Home Assistant 2025.7.2 The Model Context Protocol Server service was introduced in Home Assistant 2025.2, and it's used by 1017 active installations. 里 Its IoT class is Local Push. Silver quality View source on GitHub **♦** View known issues **★ INTEGRATION OWNERS** We are incredibly grateful to the following contributors who currently

maintain this integration:

♣ CATEGORIES

Voice

@allenporter

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Getting started

The Model Context Protocol & is an open protocol that standardizes how applications provide context to <u>LLMs</u>. The **Model Context Protocol Server** (MCP) integration enables using Home Assistant to provide context for MCP LLM Client Applications. For example, you can expose your Google Tasks Todo list as a tool for Claude Desktop. Controlling Home Assistant is done by providing MCP clients access to the Assist API of Home Assistant. You can control what devices and entities it can access from the exposed entities page.

Prerequisites

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Need help?

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instance from Home

Assistant

Related topics

Configuration options Architecture overview Client configuration Access control • Example: Claude for Desktop • Example: Cursor Supported functionality

server remote gateway. For detailed configuration instructions, refer to the <u>Client configuration</u> section.

• You need an MCP client & LLM Application such as Claude for Desktop &.

• Since most clients do not support native remote servers, you need an additional local MCP

Configuration ¶

To add the Model Context Protocol Server service to your Home Assistant instance, use this My button:

▲ Manual configuration steps

ADD INTEGRATION TO MY 1

Configuration options

The integration provides the following configuration options:

Control Home Assistant

If MCP clients are allowed to control Home Assistant. Clients can only control or provide information about entities

Architecture overview

that are <u>exposed</u> to it.

This integration can provide similar functionality as other LLM-based conversation agents (for example Anthropic, Google Generative AI, Ollama, Open AI). In those conversation agents, Home Assistant is the client and prepares the available tools and passes them into the LLM with a prompt.

Introduction & for more details. The Home Assistant Model Context Protocol Server integration implements the **Server-Sent**

The Model Context Protocol follows a different pattern: An LLM application acts as a client and can connect to multiple MCP servers to provide context. See the Model Context Protocol

Events (SSE) transport & allowing streaming client-to-server communication. Most MCP clients today only support stdio description today on the stdio description to descrip You can use an MCP proxy server like <u>mcp-proxy</u> of to act as a gateway to the Home Assistant MCP SSE server.

Client configuration The Model Context Protocol specification has recently defined standards for authorization and connecting to remote servers. The standards are a work in progress and so some clients may not

ACCESS CONTROL OAUTH

The Model Context Protocol supports OAuth for <u>Authorization</u> and is fully supported by Home

Assistant's <u>Authentication API</u>. MCP Clients that support OAuth can use this to allow you to give

• Client ID: If your redirect-uri is (https://www.example.com/mcp/redirect), your client ID should

• Client Secret: This is not used by Home Assistant and can be ignored or set to any value.

Some MCP clients may not support OAuth, but may support access tokens. You may create a

support the latest functionality, and the specification will likely continue to evolve.

Home Assistant has adopted IndieAuth @ and does not require you to pre-define an OAuth Client ID. Instead, the Client ID is the base of the redirect URL.

be (https://www.example.com).

LONG-LIVED ACCESS TOKENS

documentation.

Home Assistant MCP Server.

instructions

Restart Claude.

I'll add milk to the shopping list.

"mcpServers": {

Office Lights Control

Parameters:

TOOLS

PROMPTS

features:

Feature

Prompts

Notifications

Troubleshooting

HOME ASSISTANT

Description

Resolution

Description

Resolution

Desktop:

Visit Settings....

Select **Developer**.

Select the (Home Assistant) MCP server.

Tools

LLM API are exposed.

Known Limitations

configured LLM API are exposed.

mcp_server.markdown

Turn off the lights in the office

I'll help you turn off the lights in the office.

✓ Called MCP tool HassTurnOff ✓

"light"

"Home Assistant": {

Download and install <u>Cursor</u> ♂.

EXAMPLE: CURSOR

"mcpServers": {

"Home Assistant": {

Download Claude for Desktop 2.

install git+https://github.com/sparfenyuk/mcp-proxy.

the client access to your Home Assistant MCP server.

<u>Long-lived access token</u> to allow the client to access the API.

Visit your account profile settings, under the **Security** tab. USER PROFILE ON Create a Long-lived access token Copy the access token to use when configuring the MCP client LLM application.

EXAMPLE: CLAUDE FOR DESKTOP See MCP Quickstart: For Claude Desktop Users & for a detailed guide on using Claude for Desktop with an MCP server. It is recommended to get the example server working first before using the

For more information about Authentication in Home Assistant, refer to the **Authentication**

Claude for Desktop currently only supports local MCP servers using the stdio d transport, run as a local command line tool. You can use a local MCP proxy server to allow Claude for Desktop to access Home Assistant using the SSE transport.

Install (mcp-proxy) following the instructions in the README . For example, (uv tool)

connect to Home Assistant with the path (/mcp_server/sse). You will also need to set

API_ACCESS_TOKEN to the long live access token created above in the access control

"SSE_URL": "http://localhost:8123/mcp_server/sse",

which will edit claude_desktop_config.json). The full file location depends on your operating system (macOS or Windows). Add a new MCP server to the JSON file. You need to set the (SSE_URL) to the URL you use to

Open the configuration file. Visit **Settings...** and on the **Developer** tab, select **Edit Config**.



will show enabled MCP servers such as Home Assistant.

Select the prompt provided by Home Assistant.

Please add milk to the to-do list named shopping list

View Result from **HassListAddItem** from **Home-assistant** (local) >

I've successfully added milk to your shopping list.

"command": "mcp-proxy",

tools. • • • Claude

☆

□ Copy S Retry ம 🗘

\$[₹] Ø

Claude can make mistakes. Please double-check responses.

Assistant through the Voice Assistant. Claude wil ask you for permission before calling any

You can then use Claude to control Home Assistant similar to how you control Home

Install (mcp-proxy) following the instructions in the README . For example, (uv tool

Click **Add new global MCP server** and add the Home Assistant server configuration:

In chat agent mode (Ctrl+I), ask it to control your home and the tool should be used.

You will see a connection icon 💉 if things are set up correctly. Clicking the connection icon

Reply to Claude...

install git+https://github.com/sparfenyuk/mcp-proxy).

Open the main Cursor Settings and select MCP.

- "command": "mcp-proxy", "args": ["http://localhost:8123/mcp_server/sse" "env": { "API_ACCESS_TOKEN": "<your_access_token_here>" Save your (mcp.json) file. You can also find this file in the (\$HOME/.cursor/mcp.json) directory. Restart Cursor and return to the MCP settings. You should see the Home Assistant server in the list. The indicator should be green.
- "area": "office", "domain": [
- Result: I've turned off the lights in the office area, including: The main office light The 3D printer chamber light Is there anything else you need help with? Supported functionality

MCP Tools & enable LLMs to perform actions through Home Assistant. The tools used by the

The MCP Prompts of provided inform LLMs how to call the tools. The tools used by the configured

The Home Assistant Model Context Protocol integration currently only supports a subset of MCP

Resources Sampling

Also see <u>Debugging in Claude Desktop</u> 2.

Supported by Home Assistant

Home Assistant does not yet provide built-in tools that can fetch device state.

LLM CLIENT CANNOT CONNECT TO HOME ASSISTANT MCP SERVER

When trying to configure a client like Claude for Desktop to talk to Home Assistant, the app shows

SYMPTOM: FAILED TO START MCP SERVER: COULD NOT START MCP SERVER

a message like "Failed to start MCP server: Could not start MCP server Home Assistant"

This means that the local MCP server (mcp-proxy) could not start.

to run the command manually to verify that the command can be found.

This section has troubleshooting information for Claude for Desktop since it is the primary client.

ATTACH TO MCP SERVER HOME ASSISTANT" When trying to configure a client like Claude Desktop to talk to Home Assistant, the app shows a message like "MCP server Home Assistant disconnected" or "Could not attach to MCP server Home Assistant".

This means the MCP server has started, however the MCP server is having trouble

communicating with Home Assistant, or the MCP server in Home Assistant is not configured.

To understand the root cause, first check debug logs on the client. For example in Claude for

SYMPTOM: "MCP SERVER HOME ASSISTANT DISCONNECTED" OR "COULD NOT

Verify the command line arguments in the <code>claude_desktop_config.json</code> are correct. You may try

Select Open Logs Folder. View mcp-server-Home Assistant.log. These are known problems and their resolution: Client error '404 Not Found' for url 'http://localhost:8123/mcp_server/sse':this

• Client error '401 Unauthorized' for url 'http://localhost:8123/mcp_server/sse':

means the MCP Server integration is not configured in Home Assistant.

TO REMOVE AN INTEGRATION INSTANCE FROM HOME ASSISTANT

From the list of devices, select the integration instance you want to remove.

Go to <u>Settings > Devices & services</u> and select the integration card.

this means that the long live access token is not correct. ...

Removing the integration This integration can be removed by following these steps:

Related topics

Conversation

Next to the entry, select the three dots: menu. Then, select **Delete**.

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GitHub repo ☐

Design Portal 2

Developers Portal 🗹

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support!)

• LLM client cannot connect to Home Assistant MCP server Removing the integration To remove an integration