HiPath 3000 V6.0

High-Performance Modular Communications Platform for Small and Medium-Sized Enterprises

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The HiPath 3000 IP Convergence System offers medium-sized enterprises with up to 1,000 users reliable voice communication with high-quality terminal devices that are very simple to use.

If HiPath 3000 is used as a standalone system, it can be operated with up to 500 workpoints.

Up to 32 HiPath 3000 systems can be networked and managed as a single system by using a HiPath 5000 Realtime Services Manager (refer to the HiPath 5000 Realtime IP System datasheet).

HiPath 3000 comes in three variants for different-sized locations:
HiPath 33xx, HiPath 35x0 and HiPath 3800. HiPath 3800 is a high-end hardware platform with improved performance. An extensive and common set of features is provided across all systems through the HiPath ComScendo featureset.

System Family

HiPath 3000 is available for various installation scenarios

- Floor mounted: HiPath 3800

- Wall mounted: HiPath 3550/3350

- 19" rack mounted: HiPath 3800/3500/ 3300

HiPath 3800

HiPath 3500

HiPath 3550

HiPath 3300

HiPath 3350

HiPath ComScendo

Features

Caller list. Unanswered internal and external calls are listed by system telephones with display if external numbers include a directory number (ISDN) (caller identification). Internal calls show the name of the caller. The calls are listed with date and time, and the number of attempted calls is recorded. A callback can also be initiated via this list.

Do Not Disturb/On-hook. Users can reject incoming calls. When Do Not Disturb is activated, callers hear the busy tone. Authorized users (e.g. the operator) can override this function. Acoustic signalling can be deactivated in system telephones so that calls only appear on the display (not available for optiset E/optiPoint 500 entry).

Call pickup. Users can pick up calls within a call pickup group or selectively for individual colleagues in a node or outside nodes on their own telephones.

Intrude. Authorized stations can intrude on other users' calls in progress.

Call Barring.
Various classes of service can be allocated to each station user.

Paging (Internal Announcement) to system telephones or over external loudspeakers.

Call Details for each terminal or each trunk can be displayed on a system phone, e.g. call duration. (Call Accounting requires the purchase of external equipment.)

Group call for a total of 800/150/20 (model dependent) groups with max. 20 users per group. Individual stations can leave the group temporarily.

Trunk keys (MULAP)
The following flexible setups are possible with trunk keys:
- teams,
- executive/secretary functions,
- feature handset (Gigaset) in parallel with a system telephone on a single call number (only in conjunction with HiPath Cordless).

LDAP interface for access to enterprise-internal telephone directories with direct dial option via the telephone.

Internal telephone directory. All extensions are stored with their associated names in the system's internal telephone directory. They can be searched and dialed directly via the display on system telephones.

Speed dial for individual station/system. All systems enable up to 10 destinations to be stored individually on each telephone and up to 1,000 centrally in the system. System numbers are accessible via the internal telephone directory.

Toggling between two existing connections.

Text messages. Users can send predefined (e. g. "visitor waiting") or individually composed short messages (only optiPoint 600 office with USB keyboard) to other users with display phones.

Internal text messages can also be sent to Gigaset's cordless handsets.

Advisory messages can be left on your telephone (e.g. back at:....).

Project code. Telephone costs can be assigned to a specific procedure or project by entering the project code (max. 11 digits). This can also be done while a call is in progress.

Call number suppression. Callers with ISDN connections can prevent their call number being sent to the terminal of the station called.

Call ring tones can be differentiated for internal calls, external calls, recalls and callback.

Multi-telephone ringing. Call ringing simultaneously at several telephones.

Switches (actuators/sensors) (optional)
It is possible to use a control relay module to connect up to four free relays, which can be selected via codes (optional).

Door interface.
For entrance telephone and door opener functions. Calls from an entrance telephone can be transferred to external destinations via external call forwarding.

Automatic redial (expanded) for the last three external call numbers dialled.

Standard Functions

- **Intercept position e.g. route to the operator**
- **Camp-on/call waiting tone**
- **Display languages** (can be specified individually)
- **Conference** (internal/external)
- **Line seizure** (automatic)
- **Music on hold**
- **External music source** (optional)
- **Night service/day service**
- **Park**
- **Consultation**
- **Call back** for busy line (when free) and unanswered call (when next used)
- **Call forwarding/Divert** - no answer, no reply
- **Hunt group** (linear/cyclic)
- **Pick up Groups**
- **Group calls**
- **Telephone block** (individual code block)
- **Telephone book, central**
- **Transferring a call** (internal/external)
- **Caller list**

Attendant Consoles

optiPoint Attendant

An optiPoint system telephone can be used as an attendant console. This can be organized as an information, intercept, or night service station.

The attendant console can be accessed internally via a second directory number.

If the number of users on hold reaches a preset level, calls will be forwarded to a specified destination. This will also take place when the length of time a call is queued exceeds a specified limit.

optiClient Attendant

This software package simulates an enhanced attendant console on a PC's screen. All features can be activated and executed via the PC keyboard and mouse.

The PC Attendant can be connected via V.24, USB or via IP.

optiPoint BLF

The busy lamp field (BLF) is an additional module principally for optiPoint Attendant. BLF has over 90 freely programmable function keys which show a station's call status via LED (free, busy, called).

Braille console

Optical displays are translated into Braille by an add-on device connected to the PC. This enables visually impaired employees to perform all call processing tasks. (Not available in all countries.)

VoiceMail

Integrated VoiceMail
Entry VoiceMail (EVM) is a standard feature of HiPath 33x0 and HiPath 35x0 in version 5.0 or higher. It supports 2 voice channels, 24 mailboxes (up to 4 of which can be AutoAttendant) and provides up to 2 hours of recording time.

Executive /Secretary Features

These features ensure rapid communication between executives and secretaries.

- Camp-on at an executive's phone by the secretary's phone

- Secretarial function transfer

- Call transfer to the secretary's phone

- DSS keys for executive/secretary

- Conference corner telephone with parallel call signaling to the executive's phone

- A private line can be set up for either the executive or secretary

System Administration

System administration by the customer can be carried out either using the telephone or with HiPath 3000/5000 Manager C (additional information available in the HiPath 3000/5000 Manager C datasheet).

HiPath 3000/5000 Manager C is a customer tool that runs under Microsoft® Windows and is connected to the system via a V.24, S_0 or TCP/IP-based LAN interface.

The feature Assistant TC allows customers to perform administration tasks on any system telephone with a display. The optiPoint 500 telephone enhanced by the optional **"optiPoint application module" with integrated keyboard is recommended for this.**

Hotdesking/Mobility (IP Telephones)

These features enable several users to share a workstation or to work as teleworkers from home keeping their extension numbers. The telephone retrieves personal settings when the user logs on. Extension numbers, station features and key labeling* remain unchanged (*in the case of optiPoint 420 with self-labeling keys).

Data Protection/Data Security

To protect the communication system and customer data from unauthorized access, the Service menu can only be entered by means of individual user IDs.

User Solutions

HiPath Cordless

is an integrated solution based on the DECT standard for full-coverage availability throughout the company premises using cordless phones. (Not available in all countries.)

HiPath Xpressions Compact

is an integrated voice messaging system for deferred and location-independent storage, retrieval, and distribution of voice messages in users' individual voice mailboxes. HiPath Xpressions Compact provides an automatic switching function.

HiPath Xpressions

is a complex unified messaging solution. The communication central supports the user in everyday voice, fax and e-mail, and SMS information exchange. This enables delivery of customized solutions for every requirement from small entry-level options to networked communication solutions.

HiPath ProCenter Compact

is the professional, cost-effective call center software solution for up to 32 agents. This allows optimum telephone-based customer service transactions - from order placement to complaints management.

HiPath ProCenter Office, Agile, Entry, Standard and Advanced

are additional products for comprehensive contact center solutions. They allow optimum deployment of resources for customer interaction across all channels.

HiPath TAPI 120/170 and HiPath CAP

The driver software was developed as a supplement for connecting a PC to digital system telephones on HiPath. CTI applications conforming to TAPI are therefore integrated. Supported CTI applications are: HiPath Simply Phone for Outlook and Lotus Notes, HiPath ComAssistant and HiPath ComScendo on a Button Suite (XML Phone Services).

Teledata Office/HiPath Accounting Management

Calculates the costs of all communication services (telephone, fax, internet) and enables analysis according to extension, trunk or department. The communication data can be transmitted directly via a LAN interface to a central server for analysis. An extensive range of server-based applications for call centers and unified messaging are also available, as well as a high performance LAN interface.

HiPath Fault Management

Supports maintenance staff in permanent operational monitoring of the communication technology, following up even the slightest indication of developing faults and finding an immediate remedy.

HG 1500

HG 1500 is an integrated component of the HiPath 3000 system family and extends communication system functionality for data traffic. The HG 1500 module is the **networking** basis for max. 64 HiPath systems via the customer's IP network.

VoIP: HG 1500 converts voice signals into IP data packets, which can then transmitted be via the data network.
Application interfaces: HG 1500 provides the foundation for the web-based use of third-party applications.

No external routers or additional servers are required for LAN PCs because the router functionality, firewall functions, and security options are already integrated components of HG 1500.

Encryption

Together with the integrated IP gateway HG1500, HiPath 3000 offers a solution for tap-proof communication with IP terminals and between IP systems. The solution is based on international standards. Uninterrupted protection is afforded from terminal to terminal. The call data is encrypted between the Voice over IP terminals or gateways using the Secure Realtime Transport Protocol (SRTP, RFC 3711), and the CorNet IP signaling protocol is encrypted using AES (Advanced Encryption Standard). The decisive advantage of this solution is that no additional software or hardware is needed for the encryption and decryption processes. Encryption and decryption are performed locally at the physical endpoints of the connection (at the terminal or gateway) and are already integrated in the system.

SIP

The SIP protocol (Session Initiation Protocol) is an ASCII-based signaling protocol used for communication in IP networks. SIP is offered together with the existing H.323 and CorNet IP protocols on a gateway/gatekeeper module (HG1500) depending on existing B channels. SIP is supported on HiPath 3000 from version 6.0 upwards.

Call Charge Management

A variety of PC programs are available for recording and assigning incoming and outgoing call charges, permitting evaluation by extension, trunk, department etc.

The call charge data can be transmitted directly to a central server via the LAN interface.

Networking

Permanent Digital Connections

Corporate communication networks can be implemented using permanently connected digital trunks between several HiPath systems with the CorNet NQ protocol and between HiPath and non-Siemens systems with the QSig protocol.

IP Networking

With HiPath 3000 it is possible to network multiple locations (nodes) via TCP/IP-based data lines.
HiPath 3000/4000/5000 networking is based on the CorNet IP protocol.

HiPath 4000 Small Remote Site

HiPath 3000 can be used as a Surviable Media Gateway for HiPath 4000 in small branches with up to 15 users.

Virtual Network

A virtual network of HiPath systems via digital dial-up lines is economically advisable in situations where permanent connections are not viable due to low traffic levels or where the full range of services offered by a permanent connection is not required.

Least Cost Routing

HiPath 3000 uses this function to automatically control the path used for an outgoing call. Connections can be routed via various carriers or a private network. The routing tables are used to find the most favorable connection path for external calls.

Since individual network providers often offer different tariffs for certain connections and conditions, Least Cost Routing enables the most economical connection for each outgoing telephone call to be selected automatically depending on the time of day and route.

Telephones

optiGuide provides interactive user prompting via display and dialog keys and allows features to be activated via digital system telephones and IP telephones.
The following telephones can be connected to HiPath 3000 to meet the most varied workstation requirements:

optiPoint 410 / 40 S

These IP telephones offer optimum voice quality (CorNet-IP/SIP protocols):
● optiPoint 410 entry
● optiPoint 410 economy
● optiPoint 410 economy plus
● optiPoint 410 standard
● optiPoint 410 advance

optiPoint 420 / 420 S

Top-class IP telephones with self-labeling keys (CorNet-IP/SIP protocols):
● optiPoint 420 economy
● optiPoint 420 economy plus
● optiPoint 420 standard
● optiPoint 420 advance

Wireless LAN (WLAN)

IP WLAN telephone for the Voice over WLAN market:
● optiPoint WL2 professional V1.0

optiPoint 500

Each of these digital system telephones is a top class product in its own way:
● optiPoint 500 entry
● optiPoint 500 economy
● optiPoint 500 basic
● optiPoint 500 standard
● optiPoint 500 standard SL (USA only)
● optiPoint 500 advance

optiPoint 600 office

The top model with illuminated touchscreen display. This can be used as a digital telephone or as a data access device to the IP network.

Gigaset

Cordless DECT telephones
● Gigaset SL1/S1 professional
● Gigaset S2 professional
● Gigaset M1 professional

optiPoint 400

The IP telephones in the optiPoint 400 Family are supported.

System telephone optiset E

The optiset E system telephones are supported.

Soft Client

optiClient 130

optiClient 130 turns your PC into a telephone, making it the hub of communication for voice, data, e-mail and Internet.

Add-On Devices

optiPoint key module

16 additional dual-programmable function keys with LED.

optiPoint display module

Easy access to information in databases or online services.

optiPoint application module

Add-on module with color display and integrated alphanumeric keyboard offering access to information in databases and online services. Terminal and Administrator mode – HiPath Manager TC with optiPoint 500 is supported by HiPath 3000.

optiPoint slk module

13 self-labeling keys with LED and display.

optiPoint BLF

Add-on device for optiPoint 500 telephones with 90 function keys and LEDs.

Adapters

A wide range of adapters are available offering a high level of flexibility when it comes to meeting the requirements of individual workstations.

● optiPoint phone adapter
● optiPoint ISDN adapter
● optiPoint analog adapter
● optiPoint acoustic adapter
● optiPoint recorder adapter

AP 1120

2-port analog adapter for fax and modem. AP 1120 makes it possible to integrate devices into the LAN network which are not initially IP compatible, such as analog fax machines or analog telephones.

Software Solutions for the USB Interface

CallBridge Collection

This comprises CallBride TA, CallBridge TU and CallBridge IP. This centralization of TAPI service providers allows you to telephone using your PC via the optiPoint 500 telephone's USB interface.

System Interfaces

On the trunk side
Euro ISDN
● ISDN2 basic rate interface
    – System connection
    – Point-to-multipoint connection

● ISDN30 (primary rate interface)

US-ISDN
● Basic rate interface (BRI) and primary rate interface (T1/PRI)

Analog Trunks
● Analog trunk connection with direct dialing (DDI/DID)

On the user side
Analog
● For connecting analog terminals such as fax, telephones, modem.

Digital
● For connecting digital two-channel system telephones

● For connecting DECT base stations

Euro ISDN
● S_0 user bus for up to 8 independently powered terminal devices (e.g. Group 4 fax, ISDN-PC card)

HG 1500
● 10/100 Mbit/10 BaseT Integration in LANs

Technical Data

Other Interfaces

V.24
- For connecting service PCs, call charge computers, call charge printers

V.24 with CSTA protocol
- For connecting hotel applications, care sector applications

E&M interface
(For HiPath 3700/3750 and HiPath 3800)

S_{0FV}, S_{2MFV} or PRI with CorNet N and Cor-Net NQ or QSig protocol
- Permanent digital connection

LAN interface
- 10 Mbit for system administration via TCP/IP

Power Supply

Systems, by default, are designed for network operation. Possible power outages can be optionally bypassed with an uninterruptable power supply (UPS).

Rated Input Voltage (AC) 88 - 264V
Rated Frequency 50/60 Hz
Battery Supply (DC) -48 V

Environmental/Operating Conditions

Temperature +5°C to +40°C
Relative Humidity 5 - 85%

Range

Between HiPath 3000 and system telephone: 500 m max. Up to approx. 1,000 m with plug-in power supply unit, depending on line network.

Between networked HiPath systems on premises belonging to the company:

S_0 permanent connection approx. 1,000 m

S_{2M} permanent connection 250 m max., depending on line network.

Installation of network adapters is necessary for increasing range.

Configuration	HiPath 3800/ (basic system/ 19" rack)	HiPath 3550 (wall-mounted system)	HiPath 3500 (19" rack)	HiPath 3350 (wall-mounted system)	HiPath 3300 (19" rack)
Analog users (a/b) max.	384	96	44	36	20
Digital users ($U_{P0/E}$) max.	384	72	48	24	24
IP users	500	192	192	96	96
HiPath Cordless users max.	250	64	32	16	16
Number of HiPath Cordless Office base stations max.	64	16	7	3	3
V.24 interfaces	2	2	1	2	1
Entry VoiceMail (EVM)	–	1	1	1	1
optiClient Attendant (PC attendant console)	6	4	4	4	4
optiPoint key modules	100	100	100	30	30
optiPoint BLFs	12	6	6	–	–
optiPoint ISDN adapters	128	48	48	8	8
IP network nodes in LAN	64	64	64	64	64
Number of HiPath HG 1500 boards	8	3	3	2	2
Dimensions (H x W x D) in mm	490 x 410 x 390	450 x 460 x 200	155 x 440 x 380 (3.5 U)	450 x 460 x 130	89 x 440 x 380 (2 U)
Weight	16.5 kg basic box 15.0 kg expansion box	approx. 8 kg	approx. 8 kg	approx. 6 kg	approx. 6 kg
Case color	steel blue /ergo gray	warm gray	blue-green basic	warm gray	blue-green basic
Software version	V6.0				
Capacity limits and applications may vary depending on the customer scenario and country release.					

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.

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