Getting Speech Right

Six Keys to Better Customer Acceptance and Enhanced ROI

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OPTIMIZING CUSTOMER INTERACTIONS™

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Introduction

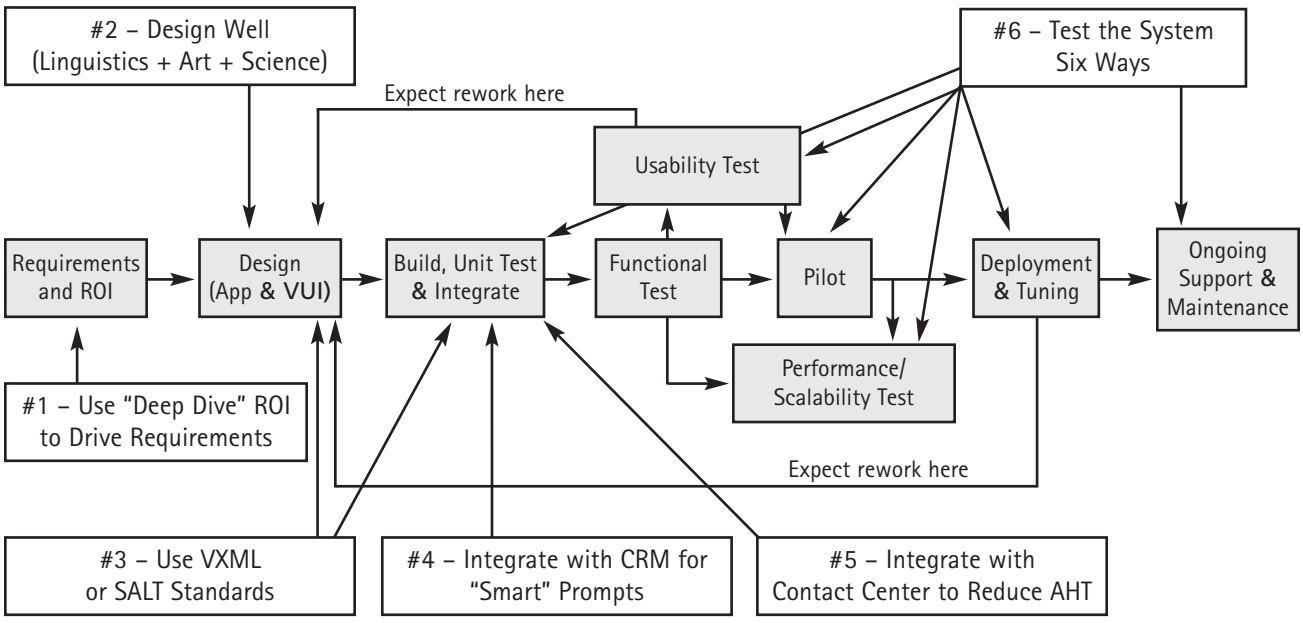
Speech recognition powered self-service has been around and stable for many years, developing from specialized use to more generic use in all service areas. Many companies have already implemented speech recognition based self-service. Many others are evaluating its potential. The goal of these companies is not only to reduce cost, but also to improve customer service. Encouraged by the success of Web-based self-service, these companies see potential in applying the same key principles of Web self-service to voice self-service, such as expanded services, richer content, and user-driven search.

Why, then, are companies still hesitant to offer a rich portfolio of Voice Self-Service options? It may be for fear of low acceptance and success rates. Poor customer acceptance and lower than predicted success rates (also known as "take rates") are often sighted when speech self-service isn't working well. The direct effect for some companies has been a return on investment (ROI) that is less than anticipated, and others have even decommissioned their speech applications. This risk prompts many to ask, "How do I get speech right for my company?"

The good news is that companies do not have to risk customer ire and poor ROI when adopting voice self-service. In fact, we've found that most of these problems stem from the fact that most speech applications are being developed as stand-alone applications, much like Web applications. When calling for service, however, customers expect, or rather **demand**, a seamless experience. Companies that can deliver on this expectation are greatly rewarded.

In this white paper we will share six keys to success for speech recognition based self-service. The keys capture those factors that must be considered from a business, functional, technical[1] and organizational perspective when implementing speech recognition based self-service. These keys can help you achieve better customer acceptance and enhanced ROI through a successful voice self-service implementation.

FIGURE 1: KEYS TO BETTER CUSTOMER ACCEPTANCE AND ENHANCED ROI IN THE SPEECH APPLICATION IMPLEMENTATION PROCESS



[1] *For a more technical discussion on speech recognition implementation, please refer to the white paper* Speech Recognition Redefines Self-Service*, available for download at www.eLoyalty.com.*

Key #1:
Use "Deep Dive" ROI to Drive Your Requirements

Let's assume you are looking to bring speech recognition self-service into your company. Investments are going to be required if you do not already have the speech recognition hardware, software, or human resources required. You may also need to invest to bring in specialized external resources to help you define and develop the application. In order to convince your company to invest in voice self-service you need a solid ROI calculation.[2]

Being able to accurately estimate the ROI will allow you to decide how to get the most value from the investment in voice self-service. But to do a good ROI for speech, you have to go deep. You can't merely use the number of incoming calls by a "SWAG" success rate. A reliable ROI will be based on the following data elements:

- The most common call types/call reasons
- The average handle time (AHT) for each call type
- The breakdown of AHT for each call type
- The current containment rate with your touch-tone interactive voice response (IVR)
- The estimated completion/containment rate with speech recognition, based on detailed analysis of input types, transaction complexity, and data availability
- The estimated reduction in handle time for opt-out calls for similar calls

The ability to collect and estimate this ROI-calculation data completely and correctly is key for a solid ROI and improved customer satisfaction. The value of this calculation cannot be overemphasized. We've seen companies begin implementation without solid data available as a base for the calculation. One consequence is that the returns are underestimated, with companies overlooking key areas to generate returns. With a robust ROI calculation in place, these companies would have been spared many headaches throughout the process and would have had a more profitable goal in sight for the project.

The Most Common Call Types and Call Reasons

Most contact centers have defined call types, or call reasons, and report on these consistently. Centers that do not have sophisticated reports today may ask their people to keep a "tally sheet" to start to better understand call types. It is important to get somewhat granular in detail. For instance, "Payments" may be too general of a call type. "Payment History," "Pay by Phone," and "Date of Next Payment" would be better call types.

The AHT for Each Call Type

Depending on how the call types are reported and how the case management and CRM system are integrated with the automatic call distributor (ACD), the average handle time can be reported quite easily. Both call time and after call work (ACW) time should be considered for this calculation. It is important here to avoid using a "blended average" handle time for all calls. Many calls, such as inquiries, are relatively fast, while others, such as complex transactions, take much more time. eLoyalty recommends the following as a good calculation for Average Handle Time.

$$AHT = TT + HT + ACW$$

(Average Handle Time = Talk Time + Hold Time + After Call Work Time)

[2]*If you have not yet decided whether or not to adopt speech recognition for self-service, an ROI analysis can also be useful in arriving at your decision.*

The Breakdown of AHT for Each Call Type

If possible, the breakdown of the average handle time within each call type completed within the call center should be measured. This allows a more precise ROI calculation. A typical breakdown of the call might be the following — the same call flow happens on almost all call types, whether someone just wants balance information, or they want to perform a complex order function or make a reservation:

- **Greeting**
  How long does it take to greet the customer?
- **Identification**
  How long does it take to identify the customer on the call? Do you have Automatic Number Identification (ANI)?
- **Call reason**
  What time has been spent until the call reason has been determined?
- **Verification**
  Some transactions might need different levels of verification and authorization of the account.
- **Gathering data from customer**
  What time is needed to collect the data needed from the customer to perform the transaction?
- **Researching data or performing transactions**
  The time for researching data necessary for the transaction within the information systems or performing the transaction. It is important to include hold time and hold reason in this calculation if applicable.
- **Conveying results to customer**
  How long does it take to report the results of the transaction to the customer?
- **Closing**
  The time required to thank the customer for calling and to say goodbye.

This data is not always available in contact centers so you might need to evaluate this before you start the ROI calculation. eLoyalty uses a specialized tool, The Loyalty Observer, to quickly gather, file, and report this information when we conduct ROI studies.

The Estimated Completion/Containment Rate with Speech

Estimate the completion or containment rate with speech to see how many calls will be reduced by using speech recognition self-service. If you are already using a traditional touch-tone IVR for self-service, the IVR completion rate will give you some hints for this estimation. Of course, this estimation is dependent on the functional capability of the speech application (i.e., what call types will be able to be handled within the speech application). Also consider, the higher the quality of the application, the higher customer acceptance (and usage) will be. This is an important link where the ROI drives the requirements for the application. eLoyalty's ROI tool uses a 10-point diagnostic to predict containment rate by looking at factors such as:

- How much data is required?
- Is the data numeric, alpha-numeric, or verbal?
- How easily could a "grammar" be built?
- How are similar transactions performed on the Web today?

The Estimated Reduction in Handle Time for Opt-Out Calls

We find that most companies underestimate the reduction in handle time for opt-out calls, or fail to consider it in their calculation entirely. A well-designed speech application can collect a lot of information. This is especially true if the application is integrated with your contact center and your CRM system using computer telephony integration (CTI). A benefit of this data and integration is the ability to "warm transfer" the opt-out caller to an agent with complete delivery of all data captured and steps completed in the IVR. This can significantly reduce the handling time of the opt-out call as the agent can continue with the call from where the self-service ended. It also improves the customer's experience, as he or she will not feel the portion of call in the speech IVR was time-wasted. We will cover this topic in more detail with Key #5: Integrate with Your Contact Center.

Key #2: Design Your Application for Real-World Usage

Each year at the industry conference SpeechTek, speech-application vendors compete by building speech applications from scratch in as little as four to six hours. This is possible as the application platforms already contain standard functionality and pre-built grammars that can be used. However, designing and building a *good* speech application that meets the unique needs of your business and will be broadly used by your customers takes substantially more effort and planning.

Good speech design is a combination of Linguistics, Art, and Science and will prepare your speech application for real-world usage with high customer acceptance.

Linguistics

First and foremost, you should use prompts that are easily and quickly understood so callers can respond. Not understanding the importance of linguistics in speech design can lead to design issues, such as in the following example.

FIGURE 2: SPEECH-RECOGNITION DIRECTORY SERVICE FOR A DEPARTMENT STORE

Speech App:	**"What department do you want?"**
Caller:	"Optical."
Speech App:	**"I think you said 'Optical,' if that is not correct, say 'No.'"**
Caller:	"Yes."
Speech App:	**"Cancelled."**
Speech App:	**"What department do you want?"**

Speech recognition engines can recognize the word "no" and its variations better than they can recognize affirmative responses, such as "yes." The designers in this example structured the dialog with the technology in mind, rather than the user. As a result, they made the unfortunate choice of phrasing the verification question (see the underlined phrase above) as a double negative to force a "no" response to the question. This makes the prompt unnecessarily complicated for the user. Also hindering usability, the application was not built to understand an affirmative response to this question. It was built on the assumption that anything other than silence inferred a "No" or negative response, resulting in the caller's cancelled selection in the example in Figure 2.

When designing a speech application from a linguistic perspective, focus on writing prompts that are intuitive, and think of all the natural responses people could give.

TIMING IS EVERYTHING

Also keep in mind, callers might answer a "Yes" or "No" question right away and probably will not wait for the "Now say 'Yes' or 'No'" prompt. Therefore, the application should have "barge in" functionality to be able to pick up these answers.

TEXT TO SPEECH

The appropriate use of recorded statements and prompts versus text-to-speech is another point you should keep in mind when designing the application. High-end text-to-speech packages today are actually very good at reading prepared text. This is most often less costly than hiring voice talent to record statements and prompts, as well as faster, allowing you to quickly deploy new prompts. There are times, though, when you want to use pre-recorded prompts and hire voice talent for your applications. An example would be when complicated terms might be read out incorrectly by the text-to-speech system.

Art

There is also an art to speech implementation that you might not have seen in your Web applications or CRM applications before. It is a good idea to make sure that you have some clever people working for you to design a smart speech application.

Look for "creative" ways to gather data or correctly guess results. Your speech application can often guess the likely information, based on CRM or common information fed into the system. For example, "Austin" and "Boston" sound similar to most speech recognition systems. If the caller has flown to Austin before or if Austin is a more frequent flight, an airline reservation system using integrated speech recognition could correctly guess "Austin." The guess might not always be right, but it is more convenient for the caller if he or she does not always have to repeat answers. In the event the guess is not correct, the caller can make the correction at a verification step. Designing a speech application is like designing a Web page for the blind. Voice user interface (VUI) designers must become attuned to the fact that the user has no more information to go on other than the words spoken by the application.

WHAT DOES YOUR COMPANY'S BRAND SOUND LIKE?

Just as we can all associate James Earl Jones' deep baritone with CNN, speech applications will give you the opportunity to reinforce your company's brand identity. You can influence the appearance of your company by choosing between a male or a female voice, between an old- or young-sounding voice, the voice can sound superenthusiastic or down-to-earth, the language can be formal or informal.

Science

There is also a scientific aspect of designing speech applications. All possible scenarios must be designed for in the application. The decision tree does not only need to be complete, without dead-end branches, but it also needs to take into consideration all response options.

While the speech engines continue to improve, some data is very difficult to gather with speech applications. For example, entering the e-mail address, Mike_Ashe@eLoyalty.com, the following dialog would occur: "M" — "Did you say 'M'?" — "Yes" — "I" — "Did you say 'I'?" — "Yes" and so on.

You should also design your speech recognition call flow with your directed-dialog applications in mind. Knowing that, for example, you only have six directed-dialog applications automated, you should avoid open-ended questions and instead narrow your prompts to get the caller to those directed-dialog applications.

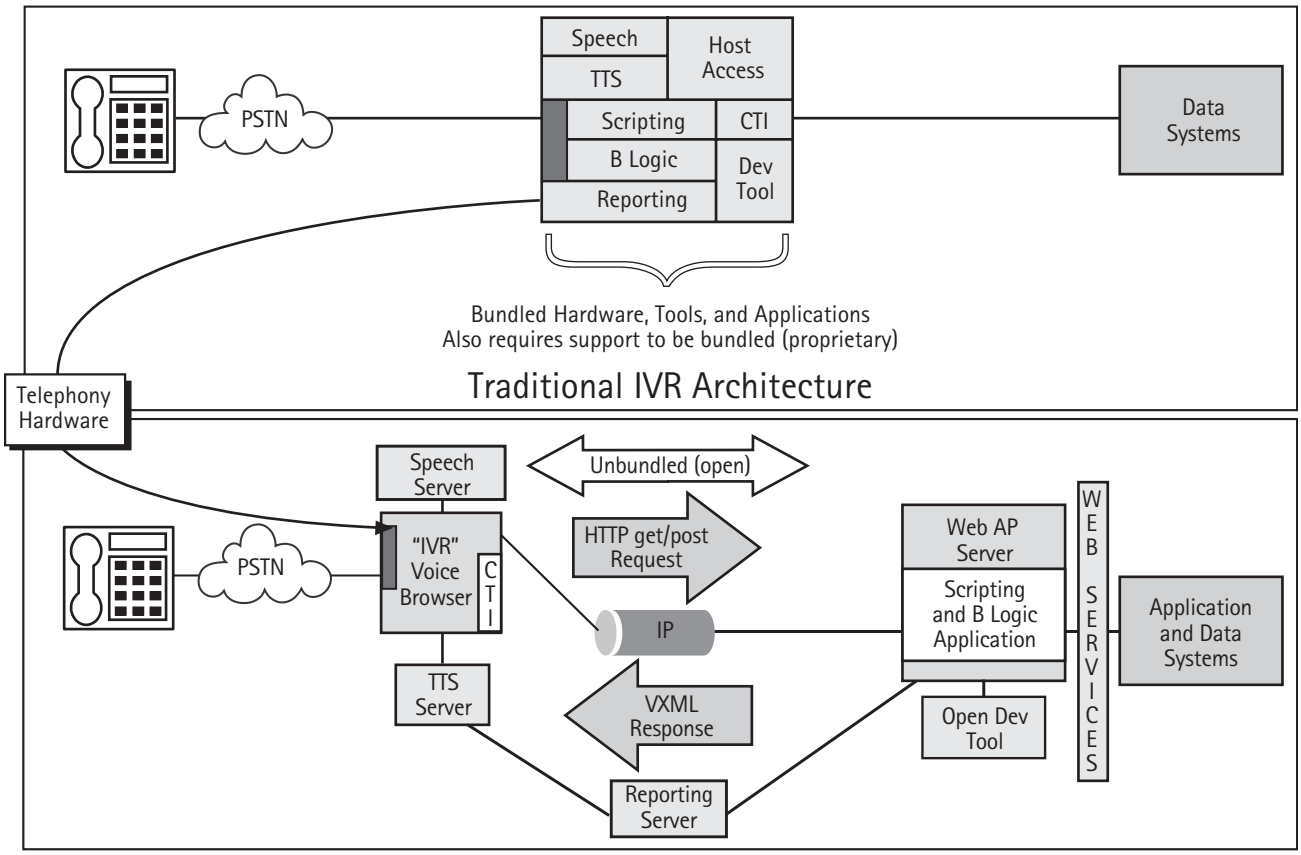
When you consider these points in your application design, your customers will use your speech recognition based self-service more frequently simply because they see that they can save time by using it and, hopefully, have an enjoyable experience.

Key #3: Use VXML or SALT Standards

As voice self-service technology matured in the recent years, we've seen standards like VXML and SALT emerge and evolve to set standards for speech application coding. As a result, it is easier than ever to develop and deploy speech applications. This phenomenon can be compared with what happened to the Web in the early 1990s. Once the tools and technologies were standardized (e.g., HTML protocol, standard Internet Browsers), we saw an explosion in growth of the Web as a low-cost alternative channel for all aspects of customer care (sales, service, and marketing). In addition, many vendors are now selling pre-configured applications for specific functions and industry vertical uses.

These standards also protect investments, as their use of Internet-like services architecture provides for inexpensive modular scaling and cross-vendor development tools and options. In this manner, investments in applications and host interactions can often be migrated between platforms and vendors without the complete rewrites or forklift upgrades that have been necessary in the past.

COMPARING VXML TO TRADITIONAL IVR



For a more detailed view of the impact of VXML, please see the white paper "Speech Recognition Redefines Self-Service" by Doug Brown, available for download at www.eLoyalty.com.

Key #4: Integrate with Your CRM System

By integrating the speech application with your CRM system, you will be able to optimize the user-friendliness of the application, while possibly adding valuable information to your CRM data. This is a key point and a chance to differentiate from other companies' voice-based self-service, as the in-depth integration of both systems is still rare today.

To be able to use the CRM data within the speech application, the caller must be identified. This is not always easy. Automatic Number Identification (ANI or Caller ID) might not always work; for example, a customer might call from another phone (i.e., a cellular phone). It is helpful if the customer can be prompted to enter some alternative identification number, such as account, order, or phone number, or name, zip code, or even an address. For some transactions like general inquiries, it might be tempting to skip the identification portion, but eLoyalty recommends that you identify the customer whenever possible because you can add so much value before, during, and after the call based on profile, preferences, and recent interaction history.

The "Wow" Effect

After having identified the customer, you have the opportunity to delight the customer with customized prompts based on his or her CRM history. With this information, the customer's context can be determined and the application can guess why they might be calling and create a conversation flow that speeds up the call.

The example on the next page shows how a utility client of ours is using "smart prompting" to make an educated guess at why someone might be calling based on a recent transaction that matches a certain profile.

FIGURE 3:
EXAMPLE OF A CALL WITH CUSTOMIZED PROMPTS

- Customer calls in
- Automatic Number Identification shows her as Jane Smith
- Speech application asks her verification question(s)
- Jane Smith has two accounts:
  - She has had service at 55 Main Street for four years
  - She connected service at 100 Oak Street three weeks ago
    - *Infer she has bought a new house*
  - Based on analysis, it is very likely she is calling to disconnect service at 55 Main Street
- Change standard prompt for this interaction to customer prompts as follows:
  - "Are you calling to disconnect service? Please say 'Yes' or 'No.'"
    - Jane says "Yes," and is maybe a little surprised that the system "read her mind"
  - "Are you calling to disconnect service at 55 Main Street?"
    - Jane says "Yes" again, and is not a tiny bit amazed
  - "Would you like your final bill sent to 100 Oak Street?"
    - Jane says "Yes" one more time, while smiling broadly and scratching her head in amazement at how smart and customer-focused her utility company is. As an aside, this would be an ideal time to offer her a win/win service, like electronic bill delivery, because she will have great confidence that it will also be delivered in a smooth, customer-friendly way.

Figure 4 includes examples of customized prompts, by industry.

FIGURE 4:
EXAMPLES OF CUSTOMIZED PROMPTS BASED ON CRM HISTORY IN DIFFERENT INDUSTRIES

Industry	Information in CRM History	Customized Prompt
Utility	Calls every year for pilot re-light at same time.	Guide customer to scheduling the re-light of the furnace.
Utility	Payment overdue.	Guide customer to payment or credit group.
Health	Just denied a claim.	Guide customer to claims.
Health	New member.	Guide customer to directory of doctors (might be looking for a doctor).
Financial Services	Calls in within the last three days of every month to do a balance transfer.	Guide customer to balance transfers.
Financial Services	Overdrawn situation.	Guide customer to payments.
Product Company	Ordered product recently.	Guide customer to order status inquiries.
Product Company	Just received a product in need of explanation.	Guide customer to installation assistance information.

The customized prompts show the attempt to ask the right question based on the customer context. The call reason can then be compared with the top 10 to 20 list of call types to increase the probability to ask the right question. We recommend targeting and implementing call flows for these more frequent calls first, to find the biggest gain, and then on an iterative basis continue to find ways to address additional questions. This is not easy to determine and requires a lot of creativity and knowledge about the CRM data, but you will be surprised about the positive results.

The best practice is to then save gathered information from the transaction back to the CRM system. This completes your CRM history and you then have information from all service channels. For instance, the caller ID can be remembered as a new number, if the ANI did not match (this is known as ANI Appending or ANI Greening). Also, the call reason should be saved for further customized prompts. And anything else that we "learned" about the customer through his or her speech application answers should be saved for future use, especially if the customer has opened a case or has been told to call back.

eLoyalty has a proven methodology for "mining" these insights from your existing contact center representatives. These techniques greatly improve the "take rate" of your existing applications. We use a combination of data analysis, recorded call analysis, and scripted workshops with front-line CSRs to extract, codify, and organize this very important knowledge.

Key #5: Integrate with Your Contact Center

Another important integration key is to integrate the speech application with the contact center to provide a seamless and value-added experience for opt-out calls. An opt-out occurs in a speech recognition application when the caller terminates the interaction to speak with a live operator instead.

Befriending Opt-Out Calls

Opt-out calls are often seen, incorrectly, as a result of poor or incomplete speech application design. This does not have to be the case! When tightly integrated with the contact center, speech recognition can reduce call handle time for opt-out callers and create a favorable customer experience.

Why Do Callers Opt-Out of a Speech Application Call?

On some occasions, callers must opt-out of voice self-service because the transaction is not dealt with within the speech application. Some transactions are too complex to be handled within a speech application, e.g., where a lot of advice needs to be given to the caller. In this case, it is more efficient for a live agent to deal with the transaction. On other occasions, the caller *wants to* opt-out of the call. For example:

- The speech application did not understand an answer and the caller does not want to try again,
- The caller is not used to speech applications and feels unsure, or
- The caller refuses to use speech applications, in general.

Therefore, the speech applications should give the callers an easy way out of the application. Two consecutive failures to respond to a prompt should offer the caller the option to talk to a live agent. Also, the caller should have the option to barge in at any time and say, for example: "Live Agent," "Operator," or "I want to talk to a person."

On some occasions, callers get irate when using speech applications without success and will raise their voices or even use profanity. Today's speech applications are very good at picking out these words. It is possible (and advisable) to design your application to offer an opt-out for these upset customers.

When the call is then transferred from the speech recognition application to the live agent, it is important that the integration with the contact center environment is done in a way that will reduce call handle time. Make sure the caller does not have to repeat any information provided to the speech application. Any repeated data collection prolongs the handle time and also has a negative effect on the customer's experience. Many of us already experience double entry of data, as when forced to repeat an account number we already entered in an IVR before speaking with a live agent. It is also important to pre-enter all the information gathered by the speech application into actual screens that an agent would enter the information into. In this manner, training is reduced for agents and they are automatically directed to the same point in the process that the customer was at when they exited the speech application.

Even with customers who attempt to "zero out" of the IVR immediately, it may be possible to gather some useful data. For example, when you detect a zero key press or operator request, you can offer a prompt that says, "OK, I'll get you to a customer service representative. To expedite the call, I'd like to just gather three short pieces of information…"

Using CTI, the gathered information can be passed to the contact center agent and the caller does not have to repeat it. CTI is often already available when IVR solutions have been used — if not, it is recommended to introduce CTI to be able to benefit from this integration.

Assuming you have CTI, the next goal is to pass the caller to your contact center "in stride," so that the caller can simply continue from where he or she left the speech application. The gathered information can be passed to the agent in different ways, but it is important to give the agent time up-front to capture this passed information. Think of it as your speech application making a warm transfer to a colleague in the call center.

An initial pop-up with information allows a personalized greeting and gives the agent some context:

- Who is calling?
- What are they trying to do?
- How far along did they get in the IVR or speech application?
- Where did they get stuck?

This information should be presented in a condensed way to enable the agent to capture the information within seconds.

Also, all desktop and legacy applications, such as airline reservation systems, billing systems, and order management systems, should be pre-populated in the background so there is little or no re-keying of information for the agent. This enables the agent to concentrate on the continuation of the call. The transfer should appear seamless to the caller.

The following is an example of a successful Contact Center Integration where all points mentioned are considered.

FIGURE 5:
EXAMPLE OF CONTACT CENTER INTEGRATION

- Customer calls in.
- Speech application begins to help them with their reservation.
- Much of the required data is collected:
  - Customer information (frequent flyer number & verification)
  - City/Airport pairs
  - Travel dates
  - Travel times
  - Actual flight numbers are agreed to
  - Fare has been quoted and agreed to
  - Payment information (client wants to split bill across two cards)
    - Customers says "Operator" because application does not allow two cards
- Using CTI and Legacy System integration, the call is transferred to CSR.
- Reservation system is pre-populated with all of the above information.
- Soft-phone pop-up box informs agent that the opt-out occurred while collecting payment information.
- CSR says, "Thank you for calling XYZ Airlines — Is this Mr. Jones? I see we have a reservation for you to fly from Denver to Phoenix next Thursday, but that we need to get your payment information, is that correct?"

With these recommendations applied to your application design, you will be able to reduce call handle times significantly, which improves the ROI for the implementation. In addition, customers will use the speech application more often when they know that even if the application can't do everything they need, the time they spend in it is not wasted and they will have a live person ready to help them.

Key #6: Test the System Six Ways

Having designed and developed the speech application, the next key is to test it *completely*. It is commonly accepted in software development to plan on sufficient time for testing, but when testing speech applications, you have to take some specific aspects into account, including planning to tune and real-world test your speech solution extensively. We recommend six different kinds of testing:

1) Unit Testing
2) Performance Testing
3) Scalability Testing
4) Usability Testing
5) Pilot Testing
6) Ongoing Tuning

Unit Testing

The traditional testing to get out the bugs is similar to software testing and it needs to be made sure that all options are being tested. This is typically the last chance to see if options have been left out in the design. A good rule of thumb is that you can expect more than half of the "branches" of your design tree to be for exception handling, and all of these exceptions must be tested.

Performance Testing

Performance testing to remove or substantially reduce delays is very important for speech applications as a lot of information from integrated systems will probably be processed. A delay in your speech application is more critical than, for example, a delay in Web self-service. When using a Web self-service, a delay in the system response is less critical, as the customer can continue more easily with the transaction when the screen comes back, since there is more transaction information visible at one sight. A long pause in a conversation is psychologically troubling to a lot of people, the rhythm of the call is disturbed, and people might lose their thread when the pause is too long. There are fillers available to break up the psychological monotony of a three- or five-second pause, but doing performance testing to get out the delays is even better.

Scalability Testing

Scalability testing is the next test to be considered. What happens if you decide to front-end *every* call with speech, just to do identification or verification of the caller? This will stress your system, but the response times still need to be acceptable.

Usability Testing

Usability testing is probably the most critical aspect of testing a new speech application, because it is the *only* way to tell how well your customers will like and use the system. Are the prompts intuitive? Are customers prepared with the information needed? Are key words easily understood? Can they complete the tasks they called for? Will they happily use the system as an alternative to speaking to a live customer service representative?

While there are many approaches to usability testing, eLoyalty believes that the best approaches are to record the entire customer interaction. Voice recording is essential, but videotaping your usability testing is even better. By recording a sample of your real users, you will quickly learn reactions and grammar that may have been omitted, overlooked, or assumed incorrectly during the design process.

Sample learnings from recorded usability tests:

- For a B-to-B office supply company, it was learned that users will start the call on speaker phone. When they realize they are dealing with a speech system, they quickly pick up the hand set, but the noise this makes is wrongly assumed to be a response that the system didn't understand. A human listener was able to determine the problem and make an easy correction.
- For a major travel company, it was learned that a large majority of callers were calling from cell phones. This required a change in the background noise filtration settings, as well as a redesign of the portion of the application that gave out a confirmation number.
- For a utility company, the designers were puzzled why so few people entered their account number, but were able to speak it immediately to a live agent. It turned out that the pause was not long enough.

Sample learnings from videotaped usability tests:

- For a computer & printer manufacturer, it could take over a minute for people to find their model and serial number on the back or underside of their product, and they often had to put the phone down to do so.
- For a telecommunications company, people were leaning forward toward their speaker phones, ready to say something, but they were cut off because a prompt was too short. (An industry colleague calls this an "anticipatory lunge.")
- A financial service company may have become a little overzealous with their branding campaign. When their greeting promised to "take care of customers better than anyone else in the industry," the videotape showed people rolling their eyes or making other gestures of disapproval or disbelief.

Pilot Testing & Tuning

A pilot test will build on your usability testing, but with live callers in a limited live environment. To be able to thoroughly analyze the results, you should record callers interacting with the system **and** your CSRs if they opt-out. Key things to listen for are responses that were not anticipated with your grammar, recognition rates, and completion rates. Tuning is often intense for the first three months as grammar, barge-in timing, customer recognition, and directed dialog for errors are tweaked to often gain another 5-10% progress or acceptance rate for the application.

With a thorough test of all application pieces, you can ensure that the application works in the way it was designed, and also ensure the usability of the application. You will probably always be in some stage of tuning on an ongoing basis, making smaller adjustments and functional additions in periodic releases. Feedback from recordings, customer comments, and agent feedback are all part of this ongoing improvement process, which will improve the usability of your application significantly.

Conclusion

The technology for building a user-friendly and highly efficient self-service application based on speech recognition has matured. However, many people are still leery of speech applications and their prejudices are supported by many poor implementations of speech self-service. The challenge to implementing a good speech application is not only to have the technology in place, but also to understand and consider the business, functional, and organizational aspects of such an implementation.

Integrated voice self-service has its own characteristics and is not just the voice translation of your Web self-service or an enhanced IVR functionality. A lot of differences occur, which endanger the customer acceptance of the solution if not being considered. To achieve better customer acceptance and enhanced return on investment of your speech application, the following keys would need to be considered:

- Key #1: Use ROI to drive requirements
- Key #2: Design your application for real-world usage
- Key #3: Use VXML or SALT standards
- Key #4: Integrate with your CRM system
- Key #5: Integrate with your contact center (operations & applications)
- Key #6: Test the system **six ways**

eLoyalty can assist you in implementing a successful voice-based self-service system with its expertise in the following areas, required to integrate voice self-service:

- Business case and ROI
- Business analysis
- Contact center operations
- CTI (e.g., Genesys, Cisco, Avaya, Aspect)
- VXML or SALT standards
- ACD & PBX expertise
- Legacy system integration
- Soft-phone programming
- Desktop integration
- Voice user interface (VUI) design
- Speech recognition (e.g., ScanSoft, Nuance, IBM)
- Test management
- Change management
- Project management

We hope that you will use these keys to create an optimal voice self-service experience for your customers and create outstanding returns on investments for your company.

About the Author

MIKE ASHE

Mike Ashe is a Vice President with eLoyalty, where he leads the global Contact Center Optimization Solutions service line. Mike has worked with hundreds of companies over the last 20 years, with a strong focus on keeping customers happier (and loyal!) while reducing service costs. He has worked and done analysis in over 70 contact centers in nine countries around the world. Key clients include HP, Dell, Avaya, Agilent, Bank of America, Wells Fargo, many Blue Cross/Blue Shield companies, Kaiser, Toyota, Nissan, Disney, BP, T-Mobile, AT&T, American Express, and GlaxoSmithKline.

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About eLoyalty

eLoyalty is a leading management consulting, systems integration, and managed services company focused on optimizing customer interactions. With professionals in offices throughout North America and Europe, eLoyalty's broad range of enterprise Customer Relationship Management (CRM)-related services and solutions include creating customer strategies; defining technical architectures; selecting, implementing, and integrating best-of-breed CRM software applications; and providing ongoing support for multivendor systems. The combination of eLoyalty's methodologies and technical expertise enables eLoyalty to deliver the tangible economic benefits of customer loyalty for its Global 2000 clients. For more information about eLoyalty, visit www.eloyalty.com or call 877.2ELOYAL.