

- 15 -

Collecting telemetry
with Azure Application Insights



MONTHLY MASTERY

FEATURE-A-DAY

with Copilot Studio



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Katerina Chernevskaya



what is telemetry and why is it important?

Telemetry refers to the automatic collection of data to **monitor**, **analyze**, and **improve** your agent's performance.

Think of it as Santa's elves keeping track of every gift delivery:

- **Performance tracking** - identify latency issues.
- **Error monitoring** - spot errors and debug efficiently.
- **Usage insights** - understand how users interact with your agent.
- **Health checks** - monitor the overall stability of your agent.

Telemetry gives you visibility into the agent's journey so you can keep everything **running smoothly**.



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Connect to Azure

Prerequisites

Before you start, make sure you have the following:

- [Azure subscription](#) to enable Application Insights.
- Copilot Studio [agent](#) you want to monitor.
- [Azure Application Insights](#) resource set up and ready to use.



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Collecting Telemetry Enable Application Insights

On the agent's **Settings** page, go to **Advanced** and add the Application Insights **Connection string** from your Azure Application Insights resource.

The image shows two overlapping web browser windows. The top window is 'Copilot Studio' showing the 'Settings' page with the 'Advanced' section selected. It includes fields for 'Application Insights' (with a link to learn more), 'Connection string' (containing a redacted value), 'Advanced options' (Log activity, Log sensitive activity properties, Log node actions), 'Metadata' (Resource group: junglebot-rg, Location: West Europe, Subscription: Microsoft Partner Network, Subscription ID: 73e1ebd1-92cb-458f-b0d4-528e8d222..., Instrumentation Key: 18ba13b2-214c-4f80-ad57-db5c767d2..., Connection String: highlighted in green, Workspace: DefaultWorkspace-73e1ebd1-92cb-458..., Tags: Add tags), and a 'Save' button. The bottom window is 'Microsoft Azure' showing the 'jinglebot-insights' Application Insights resource page with the same metadata details.

Metadata	Value
Resource group (move)	: junglebot-rg
Location	: West Europe
Subscription (move)	: Microsoft Partner Network
Subscription ID	: 73e1ebd1-92cb-458f-b0d4-528e8d222...
Instrumentation Key	: 18ba13b2-214c-4f80-ad57-db5c767d2...
Connection String	: InstrumentationKey=18ba13b2-214c-4f...
Workspace	: DefaultWorkspace-73e1ebd1-92cb-458...
Tags (edit)	: Add tags



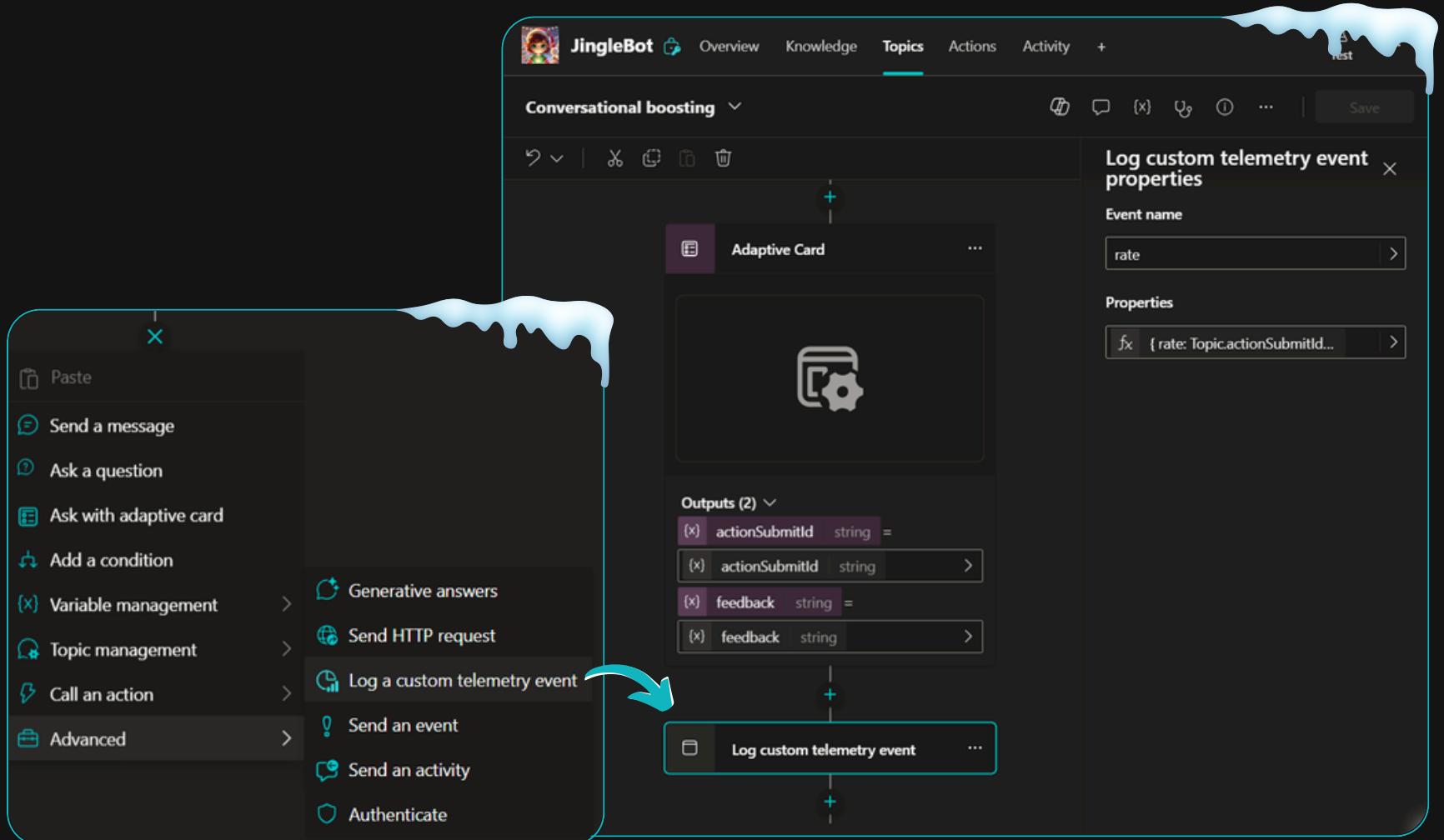
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Collecting Telemetry

Log custom telemetry

Add a [Log a custom telemetry event](#) node to the topic from which you want to send telemetry.



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Collecting Telemetry

Log custom telemetry

Add an **Event name**, and in the **Property** field, include all the custom telemetry information you want to log.

In this example we collect user's rate and provided feedback



The screenshot shows the Microsoft Bot Framework Composer interface. A modal window titled "Log custom telemetry event properties" is open. It contains fields for "Event name" (set to "rate") and "Properties" (set to "fx { rate: Topic.actionSubmitId... }"). An "Enter formula" panel is also visible, showing a formula: "rate: Topic.actionSubmitId, feedback: Topic.feedback". The "Type" dropdown is set to "Record" and the "Output" dropdown has "rate: Topic.actionSub" and "feedback: Topic.feedb" selected. The background shows a card with "Outputs (2)" and "Log custom telemetry event" actions.



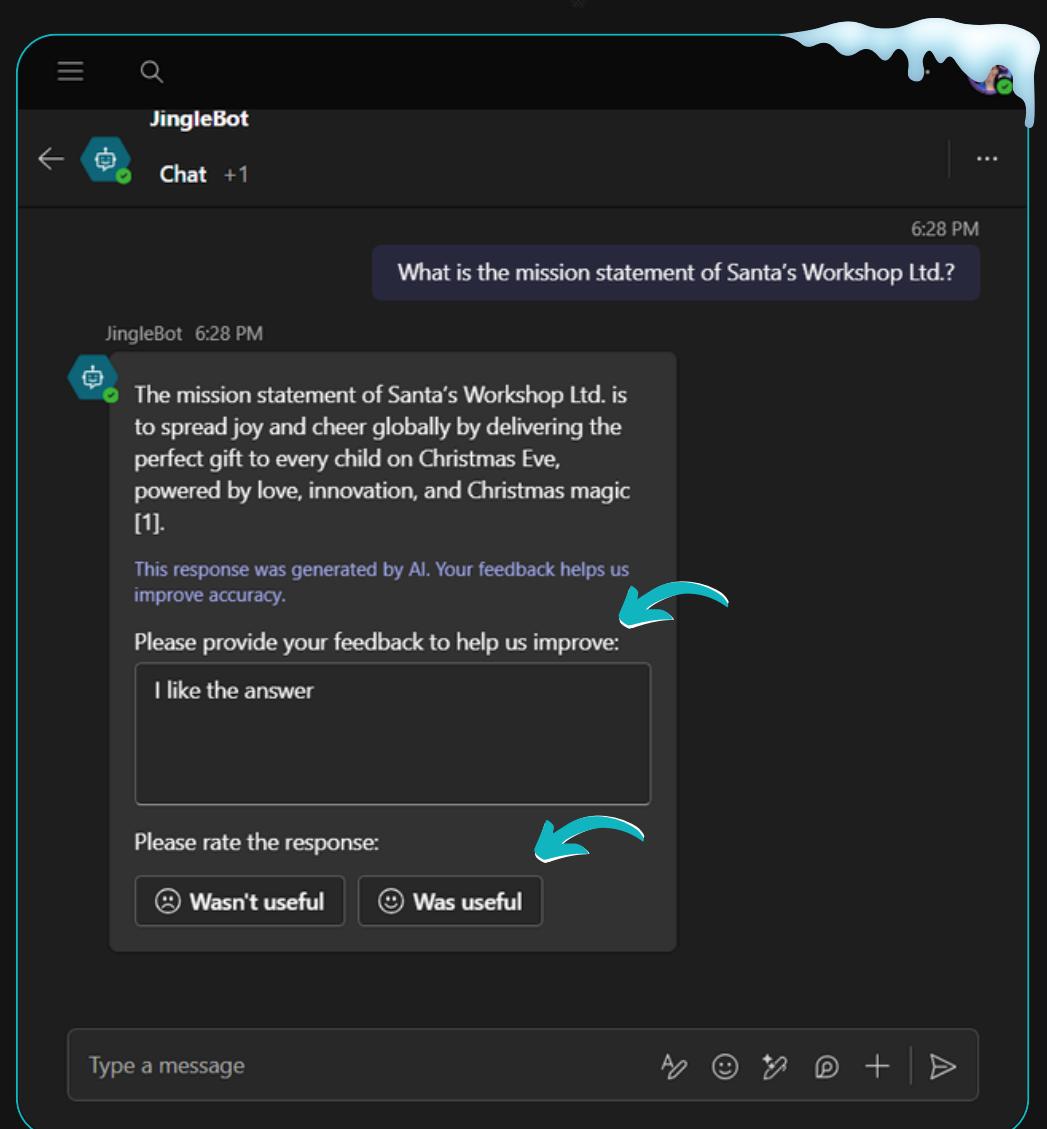
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Collecting Telemetry

Test agent

Test your agent to start collecting telemetry.



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Collecting Telemetry

Explore Logs

Go to your [Azure Application Insights](#) resource, navigate to [Logs](#) and select `customEvents` table. Run the query to see the results.

The screenshot shows the Microsoft Azure Application Insights Logs blade for the 'jinglebot-insights' resource. The left sidebar has a 'Logs' item highlighted with a blue arrow. The main area shows a search bar with 'feedback-rate*' and a table titled 'customEvents'. The table contains one row of data:

timestamp [UTC]	name	itemType	customDimensions	session
12/13/2024, 6:09:27.171 PM	rate	customEvent	{"feedback": "I like the answer", "DesignMode": "True", "rate": "Was useful", "channelId": "pva-studio", "conversationId": "aef85938-8302-4e1f-948c-937eb1635f4b", "sessionId": "lkigN"}	IlikeN

Below the table are buttons for 'Display time (UTC+00:00)' and 'Query details'.



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Collecting Telemetry

Explore Logs

You can use [Kusto queries](#) to further refine your results.



```
customEvents  
| where name == "rate"  
| extend  
    customDimensions = todynamic(customDimensions),  
    feedback = tostring(customDimensions.feedback),  
    rate = tostring(customDimensions.rate)  
| project timestamp, user_Id, session_Id, feedback, rate
```

The screenshot shows the Microsoft Azure Application Insights Logs blade for the 'jinglebot-insights' resource. The left sidebar has 'Logs' selected. The main area displays a Kusto query in the 'Queries' tab:

```
customEvents  
| where name == "rate"  
| extend  
    customDimensions = todynamic(customDimensions),  
    feedback = tostring(customDimensions.feedback),  
    rate = tostring(customDimensions.rate)  
| project timestamp, user_Id, session_Id, feedback, rate
```

The 'Results' tab shows the output of the query over the last 24 hours:

timestamp [UTC]	user_Id	session_Id	rate	feedback
12/13/2024, 6:09:27.171 PM	pva-studio3007df7b-6019-41c2...	lkiqMAJXBDFqiPa...	Was useful	I like the answer
12/13/2024, 6:08:38.203 PM	msteams29:18GYuGUHUwXQ7...	q/aj7EyrK5dlnA9...	Was useful	Great answer
12/13/2024, 4:30:56.669 PM	msteams29:18GYuGUHUwXQ7...	q/aj7EyrK5dlnA9...	Wasn't useful	Not accurate
12/13/2024, 4:29:52.991 PM	msteams29:18GYuGUHUwXQ7...	q/aj7EyrK5dlnA9...	Was useful	Quite good
12/13/2024, 4:28:25.451 PM	msteams29:18GYuGUHUwXQ7...	q/aj7EyrK5dlnA9...	Was useful	It was exactly what I was lookin...



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Collecting Telemetry Benefits

Real-time monitoring

Know immediately if your agent encounters errors or slowdowns.

Improved debugging

Easily trace issues using detailed logs and insights.

Better user understanding

Track user interactions and popular intents to optimize experiences.

Performance optimization

Identify latency and bottlenecks to improve bot responsiveness.

Data-driven decisions

Use insights to make informed decisions about updates and features.



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Today's Task: Master telemetry collection



1. Create Azure Application Insights

Set up a new Application Insights resource in Azure.

2. Configure custom logs

Add a Log a custom telemetry event node with properties in agent's topic.

3. Test agent and review logs

Interact with your agent and verify telemetry data in Azure Application Insights.



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