





AM476230031, AM476240031, AM476250031

# SYMPHOLIGHT Gateway BACnet



Quick Start Guide

Read the Quick Start Guide and the Safety Instructions carefully. Subject to modification without prior notice.

Typographical and other errors do not justify any claim for damages. Modification of the product is prohibited.

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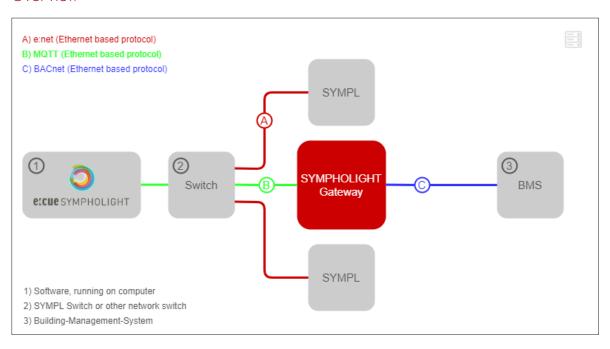
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## Quick Start Guide

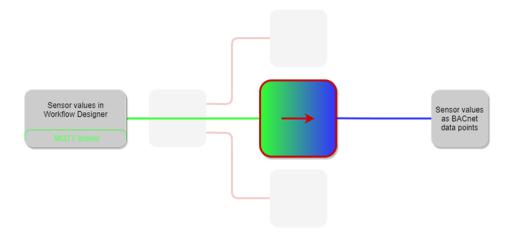
The basic steps to set up the SYMPHOLIGHT Gateway BACnet

#### Overview



In the course of the setup, you will need to:

- 1. install the SYMPHOLIGHT Gateway BACnet (chapter 1 on page 03);
- 2. configure the networks to enable the communication between SYMPHOLIGHT and the gateway (chapter 2 on page 04 and chapter 3 on page 05);
- 3. prepare SYMPHOLIGHT to send information in the form of MQTT data (chapter 4 on page 07);
- 4. configure the SYMPHOLIGHT Gateway BACnet to receive MQTT data points (chapter 5 on page 10);
- 5. configure the SYMPHOLIGHT Gateway BACnet to send BACnet data (chapter 6 on page 11);
- 6. define the conversion of MQTT to Bacnet data points (chapter 7 on page 12).



## O To get started you need:

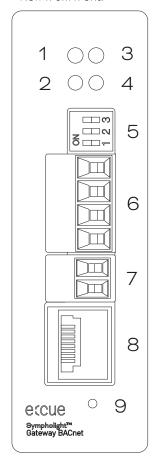
- 0.1 Computer with SYMPHOLIGHT installed
- 0.2 SYMPHOLIGHT license
- 0.3 Additional SYMPHOLIGHT credit for MQTT communication with the SYMPHOLIGHT Workflow

Designer

- If you need a credit, contact your local e:cue partner or support@ecue.com.
  - 0.4 Network cable (RJ45)
  - 0.5 optional: Network switch

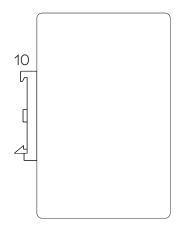
## 1 Install the SYMPHOLIGHT Gateway BACnet

- 1.1 Mount the SYMPHOLIGHT Gateway BACnet.
- 1.2 Connect all cables (power supply, Ethernet) to the SYMPHOLIGHT Gateway BACnet. View from front:



LED Power 2 LED Status LED RX - no function LED TX - no function 4 5 DIP switches - no function 6 RS485 - no function 7 Power supply (V -, V + top to bottom)8 Ethernet port (RJ45) 9 Reset button DIN rail bracket 10

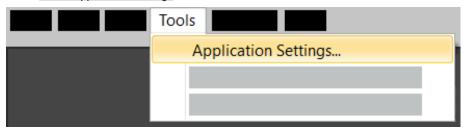
View from side:



1.3 Power on the device.

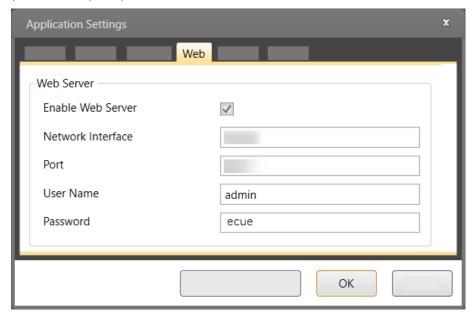
## 2 Configure the network and web server of SYMPHOLIGHT

- 2.1 Open SYMPHOLIGHT on the computer.
- 2.2 Go to Tools | Application Settings.



#### 2.3 Go to <u>Web</u>.

Enable the web server. Select its network interface and port. Set the user name and password (default: admin, ecue).



## 3 Configure the network of the SYMPHOLIGHT Gateway BACnet

3.1 Connect the SYMPHOLIGHT Gateway BACnet to your computer with a network cable.

Enter the IP address of the SYMPHOLIGHT Gateway BACnet web server in a web browser: http://192.168.123.1

Default settings:

IP address: **192.168.123.1** Network mask: **255.255.0.0** 

Note that your computer's LAN connection has to be set appropriately. For a manual setting, define the IP address as 192.168.123.2, for example. The network mask must match that of the SYMPHOLIGHT Gateway BACnet.

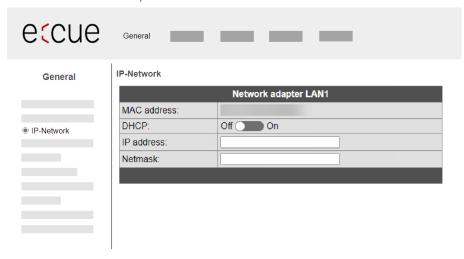
3.2 Enter the user name and password.

Default settings:
User name: admin
Pasword: ecue



#### 3.3 Go to <u>General | IP-Network</u>.

Configure the <u>Network adapter LAN1</u> (<u>DHCP</u>, <u>IP address</u> and <u>network mask</u>) for the SYMPHOLIGHT Gateway BACnet.



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## 3.4 Go to MQTT | Settings.

Configure the following *User settings* for the MQTT driver:

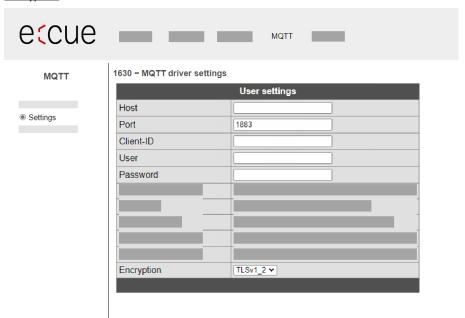
<u>Host</u> = IP address of the web server of SYMPHOLIGHT (see step 2.3)

**Port** = 1883

<u>User</u> = User name of the web server of SYMPHOLIGHT (see step 2.3)

<u>Password</u> = Password of the web server of SYMPHOLIGHT (see step 2.3)

Encryption: enable



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## 4 Prepare SYMPHOLIGHT to send information in the form of MQTT data

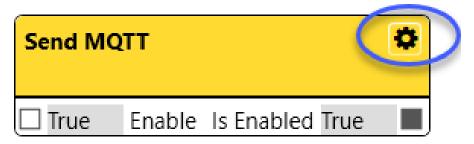
- Create MQTT Workflow Block in SYMPHOLIGHT
- 4.1 In SYMPHOLIGHT, go to Automation | Workflow Designer.

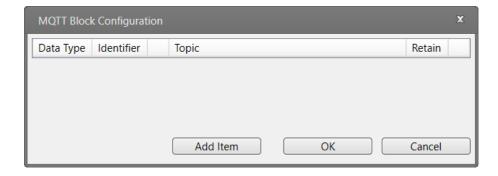


Add a **Send MQTT** Block to the Workspace.

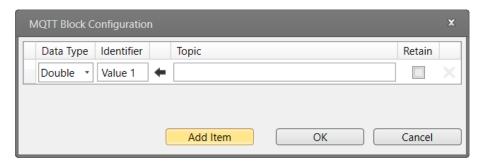


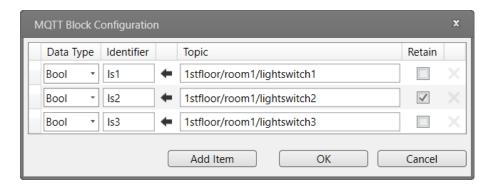
4.2 Click the cogwheel icon of the <u>Send MQTT</u> Block to open the extended configuration





4.3 Add for each MQTT data point an item in the list. Configure the items accordingly (Data Type, Topic, Retain).

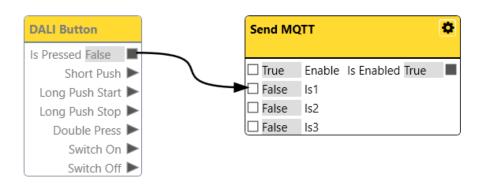




Click on to copy the <u>Topic</u> entry to the <u>Identifier</u> entry if desired.

- Note that the <u>Topic</u> must comply with the naming conventions.

  The <u>Topic</u> entry appears in the MQTT broker. The <u>Identifier</u> entry names the PortIn only.
  - 4.4 In the Workspace, connect Workflow Blocks to the <u>Send MQTT</u> Block as required by the installation.





You can check SYMPHOLIGHT's MQTT settings on your computer with the application "MQTT Explorer".

Example:



In the "MQTT Explorer", enter the following settings to connect to the MQTT broker in SYMPHOLIGHT:

*Name*: free text

Validate certifcate: OFF

 $\underline{\textit{Encryption (tls)}} : \bigcirc \mathbb{N}$ 

<u>Protocol</u> = mqtt

 $\underline{\textit{Host}}$  = IP address of the web server of

SYMPHOLIGHT (see step 2.3)

<u>Port</u> = 8883

<u>Username</u> = User name of the web server of

SYMPHOLIGHT (see step 2.3) (default: admin)

<u>Password</u> = Password of the web server of

SYMPHOLIGHT (see step 2.3) (default: ecue)

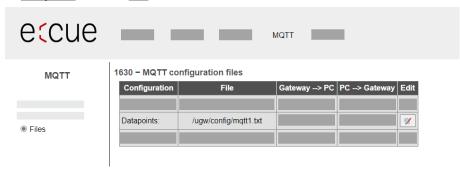
The SYMPHOLIGHT credit for MQTT communication is required.

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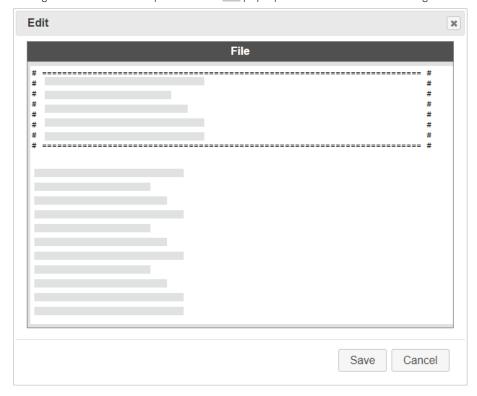
Sheet: 09 / 13

## 5 Configure the SYMPHOLIGHT Gateway BACnet to receive MQTT data points

- Create MQTT data points in the SYMPHOLIGHT Gateway BACnet
- 5.1 At the web interface of the SYMPHOLIGHT Gateway BACnet , go to <u>MQTT | Files.</u>
  At *Datapoints*, click the *Edit* button.



5.2 Configure the MQTT data points in the <u>File</u> pop-up window and save the configuration.

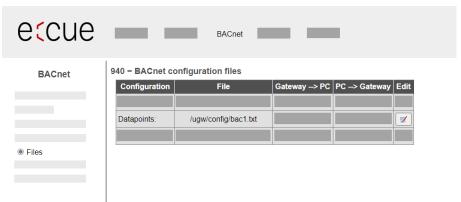


You can import a configuration for multiple data points in one single step via <u>Start Upload</u>.

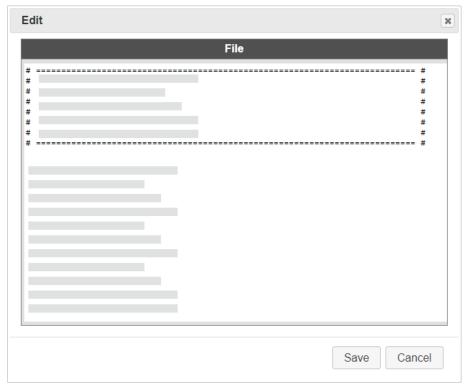
## 6 Configure the SYMPHOLIGHT Gateway BACnet to send BACnet data

- Create BACnet data points in the SYMPHOLIGHT Gateway BACnet
- 6.1 Go to BACnet | Files.

At <u>Datapoints</u>, click the <u>Edit</u> button.



6.2 Configure the BACnet data points in the *File* pop-up window and save the configuration.

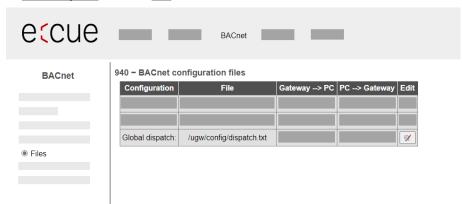


You can import a configuration for multiple data points in one single step via <u>Start Upload</u>.

## 7 Define the conversion of MQTT to Bacnet data points

- Link the BACnet data points to the MQTT data points in the SYMPHOLIGHT Gateway BACnet
- 7.1 Go to BACnet | Files.

At *Global dispatch*, click the *Edit* button.



7.2 Match the BACnet data points to the MQTT data points in the <u>File</u> pop-up window and save the configuration.



You can import a configuration for multiple data points in one single step via <u>Start Upload</u>.

The SYMPHOLIGHT Gateway BACnet including the MQTT and BACnet data points are now configured.



## Possible following actions:

- · configure further settings of the SYMPHOLIGHT Gateway BACnet
- · complete the Workflow in the SYMPHOLIGHT Workflow Designer
- · configure the BMS for the incoming BACnet data
- · test your project on the instllation.

Downloads and more information at:
www.ecue.com and www.traxon-ecue.com

Problems or compliments? Please contact support@ecue.com



