



HiPath 4000 V2.0

The HiPath Real-Time IP System for medium-sized and large enterprises

HiPath® 4000 V2.0 is an innovative, state-of-the-art real-time IP system for a new level of quality in IP communication. This IP convergence platform not only combines the advantages of IP-based communication with circuit-switched communication system functions, it also offers higher levels of resiliency than anything you could ever have expected from basic TDM solutions.

HiPath 4000 Real-Time IP System is the ideal communication solution for medium to very large enterprises and groups. HiPath 4000 communication architecture is designed for enterprises with distributed, remote architectures as well as for companies with centralized or campus-style structures.

Communications in various company locations can be linked via an IP network infrastructure based on a shared, open architecture. This makes HiPath 4000 the ideal communication solution for enterprises that are looking for more than just a simple IP switch. Options for connecting IP and digital/analog telephones and integrating soft clients provide the perfect communication platform for every workstation.

HiPath 4000 leverages its extensive resiliency functions to guarantee the profitability that your company can achieve using HiPath communication solutions and intelligent applications. A broad range of options and further development potential, coupled with greater added value from existing and future investments, make the HiPath 4000 Real-Time IP System a particularly rewarding choice.

The Sky's the Limit

With HiPath 4000, businesses of any size—and across several locations—use all system features universally. HiPath 4000 also incorporates existing systems, such as Hicom® 300 E/H, in the overall solution.

Universal Multimedia Communication

Alongside all the features of previous voice communication systems, the HiPath 4000 IP convergence platform also offers applications and solutions for multimedia communication from workstation to workstation. The right terminal for any workstation can be found in the optiPoint family.

HiPath 4000 works on the principle of distributed architecture. All applications and solutions are installed only once and are controlled and administered from one central management system. High availability is ensured. The system works on open standards.

Everything to Make Your Business Mobile

Through the HiPath 4000 applications packages, employees have constant access to their workstations wherever they are. Your customers too will always find someone to talk to. From simple call centers all the way through to the most demanding multimedia-capable versions, any form of communication is possible with HiPath 4000. And the open IP-based system means that further applications and solutions can also be easily integrated in the future.

SIEMENS

Global network of innovation



HiPath 4000 supports the new mobile HiPath Feature Access. This feature allows users at IP clients to log on to any other IP client in the company by a simple login procedure (call number and PIN). Once logged on, these users can be reached at their usual call number and can access all the features available to them at their regular workstation. This feature makes it possible to implement extremely flexible workstation solutions and significantly reduce infrastructure costs.

The Best for Your Business

The entire portfolio is optimized for the demands of every type and size of businesses—easy to put into practice, reliable in performance and easy to use. With it, you become even more efficient.

Value

With HiPath, businesses benefit from the investments already made in their customers, partners, employees and communications infrastructure. The HiPath 4000 solution enables the reduction in communication costs, no longer separating voice and data. Only one infrastructure needs to be maintained. Processes are more reliable and are electronic all the way through.

Evolution

With HiPath, you achieve convergence without risk. And with HiPath 4000, existing and new system components are compatible. New applications and solutions can easily be integrated. Thus, businesses stay in touch with technology and will continue to profit from the benefits of IP-based systems in the future.

Choices

You decide when, where, how and to what extent to invest in innovative technology. You can choose from a broad range of IP convergence platforms, optiPoint phones and an optiClient™ solution (soft client). You set the pace in accordance with your demands and ideas.

High Performance IP Communication

HiPath 4000 offers a wide range of options for transforming your corporate communications solution into real-time IP communication. You can reduce your IP infrastructure costs even further by using high performance gateways, standardized compression algorithms, and HiPath 4000 V2.0's "any-to-any" IP payload switching.

Resiliency

HiPath 4000 offers a wide range of availability options. These can be implemented for both traditional and IP telephony. Because of its architecture, HiPath 4000 offers more availability options with IP telephony than you ever had with straightforward TDM-based systems. For example, you can set up a redundant IP gateway to take over your company's communication activities in the event of failure at the active IP gateway. Whole access points can survive for extended periods during IP infrastructure failure or host system unavailability, thus ensuring branch communication for business-critical applications.

Hardware

Modular, Stackable Hardware for Seamless Expansion

With its modularity, the availability of scalable access points plus powerful networking support, HiPath 4000 offers an ideal solution for an entire enterprise network—regardless of size and location requirements—and a perfect solution for seamless expansion.

The heart of HiPath 4000 is the HiPath 4000 communication server. This server is standards-based and consequently supports the direct integration of appropriate standard server applications in the system. The new AP 3700 enables complete 19-inch system configurations to be created and distributed via the IT infrastructure.

The HiPath 4000 communication server can be implemented and expanded in all configurations, from the smallest to the largest. It supports up to 15 direct connected access points and an additional 83 access points distributed over IP. A maximum of 12,000 digital, analog or IP subscribers is possible in these configurations. Configurations with up to 100,000 users can thus be implemented without difficulty in networked systems.

In addition, a duplex communication server option is available, and redundant power supply units are offered to increase the availability of the system.

The modular structure of HiPath 4000 enables cost-effective duplex solutions to be realized in small and mid-sized configurations as well.

Modular Software for Incremental Growth

HiPath ComScendo

The HiPath ComScendo software suite offers a full set of enterprise-class communications features for the HiPath 4000 Real-Time IP System. In addition to call handling and call forwarding, this utility includes back-end connectivity for applications and management.

HiPath ComScendo is cost-effective and flexible. A wide range of features are licensed and the communication environment can be easily modified in line with requirements. Of course, HiPath ComScendo also supports a large number of resiliency functions, such as numerous failover scenarios. In extreme situations, an independent system can take over system functions. HiPath ComScendo thus guarantees fault-tolerant and failsafe communication, and may be scaled to meet the needs of small, medium, large and very large enterprises. Its functions include:

Basic Features

- Call detail recording for outgoing, incoming, internal, and cross-network traffic
- Call journal for incoming and outgoing calls
- Operation with/without direct inward dialing
- Direct station selection key function
- Release/block call waiting
- Parallel ringing
- Flexible call forwarding with enhanced features such as different forwarding destinations for internal and external calls
- Call pick-up groups
- HiPath 4000 Manager for convenient administration of the HiPath 4000 system
- Integrated interface for innovative and fast remote access

User Features

- Redial
- Speed dialing system/individual
- Callback
- Three-party/eight-party conference
- Toggling
- Do-not-disturb
- Call waiting and prevention of call waiting
- Override and prevention of override
- Hotline
- Mobility features such as personal identification number (PIN) and HiPath relocate (relocates TDM subscribers from the terminal)
- Mobile HiPath Feature Access (network wide relocation of IP subscribers from terminal)
- Connection of attendant consoles (e.g. AC-Win)

Additional Features for Key Sets (Terminals With Multi-Line Functionality)

- Call bridging
- Automatic/manual privacy
- On-hook access to multiple lines at all key sets
- Simultaneous hold of key lines
- Exclusive and manual hold
- LED and ringer cut-off
- Line use indication
- Recall

Trunk/Networking Features

Trunk/Networking allows the HiPath 4000 to be connected to or operated via the public network, and permits the HiPath 4000 to be connected with any communication system via private networks.

Standard protocols and open interfaces are the key to evolving voice-centric switched networks to converged infrastructures. HiPath 4000 makes it possible to set up corporate networks in one location, throughout Europe or worldwide by linking several systems via dial-up and dedicated connections. Networking can be done via ISDN or IP—always with the full feature range of CorNet® NQ. In selected countries, DPNSS1 is also available with the CorNet NQ-DPNSS1-Gateway.

CorNet NQ is Siemens' standards-based signaling protocol for private network solutions. CorNet NQ is aligned with the international QSIG private network protocol for all features that are common between the two protocols. CorNet NQ transmits HiPath 4000 features and central services throughout the entire infrastructure.

These features enhance inter-site communications and improve customer service, thereby enabling flexible workflows. The most significant advantages of homogeneous networking include the following:

- Central administration with HiPath 4000 Manager
- Use of central services (e.g. HiPath Xpressions, central attendant services)
- Enhanced voice features such as call pick-up group, call park, directed call pick-up, call forwarding, callback on busy and callback no answer
- Charge-optimized use of the corporate network through least cost routing (LCR)
 - LCR ensures that the most economical route is selected. Calls are kept within the HiPath 4000 network for as long as economically viable. On transfer to the dial-up network, the most favorable network provider is selected (break-in and break-out)
 - Time-based routing to different carriers
 - Central administration of all LCR data with HiPath 4000 Manager, local and network-wide administration of all outgoing, incoming and internal calls

Call Detail Recording Enhanced

Call Detail Recording Enhanced records additional detail for all call phases, durations and intervals for outgoing, incoming, internal and call routing for all users including attendant console operators, pick-up groups and hunt groups, also enabling network-wide correlation of records and call paths.

High Performance Gateways of the HG 3500 Family

HG 3500 is a family of integrated IP gateways for seamless migration to an IP infrastructure. In addition to the range of functions offered by traditional platforms, this family can process voice and data connections over a single backbone, thereby reducing costs. Due to fact that software licenses are independent of the infrastructure used (analog, digital or IP), a major part of the investment is protected when moving forward in the direction of IP.

HG 3530—HiPath Feature Access

HG 3530 provides HiPath Feature Access for IP clients.

The following clients are supported:

- optiPoint 410
- optiPoint 600
- optiClient 130 V5.0
- optiPoint 400

HG 3530 provides a 10/100Base-T IP network interface and supports up to 240 IP clients. HG 3530 is available in two configuration variants (60 or 120 simultaneous gateway connections).

The integrated gateway uses G.711, G.723 and G.729A/B. Administration is via the HiPath 4000 Management systems, as for traditionally connected subscribers.

Since IP clients support the same features as stations connected by traditional means, these clients can be migrated without difficulty to an IP infrastructure.

HG 3550 IP Trunking for HiPath 4000

HG 3550 provides IP trunking for HiPath 4000. As an integrated gateway it enables two or more HiPath 4000 systems to be networked cost-effectively over IP while retaining the full set of CorNet NQ features. The straightforward scalability of the HG 3550 IP trunking solution (up to 90 channels per HG 3550) means that this solution can be customized in line with individual corporate requirements and locations.

HG 3550 drastically reduces network operating costs. A circuit-based dedicated private network may be replaced with an IP based network so that voice traffic is converged with data traffic over the IP network.

Using G.729A and B voice compression reduces the required bandwidth. Fax messages can be transmitted with T.38 (real-time fax) or G.711 (transparent fax). Like HG 3530, HG 3550 does not require an external gatekeeper because there is already a gatekeeper (Large Enterprise Gatekeeper or LEGK) integrated in the HiPath 4000 system.

Distributed Architecture

HG 3570/HG 3575 IP

Distributed Architecture

HG 3570 and HG 3575 make use of IP distributed architecture as described in the following section.

HiPath 4000 distributed architecture enables a large campus or even a multi-site configuration to be covered with a single HiPath 4000 system. IP distributed architecture refers basically to the capability for distributing access points over to remote or campus locations and linking them to the host system via an IP infrastructure.

IP distributed architecture HiPath 4000 enables access points to be distributed over an IP network.

Stations connected to access points are treated as if they were directly connected to the HiPath 4000.

There are two main components in IPDA scenarios:

HG 3570

HG 3570 modules are needed in order to establish a payload connection between the main HiPath 4000 site and the IP distributed access points. These are available either with 45 or 90 simultaneous gateway connections.

IP Access Points

There are two types of IP-based access points:

- AP 3300 IP offering 16 slots for HiPath 4000 peripheral modules and the AP 3700 IP offering up to 9 slots for HiPath 4000 peripheral modules.
- The AP 3700 IP can be mounted on a 19" rack and provides cost-effective configurations for small sites. It offers a redundant power supply option and if necessary can be supplied with a survivability module. This guarantees access point survivability in the event that the host system or the IP network becomes unavailable. Both access points feature HG 3575 with 45 or 90 gateway connections, which enable integration in the IP infrastructure.

The IP-based access points accommodate the majority of existing and future modules that would normally reside on a access point in HiPath 4000. The HG 3570 and HG 3575 modules have an Ethernet port (10/100Base-T) for connecting to the IP network.

Scalable Capacity

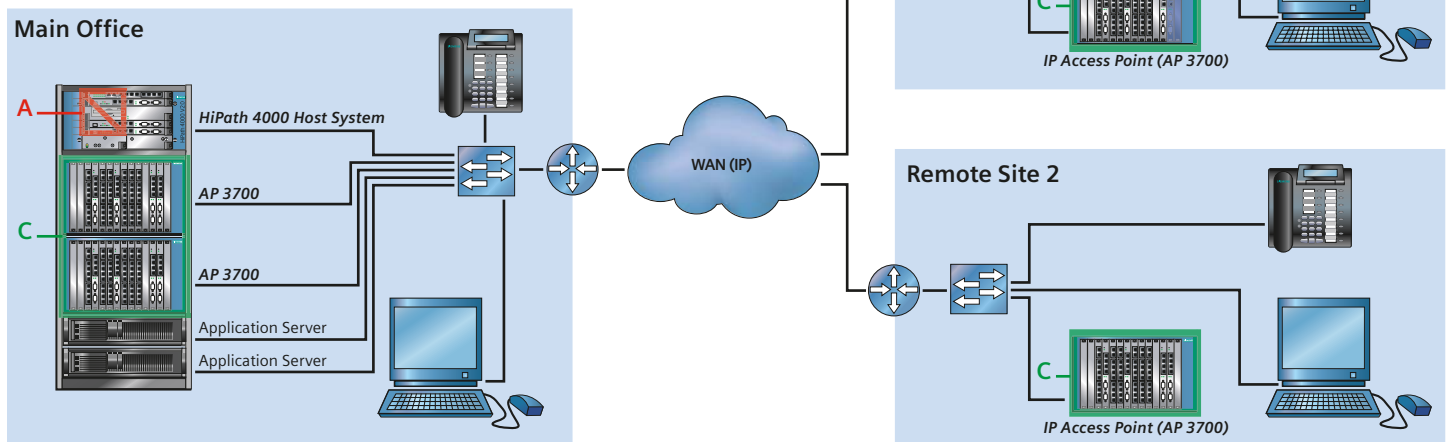
HiPath 4000 supports up to 83 additional IP-distributed access points, increasing the maximum number of digital, analog or IP subscribers to 12,000 per system. Configurations of up to 100,000 subscribers are possible in networked systems.

Payload Switching

In HiPath 4000, call switching is not restricted to the central switching unit.

- Connections between IP end points (IP clients or IP gateways) are switched directly in the IP network. Voice data can be switched here without an audible delay. Consequently, the bandwidth of the available IP network can be optimally exploited.
- TDM-based calls (analog or digital) within an IP-based access point are switched with no delay in a local TDM-based switching matrix on HG 3575, offering a switching capacity of 256 channels.

- A Loss of common control at the host system
- B Survivability module in IP access point provides full system control
- C Every telephone in all locations including those at host are run by survivability module(s)



Resilience Scenario: HiPath 4000 a solution that delivers on the promise of IP

Access Point Emergency Concept

This concept involves survivability for IP-based access points. An AP 3700 IP can be equipped with an optional control unit, known as a “survivability module.” If the host system is not available or an IP connection cannot be set up to this system, the survivability module can take over control of its own access point and other access points that do not have their own control module. The IP infrastructure between the access points must be operational for this to happen. However, it is also possible to include a survivability module in all (up to 83) AP 3700 IP access points connected to a HiPath 4000 system. This way, you achieve optimum resiliency for all access points connected to the system.

Signaling and Payload Survivability

The optional signaling and payload survivability function guarantees the highest level of availability for a HiPath 4000 system with IP-based access points.

The PSTN can be used as a backup network for both the signaling and payload path if the IP network fails or does not provide the quality required for voice.

Payload survivability uses standard PSTN trunk modules to access the PSTN. The Payload Survivability Path can also be selected automatically if all connections into the IP network are in use.

Summary of Main Features

Single System

- Full HiPath 4000 feature set available for all subscribers distributed over IP
- Central administration for the entire distributed IP architecture

Scalable, Large Capacity for HiPath 4000

- Up to 15 directly connected access points (AP 3300 or AP 3700)
- Up to 83 additional IP-based access points (AP 3300 IP or AP 3700 IP)
- Up to 12,000 digital or IP subscribers per HiPath 4000
- Up to 100,000 digital or IP subscribers in the HiPath 4000 network

Distributed, Scalable Architecture With Switching In

- HiPath 4000 (“traditional switching matrix”)
- IP network
- IP access points (TDM-based: up to 256 B channels)

Resilience Options for High Availability

- Access Point Emergency concept (survivability of IP access points)
 - 40 IP-based access points per survivability module
 - Up to 83 AP 3700s with one survivability unit each
- HG 3530 standby board
- Signaling survivability
- Payload survivability

High Voice Quality (e.g. via Embedded Echo Cancellation and IP Payload Switching)

Bandwidth Reduction Option (G.729A Voice Compression With 8/6.4 kbps and Silence Suppression)

Quality of Service Support via IP Network by Traffic Prioritization

- IEEE 802.1 p/q and
- IETF DiffServ

Maximum Number of Simultaneous Connections per HG 3570 and HG 3575 in the IP Network: 90

Benefits

Reduction in Network Infrastructure (“IP convergence”) For:

- Investments
- Administration
- Carrier fees

Reduced Administration and Application Costs Due To:

- Single system
- Central administration and applications

Larger Scope for Features and Applications (Single System)

Increased Choices—Thanks to IP-Based Access Points With Regard To

- Number
- Scalability
- Resilience

Leveraging the Benefits of an IP Infrastructure Without Sacrificing Feature Richness, Availability and Reliability

Desktop Productivity

optiPoint 500 Telephones

The design of the optiPoint 500 digital telephones allows fast and easy access to the HiPath 4000 features.

optiGuide® (the three dialog keys) facilitates interactive user prompts in conjunction with the display, and is characteristic of the operating principle.

In addition, the key lamp principle visualizes the activated functions.

The varied control functions are divided into submenus in a clear manner and can be read on the display. Moreover, the selection of the features can be initiated directly via the service key with a code.

Important functions are individually saved under function keys.

The following telephones are available:

- optiPoint 500 entry
- optiPoint 500 economy
- optiPoint 500 basic
- optiPoint 500 standard
- optiPoint 500 advance



optiPoint 500 Options

- optiPoint key module

optiPoint 500 Adapters

Specific workstation requirements can be satisfied quickly by supplementing the telephone with an innovative adapter removal of different adapters on the bottom of the telephone allows additional devices (e.g., PC, fax devices, telephones, headsets) to be connected directly to the workstation.

The following adapters are available:

- optiPoint Acoustic Adapter
- optiPoint Analog Adapter
- optiPoint ISDN Adapter
- optiPoint Phone Adapter
- optiPoint Recorder Adapter

CTI

A PC can be connected via the USB 1.1 interface with no adapter required. CallBridge® TU is a TAPI service provider for CTI solutions. It allows the telephones to communicate with the PC.

The CallBridge for data software replaces hardware components such as BRI cards or BRI adapters and turns the PC into a communication platform for data communication.

optiPoint 410

The feature that distinguishes the optiPoint 410 family's IP clients in particular is the customized range of models. A choice of five different telephone models is available to suit all workstation requirements. Adapters and modules are available for fine-tuning configurations. Whether you want a representative executive telephone, a conference telephone or a simple wall telephone, all you have to do is make the necessary investment.

The following telephone are available:

- optiPoint 410 entry
- optiPoint 410 economy
- optiPoint 410 economy plus
- optiPoint 410 standard
- optiPoint 410 advance



optiClient 130

optiClient 130 is a graphical user interface of the HiPath 4000 system phone functionality. The connection to HiPath 4000 is implemented over the integrated HG 3530 gateway.

Operation can be learned intuitively as with the optiPoint 500, and the optiGuide operating principle is available, of course. optiClient 130 is a pure software based solution.



Attendant Consoles

The attendant console is used by an attendant to set up internal or external calls. It may consist of either a simple attendant terminal or a PC workstation based on Microsoft Windows (AC-Win). It significantly enhances operator productivity and customer satisfaction with improved call handling. AC-Win can be used to access the electronic telephone directory DS-Win. AC Win MQ permits both call handling with multiple queues and parallel presentation of incoming traffic.

Directory Service (DS-Win)

DS-Win increases the efficiency and the communication quality of the telephone switch by quickly forwarding incoming calls from the AC-Win attendant console or the optiPoint 500 digital telephone. Attendant operators can access up-to-date information on agent presence/absence by connecting agent calendars in Outlook or Lotus Notes (optional). An email with automatic caller number display can be sent to absent agents as notification of missed calls.

Directory data is stored in an access database. All tables and mask layouts can be adapted on site in line with the requirements of the organization concerned. This data can be administered directly in DS-Win. In combination with HiPath 4000 Manager, DS-Win is integrated in the single entry point concept for directory data. Any changes to the central database of the HiPath 4000 Manager are automatically transferred to the DS-Win database at predefinable intervals.

Alternatively, the DS-Win database can be updated from the HiPath User Management directory.

Busy Lamp Field

The Busy Lamp Field is an application for the PC-based attendant console AC-Win. The permanent availability of the current status of the extensions enables more qualified and faster call handling for incoming calls. This avoids unnecessary waiting periods for the caller, which may occur because of busy subscribers or messaging systems.

HiPath Display Telephone Book

The HiPath Display Telephone Book allows digital telephones to access a central company telephone directory and/or a central directory for particular departments or divisions (group directory). In addition any DTB user can set up a personal telephone book with up to 300 entries. The last 30 incoming and outgoing calls are stored in a call journal. Numbers can be dialed directly from the directory or from the call journal.

In the HiPath Display Telephone Book, users can operate a name-based dial-up directory over the optiPoint 410, optiPoint 500 or optiPoint 600 IP telephone display for quick and easy access to up-to-date information on internal and external call numbers. This not only improves productivity and efficiency, it also reduces the cost of updating, publishing and distributing directory information.

Together with HiPath 4000 Manager the common directory database can be automatically updated on a daily basis from the central database of the HiPath 4000 Manager.

HiPath 4000 Management

HiPath 4000 Manager is the central management platform for homogeneous HiPath 4000/Hicom 300 stand alone systems and networks. As Element Manager, it is an integral component of the HiPath Management architecture. Together these provide a modular set of applications that can be tailored to the customer's needs:

- HiPath 4000 Assistant
- HiPath 4000 Manager with:
 - Configuration Management (CM)
 - Performance Management Networking (PM-N)
 - Performance Management Enhanced (PM-E)
 - Collecting Agent (COL)
 - Application Programming Interface (API)
 - SNMP Proxy Agent
- HiPath Fault Management with gateways to HP OpenView/IBM Net-View/ARS (product from Materna)
- HiPath Accounting Management
- HiPath User Management
- Directory-related applications:
 - HiPath DS-Win and HiPath Display Telephone Book

HiPath 4000 Assistant is included in the delivery scope of every HiPath 4000 system. It runs on the integrated server (ADP), exclusively supports stand alone systems and offers the following functions

- Board administration
- Backup and restore
- ACL trace functions
- Switch diagnosis support
- Error correction and configuration management for standalone systems

These functions can be accessed using a Web-based client PC.

HiPath 4000 Manager runs on a separate, high-performance Primergy server (Fujitsu Siemens Computers) and offers extensive management functions for HiPath 4000/Hicom 300 stand alone systems and networks. The Configuration Management, Performance Management Networking and Enhanced, Collecting Agent, API, HiPath Fault Management and HiPath Accounting Management applications can be accessed using several Web-based clients.

New Features in HiPath 4000 Manager V2.0

HiPath 4000 Manager is the successor to version 1.0. It supports the new hardware components and functions in HiPath 4000 V2.0. Key additional changes include

- Quick configuration changes to mass data (classes of service, default key assignment, etc.) in tabular form
- Wizard for convenient configuration of IP access points (AP 3300/3500/3700)
- Output of statistics on administration activities (display of MACs, carrier model)
- Enhanced HiPath Cordless administration (display of headset types and base stations)
- Time-controlled, periodic output of predefined reports in the Performance Management application
- Export of standard PM report results in Microsoft Excel and CSV format for further processing
- User-friendly report creation and flexible filter functions in Performance Management
- Additional enhancements and improvements in HiPath 4000 Management applications

Upgrade/Conversion to HiPath 4000 V2.0

HiPath 4000 provides “future-proof” convergence architecture for IP-based business communication and provides with numerous applications an essential basis for optimizing business processes.

HiPath is evolutionary and offers an individual, step-by-step path into IP-based enterprise communication. One objective of the HiPath strategy is to preserve and protect legacy investments and workflows. By introducing HiPath 4000 V2.0, we are enabling smooth and affordable migration to a real-time IP system.

Thus HiPath 4000 V2.0 is the consistent integration of Hicom 300 E/H into the HiPath strategy. There are three options for converting existing HiPath 4000 V1.0, Hicom 300 and Hicom 300 E/H systems.

Upgrade of HiPath 4000 V1.0 System

HiPath 4000 V1.0 system can be upgraded by simply upgrading the existing software to HiPath 4000 V2.0.

It may be necessary to upgrade certain applications to the latest version. For most applications, it is sufficient to upgrade HiPath Common Application Platform (CAP) to the latest version. HiPath 4000 Manager V1.0 (if used) must be upgraded to HiPath 4000 Manager V2.0. Obsolete hardware components should be replaced. An upgrade to HiPath 4000 V2.0 is supported for the following HiPath 4000 V1.0 systems:

- HiPath 4300 V1.0
- HiPath 4500 V1.0

Conversion of Hicom 300 E/H Systems

The conversion of Hicom 300 E/H systems means that hard disk and processor cards have to be replaced. A magneto-optical drive will be delivered with all HiPath 4000.

Operating software and applications have to be upgraded to the latest version, and the HDMS must be upgraded to HiPath 4000 Manager V2.0. Retired hardware components must be replaced.

Conversion to HiPath 4000 V2.0 is supported for the following Hicom 300 E/H hardware platforms.

- Hicom 300 model 30EP
- Hicom 300 model 80EX, 80EP

Conversion of Hicom 300 Systems

To protect your investment, your existing system will be converted to HiPath 4000 V2.0. For more information and individual offers, please contact your regional sales partner. Conversion to HiPath 4000 V2.0 is supported for all hardware platforms from Hicom 300 including legacy platforms:

- Hicom 300 model 30EX, 30E, 30
- Hicom 300 model 80

Technical Data

Variant HiPath 4000

Number of direct connected Access Points:
up to 15

Number of IP distributed access points:
up to 83

Number of IP distributed access points controlled by a single survivability module
up to 40

Number of digital/IP subscribers:
up to 12.000

Power Supply Voltage

Single Phase 230 V, ±10%

Single Phase 110 V, ±10%

Environmental operating conditions

Air temperature in operation

(air cooling) +41° F to + 104° F

Relative air humidity max. 85%

A “buffered” 48-volt direct current power supply can also be used.

Dimensions (in inches) and Weight (in lbs)

HiPath 4000 Communication Server—19" Configuration

17.3 W x 6.7 H x 11.7 D, max. 28.6 lbs

AP 3300—Base Cabinet, Common Control

30.4 W x 24.1 H x 25.6 D, 132.0 lbs

AP 3300—Cabinet 2-15 and AP 3300 IP

30.4 W x 15.8 H x 25.6 D,

66.0 lbs fully populated

AP 3700—13 Slot

17.3 W x 17.5 H x 17.1 D,

74.8 lbs fully populated

HiPath 4000 Stack—(Basic System plus three AP 3300)

30.4 W x 72.6 H x 25.6 D, max. 330.0 lbs

AP 3700 IP—9 Slot

17.3 W x 17.5 H x 17.1 D, 67.3 lbs fully populated without survivability unit/86.2 lbs fully populated with survivability unit

Compliance

Safety EN60950

Safety UL60950-1

EMC Emission EN55022 Class A

EMC Immunity EN55024 and

EMC FCC Part 15 Class A

EN1000-6-2

FCC Part 68

ANSI/TIA-968-A

Industry Canada CS-03

System Interfaces

Trunks

PRI(Primary Rate Interface)

- Four wire access to the ISDN network.
 - 23 user channels of 64 Kbps
 - 1 signaling channel of 64 Kbps
 - Transmission speed of 1544 Kbps
 - ETSI-ISDN (DSS1)
 - DPNSS1 in selected countries
 - NI-2 compliant

Analog

All analog trunks (main station interface/pulse signaling system) are supported.

- Integral Service Platform
 - Transport and network protocol TCP/IP
 - Asynchronous protocol PPP
 - File transfer protocol FTP
 - Web protocol HTTP
 - V2.4 asynch/synch access
 - Access via Ethernet or fast modem

Networking Interfaces

ISDN

The following protocols are supported: CorNet N, CorNet NQ, and QSIG

Analog

T1, CO, DID, and E&M

Ethernet With HG 3550:

10/100Base-T; G.711, G723, G.729A/B and T.38; DiffServ and IEEE 802.1p/q; CorNet IP

Ethernet With HG 3570/75

10/100Base-T; G.711, G.729A/B and T.38; DiffServ and IEEE 802.1p/q

User Interfaces

Digital

Two-wire interface for connecting optiPoint 500 telephones and attendant consoles

Ethernet With HG 3530

10/100Base-T; G.711, G.723 and G.729A/B; DiffServ and IEEE 802.1p/q

BRI-Bus

BRI connection for ISDN terminals, e.g., ISDN PC, ISDN fax (group 4). BRI-Bus connection for up to 8 ISDN terminals

Analog

Connection for analog terminals and equipment for voice, fax, videotext and data services, for example: standard telephones, card telephones, devices (e.g. answering machines, telephones, loudspeakers, paging systems, dictation and announcement equipment).

Our strengths—your gain

Siemens Communications is one of the world's largest players in the communications industry. Unique in global comparison, Siemens Communications consolidates experience and competence in every key market segment—communication applications, devices, infrastructure and services for enterprises, carriers, and service providers. In addition to its hardware and software portfolio, Siemens Communications offers comprehensive service along the entire value chain. For each and every customer, anytime, from A to Z.

Siemens Communications is developing solutions for tomorrow's communication. The road to the future has a name: LifeWorks™. It's an innovative concept aimed at making communication easier and more effective. Both in business and private life, for every network and every device. To concentrate on what's important for our customers, that's what LifeWorks and Siemens Communications stand for.

Siemens Communications is meeting customers' changing demands and helping them to realize advantages like never before.

<http://usa.siemens.com/enterprise>

Siemens—Award-Winning Solutions



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Strategy Leadership Award**
Frost & Sullivan
LifeWorks™



**2005 Technology Leadership
Award**
Frost & Sullivan
Siemens SIP-based
product portfolio



2005 Technology Pioneer Award
Customer Inter@ction Solutions®
Magazine
HiPath® ProCenter® Agile

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