

Matter Plugin (Alpha)

Introduction

The Matter Plugin implementation exposes certain controls from the Miniserver to a Matter Controller.

Current State

Currently only Server Functionality is provided, no Client/Controller support. Thus a Matter-compatible Controller (3rd party Hub) is needed. Means no devices can be controlled via Matter from the Miniserver side.

The Miniserver implements a Matter Bridge device type which is able to dynamically add and remove endpoints which then can be controlled by Matter Controllers (mostly third party Hubs).

Note: since there is no Loxone App support yet, the first 200 endpoints/controls/function-blocks are exposed. If you want to control which endpoints are shown in the Matter network you must create a separate user which only has access to the desired controls and assign this user in Config in the plugin settings.

Prerequisites

Before starting to test please make sure

- you have the required 3rd party hardware (Hub) with Matter support (see below)
- IPv6 enabled network recommended
- **IMPORTANT**: No network policy/firewall which blocks MDNS/broadcast messages

Supported Controls

Currently the following control types are exposed on the Miniserver Matter bridge:

Loxone control	Matter device type	Matter clusters
Switch / Pushbutton	On/Off switch	- BridgedDeviceBasicInformation - Identify - On/Off
Jalousie	Window Covering	- BridgedDeviceBasicInformation - Identify - WindowCovering
Light	On/Off light	- BridgedDeviceBasicInformation - Identify - On/Off
Ventilation	Fan	- BridgedDeviceBasicInformation - Identify - FanControl
Window	Window Covering	- BridgedDeviceBasicInformation - Identify - WindowCovering
Audio Player	Speaker (-> Volume / mute control only)	- BridgedDeviceBasicInformation - On/Off - LevelControl
Gate	Door Lock	- BridgedDeviceBasicInformation - Identify - DoorLock
IRC (Intelligent Room Controller)	Thermostat	- BridgedDeviceBasicInformation - Identify - Thermostat

Loxone	Google	Apple	Amazon/Alexa (Support for more device types by update from Amazon later this year)
Switch / Pushbutton			
Jalousie	 (Window covering device type)	 (Window covering device type)	
Light	 (only ON/OFF switch for now)	 (only ON/OFF switch for now)	
Ventilation	 (Fan device type)	 (Fan device type)	

Window	 (Window covering device type)	 (Window covering device type)	
Audio Player	 (mute and volume control only)	 (not supported - only via AirPlay)	
Gate	 (Door lock device type)	 (Door lock device type)	
IRC (Intelligent Room Controller)	 (Thermostat device type)	 (Thermostat device type)	

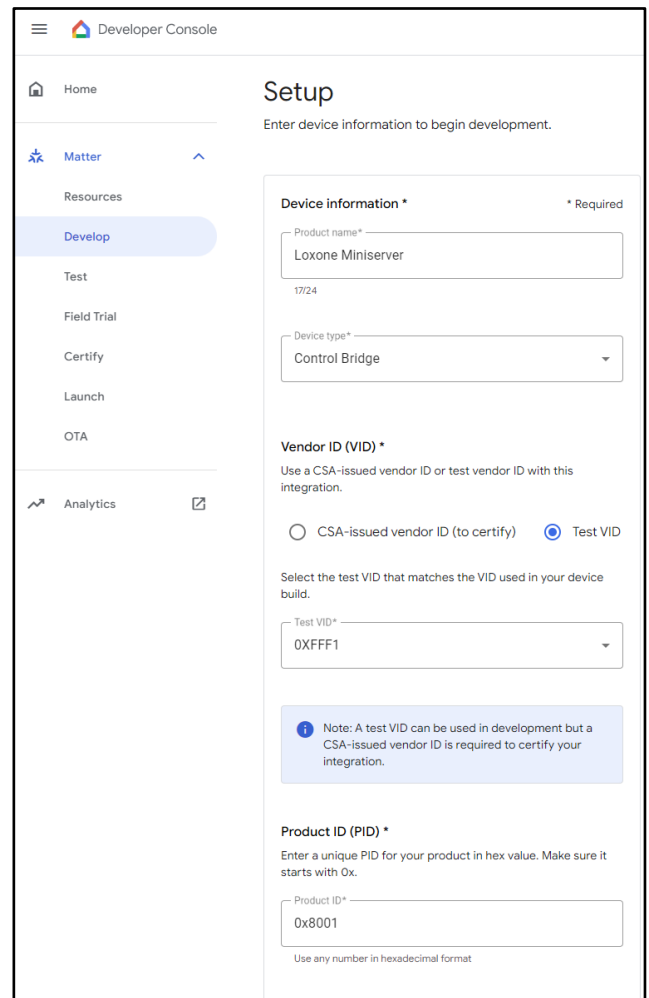
Google Home

NOTE: Google Home with Matter is currently only supported on Android devices, iOS device support will follow around Spring 2023.

To test the Loxone Matter Plugin (before Matter certification is passed by Loxone) the used Matter Test-VendorID must be added to the used Google account or adding the Miniserver Matter Bridge device will fail during adding it to Google Home.

You need to do the following:

- <https://console.home.google.com/projects>
- Create a new Project
- Add Matter Integration to the project
 - VendorID: 0xFFFF1
 - ProductID: 0x8001
- After saving the test project it might take some time until it is available in the Google system. You can also try to restart the Google Hub for an update of the account data.



The screenshot shows the 'Developer Console' interface. On the left is a sidebar with navigation links: Home, Matter (selected), Resources, Develop (highlighted), Test, Field Trial, Certify, Launch, OTA, Analytics, and a link icon. The main area is titled 'Setup' with the instruction 'Enter device information to begin development.' It contains several form fields: 'Device information *' (Required) with a 'Product name *' field containing 'Loxone Miniserver' and a 'Device type *' dropdown set to 'Control Bridge'; 'Vendor ID (VID) *' with a note about CSA-issued vs. test vendor IDs, radio buttons for 'CSA-issued vendor ID (to certify)' and 'Test VID' (selected), and a 'Test VID *' dropdown set to '0xFFFF1'; and 'Product ID (PID) *' with a 'Product ID *' field containing '0x8001' and a note to use hexadecimal format. A blue information box states: 'Note: A test VID can be used in development but a CSA-issued vendor ID is required to certify your integration.'

For a list of supported Matter device types by Google Home see:

<https://developers.home.google.com/matter/supported-devices?hl=en>

Supported Google devices: <https://support.google.com/googlenest/answer/12391458>

- Nest Wifi Pro (Wi-Fi 6E)
- Google Home
- Google Home Mini
- Nest Mini
- Nest Audio
- Nest Hub (1. Gen & 2. Gen)
- Nest Hub Max

Apple HomeKit

<https://developer.apple.com/apple-home/matter/>

Supported device types in Apple Home:

<https://github.com/project-chip/connectedhomeip/blob/master/docs/guides/darwin.md#testing-your-matter-device-with-apple-home>

Supported Apple devices (since iOS 16.1 onwards):

- Homepod / Homepod Mini
- AppleTV

Amazon Alexa

~~Amazon Echo devices don't support Matter Bridges yet!~~

NOTE: only smart sockets, lights and switches are supported yet by Amazon. It's planned that Echo devices will receive an update soon, to support the other Matter device types as well.

~~Also Amazon Alexa supports Matter currently only on Android devices (iOS support will also follow at a later point).~~ **Amazon Update from 2023-05-02 added Matter support to iOS devices.**

Echo devices with Matter (over Wifi) support:

- Echo (3. Gen & 4. Gen)
- Echo Dot (3. Gen & 4. Gen & 5. Gen)
- Echo Show 5
- Echo Show 5 (2. Gen, 2021)
- Echo Show 8
- Echo Show 8 (2. Gen, 2021)
- Echo Show 10 (3. Gen)
- Echo Show 15
- Echo Studio
- Echo Input
- Echo Flex

Samsung SmartThings

~~Samsung Smart Hubs don't support Matter Bridges yet!~~

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09.2023 there is an SmartThings Hub Update available to support Matter Bridge device types:

<https://community.smartthings.com/t/aeotec-smart-home-hub-2018-2015-model-hub-firmware-release-notes-0-49-09/268526>

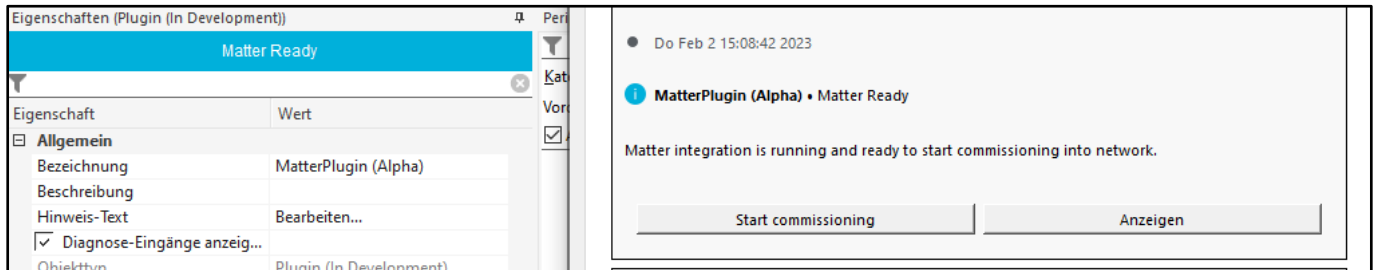
<https://support.smartthings.com/hc/en-us/articles/11219700390804>

Other brand Hubs

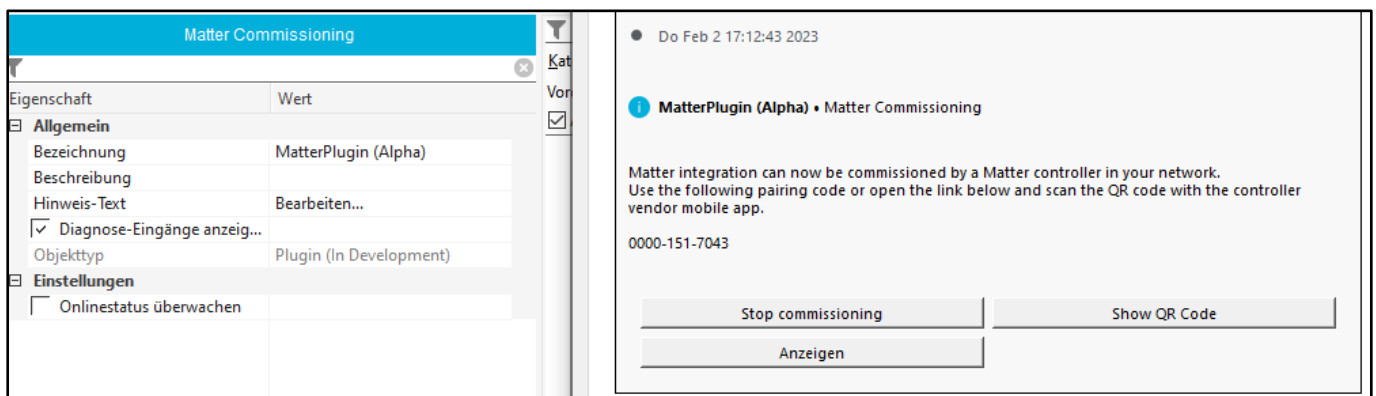
Other Hubs / eco-systems might also be supported as long as they have Matter Controller support for Matter Bridge device types.

Commissioning Miniserver with Matter Controller (3rd party hubs)

For now commissioning with a Matter Controller can only be performed via a (permanent) Systemmessage - shown to Admin users only - until proper Loxone App support is added. When the plugin starts, it shows the “Matter Ready” message, with an action to start commissioning:



Once commissioning has started you are ready to pair the Miniserver with a Matter Controller. E.g. Use the vendor's mobile app (Google Home, Apple Home, ...) and start the “**Add device**” procedure. If prompted by the App either scan the QR code (shown by a click on the systemmessage action) or by manually entering the shown 11-digit code from the systemmessage.



Notes

- Plugin log: /lx/log/mxPlugin.log
- Current Endpoint limit: max. 200
- Current Fabric (paired controllers) limit: max. 5

Known Issues

- Identify functionality not yet implemented
- Miniserver SW Version in device info is for now always set to "1.0" and not the actual version, like "14.1.x.x"
- Light Moods are not yet supported (only ON/OFF) due to an issue in the Matter SDK - might be added later

- The actual visualisation is heavily dependent on the platform reading the Matter data (Google, Apple, ...). The detailed behaviour might differ between the different platforms. Also there still might be some bugs in the Matter SDK itself and/or in the different platforms. For example:
 - Google Home doesn't show state updates (for some controls) while the detail view of a control is opened
 - Google Home doesn't provide all UI controls in the mobile app. But some might be available on the Home Hub and vice versa
 - Sometimes the Apple Home App needs to be closed and reopened, due to internal caching
 - In Apple Home there is an issue when the IRC block (Thermostat control) supports Heating and Cooling. When setting the target temperature from heating to cooling the temperature jumps to the last set heating setpoint in visualisation, but Miniserver received correct cooling setpoint
 - There might be an issue when adding too many controls/endpoints at once. Workaround: try to add them in batches (~10-20) after each other