanced services like Ethernet VPN (EVPN) with traditional and next-generation transport 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 SP Routers Key Benefits

- Supported on wide range of hardware, scaling from 32 Gbps 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)
- Simple Licensing: Single All-Inclusive Perpetual License per SKU
- 400G ZR/ZR+ Open Optics support with OIF-CMIS

OcNOS SP 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 AS5915-16X  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 9600-28DX 	UfiSpace S9600-56DX  UfiSpace S9600-64X 
		14.4 Tbps (Jericho-2C+)
		UfiSpace S9610-36D 

Relevant Links

DATASHEET	FEATURE MATRIX	HARDWARE COMPATIBILITY LIST	OCNOS-SP CONFIGURATION GUIDE
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Contact us today to learn more about the OcNOS for Service Providers (OcNOS-SP).

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