

# Information

**OpenScape Office MX and OpenScape Office LX**  
**The Unified Communications solution for small and medium-sized enterprises**

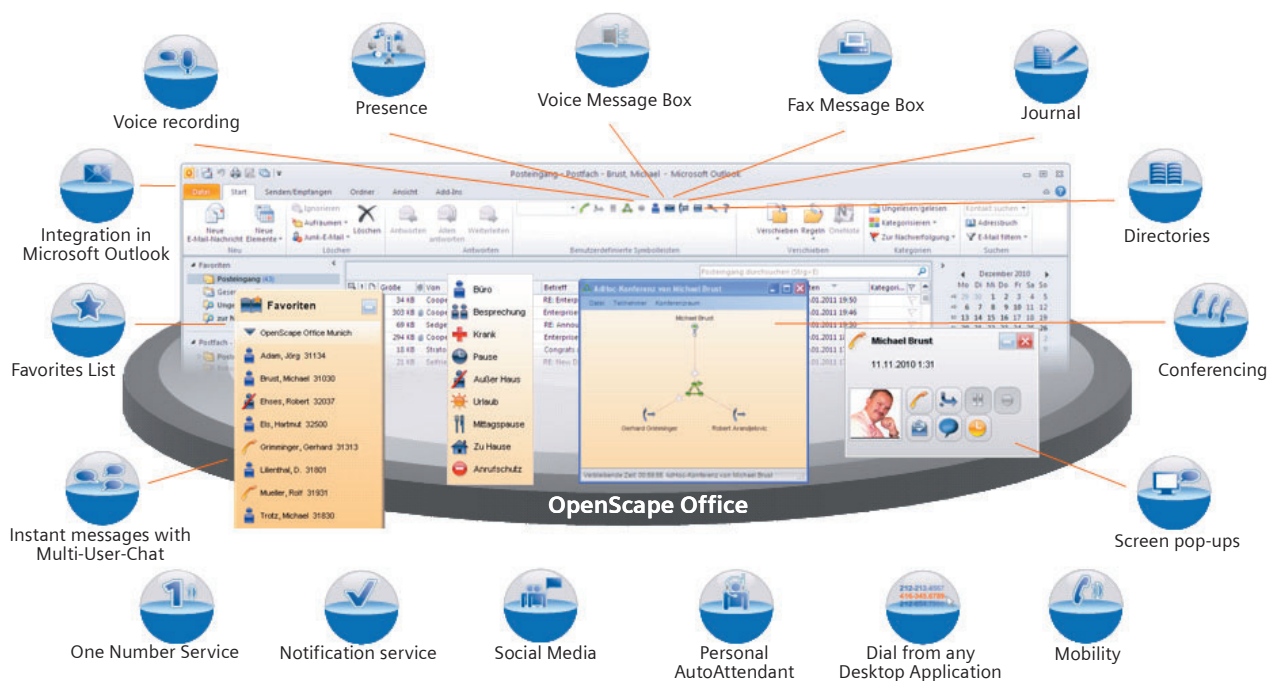
OpenScape Office offers enterprises integrated voice and conference services, voice and fax message boxes, notification service, mobility, a Multimedia Contact Center and presence status functions. In standalone systems, up to 500 subscribers and, in networked systems, up to 1000 subscribers can be connected.

Open up your office to a new way of working.

# Unified Communications

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.

OpenScope Office is a Unified Communications solution (UC) that unifies all types of communication (direct calls, phone conferences, e-mail, instant messaging, fax, etc.) in a single location. 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, increase their productivity and further reduce communication costs.



**OpenScope Office – The all-in-one UC solution for your communication needs**

## UC features

### Presence

The presence status of other users is shown by various symbols that indicate whether the user is in a meeting or on vacation. At the same time, users can announce their own status

The presence status also determines which announcement 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 OpenScope Office client or on the telephone.

He can decide which contacts in the internal directory can view his presence status and receive status-based voice mailbox messages and which contact details are visible to other users.

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

### Conferencing

Conferences with up to 16 participants can be convened on an integrated conference server (MX: max. 8 conferences, LX: max. 16 conferences). The conference server provides administration, conference features, control and realtime monitoring. The conference manager can use the conference management of myPortal for Desktop and myPortal for Outlook to initiate and steer a spontaneous or a scheduled telephone conference. He can select the conference participants manually or from the available directories.

## Instant messages 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 (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.

## 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 scheduled by specifying the call number, the date and the time in advance. All unsuccessful inbound and outbound calls are centrally listed and can be processed systematically.

## 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 (CCVs = Call Control Vectors) 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. He is able to create schedules for day and night, weekends and for public holidays himself. Existing announcement texts or individually generated announcements can be imported in WAV format.

## Status-based call forwarding

Users can redirect callers to their additional call numbers or to their voice message 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 forwarding of the call to the destination defined for this particular case. For the "Out of the Office" presence status, the call forwarding can be set to a cell phone, for instance.

## 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.

## Dial from any desktop application

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

## Voice message box

The function of the voice message box is comparable to that of an answering machine where 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.

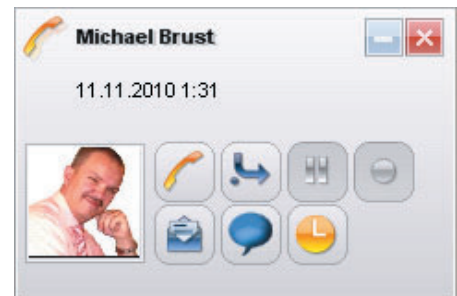
Series faxes can be sent by storing multiple fax address in the fax printer.

## Notification service

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.

## Voice 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 (LDAP)

The user information made available on a separate LDAP server can be queried and is displayed in OpenScape Office clients as an external phone book. For inbound calls, known subscribers are displayed with their name. Customer-specific adjustments can be made by means of the implemented field mapping function.

## OpenScape Office clients

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

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

### myPortal 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 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.

By individually adjusting the user interface, the favorites list and the "Journal", "Voice-mail", "Fax messages" and "Directories" tabs can be placed in separate windows on the desktop.

### myPortal for Outlook

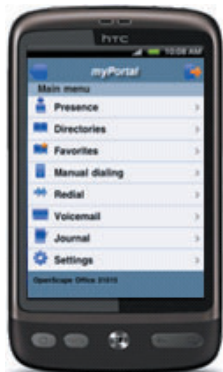
The myPortal functions can be integrated seamlessly in Microsoft Office Outlook. Every user has access to the entire range of communication resources via a single screen. E-mail, voicemail, fax and instant messages with Multi-User-Chat can be viewed, managed and answered from the application they are most familiar with – the Outlook screen they use everyday.

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

myPortal for Outlook allows users to dial directly from their list of contacts, receive e-mails in their mailbox and record calls without having to start any other applications.

Features	myPortal for Desktop	myPortal for Outlook	myPortal for Mobile	myPortal for OpenStage
Presence	X	X	X	X
Conferencing	X	X		
Multi-User-Chat	X	X		
Favorites List	X	X	X	
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	
Notification service	X	X		
Screen pop-up	X	X		

### myPortal for Mobile



myPortal for Mobile is the OpenScape Office user interface for mobile employees with smartphones.

Smartphones with Internet access (data flat rate is recommended) can use the OpenScape Office functions.

The communication costs are lowered by setting the most favorable dialing method (Callback, GSM or Call-Through) – based on the current network operation fees.

Additional software does not need to be installed on the mobile phone since it is a browser-based application.

### myPortal for OpenStage

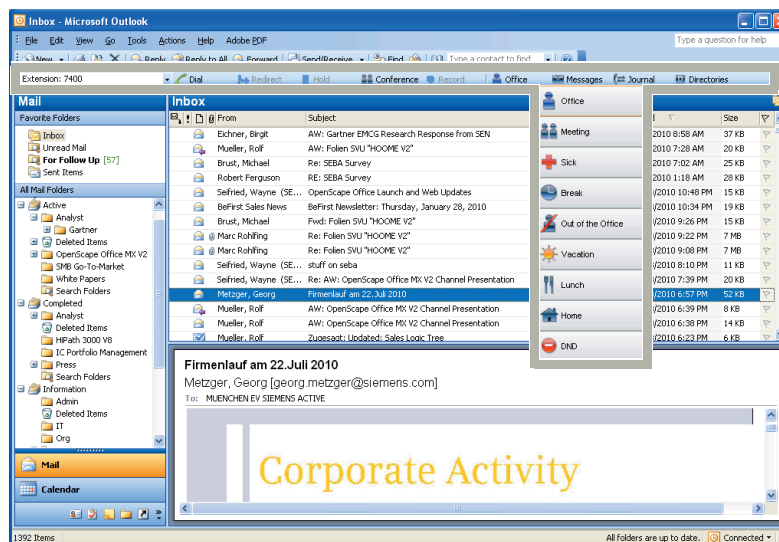
myPortal for OpenStage is the OpenScape Office XML application for users of the OpenStage 60 and OpenStage 80 telephones. It enables access to the presence status and voice message box.

### myAttendant

myAttendant is a comfortable call attendant with telephone function that shows active calls, suspended calls, calls on hold and transferred calls as well as the presence data of all workers in your organization. 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.



myPortal for Outlook

# Multimedia Contact Center

## Contact Center features

### Intelligent routing

Inbound calls, faxes and e-mails are automatically and optimally assigned to the next available agent based on the longest idle time and the highest skill level. Only the agent with the corresponding authorization receives faxes and e-mails.

- Skills-based routing – skills-based distribution
- Group-based routing – group-based distribution

### Agent in multiple groups

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

### Preferred agent

This function means a customer can always be assigned the same contact partner (agent) in the Contact Center.

### VIP support

For each queue it is possible to individually define whether specific customers are to be given preference and, hence, should reach a free agent faster.

### Wrap-up

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

### Queues

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. Callers on hold can be played announcements.

### Callback

The caller can leave a callback request if the wait time in the queue is too long for him. This callback request is sent to the agents in a voicemail.

### Position announcements

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

### Authorization level

A differentiation is made between the roles of Agent, Supervisor and Administrator in the Contact Center by the use of authorizations.

### User portals

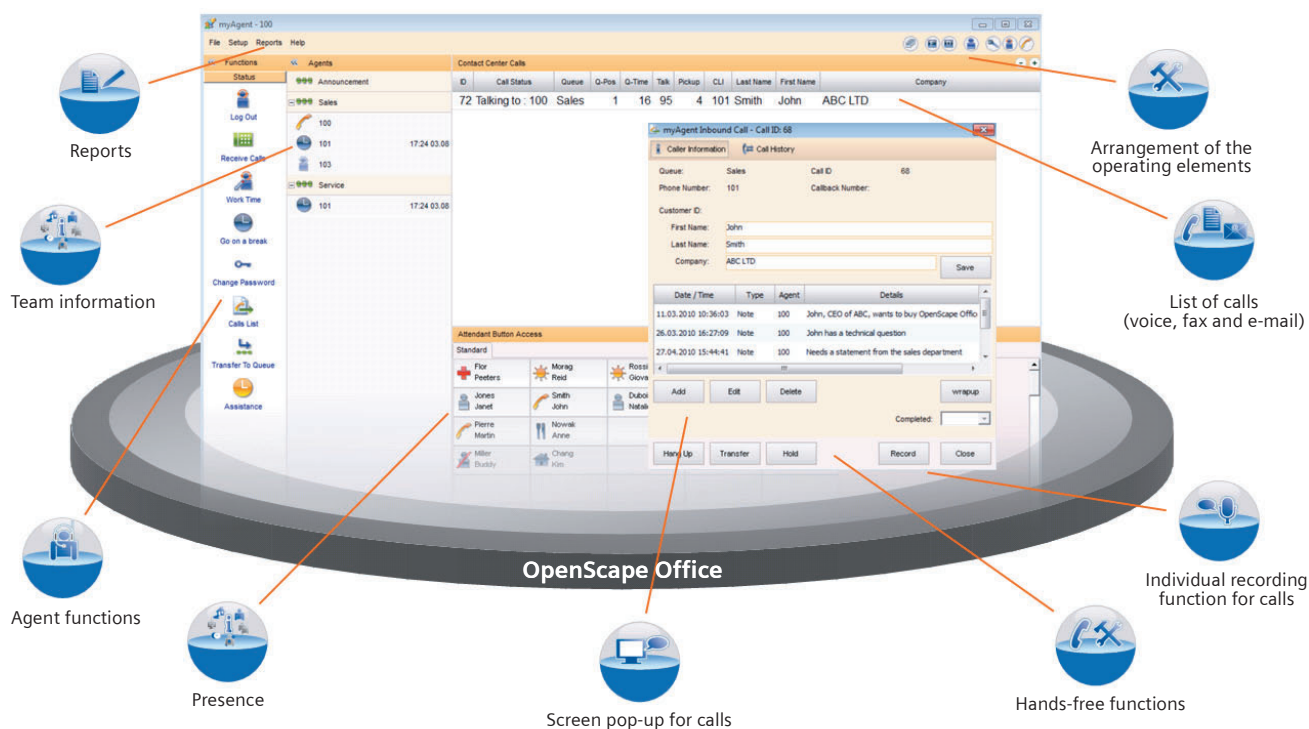
The myAgent user portal provides agents with convenient functions for processing and wrapping up calls, faxes and e-mails.

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:

- Queues
- LCR schedules
- Pauses
- Wrap-up codes
- Announcements



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

## myAgent features

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

### "Agent" authorization level

- Logon to OpenScape Office via any myAgent user portal
- Individual language setting during login
- Free choice of telephone at the workstation
- Display of the agent status of the agents in the calls in queue and of the presence status of the internal subscriber
- Display of the connection status of the agents in the calls in queue and of the internal subscribers
- Display of the features of all agents (agent assignments) in the assigned queues
- Call and contact handling via screen pop-ups and telephone bar
- Selection of defined pauses
- Entry of wrap-up codes for defined subjects and wrap-up times
- Caller list with details of all contacts for the assigned queues over a selectable time period
- Recording of calls for documentation and training purposes
- Access to internal (internal subscribers, including their current presence status) and external directory (contacts from an offline company phonebook)
- Editing of contact data (first name, last name, company and call number) in the external directory
- Exchange of text with internal subscribers as instant messages (chatting)
- Request for support by the supervisor 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 queues such as the average time of a call in a queue and the average speaking time, for example

### "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 queues
- Display of the queue details of all calls in queues
- Editing of contact data (except customer ID) in the external directory
- Responding to a request for support

- Activation of an alarm if the number of waiting calls or the wait times of a call in a queue are exceeded
- Override of the call of an agent
- Call-up of the OpenScape Office administration tool for the configuration of the Contact Center
- Assigning agents to calls in queue
- Removing agents from calls in queue

### Reports

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

### Wallboard

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

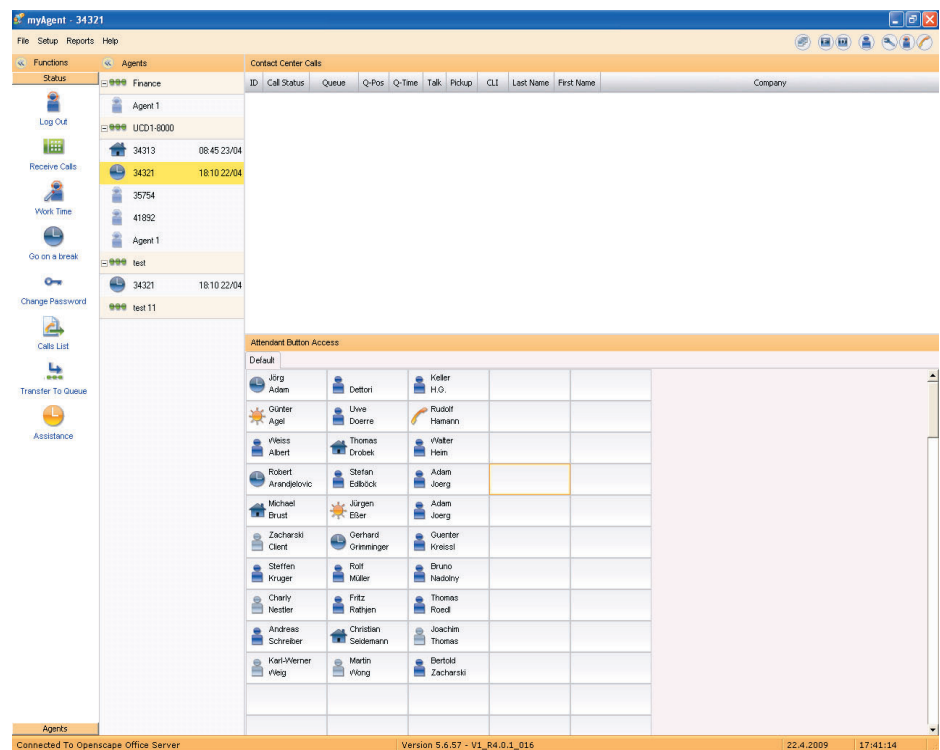
### Missed calls list

Detailed information on all calls made until now, faxes and e-mail for the assigned queues for a selectable time period can be found in the caller list of the Contact Center.

## myReports features

The myReports user portal offers:

- Report creation via the Schedule Manager with 100 predefined report templates to select from
- Display of all available report templates organized by groups in the template explorer
- Management of report templates via the Report Manager with the possibility of regrouping, 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 adaptation
- Individual adaptation of report templates via the integrated Business Intelligence Reporting Tool (BIRT)
- 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 reached via the mobile phone integration of myPortal for Mobile or Mobility Entry. The One-Number-Service makes the user accessible world-

wide under only one call number. Additional costs can be saved via dual-mode telephony if the subscriber is within range of a WLAN.

### Mobility in the office

"Mobility in the office" takes place 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 Communications 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 and OpenScape Office LX. In this network-wide Unified Communications solution, users can use features such as presence status, voice message box and conferencing. Supplemented by comprehensive 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.

Apart from the homogeneous network of OpenScape Office MX and OpenScape Office LX systems, it is also possible to include existing HiPath 3000 systems or networks via pure voice networking.

### Network-wide UC features

The OpenScape Office clients – myPortal for Mobile, myPortal for OpenStage, myPortal for Desktop and myPortal for Outlook – support the following main functions in a network of OpenScape Office MX and OpenScape Office LX:

- Presence management with voice support (visibility of presence status)
- Network-wide call status (e.g. subscriber is called, subscriber is talking...)
- Call pickup via myPortal for Desktop
- Instant messages with Multi-User-Chat
- Drag&Drop conferences in network
- myAttendant – change the presence status for all users in the network
- System-wide internal directory and favorites
- External directories via LDAP
- Integration in the Microsoft Exchange calendar and in the public directory
- Forwarding of voicemail in the network

- Support of XMPP presence & chat with external partners

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

### Voice features in the network

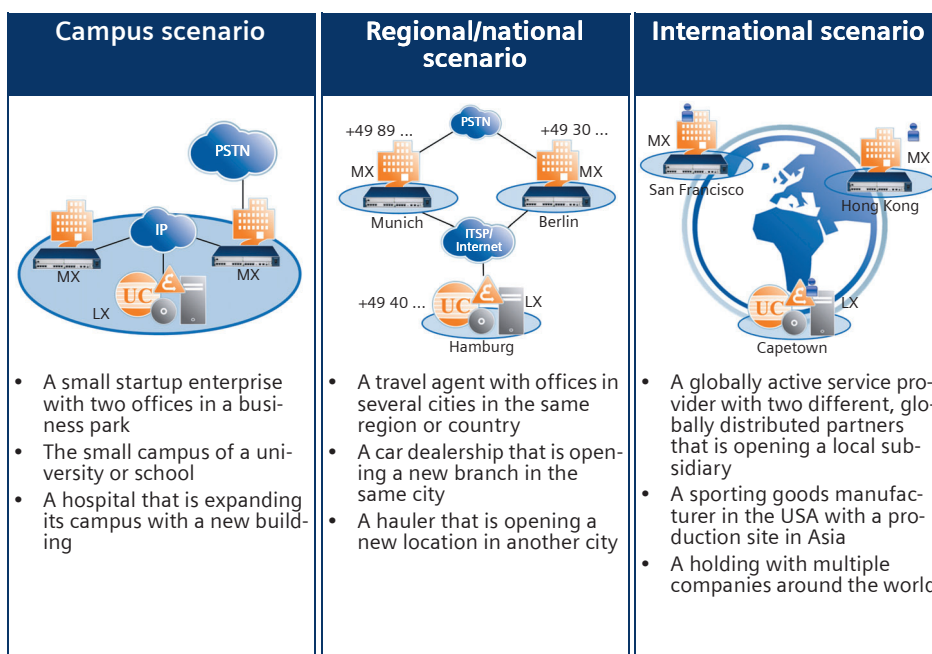
In networks based on the SIP-Q protocol, a wide range of voice features such as call-back, override and forwarding for OpenScape Office MX, OpenScape Office LX and HiPath 3000 are supported.

### Central intercept station in the network

The myAttendant OpenScape client can be used network-wide for important attendant functions such as accepting and distributing calls, the central intercept station and recall.

### Central administration in the network

A centralized administration is available for OpenScape Office MX and OpenScape Office LX networks. An administrator can access all subscribers of the network via the central network node, for instance to change call numbers or subscriber names. When changes are made, the databases of the individual network nodes are automatically synchronized.



Deployment scenarios and examples of OpenScape Office networking

## System technology

### OpenScope Office MX

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

The Internet is accessed via a broadband connection. The broadband connection can be implemented over 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 OpenScope 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 support
- 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), secure integration of mail and web servers in a customer network.

### OpenScope Office LX

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

With VMware vSphere Virtualization, OpenScope Office LX customers can save costs and time and additionally increase the resilience of their communication solution.

- Reduction in the number of physical server parks
- Reorganization due to a growing server hierarchy
- The need for a 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

### IP telephony (Voice over IP)

OpenScope Office enables telephony in IP-based infrastructures. The signals necessary for the call are sent over the IP networks used for data transfer with the aid of IP protocols. PCs and IP telephones can be used.

To ensure loss-free transfer and good voice quality, the voice signals are compressed with the aid of audio codecs and marked (Quality of Service) in such a way that voice transmission is given priority over data transfer.

IP telephony can be carried out over the LAN and over the Internet (for standardized SIP features).

The following audio codecs are used:

- G.729A and G.729AB: voice codec with 8 kbit/s
- G.711 (a-law and  $\mu$ -law): voice codec with 56 or 64 kbit/s

### Connection of applications

Applications can be centrally connected via TAPI 170 (also in OpenScope 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 OpenScope Office, web-based administration tools are available for the system management functions. The access to the management functions is user-friendly. This makes the administration straightforward without any special knowledge of the system.





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

The system includes fault management. Automatic testing and diagnosis 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 and also to a remote service center.

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

## Telephones

<p><b>IP telephones</b></p> <ul style="list-style-type: none"> <li>• OpenStage 15, 20 E, 20, 20 G, 40, 40 G, 60, 60 G, 80, 80 G Existing optiPoint 410/420 are supported.</li> <li>• Add-on devices:           <ul style="list-style-type: none"> <li>– OpenStage key module only for OpenStage 15, 40, 60 and 80</li> <li>– OpenStage BLF 40 (Busy Lamp Field) only for OpenStage 40</li> </ul> </li> </ul>	
<p>OpenStage Gate View: Conveys a camera image from the entrance area to an OpenStage phone or an iPhone.</p>	

<p><b>WLAN telephone</b></p> <p>The optiPoint WL2 professional telephone can be operated on the following access points and controllers, as desired:</p> <ul style="list-style-type: none"> <li>• 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; a maximum of 10 access points can be operated.</li> <li>• HiPath Wireless Convergence Software (WLAN controller solution) for larger configurations.</li> </ul>	
<p><b>DECT telephones</b></p> <p>HiPath Cordless IP is a campus-wide mobility solution with the following mobile parts:</p> <ul style="list-style-type: none"> <li>• Gigaset S3 professional</li> <li>• Gigaset S4 professional</li> <li>• Gigaset SL3 professional</li> <li>• Gigaset M2 professional</li> </ul> <p>DECT telephones are integrated via SIP.</p>	
<p><b>SIP telephones/AP adapters</b></p> <p>The myPortal for Desktop, myPortal for Outlook and myAttendant OpenScope Office clients can be used with SIP telephones that support RFC 3725.</p> <p>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.</p> <p>Mediatrix 4102S: for connecting analog telephones or fax devices.</p>	
<p><b>PC clients</b></p> <ul style="list-style-type: none"> <li>• OpenScope Personal Edition (HFA) and OpenScope Personal Edition S Existing optiClient 130 are supported.</li> </ul> <p>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 provides all telephone functions via WLAN – and offers the same familiar user interface at the office and on the move. Video connections can be used with OpenScope Personal Edition S.</p>	
<p>OpenScope Office MX <b>additionally supports</b> analog telephones and fax devices, ISDN telephones and fax devices, and add-on devices such as door/gate intercoms via TFE-S adapters.</p>	

## Technical Data

### OpenScope Office MX

<p><b>Installing options</b></p>	<ul style="list-style-type: none"> <li>• 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</li> <li>• Standalone system with max. 3 system boxes (multiple box system)</li> </ul>
<p><b>Subscribers</b></p>	<ul style="list-style-type: none"> <li>• Max. 150 subscribers, of which 148 are freely configurable</li> <li>• Up to 50 subscribers per system box</li> <li>• Max. 1000 subscribers through networking</li> <li>• Max. 150 subscribers with mobile phone integration</li> </ul>
<p><b>Gateway modules</b></p>	<ul style="list-style-type: none"> <li>• 3 slots per system box for different gateway modules</li> <li>• Optional gateway modules: <ul style="list-style-type: none"> <li>– GMS (not for USA, Canada) = gateway module with four S<sub>0</sub> interfaces for the ISDN trunk or ISDN subscriber line</li> <li>– GMSA (not for USA, Canada) = gateway module with four S<sub>0</sub> interfaces for the ISDN trunk or ISDN subscriber line and four a/b interfaces for the analog subscriber line</li> <li>– GME (not for USA, Canada) = gateway module with an S<sub>2M</sub> interface for the ISDN primary multiplexer</li> <li>– GMT (only for USA, Canada) = gateway module with one T1 interface for the ISDN primary multiplexer</li> <li>– GMAA = gateway module with four a/b interfaces for the analog trunk connection and two a/b interfaces for the analog subscriber line</li> <li>– GMAL = gateway module with eight a/b interfaces for the analog subscriber line</li> </ul> </li> </ul>

<b>Standard interfaces (Motherboard)</b>	<ul style="list-style-type: none"> <li>• 1 motherboard per system box with a powerful AMD Sempron CPU and 1 GB main memory</li> <li>• Standard interfaces: <ul style="list-style-type: none"> <li>– 4 internal Gigabit LAN connections</li> <li>– 1 Gigabit DMZ connection</li> <li>– 1 external Gigabit WAN connection (e.g. for Internet access)</li> <li>– 1 USB server</li> <li>– 1 USB control</li> </ul> </li> </ul>
<b>Operating system</b>	Linux (embedded)
<b>Internet connection</b>	<ul style="list-style-type: none"> <li>• 1 Internet service provider (ISP)</li> <li>• 4 Internet telephony service provider (ITSP)</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• Width = 440 mm</li> <li>• Height = 66.5 mm</li> <li>• Depth = 350 mm</li> </ul>
<b>Power supply</b>	<p>The standard OpenScope Office MX is configured for network operation.</p> <ul style="list-style-type: none"> <li>• Rated input voltage: 110 V to 240 V, plus tolerance (+/-10%) -&gt; 99 V to 264 V</li> <li>• Rated frequency: 50/60 Hz</li> </ul>
<b>Current consumption</b>	Max. 4 A at 99 V
<b>Power consumption</b>	Depending on the configuration, 80 W to max. 250 W per system box
<b>Battery buffer</b>	<p>UPS for 110 V to 240 V, capacity: 4 Ah (at 110 V)</p> <p>There is no UPS interface as contained in a PC.</p>
<b>Environmental/operating conditions</b>	<ul style="list-style-type: none"> <li>• Operating conditions: +5 to +40 °C (41 to 104 °F)</li> <li>• Humidity: 5 to 85%</li> </ul>
<b>Color</b>	<p>Steel blue</p> <ul style="list-style-type: none"> <li>• Front: silver</li> </ul>

## OpenScope Office LX

<b>Installing options</b>	Linux server is certified for SUSE Linux Enterprise 11
<b>Subscribers</b>	<ul style="list-style-type: none"> <li>• Max. 500 subscribers</li> <li>• Max. 1000 subscribers through networking</li> <li>• Max. 500 subscribers with mobile phone integration with OpenScope Office LX</li> <li>• Max. 150 subscribers with mobile phone integration per OpenScope Office MX node in a network</li> </ul>
<b>Operating system</b>	Linux
<b>Internet connection</b>	<ul style="list-style-type: none"> <li>• 1 Internet service provider (ISP)</li> <li>• 4 Internet telephony service providers (ITSP)</li> </ul>
<b>Server hardware requirements</b>	<p>The hardware must meet the following minimum requirements:</p> <ul style="list-style-type: none"> <li>• Linux server, certified by the PC manufacturer for the SUSE Linux Enterprise Server 11 (SLES 11) operating system, e.g. Fujitsu PRIMERGY TX150 S7</li> <li>• OpenScope Office is the only permitted application on the Linux server</li> <li>• 2-core processor, 2.0 GHz per core or higher</li> <li>• 2 GB RAM</li> <li>• Hard disk with 200 GB</li> <li>• Keyboard and mouse</li> <li>• DVD drive</li> <li>• Screen resolution of 1024x768 pixels</li> </ul> <p>Optionally, resilience can be increased by doubling the hard disk (recommended via SLES SW RAID) and the power supply.</p> <p>SUSE Linux Enterprise Server 11 SP1 (32 bit) is included in the scope of delivery of the OpenScope Office LX software.</p>
<b>Hardware requirements of VMware vSphere Virtualization</b>	<p>The hardware requirements of the physical server are the same as those for servers recommended or certified by VMware.</p> <ul style="list-style-type: none"> <li>• Processor type: Intel Xeon (from Xeon E5520)</li> <li>• CPU load: max. 70% (monitoring via ESX)</li> </ul> <p>The following VMware minimum requirements are based on the OpenScope Office LX:</p> <ul style="list-style-type: none"> <li>• 2-core processor, 2 GHz per core or higher</li> <li>• Min. 2 GB RAM (reserved for OSO-LX)</li> <li>• Hard disk with min. 200 GB (thin provisioning permitted)</li> </ul>

## myPortal for Mobile

A smartphone must meet the following requirements:

- Touch screen for comfortable operation
  - Min. 240x320 pixel screen resolution
  - Web browser
  - Simultaneous use of voice and data connections 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 use, a data volume of several 100 MB per month can accumulate for myPortal for Mobile. For this reason, a data flat rate is recommended.

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

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

Changes can be found under: <http://wiki.siemens-enterprise.com>.

myPortal for Mobile is functional on many other smartphones. The operating comfort and function depend on the particular smartphone and operating system in use.

## Multimedia Contact Center

- Agents
  - OpenScape Office MX
    - Single box system: max. 10 agents
    - Multiple box system: max. 64 agents
  - OpenScape Office LX
    - max. 64 agents
- Calls per hour to Contact Center
  - Single box system: max. 200 calls per hour
  - Multiple box system: max. 500 calls per hour
- Max. 50 wait queues/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 environments

The clients of OpenScape Office myPortal for Desktop, myPortal for Outlook, myAttendant and myAgent can be easily integrated in Microsoft 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 7 SP1 (32 bit, 64 bit)
- Microsoft Windows Vista SP2 (32 bit, 64 bit)
- Microsoft Windows XP SP3 (32 bit, 64 bit)

### Microsoft Office

- Microsoft Office 2010 SP1 (32 bit)
- Microsoft Office 2007 SP2 (32 bit)
- Microsoft Office 2003 SP3 (32 bit)

### Outlook (for myPortal for Outlook)

- Microsoft Outlook 2010 SP2 (32 bit)
- Microsoft Outlook 2007 SP2 (32 bit)
- Microsoft Outlook 2003 SP3 (32 bit)

### Supported web browsers

- Microsoft Internet Explorer V7, V8
- Mozilla Firefox V3

### Exchange server environments

- Microsoft Exchange 2010
- Microsoft Exchange 2007
- Microsoft Exchange 2003 SP2

### Additional software

Min. Java 1.6

### Deployment in terminal server environments

- Software requirements:
  - 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 Server
  - Microsoft 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 2401 Security Architecture for IP
- RFC 2402 AH - IP Authentication Header
- RFC 2403 IPSec Authentication - MD5
- RFC 2404 IPSec Authentication - SHA-1
- RFC 2405 IPSec Encryption - DES
- RFC 2406 ESP - IPSec encryption
- RFC 2407 IPSec DOI
- RFC 2408 ISAKMP
- RFC 2409 IKE
- RFC 2410 IPSec encryption - NULL
- RFC 2411 IP Security Document Roadmap
- RFC 2412 OAKLEY

### 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

### VoIP over SIP

- RFC 2198 RTP Payload for Redundant Audio Data
- RFC 3237 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 3891 The Session Initiation Protocol (SIP) Replaces Header

### Other

- 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 MX and LX demonstration

If you would like to know more, visit us on our Internet page or ask your channel partner for a demonstration of OpenScape Office MX and OpenScape Office LX.

## About Siemens Enterprise Communications

Siemens Enterprise Communications is a premier provider of end-to-end enterprise communications solutions that use open, standards-based architectures to unify communications and business applications for a seamless collaboration experience. This award-winning "Open Communications" approach enables organizations to improve productivity and reduce costs through easy-to-deploy solutions that work within existing IT environments, delivering operational efficiencies. It is the foundation for the company's OpenPath commitment that enables customers to mitigate risk and cost-effectively adopt unified communications. This promise is underwritten through our OpenScale service portfolio, which includes international, managed and outsource capability. Siemens Enterprise Communications is owned by a joint venture of The Gores Group and Siemens AG. The joint venture also encompasses Enterasys Networks, which provides network infrastructure and security systems, delivering a perfect basis for joint communications solutions.

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