



# Custom MCP Server

Version: 20250825

[Online Version](#)

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## 1. Custom MCP Services

This topic describes how to create and configure a custom MCP server and debug it in an agent.

## 2. Create custom MCP server

1. Log in to the [Tuya Developer Platform](#).
2. Go to **MCP Management** > **Custom MCP Service**, and click **Add custom MCP**.



3. In the **Sign up MCP Server** dialog, enter the service name and description in Chinese and English, upload an image as the icon, and then click **Confirm** to save.

## Sign up MCP Server



\* Service Name (Chinese)

我的自定义MCP

\* Service Description (Chinese)

我的自定义MCP

\* Service Name (English)

MyCustomMCPServer

\* Service Description (English)

MyCustomMCPServer

\* Icon



Format: JPG, JPEG, or PNG.

Size: 3 MB or less.

Cancel

Confirm

### 3. Configure custom MCP server



If your custom MCP service is deployed across multiple data centers, ensure consistent service versions and tool configurations in all data centers to prevent compatibility issues that may disrupt agent orchestration or cause functional failures.

1. After creating the MCP server, you will automatically be redirected to its **Service Details** page.
2. In the section of **Service Access Configuration Management > Data Center**, click **Add Data Center** on the right, select a data center as needed, and then click **OK**.

The screenshot shows the 'Service Details' page for a custom MCP server named 'MyCustomMCPServer'. On the left, there's a sidebar with options like 'Service introduction', 'MyCustomMCPServer', 'Service access configuration management', and 'Custom MCP server'. The main area has tabs for 'Service Details' and 'Logs'. A prominent blue button labeled 'Add Data Center' is located on the right side. A red box highlights this button. Below it, a dropdown menu is open, showing several data center options: 'Shanghai Data Center', 'Other Data Center', 'Shenzhen Data Center', 'Tianjin Data Center', 'Fuzhou Data Center', 'Guangzhou Data Center', 'Beijing Data Center', and 'Singapore Data Center'. The 'Shanghai Data Center' option is also highlighted with a red box.

3. Click the selected data center, and you can see the **Endpoint**, **Access ID**, and **Access Secret**. Copy and paste the information to your local device. Please note that these parameters will be used when running the MCP SDK later. For more information, see the **README** in the [GitHub source code](#).

The screenshot shows the same 'Service Details' page as before, but now the 'Shanghai Data Center' is selected in the dropdown menu. The details for this data center are displayed in a table below:

Endpoint	http://192.168.1.100:8080
Access ID	1234567890
Access Secret	ABCD-EFGH-IJKL-MNOP

A red box highlights the entire table. The rest of the page remains the same, with the 'Add Data Center' button still visible on the right.

## 4. Access MCP server via SDK

Download the MCP SDK from [GitHub](#) and read the relevant documents.

tuya / tuya-mcp-sdk

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flyhawk1010 Optimize README 54b67b3 · 20 hours ago 2 Commits

File	Message	Time
docs	Initialization	last week
mcp-golang	Initialization	last week
mcp-python	Optimize README	20 hours ago
.gitignore	Initialization	last week
License	Initialization	last week
README-zh.md	Initialization	last week
README.md	Initialization	last week

About

A comprehensive SDK that empowers developers to integrate their custom capabilities with Tuya Cloud through the standardized Model Context Protocol (MCP), ensuring seamless connectivity and interoperability.

Readme Apache-2.0 license Activity Custom properties 2 stars 0 watching 1 fork

## 5. Run and debug MCP Server

To ensure your custom MCP server operates properly, follow these steps to run and debug it within the agent environment:

### 5.1. Run and debug

1. In the selected data center, check the service status of the MCP server.

The screenshot shows the MCP Server interface with the 'Service Status' tab selected. The 'Client Data Center' dropdown is highlighted with a red box. Below it, the 'Status' section displays 'Status: Running' and 'Last Checkin: 2023-07-27 10:00:00 UTC'. There are also sections for 'Logs' and 'Metrics'.

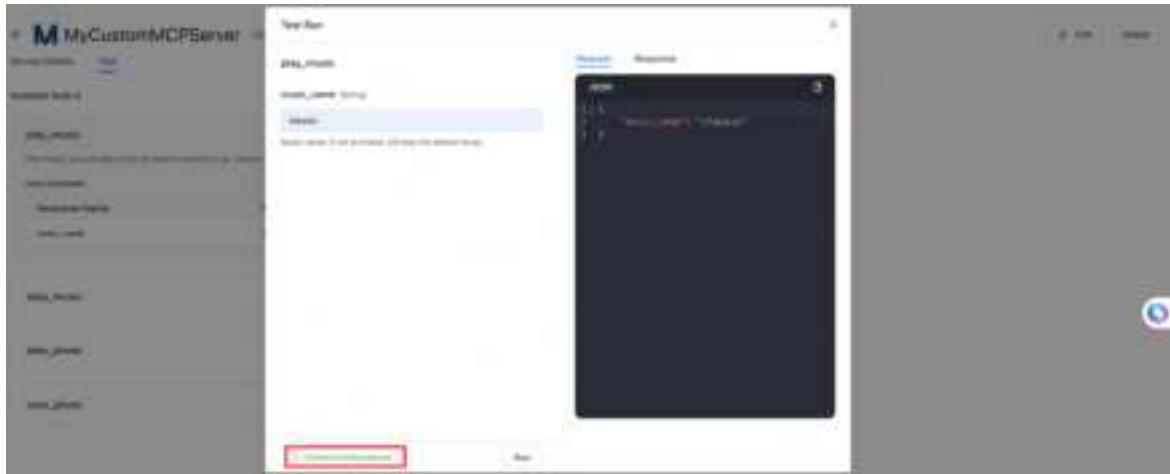
2. On the **Tool** tab, view the available tools for your MCP server.

The screenshot shows the MCP Server interface with the 'Tool' tab selected. The 'Tool' tab is highlighted with a red box. A list of available tools is displayed, including 'http\_mqtt', 'http\_ws', 'http\_photon', and 'ws\_photon'.

3. Click **Test Run** to test your desired tool.

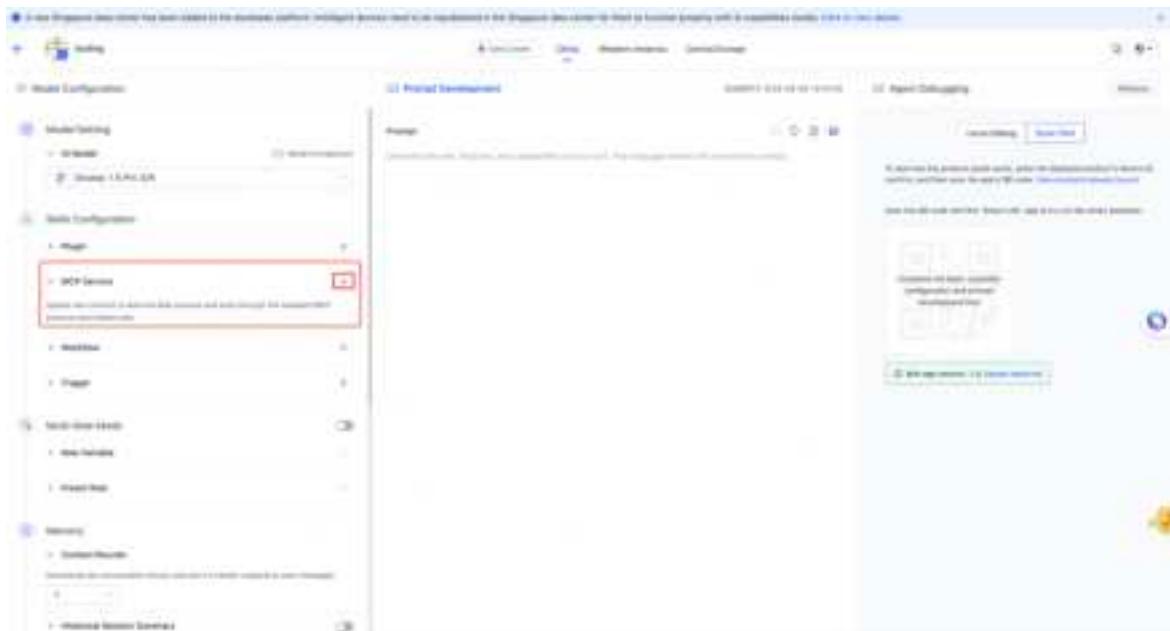
The screenshot shows the MCP Server interface with the 'Test Run' dialog for the 'http\_mqtt' tool. The 'Parameter Name' is set to 'device\_name' and the 'Parameter Value' is 'DeviceName'. The 'Test Run' button is highlighted with a red box.

4. In the **Test Run** window, click **Run**. When **Commissioning passed** appear in the lower left corner, the MCP tool has been debugged successfully.



## 5.2. Add server to agent

1. Go to the **My Agent** page, click **Develop** in the **Operation** column.
2. In the section **01 Model Configuration > Skills Configuration**, find **MCP Service** and click **+** on the right.



3. On the **Add MCP service** page, click **Custom MCP Service** and add the desired MCP server to your agent.



So far, you have completed the development and debugging process of a custom MCP server.