Information

HiPath 3000 V7

HiPath 3000 – the innovative communications solution for Internet telephony in small and medium enterprises

Communication for the open minded

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Quality

in customer support is crucial to the success of your business. As a consequence, your customers' ability to reach you is vital. And your telephone is your main communications tool. You are looking for an efficient solution that is sufficiently flexible to grow with your company.

HiPath 3000 is an innovative and flexible convergence platform that perfectly adapts communications to the company structure in small and medium-sized businesses. Whether your aim is to enhance growth or seamlessly integrate branch offices or mobile staff, the three expansion stages of the HiPath 3000 family (for up to 1,000 users distributed across up to 32 locations) are the perfect solution for optimizing costs and business processes.

HiPath 3000 is a secure, reliable communications system with high failure tolerance. The system is ideal for both packet-switched (LAN/WAN) and line-switched (ISDN) environments, or a mixture of the two. This guarantees gradual migration on both the network side and user side. The flexibility of HiPath 3000 is especially obvious in mixed infrastructures where Voice over IP is installed but traditional analog and digital telephones, fax machines, and modems are still in use. HiPath 3000 supports any combination of IP, analog, and digital telephones, as well as PC clients and cordless phones.

Enhanced features of traditional telephony combined with applications, such as, CTI (Computer Telephony Integration), UCD (Uniform Call Distribution), and Unified Messaging, support all communications processes at the workplace and in all work environments. If an extension is left unattended, the Team function or integrated voicemail* ensures that no call is missed. And HiPath 3000's user-friendly executive-secretary function ensures the smooth flow of communication at attendant or secretary stations in the reception area where multiple communications processes converge. Integrated call distribution ensures reachability and guarantees fast customer contact. All these factors combine to make telephony not only easier to use, but also more efficient.

SIP – the basis of Internet telephony

As a public standardized protocol, SIP (Session Initiation Protocol) fulfills the requirements for interoperability between systems and devices from different manufacturers. SIP makes communications solutions more flexible, accelerates business processes, and improves teamwork. A number of real-time and multimedia services are already available to give an overview of user availability – who can be reached when and via which device – including such services as voice, video, instant messaging or presence services. As the "de facto" standard for Internet telephony, SIP induces Internet telephony service providers (ITSP) to provide attractive applications and business models. HiPath 3000 is ideally prepared for handling new carrier services and already supports new SIP options, including SIP phones or user and system connections for Internet telephony.

Secure company connection

HiPath 3000 offers modern security mechanisms for optimal connection to the company network to better serve the needs of increasing staff mobility and new working methods (teleworking, for instance). The system's integrated VPN (Virtual Private Network) function lets staff access confidential information at any time, from any location in the world over a low-cost, secure Internet connection. Another major advantage is that mobile staff can be reached via their company phone number, regardless of their location. This service is both cost-effective and secure.

Reduced costs

Consolidating voice and data communication in an IP-based network not only enables the deployment of applications that decrease company call charges and hardware costs, it may also increase productivity. A separate voice network no longer needs to be installed and maintained, resulting in decreased outlay for administration and maintenance for systems and applications, as these tasks are now centralized. In addition, existing Internet connections can be optimized for calls to the public telephone network, thereby reducing the costs for separate ISDN lines.

Flexible configuration

The concept "one wire to the desk" allows additional telephones to be connected via an existing LAN cable. Integrated mini-switches provided on most optiPoint telephones are used for connecting the PC. Power over Ethernet switches supply power to IP telephones without the need for additional PSUs. Convergent platforms allow DSL and ISDN connections to be combined. ISDN connections can be configured as backups in case a fault occurs in the IP connection to the provider. They can also be configured as additional channels, for example, for fax machines or modems.

HiPath ComScendo

As a software suite, HiPath ComScendo provides both the realtime IP system, HiPath 3000, as well as the telephones, with the most comprehensive array of voice communication services. And all of this regardless of whether it is used via IP, TDM telephones or PC clients.

Selected HiPath ComScendo features:

- Advisory messages
- Intercept position/attendant console
- Camp-on/call waiting tone
- Missed calls list
- Do Not Disturb/"ringer cutoff"
- Call pickup
- Call forwarding from extensions
- Call source and call destination display
- Call intrusion on call forwarding and call pickup
- Classes of service
- Executive/secretary function
- Display languages (can be specified individually)
- Paging (internal announcement)
- Call charge recording
- Group call
- Internal texts for feature handset
- Internal telephone directory
- Conference (internal/external)
- Speed dialing (individual/central)
- Automatic line seizure
- Trunk keys
- Toggle
- Text messages
- Music-on-hold with system-driven announcements
- External music source (optional)
- Night service/day service
- Park
- Account code
- Relay (actuators/sensors)
- Consultation
- Callback on busy and no answer (automatic)
- Call number suppression
- Call signaling
- Call forwarding after timeout on RNA, immediately on busy
- Group ringing
- Hunt group (linear/cyclic)
- Changeover on (individual code lock)
- Telephone book, central
- Entrance telephone and door opener functions
- Transferring a call (internal/external)
- Number redial (enhanced)
- Automatic recall from public network carrier
- Encryption (SPE)

Always available: integrated voicemail*

If an individual extension is left unattended, integrated voicemail* ensures that no call is missed. Availability is enhanced by many user-friendly features:

- up to 24 individual mailboxes
- up to two hours recording capacity
- adjustable recording length
- a choice of two personal greetings

The "Auto Attendant" function redirects callers to another station, for instance, if a line is busy - simply and conveniently.

* Not available for HiPath 3800

HiPath 3000 V7 – Technical Data





Configuration	HiPath 3300 (19" rack)	HiPath 3350 (wall-mounted)	HiPath 3500 (19" rack)	HiPath 3550 (wall-mounted)	HiPath 3800 (standard system/19" rack)
Max. analog subscribers (a/b)	20	36	44	96	384
Max. digital subscribers ($U_{PO/E}$)	24	24	48	72	384
IP users	96	96	192	192	500
Max. HiPath Cordless Office subscribers	16	16	32	64	250
Max. number of HiPath Cordless Office base stations	3	3	7	16	64
optiClient Attendant (PC attendant console)	4	4	4	4	6
Key modules	30	30	30	100	100
Integrated voicemail (max. number of boxes)	24	24	24	24	–
Dimensions (H x W x D in mm)	89 x 440 x 380 (2 U)	450 x 460 x 130	155 x 440 x 380 (3.5 U)	450 x 460 x 200	490 x 440 x 430
Weight	approx. 6 kg	approx. 6 kg	approx. 8 kg	approx. 8 kg	approx. 34 kg (fully fitted)
Case color	blue-green basic	warm gray	blue-green basic	warm gray	steel blue/arctic gray

OpenStage and optiPoint telephones
The ideal choice for any requirement, with expansion modules, adapters, and accessories (such as a headset), and the flexibility to meet the needs of each individual employee.

Other optiPoint functionality enhancements:

- optiPoint application module
- optiPoint adapter

Other OpenStage functionality enhancements:

- OpenStage phone adapter
- OpenStage key module, OpenStage 40 BLF

OpenStage 80

OpenStage HFA/TDM

The OpenStage family represents the next generation of communication devices. It is intuitive in functionality and interface, integrated through interoperability with other devices, and multimodal to allow access to various services and applications. The OpenStage is designed to be extremely user friendly.
The following models are approved for use with HiPath 3000:

- OpenStage 20 TDM
- OpenStage 40 TDM
- OpenStage 60 TDM
- OpenStage 80 TDM
- OpenStage 20 HFA
- OpenStage 40 HFA
- OpenStage 60 HFA
- OpenStage 80 HFA

optiPoint 410

optiPoint 420

optiPoint 410/420

Flexible IP telephones with higher voice quality and uniform user interface for convenient access to features. IP telephones with self-labeling display keys, ideal for desk sharing. As key labeling is automatically transferred, a user's own key layout is displayed when he or she logs on to the phone, and the respective voicemail status is shown on the activated function key.

- optiPoint 410 entry
- optiPoint 410 / 420 economy
- optiPoint 410 / 420 economy plus
- optiPoint 410 / 420 standard
- optiPoint 410 / 420 advance

Available with the protocol variants SIP or HFA.

optiPoint 500

The optiPoint 500 family remains also available.

Cordless telephones

Cordless telephony based on DECT

- Gigaset S3 professional
- Gigaset SL3 professional (shown)
- Gigaset M2 professional

Communication via Wireless LAN Access Points

- optiPoint WL 2 professional (shown)
- optiClient installation on your laptop

HiPath applications

A selection of the many applications that may be optionally installed on HiPath 3000 systems.

Do you want more mobility for your staff?

The integrated solution for cordless DECT telephones means that your employees can be reached directly at any time, anywhere on your premises. No calls will be missed and queries can be dealt with more quickly. Uninterrupted radio contact via distributed base stations ensures maximum mobility due to increased coverage at the same transfer quality. The IP infrastructure can also be extended via WLAN access points to cover wireless voice and data communication.

Do you need to integrate mobile users into the regular office environment?

Fixed Mobile Convenience is the solution: Customer mobility is enhanced through integration of mobile users into the HiPath 3000 communication system. Mobile users are connected to the HiPath system via their mobile phones or teleworking desk phones. They can access their normal office phone functions (such as consultation, conference, toggle) regardless of their current location.

Outgoing calls from mobile devices are always connected via the HiPath system, and the number of the regular HiPath extension is displayed to the called party. Incoming calls are signaled on the the HiPath extension and on the mobile device. This means that users can always be reached under one and the same number, whether they are at the office or on the road (**One Number Service**).

HiPath 3000 offers an integrated mobility solution (**Mobility Entry**) and a mobility solution based on Xpressions Compact (**HiPath Xpressions Compact Mobility**).

Do you want to improve CRM?

A professional and cost-effective call center software solution for up to 32 agents improves telephone-based customer service, from order acceptance to complaint handling. As well as integrated UCD, a supervisor station enables realtime reporting and comprehensive statistical functions.

* up to 150 agents depending on the individual configuration (HiPath 3800 + ProCenter Agile)

optiClient Attendant

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

Do you want to improve reachability?

An integrated voice storage system in individual versions of HiPath 3000 allows voice messages to be accessed and distributed in a user-specific voicemail box with individual announcements.

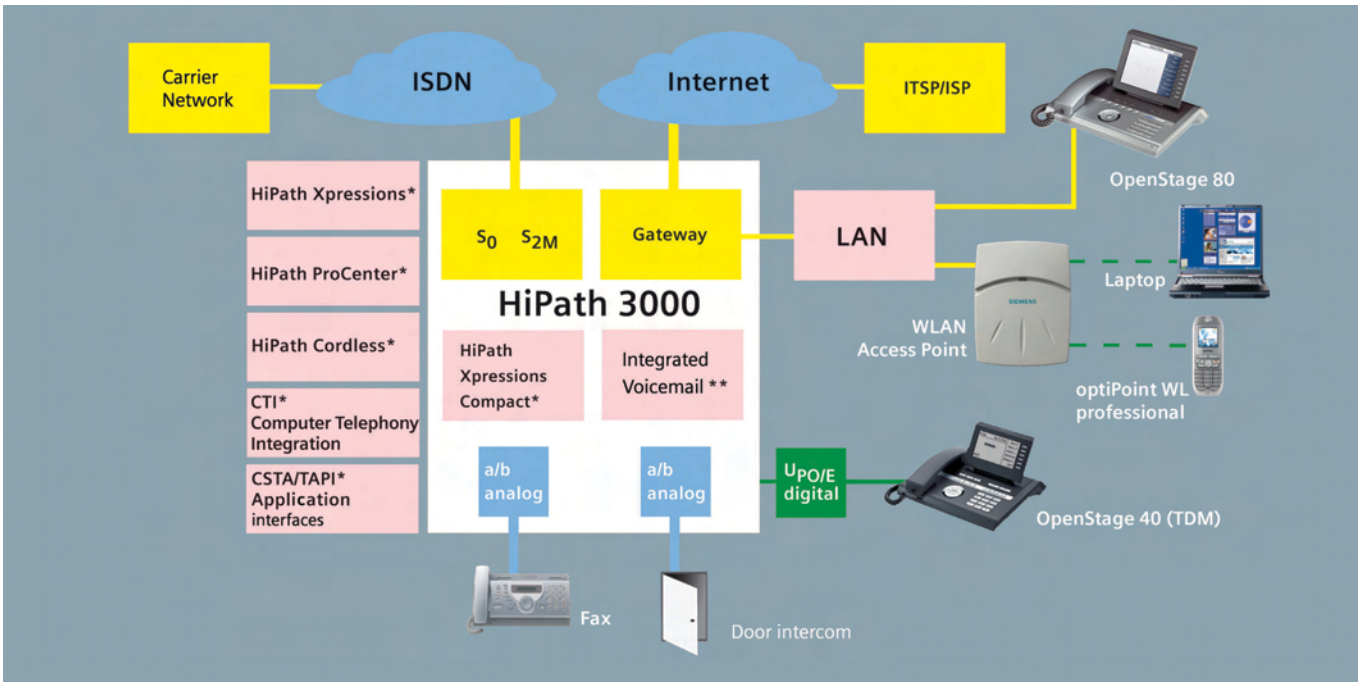
Stored calls can therefore be accessed at any time, from any location. HiPath Xpressions also offers enhanced Unified Messaging functionality.

Do you want to integrate PCs and telephony?

Connecting PCs to digital system telephony enables TAPI applications to be integrated via CTI. All of the telephone traffic can be managed more professionally by means of call registration, call identification, and entry in action lists. Database connections allow customer queries to be answered competently.

Do you need cost transparency and IP accounting?

As well as evaluating the costs of all communications services (phone, fax, Internet), costs can be analyzed according to station, trunk or department. Communications data is directly transmitted via a LAN interface to a central server.



HiPath 3000 – scenario overview

HiPath 3000 offers a number of communication options for small and medium-sized businesses. Access to the public network takes place via analog or ISDN network operators or via Internet telephony connections to alternative Internet (telephony) service providers (ISP/ITSP). IP telephones with integrated mini-switches can be smoothly integrated into an existing LAN infrastructure via the "one wire to the desk" concept. Cordless communication for both voice and data applications is also possible using WLAN base stations. Digital system telephones ($U_{P0/E}$) can be combined with IP telephones and updated or replaced. Traditional analog phones, fax machines, and entrance telephones or cordless phones based on a DECT solution can also continue to be operated. Voicemail** is already integrated in smaller systems. For requirements on a larger scale, the integrated HiPath Xpressions Compact* solution offers voicemail boxes with a number of feature ranges and with a menu-guided AutoAttendant function). The CSTA (Computer Supported Telecommunications Applications) interface is available for all HiPath 3000 models for decentralized (1st-party) and central, server-based (3rd-party) CTI solutions. Additional server-based solutions for Unified Messaging and Contact Center solutions via standardized application interfaces serve to accelerate business processes and increase productivity.

* not HiPath 3800
** optional solution components

System interfaces

On the network side

Euro ISDN
- S_0 basic rate interface with DSS1 protocol
  - System connection
  - Point-to-multipoint connection
- S_{2M} primary rate interface with DSS1 protocol

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

Analog trunks
- Analog trunk connection without direct inward dialing (DDI/DID) with CLIP support

ITSP (Internet Telephony Service Provider) support via SIP
- System connection
- User connection

On the user side

IP
- CorNet IP or SIP for integration of IP terminals

Analog
- For connecting analog terminals such as fax, telephones, modem.

Digital
- For connecting digital two-channel system telephones ($U_{P0/E}$)
- 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
- 2x10/100BaseT interface / 10/100 Mbit/s LAN/WAN gateway
  - For connecting IP terminals
  - CorNet IP support of HiPath 2000/ 3000/4000/5000
  - SIP support QV2 of HiPath 2000/ 3000/4000/5000/8000

Other interfaces

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

V.24 with CSTA protocol
- For connecting external applications, in the hospitality or health care sectors, for example.

E&M interface
(HiPath 3800)

S0FV, S2MFV or PRI with CorNet-N, CorNet-NQ and QSig protocols
- Permanent digital connection

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

Technical data

Power supply

Systems, by default, are designed for mains operation. Possible power outages can be optionally bypassed with an uninterruptible 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.

The ranges in the Deutsche Telekom public network are unlimited.

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