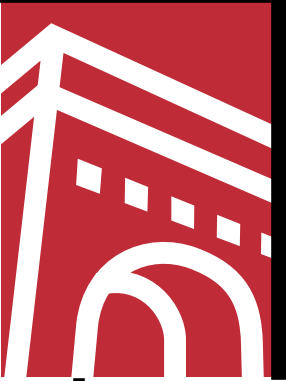


Cisco 7200 Multiservice Solutions

High-Density, High-Performance Voice Gateway



As convergent services become a reality, businesses are seeking intelligent ways to manage data, video, and voice on a single platform. The Cisco 7200 provides a powerful tool that keeps packet voice, data, and video moving quickly. Toll-quality voice, and the ability to handle and route high volumes of traffic, make the Cisco 7200 an intelligent solution for telecommunications carriers that need to unburden their networks, service providers interested in offering bundled services, and enterprises that want to take advantage of the toll savings possible with packetized voice.

The single-box solution combines the Cisco 7200 family of routers with digital voice and MIX-enabled port adapters to create a true voice gateway for termination to private branch exchanges (PBXs) or the public-switched telephone network (PSTN). Offering high-performance and the widest range of WAN interfaces available, the Cisco 7200 is part of an end-to-end Cisco Systems solution.

With the introduction of Time-Division Multiplexing (TDM)-enabled voice-port adapters, Cisco has designed a multiservice gateway that aggregates Voice over Internet Protocol (VoIP), Voice over Frame Relay (VoFR), and Voice over Asynchronous Transfer Mode (VoATM), and terminates it onto the PSTN or to PBX systems. By adding a 7200 Voice Port Adapter, each Cisco 7200 can be turned into a Voice over Packet Gateway.

High Volume. High Density. High Performance.

High-volume processing positions the voice gateway to meet the demands of large enterprise, service provider, and carrier networks. The Cisco 7200 can handle calls up to 20 T1 or 18 E1 lines using on-board digital signal processors (DSPs). These DSPs provide voice compression, voice-activity detection and silence suppression, echo cancellation, and packetizing for VoIP, VoFR, or VoATM calls. The DSPs can use either high- or medium-complexity coder/decoder (codecs). Using medium-complexity codecs, the Cisco 7200 can terminate 20 T1 or 18 E1 TDM trunks; when using high-complexity codecs, the Cisco 7200 can terminate 12 T1 or E1 TDM trunks.



Toll-Quality Voice

The voice port adapters bring clear voice quality to packet networks. Link fragmentation and interleaving optimize voice traffic throughput. Scalable, low-latency queuing prioritizes voice traffic to speed it across the network.

Versatile Gateway

The Cisco 7200 is a highly versatile voice gateway that supports standards-based Voice over Packet solutions for interoperability in ATM, Frame Relay, and IP networks using:

- VoATM using ATM Adapter Layer 2 (AAL2)—AF-VTOA-113
- FRF.11 and FRF.12
- H.323 v2
- Media Gateway Control Protocol (MGCP)

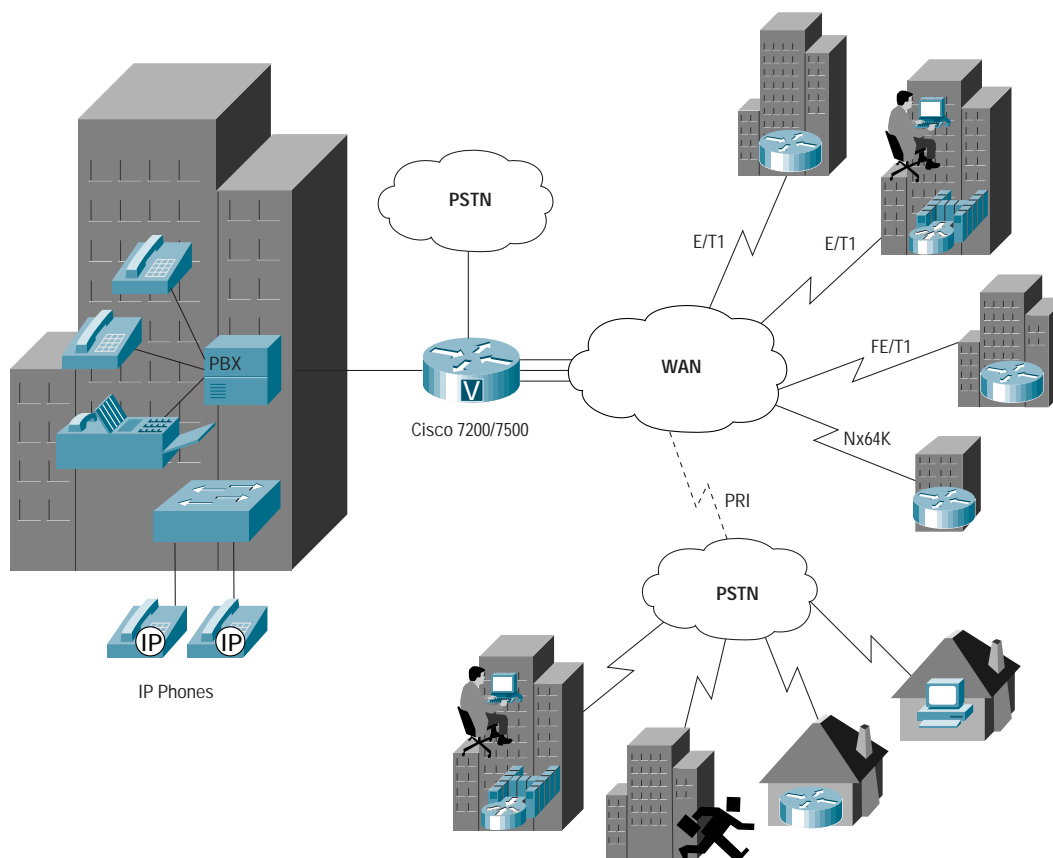
Standardized Signaling Support

The Cisco 7200 continues the Cisco tradition of internetworking leadership by providing interoperation with Signaling System No. 7 (SS7) networks and standards-based signaling support for:

- T1 Channel Associated Signaling (CAS)
- E1 CAS
- Q.SIG
- Primary Rate Interface (PRI) Q.931 user side
- PRI Q.931 network side
- E1-R2 signaling
- Transparent Common Channel Signaling (T-CCS)



• Feature Group D (FG-D)



Codec Support

The Cisco 7200 supports a variety of codecs offering a wide choice from high-complexity codecs to medium-complexity codecs:

- High-complexity codecs—G.729, G.728, G.726, and G.723.1
- Medium-complexity codecs—G729a/b, G.726, and G.711

Investment Protection

With the Cisco 7200, customers can choose the processing engine that meets their needs today without worrying about tomorrow's processing requirements. The Cisco 7200 is fully modular, enabling easy field upgrades of the processor, I/O controller, and port adapters. By sharing port adapters with the Cisco 7500, the Cisco 7200 enables easy sparing and investment protection.

High-Touch Services

The Cisco 7200 uses Cisco IOS® Software for high-performance network services that include quality of service (QoS), security, compression, and encryption. In addition, the Cisco 7200 uses parallel express forwarding (PXF) processing to accelerate high-touch services by 50 to 350 percent.

Benefits of the Cisco 7200 Multiservice Solutions

Carrier Benefit: Network Unburdening

As end customers acquire multiple telephone numbers and increase their connection times to the Internet, carriers need a way to offload traffic onto packet networks. In addition to providing traffic relief, the Cisco 7200 eliminates the need to invest in traditional voice technologies to handle traffic demands.

Enterprise Benefit: Toll Savings

Enterprises that have been waiting for Voice over Packet technology to mature will welcome the Cisco 7200's ability to integrate voice, data, and video routing in a single box. Features built into the gateway allow toll-quality voice calls to bypass the carrier's long-distance network.

Service Provider Benefit: Bundled Services

The Cisco 7200 acts as a low-cost edge router and customer-premises equipment (CPE) solution with the ability to handle digital terminations. Service providers can use the voice gateway to combine multiple services into attractive and affordable offerings. End customers can now purchase a package that includes voice telephony, Internet access, and fax relay at one low price.

Special Features

In addition to aggregating packet voice with data and video and terminating it to PBXs or the PSTN, the Cisco 7200 provides valuable features that improve network functionality and performance. These features include:

DSP Farming—MIX bus-enabled port adapters can leverage the DSPs located on Cisco 7200 Voice Port Adapters.

Fax-relay Capabilities—The DSPs on the voice port adapters can demodulate fax signaling and convert it to IP packets for transmission over IP data networks.

Direct Inward Dialing—Enterprises that require more phone numbers than physical phone lines can use the Cisco 7200 to distribute calls. When all lines are full, callers receive a busy signal or are routed to a voice-mail option.

TDM Hair-pinning—The Cisco 7200 can take a voice digital signal (DS0) and route it to another T1 on the same voice adapter, sending it back to another PBX or to the PSTN.

Cisco 7200: The One-Stop Voice Gateway Solution

The Cisco 7200 gives sophisticated networks the power to combine and move voice, data, and video across the network and into the larger world. To find out more about the Cisco 7200 contact your Cisco representative or visit the Cisco Web site at <http://www.cisco.com/warp/public/cc/pd/rt/7200/index.shtml>.



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