LumenVox Recognized for



Enabling Technology Leadership

North American Contact Center Industry *Excellence in Best Practices*

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Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. LumenVox excels in many of the criteria in the contact center space.

AWARD CRITERIA	
Technology Leverage	Customer Impact
Commitment to Innovation	Price/Performance Value
Commitment to Creativity	Customer Purchase Experience
Stage Gate Efficiency	Customer Ownership Experience
Commercialization Success	Customer Service Experience
Application Diversity	Brand Equity

Application Diversity

As one of the most mature pure-play speech technology providers, LumenVox has demonstrated over 20 years of speech technology innovation. It now powers 3.5 billion automatic speech recognition (ASR) interactions per year across more than 6,500 deployments and supports millions of active voiceprints. Its technology also supports billions of non-voice touchpoints across partners and channels.

The company offers a complete suite of flexible and cost-effective speech and authentication technologies that help to transform self-service and customer-agent interactions. Core technology includes ASR, artificial intelligence (AI), deep neural networks (DNN), speech-to-text (STT), text-to-speech (TTS), voice biometrics, transcription, natural language understanding (NLU), and natural language grammars. These technologies are being used to digitally transform customer journeys,

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- Nancy Jamison, Industry Director

eing used to digitally transform customer journeys, enhance customer experience (CX), and provide safe and secure interactions.

Based on Frost & Sullivan's research, one of the keys to Lumenvox's success is broadening its core portfolio while pivoting to be a more products-focused company. This has doubled its reach and allows the company to market core technologies such as ASR, embed in other provider platforms, offer complete solutions that are then incorporated into other provider's platforms, or sold as white-labeled LumenVox products. Examples of the latter include its call progress analysis (CPA) for call assurance in outbound campaign management, voice biometrics technology for fraud detection and prevention, and user authentication for applications such as password reset.

Commitment to Innovation

Frost & Sullivan has defined commitment to innovation as 'continuous emerging technology adoption and creation that enables new product development and enhances product performance.' LumenVox stands out as it is a premier provider of a large set of emerging and maturing technology that others in the market adopt for product development and performance. The company also uses these core technologies in its products and packaged solutions for the market.

LumenVox offers advanced Al-infused technology that enables companies to drive CX change across their organizations. Al and DNN are part of LumenVox's DNA and have been used for over a decade, far longer than most other market providers. This has poised LumenVox products for adoption by companies just starting to infuse Al across customer contact assets. These core technologies are also used for companies with significant investments in Al R&D to embellish products in development. Examples include LumenVox's use of DNNs to enhance systems using "deep" analysis of huge data sets. They are utilized in its passive biometric system to aid in speaker verification and recognition.

The company continues to innovate across its core components and develop new functionalities that address key trends in the contact center industry. For instance, regulation and compliance have long been top issues within outbound customer contact. One of the chief regulatory concerns is to avoid exceeding the regulatory limit on the number of attempts made to reach a person across channels (e.g., voice, text, email, SMS). LumenVox leverages its speech recognizer in combination with tone and voice activity detection to accurately determine whether a human or machine has answered the call, resulting in different call treatments for added value.

For example, using voice activity detection, CPA automatically starts listening for voicemail or other tones to determine how long the other side is speaking, enabling the outbound dialer to accurately start playing a message rather than being cut off. This increases customer engagement and ensures that the entire message is played without wasting a call attempt. However, CPA also considers the way consumers versus businesses answer the phone, enabling companies to adjust call/message treatment relative to who they are trying to connect with while assisting with compliance regulations.

Commitment to Creativity

The contact center industry is complex, and development has often been done in silos and then stitched together. The drive in the past decade to streamline customer journeys and create omnichannel services has been a focal point for addressing this issue. Speech technologies, which are core to contact center development, are no different. LumenVox and others have developed different engines for various functions, such as ASR, biometrics, and transcription.

While it is common for more than one engine and technology to be applied to deliver a solution (such as an intelligent virtual assistant), the seamless, omnichannel delivery of speech technologies has not been

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addressed until now. The result of a critical design decision made by LumenVox is the merging of all its core engines under one roof. Combining speech technology assets such as its NLU gateway and transcription engine enables a user to take a single piece of audio and run it past all of them simultaneously to gain broader insights and handling treatments. This reduces processing time, increases the service delivery speed, and allows for a richer data set

for analysis. The redesign focused on developing a modular technology stack that could be inserted into any environment, providing greater flexibility for customers. It also allows the platform to accept communication streams from any number of sources, not just the contact center, creating richer data sets for the contact center and broadening the adoption use cases for LumenVox outside of the contact center.

Commercialization Success

LumenVox's broad portfolio powers voice interactions across a diverse partner and developer ecosystem. This includes over 20 top contact center solution provider platforms such as Alvaria, Asterisk, Avaya, Cisco, Genesys, NTT, and Blueworx. These partners often choose one or more LumenVox technology components for a specific use case, such as specialized languages for TTS that other speech technology providers do not offer or for essential capabilities such as CPA. However, LumenVox is increasingly being selected as the main speech technology provider across a partner's solution stack.

LumenVox has shown tremendous resilience in a market that a few providers have dominated over the past 20 years. Not only has it kept pace, but in recent years the fruit of its strategic design and development decisions and creative go-to-market strategies have enabled it to make impressive gains in revenue and customer acquisition. For instance, the company's revenue in 2019 was 70% over 2018. It doubled the business in 2020 and is on track to do the same in 2021.

One decision that allowed it to broaden its reach was to design the products to easily work alongside competitive products. This has made it easier for customers to utilize multiple speech technology products and attain the right mix to address their unique needs without being locked into a single vendor. For instance, LumenVox's NLU/NLP Gateway is a configurable AI gateway that allows customers to select and use most of the largest intent engines in the market, along with LumenVox ASR and TTS products. Customers can also use LumenVox ASR with NLU platforms from other providers, such as IBM or Google, in their interactive voice responses (IVRs). While its TTS is available in over a dozen languages and voices, the LumenVox TTS server allows for drop-in replacement of other TTS engines in dozens of voice platforms supported by LumenVox. Another competitive differentiator is that if a company wants a specialized language, LumenVox can create it within 30 days of request.

Customer Purchase Experience

Simplicity is the hallmark of LumenVox customer engagement. From fitting technology into an existing environment to extremely flexible pricing and consumption models, LumenVox is an easy company to work with. Frost & Sullivan believes that this focus on simplicity for the customer has fueled an exceptional customer purchase experience for LumenVox clients. This goes beyond LumenVox enabling its products to easily work alongside competitive offerings. The company provides further competitive differentiation by making it easy to consume its products and services. A single service provides a gateway to effortlessly enable the entirety of LumenVox services rather than buy them incrementally. This has allowed LumenVox to enter existing environments and significantly cut down the cost of speech technologies for its clients. All capabilities are part of a flexible licensing tool that is part of the technology sale.

LumenVox accommodates any way that a customer wants to run their business and has built pricing models for ultimate consumption flexibility; by session, agent seat, or port; or by day, week, month, or year. It also offers subscription or site licenses or "all you can eat" licenses. Enterprises can mix and match licenses, whichever works best for the business.

Price/Performance Value

LumenVox shows exceptional price-performance value through its licensing models and competitive pricing. LumenVox technology has been shown to provide a solid ROI for clients. For instance, it benchmarked the performance of its ASR engine with transcription to Amazon Lex, Google Dialogflow, and a Kaldi-based engine using independent, third-party test sets. LumenVox found that its transcription technology achieved a 98.6% word accuracy rate (a performance improvement of 20% to 30%) compared with other transcription engines. Its CPA product also provides up to a 30% reduction in operational cost.

LumenVox also designs the products for ease of implementation and use. It does not require professional services as a precursor to implementing software. Instead, it includes robust delivery and installation support as a core deliverable so that customers derive value purely through licensing and technology.

Conclusion

LumenVox has strengthened its leadership position in the speech technology field with a solid doubledecade of creativity and innovation. Always attuned to clients' needs, LumenVox has been particularly impressive in making its enabling technologies easy to use, implement, and integrate into any customer environment. Backed by creative pricing models that allow utmost consumption flexibility for the client, LumenVox has rapidly increased the adoption of its products. For its strong overall performance and commitment to creativity and innovation, LumenVox earns Frost & Sullivan's 2021 Enabling Technology Leadership Award in the contact center industry.

What You Need to Know about the Enabling Technology Leadership Recognition

Frost & Sullivan's Enabling Technology Leadership Award recognizes the company that applies its technology in new ways to improve existing products and services and elevate the customer experience.

Best Practices Award Analysis

For the Enabling Technology Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

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The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator[™]. Learn more.

Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- Growth Strategies: Proven Best Practices
- Innovation Culture: Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- Transformational Growth: Industry Leadership

The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)



