

# Call Center Intelligence Solution Accelerator

Financial Services and Insurance industries

# Creating better customer experiences with AI

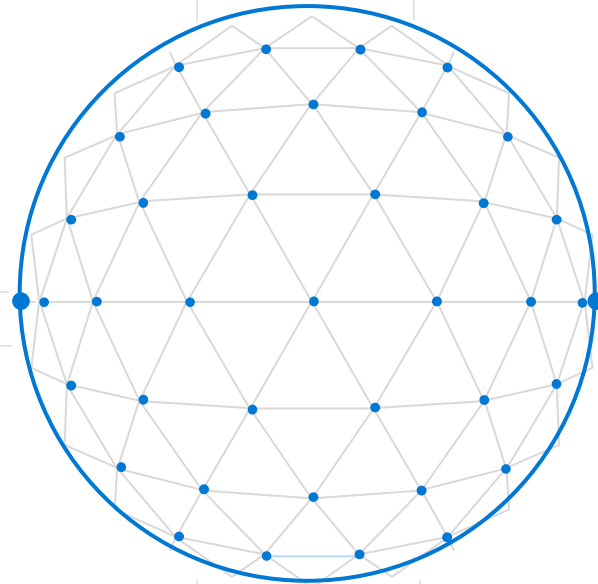
Organizations are implementing advanced technology to improve customer satisfaction

## Callers lose patience

**2-3 minutes** is the average time a customer will spend on hold before getting upset—and average call center hold times are 13 minutes.<sup>1</sup>

## Callers repeat themselves

**53%** of callers have to repeat their reason for calling to multiple agents.<sup>2</sup>



## AI for call centers is growing

**\$3.5B** is the projected global market for AI in call centers by 2026—a 21.5% 5-year compound annual growth rate.<sup>3</sup>

## Data insights enhance business

**82%** of brands agree that insights from inbound calls and call experiences may reveal costly blind spots in their organizations.<sup>4</sup>

1) ["How to Shorten Long Hold Times in Your Services Dept.", HubSpot, Aug. 25, 2020.](#)

2) ["Invoca Buyer Experience Benchmark Report", Invoca, 2021.](#)

3) ["Global Artificial Intelligence \(AI\) in Call Centers Market to Reach US\\$3.5 Billion by the Year 2026", Yahoo! Finance, Feb. 22, 2022.](#)

4) ["Customer Experience Statistics You Need to Know in 2021", Invoca, Jun. 7, 2021.](#)

# Challenges to creating customer-centric experiences

Manual processes and limited automation inhibit call center agent success



**Manual data entry** during real-time conversation slows service delivery and creates errors.



**Labor shortages and high turnover** add strain to call center operations.



**Privacy laws** protecting customer data are varied and complex.



**Untapped data** from historic call records is a wasted resource.



**Legacy AI transcription technologies** are significantly less accurate than human transcription.

# Automate call transcription to overcome challenges

Support agents and enhance the customer experience with advanced analytics and insights



Gain **highly accurate, cost-effective call transcription** with automation.



Increase **efficiency** by reducing average call duration, limiting re-routing, and eliminating customer repetition.



Generate a wealth of **customer insights** to inform training and sales processes.



Ensure **compliance and PII protection** with leading security and flexible data warehousing.



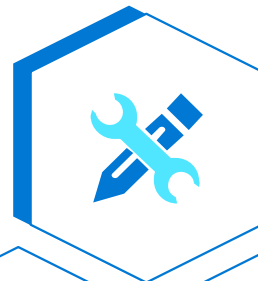
Create improved **personal customer interactions** and increase customer retention.

# Streamline call center operations with the power of AI

Enhance customer experience with rich data insights from real-time and recorded calls

The **Call Center Intelligence Solution Accelerator** automates call transcription in near real-time with Azure Cognitive Services by using custom speech models, text analytics, and industry-specific natural language processing. Data insights on customer sentiment, topic analysis, and other valuable call attributes are served up in a user-friendly visual dashboard in **Power BI**.

**Customizable speech model** incorporates your industry and business language.



**Transcription and analysis at scale** provide insights on real-time and previously recorded customer calls.

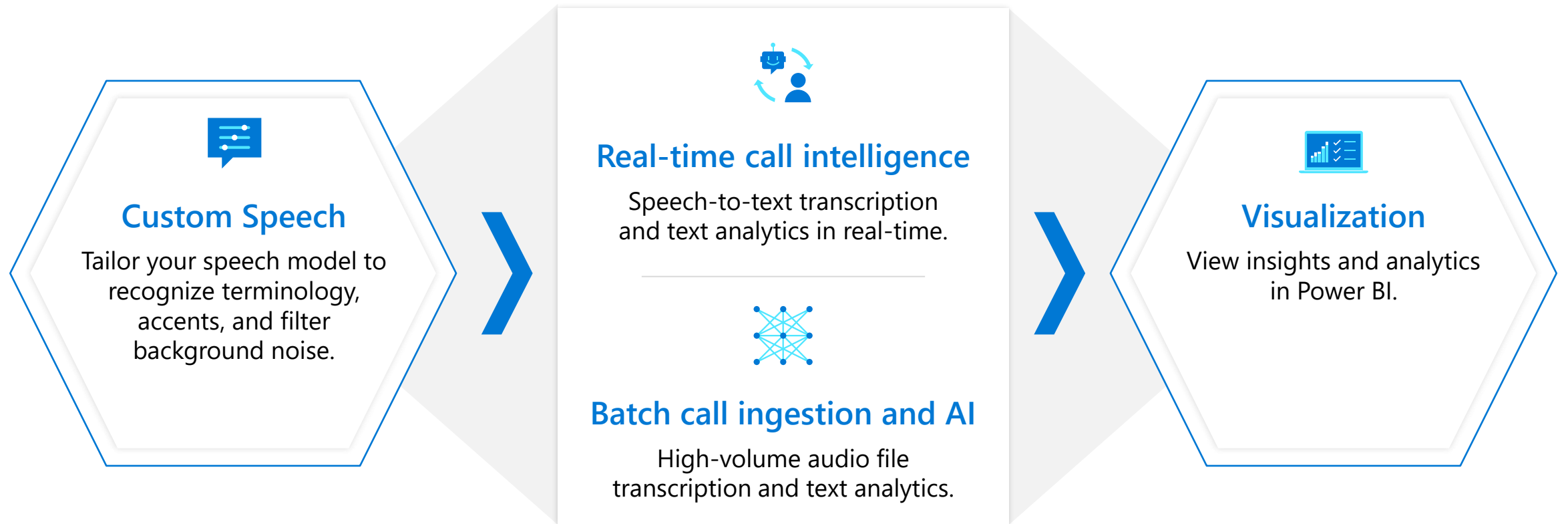
**Automated PII detection and redaction** protects customer privacy and promotes compliance.



**Rapidly deployable pre-configured IP** requires minimal technical time and expertise.

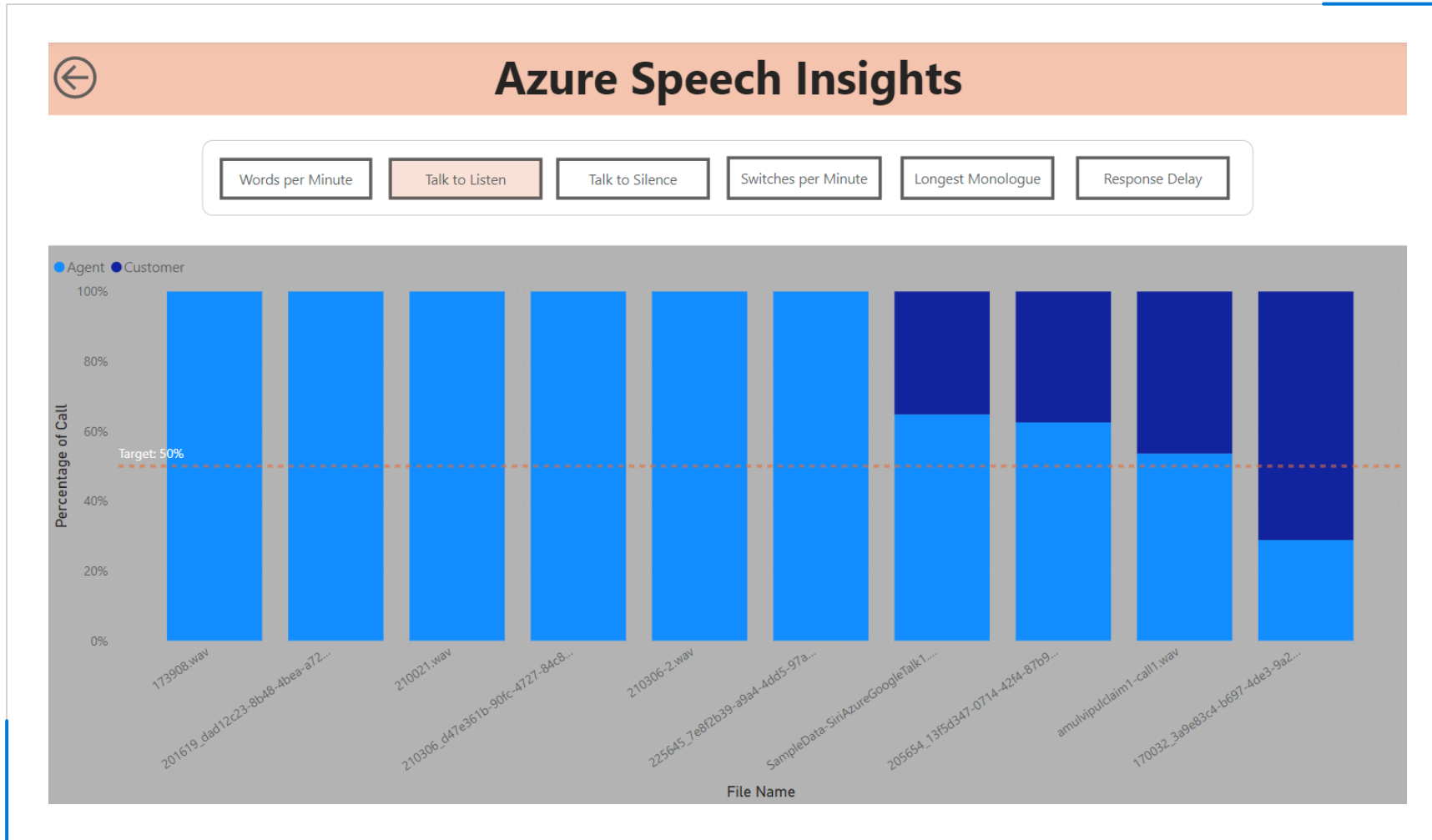
# Ease and expedite call center operations

Azure Cognitive Services and Power BI deliver end-to-end call transcription insights

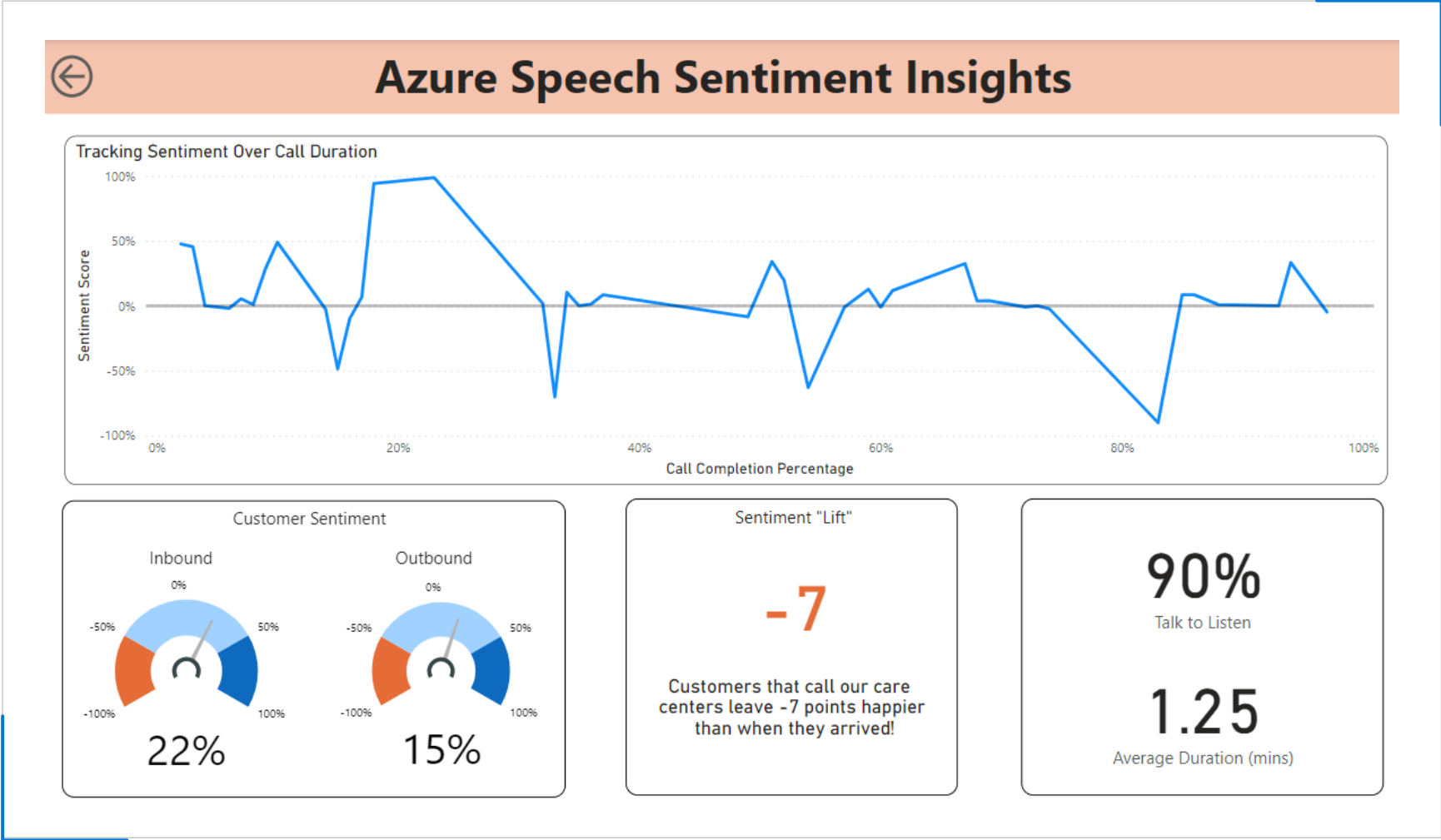


# Visualize real-time and historical call analytics

Accurate automated transcription enables actionable customer insights



# Track customer sentiment throughout calls





# Allstate transforms the call center experience with AI

Single-call auto insurance claims help reduce customer stress

<b>Situation</b>	Allstate found that when auto insurance customers initially called to report an accident, they provided <b>rich details and information that agents weren't effectively capturing</b> . The company wanted to remove as much as friction as possible from the claim filing process.
<b>Solution</b>	The company leveraged Azure Cognitive Services to create a <b>custom speech model that recognizes insurance vocabulary</b> and to deploy a transcription service that <b>automatically captures customer calls as text</b> .
<b>Impact</b>	Allstate now automatically ingests <b>all information from a single customer call</b> to initiate the claims process. The <b>enhanced customer experience</b> is creating greater customer satisfaction and brand affinity.



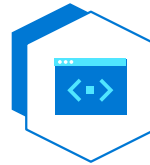
*With our transcription work, when a customer reports their accident initially, we're able to take that rich detail and figure out, without involving them, how to process their claim*

**Olivia Mahler-Haug**  
Senior Product Owner  
Claims, Innovation & Delivery



[Watch the Allstate customer success story video >](#)

# Accelerate your journey to Call Center Intelligence



## Kick-off

Learn more about the Call Center Intelligence Solution Accelerator and view a demo.

30 minutes

## Proof of value

Solution code walk-through and prototype creation for testing.

3-5 days

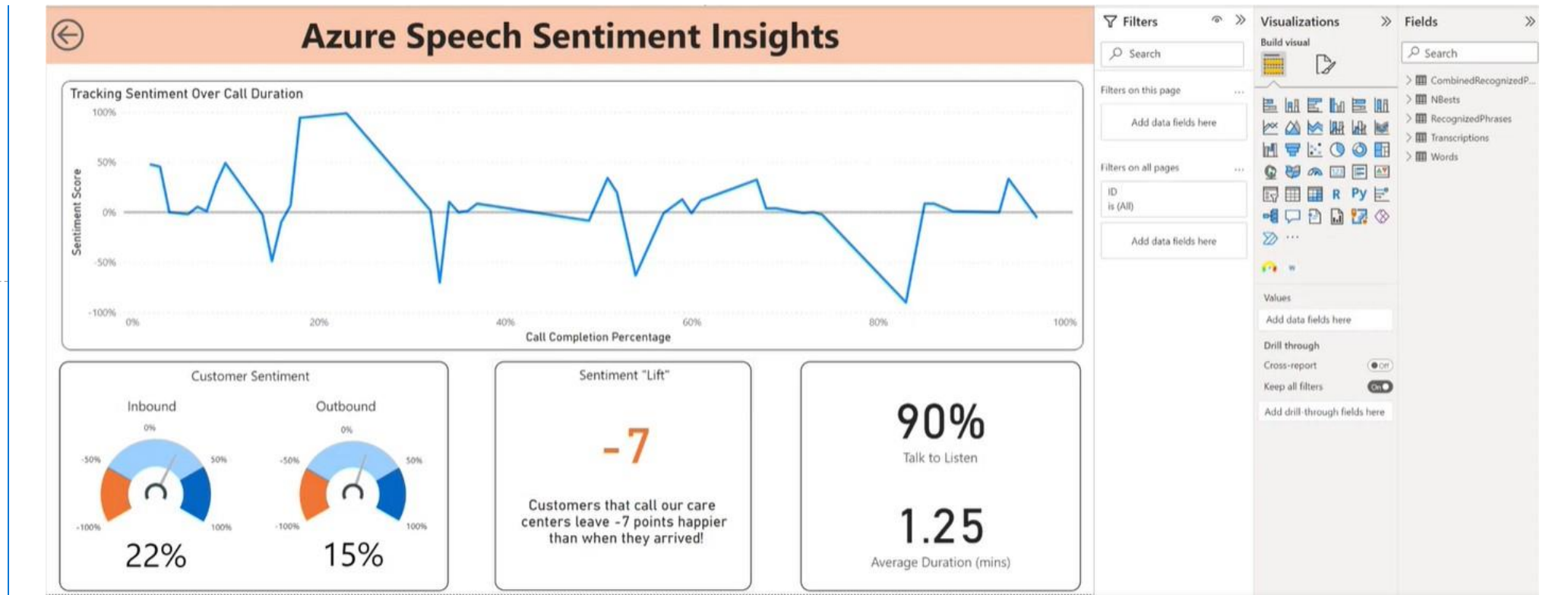
## Proof of concept

Proof of concept (PoC) is built and deployed with support of the technical specialists and partners.

3-6 weeks

# View a demo video of the solution

Click [here](#)



# Transform the agent and customer call experience

Highly accurate transcription unlocks new insights at scale



Scale to manage **limitless call volume transcription** automation.



All transcription and recording data resides in your Azure tenant, giving you **complete ownership, control, and visibility**.



The Solution Accelerator can run on Azure or in containers, **accommodating your hybrid or multicloud infrastructure**.



**Rapidly deployable pre-configured IP** requires minimal technical time and expertise.

In **2016** a Microsoft Artificial Intelligence and Research team reported a speech recognition system with a word error rate of **5.9%**.

**This is the same rate as professional transcriptionists.<sup>1</sup>**

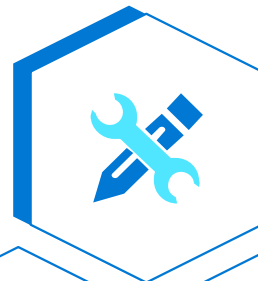
1) ["Historic Achievement: Microsoft researchers reach human parity in conversational speech recognition." Microsoft AI Blog, Oct.18, 2016.](#)

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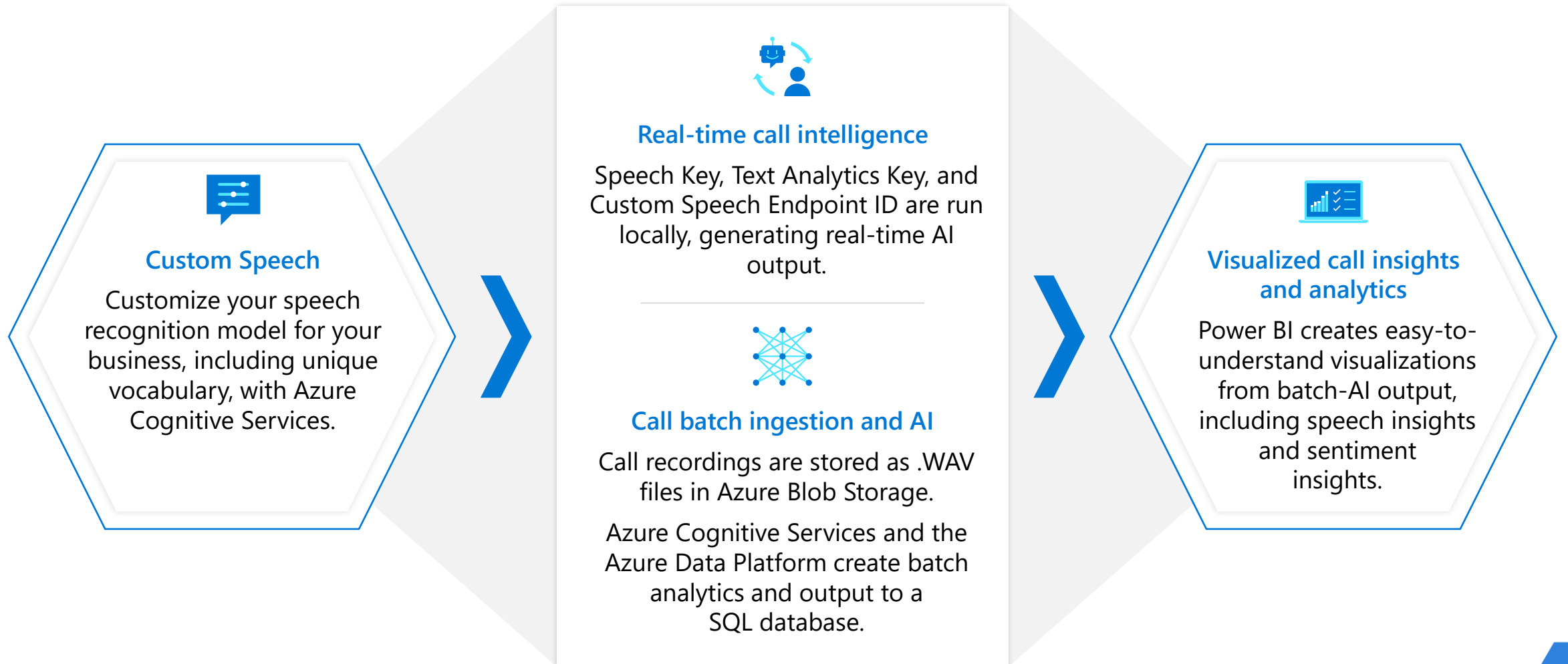
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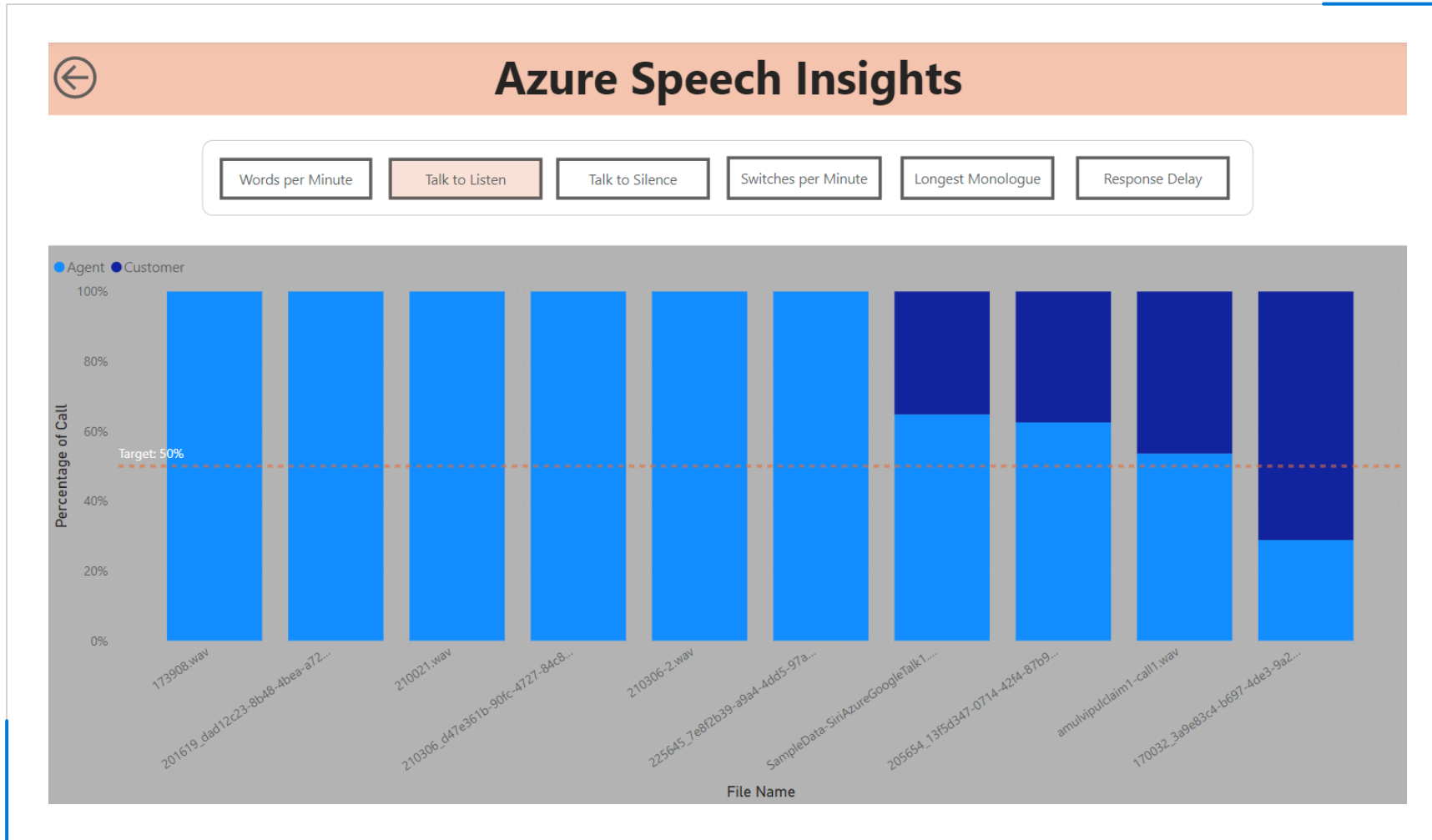
# Streamlined approach creates efficiencies for call centers

Apply cutting edge transcription and AI locally or in the cloud

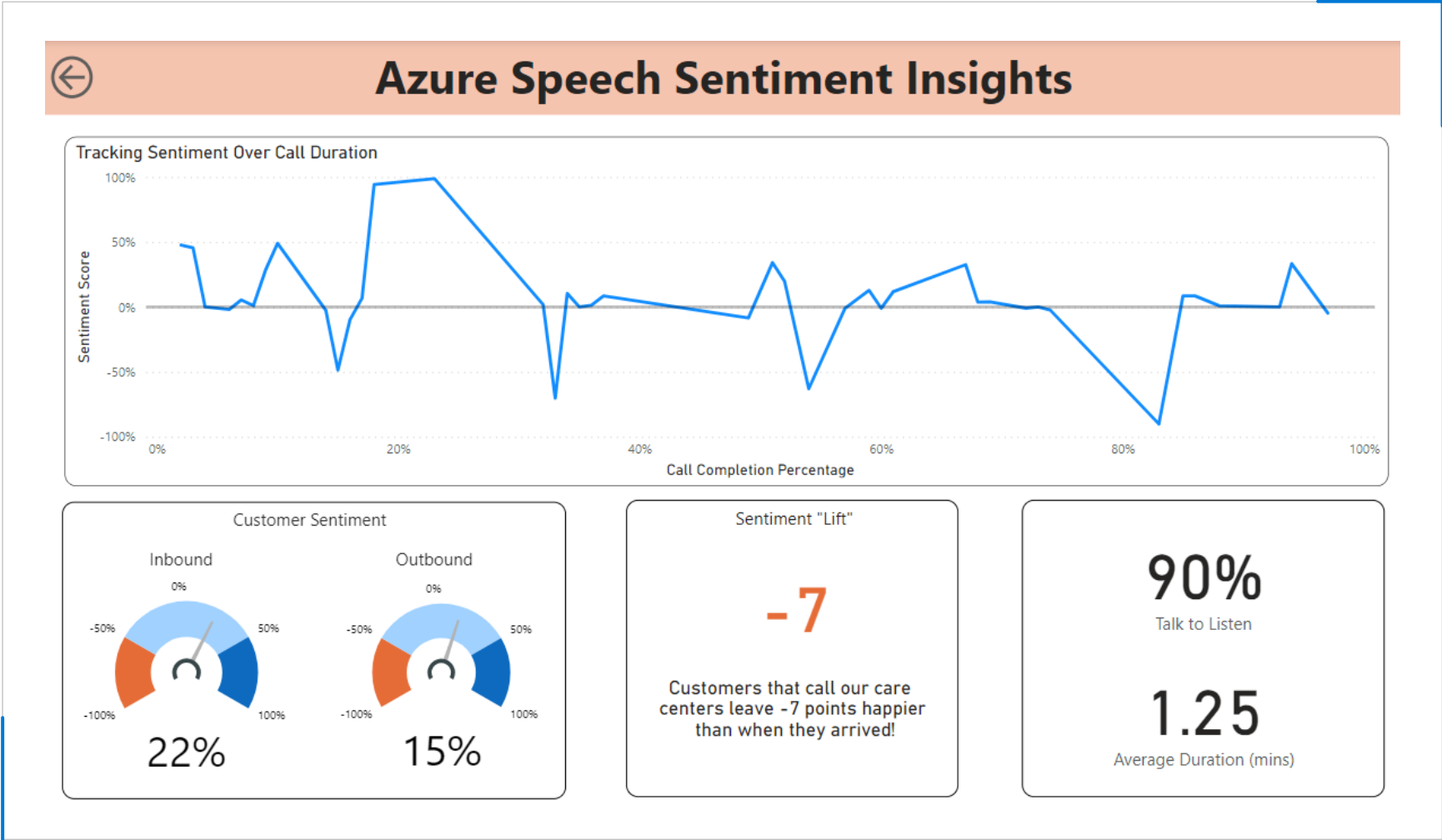


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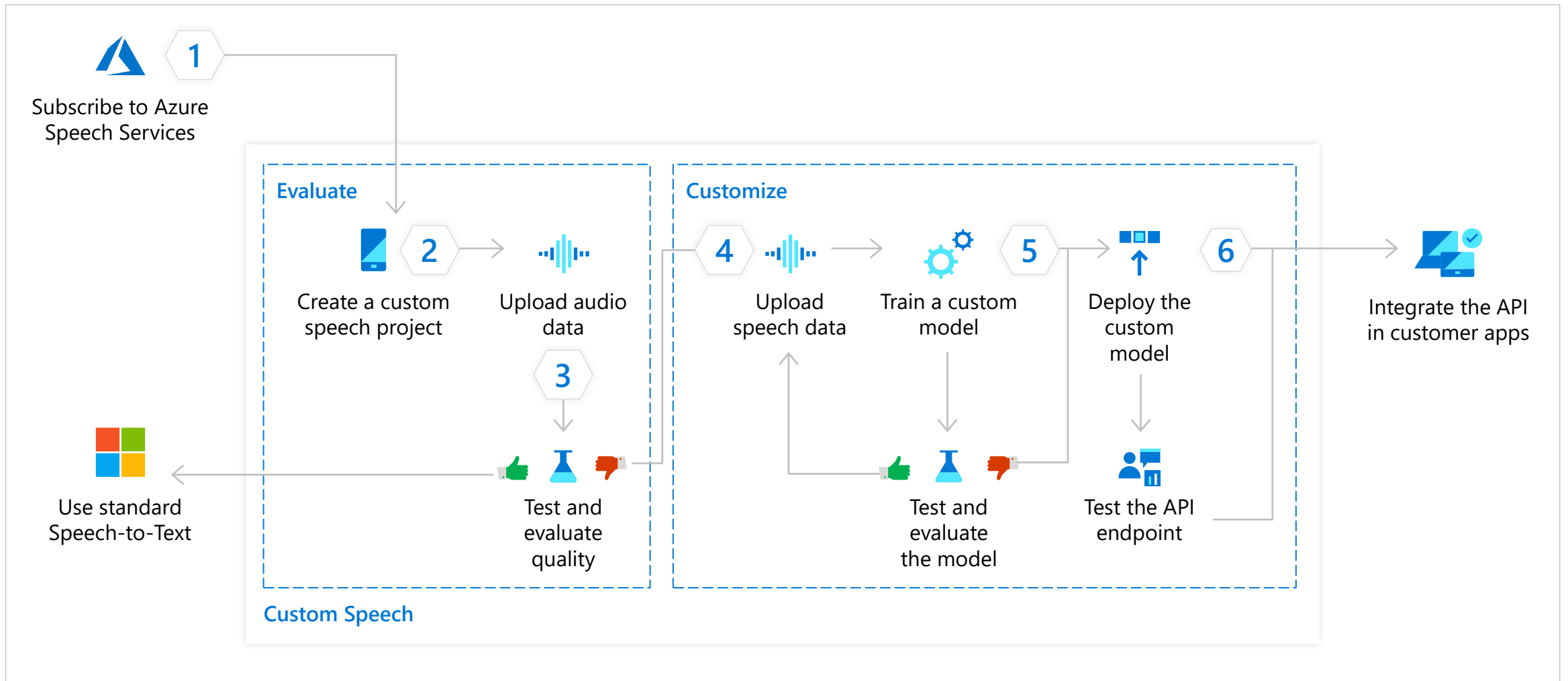


# Track customer sentiment throughout calls

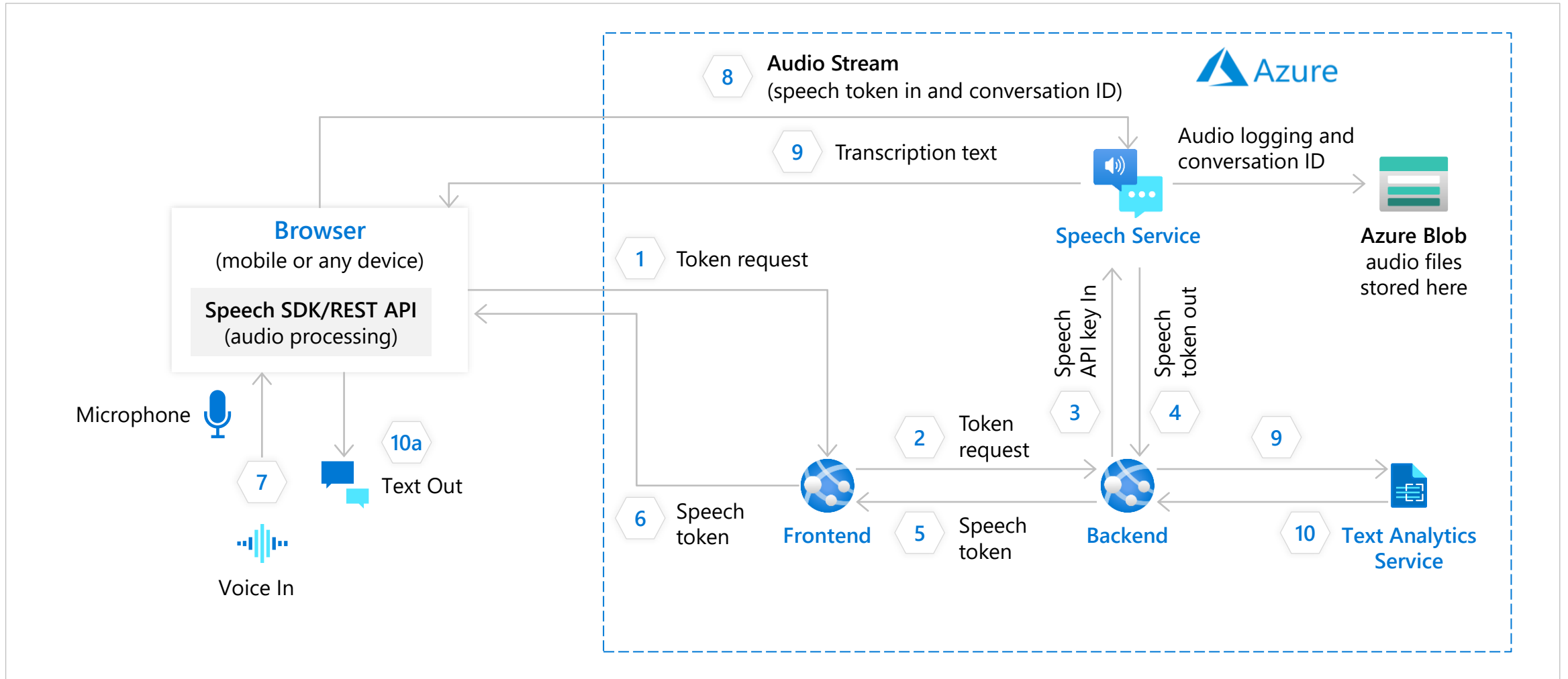




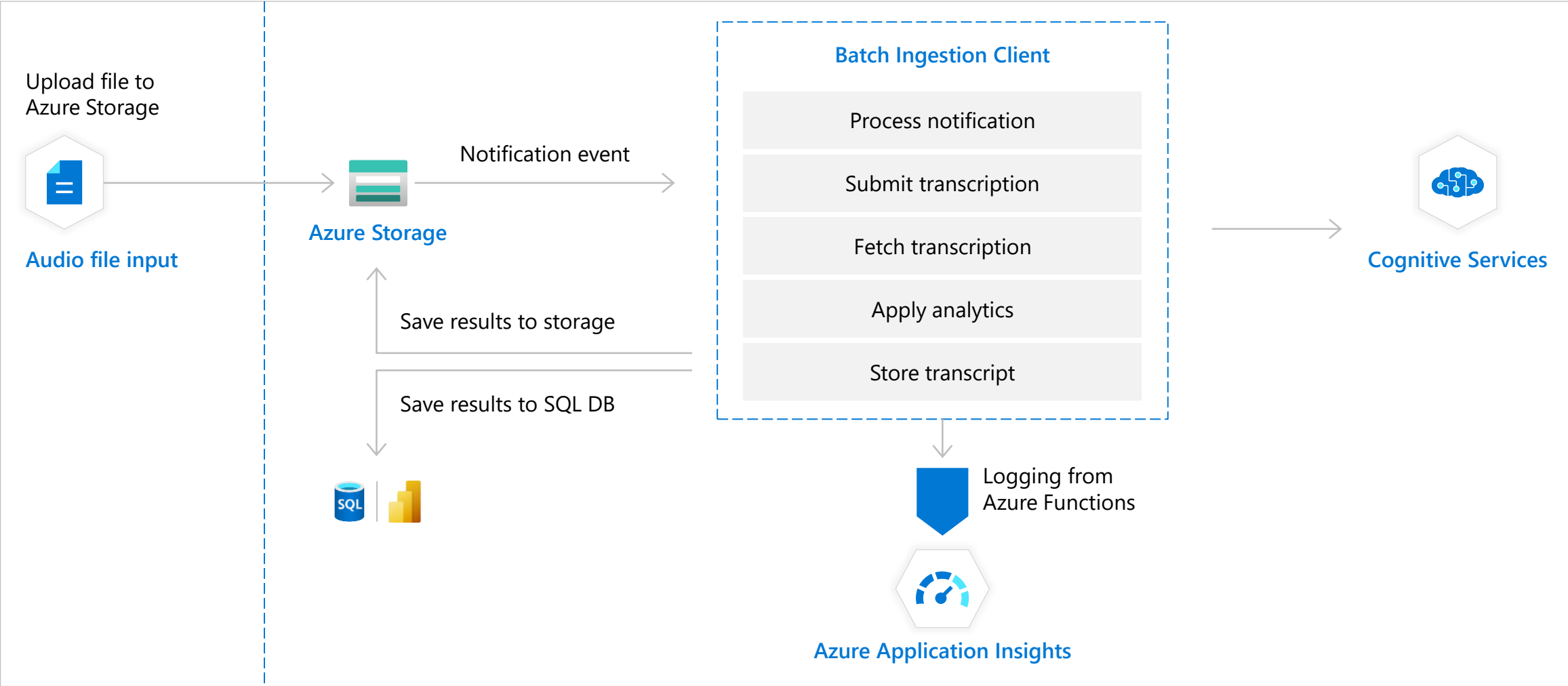
# Azure Custom Speech reference architecture



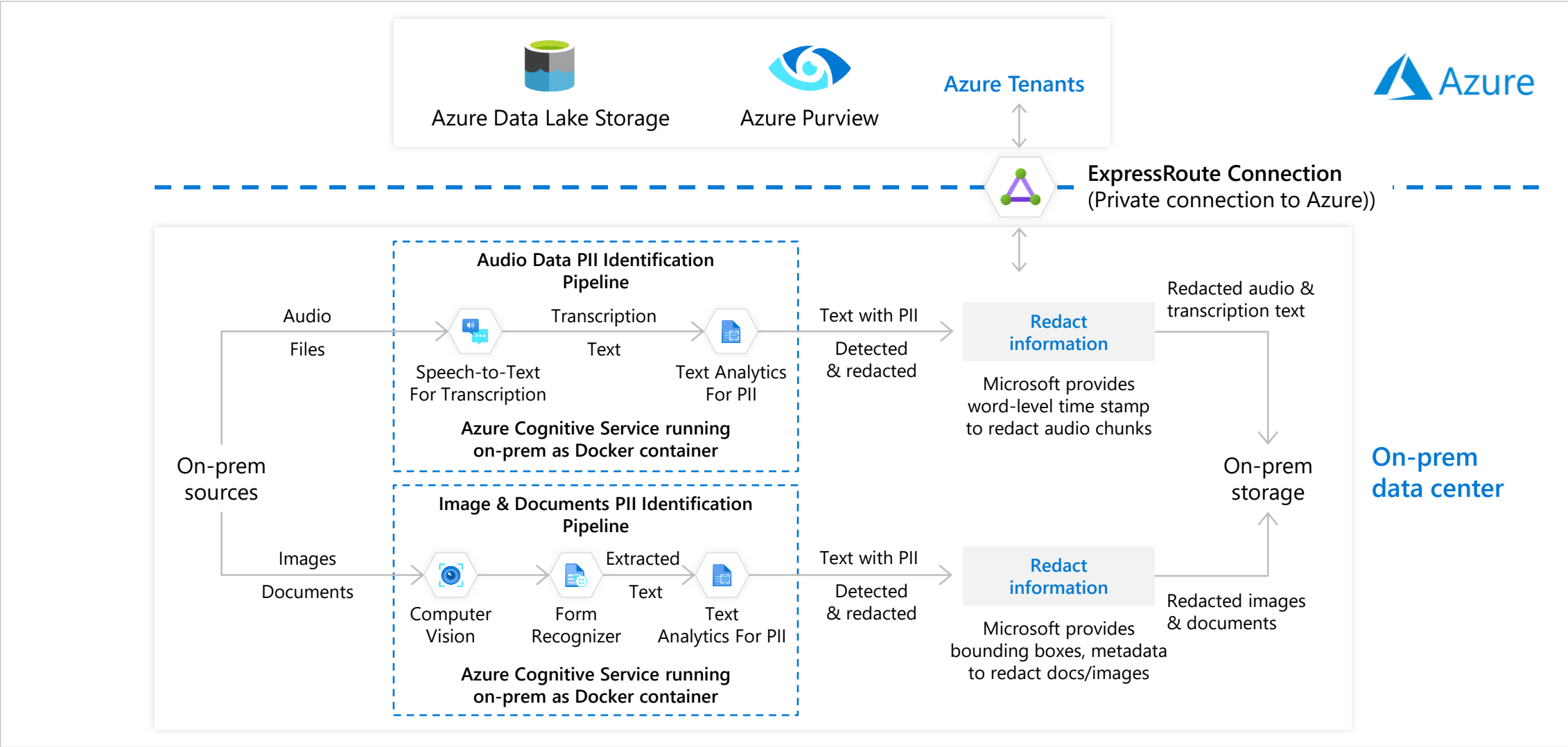
# Real-time call intelligence reference architecture



# Call batch ingestion and AI reference architecture



# On-premises PII detection and redaction architecture



# Next steps to your Call Center Intelligence MVP



## Deploy resources

Create a resource group you can use as a container to begin deploying the resources to Azure.



## Prepare data and customize model

Prepare and upload test data. Customize speech model to recognize specific terminology, as well as accents and background noise.



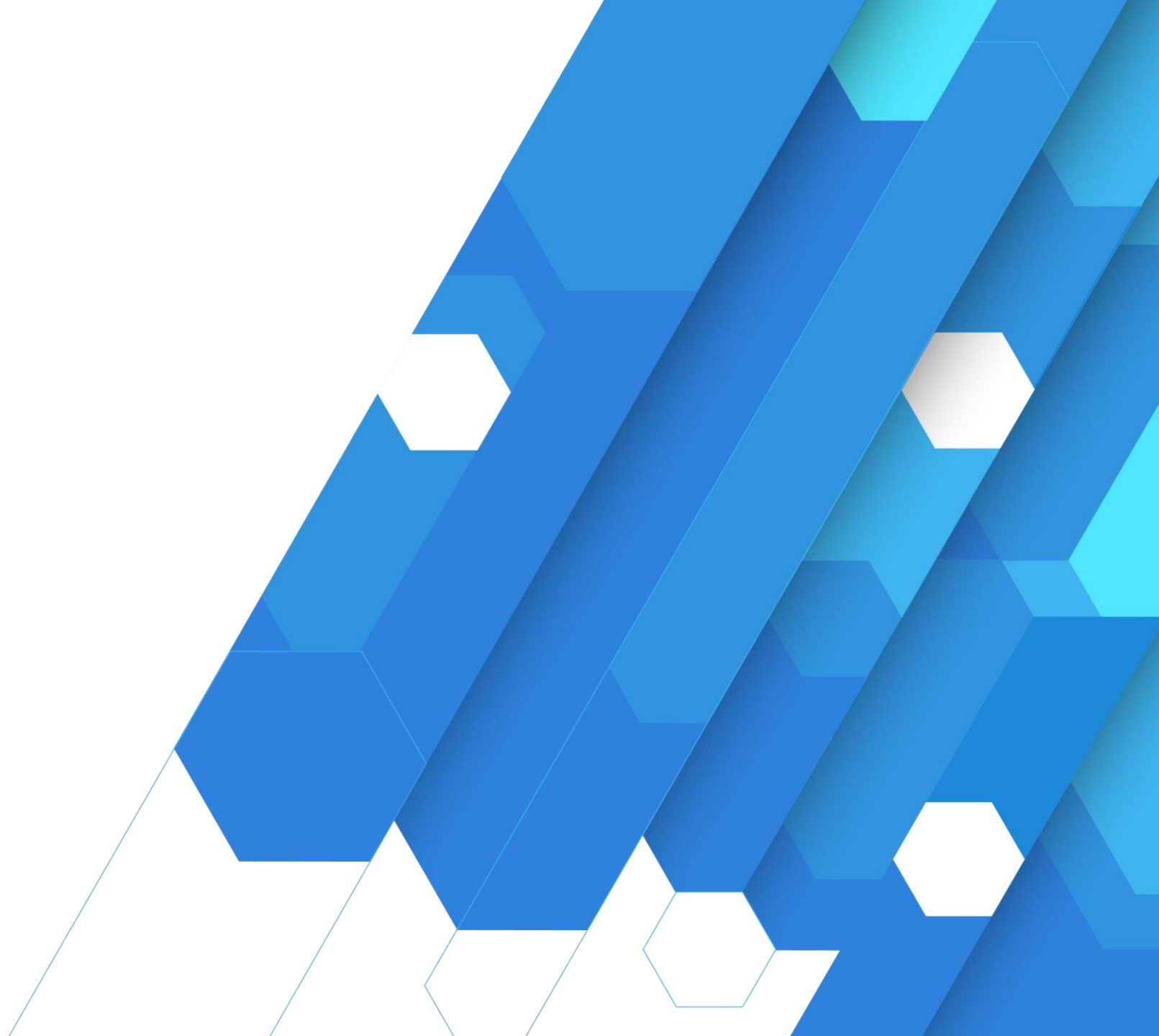
## Train model

Provide additional relevant text to train your speech-to-text model and improve accuracy.

With demo data create a proof of value in 3-5 days.

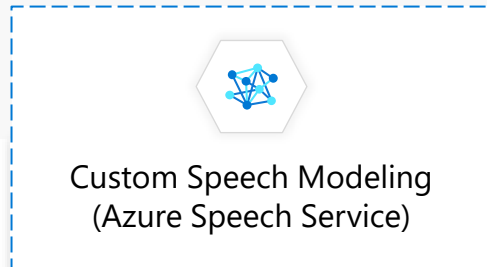
With your customer data and a prep session, create your proof of concept in 3-6 weeks.

**Thank you**



# How to build your intelligent call center

## Step 1: Customize Speech model for Business

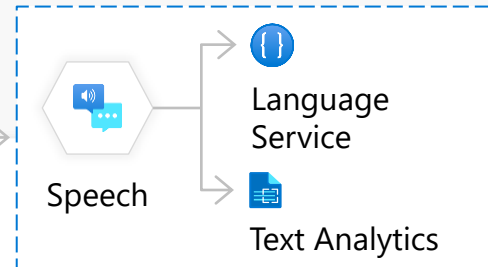


1. Create custom speech model
2. Use Azure Speech resource and "InsuranceLanguage-Data1.txt"

### Outputs

1. Custom speech Endpoint ID
2. Azure Speech resource key

## Step 2: Real-time Call Intelligence

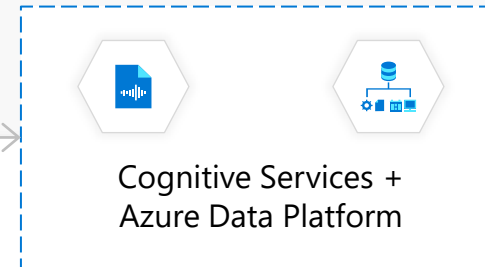


1. Configure Frontend & Backend NodeJS apps (GitHub)
2. Use Speech Key, Text Analytics Key & Custom Speech Endpoint ID
3. Run app locally simulating your business conversation and see the real-time AI output (Don't need to deploy it to Azure App Service.)

### Outputs

1. Call recording (WAV file)
2. Download WAV file from Azure Storage Blob

## Step 3: Call Batch Ingestion & Batch AI

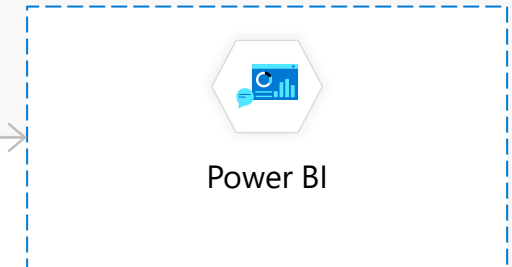


1. "Setup Instructions" & ARM template deployment is already done in Coach RG
2. Follow "Running Batch Analytics on Call Recordings" instructions (GitHub)
3. Upload WAV file to Storage Blob
4. Check results of batch analytics

### Outputs

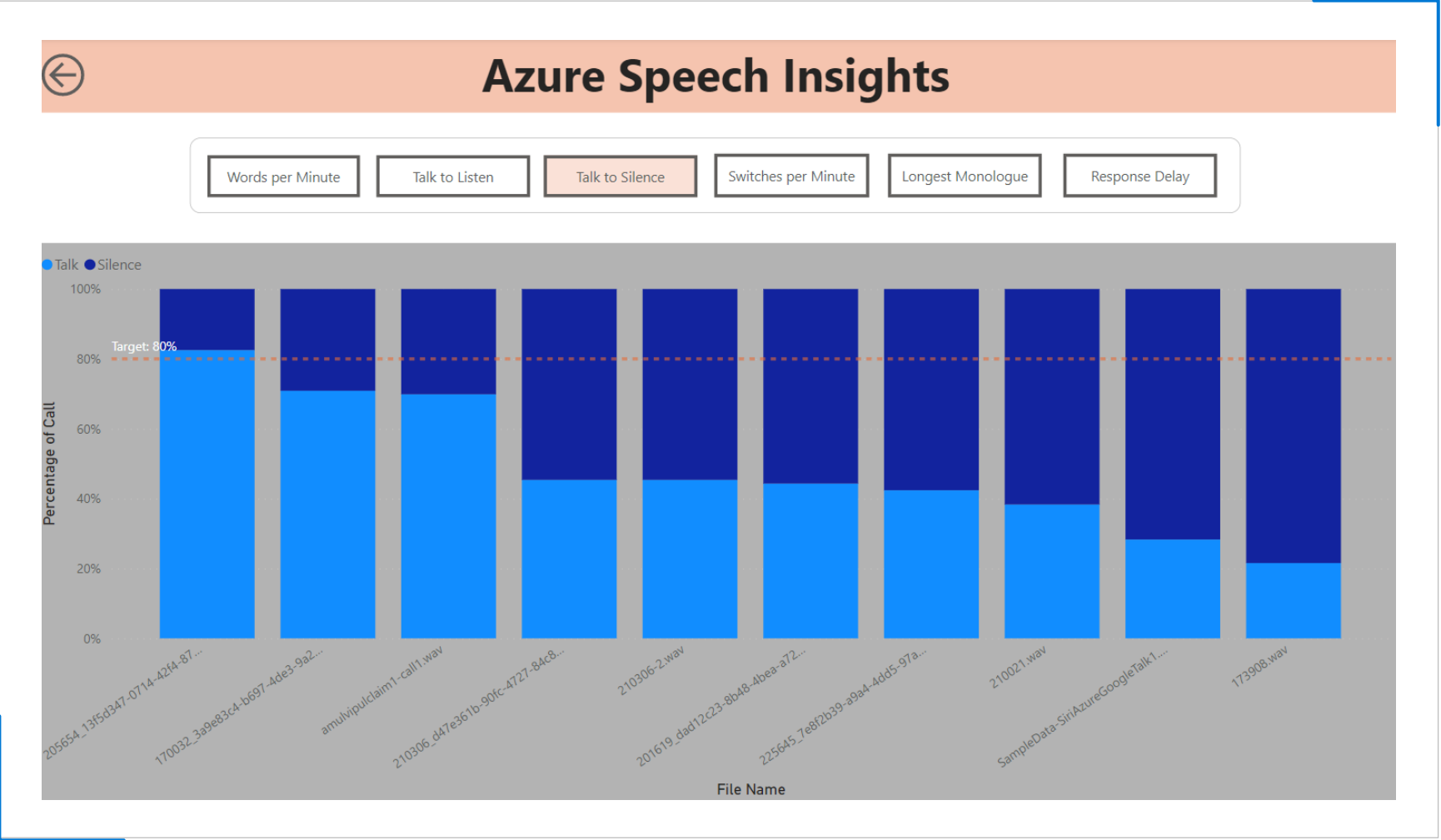
1. AI batch analytics output
2. Output stored in SQL DB & Storage Blob (JSON file)

## Step 4: Call Insights & Analysis



1. Visualize batch-AI output using Power BI
2. Use Power BI templates (GitHub)
3. Use SQL DB connection info to get data in Power BI and view AI insights.
4. Two Power BI templates provided - Speech Insights & Sentiment Insights

# Visualize speaking time to silence time ratio





# Track response delays

