



Who They Are

- **Founded:** 1899
- **Headquarters:** Munich, Germany
- **Stock symbol:** SI (NYSE)
- **Revenue (year ending 2006):** Euros 87,325B as of September 30, 2006[[Why 2004, not 2005?]]
- **Employees:** Approximately 475,000 as of September 30, 2006 [[Update?]]
- **Markets:** Offices in 190 countries across all theaters worldwide
- **Sales strategy:** Direct, channel partners, and service arm
- **Target industries:** All verticals, but especially manufacturing and automotive
- **Product portfolio:** The Siemens Information & Communication Networks (ICN) portfolio includes IP-based convergence solutions and a full range of products for enterprise telephony, as well as for the integration, services, and applications businesses. Through a combination of “homegrown” products and OEM relationships, the Siemens ICN Group provides solutions from a single source for the infrastructure of packet networks. Representative of its product portfolio are the HiPath 5000, 4000, and 3000 lines of private branch exchanges (PBXs); ProCenter contact center solutions; Xpressions messaging software; and OpenScape multimedia collaboration server. To further its LifeWorks initiative, and in an effort to bridge the shrinking gap between cellular and enterprise voice/data convergence technologies, Siemens ICN announced preliminary plans to merge its mobile and fixed communications divisions sometime in late 2004. The company does not manufacture data networking switches and routers, but has formed resale relationships with Cisco®, Juniper, and Enterasys, and recently announced a resale agreement with Huawei.

Questions Customers Should Ask of Siemens

- How do you optimize voice for other vendors' routing and switching infrastructures?
- Who are your end-to-end IP communications references with more than 1000 IP phones?
- How do you protect against a complete PBX outage in case of small infrastructure failure? What is your redundancy solution?
- Do you have any cross-box redundancy concepts, such as clusters with load balancing?
- What is the process for migrating from a small system to a larger one as my business grows?
- Can I mix and match HiPath 3000s and 4000s? If so, how are they managed?
- If I move to a pure IP solution, what kind of redundancy is available for my branch offices if the WAN goes down?
- Do you have phones that support XML applications, color screens, or wireless?
- How do you prevent distributed denial of service (DDoS) attacks or intrusions against your HiPath servers? What is your strategy for signaling encryption and media authentication?
- Tell me about your contact center solutions, and please provide references.
- What is your video communications strategy? How do you converge video with your IP phones?

Siemens Weaknesses

- **Does not manufacture data networking switches and routers**—To capitalize on the move toward convergence, Siemens has to make deals with other companies.
- **Has a limited U.S. presence**—Siemens is not a top brand in the North American networking sector (it has a limited presence in Canada).
- **Offers limited redundancy and disaster recovery options.**
- **Security is incomplete**—Siemens does not offer a self-defending environment for secure data and voice.
- **Requires complex installation**—Installation requires many LAN ports, additional management tools, and IP addresses, plus a significant amount of rack space. At least four different IP gateway cards are needed for a simple branch office concept.
- **Network management is complex**—Different management systems are used for the HiPath 3000 and 4000. There are no overall voice and data management solutions, and integration with HP OpenView is limited.
- **Upgrades are costly**—For existing customers, moving to true IP convergence will involve a forklift upgrade.
- **Offers limited scalability/investment protection**—The HiPath system has architectural restrictions that affect its flexibility—not an optimum platform for convergence and investment protection.
- **Is not an end-to-end solution**—Voice-centric design provides limited data/media support, with limited ability to integrate other advanced technologies, such as wireless.



- **IP contact center solution is weak**—ProCenter Office (HPCO) is available for a single HiPath system environment only, has no IP-based interactive voice response (IVR), has no easy distribution of IVR resources, makes inefficient use of WAN resources for call queuing, has no ability to virtualize the contact center across multiple systems, and offers no support for mixed vendor automated call distribution (ACD) (as in Cisco Unified Contact Center).

Siemens Strengths

- Large installed base.
- Large, diversified parent company allows Siemens ICN to more easily handle market downturns.
- Brand recognition worldwide, especially in EMEA, APAC, and LATAM.
- Strong presence with service providers in all sectors with rich feature sets (optical, service provider voice, and mobile).
- Strong credibility with voice decision makers due to experience in selling and maintaining PBXs.
- Large internal sales and services teams that can execute and deliver IP communications solutions.
- Session Initiation Protocol (SIP) support and scalability with HiPath 8000 platform, which supports more than 100,000 users. Recent wins with this product make it a strong threat in managed services environments.
- Direct sales model in EMEA.

How Siemens Sells Against Cisco

- **Evolutionary approach**—Promotes turning over installed base or traditional PBX customers to IP (an easier migration story than forklift to IP).
- **Vision**—Adopts a visionary stance with SIP-based products (OpenScape and LifeWorks framework) that are “designed to eliminate the barriers between enterprises and service providers, between business use and personal use, and between wireless and wired networks.”
- **Global leader**—Points to brand recognition and worldwide presence in telephony, cellular, and integration: “We’re big and we’re capable.”
- **Aggressive pricing and political influence in top accounts.**

How to Respond to Siemens’ Claims

- **IP communications and networking market leader**—Cisco has gained credibility over the last nine years in the voice business, and has been a networking pioneer for more than 20 years. Cisco now ships two to five times as many IP phones as any competitor. Gartner, Inc., recently listed Cisco in the Leaders Quadrant of the Unified Communications Magic Quadrant.
- **Comprehensive, integrated solution**—Cisco Unified Communications is part of an integrated solution that includes network infrastructure, security, mobility, network management products, lifecycle services, flexible deployment and outsourced management options, end-user and partner financing packages, and third-party communications applications.

- **Flexible deployment**—Cisco Unified Communications can be purchased and deployed from Cisco channel partners, following a structured roadmap approach that works with an organization’s existing network and business needs. Flexibility and scalability enable organizations to support new applications as the business changes and grows.
- **Reliability**—Primary, secondary, and tertiary Cisco Unified Communications Manager groups provide redundancy in gateways and Cisco Unified Survivable Remote Site Telephony (SRST). Hardware platform options include mirrored disks and redundant power supplies.
- **Security**—Cisco Unified Communications resides on a single, converged voice, video, and data network that delivers the highest level of security because security is built in, not bolted on. Comprehensive security starts in the network and extends all the way to IP phones. Everything—call control, endpoints, infrastructure, and applications—is secure without requiring multivendor integration.
- **SIP vision**—Cisco has been supporting SIP in its IP gateways for years and, in fact, takes the vision one step further. Cisco Unified Communications is built on numerous open industry standards, including SIP, so organizations can benefit from choice in their communications technologies.
- **Convergence vision**—Unlike other solutions, Cisco Unified Communications integrates it all—voice, video, mobility, security, and data—adding structure and intelligence to every aspect of business communications without requiring professional integration. Siemens’ Real-Time Communications OpenScape solution requires the addition of major components—Windows XP, RTC Server, Exchange, Messenger, SQL Server, and professional services integration.



Siemens HiPath 4000 Series

Table 1 lists the features of Siemens' HiPath 4000.

Table 1. Siemens HiPath 4000 Features

Maximum number of digital trunks	12,000
Maximum number of analog trunks	9600
Call processor operating system	UnixWare
Centralized or distributed call processor	Centralized
Maximum number of simultaneous calls	10,000
Switch interfaces supported	Digital/IP
QoS protocols supported	802.1p/q, TOS/DiffServ
Number of voice mailboxes	3000 users per server; 30,000 users per single system image
Follow-me forwarding (e-mail, pager, cellular)	Yes, with HiPath Teleworking
Unified messaging platform support	Optional, with HiPath Teleworking support
E-mail protocol support	Microsoft Exchange, Lotus Domino/ Notes, IMAP, SMTP, POP3 (dependent on Xpressions)
ACD platform	Optional ProCenter Suites (entry, standard, or advanced)
Maximum number of participants per conference call	Eight parties per conference circuit
Automated backup/client login	Yes; backup and restore can be done manually or automatically via HiPath 4000 Assistant service-ability feature
Call-detail recording	Yes
Accounting/billing platform support	Yes, with HiPath Assistant (optional Siemens HiPath Accounting Management)

The Siemens HiPath 4000 Series offers:

- Convergence platforms (HiPath 4300 and 4500) for connecting digital phones (time-division multiplexing [TDM] phones) and IP phones, and for integrating soft clients
- Ability to scale—The HiPath 4300 scales to 2000 subscribers for small to medium- sized businesses; the HiPath 4500 scales to 12,000 subscribers
- Fully survivable access points, fault-tolerance support, and peer-to-peer payload switching
- Web-based, centralized system management
- Integrated gateways, ensuring network access and networking of the entire system
- Almost unrestricted network expansion

Siemens' Voicemail and Unified Messaging Solution

- HiPath Xpressions Entry—Voice messaging and automated attendant
- HiPath Xpressions Standard/Advanced—Basis for unified messaging
- 128 channels for PhoneMail, 256 channels for Xpressions version 3.0
- Mobile user message notification via Short Message Service (SMS)
- Fax access via phone, Internet, or Wireless Access Protocol (WAP)

Siemens' optiPoint 400 and 600 IP Telephones

- optiPoint 400 available in standard or economy
- optiPoint 600 Office
- Support for SIP, H.323, and Cornet IP
- Distributed Session Manager (DSM) plug-in module on optiPoint 410
- Self-labeling keys, conference-quality speakers, inline power 802.3af (+ Cisco)

optiClient 130 PC-based soft phone

- Connected to the HG 3530 gateway
- Delivers the same HiPath 4000 features to workstations as optiPoint telephones
- Combines speech, data, e-mail, and Internet in a single interface

HiPath Cordless

- Enables campus mobility with same features as the optiPoint 500
- Find-me/follow-me features
- Message display

HiPath Mobile Office Suite for the HiPath 4000

- HiPath Cordless Enterprise—With cellular extension and SIMpad touch-screen desk set
- SimplyPhone—Provides computer telephony integration (CTI)
- ComResponse—Provides a Web-based voice portal

Siemens ProCenter Contact Center Solutions

- HiPath ProCenter ACD and IVR (Web- or client-based) options
- Available as entry, standard, or advanced models
- Combines platforms, ACD, and a suite of Web-based applications that support universal access and give supervisor engines the ability to monitor, manage, and control contact centers
- Includes 10 different applications and/or solutions



HiPath DAKS Digital Alarm and Communication Server

- Alerting, conferencing, and information solution
- Enables emergency broadcasts and short e-mail messages to be sent as text and voice messages to phones
- Allows Internet-controlled telephone conferences with up to 60 participants

HiPath 4000 Management

- Consists of Web-based HiPath 4000 Assistant and HiPath 4000 Manager
- HiPath 4000 Assistant provides basic system management functions—configuration, inventory, backup and restore, switch diagnosis, and error message diagnosis
- HiPath 4000 Manager offers networkwide management for configuration and performance
- Includes Simple Network Management Protocol (SNMP) support for third-party products
- Offers integration with HiPath Fault Management and Accounting Management applications