



Cisco 7200 VXR Routers—The New Benchmark for Secure WAN and MAN Services Aggregations

What Is New With the Cisco 7200 VXR Router?

Business application adoption is happening much more quickly today than five years ago. As business demands have intensified and technology has advanced, the network has evolved to being more service delivery platform than basic connection utility.

The new Cisco® 7200 VXR Router products enable this trend by providing secure WAN and metropolitan-area network (MAN) services aggregation.

With performance increases of up to 100 percent for routing aggregation and 200% for IP Security (IPsec) VPN, as well as a significant boost in available bandwidth and port adapter slot capacity, the latest Cisco 7200 VXR Routers help customers combine new services aggregation with the popular WAN aggregation platform—without comprehensive upgrades and radical network redesign.

How Do Cisco 7200 VXR Routers Defend My Network?

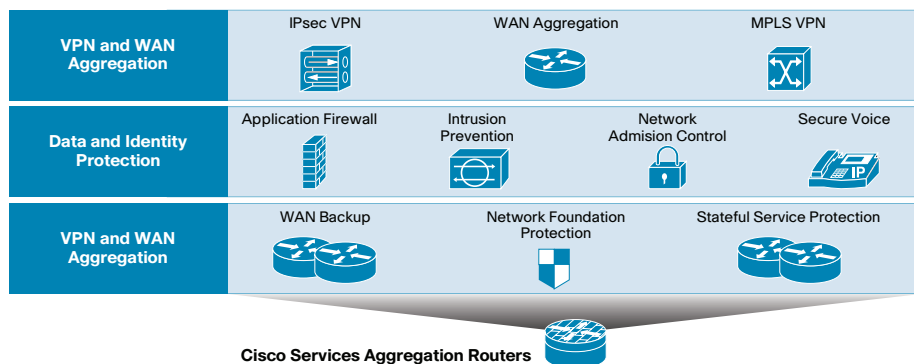
Cisco 7200 VXR services aggregation routers are an essential part of the Cisco Self-Defending Network (SDN), a strategic systems approach to security that uses the network to identify, prevent, and adapt to threats from internal and external sources.

Business services need continuous connectivity, requiring the network to be secure and available. Cisco 7200 VXR Routers play a primary role in this by delivering:

- WAN and VPN aggregation: scalable connectivity and IPsec encryption
- Data and identity protection: perimeter defense, outbreak prevention, and identity-based access control
- Business continuity: network availability and uninterrupted services

Figure 1 show functions of Cisco services aggregation routers.

Figure 1. Cisco Services Aggregation Router Functions



Secure WAN and MAN Services Aggregation Cisco 7200 Series Routers

Flexible and Scalable Systems Architecture

The new Cisco 7200 VXR Router products (Figure 2) deliver WAN and MAN services aggregation at OC-3 speeds with a combination of scalability, price, performance, and flexibility.

More security services run concurrently with data, voice, and video routing, enabling organizations to apply consistent and comprehensive security services throughout their networks and build self-defending networks.

Figure 2. Cisco 7200 VXR Router



Cisco 7200 VXR Series NPE-G2 (Network Processing Engine)

- Doubled performance for multiple services at OC-3/Gigabit Ethernet speeds
- Native secure IP Multicast without overlay network
- Investment protection: full Cisco IOS® Software feature support; extends value of installed or new chassis with modular engines

Cisco 7200 VXR VPN Services Adapter

- Up to 3X performance improvement with NPE-G2 to support large-scale IPsec aggregation architectures
- Cisco IOS Software Secure VPN Connectivity: Triple Data Encryption Standard (3DES), Advanced Encryption Standard (AES) (128, 192, and 256 bit-key encryption)
- Secure, toll-quality voice, video, and data: Voice and Video Enabled VPN (V3PN), Group Encrypted Transport (GET) VPN, Dynamic Multipoint VPN (DMVPN), quality of service (QoS), compressed Real Time Protocol (cRTP), Resource Reservation Protocol (RSVP), and so on
- IPsec virtual tunnel interface (VTI) for simplified VPN design and configuration
- Cisco 7200 VXR Port Adapter Jacket Card
- Up to 50 percent more bandwidth capacity and 50 percent more slot capacity
- I/O slot can now be used to add a seventh port adapter
- More throughput with high-performance port adapters



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Quick Look

Integrated Cisco IOS Software Security Services

Cisco IOS Software delivers consistent integrated security services throughout Cisco security router product lines, ranging from Cisco 800 Series Routers and Cisco 1800, 2800, and 3800 Series Integrated Services Routers (ISRs) through Cisco 7200 VXR Router and Cisco 7301 Router. The following are some of the advanced security services supported by Cisco 7200 VXR Routers with the Cisco IOS Software Advanced Security feature set.

- **IPsec VPN:** Hardware-accelerated AES (wide keys), 3DES, and DES.
- **GET VPN:** Revolutionary technology that provides IPsec encryption over private WAN connections without the use of tunnels.
- **DMVPN:** Delivers scalable full-mesh VPN through on-demand spoke-to-spoke tunnels. Reduces latency and jitter for voice and video, improves throughput, and simplifies configuration and change management.
- **Easy VPN:** Enables small or large deployments without user intervention (for example, no headend changes when adding extra devices) and enforces consistent VPN policy on all remote devices. IPsec VTI simplifies deployment.
- **Multiprotocol Label Switching (MPLS) VPN security:** Includes important features such as Virtual Route Forwarding (VRF)-aware firewall and IPsec, which allow segmentation for departments, subsidiaries, or customers and multiple contexts to be combined onto a single VRF, simplifying MPLS VPN deployments.
- **Application firewall:** Includes Layer 5 through 7 application firewall and control and Layer 3 and 4 stateful policy filtering and user-based policy enforcement. HTTP Inspection Engine controls misuse of port 80. E-Mail Inspection Engine controls misuse of e-mail protocols.
- **Cisco IOS Intrusion Prevention System (IPS):** Mitigates worm and virus attacks; inline operation prevents intrusion. Cisco Incident Control Server allows Cisco IOS IPS to respond rapidly to emerging threats.
- **Secure voice:** Secure, toll-quality performance for voice, video, and data over VPN through Cisco V3PN, DMVPN, QoS, cRTP, and RSVP.
- **Network foundation protection:** Includes primary mechanisms to maximize router availability: one-touch device lockdown (AutoSecure), route processor protection against denial-of-service (DoS) attacks (Control Plane Policing [CPP]), secure management access (for example, Secure Shell [SSH] Protocol v2), day-zero attack detection, and security incident analysis (NetFlow, IP Source Tracker, syslog).
- **Cisco Router and Security Device Manager (SDM):** Intuitive Web-based management tool that ships with every Cisco 7200 VXR Router.

Why Cisco?

Cisco 7200 VXR Routers extend services aggregation to businesses of all sizes and redefine best-in-class enterprise routing with products engineered for secure, concurrent delivery of data, voice, and video.

For More Information

For more information, visit www.cisco.com/go/7200 and www.cisco.com/go/routersecurity.