Avaya Contact Center Solutions for the Enterprise

Summary
Avaya Customer Interaction Suite for contact center solutions has a modular, open standards approach to the marketplace that features end-to-end integration and multivendor, multiplatform interoperability.

Table of Contents
Overview
Analysis
Avaya Call Center
Avaya Enterprise Contact Center
Contact Management: Avaya Business Advocate
Contact Management: Avaya Enterprise Routing
Self-Service: Avaya Interactive Response
Self-Service: Web and E-Mail
Proactive Contact: Avaya Predictive Dialing
Proactive Contact: Outbound Management
Operational Effectiveness: Avaya Contact Center Reporting and Analytics
Operational Effectiveness: Avaya Agent Performance
Pricing
Competitors
Strengths
Limitations
Recommended Gartner Research
Insight

List Of Tables
Table 1: Avaya Contact Center Capacity and Feature Summary
Overview

In October 2003, Avaya announced a new strategic direction to integrate Avaya’s contact center solutions into a single, modular, open suite called the Avaya Customer Interaction Suite. The suite builds on Avaya’s established strengths in call routing, multichannel contact, interactive voice response (IVR) and Internet Protocol (IP) contact center infrastructure solutions and is an important business enabler of the Avaya MultiVantage Communications Applications portfolio. With the announcement of the Avaya Customer Interaction Suite, Avaya also announced expanded capabilities for its primary predictive routing solution, Business Advocate, as well as expanded business applications and platform integration with several market-leading vendors, such as Siebel and IBM.

The Customer Interaction Suite modular architecture enables enterprises to leverage established investments by adding and expanding capabilities as needed while avoiding cumbersome upgrades or costly replacement strategies. Customer Interaction Suite capabilities can be used in their entirety as a complete solution, deployed gradually in a “start small and grow” scenario. The Avaya Customer Interaction Suite provides full Avaya hardware platforms as well as switches and IVR systems from vendors such as IBM, Sun, Nortel Networks and Aspect.

Avaya’s open suite-based architecture features a versatile array of enhanced capability areas that can be purchased, deployed and used according to each enterprise’s particular contact center needs for the following functionality:

- **Contact Management**: making it easier for customers to interact with businesses to increase agent productivity, optimize investments and management and realize better returns from every customer contact experience
- **Self-Service**: enabling convenient, intelligent and automated service via voice, Web and e-mail while lowering total interaction costs and eliminating the need for additional staff resources
- **Proactive Contact**: building relationships by anticipating and satisfying customer needs, better managing inbound and outbound contacts, identifying added cross-sell and up-sell opportunities, thereby marketing more effectively and reducing overall operating costs
- **Operational Effectiveness**: enhancing customer satisfaction with real-time monitoring and historical insight that improves business decision-making, planning and overall performance

In addition to offering a common business value-oriented reporting and analytical environment, the Customer Interaction Suite also looks to lower total cost of ownership by simplifying enterprise services design, management and administration via the following:
Avaya Contact Center Solutions for the Enterprise

- **Common Service Creation Development**: extends integration and usability with Application Program Interfaces (APIs), self-service development tools and third-party application options.

- **Common Management and Administration**: streamlines contact center management efforts through integrated processes and tools for common monitoring, reporting, analytics and administration.

Underlying these capabilities is the relationship between the Avaya Customer Interaction Suite architecture and the extensive support that is readily available in solutions that integrate customer relationship management (CRM)/Business applications (through Partner Adapters), deploy contact center solutions (via Avaya Global Services personnel) and enable extensive enterprisewide connectivity as follows:

- **Enterprise Applications Integration**: supports open standards integration to business applications, such as Siebel 7.5, pre-written Partner Adapters and services integration with PeopleSoft, SAP, Onyx and E.Piphany.

- **Avaya Global Services**: adds expertise and resources to an enterprise’s contact center for implementation, integration and maintenance of contact center applications. These services also support integration that connects the contact center to an enterprise’s front- and back-office applications, as well as a wide range of third-party products that include enterprise resource planning (ERP), operational effectiveness and workforce management packages.

- **Avaya Enterprise Connect and Avaya Global Connect**: includes Avaya Customer Interaction Suite applications and Avaya IP Telephony systems as part of an integrated solution that extends seamless connectivity across multiple enterprise locations from headquarters to remote branches, virtual sites and global centers.

- **Avaya IP Telephony Solutions**: enables the deployment of Avaya Customer Interaction Suite on IP telephony, traditional or mixed multivendor infrastructures that allows the enterprise to leverage established investments while taking advantage of new applications and cost savings from deployment of newer IP Telephony switching solutions.

**Avaya Communications Manager**

Avaya Communications Manager software (formerly Avaya MultiVantage Software) supports the full family of the Avaya call center application software and computer-telephony integration (CTI) interfaces. Among them are several options with respect to automatic call distribution (ACD) functionality that includes Visual Vector with Call Management System (CMS), Virtual Routing, Best Service Routing, Expert Agent Selection and Business Advocate predictive routing. Avaya Communication Manager seeks to solve business challenges by powering voice communications and integrating with value-added applications. Avaya Communication Manager is an open, scalable, highly reliable and secure telephony application. It provides user and system management functionality, intelligent call routing, application integration and enterprise communications networking. Running on a variety of Avaya Media Servers and providing control to Avaya Media Gateways and Avaya Communications Devices, Avaya Communication Manager can be designed to operate in a distributed or networked call-processing environment.

**Avaya Hardware Platforms**

Avaya’s latest Enterprise Class IP Solutions (ECLIPS) Portfolio architecture requires a combination of software, media server and media gateway to establish a fully functioning converged voice and data Avaya platform. This combination offers traditional voice solutions at one end, pure IP solutions at the other, and mixed traditional and IP solutions in the middle. The objective is to provide reliability,
scalability, cost-effective packaging and support for both traditional and IP-based voice interconnections, thereby leveraging a comprehensive range of core call-processing capabilities that have evolved over many years. The ECLIPS architecture is highly distributed, with Communications Manager software running on media servers that may be controlling multiple media gateways in many different locations. Avaya also provides a range of solutions, including the Avaya extension to cellular capability (EC), which supports unified communications anytime, anywhere access to full functionality from any digital cellular telephone regardless of the service provider.

**System Integrator Partnerships**

A dedicated Avaya staff focuses on system integrators across sales, marketing, services and each solutions area. Current partnerships for CRM and contact centers include the following:

- Accenture
- EDS

Avaya has strategic partnerships with:

- IBM
- Unisys

These global companies have significant worldwide consulting, professional services and hosting capabilities. The Unisys relationship includes worldwide distribution of Avaya CRM Solutions. In addition, Avaya has a range of geography-specific global relationships, among them NewTel in Europe, BellTech in Chile and Iwatsu in Asia/Pacific. Avaya also has growing relationships with a range of outsourcing partners, both big and small, that may offer various combinations of contact center outsourcing, hosting and services. These include Sitel and Convergys.

**Strategic Consulting Partnerships**

The Avaya and Accenture contact center business solutions partnership helps enterprises increase operational efficiency, enhance and retain customer relationships and support revenue growth. The two companies plan to integrate offerings with a focus on enterprise-level projects and multichannel communications, including telephony, e-mail, Web chat, fax, wireless and collaborative Web browsing.

**Contact Center Partnerships**

Avaya provides open interfaces across its contact center solutions portfolio, allowing communications platforms to be integrated with any e-business, e-commerce, CRM, ERP or supply chain application. Avaya and its system integration partners have deployed contact center solutions with every major CRM application vendor, including Siebel, PeopleSoft, SAP, E.Piphany, Onyx, Remedy and others. In addition, Avaya supports its DevConnect program, a global enterprise services and contact center applications developer community.

The Siebel relationship represents a significant multimillion-dollar investment from Avaya, with dedicated staff focused on Siebel in sales, marketing, services, and within CRM and contact center solutions areas. Avaya is engaged in a wide range of joint sales and marketing activities and is a Siebel customer deploying Siebel e-business applications as a fundamental platform along with SAP within its own business. For Siebel, Avaya supports pre-built packaged integrations at many levels, including CTI, multichannel interaction management, voice/speech systems and outbound contact management.

**Contact Center Capacities and Features**
The following table summarizes Avaya contact center capacities and features.

**Table 1: Avaya Contact Center Capacity and Feature Summary**

<table>
<thead>
<tr>
<th>Maximum System Capacities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunks—Analog Circuits/T1 Channels</td>
<td>4,000/4,000</td>
</tr>
<tr>
<td>Trunk Groups</td>
<td>666</td>
</tr>
<tr>
<td>Configurable Agents</td>
<td>10,000</td>
</tr>
<tr>
<td>Active Agents</td>
<td>10,000</td>
</tr>
<tr>
<td>Supervisor Positions</td>
<td>400</td>
</tr>
<tr>
<td>Agent Groups</td>
<td>999</td>
</tr>
<tr>
<td>Agents per Group</td>
<td>1,500</td>
</tr>
<tr>
<td>Busy Hour Call Completions (BHCC)</td>
<td>300,000 (for contact center applications)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System Features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Queuing</td>
<td>Standard</td>
</tr>
<tr>
<td>Automatic Number Identification (ANI)</td>
<td>Standard</td>
</tr>
<tr>
<td>Dialed Number Identification Service (DNIS)</td>
<td>Standard</td>
</tr>
<tr>
<td>ISDN Primary Rate Interface (PRI) Capability</td>
<td>Standard</td>
</tr>
<tr>
<td>IP-Based Telephony</td>
<td>Optional</td>
</tr>
<tr>
<td>Voice Messaging Interface</td>
<td>Standard</td>
</tr>
<tr>
<td>Skills-Based Routing</td>
<td>Optional</td>
</tr>
<tr>
<td>Web-Based Contact Center Capability</td>
<td>Optional</td>
</tr>
<tr>
<td>Multisite Support</td>
<td>Standard</td>
</tr>
<tr>
<td>Network Interflow</td>
<td>Optional</td>
</tr>
<tr>
<td>Recorded Announcements</td>
<td>Standard</td>
</tr>
<tr>
<td>CRM Ready</td>
<td>Standard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agent Features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Conferencing</td>
<td>Standard</td>
</tr>
<tr>
<td>Agent Screen Transfer Capability</td>
<td>Optional</td>
</tr>
<tr>
<td>Agent Interdialing</td>
<td>Standard</td>
</tr>
<tr>
<td>Direct Outward Dialing (DOD)</td>
<td>Standard</td>
</tr>
<tr>
<td>Supervisor Assistance Key</td>
<td>Standard</td>
</tr>
<tr>
<td>Remote Agent Capability</td>
<td>Optional</td>
</tr>
<tr>
<td>Voice Recording/Logging</td>
<td>Optional</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supervisor Features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor Workstation</td>
<td>Optional PC terminal available</td>
</tr>
<tr>
<td>Agent Monitoring</td>
<td>Standard</td>
</tr>
<tr>
<td>Agent Call Intervention</td>
<td>Standard</td>
</tr>
<tr>
<td>System Reconfiguration</td>
<td>Standard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IS Reports</td>
<td>Optional</td>
</tr>
<tr>
<td>Agent Performance Statistics</td>
<td>Standard</td>
</tr>
<tr>
<td>Abandoned Call Statistics</td>
<td>Standard</td>
</tr>
<tr>
<td>Calls Offered Statistics</td>
<td>Standard</td>
</tr>
<tr>
<td>Trunk Utilization Statistics</td>
<td>Standard</td>
</tr>
<tr>
<td>Line Utilization Statistics</td>
<td>Standard</td>
</tr>
<tr>
<td>Customized Report Formats</td>
<td>Optional</td>
</tr>
</tbody>
</table>
Analysis

To understand the breadth and depth of Avaya Contact Center Solutions and Customer Interaction Suite capabilities, we will look at the four key solution areas offered:

**Avaya Customer Interaction Suite**

*Contact Management*
- Avaya Call Center (formerly MultiVantage Call Center software)
- Avaya Enterprise Contact Center (formerly Interaction Center)
- Avaya Business Advocate (now supports Web-based e-mail and non-Avaya switches)
- Avaya Enterprise Routing

*Self-Service*
- Avaya Interactive Response (IVR and VoiceXML platform)
- Avaya Voice Applications
- Web and E-Mail (formerly part of Interaction Center)

*Proactive Contact*
- Avaya Predictive Dialing (formerly Predictive Dialing System)
- Avaya Outbound Management (formerly part of Interaction Center)

*Operational Effectiveness*
- Avaya Contact Center Reporting and Analytics (formerly Call Management System and Operational Analyst)
- Avaya Agent Performance

**Avaya Call Center**

Avaya Call Center is a switch software feature that processes high-volume incoming, outgoing and internal calls and distributes them to contact center agents. The switch can also send information about the operation of the ACD to an optional Contact Center Reporting system, which stores and formats the data to produce real-time and historical reports on ACD activity. Data from up to 30 ACDs, along with e-mail and Web chat interactions from Avaya Enterprise Contact Center, can be consolidated and archived by Avaya’s Reporting and Analytics capability to provide a comprehensive, single view of the customer experience. A system administrator can add or remove splits/skills from the system, add or remove announcements, add or remove agents, add trunk groups and route calls to the appropriate splits/skills and specify ACD measurement criteria.

**Call Vectoring**

This optional software package processes incoming and internal calls according to a user-programmable set of commands. These commands, called vector commands, determine the type of processing that calls receive. For example, vector commands can direct calls to on-premise or off-premise destinations; to any hunt group, split or skill; or to a specific call treatment, such as an announcement, forced disconnect, forced busy or delay. Vectors can queue or route calls based on a variety of different conditions.
Vector Directory Number (VDN)

The VDN is an extension that provides access to the vectoring feature on the switch. Vectoring allows an administrator to specify the treatment of incoming calls based on the dialed number.

Look Ahead Interflow (LAI)

LAI balances the call workload between multiple contact centers on separate switching systems. The feature requires end-to-end Integrated Services Digital Network (ISDN) connections, and it works over private and public networks to allow multiple switches to communicate and interflow when appropriate.

Interflow

This feature forwards calls over splits on the same private branch exchange (PBX) or a different PBX using the Call Forward All Calls feature.

Best Service Routing (BSR)

BSR uses LAI and Interflow in both single- and multisite environments to intelligently compare specific resources to find the site that can best service a call. In addition, multisite BSR supports network integration of contact centers for better load balancing and optimal agent use.

Service Observing

Service observing allows a specified user, such as a supervisor, to observe or monitor another user’s calls. Observers can observe in listen-only or listen-and-talk mode.

Expert Agent Selection (EAS)

EAS is an option used to route incoming ACD calls to the agent with the specialized skills or experience required for best meeting the caller’s needs. EAS agent functions are assigned to the agent log-in ID, not to a physical phone, enabling EAS agents to log in and work at any phone in the system. In addition, using the agent’s log-in ID, a caller can target a specific agent, with these being treated and reported as ACD calls.

Networking Functionality

Avaya supports a broad set of technology alternatives for networking contact center systems together, including IP, ATM, frame relay and T1. Avaya Call Processing software allows agents and other resources across distributed environments to be treated in a uniform way.

Avaya Enterprise Contact Center

Enterprise Contact Center capabilities link to enterprise applications, e-Business software and tools, e-mail systems, IVR and speech-enabled systems, automatic call distribution infrastructures, dialers and imaging systems. All forms of electronic interaction pass through a single point of control, enabling users to create and apply routing strategies and business rules across channels simultaneously, instead of managing each channel separately. The Enterprise Contact Center solution provides modular functionality, so users can select the type of multimedia solution that best suits their needs, with Avaya offering:

- Live Web Assistance—Allows online customers to receive live assistance from an agent via Web chat, voice and collaborative browsing.
- CTI—Routes telephone calls to the best resource for delivering service while reducing telephone connect times.
Avaya Contact Center Solutions for the Enterprise

- Predictive Dialing—Manages calls and e-mail to and from customers to optimize the efficiency and effectiveness of the contact center.

- Adaptive, Predictive Agent Selection—Matches the customer’s needs to the skills of each agent while distributing customer interactions equitably across available agents.

- IP Softphone—Enables agents at remote or “virtual” contact centers to deliver quality service right from their PCs.

- Self-Service—Enables customers to obtain information or complete transactions via the telephone, fax, pager, e-mail or the Web without involving an agent.

- Intuitive Agent Interface—Gives agents quick access to customer data and applications on one screen. Presents data in a logical, intuitive format and can be customized to meet specific contact center requirements.

The Customer Interaction Suite includes contact center capabilities via the Enterprise Contact Center module. Enterprise Contact Center is interaction management software that routes, manages, records and reports on customer interactions across a variety of communication channels, including Web, e-mail and advanced telephony systems. This platform provides a blended universal queuing approach where different work for different channels can be handled by different systems. All work uses a common set of business rules for routing, common use of a single customer repository, a single agent interface and a single master repository of every customer interaction across every channel, allowing for unified reporting. Here e-mails and Web chats are queued and delivered over IP facilities, independently of the voice ACD, so that no traditional infrastructure is needed for pure Internet agents. Internet capabilities can be deployed anywhere. However, both voice and Internet agents can be fully blended across all channels, in whatever combinations are desired, including multiple chat sessions, multiple e-mails, chat or e-mail overlaid with voice. This solution builds on Avaya’s CTI interfaces and adds:

- Full IVR integration
- Workflow-driven routing and customer-driven decision making
- CRM and legacy data fetch and pre-fetch
- Multisite transfer and data coordination
- Highly distributed and redundant failover configurations
- Agent desktop interfaces and softphones
- Agent scripting and screen-pop
- Full multichannel queuing and blending as other channels (like Web and e-mail) are deployed.

In addition to Avaya systems, Enterprise Contact Center supports a broad range of multivendor ACD platforms, such as the following:

- Nortel, Siemens and Aspect, with further switches being added
- IVR platforms from Periphonics, InterVoice and Brooktrout
- Operating systems that include Microsoft Windows NT and Windows 2000, as well as Sun Microsystems Solaris and IBM AIX. Also included are databases from Oracle, Microsoft SQL Server and IBM DB/2.
Solutions are open and interoperate with other vendor's contact center products at every level, including switches, IVR platforms, CTI and Internet capabilities. Enterprise Contact Center E-mail provides the ability for agents to receive and respond to e-mail so organizations can promptly and efficiently manage increasing e-mail loads without having to increase the number of contact center agent resources at the same rate. E-mail contacts are routed, blended and tracked at every step. E-mail Automation is provided to analyze message content, determine the nature of the customer's request and make a decision about whether to automatically respond or to provide a suggested response to the agent with the queued e-mail. Responses can be automatically generated and populated with customer-specific data accessed from the Customer Interaction Repository or from external data sources. Content Analyzer, an optional natural language, determines the meaning of each e-mail and also uses sets of example e-mails to train the analysis engine. This content analyzer provides the ability to identify the language and the topic of an e-mail, which can then drive the following functions as part of e-mail business rules:

- Intelligent auto acknowledgement
- Routing of the e-mail based on topic and language
- Suggested responses for the agent
- Automatic responses to e-mail messages
- Quality assurance screening
- Junk-mail screening that is specific to the business rules

Enterprise Contact Center Web provides a comprehensive framework for Web-based customer interactions, allowing customers who are surfing an Internet site to obtain help in a number of different ways. First, there is a self-help capability that allows customers to search a self-help knowledge base and potentially find answers to their questions. If they can't find an answer using the self-help facility, they are able to escalate their request into the contact center for assistance by live agents. The Customer Interaction Suite enhances Web sites by delivering a more personalized customer experience using the following functionality:

- Text chat
- Shared browsing
- Collaborative form filling
- Voice chat (simultaneous voice and Web collaboration)
- Chat and voice over IP (simultaneous voice over the customer's PC and Web collaboration)
- Join us (adding an additional party to a text chat)
- Scheduled Web callback (requesting a future voice callback via the Web).

The Customer Interaction Suite manages Web interactions as it does for the other media channels, using routing and blending to ensure optimal delivery to agents.

**Contact Management: Avaya Business Advocate**

Business Advocate software uses patented predictive algorithms to optimize resource matching between incoming customer interactions—voice, e-mail or Web chat—to the best enterprise resource, regardless of location or sites to integrate customer, agent fairness and service-level needs. Business Advocate can be present on Avaya Communications Manager to provide advanced capabilities for managing voice
contacts. Business Advocate can also be present on Enterprise Contact Center to provide functionality into heterogeneous switching environments, with e-mail and Web contacts managed by Enterprise Contact Center.

**Contact Management: Avaya Enterprise Routing**

Customer contact routing capabilities with remote agent interface that seamlessly connect customers to the right resource in your distributed enterprise regardless of geographic location. This pre-routing and load balancing capability is based on Best Services Routing, Virtual Routing and Interaction Center multisite routing capabilities.

**Self-Service: Avaya Interactive Response**

Within the last year, Avaya has introduced a speech and voice platform based on industry standard hardware with expanded scalability and support for IP telephony and VoiceXML. Avaya Interactive Response is a comprehensive and scalable voice and speech platform that supports enterprise speech applications written in open standards-based VoiceXML. Interactive Response can be purchased as software only or as a turnkey capability running on scalable industry standards-based Sun Solaris servers. Each server can support up to 192 channels of speech or voice interactions.

As an integral module of the Customer Interaction Suite, Interactive Response is easily integrated with business applications through prewritten adapters and open standards support of Java, HTML, XML, MQSeries, Siebel, MS SQL2000, Nuance SpeechObjects and SpeechWorks. The Interactive Response/Siebel integration uses XML directly to Siebel eBusiness Application Integration (EAI), which then provides direct access to Siebel Business Objects, making it easy to directly use Siebel customer data in voice and speech scripts. In addition to Java/XML integration, Interactive Response ships with a graphical self-service creation tool that generates both VoiceXML as well as traditional IVR scripts.

Open interfaces allow speech and touchtone service interactions to be tightly driven, where appropriate, by off-board customer data-driven Call Center or Enterprise Contact Center contact management capabilities. Avaya also provides integration with the Customer Interaction Suite Predictive Dialing capability, allowing outbound campaigns to use voice response applications in addition to live agents to resolve connected outbound calls. Optional software includes extended call classification, CTI links, fax capabilities, text-to-speech, database integration and natural language voice-enabled technology.

A unique client/server speech-integration design allows multiple Avaya Interactive Response systems and multiple separate speech servers to work together in various “shared resource” or redundant combinations. As a result, up to 192 simultaneous speech sessions can currently be achieved per platform. Complete integration with the rest of the Customer Interaction Suite allows universal capture of self-service activity into a common customer interaction repository for both fully self-service and agent-assisted interactions. Interactive Response integrates with other ACD systems, including Nortel Networks, Aspect, Rockwell FirstPoint Contact and others, with Interactive Response being sold both as a stand-alone and in conjunction with end-to-end Customer Interaction Suite solution.

**Self-Service: Web and E-Mail**

E-mail self-service is provided to analyze message content, determine the nature of the customer’s request and make a decision about whether to automatically respond or to provide a suggested response to the agent with the queued e-mail. Responses can be automatically generated and populated with customer-specific data accessed from the Customer Interaction Repository or from external data sources. Content Analyzer, an optional natural language, determines the meaning of each e-mail and also uses sets of example e-mails to train the analysis engine. This content analyzer provides the ability to identify
the language and the topic of an e-mail, which can then drive the following functions as part of e-mail business rules:

- Intelligent auto acknowledgement
- Routing of the e-mail based on topic and language
- Suggested responses for the agent
- Automatic responses to e-mail messages
- Quality-assurance screening
- Junk-mail screening that is specific to the business rules

Web self-service integration delivers a consistent customer experience via a comprehensive framework for Web-based customer interactions, allowing customers who are surfing an Internet site to obtain help in a number of different ways. First, there is a self-help capability that allows customers to search a self-help knowledge base and potentially find answers to their questions. If they can’t find an answer using the self-help facility, they are able to escalate their request into the contact center for assistance by live agents. Using Avaya DataWake capabilities, Agents have full access to the customer’s Web-browsing and Web self-service experience, allowing them to continue the conversation and deliver a more consistent and seamless customer experience.

**Proactive Contact: Avaya Predictive Dialing**

Avaya Predictive Dialing capabilities, based on Avaya Predictive Dialing System, help organizations with coordination and execution of high-volume outbound service campaigns that enable more transactions per hour, more positive and effective customer interactions and greater operational efficiency across multiple communication channels.

**Proactive Contact: Outbound Management**

Outbound Contact Management software includes a tool that uses voice-detection technology to reduce agent idle time and increase right party connects. “Effectiveness tools” allow agents personal ownership in selected accounts, which increases more promises to pay and reduces abandoned calls. Outbound Management enables multichannel contact center supervisors to associate a list of customer telephone numbers with specific goals and calling activities in an outbound job. The software uses one or more related jobs with other associated information and a script to dial and connect agents with customers. Avaya Outbound Management can run multiple outbound jobs simultaneously. Telephone numbers can be added to a running job at any time. In addition, the call results can be extracted from the database while the job is still running. This enables users to customize jobs to work in the way that best fits their organization’s needs. Avaya Outbound Management supports three dialing modes:

- **Preview**—In preview mode for outbound jobs, information about the next customer to call appears on the agent desktop before the outbound contact software launches the dial attempt. The agent takes the initiative to accept contact attempt or reject it, rescheduling it for later.

- **Automatic**—In automatic mode for outbound jobs, information about the next customer to call appears on the agent desktop as the outbound contact software launches the dial attempt. The agent cannot choose whether to accept or reject the dial attempt.

- **Predictive**—In predictive dialing mode, the software “predicts” when an agent is likely to be ready for the next call and then dials the next customer(s) automatically. When the customer answers the
phone, the software routes the call to the available agent automatically. The predictive dialing mechanism screens faxes, answering machines, unavailable numbers and Special Information Tones (SITs), which improves the agent’s ability to connect “live” calls.

The supervisor can assign dialing modes to entire jobs, individual telephone numbers and agents, and Outbound Management will use the least aggressive mode of the outbound job, telephone number and agent. Further management capabilities include agent configuration, dialing windows (when to call), call rescheduling thresholds and reporting on outbound campaigns.

Operational Effectiveness: Avaya Contact Center Reporting and Analytics

Contact Center Reporting

Avaya provides an expanding set of reporting and analysis capabilities through three products that go from basic call center reporting through sophisticated large call center reporting to multimedia reporting and analysis across e-mail, Web and voice, as well as centers with telephony systems from multiple vendors.

Avaya Call Management System (CMS) is Avaya’s flagship product for voice call centers with many thousands of customers and can be further extended to handle multimedia reporting needs by adding additional reporting and archiving capabilities from the Customer Interaction Suite Operational Effectiveness solution. Avaya Call Management System provides the information and management tools customers need to monitor and analyze the performance of their call center operations, allowing customers to identify where improvements are needed and where to take effective action.

Avaya CMS provides comprehensive reporting for mid to large call centers. CMS makes use of an off-board system sold with CMS and using platforms from Sun, which maintains a continuous link for gathering information from up to eight separate ACD systems. Avaya CMS provides over 200 real-time and historical management reports that represent tools to help customers achieve sales and customer service objectives and to enhance the productivity of contact center employees and resources. The CMS system has an on-board relational database and backup capabilities that allow large amounts of historical information to be reliably maintained. Detailed intra-hour data can be kept for up to 62 days, daily reports for up to five years, and weekly and monthly data for up to 10 years.

Working in conjunction with Avaya CMS, the Avaya CMS Supervisor client provides administration and reporting capabilities using a familiar Microsoft Windows interface. Avaya CMS provides an administrative interface to the ACD feature of the Avaya MultiVantage communications software, enabling contact center managers to generate reports, administer ACD parameters and monitor call activities to help determine the most efficient service possible for their customers. Avaya CMS Supervisor has an alerting function that instantly notifies users of important developments in the contact center. Customers can customize these alerts on their PCs using the Windows drag-and-drop interface and can switch to other applications while still having the ability to be alerted when any specified threshold is exceeded. Immediate notification allows supervisors to take action, such as reassigning agents to a particular split or skill.

With Avaya CMS, customers can view live real-time information and see the immediate results of their adjustments. They can also use historical reports to analyze trends and to help make decisions establishing performance benchmarks and planning new marketing or customer service campaigns. Supervisors have access to real-time and historical reports to help them manage the performance of their personnel. A custom report package lets customers modify real-time and historical reports or create reports that fit their specific requirements. Extensive reporting of exceptions allows managers to quickly identify areas requiring immediate attention. The save as Hypertext Markup Language (HTML) function
allows users to export a snapshot of a report running in Avaya CMS Supervisor and save it as an HTML file for viewing on the Internet or an intranet. Avaya CMS offers the following capabilities and capacity:

- LAN back-up/restore of Avaya CMS—increases the speed of a back-up/restore to a customer-provided storage manager.
- Global dictionary/multi-ACD reporting—provides transparent views of agents regardless of which switch they may log into.
- Multiple call work codes in call records—allows customers to track multiple services/actions for each call.
- Enhanced Avaya Business Advocate reporting—provides additional tracking for work time reserve agents.
- Increased best service routing (BSR) applications support—now supports up to 511 BSR routing plans.
- Support for up to seven-digit dialing—for large contact centers, Avaya CMS will now support extensions of up to seven digits.
- Increased number of trunk groups supported—from 666 to 2,000 per largest ACD (Avaya S8700 Media Server); 8,000 across ACDs.
- Increased trunk capacity from 20,000 to 40,000 across ACDs.
- Increased limit for agent-skill pairs—now supports up to 100,000 agent/skill pairs.

In addition, an optional forecasting package allows customers to use trended data and “what if” growth scenarios to forecast the number of agents and the economic effects of staffing and abandoned calls. The High Availability system provides a fully redundant backup Avaya CMS that works with a primary Avaya CMS to help prevent data loss caused by maintenance and upgrade activity or by failure of system components. Avaya CMS helps customers evaluate the performance of one agent, a group of agents, a single contact center or multiple locations around the world. The system is suited for a complete range of from small single-location contact centers to large multilocation applications.

Contact Center Analytics

Avaya Contact Center Analytics, based on Avaya Operational Analyst, provides contact center real-time performance monitoring, historical reporting and analytical system for middle market and enterprise businesses. With a simplified real-time reporting architecture for multisite enterprise operations, Contact Center Analytics functions as the operational data store and contact center performance analysis system for voice, e-mail, Web and self-service customer interactions. Contact Center Analytics is also an optional add-on to Avaya CMS that provides extended online historical data storage and multisite analysis, pulling External Call History data and 30-minute summary interval data from up to 30 CMS systems representing up to 240 Avaya Communications Manager systems.

The Customer Interaction Suite analytics provide a total view of customer contacts and future opportunities that can complement and extend capabilities for providing complete voice, e-mail, Web and self-service channel reporting and analysis. A key feature is the ability to enhance the value of CMS by aggregating data and increasing long-term storage from multiple CMS systems. This consolidated business intelligence platform enables users to transition from single-channel analysis to full multichannel analysis across multiple sites and vendor platforms. The reporting and analysis capabilities of Avaya Contact Center Analytics are built on five main integrated components:
Avaya Contact Center Solutions for the Enterprise

- **Customer Interaction Repository** features a common catalog of detailed customer data that can contain e-mail or Web chat data from Enterprise Contact Center and voice data from Contact Center Reporting and Call Management Systems.

- **Real-Time Event Subsystem** collects and processes real-time events, including data from multimedia channels and agent desktops, then processes them to provide comprehensive and consistent real-time reports across all channels. In addition, different views of real-time data are provided, including the current 30-minute interval and up to four user-defined 24-hour views.

- **CMS Data Collectors** interface with up to 30 CMS systems, potentially representing 240 ACDs, which can collect historical interval data and data from the External Call History feed to provide an integrated view that makes use of established CMS information.

- **Basic Report Package** is designed for contact center supervisors with performance and task-level priorities. A browser-based interface provides reporting across all channels, with data presented in clear three-dimensional graphics for enabling rapid recognition of exceptions.

- **Advanced Report Package** is designed for sophisticated users and business analysts who need to track key historical performance indicators and trends for operational improvement. A browser-based interface provides data in analytical Online Analytical Processing (OLAP) “cubes,” which are multidimensional graphic representations of data that can be “sliced and diced” with straightforward graphical tools to produce various perspectives on the data.

- **Data Export API** is designed to allow both real-time and historical customer interaction data to be easily shared with enterprise or workforce management applications. Using Data Export allows businesses to export data from the common Customer Interaction Suite reporting framework to third-party workforce management applications, wallboards or agent performance management dashboard applications.

Operational Effectiveness: Avaya Agent Performance

Through partnerships and reseller relationships that typically include research and development investment, Avaya provides a full range of contact center support applications derived from reseller relationships that include:

- Workforce Management—with Blue Pumpkin
- Call Recording—with Nice
- IP Call Recording—with Witness ContactStore

Pricing

The price per agent for software solutions typically ranges from US$1,000 to $5,000, depending on configuration and options.

GSA Pricing

Yes.

Competitors

Avaya Customer Interaction Suite competes with CRM solution and infrastructure providers, such as the following:

- Alcatel
Avaya Contact Center Solutions for the Enterprise

- Apropos Technology
- Aspect
- Cisco
- Genesys
- Interactive Intelligence
- NEC
- Nortel Networks
- Rockwell FirstPoint Contact
- Siemens

In addition, outsourcing can be a financially attractive alternative for enterprises new to formulating business strategies that require implementing contact center technology.

Strengths

- Vertically integrated, industrial-strength contact center applications, infrastructure and services offer one-stop shopping.
- With more than 22,000 contact center installations, Avaya has proven systems integration expertise.
- Avaya’s IP Telephony, global services and networking experience complements its product line and is especially advantageous when customers require the design and implementation of large-scale multisite contact center solutions.
- Comprehensive end-to-end contact center solutions that are supported by a common reporting and analytical environment that simplifies reporting of both real-time and historical interactions.
- Avaya has a modular, open standards, multivendor, multiplatform approach to the marketplace.

Limitations

- As with any customer relationship management initiative, successful implementation of Avaya’s rich applications suite is dependent on the enterprise business strategy as well as technical and organizational considerations. Therefore, the request-for-quotation process should include rigorous criteria to evaluate those organizations that can provide both proven system integration and professional services expertise.

Recommended Gartner Research

Gartner Call and Contact Centers: Comparison Columns, DPRO-89875

Avaya ECLIPS IP Products, DPRO-97644

Insight

Avaya continues to expand its enterprise contact center solutions and capabilities while also tackling the challenge of communicating the substantial value it delivers to the marketplace. No one company has such depth and breadth of applications and infrastructure capabilities with the services and partnerships to put it all together, which reinforces Avaya’s quest to expand its prominence in the contact center market.

Gartner Research
© 2003 Gartner, Inc. and/or its Affiliates. All Rights Reserved.