

Network Operating System for Disaggregated IP/MPLS Router Solutions

With average traffic CAGR increasing 50% and the expansion of new applications and networks such as non linear video and 5G deployments, all networks must expand while keeping costs under control.

NETWORK APPLICATIONS

- Access
- OLT
- Aggregation
- Provider edge
- Network peering

IP ROUTING AT SCALE

- Suited for internet traffic routing on Tier 1/Tier 2 carrier networks

OPEN ARCHITECTURE

- Any Broadcom-based hardware Northbound interface for SDN

3rd PARTY APPLICATIONS

- Integrated KVM hypervisor to support 3rd party applications

A DISRUPTION IN THE MARKET

Until 2016, the only way for a vendor to provide a carrier grade router was to develop a proprietary, vertically integrated router that included its own ASICs, hardware, and software.

The barriers to entry for new vendors were extremely high due to the high cost of developing a vertically integrated router. As a result, only a small number of incumbent vendors shared this market, locking communication service providers (CSP) into expensive solutions with little innovation.

With disaggregated routing solutions, Exaware enables internet service providers, mobile network operators, and telecom carriers to benefit from the software and hardware disaggregation model (white box router), which disrupts the economic value chain of the networking industry.

Filling the missing link between merchant-based hardware and customer requirements, Exaware provides the necessary scale and feature set for the most demanding networks. Built with the customer in mind, Exaware enables you to adapt your network to fast-changing conditions by adding a layer of programmability to enable new services that your end users can benefit from instantaneously. Without compromising on security and performance, Exaware enables a new economic model for your network.

EXAWARE BENEFITS



REDUCED CAPEX

With Exaware, operators can effortlessly use disaggregated routers across the network, while reducing upfront network investment dramatically in comparison to traditional proprietary IP routers



CARRIER GRADE

Our router was built from the ground up with carrier scale in mind, to meet current and future demanding requirements and applications. Our longstanding experience in the industry serves our customers.



ON-DEMAND BANDWIDTH

Growth Exaware gives you the power and freedom to scale without limits, thanks to our NOS distributed chassis architecture.



LOWER OPEX

Built for network and service automation through Yang and NETCONF interfaces, Exaware's open API solution reduces the need for operational and maintenance staff.



SCALABILITY

Exaware NOS enables seamless scaling, no matter your application, while meeting your network service demands effortlessly.

FAULT ISOLATION

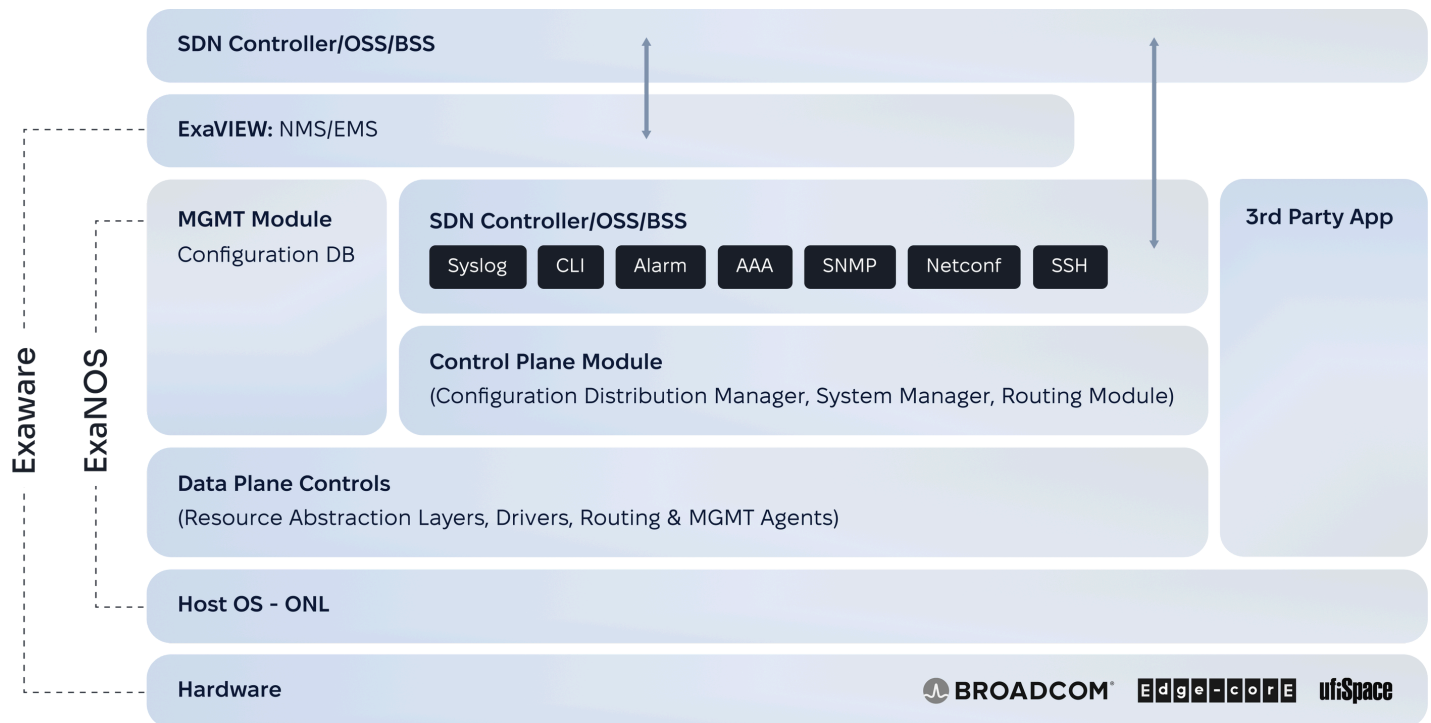
Each application runs as a separate entity, without impacting other applications

MEMORY PROTECTION

Hardware components are managed through memory-protected user spaces to ensure faultless operations and service continuity

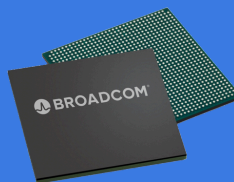
Open API

For management and hardware abstraction QoS



END-TO-END ROUTING SOLUTION

ExaNOS
+ White Box



APPLICATIONS

ACCESS

Economically deploy reliable FTTx residential, business, and wireless backhaul services with maximum networking flexibility

OLT

Support for 3rd party applications via pluggable modules

AGGREGATION

Transparently consolidate multi-service network access traffic at scale to meet growing needs

PROVIDER EDGE

Cost-effectively mitigate network bottlenecks and improves wide area network quality of service

NETWORK PEERING

Reduce cost and increase flexibility when exchanging traffic with cloud, data center, transport, and internet peering off-net partners

ROUTING PROTOCOLS

- IPv4, IPv6 Dual stack
- eBGP, iBGP at scale
- MP-BGP
- Multi-AS VPN/BGP-LU
- BGP signaling for L3VPN
- BGP signaling for L2VPN
- Seamless MPLS
- L3VPN
- L2VPN
- Inter-AS L3VPN
- 6PE and 6VPE
- VPWS
- H-VPLS
- OSPFv2, v3
- IS-IS – IPv4/IPv6, Multi topology
- Route distribution across protocols
- PIM-SSM/SM
- IGMPv3
- LDP, T-LDP
- RSVP-TE
- IGP shortcut
- OSPF-TE
- ISIS-TE
- Internet Access
- NH Tracking
- VRRP V2, V3 IPv4/IPv6
- Static-Route
- BGP RPKI
- Route leak
- DHCP Snooping

TIMING

- SyncE
- IEEE1588

MANAGEMENT

- Hierarchical, Commit based CLI
- NETCONF
- SSH
- Telnet
- Out-of-band and in-band management
- SNMPv2/V3
- RBAC
- AAA/TACACS+/Radius
- NTP
- Syslog
- Rich, Hierarchical Policy
- Language
- Enhanced logging
- Optical monitoring

SECURITY

- Data Path ACL
- Control Plane ACL
- Management VRF Separation
- Hardware policing for CPU traffic
- MD5 for routing protocols
- BGP FlowSpec

HIGH AVAILABILITY

- Process restart
- Graceful restart for all routing protocols

QOS & POLICY

- Hierarchical Shaping
- Per PORT/VLAN rate control
- WRED
- Weighted and strict priority queues
- Minimum latency queues
- 8 Queues per port/VLAN
- Ingress policing
- PRI/DSCP/EXP classification
- Flexible packet fields classification
- Ethernet EBN (MW dynamic rate)

DATA PATH

- VLAN
- QinQ for all services
- LAG
- MPLS FRR
- IP-LFA
- Hierarchical FIB
- BGP-PIC Core/Edge
- Two level load-balancing
- VRF at scale
- BFD

INFRASTRUCTURE

- ONIE Bootloader
- Standard ONL
- Embedded KVM Hypervisor



OPEN ARCHITECTURE

- Modern software environment
- Open architecture for applications additions and programmability



UNIFIED SOFTWARE PLATFORM

- MPLS VPNs, L2VPNs, L3VPNs, VPWS and VPLS services
- Flexibly customize access networks in line with your preferences
- Third-party NMS/SDN controller



CARRIER GRADE ROUTING SOLUTION

- A decade of development with ExaNOS
- Successfully deployed among several Tier 1 service providers
- Critical redundancy
- Two-phase commit



REDUCED TCO

- Choose from plan-ahead (chassis) to pay-as-you-grow
- Generate new revenue streams with third-party applications
- Break the chains of vendor lock-in

Get a Quote >