DISRUPTING ROUTING NETWORKS ECONOMICS

NETWORK OPERATING SYSTEM FOR DISAGGREGATED ROUTERS

www.exaware.com

FLEXIBLE SOFTWARE ARCHITECTURE

Exaware Operating System has been designed from the ground-up with Telco resilience in mind:

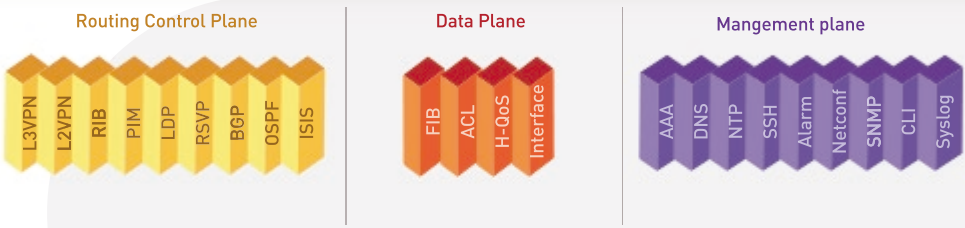
Fault isolation: each application runs as a separate entity, without impact on the others.

Memory protection: hardware components are managed through memory-protected user spaces, to ensure faultless operations and service continuity

Open API for management and HW abstraction

Service Orchestration

CFEngine | signal fx | CHEF | Nagios Log Server | puppet

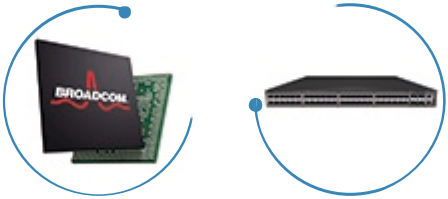


Infrastructure services
Distribution, High Availability

ONIE | HAL | Open Network Linux - ONL

End-To-End Routing Solution

Exaware NOS
+
White Box



APPLICATIONS

MOBILE BACKHAUL: With the shift to 5G, all mobile backhaul require stable, feature-rich IP/MPLS solutions, together with advanced IEEE1588 and SyncE solutions.

INTERNET PEERING: High scale BGP, RIB and FIB, routing policy language and interoperability.

PE SOLUTIONS: Feature-rich, L3VPN and L2VPN environment.

CORE ROUTING: high BW, advanced routing control

DATACENTER GATEWAY: Support all services and connectivity options, including VPNs with your upstream service provider.

NETWORK

OPERATING SYSTEM FOR DISAGGREGATED ROUTERS

With average traffic CAGR growth of 50% and the new applications and networks expansion (non linear Video, 5G deployments), all networks must expand while keeping costs under control.

A Disruption in the Market

Until recently, the only way for a vendor to provide carrier grade router was to develop a proprietary vertically integrated router that includes 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 dominate this market, locking-in the Telco Service Providers into high cost solutions and low innovation.

Exaware enables Internet Service Providers, Mobile Networks and Telecom Carriers to benefit from the SW and HW disaggregation model (white-box router) that disturbs the economic value chain.

Filling the missing link between merchant-based HW and the service provider requirements, provides the necessary scale and feature set for the most demanding networks.

Built with the customer in mind, Exaware allows 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 any compromise on security and performance, Exaware enables a brand new economic model for your network, while keeping open API for both network programmability and HW variations.

NETWORK APPLICATIONS

Mobile Backhaul
Internet Peering
Core
Edge Routing
Datacenter Gateway

IP ROUTING AT SCALE

Suited for internet traffic routing on Tier1/Tier2 Carrier Networks

OPEN ARCHITECTURE

Any Broadcom-based Hardware
Northbound interface for SDN

EXAWARE **BENEFITS**

Reduced CAPEX

With Exaware's disaggregated networking model, operators can effortlessly utilize generic, silicon-based merchant routers network-wide.

Carrier-Grade

Our years of experience and deep-seated knowledge with major tier-1 service providers worldwide mean you can trust us with your: Mobile Backhaul, Provider Edge, Core, Internet Peering or Data Center Gateway

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

With Exaware's NOS, you can tailor your network to your liking and kickstart seamless scaling no matter your application - while meeting your network services' demands effortlessly.

FEATURES

Routing

- IPv4, IPv6 Dual stack
- eBGP, iBGP at scale
- MP-BGP
- BGP signaling for L3VPN
- 6PE and 6VPE
- Label Unicast
- OSPFv2
- OSPFv3
- IS-IS – IPv4/IPv6, Multi topology
- Route distribution across protocols
- PIM-SSM
- IGMPv2/V3

MPLS

- RSVP-TE
- LDP
- IGP shortcut
- OSPF-TE
- ISIS-TE

Services

- L3VPN
- Inter-AS L3VPN
- VPWS
- VPLS
- Internet Access

Management

- Hierarchical, commit based CLI
- Netconf
- SSH
- Telnet
- Out-of-band and in band management
- SNMPv2/V3
- RBAC
- AAA/TACACS+
- NTP
- Syslog
- Rich, Hierarchical Policy Language
- Enhanced logging

Fast Convergence

- BFD
- BGP
- IS-IS/OSPF
- MPLS-TE
- LDP
- Static-Route
- MPLS-FRR
- IP-LFA
- Next-hop tracking

Infrastructure

- ONIE
- Standard ONL
- OpenBMC

Data Path Features

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

Security

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

Timing

- SyncE
- IEEE1588 – TC, BC

High Availability

- Process restart
- Graceful restart for all routing protocols
- ISSU
- Stateful switchover
- HW Hot Insertion

QoS

- Hierarchical Shaping
- PORT/VLAN rate control
- 2-rate/3-colors policers
- MEF hierarchical policers
- WRED
- Weighted and strict priority queues
- Minimum latency queues
- 8 Queues per port/VLAN

exaware
info@exaware.com
+972-73-2124500
Headquarters
5 Ha-Melacha St, Netanya, Israel