DATAMONITOR

Proving the Value of Speech Technology in the Contact Center

Myths vs. reality

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ABOUT DATAMONITOR

Datamonitor plc is a premium business information company specializing in industry analysis.

We help our clients, 5000 of the world's leading companies, to address complex strategic issues.

Through our proprietary databases and wealth of expertise, we provide clients with unbiased expert analysis and in-depth forecasts for six industry sectors: Automotive, Consumer Markets, Energy, Financial Services, Healthcare, Technology.

Datamonitor maintains its headquarters in London and has regional offices in New York, Frankfurt, Hong Kong and Japan.

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INTRODUCTION

In response to increasing competitive pressures, businesses today are sharpening their focus on key contact center technologies to effectively compete on the customer service front, while providing the greatest possible returns through cost reduction and greater revenue. At the heart of these investments is self-service technology in the forms of DTMF-IVR, speech-enabled IVR and web-based self-service. Although all three types of self-service technology offer compelling benefits for contact centers *over 95% of customer interaction occurs over the phone* according to a recent Datamonitor survey. Therefore it is prudent for contact centers to examine opportunities for enhancing phone-based self-service automation and self-routing functionality in order to better serve the vast majority of their customer base. In many business cases the speech-enabled IVR provides just that.

Yet contact centers remain in a conservative technology investment climate. Faced with tightened budgets, contact centers have become shrewder in their investments, purchasing only those technologies that yield measurable ROI benefits. Contact center technology decision-makers are thus faced with the question, 'does speech self-service technology provide enough tangible benefits to create a business case for investment today?'

This white paper looks to answer that question by enabling readers to:

- Understand the different forms, functions and benefits of phone-based self-service technologies
- Map key market drivers and business requirements for investment in speech self-service solutions
- Differentiate between the popular myths and reality of speech self-service
- Consider the value of speech technology as a viable self-service solution
- Gain detailed insight into an industry leading speech self-service solution

DEFINING SELF-SERVICE

Datamonitor broadly defines self-service technology as *a tool that enables customers to access information and conduct transactions without the assistance of a live agent*. At the same time, phone-based self-service technologies also enable customers to be routed to the right type/level of agent, as customers are able to filter through several layers to narrow the scope of their specific query or transaction. In doing so, customers provide agents with the data needed to aid in the completion of a transaction more quickly and efficiently. Phone-based self-service solutions in today's contact centers include one or a combination of the following technologies:

- **DTMF-IVR –** This technology is used for both routing and self-service functions. Customers interact with the touch-tone keypad, pre-recorded messages and/or text-to-speech personas to access information, conduct transactions and self-route to live agents.

- **Speech-enabled IVR –** Within the contact center, a speech-enabled IVR utilizes network-based speech recognition engines and applications layered on top of an IVR platform. It is typically used for information access, transactions, self-routing and enhanced self-routing through the use of natural language understanding (NLU).[1]

Comparing DTMF- to speech-enabled IVRs

With the majority of customer interaction occurring over the phone, it is important for contact centers to understand the benefits and limitations of both DTMF- and speech-enabled IVRs from both the contact center and customer perspective. This enables the contact center to paint a complete portrait of both technologies. The following figure provides a matrix comparison of functionality, capability and usability metrics for DTMF- and speech-enabled IVRs.

[1] Technology that identifies the intended meaning of a string of words

Figure 1: Comparative matrix of DTMF- and speech-enabled IVR

	DTMF-IVR	Speech-enabled IVR
Functionality	• Self-routing • Self-service	• Self-routing • Self-service • Enhanced self-routing through NLU
Capability	• Limited to keypad • Long menu prompts • Supports multiple applications	• Complex transactions • Quick information input • Supports more applications
Usability	• Long heritage • Customer familiarity • Password security	• Speech is natural • Greater appeal • Hands-free • 'On-the-move' flexibility

Source: Datamonitor DATAMONITOR

While both technologies provide significant cost and performance benefits for the contact center it is speech that provides more benefits than DTMF as shown above. The following highlights the primary advantages and disadvantages of a speech-enabled IVR and DTMF-IVR in both customer and contact center settings:

- **Ease-of-use** – *From the customer standpoint,* speech technology significantly extends the automation vocabulary beyond the 30 alphanumeric characters on the touch-tone keypad. As a natural form of communication, speech provides customers with greater flexibility to just speak their choices rather than having to wade through several long menu-prompts thereby enhancing the caller experience for the customer. *From the contact center perspective,* speech can automate a greater number of inquiries and therefore can translate into greater cost savings for the contact center.

- **Customer familiarity –** *From the customer perspective,* for over twenty years DTMF 'power users' have interacted with a touch-tone interface. It is possible that the addition of speech may alienate a handful of these 'power users'. For example, many customers have memorized the numerical patterns and menus of their retail banks and are able to navigate through the system with incredible efficiency and speed. *From the contact center perspective,* unsatisfied customers may lead to an increase in zeroing out to live agents, customer dissatisfaction or even customer churn. That said,

speech applications – if well designed – are very natural and intuitive to use, and for most 'power users' the transition should be fairly simple.

- **Complex transactions –** *From the customer standpoint*, speech technology enables customers to conduct more complex transactions such as address change or employee benefits enrollment by interacting with a voice user-interface (VUI) through vocal commands. With DTMF-IVRs these types of transactions are arduous and awkward as it is limited to the 12 buttons on the touch-tone keypad. *From the contact center perspective,* this means that agents are freed up to take higher value revenue generating calls and complex inquiries to increase customer satisfaction and customer retention.

Even though DTMF-IVR supports many of the same applications as that of speech technology – speech, many times, presents a stronger value proposition for both contact centers and customers. As such, a growing number of businesses are investing in speech to improve customer service, reduce costs and increase their top-line revenue according to a recent Datamonitor survey of 200 US-based contact center mangers.

WHAT'S DRIVING INVESTMENT IN SPEECH SELF-SERVICE

Business requirements alone have not spurred investment but it is the combination of both market drivers and business requirements that have driven investment in speech technology. The following identifies the market drivers that along with customer service improvement, cost reduction and profitability growth have triggered spending on speech solutions:

- **More favorable economic conditions and improved IT spending** – The global economy has improved, resulting in increased cash flows freeing up spending on IT purchases.

- **Greater availability of speech technology from more vendors –** The burgeoning speech market has not gone unnoticed and the relatively nascent market has attracted hundreds of vendors, thereby increasing the market reach and variety of speech solutions available in the market.

- **Wider acceptance of open-standards such as Voice-XML and SALT** – Voice-XML and SALT simplify application development by providing common

programming architectures and interchangeable tools while enabling contact centers to leverage their existing web investments. Moreover it segregates the IVR layer from the applications layer providing flexibility and investment protection for contact centers.

- **Increased visibility on the value and benefits of speech applications** – There have been a growing number of benchmark and ROI studies from past deployments that support the promised claims of speech technology. Many vendors are communicating and marketing these case studies and benefits to end-users.

- **Broader appeal to new markets** – With the increasing number of vendors offering speech solutions, it has opened up new markets as different vendors target different verticals.

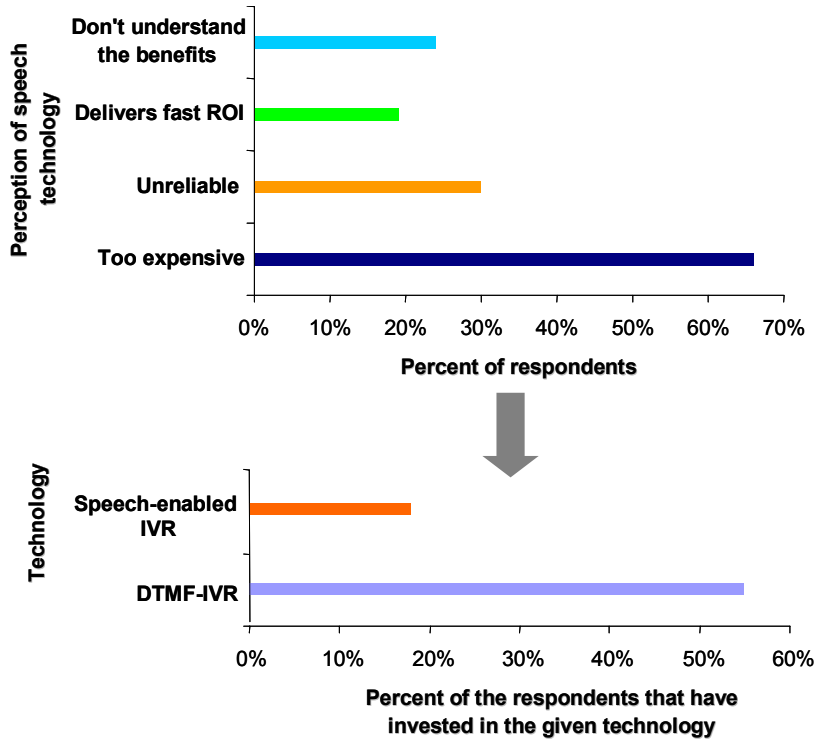
- **Better, more commercially viable speech technology –** Vendors from all segments of the voice business value chain have vastly evolved since their earlier days of business in the 1990s. Since then vendors have been able to create best practices and have accumulated substantial intellectual property for more dependable, robust and commercially viable solutions.

With market drivers and business requirements driving investment in speech technology and services, spending is forecasted to grow from $800 million in 2003 to roughly $1 billion in 2004, according to Datamonitor. And in the next three years, spending is expected to grow to roughly $2.4 billion by the end of 2007.

…and what's holding it back

Although investment in speech technology continues to increase with each passing year, speech self-service is not yet widely deployed in contact centers. Based on findings from a recent Datamonitor survey of over 200 US-based contact centers, the following figure captures the primary reasons why businesses have not invested in speech technology. As illustrated there is a low adoption rate of 18% for speech technology among current phone-based self-service investments. In contrast over 55% of respondents indicated investment into DTMF-IVR. In fact, the same study found only 70% of respondents perceived speech technology to be an enabler of self-service, while 86% viewed DTMF-IVR as a self-service technology.

Figure 2: Inhibitors and current phone-based self-service investments



Source: Datamonitor DATAMONITOR

The primary reasons illustrated in the figure above stem from the lack of market awareness on the actual business benefits and value of speech self-service in the contact center. This lack of awareness has served to perpetuate several popular myths that have promoted inaccurate and negative views of speech technology. However, given these factors, Datamonitor still forecasts a significant uptake in speech through the next several years as the misconceptions of speech are clarified and the true value and benefits of this technology are more clearly defined to businesses.

MYTHS VS REALITY

Since the mid-to-late 1990s speech technology vastly improved but market perception did not. As a corollary, a number of businesses have negative views of speech – and from these stemmed several myths associated with speech technology. Yet many of

these myths originated from early speech deployments and findings prior to 2003. The bottom-line is – times, technology and expertise has changed and what was once true is not true anymore. The following discussion highlights, analyzes and debunks the top eight myths associated with speech technology in the global market.

Myth #1: 'Speech is not a commercially viable self-service solution.'

Origins: Negative views associated with speech technology stem from earlier immature speech initiatives that did not deliver the expected results. Much has been learned about the elements needed for an effective speech application such as an advanced VUI design that takes into consideration many of the same characteristics as an effective live agent-based interaction. For example, an early and poorly designed speech application is Sprint's 'Claire', which subsequently underwent a VUI face-lift as customers complained about the voice persona's over-enthusiasm even during times of customer frustration such as billing errors and service disruption. The poor VUI and call flow design of this implementation did not represent the nature in which an agent would have interacted given the same situation. This essentially alienated many customers that were already dissatisfied with service levels. There are many other examples of poor VUI design and best practices have developed immensely off of similar poor design.

Reality: The result of this gained expertise is that speech has become a commercially viable self-service solution in the past couple years. This is evident in the growing number of satisfied end-users, ROI benchmark data and case studies that pinpoint quantifiable results. Over 90% of respondents in a recent Datamonitor survey, indicated the top three most impacted results, from a speech self-service implementation, were customer satisfaction rates, profitability and agent morale. In addition, vendors have been able to create best practices and leverage their expertise and experience to create solutions that are tailored to both business and technical requirements. The average ROI for a speech solution currently ranges from 9-12 months according to Datamonitor. With greater uptake in speech technology and even further improved best practices the ROI timeframe will further decrease. ROIs in as short a time as six months are not unheard of. For example, Aspect's customer British Airways reported an ROI within 6 months in a press release from February of 2003.

Myth #2: 'Customers don't like interacting with machines.'

Origins: Poor VUI and call flow design have hindered some customers from proactively engaging speech systems for transactions, queries and account management. A good example of this is Sprint's 'Claire', mentioned previously in this

paper. When there are poor design features in a speech application, contact centers will undoubtedly experience a rise in customer dissatisfaction, zeroing out and a decrease in first-call resolution rates. Early speech deployments, which had several drawbacks, created a negative image of speech technology. In addition, the poor design of many DTMF-IVR applications has also marred customers' perception and experience with phone-based self-service automation altogether.

Reality: Speech technology provides a more human-like interface that delivers consistent levels of customer service to callers 24x7. Whereas live agents can be moody and most DTMF-IVR applications tend to sound robotic, a VUI exudes a friendlier, more personable tone than DTMF-IVR. Studies have shown that customers actually prefer speech to DTMF-IVR because it is quicker and easier to use. This has resulted in increased customer satisfaction levels as a result of speech self-service implementation, according to a recent Datamonitor survey. In fact, based on survey results Datamonitor estimates that 80% of customers prefer interacting with a speech-enabled IVR as opposed to a DTMF-IVR system. Customers are often able to find out information and conduct transactions faster with speech than either DTMF-IVR applications or waiting in queues to speak with a live agent.

Myth #3: 'Speech solutions are complex and expensive.'

Origins: Speech applications are perceived to be very expensive and complex for a number of reasons. First, relative to DTMF applications, speech applications are more expensive to develop, as they require specialized skill sets. Secondly, in the past, speech applications had limited reuse of application assets, which further drove application development costs higher. And finally, because speech technology is an emerging technology, the availability of expertise has been limited. As a result, resources were less plentiful and more expensive.

Reality: Downward pricing pressure from increased competition, commoditization and the emergence of open-standards platforms have helped create favorable pricing for contact centers. In fact, Datamonitor estimates that on the platform level average prices per speech-enabled IVR port have decreased 30% since 2000. While on the application level, packaged applications and modules have surfaced in the market providing for application asset reuse while dramatically decreasing application development time and costs for contact centers. Also, open-standards-based applications and platforms decrease complexity for maintaining a speech solution as they provide common programming architectures and interchangeable tools for developers. And, finally, speech experts have developed a larger body of knowledge in developing applications and are able to accomplish goals faster and more

efficiently. All these factors have helped make speech technology more affordable and less complex for contact centers.

Myth #4: 'Speech is an unreliable solution for phone-based customer service.'

Origins: Many factors contribute to poor speech technology performance. These include inadequate monitoring tools, accents, languages and background noise. Past deployments of speech solutions showed a higher margin of error due to ineffective monitoring, poorer speech recognition and faulty integration with existing contact center components.

Reality: Speech technology has consistently improved with each passing year. On the speech engine level vendors have recently benchmarked speech recognition accuracy rates at over 99%, taking into account accents, background noise for both far-field and near-field devices and support for over 40 known languages. Paralleling the improvement of speech recognition are development and monitoring tools that have also matured. These provide contact centers with increased resolution on speech application performance. With visibility into performance, contact centers are then able to finely tune the areas that need improvement whether it is the speech recognition engine, call flow and/or VUI. Problems that stem from faulty integration with existing contact center components can be averted by choosing a vendor that provides a comprehensive contact center technology suite which includes switches, routers, speech systems and monitoring tools.

Myth #5: 'Investing in speech enablement means sourcing technologies from numerous different suppliers and managing multiple vendor relationships.'

Origins: In the past, many contact centers have had to manage relationships with multiple platform, engine, applications, consulting and system integrator companies and other contact center technology vendors in order to maintain a single speech self-service solution. A challenge for many contact centers was choosing the right vendor partners that shared the same forward-looking philosophy, as many speech vendors lacked significant 'brand' recognition and contact center heritage.

Reality: Vendors with long heritage and 'brand' recognition in the contact center, such as Aspect, are rolling out comprehensive integrated suite solutions complemented by strong partner ecosystems that expedite speech development and deployment cycles. This takes the headache out of cobbling together multi-vendor solutions and truly enables a best-of-breed speech solution for contact centers.

Myth #6: 'In-house grassroots developers can handle speech application development and design.'

Origins: Many contact centers feel that their in-house IT staff can develop adequate speech applications at lower costs than third party vendors. This stems from the structural design of Voice-XML and SALT, which are based on customary programming languages such as HTML, XHTML and XML. From management's perspective why should contact centers delegate application development to a third party when their internal staff can easily learn Voice-XML or SALT? Another contributing factor to this myth is that the vast majority of speech implementations in earlier years were from contact center outsourcers, retail banks, investment institutions and service providers. Many of these companies that have existing speech solutions also have a dedicated in-house staff focused on developing, maintaining and optimizing speech applications. Not only do these large companies have the resources to support these operations but branding is a key component of their marketing strategies, predicating the need for custom-built applications and VUIs to support their corporate marketing objectives. With in-house developers they are able to facilitate this more efficiently and cost effectively.

Reality: Most companies do not have the resources of large enterprise and service provider companies. But most companies do have an internal IT staff. It is important to note that although the complexities of application development, integration and maintenance of speech technology have decreased with open-standards platforms, VUI and call flow design have not. Accordingly, in-house grassroots developers that have the ability to code in Voice-XML or SALT will typically not have expertise in VUI and call flow design. The success of a speech deployment is highly dependent on the design of the VUI and call flow, as these are among the front-end mechanics of phone-based customer service. Most companies should leverage tools, packaged applications and modules as well as professional services from third party vendors that have the expertise in these application development and design practices. This will ensure a speech solution that will have the desired effects on customer service levels, cost reduction and workforce productivity.

Myth #7: 'Speech only serves the needs of the niche large enterprise and service provider markets.'

Origins: The most notable speech deployments for the past several years have been those of Fortune 500 companies where the frequency of annual calls range from the hundreds of thousands to the millions. And the majority of these companies can be categorized as financial services institutions, travel and tourism organizations, outsourcing bureaus or communications companies that have deployed hundreds to

thousands of speech-enabled ports. Larger deployments will obviously yield greater ROI benefits than those of SME companies and therefore attract more press coverage, ROI benchmark analysis and case studies. This greater visibility of speech deployments by top tier companies heavily influences smaller companies' perceptions and serves to prolong this myth that speech only serves the needs of the large enterprise and service provider niche market.

Reality: A main objective of the entire speech industry is to embed speech technology into a company's enterprise IT infrastructure. As such, speech would become a primary self-service technology in a contact center's CRM strategy and also internal processes such as employee management, sales force automation, field-services, IT helpdesk and corporate directory to name a few. To this end, speech supports several applications and processes that are inherent in most organizations. With open-standards platforms and packaged applications, such as auto-attendant and PIN/Password reset, delivering pricing and functional flexibility for SME companies, new markets are opening up for speech technology both inside and outside of the contact center.

Myth #8: 'Speech solutions are built on proprietary hardware and software.'

Origins: Currently the vast majority of speech deployments are traditional speech-enabled IVRs that are built on proprietary hardware and software platforms. As such, contact centers have associated speech solutions with proprietary solutions.

Reality: Open-standard Voice-XML and SALT platforms are now fully endorsed by the speech industry. In fact, all incumbent traditional IVR vendors now support Voice-XML and/or SALT, liberating customers from proprietary solutions while also providing effective migration paths from traditional to open-standards solutions for their installed base. With the industry moving forward with open-standards, the next ten years will witness a gradual phasing out of traditional IVR systems. However there will be a continuing need for proprietary extensions within open-standards platforms that enable highly complex call flow design, which only a select few vendors can currently provide. While speech solutions were built on wholly proprietary platforms in the past, current and future market solutions are built on open-standards-based platforms.

Market perceptions of speech technology have indeed been affected by several prolonged industry myths; however, a closer look at the market reveals that certain verticals have different biases and perceptions of speech technology.

PERCEPTION OF SPEECH TECHNOLOGY BY VERTICAL

Many vertical markets share common views of customer service needs and competitive differentiation; as such, these verticals can be grouped as they also share similar market perceptions of speech technology. The following highlights the current applications being deployed in the marketplace as well as the market perception of speech technology among different verticals:

- As the early adopters, Financial Services, Communications, Outsourcing Bureaus and Travel & Tourism verticals share positive market perceptions of the value of speech self-service as they have deployed hundreds of applications over the course of several years. Companies in these verticals have successfully deployed various horizontal speech applications such as auto-attendant, personal information manager, locational services and billing. Currently there are an increasing number of more vertically tailored speech applications that include account activation/enrollment, ATM/branch locator, rate finder, flight status and booking being deployed in these verticals. As these businesses further develop best practices in deploying speech applications in the contact center they will be able to automate more functions across multiple operations to increase efficiencies and reduce costs.

  Datamonitor recommends contact centers in these verticals invest in horizontal and vertical speech applications for customer care and transactional functions in the short-term while determining other areas in the enterprise such as sales force automation, field force automation, helpdesk services and employee benefits enrollment where they can leverage the benefits of speech technology for mid- to long-term investments.

- The Healthcare & Pharmaceuticals and Utilities verticals have only recently begun to realize the potential upside of utilizing speech self-service in the contact center. Their current market perception on the benefits of speech is thus mixed due to the relative infancy of speech solutions in their respective markets. However, penetration of speech in these verticals is increasing at a tremendous rate of over 32% per year, as speech is a good fit to the customer service needs of businesses in these verticals. Deployments in these markets tend to have a blend of horizontal and vertically tailored solutions. Applications typically include auto-attendant, billing, patient eligibility, prescription refill, claims filing/status, coverage verification, ticket management and meter readings.

Datamonitor recommends businesses in these verticals invest in horizontal applications for customer care and transactions in the short-term and gradually automate functions with vertical applications in the mid- to long-term. By perfecting speech automation within a few customer touch points the contact center is then able to successfully introduce more complex transactional vertical-specific speech applications in the mid- to long-term.

- Entertainment & Media, Government, Transportation & Logistics, Technology and Retail, have not deployed speech as widely as the early adopter verticals. As such, companies in these verticals are not as experienced in speech and thus market perceptions of speech are typically skewed. Currently, most speech deployments provide basic, yet highly valuable functionality such as auto-attendant, billing and order management.

  Since speech is not widely deployed in these verticals, Datamonitor recommends contact centers to develop best practices with the auto-attendant, billing and order management applications in the short-term before graduating to more complex vertical-focused applications. As contact centers become more familiar with speech solutions they should then look to deploy more complex vertical applications such as voice authentication, returns/exchanges and troubleshooting in the mid-to long-term

- The Education and Manufacturing vertical markets have a small number of existing speech deployments to date, such as phone directory and order management applications. Thus, market perception of speech is almost non-existent in these markets.

  As such, Datamonitor recommends contact centers in these verticals analyze the performance of deployed horizontal speech applications in other vertical markets while evaluating and piloting simpler speech applications. This will provide institutions with the necessary experience before deploying on a wider scale across the enterprise in the mid- to long-term.

By analyzing the impact of speech deployments in various vertical market settings and identifying areas where speech automation can improve customer service and costs, a contact center can better identify if and when it should implement a speech self-service solution. Speech self-service is not a necessary investment for all contact centers but it is a technology that, if leveraged wisely by an enterprise, can result in greater success over competition. The following discusses the impact of speech technology and the value it brings to contact centers that have leveraged speech self-service to meet business requirements.

UNLOCKING THE VALUE OF SPEECH SELF-SERVICE

Creating a tangible performance tracking method enables contact centers to fully understand the impact of speech self-service on business practices. The following provides a scenario that pinpoints tangible performance metrics for ROI analysis of speech self-service.

Scenario:

- A contact center[2] with 40 agent positions averages call volumes of 700 calls per hour, call handling times of 180 seconds and hold times between calls of 25 seconds.
- Automation with DTMF-IVR is set at 20%.
- Given an average agent salary of $10 per hour and 12 cents per minute toll costs, the contact center is spending over **$2,000,000** per year for agent salary and roughly **$431,000** on toll costs. This will place annual salary and toll costs to just over **$2,431,000**.

With the deployment of speech technology, the contact center positions itself to transform its performance and overhead cost allocation. Upon implementing a speech solution the contact center could increase automation rates from 20% to 40% of incoming calls and that can trigger several benefits. So what does this mean for the contact center?

- **Improved customer service** – With increased automation rates, lower queue times and a reduced number of zeroed out calls to agents, customer service has improved. Analyzing these customers' patterns will be a strong indicator of the outcome of customer surveys and interviews, which are the most effective way of gauging customer service. Moreover the delivery of customer service will improve as well, as agents are liberated from the low-level mundane calls which adversely affect agent morale and are freed up to service more interactive higher-value calls with a more positive attitude.

[2] Assuming the contact center has invested in CTI.

- **Cost reduction** – Labor accounts for 60% to 70%, depending on the function of the contact center, of a typical Western European and US contact center's operating expenditures, hence cost reduction on this level is a logical step to reduce overhead costs. Whether positions are terminated or redeployed to more productive tasks, reducing agent staffing is a likely outcome for many contact centers. With speech front-ending 40% of calls, 40 agent positions may now be too large of a number to service customers cost effectively. Therefore the contact center could reduce the workforce by 6 agent positions without jeopardizing the integrity of customer service. This saves the contact center over **$300,000** a year in agent staffing. Toll costs are also reduced yielding cost savings from operational efficiencies. Customers are able to manage their accounts and conduct transactions quicker and easier with speech. As a result, average hold times drop almost 50% from 25 seconds to 13 seconds. This saves the contact center over **$25,000** per year. Call handling time is also reduced from 180 seconds to 160 seconds saving roughly **$50,000** for the contact center on an annual basis. Prior to deploying speech, agents handled 4,905,000 calls a year, but with speech, this number drops 14% to 4,292,000.

- **Improved bottom-line** – The contact center stands to save roughly **15%** or **$375,000** per year with the use of speech self-service. As the contact center begins automating more functions with speech, annual savings will increase as well.

Datamonitor expects that speech self-service will become an overarching necessity in the contact center as it continues to decrease costs, improve customer service and increase bottom-line growth. In fact implementing an effective self-service strategy that incorporates several speech applications can present a long-term alternative to enterprises offshoring their CRM operations.

THE ASPECT APPROACH

For businesses, success in speech self-service is highly predicated on choosing the right speech vendor that has the following qualities:

- Proven experience in speech self-service
- A deep understanding of contact center operations and business practices
- A strong partner ecosystem
- Several key customer references

Yet with the large number of speech companies in the market it is often difficult for businesses to identify the vendor that meets these criteria by examining product marketing jargon, technology differentiators and pricing methodologies.

Aspect offers a unique and simplified approach to speech self-service. The company provides solutions that unify the contact center and the enterprise with integrated applications that enhance customer communications, capture critical customer and contact center information, and improve workforce productivity. In doing so, Aspect brings a unique infrastructure to businesses.

Datamonitor sees Aspect as a leading provider of speech solutions and services in the contact center. For two decades Aspect has focused exclusively on the contact center and has built a reputation in this space borne out by its top-tier client list. Their speech-enabled IVR, Aspect Customer Self-Service (CSS), is an open-standards compliant platform that provides application flexibility and complex call control functionality. From a product and service perspective, Aspect's extensive contact center experience enables it to better understand the business processes involved in aligning speech applications with business objectives within the day-to-day operations in the contact center. And complementing its CSS offering, Aspect has partnered with leading speech vendors and systems integrators to provide their customers with greater depth of services and technology.

ONE-ON-ONE WITH ASPECT

To better understand the Aspect approach to speech self-service Datamonitor interviewed Aspect's Product Marketing Manager, Elizabeth Magill, in an effort to identify the benefits and value of speech self-service from a vendor perspective.

What does Aspect offer in terms of speech-self service?

Aspect offers the Customer Self-Service (CSS) platform, a state-of-the-art, open IVR platform that includes the advanced capabilities that make building and using self-service applications a positive experience:

- VoiceXML development capabilities allow CSS users to choose between building applications using a feature-rich graphical development interface, pure VoiceXML, or a combination of the two.
- Speech-recognition capabilities allow customers to simply speak their requests rather than using the touch-tone keypad to enter information. This is not only a more intuitive interface, but it is also more flexible, and enables more interactions to be automated.
- Text-to-speech enables self-service applications to deliver many kinds of information to customers, including information that changes too frequently to make recorded responses practical.
- Voiceprint identification keeps sensitive transactions secure without requiring customers to enter PINs and other identification numbers.
- Web and fax integration give customers more options in how they request information and how the information can be delivered to them.
- Connectivity with the Aspect Enterprise Contact Server allows call center to integrate with front- and back-office databases and includes data lookup and retrieval in call flows.

What are the technological advantages that Aspect CSS provides to customers?

One of the key advantages of Aspect's CSS platform is the way we have integrated Voice-XML into the product. Many other vendors created an entirely new interface based solely on Voice-XML and didn't blend it with their native development environment. Aspect took a different approach and rather than abandoning its robust,

effective and familiar development environment, integrated Voice-XML into that environment. What does this mean? It means that we provide our customers a choice of how to develop and deploy their applications so they can leverage the best technology for what they are trying to achieve. So, our customers can develop and deploy entirely in the native CSS environment—which means that existing CSS applications can be easily migrated from one release to the next, or, they can develop and deploy entirely in VXML, which allows them to take advantage of new technological advances, and makes the applications portable across VXML platforms. Finally, Aspect allows its customers to employ a hybrid model in which they leverage the proprietary CSS environment for its strengths—existing out-of-the-box integrations for call control, CTI, database access and fax capaibilities—and within the same application use VXML for the speech components of the application.

Aspect allows its customers to purchase just the CSS software for installation on hardware they may have in-house, or want to acquire on their own, or a "ready-to-roll," fully implemented solution of software and hardware. Competitors tend either to offer only a software only solution; forcing customers to do all the integration work themselves or find a vendor who can handle that. Or, they offer a system based on proprietary hardware, forcing customers into a technology silo and limiting their ability to redeploy equipment to other uses. Aspect, on the other hand, offers customers a choice. Some prefer to integrate their own solution and have a choice of the hardware it will run on, while others choose the turnkey system which we provide on industry standard Dell hardware, pre-integrated with Aculab cards.

Another nice feature of the Aspect solution is its ability to handle outbound IVR calls. We are finding that this is one of the 'surprise' areas of value for our customers. We have customers that are using the CSS platform to place routine outbound calls. These are calls that would have previously been handled by an agent, are simple, routine and fully automatable. So now, rather than spending hours calling out to do such things as confirm appointments, our customers are finding value in automating these routine tasks as well.

Another differentiating feature is our ability to do multi-lingual applications in a single workflow by simply setting the language within a given step. With many other systems, you have to write a completely separate workflow for each language thereby making application development and maintenance much more complicated.

How does Aspect differentiate itself from different self-service vendors?

Aspect is unique from other self-service vendors because we combine 20 years' experience in the IVR market with 20 years' experience in the contact center market. In 1998, Aspect acquired Voicetek, which had been a leader in the IVR market since its inception over two decades ago.

The marriage of IVR and contact center experience uniquely positions Aspect to provide our customers with the know-how required to develop and deploy an application that:

- Effectively offloads appropriate calls to a self-service environment;
- Front-ends an agent-based interaction with a self-service application so agent time spend is more productive;
- Ensures smooth transition between IVR and agent; and
- Allow customers to get to an agent when necessary.

These capabilities enable Aspect to ensure a successful deployment and maximize the ROI for our customers.

Moreover, Aspect CSS is a tightly integrated component of our overall suite of call center solutions.

- **ACD** – We have out of the box integrations with our ACD so that a call can be seamlessly routed from the ACD to the IVR and back again sharing a single call record.
- **CTI** – We also have out of the box integration with the Aspect Contact Server and Enterprise Contact Server so that data collected by the IVR can be passed to an agent.
- **eWorkforce Management** – Our eWFM product includes a module – based on Aspect CSS – that allows agents to call into an IVR to change their schedule. We are the only company to provide this application and functionality.

This means our customers have a single, tightly integrated contact center solution that allows them to provide seamless support to their customers, thereby enhancing

the customer experience and streamlining the costs associated with maintaining the system.

In your opinion, why is having a speech self-service solution important for contact centers today?

Most IVR deployments are done to reduce call center costs. By adding speech to a self-service solution, the contact center is able to automate more tasks, reaping additional cost reductions. But, even more important than the cost savings is that a well-designed speech self-service application will deliver improved customer satisfaction. This is achieved by:

- Reducing queue times
- Empowering customers to serve themselves
- Providing a 24x7, private, secure and intuitive way for customers to have their inquiries resolved

By offloading transactional inquiries, a contact center enables their agents to focus their time and effort on effectively and efficiently responding to customer inquiries that cannot be handled by an automated system. This provides both customers and contact centers with a win-win situation.

APPENDIX

Relevant links

www.aspect.com

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