# OpenScape 4000 V8 Converged communication

As a convergent communication solution, OpenScape 4000 V8 provides business process and workflow integration, high availability, security paired with powerful performance and cost-effective unified communications choices for any business.

From the proven HiPath 4000, OpenScape 4000 has already sold more than 30 million ports in 80 countries across the globe.

The OpenScape 4000 is the convergent IP communication platform for companies with 300 to 100,000 employees. The feature-richness of the OpenScape 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 standalone systems.

With the OpenScape 4000 V8 software architecture, it is designed to offer customers cost-effective communication 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, branch office solutions, unified communications and standards-based integration and interoperability with business-critical applications and systems.

OpenScape 4000 supports this capability with its built-in assistant and powerful set of system management applications that are easy to use and provide a feature-rich capability to system administrators. Coupled with a strong global presence and availability of OpenScale services, it allows enterprises to maintain business continuity and to focus on their own strengths.

**Options for every need...**

| | | | | | System Management |
|---|---|---|---|---|---|
| **Terminal Devices** | **OpenStage Phones** | **Analog Devices** | **OpenScape Personal Edition Client** | **Video integration** | **User Management** |
| **VoIP** | **IP Distributed Access Points** | **OpenScape 4000 SoftGate** | **Branch Survivability** | **SIP Service Provider** | **Fault Management** |
| **Mobility** | **OpenScape Cordless Enterprise** | **VoWLAN** | **OpenScape Mobility** | **Teleworking** | **QoS Management** |
| **Unified Communications** | **Unified Messaging** | **Instant Messaging** | **Voice & Web Conferencing** | **Presence-based Collaboration** | **Accounting Management** |
| **IT Architecture** | **VMware** | **Separated Duplex** | **Security** | **OpenScape 4000 Branch** | **OpenScape 4000 Manager / Assistant** |
| **Open Interfaces** | **Based on open standards and public interfaces:** Native SIP, SOAP/XML, SNMP Traps with MIB, QSIG, TAPI, CDR and CSTA | | | | **Common Management Portal** |

**OpenScape 4000 software: flexible, reliable, scalable and open**

# IT architecture

## Modular, stackable, reliable and seamless expandable

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

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

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

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

## OpenScape 4000 Server Deployments

The architecture of the converged OpenScape 4000 IP system allows customer solutions to be hosted in a data center where traditional TDM and analog devices as well as CO trunks are still supported.

OpenScape 4000 offers two different deployment options:

- VMware®
- OpenScape 4000 EcoServer
- OpenScape 4000 cPCI with DSCXL2+ HW

The two deployment options support up to 12,000 users per EcoServer or VMware®. Up to 100,000 users can be managed by the OpenScape 4000 Manager system administration software.

### VMware®

The provision of OpenScape 4000 software on VMware® infrastructure is extremely well-suited for use in the data center.

The virtual solution offers the same high scalability as the EcoServer hardware.

The high availability requirements are ensured by VMware® features such as vMotion and High Availability.
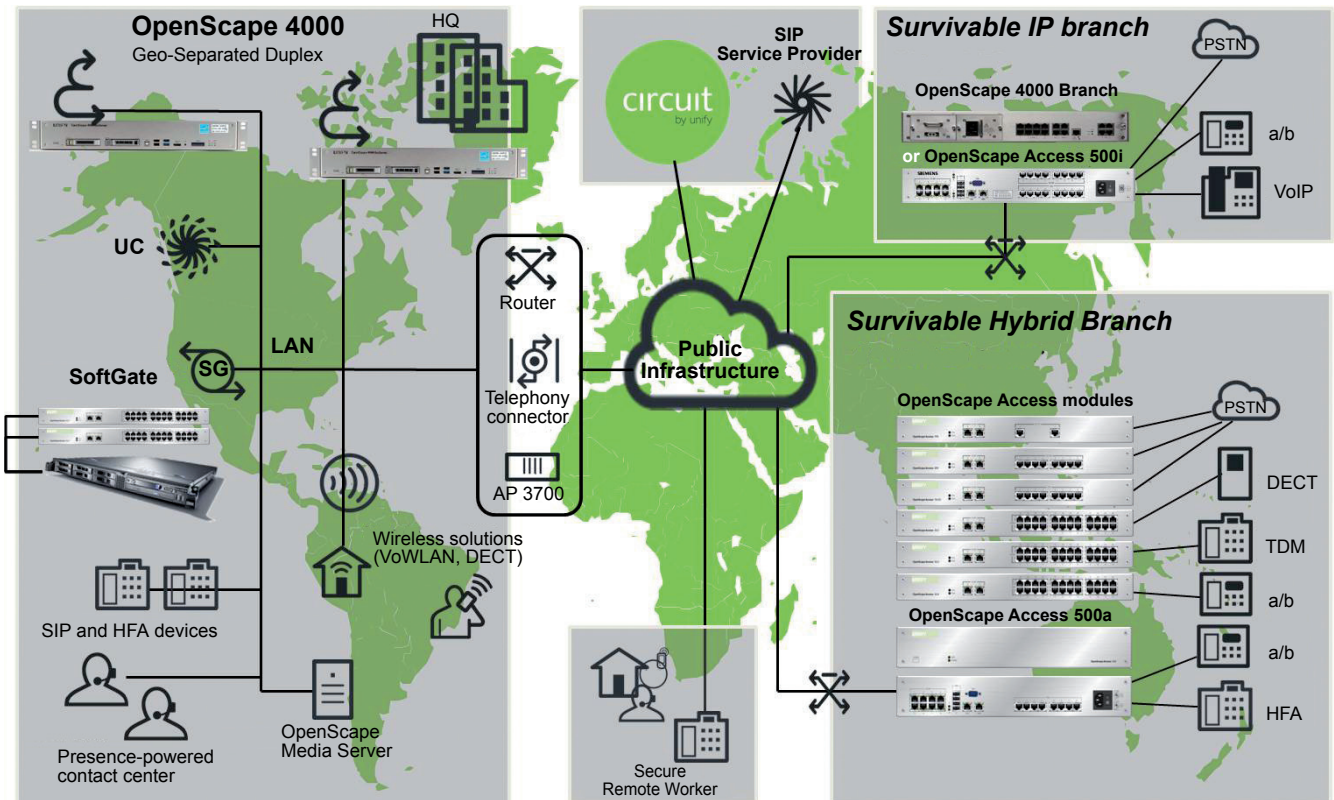


**OpenScape 4000 scenarios**

**EcoServer**

The EcoServer is the new control of the OpenScape 4000. The 19" housing measuring 1.5 height units contains the entire simplex control including the available alarm interfaces and connections for the AP3x00 access points. The EcoServer option supports converged IP requirements involving applications with a large number of analog and TDM devices, DECT applications, or specialized industry sector applications. The new hardware offers new redundancy opportunities, and can be deployed highly scalable and secure in data centers.

In line with the Unify Green IT roadmap, our aim is to acquire eco-labels wherever possible.

Unify is an active partner in the ENERGY STAR program for Enterprise servers and has had the OpenScape 4000 EcoServer certified in accordance with this ENERGY STAR specification.



OpenScape 4000 EcoServer is powerful, offers high energy efficiency and has already received the ENERGY STAR®.

## OpenScape 4000 SoftGate application

The OpenScape 4000 SoftGate application provides cost-effective VoIP functionalities with reliable branch survivability options and easy IT integration in the OpenScape 4000 solution and management suite. The software provides full HiPath feature access for IP endpoints and SIP connectivity for trunking and subscriber, based on pre-hardened Linux SLES 11 SP4.

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

The open architecture of the OpenScape 4000 SoftGate application enables integration in a VMware virtualization environment. In addition, the OpenScape 4000 SoftGate application supports IPv6 SIP trunking and enables Peer-to-Peer video integrations with HD video systems or softclients.

Using SoftGate media server capabilities, it can also be used for software-based music-on-hold as well as for synchronous and asynchronous announcements.

The Secure Remote Subscriber function supports secure remote operating while providing the complete feature set.

With this application, customers can reduce capital cost (CAPEX) plus operational cost (OPEX) and deploy centralized applications with uniform user experience.

## Access Point Emergency concept for branches

OpenScape 4000 AP-Emergency completes the survivability functionality for access points (AP), OpenScape Access 500, and OpenScape 4000 SoftGate branches. With APE, 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 the event of host system failure, the survivability function can assume control of one or several different access points (AP 3700, OpenScape Access 500, and/or OpenScape 4000 SoftGate); 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 IP branches connected to the OpenScape 4000 communication server.

## Signaling and Payload Survivability for IP branches

This function allows voice to be routed via PSTN and signaling to be 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 to homogeneous branch networks and the implementation of centralized applications at individual pace. Signaling and Payload survivability allows highest flexibility in the optimization of operational expenses (OPEX) – in any market or telecommunications landscape.

## OpenScape Access

OpenScape Access is a cost effective, 19-inch modular solution that can be deployed in survivable branch solutions and into your IT infrastructure.

It consists of flexible, stackable and high scalable 1U modules that provide all required analog, digital and DECT interfaces of a branch solution with OpenScape Access 500 and OpenScape 4000 SoftGate.

## OpenScape 4000 Branch

OpenScape 4000 Branch is a high performance, EcoServer-based branch solution which enhances OpenScape Access 500 with:

- redundant power supplies (AC/DC, mixed also)
- redundant LAN and WAN access (bonding)
- redundant SSD drives (RAID 1)

OpenScape 4000 Branch can also be deployed as a full OpenScape 4000 system.

## Software and features

The OpenScape 4000 software installed on the Linux SLES 11 SP4 operating system offers a full set of converged enterprise-class communication features.

## New user-based licensing

OpenScape 4000 V8 introduces a new user-based licensing with two categories of licenses:

- TDM licenses:
  This category comprises analog devices, $U_{p0}$-based devices, Cordless Enterprise (DECT), and ISDN devices. Also, PSE/PSM endpoints are covered by these licenses.
- Flex licenses:
  This category can be used for all devices, including IP-based devices.

Trunks will no longer consume licenses.

## System features

- Integrated connectivity for analog, TDM, and VoIP subscribers
- Cost-saving Least Cost Routing for analog, TDM and IP trunks
- Integrated attendant functions
- Different time zones
- Multilingual user interfaces
- Virtual numbering plan
- Client capability
- Integrated FlexRouting for Contact Center
- 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
- 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
- Display of a picture from an LDAP directory in a call
- Integration of SIP-based video endpoints
- Emergency calling

- Multi-Level Precedence and Preemption (MLPP)

## User features

- Number redial
- Speed dialing system/individual
- Name key
- Call journal
- Alternate
- Call transfer
- Call deflection
- Return call
- 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
- Hotline
- Mobile HFA (network-wide user mobility)
- Personal ID number (PIN)
- Executive/secretary functions
- Intercom features
- Integrated multi-line 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

Regardless of whether you provide the desktops of your staff with digital system phones or IP phones of the OpenStage family, the handling or, respectively, the user interface to activate the features is identical on all phones.

## Networking features

OpenScape 4000 can be connected to public and private networks via different interfaces such as analog, TDM, and IP trunks, and standard protocols such as ISDN, QSIG, and native SIP. OpenScape 4000 also enables the creation and operation of efficient, homogeneous and economical global communication networks. OpenScape 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 Unify standards. It is aligned with the international QSIG private network protocol for private networks.

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

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

- Central administration with OpenScape 4000 Manager
- Deployment of central applications like OpenScape Xpressions and OpenScape UC
- Enhanced voice features such as call pickup group, call park, directed call pickup, call forwarding, callback on busy and callback no answer
- SIP trunking networkings via IPv4 and IPv6 networks
- SIP trunking to certified providers
- Optimized use of the enterprise network through Least Cost Routing (LCR)
  guarantees the cheapest route, based on time at different operators, central administration of all LCR data with OpenScape 4000 Manager, local and network-wide administration of all outgoing, incoming and internal connections

## VoIP gateways

IP Gateway functionalities for seamless migration to VoIP infrastructure are available with HG 3500 peripheral cards in the OpenScape 4000 access points, or with virtual software-based HG 3500 in the OpenScape 4000 Soft-Gate application and OpenScape 4000 Branch.

The VoIP gateways offer:

- HiPath Feature Access (HFA) for IP Endpoints, such as OpenStage HFA or AC-Win IP
- SIP-Q trunking for connections to OpenScape 4000, OpenScape Voice and other HiPath platforms
- Native SIP subscriber interface for SIP applications, such as OpenScape Xpert
- Native SIP trunking which is the communication protocol to connect to SIP service providers or 3rd-party applications
- 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 integrated 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, SoftGate, or OpenScape Access 500)
- G.729 voice compression
- Adaptive jitter buffer
- Voice activity detection
- Self-maintenance
- Comfort noise generation
- Packet loss concealment
- SNMP network management support
- 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

The vHG 3500 virtual gateway for OpenScape 4000 SoftGate and OpenScape Access also offers:

- IPv6 networking links to OpenScape 4000 communication server
- IPv6 support for SIP-Q trunking and native SIP trunking
- TLS and SRTP encryption for native SIP trunking
- OpenScape 4000 SoftGate Loadbalancer for native SIP trunking large deployments (more than 120 channels) with OpenScape UC conferencing server and SIP service provider
- Zero Local Config SoftGate

# Management

## OpenScape 4000 Assistant

OpenScape 4000 Assistant is an integrated management application with web-based administration interface for local configuration, necessary service tools, and an integrated SNMP Proxy agent (for sending OpenScape 4000 error messages and alarms as SNMP trap).

Existing OpenScape 4000 Assistant functionalities:

- Common platform for service and administration with single sign-on, and inherent part of each OpenScape 4000 system
- Automated synchronization with system database
- Configuration Management
- OpenScape 4000 CSTA configuration
- Inventory management
- Backup&Restore
- Switch diagnosis support
- Realtime diagnosis system
- Error message interpreter
- Integrated fault management
- Integrated performance management
- Web client
- Integrated configurator for linear extensions

## OpenScape 4000 Manager

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

OpenScape 4000 Manager offers:

- Configuration Management (CM) supporting many different languages
- Performance Management (PM)
- Collecting Agent (COL)
- Application Programming Interface (API)
- SNMP Proxy Agent

Additional OpenScape MetaManagement applications:

- OpenScape Fault Management (FM)
- OpenScape Accounting Management (HiPath AM)
- OpenScape/HiPath User Management (UM)
- HiPath QoS Management

The HiPath MetaManagement architecture enables the efficient and cost-effective management of the OpenScape/HiPath communication network within managed service solutions:

- Open and flexible for adaption to any operator model
- From self maintenance to complete outsourcing models

## OpenScape Deployment Service

The Deployment Service (DLS) provides a solution for customers and service personnel to administer IP devices (IP phones and clients) in OpenScape networks. This includes HFA and SIP based networks also including OpenScape Voice. DLS is the central system where device and QoS related parameters of OpenScape 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

## OpenScape telephone family

**HFA terminals for OpenScape 4000**

Regardless of which technology you use today or will use in future: Unify always offers the appropriate devices.

Also with the new terminals, the customer can use the familiar scope of functionality!

**OpenScape Desk Phone IP 35G**

**OpenScape Desk Phone IP 55G**

OpenScape 4000 V8 initially supports the CP phone family in their SIP version.

## OpenScape Personal Edition

OpenScape Personal Edition is the latest IP-based softphone software that can be used with OpenScape 4000 both in their SIP and HFA variants. 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 via their notebook/laptop on the way.

## 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. OpenScape Xpert 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 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 OpenScape 4000 via IP.

## 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 OpenStage phones. 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 OpenScape 4000 Manager, DS-Win is integrated in the directory data as a single entry point concept.

## OpenScape 4000 Phone Services

In conjunction with a OpenScape 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 OpenScape 4000 and the corporate directory is generated by the OpenScape 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
- Easy UC: Setting OpenScape UC presence status and preferred device from your OpenStage HFA/TDM or cordless device

# Mobility

## Cordless Enterprise

OpenScape Cordless Enterprise V7 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 OpenScape 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 OpenScape Cordless Enterprise into the existing administration and maintenance concept designed for OpenScape 4000 makes OpenScape 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.

## OpenScape UC Mobile Client

The OpenScape UC Application includes a Mobile Client, enabling mobile users to benefit from presence awareness of key contacts, quick access to conferences, setting their presence status and preferred device – among many other features. The Mobile Client runs on the most popular mobile operating systems RIM (Blackberry), Symbian (Nokia), Android, Windows Mobile* and iOS (Apple).

* restrictions are possible.



**OpenScape
DECT Phone S5**



**OpenStage M3**



**OpenScape
DECT Phone SL5**

# Unified Communications

## OpenScape UC Enterprise

OpenScape UC Application is at the heart of Unify's 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.

**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
- A well-designed user interface that is very easy to use and is harmonized for all customers
- Modular product structure with the option of increasing functionality as needed in steps
- Instant Messaging and Web Conferencing with OpenScape Web Collaboration or third-party products

## Connectivity to Circuit

Circuit is a Unify WebRTC-based cloud service for team communication and collaboration in enterprises. OpenScape 4000 provides the perfect connectivity to circuit for your telephony.

Three variants of connection can be selected:

**Hosted UTC (hUTC)**

This variant offers basic telephony functionality and gives you a chance to learn about the product and try it out.

**On-premise UTC (pUTC)**

This connection provides additional benefits if you value our Circuit Cloud solution, but either use the platform of

another provider or have low telephony requirements.

The pUTC variant also provides the basic functionality, but unlike hUTC, keeps the RTP traffic in the customer's network as far as possible, hence minimizing the bandwidth requirements on the link to the Public Cloud.

**Advanced Telephony Connector (ATC)**

ATC is the premium telephony connector that provides the maximum benefits of the Circuit Cloud solution.

ATC uses the One Number Service (ONS) of the Unify communication platforms and adds the capability to transfer an active call back and forth between the devices of the user, e.g. from the workplace telephone to the tablet or from the tablet to the Smartphone, etc.

With this version of the OpenScape 4000 we are first introducing an initial set of features, such as call back, call hold, toggle, and transfer (where the call back must be initiated from the workplace telephone). Further convenient features are planned.

## OpenScape Xpressions

The OpenScape 4000 delivers cost-effective choices in unified messaging functionality. These unified communications options coupled with CTI services help embed powerful communications capability directly into business processes creating an efficient and effective workplace.

## OpenScape Web Collaboration

Enjoy feature-rich multimedia collaboration at an affordable price with our scalable, secure, and highly reliable web conferencing solution.

Offering integrated text, data, web and multi-party desktop video conferencing, OpenScape Web Collaboration is a cost-effective and efficient way to deliver meetings with up to 1,000 session participants.

Typical applications include:

- Webinars
- Training sessions
- Project meetings
- Sales meetings
- Product demonstrations
- Basic remote support to customers and end users

OpenScape Web Collaboration features an easy-to-use and intuitive desktop client that uses "media morphing" to transition between media with a single click, and offers quick access to its functionality, including:

- Desktop and application sharing
- File sharing
- Co-browsing
- White-boarding
- URL push
- IM chat
- Multi-party video chat

Users are kept secure with 256-bit AES encryption.

## 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, OpenScape Contact Center will 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.

## Alarming and Positioning

### OpenScape Alarm Response Professional

OScAR-Pro is the successor of the well-known HiPath DAKS. 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)

### 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 OpenScape Business, OpenScape 4000 and OpenScape Voice via ISDN/TDM or 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 multitasking
- Detailed logging
- ... and much more

## Upgrade/Conversion to OpenScape 4000

### Migrating and Upgrading

The declared development objective of Version 8 was the unconditional reuse of the HiPath 4000 V6 and OpenScape 4000 V7 hardware. This makes the changeover to the UC version especially easy for these customers.

All existing HiPath 4000 cPCI systems can be updated to OpenScape 4000 V8.

Investment protection of existing HiPath 4000 licenses can be guaranteed with OpenScape Software Assurance or cost-effective upgrades to OpenScape 4000 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, BRI)
- E1 ($S_{2M}$) (primary rate interface 30 channels)
- T1 (primary rate interface 24 channels)
- Analog (e.g. HKZ, E&M)
- Native SIP (SIP service provider)

### Networking interfaces

- Basic Rate S0 / Primary Rate E1 / T1
- The following protocols are supported:
  CorNet-NQ, QSIG, DSS1, CAS
- Analog, e.g. MFC-R2, E&M
- SIP trunking to HiPath/OpenScape platforms with SIP-Q protocol
- Native SIP trunking for IP interoperability with third-party technology partners

### User interfaces

- $U_{P0/E}$
- Twin-wire interface for connecting OpenStage T telephones and Cordless Enterprise Base Stations
- HiPath Feature Access (HFA) for OpenStage HFA endpoints
- Native SIP for IP Endpoints, e.g. OpenScape Xpert
- $S_0$ 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

- Web protocol https
- Remote access
- 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 |
|---------|---------------------------------------------|------------------------------------------|-----------------------------------|
| OpenScape 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 % |

**Power supply voltage**

| | |
|---|---|
| Single phase | 100 V - 240 V |
| Three phases | 190 V/400 V |

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

**Dimensions and weight**

| | Width x height x depth (mm) | Weight |
|---|------------------------------|--------|
| OpenScape 4000 Branch | 482.6 x 66.7 x 360 (1.5 U) | max. 7 kg |
| OpenScape 4000 EcoServer | 482.6 x 66.7 x 360 (1.5 U) | max. 7 kg |
| OpenScape AP 3300 | 773 x 645 x 515 | max. 30 kg |
| OpenScape AP 3700 | 440 x 445 x 433 (11 U) | max. 25 kg |

**Compatibility**

| | |
|---|---|
| Safety | EN60950 |
| EMC emissions | EN55022 Class A |
| EMC interference immunity | EN55024 and EN1000-6-2 |

## Technical details about OpenScape 4000 EcoServer

| | |
|---|---|
| EcoServer<br>OpenScape 4000 Branch | • CPU: Intel i3-4330TE<br>• DRAM: 8 GB with ECC<br>• SSD: 240 GByte |
| Power supply voltage | • AC: 90 V to 264 V (nominal voltage 100-240 VAC)<br>  ENERGY STAR certification<br>• DC: 48 V<br>• Hot plug is supported<br>• Mixed power supplies as redundancy option |
| Energy consumption<br>(OpenScape 4000 software) | • Power consumption in standby: approx. 25 W<br>• Power consumption in operation: approx. 30 W<br>• Maximum power consumption: 120 W |
| Environmental conditions | • Operating temperature: 0 °C to +40 °C<br>• Storage/transport temperature: -20 °C to +70 °C<br>• Relative humidity: 10 % to 95 %; non condensing<br>• Sound pressure level: <45 dB(A)<br>• Waste heat: approx. 50 °C<br>  (at an ambient temperature of 40 °C, CPU@TDP) |

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