

# Information

**OpenScape Contact Center Voice Portal V7.0 R2  
Enable Open Dialogue, Intuitive Interaction, and Seamless  
Handoff**

**Communication for the open minded**

Siemens Enterprise Communications  
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## Highlights

- Seamlessly blends self-service and agent-assisted service
- Secure, flexible voice platform offering the choice deployed in an IP environment
- Maximize ROI through reduced costs for telephony, transport and equipment that can be centrally deployed and administered and by automating mundane repetitive transactions - thus saving on labor costs

OpenScape Contact Center Voice Portal brings Internet technologies to voice self-service solutions to reduce customer frustration, enhance customer experience and increase customer loyalty.

## Overview

OpenScape Contact Center Voice Portal is an advanced software only, open standards-based solution that brings Internet technologies to the world of voice, enabling sophisticated call routing and powerful voice self-service needs. Businesses can offer a consistent and high-quality customer experience, provide the convenience of touchtone as well as speech-enabled self-service, drive new revenue streams and reduce overall customer service costs.

OpenScape Contact Center Voice Portal transforms the phone into a powerful, anywhere-anytime information access tool for customers while delivering value to the enterprise. It provides high performance call processing and media services for the development of next-generation voice applications in customer service and extends automated self-service through integration with business applications and databases. It also removes the constraints of costly legacy IVR systems and offers flexible deployment options, open standards-based



development, simplified integration and improved time to market for speech-directed voice applications beyond the limits of the traditional Interactive Voice Response (IVR) offerings.

OpenScape Contact Center Voice Portal redefines how contact centers operate and expands the way companies interact with their customers. Self-service resources are deployed as virtual extensions of contact center staff empowering businesses to conduct business interactions 24x7. It collects basic call information such as originating and dialed number and customer interaction information. In the event a caller's needs cannot be fully completed in the application, the key information from the transaction can then be passed to any Siemens supported Contact Center solution for intelligent customer segmentation and call routing. Utilizing caller information, businesses can access appropriate customer information in their databases and present that information to the agent along with the call, thereby managing customer service in a more personalized, consistent and efficient manner to maximize first contact resolution and customer satisfaction.

OpenScape Contact Center Voice Portal provides personalization of applications that are integrated with existing Web applica-

tions to help companies deliver a more targeted caller experience. Personalization is also used to help "up-sell" or capture more "share of wallet" by encouraging repeat business from existing customers.

Some examples of OpenScape Contact Center Voice Portal personalization:

- A preferred bank customer who has Certificate of Deposits (CDs) receives a personalized message regarding a new high interest rate CD when accessing his account balance
- A caller who recently placed an order is presented with options for changing or tracking the order
- While waiting for an agent, a pay-per-view movie enthusiast listens to the release dates of popular movies

OpenScape Contact Center Voice Portal also supports brand marketing through customized IVR voices and personalities that reinforce established brand identification.

With OpenScape Contact Center Voice Portal you are able to:

- **Drive First Contact Resolution** by automating pre-qualification or repetitive transactions, freeing agents and experts for high value or complex queries
- **Improve Customer Interactions** with customer centric, intuitive open dialogue based applications and seamless handoff to agents as necessary with full customer and transaction data passing
- **Deploy Easily** with pre-built VXML based contact center integration, open design and development tool support, and widely available developer expertise
- **Enhance the Open Virtualized Contact Center** with virtual self-service available wherever and whenever customers desire it

### Some examples of OpenScape Contact Center Voice Portal self-service applications include

- Speech Enabled Auto Attendant
- Location Finder
- Caller Identification and Verification including voice print authentication
- Account inquiry
- Utility meter reading, start-stop of service, balance, and bill payment
- Banking fund transfer, bill payment and check payment status
- Healthcare patient scheduling, appointment or prescription refill reminder
- Order products and schedule merchandise pickup
- Book a flight, check status and indicate preferences
- Proactive outbound notification for back orders, flight delays, cancellations
- Customer callback during periods of long wait times
- Literature requests, product manuals and other forms
- Informational announcements on company, products, etc.
- Post call satisfaction surveys

# OpenScape Contact Center Voice Portal Components

OpenScape Contact Center Voice Portal is a SIP based, open standards platform that provides a common framework with implementation flexibility in a variety of environments. In a Siemens implementation Voice Portal is compatible with OpenScape Voice and HiPath 4000 platform T1/E1 with Audio Codes.

OpenScape Contact Center Voice Portal includes five software components:

- Communications Server
- Element Management Provisioning System (EMPS)
- OpenScape Contact Center Voice Portal Design Center
- Voice Application Reporter

- Voice Portal and OpenScape Contact Center Integration

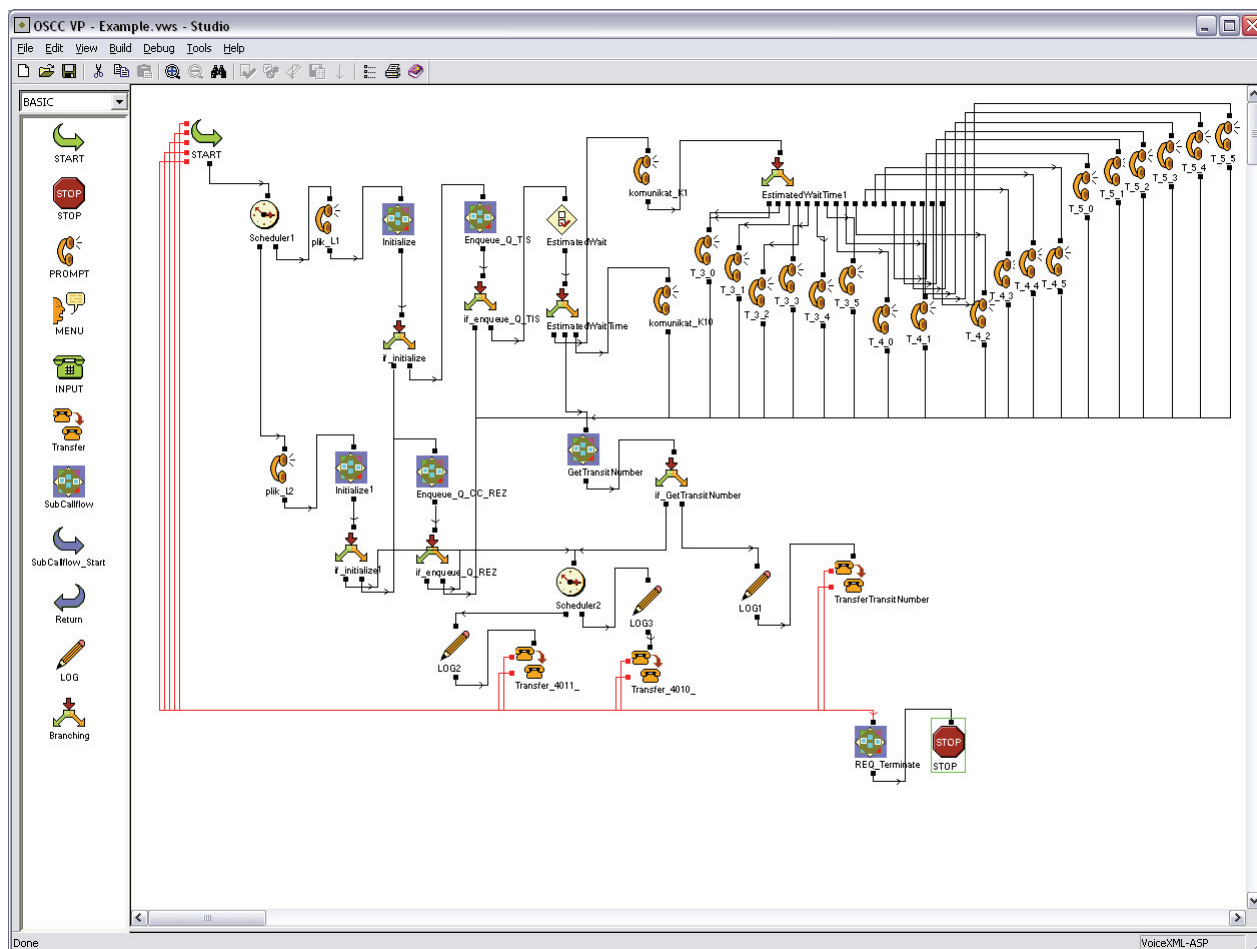
**IP Communication Server (IPCS)** parses, interprets and executes the VoiceXML commands in the documents served by the voice application. The CS also acts as the media server and integrates with automated speech recognition (ASR), text-to-speech (TTS) software and the OpenScape Contact Center Voice Portal administration system. Multiple Communications Servers can be distributed across a multi-site contact center environment with centralized configuration and provisioning for ease of administration.

**The Element Management Provisioning System (EMPS)** is a web-based interface used to enter and change information, to configure voice applications, to administer solution components and diagnose issues. The EMPS can reside with the Communications Server or reside on a separate host server. The latter is recommended when multiple Communications Servers are deployed in the network.

**OpenScape Contact Center Voice Portal Design Center** offers an intuitive Graphical User Interface (GUI) for administrative interface that brings the convenience of drag-and drop development to a desktop PC, simplifying application creation. Developers focus on the logic of their applications while OpenScape Contact Center Voice Portal Design Center creates the underlying code. New VoiceXML-based applications are easily built. See Figure 1.

**The Voice Application Reporter (VAR)**, accessed via a web-browser interface, VAR enables customers to analyze call volumes, trends, and more specific application information such as the menu options selected, successful access of back-end systems, etc. allowing customers to determine the effectiveness of their voice applications. These application-specific reports are available on an hourly, daily and/or weekly basis. The specific information to be captured and reported on by VAR is defined during the application development process.

Figure 1: OpenScape Contact Center Voice Portal Design Center



**OpenScape Contact Center Voice Platform is integrated** with the OpenScape Contact Center Agile and Enterprise Contact Center routing solutions to enable use of information collected in the OpenScape Contact Center Voice Portal for making routing decisions, consolidating reporting for a total lifecycle view of a call and centralized platform management of IVR and CTI applications. The end-to-end Contact Center solution is supported with VoiceXML 2.1 standard connectivity for integration between Voice Portal and Enterprise, providing rich functionality like seamless CTI transfers on agent-assisted calls and 'life of call' reporting. See Figure 2.

In addition, the OpenScape Contact Center Voice Portal can also be controlled by OpenScape Contact Center Voice Portal Customer Interaction Management Platform for more intelligent queuing, personalized applications, music on hold and more. For IP environments, OpenScape Contact Center Voice Portal utilizes OpenScape Unified Communications Server with OpenScape Contact Center as a proxy for pre-routing self-service calls, load balancing across multiple OpenScape Contact Center Voice Portal servers and routing of calls to live agents for a seamless transition from self-service to agent-assisted service.

## OpenScape Contact Center Voice Portal in Network Highlights

Proven, carrier grade platform and reliability uses fault tolerant distributed architecture to eliminate single point of failure.

OpenScape Contact Center Voice Portal can scale from a few hundreds to thousands of ports and can be deployed in networks with high reliability and security, optimizing network utilization. Platform capacity is maximized by "virtualization" of ports, i.e. any port can be used for any application or customer.

Distributed, scalable Web services architecture. All components fully leverage and integrate with Web infrastructure allowing for Internet-level scalability and distributed fault-tolerance using proven Web technologies and protocols such as HTTP, HTML, IP-VPNs, IP multi-homing, layer 4 switching and cache engines.

Enterprise application and data control. Enterprises can outsource the telephony infrastructure while retaining complete control over applications and business data.

Intelligent network integration. An open HTTP/XML-based interface is available to approved systems integrators that enable an

SCP (Service Control Point) to control the platform and allow the platform to complete call transfers via SCP to avoid tromboning in the network.

In addition, OpenScape Contact Center Voice Portal includes policy manager, bandwidth manager and network-level reporting.

Figure 2: Life of Call report

The screenshot shows a web browser window titled 'Reports - Microsoft Internet Explorer' displaying a 'Life of Call' report. The report is for a call on July 02, 2008, from 10:58:00 AM to 10:59:05 AM. The report includes a table with the following data:

ANI	Date	Time	Resource Type	Resource Name	Activity	Details
6289	July 02, 2008	10:58:00 AM	DNIS	2013265811	Arrived	
		10:58:00 AM	Application	SystemTest	Answered	
		10:58:44 AM	Queue	Sales	Received	Priority: 66 Description:
		10:58:45 AM	Application	SystemTest	Transferred	
		10:58:45 AM	Agent	Change1 , a1	Assigned	
		10:58:50 AM	Agent	Change1 , a1	Answered	
		10:59:05 AM			Disconnected	

# OpenScape Contact Center Voice Portal for the Enterprise Summary of Benefits

## Open IP-ready software-only platform maximizes customer choice

- Unlike ordinary IVR solutions requiring proprietary hardware that is difficult and expensive to manage, OpenScape Contact Center Voice Portal is a software-only solution that runs on off-the-shelf hardware and software.
- Based on Voice XML 2.1, it interoperates with off-the-shelf hardware and supports open standards like Session Initiation Protocol (SIP) and Media Resource Control Protocol (MRCP)

## Flexible architecture

- Infrastructure agnostic, OpenScape Contact Center Voice Portal supports "in front of" or "behind" the voice platform configurations in IP environments. When configured in front of the voice platform, self-service is handled before calls land on the voice platform or ACD which reduces port investment on the voice platform and expensive carrier charges. A behind the voice platform configuration is optimal for enterprises that are providing a virtualized voice platform environment and looking for redundancy and control of all voice transactions in that domain.
- Compatible with open or proprietary implementations: TDM, IP or hybrid unification of voice and Web infrastructures

## Highly scalable, future proofed application investments

- VoiceXML and other standards-based technologies such as MRCP allow for the separation of application logic from the telephony infrastructure, delivering a highly flexible, reliable and scalable solution. OpenScape Contact Center Voice Portal can scale from a few dozen to thousands of ports.
- No rewriting of applications needed as a result of infrastructure changes.
- Supporting next-generation networks, Voice Portal provides a Voice over Internet Protocol (VoIP) solution. For SIP-based connectivity, OpenScape Contact Center Voice Portal is integrated with Siemens OpenScape Unified Communications Server

## OpenScape Contact Center Voice Portal in the Network

- Proven ability to scale to thousands of ports in a distributed fault-tolerant architecture
- Managed Service providers can realize incremental revenue by providing enhanced services, such as hosted IVR, speech-enabled self-service and integrated contact center solutions. Moreover, service providers can deliver voice-activated dialers, enhanced toll free services and mobility applications that provide voice access to e-mail, online calendars and address books.

## Security

- A secure IVR platform that stores important data such as configuration information in Sun 1 LDAP databases to provide a high degree of data security.

## Unified voice and Web infrastructure

- OpenScape Contact Center Voice Portal utilizes VoiceXML to provide a unified development environment that allows businesses to repurpose Web investments for voice, including application integration code, business rules and personalization software. Voice and Web channels can share the same backend database, facilitating a holistic view of the customer, regardless of how they choose to interact with the enterprise.

## Integrated speech technologies

- OpenScape Contact Center Voice Portal has a built-in Media Resource Control Protocol (MRCP) client, a standard for speech. Speech improves the caller experience and increases self-service adoption as callers can use their voice to access information and conduct transactions in an intuitive manner
- Advanced voice processing including self-service, intelligent queuing and routing.

## Integrated interaction and application-level reporting

- OpenScape Contact Center Voice Portal leverages a variety of reporting capabilities to provide historical and real-time reporting across self and agent-assisted service. The contact center manager gets a true consolidated view of the interactions in the enterprise. Web-based reporting of specific call patterns, including detailed information by application and time of day summaries empowers the contact center manager with a view on how callers are using self-service ap-

plications and thus, provides the information necessary to adapt and modify self-service applications to evolving customer needs. These reports can be fed into a central reporting repository for analyzing across all channels in a true cradle-to-grave fashion.

## Single point of management

- Comprehensive, rapid application development tools. Reduces resource requirements to configure and manage self and assisted service systems.
- This tightly integrated solution provides the ability to segment and prioritize customer interactions according to business value and desired service level, reducing development costs.
- With flexible single or multi-site deployment options, all components are configured and managed through a single environment, reducing operations and training costs. Configuration data is stored on LDAP databases to provide a high level of data security and integrity.

## Systems Supported Hardware Components

### PBX and ACD interfaces

- Siemens HiPath 4000 V3.0, V4.0 (via Audiocodes TP-260 VoIP Gateway)
- Siemens OpenScape Voice V3.0, V3.1
- Audiocodes TP-260 VoIP Gateway, Mediant 2000
- Dialogic HMP software-based IP Call Progress Detection

### Supported Standards

- VoiceXML 2.1
- MRCP 1.0
- TXML for advanced call control
- TCP/IP
- SIP
- H.323
- HTTP
- SNMP
- Dialogic HMP software-based G729 transcoding

### Options

- High Availability, Redundancy
- Network Option

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 of 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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