

NUANCE 8.5

POWERFUL SPEECH RECOGNITION FOR IMPROVED CUSTOMER SATISFACTION AND COST SAVINGS

Nuance 8.5 is the latest release of the market's leading speech recognition software optimized to enable highly accurate, scalable, and easy to deploy voice solutions. Nuance-powered voice systems allow end users to enjoy faster and more efficient phone-based interactions, while enabling carriers and enterprises to improve customer satisfaction and lower costs.

MARKET LEADING ACCURACY ACROSS INDUSTRIES, APPLICATIONS AND CALLER ENVIRONMENTS

More than 1,000 companies across a broad array of industries, including many of the world's top financial services and insurance companies, telecommunications service providers, utilities, airlines, and retailers use Nuance's speech recognition technology and 46% of all secondgeneration speech ports sold - approximately onethird more than the market share of the closest competitor are Nuance-based1. This deployment experience and leading market share puts Nuance in a unique position. Nuance has leveraged this vast experience to expand the capabilities of Nuance 8.5 to recognize the unique terms for a range of key industries and application types. Error rates out-ofthe-box have been reduced by up to 50% compared with Nuance 8.0 which can result in 50% fewer calls going to agents. This can present additional cost savings of up to \$10 million per year from increased automation, depending on the application type and the call volume.



Nuance Distributed Architecture

Nuance 8.5 accuracy improvements also enable voice automation systems to easily overcome the challenges inherent in wireless and Voice over Internet Protocol (VoIP) channels, including: background noise, cross talk, signal degradation, dropped packets, and speech compression. More than ever, using Nuance 8.5 can enable businesses to achieve high accuracy for their voice automation systems across all types of calling conditions and environments.

SCALABLE, FAULT TOLERANT DESIGN FOR HIGH CALL VOLUME, MISSION CRITICAL APPLICATIONS

Nuance 8.5's patented distributed architecture provides scalable operation while minimizing hardware requirements and costs. Moreover, it is proven — Nuance's patented architecture has been deployed by hundreds of customer over the last 8 years. It supports simultaneous load balancing and fault tolerance across speech recognition, verification and text-to-speech operations, to ensure efficient utilization of system resources that can result in hardware savings of over 25% compared to other systems.

The distributed architecture is designed to ensure that a customer call is never lost. Furthermore, this modular approach enables separation of light client processing from CPU-intensive server processing. This allows for high port density on the client side and efficient CPU usage on the server side. Alternatively, for small configuration or for prototyping, the client and server side applications can run in a single-tier configuration.



SUPPORT FOR OPEN STANDARDS

Nuance 8.5 also leads the market in support of open standards in traditional telephony and IP environments including VoiceXML 2.0 and Voice Over IP (VoIP).

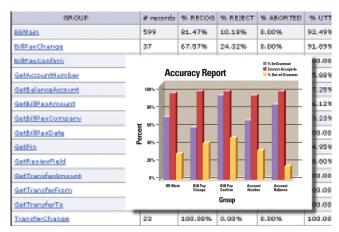
- VoiceXML 2.0 Support: Nuance 8.5 supports voice automation services that are built using VoiceXML 2.0, the open, standards-based voice application programming language. With the VoiceXML 2.0 standard and Nuance 8.5 speech recognition software, carriers and enterprises can leverage their existing expertise and investments in Web infrastructure to reduce the cost and effort of deploying voice-driven services. If an alternative such as SALT becomes a standard, Nuance 8.5 can easily support it because SALT leverages the same prompt and grammar formats as VoiceXML 2.0.
- Voice Over IP (VoIP) Support: Nuance 8.5 provides extensive support for VoIP enabling improved accuracy for speech solutions handling VoIP-based calls. With broad-based VoIP deployment experience, Nuance leads the market in high quality speech application deployments across a variety of telephony environments.

SPEECH RECOGNITION HIGHLIGHTS

Say Anything™ and AccuRoute™ technologies enable the understanding of natural, free-style speech

With Say Anything and AccuRoute, callers can speak more naturally when interacting with voice-enabled applications. Systems can greet callers with open-ended prompts like "what would you like to do?" and users can respond with wide ranging answers such as "I have a problem with my last bill and I need some help" or "I'd like to, um, get my, um, bank balance."

These technologies are critical for call steering applications and are designed to significantly lower the cost of customer care as well as to simplify and improve the caller experience. Large enterprise and telecommunications solutions leveraging Nuance Say Anything and AccuRoute can reduce misroutes by up to 50% and cut "zero outs" from 10-35% resulting in



Nuance Analyze and Nuance Tune Accuracy Report

potential savings of up to \$20 million annually. Nuance's Say Anything and AccuRoute deployments handle over 1/4 of a billion calls per year, significantly more than technologies provided by other vendors. Nuance is the only major speech vendor with significant deployment experience with these advanced natural language systems.

Listen & Learn™ improves accuracy and personalizes the caller experience

Listen & Learn is a family of features that enable Nuance-based voice systems to automatically detect and adapt to the unique speech characteristics of a carrier's or enterprise's broad customer base as well as individual callers. With Listen & Learn, companies can improve accuracy, as well as provide each caller with a tailored experience. Listen & Learn features include Auto-tuning, Personalization Kit™, and Dynamic Language Detection™.

 With Auto-tuning, Nuance speech systems can be automatically tuned to account for characteristics common to a specific company's caller population. For instance, a carrier serving subscribers in the southern United States can use Auto-tuning to automatically adapt its voice automation customer care system to account for the unique southern accent common among its subscribers. In many cases, Auto-tuning can reduce error rates by as much as 60



percent resulting in faster customer transactions and improved quality of service.

- Personalization Kit provides patent-pending technology that analyzes voice characteristics and environmental conditions of an individual call in real-time. Enterprises and carriers can use this information to create user interfaces tailored to each caller, resulting in higher quality services that are easier to use.
- Dynamic Language Detection enables voice applications to automatically detect in real-time the language a caller is speaking. The caller simply begins speaking in his preferred language and the system understands and can interact with the caller accordingly.

AccuBurst™ enables cost-effective, optimized performance

AccuBurst's patented technology can automatically detect off-peak call volumes and can dynamically apply idle computing power towards improving accuracy and reducing recognition error rates by as much as 30 percent. Idle "backup" computing power that is often available to provide system redundancy can also be leveraged. AccuBurst is ideally suited for enterprises, carriers, and hosting companies that face very large daily or seasonal peaks in call volume.

Nuance Analyze[™] and Nuance Tune[™] — one-of-a-kind application optimization tools

Analysis and tuning of speech applications can be employed to fine-tune the application's accuracy, improve customer satisfaction levels and enhance the overall caller experience. Now with Nuance Analyze and Nuance Tune – new application optimization tools – partners and customers can more efficiently deliver speech applications reducing the time and costs associated with tuning by up to 50%.

These one-of-a-kind application optimization tools are designed to work together and can incorporate call log data and transcribed data to enable comprehensive tuning of an application. Nuance Analyze generates a variety of reports that provide information related to the total call volume, accuracy,

and other speech related metrics that help to identify problem areas. Nuance Tune, leveraging data in the reports generated by Nuance Analyze, enables simulations to be run to allow the developer to test and optimize new application parameters prior to actually deploying the changes. To perform system tuning, both in-depth analysis and simulation capabilities are required. Nuance is the only speech vendor to offer this combined functionality.

OTHER KEY FEATURES AND BENEFITS

- Proven performance with deployed accuracy measurements as high as 97 percent.
- Large vocabulary speaker independent recognition capable of handling over 100 million listings.
- Exceptionally high accuracy in noisy environments ideal for wireless and hands-free operation.
- Seamlessly integrated voice recognition, verification and textto-speech for improved performance.
- High port density for efficient use of system CPU and memory resources.
- OA&M framework and SNMP support for easy integration with off-the-shelf OA&M, billing and provisioning systems.
- Grammar Hotswap enables online changes to the user interface allowing 24/7 availability.
- Barge-in allows users to interrupt application prompts in midstream.
- Dynamic Grammar Recognition enables applications involving user-defined, voice-enrolled, or text-enrolled, grammars (for example, Voice Activated Dialing.)
- Hotword recognition allows the application to "listen" for specific control words.
- Support for 28 languages allowing for deployment in local markets around the world.
- Host Media Processing (HMP) support for Intel
- Oracle 9.2 support



SUPPORTED LANGUAGES

- U.S. Canadian English
- U.K. English
- Australian/New Zealand English
- Singapore English
- South African English
- French
- Canadian French
- Latin American Spanish
- Castilian Spanish
- Catalan
- Brazilian Portuguese
- Italian
- German/Austrian German
- Swiss German
- Dutch
- Swedish
- Norwegian
- Danish
- Czech
- Greek
- HebrewTurkish
- Korean
- Japanese
- Cantonese Chinese
- Mandarin Chinese (China)
- Mandarin Chinese (Taiwan)
- Arabic (Jordan)

OPERATING SYSTEMS

- Windows® 2000
- Sun SPARC Solaris[™] 2.8
- X86 Solaris 2.8
- IBM-AIX

PLATFORM SUPPORT

Supported by all major Interactive Voice Response (IVR) platform vendors. Please contact your vendor for details.

TRAINING

Nuance Speech University offers a comprehensive suite of training that makes it easy to understand and implement the application components and core technologies required for a complete voice-driven application. For details, visit:

http://www.nuance.com/learn/training/index.html

ABOUT NUANCE COMMUNICATIONS, INC.

Nuance is the leading provider of speech and imaging 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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