

Proactive Contract Alerts in Teams with Azure AI Search and Speech-to-Text - Build Intelligent Event-Driven Agents

Configure Copilot Studio agents to proactively notify users, search contract documents, and transcribe audio files using Azure AI services.

Lab Details

Level	Persona	Duration	Purpose
200	Maker	60-75 minutes	After completing this lab, participants will be able to configure Copilot Studio agents to proactively notify users when new files are added to Azure Blob Storage, connect Azure AI Search as a knowledge source to enable contextual question-answering over documents, integrate Azure Speech-to-Text services to automatically transcribe audio files, and understand how to combine low-code and Azure AI-based services to extend Copilot Studio functionality end-to-end.

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Purpose

After completing this lab, participants will be able to:

- Configure **Copilot Studio agents** to proactively **notify users** when new files are added to **Azure Blob Storage**.
- Connect **Azure AI Search** as a knowledge source to enable contextual question-answering over documents in Azure Blob Storage.
- Integrate **Azure Speech-to-Text** services to automatically **transcribe audio files** and return insights through Copilot Studio.

- Understand how to combine **Low-code** and **Azure AI-based** services to extend **Copilot Studio** functionality end-to-end.

Why This Matters

This lab demonstrates how Copilot Studio can move beyond simple chat-based interactions into **real-world automation and intelligence**.

By connecting to **Azure** services like **Blob Storage**, **AI Search**, and **Speech**, makers learn to:

- **Bridge data and conversation** — allowing copilots to proactively respond to real business events such as new contracts or uploaded files.
- **Add enterprise-grade knowledge** — enabling copilots to access and reason over indexed data sources securely.
- **Infuse AI capabilities** — such as document understanding and transcription, without custom coding.

Together, these skills showcase how **Copilot Studio + Azure AI** can transform business workflows into intelligent, event-driven experiences that blend **automation, knowledge, and natural language**.

Introduction

As organizations adopt AI copilots across departments, the real value comes not from basic Q&A, but from connecting those copilots to **real business data and workflows**.

Modern enterprises generate information continuously—from uploaded contracts and customer calls to indexed knowledge in Azure. However, unless your copilot can access, interpret, and act on that data, its usefulness remains limited.

This lab focuses on closing that gap — teaching you how to turn **Copilot Studio** into a truly **data-aware, event-driven assistant** powered by **Azure AI** and **Power Platform**.

This lab series (Lab 2) is designed to show how **Copilot Studio** can be extended through real-world **Azure AI** integrations. Each sub-lab builds on the previous one to help makers understand how to connect conversational agents to enterprise data, events, and intelligence.

The lab is divided into **three guided modules (2A, 2B, and 2C)** plus an **Azure setup reference** section:

- **Lab 2A - Notify users when new contract documents are added to Azure Blob Storage**

Participants build an event-driven agent flow that monitors an Azure Blob container and proactively sends Teams notifications when new files are uploaded. This introduces the concept of *trigger-based automation* within Copilot Studio.

- **Lab 2B - Configure Azure AI Search on Blob Storage**

Attendees connect Copilot Studio to a pre-created Azure AI Search index so their copilot can retrieve and summarize content from contract documents. This demonstrates *knowledge integration and semantic search* capabilities.

- **Lab 2C - Speech-to-Text Integration with Copilot Studio**

Participants integrate Azure Speech Service with Copilot Studio to transcribe uploaded audio files and return the transcript through the agent. This module adds *AI-driven audio understanding* to the copilot's skillset.

- **Azure Setup (Reference)**

The appendix provides background on how the Azure resources (Blob Storage, AI Search, OpenAI embedding model, and Speech Service) were provisioned. For this workshop, all **Azure components are pre-created**, and attendees are supplied with the necessary endpoints and keys so they can focus entirely on building and testing within Copilot Studio.

Together, these modules illustrate how to evolve a Copilot from a simple chat interface into a connected, intelligent assistant that can see, search, and listen across enterprise data sources.



Real-world example

Imagine a **sales operations team** that handles dozens of new contracts and client calls every week.

Before:

- They manually check shared folders for new contracts
- Send an email or provide updates in Teams manually
- Listen to entire recordings just to confirm details

After: With the capabilities built in this lab, their Copilot automatically:

- Detects new contracts uploaded to **Azure Blob Storage**.
- Extracts key details like **contract number**, **vendor**, and **effective date** and posts a short update in **Teams**.
- Answers questions like “What’s the renewal term for Contoso?” using **Azure AI Search**.
- Transcribes **customer meeting recordings** into text, allowing instant summaries or quick keyword searches.

Core Concepts Overview

Concept	Why it matters
Event-driven Copilot Flows	Enables copilots to react automatically to real-world triggers (like new files in Azure Blob Storage). This bridges the gap between conversational AI and operational workflows, delivering faster user notifications and reducing manual tracking while maintaining enterprise security and compliance.
Connecting Azure Services to Copilot Studio	Shows how to extend copilots beyond chat by connecting them securely to Azure resources (Blob Storage, AI Search, Speech). This integration gives copilots access to enterprise data and intelligence while maintaining governance, enabling true digital transformation of business processes.
Azure AI Search as Knowledge Source	Demonstrates how to add contextual understanding by letting copilots query and summarize enterprise documents. This makes business data instantly searchable and conversational, improving productivity and decision-making by transforming static documents into interactive knowledge.
Speech-to-Text Integration	Introduces real-time AI transcription capabilities so copilots can understand and summarize customer calls or meetings. This adds “hearing” to your Copilot—turning unstructured audio into structured insights for teams, enabling faster follow-ups and better customer service.

Documentation and Additional Training Links

- [Advanced proactive messaging - Microsoft Copilot Studio | Microsoft Learn](https://learn.microsoft.com/en-us/microsoft-copilot-studio/advanced-proactive-message)
(<https://learn.microsoft.com/en-us/microsoft-copilot-studio/advanced-proactive-message>)
 - [Connect to Azure AI Search - Microsoft Copilot Studio | Microsoft Learn](https://learn.microsoft.com/en-us/microsoft-copilot-studio/knowledge-azure-ai-search)
(<https://learn.microsoft.com/en-us/microsoft-copilot-studio/knowledge-azure-ai-search>)
 - [Azure Speech Service documentation | Microsoft Learn](https://learn.microsoft.com/en-us/azure/ai-services/speech-service/)
(<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/>)
 - [Azure Blob Storage triggers in Power Automate | Microsoft Learn](https://learn.microsoft.com/en-us/power-automate/triggers-introduction)
(<https://learn.microsoft.com/en-us/power-automate/triggers-introduction>)
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Prerequisites

- **Access to Microsoft Copilot Studio**, with permissions to create, edit, and publish agents and agent flows.
- Contoso Agent created in **Lab 1** (or equivalent Copilot Studio agent).
- **Microsoft Teams account** to test Copilot notifications and interactions.
- **Provided connection details** (endpoint URLs, access keys, and container names) for pre-created Azure resources—including Blob Storage, AI Search, and Speech Services.
- **Power Platform environment** enabled for Copilot Studio.
- **Basic familiarity** with Copilot Studio concepts such as agent setup, knowledge sources, and flows.



Note: All Azure related resources are pre-provided for this lab. However we do provide instructions in this section **Azure Setup (For Reference Only)** section in the Appendix, if you want to set up these resources in your own subscription.

Summary of Targets

In this lab, you'll transform your Copilot Studio agent into an intelligent, event-driven assistant that connects to Azure AI services. By the end of the lab, you will:

- Configure proactive notifications triggered by new files in Azure Blob Storage with AI-powered content extraction.
- Connect Azure AI Search as a knowledge source to enable semantic search over contract documents.
- Integrate Azure Speech-to-Text services for automatic audio transcription and insights.
- Understand the architecture of combining low-code Power Platform tools with Azure AI services.
- Apply event-driven automation patterns that extend beyond simple chat interactions.

Use Cases Covered

Step	Use Case	Value added	Effort
1	Event-Driven Contract Notifications	Automate contract processing with proactive Teams notifications and AI-powered content extraction	35 min
2	Intelligent Document Search and Audio Transcription	Enable semantic document search and speech-to-text capabilities for comprehensive business intelligence	30 min

Instructions by Use Case

Use Case #1: Event-Driven Contract Notifications

Build an intelligent agent flow that automatically detects new contract uploads and sends proactive Teams notifications with AI-extracted key details.

Use case	Value added	Estimated effort
Event-Driven Contract Notifications	Automate contract processing with proactive Teams notifications and AI-powered content extraction	35 minutes

Summary of tasks

In this section, you'll learn how to create event-driven agent flows that monitor Azure Blob Storage, extract contract information using AI Builder, and send proactive notifications to Teams.

Scenario: A sales operations team needs automatic notifications when new contracts are uploaded, with key details extracted and shared in Teams without manual intervention.

Objective

Create and configure an event-driven flow that monitors Azure Blob Storage for new contracts, extracts key information using AI, and sends proactive Teams notifications.

Step-by-step instructions

Lab 2A: Notify Users When New Contract Documents Are Added to Azure Blob Storage

In this lab, you'll create an **event-driven Agent Flow** that automatically alerts users in **Microsoft Teams** whenever a new contract document is uploaded to Azure Blob Storage. Using **Agent Flows** within **Copilot Studio**, you'll connect your agent to **Blob Storage**, extract key contract details using **custom prompts**, and send a neatly formatted **Teams** message. By the end of this module, your copilot will be

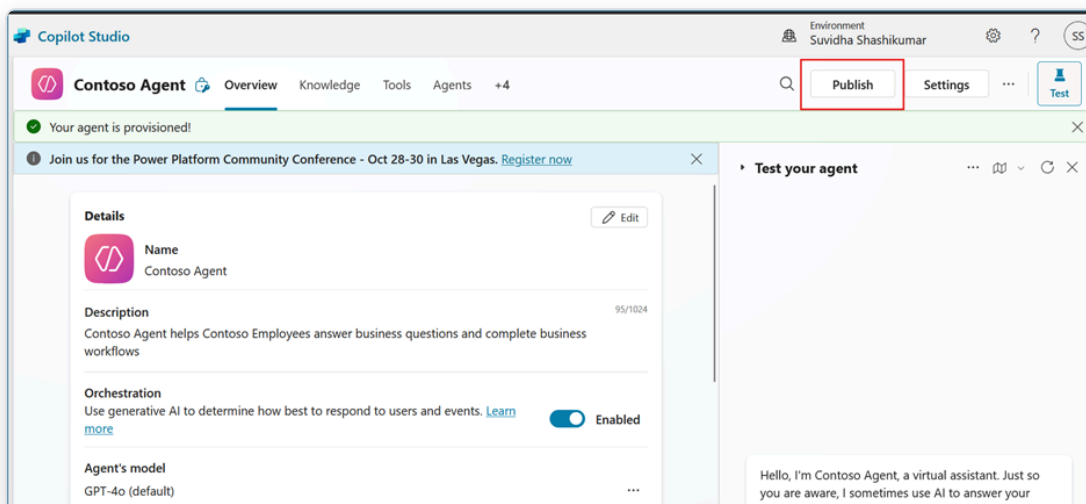
able to **detect new files, understand what they contain, and proactively notify users** — bringing real-time awareness into your business workflows.

Prepare and Publish Your Agent

2A.1 Open the **Contoso Agent** that was built in Lab 1 and **Publish** it.

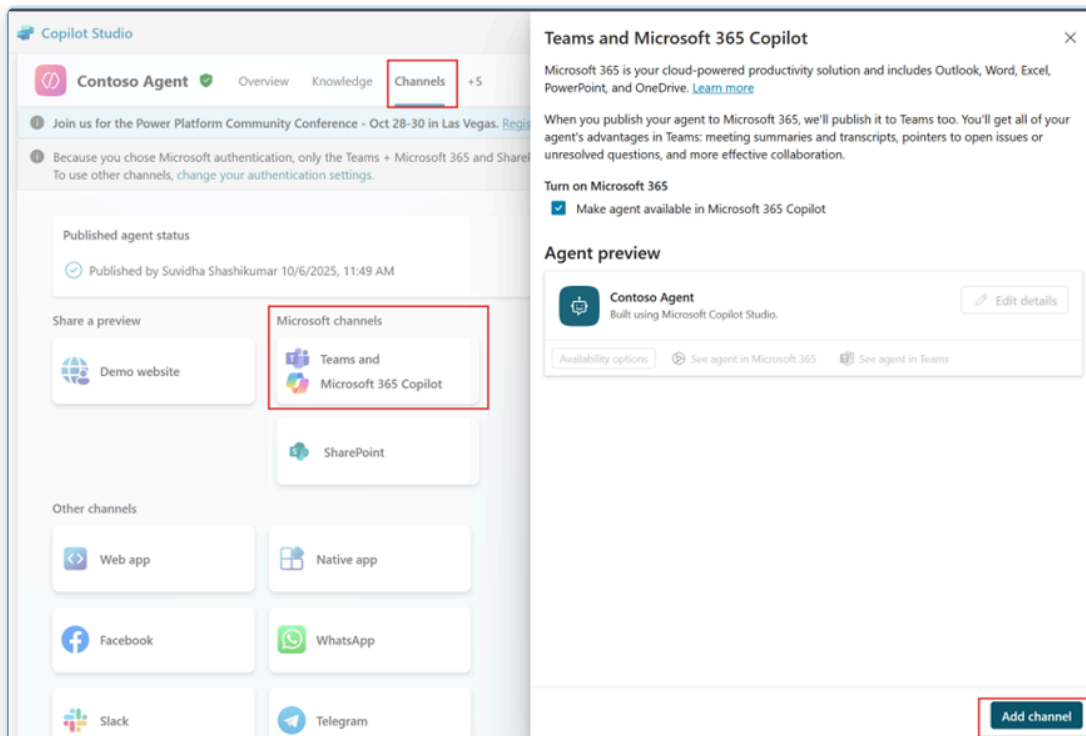


IMPORTANT: We are required to publish the Agent to Teams and Microsoft 365 Copilot channel so that the agent can message/ping proactively in Teams.



Publish button in Copilot Studio agent overview page

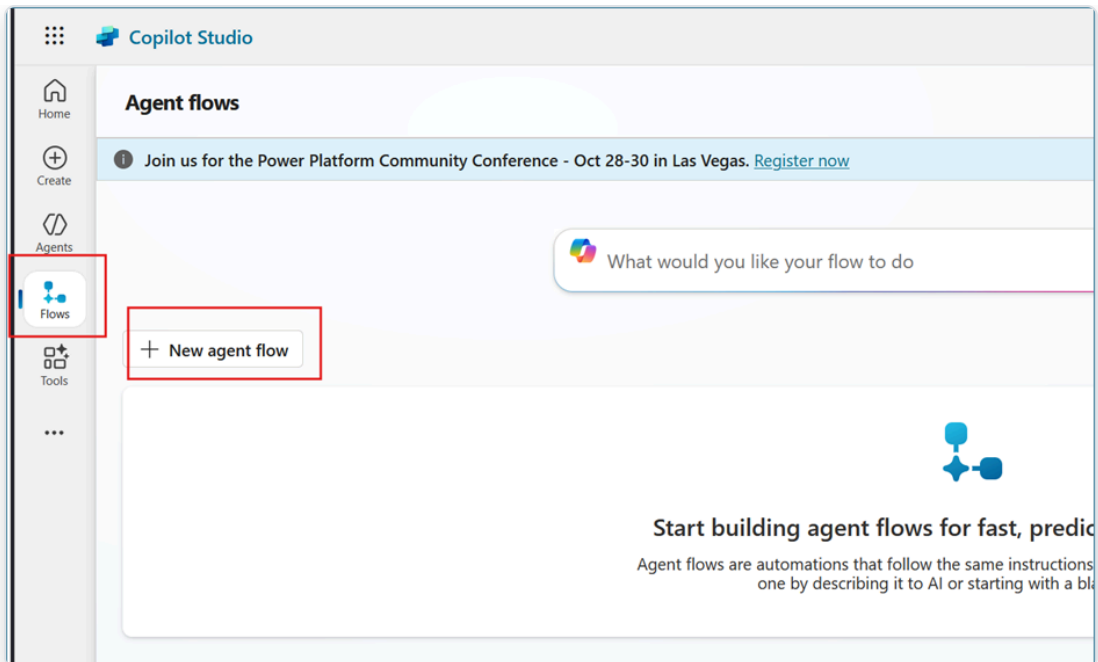
2A.2 Select the **Channels** tab and click on **Teams and Microsoft 365 Copilot**, then select **Add channel**.



Channels tab showing Teams and Microsoft 365 Copilot option with Add channel button

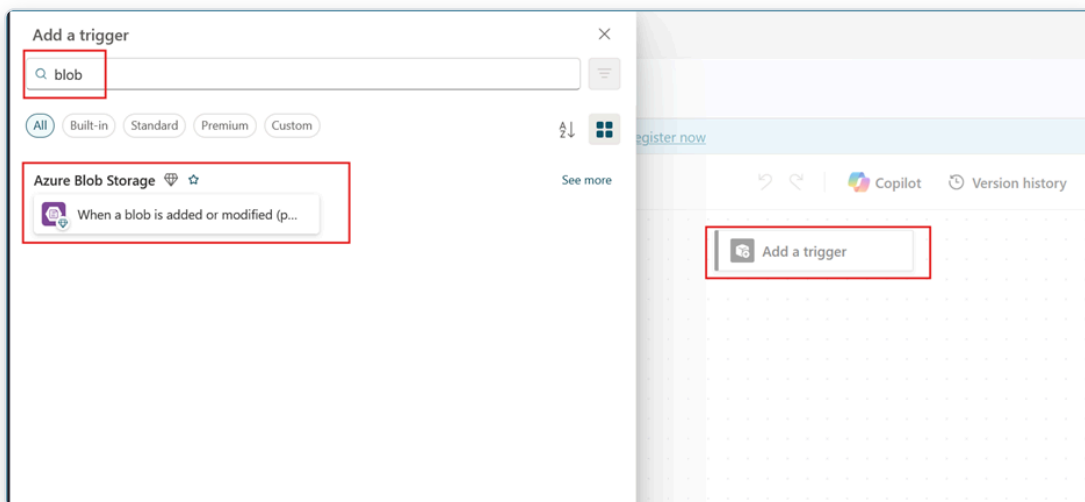
Create Event-Driven Agent Flow

2A.3 Select **Flows** and click on **+ New agent flow** to add a new Agent Flow to notify users when new documents are uploaded to blob storage.



Flows tab with New agent flow button highlighted

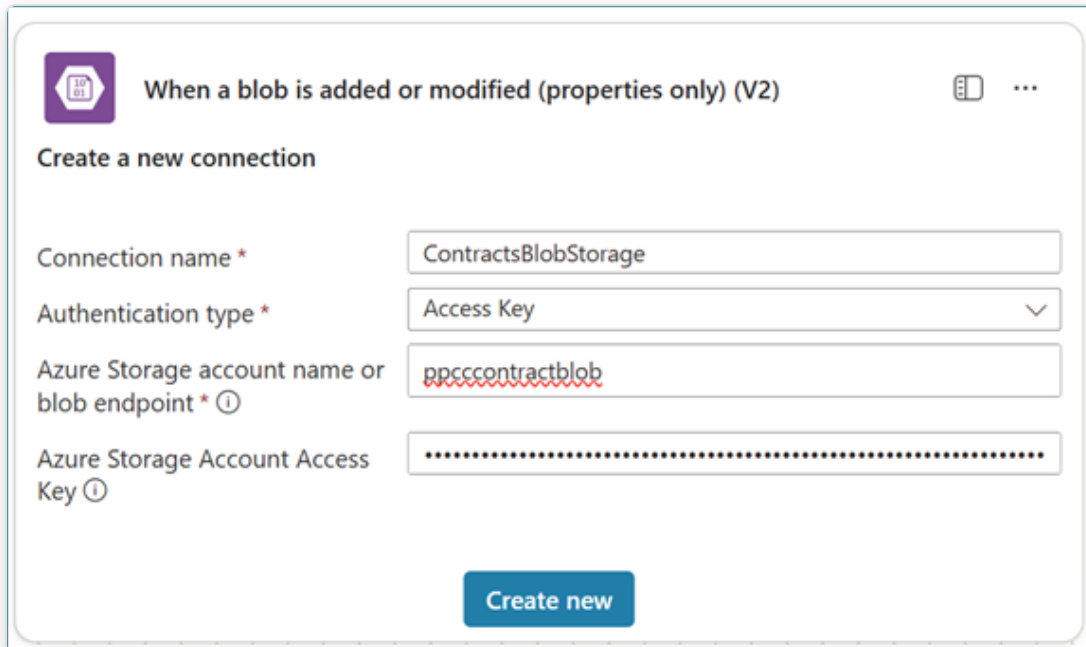
2A.4 In the designer, select **Add a trigger node** and search for **blob**. Select **When a blob is added or modified (properties only) (V2)** trigger.



Flow designer showing Add a trigger node with blob search results and trigger selection

2A.5 Select **change connection reference** to add a new connection. Provide the following details to connect to Azure Blob Storage account:

- **Connection name:** ContractsBlobStorage
- **Authentication type:** Access Key
- **Azure Storage Account Name:** [Provided in Lab Resources]
- **Azure Storage Account Access Key:** [Provided in Lab Resources]



The screenshot shows a configuration dialog box titled "When a blob is added or modified (properties only) (V2)". It has a purple icon with a document and a list symbol. Below the title, it says "Create a new connection". There are four input fields: "Connection name *" with the value "ContractsBlobStorage", "Authentication type *" with a dropdown menu showing "Access Key", "Azure Storage account name or blob endpoint *" with the value "ppcccontractblob", and "Azure Storage Account Access Key *" with a masked password represented by dots. A blue "Create new" button is at the bottom.

Azure Blob Storage connection configuration dialog with connection name, authentication type, and account credentials

2A.6 Once the connection is setup, use the dropdown to select the **Storage account name** in the container.

When a blob is added or modified (properties only) (V2)

Parameters Settings Code view About

Storage account name or blob endpoint *

Use connection settings(ppccontractblob)

Container *

/contosocontracts

Advanced parameters

Showing 1 of 1 Show all Clear all

Number of blobs to return

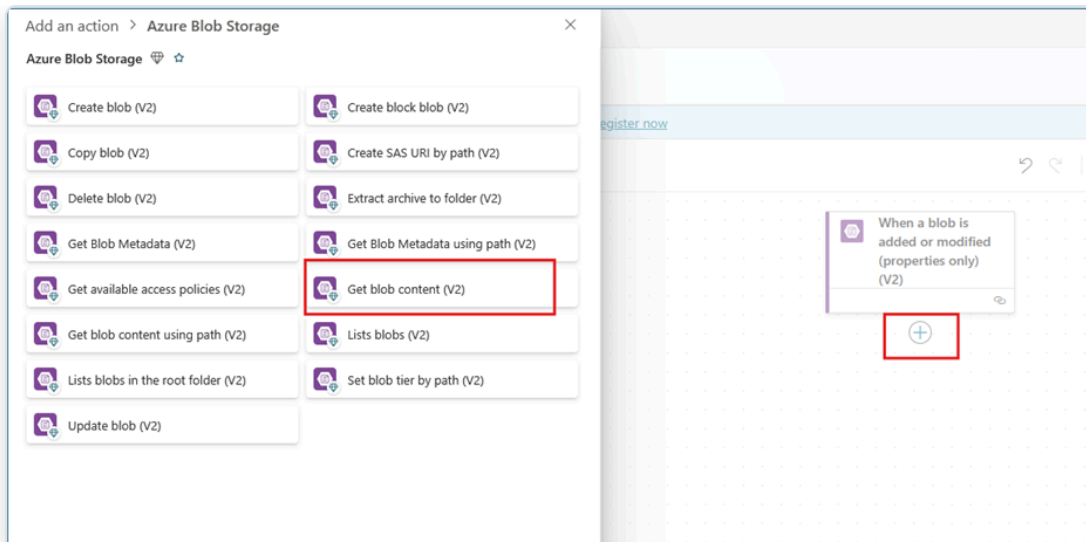
10

Connected to Azure Blob Storage. [Change connection reference](#)

Blob trigger configuration showing storage account name dropdown selection

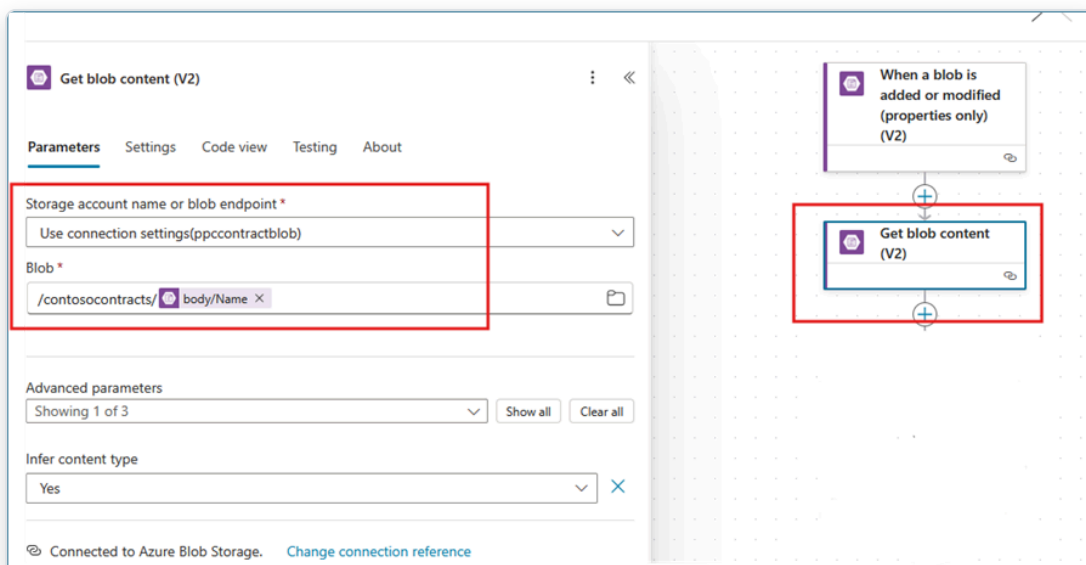
Configure Blob Content Processing

2A.7 Add a new action – **Get Blob Content (V2)** in the Azure Blob Storage actions to the flow.



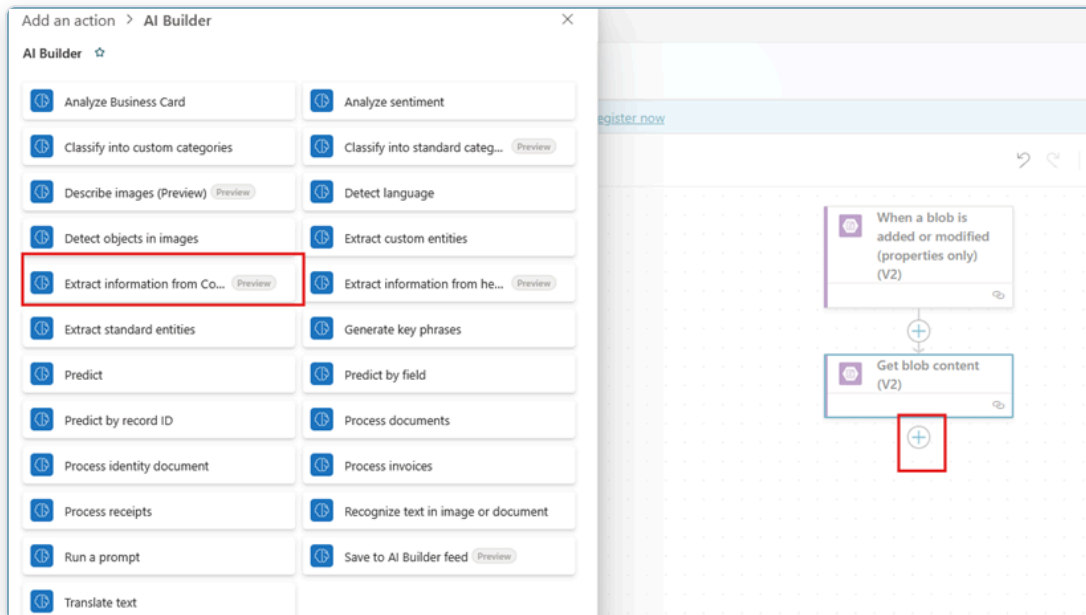
Flow designer showing Add an action with Get Blob Content V2 action selected

2A.8 Since the connection is already established to blob storage account, you can select the **Storage account name** from the dropdown menu. For the **Blob** field, type `/` and then container name. Then `/` and add the Dynamic content from the trigger node – `body/Name` (Ex: `/{{Container Name}}/{{Dynamic Content}}`).



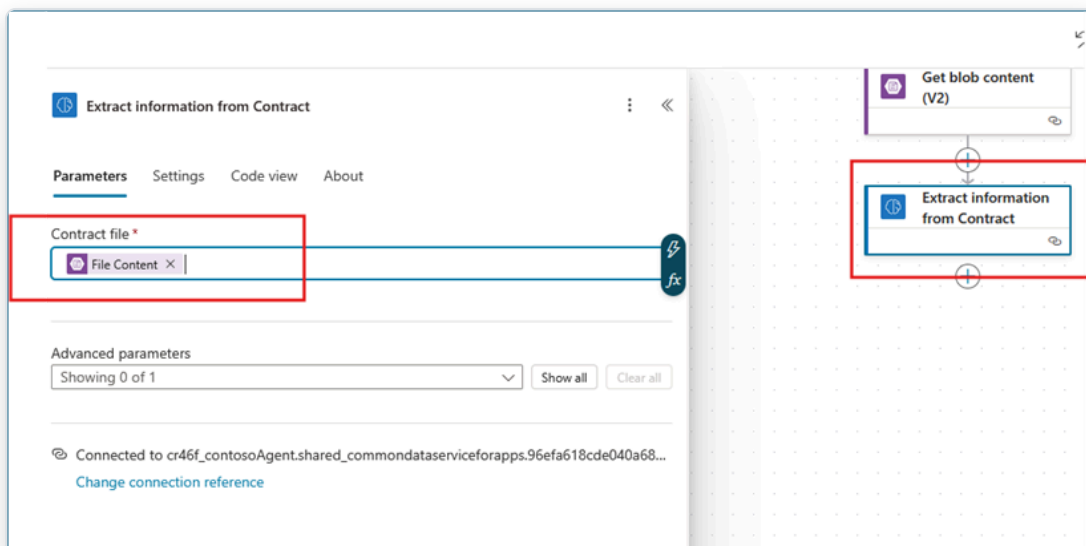
Get Blob Content configuration with storage account dropdown and Blob field showing dynamic content path

2A.9 We will be using pre-built AI builder prompt - **Extract information from Contract** to extract all the information from the documents. Add a **new action** in the flow and select action - **Extract information from Contract**.



Flow designer showing Add an action with Extract information from Contract AI Builder action

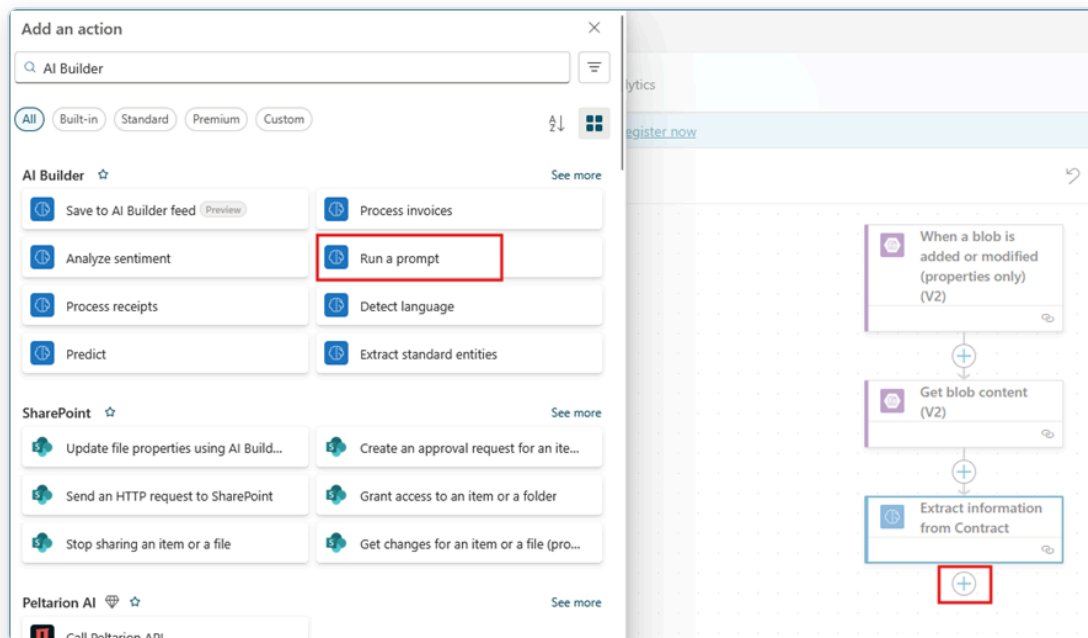
2A.10 In the **Extract information from Contract** action parameters, select **Dynamic content** as **File Content** (from Get Blob content node) into **Contract file** field.



Extract information from Contract action with dynamic content selector showing File Content being mapped to Contract file field

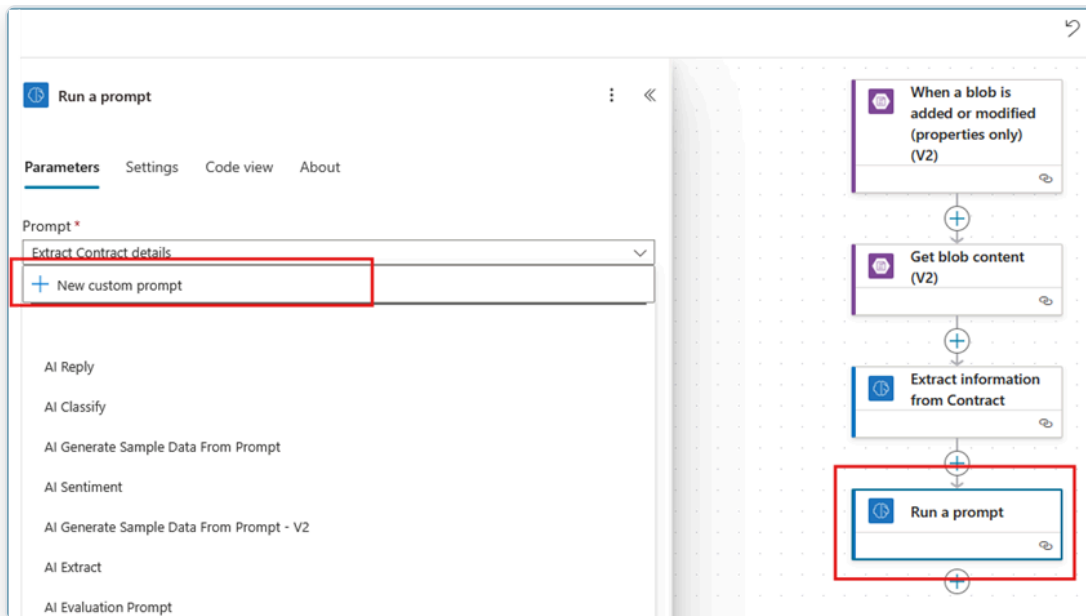
Create Custom AI Prompt for Notifications

2A.11 We will use another custom AI builder prompt to extract the key details (ContractID, Customer Name, Vendor Name and Effective Date) for the notification. Add a **new action** in the flow and select action – **Run a prompt**.



Flow designer showing Add an action with Run a prompt AI Builder action

2A.12 Click the dropdown in the **Prompt** and then **+New custom prompt** under Prompt parameter to create a new prompt.



Run a prompt action configuration with Prompt dropdown expanded showing New custom prompt option

2A.13 In the new pop-up prompt window, update the prompt name to - **Extract Contract Info**.

Copy and paste the following in the instructions:

Extract Contract Number, Customer name, Vendor name and Date from {ContractInput} and Provide extracted information like following:

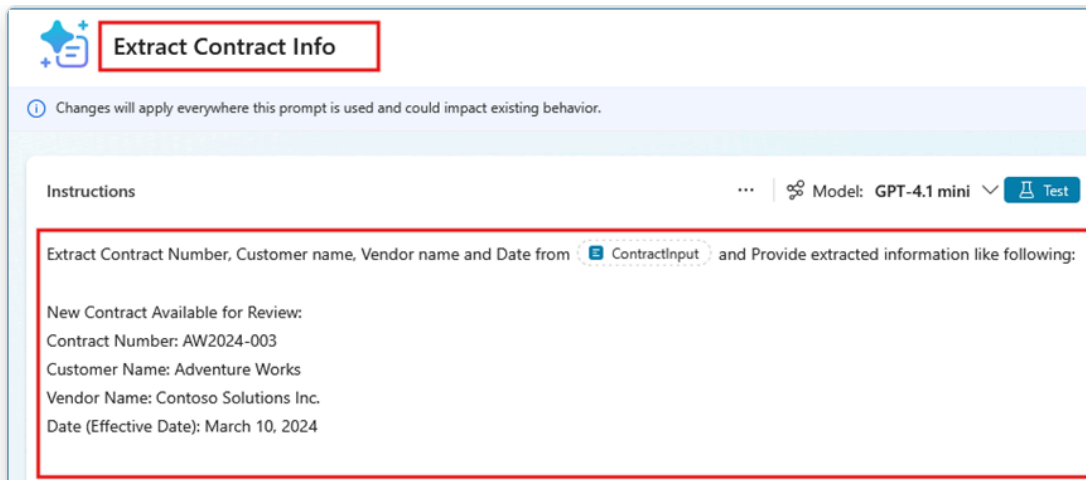
New Contract Available for Review:

Contract Number: AW2024-003

Customer Name: Adventure Works

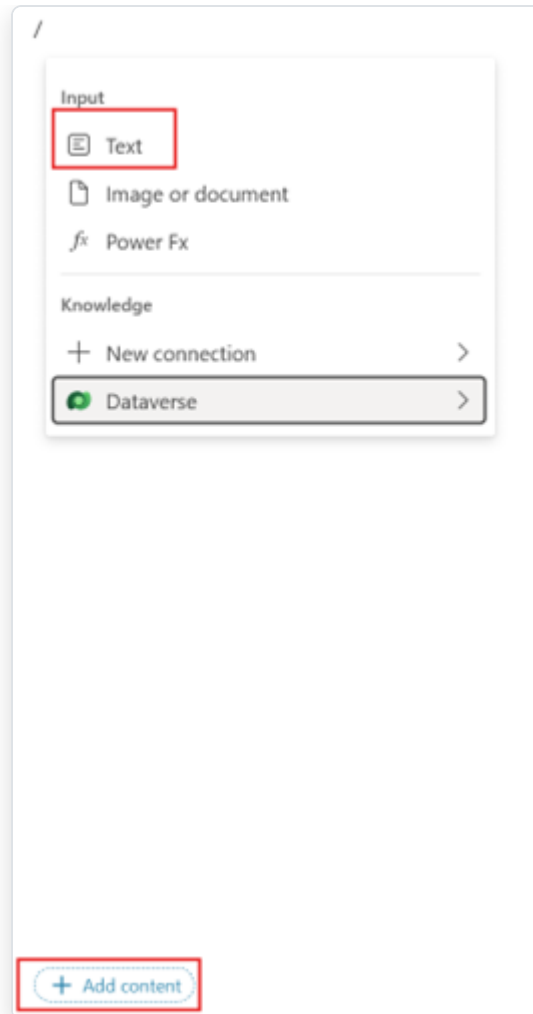
Vendor Name: Contoso Solutions Inc.

Date (Effective Date): March 10, 2024



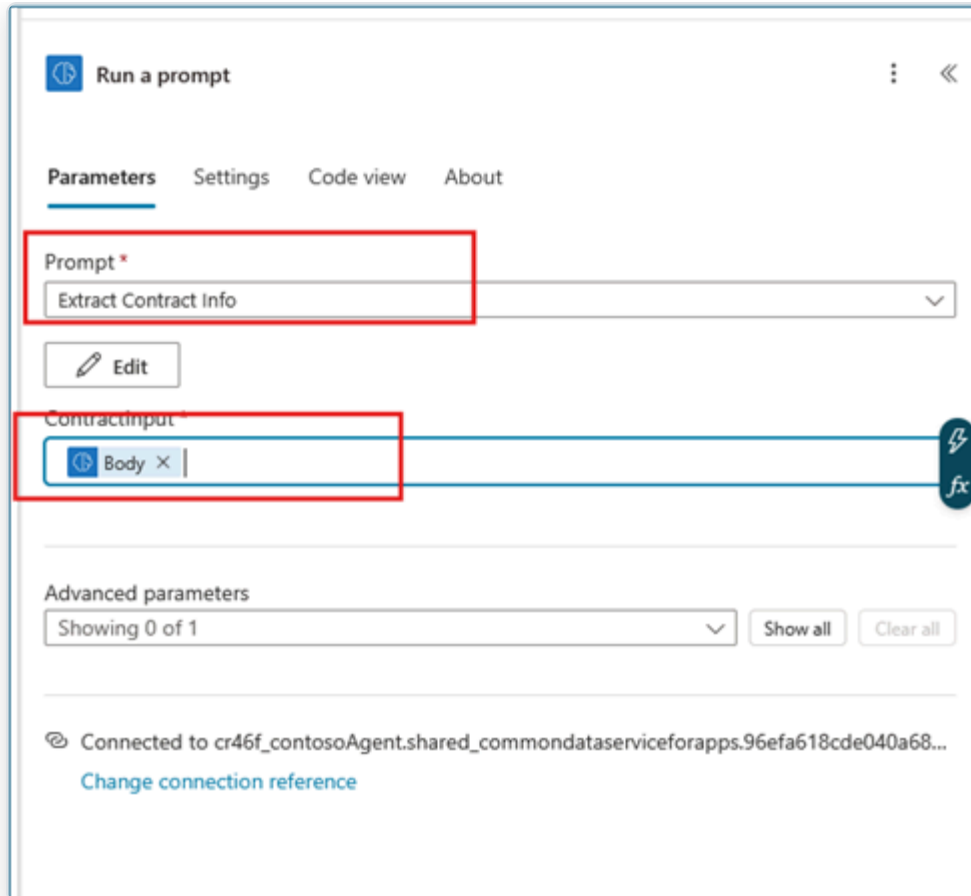
Custom prompt builder showing Extract Contract Info prompt name and instructions with ContractInput parameter

2A.13a Replace `{ContractInput}` with a new input parameter. Delete the text in the instructions and keep your cursor in that spot. Click **+ Add Content**, select **Text** and name it `ContractInput`. Click Close. Your instructions should now look the screenshot above. Click **Save**.



Add Content dialog showing Text input type selection for creating ContractInput parameter

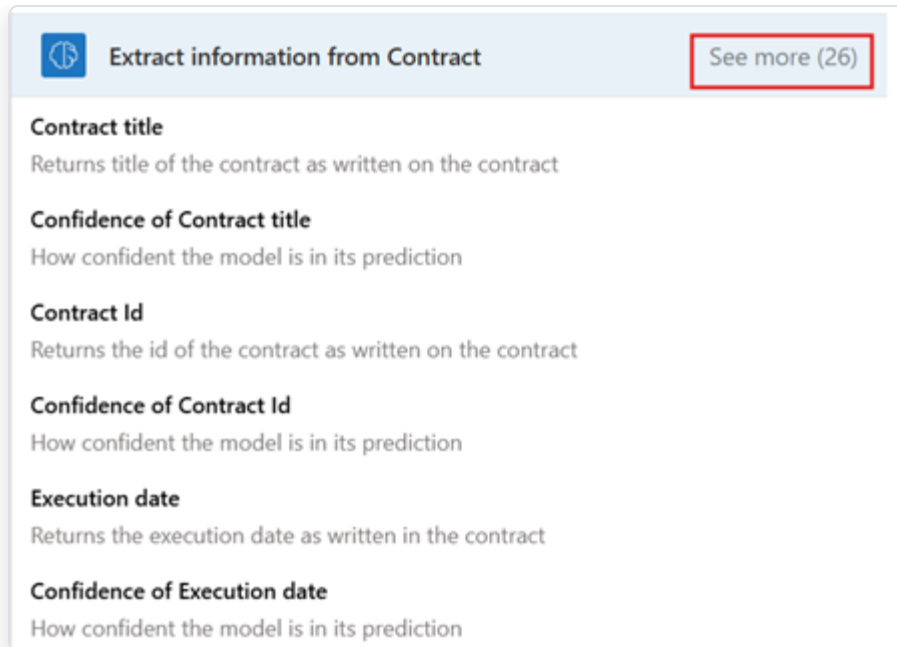
2A.14 Select the newly created prompt in the dropdown for **Prompt** and pass the dynamic content **Body** (from Extract information from contract node) into **ContractInput**.



Run a prompt action showing Extract Contract Info prompt selected with Body dynamic content mapped to ContractInput field



Tip: If you do not see the Body from the Extract information from contract node action, you can click **See more** to view all the dynamic content.



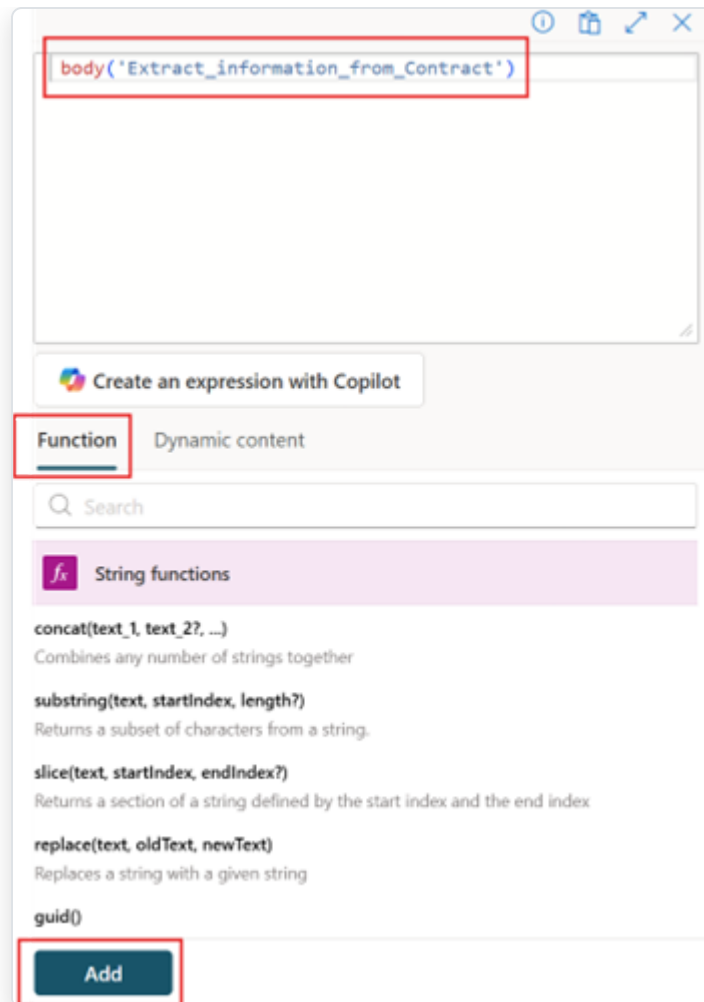
Dynamic content panel expanded showing See more link to reveal additional content options including Body



Tip: If you still don't see the Body, click on **Insert Expression** and paste the following expression:

```
body('Extract_information_from_Contract')
```

and click **Add**.



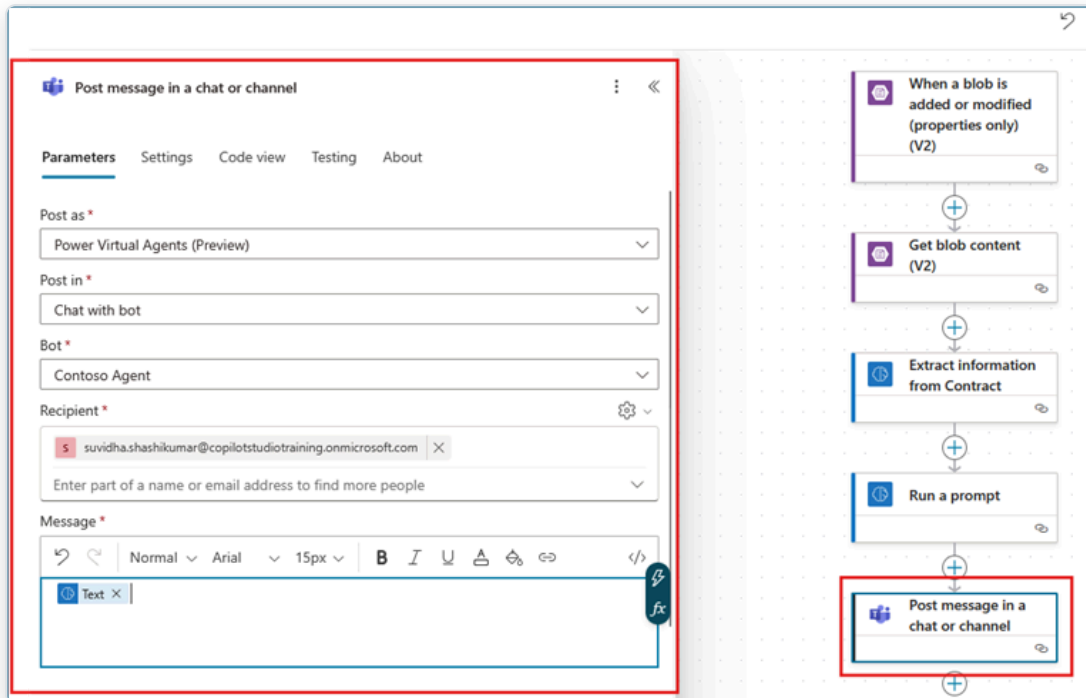
Expression editor dialog with body expression for Extract_information_from_Contract action

Send Teams Notification

2A.15 Add a new action into the flow – **Post a message in a chat or channel** to send a message to a user on Teams regarding the new contract document. Configure the parameters as:

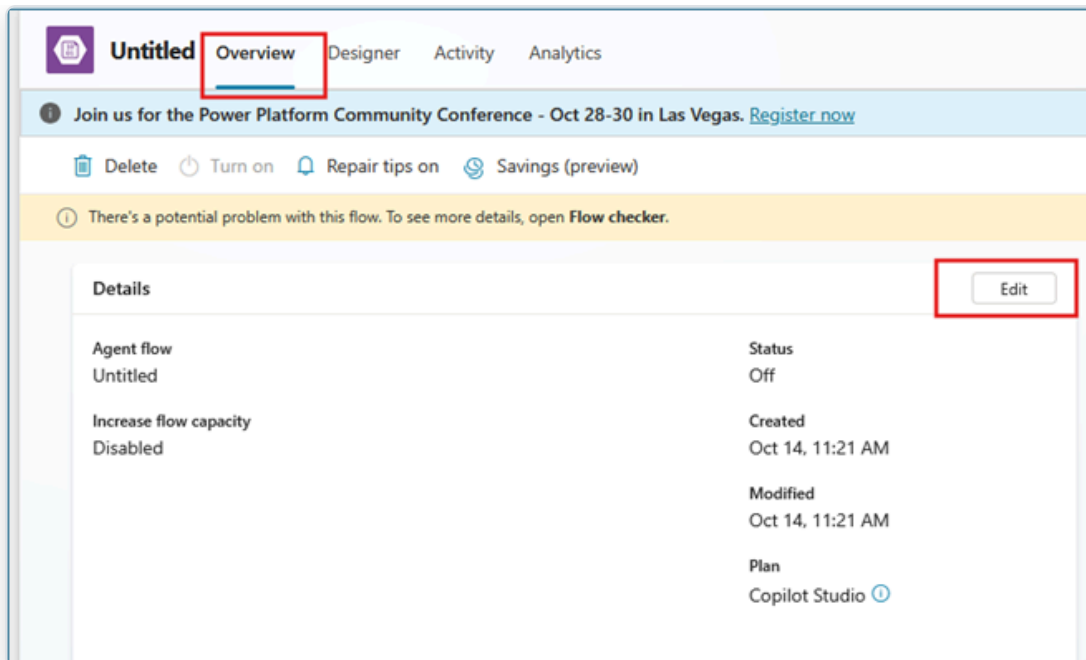
- **Post as:** Power Virtual Agents (preview)
- **Post in:** Chat with bot
- **Bot:** Contoso Agent
- **Recipient:** <Your lab user account>

- **Message:** Text (Insert Dynamic Content and Select from **Run a prompt** action)



Post a message in a chat or channel action configured with Power Virtual Agents, Contoso Agent bot, recipient, and dynamic message content

2A.16 **Save Draft** and Switch to the overview tab and click **edit** to change the name of the flow to – **New Contracts Notification** and select **Save**.



Flow overview tab showing edit button for renaming the flow

Details ✕

Flow name

New Contracts Notification

Description

Provide a helpful description explaining how your flow works

Primary owner *

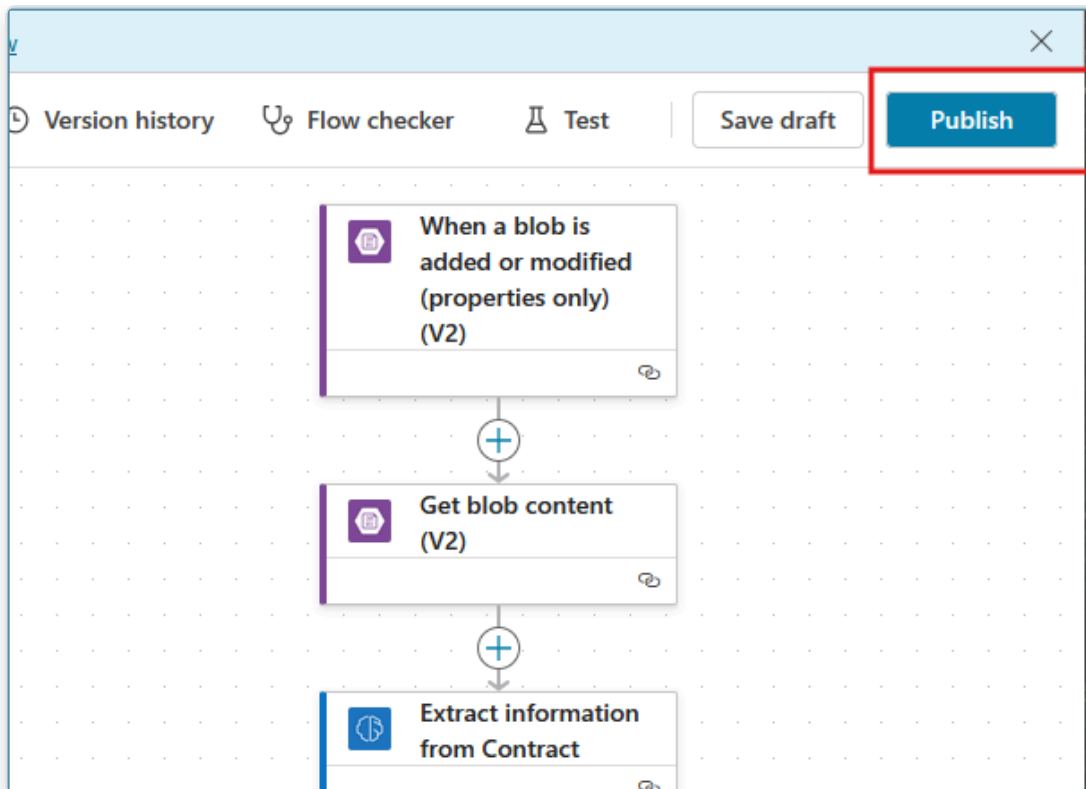
 ✕

Plan *

Save **Cancel**

Flow name editor showing New Contracts Notification as the flow name with Save button

2A.17 Switch to the **Designer** tab and Click on **Publish** to Publish the Agent flow.

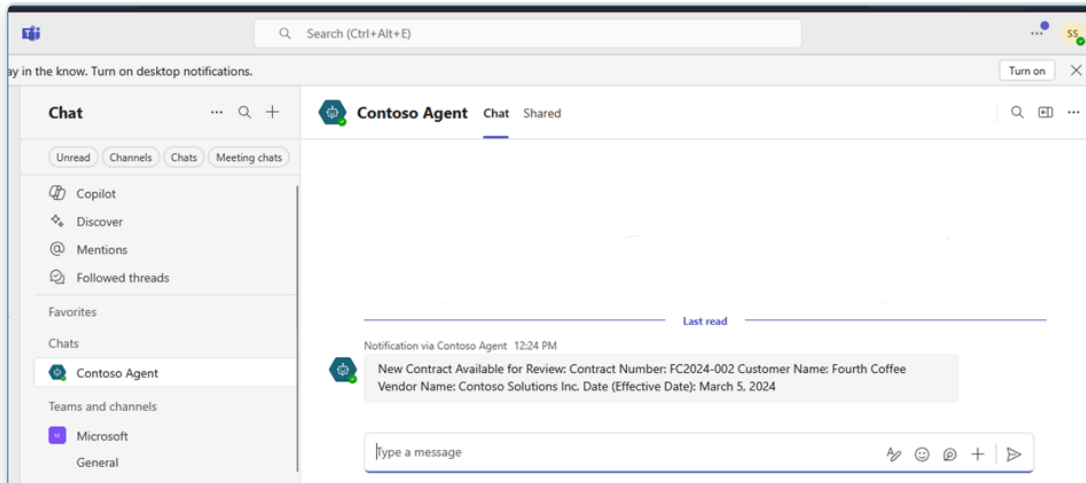


Publish button in agent flow interface to deploy the flow

Testing Lab 2A

As new documents are added to Blob Storage, you should see a proactive notification from your Contoso Agent with key details as shown below. **Open Teams** in the browser using your lab credentials and **open your Contoso Agent**.

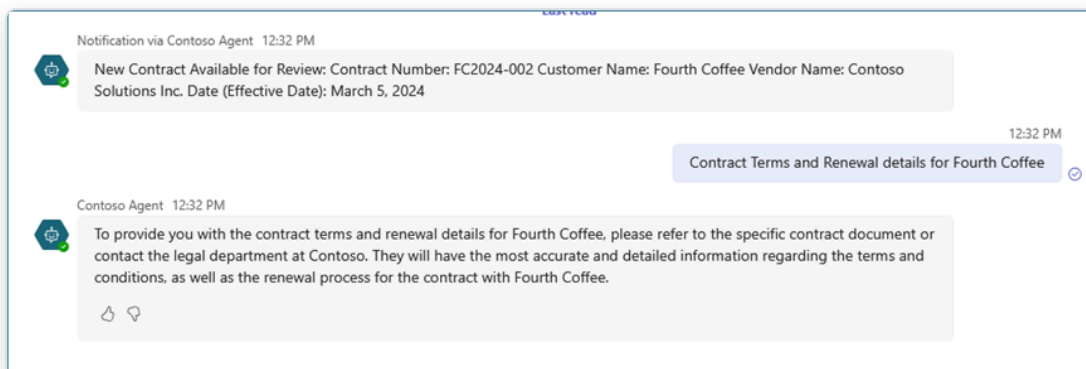
The proctors will be adding documents to the Azure Blob storage every 5 - 10 minutes to trigger the agent flow.



Teams chat showing proactive notification from Contoso Agent with extracted contract details including contract number, customer name, vendor, and effective date

Try asking for a follow-up question on this contract and the note that the agent does not provide a good answer yet!

This is what we will achieve next in **Lab 2B**.



Teams chat showing follow-up question about contract with agent unable to provide detailed answer without knowledge source

 **Congratulations! You've completed Event-Driven**

Contract Notifications

Test your understanding

Key takeaways:

- **Event-Driven Automation** – Blob storage triggers enable real-time responses to business events, eliminating manual monitoring and notification processes.
- **AI-Powered Content Extraction** – AI Builder prompts can automatically extract structured information from unstructured documents, making data immediately actionable.
- **Proactive Communication** – Copilot Studio agents can initiate conversations in Teams, bringing intelligence directly into collaborative workspaces.

Lessons learned & troubleshooting tips:

- Agents must be published to Teams channel before they can send proactive messages
- Use dynamic content carefully and check “See more” if expected options don’t appear
- AI Builder prompts require clear instructions and proper input parameter mapping

Challenge: Apply this to your own use case

- What other document types in your organization could benefit from automated processing and notification?
 - How would you modify the AI prompt to extract different types of business-critical information?
 - Consider what other Azure services could trigger similar automated workflows.
-

Use Case #2: Intelligent Document Search and Audio Transcription

Connect Azure AI Search for semantic document search and integrate Speech-to-Text services for comprehensive business intelligence capabilities.

Use case	Value added	Estimated effort
Intelligent Document Search and Audio Transcription	Enable semantic document search and speech-to-text capabilities for comprehensive business intelligence	30 minutes

Summary of tasks

In this section, you'll learn how to connect Azure AI Search as a knowledge source for semantic document search and integrate Azure Speech Services for automatic audio transcription.

Scenario: Users need to ask natural language questions about contracts and get instant answers, plus the ability to transcribe customer call recordings for quick insights and searchable content.

Step-by-step instructions Lab 2B

Lab 2B: Configure Azure AI Search on Blob Storage

In this lab, you'll connect your Copilot Studio agent to **Azure AI Search** so it can intelligently retrieve and summarize information from contract documents stored in Azure Blob Storage.

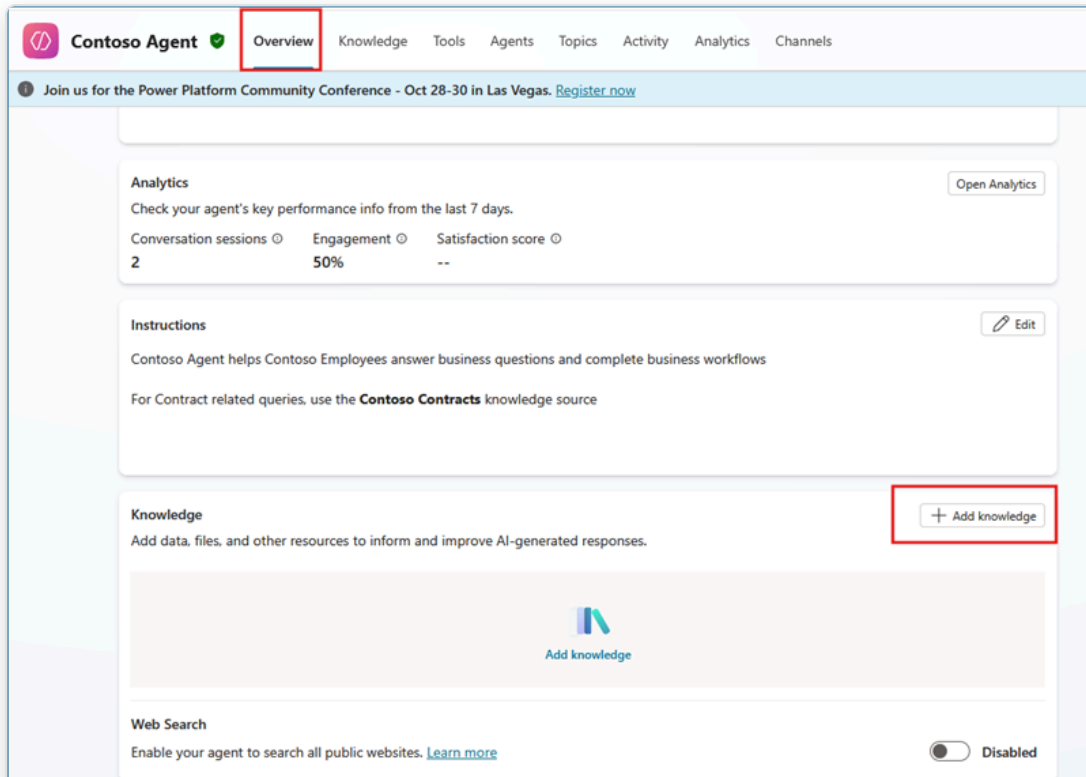
You'll use a pre-created search index and link it as a **knowledge source** for your agent, giving it the ability to answer natural language queries like `What are the renewal terms for Fourth Coffee's contract?`

By the end of this module, your copilot will be able to **search, understand,** and

respond using real contract data—transforming static documents into conversational knowledge.

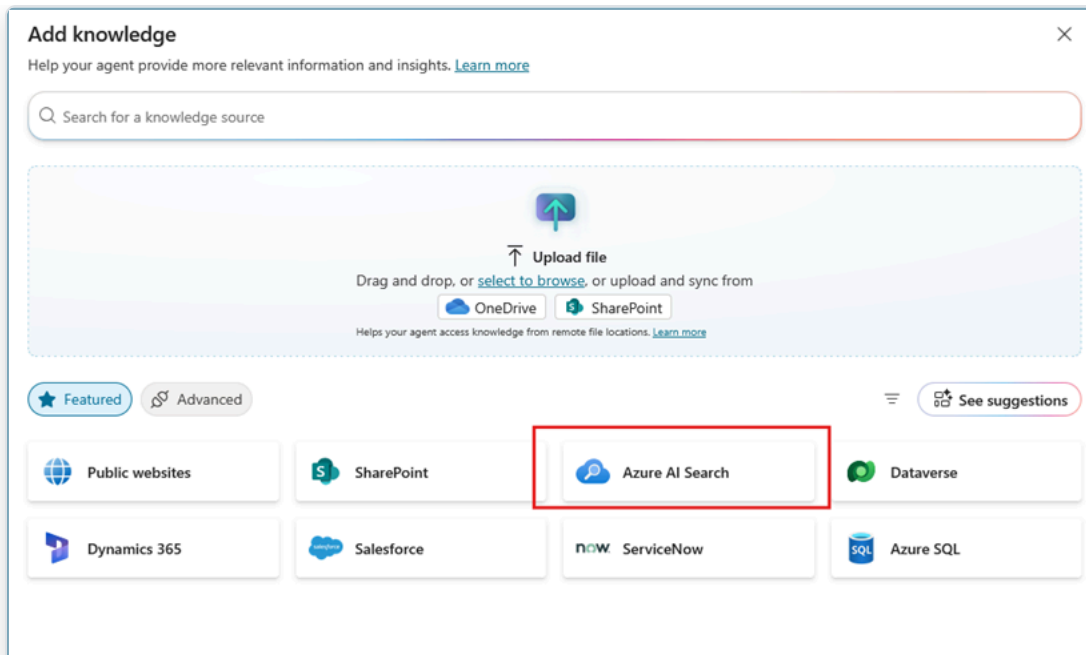
Pre-requisite: Azure AI Search configured in Azure portal with text embedding model on Azure Blob storage account where all contract documents are stored

2B.1 Open **Contoso Agent** and click on **+Add Knowledge** on the overview tab.



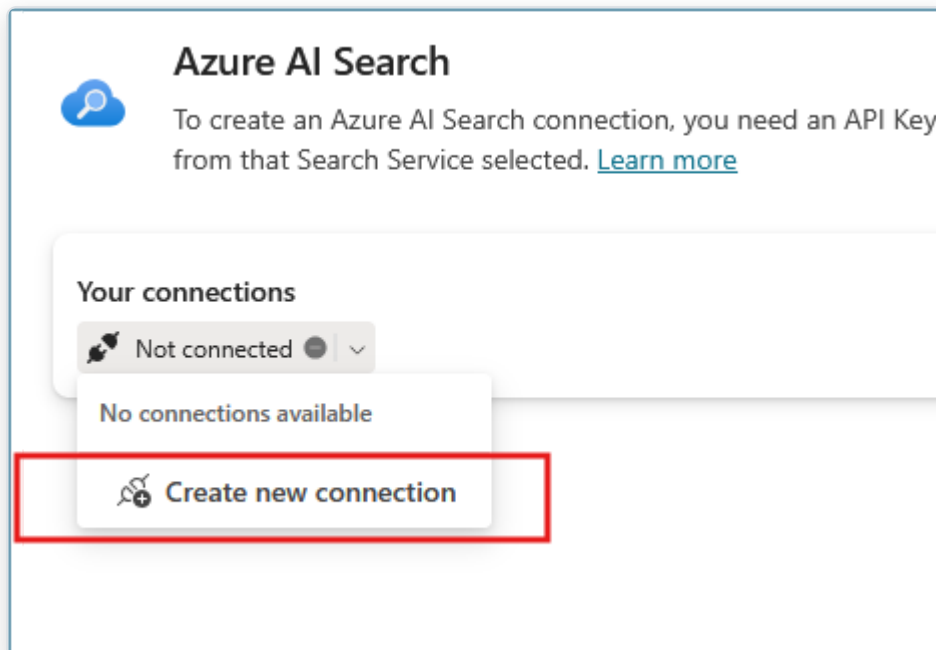
Copilot Studio agent overview page with Add Knowledge button highlighted

2B.2 Select **Azure AI Search**.



Knowledge source selection dialog showing Azure AI Search option

2B.3 Click on **Your connections** and select **Create new connection**.



Azure AI Search connection dialog with Your connections tab and Create new connection option

2B.4 Use the provided Endpoint URL and Access Key to connect to Azure AI Search service:

- **Endpoint URL:** `https://ppcaisearch001.search.windows.net`
- **Azure AI Search Admin Key:** `[[Provided in Lab Resources]]`

Connect to Azure AI Search

Microsoft | Premium | Preview

Azure AI Search

Azure AI Search provides secure information retrieval at scale over user-owned content in traditional and generative AI search applications.

Authentication type

Access Key

Azure AI Search Endpoint URL *

`https://ppcaisearch001.search.windows.net`

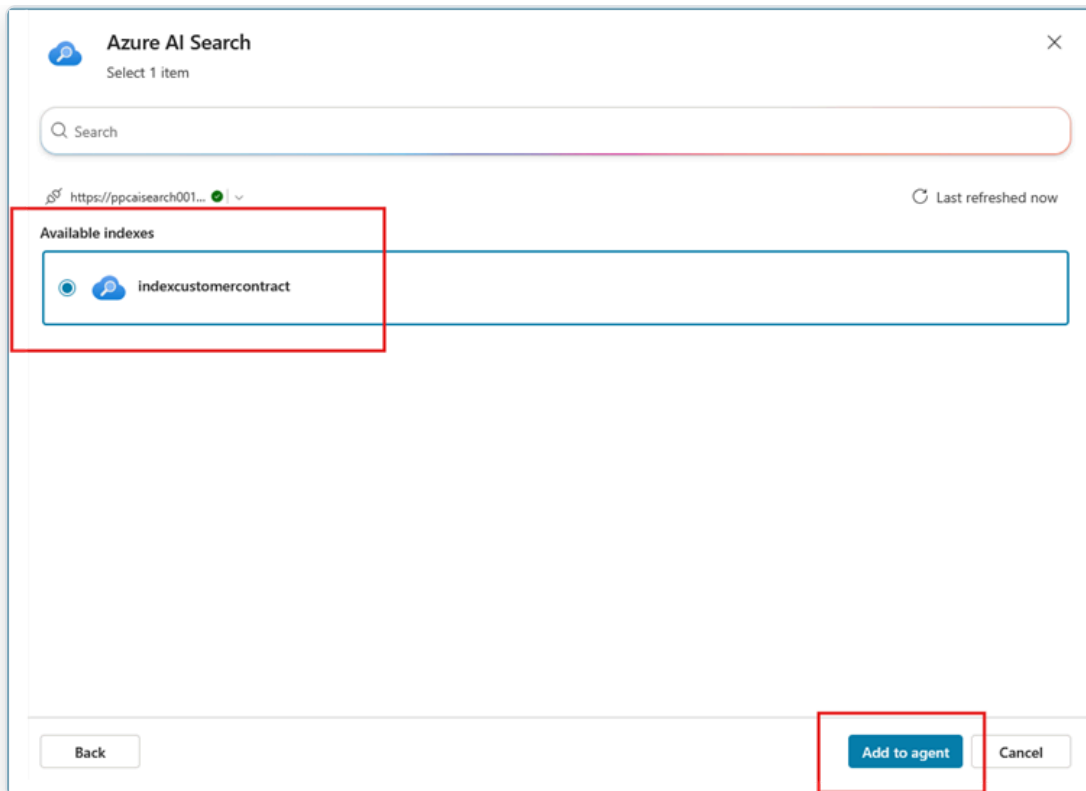
Azure AI Search Admin Key *

.....

Create Cancel

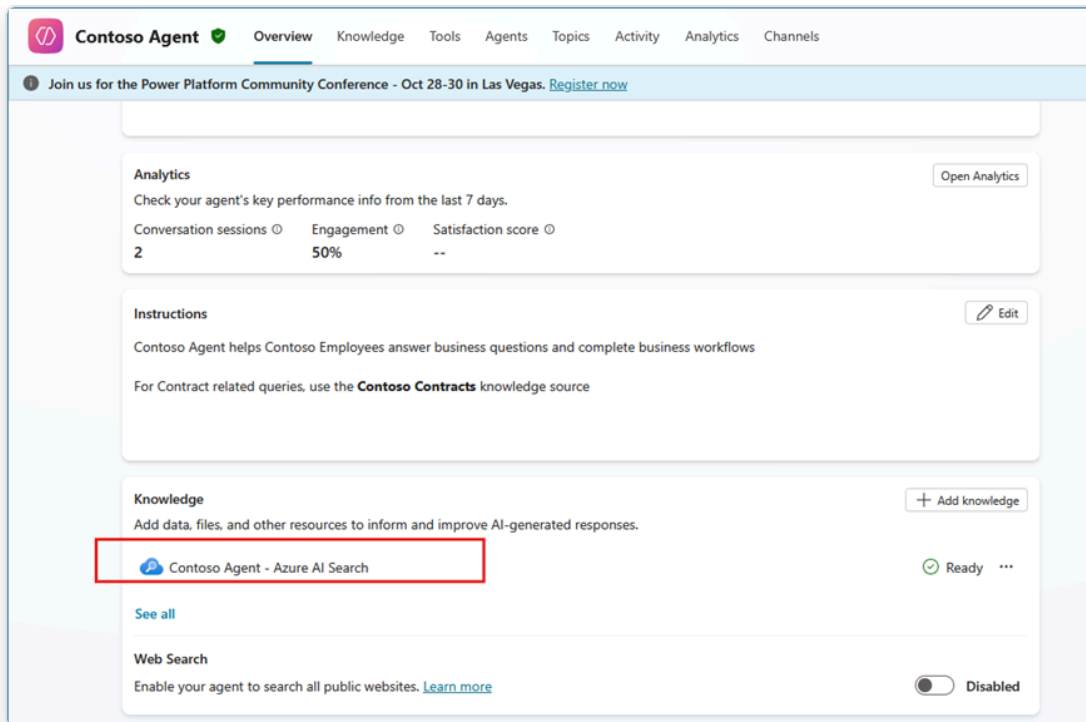
Azure AI Search connection configuration with Endpoint URL and Admin Key fields

2B.5 Select the available index and select **Add to agent**.



Azure AI Search index selection showing available indexes with Add to agent button

2B.6 Once the Azure AI Search service is connected as knowledge source, select it to edit the **Name** and **Description**.



Knowledge sources list showing connected Azure AI Search with edit option

2B.7 Update the following and then click **Save**:

- **Name:**
- **Description:**

This knowledge source provides access to customer contract agreements. Each contract file follows the format: Customer Contract Agreement - [Customer Name].docx

Each contract contains essential details, including:

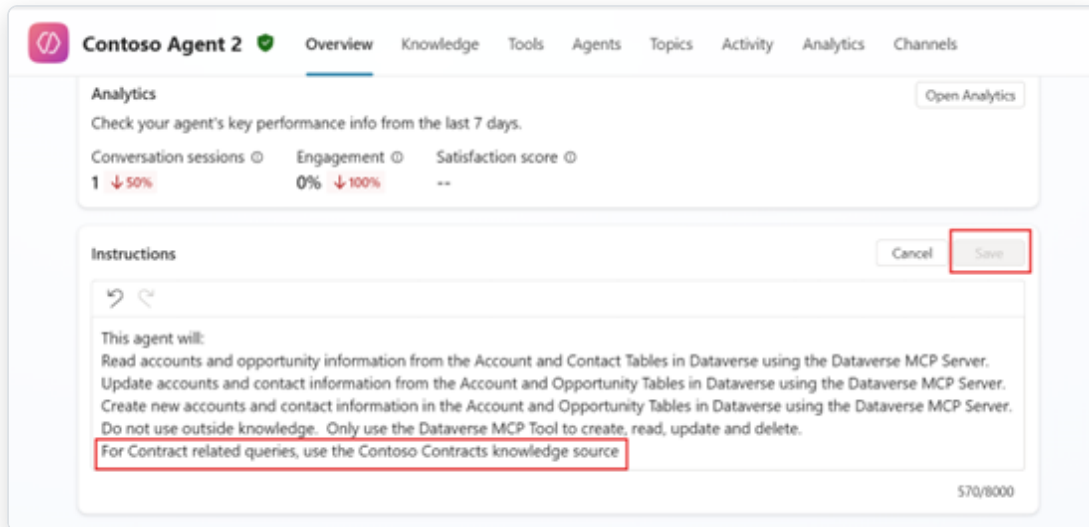
- Scope of Services: Defines the services provided
- Payment Terms: Specifies the total contract value, milestone-based payments, and due dates.
- Service Level Agreement (SLA): Outlines uptime guarantees, response times, and escalation procedures.
- Data Privacy & Compliance: Ensures compliance with regulations like GDPR, CCPA, and defines data ownership.
- Contract Term & Renewal: States the contract duration, renewal policies, and termination conditions.
- Governing Law: Specifies applicable legal jurisdiction

The screenshot shows the 'Contoso Agent - Azure AI Search' interface. Under the 'Knowledge details' section, the 'Name' field is set to 'Contoso Contracts' and the 'Description' field contains the text: 'This knowledge source provides access to customer contract agreements. Each contract file follows the format:'. Below these fields, there is a 'Selected (1)' indicator and an 'Edit' button. At the bottom, a search index named 'indexcustomercontract' is listed with a 'Preview Index details' button.

Knowledge source configuration editor showing Name as Contoso Contracts and detailed Description of contract content

2B.8 Go to **Agent Overview** tab and click **Edit** to add additional instruction to the agent instructions, then click **Save**:

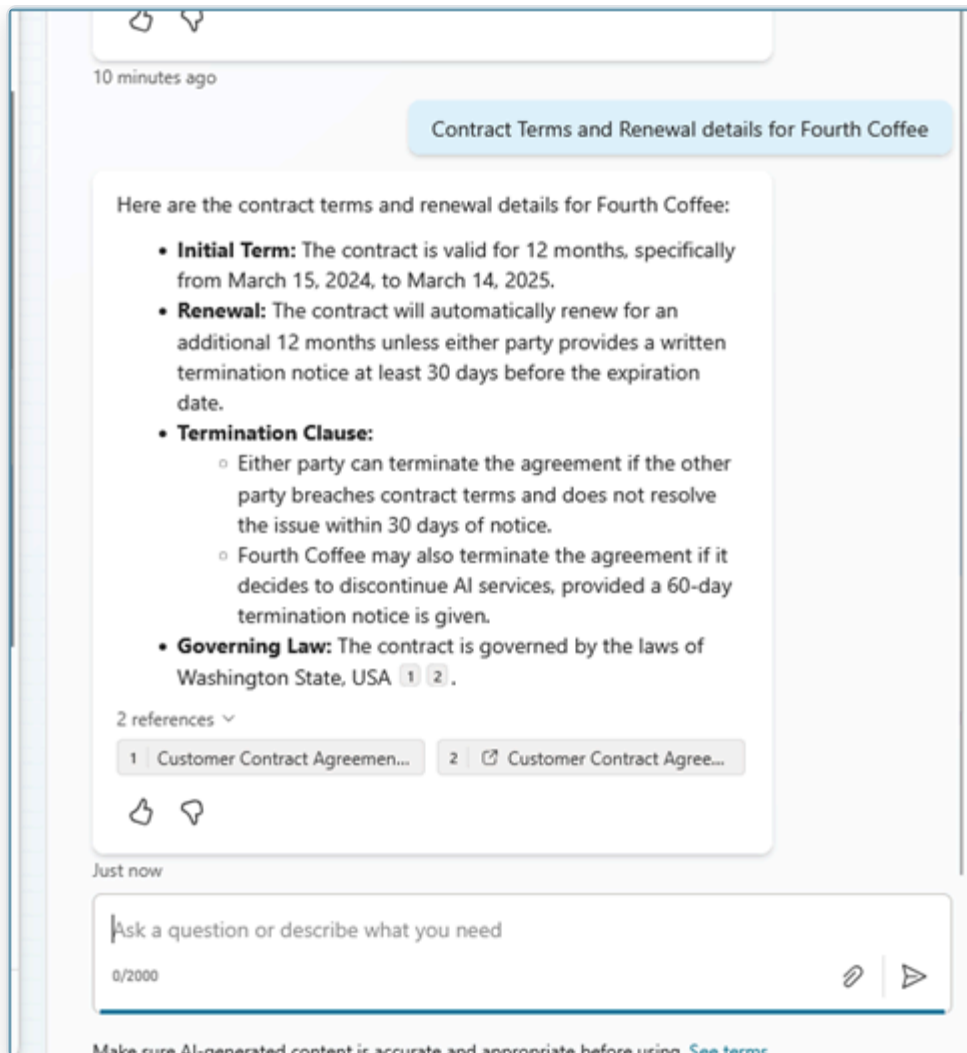
For Contract related queries, use the Contoso Contracts knowledge source



Agent overview showing Instructions editor with added instruction for contract queries using Contoso Contracts knowledge source

Testing Lab 2B

In your test window, send a message like: `Contract terms and renewal details for Fourth Coffee`



Teams test chat showing user query about Fourth Coffee contract with agent response providing contract terms and renewal details from Azure AI Search knowledge source

Lab 2C: Speech-to-Text Integration with Copilot Studio

In this lab, you'll integrate your copilot with **Azure Speech Services** to transcribe customer or meeting recordings directly within Copilot Studio.

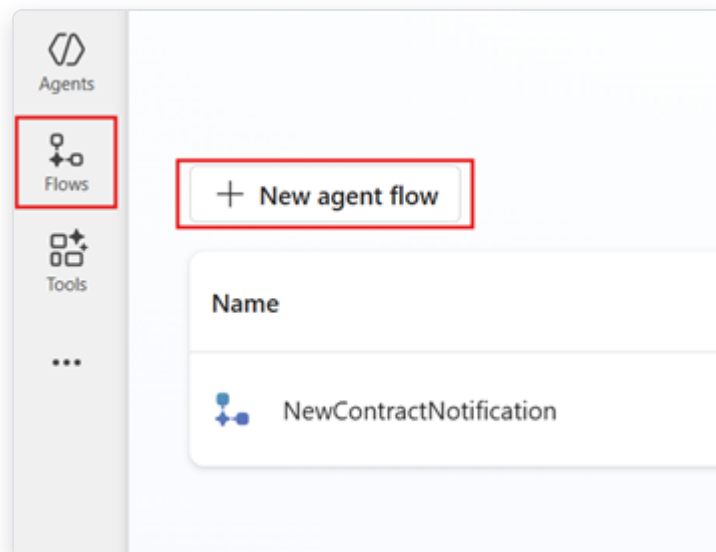
You'll build a flow that uploads an audio file, sends it to Azure Speech for transcription, retrieves the text, and returns it to the user through the agent.

By the end of this module, your copilot will be able to **listen and understand audio content**, turning long recordings into instantly searchable text and actionable insights.

Pre-requisites:

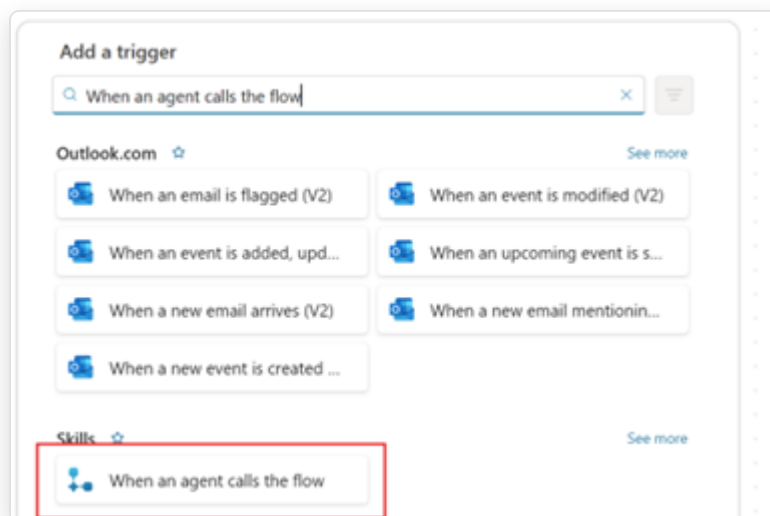
- Azure Speech Service created
- Azure Blob container to hold audio files

2C.1a In Copilot Studio, open **Agent Flows**, Select **+New agent flow**.



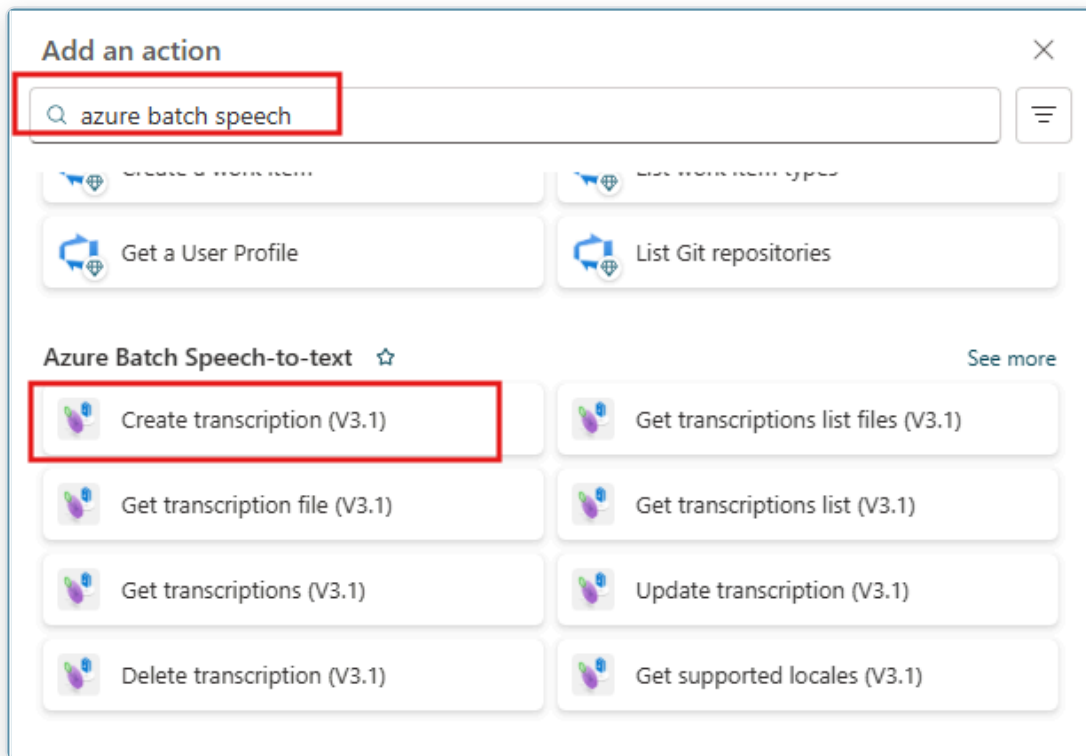
Agent Flows page with New agent flow button highlighted

2C.2 Add a Trigger – **When an agent calls the flow**.



Flow trigger selection showing When an agent calls the flow trigger option

2C.3 Add a new action **Create transcription (V3.1)** from **Azure Batch Speech-to-text** actions.



Flow designer showing Add an action with Create transcription V3.1 from Azure Batch Speech-to-text connector

2C.4 Create connection with provided details then click **Create new**:

- **Connection name:** `SpeechtoTextConnection`
- **Auth. Type:** `API Key`
- **Account Key:** `[[Provided in Lab Resources]]`
- **Region:** `eastus`

Create transcription (V3.1)

Create a new connection

Connection name *

Authentication Type *

Account Key *

Region *

Create new

Azure Speech Service connection configuration with connection name, API Key authentication, account key, and region fields

2C.5 Add the following Action parameters for **Create transcription (V3.1)**:

- **Transcription/locale:**
- **Transcription/displayName:**
- **transcription/contentUrls:** (Advanced Parameters)

Parameters Settings Code view Testing About

Transcription/locale *

en-US

Transcription/displayName *

Call transcription

Advanced parameters

Showing 1 of 16 Show all Clear all

Transcription/contentUrls

* transcription/contentUrls Item - 1

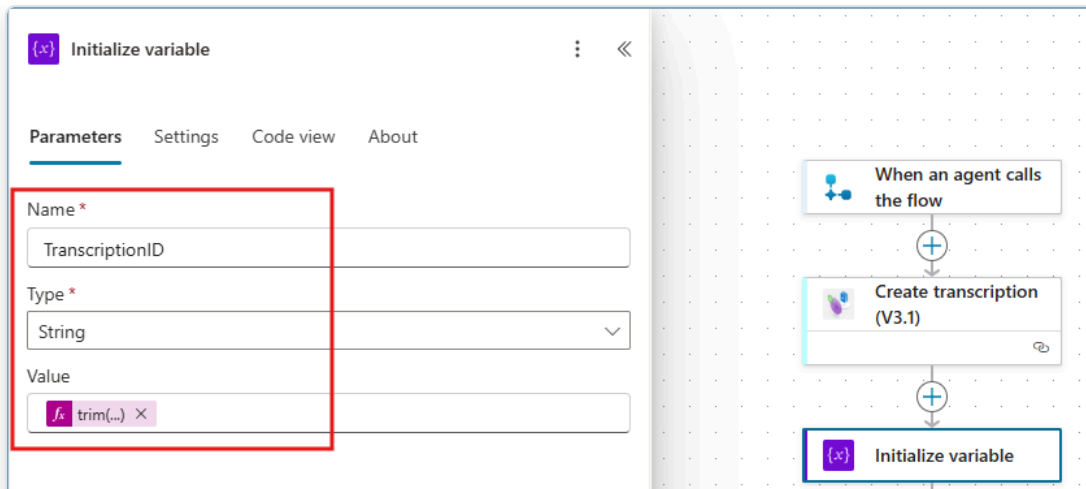
https://ppcontractblob.blob.core.windows.net/callrecordings/2025-02-18_%5BA.%20Datum%5D_support.wav?sp=r&st=2025-10-21T15:57:22Z&se=2025-11-05T01:12:22Z&spr=https&sv=2024-11-04&sr=b&sig=1volzNOMhXYHNIZWL%2FBZzFYTeE92vEBJDDMxHsrcg9k%3D

+ Add new item

Create transcription action configuration showing locale, displayName, and contentUrls parameters

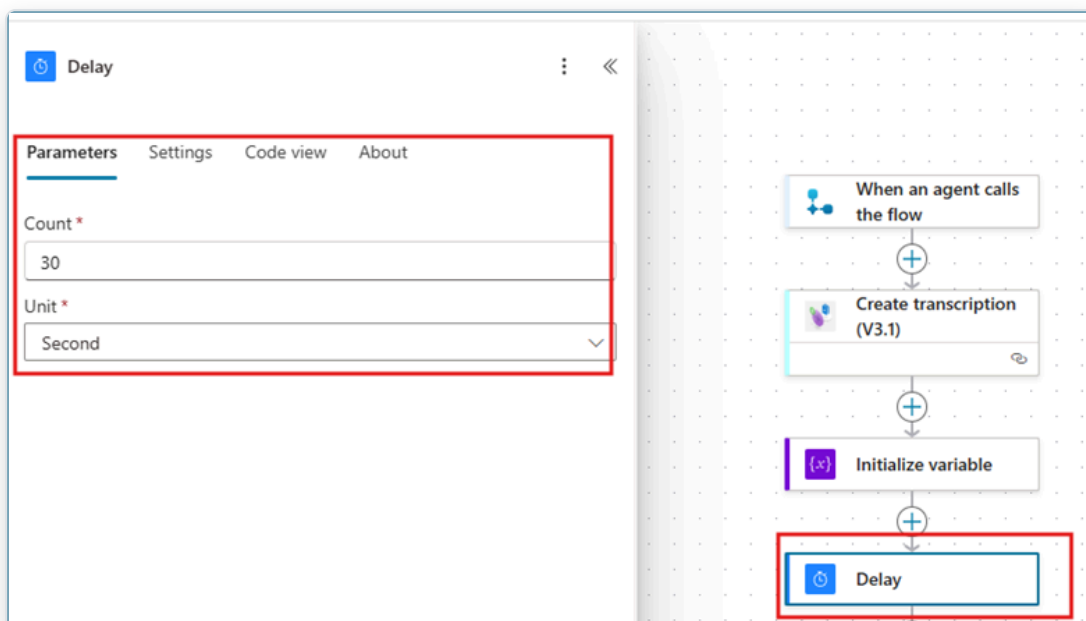
2C.6 Add an **Initialize variable** action with Parameters:

- **Name:** `TranscriptionID`
- **Type:** `String`
- **Value:** `trim(last(split(outputs('Create_transcription_(V3.1)')?['body/self'], '/')))` (Insert expression)



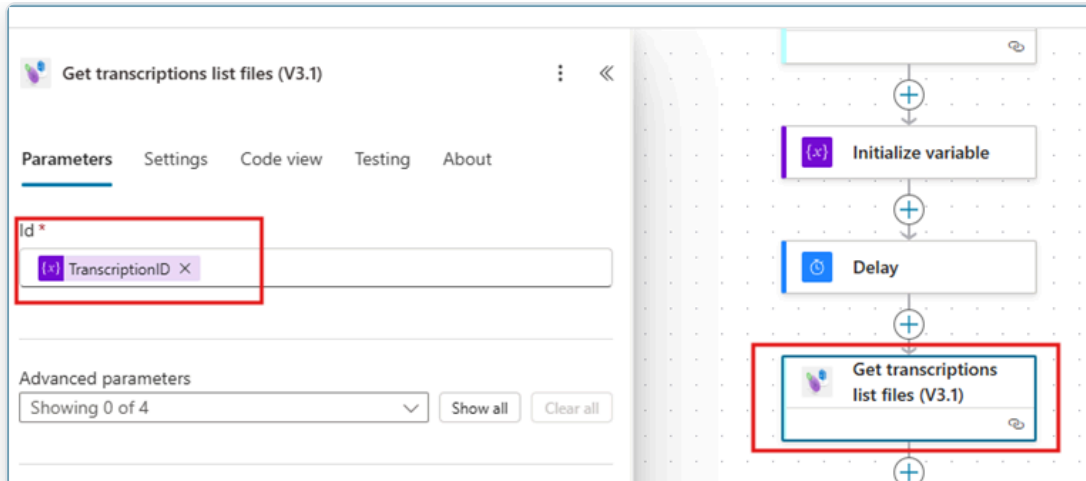
Initialize variable action configured with TranscriptionID name, String type, and expression to extract transcription ID

2C.7 Add a **Delay** action with Count = 30 and Unit = Second.



Delay action configured with 30 seconds count and Second unit to allow transcription processing time

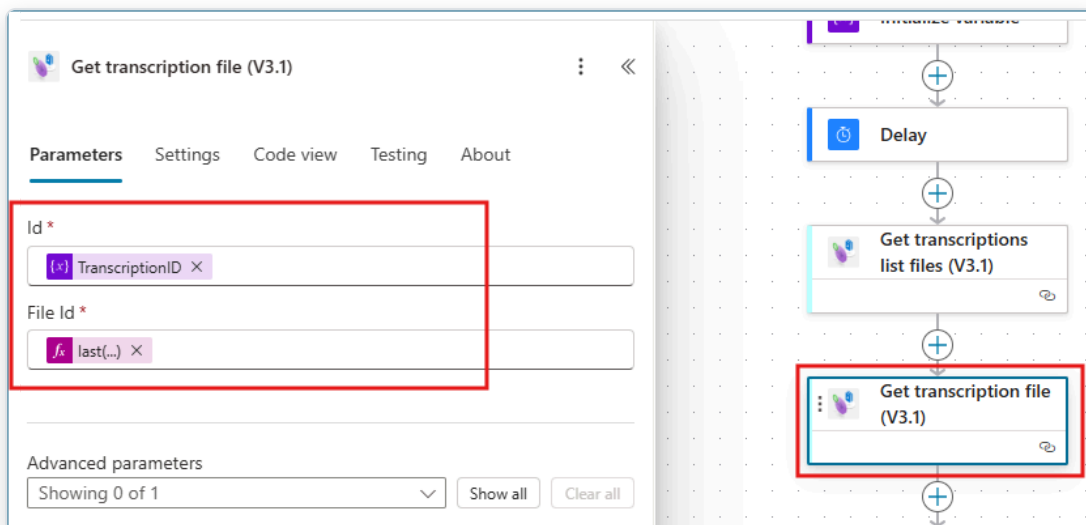
2C.8 Add a **Get transcriptions list files (V3.1)** from **Azure Batch Speech-to-text** actions and pass the **TranscriptionID** variable as Dynamic Content from the earlier step.



Get transcriptions list files action with TranscriptionID variable mapped from previous Initialize variable step

2C.9 Add a **Get transcription file (V3.1)** action with Parameters:

- **Id:** `variables('TranscriptionID')`
- **File Id:** `last(split(first(body('Get_transcriptions_list_files_(V3.1)')?['values']))?['self'], '/files/'))` - *Add this using the Insert expression*



Get transcription file action with Id using TranscriptionID variable and File Id expression to extract file identifier

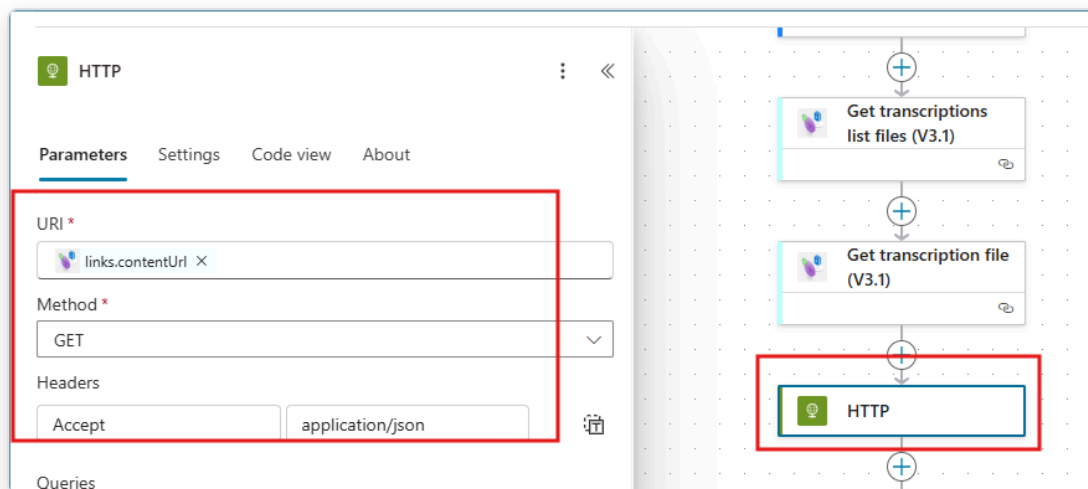
2C.10 Add an **HTTP** action with:

- **URI:** `body('Get_transcription_file_(V3.1)')?['links']?['contentUrl']`



Note: You will not see the icon from the **Get transcription file** until it resolves. It will first show as an expression.

- **Method:** `GET`
- **Headers Key:** `Accept`
- **Headers Value:** `application/json`

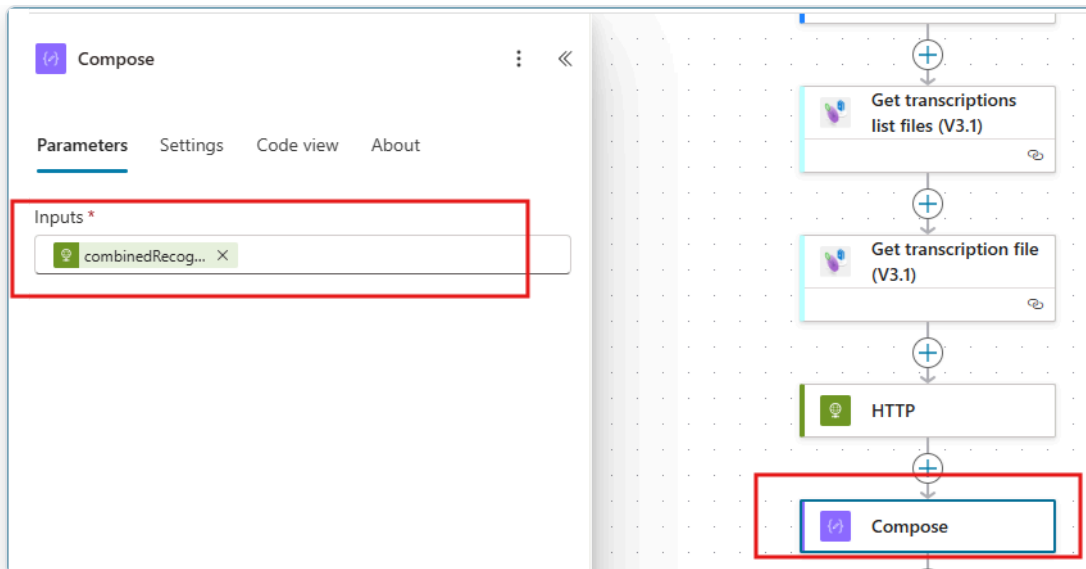


HTTP action configured with URI from Get transcription file contentUrl, GET method, and Accept application/json header

2C.11 Add a **Compose** action. In the **Inputs** field paste: `body('HTTP')?['combinedRecognizedPhrases']`

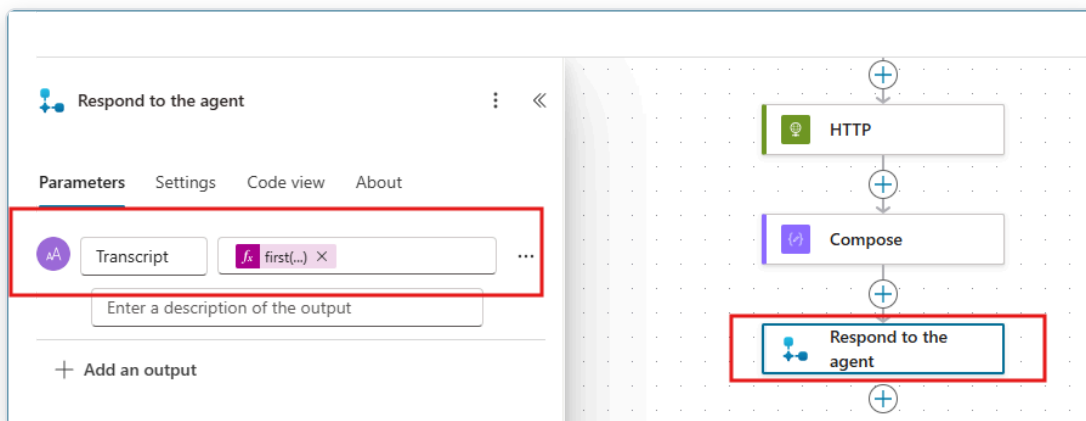


Note: You will not see the icon from the **HTTP** action until it resolves. It will first show as an expression.



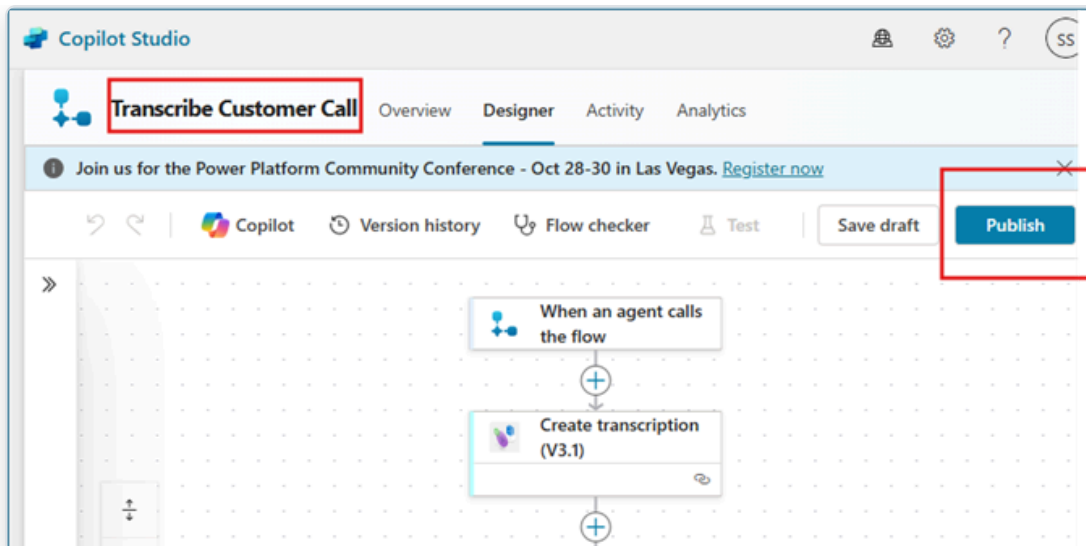
Compose action with Inputs field containing expression to extract combinedRecognizedPhrases from HTTP response body

2C.12 Add an Action - **Respond to the Agent** with a Text output parameter: -
Name: Transcript - **Value:** `first(outputs('Compose'))['display']`



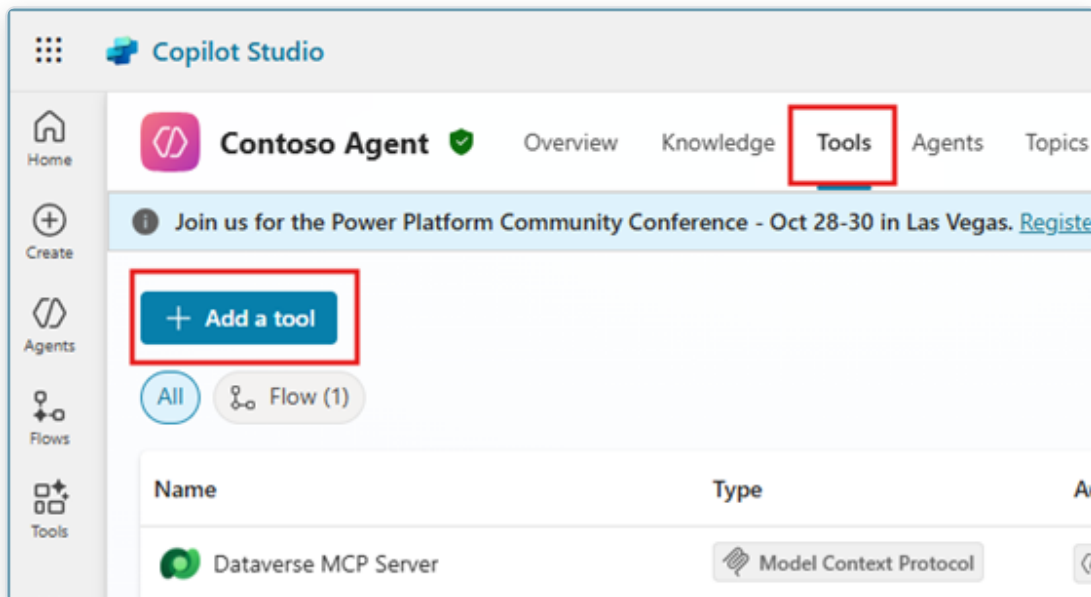
Respond to the Agent action configured with Transcript output parameter using expression to extract display text from Compose output

2C.13 Click on **Save draft** to save the agent flow. Go to **Overview** tab and update the flow name to - **Transcribe Customer Call** and **Publish** the flow.



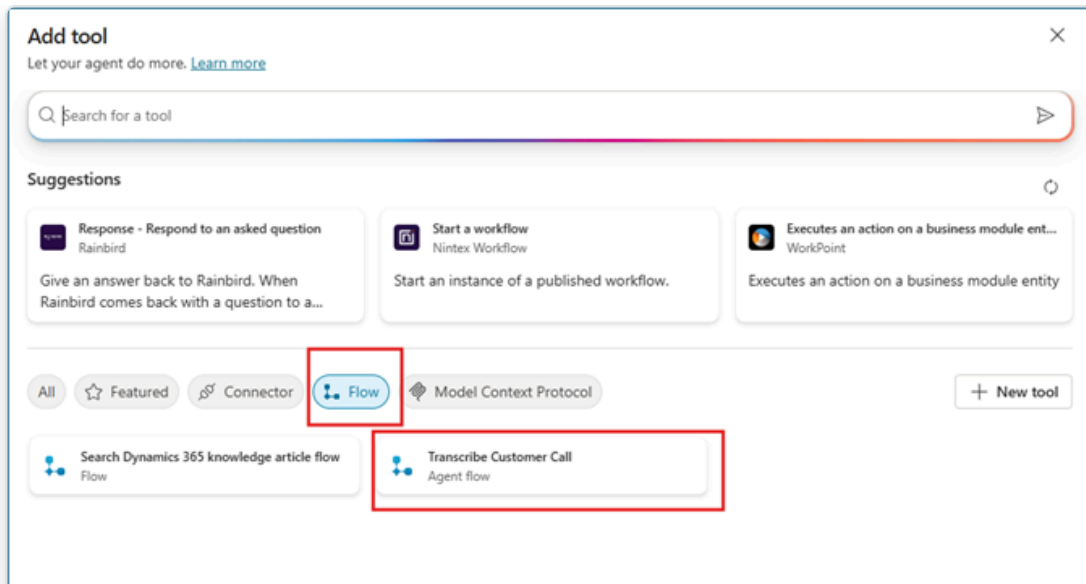
Flow overview showing Save draft button, name editor with Transcribe Customer Call, and Publish button

2C.14 Open the **Contoso Agent**, go to **Tools** tab and select **+Add a tool**.



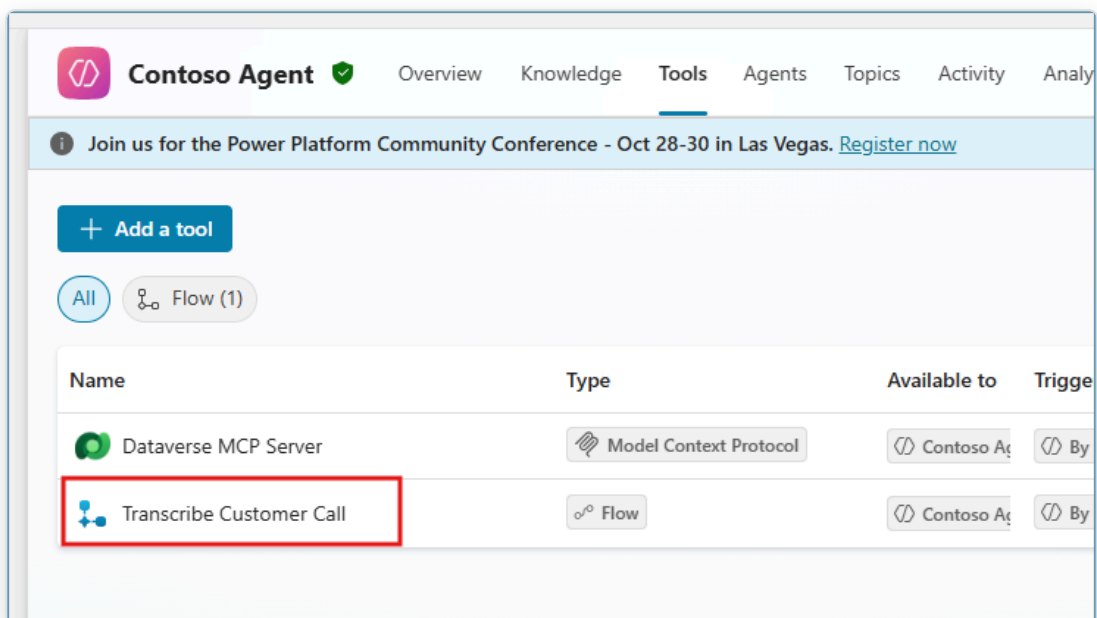
Copilot Studio agent Tools tab with Add a tool button highlighted

2C.15 In the **Add tool** window, Select **Flow** filter and select the newly created **Transcribe Customer Call** flow and add to the agent by selecting **Add to agent** button.



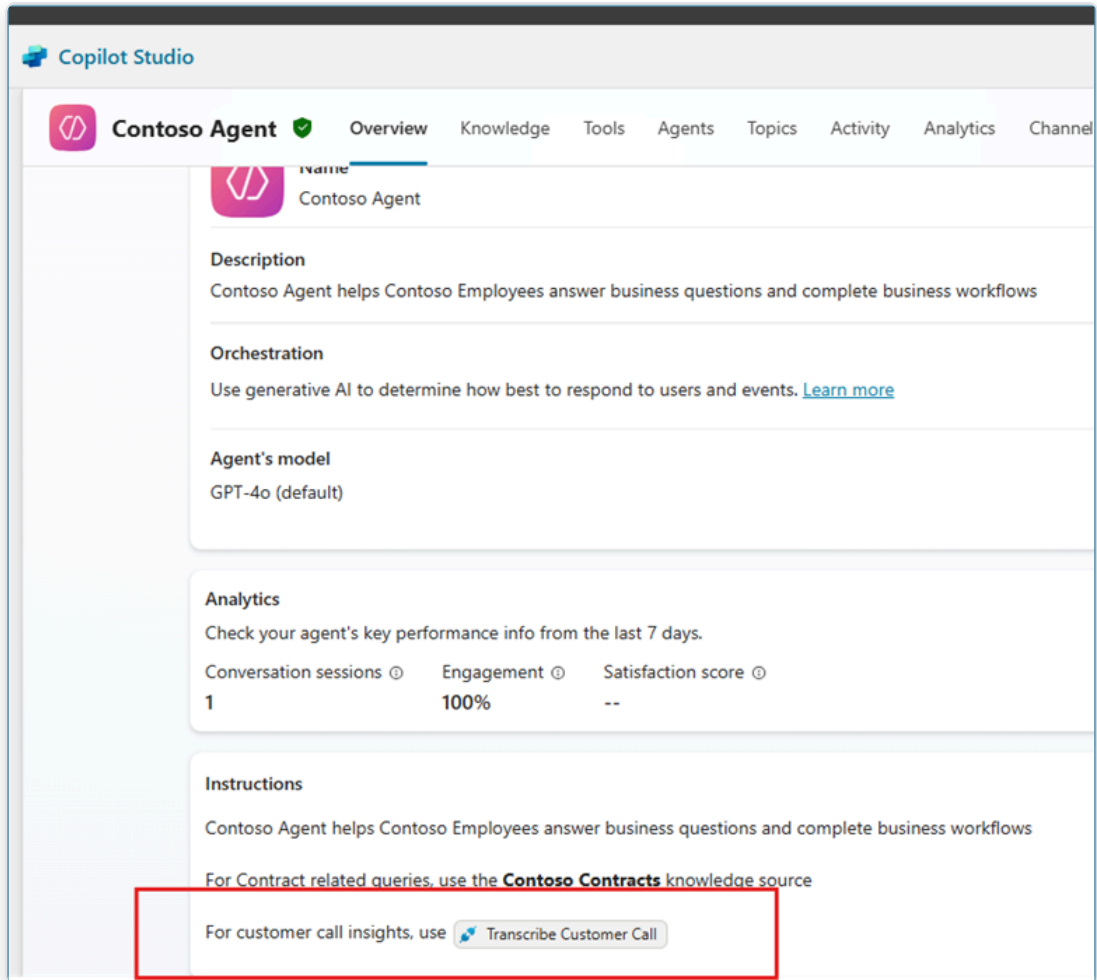
Add tool dialog with Flow filter selected showing Transcribe Customer Call flow and Add to agent button

2C.16 You should see the flow added as shown below



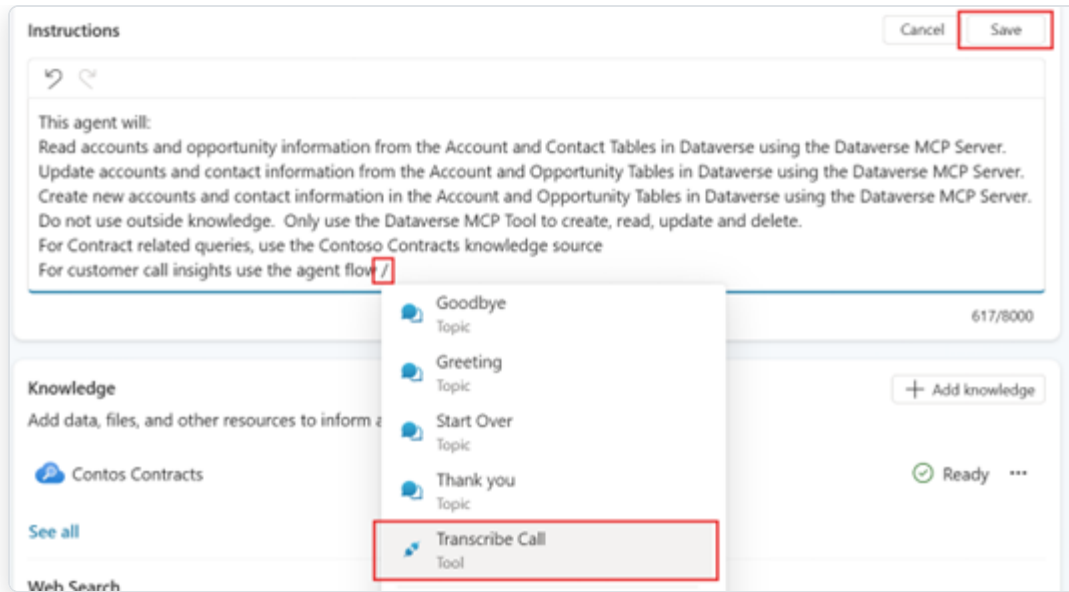
Tools tab showing successfully added Transcribe Customer Call flow in the agent's tool list

2C.17 In the Contoso Agent **Overview** tab, update instructions to direct the agent to this Agent flow for customer call insights as shown below. .



Agent instructions editor showing how to reference the Transcribe Customer Call flow for call insights

To get the actual tool listed in the instructions. Type [/](#) and then scroll down and select the **Transcribe Agent Flow**.



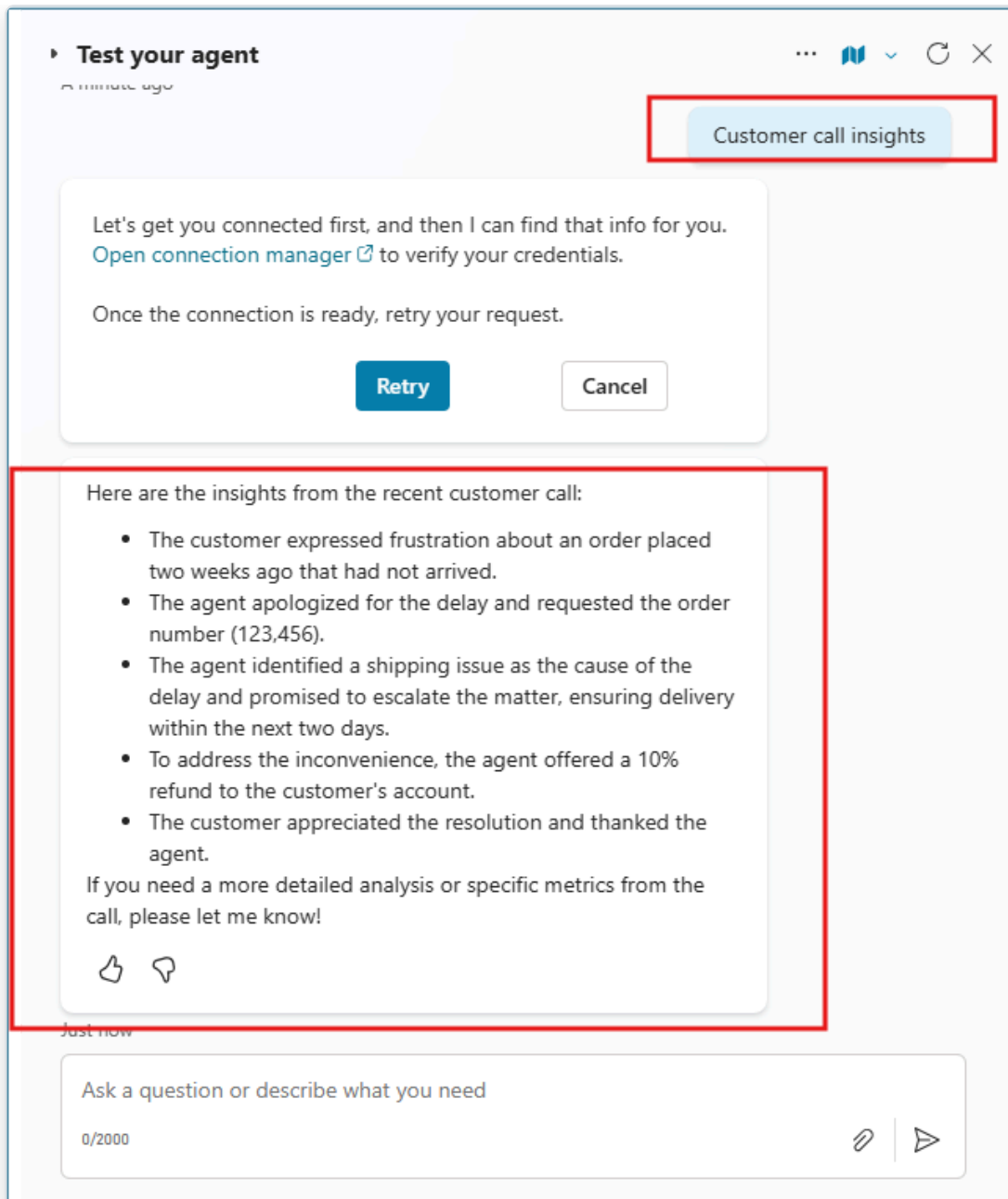
Instructions editor showing slash command to insert Transcribe Customer Call flow reference into agent instructions

Testing Lab 2C

In your Agent **Test pane**, send a message:

Customer call insights .

(If prompted, create the required connection and retry)



Agent test pane showing user query for customer call insights with transcription response containing full audio transcription text

 **Congratulations! You've completed Intelligent**

Document Search and Audio Transcription

Test your understanding for Azure AI and Speech to Text

- How does Azure AI Search improve the agent's ability to answer contract-related questions compared to basic document storage?
- What are the key components required for Speech-to-Text integration, and how do they work together?
- How would you extend this approach to handle different audio formats or languages?

Challenge: Apply this to your own use case

- Consider what other document types in your organization could benefit from semantic search capabilities
- Think about different audio sources (meetings, voicemails, interviews) that could be transcribed and analyzed
- Explore how you could combine search results with transcription insights for comprehensive business intelligence

Summary of learnings

True learning comes from doing, questioning, and reflecting—so let's put your skills to the test.

To maximize the impact of intelligent, event-driven Copilot Studio agents:

- **Event-Driven Architecture** – Design agents that respond automatically to real business events, eliminating manual monitoring and creating proactive workflows

- **AI-Powered Content Processing** – Leverage AI Builder and Azure AI services to extract structured insights from unstructured data sources
 - **Multi-Modal Intelligence** – Combine document search, speech transcription, and conversational AI to create comprehensive business intelligence solutions
 - **Secure Azure Integration** – Connect Copilot Studio to enterprise Azure services while maintaining security, compliance, and governance standards
 - **User-Centric Design** – Build agents that deliver intelligence directly in collaborative workspaces like Teams where users already work
-

Conclusions and recommendations

Intelligent Agent Development golden rules:

- Always publish agents to appropriate channels before implementing proactive messaging capabilities
- Design AI prompts with clear instructions and structured output formats for consistent results
- Implement proper error handling and delays when integrating with external Azure services
- Use semantic search and knowledge sources to ground agent responses in enterprise data
- Test integration points thoroughly with realistic data and scenarios
- Consider the full user workflow when designing proactive notifications and responses

By following these principles, you'll create powerful, intelligent agents that seamlessly integrate enterprise data, events, and AI capabilities into natural conversational workflows—transforming how organizations process information and respond to business events.

Azure Setup (For Reference Only)

This section provides background on the **Azure resources** that power your agent capabilities—**Blob Storage**, **Azure AI Search**, **Azure OpenAI embeddings**, and **Speech Services**. You don't need to perform these steps for the lab as these resources are **already pre-created for this lab**. This reference helps you understand how each component fits into the overall solution architecture. You'll see how contract documents are stored, indexed, and transcribed behind the scenes—so you can replicate or extend this setup in your own environment later.

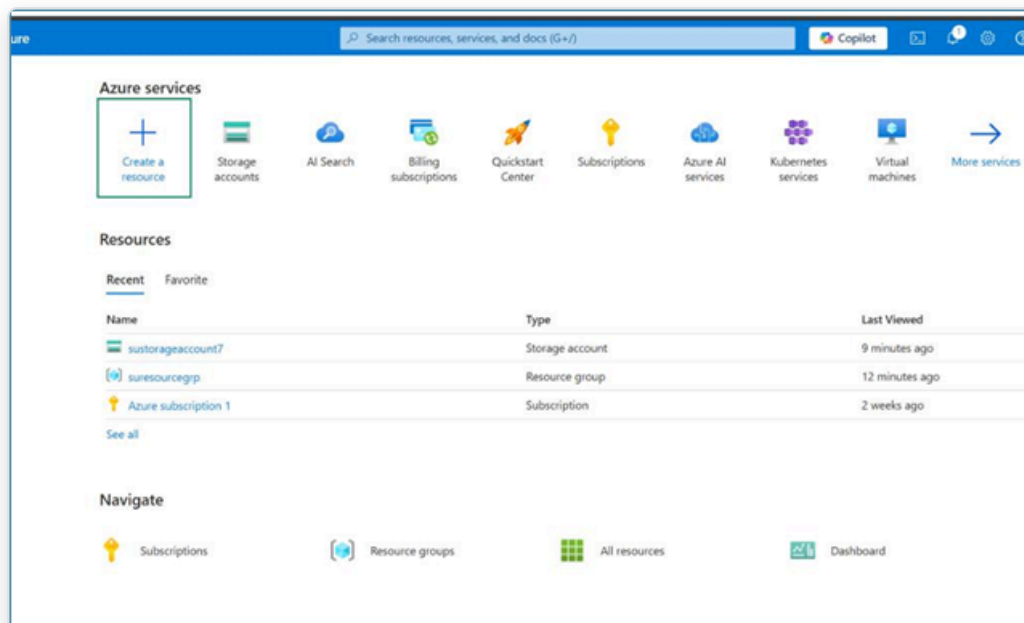
A. Create Azure Blob Storage Account with Container

Prerequisites:

- Azure Subscription

Step-by-step instructions:

1. Login to **Azure Portal**, in the home screen, click on **Create a resource** and search for **storage account**



Azure Portal home screen with Create a resource button and storage account search

2. Create a **storage account** by selecting the right values

The screenshot shows the 'Create a storage account' wizard in the Azure Portal. The breadcrumb navigation at the top reads 'Home > Storage center | Storage accounts (Blobs) >'. The title is 'Create a storage account' with a three-dot menu icon. Below the title are tabs for 'Basics', 'Advanced', 'Networking', 'Data protection', 'Encryption', 'Tags', and 'Review + create'. The 'Basics' tab is selected. A descriptive paragraph about Azure Storage is followed by a link to 'Learn more about Azure storage accounts'. The 'Project details' section instructs the user to select a subscription and resource group. The 'Subscription' dropdown is set to 'Azure subscription 1', and the 'Resource group' dropdown is set to '(New) PPCWorkshop', with a 'Create new' link below it. The 'Instance details' section includes: 'Storage account name' (ppccontractsblob), 'Region' ((US) West US) with a 'Deploy to an Azure Extended Zone' link, 'Preferred storage type' (Azure Blob Storage or Azure Data Lake Storage Gen 2), 'Performance' (Standard selected, Premium unselected), and 'Redundancy' (Geo-redundant storage (GRS) selected). A checkbox for 'Make read access to data available in the event of regional unavailability' is checked. At the bottom are 'Previous', 'Next', and 'Review + create' buttons.

Home > Storage center | Storage accounts (Blobs) >

Create a storage account ...

Basics Advanced Networking Data protection Encryption Tags Review + create

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more about Azure storage accounts](#)

Project details

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription *

Resource group * [Create new](#)

Instance details

Storage account name *

Region * [Deploy to an Azure Extended Zone](#)

Preferred storage type

Performance * ☒ **Standard:** Recommended for most scenarios (general-purpose v2 account)
☐ **Premium:** Recommended for scenarios that require low latency.

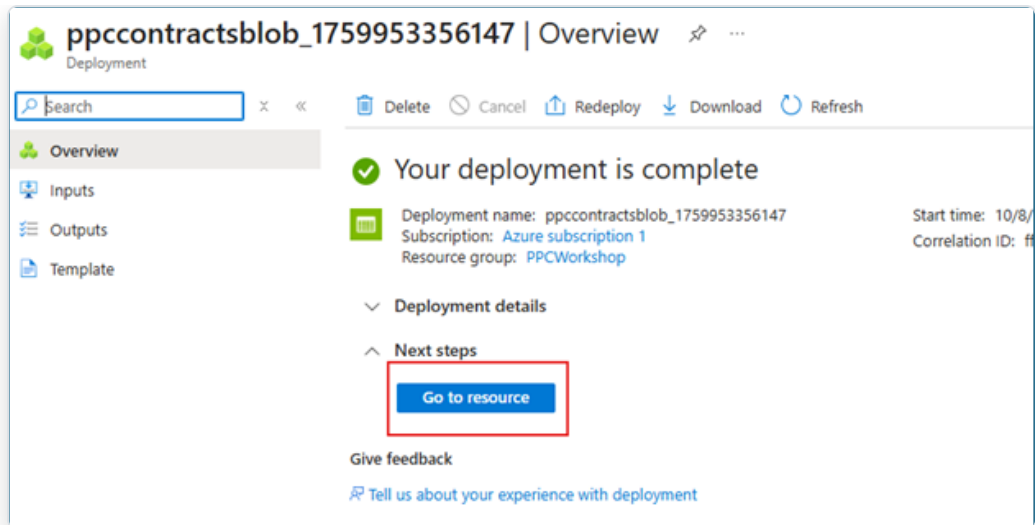
Redundancy *

☒ Make read access to data available in the event of regional unavailability.

[Previous](#) [Next](#) [Review + create](#)

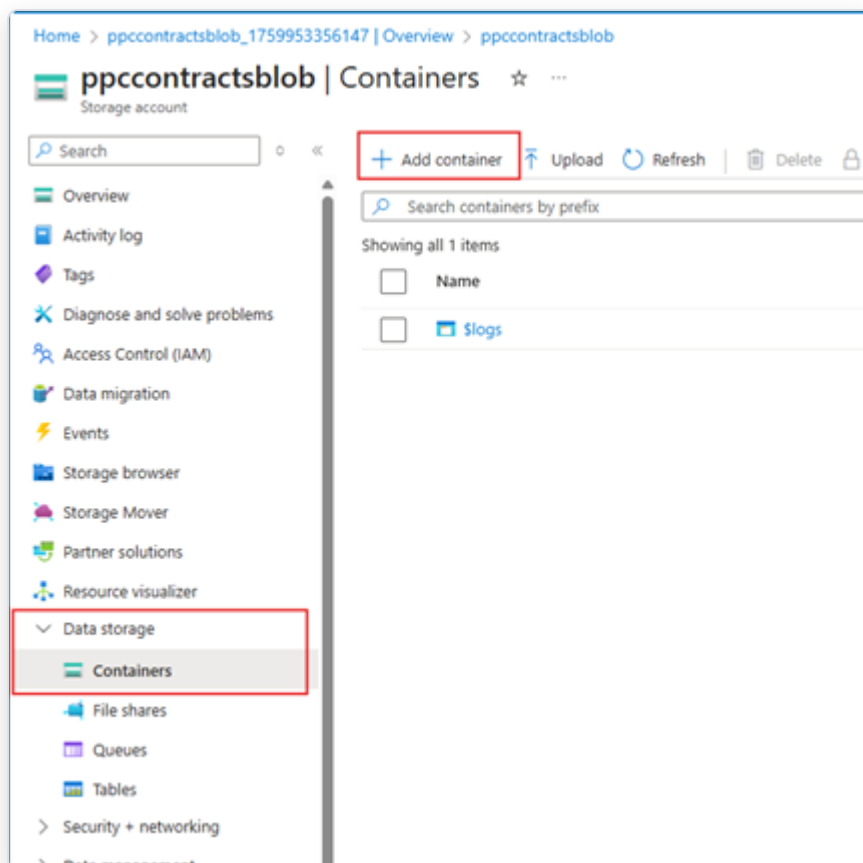
Azure storage account creation form with subscription, resource group, storage account name, and region fields

3. Once the storage account is created and ready, click on **Go to resources**



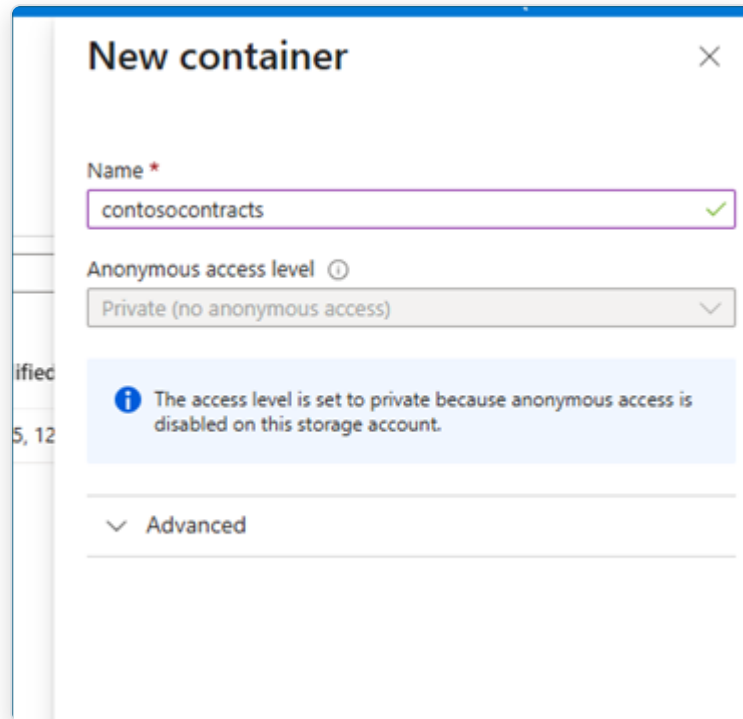
Azure deployment completion screen with Go to resource button

4. Under **data storage**, select **Containers** and select **+ Add container**



Storage account overview showing Containers option under data storage section with Add container button

5. Add a name for the container and click **Create**



New container

Name *

contosocontracts ✓

Anonymous access level ⓘ

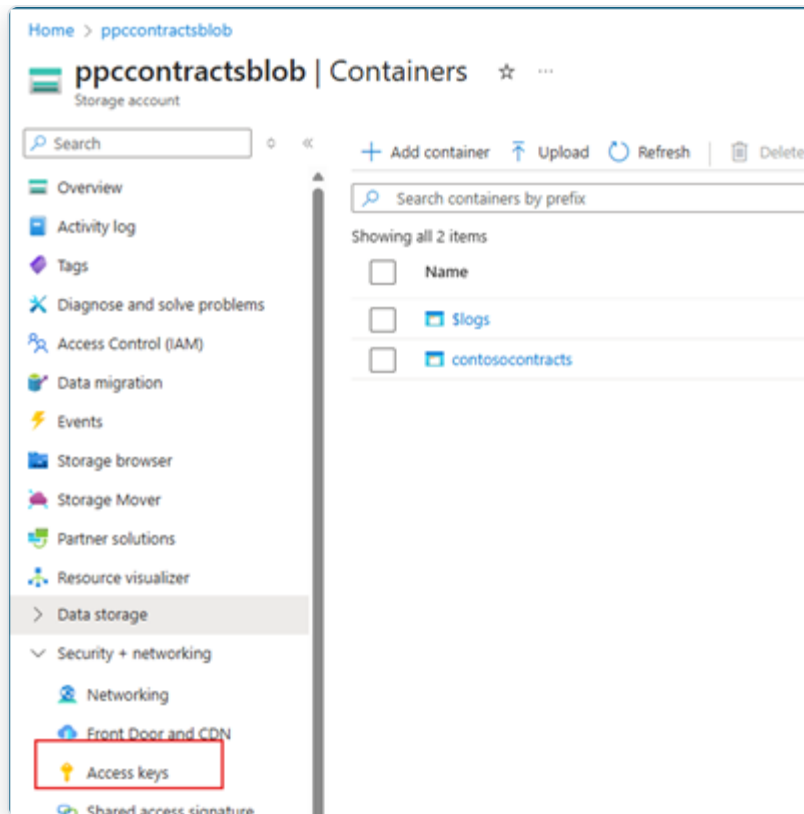
Private (no anonymous access) ▼

i The access level is set to private because anonymous access is disabled on this storage account.

▼ Advanced

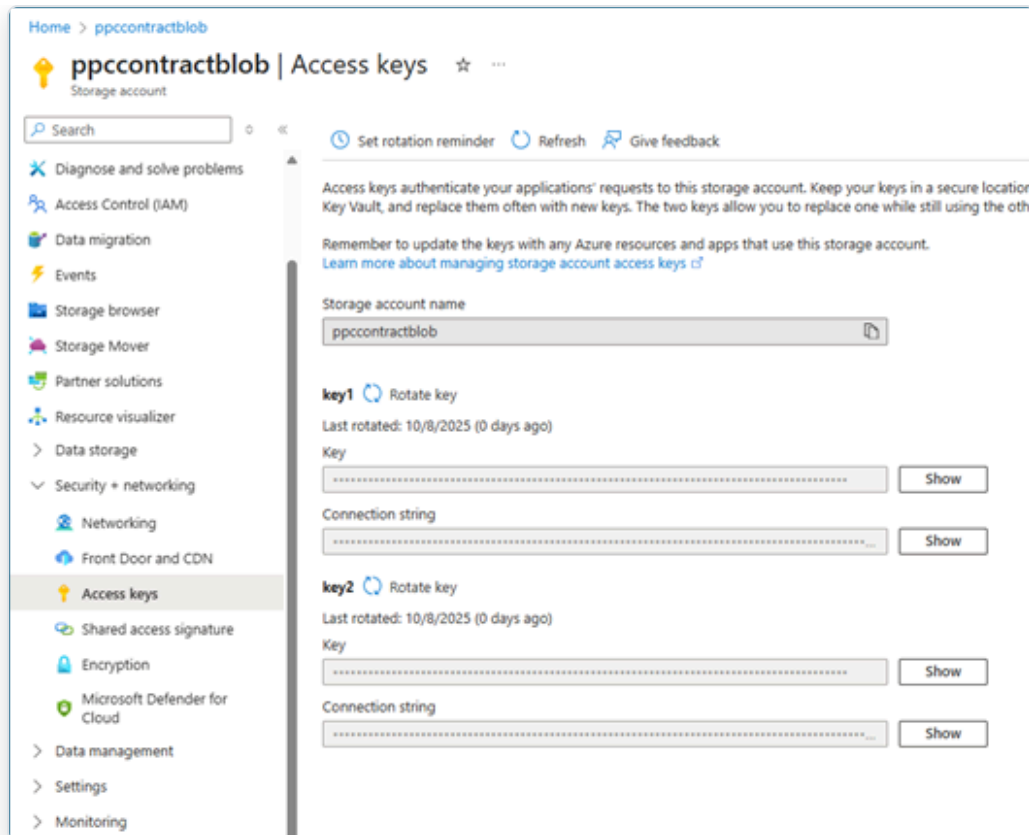
New container dialog with container name field and Create button

6. In the **storage account resource**, select **Access keys** under **security + networking** tab



Storage account navigation menu showing Access keys option under security + networking section

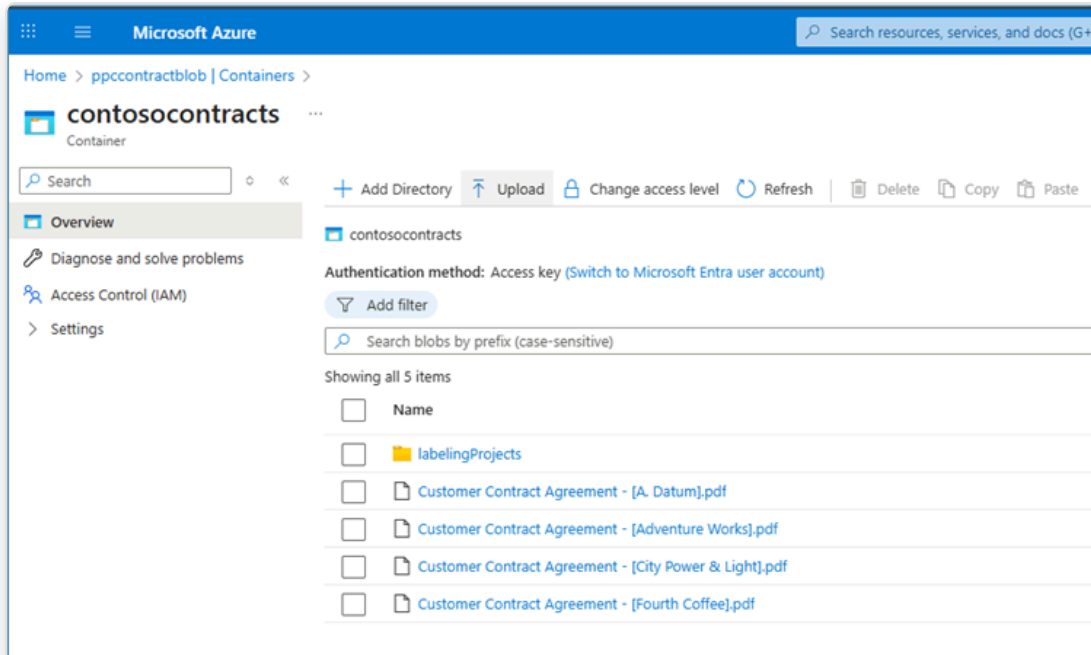
7. Copy the **storage account name** and one of the **key** values for connecting to it from the **Agent Flow**



Access keys page displaying storage account name and key values with copy buttons

B. Azure AI Search on Contracts Stored in Azure Blob Storage

Pre-requisite: Ensure all the contract documents are added to the container inside the storage account



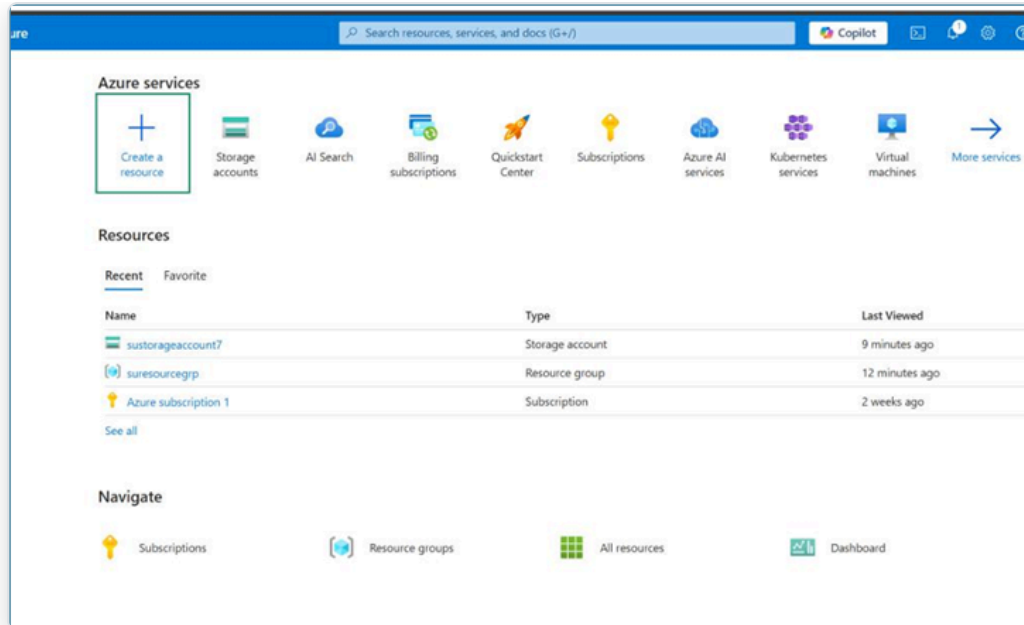
Azure Blob Storage container showing uploaded contract documents

In the following steps, we will be creating:

- Create **Azure OpenAI resource** and **deploy an embedding model**
- Create **Azure AI Search** resource
- **Import & vectorize Blob data** with Azure AI Search
- Obtain **endpoint and keys** for the Search service

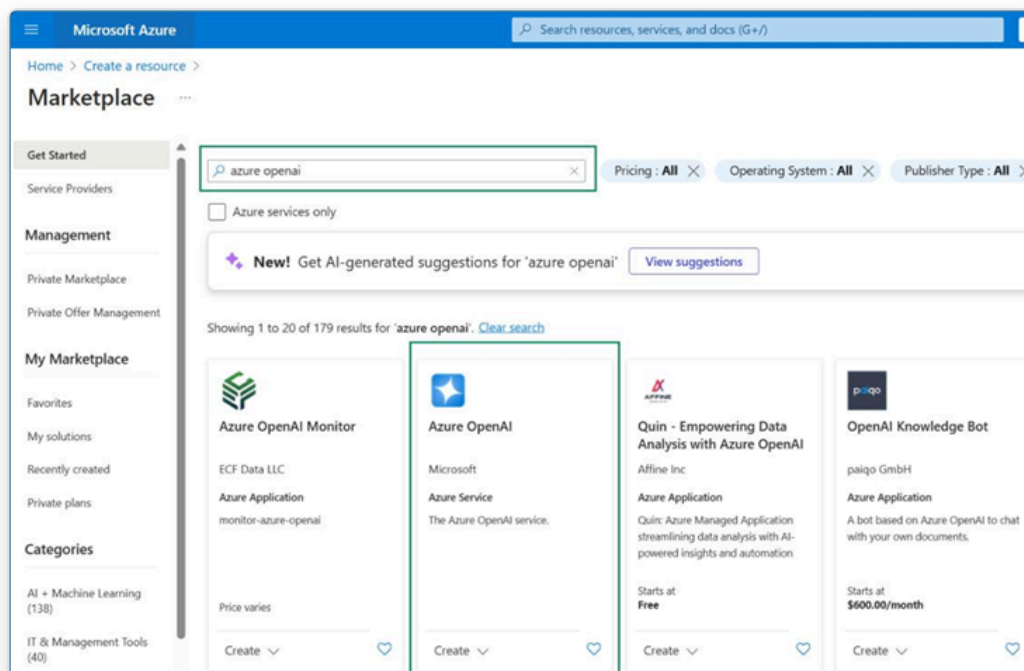
Step-by-step instructions:

1. Go to the **Azure Portal home screen** and click on **Create a resource**



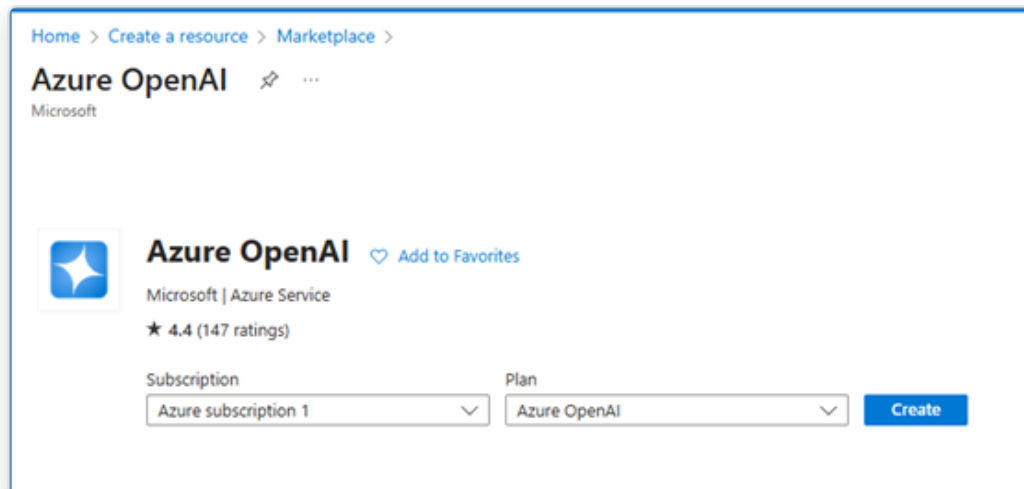
Azure Portal home screen with Create a resource button highlighted

2. Search for **Azure OpenAI** and select it to create a new Azure OpenAI resource



Azure Marketplace showing Azure OpenAI search results

3. Click **Create**



Azure OpenAI resource overview page with Create button

4. Select right values for creating an Azure OpenAI resource and click on **Next** until the last step

Create Azure OpenAI ...

1 Basics

2 Network

3 Tags

4 Review + submit

Azure OpenAI Service provides access to OpenAI's powerful language models, including all the latest OpenAI models. These models can be easily adapted to your specific tasks, including but not limited to content generation, summarization, image understanding, semantic search, and natural language to code translation. Top use cases include Call Centers, Virtual Assistants, Accessibility, Content Generation, and Code Development. The service also features the Assistants API, Fine Tuning capabilities and many ways to connect your data to the service for conversational experiences. The service can be scaled through Standard (tokens) and Provisioned (PTUs) deployment types.

[Learn more](#)

Project Details

Subscription * ⓘ

Azure subscription 1

Resource group * ⓘ

ppcworkshop

[Create new](#)

Instance Details

Region ⓘ

West US

Name * ⓘ

ppcopenai001

Pricing tier * ⓘ

Standard S0

[View full pricing details](#)

Content review policy

To detect and mitigate harmful use of the Azure OpenAI Service, Microsoft logs the content you send to the Completions and image generations APIs as well as the content it sends back. If content is flagged by the service's filters, it may be reviewed by a Microsoft full-time employee.

[Learn more about how Microsoft processes, uses, and stores your data](#)

Previous

Next

Azure OpenAI creation form with subscription, resource group, region, name, and pricing tier fields

5. Review values and select **Create**

Create Azure OpenAI ...

✓ Basics

✓ Network

✓ Tags

4 Review + submit

[View automation template](#)

Basics

Subscription	Azure subscription 1
Resource group	ppcworkshop
Region	West US
Name	ppcopenai001
Pricing tier	Standard S0

Network

Type	All networks, including the internet, can access this res
------	---

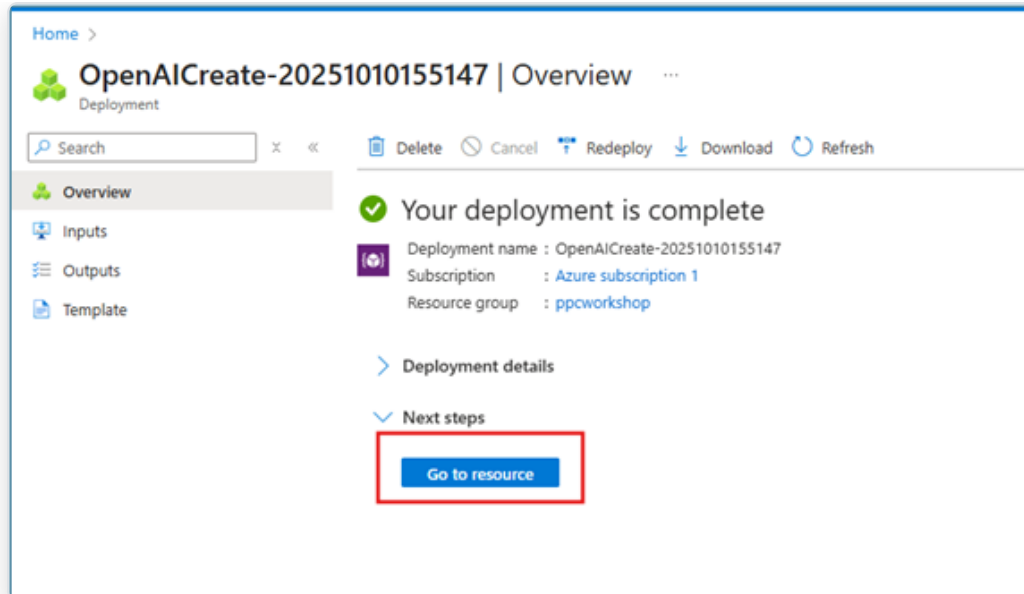
Previous

Next

Create

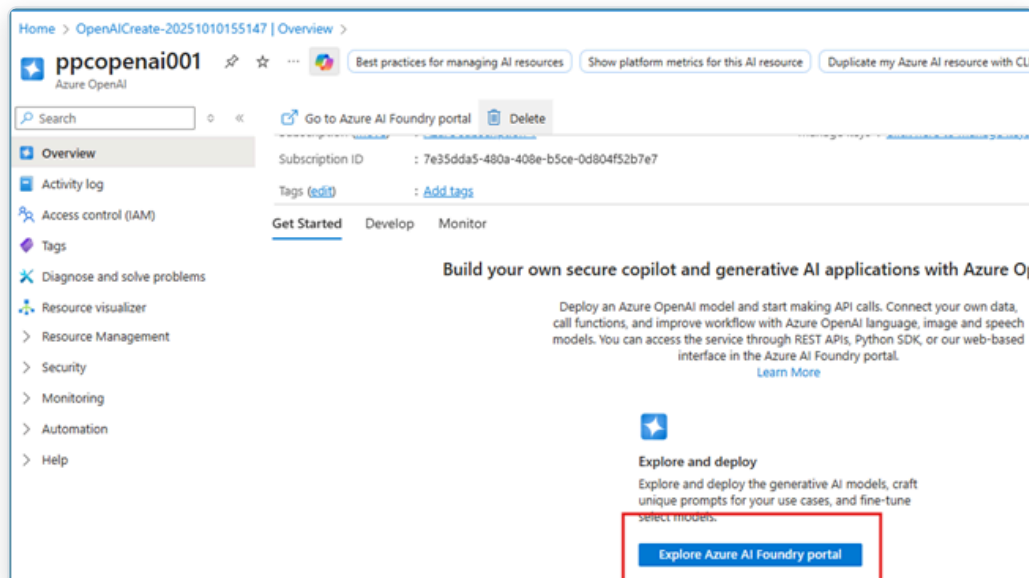
Azure OpenAI creation review page showing all configured values with Create button

6. Once the Azure OpenAI resource is ready, click on **Go to resource**



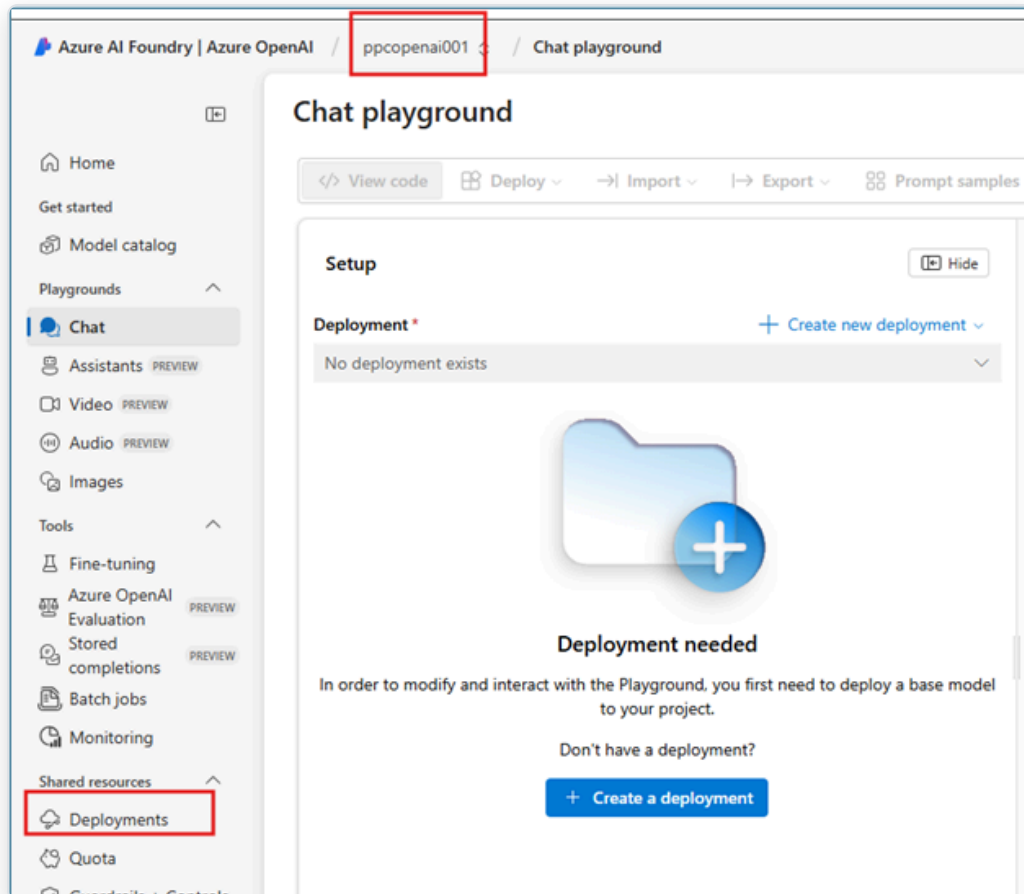
Azure OpenAI deployment completion screen with Go to resource button

7. Select **Explore Azure AI Foundry portal** (This should open a new browser window)



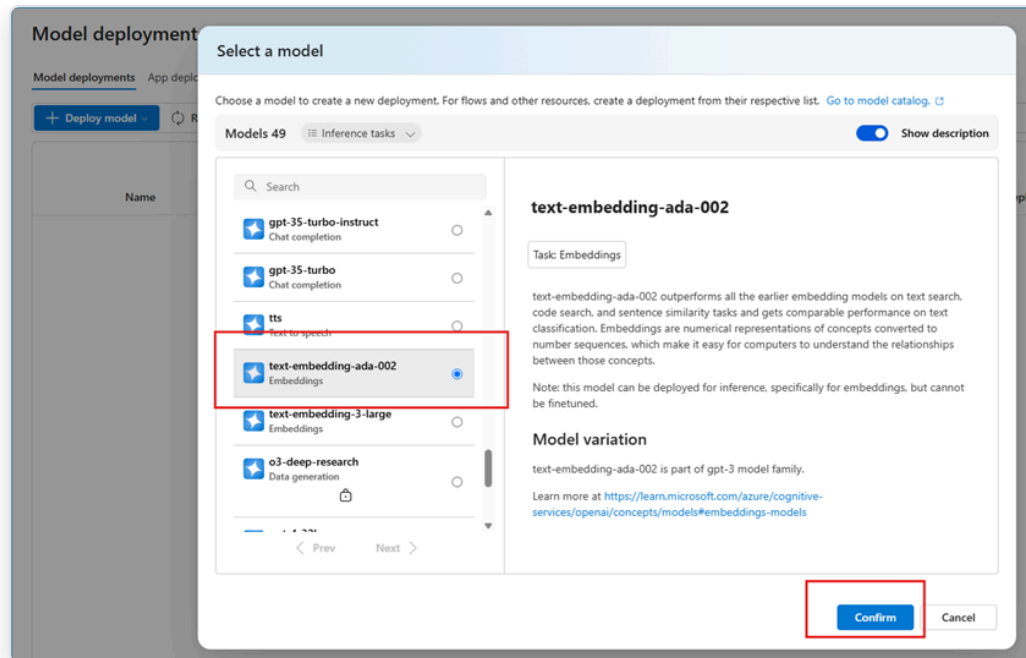
Azure OpenAI resource overview with Explore Azure AI Foundry portal button

8. In the **Azure AI Foundry** portal, ensure the right **Azure OpenAI** resource is selected. Click on **Deployments**



Azure AI Foundry portal showing selected Azure OpenAI resource with Deployments menu option

9. Select **text-embedding-ada-002** model for deployment and confirm



Azure AI Foundry deployments page showing text-embedding-ada-002 model selection for deployment

10. Ensure the deployment details reflect the right values and click on **Deploy**

Deploy text-embedding-ada-002

Deployment name *

text-embedding-ada-002

Deployment type

Global Standard

Global Standard: Pay per API call with the highest rate limits. Learn more about [Global deployment types](#).

Data might be processed globally, outside of the resource's Azure geography, but data storage remains in the AI resource's Azure geography. Learn more about [data residency](#).

Deployment details

Model version

2

Capacity

130K tokens per minute (TPM)

Content safety

DefaultV2

AI resource

ppcopenai001

Resource location

West US

Version upgrade policy

Model version will not be automatically upgraded

Customize

Deploy

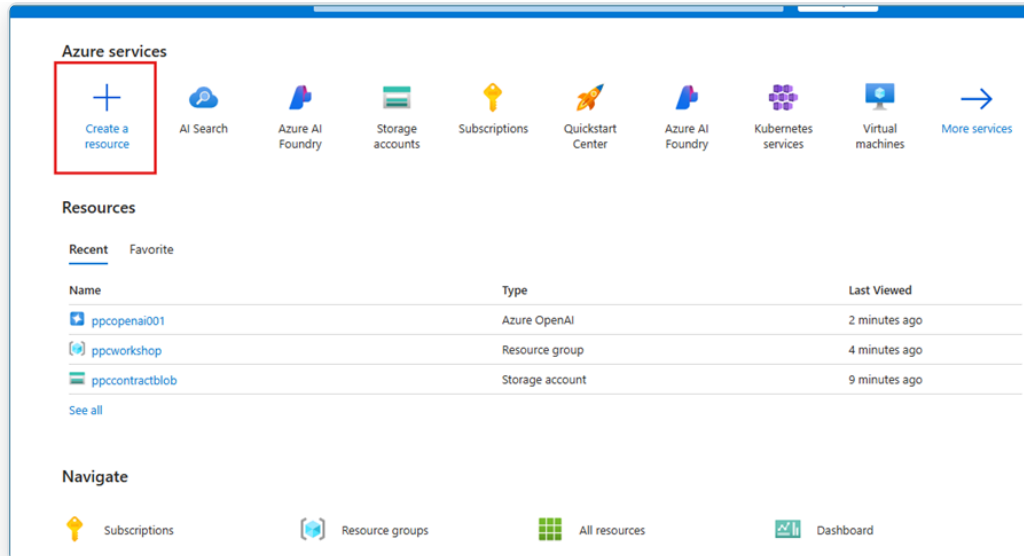
Cancel

Model deployment configuration showing deployment name, model version, and capacity settings with Deploy button

11. Go to the **Azure portal home page** and select **Create a resource**

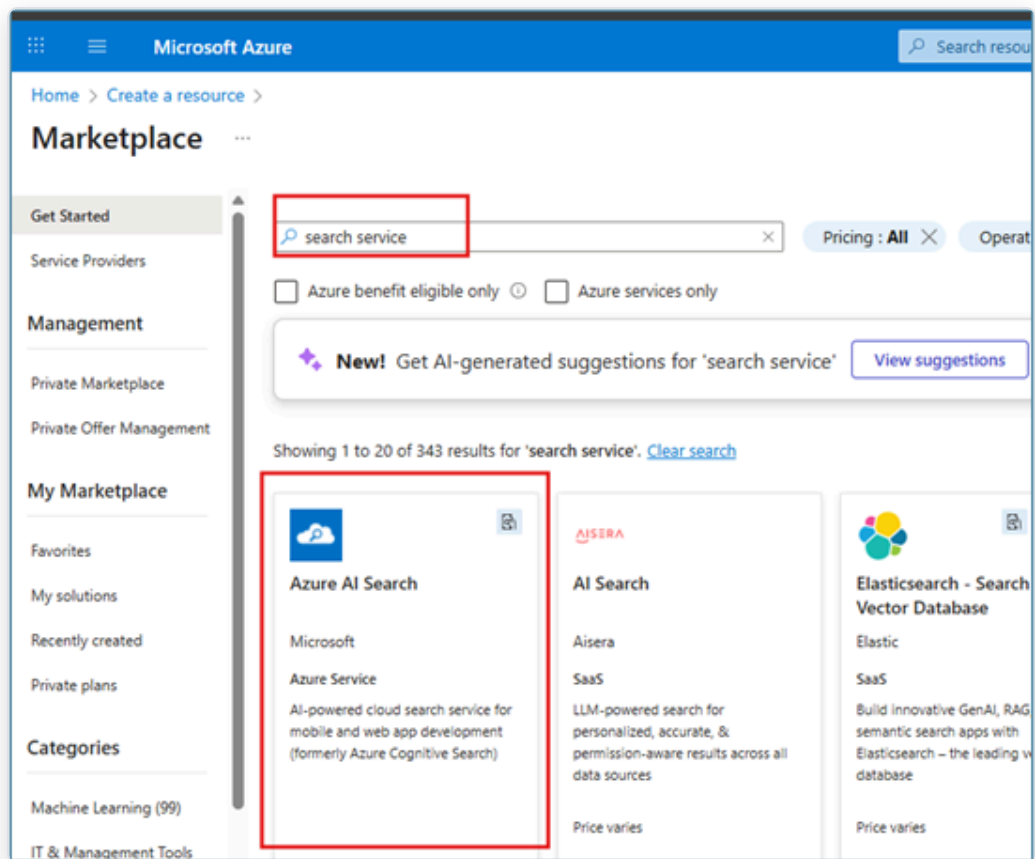
Proactive Contract Alerts in Teams with Azure AI Search and Speech-to-Text - ...

Page 69 of 84



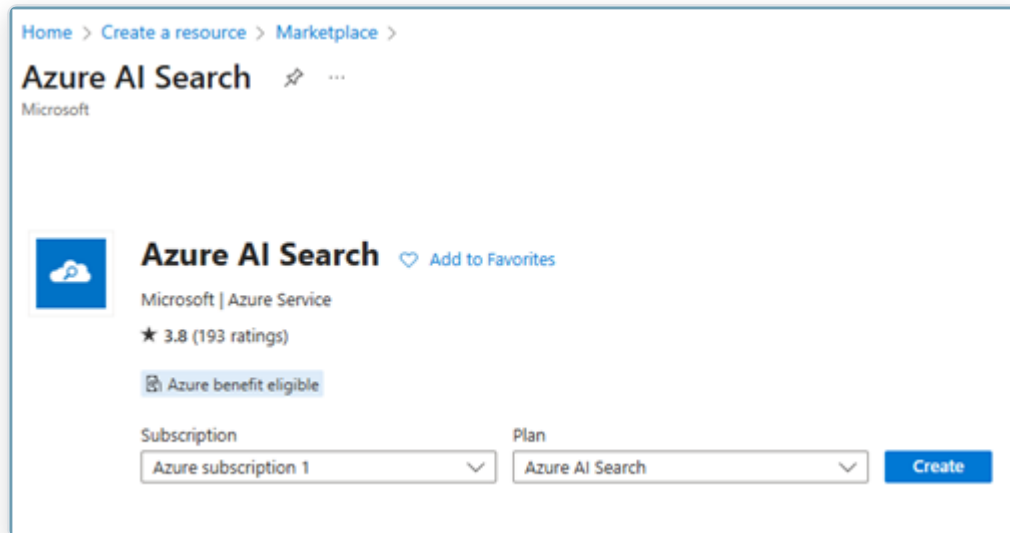
Azure Portal home screen with Create a resource button

12. Search for **search service** and select **Azure AI Search**



Azure Marketplace showing Azure AI Search in search results

13. Click on **Create**



Azure AI Search resource overview page with Create button

14. Configure search service with right values and select **Review + Create**

The screenshot shows the 'Create a search service' configuration page in the Azure portal. The breadcrumb trail is 'Home > Create a resource > Marketplace > Azure AI Search > Create a search service'. The 'Basics' tab is selected, showing fields for 'Subscription' (Azure subscription 1), 'Resource group' (ppcworkshop), 'Service name' (ppcsearch001), 'Location' ((US) West US), and 'Pricing tier' (Free). A red box highlights the configuration details, including the 'Subscription', 'Resource group', 'Service name', 'Location', and 'Pricing tier' fields. The 'Service name' field has a green checkmark, and the 'Pricing tier' field shows 'Free' with details: '50 MB, max 1 replicas, max 1 partitions, max 1 search units'. At the bottom, there are three buttons: 'Previous', 'Next: Scale', and 'Review + create'. The 'Review + create' button is highlighted with a red box.

Azure AI Search creation form with subscription, resource group, service name, location, and pricing tier fields

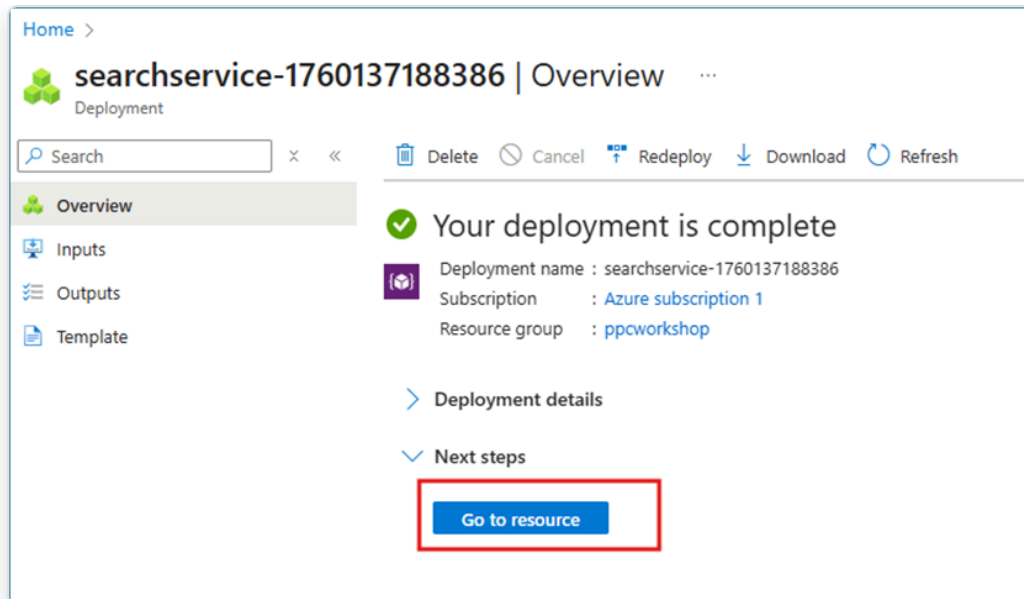
15. Review the values and select **create**

The screenshot shows the 'Create a search service' form in the Azure portal, specifically the 'Review + create' tab. The form is divided into three sections: Basics, Scale, and Networking. The Basics section contains fields for Subscription (Azure subscription 1), Resource Group (ppcworkshop), Location (West US), Service name (ppcaisearch001), Pricing tier (Free (50 MB, max 1 replicas, max 1 partitions, max 1 search units)), Estimated cost per month (\$0.00), and Compute type (Default). The Scale section shows Replicas (1) and Partitions (1). The Networking section shows Endpoint connectivity (data) set to Public. At the bottom, there are three buttons: Previous, Next, and Create. The Create button is highlighted with a red rectangle. To the right of the Create button is a link that says 'Download a template for automation'.

Section	Field	Value
Basics	Subscription	Azure subscription 1
	Resource Group	ppcworkshop
	Location	West US
	Service name	ppcaisearch001
	Pricing tier	Free (50 MB, max 1 replicas, max 1 partitions, max 1 search units)
	Estimated cost per month	\$0.00
	Compute type	Default
Scale	Replicas	1
	Partitions	1
Networking	Endpoint connectivity (data)	Public

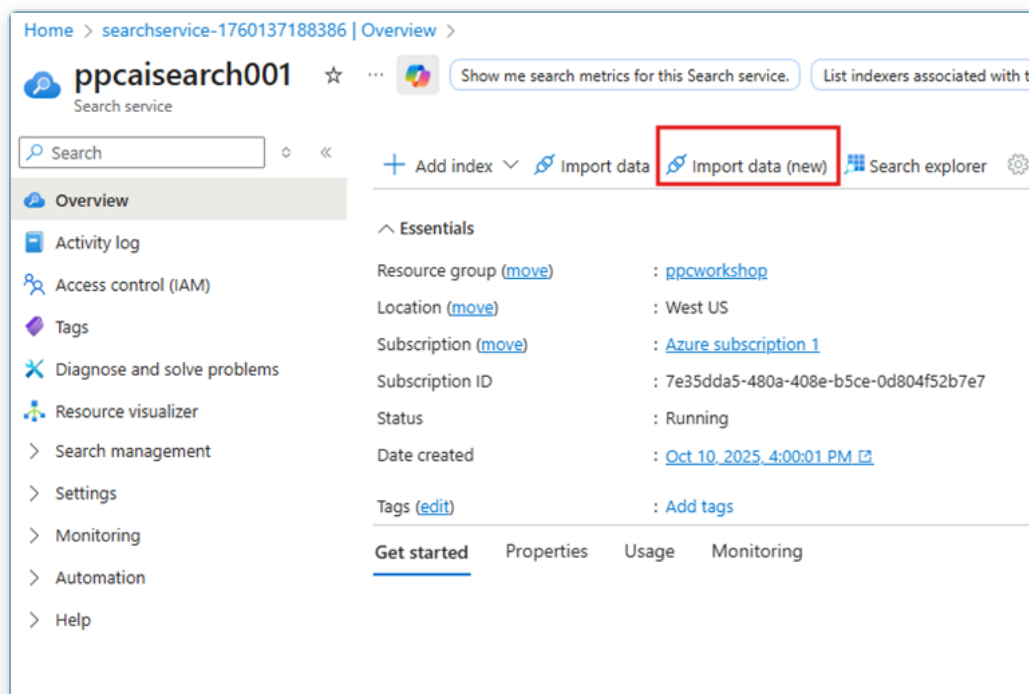
Azure AI Search creation review page showing all configuration values with Create button

16. Once the search service is deployed, select **Go to resource**



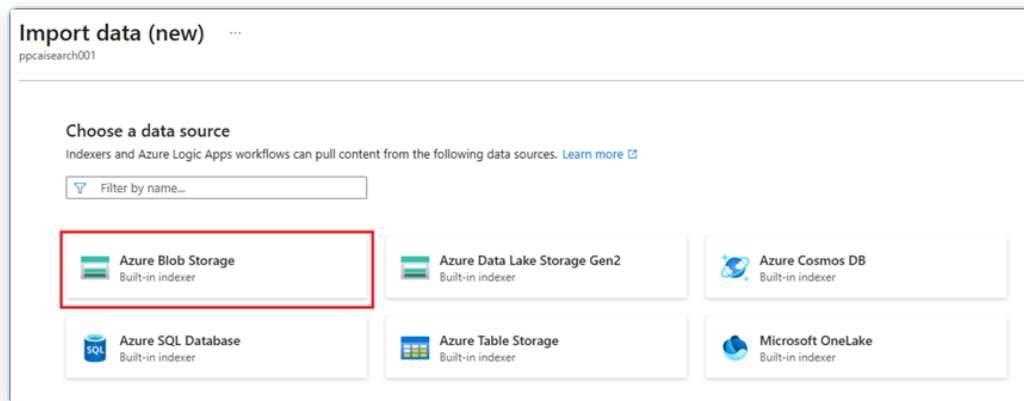
Azure AI Search deployment completion screen with Go to resource button

17. Select **Import data (new)** option



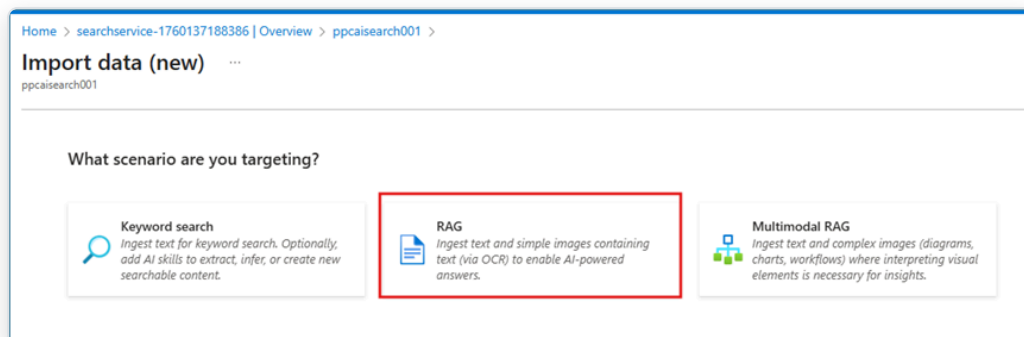
Azure AI Search overview page with Import data (new) button highlighted

18. Select **Azure blob storage** as data source as we're configuring the search on documents in the blob



Data source selection dialog showing Azure blob storage option for import

19. Select **RAG** scenario



Import data wizard showing RAG scenario selection for retrieval-augmented generation

20. Configure values to connect to the data source (Blob storage) and select **Next**

Home > searchservice-1760137188386 | Overview > ppcasearch001 >

RAG

ppcasearch001

- Connect to your data
- Vectorize your text
- Vectorize and enrich your images
- Advanced settings
- Review and create

Configure your Azure Blob Storage

Connect to Azure Blob Storage to access your semi-structured and unstructured data files, including PDFs. L

Subscription

Azure subscription 1

Storage account *

ppcontractblob

Blob container * ⓘ

contosocontracts

Blob folder ⓘ

your/folder/here

Parsing mode

Default

☐ Enable deletion tracking. ⓘ

Previous Next

Data source configuration form with connection string, container name, and authentication details for Blob storage

21. Select values to vectorize your text and select **Next** until the last step

Home > searchservice-1760137188386 | Overview > ppcasearch001 >

RAG

ppcasearch001

- Connect to your data
- Vectorize your text
- Vectorize and enrich your images
- Advanced settings
- Review and create

Vectorize your text

Connect to an Azure OpenAI, AI Foundry or an Azure AI service and select an embedding model or multi-service account for

Kind

Azure OpenAI

Subscription *

Azure subscription 1

Azure OpenAI service * ⓘ

ppcopenai001

[Create a new Azure OpenAI service](#)

Model deployment * ⓘ

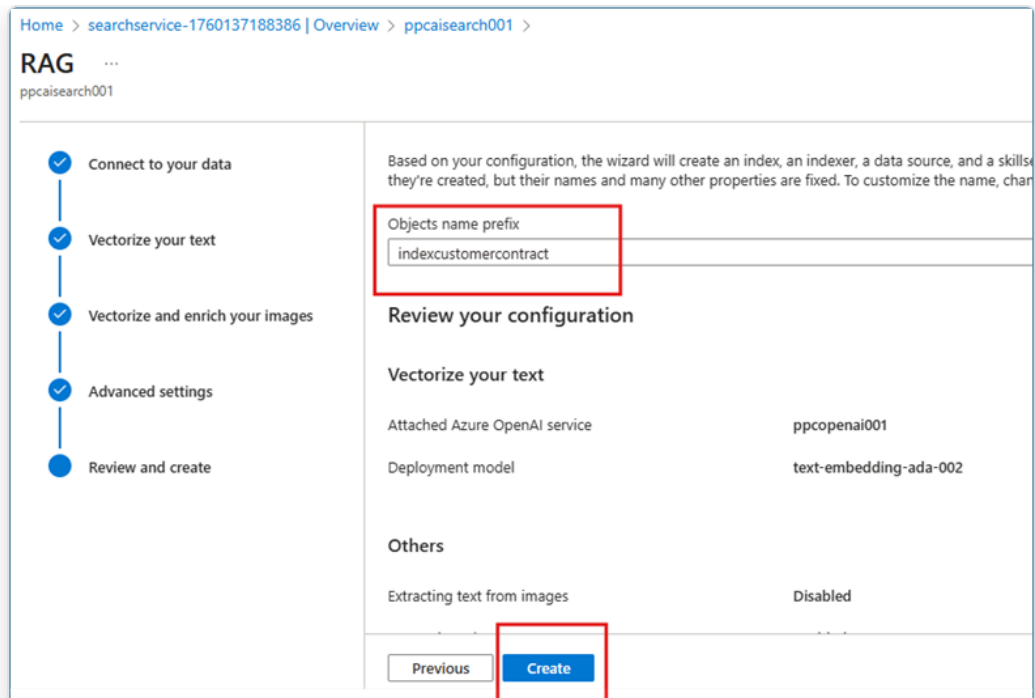
text-embedding-ada-002

☒ I acknowledge that connecting to an Azure OpenAI service will incur additional costs to my account. [View pricing](#)

Previous Next

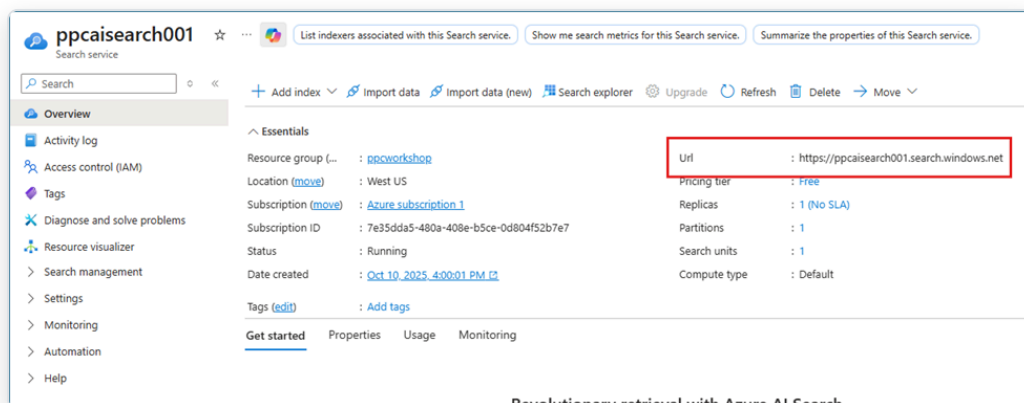
Vectorization configuration showing Azure OpenAI embedding model selection and vectorization settings

22. Update the **index name**, review all details and click **Create**



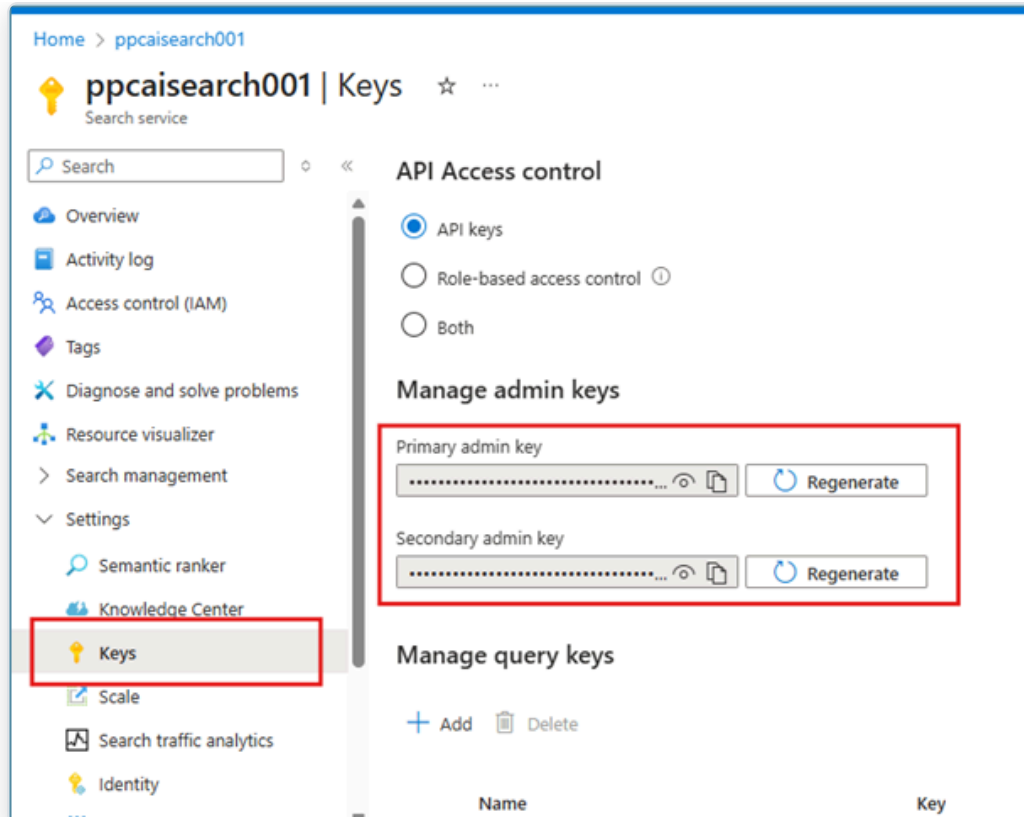
Final import wizard step showing index name configuration and summary of all settings with Create button

- Once the data is connected to search service, select the **Overview** tab in your search service and copy the URL (We will use this in Copilot Studio for connecting to search service)



Azure AI Search overview page showing the service URL endpoint with copy button

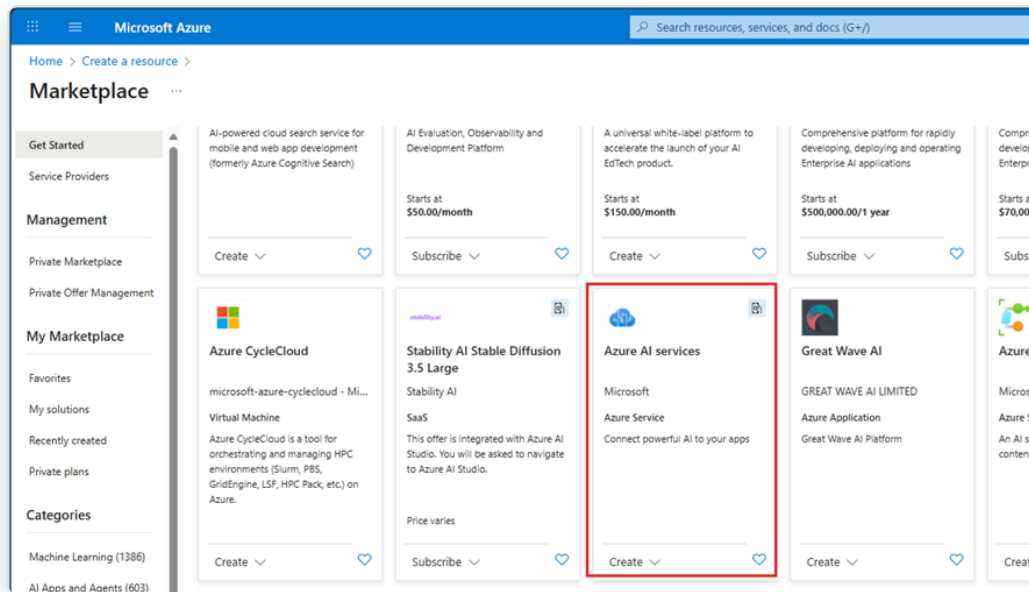
- Expand **settings** tab and click on **Keys**, copy one of the key values (We will use this in Copilot Studio for connecting to search service)



Azure AI Search Keys page under settings showing admin keys with copy buttons for authentication

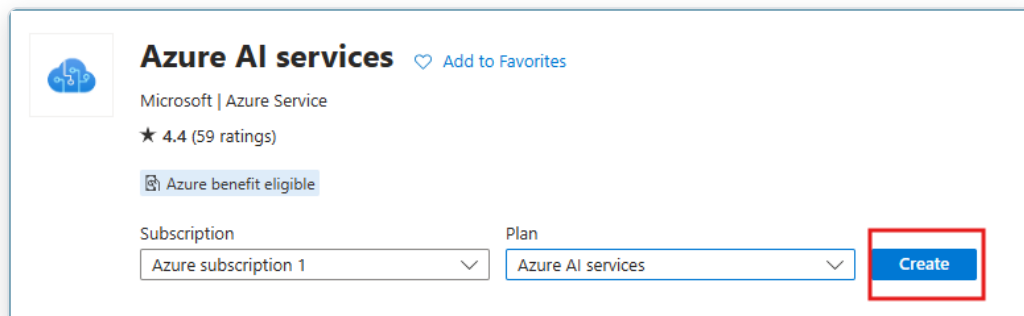
C. Create Azure Speech Service and Azure Blob Container for Audio Files

1. In Azure portal, search and select **Azure AI services** resource



Azure Portal search showing Azure AI services in search results

2. Select **Create**



Azure AI services overview page with Create button

3. Configure Azure AI service as shown below and create it

Create Azure AI services ...

Basics Network Identity Tags Review + create

Get access to Vision, Language, Search, and Speech Azure AI services with a single API key. Quickly connect services together to achieve more insights into your content and easily integrate with other services like Azure Search.

[Learn more](#)

Project Details

Subscription * ⓘ Azure subscription 1

Resource group * ⓘ ppcworkshop
[Create new](#)

Instance Details

Region ⓘ West US

Name * ⓘ azurespeechservice ✓

Location ⓘ Location specifies the region only for included regional services. This does not specify a region for included non-regional services. Custom Vision service is not available in this region. [Click here for more details.](#)

Pricing tier * ⓘ Standard S0

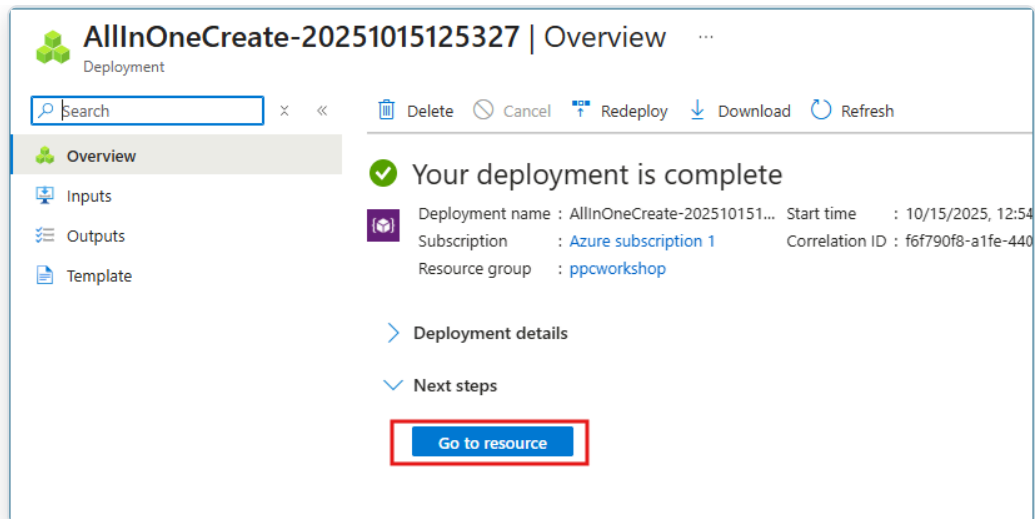
[View full pricing details](#)

By checking this box I acknowledge that I have read and understood all the terms ☒

[Previous](#) [Next](#) [Review + create](#)

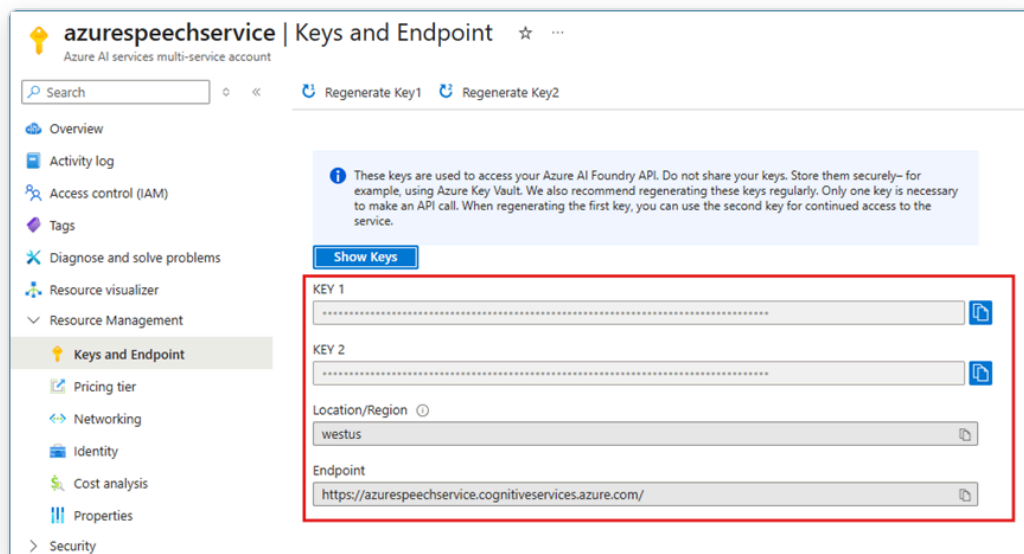
Azure AI services creation form with subscription, resource group, region, name, and pricing tier configuration

4. Once the resource is created, click on **Go to resource**



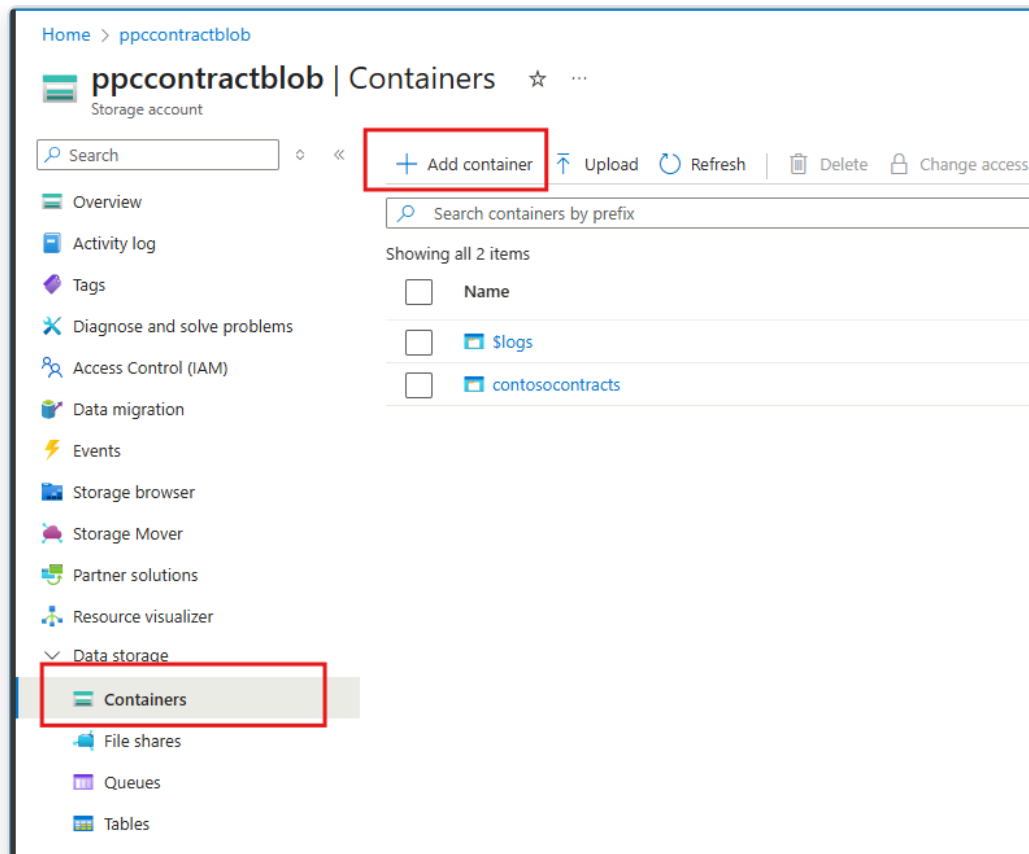
Azure AI services deployment completion screen with Go to resource button

5. Select **keys and Endpoint** under **Resource management** to copy the **Key** and **Location/Region** values



Azure AI services Keys and Endpoint page showing key values and service endpoint with copy buttons

6. Select the existing Blob Storage account and **add a new container** to host audio files



Azure Blob Storage account Containers page with Add container button for creating audio files container

7. Provide a container name and click create

New container

Name *

callrecordings

Anonymous access level ⓘ

Private (no anonymous access)

ⓘ

The access level is set to private because anonymous access is disabled on this storage account.

⌵

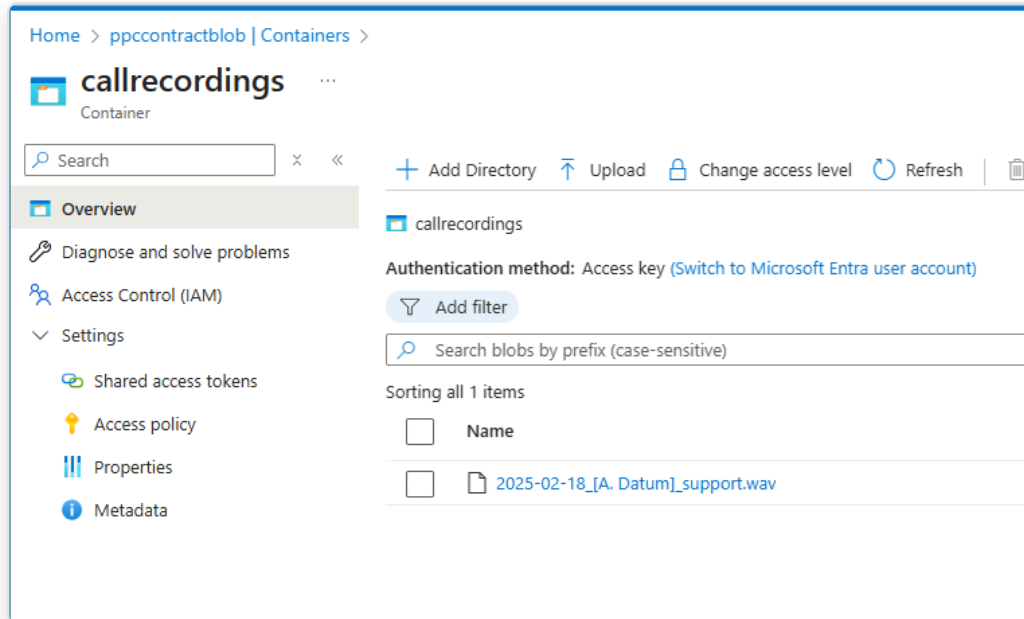
Advanced

Create

[Give feedback](#) 

New container dialog with container name field and Create button for audio files storage

8. Upload an audio file (ex: Customer call recording) into the container



Blob container showing Upload button and interface for uploading audio files

9. Select the uploaded audio file and Click on **Generate SAS** to get the **Blob SAS URL**

2025-02-18_[A. Datum]_support.wav
Blob

Save Discard Download Refresh Delete

Overview Versions Snapshots Edit **Generate SAS**

A shared access signature (SAS) is a URI that grants restricted access to an Azure Storage blob. Use it when you want to grant access to storage accounts without sharing your storage account key. [Learn more about creating an account SAS](#)

Signing method
☒ Account key ☐ User delegation key

Signing key ⓘ
Key 1

Stored access policy
None

Permissions * ⓘ
Read

Start and expiry date/time ⓘ

Start
10/17/2025 12:07:30 PM
(UTC-08:00) Pacific Time (US & Canada)

Expiry
11/05/2025 8:22:30 PM
(UTC-08:00) Pacific Time (US & Canada)

Allowed IP addresses ⓘ
for example, 168.1.5.65 or 168.1.5.65-168.1.5.65

Allowed protocols ⓘ
☒ HTTPS only ☐ HTTPS and HTTP

Generate SAS token and URL

Blob SAS token ⓘ
sp=r&st=2025-10-17T19:07:30Z&se=2025-11-06T04:22:30Z&spr=https&sv=2024-11-04&sr=b&sig=IsoVZDYY3zpbCV%2FBSygNcs88HYjvLmPjir

Blob SAS URL
https://ppcontractblob.blob.core.windows.net/callrecordings/2025-02-18_%5BA.%20Datum%5D_support.wav?sp=r&st=2025-10-17T19:07:30Z&se=2025-11-06T04:22:30Z&spr=https&sv=2024-11-04&sr=b&sig=IsoVZDYY3zpbCV%2FBSygNcs88HYjvLmPjir

Audio file properties page with Generate SAS button to create shared access signature URL for Speech Service access