

# Unify OpenScape 4000 V10

## Converged communication

### Atos Unify OpenScape 4000 V10

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As a hybrid communication solution, OpenScape 4000 V10 provides business process and workflow integration, high availability, security paired with powerful performance and cost-effective unified communications choices for any business.

The OpenScape 4000 is the convergent IP communication platform for companies with 200 to 100,000 employees.

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

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.

OpenScape 4000 V10 is designed to offer customers cost-effective communication choices to optimize and secure communications that help enterprises to increase workplace productivity and effectiveness. As a powerful and highly available communications solution, it offers a wide range of endpoints, mobility choices, survivable branch office solutions, redundancy options, open standards and protocols and interoperability with business-critical applications and systems.

With its built-in Assistant the OpenScape 4000 supports a powerful set of system management applications, that are easy to use and provide extensive capabilities to system administrators.

Coupled with a strong global presence and the availability of a wide range of services, OpenScape 4000 allows enterprises to maintain business continuity and to focus on their own core competencies.

Endpoints	OpenScape Desk Phone CP	OpenScape Personal Edition Fusion Client	OpenScape Xpert	OpenScape DECT Phones Analog Devices	<b>OpenScape 4000 Manager / Assistant</b>  <b>OpenScape Fault Management</b>  <b>OpenScape Accounting</b>  <b>OpenScape Deployment Service</b>  <b>Common Management Portal</b>  <b>OpenScape User Management</b>
Deployments Architecture	IP Distributed Architecture	EcoServer or VMWare®	OpenScape EcoBranch Enterprise Gateway	SoftGate	
Resilience Survivability	(Separated) Duplex	Disaster Recovery	Branch Survivability	Subscriber redundancy Standby Gateways	
Mobility	OpenScape Cordless Enterprise	OpenScape Cordless IP	OpenScape UC Mobile	OpenStage WLAN Phones	
Applications	Unified Communications	Circuit	OpenScape Contact Center	OpenScape Alarm Response	
Open Interfaces	<b>Based on open standards and public interfaces:</b> SIP, SOAP/XML, SNMP, QSIG, CSTA and TAPI				

OpenScape 4000: Flexible, reliable, scalable and open

Trusted partner of your Digital Journey



# Architecture

## Flexible, reliable and scalable

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, pure software-based branches, plus powerful networking options it provides a perfect solution for seamless expansion and can be integrated in any IP infrastructure.

## Deployments / Call control

OpenScape 4000 offers the following deployment options:

- OpenScape 4000 EcoServer/ OpenScape EcoServer
- OpenScape 4000 Branch/ OpenScape EcoBranch
- VMware®

A maximum of 12,000 subscribers can be supported per OpenScape 4000. Configurations with up to 100,000 users can be implemented without difficulty in networked systems, supporting converged IP requirements involving applications with a large number of analog and TDM devices, DECT applications, or specialized industry sector applications.

The EcoServer, Unify's own call control server in a 19" housing, supports up to 15 directly connected Access Points (AP3700 Host Shelves) plus 83 IP-distributed Access Points.

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.

## Resilience / Redundancy

The modular structure of OpenScape 4000 also enables cost-effective resilience solutions.

The EcoServer is the high available central control unit with redundant power supplies, SSDs and redundant LAN interfaces.

OpenScape 4000 duplex options for EcoServer or virtual deployment enable complete redundancy for call control, CSTA application connectivity and administration, even in geo separated locations. Disaster Recovery and survivability functionality for all branch concepts complete the solution.

## Management

OpenScape 4000 Assistant is the management solution for all OpenScape 4000 standalone systems and an integral component in every OpenScape 4000 system. OpenScape 4000 Manager, the central management platform for OpenScape 4000 networks and standalone systems, provides enhanced functionalities for configuration and monitoring, comprehensive network management as well as additional applications.

### Access Points

Various Access Points are available to meet every customer requirement.

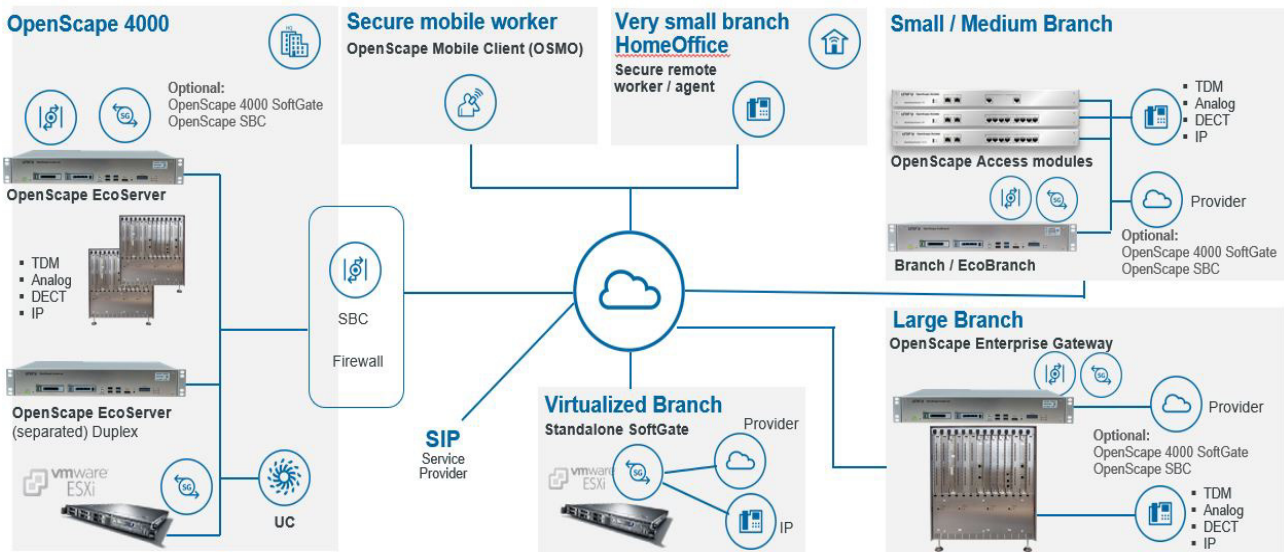
The AP3700 with 13 slots for subscriber or trunk cards connects directly to the EcoServer and is ideal to hold a large number of analog/TDM devices or trunk connections or to connect DECT base stations. The 19" housing of the AP3700 can easily

be integrated into the customer infrastructure.

The older AP3300 with 16 slots and a width of 30 inches is still supported by the OpenScape 4000 V10 but is not available for new sales.

## IP Distributed Access Points

For each application we're able to offer an appropriate branch solution; either the OpenScape Enterprise Gateway, OpenScape 4000 Branch/ OpenScape EcoBranch, the pure software based OpenScape 4000 SoftGate application or the older AP3700 IP and OpenScape Access 500, which are not available for new sales any longer, but are being supported by OpenScape 4000 V10.



OpenScape 4000 scenarios

## OpenScape Enterprise Gateway

OpenScape Enterprise Gateway is the preferred solution for larger branches with the need to connect a high number of legacy devices or trunks (analog, TDM) or to deploy larger classical DECT installations.

Since the hardware of the OpenScape Enterprise Gateway is based on the AP3700, AP3700 IP or even the AP3300 IP all subscriber and trunk cards as for the host system can be used and moved and exchanged in the network if required.

The EcoServer serves as control unit for the OpenScape Enterprise Gateway and provides further functionality like branch survivability.

## OpenScape EcoBranch OpenScape Access Modules

Offering redundant AC or DC power supplies and redundant SSD drives OpenScape 4000 Branch/OpenScape EcoBranch is a high performance EcoServer-based solution for small to midsized branches, which can also be deployed as an autonomous OpenScape 4000 system.

Up to eight OpenScape Access modules can be connected to an OpenScape 4000 Branch/OpenScape EcoBranch.

This flexible and stackable 19"-solution provides connection to analog/TDM devices or trunk connections or to DECT base stations.

## 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 feature access for IP endpoints with the comprehensive HFA protocol (HiPath Feature Access) and SIP connectivity for trunking and subscribers.

This software-based branch solution can either run as virtualized solution on VMware® or on the EcoServer, OpenScape 4000 Branch, OpenScape Access 500 or OpenScape Enterprise Gateway.

Any OpenScape 4000 SoftGate site integrates seamlessly in the communication system and network like any IPDA Access Point in terms of features and administration.

## Signaling and Payload Survivability for IP branches

Survivability for signaling and payload ensures that OpenScape 4000 also offers the highest availability in distributed operation.

This function allows voice to be routed via PSTN and signaling to be routed via an alternative IP route for IP branches. This expanded survivability functionality can be used as an alternative dynamic path if the primary IP network fails, all available VoIP resources are busy, or IP quality is found to be poor.

## Access Point Emergency (APE) for IP branches

The Access Point Emergency (APE) functionality for IP Distributed Access Points is another important building block to guarantee the high availability of the overall solution.

With APE, branch survivability is ensured in the event of a failure of the host system or an outage of the WAN connection to the host system.

If a problem is detected, the APE control can decide according to preconfigured rules to take over the control of the Access Point or even a group of Access Points.

## Session Border Controller

The software based OpenScape Session Border Controller (SBC) can be activated in a Linux Container on either the EcoServer, the OpenScape Enterprise Gateway or the OpenScape 4000 Branch/OpenScape EcoBranch. Designed specifically to address security and interoperability issues of SIP-based VoIP traffic, OpenScape SBC is architected for SIP trunking termination from multiple Service Providers, makes teleworker and contact center home agent deployment scenarios easy and cost-effective.

## Software and features

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

### User-based licensing

Same as the previous version OpenScape 4000 VIO user-based licensing consists of two licenses:

- TDM licenses:  
This category comprises analog devices, TDM/U<sub>P0</sub>-based devices, Cordless Enterprise (DECT), and ISDN/S<sub>0</sub> devices. Also, PSE 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
- Integrated FlexRouting for Contact Center
- Flexible configuration of local tones and announcements per branch office
- Branch survivability
- Gatekeeper redundancy for HFA and SIP 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
- 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
- ... and much more

## Networking features

OpenScape 4000 can be connected to public and private networks via different interfaces such as IP trunks, TDM or even analog and standard protocols such as SIP, ISDN or QSIG.

OpenScape 4000 also enables the creation and operation of efficient, homogeneous and economical global communication networks. OpenScape Networking can be performed via IP or ISDN – always with the full CorNet-NQ feature set.

SIP-Q based IP networking offers extensive features in any networking scenario between OpenScape 4000, OpenScape Voice or OpenScape Business.

In homogeneous OpenScape 4000 networks SIP-Q is being used to tunnel all CorNet-NQ features.

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 networking 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 Host Shelves or Access Points, or with virtual software-based vHG 3500 in the OpenScape 4000 SoftGate application.

The VoIP gateways offer:

- HiPath Feature Access (HFA) for IP Endpoints, such as OpenScape DeskPhone CP, older IP endpoints or AC-Win SL
- SIP-Q trunking for connections to OpenScape 4000, OpenScape Voice and OpenScape Business
- Native SIP subscriber interface for SIP applications, such as OpenScape Xpert, WLAN handsets or the OpenScape Fusion Client. This interface also supports redundancy.
- Native SIP trunking to connect to SIP service providers or 3rd-party systems or applications, like Microsoft Teams or Cisco CUCM
- Signaling and Payload encryption based on TLS and SRTP
- Up to 120 simultaneous connections
- Simultaneous use of multiple functions, e.g. subscribers and trunking on the same board
- A-law/  $\mu$ -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
- 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 offers on top:

- IPv6 networking links to OpenScape 4000 communication server

- IPv6 support for SIP-Q trunking and native SIP trunking
- OpenScape 4000 SoftGate Load-balancer for native SIP trunking for 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).

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 the OpenScape 4000 database
- Configuration Management
- OpenScape 4000 CSTA configuration
- Inventory management
- Backup & Restore
- Switch diagnosis support
- Realtime diagnosis system
- Error message interpreter
- Integrated Performance Management
- Access via web client

### 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 User Management as part of Common Management Platform CMP

### OpenScape Deployment Service

The OpenScape Deployment Service (DLS) provides a solution for customers and service personnel to administer IP de-



vices (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

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

OpenScape 4000 V10 supports the following IP and TDM device families:

- OpenScape DeskPhone CP  
HFA, SIP & TDM
- OpenScape Desk Phone IP  
HFA
- OpenStage  
HFA & TDM
- optiPoint 4x0/600  
HFA
- optiPoint 500/600  
TDM
- OpenStage WL3

When using the newest IP based OpenScape DeskPhone CP devices, OpenScape 4000 will automatically update the pre-installed SIP Software to HFA, depending on the user configuration.

## SoftClients

### OpenScape Personal Edition

OpenScape Personal Edition is the latest IP-based softphone that can be used with OpenScape 4000, either with HFA or SIP. It offers the option of integrating corporate directories and personal call lists via LDAP.

### OpenScape Fusion Client

OpenScape Fusion Client is the standard UC client for voice and video telephony, based on SIP, which integrates UC functionality into business applications (Microsoft Outlook, Microsoft Lync/S4B, HCL Notes).

### 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.

### Attendant Console (AC-Win SL)

The attendant console AC-Win SL is a PC-based application for Microsoft Windows 8, 10 that permits the convenient traffic management by live attendants, using a USB head-set/handset. AC-Win SL can be used with two or twelve queues. The PC-based attendant console is connected to the OpenScape 4000 via IP/HFA.

### Busy Lamp Field (BLF-Win)

The Busy Lamp Field BLF-Win is an application for the PC-based attendant console, AC-Win SL. 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)

The Directory Service DS-Win is a telephone directory application for the AC-Win SL to increase the efficiency and the communication quality.

### Display Telephone Book (DTB)

Display Telephone Book is an OpenScape 4000 integrated application to provide directory and call log features for TDM and HFA desktop phones, as well as cordless DECT devices. The user can look up names in a central directory or in his personal directory.

### OpenScape 4000 Phone Services

The following OpenScape 4000 integrated phone services provide a set of features to increase workplace productivity:

- EasyLookup: Simple access to the corporate directory via LDAPS
- 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 HFA/TDM desktop phone 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/TDM 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 Cordless IP

OpenScape Cordless IP is the DECT over IP solution for pure IP and hybrid platforms. This enables the customer also to use the competitive DECT handset portfolio on all Unify platforms. Unlike the long-established OpenScape Cordless Enterprise solution, the DECT over IP base stations used in the OpenScape Cordless IP V2 solution are connected to the LAN.

### DECT Handsets

A high degree of flexibility and mobility makes the OpenScape DECT Phone S5 and OpenScape DECT Phone SL5 handsets for office environments, and the OpenStage M3 handsets for industrial environments to favorites among the cordless telephones. The handsets offer excellent digital speech quality, a high degree of immunity to eaves-dropping, and a long range (up to 50 meters indoors and up to 300 meters outdoors).

### 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.

# 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
- 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 Voice, Video, Screensharing and Remote Desktop Control
- Guest access to conferences
- Provide Web Browser video and audio communication by support of WebRTC.

## 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.

## 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.



## 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 specific 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 multi-tasking
- Detailed logging
- ... and much more

## Upgrade/Conversion to OpenScape 4000

### Migrating and Upgrading

Older HiPath and OpenScape 4000 systems can be migrated and upgraded to V10. Upgrade licenses are available for systems from HiPath 4000 V1.0 on.

### 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 fixes, 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.

### Software Support

The Software Support (co-delivery) provides remote support and software upgrade entitlement to updates and future releases in a fused offering with options that are simple to buy, manage and renew. Customer investment is protected by the combination of technical assistance, software updates and upgrades and access to comprehensive online resources.

Co-delivery allows Partners with Master and Professional specializations to leverage Unify's support capability within their own service offering to customers. This required support experience includes Level 2 maintenance & support, an Expert Assistance hotline for certified technicians covering dedicated products, and software license upgrade entitlement included for a complete, industry standard software support package.

Software Support (Resale) from Unify provides comprehensive, flexible support services for Partner resale to their customers. Packages include software support with SLA options for specific customer needs priced as a percentage of software, so it is simple to buy, manage and renew. Customer investments are protected by the combination of technical assistance, soft-

ware updates and upgrades and access to comprehensive online resources.

Resale allows Partners with Authorized, Master or Professional specializations to leverage Unify's support capabilities including Level 1, 2 and 3 remote support, software license up-grade entitlement and options for a complete yet flexible industry standard support offering.

## System interfaces

### Trunks

- Native SIP (SIP service provider)
- S<sub>0</sub> (basic rate interface, BRI)
- E1 (S<sub>2M</sub>) (primary rate interface 30 channels)
- T1 (primary rate interface 24 channels)
- Analog (e.g. HKZ, E&M)

### Networking interfaces

- Basic Rate S<sub>0</sub> / 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<sub>PO/E</sub>
- Two-wire interface for connecting TDM telephones and Cordless Enterprise Base Stations
- HiPath Feature Access (HFA) for HFA/IP endpoints, e.g. OpenScape DeskPhone CP
- SIP for IP Endpoints, e.g. OpenScape Xpert or OpenStage WL3
- S<sub>0</sub> bus  
S<sub>0</sub> 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/OpenScape EcoBranch	482.6 x 66.7 x 360 (1.5 U)	max. 7 kg
OpenScape 4000 EcoServer/OpenScape EcoServer	482.6 x 66.7 x 360 (1.5 U)	max. 7 kg
OpenScape AP 3700	482.6 x 44.5 x 433 (10 U)	max. 25 kg
OpenScape Access Modules	482.6 x 44 x 360 (1 U)	max. 3.8 kg

### Compatibility

Safety	EN60950
EMC emissions	EN55022 Class A
EMC interference immunity	EN55024 and EN61000-6-2

## Technical details

OpenScape EcoServer OpenScape EcoBranch	<ul style="list-style-type: none"> <li>• CPU: AMD EPYC 3151</li> <li>• DRAM: 16 GB with ECC</li> <li>• SSD: 240 GByte</li> </ul>
OpenScape 4000 EcoServer OpenScape 4000 Branch	<ul style="list-style-type: none"> <li>• CPU: Intel i3-4330TE</li> <li>• DRAM: 8 GB with ECC</li> <li>• SSD: 240 GByte</li> </ul>
Power supply	<p>Input:</p> <ul style="list-style-type: none"> <li>• AC: 100 V to 240 V</li> <li>• DC: - 48 V</li> <li>• Hot plug is supported</li> <li>• Mixed power supplies as redundancy option</li> </ul>
Energy consumption OpenScape EcoServer (with OpenScape 4000 software)	<ul style="list-style-type: none"> <li>• Power consumption in standby: approx. 35W</li> <li>• Power consumption in operation: approx. 37W</li> <li>• Maximum power consumption: 120W</li> </ul>
Energy consumption OpenScape EcoBranch (with OpenScape 4000 software)	<ul style="list-style-type: none"> <li>• Power consumption in standby: approx. 39W</li> <li>• Power consumption in operation: approx. 43W</li> <li>• Maximum power consumption: 120W</li> </ul>
Energy consumption OpenScape 4000 EcoServer OpenScape 4000 Branch (OpenScape 4000 software)	<ul style="list-style-type: none"> <li>• Power consumption in standby: approx. 25 W</li> <li>• Power consumption in operation: approx. 30 W</li> <li>• Maximum power consumption: 120 W</li> </ul>
Environmental conditions	<ul style="list-style-type: none"> <li>• Operating temperature: 0 °C to +40 °C</li> <li>• Storage/transport temperature: -20 °C to +70 °C</li> <li>• Relative humidity: 10 % to 95 %; non condensing</li> <li>• Sound pressure level: &lt;45 dB(A)</li> <li>• Waste heat: approx. 50 °C (at an ambient temperature of 40 °C, CPU@TDP)</li> </ul>