

# Information

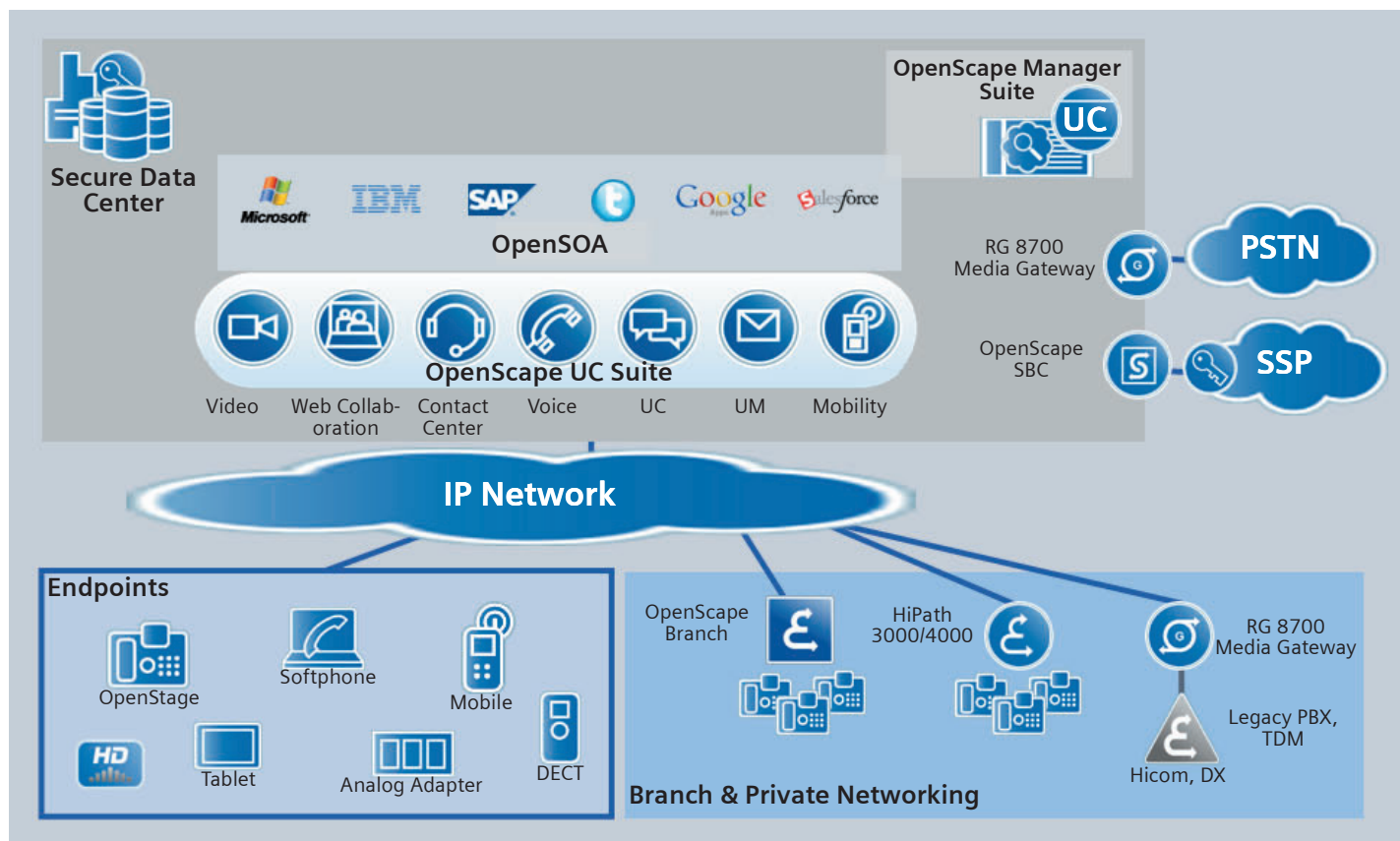
## OpenScape Voice V6

OpenScape Voice is a feature-rich enterprise and carrier-class IP voice application that is fully integrated with, and offered as part of, a complete Unified Communications solution.

# The Leading Software-based Voice Communications System

OpenScope Voice is an enterprise-class voice application that is fully integrated with, and offered as part of, the OpenScope Unified Communications (UC) Suite. Supporting open standards, it is designed not only for centralized deployment within a distributed enterprise, but as a highly viable option for site-based deployments as well.

## Comprehensive solution set



OpenScope Voice provides a comprehensive solution set for building or migrating a large enterprise, carrier or hosting service provider voice communications network. The main advantages are:

- Data center-based communications
- Enterprise and carrier applications
- Dramatic operational savings
- Leading technology
- Simple migration
- Secure architecture
- Proven performance
- Open interfaces
- Comprehensive services by a mature and stable company

The essence of OpenScope Voice is its architecture, which provides highly reliably and feature-rich communications across the campus or across the globe.

OpenScope Voice serves enterprises of mid- to very large size and multi-tenant hosted services offered by Service Providers. It serves as a core component of communications and is able to offer choices not only in unified communications, but to unify communications.

OpenScope Voice is fully integrated with the OpenScope UC Suite. The entire OpenScope UC Suite portfolio is optimized for the demands of businesses – easy to put into practice, reliable in performance, and easy to use. With it, you become even more efficient.

## Business communications applications

OpenScope Voice offers a rich eco-system of UC applications:

- Voice communication and conferencing
- UC application
- Unified Messaging
- Web Collaboration
- Contact Center:
  - Campaign management (only in US)
  - Voice portal
- Mobility
- Video
- Auto attendant and IVR

## High-Performance IP Communication

OpenScape Voice offers a wide range of options for transforming your corporate communications solution into real-time IP communication. You can reduce your IP infrastructure costs even further by using high-performance gateways and standardized compression procedures. OpenScape Voice's "Any-to-Any" IP payload switching ensures that you get the highest availability and quality.

## Call control

OpenScape Voice controls and supervises call setup; the actual voice traffic is carried over the LAN/WAN between endpoints. Administration/signaling and billing traffic is carried over a redundant pair of network interface cards through redundant, interconnected L2/L3 switches that provide redundant networking.

## Resiliency

Resiliency is about how well systems behave under stress conditions (e.g. overload). OpenScape Voice has an Active – Active software architecture and behaves far better with overloads and fault conditions than traditional Worker-Standby systems.

## Reliability

Reliability is about how often things fail and how quickly they are restored to normal operation. It is a key feature of OpenScape Voice that it does not lose a single call-in-progress or a single billing record on any single failure.

## Recovery

Recovery is about how fast the system recovers after faults or overloads. Again OpenScape Voice, because of its hardware and software architecture, recovers extremely fast, and is superior to all its competitors.

## Servers

OpenScape Voice software runs on highly reliable, fault-tolerant industry-standard servers under the Linux SLES 10 SP3 64-bit operating system (SP4 planned). Clustering software protects against hardware and software failures, and controls failover of redundant Ethernet links and cluster nodes (redundancy is optional for systems below 5,000 lines).

The two servers may be collocated or geographically separated. If geographically separated, the connections between the two nodes may be established at the layer 3 level using IP routing protocols.

OpenScape Voice utilizes Fujitsu's PRIME-CLUSTER clustering software and Resilient Telco Platform (RTP) middleware to provide a highly reliable platform which can operate in both active-active and active-standby mode, and can switchover automatically without loss of active calls or billing records.

## Survival Authority

OpenScape Voice also provides a Survival Authority (SA), a separate component which normally resides on the OpenScape Voice Assistant administration server. The SA can assist in determining the proper cluster response in the event that commu-

nication between the two nodes is severed due to a network failure. Activation of the Survival Authority is optional in the case of collocated cluster nodes, but required in the case of geographic separation of the nodes.

## Green enterprise solutions

The unique scalability up to 100,000 users with only two servers is achieved by software-based growth, not by adding more hardware. This results in green enterprise solutions:

- Lowest carbon footprint of any similar system
- Lowest power cost per user of any modern IP-based communications system
- Lower cost, size, and power consumption of HVAC equipment (Heating, Ventilation, Air Condition) in the data center
- Less rack space and floor space use in the data center

## OpenScape Voice Entry

OpenScape Voice Entry is an attractive simple deployment configuration of the OpenScape Voice application:

- OpenScape Voice Entry is targeted at enterprises requiring up to 800 SIP users and 400 trunks.
- OpenScape Voice Entry uses the IBM x3250 M3 server and cannot be extended beyond its maximum of about 800 users.

## The new features in the OpenScape Voice V6 Solution Set

The following features and components were introduced in V6:

- IPv6 support for OpenScape Voice SIP interface, Deployment Service and OpenStage phones (project-specific release)
- SDES support for OpenScape Voice, OpenStage phones, OpenScape Xpressions and OpenScape Personal Edition
- Centralized OpenScape Session Border Controller (SBC)
- Voice Recording in the standard solution
- Mediatix Element Management System
- UC Speech applications (UC Voice Portal, UC Speech Portal, UC Auto Attendant, IVR application)
- OpenStage 5 SIP
- HiPath Cordless IP
- Recording solutions
- OpenScape Desktop Video Conferencing
- OpenScape Common Management Platform
- OpenScape Accounting

# OpenScape UC Suite

## OpenScape UC Application

The OpenScape UC Application is a high-functionality collaboration application that fits into an enterprise's existing voice and data infrastructure, tying together phones, voice mail, e-mail, text messaging, directories, calendaring, instant messaging and conferencing services. The tight integration between the OpenScape UC Application and OpenScape Voice allows users to take advantage of market-leading collaboration and mobility features, and provides the ability to leverage advanced user and group presence features:

- Tools for productivity, agility and mobility, such as Presence, one-number service, UM and IM
- Collaboration tools, such as group presence and voice, web, and video collaboration, and chat
- Business Process Integration tools

## UC Speech applications

### UC Voice Portal

The UC Voice Portal is a module of the UC Application which supports voice mail, groupware e-mail and calendar access by phone. In addition, it provides users UC functionality like changing preferred device/ONS, presence status or conference access. It can be seamlessly integrated with OpenScape Xpressions for more comprehensive Unified Messaging features. UC Voice Portal has been enhanced to offer actual conferences to join when entering.

### UC Speech Portal

The UC Speech Portal is providing a very similar feature set as the Voice Portal but is using state-of-the-art natural language interaction instead. This way, the user can start any function without having to navigate through menus at any time, for highest convenience and security with hands-free operation in a car. This premium solution is currently available in English and German only.

### UC Auto Attendant

The UC Auto Attendant provides DTMF-based callers directory access and automatic transfers. In addition, it supports announcements depending on time and calendar profiles, central voice boxes and more. It can be used to support human attendants if load peaks appear, to extend the availability times of a human receptionist, or to provide completely automatic processing of calls.

### IVR application

The IVR application allows creation of UC-centric IVRs for enhanced user productivity and powerful classical IVRs or custom auto attendant solutions for an execution on the OpenScape Media Server of UC Applications. Callflow design is done in the so-called OpenScape Fusion Application Builder which is a mighty, intuitive graphical designer for speech applications, offering DTMF and natural language operations (NLU with ASR), recorded or synthetic prompts (TTS); includes DB and Web service access, macros, complex data types and more.

## OpenScape Contact Center

OpenScape Contact Center is a comprehensive set of integrated software applications that suit every type and size of organization, offering a range of customer experiences. From customer service to collections, agent-assisted to self-service, OpenScape Contact Center provides the customer care solutions you need to retain and grow your customer base.

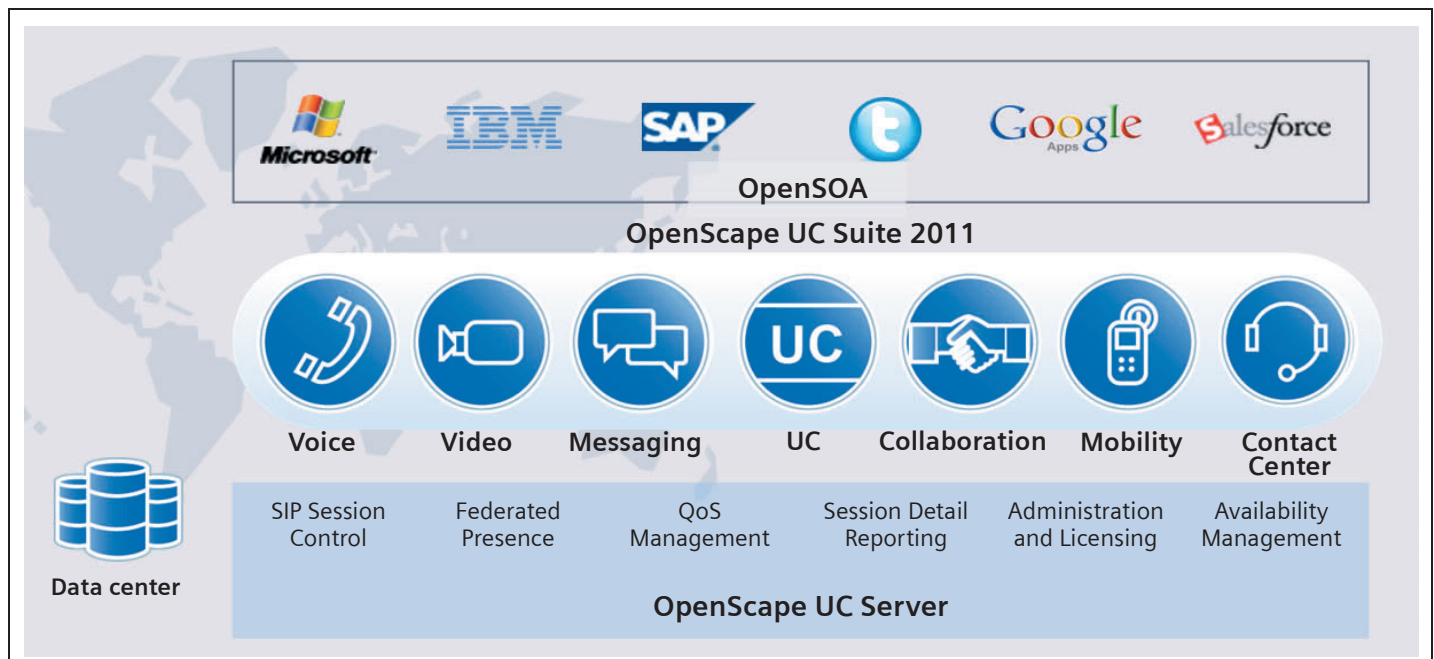
The OpenScape Contact Center solution set covers multi-channel inbound, outbound and self-service/IVR that improve the effectiveness and efficiency of your contact center operations.

### Campaign Director

OpenScape Contact Center Campaign Director is an outbound contact management solution with patented predictive dialing, advanced campaign and list management, call tactics, and call recording capabilities.

An extremely versatile solution that is used in all industries, including banking, insurance, government, telecommunications, retail, healthcare and contact center outsourcing to drive the following applications:

- Collections
- Telesales and marketing
- Notifications and alerting
- Services and support
- Blended inbound/outbound campaigns
- Proactive customer care



## OpenScape Mobility

A robust collection of tools to tailor mobility across your enterprise, including:

### HiPath Wireless

HiPath Wireless is our elegant and powerful WLAN solution.

### HiPath MobileConnect

HiPath MobileConnect is an appliance-based fixed-mobile convenience approach to enable seamless mobility between your WLAN and the public network, thereby increasing flexible mobility while significantly reducing mobile carrier costs.

### OpenScape Mobile UC

OpenScape Mobile UC client brings the power of integrated Open Communications to your mobile device.

## OpenScape Video

A suite of tools to integrate advanced video applications in UC:

- Video conferencing solution integrated with voice & UC applications
- Unifying video from boardroom, meeting room, and desktop with voice on one network
- Hi-Def video conferencing democratized
- Providing the same scalability when controlling video sessions

### OpenScape Desktop Video Conference

The OpenScape Desktop Video Conference of OpenScape UC is a fully integrated so-called Multipoint Control Unit (MCU) – a powerful implementation providing an HD continuous presence layout to the conference participants.

As a seamless integrated software-only solution, it is running on the same infrastructure – the same UC Media Server as UC Audio conferencing, inheriting all its capabilities e.g. one dial-in, one combined scheduling/invitation, the same setup and administration.

The OpenScape Desktop Video Conference supports both endpoints like OpenScape Desktop Client Web-embedded Edition or Personal Edition as well as a wide range of 3rd-party video equipment (Polycom, Life-size, Tandberg) because it is using the most common open standard for video: H.264 AVC.

## OpenScape Xpressions

OpenScape Xpressions enables built-in voice messaging, unified messaging, voice conferencing, web conferencing, instant messaging, text messaging, presence, and fax. These UC options coupled with CTI services help embed powerful communications capability directly into business processes creating an efficient and effective workplace.

## OpenScape Exchange

OpenScape Exchange is a network overlay solution that centralizes network resources in a multi-vendor, multi-location network solution.

OpenScape Exchange is deployed in a data-center and provides centralized routing and dialing plans, IP-Least Cost Routing for toll avoidance, and because it is integrated part of OpenScape Voice and OpenScape UC Server, all other value-added applications like voice conference and web collaboration can be provided to all of the PBX systems in the network – without ripping and replacing these units.

OpenScape Exchange also facilitates growth – users and locations can be added one at time, just by adding OpenScape Voice licenses to the solution.

## OpenScape Web Collaboration

This desktop sharing software is an extremely secure and simultaneously simple solution for communication of a large number of participants from different locations at a virtual table.

The solution enables conferences, presentations and training throughout the world without any installation.

OpenScape Web Collaboration suits for enterprises of any size, from smallest companies to largest organizations.

## OpenScape Concierge

The OpenScape Concierge attendant solution is a UC Attendant Console application for OpenScape Voice. It extends the benefits of UC beyond desktop users to attendants and receptionists with real-time UC-based presence status information. It also supports call queue and corporate directory integration, allowing telephone attendants to more easily direct incoming calls to anyone in the organization.

OpenScape Concierge does not need a contact center (with Automatic Call Distribution – ACD)

## OpenSOA

OpenSOA provides exclusive "from-bottom-to-top", SOA-based software integration hooks.

Integration into the Microsoft and IBM ecosystems, as well as the ability to integrate into other line of business applications through Communication-Enabled Business Processes (CEBP), leverages our OpenSOA capabilities.

## OpenScape Fusion accelerators

A range of open integration capabilities and offerings that include:

- Pre-built UC component plug-ins, such as for Microsoft Outlook and Lotus Notes
- Integration for social media and groupware
- Open integration programs, such as SDKs and a developer's portal

## Interworking with other products in the UC solution

- Application-provided billing party via SIP
- Application-provided call correlation via SIP
- Display enhancements for CCBS/NR
- Geographic node separation: low bandwidth layer-3 cluster interconnect links
- Interworking with HiPath 3000
- Mediatrix 4102 analog adapter support
- Mediatrix gateway: media encryption
- OpenScape Branch support
- OpenScape Contact Center integration
- OpenScape Media Server:
  - CALEA/LI support
  - Support for additional languages/countries
- OpenScape UC Application integration
- OpenStage support
- RG 8700: media encryption
- SIP trunking customization options
- Session border controller
- SIP signaling manager: internal audit mechanism
- SDES encryption and IPv6 support for SIP-Q trunking between HiPath 4000 V6 and OpenScape Voice V6

# OpenScape Management Suite

## OpenScape Common Management Platform

The OpenScape Common Management Platform (CMP) offers a web-based administration and configuration interface for the OpenScape communication solution. It presents a uniform interface for cross-application management programs (Meta Management applications), system-specific configuration programs (Element Managers), and general services such as Alarm Indicator.

CMP offers a licensed User Management to simplify 80% of daily administration:

- Assignment and generation of resources for OpenScape Voice, HiPath 4000, phones, OpenScape Xpressions, and UC
- Creation and synchronization of user data via LDAP directories
- Customized interface to higher-level management systems via OpenScape Identity Lifecycle Management (ILA)

Functions for cross-system management of the communication solution:

- Overview of systems and application software with version history
- License assignment, monitoring of usage-based licenses (SSL V2)
- Display of error and alarm messages for multiple products
- Activation of remote maintenance (SSDP)
- Import and export of configuration data (CDC)
- Configuration verification (Consistency Checker)
- Overview of components (Inventory Service)

## OpenScape User Management

OpenScape User Management, which is a part of CMP, offers easy user-oriented creation or modification of the telecommunication environment. It provides:

- User provisioning via Corporate Directory
- Template-based creation of OpenScape Voice or HiPath 4000 subscriber, UC environment with One Number Service, OpenScape Xpressions voice mail
- Maintenance dashboard for entire solution
- Administration profiles
- Single Sign-on

## OpenScape Accounting

OpenScape Accounting is the accounting application for processing and analysis of traffic data from:

- Connections via OpenScape Voice, OpenScape Voice networks, and gateways
- Mixed network scenarios with OpenScape Voice and HiPath
- Outbound/inbound voice and VoIP connections across different network operators or carriers
- Internal connections in single systems and networks

In addition to the usual call detail recording and analyses, OpenScape Accounting also provides features for extended traffic measurement, including the following:

- Reason for incomplete calls
- Charts on destination numbers, extensions, zones or calls from destination numbers
- Call volumes, indication of "busiest hour"
- Busy state
- Utilization profiles

OpenScape Accounting is designed as a second source to HiPath Accounting Management. HiPath Accounting Management can still be used to expand existing system portfolios. For new projects, OpenScape Accounting should always be the preferred solution.

## OpenScape Voice Assistant

The CMP-integrated Element Manager for OpenScape Voice offers administration of OpenScape Voice on an expert level.

For installations with fewer than 5,000 users, the Assistant can be installed on the same server as the OpenScape Voice software and the integrated OpenScape Media Server.

In installations with more than 5,000 users, it is necessary to install OpenScape Voice Assistant as well as the OpenScape Media Server on a separate external server.

## OpenScape Deployment Service

The Deployment Service is a management tool for customers and service personnel to administer SIP phones and clients in the OpenScape Voice network. It is integrated into OpenScape Voice Assistant.

The Deployment Service is required to support the mobility feature on SIP endpoints from Siemens Enterprise Communications. It provides options to migrate existing workpoints and to implement mobile user standards. Other important functions of the Deployment Service include software

deployment, inventory data management, configuration management, and Plug and Play support.

In addition, the Deployment Service 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 Public Key Infrastructure (PKI) framework.

## HiPath User Management

HiPath User Management provides unified administration (e.g. creation, deletion, and changes) for all administered users in a HiPath/OpenScape network and for the most important applications.

All relevant user data is stored in a directory service and is available for all HiPath applications via LDAP interface. If the user data was already administered in a corporate directory, the application can synchronize its directory service with the corporate directory to eliminate double entries.

## HiPath Accounting Management

HiPath Accounting Management is a modern full web-based management application for IP-based (and TDM) communication systems and networks. The application processes and evaluates call detail records. It creates reports as follows:

- Accounting: reports focused on costs
- Traffic: reports focused on traffic analysis

## HiPath Fault Management

HiPath Fault Management supports and simplifies network management by graphically displaying the complete communications network, showing the status of each element.

Special plug-ins optimize the detection, diagnosis and removal of failures. HiPath Fault Management also monitors hardware and software from other manufacturers, interfacing via SNMP (using the manufacturer-specific enterprise MIB).

## HiPath Quality of Service Management

HiPath Quality of Service (QoS) Management provides comprehensive, easy-to-use functions for configuring, monitoring and analyzing VoIP components in a UC Suite with respect to the relevant QoS parameters.

## OpenScape Media Server

The OpenScape Media Server is an integral part of OpenScape Voice systems for medium-size enterprises supporting from 300 to 100,000 subscribers, per single server. This software-only server solution provides tones, announcements and user prompts to support the functionality of OpenScape Voice features. Announcements are generated in the language requested by OpenScape Voice, or in a configurable default language. The OpenScape Media Server also supports redundancy, station-controlled conferencing, and media encryption using Secure RTP (SRTP) and the MIKEY key management protocol.

OpenScape Media Server supports up to 75 ports for the internal media server and up to 2,000 G.711 ports for the stand-alone media server.

The OpenScape Media Server can be installed:

- on the same server as the OpenScape Voice application for systems with fewer than 5,000 subscribers, requiring no additional hardware
- on an external server (the same server as OpenScape Voice Assistant)
- on a separate, stand-alone server

Multiple media servers can be employed for large installations or for added reliability and scalability.

## OpenScape Voice Gateways

To access the Public Switched Telephone Network (PSTN), the OpenScape Voice solution provides the following gateway options for media and signalling:

- RG 8700 Survivable Media Gateway
- Mediatrix Gateways

### RG 8700 Survivable Media Gateway

The RG 8700 provides a complete solution for OpenScape Voice, as well as basic survivability for branch offices in the event of network failure. Survivability, a standard feature of the RG 8700 gateway, is accomplished through the use of SIP phones that are dual-registered with OpenScape Voice and the RG 8700. If the RG 8700 can no longer communicate with OpenScape Voice, it switches to survivable mode, allowing the dual-registered SIP phones access to the PSTN trunks and, conversely, allowing incoming calls from the PSTN to be distributed directly to the SIP phones.

The RG 8700 family of Survivable Media Gateways comprises 3 models that interwork with OpenScape Voice:

- RG 8716 with up to 16 T1/E1 spans
- RG 8708 with up to 8 T1/E1 spans
- RG 8702 with up to 2 T1/E1 spans

No license is required.

The RG 8700 V1.3 software adds SIP-Q functionality for connectivity to HiPath 4000 and third-party products which support QSIG.

### Mediatrix Gateways for Small Branch Offices (SBO)

The OpenScape Branch connects these locations to the OpenScape Voice and provides the survivability for the small office scenario. It also supports SIP Trunking functionality and can also interwork with the gateways from Mediatrix.

Customers can also continue to use their previously installed third-party SIP gateways with OpenScape Voice. The supported functionality depends on how these gateways adhere to the relevant SIP standards. Interoperability testing may be required to confirm feature behavior. The HiPath Ready Lab is available to vendors seeking to certify their products with OpenScape Voice.

### Mediatrix Element Management System

The Mediatrix Unit Manager Network is a user-friendly element management system designed to facilitate the simple and remote deployment, configuration and provisioning of Mediatrix VoIP access devices and VoIP gateways:

- Management of all Mediatrix gateways and analog adapters via a GUI
- Automatic detection of existent and newly installed Mediatrix network units
- Licensing which depends on the number of managed network units (20 units per group)

More information:

<http://www.media5corp.com/management-software/unit-manager-network>

## SIP Trunking

SIP Trunking directly interconnects VoIP communications between enterprise IP-PBXs and the PSTN via a SIP-based carrier. It uses the SIP standard for call control and can combine all forms of traffic (voice, UC, video) on a single connection to the service provider. This is significantly lower cost than separate data and voice connections and provides far greater flexibility.

## OpenScape Session Border Controller

An OpenScape Session Border Controller (SBC) enables VoIP networks to extend SIP-based applications beyond an enterprise's network boundaries, such as for example, when the SIP clients of an OpenScape Voice system reside in different IP networks.

For centralized SBC applications, the OpenScape SBC provides a cost-effective solution for connections to SIP trunks, remote users, and remote branch offices.

For the branch office location, the OpenScape Branch's SBC functionality is also a very efficient and cost-effective solution for connections to SIP trunks.

## OpenScape Branch

OpenScape Branch assures continued communication services – while providing a feature-rich set of survivability capabilities at a remote branch location – during the loss or degradation of service between the remote branch and the main office.

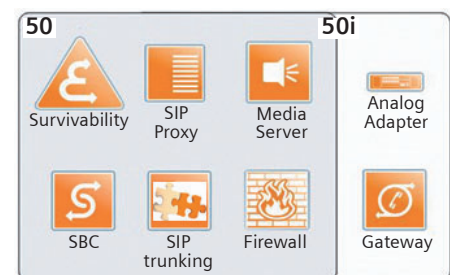
OpenScape Branch is offered on several hardware platforms, allowing a wide range of maximum user capacity: up to 50, 250, 1000, 6000 users.

All OpenScape Branch models include survivability features, SIP Proxy, Media Server, Session Border Controller (SBC), and Branch SIP trunking functionalities. The OpenScape Branch 50i provides the additional functionalities of Analog Adapter and PSTN Gateway.

The local Media Server supports tones, announcements and conferencing reducing the bandwidth needed to provide the same resources from a central location. This yields direct operational cost savings.

The Session Border Controller (SBC) provides security functions like firewall and Virtual Private Network (VPN).

The OpenScape Branch is fully manageable via the OpenScape Common Management Platform as a single network element, making it an exceptional value.




OpenScape Branch functions

# SIP Endpoints

The following SIP endpoints are supported:

- OpenStage IP phones:
  - OpenStage 80, 80 G
  - OpenStage 60, 60 G
  - OpenStage 40, 40 G
  - OpenStage 20, 20 E, 20 G
  - OpenStage 15
  - OpenStage 5
- HiPath Cordless IP with DECT handsets
- OpenScape Personal Edition

In addition, third-party phones are supported, but with a reduced feature set. These phones have to be certified through the Ready Lab of Siemens Enterprise Communications.




The **OpenStage 15 SIP**, **OpenStage 20 SIP** and **OpenStage 40 SIP** telephones have been certified with the German BLUE ANGEL label (valid from software version V2R2).

THE BLUE ANGEL is the first and oldest environment-related label for products and services.

The proprietor of this environmental label is the German Federal Ministry for the Environment, Nature Protection and Reactor Safety.

*Experience ...*  
**AudioPresence™**



OpenStage SIP phones offer Best-In-Class High Definition Voice – **AudioPresence™ HD**.

AudioPresence™ HD ensures that all OpenStage SIP phone users can get an immersive audio experience for voice calls and audio conferences. AudioPresence™ HD is provided across the entire portfolio, starting with the entry-level phone OpenStage 5 SIP to the executive's OpenStage 80 phone.

## OpenStage

OpenStage™ is the name for the most advanced generation of IP phones, setting the benchmark for open, unified communications in a productivity-enhancing business tool. OpenStage phones have an intuitive and innovative interface that is available in a wide variety of languages; all models are fully compliant with IEEE 802.3af Power Over Ethernet (PoE) standard.

### OpenStage 80

OpenStage 80, the high end model, incorporates premium features, materials and components, and a productivity-enhancing open platform for applications. It is designed with the needs of the top-level manager and executive in mind.



### OpenStage 40

OpenStage 40, the flexible office phone, is customizable for various workplace environments – desk sharers, work teams, call center staff, and so on.



### OpenStage 15

OpenStage 15 is a universal solution for efficient and professional telephony. It is a full-featured speaker-phone with display and illuminated feature keys that could be used for up to 8 line appearances, for example.



### OpenStage 60

OpenStage 60 incorporates an open application platform and personalization options, and is especially well-suited for executive-assistant environments and users who interact with mobile devices.



### OpenStage 20

OpenStage 20, the economy model, is a full-featured speakerphone and a universal solution for efficient and professional telephony.



### OpenStage 5

OpenStage 5 SIP is a cost-effective introduction to IP telephony providing a basic set of business features, enterprise security, as well as simple installation and operation. It fits both as a unified communications audio front-end in combination with third-party CTI, and as a basic phone for floors, halls, lobbies, receptions, or hospitals.



## HiPath Cordless IP

The HiPath Cordless IP solution integrates the established DECT standard into Voice over IP infrastructures. The flexibility in number of users, user density, coverage, extensibility and the provision of comfort features with the up-to-date DECT professional handsets characterize the system architecture of HiPath Cordless IP. In order to connect HiPath Cordless IP to OpenScape Voice, the Session Initiation Protocol (SIP) is used. This means that DECT radio cells are the perfect way to supplement SIP-capable Voice over IP systems as mobile communication solutions.

### Gigaset S4 professional

The Gigaset S4 professional meets the high requirements of executives because it is equipped with a very stylish and exclusive design. This handset provides a wide range of high-end functionalities like a dialing pad made of real metal and a large color display.



### OpenStage SL4 professional

The OpenStage SL4 professional is the smallest and lightest DECT handset in the portfolio. It meets highest requirements due to its wide range of high-end functionalities and its exclusive design.



### Gigaset M2 professional

This handset was designed for rough working environments in which it is exposed to moisture, spray water, dirt, shocks, dust or where there are high ambient noise. These environments, e.g., include: refineries, docks, airports.

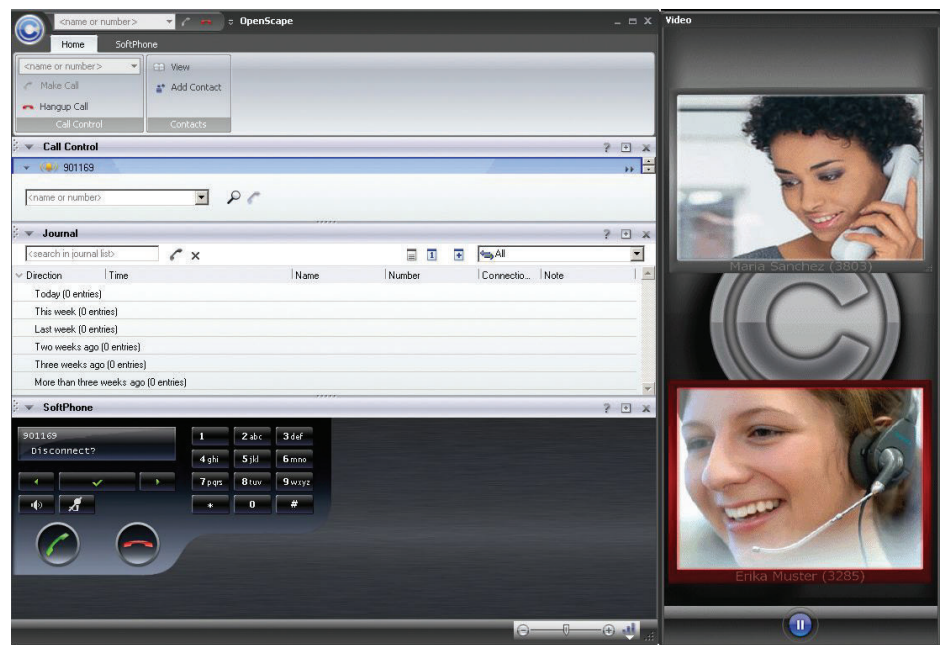


## OpenScape Personal Edition

OpenScape Personal Edition is an IP Softphone for installation on laptop and desktop PCs.

The Personal Edition serves as an entry point into OpenScape UC Application and can be used as a stepping stone for the subsequent deployment of OpenScape Enterprise Edition.

The new user interface has the look and feel of Windows® Office 2007 and offers the user a wide range of technical and graphical features that can effectively replace desktop phones entirely. The IP Softphone thus provides the ideal solution for normal users who want to eliminate their desktop phones or mobile users who are not tied down to a specific workplace and view their notebooks as their office.



## Analog Adapters

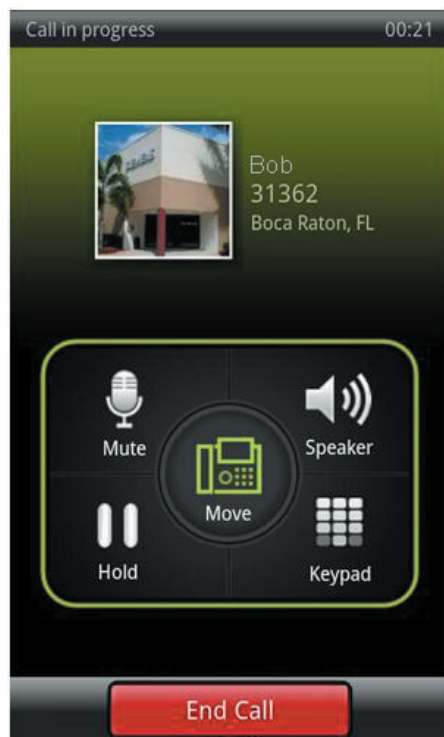
Analog adapters from Mediatrix allow users with existing analog phones, analog fax machines and modems to connect to the OpenScape Voice SIP environment, thereby preserving their investments.

## Applications

### OpenScape Mobile

OpenScape Mobile (already released in OpenScape Voice V5) turns mobile devices into feature-rich clients for OpenScape Voice, extending the OpenScape "One Number Service" functionality to the mobile device and allows to seamlessly swipe calls between desk phone, WiFi and cellular phone. OpenScape Mobile reduces cellular charges through lower air-time minutes and roaming charges by making and receiving calls over WiFi from home, a WiFi hotspot or on the corporate WLAN.

OpenScape Mobile introduces OpenScape Call Swipe, the first example of an OpenScape Communications Gestures which enables users to seamlessly transfer from their mobile device to a nearby desktop device, and vice-versa. Users can also decide to push calls to the cellular network or the WLAN. OpenScape Call Swipe only requires a basic finger gesture to seamlessly move a call to the most convenient device or network!



Call in progress on smartphone with OpenScape Mobile client

### OpenScape Alarm Response

#### OpenScape Alarm Response Professional

Current demands on modern telecommunications go far beyond simply making telephone calls. In particular, they include the automation and optimization of critical communication in emergency and crisis situations. With its high flexibility and its multi-faceted communication options, OpenScape Alarm Response Professional caters for many of these demands.

#### OpenScape Alarm Response Economy

OpenScape Alarm Response Economy is the ideal mini-server for alarms for low-end customer needs, suitable for nursing homes, small branch offices and limited use in larger enterprises.

### Executive/Assistant Application

The Executive/Assistant Application is an XML application developed to work only on the OpenStage 60 and 80 phones and interacts with OpenScape Voice to provide an intuitive implementation of the Executive/Assistant function that, up to now, has only been available on TDM systems. It comprises the following functions:

- Streamline the executive's calling processes with the support of one or more assistants
- Assistants control and manage calls for executives, providing support with a great degree of flexibility
- One or more assistants can answer all incoming calls for the executive, handling them exactly as the executive wants
- Incoming calls for the executive are directly forwarded to the assistant, or both the executive and assistant are signaled simultaneously
- Assistants can always monitor all incoming calls for the executive and react accordingly

### Recording solutions

#### ASC EVOip

With OpenScape Voice, ASC EVOip provides full-time active recording. To record a call, a conference is initiated from the OpenStage phone to the recorder. The solution supports the SIP protocol and preserves call-index information, such as incoming and outgoing phone numbers, time of call, etc., to facilitate search-and-replay.

#### Verint Impact 360

With OpenScape Voice, Verint Impact 360 provides full-time recording via passive RTP capture via LAN Switch or Gateway. It contains a robust, reliable full-time recording solution to help larger enterprises meet a range of needs, from compliance recording and liability management to quality monitoring.

#### HiCorder

With OpenScape Voice, HiCorder provides full-time voice recording using a passive RTP capture via LAN Switch, gateway or Media Server (using the Tagged Silent Monitoring feature). HiCorder supports up to 512 ports per system with OpenScape Voice.

## Technical data

The OpenScape Voice software runs on highly reliable, fault-tolerant industry-standard servers, providing carrier-grade reliability.

The operating system is SUSE Linux Enterprise Server 10 Service Pack 2 (SLES 10 SP2). A SolidTech database runs on each server.

## Hardware platforms

With OpenScape Voice, the following hardware platforms can be ordered:

- IBM x3550 M3
- IBM x3250 M3
- Fujitsu RX200 S6

**Note:** The IBM x3650T is supported for upgrades only.

## Common features

- Simple deployment as an application in HQ or data centers
- Users anywhere the IP network goes, across the campus or across the globe
- Comprehensive Enterprise feature set
- Up to 100,000 users on a system, virtually unlimited in a network
- Supports up to 3,000 branches, 6,000 business groups
- Independent numbering plans across all groups and branches
- Proven interworking with multiple competitor's systems and in multiple networks, worldwide

- Simple per-user licensing, not tied to sites or branches
- Simple migration – one user, group, branch, or network at a time
- Comprehensive management, including servers, users, branches, licenses, including cross-platform user licenses portability, etc.
- No loss of call control for any calls in progress or any billing data on any single failure anywhere
- Security independently certified

## Virtualization

Each application and its required operating system runs on top of a thin virtualization layer. The virtualization layer enables multiple applications with different operating systems (e.g. Linux and Windows) to run simultaneously on the same server.

Management tools are also provided to load, monitor, update and move virtualized applications. Virtualization can also be used to provide some levels of redundancy.

High availability dynamic relocation is supported with VMotion.

## Applications

The following applications work in a virtual environment using VMware ESX/ESXi technology:

- OpenScape Voice
- ASC:
  - ASC EVOip
  - ASC RIA for OpenScape Voice
  - ASC RIA for OpenScape Contact Center

- Executive/Assistant Cockpit (temporarily blocked)
- OpenScape UC Application Enterprise Edition
- OpenScape Xpressions
- Verint
- OpenScape Contact Center Attendant Console
- OpenScape Contact Center Enterprise
- OpenScape Contact Center extension: OpenScape Concierge
- OpenScape Contact Center Voice Portal
- OpenScape Session Border Controller (planned)
- OpenScape Media Server
- OpenScape Deployment Service for Windows and Linux (with restrictions)
- OpenScape Voice Trace Manager
- OpenScape Common Management Platform
- Management applications:
  - OpenScape Accounting
  - OpenScape User Management
  - HiPath Quality of Service Management
  - HiPath Accounting Management
  - HiPath User Management
  - HiPath Fault Management

OpenScape Voice allows virtualized hardware-independent deployment of all its related software components (HQ and branch) using VMware ESX/ESXi technology.

## Supported standards

The OpenScape Voice platform and its standard solution components (phones and application servers) support the relevant aspects of the following standards specific to Voice over IP (VoIP):

### CSTA standards (ECMA)

- ECMA-269: Services for Computer Supported Telecommunications Applications (CSTA) Phase III
- ECMA-323: XML Protocol for CSTA Phase III
- ECMA-354: Application Session Services
- ECMA TR/82: Scenarios for CSTA Phase III

### IETF standards

- RFC 1213: Management Information Base for Network Management of TCP/IP-based internets: MIB-II
- RFC 1442: Structure of Management Information for Version 2 of the Simple Network Management Protocol (SNMPv2)
- RFC 1443: Textual Conventions for Version 2 of the Simple Network Management Protocol (SNMPv2)
- RFC 1889 & RFC 1890: RTP - Real-Time Transport

- RFC 2131: Dynamic Host Configuration Protocol
- RFC 2234: Augmented BNF for Syntax Specifications: ABNF
- RFC 2246: The TLS Protocol
- RFC 2327: Session Description Protocol (SDP)
- RFC 2474: Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers
- RFC 2475: An Architecture for Differentiated Services

- RFC 2597: Assured Forwarding PHB Group
- RFC 2705: Media Gateway Control Protocol (MGCP)
- RFC 2780: IANA Allocation Guidelines For Values In the Internet Protocol and Related Headers
- RFC 2806: URLs for Telephone Calls
- RFC 2833: RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals
- RFC 2848: The PINT Service Protocol: Extensions to SIP and SDP for IP Access to Telephone Call Services
- RFC 2865: Remote Authentication Dial In User Service (RADIUS)
- RFC 2976: SIP INFO Method
- RFC 3016: RTP Payload Format for MPEG-4 Audio/Visual Streams
- RFC 3047: RTP Payload Format for ITU-T Recommendation G.722.1
- RFC 3168: The Addition of Explicit Congestion Notification (ECN) to IP
- RFC 3204: MIME Type for ISUP and QSIG
- RFC 3260: New Terminology and Clarifications for Diffserv
- RFC 3261: SIP: Session Initiation Protocol
- RFC 3263: Session Initiation Protocol (SIP): Locating SIP Servers
- RFC 3264: SDP Offer/Answer Model
- RFC 3265: SIP-specific Event Notification
- RFC 3267: Real-Time Transport Protocol (RTP) Payload Format and File Storage Format for the Adaptive Multi-Rate (AMR) and Adaptive Multi-Rate Wide-band (AMR-WB) Audio Codecs
- RFC 3272: Overview and Principles of Internet Traffic Engineering
- RFC 3288: Using the Simple Object Access Protocol (SOAP) in Blocks Extensible Exchange Protocol (BEEP)
- RFC 3311: SIP UPDATE Method
- RFC 3323: SIP Privacy Mechanism
- RFC 3515: SIP REFER Method
- RFC 3605: Real Time Control Protocol (RTCP) attribute in Session Description Protocol (SDP)
- RFC 3711: The Secure Real-time Transport Protocol (SRTP)
- RFC 3725: SIP Third Party Call Control
- RFC 3761: The E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discovery System (DDDS) Application (ENUM)
- RFC 3824: Using E.164 Numbers with SIP
- RFC 3830: MIKEY: Multimedia Internet Keying
- RFC 3842: SIP Message Waiting
- RFC 3852: Cryptographic Message Syntax (CMS)
- RFC 3892: The Session Initiation Protocol (SIP) Referred-By Mechanism
- RFC 3952: Real-time Transport Protocol (RTP) Payload Format for internet Low Bit Rate Codec (iLBC) Speech
- RFC 3959: The Early Session Disposition Type for the Session Initiation Protocol (SIP)
- RFC 3960: Early Media and Ringing Tone Generation in the Session Initiation Protocol (SIP)
- RFC 4028: Session Timers in SIP
- RFC 4049: BinaryTime: An Alternate Format for Representing Date and Time in ASN.1
- RFC 4235: An INVITE-Initiated Dialog Event Package for the Session Initiation Protocol (SIP)
- RFC 4353: Framework for Conferencing with the Session Initiation Protocol (SIP)
- RFC 4568: Session Description Protocol (SDP) Security Descriptions for Media Streams
- RFC 4575: A Session Initiation Protocol (SIP) Event Package for Conference State

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