Information

HiPath 4000 V6
Best-In-Class Converged Communications for the Medium to Large Enterprise

HiPath 4000 has sold more than 18 million ports in 80 countries across the globe. As a proven converged communication solution it provides business process and workflow integration, high availability, strong security, powerful performance and unified communications choices for any business.

Communication for the open minded

SIEMENS

Best-in-class

The HiPath 4000 is a converged IP communication platform for companies with 300 up to 100,000 users. The maturity and feature-richness of HiPath 4000 is proven daily in more than 25,000 customer installations. The future-proof architecture supports IP-distributed branch concepts and complex corporate networks as well as stand-alone systems.

With the new HiPath 4000 V6 software architecture, it is designed to offer customers cost effective choices to optimize and secure communications that help enterprises increase workplace productivity and effectiveness.

As a powerful and highly available communications solution, it offers a rich set of endpoints, mobility choices, edge solutions, unified communications and standards-based integration and interoperability with business-critical applications and systems.

It ties this capability together with its built-in assistant and powerful set of system management applications that are easy to use and provide comprehensive capability to system administrators. Coupled with a strong global presence and availability of Siemens' OpenScale services, it allows enterprises to maintain business continuity and to focus on their own strengths.

					System management...		
Flex License	Analog	OpenStage TDM	OpenStage HFA / SIP	Video		User Management	...and much more!
Applications	UC Enterprise	Attendant Console Suite	Contact Center	Alarming		Fault Management	
Mobility	Cordless	VoWLAN	Fixed Mobile Convenience	UC Mobile Client		QoS Management	
Architecture	Geo-Separated Duplex	Convergence Driver	SoftGate Virtualization	Branch Survivability		Accounting Management	
IP Connectivity	IP Access Points	HiPath 4000 SoftGate	SIP Service Provider	OpenExchange		HiPath 4000 Manager	
Open Interfaces	Based On Open Standards And Published Interfaces – Native SIP Trunking, SOAP/XML, SNMP and MIB Traps, SIP Interface To Subscribers, QSIG, TAPI, JTAPI, CSTA, CDR and Import/Export XIE API					HiPath 4000 Assistant	
HiPath 4000 V6 – Cost Effective Choices							

HiPath 4000 V6 Software: Flexible, Reliable, Scalable, and Open

IT architecture

Modular, stackable, and reliable solution for seamless expansion

HiPath 4000 V6 offers an ideal solution for an enterprise communications infrastructure – regardless of size and location requirements. With its modularity, the availability of scalable access points, software-based branches, plus powerful networking support – analog, TDM, or IP – it provides a perfect solution for seamless expansion and can be integrated in any IP infrastructure.

The HiPath 4000 communication server is the high available central control unit with redundant power supplies and hot-redundant LAN interfaces. The new HiPath 4000 V6 duplex architecture enables complete redundancy for call control, CSTA application connectivity and administration, even in geo-separated locations. The AP 3700 access points fit in a standard 19-inch shelf and are integrated directly in the IT infrastructure.

The HiPath 4000 SoftGate application offers software-based and cost-effective HiPath 4000 VoIP functionalities running on standard x86 server platforms.

The HiPath 4000 communication server can be flexibly implemented in configurations to support smallest to the largest enterprise. It supports up to 15 directly connected access points plus 83 IP-distributed access points or SoftGate server.
A maximum of 12,000 subscribers can be supported in these configurations per HiPath 4000 communication server. Configurations with up to 100,000 users can be implemented without difficulty in networked systems.

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

OpenScape Convergence Driver

OpenScape Convergence Driver is the standard server deployment of the new HiPath 4000 V6 software architecture and is an important step in the OpenPath Transformation strategy for new and existing OpenScape Voice solutions. The Convergence Driver strategy is to combine the HiPath 4000 capabilities with OpenScape Voice SIP capabilities, offering our customer the best of both worlds in hybrid deployments.

With OpenScape Convergence Driver, our solution bridges the HiPath 4000 and OpenScape Voice worlds seamlessly and cost-effectively on standard servers, allowing customers to move to OpenScape Voice when they are ready.

Access Point Emergency concept

HiPath 4000 AP-Emergency completes the survivability functionality for access points (AP) and HiPath 4000 SoftGate. With APE, a continued operation is also possible in the event of a failure of the central call control or WAN Link failure to central call control. In cases of host system failure, this survivability software can assume control of AP 3700 IP, other IP-APs, or SoftGates – thus ensuring sustained communication capabilities within the enterprise. A prerequisite is that the APs controlled by a survivability unit still have a functional IP infrastructure. This gives you optimal security for all access points and SoftGate branches connected to the HiPath 4000 communication server.

Signaling and Payload Survivability for IP branches

For this, voice is routed via PSTN and signaling is routed via IP or PSTN survivability connections for IP branches. This expanded survivability functionality can be used as an alternative dynamic path if the IP network fails, all available VoIP resources are occupied, or IP quality is found to be poor. Also, static configuration of payload routing over PSTN can be used for smooth transformations of existing branch offices from PSTN to IP networking. This flexible mix between IP and TDM networking for payload and best possible signaling capabilities allows the migration from heterogeneous to homogeneous branch networks with centralized application deployments at customer pace. Signaling and Payload survivablity allows highest flexibility in optimization operational expenses (OPEX) – in any market or communication environment.

HiPath 4000 SoftGate application

The HiPath 4000 SoftGate application provides cost-effective VoIP functionalities with reliable branch survivability options and an easy IT integration in the HiPath 4000 solution and management suite. This new software application offers full HiPath feature access for IP endpoints and SIP connectivity for trunking and subscriber, based upon a standard server with Linux SLES 11 SP1.

Any HiPath 4000 SoftGate site integrates seamlessly in the communication system and network like any IPDA access point (AP 3700 IP with HG 3500) – in terms of features and administration.

The open architecture of the HiPath 4000 SoftGate application also enables integration in a VMWare virtualization environment, IPv6 capabilities, or peer-to-peer video integration.

With this application, customers can reduce capital cost (CAPEX) plus operational cost (OPEX) and deploy centralized applications with uniform user experience. Using SoftGate media server capabilities, it can also be used for software-based music-on-hold and announcements deployments.

IP gateway HG 3500

HG 3500 is an IP gateway for seamless migration to a VoIP infrastructure.
HG 3500 offers:
- HiPath Feature Access (HFA) for IP Endpoints, such as OpenStage HFA or AC-WIN IP
- IP connectivity between IP branches and direct-connected access points.
- Feature-rich SIP-Q trunking for connections to HiPath 4000, OpenScape Voice and other HiPath platforms
- Native SIP subscribers, such as OpenStage SIP or OpenScape MobileConnect
- Native SIP trunking
- Flexible and economical SIP connectivity with service providers
- Signaling and Payload encryption based on TLS and SRTP
- Up to 120 simultaneous connections
- Simultaneous use of several functions e.g. subscribers and trunking
- A-law/μ-law conversion capabilities
- Resilience for HG 3500 functions with HG 3500 standby board
- IP connectivity resilience with redundant LAN interfaces
- High voice quality via embedded G.168-compliant echo cancellation and end-to-end payload connections
- T.38 Fax transmissions for SIP subscribers, SIP trunking, and IP connectivity between IP branches (AP 3700 IP or SoftGate)
- Voice compression (e.g. G.729)
- Adaptive jitter buffer
- Voice activity detection
- Comfort noise generation
- Packet loss concealment
- SNMP Network management support (SNMP Agent, SNMP Version 2, MIB2, Private MIB for media streams)
- QoS in accordance with IEEE 802.1p/q (VLAN tagging) and DiffServ (IETF RFC 2474)
- Support of QoS Data Collection (QDC) for VoIP quality monitoring

Software and features

The HiPath 4000 software installed on the Linux SLES 11 SP1 operating sytem offers a full set of converged enterprise-class communication features.

Easy and flexible licensing

HiPath 4000 V6 Flex License is the new brand name for the flexible licensing concept that is used for the enterprise-class functionalities that are supported for the different subscriber and trunking interfaces. Every analog, TDM, IP, cordless (DECT), and WLAN subscriber interface is part of the Flex License. The same is valid for every analog, TDM, and IP trunking interface.

In addition to the already known HiPath 4000 functionalities, voicemail and basic CTI functionality are part of HiPath 4000 V6 Flex License. Flex License offers highest possible flexibility for license investments.

System features

- Integrated connectivity for analog, TDM, HFA, and SIP subscribers
- Cost-saving Least Cost Routing for analog, TDM, and IP trunks
- Attendant Console
- Different time zones
- Multilingual user interfaces
- Virtual numbering plan
- Multitenant functionality
- IP Distributed Architecture (IPDA)
- Software-based branches – HiPath 4000 SoftGate: Flexible configuration of local tones and announcements per branch office
- Branch survivability
- Gatekeeper redundancy for HFA subscribers
- Bandwidth resource manager for IP endpoints and branches
- IPDA Signaling and Payload survivability
- Signaling (TLS) and Payload (SRTP) encryption for VoIP (Voice over IP) connections
- PKI integration for Signaling and Payload encryption
- CTI integration of business applications via CSTA III ASN1, CSTA XML
- XML Phones Services interface for easy and cost-effective workflow integration
- Call detail recording
- Operation with/without direct inward dialing
- Integration of SIP-based video endpoints
- SNMP Proxy Agent
- Emergency dialing
- Multi-Level Precedence and Preemption (MLPP)
- HiPath 4000 Assistant for convenient administration of the HiPath 4000 system
- Remote administration – serviceability

User features

- Redial
- Speed dialing system/individual
- Name key
- Call journal
- Toggling
- Call transfer
- Call deflection
- Callback
- Message waiting indication
- Call waiting
- Call park
- Directed call park
- Do-Not-Disturb
- Flexible and enhanced call forwarding
- Eight-party conference
- Direct station selection key function
- Override and prevention of override
- Camp-on
- Hotline
- Mobile HFA (network-wide user mobility)
- Personal ID number (PIN)
- Executive/secretary functions
- Intercom features
- Integrated multiline key functionality
- Network-wide hunt groups
- Network-wide pickup groups
- One-Number service – parallel ringing
- Charge display
- Acoustic and visual status for Signaling and Payload encryption
- And much more

The feature handling is identical for digital system telephones, e.g. OpenStage T, and IP telephones, e.g. OpenStage HFA (HiPath Feature Access).

Networking features

HiPath 4000 can be connected to public and private networks via a wide variety of protocols including analog, TDM, and IP trunks using standard protocols such as QSIG, native SIP, and other open interfaces like CSTA. HiPath 4000 also enables the creation and operation of efficient, homogeneous and economical global communication networks. HiPath Networking can be performed via ISDN or IP – always with the full CorNet NQ feature offering. CorNet NQ is a signaling protocol for private network solutions based on Siemens standards. It is aligned with the international Q.SIG private network protocol for private networks.

SIP-Q based networking provides full feature offering in any networking scenario between HiPath 4000 and in combination with OpenScape Voice. With HiPath 4000 V6, the SIP-based IP networking is the preferred, secure, and future-oriented standard networking mechanism.

The most significant advantages of these homogeneous networks include the following:

- Central administration with HiPath 4000 Manager
- Deployment of central applications like OpenScape Xpressions and OpenScape UC
- Enhanced voice features such as call pick-up group, call park, directed call pick-up, call forwarding, callback on busy and callback no answer
- Optimized use of the corporate network through cost-optimized routing (Least Cost Routing, LCR)
  - LCR ensures that the most economical route is selected. Time-based 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

Management

HiPath 4000 Assistant

HiPath 4000 Assistant is an integrated management system tool with web-based administration interface for local configuration, necessary service tools, and an integrated SNMP Proxy agent (for sending HiPath 4000 errors and alarms as SNMP trap).

Existing HiPath 4000 Assistant functionalities:
- Common platform for service and administration with single sign-on
- Inherent part of each HiPath 4000 system
- Automated synchronization with system database
- Configuration management
- HiPath 4000 CSTA configuration
- Inventory management
- "Backup&Restore
- Switch diagnosis support
- "Realtime Diagnosis System
- Error message interpreter
- "Integrated fault management for service usage
- Integrated performance management for 1000 users
- Web client
- Integrated configurator for linear extensions

HiPath 4000 Manager

The HiPath 4000 Manager is the central management platform for HiPath 4000 systems. As Element Manager, it is an integral component of the HiPath MetaManagement architecture.

HiPath 4000 Manager offers:
- Configuration Management (CM)
- Performance Management (PM)
- Collecting Agent (COL)
- Application Programming Interface (API)
- SNMP Proxy Agent
- Additional HiPath MetaManagement applications:
- HiPath Fault Management (HiPath FM)
- HiPath Accounting Management (HiPath AM)
- HiPath User Management (HiPath UM)
- HiPath QoS Management

The HiPath MetaManagement architecture enables the efficient and cost-effective management of the HiPath communication network within managed service solutions:
- Open and flexible for adaption to any operator model
- From self maintenance to complete outsourcing models

Deployment Service

The Deployment Service (DLS) provides an integrated solution for customers and service personnel to administer IP devices (IP phones and clients) in HiPath and non-HiPath networks. This includes HFA/H.323 and SIP based networks also including OpenScape Voice. DLS is the central system where device and QoS related parameters of HiPath IP devices are administered for the customer's entire network. Additionally, DLS takes over the distribution of certificates for deploying TLS (Transport Layer Security) and is also able to create certificates where there is no existing customer PKI (Public Key Infrastructure) framework.

Desktop productivity

OpenStage phone family

The OpenStage product family enables innovative user solutions with its intuitively designed functionality and operability. The devices are open for access to different services and applications through interoperability with other devices.

HiPath 4000 V6 supports the various OpenStage families: OpenStage T (TDM), OpenStage HFA (HiPath Feature Access) and OpenStage SIP (with the basic scope of features such as name display, transfer, conferencing, call deflection,...). OpenStage Key Modules and OpenStage Busy Lamp Field Module with 90 programmable keys are also supported.

The OpenStage family is designed to be extremely user friendly and simplifies feature implementation. Innovative operating elements based on advanced technologies were used in designing the user interface. Touch/sensor buttons with integrated color LEDs, TouchSliders for volume control, TouchGuide navigation and large, swiveling graphic color TFT displays with back-lighting go far to simplify user interaction.

Customized telephony functions, speed dial (by name) or line buttons are easy to operate using freely programmable touch/sensor buttons with the function appearing on the display.

Access to the most frequently used telephony functions such as separation, call forwarding, loudspeakers and to dedicated applications such as the phone book, caller list, and answering machine is simplified via fixed function buttons.

OpenStage works with the latest developments in the field of acoustics and therefore offers superb voice quality in the hand-held unit and hands-free mode (through handset design, loudspeakers, housing volume, and wide-band codecs G.722).

OpenStage 80

OpenStage 60

OpenStage 40

OpenStage 30 with OpenStage Key Module 15

OpenScape Personal Edition

OpenScape Personal Edition is the latest IP-based softphone software that can be used with HiPath 4000. The Personal Edition is ideal for all mobile and stationary applications. It offers the option of integrating corporate directories and personal call lists via LDAP. Powered by a highly sophisticated and intuitive user interface, OpenScape Personal Edition is a constant companion for customers who also need to receive and make calls outside their office environment.

HiPath Trading / OpenScape Xpert

For the trading and financial markets of today it is of vital importance that decisions can be made quickly. Efficient and reliable communication technology is crucial for success. HiPath Trading offers dealers and brokers a decisive competitive advantage with its innovative architecture, its enhanced graphical user interface and its extensive feature set.

The OpenScape Xpert solution provides the known HiPath Trading functionalities as a SIP-based IP solution.

Attendant Console (AC-Win)

The enhanced attendant console AC-Win IP is a PC-based application for Microsoft Windows XP, Windows Vista, and Windows 7 that permits the convenient traffic management by live attendants, using a USB headset/handset. AC-Win IP can be used with two (AC-Win 2Q IP) or twelve queues (AC-Win MQ). The PC-based attendant console is connected to the HiPath 4000 via IP (HG 3500 or HiPath 4000 SoftGate).

Busy Lamp Field (BLF-Win)

The Busy Lamp Field BLF-Win is an application for the PC-based attendant console, AC-Win IP. The constant availability of information about the current status of the extensions enables more efficient and faster handling of incoming calls.

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 optiPoint/OpenStage work points. 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 directory data as a single entry point concept.

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 performed by the employees themselves, with the ability to save the settings for conferences being held regularly.

HiPath MMCS allows assigning private, individual conference rooms for Executives with guaranteed conference seats. Easy to remember in just adding a prefix to an existing extension number.

HiPath 4000 phone services

In conjunction with a HiPath 4000 system phone (e.g. OpenStage T) the integrated phone services provide 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 the HiPath 4000 platform. Some uses include:

- 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 connected in active phone call.

Mobility

Cordless Enterprise

HiPath Cordless Enterprise enables cordless telephony with the user-friendly features of the system. Compliance with the international Digital Enhanced Cordless Telecommunication (DECT) standard guarantees first-class sound quality, wide-area coverage, high user density, and privacy.
The modular extendible system architecture is based on integrated radio switching boards and base stations which are connected to the HiPath 4000 communication system via digital interfaces. This allows the planning and implementation of cost-effective installations that meet coverage and demand needs.
The full incorporation of HiPath Cordless Enterprise into the existing administration and maintenance concept designed for HiPath 4000 makes HiPath Cordless Enterprise an extremely service-friendly product.

User-friendly handsets with excellent voice quality and an interactive user interface are extremely popular with users of mobile telephones and increase productivity in the workplace by providing greater availability and more flexible communication.

HiPath Wireless with optiPoint WL2 Professional

Powerful wireless phone solutions for the workplace. As your enterprise benefits from the cost savings and simplified management of a converged voice and data network, the next logical step is to add wireless capabilities for real-time IP communications. Equip your employees with the most advanced wireless voice solution that helps them stay productive and move about the work place or campus freely.

HiPath Wireless provides enterprise-grade wireless voice solutions that respond to your flexibility and changing needs.

OpenScape MobileConnect

OpenScape MobileConnect is a Fixed Mobile Convenience (FMC) solution for enterprises. It extends SIP and availability functionality to dual mode Wi-Fi/cellular handsets in both VoWLAN and mobile phone networks.
The OpenScape MobileConnect solution is made up of a central MobileConnect system and the OpenScape MobileConnect client on the dual mode device. Users benefit from increased productivity and enhanced availability from the "one number/one voice mailbox" functionality and uninterrupted roaming. IT managers profit from better control of mobile phone costs and call charges.

Unified Communications

OpenScape UC Enterprise

OpenScape UC Application is at the heart of Siemens Enterprise Communications' unified communications portfolio; enabling presence-based, real-time communications so your teams can collaborate like never before. This means you can offer greater customer service, bring products to market faster, and respond to new challenges as they arise.

Seamless integration into your current infrastructure means you can exploit and maximize your current investments, and benefit from enhanced unified communications right now.

By integrating OpenScape UC Application Enterprise Edition with your current solution, for example Cisco's WebEx, Microsoft's Live Meeting and IBM's Lotus Sametime, your staff can preserve their unified user interface. And if you need to integrate your voice, IM and conferencing with your groupware platform, OpenScape UC Application Enterprise Edition can unify all your communications together into one, simple, seamless experience for your users.

Highlights:

- Comprehensive presence management for both users and phones

- Preferred device to control availability

- Integrated voice messaging

- Powerful, software-based conference management with innovative features

- Support for Windows, web, and mobile clients and provision of a voice portal

- HFA Softphone functionality

- Well-designed user interface that is very easy to use and is harmonized for all clients

- Modular product structure with the option of increasing functionality as needed in steps

- Instant messaging und web conferencing (with 3rd-party products)

HiPath 4000 V6 and Choices in Unified Communications
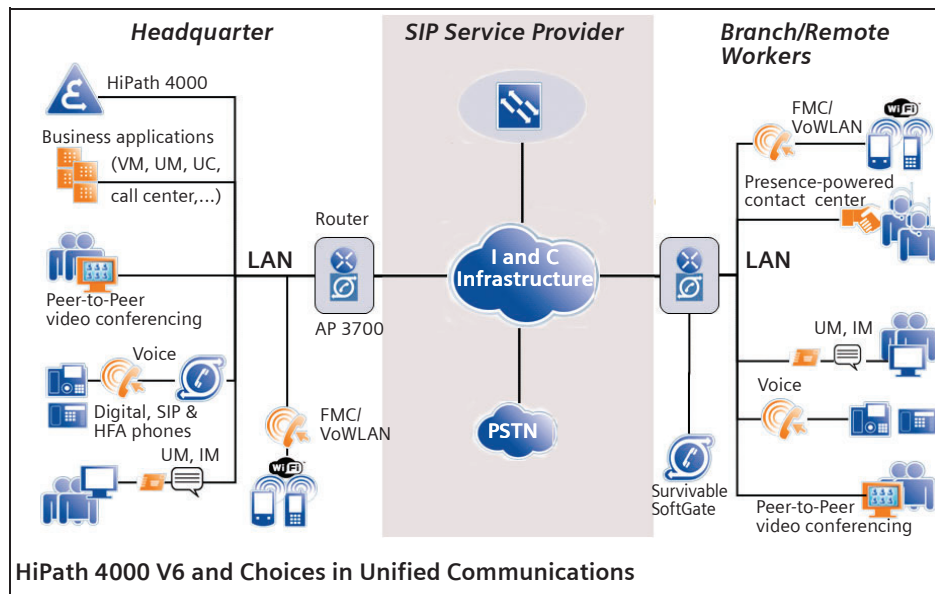
OpenScape Xpressions

The HiPath 4000 V6 delivers cost-effective choices in unified messaging functionality through packaged and modular features available with OpenScape Xpressions V6. It enables built-in voice messaging, unified messaging, voice conferencing, web conferencing, instant messaging, text messaging, presence, and fax. These unified communications options coupled with CTI services help embed powerful communications capability directly into business processes creating an efficient and effective workplace.

OpenScape Contact Center

OpenScape Contact Center solutions allow you to interact with customers at the highest level, improving satisfaction, increasing revenue and loyalty and enhancing productivity.

OpenScape Contact Center is a set of packaged software applications that improve the effectiveness and efficiency of a company's contact center operations through intelligent skills-based routing, universal queuing, routing and tracking across all your media channels, agent and management tools, and comprehensive reporting.
Integrated with your other customer relationship management systems, will OpenScape Contact Center deliver a world-class customer service experience. It is market-proven, fully scalable and can accommodate small 10-agent environments right up to very large multi-site enterprise installations.

OpenScape ComAssistant

OpenScape ComAssistant V2.0 is an enterprise application which provides personal communication controls to automatically route and manage incoming calls, based upon a user's availability.

Presenting a choice of two simple to use graphical user interfaces (GUI), OpenScape ComAssistant V2.0 provides users with rules-based communication filters and routing capabilities to optimize their accessibility and increase their efficiency.

Since OpenScape ComAssistant V2.0 is web-based, users can access a full range of CTI features as:

- Easy telephony with Click&Dial

- Logging of incoming and outgoing calls in a personal call journal which can be accessed via web browser – from the office or from any PC with intranet access

- Search in personal address books as well as access to global LDAP address books, such as Microsoft Exchange, Lotus Domino, or HiPath MetaDirectory, for Click&Dial functionality

Alarming and Positioning

OpenScape Alarm Response Economy

OScAR-Eco is the ideal mini-server for alarms for low and customer needs, suitable for nursing homes, small branch offices and limited use in larger enterprises. Initiators for alarms can include door contacts and sensors as well as external systems (e.g. nurse call systems in the hospital), phones, and single-button medallions. OScAR-Eco raises alarms with information on the cause including positioning data, thus guaranteeing fastest mobilization of support staff and service technicians.

- 4-channel connection to HiPath 3000, HiPath 4000, and OpenScape Voice via ISDN/TDM or via VoIP/LAN

- Variable activation of broadcasts by host systems (ESPA 4.4.4 or ESPA-X) via contact inputs, a console or phones, or by a GMD single-button emergency medallion

- Digital I/O and serial data interface

- Various LAN services

- Hassle-free administration via browser with leading-edge security concept

- Positioning of GMD Medallions in WiFi or DECT networks

- Flexible broadcast strategies with multi-tasking

- Detailed logging

- and much more

OpenScape Alarm Response Professional

OScAR-Pro V3R2 is the successor of the well-known HiPath DAKS V3R1. Thus, it is a modular system that can operate with various applications and is scalable within a wide range. OScAR-Pro offers the following applications on its server:

- Broadcast/alerting with serial interface

- Broadcast/alerting with ESPA-X interface

- Emergency and high-performance conferences

- Call profiles

- Info telephone

- Internet-Controlled Telephony Conference (ICTC)

HiPath Personal Alarm System

HiPath Personal Alarm System (HPAS) provides personal security for lone workers or staff working in hazardous areas or situations. HPAS conforms to section one of DIN V VDE 0825 and is certified in accordance with BGR139 (German occupational accident prevention directive). The key components of HPAS are the emergency response center (PNEZ), a software application based on OScAR, and emergency calling devices with a voice communication facility (PNG-S), which are M2 Plus Professional (or EX variant with Plus add-on) or modified Gigaset M1 professional handsets. In addition to alarm buttons, these devices feature position and motion sensors, which automatically trigger an alarm if the user is involved in an accident. HPAS is not just a personal alarm system. It also features extensive broadcasting, emergency conference, and alerting functions with display texts and announcements that provide information about the cause and location of an alarm.

Upgrade/Conversion to HiPath 4000 V6

Migrating and Upgrading

All existing HiPath 4000 cPCI systems can be migrated to HiPath 4000 V6. Older HiPath 4000 systems can migrated to newest platform using Legacy Trade-in promotion offering. Competitive platforms and desktops can move on their path to Unified Communications by purchasing a HiPath 4000 using Competitive Trade-in promotion.

Investment protection of existing HiPath 4000 licenses can be guaranteed with OpenScape Software Assurance or cost-effective upgrades to HiPath 4000 V6 Flex Licenses.

OpenScape Software Assurance

A customer who joins this OpenScape Software Assurance program benefits from all future software versions. These can be improved security features or innovative functionalities. Continuous software upgrades guarantee long-term software stability, up-to-date security features, and improve the OpenScape Unified Communication interfaces towards other products and solutions.

OpenScape Software Assurance is based on a recurring payment scheme. All future investments for software releases are already integrated in this billing model. Therefore the OpenScape Software Assurance program improves your budget planning reliability.

Compared to traditional version upgrades, customers can realize considerable cost savings with OpenScape Software Assurance.

System interfaces

Trunks

- S_0 (basic rate interface)
- E1 (S_{2M}) (primary rate interface 30 channels)
- T1 (primary rate interface 24 channels)
- Analog
- Native SIP (SIP service provider)

Networking interfaces

- Basic Rate S_0 / Primary Rate E1 (S_{2M}) / T1
  The following protocols are supported:
  CorNet NQ, QSIG, DSS1, CAS
- Analog e.g. MFC-R2, E&M, ...
- IP trunking (H.323 Annex M1)
- SIP trunking to HiPath platforms with SIP-Q protocol
- Native SIP trunking for IP interoperability with 3rd-party manufacturers

User interfaces

- $U_{P0/E}$
  Twin-wire interface for connecting OpenStage T telephones
- HiPath Feature Access (HFA) for OpenStage HFA endpoints
- Native SIP for IP Endpoints: e.g. OpenStage SIP
- S_0 bus
  S_0 port for ISDN terminal devices
- a/b port (CLIP, name display, and MWI possible) for analog terminal devices

CSTA standards

- ECMA-269: Services for Computer Supported Telecommunications Applications (CSTA) Phase III
- ECMA-323: XML Protocol for CSTA Phase III
- ECMA-285: ASN1 Protocol for CSTA Phase III
- ECMA TR/82: Scenarios for CSTA Phase III

Integral service platform

- Transport and network protocol TCP/IP
- Asynchronous protocol PPP
- Web protocol https
- Remote access via Ethernet or via modem
- SNMP Proxy Agent
- SFTP for Backup&Restore

Technical Data

Variant	Number of directly connected access points	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.

Power supply voltage

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

Dimensions and weight

	Width x Height x Depth (mm)	Weight
HiPath 4000 Communication Server	440 x 170 x 300 (5 U)	max. 13 kg
HiPath AP 3300	773 x 645 x 515	max. 30 kg
HiPath AP 3700	440 x 445 x 433 (11 U)	max. 25 kg
HiPath AP 3300 IP	773 x 645 x 515	max. 30 kg
HiPath AP 3700 IP	440 x 445 x 433 (11 U)	max. 22 kg

Compliance

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