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The Speech Recognition Buyers' Guide

Pros and cons of Nuance, Google, and Amazon. Learn how to get more and pay less.

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Executive Summary

When Microsoft completed its takeover of Nuance, it marked an epochal shift in the world of speech recognition technology.

Sure, the Big Tech major players AWS and Google, had staked their foothold in speech decades ago as part of a broader bet on machine learning.

But Microsoft's eye-watering $19.7 billion purchase price of Nuance – the second most costly in the Windows-maker's history (the first being LinkedIn) – demonstrated just how valuable speech and voice recognition is to Big Tech.

What does it mean for your business?

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Measuring Goliaths

If you are using Automatic Speech Recognition (ASR) in your business, you have undoubtedly seen the strong push of Big Tech into the industry.

Amazon, Google, and now Microsoft all have major stakes in voice recognition and transcription software.

This ebook reviews each of the ASR offerings to help you choose the best provider for your unique needs.

We also look at alternatives that offer the same performance without the Big Tech drawbacks.

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A Few Caveats . . .

✓ **You will pay for usage.**

They won't offer a perpetual or subscription license, so you never truly own what you pay for which makes cost management unpredictable.

✓ **You will use their cloud.**

All of them have proprietary clouds that they'll want you to use. If you are with Nuance, they want you to migrate to Microsoft's Azure.

✓ **You will have to figure it out yourself.**

They're so big that they don't have to do customer service. If they do offer it, expect to pay through the nose for Professional Services.

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Transacting with the Enemy

If you are operating a Contact Center as a Service (CCaaS), you know that Big Tech companies are already competing with you.

Amazon, Google, and now Microsoft all offer digital contact center solutions that directly compete with other CCaaS providers.

Think twice before handing them your money and customer data. It can and will be used against you.
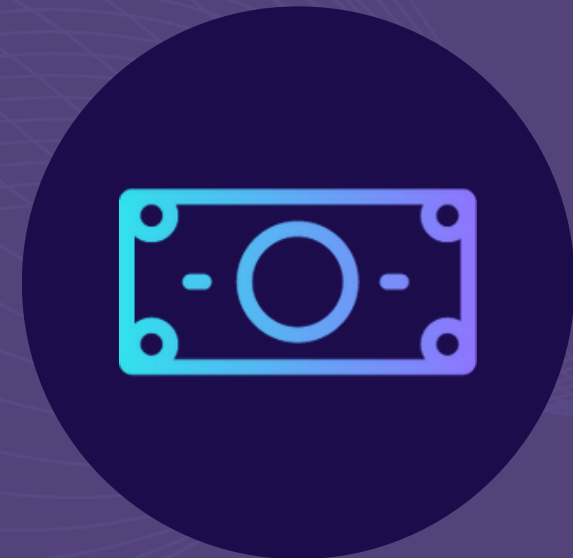
The Benefits of Big Tech

That said, Big Tech became big for a reason. They bring certain advantages that come with hyperscale:

Reputation for innovation

Up until recently, these companies could burn money on moon shots. They've got a lot of smart people working for them.

Ease of integration

If you are already locked in their ecosystem, you may not mind paying more for a quick and easy fix.

Slick interface

All of these products are easy to use, with a lot of engineering put into the front-end application.

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Microsoft Nuance

Pros:

Nuance has long been an industry leader – especially in healthcare, which is why Microsoft snatched them up. Nuance is good for both streaming and batch transcription, with 86 supported languages and dialects.

Cons:

Unfortunately, you may have to use Nuance's Professional Services, which can make up more than half of the overall bill. Another potential cause for concern is the strong possibility you will have to migrate to Microsoft's Azure cloud in the near future.

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Amazon Transcribe

Pros:

Amazon Transcribe is a solid choice if you are on AWS, especially for video captioning. With 37 supporting languages and an accuracy over 90%, it's good enough for many use cases outside of healthcare and financial services where precision may not be as necessary.

Cons:

Be careful in noisy environments, such as call center recordings, as Amazon Transcribe has not performed as well in these circumstances. You also can't use Amazon Transcribe for an on-premise deployment, so it will not work in countries with personal data residency requirements such as GDPR in the European Union, the Data Protection Act 2018 in the UK, POPIA in South Africa, and PIPEDA in Canada.

amazon Transcribe

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Google Cloud

Pros:

Google takes the crown when it comes to global language support, with 125 languages and dialects. Google also currently offers the option to deploy on-premise, which is increasingly rare among the cloud-first vendors, but this may change in the future.

Cons:

Be wary of Google if you're price-conscious: it's among the most expensive solutions. Their usage-based pricing is priced in 15-second increments, so you'll be rounded up for audio under 15 seconds. That can add up to a lot of additional overhead once you are fielding millions of calls.

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Situations to Avoid

There are several situations when you should definitely avoid Big Tech providers:

- If Your Data Needs to be On-Premise

- If You Don't Fit Their Business Model

- If They're Competing with You

Let's look at each of these scenarios and what to do if they apply to your business.

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If Your Data Needs to be On-Premise

A customer recently came to us with a problem: Canadian data security.

Canada's data laws require that call center data be hosted on premises. The cloud providers can't comply unless they have a data center in the country.

If you plan to do business with Canadian customers, you will need an on-premise solution. That is where it makes sense to go with a hybrid provider, like LumenVox.

Hybrid providers offer "cloud-ready" deployments for both on-premise and cloud-based solutions. This gives you the flexibility to serve customers globally while complying with data laws locally.

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# If You Don't Fit Their Business Model

Google, Amazon, and Microsoft have a particular pricing model that may not accommodate your business plan.

For example, you may want a subscription software license rather than usage-based pricing.

With rare exception, the Big Tech players are forcing customers onto usage-based pricing models.

Or say that you plan to scale. Rounding up to 15 seconds for 2 second calls will quickly lead to unacceptable operating expenses.

Too bad. With Big Tech it's one-size-fits-all pricing models, which may not work for you and your customers.
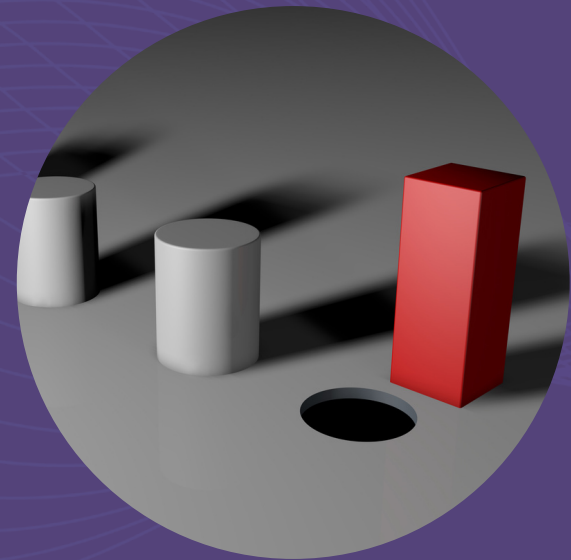
If They're Competing with You

Big Tech wears many faces.

They are your partner when they are offering you cloud infrastructure as a service; they are your rival when they are offering their platform solutions which compete for your customers.

No doubt about it, Big Tech wants to own speech and voice recognition. Part of how they gain competitive advantage is by controlling and analyzing the data that passes through their platform.

First they see what you're doing. Then they copy you, undercut you, and replace you.

If you are already competing with Big Tech, or if you can see a day in the future when they might compete with you, you ought not put your data in their basket.

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The Myth of the Necessary Evil

"But wait," you may be saying, "Isn't Big Tech a necessary evil?"

Even though many people complain about Facebook or Instagram, they still use those services because there aren't great alternatives.

Fortunately, the same isn't true of the speech and voice industry. There is a rich ecosystem of established companies who have deep records of success.

Let's compare how an independent company stacks up against the Big Tech players.

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Pros:

LumenVox is both the most accurate speech and voice recognition software provider and the one with the lowest Total Cost of Ownership. LumenVox offers industry-leading customer service and can configure the software to fit your needs.

Cons:

LumenVox isn't a "one-stop shop" where you get all your software and services from a sole provider. The silver lining: we fit right in as a best-in-class provider in a composable customer experience solution.
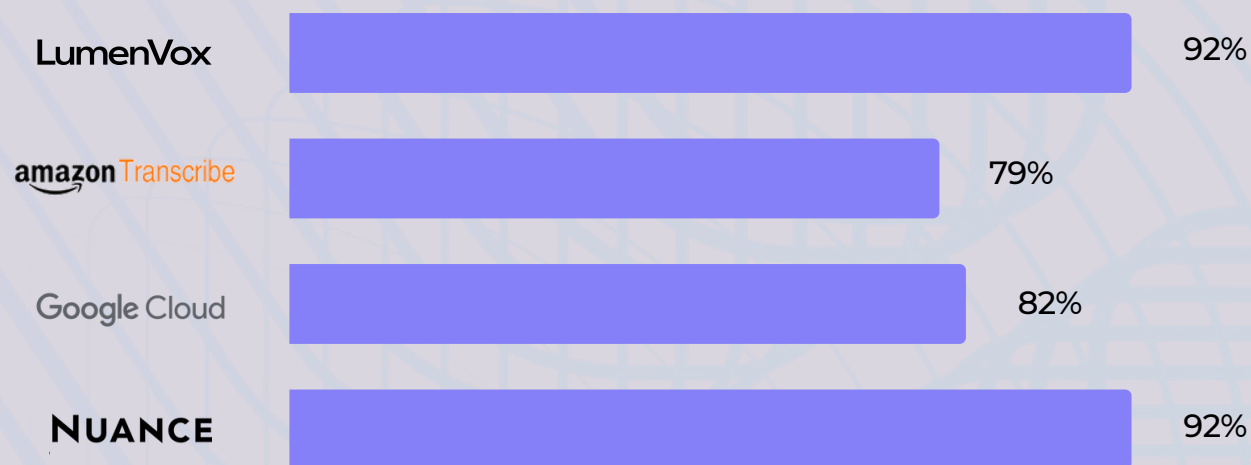
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Comparing Accuracy

You might think that by forgoing Big Tech you'll be settling for inferior performance.

In fact, the opposite is true. LumenVox is as good or better in every measure of speech recognition accuracy, especially when conversations are structured in directed dialogue speech-enabled Interactive Voice Response (IVR) applications in contact centers.

**The secret is LumenVox's end-to-end, deep neural network.**

	Accuracy
LumenVox	92%
amazon Transcribe	79%
Google Cloud	82%
NUANCE	92%

ASR Benchmarking Performance
Transcription ASR word accuracy (CLSU dataset)

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Comparing TCO

The total cost of ownership for LumenVox software is often more than *a third less* than what you'll pay for a Big Tech solution.

The savings are achieved through licensing flexibility, and ease of migration and implementation without the need to bundle pricey Professional Services.

Total Cost of Ownership

LumenVox	amazon Transcribe	Google Cloud	NUANCE
$	$$	$$$	$$$
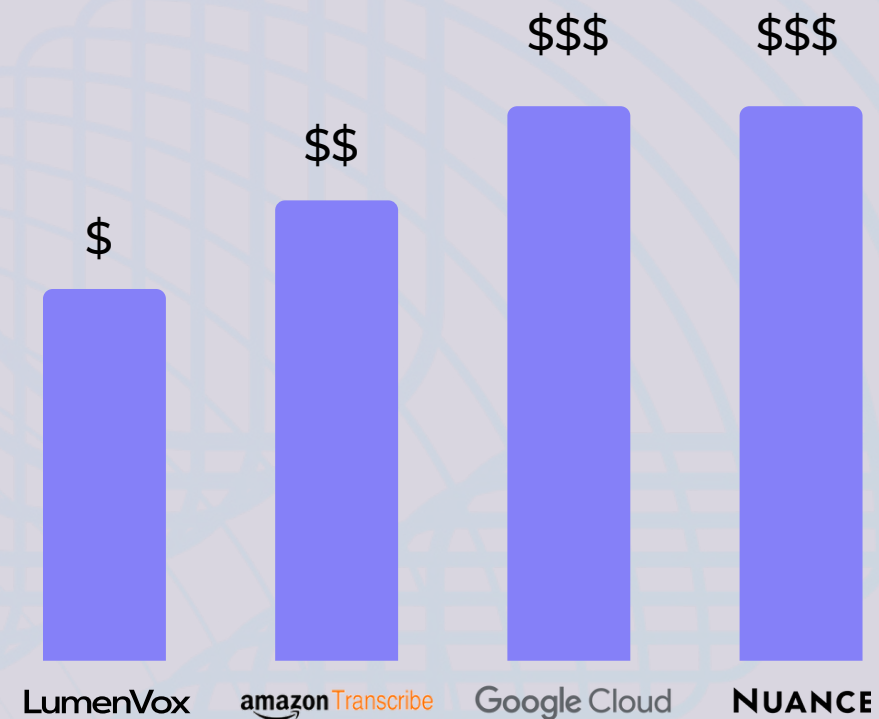
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Comparing ASR Offerings

	LumenVox	amazon Transcribe	Google Cloud	NUANCE
ASR transcription	✓	✓	✓	✓
ASR grammar option	✓	X	X	✓
Flexible licensing	✓	X	X	X
On-premise option	✓	X	X	X
Deployment flexibility	Any cloud	AWS cloud	Google cloud	Microsoft Azure
Round-up pricing	Pay per second	Round up to 15 seconds	Round up to 15 seconds	Round up to 1 minute
Professional services	Optional	Optional	Optional	Required
Easy to deploy & maintain	✓	X	X	X
Cost efficient to scale	✓	X	X	X

*Based on internal testing

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Why LumenVox?

LumenVox is the leading provider of automated speech recognition technologies. The LumenVox ASR engine leverages Deep Neural Networks to understand what customers are communicating, no matter how they speak. LumenVox's suite of services includes speech recognition, answering machine detection, automated transcription, and identity verification.

The LV Difference:

- ✔ Better ROI
- ✔ Lower TCO
- ✔ More Flexible
- ✔ More Accurate

Looking to build next generation voice experiences?

Request a demo today to see how we can save your customers time and money.

Book a demo →

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