

Haystack

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Overview

This document guides you through use of the Haystack extension with Tipify™. It provides client and server capabilities.

Enable the Extension

The Haystack extension needs to be enabled in the source and destination devices. Go to Settings and enable the Haystack extension by pressing Enable.

name	status	statusMsg	enabled	depends
builder	✓ ok		✓	conn, his, point
conn	✓ ok		✓	his, point
energy	✓ ok		✓	equip, his, hisKit, note, point
equip	✓ ok		✓	his, note, point
geo	✓ ok		✓	
haystack	✓ ok		✓	conn, his, point
his	✓ ok		✓	
hisKit	✓ ok		✓	his
io	✓ ok		✓	
job	✓ ok		✓	
math	✓ ok		✓	
note	✓ ok		✓	
point	✓ ok		✓	his
pulse	✓ ok		✓	conn, his, point
report	✓ ok		✓	
rule	✓ ok		✓	
schedule	✓ ok		✓	his, point
weather	✓ ok		✓	his
bacnet	⊘ disabled			conn, his, point

Haystack Server

Once you have enabled the Haystack extension, your device acts as a Haystack Server automatically.

The default behavior is to enable discovery. If you wish to disable discovery on a per project basis, then add the `disableDiscovery` tag on your `projMeta`, or you can disable discovery on Tipify™ Server via `settings.props`.

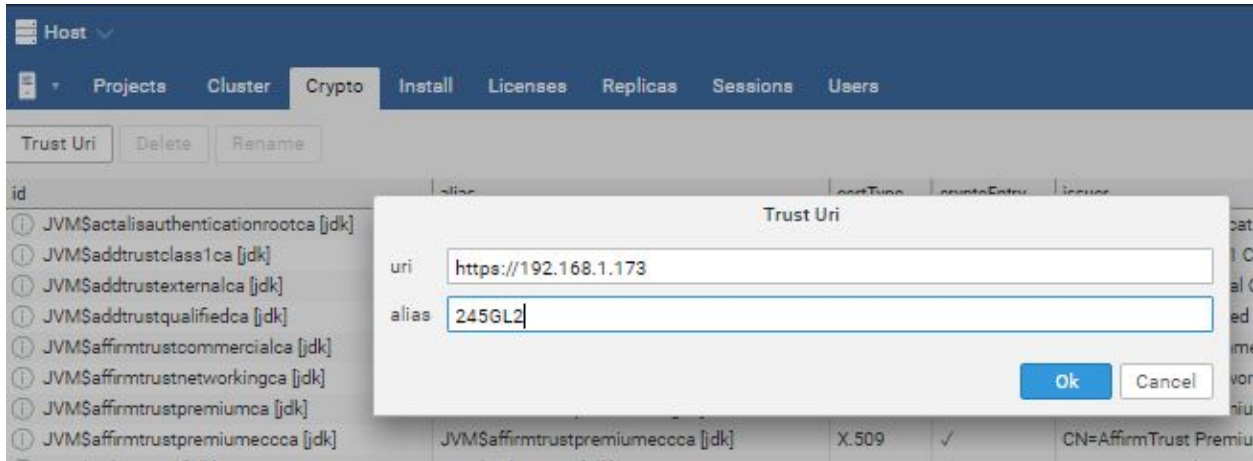
The default https port of 443 is used, but http is supported on port 50000.

Haystack Client

You set up the Haystack Client by adding a connector for each Haystack Server that you want to access. You must first declare it as a trusted device.

Set Up Trust Uri

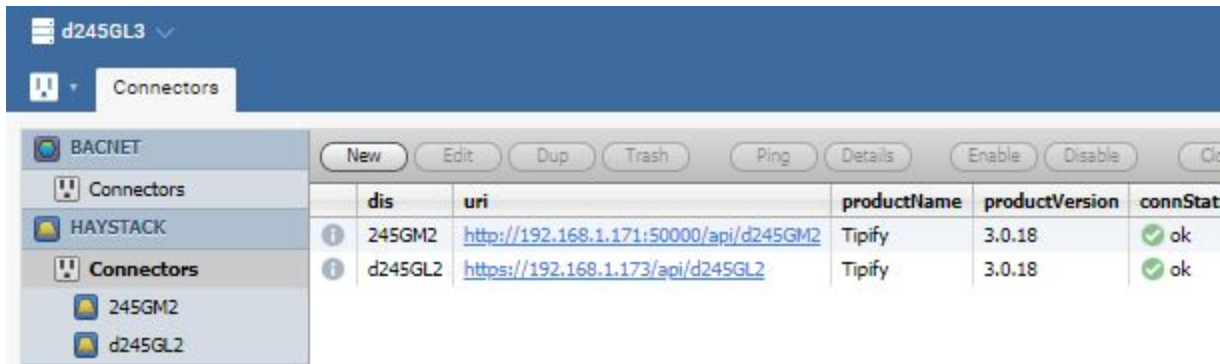
Go to the Host app and select Crypto. Next press Trust Uri and enter the URI of the device you want to access as a Haystack Server.



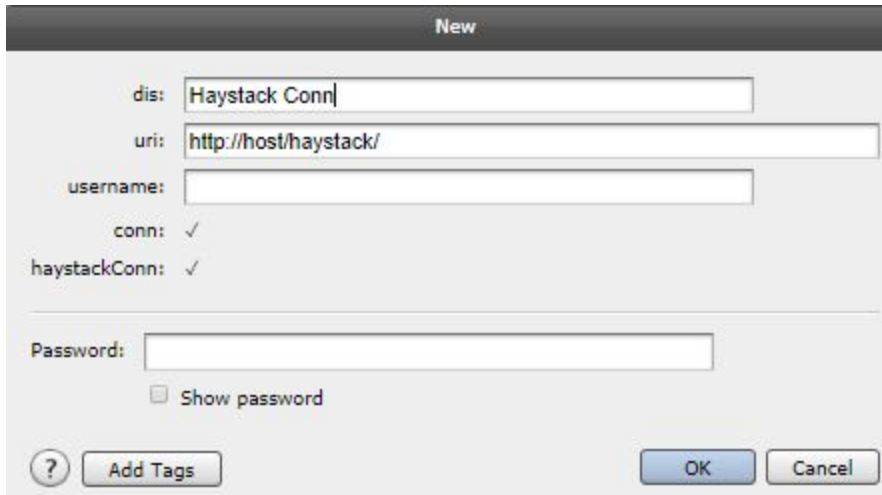
Note: If you forget to enter your Trust Uri before you create your connector, you may need to delete it and recreate it.

Add Connectors

You need to set up a connector for each Haystack device that you want to access. Use the Connectors app to add Connectors for each Haystack device. Once in the Connector app, press Connectors under Haystack to see the haystack connectors.



Press New to add a Connector.



The screenshot shows a 'New' dialog box with the following fields and controls:

- dis:** Haystack Conn
- uri:** http://host/haystack/
- username:** (empty)
- conn:**
- haystackConn:**
- Password:** (empty)
- Show password
- Buttons: Add Tags, OK, Cancel

dis: Display Name – This is the name used to reference your device.

URI – This is a reference to the device like <https://192.168.1.173/api/d245GL2> where the last entry is your project.

username – This is the user name like su.

Password – Enter the Password for the device.

Press OK.

HTTP Access

If you want to provide unencrypted http access to your device, you will need to add a Firewall Rule like Filter / Input / TCP / WAN (or Modem) / Port=50000 / ACCEPT. See Platform Control.

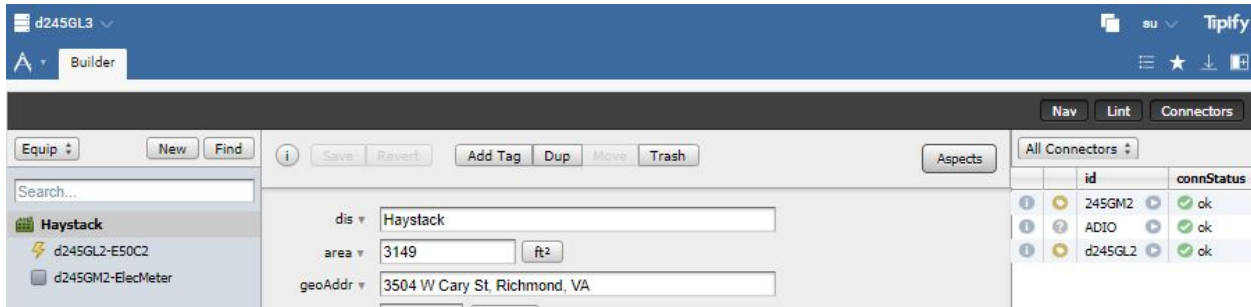
Check Connector

Select your connector and press Ping to ensure your device is connected properly.

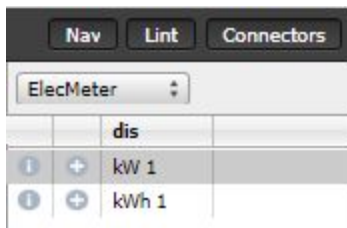
Create Sites, Equipment or Points

Go to the classic Builder app to create Sites and Equipment for your points. Press Connectors on the far right to see your connectors.

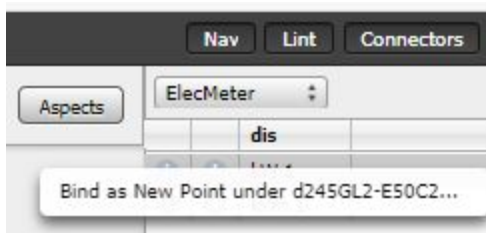
Preliminary



Press the right arrow beside a connector to see what is available until you see items with a + sign.

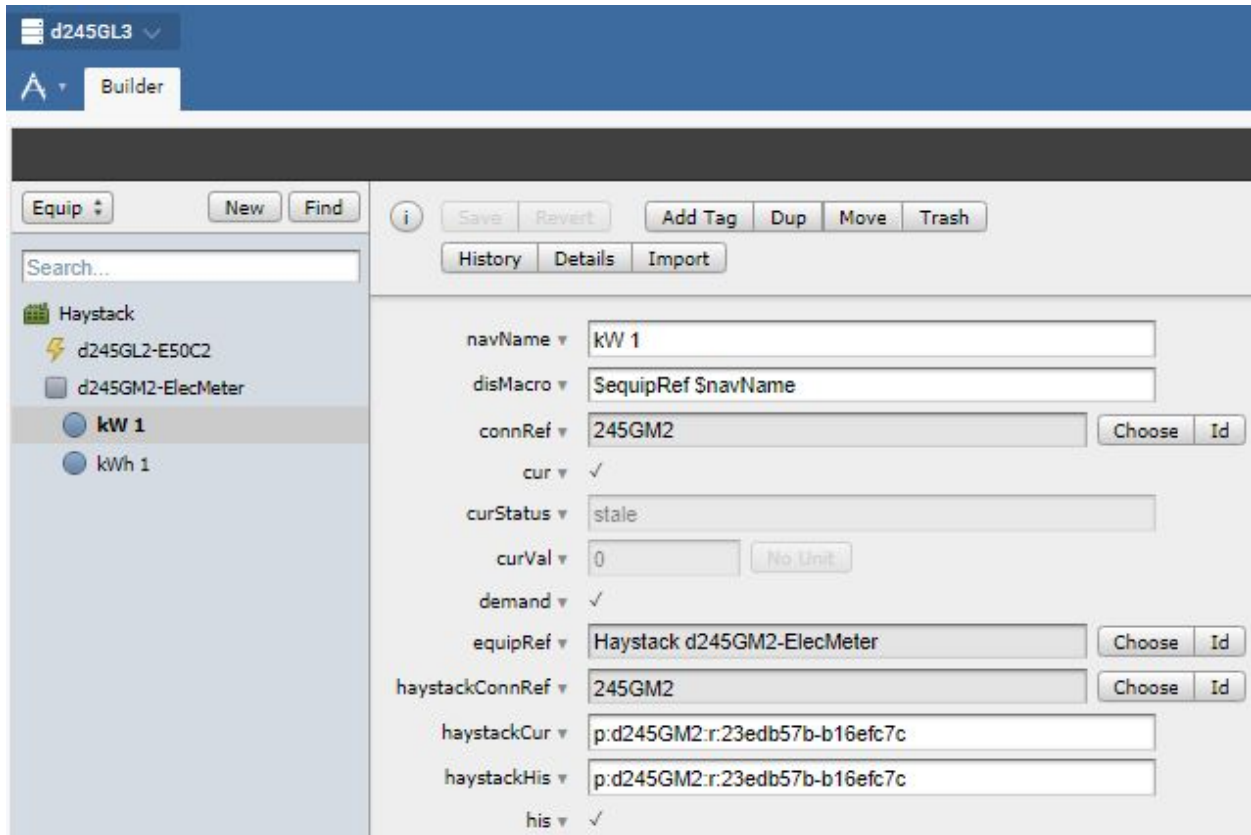


Make sure you have selected the equipment where you want you points and then press the + sign and select Bind as New Point under ... to add it.



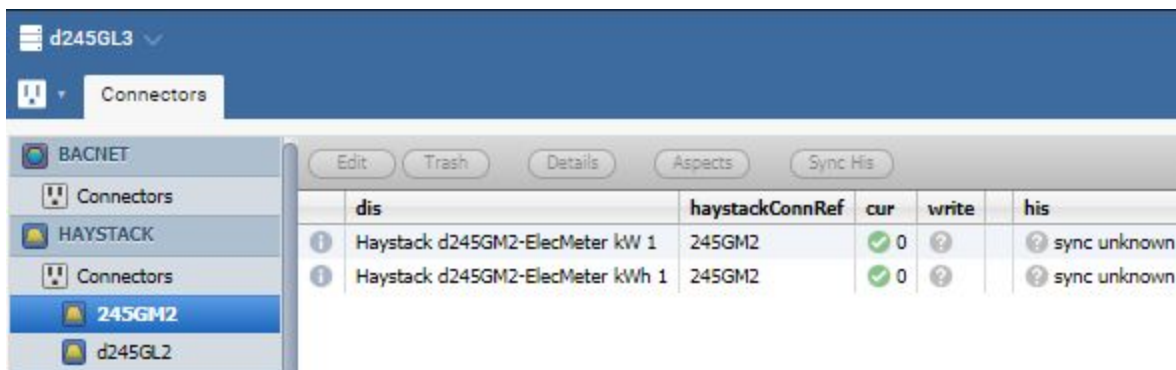
History

If your point has history, it will have a his marker. Otherwise, you can press History at the top to set one up.

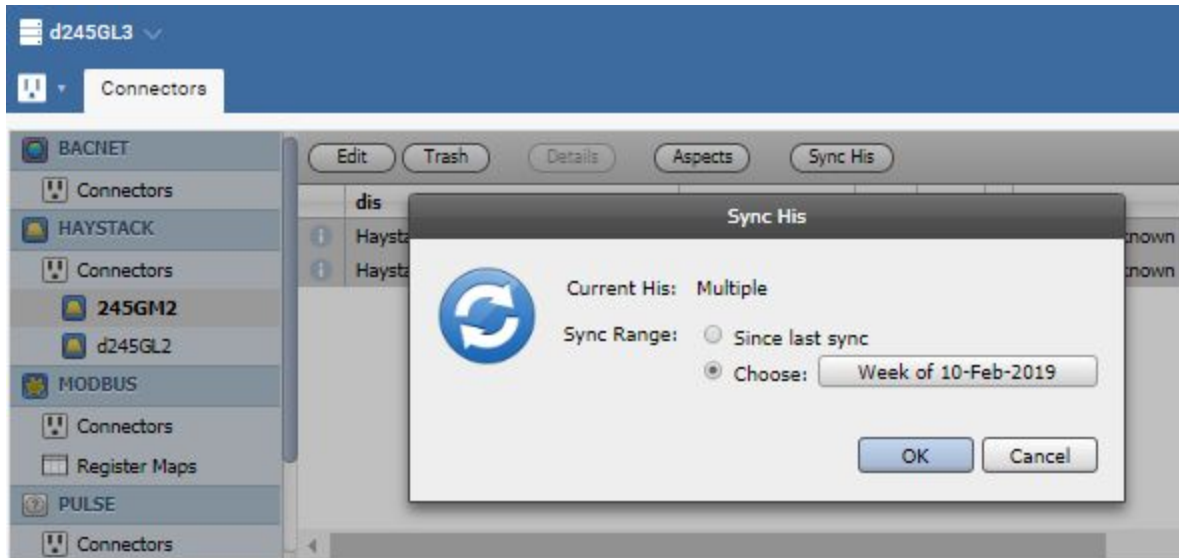


Manual Initial Sync

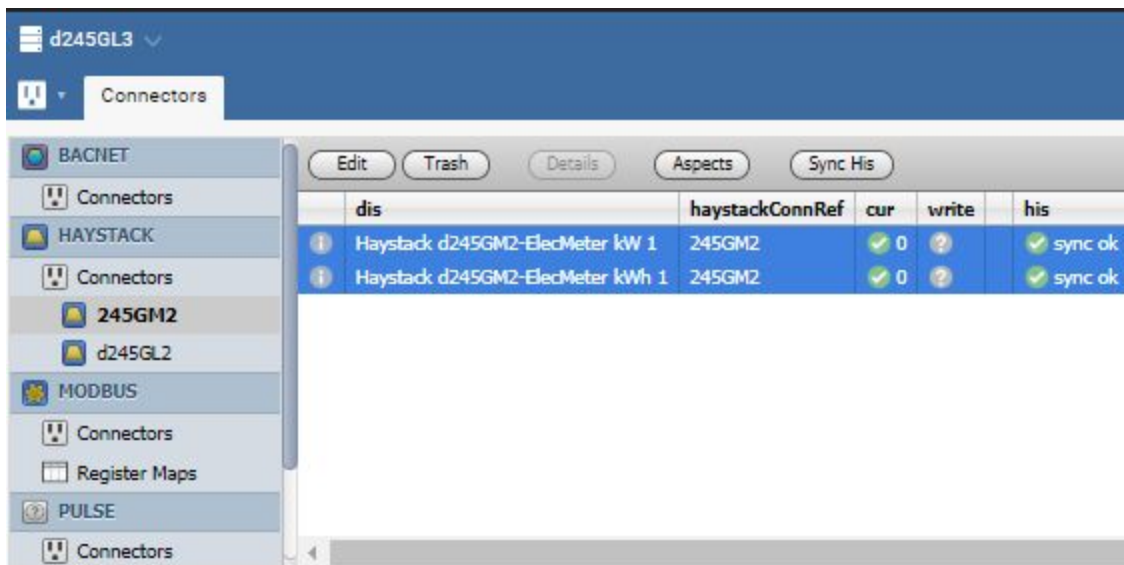
If you want to synchronize history, you need to sync your history initially at the most recent range manually. Select your connector in the Connectors app.



Select the points you want to synchronize and press Sync His. It will default to Since Last sync, but change it to Choose.



They will then synchronize.



Create History Sync Jobs

Next, you need to set up a job to sync your history regularly. The simplest case is to sync all haystack connector points with something like this:

```
readAll(haystackConnRef and his).haystackSyncHis(null)
```

Select the Tools app and select Job. Press New and create a job like this one that syncs all haystack points at 1 AM daily.

New

dis

job

```
readAll(haystackConnRef and his).haystackSyncHis(null)
```

jobSchedule

Reference

The reference information is on your device or server via the Doc app or searchable online at <https://skyfoundry.com/doc/>.

Scroll down to Extensions and select from these:

conn – Connector Extension Framework

equip – Equipment Extension

haystack - Haystack extension

his – Historian Extension

point – Point Extension