T-Mobile Germany's award-winning call centre application.

Natural language understanding technology increases customer satisfaction and efficiencies.

Challenge
- DTMF and single-word recognition phone application did not reach the level of service expected or deserved.
- Cumbersome self-service resulted in many callers opting out of self-service.

Solution
- Natural language understanding self-service application for simplified navigation
- Fully automates over 400 business processes
- 'Guided Tour' provides introduction to self-service application

Results
- €10 million savings per year month
- 75+% increase in automation
- Successful automation of more than 36 million calls per year (100,000 calls per day)
- High levels of customer satisfaction

About the company

T-Mobile International (T-Mobile), a world leader in mobile communications and one of Deutsche Telekom's three strategic business units, started out in 1993 as T-Mobile Germany GmbH, an independent trading company. T-Mobile International was established in 1999, and since that time, the company has grown to become one of the largest international mobile communications carriers and one of the most successful mobile phone operators in Europe.

NUANCE

"Because the customer is the pivot point of all our activities, we recognise that providing exceptional customer service will continue to be the key to our business success. We are committed to thinking and acting with a strong orientation toward service and segments, offering our customers state-of-the-art products and services. By using Nuance's innovative speech technologies to create a call centre application that is fast, accurate and reliable, we are experiencing an increased self-service success rate."

Klaus Dieter Liedtke, Head of the Mobilbox Department
T-Mobile Deutschland GmbH

A wholly owned subsidiary of T-Mobile International AG, T-Mobile Germany currently employs over 7,050 people, and as the market leader in Germany, serves more than 31.4 million customers.

The challenge
In 1998, T-Mobile became aware that its existing call centre phone application—which used DTMF and single-word recognition—did not reach the level of service that its customers expected and deserved. Because the touch-tone system was cumbersome to navigate, many callers grew frustrated, preferring to wait in queues for a call centre agent rather than use the self-service option. Seeking to differentiate its brand and gain competitive advantage through superior service, T-Mobile Germany decided to provide a self-service call centre application that effectively balanced usability with automation in order to increase business efficiency while ensuring a rewarding customer experience.

The solution
T-Mobile replaced its touch-tone system with a new customer care speech application based on Nuance's Foundation Speech and Dialog Technologies, which have helped hundreds of businesses achieve their customer service and financial objectives. The result was T-Mobile's Speech-Enabled Customer Care Portal, an innovative speech self-service application focused on transaction success.

In 2004, T-Mobile launched its new self-service call centre application, which now fully automates over 400 business processes by allowing callers to interact with the system using natural, conversational language. To complete a transaction or resolve a problem, callers can navigate the system quickly and easily by simply speaking their request. The system offers various options for commonly requested services and information, including:

– Tariff and Option Change
– Card Cancellation
– Contract Information
– Product Information
– News
– Direct Link to other applications, e.g.,i.e. SMS-News, Mobilbox, or Account-Service
– Contact to Agent

In addition, callers may opt to take a "Guided Tour", which provides a step-by-step introduction to the self-service application through pre-recorded dialogue examples and opportunities to try out its speech recognition capabilities. This interactive introduction helps first-time callers feel more comfortable with the system so they are more inclined to use the self-service option for future interactions.

"Because the customer is the pivot point of all our activities, we recognise that providing exceptional customer service will continue to be the key to our business success," said Klaus Dieter Liedtke, head of the Mobilbox Department at T-Mobile Deutschland GmbH. "We are committed to thinking and acting with a strong orientation toward service and segments, offering our customers state-of-the-art products and services. By using Nuance's innovative speech technologies to create a call centre application that is fast, accurate and reliable, we are experiencing an increased self-service success rate."

The customer benefits
With T-Mobile's new call centre application, customers benefit from 24x7 access to a user-friendly automated speech system via a single four-digit telephone number. Callers gain self-service access to a wide range of options using natural language commands. In other words, the system allows callers to say what they need in their own words rather than being prompted with a long list of choices. As a result, the system delivers better performance results—higher automation rates, reduced call length, and fewer hang-ups/opt-outs—and a more satisfying interaction experience for callers.

Leveraging Nuance's groundbreaking speech technology, T-Mobile's call centre application encourages more efficient customer interactions by reacting to multiple pieces of information in a caller's unconstrained request. The result is faster handling of caller requests by reducing the back-and-forth between the system and the customer for additional information. If the event that the caller wants to speak to a live agent, the system automatically transfers the call and provides the agent with all necessary customer data, information and details about the request via a pop-up box on his or her computer screen.

T-Mobile's speech application provides speech-to-text capabilities which give callers the chance to speak their concerns, which will be captured as text for further action, such as call-back preferences, so that no customer concern is lost.

Are customers truly realising the intended benefits of T-Mobile's new call centre speech application? If the results of the Fraunhofer survey, "Acceptance of Speech Applications in Germany in 2006" are any indication, the answer is yes. Survey participants were asked to indicate their level of satisfaction with the speech applications they use on a regular basis. T-Mobile's speech application received the highest satisfaction rating of all the speech applications specified in the survey responses.

The business benefits
Since T-Mobile implemented its new call centre speech application, the company has realised a number of significant business benefits. During peak call times the application handles the workload of up to 1,600 live agents simultaneously, allowing call centre personnel to focus on more complex and specialised service issues.

Other compelling business benefits resulting from the automated speech system include:

– €10 million savings per year
– 75+% increase in automation
– Successful automation of more than 36 million calls per year (100,000 calls per day)

Results of a Vocatus Study conducted in July 2006 indicated high levels of customer satisfaction with the contact and menu navigation capabilities of T-Mobile's call centre speech application.

An award-winning service
In addition to high marks for customer satisfaction, T-Mobile's call centre speech application won the "Best Practice Voice Award" in the German-speaking market from The Voice Business Initiative. "The jury voted for

this leading Speech Application with its extensive array of services as the main winner because it is groundbreaking and exemplary for the entire industry," said Prof. Dr. W. Wahlster, Chair of the Artificial Intelligence Group at Saarland University, in his Voice Award Laudation. "It gained extremely high scores in the practical test, demonstrating maturity and high performance throughout the dimensions evaluated."

The Voice Business Initiative jury gave the T-Mobile speech application high scores for its:

– High degree of freedom for user input, which allowed for the use of natural language commands within the application context
– Incremental batch processing of comprehensive dialogue tasks
– Omnipresent possibility to use barge-in or to jump into different menus effortlessly
– Exceptional degree of user adaptation and individual profile adjustment

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.

Copyright © 2014 Nuance Communications, Inc. All rights reserved. Nuance, and the Nuance logo, are trademarks and/or registered trademarks, of Nuance Communications, Inc. or its affiliates in the United States and/or other countries. All other brand and product names are trademarks or registered trademarks of their respective companies.

NUAN–CS–132–01–CS, Oct 16 2014