

## Speech Recognition Technology



Innovate  
*Passionately*

### Delivering Excellence in Speech Technology

LumenVox is a speech automation technology company that provides carrier grade telephony speech products and supporting services. LumenVox core products include our Automated Speech Recognizer (ASR) and Text-to-Speech (TTS) engines, Call Progress Analysis (CPA, which incorporates Answering Machine Detection), LumenVox Speech Tuner, LumenVox Dashboard and natural language solution support. Based on industry standards, LumenVox speech software is one of the most accurate, natural sounding and reliable solutions in the industry. Our products are the foundation of a successful speech solution.

LumenVox technology provides tools for partners and customers to effectively connect and communicate with their end users, increase user satisfaction, and improve employee productivity. Our technology is used worldwide by more than 500 banks and credit unions, dozens of hosted service providers and nearly 2,000 other resellers and developers.

At LumenVox, we believe in enabling our partners and customers to cost effectively sell, deliver, maintain and support great speech solutions. We are well known for our outstanding customer service, supporting you through speech application deployment, post-delivery support, and maintenance and administration. We provide our partners with pre-sales assistance, sales and technical training, skills certification, collaborative marketing, and a well-defined technical support program. We deliver great speech products with a flexible pricing model, fantastic support and overall value. At LumenVox, we believe in enabling our development partners to maintain control and ownership over the delivery of their speech-enabled applications.

### Why Choose LumenVox ?

For fifteen years, LumenVox has been a trusted provider of speech recognition software serving the Enterprise, Carrier and Hosted Service provider markets. Our speech engines are integrated with more than 30 voice platforms.

LumenVox' Skills Certification Program certifies System Integrators and Solution Providers to ensure delivery of high quality speech solutions based on the LumenVox speech automation suite. Hundreds of customers return to LumenVox to grow their automation solutions because we make great speech applications easier and available to a broader market of end users.

LumenVox maintains one of the highest Net Promoter Scores (NPS) in the industry: for over three years, our NPS has consistently remained at 88 or higher!

#### Accurate, Reliable and Scalable

- Certified as amongst the most accurate and reliable ASR products in the industry
- Deployed in large-scale deployments globally, where scalability and high-availability are demanded
- The inherently distributed architecture designed into all LumenVox products allows for robust scalability, from small to extremely large configurations as needed
- By supporting virtualized environments, LumenVox enables fault-tolerant configurations, with minimal down-time for the most demanding situations

#### Superior TCO

- Flexible licensing and pricing models for premise and cloud deployments, including Backup licenses
- Easy to install and configure
- Offers high competitive value
- Cost-effective tools, systems and programs for maintenance, support and administration

## LumenVox Speech Recognizer (ASR)

The LumenVox Automated Speech Recognizer (ASR) is a software solution that converts spoken audio into text, providing users with a more efficient means of input. Less time spent in data input frees up resources that can be used more effectively.

Developers can write applications using our application programming interface (API) or a standards-based solution like media resource control protocol (MRCP). This makes installation, implementation and deployment easy for users of those platforms.

The LumenVox Speech Recognizer also supports Natural Language Understanding (NLU) applications through development of Statistical Language Models (SLM). These advanced speech development techniques provide end users with a more natural speech interface to the ASR.

Available in 32 and 64-bit versions of Linux and Windows, the hardware-independent Speech Recognizer powers speech solutions and platforms deployed in Enterprise, Carrier, Hosted Service Provider and SMB environments worldwide.

### ASR Languages Currently Supported:

- American English
- Australian/New Zealand English
- Columbian/Latin American Spanish
- Mexican/North American Spanish
- British English
- Indian English
- Canadian French
- Brazilian Portuguese

## LumenVox Speech Tuner

The LumenVox Speech Tuner, a complete tuning and maintenance tool, is a must-have for every speech application and can be used to improve the effectiveness of any LumenVox product.

The Speech Tuner performs transcriptions, instant parameter and grammar tuning, and version upgrade testing of any speech application. It reduces the work of your post-deployment application revisions, and allows you to bring tuning in-house, avoiding costly professional service fees. The Speech Tuner contains a flexible new accuracy classification feature, which allows users to see the hypothetical effects in individual interactions if the confidence threshold were to be changed. All of this translates into better customer experience and improved total cost of ownership (TCO) for speech-enabled applications.

The LumenVox Speech Tuner allows for tuning in 3 Easy Steps:

1. Analyze each stage in the call process.
2. Transcribe audio data, make pinpoint adjustments, and immediately measure the effects on the overall performance.
3. Test design and development decisions of new applications, using data from deployed applications.

## LumenVox Text-to-Speech (TTS)

The LumenVox Text-to-Speech Server (TTS) provides Text-to-Speech synthesis, turning written text into spoken speech. It supports the Speech Synthesis Markup Language (SSML), which is a way to format text within XML to control the pronunciation of words, but it also accepts plain text in order to perform synthesis.

LumenVox offers 57 male and female TTS voices in:

- American English
- Australian English
- Brazilian Portuguese
- British English
- Canadian French
- Castilian Spanish
- Danish
- Dutch
- European French
- European Portuguese
- Icelandic
- Indian English
- Italian
- Latin American Spanish
- North American Spanish
- Norwegian
- Polish
- Romanian
- Russian
- Standard German
- Swedish
- Turkish
- Welsh
- Welsh English

## LumenVox Call Progress Analysis (CPA)

LumenVox' Call Progress Analysis (CPA) increases the effectiveness of your outbound messaging application. Built on and replacing our existing Answering Machine Detection (AMD) technology, this new solution increases its reach beyond detecting answering machine and voicemail tones.

LumenVox Call Progress analysis leverages the strength of the LumenVox Speech Recognizer in combination with our tone detection (tested at over 98% accuracy) in order to confidently determine whether a human or machine has answered the call.

Once CPA has determined that it has reached a live person or a machine, your application can decide what to do: live humans can be sent to agents or dropped into IVRs, while voicemails can have perfectly end-pointed messages delivered using our tone detection to know when to start playing the message. If a voicemail beep is detected, the application restarts playing its message or a custom voicemail message is played. Your message sounds more professional because it starts precisely where it should.

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