How to connect Al Foundry to Fabric

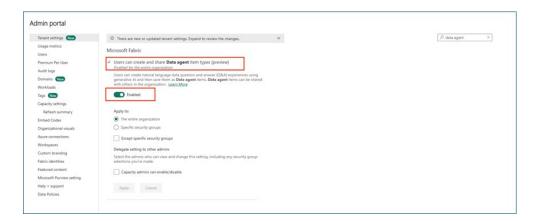
Step 1: The AI capability needs to be turned on in Fabric

There are a couple tenant level switches required to enable the AI features.
 This needs to be done by someone with a Microsoft Fabric admin account.
 Enable: Users can use Copilot and other features powered by Azure OpenA

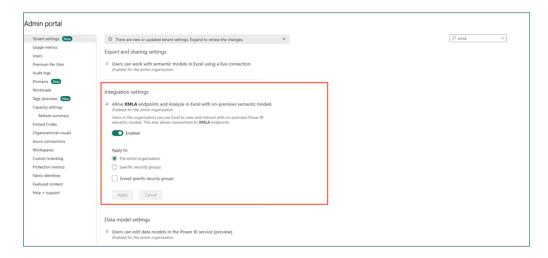


2. To enable Data Agents:

Enable: Users can create and share Data agent item types (preview)

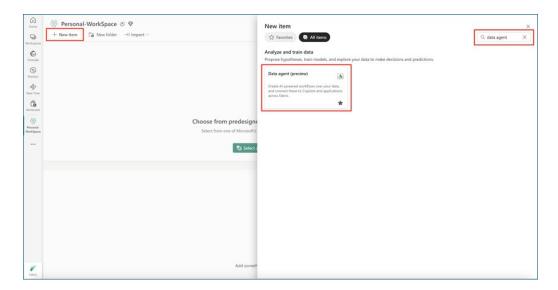


3. To allow data agents to query Power BI (which you mentioned as something of interest): Enable: *Allow XMLA endpoints and Analyze in Excel with on-premises datasets*

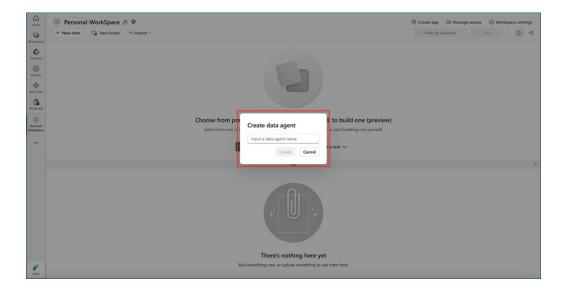


Step 2: Create a new Fabric data agent.

 Navigate to your Fabric workspace, and then select the + New Item button. In the All items tab, search for Fabric data agent to locate the appropriate option, as shown in this screenshot:



2. Once selected, you're prompted to provide a name for your Fabric data agent, as shown in this screenshot:

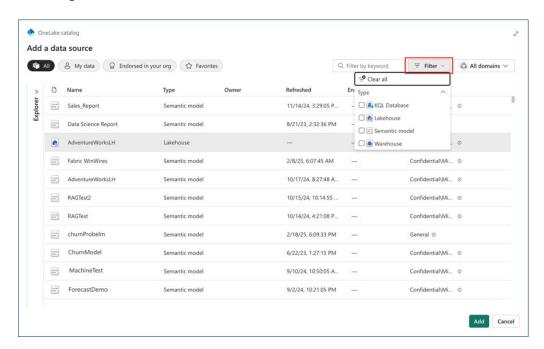


 After you create a Fabric data agent, you can add up to five data sources, including lakehouses, warehouses, Power BI semantic models, and KQL databases in any combination.

For example, you could add five Power BI semantic models, or two Power BI semantic models, one lakehouse, and one KQL database.

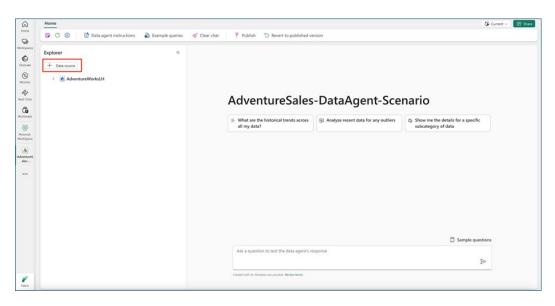
To add a data source, select it from the catalog as shown on the next screen, then select **Add**. Each data source must be added individually.

Use the checkboxes to make tables available or unavailable to the AI as shown in the following screenshot:



Note: You need read/write permission to add a Power BI semantic model as a data source to the Fabric data agent.

For subsequent additions of data sources, navigate to the **Explorer** on the left pane of the Fabric data agent page, and select **+ Data source**, as shown in this screenshot:



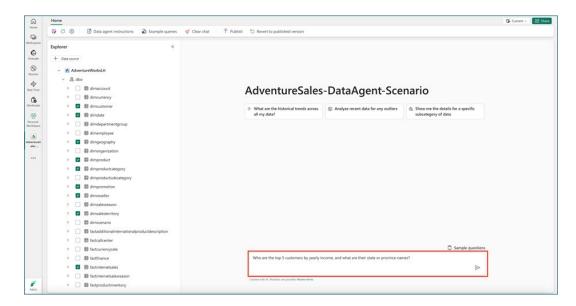
4. Add more data sources as needed.

Tip: Make sure to use descriptive names for both tables and columns.

A table named Sales Data is more meaningful than Table A, and column names like Active Customer or Is Customer Active are clearer than C1 or Act Cu. Descriptive names help the AI generate more accurate and reliable queries.

5. After you add the data sources and select the relevant tables for each data source, you can start asking questions.

The system handles questions as shown in this screenshot:



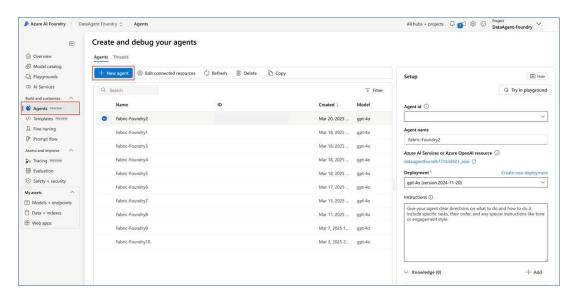
Questions like these examples should also work:

- "What were our total sales in California in 2023?"
- "What are the top 5 products with the highest list prices, and what are their categories?"
- "What are the most expensive items that have never been sold?"
 Questions like this are suitable because the system can translate them into structured queries (T-SQL, DAX, or KQL), execute them against databases, and then return concrete answers based on stored data.
 - However, questions like these are out of scope:
- "Why is our factory productivity lower in Q2 2024?"
- "What is the root cause of our sales spike?"
 These questions are currently out of scope because they require complex reasoning, correlation analysis, or external factors not directly available in the database. The Fabric data agent currently doesn't perform advanced analytics, machine learning, or causal inference. It simply retrieves and processes structured data based on the user's query.

If all you need is a smart GUI to ask questions of your data, you're done. But to connect an Al Foundry project to this data and then add some functionality, continue with the next step...

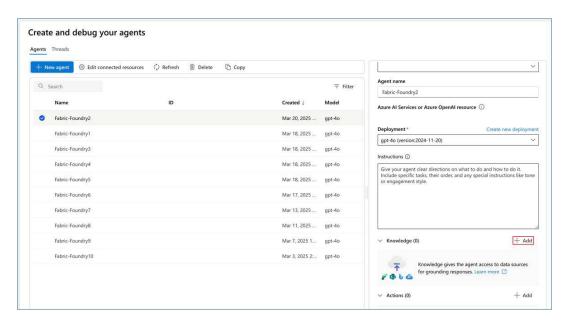
Step 3: Add your Fabric data agent to your Azure Al Agent (using the UI)

1. Navigate to the left pane. Under **Build and Customize**, select **Agents**, as shown in the following screenshot:



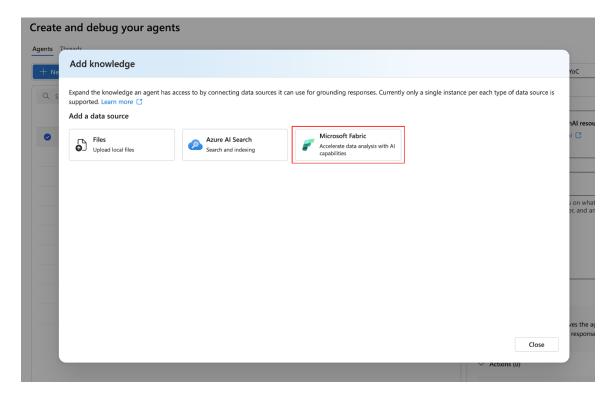
This displays the list of your existing Azure AI agents. You can add Fabric to one of these agents, or you can select **New Agent** to create a new agent. New agent creation generates a unique agent ID, and a default name. You can change that name at any time. For more information, please visit What is Azure OpenAI on the Azure AI Foundry portal.

2. Select the **Add** button, as shown in the following screenshot:



This opens a menu of supported knowledge source types.

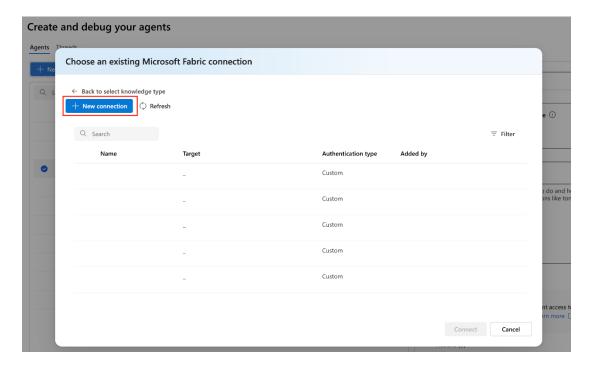
3. Select Microsoft Fabric as the Source: From the list, choose **Microsoft Fabric**, as shown in the following screenshot:



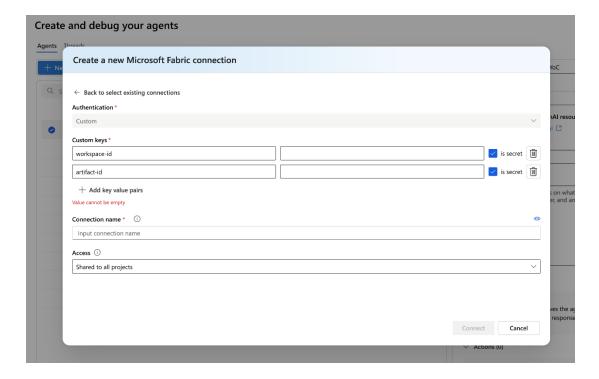
4. Create a connection to the Data Agent:

If you previously established a connection to a Fabric data agent, you can reuse that connection for your new Azure AI Agent.

Otherwise, select **New Connection** to create a connection, as shown in this screenshot:



The **Create a new Microsoft Fabric connection** window opens, as shown in this screenshot:



5. Provide the Fabric data agent workspace-id and artifact-id values as custom keys. You can find the workspace-id and artifact-id values in the published Fabric data agent endpoint.

Your Fabric data agent endpoint has this format:
<a href="https://fabric.microsoft.com/groups/<workspace_id">https://fabric.microsoft.com/groups/<workspace_id/aiskills/<artifact-id>, and select the Is Secret checkbox

6. Finally, assign a name to your connection, and choose whether to make it available to all projects in Azure Al Foundry or to restrict it to the current project.

That should connect your AI Foundry agent to Fabric. You can open and use it in the Agents playground.

Resources

Fabric data agent tenant settings (preview) - Microsoft Fabric | Microsoft Learn Create a Fabric data agent (preview) - Microsoft Fabric | Microsoft Learn Consume a Fabric data agent (preview) - Microsoft Fabric | Microsoft Learn