



1.0 Overview

The Service Provider mobile and wireline network of the future will not just need to provide exponentially higher bandwidth at lower operating costs but will also have to be capable of enabling new applications such as pervasive mobile broadband. IoT/sensor networks. autonomous vehicles and smart consumer wireless devices. Mobile network operators are actively seeking cost-effective Cell Site Gateway Solutions to accommodate the mass rollout of 4G/5G services to meet this mobile traffic demand. Disaggregated Open Network Solutions benefit operators as they build out 4G/5G infrastructure by reducing costs, expanding the vendor ecosystem and leveraging automation so they are more agile in introducing new services.

OcNOS Software

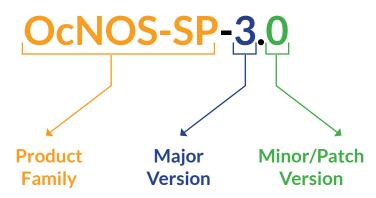
OcNOS (Open Compute Network Operating System) is a robust, programmable and innovative operating system, featuring a single software image that runs across the entire portfolio of Open Compute platforms from leading network device vendors. This guarantees consistent operations, workflow automation and high availability, while significantly reducing operational expenses.

OcNOS borrows heavily from the popular ZebOS® line of products, which provides rich feature density and robustness that has been built up over the years and validated in thousands of diverse customer networks. OcNOS provides industry standard CLIs, supports standard MIBs and other standard operation and management tools. Its integrated centralized management and provisioning layer allows for transaction-based configuration and device feature modelling.

OcNOS is a modular, multi-tasking network operating system, with tight integration capabilities on commodity hardware. This design allows for scaled and performance critical deployments.

2.0 IPI Product Release Version

Release versions are denoted using an integer to indicate Major, Minor, and Hotfix / Patch.





Product Name: Refers to the IPI Product Family (OcNOS-SP, DVE etc.)

Major Version: New customer-facing functionality and represents a significant change to the code base or change of direction in the product.

Minor Version: Enhancements/extensions to existing features or requests to meet marketing requirements.

3.0 Features on OcNOS-SP Release

The table below lists the new software features in the latest OcNOS-SP available release. Note, the following mentioned features are only indicative and the detailed feature list may vary. Please refer to Feature Matrix for complete feature list on supported ODM platforms.

3.1 OcNOS-SP 3.0: Technical Specifications - Feature Support per SKU

S. NO.	DESCRIPTION	OCNOS- SP-CSR	OCNOS-SP- IPADV-CE-AGGR	OCNOS- SP-IPBASE	OCNOS- SP-MPLS	OCNOS-SP- OLT-LITE-16P
1	MPLS Multiple Secondary Protection(RSVP)	Yes	No	No	Yes	No
2	L2 Subinterface	Yes	Yes	Yes	Yes	No
3	L3 Subinterface	Yes	Yes	Yes	Yes	No
4	InterAS VPN (Option A,B,C) including 6pe/6vpe, vpnv4	Yes	No	No	Yes	No
5	Internet Access via L3VPN	Yes	No	No	Yes	No
6	PE-CE Protocol - OSPF (Domain id support)	Yes	Yes	Yes	Yes	No
7	6PE/6VPE over LU	Yes	No	No	Yes	No
8	6PE per VRF	Yes	No	No	Yes	No
9	Ping and Traceroute for L3VPN	Yes	No	No	Yes	No
10	MLD Snooping	Yes	Yes	Yes	Yes	No
11	BGP Peer Group	Yes	Yes	Yes	Yes	No
12	EVPN MPLS (Experimental)	Yes	No	No	Yes	No
13	L2 VxLAN with SVI Support	Yes	No	No	Yes	No
14	Fault Management System (Experimental)	No	No	Yes	Yes	No
15	OLT Support	No	No	No	No	Yes
16	G.8275.1 T-GM integrated with CSR solution (includes AntenNo Compensation Feature)	Yes	No	No	No	No
17	BMC with SNMP support for UFI S9500-30XS	Yes	No	No	No	No
18	ONU manual and auto discovery	No	No	No	No	Yes
19	1:1 VLAN translation	No	No	No	No	Yes
20	QoS	No	No	No	No	Yes
21	DHCP relay	No	No	No	No	Yes
22	ACL per flow	No	No	No	No	Yes
23	PON and NNI statistics	No	No	No	No	Yes



4.0 Solution Ordering Guide

4.1 Platforms Supported per SKU

S. NO.	VENDOR PLATFORM	CHIPSET	SPEED/ INTERFACE	СРИ	OCNOS- SP-CSR	OCNOS- SP-IP- ADV-CE- AGGR	OC- NOS-SP- IPBASE	OCNOS- SP- MPLS	OCNOS- SP-OLT- LITE-16P
1	Dell S4248-FB/FBL	Qumran-MX BCM88375	40 x 10G ports, 2 x 40G QSPF+, 6 x 100G QSPF28	Intel C2xxx Rangeley	N	Υ	Υ	Υ	N
2	DELTA AGC7648A	Qumra-MX BCM88375_ B0	48 ports 10G, 6 ports 100G	Intel C2xxx Rangeley	N	Υ	Υ	Υ	N
3	Edgecore AS5912-54X	Qumran-MX BCM88370_ B0	48 ports 10G, 6 ports 100G	Intel C2xxx Rangeley	N	Υ	Υ	Υ	N
4	Edgecore AS5916- 54XKS	Qumran-MX BCM88375 + BCM52311 TCAM	48 ports 10G, 6 ports 100G	Intel® Xeon® D-1548 processor 8 cores 2.0 GHz	N	Υ	Υ	Υ	N
5	Edgecore AS7316- 26XB	Qumran-AX BCM88470	16 x 10G, 8 x 25G, 2 x 100G	Intel Broadwell-DE D-1519 1.5G 4C	Υ	N	N	N	N
6	Edgecore ASXvOLT16	Qumran-AX BCM88470	16 ports XGS- PON, 4 ports 100G QSFP28	Intel Broadwell-DE XeonD-1518 2.2 GHz	N	N	N	N	Υ
7	UFISpace S9500-30XS	Qumran-AX BCM88470	20 x 10GE SFP+ ports, 8 x 25GE SFP28 ports, 2 x 100GE QSFP28 ports	Intel Broadwell-DE D-1519 1.5G 4-Core	Υ	N	N	N	N

4.2 Maintenance & Support

SKU	MAINTENANCE & SUPPORT
OCNOS-MS-1Y	1-year Maintenance & Support with Upgrades - Includes Technical support resources, software updates & upgrades, email and phone support, access to Support web site including case management system. Access to technical support team 24 x 7 for Severity 1 issues, normal business hours for all other issues. "Upgrade" means a version change for the licensed software with substantial improvements, enhancements and bug fixes.
OCNOS-MS-3Y	3-year Maintenance & Support with Upgrades - Includes Technical support resources, software updates & upgrades, email and phone support, access to Support web site including case management system. Access to technical support team 24 x 7 for Severity 1 issues, normal business hours for all other issues. "Upgrade" means a version change for the licensed software with substantial improvements, enhancements and bug fixes.
OCNOS-MS-5Y	5-year Maintenance & Support with Upgrades - Includes Technical support resources, software updates & upgrades, email and phone support, access to Support web site including case management system. Access to technical support team 24 x 7 for Severity 1 issues, normal business hours for all other issues. "Upgrade" means a version change for the licensed software with substantial improvements, enhancements and bug fixes.



SKU	MAINTENANCE & SUPPORT (CONT'D)
OCNOS-MS-1Y-Premium	1-year Maintenance & Support with Upgrades - Includes Technical support resources, software updates & upgrades, email and phone support, access to Support web site including case management system. Access to technical support team 24 x 7 for all issues. "Upgrade" means a version change for the licensed software with substantial improvements, enhancements and bug fixes.
OCNOS-MS-3Y-Premium	3-year Maintenance & Support with Upgrades - Includes Technical support resources, software updates & upgrades, email and phone support, access to Support web site including case management system. Access to technical support team 24 x 7 for all issues. "Upgrade" means a version change for the licensed software with substantial improvements, enhancements and bug fixes.
OCNOS-MS-5Y-Premium	5-year Maintenance & Support with Upgrades - Includes Technical support resources, software updates & upgrades, email and phone support, access to Support web site including case management system. Access to technical support team 24 x 7 for all 1 issues. "Upgrade" means a version change for the licensed software with substantial improvements, enhancements and bug fixes.

5.0 Related Documents

Additional information about the following documents is available on the IP Infusion website (https://www.ipinfusion.com/products/ocnos/)

- Feature Matrix
- Configuration Guide
- Supported Optical Transceivers & Cables
- Platform Datasheets

More Information

For more information about the OcNOS Service Provider Solution, contact your IP Infusion sales representative.

ABOUT IP INFUSION

IP Infusion, a leader in disaggregated networking solutions, delivers enterprise and carrier-grade software solutions allowing network operators to reduce network costs, increase flexibility, and to deploy new features and services quickly. IP Infusion is headquartered in Santa Clara, Calif., and is a wholly owned and independently operated subsidiary of ACCESS CO., LTD. Additional information can be found at http://www.ipinfusion.com

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