American Airlines (US Airways) reaches new heights in customer service

The U.S. domestic airline industry's first natural language understanding IVR system delivers fast, personalized IVR self-service and a superior caller experience while reducing operations costs.

NUANCE

About the company

American Airlines Group Inc. is the holding company for American Airlines. During 2013 American Airlines completed a merger with the US Airways Group. The combined airline carries the American Airlines name and branding and received a single air operator's certificate in April, 2015.

American Airlines operates from its main hub at Dallas/Fort Worth and its hubs in Charlotte, Los Angeles, New York-JFK, Miami, Chicago-O'Hare, Philadelphia, Phoenix, and Washington D.C. Thanks to the support of its hard-working employees and loyal customers, American Airlines has grown to become the largest airline in the world.

Company
American Airlines (US Airways)

Nuance Solutions
– Speech-enabled IVR self-service solution hosted on Nuance OnDemand, featuring natural language call steering and personalized call handling with proactive information delivery.

Results
– Improved customer experience
– Increased call containment 5%
– Millions of dollars in annual savings

Get Interactive:
This eBook contains embedded interactive resources like audio files. Please make sure your computer speakers are set to "stereo" mode.

American Airlines (US Airways) IVR System

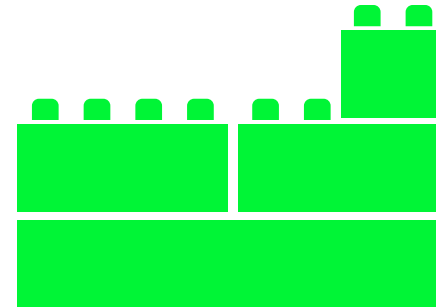American Airlines (US Airways) IVR System Personalized Message

Traditional IVR

Natural Sounding concatenation leveraging Nuance Vocalizer

The business challenge

As a result of various buyouts and mergers, American Airlines' (US Airways') contact center operation was using multiple interactive voice response (IVR) systems. The systems had multiple voices and a variety of touchtone and speech menus which were inefficient, cumbersome and difficult to navigate. They were running on outdated technology, lacked computer telephony integration (CTI), and offered little insight into key performance metrics like call containment, deflection, and average hold time. What's more, American Airlines' (US Airways') agreement with the Airline Customer Service Employee Association (IBT/CWA) required on-shoring of all reservation agents by November 2011, a transition that would require more integrated and cost-efficient IVR support.

That's why in December 2009 American Airlines (US Airways) issued a Request for Proposal (RFP) for the design and deployment of a completely new self-service IVR system. The goals for the system were to increase call deflection, decrease call handling time, and improve the overall caller experience. Specifications included a single branded voice, improved prompting, additional self-service options, and comprehensive performance monitoring and reporting.

Selecting a partner

After receiving initial proposals, American Airlines (US Airways) quickly narrowed the short list to a handful of vendors, all of whom were proposing Nuance technology as the foundation of their solutions. After careful evaluation of top finalists, the airline ultimately chose to partner with Nuance directly based on its:

– Clear vision of how the IVR solution could deliver a great caller experience while laying the foundation for multi-channel interactions in the future
– Leading speech recognition and natural language technology that would enable them to leapfrog the competition
– Unparalleled expertise and demonstrated skills in designing and delivering a world-class caller experience
– Hosted platform that would enable American Airlines (US Airways) to scale their IVR and to take advantage of the newest innovations in conversational speech recognition
– Proven ability to deploy successful solutions for handling both inbound and outbound customer care interactions
– Mobile care solutions that enable wireless callers to complete self-service requests and transactions at anytime, from anywhere using their mobile phones

The solution

In July 2011, approximately one year after the project kick-off, a new speech IVR system was launched on Nuance's hosted platform, Nuance OnDemand, featuring various innovations to improve the caller experience. These innovations include natural language call steering, personalized call handling with proactive information delivery, automated collection of trip information to shorten hold time for agents, and a new voice leveraging improvements in Nuance Vocalizer, a spoken output engine.

Natural Language Call Steering

American Airlines (US Airways) is the first among domestic US airlines to offer natural language call steering. With natural language, callers are simply prompted to say what they're calling about in their own words. The system understands their freely spoken requests and responds appropriately, making the interaction more like a natural conversation.

This experience compares to traditional speech systems, where callers might ask for things that aren't on the preprogrammed list of expected responses. Natural language technology eliminates this problem by teaching the IVR system to recognize the callers intent regardless of the specific words used. As a result, callers are able to interact with the system using words that are most comfortable to them.

Get Interactive:
Listen to how the American Airlines (US Airways) IVR system allows the caller to speak their request in their own words and then, using information about that caller, anticipates the trip about which they are calling.

Double-click to play

In addition to providing a faster, easier call experience, the benefit of natural language call steering is that when callers can express their request in their own words, they are more likely to finish tasks within the automated system. This leads to higher containment rates and frees live agents to focus on more complicated caller issues.

Personalized Call Handling with Proactive Information Delivery
From the outset, American Airlines (US Airways) wanted to personalize its new IVR system to distinguish it from other airlines' systems. To accomplish this, Nuance designed the IVR to proactively use information about callers and their trips to deliver a personalized and streamlined call experience. Callers who are members of the airline's frequent flyer program, are identified based on their phone number. Then, they experience a personalized experience in the following ways.

– Callers are greeted by their name. The impact of this personalization feature was that callers had a more positive overall perception of the automated system. In usability testing, people who were greeted by name rated the system higher than those who were not.
– Information about their trip is proactively provided without them asking for it. For example, the caller may be notified if they were recently upgraded to first class.

Get Interactive:
Listen to the IVR system deliver a personalized greeting and proactively provide relevant trip information.

Double-click to play

– The system anticipates the reason for their call to help speed the interaction. For example, if the call is placed four months prior to the flight, the caller is likely looking to change a reservation. If the call is placed a week before a flight, he might be calling about an upgrade. If the call is placed just hours before a flight, he is probably checking whether the flight is scheduled to depart on time.

Proactively delivering information and anticipating the reason for a call is driven by underlying business rules based on an intelligent trip lifecycle. Nuance voice user interface designers built the underlying business rules based on a thorough understanding of the airline's business and its customers. Depending on where the caller is in the trip lifecycle, the system then gives the caller relevant information or prompts to significantly streamline the interaction.

Automated Collection of Trip Information to Reduce Call Time With Agents
The new IVR system also aims to help shorten the call time with agents when making or changing a reservation. It does this by asking callers tailored questions about their trip and then transferring that information to an agent via CTI screen pops.

This approach of automating the collection of reservation information before speaking to an agent has been well received by customers. Shortly after the new IVR system launched, a customer posted on FlyerTalk, an interactive online community for frequent flyers, "… the time previously spent on hold is now used by the computers to pull up your records … I'm going to call it a win."

"The more we know about our customers and the reason for their calls, the more efficiently we can provide the assistance they need and allow them to get on with their day. We have worked closely with Nuance to develop a service experience that provides an intelligent understanding of our customers and their travel needs. By integrating those insights with cutting-edge speech recognition technology, we are providing our customers with the convenient, quality care they have come to expect from us."

**Kerry Philipovitch,
Senior Vice President of Customer Experience,
American Airlines**

The New Voice of American Airlines (US Airways)
The new IVR system was part of a larger corporate rebranding effort aimed at improving market perception and strengthening customer loyalty. To ensure that the new single voice of the IVR system accurately reflected the airline's brand, Nuance delivered their Voice Identity Program, a service offered by its Business Consulting group.

Through this program, Nuance consultants review the company's brand guidelines and then identify which attributes a voice persona aligned with this brand should convey. Then, they solicit voice talent auditions and narrow the candidates to finalists. Finally, they conduct a survey in which participants representing the company's target demographic evaluate how well the voices of the finalists convey the brand attributes.

For American Airlines (US Airways), "Wally" emerged as the voice talent of choice. This new voice persona is such an important part of of the airline's brand, that the senior executives proudly had "Wally" introduce the company's earnings call in 2011.

Wally's automated voice also features new innovations to Nuance Vocalizer, Nuance's spoken output engine which dynamically concatenates pre-recorded audio prompts with computer-generated speech. The result of these innovations, which help to gracefully morph syllables, words or phrases into the sounds that precede or follow them, is smoother, natural sounding audio. This improved sound differentiates the airline's IVR system from other self-service IVR applications in use today.

Get Interactive:

Double-click to play

Listen to how a traditional IVR sounds 'choppy'.

Double-click to play

Listen to natural sounding concatenation leveraging Nuance Vocalizer.

Nuance OnDemand: A Platform for the Future
American Airlines (US Airways) chose to deploy its IVR solution via Nuance OnDemand, Nuance's hosted technology platform for delivering the highest quality contact center and self-service applications. Nuance OnDemand was the clear choice for the airline because it uniquely combines three things. First, it directly offers Nuance's entire technology stack, including conversational speech recognition, natural language call steering, voice biometrics, outbound notifications, CTI, ACD, and so much more. Second, because new Nuance technology and solutions are quickly available on Nuance OnDemand, it provides innovations not yet available in other platforms. This enables customers to rapidly deploy these innovations to remain a market leader. Third, Nuance's experienced voice user interface designers are committed to ensuring that applications on its hosted platform provide a world-class caller experience.

To support continuous improvement, Nuance OnDemand also provides reporting and analysis tools that enable the airline to gain practical insights for improving the caller experience and for informing business decisions. Accessed through a secure Web portal, interactive views provide clear visibility into key metrics such as containment rates, transfer rates, error rates, task completion rates, and dominant paths for driving higher levels of IVR performance and customer satisfaction.

A successful lift-off

In July 2011, American Airlines (US Airways) deployed the new IVR system over a two-day period, and it handled 100 percent of incoming call traffic without a single glitch. Then, just a month after launching the system, they experienced a dramatic spike in call volume as travelers contended with flight delays, cancellations, and airport closings due to Hurricane Irene. The Nuance OnDemand platform handled the additional call volume with ease and the new IVR system performed flawlessly. An assessment of airlines' hold time during Hurricane Irene conducted by STELLAService even showed that the airline had the lowest average hold time among the top 10 airlines.

After only five months in operation, and the addition of new automated capabilities for itinerary confirmation and seat assignments, the American Airlines (US Airways) self-service IVR had already increased call containment by as much as 5%. The increased containment yields millions of dollars in annual savings for the airline.

In addition to reducing costs, the airline's new IVR system is delivering the kind of fast, friendly and personalized caller experience that makes them the airline of choice for so many travelers.

"The project development and launch was one of the best planned and executed I've seen. Our partnership with Nuance has allowed us to offer our callers an industry-leading IVR and CTI platform designed to deliver cost savings for the airline while improving our customers' experience."

Tim Lindemann,
Vice President Reservations and Customer Planning,
American Airlines

About Nuance Communications, Inc.
Nuance Communications is reinventing the relationship between people and technology. Through its voice and language offerings, the company is creating a more human conversation with the many systems, devices, electronics, apps and services around us. Every day, millions of people and thousands of businesses experience Nuance through intelligent systems that can listen, understand, learn and adapt to your life and your work. For more information, please visit nuance.com.

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