



HiPath 4000 V3.0

Van Chung Telephone Company

Add: 151/157 Dang Tien Dong - Dong Da - Ha Noi

Tel/Fax: 04.537 5995/ 04.537 6006 - Hotline: 0946 123 123 / 0945 567 567

Email: kinhdoanh@vanchung.vn

The IT Switch for Medium-Sized and Large Enterprises

In a real-time IP infrastructure, all modules in an intelligent, convergent data and voice network enjoy seamless interaction, known as integrated IT.

Integrated IT combines a more compact IT switch with survivable media gateways and on-campus mobility solutions based on DECT or WLAN, supported by a range of powerful applications to guarantee all-round employee satisfaction and the greatest level of competitiveness for your company.

HiPath 4000 V3.0 is an innovative, state-of-the-art, real-time IP system that not only combines the advantages of IP-based communication with circuit-switched communication system functions, but also offers higher levels of resilience than expected from TDM-only solutions.

SIEMENS

Global network of innovation

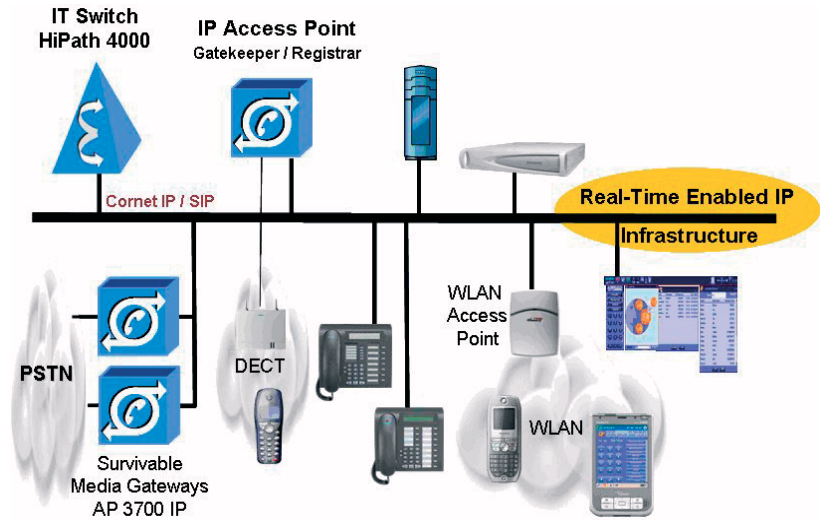
HiPath 4000 V3.0 supports the open standard SIP (Session Initiated Protocol) which permits seamless migration, simple integration, and offers reliable investment protection.

HiPath 4000 V3.0

- Hardware, software, and features
- SIP (open standard)
- Signaling and payload data encryption for IP subscribers and IP trunking
- IP gateways from the HG 3500 family
- Distributed architecture
- Desktop productivity
- HiPath MobileOffice portfolio
- CRM solutions
- HiPath Common Application Platform
- Branch solutions
- Upgrade/conversion to HiPath 4000 V3.0
- System interfaces
- Technical data
- Datasheets with further information on products mentioned in this document

HiPath 4000 V3.0 also guarantees total communication security by encrypting signaling and payload data from IP subscribers and IP trunking routes. This ensures that data packets cannot be sniffed.

The HiPath 4000 V3.0 IT switch is the ideal communication solution for medium to very large enterprises and groups.



Hardware, Software, and Features

Hardware

Modular, stackable hardware for seamless expansion.

With its modularity, the availability of scalable access points plus powerful networking support, HiPath 4000 V3.0 offers an ideal solution for an entire enterprise network – regardless of size and location requirements – and a perfect solution for seamless expansion.

The HiPath 4000 communication server is the central control unit. This server is standards-based and consequently supports the direct integration of standard server applications in the system, for example, the MMCS (Meet Me Conference Server). AP 3700 access points enable complete 19-inch system configurations to be created and integrated directly in 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 directly connected access points plus 83 IP-distributed access points. These configurations support up to 12,000 digital or IP subscribers. Configurations with up to 100,000 users can thus be implemented without difficulty in networked systems.

In addition, a duplex option is available for common control and redundant power supply 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 communication features for the HiPath 4000 IT switch. The (hardened UNIX) operating system provides maximum protection against viruses and hackers.

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 Assistant 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), HiPath Relocate (relocates TDM subscribers from the terminal) and Mobile HFA (network-wide relocation of IP subscribers from the terminal)

These features are available for digital system telephones (e.g. optiPoint 500) and HFA IP telephones (HiPath Feature Access).

Additional features for keysets (terminals with multiline functionality):

- Call bridging
- Automatic/manual privacy
- On-hook access to multiple lines at all keysets
- 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. By linking several systems via dial-up and fixed connections, HiPath 4000 enables corporate networks to be set up at a single location, throughout Europe, or worldwide. Networking can be done via ISDN, ATM or IP – always with the full CorNet NQ feature range.

CorNet NQ is a signaling protocol for private network solutions based on Siemens standards. It is aligned with the international QSIG private network protocol for all features shared by the two protocols.

The most significant advantages of homogeneous networking include the following:

- Central administration with HiPath 4000 Manager
- Implementation of central applications (for example, HiPath Xpressions, HiPath ProCenter)
- 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
- Use of integrated voice compression for digital dedicated lines

Call Detail Recording Enhanced

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

IP Gateways from the HG 3500 Family

HG 3500 is a family of integrated IP gateways for seamless migration to an IP infrastructure. These gateways enable voice and data functions to be connected in a single network, which reduces costs and guarantees the usual range of functions.

The HG 3500 gateway family offers:

- Voice compression (G.723, G.729)
- Payload switching/direct media connections
- QoS in accordance with IEEE 802.1p/q (VLAN tagging) and DiffServ (IETF RFC 2474)
- QDC support (QoS Data Collection)

HG 3530

HiPath Feature Access

HG 3530 provides HiPath Feature Access (HFA) for IP clients.

The following clients are supported:

- optiPoint 410
- optiPoint 420
- optiClient 130
- AP1120 HFA

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

Furthermore, HG 3530 encrypts signaling and payload data when it is transferred between gateways and IP clients (SRTP for RTP stream and AES-128 for signaling).

HG 3540

SIP Gateway

HG 3540 provides the Session Initiation Protocol (SIP) for subscribers and trunk/networking features.

The following clients are supported:

- optiPoint 150 S
- optiPoint 410 S V5.0
- optiPoint 420 S V5.0
- optiClient 130 S V4.0 (separate release)
- AP1120 SIP
- Windows Messenger

In contrast to HFA subscribers, SIP subscribers can only use limited SIP-based features. The SIP can also be used to create a cost-effective connection to an SIP carrier. SIP Q (CorNet NQ features over SIP) can also be used to network systems easily to other HiPath platforms (HiPath 2000, 3000, 4000 and 8000).

HG 3550

IP Trunking for HiPath 4000

HG 3550 provides H.323-based 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.

HiPath HG 3550 drastically reduces network operating costs. A circuit-based dedicated private network may be replaced by an IP-based network so that voice traffic is converged with data traffic over the IP network. Fax messages can be transmitted with T.38 (real-time Fax) or G.711 (transparent fax). As with HG 3530, HiPath HG 3550 does not require an external gatekeeper because a gatekeeper (Large Enterprise Gatekeeper or LEGK) is already integrated in the HiPath 4000 IT switch.

Furthermore, signaling and payload data can be encrypted between the individual HG 3550 gateways (SRTP for the RTP stream and AES-128 for signaling).

IT Architecture

HG 3570/HG 3575 IP Distributed Architecture

HG 3570 and HG 3575 support IP distributed architecture. HiPath 4000 IP distributed architecture enables a large campus or even a multi-site configuration to be covered with a single HiPath 4000 system. IP distributed architecture allows access points ("shelves") to be distributed over different locations which are then connected via an IP infrastructure.

Scalable Capacity

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

Payload Switching

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.

Access Point Emergency Concept

This is a survivability concept for IP-based access points. An AP 3700 IP can be equipped with an optional control unit known as an emergency unit. If the central IT switch is not available or an IP connection cannot be set up to this switch, the emergency unit assumes control of its own access point and other access points that do not have their own control unit. The IP infrastructure between the access points must be intact for this to happen. However, all AP 3700 IPs connected to an IT switch (up to 83) can be equipped with a survivability unit. This way, you achieve optimum security 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 B channels in the IP network are in use.

HiPath QoS Data Collection

The HG 3500 IP gateways support HiPath QoS data collection. This means that static data (for example, jitter, delay, packet loss, buffer overflows/underflows, threshold violations) is sent to a central unit (QCU – QoS data collection unit). This data can then be used to quickly and efficiently analyze any IP network problems that may occur.

ComScendo on a Button Suite

The HiPath ComScendo on a Button suite is an innovative off-the-shelf package of features, which – in conjunction with system display phones (e. g. optiPoint 500 or optiPoint 420) or an optiClient – provides new kinds of features to increase workplace productivity. The functions can be set up on the end device to be called up either by separate keys or via a menu that is called up via a single application key. The connection between HiPath 4000 and the corporate directory is generated by HiPath CAP (Common Application Platform – SW is supplied).

- EasyLookup: Simple access to the corporate directory (LDAP) via search parameters, output of results on the display and direct dialing of the displayed phone number.
- EasySee: Output of information from the corporate directory as PhoneCard on the PC.
- EasyMail: Opening of an e-mail window on the PC with the e-mail addresses of all contacts.
- EasyShare: Starting Microsoft Netmeeting on the PCs of all known contacts (in the directory).
- EasyConference: In combination with the HiPath Meet-Me Conference Server (MMCS), conferences can also be initiated directly and quite conveniently via a key at the optiPoint terminals.

HiPath Meet-Me Conference Server (MMCS)

Thanks to MMCS, all participants of a conference can dial in regardless of their current location and their infrastructure. All participants simply call the same number and are directly connected with each other – without having to take the trouble of having to call all participants. MMCS offers 1,000 meet-me conference rooms with up to 30 participants. Design and editing of personal conferences is done by the employees themselves, with settings for regular conferences being saved.

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 IT switch
 - Up to 100,000 digital or IP subscribers in the HiPath 4000 network
- Resilience options for high availability
 - Access point emergency concept (survivability of IP access points): 40 IP-based access points per emergency unit, up to 83 AP 3700 access points each with its own emergency unit
 - HG 3530 standby board
 - Signaling survivability
 - Payload survivability
- High voice quality (for example, via embedded echo cancellation and IP payload switching)
- Management support (for example, SNMP)
- Quality of service support in IP networks by prioritizing traffic.
 - 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.
- Features for increasing workstation productivity (for example, ComScendo on a Button Suite)
- More cost-effective IP carrier connection (SIP-based)

Desktop Productivity

optiPoint 500

optiPoint 500 telephones and options

The design of the optiPoint 500 telephones allows fast and easy access to the HiPath 4000 features. The three dialog keys which, in conjunction with the display, facilitate interactive user prompts are 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 optional modules and add-on devices are available:



optiPoint 410 and 420

The feature that particularly distinguishes the IP clients in the optiPoint 410 and 420 family is the customized range of models. A choice of five or four different telephone models respectively is available to suit all workstation requirements. Every optiPoint telephone in the 410 and 420 family satisfies all the requirements of VoIP telephony. All models support Computer Telephony Integration (CTI).

Telephones can be customized further by connecting adapters and modules (for example, the optiPoint application module or self-labeling key module). With its color display and integrated alphanumeric keypad, the optiPoint application module provides additional VoIP functions, including, personal telephone directory, LDAP, WAP browser, Java applications, and voice dialing. This makes the optiPoint application module a powerful standards-based platform for business-critical applications. The user-friendly module is ideal for employees who frequently use their telephones (telephone directory, LDAP access and mission-critical applications can be easily accessed by telephone). The optional optiPoint self labeling key module is an add-on module which also supports new and innovative technology for automatic key assignment. Depending on the system in use, the SHIFT

key provides access to up to four different levels each with twelve additional function keys (plus display). Up to two optiPoint self labeling key modules can be connected per telephone.

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.



Telephones are connected to HiPath 4000 via the integrated HG 3530 (HFA) or HG 3540 (SIP) gateway.

In this scenario, telephones in the optiPoint 410 and 420 family (in HFA mode) operate like an optiPoint 500 and all HiPath 4000 features are available at the telephone. For further information on optiPoint 410, refer to the relevant Datasheet.

optiClient 130

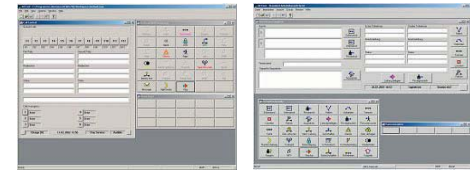
optiClient 130 is a computer-based mapping of the HiPath 4000 system phone functionality. The connection to HiPath 4000 is implemented over the integrated HiPath HG 3530 gateway. optiClient 130 is the ideal software solution for all mobile users who want access to optiPoint office phone features while on the move. optiClient 130 V5.0 also allows users to connect to corporate directories and personal call lists via LDAP. The modern and intuitive user interface makes optiClient 130 V5.0 the constant companion for clients who want to receive and make calls outside of their office environment.

For more information on optiPoint 130 refer to the relevant Datasheet.

Attendant Consoles

The attendant console is used by an attendant to set up internal or external calls. A PC workstation (AC-Win) can be set up on a Microsoft Windows XP (or Windows 2000) platform with a PCI card. AC-Win can be used to access the electronic telephone directory DS-Win. AC-Win MQ provides multiple queuing capabilities and displays incoming calls simultaneously.

For further information on the AC-Win enhanced attendant console, refer to the relevant Datasheet.



AC-Win MQ

AC-Win 2Q

Busy Lamp Field (BLF-Win)

The Busy Lamp Field (BLF-Win) is an application for the PC-based attendant console AC-Win. The permanent availability of information about the current status of the extensions enables more efficient and faster handling of incoming calls. This avoids unnecessary waiting periods for callers due to busy extensions or messaging systems.

HiPath 4000 Management

HiPath 4000 Manager is the central management platform for homogeneous HiPath 4000/Hicom 300 standalone 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 Assistant is included in the delivery scope of every HiPath 4000 system.
- HiPath 4000 Manager with Configuration Management (CM), Performance Management Networking (PM-N), Performance Management Enhanced (PME), Collecting Agent (COL), Application Programming Interface (API), SNMP Proxy Agent.
- HiPath Fault Management (HiPath FM) with gateways to HP OpenView/IBM NetView and ARS
- HiPath Accounting Management (HiPath AM)
- HiPath User Management (HiPath UM)
- Directory-related applications: HiPath DS-Win and HiPath DTB

For more information on HiPath 4000 Management refer to the relevant Datasheet.

HiPath MobileOffice Portfolio

HiPath Xpressions

HiPath Xpressions Entry

HiPath Xpressions Entry is a voice memory system for saving, checking, and distributing voice messages over personal voice mailboxes. HiPath Xpressions Entry also features the most efficient audio text applications with its "automatic switching system" and the "automatic information and order service."

HiPath Xpressions Standard/Advanced

This is a mobility sector application. This solution is based on a Unified Messaging system which, with the help of additional HiPath applications (for example, HiPath ComAssistant or HiPath SimplyPhone for Outlook), can be transformed into a universal multimedia messaging engine for mobile and location-specific users. All users receive an individual multimedia box in which their e-mails, voice and fax messages are saved.

For more information on HiPath Xpressions refer to the relevant Datasheet.

HiPath CorporateConnect, including Teleworking Solution

HiPath CorporateConnect is an innovative mobility solution which provides mobile workers with the "one number service" and enhanced voice features from the HiPath 4000 IT switch both on and off campus. In addition, mobile communication is transferred as much as possible to the company's existing communication infrastructure. This reduces mobile communication costs. The HiPath CorporateConnect Teleworking client is a home-office solution that can be installed on a fixed, off-campus workstation. The Teleworking client extends all familiar HiPath 4000 telephony functions to a user's home office.

For more information on CorporateConnect and Teleworking, refer to the relevant Datasheets.

HiPath DeskSharing

HiPath DeskSharing is the HiPath 4000 communication platform's "hoteling" application. This application increases return on investment (ROI) by considerably reducing real estate costs.

HiPath DeskSharing allows users who have not been allocated a fixed office to relocate their telephone for a matter of hours or days to a "temporary" workstation (desk or office).

HiPath Cordless Enterprise

HiPath Cordless Enterprise permits mobile cordless communication with the same range of user-friendly features as the opti-Point family. Its flexible system architecture and the use of digital radio transmission based on the DECT standard ensure a high degree of mobility within buildings and across wide-ranging campuses.

For more information on HiPath Cordless Enterprise refer to the relevant Datasheet.

HiPath DAKS – Digital Alarm and Communication Server

HiPath DAKS allows effortless and extensive alerting, conferencing, and notification and makes it possible to reach subscribers quickly. It uses the existing telephone infrastructure of the company and the public fixed and mobile networks.

Internet-controlled telephone conferences

Subscribers can now define, book, convene, and control telephone conferences quickly and easily on the Internet via any browser and from any location.

For more information on HiPath DAKS refer to the relevant Datasheet.

HiPath ComAssistant

HiPath ComAssistant offers rule and presence management and CTI functionalities in a Web-based application combined with the HiPath 3000 and HiPath 4000 communication platforms. This application's browser access and optional voice recognition (speech) options guarantee the user a high degree of mobility. This makes users more efficient and more productive when working together with customers and leads to greater profits and reduced costs.

HiPath SimplyPhone for Outlook/Lotus Notes

HiPath SimplyPhone for Outlook is a CTI application for workstations that uses MS Outlook as its universal communication and organization tool. HiPath SimplyPhone extends MS Outlook with convenient CTI features.

HiPath Simply Phone for Lotus Notes offers the same functionality as HiPath SimplyPhone for Outlook integrated in Lotus Notes/Domino.

For more information on SimplyPhone for Outlook/Lotus Notes, refer to the relevant Datasheets.

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

For more information on HiPath Display Telephone Book refer to the relevant Datasheet.

Directory Service DS-Win

DS-Win increases the efficiency and the communication quality of the telephone switch by quickly forwarding incoming calls to the AC-Win attendant console or opti-Point 500 workpoints. Through optional connection with the Outlook or Lotus Notes calendar, the operator can check whether the intended call recipient is currently present or absent. In combination with HiPath 4000 Manager, DS-Win is integrated in the single entry point concept for directory data.

For more information on Directory Service DS-Win refer to the relevant Datasheet.

Contact Center Solutions

HiPath ProCenter Portfolio

HiPath ProCenter is an essential component of the HiPath 4000 applications and offers solutions for an extensive range of multimedia contact center requirements. It is a packaged, modular contact center solution, featuring patented advanced skills-based routing, universal queueing, multi-site capabilities and CRM pre-integration.

HiPath ProCenter skills-based routing helps improving customer service. It ensures that every incoming interaction is handled by the best skilled agent and minimizes wait times. Contact center operating costs can be reduced due to enhanced agent productivity and utilization.

HiPath ProCenter multimedia capabilities allow fully integrated Email, Web Collaboration and Outbound voice interaction management, along with a fully blended Agent desktop. Advanced multimedia skills-based routing ensures that each incoming customer interaction is routed to the best skilled agent, regardless of contact medium. This improves customer service and boosts agent satisfaction and productivity. Unique multimedia Presence and Collaboration tools allow extending the contact center to the enterprise. Experts or specialists anywhere in the company can make themselves available to help solving customer issues, should their expertise be required. This helps increasing first contact resolution rates and lowers contact center operating costs due to fewer repeat calls, "blind" transfers, callbacks or other follow-up activities.

By integrating with existing enterprise CRM solutions such as SAP, Siebel and Microsoft CRM, HiPath ProCenter seamlessly ties into the enterprise CRM strategy. Further, the HiPath ProCenter SDK provides streamlined customization and integration capabilities.

HiPath ProCenter offers:

- Expandability from 5 to 750 agents, on one unified application base
- Designed for Traditional TDM, Converged or Pure-IP Telephony
- Seamless migration from voice only to a Multi-Channel / Multimedia Solution
- Advanced Multimedia Skills-Based Routing
- Visual management application for unified administration, routing, monitoring and reporting
- Innovative and highly intuitive agent desktop
- Integrated multimedia presence and collaboration tools
- Streamlined Associate Desktop to extend the contact center into the enterprise

HiPath Common Application Platform

In conjunction with the HiPath Common Application Platform, HiPath 4000 provides enhanced standards-based interfaces for the connection of classic CTI and media applications. HiPath CAP supports open interfaces, enabling the use of a variety of third-party software products to provide the best possible support for customer business processes.

Standard TAPI, JTAPI or CSTA interfaces (in ASN.1 or XML format) are available for connecting classic CTI applications. A high-performance signaling system supports simple automatic dialer utilities and customer-specific call center applications.

Media applications are first connected over TAPI 2.1 for signaling and a WAV API for voice. Additional interfaces will be supported in future. This will pave the way for the straightforward IP connection of applications, eliminating the need for special cards to handle S_0 or S_{2M} . The available media stream is harmonized between HiPath 3000, 4000, and 5000 which facilitates the use of media applications in mixed networks.

The HiPath Common Application Platform is a middleware solution within the HiPath architecture for Windows and Linux operating systems. Siemens proprietary applications (such as, ProCenter, ComAssistant, etc.) use this middleware. However, it can also be used with partner applications.

HiPath 4000 V3.0 is supplied in a package with HiPath CAP V3.0 and CAP Entry licenses. The number of clients is not limited and only depends on the size of the configuration ordered. An automatic dialer (for example, the ComScendo on a Button Suite) can therefore be used at every workstation without CAP licenses.

Branch Solutions

HiPath Trading

HiPath Trading is one of a new generation of trader systems with an innovative architecture, ergonomic user interface and excellent networking features that give banks, exchanges, traders, and brokers a decisive competitive advantage. HiPath Trading is a software-based trading system that is integrated in HiPath 4000.

For more information on HiPath Trading refer to the relevant Datasheet.



HiPath Hotel Advanced

HiPath Hotel Advanced is an intelligent communication solution that brings HiPath 4000 performance to the hotel front office. HiPath Hotel Advanced is aimed at hotels that already have a conventional front office system and that require a link to a communication system. These may be either individual hotels or hotels belonging to a chain.

For more information on HiPath Hotel Advanced refer to the relevant Datasheet.

Upgrade/Conversion to HiPath 4000 V3.0

The HiPath 4000 IT switch offers a future-proof, real-time IP system architecture with a wide range of availability options. Its numerous applications form the ideal basis for optimizing business processes. HiPath is a scalable system that also supports open standard-based communication with SIP. One objective of the HiPath strategy is to preserve and protect legacy investments and workflows. By introducing HiPath 4000 V3.0, we are enabling smooth and affordable migration to an IT switch.

Upgrading HiPath 4000 Systems

HiPath 4000 V1.0/V2.0 systems can be updated by simply upgrading the existing software to HiPath 4000 V3.0.

Some applications may need to be upgraded to the latest version. However, most applications only require a HiPath CAP upgrade to the latest version (V3.0). If you are using HiPath 4000 Manager, this should be upgraded to HiPath 4000 Manager V3.0. Obsolete hardware components should be replaced.

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.
- Operating software and applications have to be upgraded to the latest version, and the HDMS must be upgraded to HiPath 4000 Manager V3.0. Obsolete hardware components should be replaced.

Easy Conversion

Easy Conversion includes the migration of Hicom 300 V3.4/V3.5/V3.6, and 300E/H systems as well as HiPath 4000 V1.0/V2.0 to the latest HiPath 4000 version.

System Interfaces

Trunks

- S_0 (basic rate interface)
Four-wire access to the ISDN network.
 - 2 user channels of 64 Kbps each
 - 1 signaling channel of 16 Kbps
Transmission speed of 144 Kbps
 - ETSI-ISDN (DSS1)
- S_2 (primary rate interface)
Four-wire access to the ISDN network.
 - 30 user channels of 64 Kbps
 - 1 signaling channel of 64 Kbps
 - Transmission speed of 2048 Kbps
 - ETSI-ISDN (DSS1)
 - DPNSS1 in selected countries
- 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

- S_0/S_2
The following protocols are supported: CorNet N, CorNet NQ, QSIG, PSS1, E&M, CAS, MFC (DPNSS1 in selected countries)
- Analog
Various protocols
The following protocols are supported: CES (Circuit Emulation Service), CorNet NQ, QSIG
- IP trunking (H323) with HG 3550:
10/100 BaseT, G.711, G.723, and G.729A/B, CorNet NQ
- SIP trunking with HG 3540:
10/100 BaseT, G.711, G.723, and G.729A/B

User Interfaces

- $U_{PO/E}$
Twin-wire interface for connecting optiPoint 500 telephones and attendant consoles
- HiPath Feature Access (HFA) gatekeeper (H.323) with HG 3530
10/100 Base BT; G.711, G.723, and G.729A/B
- SIP Registrar with HG 3540
10/100 Base BT; G.711, G.723, and G.729A/B
- S_0 bus
 S_0 port for ISDN terminals, for example, ISDN PC, ISDN fax (Group 4). S_0 bus connection for up to 8 ISDN terminals
- T/R port for analog terminals and equipment for voice, fax, videotex, and data services, for example, standard telephones (such as Euroset, Gigaset), coin or card telephones and other devices (for example, answering machines, telephones, loudspeakers, paging systems, dictation and announcement equipment).

Technical Data

Variant	Number of access points directly connected	Number of IP-distributed access points	Number of digital/IP subscribers
HiPath 4000	up to 15	up to 83	up to 12,000

Environmental Operating Conditions

Air temperature in operation (air cooling)	+5 °C to +40 °C
Relative air humidity	max. 85%

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

Dimensions (W x H x D in mm) & Weight

HiPath 4000 Communication Server	440 x 170 x 300	max. 13 kg
HiPath AP 3300	773 x 645 x 515	max. 30 kg
HiPath AP 3700	440 x 445 x 433	max. 25 kg
HiPath AP 3300 IP	773 x 645 x 515	max. 30 kg
HiPath AP 3700 IP	440 x 445 x 433	max. 22 kg

Power Supply Voltage

Single Phase	100 V - 240 V
Three Phase	190 V/400 V

Compliance

Safety	EN60950
EMC Emission	EN55022 Class A
EMC Immunity	EN55024 and EN1000-6-2

Datasheets with Further Information on Products Mentioned in this Document

Product	Order number
optiPoint 500	A31002-H8400-A100-*-7629
CTI	
● CallBridge TU	A31002-G9500-A130-*-7629
● CallBridge for Data	A31002-G9500-A140-*-7629
optiPoint 410	A31002-H1000-A500-*-7629
optiPoint420	A31002-H1000-A520-*-7629
optiClient 130	A31002-A2000-B260-*-7629
Attendant Consoles	
● AC-Win and AC-Win MQ, Enhanced Attendant Consoles for HiPath 4000 4000 and Hicom 300 E/H	A31002-G4100-A150-*-7629
HiPath 4000 Management	A31002-H3300-A100-*-7629
HiPath Xpressions	A31002-S2300-A100-*-7629
HiPath CorporateConnect, including Teleworking Solution	
● CorporateConnect	A31002-H2400-A270-*-7629
● Teleworking	A31002-G3000-A120-*-7629
HiPath Cordless Enterprise	A31002-G2100-A210-*-7629
HiPath DAKS - Digital Alarm and Communication Server	A31002-S1700-A150-*-7629
HiPath SimplyPhone for Outlook/Lotus Notes	
● HiPath SimplyPhone for Outlook	A31002-X7000-A210-*-7629
● HiPath SimplyPhone for Lotus Notes	A31002-X7000-A200-*-7629
HiPath Display Telephone Book	A31002-S3500-A100-*-7629
Directory Service DS-Win	A31002-G6600-A100-*-7629
HiPath ProCenter	
● HiPath ProCenter Standard	A31002-H2400-A350-*-7629
● HiPath ProCenter Enterprise	A31002-S2270-D101-*-7629
HiPath Trading	A31002-G9100-A100-*-7629
HiPath Hotel Advanced	A31002-E1300-A210-*-7629
HiPath CAP V3.0	A31002-X7000-A300-*-7629

Our strengths – Your advantages

Siemens is known worldwide as a trailblazer in the advancement of information and communication technologies. No other company offers such a comprehensive and innovative portfolio.

Regardless of which communication technology you are using today – or want to use tomorrow – Siemens offers you the right solution.

www.siemens.com/hipath



© Siemens AG 02/2006
Siemens Communications • Hofmannstr. 51 • D-81359 Munich

Reference No.: A31002-H3130-D100-2-7629

The information provided in this document contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. The trademarks used are owned by Siemens AG or their respective owners.