UNIFY Harmonize your enterprise

OpenScape Office MX, OpenScape Office LX and OpenScape Office HX

The Unified Communication and Collaboration solution for small and medium-sized enterprises with one or more sites.

Unified Communication & Collaboration (UCC)

OpenScape Office offers enterprises integrated voice and conference services, Web Collaboration, voice and fax message boxes, notification service, mobility, a Multimedia Contact Center and presence status functions. In standalone systems, up to 500 subscribers and, in networked systems, up to 1000 subscribers can be connected.

Information technology has revolutionized the exchange of information and ideas between companies. A deluge of calls, e-mails, voice messages and faxes arrive each day, reducing your productivity. Working with numerous different communication media can lead to inefficiency, customer frustration and an increase in business costs.

OpenScape Office is a Unified Communication & Collaboration solution that consolidates all types of communication and makes them available anywhere and anytime. This applies to multilocation and standalone communication types such as direct calls, presence status, conferences, Web Collaboration, e-mail, instant messaging, voicemail, fax and social networks. This does away with the need to tediously change between different programs, contact lists and e-mail accounts. As a result, enterprises can dedicate more of their energies to customers, improve their teamwork, increase their productivity and further reduce communications costs.

Feature set

Presence

The presence status of other users – even at different locations – is shown by various symbols that indicate whether the user is in a meeting or on vacation, for example. Users can also announce their own status, including additional personal information.

The presence status also determines which announcements a caller hears when the user is not present. Since customers are informed about a contact's presence, this feature enables a more effective workflow.

Users can change their current presence status on their OpenScape Office client or on the telephone. They can decide which subscribers in the internal directory can view their presence status and receive status-based voice mailbox announcements and which contact details are visible to other subscribers.

The link with the Outlook calendar and the calendar for Mac (Ical) automatically sets the presence status if certain keywords such as "Meeting" or "Vacation" have been entered in the Outlook calendar. The calendar is searched for new entries at regular intervals and the presence status is updated accordingly.

Conferencing

An integrated conference server can be used to convene conferences in the OpenScape Office LX/MX with up to 16 subscribers.

The conference manager can use the conference management of myPortal for Desktop and myPortal for Outlook to initiate and steer a spontaneous or planned telephone conference and to start a Web Collaboration session (MX/LX). He can select the conference participants manually or from the available directories.

Web Collaboration

OpenScape Web Collaboration is a scalable and secure multimedia web conferencing solution that integrates seamlessly into the OpenScape Office interface.

Start from:

- MX/LX application conference
- MX, LX and HX system conference
- 2nd call via MX, LX and HX popup

OpenScape Web Collaboration improves cooperation within your enterprise and with your business partners. Integrated functions such as desktop/file sharing, whiteboard and video conferences enable you to have project and sales meetings, training sessions and product presentations without costly business trips.

Instant messaging with Multi-User-Chat

With Multi-User-Chat, a user can exchange texts as instant messages with multiple internal subscribers and with one external communication partner at a time (via the XMPP protocol). Instant messages are displayed as a dialog in a separate window.

Drag&Drop functions for selection of the presence status of each communication partner and the display of this status enable an efficient exchange of information, such as when questions quickly need to be clarified during a telephone conference. The function is available for all users of myPortal for Desktop, myPortal for Outlook and myAttendant.

Favorites list

A user can create a favorites list of his preferential contacts from the available directories and administer them in groups and subgroups.

Contacts from the internal directory (including contacts of networked OpenScape Office systems) are displayed with their presence status.

Call journal

All calls are stored in the user journal according to various criteria.

Each call is shown with date, time, call number, last name, first name, company, route (inbound or outbound) and call duration.

Important calls can be planned by specifying the call number, the date and the time in advance. Calls in the journal can be set up as Outlook contacts and exported in a CSV file.

Personal AutoAttendant

A user can configure his voice mailbox so that a caller can leave a message or the call can be forwarded. The configuration can be carried out in such a way that the current presence status of the user is taken into account.

The personal AutoAttendant provides a voice recording function that can be used to change announcements in a straightforward way.

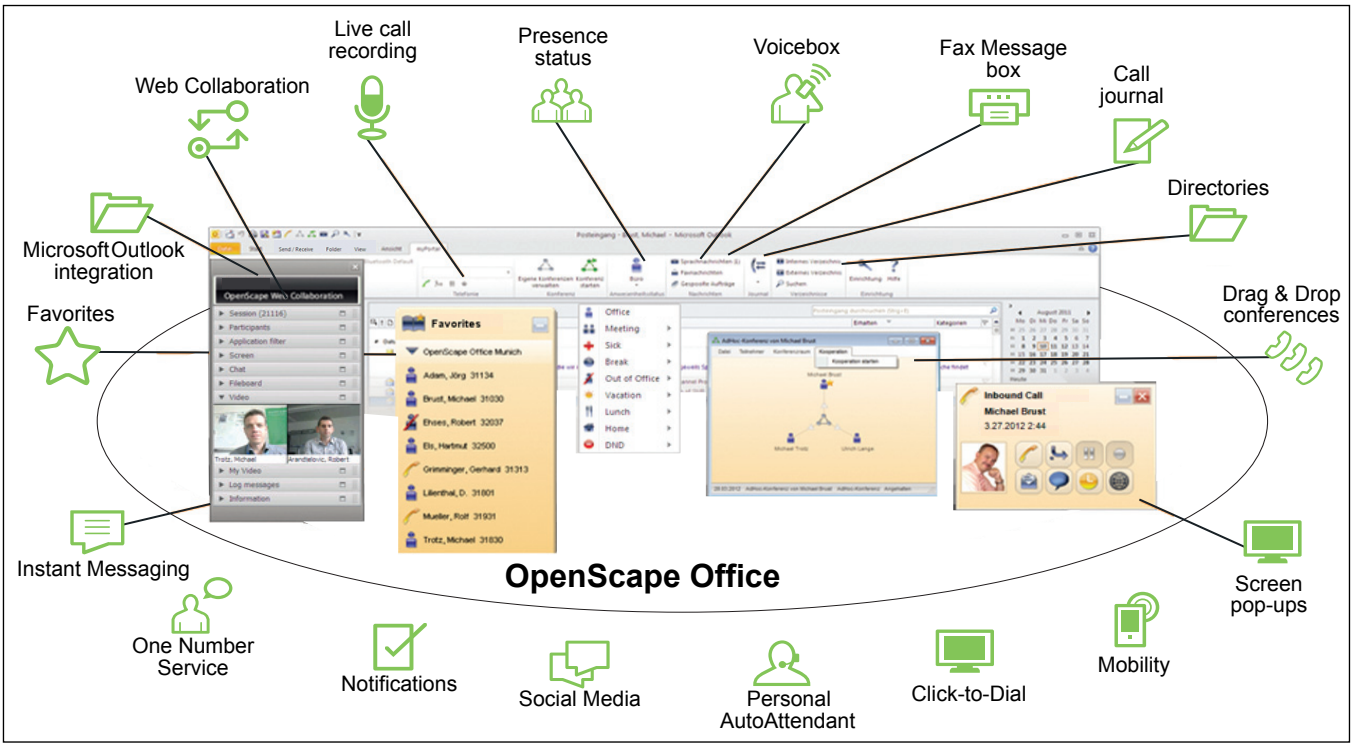
Central AutoAttendant

By using schedules and the rules defined in them, the administrator can control how AutoAttendant calls are handled at specific times or on specific days, e.g. which announcement is played or the number to which the call is forwarded.

An individual announcement can be played that is customized for the phone number, such as in the language of the caller. In addition, the user can create schedules for day and night, weekends and for public holidays. Existing announcement texts or individually generated announcements in WAV format can be imported.

Status-based call forwarding

Users can redirect callers to their additional call numbers or to their voice box on the basis of their presence status (Out of the Office, CallMe, and Do-Not-Disturb). If the presence status changes, OpenScape Office activates call forwarding to the destination defined for this particular case. For the "Out of the Office" presence status, call forwarding can be set to a cell phone, for instance.



OpenScape Office – The all-in-one UCC solution for your communication needs

CallMe

The CallMe service allows every user to use any telephone as his office phone and hence telephone at the same tariff as in the office. The call number of the office phone is always displayed for outbound calls. CallMe gives the teleworker a convenient option for controlling his accessibility.

Click-to-Dial

A myPortal for Desktop or myPortal for Outlook user can select and call a number from a desktop application. The call number can be in an e-mail, Word file or Excel file, for example.

Voicebox

The function of the voicebox is comparable to that of an answering machine, although not every user needs to have his own device.

Voice messages can be accessed via the OpenScape Office clients or a telephone.

Fax Message Box

The fax message box can receive fax messages directly via myPortal for Desktop or myPortal for Outlook without a fax machine.

Series faxes can be sent by storing multiple fax address in the fax printer.

User outcall

A user can be notified of new messages by e-mail, by text message or by telephone. The type of notification can be activated or deactivated separately for each presence status.

Screen pop-ups

Screen pop-ups provide the user with a convenient way of responding to incoming calls, new voice messages, etc., with one click. Other possibilities include call pick-up, explicit call transfer, putting calls on hold, as well as the recording and ending of calls.

During a call, the user can send e-mails and instant messages and plan the next call in the screen pop-up and start a Web Collaboration session.

Live call recording

A user can record calls and, as a conference manager, can also record conferences. The recordings are indicated by a red dot in the voice mailbox and, where available, show the call number of the call partner or the first conference participant.

Access protection

Use of OpenScape Office clients requires a release via the internal extension. An individual 6-digit password must be assigned for this purpose.

Connection of external databases

OpenScape Office makes it possible to flexibly connect to different databases in the customer environment via the integrated OpenScape Office OpenDirectory Service. For inbound calls, known subscribers are displayed with their name in the UCC clients. Customer-specific adjustments can be made at any time by means of the implemented field mapping function.

- ODBC connector for connecting to SQL databases:
  Microsoft SQL server,
  mySQL,
  PostgreSQL,
  Sybase SQL server
- LDAP connectors for external LDAP servers such as
  Active Directory

Access to OpenScape Office directories

Via the integrated OpenDirectory Service, 3rd-party applications or OpenStage phones can now access the OpenScape Office telephone directories via LDAP.

Application Launcher

The Application Launcher allows caller-based data such as call number, name etc. to be transferred to other CRM, ERP or WEB applications and to launch these accordingly.

The applications are launched by executing a batch file or by sending an http request in which the data from the caller are optionally contained via the OpenDirectory Service, from the system speed dials, the internal/external OpenScape Office directory or from an external SQL database.

OpenScape Office Clients

OpenScape Office MX, LX and HX offer the following clients:

- myPortal for Desktop
- myPortal for Outlook
- myPortal for Mobile
- myPortal for Tablet
- myPortal for OpenStage
- myAttendant

Feature Set	myPortal for			
	Desktop	Outlook	Mobile/Tablet	OpenStage
Presence	X	X	X	X
Conferencing	X	X	X	
Multi-User-Chat	X	X		
Favorites list	X	X	X	
Call Journal	X	X	X	
Status-based AutoAttendant	X	X		
Status-Based Call Forwarding	X	X		
Voice messages	X	X	X	X
Fax messages	X	X		
Directories	X	X	X	
User outcall	X	X		
Screen Pop-ups	X	X		

myPortal for Desktop

Microsoft Windows/Apple Mac OS X

Portal for Desktop

The UC functions of OpenScape Office can be accessed via myPortal for Desktop.

The special feature of myPortal for Desktop is that subscribers entered in the internal directory are displayed together with their presence status. For instance, a user can see whether other subscribers are in the office, in a meeting or on vacation at any time. Outlook contacts and the contacts from the Mac address book can automatically be adopted in the personal directory.

Using Multi-User-Chat, multiple internal subscribers and one external communication partner (via XMPP protocol) can exchange instant messages simultaneously.

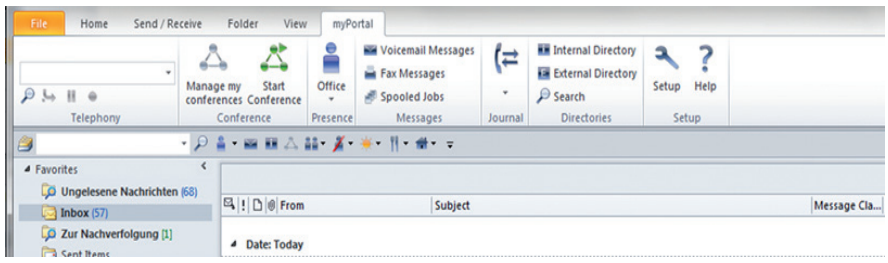
In addition to the standard variant, myPortal for Desktop provides further modern skins with smaller display options, adapted for Apple Mac OS X.

myPortal for Outlook

The myPortal functions can be integrated seamlessly in Microsoft Office Outlook. Thus, every user has access to all means of communication. E-mails, voice messages, fax messages and instant messages with Multi-User-Chat can be read, managed and answered in Outlook.

Users can choose whether the Outlook contact window, a screen pop-up or both should open when an incoming call is received.

With myPortal for Outlook, users can dial directly from the contacts, receive e-mails in the mailbox and record calls.



myPortal for Outlook in the new Microsoft Office 2010 design

myPortal for Mobile/Tablet

myPortal for Mobile/Tablet is the web-based OpenScape Office user interface for mobile employees with smartphones and tablet PCs.

It gives mobile employees access to UC functions such as presence or voice messages, regardless of where and when they are on the road. The mobile device is therefore fully integrated into the enterprise communications system. Various adjustable dialing methods (Callback, GSM, or call-through) lower communications costs.

myPortal for Mobile/Tablet

myPortal for OpenStage

myPortal for OpenStage is the OpenScape Office XML application for users of the OpenStage 60 and OpenStage 80 telephones.

myAttendant

myAttendant is a convenient attendant console with a telephone function which displays the active, parked, on hold and transferred calls. In addition, it displays the presence data of each subscriber. The presence status of every user can be changed in myAttendant.

Voice, fax and instant messages are logged and administered in the Message Center. Users can manage the messages of co-workers provided they have their permission.

myAttendant provides night, day and emergency services. Up to 20 myAttendant workstations can be set up.

Multimedia Contact Center

Contact Center features

Intelligent Routing

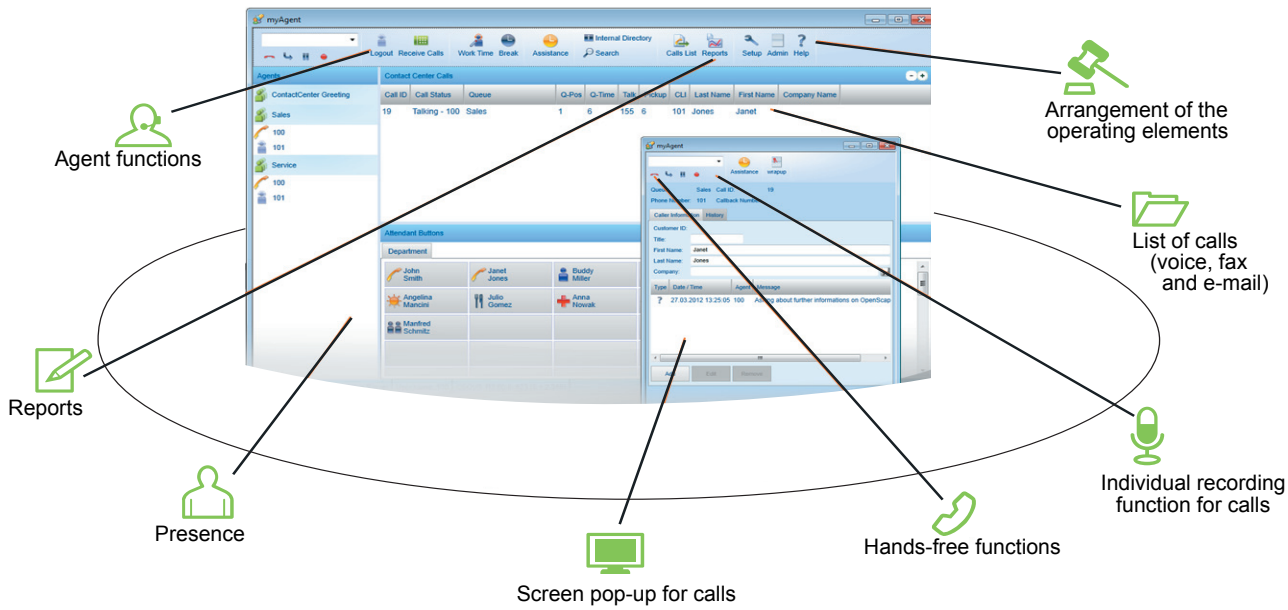
Various routing mechanisms in the Contact Center ensure fastest possible assignment of calls, faxes and e-mails to a suitable agent based on the longest idle time station:

- Skills-based routing
- Group-based routing
- Call number-based distribution (CLI)
- Resource-dependent routing according to the number of available agents or number of waiting calls

Return calls are only given to those agents who have been authorized beforehand by the supervisor.

Agent in multiple groups

An agent can be assigned to several queuing mechanisms (groups) with different skills.



Multimedia Contact Center – improvement of the first call resolution rate and customer service

Preferred Agent

This function means a customer can always be assigned the same contact partner (agent) in the Contact Center. This also works for a call back request.

VIP support

For each queuing mechanism it is possible to individually define whether specific customers are to be given preference and, hence, should reach a free agent faster. By taking the call number fragments and placeholders into account, entire companies can also be entered as VIPs in the simplest way, for example.

Wrap-up

The wrap-up time can be defined. Inbound calls for specific subjects (ordering, complaint, service, etc.) can be assigned using wrap-up codes.

Queuing mechanisms

Queues are the basis of every contact center. When all agents are busy, calls, faxes and e-mails can be dealt with depending on the skills level, the priority and the wait time. Announcements can be played to callers on hold. Calls which are in the queuing mechanism can optionally be transferred to other queuing mechanisms, to internal or external subscribers or to the group voice mail in accordance with the set rules.

Return Call

The caller can leave a return call request if the wait time in the queuing mechanism is too long for him. This return call request is sent to the agents in a voicemail. Agents have the possibility of specifically selecting and processing uncompleted return calls from a list, even before renewed sending by the system.

Position Announcements

Callers can be informed of their current waiting position by an announcement.

Call Number-Dependent Voice Guidance

Depending on their call number, callers can be guided through the operation in their national language in the case of call back requests. The same applies to position announcements in the queuing mechanism.

Authorization level

A differentiation is made between the roles of Agent and Supervisor/Administrator in the contact center through the use of authorizations.

Permanently Active agent

In certain situations it is not desirable to automatically switch an agent to the "Not available" status after a missed call. In such cases, an agent can be set to "Permanently active" by the supervisor.

User portals

The myAgent user portal provides agents with convenient functions for processing and wrapping up calls, faxes and e-mails.

The myReports user portal makes it possible for users to create statistics on Contact Center resource utilization according to various criteria.

Administration tool

Depending on the assigned role (authorization level), the user has the possibility to administer the following functions:

- Queuing mechanisms
- Schedules
- Breaks
- Wrap-up codes
- Announcements
- External directory

myAgent features

The myAgent user portal provides agents with convenient functions for processing and wrapping up calls, faxes and e-mails.

"Agent" authorization level

- Login to OpenScape Office via any myAgent user portal
- Individual language setting during login
- Free choice of telephone at the workstation
- Display of the connection status of the agents in the queuing mechanism and of the presence status of the internal subscribers
- Display of the connection status of the agents in the queuing mechanism and of the internal subscribers
- Display of the features of all agents (agent assignments) in the assigned queuing mechanisms (Supervisor/Administrator only)
- Call and contact handling via customized screen pop-ups
- Full CTI functionality
- Configurable key combinations for quickly calling up functions
- Selection of defined breaks
- Entry of wrap-up codes for defined subjects and wrap-up times
- Missed calls list with details of all contacts for the assigned queuing mechanisms over a selectable time period
- Access to various directories: Internal subscribers, including their current presence statusExternal directories via LDAP connection
- Recording of calls for documentation and training purposes with alternative storing in the system or on workstation or sending as an e-mail attachment (storage and e-mail sending for Supervisor/Administrator only)
- Exchange of text with internal subscribers in the form of instant messages (chatting)
- Request for supervisor support during a call
- Individual assignment of the phone keys to internal subscribers
- Display of queue details (spreadsheet with statistical information in real time) for the assigned queuing mechanisms such as the average time of a queuing mechanism and the average speaking time
- Reminder function for not yet processed call back requests, fax, and e-mail

"Supervisor" and "Administrator" authorization levels

- The "Supervisor" and "Administrator" authorization levels offer the following additional functions:
- Display of the features of all agents (agent allocations) of all queuing mechanisms
- Display of the queuing mechanism details of all queuing mechanisms
- Individual configuration of queuing mechanisms to be displayed
- Assigning agents to queuing mechanisms
- Removing agents from queuing mechanisms
- Log in/off by agents on a queuing mechanism
- Specific setting of agent status
- Responding to a request for support
- Activation of an alarm if the number of waiting calls or the waiting time of a call in a queuing mechanism are exceeded
- Executive Busy Override of the call of an agent
- Call-up of the OpenScape Office administration tool:
  For the configuration of the contact centerFor the creation/administration of announcementsFor the editing of the external directoryFor the configuration of agents

Reports

Depending on the assigned role (authorization level), more than 20 predefined reports can be created via myAgent.

Wallboard

If needed, queuing mechanism details can be displayed as a wallboard by means of a large screen monitor or projector.

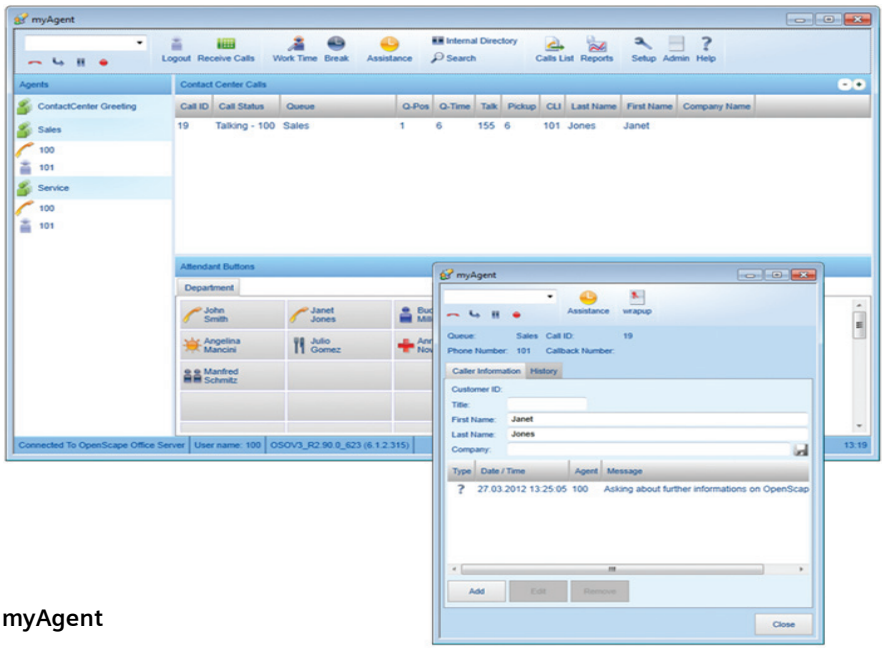
Missed calls list

Detailed information on all calls, faxes and e-mails up to now for the assigned queuing mechanisms for a selectable time period can be found in the missed calls list of the contact center. Search and sorting functions support rapid finding of specific events in the missed calls list.

myReports features

The myReports user portal offers:

- Report creation via the Schedule Manager with selection of the report from more than 100 predefined report templates for telephone, e-mail and fax contacts
- Display of all available report templates organized by group in the template explorer
- Management of report templates via the Report Manager with the possibility of regrouping as well as adding and deleting newly created report templates
- Support of schedules for report creation, incl. periodic creation at defined intervals
- User-specific management of one-time requests as a template for later usage or adaptations
- Automatic sending of the generated reports as an e-mail attachment in various file formats. Optional automatic saving of the created reports in the file system on PC or in the network.
- User-related, individual settings for the user interface, password, e-mail templates and call number prefixes for certain analyses



myAgent

Mobility solutions

OpenScape Office offers integrated mobility solutions for any enterprise. These include, for example, the integration of smartphones, the use of cordless and WLAN telephones and DeskSharing and teleworking.

The solution encompasses mobility on the road, mobility in the office and mobility at home.

Mobility on the road

"Mobility on the road" is achieved via the mobile phone integration of myPortal for Mobile/Tablet or Mobility Entry.

The One Number Service makes the user accessible worldwide under a single call number.

Additional costs can be saved via dual mode telephony if the subscriber is within the range of a WLAN.

Mobility in the office

"Mobility in the office" takes places via DeskSharing, cordless telephones and WLAN telephones.

For DeskSharing, IP Mobility (Mobile Logon and Flex Call) offers features for mobile subscribers who wish to use the telephone at a different workstation than their own.

Mobility at home

"Mobility at home" is enabled via teleworking and Unified Communication features, such as CallMe.

Teleworking is supported by IP Mobility (Mobile Logon) and the connection of teleworkers via VPN.

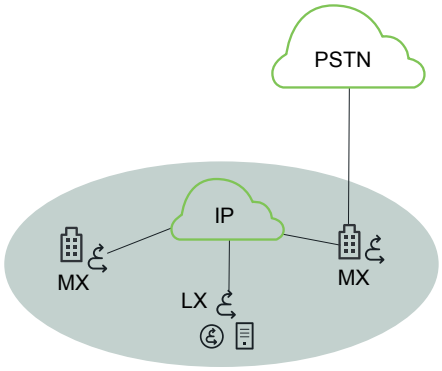
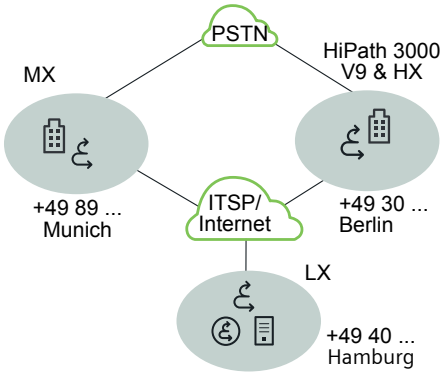
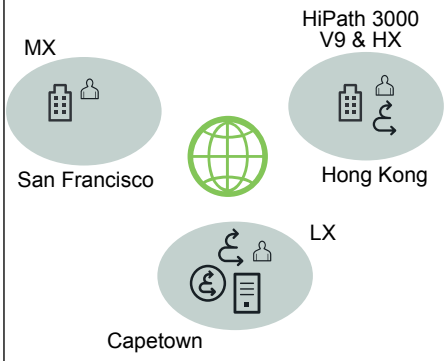
In addition, "Mobility at home" is supported by the same features that are used for "Mobility on the road" (mobile phone integration and One Number Service).

Networking of OpenScape Office

OpenScape Office offers the possibility of building a network with up to 1000 subscribers that consists of OpenScape Office MX, OpenScape Office LX and OpenScape Office HX (with HiPath 3000 V9).

In this network-wide Unified Communication solution, users can use features such as presence status, voicebox and conferencing.

Supplemented by a rich set of voice networking features, this solution makes a scope of features available to medium-sized enterprises that, until now, have only been available to large enterprises.

Campus Scenario	Regional/National Scenario	International Scenario
		
• A small startup enterprise with multiple offices in a business park • The small university or school campus • A medium-sized enterprise that has expanded its headquarters by a new building and requires a multi-network presence	• A travel agent with offices in several cities in the same region or country • A car dealership that is opening another branch in the same city • A transport company with an existing HiPath 3000 that is expanding by UCC with HX and opening new sites	• A globally active service provider with two different, globally distributed partners that is opening a local subsidiary • A sporting goods manufacturer in the USA with a production site in Asia. The manufacturer wants to be continuously informed about the current production status

Network-wide UCC features

The OpenScape Office clients support the following major functions in the network:

- Presence management with voice support (visibility of presence status)
- Network-wide call status (e.g. subscriber is being called, subscriber has an active call)
- Call pickup via myPortal for Desktop
- Instant messaging with Multi-User-Chat
- Drag&Drop conferences in the network
- Network-wide Web Collaboration (for example, desktop sharing and video)
- myAttendant – change the presence status for all users in the network
- Integrate external directories with OpenScape Office Directory Services
- Integration in the Microsoft Exchange calendar and in the public directory
- Forwarding of voicemails in the network
- Support of XMPP presence & chat with external partners

myAgent clients are locally connected to an OpenScape Office MX, OpenScape Office LX or OpenScape Office HX system in the network.

Single Point of administration in the network

A centralized administration is available for OpenScape Office MX, OpenScape Office LX and OpenScape Office HX networks. An administrator can access all network subscribers via the central network node. When changes are made, the databases of the individual network nodes are automatically synchronized.

System technology

OpenScape Office MX

OpenScape Office MX is an all-in-one Unified Communication solution in a 19" housing with pre-installed software. It can be deployed as a standalone system or as a gateway for OpenScape Office LX.

The Internet is accessed via a broadband connection. The broadband connection can be implemented via the DSL connection or via the coaxial cable connection, which means fast data transfer and also IP telephony are possible. The NAT, DynDNS, DHCP methods are used.

The following functions are supported by OpenScape Office MX:

- Stateful Inspection Firewall with selective port release, URL blocker, web blocker and Intrusion Detection System (IDS), NAT, STUN
- VPN-IPSec, functionality for VPN teleworker connection
- LAN
  Gigabit Uplink Port,
  Virtual LAN support (VLAN),
  Layer 3 routing,
  802.1p L2 QoS
- WAN
  Internet access with up to 50 Mbit/s,
  Embedded router,
  Demilitarized zone (DMZ) for the secure integration of mail and web servers in a customer network.

OpenScape Office LX

OpenScape Office LX is the server-based Unified Communication solution that can be operated on a Linux server, independent of the platform. OpenScape Office MX or HiPath 3000 can be used as a trunk gateway.

With VMware vSphere Virtualization, OpenScape Office LX customers can save costs and time and, in addition, increase the survivability of their communication solution.

- Reduction of the number of physical server parks
- Reorganization due to a growing server hierarchy
- The need for central administration due to the high number of applications
- Higher reliability
- Comfortable data backup and restore
- Scalability
- Monitoring capability
- Reuse of older operating systems in a virtual environment
- Ecological advantages (one server requires less power)
- Reduced service times

OpenScape Office HX

OpenScape Office HX is the server-based Unified Communication solution for HiPath 3000. HiPath 3000 supports any combination of TDM, analog and IP phones, PC clients and cordless phones, and offers powerful voice communication.

Like OpenScape Office LX, OpenScape Office HX can be operated in virtual VMware environments and offers the advantages stated above.

Connection of applications

Applications can be centrally connected via TAPI 170 (also in OpenScape Office networks). Workstations can be locally connected to the terminals via TAPI 120. The CSTA protocol is used for the connection.

An integrated accounting solution or TeleData Office V4 is available for the evaluation of call data.

Maintenance and administration

For the administration of OpenScape Office, web-based administration tools are available for the system management functions. Access to the management functions is user-friendly. This makes administration straightforward without any special knowledge of the system.

The administrator can also centrally administer the user data of the OpenScape myPortal clients and define company-wide or individual subscriber profiles, regarding the visibility of call numbers, for instance, call forwarding or the personal AutoAttendant.

The system includes fault management. Automatic testing and diagnostic programs can be used to monitor and check the system components. If faults occur, the system can diagnose malfunctions, remedy them itself and generate system messages that are transferred locally as well as to a remote service center.

The administration tools enable remote service and software downloads over the Internet.

Accounting Manager

The Accounting Manager is an integrated application for the querying and processing of call data records. The system can store up to 20 000 data records.

OpenStage Gate View functionality

OpenStage Gate View conveys a video image assigned to an activated entrance telephone, e.g. your entrance area, automatically to your OpenStage phone.

The OpenStage Gate View functionality has been integrated in OpenScape Office MX, LX and HX in which the administration is also carried out.

The full functionality including recording is only available for video cameras certified for OpenStage Gate View. A current list of certified video cameras can be found under: http://wiki.unify.com.

Telephones

IP telephones

- OpenStage 15, 20 E, 20, 20 G, 40, 40 G, 60, 60 G, 80, 80 G
- Existing optiPoint 410/420 are supported.
- Add-on devices:
  OpenStage key module for OpenStage 15, 40, 60 and 80 only OpenStage BLF 40 (busy lamp field) only for OpenStage 40

WLAN telephone

The optiPoint WL2 professional telephone can be operated on the following access points and controllers as required:

- HiPath Wireless Standalone Access Point AP 2630 (cordless with internal antenna) or AP 2640 (cordless with external antenna). Per access point (AP), it is possible to connect six WL2 professional, and a maximum of 10 access points can be operated.
- HiPath Wireless Convergence Software (WLAN controller solution) for larger configurations.

DECT telephones

HiPath Cordless IP is a campus-wide mobility choice with the following mobile parts:

- Gigaset S4 professional
- OpenStage SL4 professional
- Gigaset M2 professional

DECT telephones are integrated via SIP.

SIP telephones/AP adapters

The myPortal for Desktop, myPortal for Outlook and myAttendant OpenScape Office clients can be used with SIP telephones that support RFC 3725.

Full functionality of the features depends on the SIP telephone being used and cannot be ensured. The features were successfully tested with an OpenStage 15 S telephone.

Mediatrix 4102S: for the connection of analog telephones or fax machines.

PC clients

- OpenScape Personal Edition (HFA) and OpenScape Personal Edition S

Existing optiPoint 130 are supported.

The PC with headset or handset becomes the communications center for voice, data, e-mail and Internet. A soft client installed on the desktop computer or notebook also provides all telephone functions via WLAN and offers the same familiar user interface – whether at the office and on the move. Video connections can be used with OpenScape Personal Edition S.

OpenScape Office MX **additionally supports** analog telephones and fax machines, ISDN telephones and fax machines, and add-on devices such as door/gate intercoms via TFE-S adapters.

Specifications

OpenScape Office MX

Mounting options	• Free-standing installation (on desk) or installation in a 19" cabinet; space requirement in a 19" cabinet for one system box =1.5 height units • Standalone system with max. 3 system boxes (multiple box system)
Participant	• Max. 150 subscribers, of which 148 are freely configurable • Max. 50 subscribers per system box • Max. 1000 subscribers through networking • Max. 100 subscribers with mobile phone integration
Gateway modules	• 3 slots per system box for different gateway modules • Optional gateway modules: GMS (not for USA, Canada) = gateway module with four S_0 interfaces for the ISDN trunk or ISDN subscriber line, GMSA (not for USA, Canada) = gateway module with four S_0 interfaces for the ISDN trunk or ISDN subscriber line and four a/b interfaces for the analog subscriber line, GME (not for USA, Canada) = gateway module with an S_{2M} interface for the ISDN primary multiplexer, GMT (only for USA, Canada) = gateway module with a T1 interface for the ISDN primary multiplexer, GMAA = gateway module with four a/b interfaces for the analog trunk connection and two a/b interfaces for the analog subscriber lineGMAL = gateway module with eight a/b interfaces for the analog subscriber line
Standard interfaces (Motherboard)	• 1 motherboard per system box with a powerful AMD Sempron CPU and 1 GB main memory • Standard interfaces: 4 internal Gigabit LAN connections, 1 Gigabit DMZ connection, 1 external Gigabit WAN connection (e.g. for Internet access), 1 USB server, 1 USB control
Operating system	Linux (embedded)
Internet connection	• 1 Internet Service Provider (ISP) • 4 Internet Telephony Service Providers (ITSP)
Dimensions	• Width = 440 mm • Height = 66.5 mm • Depth = 350 mm
Power supply	OpenScape Office MX is configured for network operation as standard. • Rated input voltage: 110 V to 240 V, plus tolerance (+/-10%) -> 99 V to 264 V • Rated frequency: 50/60 Hz
Current consumption	Max. 4 A at 99 V
Power consumption	80 W with maximum 250 W per system box (depending on expansion stage)
Battery buffer	UPS for 110 V to 240 V, capacity: 4 Ah (at 110 V) There is no UPS interface as in a PC.
Environmental conditions	• Operating conditions: +5 to +40 °C • Humidity: 5 to 85%
Color	Steel blue • Front: silver
OpenStage Gate View functionality	• Max. 2 cameras • Max. 10 OpenStage 60/80 HFA phones • Max. 10 iPhone Apps or Web Clients • Software prerequisite for OpenStage 60/80 HFA: Min. V2 R0.48.0 • Phone App and Web Client

OpenScape Office LX, HX

Mounting options	Linux server is certified for SUSE Linux Enterprise Server 11
Participant	• Max. 500 subscribers (LX, HX) • Max. 1000 subscribers through networking • Max. 200 subscribers with mobile phone integration with OpenScape Office LX • Max. 100 subscribers with mobile phone integration per OpenScape Office MX node in a network
Operating system	SUSE Linux Enterprise Server 11 (LX, HX) Appliance
Internet connection (LX)	• 1 Internet Service Provider (ISP) • 4 Internet Telephony Service Providers (ITSP)
Hardware requirements for server (LX, HX)	The hardware must meet the following minimum requirements: • Linux server, certified by the PC manufacturer for the SUSE Linux Enterprise Server 11 (SLES 11) operating system, e.g. Fujitsu PRIMERGY TX150 S7 • OpenScape Office is the only permitted application on the Linux server • 2-core processor, 2.0 GHz per core or higher • 2 GB RAM • Hard disk with 200 GB • Keyboard and mouse • DVD drive • Screen resolution of 1024x768 pixels Optionally, survivability can be increased by doubling the hard disk (recommended via SLES SW RAID) and the power supply. SUSE Linux Enterprise Server 11 SP1 (32-bit) is included in the scope of delivery of the OpenScape Office LX software.
Hardware requirements for VMware vSphere virtualization (LX, HX)	The hardware requirements of physical servers are the same as those for servers recommended or certified by VMware. Details can be found at: http://wiki.unify.com.
OpenStage Gate View functionality	• Max. 8 cameras • Max. 20 OpenStage 60/80 HFA phones • Max. 20 iPhone Apps or Web Clients • Software prerequisite for OpenStage 60/80 HFA: Min. V2 R0.48.0 • Phone App and Web Client

myPortal for Mobile/Tablet

A smartphone/tablet PC must meet the following requirements:

- Touch screen for comfortable operation
- Web browser
- Simultaneous use of voice and data connections is provider-dependent but must be possible.
- A 3G data connection (e.g. EDGE, UMTS, HSPDA) is recommended for connection to OpenScape Office. GPRS data connections can lead to lengthy load times of myPortal for Mobile screen pages.
- Depending on user behavior, a data volume of more than 100 MB per month can accrue for myPortal for Mobile/Tablet. For this reason, a data flat rate is recommended.

Operating systems and reference devices that have been tested up to now:

- Apple iOS:
- iPhone 3GS, iPhone 4, iPhone 5
- Android: HTC Desire
- Symbian: N97, C7-00
- Blackberry OS: Storm 9500
- Tablet PC

Changes can be found at: http://wiki.unify.com.

myPortal for Mobile/Tablet is functional on many other smartphones/tablets. Operating comfort and functions depend on the particular smartphone/tablet and operating system in use.

Multimedia Contact Center

- Agents
  OpenScape Office MX inbox system: max. 10 agents Multiple box system: max. 64 agents OpenScape Office LX max. 64 agents
- Calls per hour to the Contact Center
  Single box system: max. 200 calls per hour,
  Multiple box system: max. 500 calls per hour
- Max. 50 queuing mechanisms/groups
- Max. 64 supervisors
  The total number of agents and supervisors must not exceed 64.
- Max. 1 myReports

Software and hardware requirements

Integration in Microsoft and Apple environments

The clients of OpenScape Office myPortal for Desktop, myPortal for Outlook, myAttendant and myAgent can easily be integrated in Microsoft and Apple environments.

Minimum hardware requirements (clients)

- 2 GHz CPU
- RAM: 2 GB
  Microsoft Windows XP SP3: 1 GB,
  Microsoft Windows 2003 Server SP2: 1 GB
- 100 Mbit/s LAN
- Screen resolution:
  XGA (1024x768)
- myPortal for Outlook, myAgent:
  SVGA (800x600)

OpenScape Office clients

- Microsoft Windows 8 Basic, Pro and Enterprise (32/64-bit)
- Microsoft Windows 7 SP1 (32/64-bit)
- Microsoft Windows Vista SP2 (32/64-bit)
- Microsoft Windows XP SP3 (32/64-bit)
- Apple Mac OS X (Lion/10.7)
- Apple Mac OS X (Mountain Lion/10.8)

Outlook (for myPortal for Outlook)

- Microsoft Office 365
- Microsoft Outlook 2010 SP1 (32/64-bit)
- Microsoft Outlook 2007 SP2 (32-bit)
- Microsoft Outlook 2003 SP3 (32-bit)

Supported web browsers

- Microsoft Internet Explorer V7, V8 and V9
- Mozilla Firefox V4 or higher

Exchange server environments

- Microsoft Office 365
- Microsoft Exchange 2010 SP2
- Microsoft Exchange 2007 SP3
- Microsoft Exchange 2003 SP2

Additional software

- Java 1.6 (32-bit) or later
- Min. Microsoft .NET Framework 3.5 for Outlook 2003/2007
- Min. Microsoft .NET Framework 4.0 for Outlook 2010 and myAgent

Use in terminal server environments

- Software requirements:
  Microsoft Windows 2012 Server as Microsoft Terminal Server,
  Microsoft Windows 2008 R2 Server SP1 (64-bit) with Citrix XenApp 6.0 Server,
  Microsoft Windows 2008 R2 Server SP1 (64-bit) with Citrix XenApp 5.0 Server,
  Microsoft Windows 2008 R2 Server SP1 (64-bit) as Microsoft Terminal ServerMicrosoft Windows 2008 Server SP2 (32-bit, 64-bit) as Microsoft Terminal Server,
  Microsoft Windows 2003 Server SP2 (32-bit, 64-bit) as Microsoft Terminal Server
- Hardware requirements
  The number of installable OpenScape Office clients depends on the terminal server performance and the amount of main memory available. If other applications are used on the terminal server, their main memory requirements must also be taken into account.

Supported standards

Ethernet

- RFC 894 Ethernet II Encapsulation
- IEEE 802.1Q Virtual LANs
- IEEE 802.2 Logical Link Control
- IEEE 802.3u 100BASE-T
- IEEE 802.3X Full Duplex Operation

IP/Routing

- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 2822 Internet Message Format
- RFC 826 ARP
- RFC 2131 DHCP
- RFC 1918 IP Addressing
- RFC 1332 The PPP Internet Protocol Control Protocol (IPCP)
- RFC 1334 PPP Authentication Protocols
- RFC 1618 PPP over ISDN
- RFC 1661 The Point-to-Point Protocol (PPP)
- RFC 1877 PPP Internet Protocol Control Protocol
- RFC 1990 The PPP Multilink Protocol (MP)
- RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP)
- RFC 2516 A Method for Transmitting PPP Over Ethernet (PPPoE)
- RFC 3544 IP Header Compression over PPP

NAT

- RFC 2663 NAT

IPSec

- RFC 2403 IPsec Authentication - MD5
- RFC 2404 IPsec Authentication - SHA-1
- RFC 2404 IPsec Authentication - SHA-2
- RFC 2405 IPsec Encryption 3DES
- RFC 2407 IPsec DOI
- RFC 2408 ISAKMP
- RFC 2409 IKE
- RFC 2410 IPsec encryption - NULL
- RFC 2411 IP Security Document Roadmap
- RFC 2412 OAKLEY
- RFC 3602 IPSec encryption with AES
- RFC 4301 Security Architecture for the IP
- RFC 4303 IP Encapsulating Security Payload (ESP)

SNMP

- RFC 1213 MIB-II

QOS

- IEEE 802.1p Priority Tagging
- RFC 1349 Type of Service in the IP Suite
- RFC 2475 An Architecture for Differentiated Services
- RFC 2597 Assured Forwarding PHB Group
- RFC 3246 An Expedited Forwarding PHB (Per-Hop Behavior)

Services

- RFC 2597 Assured Forwarding PHB Group
- RFC 3246 An Expedited Forwarding PHB (Per-Hop Behavior)

Codecs

- G.711; G.729

CTI

- CSTA Phase III
- TAPI Service Provider for TAPI 2.1

VoIP over SIP

- RFC 2198 RTP Payload for Redundant Audio Data
- RFC 2327 SDP Session Description Protocol
- RFC 2617 HTTP Authentication: Basic and Digest Access Authentication
- RFC 2782 DNS RR for Specifying the Location of Services (DNS SRV)
- RFC 2833 RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals
- RFC 3261 SIP Session Initiation Protocol
- RFC 3262 Provisional Response Acknowledgement (PRACK) Early Media
- RFC 3263 SIP Locating Servers
- RFC 3264 An Offer/Answer Model with the Session Description Protocol
- RFC 3310 HTTP Digest Authentication
- RFC 3311 Session Initiation Protocol (SIP)UPDATE Method
- RFC 3323 A Privacy Mechanism for the Session Initiation Protocol (SIP)
- RFC 3325 Private Extensions to the Session Initiation Protocol (SIP) for Asserted Identity within Trusted Networks
- RFC 3326 The Reason Header Field for the Session Initiation Protocol (SIP)
- RFC 3489 STUN - Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)
- RFC 3515 The Session Initiation Protocol (SIP) Refer Method
- RFC 3550 RTP: Transport Protocol for Real-Time Applications
- RFC 3551 RTP Profile for Audio and Video Conferences with Minimal Control
- RFC 3581 An Extension to the Session Initiation Protocol (SIP) for Symmetric Response Routing
- RFC 3725 Best Current Practices for Third Party Call Control (3pcc) in the Session Initiation Protocol (SIP)
- RFC 3842 A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP)
- RFC 3891 The Session Initiation Protocol (SIP) Replaces Header
- RFC 4040 RTP Payload Format for a 64 kbit/s Transparent Call

VoIP security

- RFC 2246 TLS V1.0
- RFC 2459 X.509 PKI Certificate and CRL Profile
- RFC 3711 SRTP
- RFC 3830 MIKEY

XMPP

- RFC 3920 Extensible Messaging and Presence Protocol (XMPP): Core
- RFC 3921 Extensible Messaging and Presence Protocol (XMPP): Instant Messaging and Presence

Others

- RFC 959 FTP
- RFC 1305 NTPv3
- RFC 1951 DEFLATE

Emitted Interference/Radio Interference (EMC Classes)

- Class B (EN 55022) for the international market
- Class A (EN 55022) only for USA and Canada. Class A devices can cause radio interference in homes. In this case, the operator of the OpenScape Office may be required to perform the necessary interference suppression measures.

OpenScape Office demonstration

If you would like to know more, visit our Internet site at www.openscapeoffice.com or ask your channel partner for a demonstration of OpenScape Office today.

Reference No.: A31002-P1030-D100-5-7629

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