



# NetEngine 9000 Series Converged Backbone Router

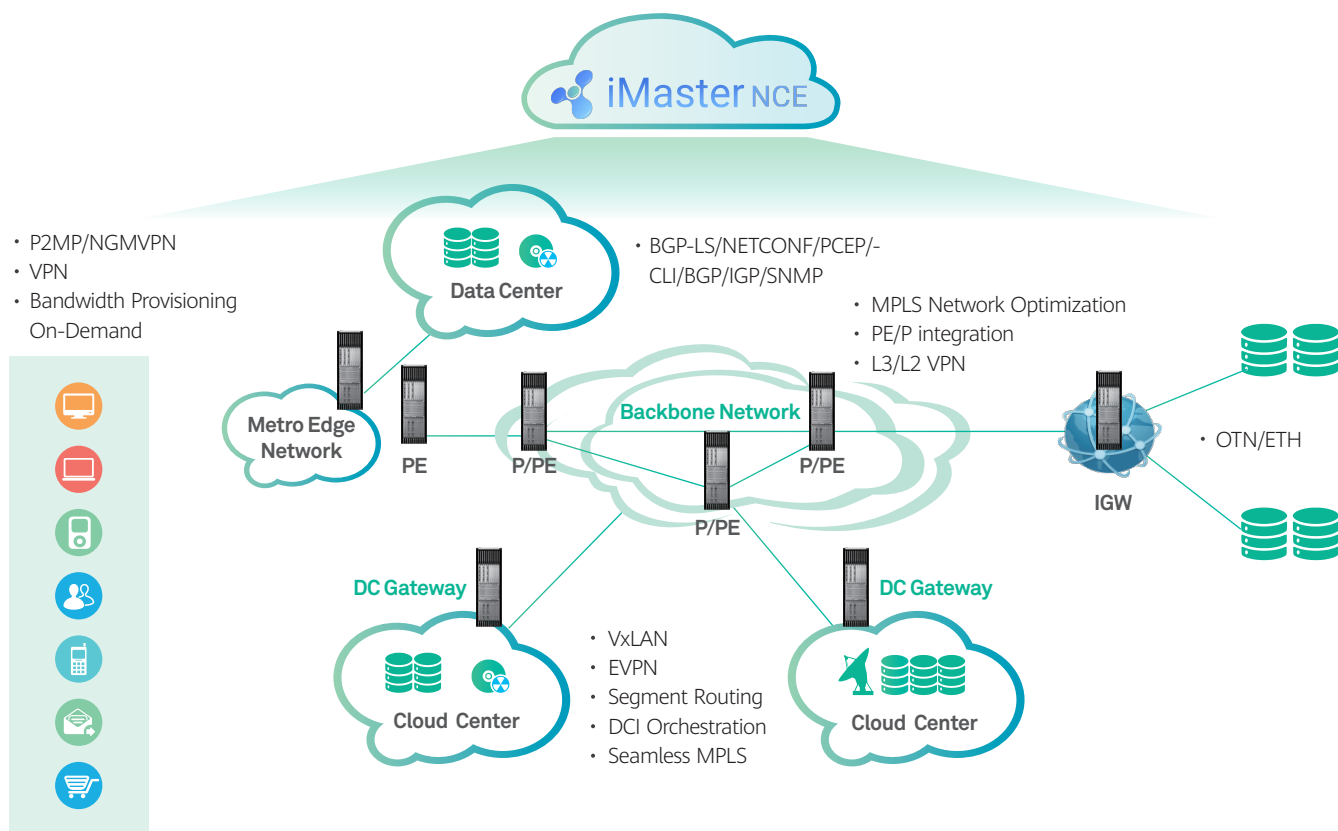


# Huawei NetEngine 9000 Series Converged Backbone Router

## Product Overview

The NetEngine 9000 (NE9000) series are high-performance, next-generation converged backbone routers that can be deployed on IP/MPLS backbone, DCI, and large-scale enterprise networks. The NE9000 series offers more flexible capacity and more integrated and intelligent functions. These features address the evolving service demands driven by the cloud, LTE/5G, video. They help carriers and enterprises maintain profitable growth in an increasingly competitive and constantly changing market.

The NE9000 series features the industry's first high-speed cable backplane. NE9000 routers also feature an innovative green design that reduces power consumption less than 0.35 W/G, half of the industry average. In addition to all of the functions of P and PE nodes, NE9000s also provide complete SDN and virtual system capabilities to simplify network architecture, converge the bearing of multiple services, and enable high reliability and easy O&M.



## NetEngine 9000 Application Scenarios

# The NetEngine 9000 Family

The NetEngine 9000 family now has two members: the NetEngine 9000-20 and NetEngine 9000-8.



NetEngine 9000-20

NetEngine 9000-8

## NetEngine 9000 Series Appearance

**NetEngine 9000-20** suited for deployment on large-scale backbone networks or DCI networks. The router has 20 line card slots.

**NetEngine 9000-8** suited for deployment on small-scale backbone, metro edge, or DCI networks. The router has 8 line card slots.



8\*400GE + 8\*100GE



40\*100GE



20\*100GE



60\*25GE/10GE

# Product Characteristics

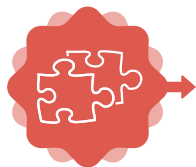
Meeting Traffic Requirements in The Next 10+ Years



Ultra-Broadband

- 80T Chassis Available, The Industry's most Integrated Router
- High Density 400GE Port Line Card
- 800GE Evolvable

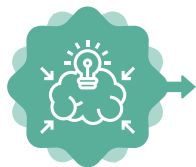
One Network for All Services



Simplicity

- One Network with Multi-domain system (MDS) for all Services
- One Platform with Full Features for P&PE
- Omni-scenario SR/EVPN Solution, Protocol Types Reduced by 80%

Minutes-Level Traffic Optimization, Improving O&M Efficiency



Intelligence

- Proactive Traffic Optimization, Non-Congestion Network, Improve BW Utilization
- Proactive O&M, Minute-level Fault Locating and Self-Healing
- IP+Optical Synergy, Short TTM, Reduced TCO

Secure, Reliable, and Green



High Quality

- Redundant Key Components with Intelligent Fault Detection and Recovery, Fan Tray N+1 Protection and No Reheating to SFU from Line Cards
- Variety of Reliability-related Features, including Comprehensive NSx and Protection Switching
- Green Design for <0.35 W/G Power Consumption, Half of the Industry Average

	NetEngine 9000-20	NetEngine 9000-8
Main Processor Slots	2	2
Switching Fabric Slots	8	8
Service Slots	20	8
Slot Capacity	4T, scalable to 14.4T	4T, scalable to 14.4T
System Capacity	80Tbps, scalable to 288Tbps	32Tbps, scalable to 115.2Tbps
Forwarding Performance(Mpps)	36,160Mpps	14,464Mpps
Power Consumption	<0.35W/G	<0.35W/G
Physical Dimensions(H x W x D)	2200mm x 600mm x 1000mm	1016mm x 442mm x 945mm
Chassis Weight(empty loaded)	231KG	159KG
Interface Type	400GE, 100GE, 50GE, 40GE, 25GE, 10GE, 1000M	
IPv4	UCMP, ECMP, Fragment, MAC Accounting RIP, OSPF, IS-IS, BGPv4, Segment Routing	
IPv6	IPv4/IPv6 dual stack, IPv6(ND), Path MTU, IPv6 DNS IPv6 over IPv4 Tunnel, 6PE&6vPE RIPng, OSPFv3, IS-ISv6, BGP4+, SRv6 BE, SRv6 Policy	
Multicast	IGMP, MLD, IGMP/MLD Snooping, PIM-DM, PIM-SM PIM-SSM, MSDP, MBGP, PIMv6-DM, PIMv6-SM, PIMv6-SSM NG-MVPN, BIER, BIERv6	
VPN	IPv4/IPv6 dual stack MPLS L3VPN, MPLS/BGP L3VPN LSP tunnels, GRE tunnels, IPv6 GRE tunnels, TE tunnels PWE3/ VLL, VPLS, EVPN	
Clock	Clock synchronization, NTPv4, G.8275.1, G.8275.2, G.8265.1, G.8264, G.8273.2 1588v2, 1588v2 ACR	
Reliability	GR, NSR, BFD, IP FRR, VPN FRR, Multicast FRR, MPLS TE FRR/Hot Standby	
Security	IPv4/IPv6 Protocol encryption and authentication, URPF, GTSM, ARP Attack Defense, BMP, BGP Flowspec, BGP ROA Verification, MACSec	
QoS	Routing Policy, QPPB, Differ-Serv, HQoS, Ethernet QoS	

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