

CommWorks® 4007 SS7 Signaling Gateway

Key Benefits

Voice and Data Offload

With the CommWorks 4007 solution, service providers can offload traffic from the PSTN to realize significant cost and operational savings.

Supports Multiple Services

The CommWorks solution supports multiple layers of the SS7 standard which includes, ISUP, TCAP, GSM MAP and ANSI 41. This enables service providers to work across any access environment and offer traditional and enhanced services.

Carrier-Class Capacity

The CommWorks SS7 signaling gateway is scalable from small configurations to the largest global networks. The gateway can scale to support 1.5 million BHCA and beyond in a multi-server environment.

Carrier-Class Reliability

The CommWorks SS7 signaling gateway is designed to carrier standards. The gateway is NEBS Level 3 compliant. The gateway is fully redundant for both hardware and software.

Worldwide Compliance

The CommWorks SS7 signaling gateway employs a proven SS7 implementation deployed in more than 50 countries. This experience offers the robustness and proven compatibility that global carriers require.

The CommWorks® 4007 SS7 signaling gateway enables service providers to leverage the inherent intelligence and flexibility of Signaling System 7 (SS7) to deliver new enhanced services, while offering a highly scalable platform that accommodates increasing call volumes. This powerful solution allows providers to get the most out of limited network resources for delivering remote access and IP telephony services to both wired and wireless subscribers.

Residing on a Sun Solaris-based platform, the CommWorks 4007 SS7 signaling gateway combines software resiliency and hardware redundancy to deliver a robust and highly available solution. It works with the Total Control 1000 and Total Control 2000 multiservice access platforms, in addition to all the CommWorks softswitch modules and enhanced service products to provide

organizations with a complete SS7 integration solution for voice and dial-up networks.

The CommWorks 4007 SS7 signaling gateway is an integral part of the CommWorks softswitch platform, which delivers distributed, carrier-grade IP-based communications. The softswitch resides in tiers two and three of the CommWorks three-tier architecture, providing call treatment, signaling, and service control independent of access method and speed.

Consisting of openly interconnected software modules, the softswitch product line includes two key elements: session agents such as the CommWorks SS7 signaling gateway for signaling and call treatment, and back-end servers for delivery of critical back office functions. This powerful solution enables service providers to deploy a distributed network and provides a wealth of benefits, including increased fault-tolerance, redundancy, and scalability.

A scalable, flexible platform for delivering enhanced remote access and voice-over IP telephony services for wired and wireless networks

Leveraging Today's SS7 Network

The CommWorks 4007 SS7 signaling gateway serves as a bridge between PSTN and IP networks, translating the signaling information between the two, while providing additional intelligence for security and control, as well as redundancy and resiliency. The signaling gateway functions seamlessly with the PSTN, providing maximum scalability and cost-efficiency, while minimizing problems with existing services and equipment.

The CommWorks solution allows service providers to leverage existing features and services in the PSTN SS7 network and integrate those services with IP-based networks. Examples of such features include Local Number Portability (LNP), CommWorks 8250 unified messaging, 411, N Digit Dialing, and CommWorks 7150 virtu-

al private port (VPP). New features continue to be added to the product and future releases will incorporate a host of other Advanced Intelligent Network/Intelligent Network services, IP CALEA, 911/E911, and 800/900 phone services for both wired and wireless subscribers.

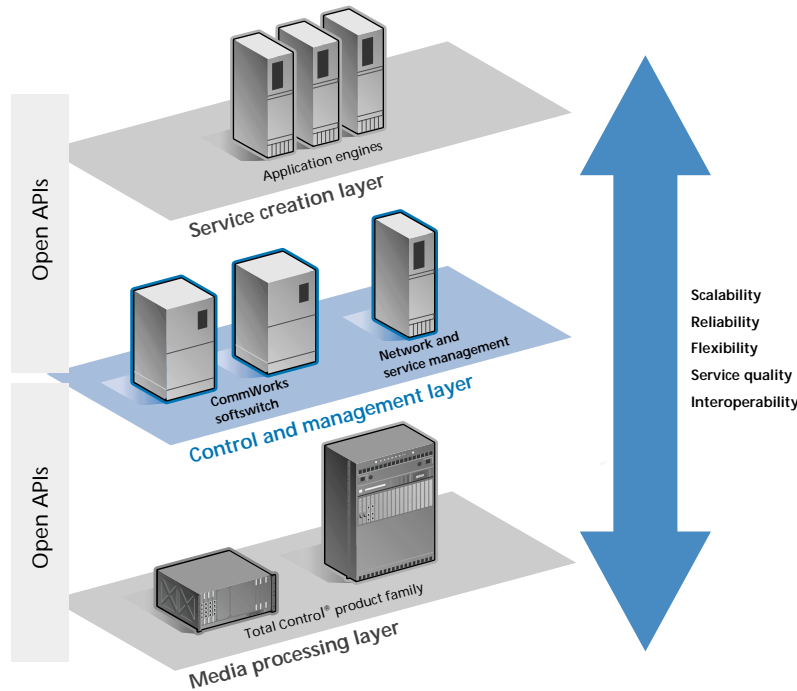
A Cost-Effective, High-Performance Solution

The CommWorks 4007 SS7 signaling gateway enables service providers to benefit from SS7's intelligent call-control for remote access applications and enhanced IP telephony services. By leveraging intermachine trunks (IMTs) and SS7 links, organizations can gain immediate savings over traditional Primary Rate Interface (PRI) connections. Infrastructure costs for switching equipment and network facilities are significantly lower, while larger, more efficient trunk groups provide higher access port utilization. The resulting

solution is cost-effective, yet scalable, enabling service providers to add new enhanced access services as customer needs develop.

Standards Based

The CommWorks solution supports ANSI and ITU SS7 standards and has been certified in major regions around the world, including North America, Latin America, Asia-Pacific, and Europe. It supports multiple layers of the SS7 standard including MTP, SCCP, ISUP, INAP, TCAP, GSM-MAP and ANSI-41. As an integral component of the CommWorks softswitch it also works in conjunction with other signaling elements that support H.323v2, SIP and H.248/Megaco industry standards. Moreover, the CommWorks 4007 signaling gateway will be fully compatible with the emerging SigTran standard due to CommWorks' active role in developing the protocol.



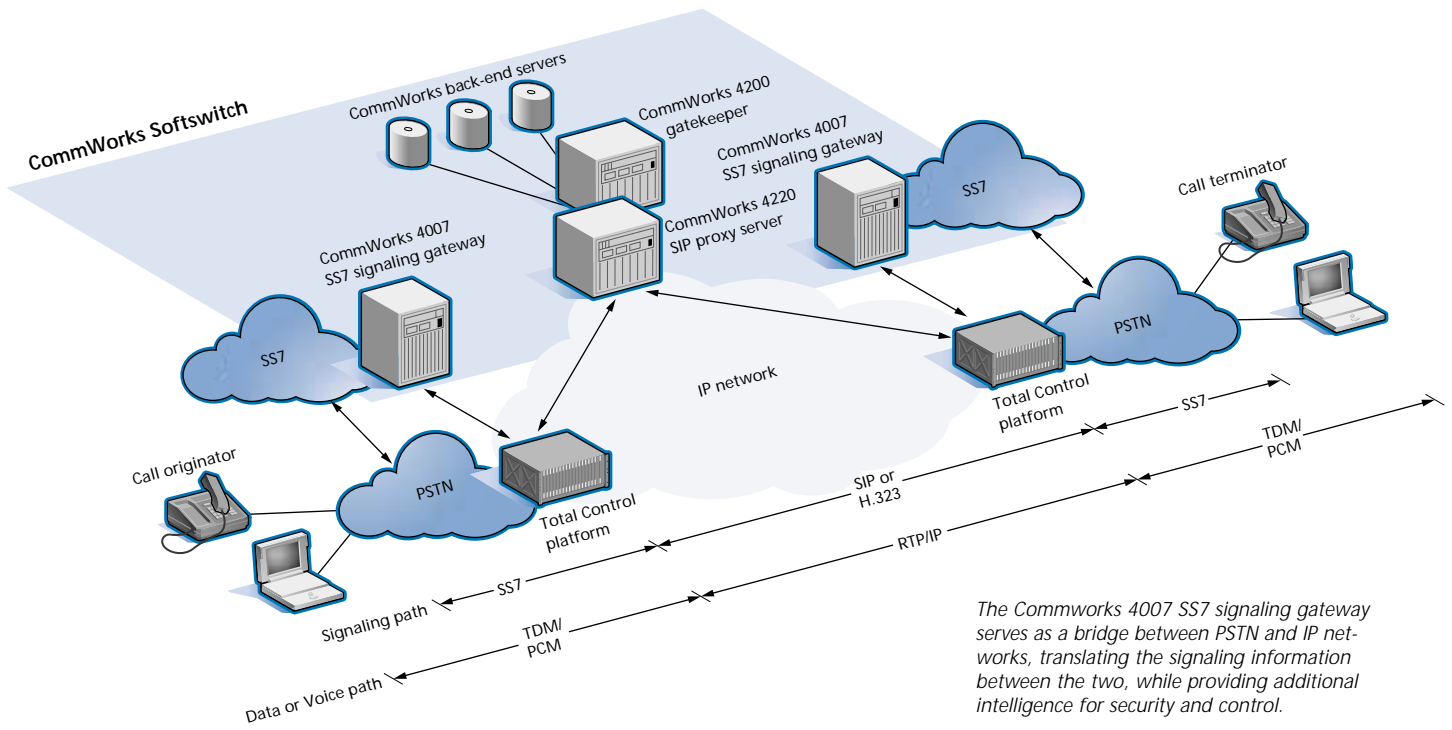
The CommWorks three-tier architecture includes a media processing, control and management, and service creation layer. At the second tier, the CommWorks 4007 SS7 signaling gateway, a CommWorks softswitch module, provides IP/SS7 signaling mediation and call-control for the network.

The CommWorks SS7 gateway provides the highest level of availability and reliability that service providers require for operating their networks.

A Wealth of Cost Savings and Revenue Opportunities

The integration of SS7 and IP provides an important evolutionary step toward a converged network infrastructure, offering a more efficient and effective way for handling increased call volumes and delivering new, enhanced services. The CommWorks 4007 platform provides the foundation for building value-added services that complement and take advantage of both protocols. Examples include:

- **Voice and data offload for IP telephony systems and dial up networks**, to provide a cost-competitive IP-based network in any wired and wireless access environment.
- **Enhanced subscriber services**, such as the CommWorks 8250 unified messaging system, traditional PSTN services such as three-way calling, call forwarding, Local Number Portability, Virtual Private Port, 411, N Digit Dialing, and others that provide the control and messaging flexibility that customers demand.



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Specifications

Software Release 3.0 Dual CE Configuration

Hardware supported

- Sun Netra 1405, 1400 (NEBS compliant)
- SunNetra 1125, 1120 (NEBS compliant)
- Sun Enterprise 250, 450
- T1/E1 interface cards for SS7 links
- A-links, F-links

Note: Sun hardware can be purchased through CommWorks

System Releases

- Total Control 1000 System 4.0, 4.3, 4.5
- VoIP 2.3, 2.4
- Total Control 2000 Release 1.0

Dual CE Capacity

- 200 calls per second
- 720,000 BHCA
- 60,000 ports

NOTE: Capacity can be scaled to millions of BHCA using multiple dual CE CommWorks 4007 SS7 signaling gateways.

SS7 Network

- Up to 144 SS7 links (using expansion cabinets for PCI cards)
- Up to 3500 DPC
- 1 OPC

Standards

- ANSI and ITU SS7 compliance
- SS7 layers: MTP, SCCP, ISUP, INAP, TCAP, GSM-MAP, ANSI-41 compliance
- Works in conjunction with other signaling elements that support all major industry standards including H.323v2, SIP, and H.248/Megaco.
- NEBS compliant hardware (optional)

NOTE: The CommWorks 4007 is fully redundant for both hardware and software to provide carrier class reliability.

Management

- GUI interface for SS7 stack provisioning
- SNMP network manageability for configuration, monitoring, and troubleshooting

CommWorks Headquarters, 3800 Golf Rd., Rolling Meadows, IL 60008

To learn more about CommWorks products and services, visit www.commworks.com or call 1-800-638-3266, option 1, option 4. CommWorks is a 3Com company. CommWorks has offices worldwide. 3Com Corporation is publicly traded on Nasdaq under the symbol COMS.