Magyar Telekom Implements Nuance Voice Biometrics.

Nuance VocalPassword delivers a 20% increase in customer satisfaction.

Challenge
– Low customer satisfaction with existing methods of authentication
– Time consuming process for identifying customers impacting service

Solution
– VocalPassword from Nuance implemented in self-service channel

Results
– 95% of customers successfully authenticated using their voice
– Satisfaction has increased by 20% among customers using voice biometrics authentication
– Average call time is reduced by 16 seconds

Background

Magyar Telekom is Hungary's largest provider of telecommunications. It offers a full range of services including phone, broadband, TV and IT services. Under its "Telekom" brand it provides its integrated portfolio for the residential and for the small office / home office and small and medium-sized business segments, while the brand "T-Systems" supports larger organisations. Magyar Telekom is a member of the Deutsche Telekom Group.

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"We want to offer the most responsive service to customers but found that our services team had to ask for three pieces of information to help identify callers who had forgotten their password. This increased the duration of calls to 70 seconds, which slowed down the experience and was taking up time our staff could spend helping solve customer questions. We wanted to offer our customers a simpler, more convenient solution which didn't require them to remember passwords."

Zsuzsa Gémesi, Magyar Telekom's
customer service support manager

The Business Challenge
Prior to the implementation of Nuance's VocalPassword technology, Magyar Telekom's customers identified themselves using their phone number or customer ID and personal account password. With customers having to remember multiple usernames and passwords, the company found that many of the callers would forget their passwords and the duration of incoming calls was increasing as the agents tried to authenticate customers using their personal details.

To add to the needlessly long AHT and customer frustration, the authentication process took the agents aways from other tasks. Magyar Telekom was also seeing cases of customers giving their passwords to friends and family, which made the process even more complex.

The company recognised that a new solution was required to overhaul the system and turned to Nuance Communications to implement its VocalPassword technology, which securely identifies customers simply by their voice in a matter of seconds. Magyar Telekom was the first service provider in Hungary to deploy voice biometric authentication in its customer care centre.

Choosing a solution
Magyar Telekom's parent company, Deutsche Telekom, helped evaluate the different offerings and was so impressed with the Nuance solution, that it signed a group-wide framework agreement to provide technology for Magyar Telekom, as well as its Polish subsidiary.

"Within the Deutsche Telekom group, we were the first to deploy voice biometrics authentication in customer care," explains Tamás Somlai, head of the self-care and innovation management department at Magyar Telekom. "During the tendering, we found just three vendors worldwide were able to deliver this kind of service. We chose Nuance because of its experience in linguistics and voice technology and its impressive existing customer deployments. Nuance was also able to provide background applications which could monitor and report back on various aspects of the customer calls, enabling our managers to better control the processes."

Somlai continues, "The return on investment was also compelling. By automating services and freeing up staff resource, Nuance was able to significantly reduce the cost-to-serve per call, while actually improving speed and responsiveness for the customer."

The successful implementation of the project was possible through close collaboration between Telekom's own IT department, Nuance and its local partner, Net54. Nuance supplied the technology, with Net54 developing the front-end interfaces for staff and customers and Magyar Telekom handling the systems integration.

The Verification Solution
VocalPassword from Nuance Communications is an innovative voice recognition solution, which authenticates the call using a previously recorded voiceprint before the customer reaches an agent.

Telekom customers can now call the 1412 and 1430 customer care numbers to enroll their voice print for authentication. When Telekom customers call customer care numbers, the system performs voice biometric verification against voiceprint on file. If no voiceprint is found, the customer is offered the option of recording one.

– Services can be switched on or off via the self-service interface and the customer can carry out a range of services including changing tariff plans, requesting invoice copies and checking account information.
– Five voice samples can be stored for any one customer ID to allow family members or several employees of a company to manage the services used.

To enroll the voice sample, the customer is asked to repeat the following sentence three times: "My voice is my ID, it's that simple and convenient". For authentication, it is sufficient to say the sentence once, however, in the case of a high level of background noise or if a different voice is detected, the customer may be asked to say another sentence or phrase.

The benefits of this technology are considerable. VocalPassword is active verification, eliminating cumbersome authentication questions. The process is non-intrusive as the verification takes place in the background and does not require any additional action from the caller or agent. It is also language and accent-independent so the capturing of the users voiceprint is related to the content and is determined by subtly unique characteristics such as vocal tract length and shape, pitch and speaking rate.

The authentication process is now vastly more secure. By its very nature, the speaker's biometric data is unique, making the technique safer than any password-based or "challenge question" process.

Magyar Telekom began looking into the solution in 2012 with a pilot project, giving employees the option of using the system. Approximately six hundred employees enrolled in the pilot. After that Magyar Telekom introduced the service for customers and due to the successful promotion of the service, the number of voice prints recorded increased.

"One year after the rollout, the number of voice samples in our system grew to 70,000 from the 45,000 customer contracts," said Zsuzsa Gémesi.

Results

95% of customers were successfully authenticated on the phone. Based on the feedback provided by customers, satisfaction has increased by 20 percent among customers using voice biometrics authentication. Call times have also significantly reduced; the previous password authentication system took 20 seconds, while voice biometrics takes only 3 to 4 seconds.

The system is also easy for the IT team to implement and monitor.

"In our experience, even the voice sample recording itself is a customer friendly experience," said Tamás Somlai. "The number of failed attempts is negligible, and the reports produced by the system show that only a high level of background noise, speaking too softly, or deviation from the pass phrase could cause problems. More than 85% of the customers successfully authenticated on first attempt using voice print, and any difficulties encountered are easily remedied by our agents."

The success of the project with Magyar Telekom and Deutsche Telekom has encouraged several other group members to consider deploying the technology.

"Our company has always been at the forefront of providing the latest and most advanced technologies," added Tamás Somlai. "Voice biometrics authentication is well aligned with our strategy and the innovation has provided an opportunity for us to emphasise our market-leading role in Hungary."

"In the short term, we would like to expand the group of customers using voice biometrics authentication. We are going to extend our related SMS campaign," said Tamás Somlai. "In the medium term, the Nuance VocalPassword solution will be deployed in additional self-service channels, applications and web-based interfaces."

About Nuance Communications, Inc.
Nuance is a leading provider of voice and language solutions for businesses and consumers around the world. Its technologies, applications and services make the user experience more compelling by transforming the way people interact with information and how they create, share and use documents. Every day, millions of users and thousands of businesses experience Nuance's proven applications and professional services. For more information, please visit: nuance.com.

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