Avaya Interactive Response
Simplifying Deployment of Voice Self-Service

Businesses today face the need to expand service and support options, but IT budgets are tighter than ever. To meet the challenge, enterprises are integrating lower cost voice self-service into their customer care and employee self-service strategies to expand care and better personalize live agent support.

With Avaya Interactive Response (IR), Avaya makes it simpler and more cost effective to deploy customer interaction solutions based on voice response. With Interactive Response, existing CONVERSANT® self-service solutions can be deployed on an industry standards based platforms, providing Avaya Self-Service customers with an evolutionary, cost saving migration path to web-based applications leveraging VoiceXML, IP, and speech technologies.

Key Benefits

Return on Investment
Voice self-service remains one of the most cost effective means to expand customer service support without increasing contact center staff. The cost to handle agent assisted customer interaction can range from a minimum of about $3.00 to as high as $7.00 in highly specialized functions such as technical support. The nominal cost of handling a self-service contact typically works out to $1.00 to $2.00 per call. Given this type of relative cost structure, adding or upgrading voice self-service capabilities represents a clear opportunity to streamline contact center operations and improve profitability by making better use of contact center expertise all the while building increased customer loyalty with improved customer service.

Cost of Ownership
Voice self-service allows businesses to expand access and service support without expanding staff. Interactive Response can handle a range of self-service interactions from basic requests for directions or order confirmation to more complex interactions such as employee change of address or password resets. With the same number of agents, businesses can increase efficiency while improving profitability.

Applications Integration
Interactive Response is a software based solution platform deployable on standard servers from Sun Microsystems. Support of several server types offer enterprises the ability to design solutions with the right port density, reliability, and redundancy required for their self-service application. Open IP standards support of technologies such as VoiceXML and MRCP allow for separation of application logic from the hardware platform and infrastructure, enabling enterprises to deploy more flexible and scalable solutions.

With VoiceXML certification provided by Interactive Response, enterprises can move towards deployment of both voice and web service delivery channels using the same backend database integrations, simplifying
backend support while maximizing customer experience consistency and service options. Full support of the VoiceXML standard ensures applications deployed on Interactive Response will be portable to platforms like Avaya Voice Portal as well as interoperable with other 3rd party applications written to the same standard.

Web-based Voice Self-Service
Interactive Response provides organizations with the necessary elements to make a seamless transition to IP and Web Services when they are ready. Businesses can realize transparent application support between Interactive Response and Voice Portal through:

- Common Voice Browser: Interactive Response, Voice Portal and Dialog Designer share the same VoiceXML browser guaranteeing a consistent user experience
- Common application development through Dialog Designer
- Common licensing allowing Interactive Response users on Avaya maintenance support to transfer licenses to Avaya Voice Portal at any time without additional license fees

This approach allows organizations to transparently mix touch tone applications with the latest speech recognition and VoiceXML applications. And as new services and requirements are realized, developers can write VoiceXML applications with Dialog Designer.

Key Capabilities

Seamless Assisted Service Integration
Superior customer experiences require seamless integration between front end contact center, self-service, and back end business applications. When a customer or user conducts a transaction or provides information via self-service, the application needs to pass on the intelligence learned within the interaction on to the live agent so the caller is not required to repeat information already provided.

Interaction Response seamlessly blends voice or speech self-service automation with your contact center and provides with a single, consistent experience. During a self-service interaction, Interactive Response can collect basic call information and customer interaction data then pass this information off to Avaya’s intelligent routing solutions such as Business Advocate, Interaction Center, or Contact Center Express allowing you to uniformly apply customer segmentation and routing instructions. In this fashion, your enterprise can ensure users a consistent handoff between self and assisted service that more cost effectively supplements management of inbound inquiries.

Interactive Response extends beyond basic self-service integration to include support for context based services and routing that quickly and efficiently escalates a high value customer from self-service to assisted service. Applications can be designed to dynamically trigger personalized options and services based on enterprise customer segmentation, previous multi-channel interactions, events, transaction activity, customer net worth, or personal preference. In this fashion, enterprises can deliver more personalized, consistent, and efficient service to their most valuable customers all the while maximizing contact center utilization and profitability across all customer segments.

For outbound self-service, Interactive Response can be deployed with Avaya Proactive Contact as part of an Avaya Proactive Outreach solution. For an airline, this may mean alerting platinum frequent fliers about flight delays. For a package delivery company, it may mean confirming that an important order has shipped. Or for a wireless phone company, it may mean increasing customer retention by contacting subscribers when calling plans are up for...
renewal. Whatever the specific application, integrated IR solutions can add service value to build customer loyalty.

Integration to Leading Speech Technologies

Using Natural Language Speech Recognition and text to speech capabilities, self-service applications can automatically converse with your customer in many languages. Interactive Response fully supports the leading speech engines from Nuance, IBM, and others through a standard MRCP interface. Speech recognition enables customers to access information and conducts transactions via a more intuitive and hands free interface.

Migration to IP Telephony

Interactive Response offers a variety of configurations that provide the system integration required for intelligent call routing and sophisticated computer telephony applications. TDM choices include T1 and E1 connectivity in front of and behind the switch utilizing off the shelf Natural Microsystems telephony card. Interactive Response software also includes H.323 integration with Avaya Communication Manager with no telephony cards required.

Application Development, Monitoring, and Management

Avaya Self-Service offers an ever expanding set of options to better create and manage your speech enabled services and applications. Dialog Designer is an included and integral component provided with both Avaya Voice Portal and Interactive Response software. Avaya Dialog Designer uses an open standard based Integrated Development Environment (IDE) to create VoiceXML applications for Avaya Voice Portal and Avaya Interactive Response. Dialog Designer accelerates time to market for businesses seeking higher automation and closure rates, turns a faster return on invest for Avaya Self-Service solutions, and delivers superior customer satisfaction at a lower investment level.

For Avaya CONVERSANT® customers, Interactive Response also includes Avaya Interactive Voice Response (IVR) Designer, a graphical design tool for drag and drop native script application development.

Interactive Response can support applications developed in a variety of development tools providing they generate VoiceXML 2.1 compliant output. Both VoiceXML and script-based applications can run on the IR platform. The development staff can optionally use Dialog Designer, IVR Designer, or other third party authoring tools to maintain self-service applications. This facilitates migration of existing applications while also supporting deployment with new applications written in VoiceXML.

Interactive Response management tools simplify applications management with point and click deployment, channel assignments, software version control, configuration changes, and fault monitoring. Customers can centrally manage and administer single or multiple Interactive Response platforms from a standard web browser. Business and IT managers have several summary and detailed reporting options at their finger tips to better monitor the end user service experience as well as systems performance including capabilities like application based reporting, ROI reporting, and system health reports.

Professional Services and Support

Avaya Global Services and global expertise delivered through certified Developer Connection BusinessPartners provide the right consulting, integration, and management services needed to integrate self-service within your services strategy. With the increased customer service applications available through the use of new speech technology, businesses can be assured that they have made a sound, lasting investment with the right level of support needed from Avaya and its BusinessPartners.

Find out more

For more information on how Avaya Interactive Response can enhance your customer relationships, improve agent productivity, and help increase your bottom line, contact your Avaya Client Executive or Avaya Authorized BusinessPartner today. Or, visit our Web site at www.avaya.com/speech.
Platforms, Protocols, Interfaces

**Data/application Interfaces**
- MRCP v2
- JDBC
- MS SQL
- Oracle
- Sybase
- DB2
- Informix
- XML/HTTP
- MQ Series
- 3270/52/50/SNA
- Siebel

**Application Programming Interfaces**
- Dialog Designer
- VoiceXML 2.1
- IVR Designer
- TAS Script
- Java
- C/C++

**Platforms and capacities**
- SunFire v245 (Dual CPU)
  - 192/240 DTMF/ASR
  - 96 VoiceXML
- SunFire v245 (Single CPU)
  - 192/120 DTMF/ASR
  - 48 VoiceXML
- Sun Netra T2000
  - 150 VoiceXML
- NMS CG Series telephony boards - CG6060 Dual and Quad, CG6565 OCT

**Notes:**
1. Support Solaris 10 SPARC
2. Actual capacity dependent upon applications and infrastructure

**Telephony Interfaces**
- ISDN T1/E1 (ITU Q.921, Q.931, and QSIG)
  - Loop Start T1
  - Loop Start E1
  - Wink Start T1
  - R2MFC E1
- VoIP (H.323 with Avaya Communication Manager software)
  - “In Front” or “Behind” the PBX configuration

Features

**Advanced Features**
- Seamless bridging of self and assisted service
- 2 B Channel transfer (network take back and transfer)
- QSIG transfer
- Personalized call flows
- Section 508 compliance
- Speech, DTMF, TTD, FAX input and collection
- Full integration of CTI features
- Service selection by ANI, DNIS, Dialed Digits
- Universal Ports
- Interactive Routing

**Management, Reporting, Support**
- Veritas backup/restore
- Web based administration
- Network backup
- SNMP MIB(s)
- Application Deployment
- Historical Reporting
- Integrated Reporting with Interaction Center

**Speech Partner Support**
- Nuance – speech recognition, TTS, and application component support
- IBM WebSphere Voice Server–Speech recognition, TTS

**User Interface Options**
- Speech Recognition
- Text to Speech
- Speaker Verification
- DTMF (Touch Tones)
- Fax
- TDD

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**About Avaya**

Avaya is a global leader in enterprise communications systems. The company provides unified communications, contact centers, and related services directly and through its channel partners to leading businesses and organizations around the world. Enterprises of all sizes depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, customer service and competitiveness. For more information please visit [www.avaya.com](http://www.avaya.com).

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