

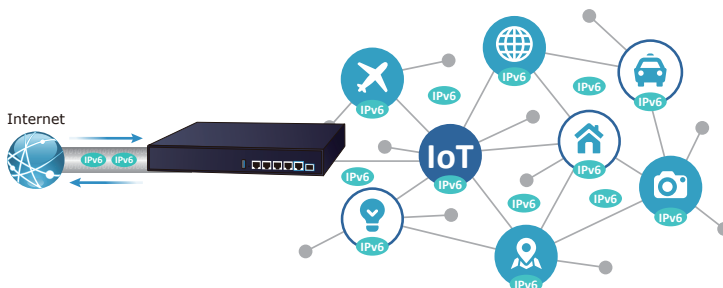
Enterprise 5G NR Cellular + Wi-Fi 7 5100BE + Dual 10G VPN Security Router with 4-Port 10/100/1000T



Dual 10G-Capable VPN Gateway with Comprehensive Multi-VPN and Post-Quantum Security Support

This VPN Gateway is designed for high-performance enterprise connectivity, featuring flexible 10G fiber and copper WAN/LAN interfaces and 4 Gigabit LAN ports for efficient network deployment. It supports multiple VPN protocols—including IPsec, SSL (OpenVPN), WireGuard, GRE, PPTP, and L2TP—to enable secure communication across distributed networks. With PQC TLS (Post-Quantum Cryptography TLS) readiness, the XVR-800BE-NR enhances long-term security against emerging quantum computing threats. The gateway also delivers dual-WAN failover, load balancing, and advanced routing in a compact industrial-grade design.

The XVR-800BE-NR serves as a central gateway connecting diverse IPv6-enabled IoT devices and network environments, as illustrated below.



Automatic Failover between Dual WAN

With its fiber and copper dual WAN interfaces—10GBASE-X SFP+ and 10GBASE-T—the XVR-800BE-NR ensures continuous Internet connectivity through automatic failover. Administrators can freely set the WAN priority, and when the primary link becomes unavailable, the secondary WAN interface takes over instantly. This design guarantees reliable, always-on network uptime for mission-critical applications.

Highlights

- 5G NR cellular connectivity with download speeds of over 2.4Gbps
- Wi-Fi 7 5100BE dual-band wireless connectivity with up to 5100Mbps
- Automatic failover between 5G NR and dual WAN
- Trusted platform security with Secure Boot and hardware TRNG
- Multi-protocol VPN with IPsec, OpenVPN, WireGuard, GRE, PPTP and L2TP
- PQC-ready TLS architecture for post-quantum migration
- Dual 10G WAN interfaces with SD-WAN, load balancing, automatic failover and High Availability
- Integrated AP Controller, Captive Portal, RADIUS, CloudNMS and security monitoring

Hardware

- 4 10/100/1000BASE-T RJ45 ports
- 1 1G/2.5G/5G/10GBASE-T RJ45 Port for WAN/LAN interface
- 1 1G/2.5G/10GBASE-X SFP+ slot for WAN/LAN interface
- 1 USB port for system configuration backup and restoration
- Reset button and fanless design
- Desktop installation or rack mounting

Cellular Interface

- Supports **5G NR (NSA/SA)** and multi-band LTE-FDD, LTE-TDD and WCDMA connectivity
- Supports **5G NR download speeds of over 2.4Gbps**
- Supports **automatic failover between 5G NR and dual WAN** for network redundancy
- Built-in SIM interface for cellular connectivity
- Four detachable antennas for 5G NR connection
- LED indicators for cellular signal strength and connection status
- Supports **GNSS (GPS/GLONASS/BeiDou/Galileo/QZSS)** positioning

Flexible 10Gbps WAN interface Enables Extension of Network Deployment

The XVR-800BE-NR is equipped with both copper and fiber WAN interfaces, featuring an SFP+ slot that supports a wide range of SFP+ transceivers for FTTx and long-distance extensions. Administrators can select SFP+ modules according to distance requirements:

- Multi-mode fiber: 550 m to 2 km
- Single-mode / WDM fiber: 10 km, 20 km, 30 km, 40 km, 50 km, 60 km, 70 km, up to 120 km

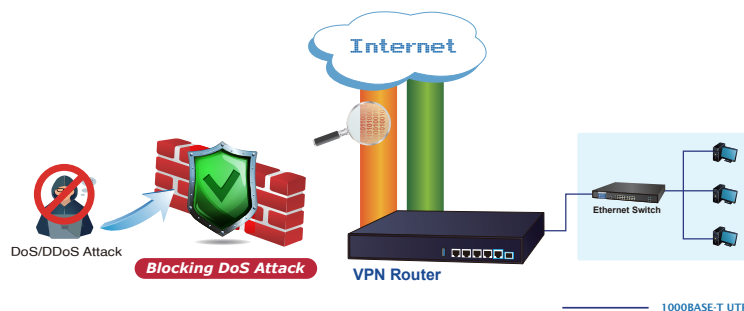
This capability allows the device to efficiently uplink to backbone switches or monitoring centers over long distances.

Secure Boot for Trusted System Integrity

The XVR-800BE-NR incorporates a Secure Boot mechanism to ensure that only authenticated and trusted firmware can be executed during system startup. This hardware-based protection prevents unauthorized or tampered firmware from being loaded, safeguarding the device against malicious attacks at the system level and ensuring a trusted foundation for network security.

Excellent Ability in Threat Defense

The XVR-800BE-NR with built-in SPI (stateful packet inspection) firewall and DoS/DDoS attack mitigation functions provides high efficiency and extensive protection for your network. Thus, virtual server and DMZ functions can let you set up servers in the Intranet and still provide services to the Internet users.



Cybersecurity Network Solution to Minimize Security Risks

The cybersecurity feature included to protect the switch management in a mission-critical network virtually needs no effort and cost to install. For efficient management, the XVR-800BE-NR is equipped with HTTPS web and SNMP management interfaces. With the built-in web-based management interface, the XVR-800BE-NR offers an easy-to-use, platform independent management and configuration facility. The XVR-800BE-NR supports SNMP and it can be managed via any management software based on the standard SNMP protocol.

With support for advanced security mechanisms such as Secure Boot and PQC TLS readiness, the XVR-800BE-NR ensures long-term protection against evolving cyber threats, including quantum-era attacks.

Wi-Fi 7 Wireless Interface

- Supports **Wi-Fi 7 (802.11be)** dual-band wireless connectivity
- Provides combined wireless speeds of up to **5100Mbps**, with approximately **689Mbps at 2.4GHz** and **4324Mbps at 5GHz**
- Supports up to **160MHz channel bandwidth**
- Supports **4096-QAM (4K-QAM)** for increased wireless throughput
- Advanced **MIMO technology** for high-performance wireless connectivity
- Dual-band **2.4GHz and 5GHz** operation for flexible wireless deployment

Trusted Platform Security

- Secure Boot to ensure only authenticated and trusted firmware is executed during system startup
- Hardware TRNG (True Random Number Generator) for high-entropy cryptographic key generation
- Security design follows EU Cyber Resilience Act (CRA) principles

Firewall & Traffic Control

- Stateful Packet Inspection (SPI) firewall
- MAC Filtering and IP Filtering
- NAT ALGs (Application Layer Gateway)
- Port forwarding and DMZ support

VPN & Secure Tunneling

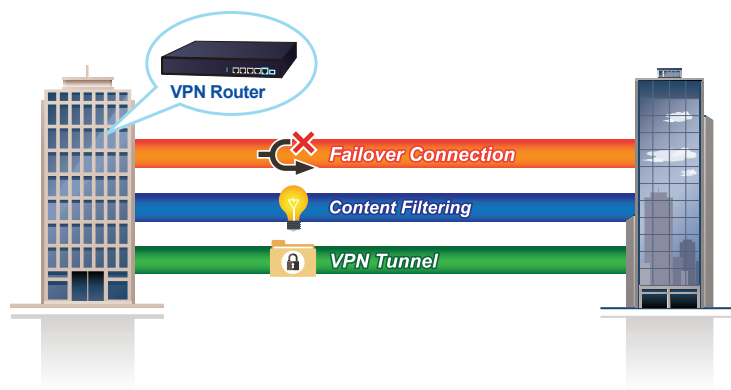
- IPSec/Remote Server (Net-to-Net, Host-to-Net)
- GRE, PPTP Server
- L2TP Server
- SSL Server/Client (OpenVPN, compatible with VPN services such as Surfshark and NordVPN)
- WireGuard Server/Client
- Encryption methods: DES, 3DES, AES, AES-128/192/256
- Authentication methods: MD5, SHA-1, SHA-256, SHA-384, SHA-512
- Supports up to 100 concurrent SSL VPN connections

Cryptography & Quantum Readiness

- PQC-ready TLS architecture for future post-quantum cryptographic migration

High-Availability VPN Security Router Designed for SMB Applications

The XVR-800BE-NR ensures strong data privacy and secure remote access through its comprehensive VPN suite. It supports IPsec VPN with DES/3DES/AES encryption and MD5, SHA-1, SHA-256, SHA-384, and SHA-512 authentication, as well as GRE tunneling, SSL VPN, PPTP, L2TP, and WireGuard for modern, lightweight, high-speed encrypted connections. With this extensive VPN capability, the XVR-800BE-NR provides secure, flexible, and resilient connectivity for branch sites, remote workers, and sensitive business operations.

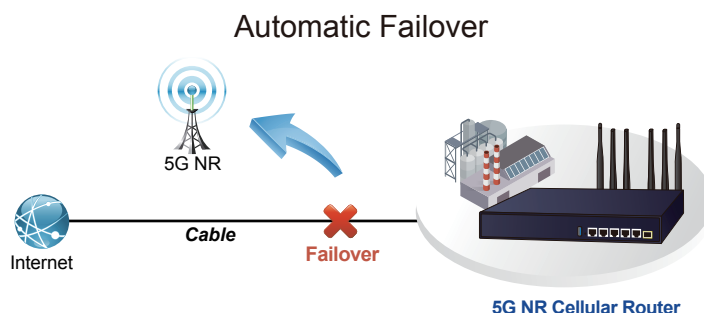


Flexible Routing with NAT Disable Capability

The XVR-800BE-NR supports NAT disable functionality, allowing it to operate in pure routing mode for advanced network deployment scenarios. This feature is particularly beneficial for environments requiring end-to-end IP transparency, such as enterprise backbone networks, data centers, or integration with upstream security systems. By disabling NAT, administrators can achieve greater control over traffic flow and routing policies.

Automatic Failover between 5G NR and Dual WAN

Designed with 5G NR, dual WAN interfaces (fiber and copper), 1000X SFP and Gigabyte Ethernet, the XVR-800BE-NR ensures Internet connectivity by featuring failover functionality between 5G NR and dual WAN. It provides flexibility to set priority for 5G NR or dual WAN connection. When the main WAN interface fails, the secondary WAN interface will automatically back up the connection to ensure always-on connectivity.



Routing, SD-WAN & WAN Optimization

- Static Route
- Dynamic Route
- OSPF
- SD-WAN for multi-WAN traffic optimization
- Outbound load balancing
- NAT disable support for pure routing mode deployment

High Availability & WAN Resilience

- Automatic failover for dual-WAN
- High Availability (HA)

Network Services

- Static IP/PPPoE/DHCP client for WAN
- DHCP server and NTP client for LAN
- Protocols: TCP/IP, UDP, ARP, IPv4, IPv6
- QoS, IGMP and UPnP
- MAC address clone
- DDNS: PLANET DDNS, Easy DDNS, DynDNS and No-IP

Wireless & AP Management

- Built-in AP Controller for centralized PLANET Smart AP management
- Centralized SSID, radio and security policy provisioning
- Bulk AP provisioning and firmware upgrade

System Management, Monitoring & Reporting

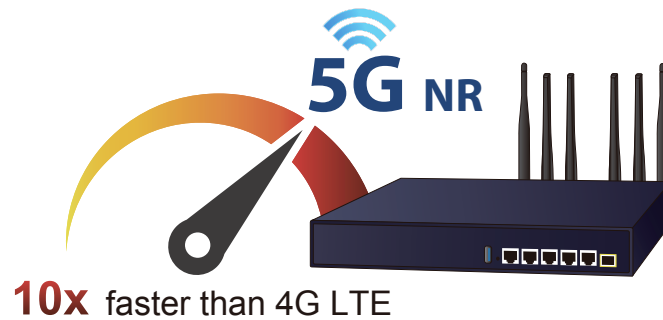
- Setup wizard
- Dashboard for system and security monitoring
- Security log viewer and event reports
- SFP-DDM (Digital Diagnostic Monitor)
- Secure management access via HTTPS; HTTP access supported
- SNMPv1, SNMPv2c and SNMPv3 management
- Auto reboot
- PLANET NMS System and Smart Discovery Utility for deployment management
- PLANET CloudNMS app for real-time monitoring

Ultra-Fast Speed 4G/5G Network

The XVR-800BE-NR supports 5G NR DL (downlink) speeds higher than 2.4 Gbps and 4G LTE DL speeds of up to 1 Gbps. The wide spectrum bandwidth accelerates internet speeds and reduces network latency for premium and time-sensitive connectivity services. It also supports multi-band connectivity including LTE FDD/TDD, WCDMA and GSM for a wide range of applications.

*The real 5G NR/4G LTE data rate is dependent on local service provider.

Download speed up to **2.4 Gbps**



GPS Included

The XVR-800BE-NR is equipped with the global positioning system feature. It adopts the 5G NR technology for the multiple global navigation systems (GPS/GLONASS/BeiDou/Galileo/QZSS). It helps to position location of cellular gateway based on a network of satellites that continuously transmits necessary data. More signals transmitted from more satellites can triangulate its location on the ground, meaning any location can be easily tracked.

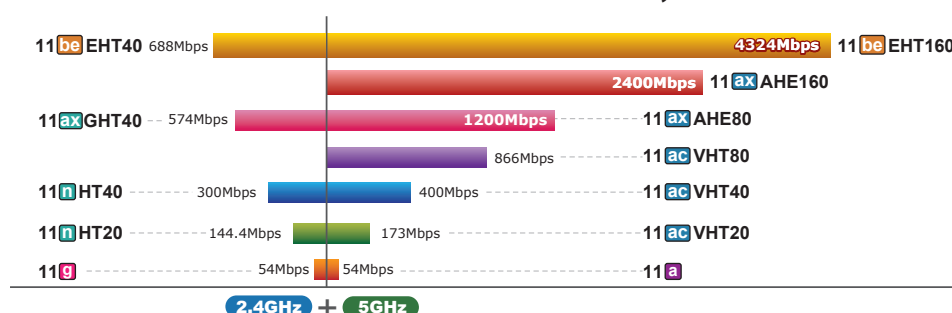
GNSS Positioning



Ultra-Wide Channel for High-Speed Wi-Fi 7 Connectivity

The XVR-800BE-NR supports up to 160 MHz channel bandwidth and delivers a peak wireless transmission rate of up to 5100 Mbps. Designed for commercial environments, it provides the speed, efficiency, and reliable performance required for bandwidth-intensive network services.

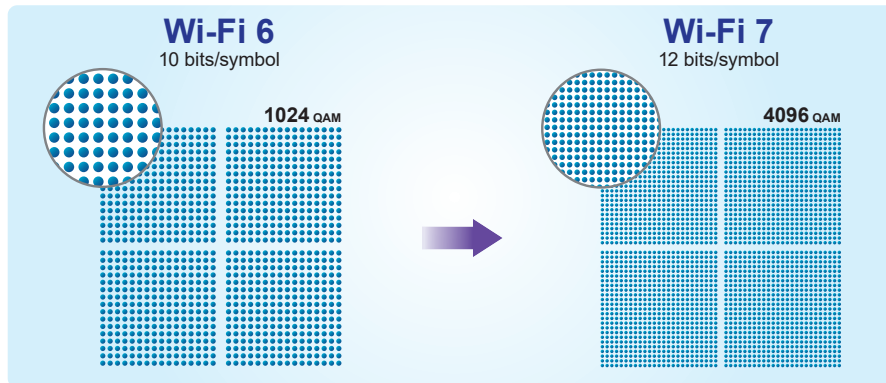
11be has Faster Data Rate than That of 11ax by **180%**



Data Transmission Rate **5100Mbps**

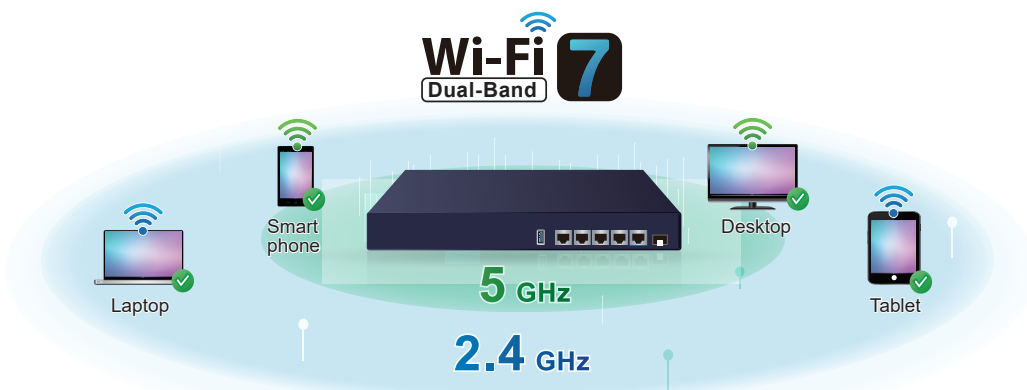
Higher Throughput with 4096-QAM

With 4096-QAM encoding, the XVR-800BE-NR transmits more data within each signal, increasing wireless throughput and transmission efficiency. It is ideal for high-bandwidth applications such as 4K/8K video streaming, AR/VR experiences, and real-time cloud services.



Reliable Dual-Band Wireless Connectivity

Supporting concurrent 2.4 GHz and 5 GHz wireless connectivity, the XVR-800BE-NR provides flexible coverage and high-speed data transmission. Its robust dual-band design maintains stable and reliable connections in high-density or interference-prone commercial environments.



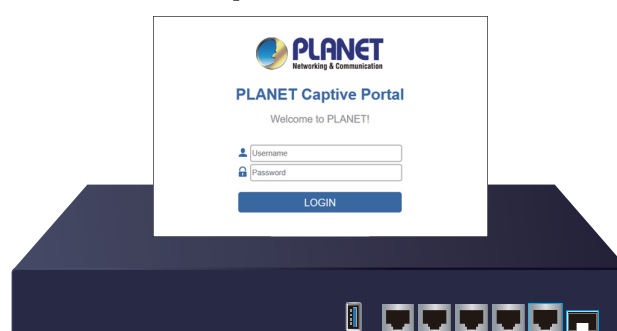
Maximizing Work Efficiency with PLANET SD-WAN Gateway

PLANET XVR-800BE-NR incorporated in SD-WAN (software-defined wide area network) function can greatly increase WAN optimization for multiple WAN links to be managed. With SD-WAN, users can connect any application across all available network connections at every site. It improves application performance and provides a high-quality user experience for increasing business productivity and reducing IT costs.

Integrated Wi-Fi Management for Secure and Easy Deployment

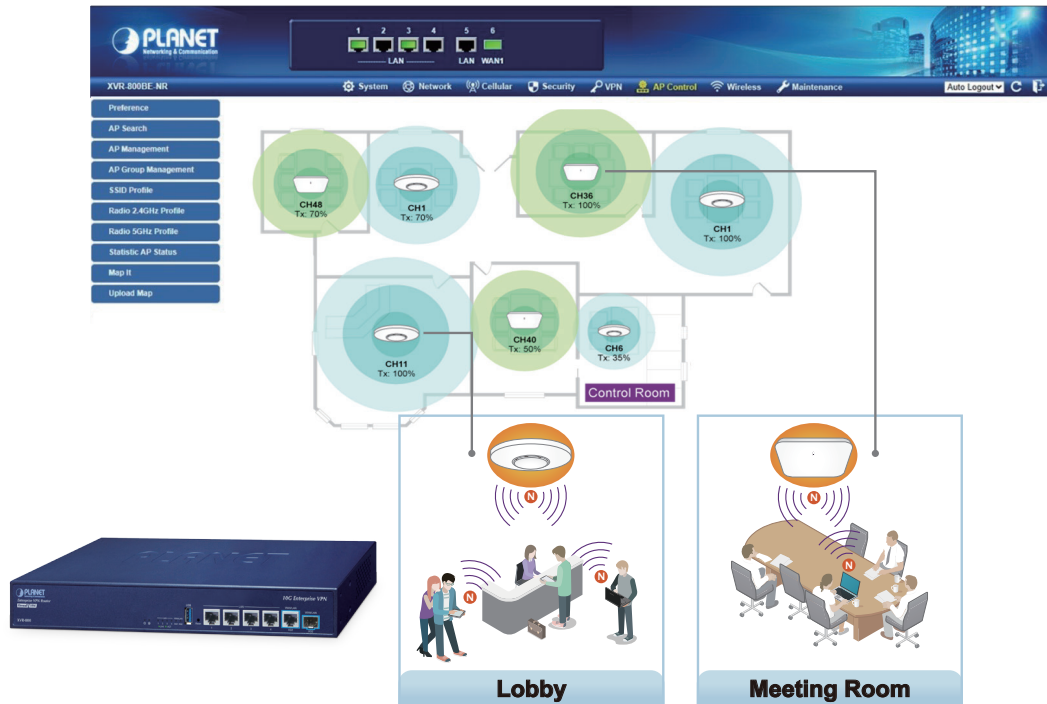
The XVR-800BE-NR integrates an AP Controller, Captive Portal, RADIUS authentication, and DHCP server to streamline Wi-Fi deployment for small and medium-sized businesses. These built-in services eliminate the need for external servers, enabling administrators to centrally manage APs, enforce access policies, and deliver secure employee and guest Wi-Fi networks with reduced setup complexity.

Captive Portal



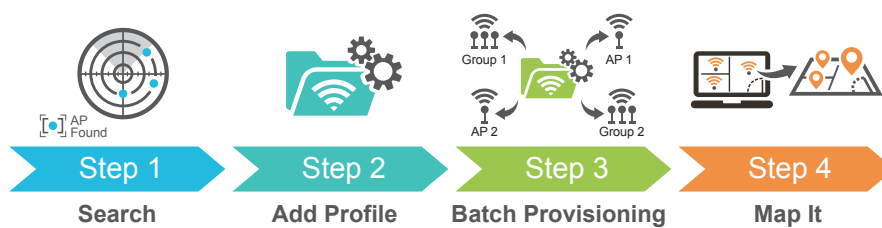
Centralized Remote Control of Managed APs

Through its intuitive web-based interface, the XVR-800BE-NR allows easy centralized control of PLANET Smart APs, with simple configuration of SSIDs, radio settings, and security policies. A quick four-step setup pushes wireless profiles to multiple APs or groups at once, enabling fast rollout and reduced deployment cost.



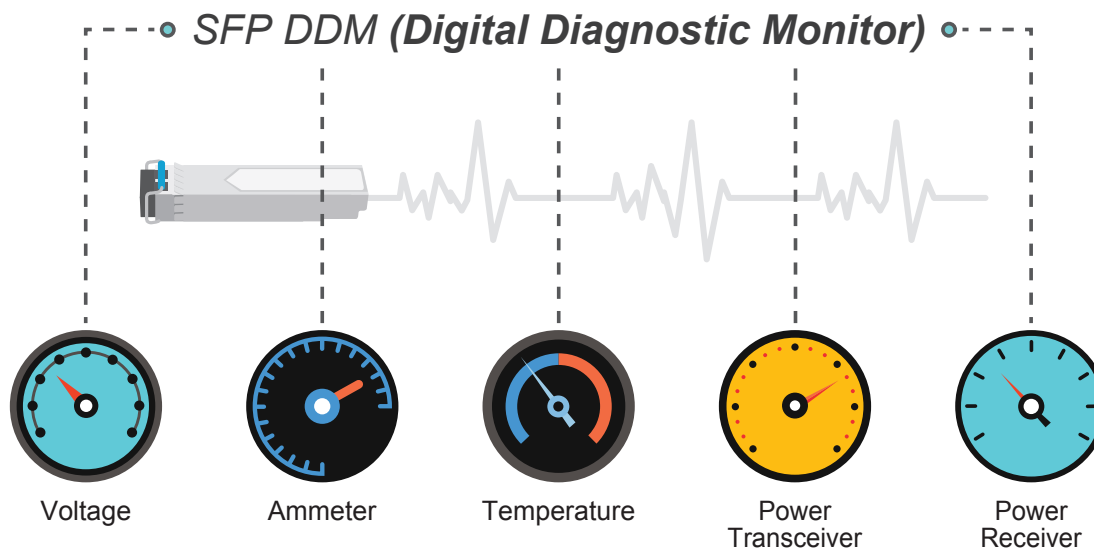
Administrators can cluster APs of the same model for unified management, flexibly expand or remove APs, and perform bulk provisioning or firmware upgrades—all from a single control point. This ensures scalable, efficient, and low-maintenance Wi-Fi management.

Simplified Cluster Management with 4 Steps



Intelligent SFP Diagnosis Mechanism

The XVR-800BE-NR supports SFP-DDM (digital diagnostic monitor) function that greatly helps network administrator to easily monitor real-time parameters of the SFP, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.



PLANET CloudNMS – Cloud-Based Universal Network Management

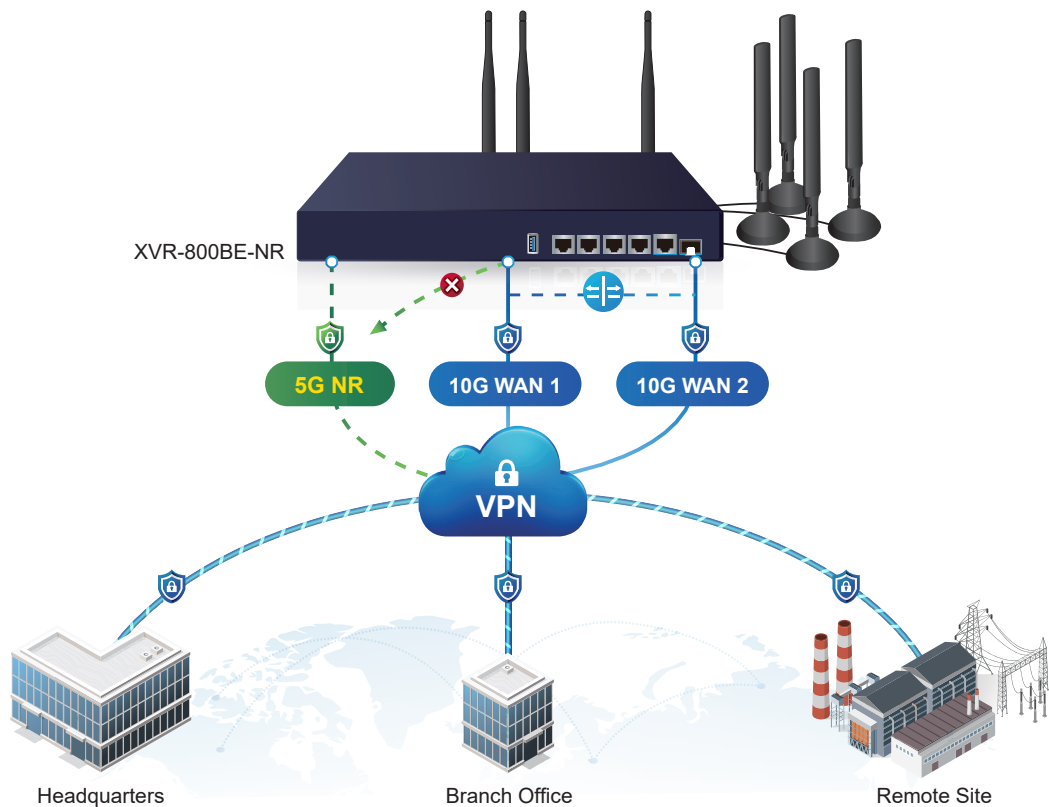
PLANET's **CloudNMS** platform and mobile app empower IT staff to remotely manage all network devices and Powered Devices (PDs) in real time. Designed for enterprises and industries, CloudNMS minimizes the need for on-site troubleshooting by providing centralized monitoring, fault detection, and instant alerts. With **CloudNMS**, businesses can manage diverse network deployments more **efficiently, securely, and intelligently**—all from a single cloud-based platform.



Applications

Reliable Multi-Site Connectivity with 5G NR and Dual 10G WAN

The XVR-800BE-NR provides secure and reliable connectivity for headquarters, branch offices, and remote sites through IPSec, SSL (OpenVPN), and WireGuard VPN. With 5G NR and dual 10G WAN connectivity, it enables flexible WAN deployment and automatic failover to maintain continuous network access when the primary connection is unavailable. Load balancing and advanced routing further optimize network traffic for reliable business operations.



High-Speed Wi-Fi 7 Connectivity with Centralized Network Management

The XVR-800BE-NR combines Wi-Fi 7 5100BE wireless connectivity with AP Controller, Captive Portal, RADIUS authentication, and DHCP server capabilities to provide a flexible network solution for small and medium-sized businesses. With high-speed dual-band wireless connectivity and centralized AP management, administrators can efficiently deploy and manage employee and guest networks while maintaining secure and reliable access.

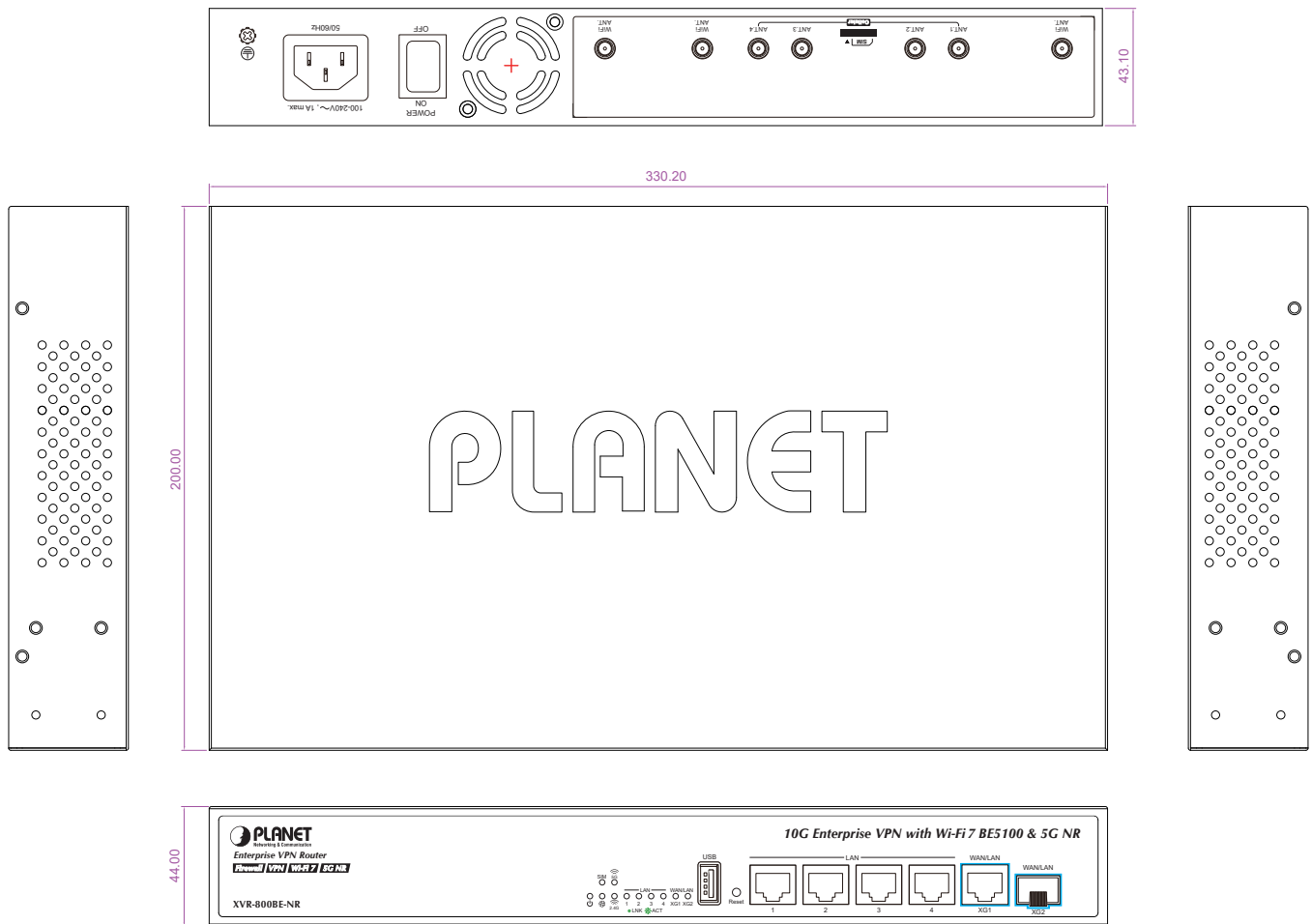


Specifications

Model	XVR-800BE-NR
Hardware Specifications	
Ethernet	4 10/100/1000BASE-T RJ45 Ethernet ports (Port 1 to 4) 1 1G/2.5G/5G/10GBASE-T RJ45 port (Port 5) <i>Supports WAN port mode or LAN port mode over software configuration</i>
Fiber	One 1G/2.5G/10GBASE-X SFP+ port (Port 6) <i>Supports WAN port mode or LAN port mode over software configuration</i>
USB Port	1 USB 2.0 port for system configuration backup and restoration
Reset Button	Reset to factory default
Thermal Fan	1
LED Indicators	System: PWR, Internet, (Green) Cellular Interfaces SIM (Green) Wireless Interfaces (2.4G & 5G) LNK/ACT (Green) Ethernet Interfaces (Port 1-4): 10/100/1000 LNK/ACT (Green) Ethernet Interfaces (Port 5): 1G/2.5G/5G/10G LNK/ACT (Green) Fiber Interfaces (Port 6): 1G/2.5G/10G LNK/ACT (Green)
Installation	Desktop installation or rack mounting
Power Requirements	100~240V AC, 50/60Hz, auto-sensing
Power Consumption / Dissipation	Max. 3.3 watts/10.92BTU (Power on without any connection) Max. 11 watts/37.53BTU (Full loading)
Weight	1725g
Dimensions (WxDxH)	330.2 x 200 x 43.1mm, 1U height
Enclosure	Metal
Cellular Specifications	
Cellular Network	5G NR (NSA/SA), LTE-FDD, LTE-TDD and WCDMA
5G NR Data Rate	Downlink: >2.4Gbps
Cellular Antenna	4 detachable antennas for 5G NR connection
WAN Redundancy	Automatic failover between 5G NR and dual WAN
GNSS	GPS / GLONASS / BeiDou / Galileo / QZSS
Wireless Specifications	
Wireless Standard	IEEE 802.11be (Wi-Fi 7)
Frequency Band	2.4GHz and 5GHz
Wireless Data Rate	Up to 5100Mbps
2.4GHz Data Rate	Up to approximately 689Mbps
5GHz Data Rate	Up to approximately 4324Mbps
Channel Width	Up to 160MHz
Modulation	4096-QAM (4K-QAM)
MIMO	Advanced MIMO technology
Security Service	
Firewall Security	Cybersecurity Secure Boot Stateful Packet Inspection (SPI) Blocks DoS/DDoS attack
ALG (Application Layer Gateway)	SIP, RTSP, FTP, H.323, TFTP
NAT	Port forwarding DMZ Host UPnP NAT disable (supports routing mode)
Content Filtering	MAC filtering IP filtering Web filtering
Bandwidth Management	Outbound load balancing Failover for dual-WAN QoS (Quality of Service)

Networking	
Operation Mode	Routing mode
Routing Protocol	Static Route, Dynamic Route (RIP), OSPF
VLAN	802.1q Tag-based, Port-based, Multi-VLAN
Multicast	IGMP Proxy
NAT Throughput	Up to 9Gbps
Outbound Load Balancing	Supported algorithms: Weight
Protocol	IPv4, IPv6, TCP/IP, UDP, ARP, HTTP, HTTPS, NTP, DNS, PLANET DDNS, PLANET Easy DDNS, DHCP, PPPoE, SNMPv1/v2c/v3
Key Features	HA (High Availability) Captive Portal RADIUS Server/Client AP Control
VPN	
VPN Function	IPSec/Remote Server (Net-to-Net, Host-to-Net) GRE PPTP Server L2TP Server SSL Server/Client (Open VPN) WireGuard
VPN Tunnel Capacity by Protocol	IPSec: 16 GRE: 5 PPTP: 100 SSL VPN: 100
VPN Throughput	Max. 1.3Gbps
Encryption Methods	DES, 3DES, AES or AES-128/192/256 encryption PQC TLS (Post-Quantum Cryptography TLS) ready
Authentication Methods	MD5/SHA-1/SHA-256/SHA-384/SHA-512 authentication algorithm
Management	
Basic Management Interfaces	Web browser SNMP v1, v2c PLANET Smart Discovery utility/UNI-NMS supported PLANET NMS System/CloudNMS
Secure Management Interfaces	SSHv2, TLSv1.3, SNMP v3
System Log	System Event Log
Others	Setup wizard Dashboard System status/service Statistics Connection status Auto reboot Diagnostics
Standards Conformance	
Regulatory Compliance	CE, FCC
Environment Specifications	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -10 ~ 60 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

Dimensions



Dimensions (W x D x H): 330.2 x 200 x 43.1 mm

Ordering Information

XVR-800BE-NR	Enterprise 5G NR Cellular + Wi-Fi 7 5100BE + Dual 10G VPN Security Router with 4-Port 10/100/1000T
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Related Products

XVR-800	Enterprise Dual 10G VPN Security Router with 4-Port 10/100/1000T
XVR-800P	Enterprise Dual 10G VPN Security Router with 4-Port 10/100/1000T 802.3at PoE+
XVR-800BE	Enterprise Wi-Fi 7 5100BE + Dual 10G VPN Security Router with 4-Port 10/100/1000T
ZT-800	Dual 10G Zero Trust Security Gateway with 4-Port 10/100/1000T
ZT-800BE	Dual 10G Zero Trust Security Gateway with Wi-Fi 7 5100BE
CSG-800	Dual 10G Cybersecurity Gateway with 4-Port 10/100/1000T
CSG-800BE	Dual 10G Cybersecurity Gateway with Wi-Fi 7 5100BE
PQCG-800	Dual 10G PQC-ready Cybersecurity Gateway with 4-Port 10/100/1000T
PQCG-800BE	Dual 10G PQC-ready Cybersecurity Gateway with Wi-Fi 7 5100BE

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XVR-800BE-NR