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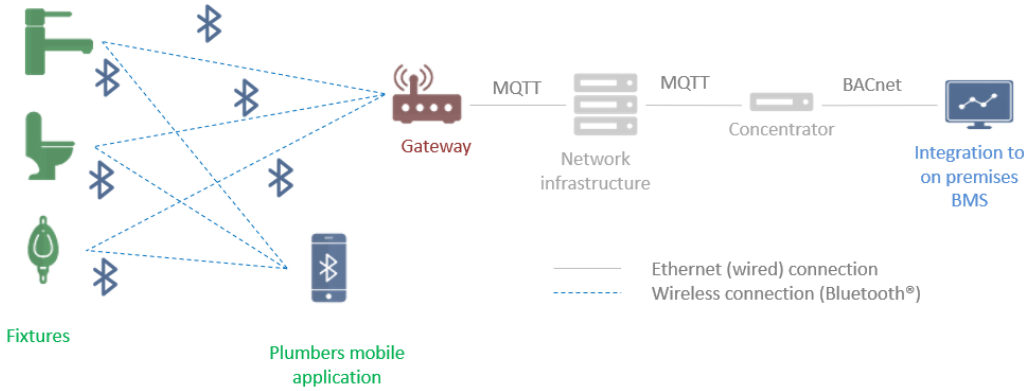
clean hands, safe hands

Smart Command Gateway and Concentrator Setup

QuickStart Guide

This procedure describes how to configure the Smart Command Gateway & Concentrator within a DHCP network environment and connect it to a BACnet compatible BMS server.
(Note: Static IP environments require devices to be configured initially using a DHCP server such as a network router or other device. Allocated static IP addresses can then be assigned, see Step 8)

System Overview:



General Prerequisites:

a) The Smart Command devices must be powered ON and within 8.0m of a Gateway in each bathroom.
b) All Gateway and Concentrators must be powered ON and physically connected to the LAN to begin setup.
c) All Gateways must be on the same IP Subnet as the Concentrators.
The Gateways and Concentrators are set to DHCP by default and will try to obtain their IP address from the local DHCP server.
See Caroma Smart Command Technical Specifications sheets for detailed requirements.

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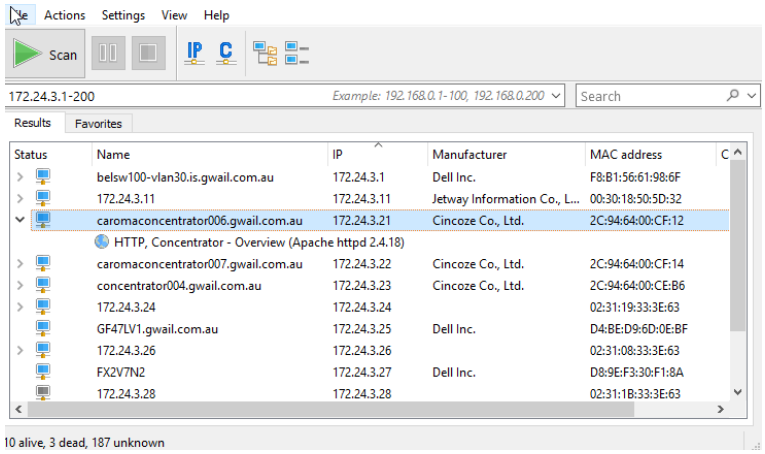
Setup Steps

1) **Assign Device ID's to all Smart Command Devices**
   Using the Smart Command App on an Android or IOS device, name all Smart Command devices in the each bathrooms for identification.
   Ensure that all devices are visible to Smart Command app and that the Gateway has been installed with 8.0m of the furthest devices.

2) **Locate Concentrator & Gateways on subnet**

Locate the IP address of the Concentrator on the network using IP Network scanner (or from DHCP server register. ***Gateways are also discoverable using this method, although a method to use the Concentrator's internal Gateway search function is described below).***



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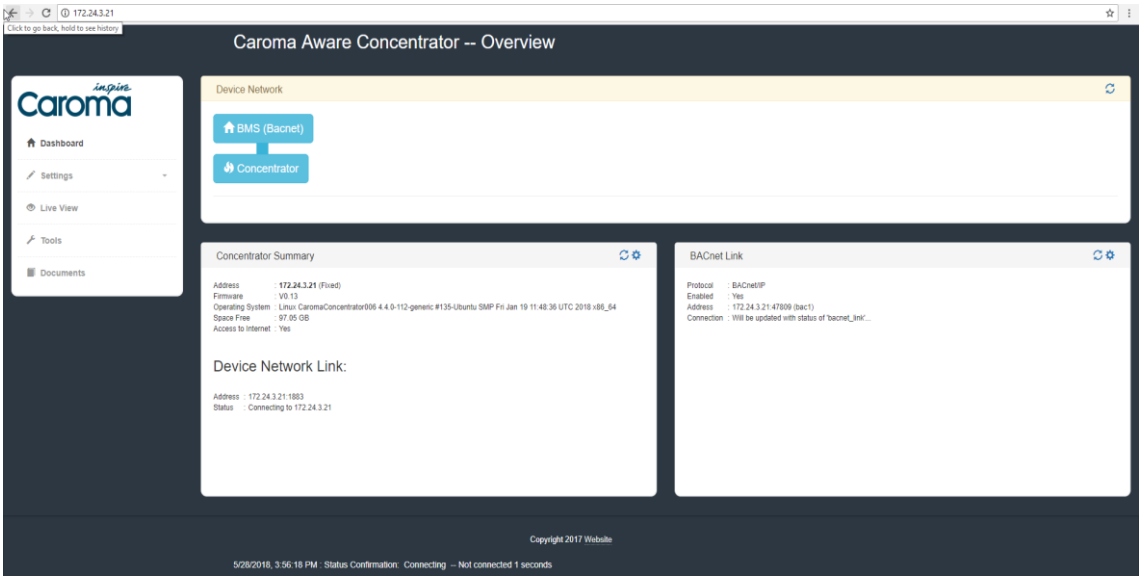
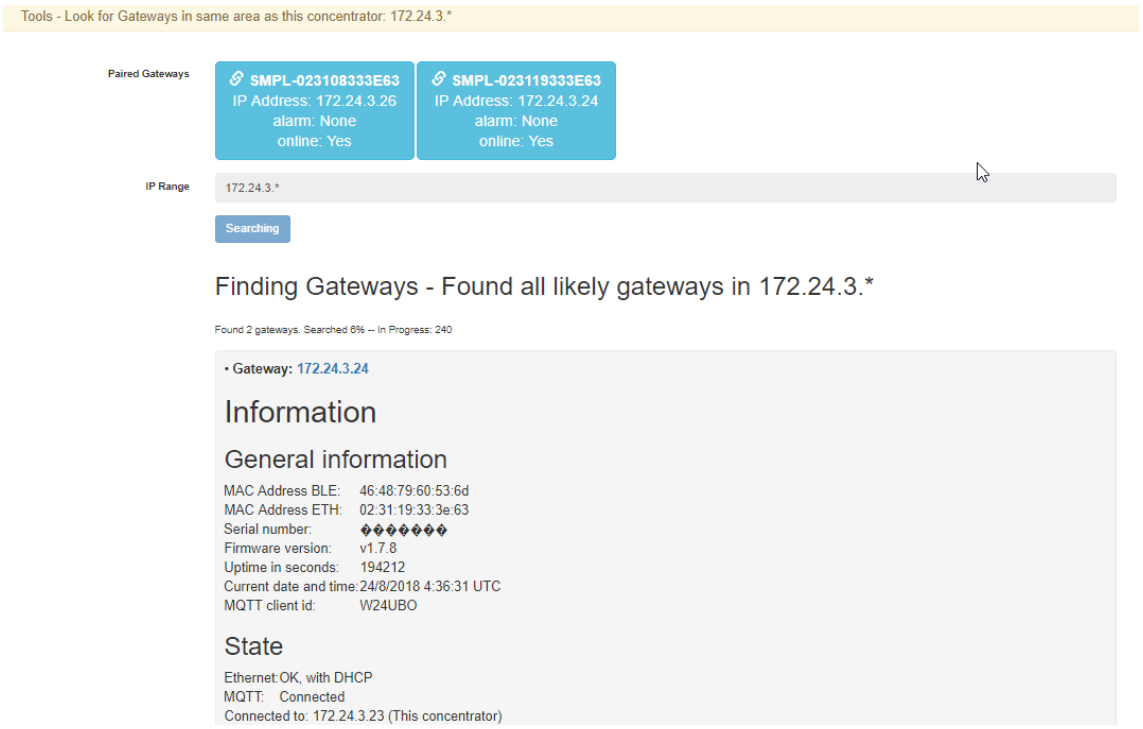
3) **Log onto Concentrator Dashboard Page in a web browser using the Concentrator IP address as determined in Step 2.**
(Note: password is not required)
The Concentrator home screen will be shown as below.



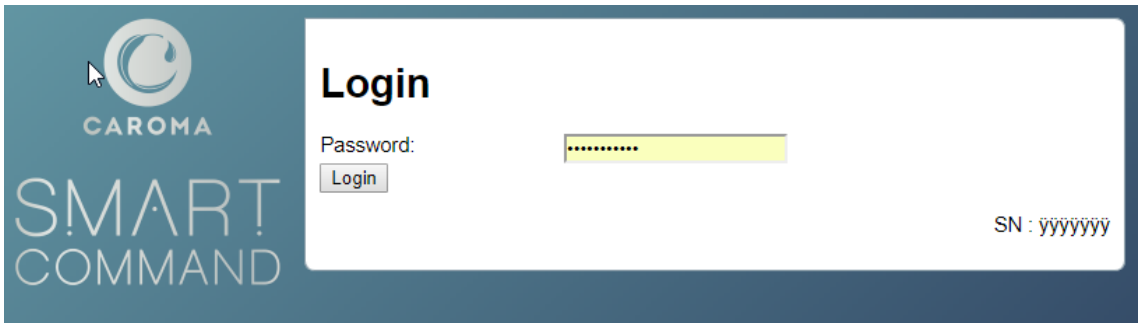
4) **Locate the Smart Command Gateway(s) using the Concentrator's integrated Gateway Search tool.**
From the Concentrator navigation menu, select 'Tools > Search'.
All gateways on the current IP subnet will be found and their details displayed.
Note the IP address of each gateway.
The Gateway can be also accessed directly by selecting on it's IP address in the results window.



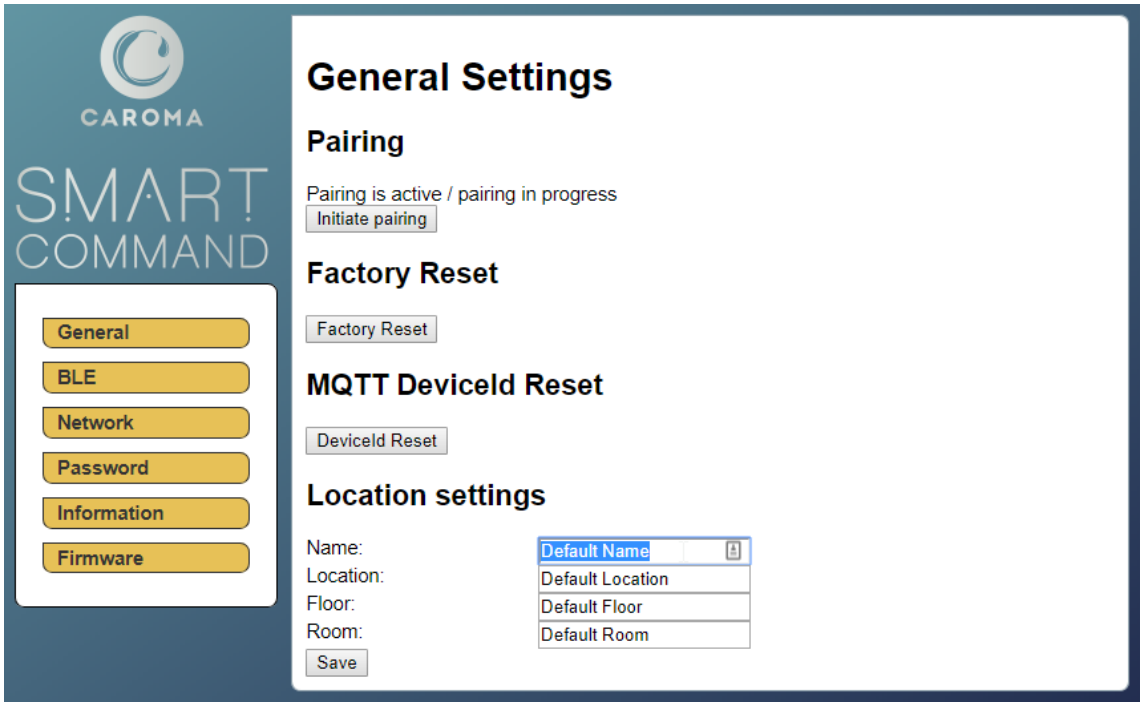
5) Log onto the Gateway using it's IP address and a web browser (Chrome preferred)

Type the Gateway IP address into a Web Browser (Chrome is preferred).
The landing page for each gateway is shown below.

Note: default password = micas.
This must be changed later in the procedure, else the Gateway cannot be paired with Concentrator.



6) Enter in the Location information for each Gateway.
Select on [General] tab and fill in the [Location Settings] dialog boxes.



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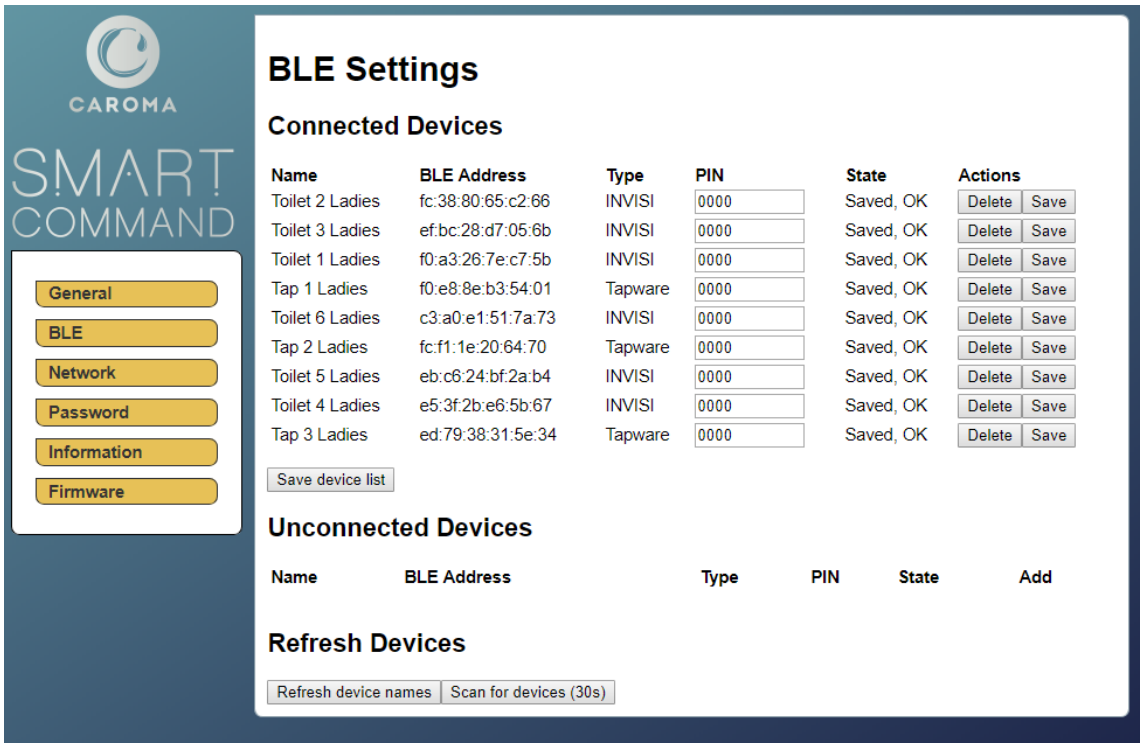
- **Scan for Smart Command BTLE devices and add to Connect list..**
  Select on the [BLE] tab and select [Scan for devices (30s)].
  - All devices within the Bluetooth range of the Gateway will appear in the "**Unconnected Devices**" section.
  - Devices can then be added into the "**Connected Devices**" list by selecting the [Add] button on each device to be added to the Gateways device list.
  - Select [Refresh Device Names] to ensure all device names (previously saved in step 1.) come though. This may need to be done more than once to update all device names.
  - Enter in the PIN number for each device and select [Save] for all devices in the "**Connect Devices**" list.
  - Finally select [Save Device List] to complete device setup.



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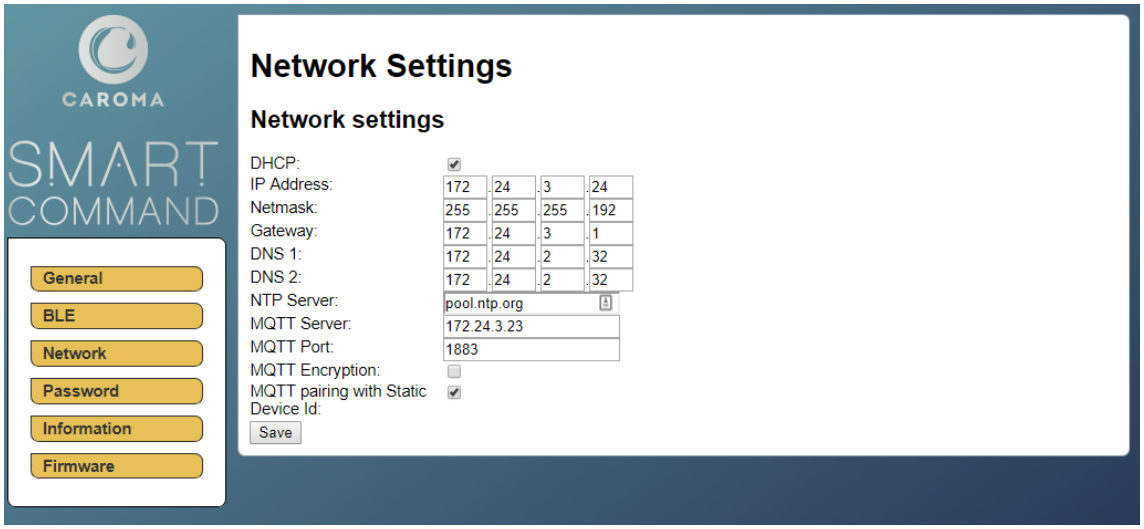
7) Configure Gateway network parameters

Select on the [Network] tab and fill in the Network information setting as shown.

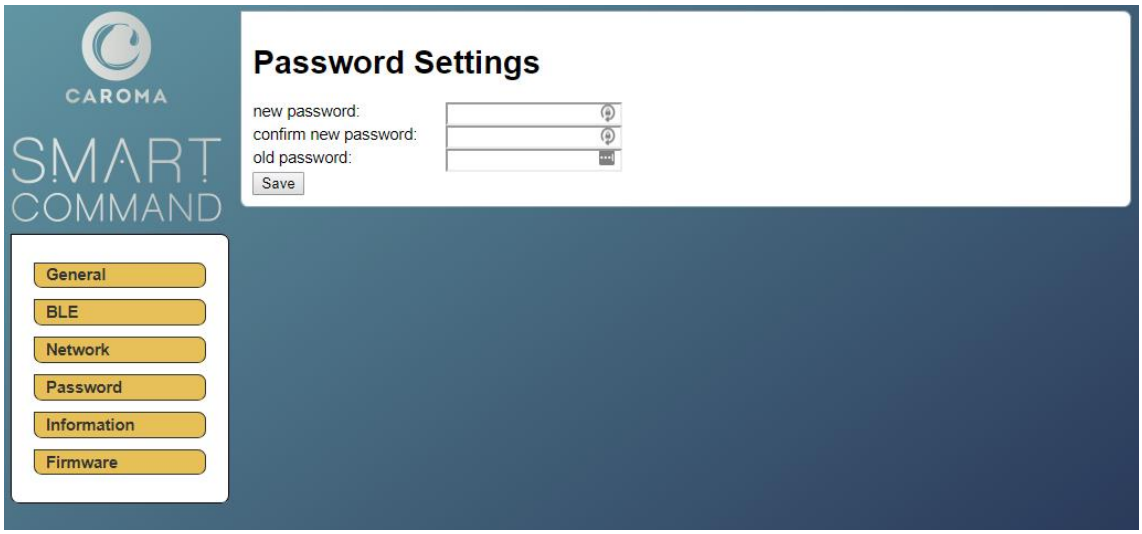
Note: the MQTT server should be set to the IP address of the Concentrator.
The MQTT port should be set to 1883.
"MQTT pairing with Static Device ID" should be selected.
Select [Save] to complete network settings.

NOTE: for Static IP address environments, the [DHCP] setting should be unchecked AFTER the device's IP address has been configured and saved.



8) Reset default Gateway Password

Select the [Password] tab and select a new password for the Gateway.
Note that Gateway will not send data to the Concentrator unless a new password is set.



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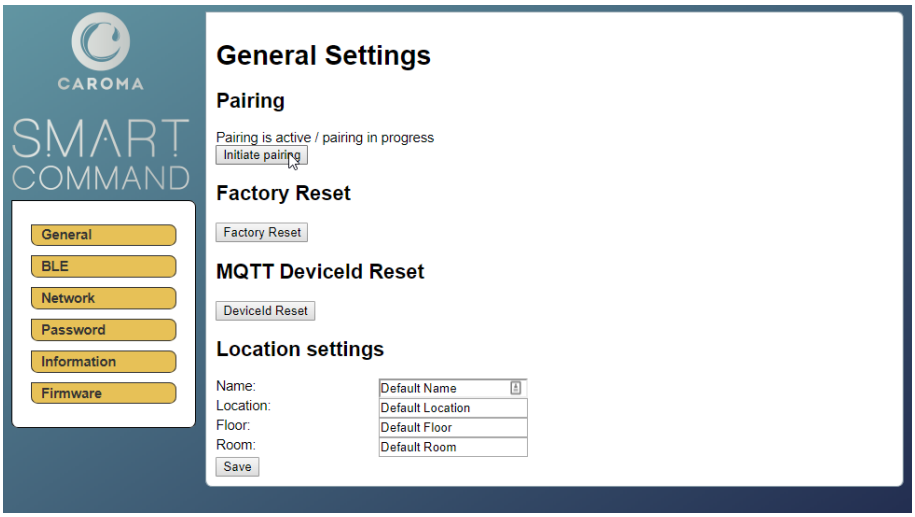
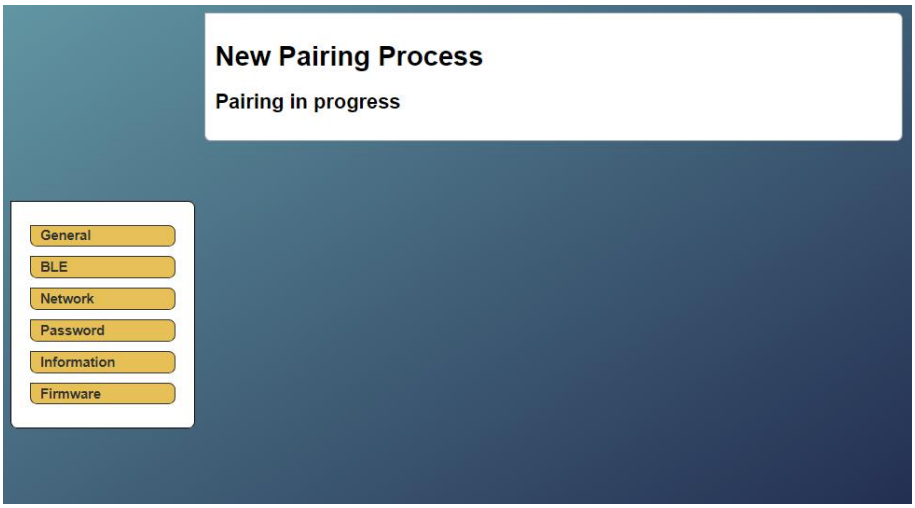
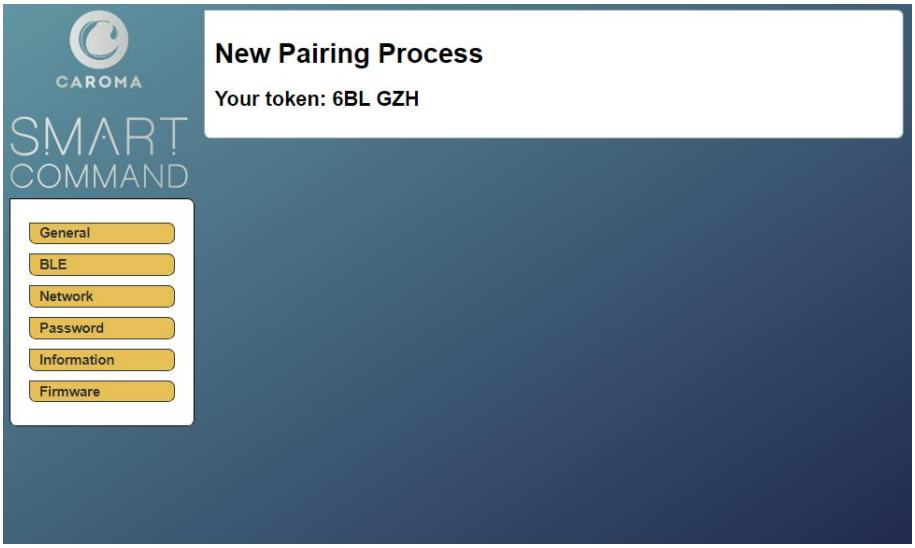
10) Pair the Gateways with the Concentrator.

Now Pair the Gateway to the Concentrator.
This is done by selecting the [General] > [Initiate Pairing].
Once pairing is successful you will receive a token from the concentrator.
The Gateway is now configured and paired to the Concentrator.







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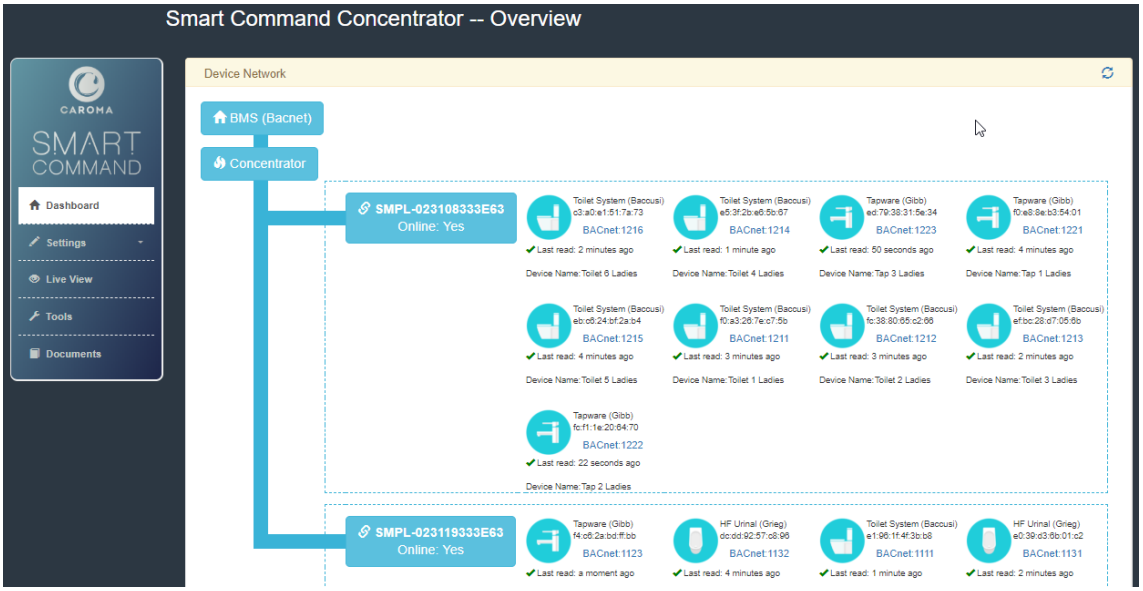
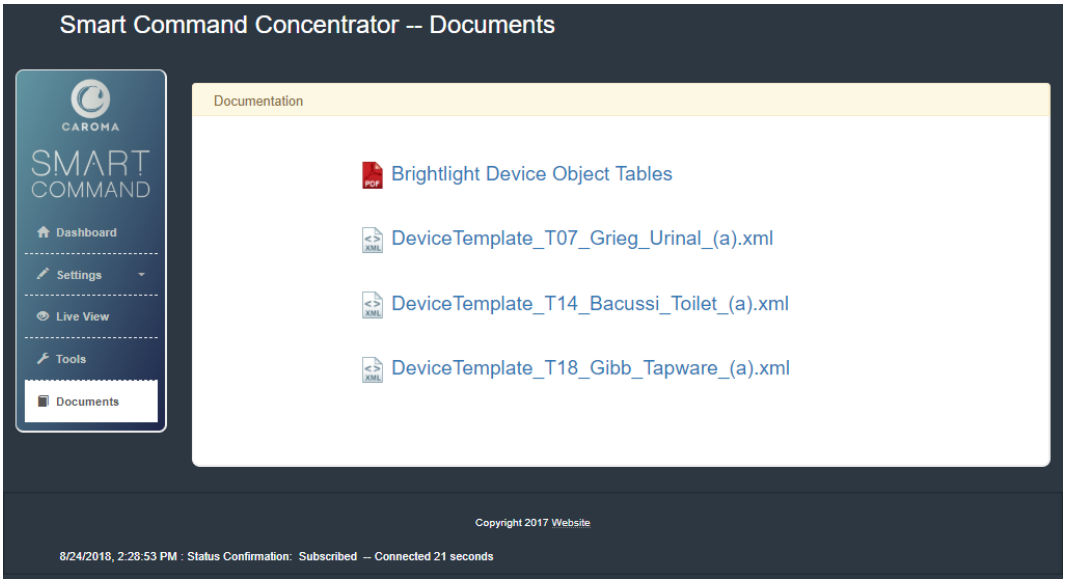
11) Assign BACnet ID to devices.

Once all of the Gateways have been configured, log back into the Concentrator Web Dashboard page and after approx. 5-10 minutes you should see the Gateways and Smart Command devices populating the page.
The devices will appear as a Tree structure displaying the Gateways they have been paired to the Concentrator. Check that all smart Command Devices appear connected to each Gateway.

Once they appear they can be given a BACnet ID so they can identified on the BMS as native BACNet devices. Click on the Device ID tag and change to the assigned BACnet ID.



Note: Each Smart Command device can have up to 26 Data Fields or Objects (Points) that CAN be addressed/connected to and monitored by the BACnet BMS head end software.
Each Data field or Channel is detailed in the Concentrator Document: "BACnet Device Object Tables". This document can be downloaded from the Concentrator by selecting the [Documents] tab from the Concentrator's Navigation menu.



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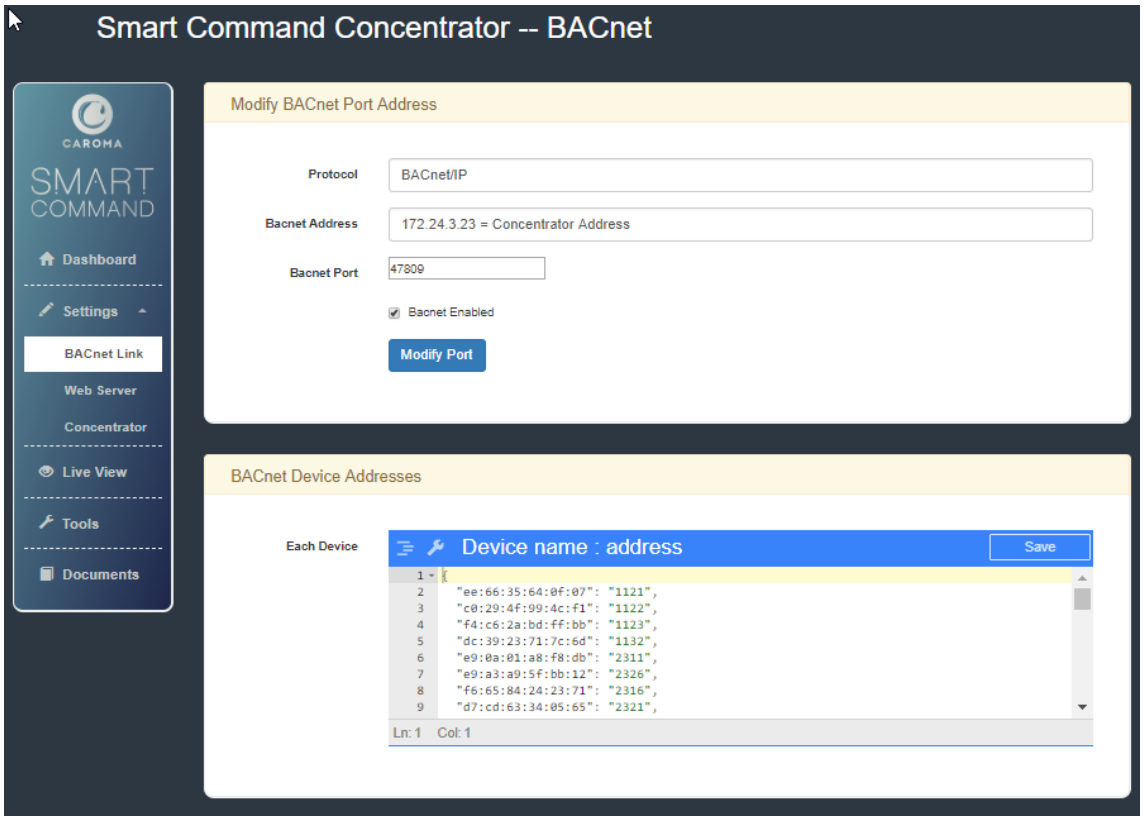
12) Configure Concentrator to connect to a BACnet BMS server.

The Concentrator now needs to be configured to send data to the BMS system client.
The Concentrator uses the BACnet protocol to communicate with BACnet BMS Servers and uses a default port of '47809'.
This can be adjusted to suit your BMS system by selecting [Settings] > [BACnet link].



13) Concentrator and Gateway configuration is now complete.

The BMS System software now needs to be configured to receive the data from the concentrator and Caroma Smart Command Devices.

Perform a "Device Scan" from the BMS Server to locate and add in all the Smart Command Devices. Each device will send data to the BMS BACnet ID assigned to it.

Please refer to your BMS Server software manual for instructions on how to perform this.

NOTE:
The BACnet BMS software will only read in the Smart Command devices as native BACnet objects. The BACnet server will not "see" the Gateways or the Concentrator.

The devices can now have their **BACnet data points mapped** to Meters using the information in the document: "Smart Command - Device Object Tables" (See Step 11) .

Please refer to your BMS Server software manual for instructions on how to perform this.

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