

Leading U.S. Telecommunications Company Dials Up TuVox Enterprise Speech Solutions to Improve Service and Reduce Costs

Telecommunications is one of the most competitive markets in the U.S. today. A broad spectrum of U.S.-based and international carriers compete for voice and data business. Nimble, niche-focused solution providers are challenging some of the larger firms as deregulation continues and territorial lines blur. To be successful, a telecommunications company has to be highly responsive to customers, while improving the efficiency of its operations.

A leading U.S.-based telecommunications company, which offers voice, data, and

a significant amount of money. There's a lot of opportunity to use automated self-service solutions that can effectively meet consumer requirements, while reducing costs."

Improving the Caller Experience

"If you'd like to place an order for a new service, press 1; if you have a question about your bill, press 2; if you need repair service or have a technical question..."

Like most carriers, this telecommunications company had used automated self-service applications based on older DTMF (dual-tone

that could support local and long-distance service, billing and payments questions, calling card features and services, credits, account maintenance, service cancellation, and repairs and technical issues.

The senior manager explained, "Our goal wasn't merely to replicate our DTMF applications. That alone wouldn't have justified the investment of time and money. To achieve the return we wanted, we needed to use speech-recognition technology to automate functions that couldn't be easily automated before such as technical support, and to significantly improve the call experience for our customers."

Saving Over One Million Dollars For Each Percentage Point

TuVox Enterprise Speech Applications blend voice self-service applications seamlessly with the carrier's live CSRs—efficiently processing a large number of tasks, before passing the call along to a CSR, if needed.

The advanced TuVox solution features a natural language-based conversational interface that allows callers to speak freely and understands a wide range of questions and comments. This helps ensure that callers can quickly get to the best resource for their needs—automated or live.

"The TuVox solution recognizes what callers say in regular conversation format and then handles the customer service need within the application," the company technical manager explains. "One of the innovative things that we did with the design is we identified the top drivers for customer calls, such as obtaining their last payment date and amount, account balance, and information about any recent credits. So, right off the bat, we access the customer database for that information, and speak that as an option for our callers."



"We receive 2.6 million calls per month and with TuVox we have automated 25% of those calls even before the first tuning"

Internet-based services to millions of residential and business customers, has incorporated more sophisticated speech-recognition applications into its automated customer service solutions. To improve the performance of its automated self-service systems, the company's consumer business unit recently called on TuVox and its innovative enterprise software for speech applications.

"It costs approximately \$4 to handle a typical customer service call with the help of a live customer service representative," says a senior manager in the technology group that supports the consumer business. "When you're handling several million calls a month, that's obviously

multi-frequency) touch-tone technology for many years. But anyone who has ever had to wade through a long menu of options—which can involve multiple levels at times—knows that DTMF applications may be efficient for the service provider, but they often are not very user-friendly.

The carrier wanted to broaden its use of automated self-service while greatly improving the experience for callers—to the point where callers would prefer to communicate with the speech application versus a live customer service representative (CSR). The telecommunications provider began an ambitious program to develop a more sophisticated voice self-service solution

TuVox includes built-in error handling for situations where callers do not respond, or say something that isn't understood. Callers can have a better experience when calls are transferred to a live agent as all their information and a transcript of what they interacted with the speech applications is transferred to the call center agent.

"With our DTMF application, we were able to fully automate approximately 15-20 percent of our segmented customer service calls," said the senior manager. "Right out of the box, TuVox assisted us in obtaining an additional 3-5 percent lift—or about a 20-25 percent improvement over the old system. As a general rule, we generate in excess of one million dollars in annual savings for every percentage increase we gain, so again, that's a substantial amount."

Streamlining Development and Tuning

TuVox enterprise software for speech applications is designed to make application development and tuning quick and efficient, using built-in voice application capabilities and powerful tools that streamline the process of creating, testing, deploying, and enhancing speech applications.

Much of the time-consuming coding that's required by other speech-recognition solutions is automated by TuVox's patent pending SmartGen™ technology. The carrier's voice self-service project involved more than 60 voice applications with almost 150 sub-applications, more than 12,000 voice prompts, and 25 back-end data dips—making it one of the largest speech installations in North America. So clearly, ease of development and deployment was essential.

"We conducted a detailed review of TuVox and competing options when we began our procurement process in 2003," remarks the technology manager for the telecommunications provider. "We narrowed the field down to two possible candidates. TuVox was the only vendor that could meet our goal of deploying a fully integrated solution in just six months—one-half to one-third of the time proposed by the nearest competitor."

With TuVox, the carrier's content providers did not have to also become speech experts, or master VXML (Voice Extensible Markup Language). TuVox automatically converts existing content and Visio files into sophisticated speech applications without having to worry about specialized grammar or coding. This has made it possible for the telecommunication provider's staff to leverage existing content from databases,

"We've been evaluating the caller experience through usability testing. We are transcribing some of the call utterances and looking at the hot spots, where adjusting grammars, tweaking recognition, and streamlining navigation can make the biggest difference. We anticipate that once the major tuning is complete, our percentage of automation will go a lot higher than the 20-25% gains—reducing our costs even more."

Business Profile

Industry
Telecommunications

Geographies
United States

TuVox Solutions
TuVox Enterprise Software for Speech
TuVox Enterprise Applications
TuVox CVR

Key Benefits

- Natural language-based speech applications have increased percentage of automated calls by 3-5% over existing DTMF pre-tuning
- Over one million dollars in annual cost savings for every percentage point in automation—providing millions of dollars in cost savings
- Better caller experience and adoption of automated calls
- Automatic VXML coding improves speed to market—cutting initial deployment time from 12-18 months to only six months
- Enhanced reporting helps to refine tuning and enhance ongoing management



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text documents, and even the company website—and quickly turn that content into speech applications.

"With a typical speech application, we would have had to create a massive dialog design document, which would then be given to technical professionals to write all the VXML code," comments the technology manager. "With TuVox tools, the solution converts it all for us."

Now that the carrier has been using the new voice self-service solution for a while, tuning can be done to further enhance the solution's effectiveness.

Executive Summary

The highly competitive consumer telecommunications market in the U.S. demands maximum efficiency in handling customer service calls. One of the leading U.S.-based carriers recently made the move from DTMF touch-tone technology to natural language-based voice self-service using the state-of-the-art TuVox enterprise speech solutions. Right out of the box, the TuVox solution enabled the carrier to increase its percentage of calls handled without the assistance of a live service representative from 20 to 25 percent. Tuning is expected to at least double the gains, improving the company's responsiveness while further reducing its operation costs. ■