



Pushing Performance

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User Guide

MICA Store Service

3rd Edition 2020

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1 Introduction

1.1 About the MICA Store Container

MICA Store Service is a MICA container that lets you store, organize, monitor, and delete files on a HARTING MICA. It is especially useful as a lightweight and robust storage solution for sensor data or as a canonical storage for data that needs to be shared between multiple containers or MICA. The Store Service also provides a REST interface to let you access its services remotely.

1.2 Store Features

The MICA Store Container lets you:

- Store items on your MICA.
- Store items on a USB drive connected to the MICA. *New in Store Container 3.0.0.*
- Make the Store directory available as a SMB client in the network. *New in Store Container 3.0.0.*
- Create files and folders on the MICA.
- Upload items from your PC to the MICA and download items from the MICA to your PC.
- Monitor folders and send alerts if the status of stored items changes.

1.3 MICA Store Limitations

The MICA Store Container currently has an upload limit of 512MB per file.

2 General Overview

2.1 Operation Requirements and Conditions

MICA Store requires a MICA or MICA Wireless with access to all devices in your network over IPv4 or IPv6.

3 Installation, Initial Setup and Configuration

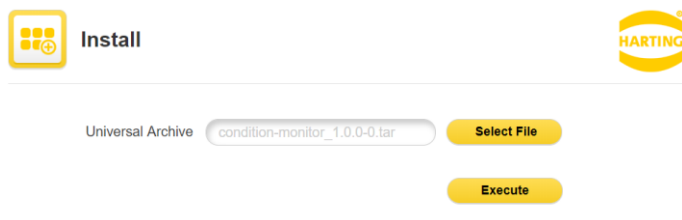
3.1 Overview

MICA Store is available in two different formats:
Universal.tar installation package for installation on a single MICA
Container packages for installation in a distributed MICA network
Both installation packages include the same modules, but require different procedures for installation and setup.

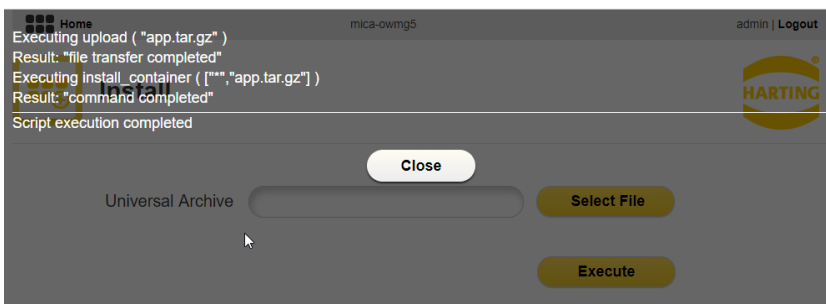
3.2 Installation of MICA Store

3.2.1 Default Installation

With this software package, you can install the MICA Store on a MICA.



1. Log in to the MICA with admin rights.
2. Click *Install*.
3. Click *Select File* and select the installation archive.
4. Click *Execute* to start the installation.
5. The installer will display the readme file with information about the installation archive.

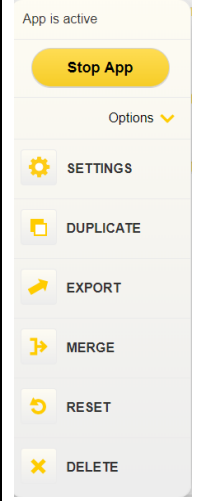


6. Wait until the installation is finished and click *Close*.

The installed container (*Store*) is initially turned off. Right Click on the container and press *Start App* button to start the container.

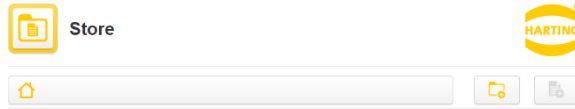
4 Basic Container Operations

Right clicking the MICA Store Service Container tile opens the container's context menu. Press *Options* to access the following functions:

	<ul style="list-style-type: none">• <i>Start App / Stop App</i>: Starts or stops the container.• <i>Options</i>: Expands or hides the basic container functions.• <i>Settings</i>: Shows the container information and lets you configure the IPv4 / IPv6 settings, an Additional Network Interface and the Single Sign On Mode.• <i>Duplicate</i>: Duplicates the container on your MICA.• <i>Export</i>: Exports the container to your PC or a network drive. All configurations you set will be kept.• <i>Merge</i>: Overwrites the reset point of the Container with its current configuration.• <i>Reset</i>: Resets the configuration of the MICA Store Service to the last reset point (factory default if no merge was executed before).• <i>Delete</i>: Deletes the Container including all its configuration and user data.
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5 Using the Store Service

5.1 Creating and Deleting Folders



All files stored in the Store Service are organized in hierarchical folders under the Home folder. To create a new folder, click the *Add Folder* button and enter the name of the new folder in the dialog.




To create a folder inside a parent folder, open the parent folder and click the *Add Folder* button.



To delete a folder, hover over the folder button and click *Delete*.

5.1.1 Uploading Files to a Folder

To upload a file to a folder, navigate to the folder and click the *Add File* button  and select the file in the upload dialog. Click *Open* to upload the file. Files larger than 512MB are not supported by the Store Service.

5.1.2 Deleting Files

To delete a file, hover over the file button and click *Delete*.



5.1.3 Exporting Files

To Export a file to your computer or a network drive, hover over the file button and click *Export*.

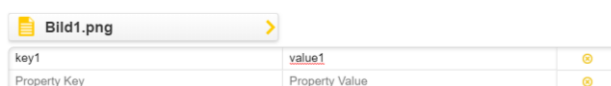


5.1.4 Viewing Files

You can display the content of a file of type `.xml`, `.txt`, `.json`, `.java`, `.js`, `.py`, `.html`, `.css`, `.scss`, `.log`, `.ts`, or `.md` by clicking on the file. Clicking on files of any other type download the file to your computer.

5.1.5 File Properties

You can add properties to files as key-value pairs. Properties are not included in alerts, but can be read and written using the REST interface. See chapter 7 for details.



To delete a property, click the (x).


5.2 Alerts and Subscriptions

The MICA Store Service lets you create alerts and subscriptions to monitor folders.

5.2.1 Adding a Subscription

Subscription



You can create a new Subscription by clicking the *Add Subscription* button .

Subscription



Name

Subscriber


Properties

Property Key	Property Value	

Apply

In the pop-up window:

1. Choose the subscriber to be used for the subscription or create a new one.
2. Enter the path (which is the topic) for the subscription.
3. Click *Apply*.

To activate or the subscription, click the on/off button  next to the subscription.



5.2.2 Adding a File or Folder to a Subscription

You can add a file or folder to a subscription by clicking it and dragging it to the *Drag elements here* field next to the subscription. Now a notification will be sent to the subscriber if the file was deleted, or files are added or removed in folder.


Subscription

Drag elements here



New Folder/Bild1.png	
New Folder	
New path	



To remove a file or folder from a subscription, click the remove button  next to the file or folder.

5.2.3 Creating a new Subscriber

You can create a new subscriber by clicking the expand button from the left side of the *Subscribers*.

The following steps are to be done:

1. Left click the *New* tile button.
2. *Subscriber* dialog will pop up.
3. Choose the type of the subscriber. (CUSTOM, MQTT, MQTTS AZURE, HTTP, HTTPS, JDBC, TCP, UDP options are available)
4. The URI of the Subscriber must be set and valid.
5. Left click on *Apply* button.

Subscribers



Subscriber

Type	MQTT	▼
Host	mqtt	
Port	1883	
Fragment		
Username		
Password		
Topic	topic	
Client ID	clientid	
QoS	At most once	▼
URI	mqtt://MQTT:1883/topic?qos=0&clientid=cli	

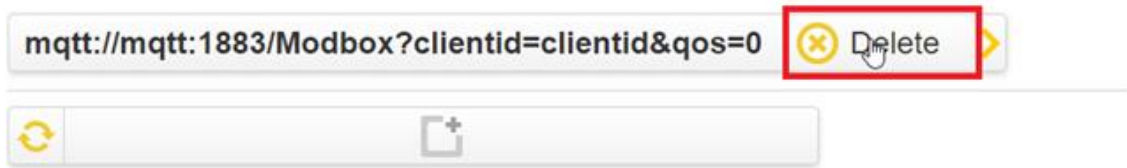
Properties

Property Key	Property Value	⊗
<div style="background-color: #ffc107; color: white; padding: 5px 15px; border-radius: 5px; display: inline-block;">Apply</div>		

5.2.4 Deleting a Subscriber

You can delete a subscriber by moving your mouse over on a subscriber and clicking the *Delete* button.

▼ Subscribers



The specific subscriber and all subscriptions associated with the subscriber will be deleted. Please be sure that at least one subscriber is in the subscribers list.

6 Working with Logs

The MICA Store Service provides full logging information. To see the log entries click the *Expand Log* button.

The following operations can be done in the Log part:

- Select the types of messages to be displayed
- Reload log information
- Export the log information

Level	Date/Time	Service	Message
	2019-07-08 11:41:5...	havis.transport.Messenger	Transport mqtt://10.65.54.104:1883?clientid=clientidDDD&qos=0 del...
	2019-07-08 12:16:2...	havis.transport.common.MqttTr...	Failed to close MQTT connection
	2019-07-08 12:17:0...	havis.transport.common.MqttTr...	Failed to close MQTT connection

7 REST API

POST/paths

Creates a new storage location, defined by the requestBody

GET/paths/{contentPath}

Provides the requested content

POST/paths/{contentPath}

Updates a content

DELETE/paths/{contentPath}

Deletes the specified content, including corresponding /properties and /subscribers

GET/paths/{slPath}

Lists the content of the requested storage location

POST/paths/{slPath}

Saves the given content under an autogenerated name (UUID) in the specified storage location

DELETE/paths/{slPath}

Deletes the specified storage location and its content, including corresponding /properties and /subscribers.

DELETE/paths/{slPath}/*

Deletes only the content of the storage location defined by slPath.

GET/properties/{path}

Returns the requested properties

PUT/properties/{path}

Replaces properties

GET/subscribers

Returns the list of all defined subscribers.

POST/subscribers

Creates a subscriber and returns its generated ID

GET/subscribers/{subscriberId}

Returns the requested subscriber

PUT/subscribers/{subscriberId}

Updates the requested subscriber

DELETE/subscribers/{subscriberId}

Deletes the requested subscriber

GET/subscriptions

Returns the list of all defined subscriptions as key value pairs

POST/subscriptions

Creates a subscription and returns its generated UUID

GET/subscriptions/{subscriptionId}

Returns the requested subscription

PUT/subscriptions/{subscriptionId}

Updates the requested subscription

DELETE/subscriptions/{subscriptionId}

Deletes the requested subscription

GET/subscriptions/{subscriptionId}/paths

Get all paths of a subscription.

POST/subscriptions/{subscriptionId}/paths

Creates a new subscription. The path is given in the requestBody

DELETE/subscriptions/{subscriptionId}/paths/{path}

Deletes the requested subscription