EcoStruxure Building Operation

Teltonika SMS Alarms

SmartConnector

Installation & User Guide

04-20018-02-en
June 2024

Life Is On Schneider Electric

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Contents

1 Functional Overview

The Teltonika SMS Alarm Solution consists of the SmartConnector extension which subscribes to EcoStruxure Building Operation alarms and passes them to a Teltonika RUT240 4G IP Router to deliver them as SMS messages to end user's mobile phones.

Users can acknowledge alarms from their mobile by responding to the SMS and the alarm will be acknowledged within EcoStruxure Building Operation.

The extension uses an EWS interface to host the mobile phone number object and the priority high and low filter objects within EcoStruxure Building Operation system so this can be changed easily from within the user interface.

The phone number should use the following format using 00 to represent + for the international dialing code.

i.e. 00447970123456
The above represents a UK mobile number 07970 123 456

2 Restrictions & Limitations

2.1 SmartConnector Service Version

The processors have been validated to operate with the SmartConnector version 2.5.x, use with any older version of the SmartConnector framework is not supported.

2.2 Teltonika RUT240 Firmware

The processors have been validated to operate with firmware 1.13.1

Other versions may cause issues and are not supported.

2.3 EcoStruxure Building Operation

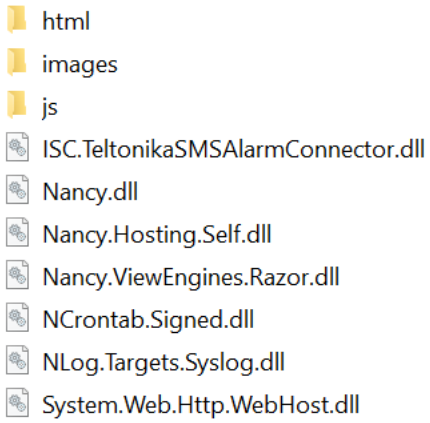
The processors have been validated to operate with EcoStruxure Building Operation 1.9 to 5.0

Other versions may cause issues and are not supported.

3 Installation

Please refer to the SmartConnector Installation and Configuration Guide.pdf for guidance on SmartConnector installation.

To deploy the Teltonika SMS Alarm assembly copy the following files into the service installation directory which is normally “C:\Program Files (x86)\Schneider Electric\SmartConnector”.

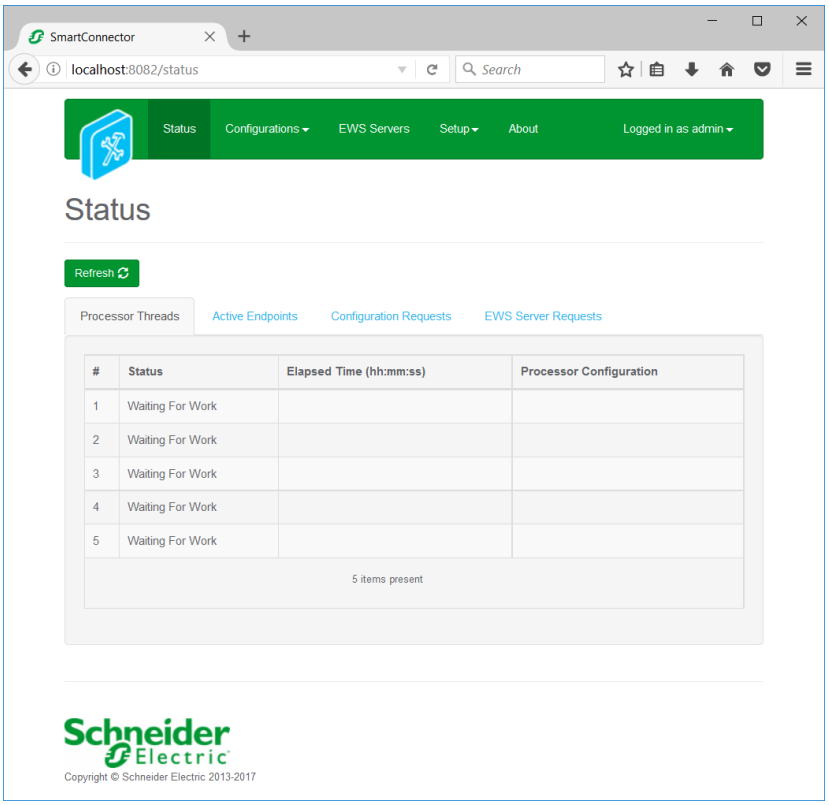


4 Configuration & Settings

4.1 Admin portal

With a default installation of SmartConnector, the configuration pages for the server can be reached at the following address on the server the service has been installed on:

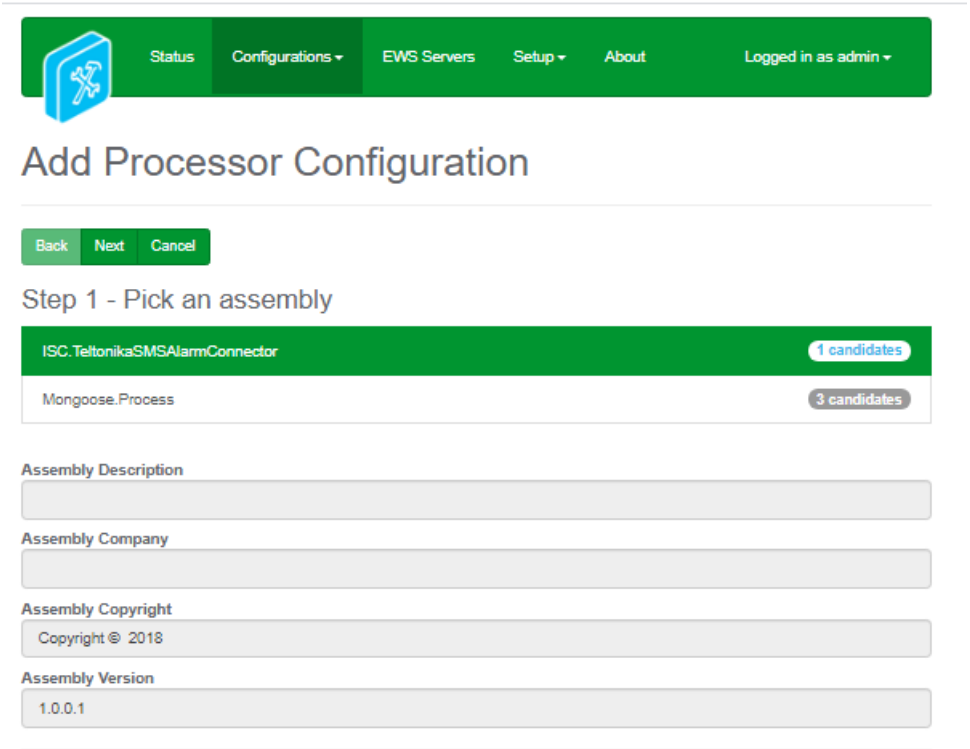
http://localhost:8082/



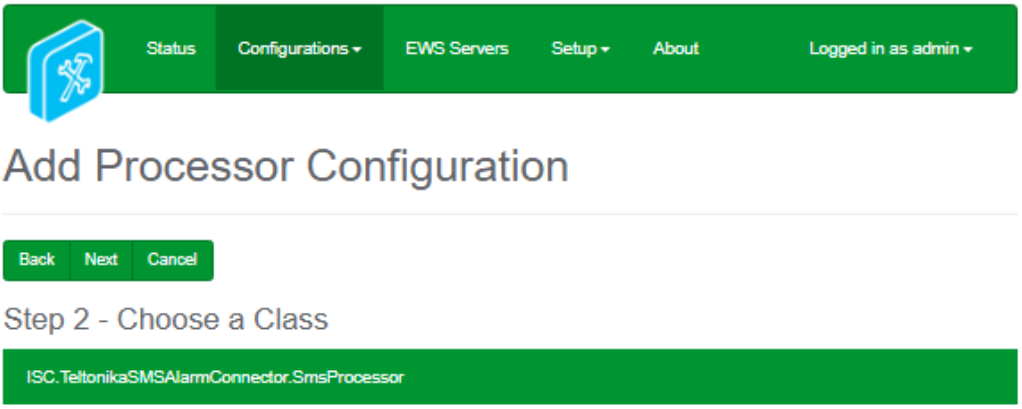
4.2 Adding the Custom Assembly to the Service

Switch to the Configurations tab and select Add New +

At the Add Configuration window, Step 1 – Pick an assembly, select the reference to ISC.TeltonikaSMSAlarmConnector (this will be highlighted green when selected)



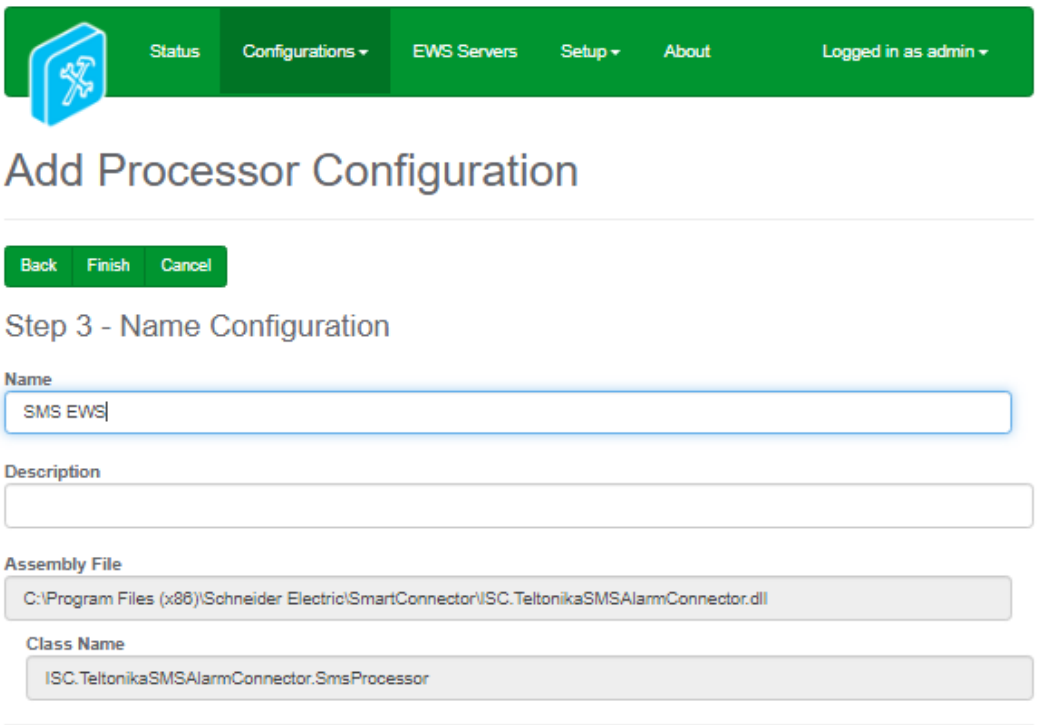
Select Next and proceed to Step 2 Choose a Class



Select Next and proceed to Step 3 Name Configuration

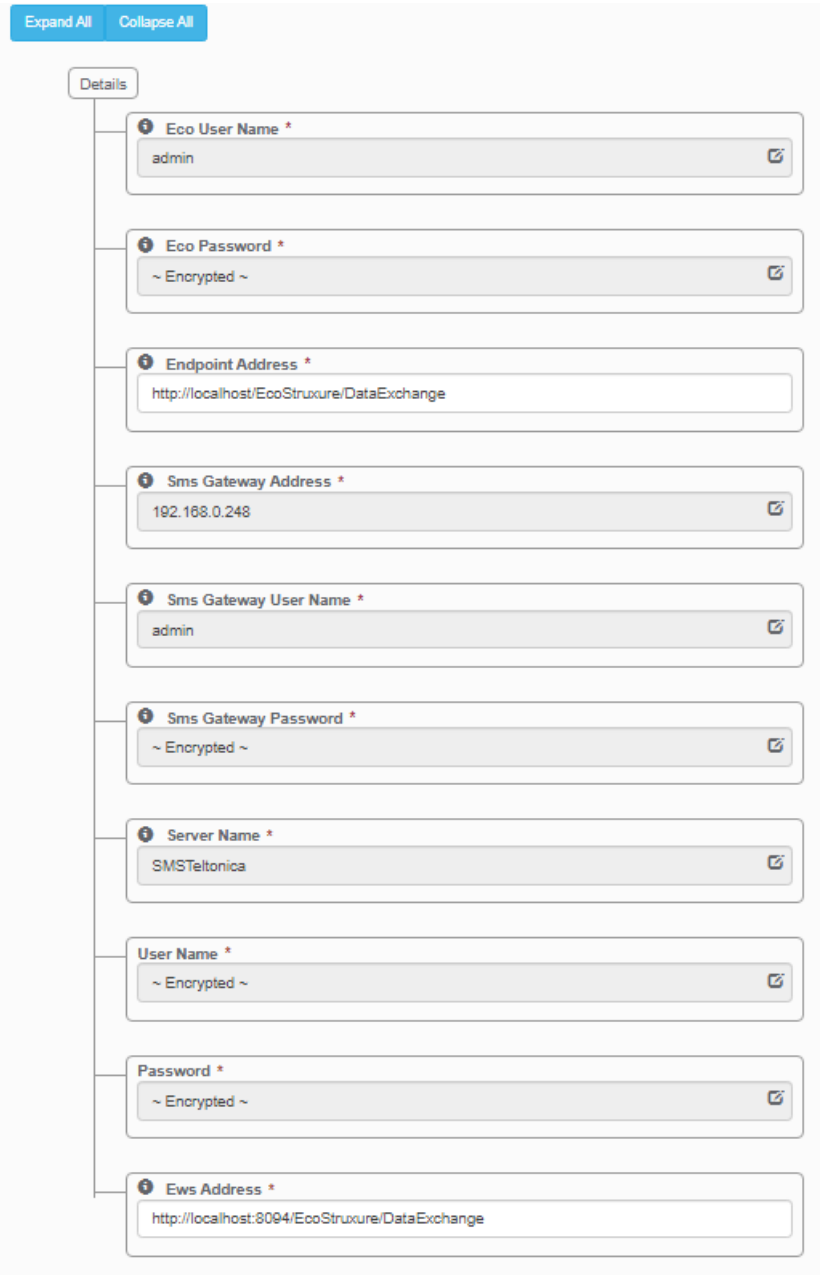
Enter a meaningful name and description for the Processor which will enable you to identify this process in the configuration window later.

Select Finish and proceed to the Configuration screen.



4.3 Processor Configuration

In the configuration window select the Details Tab, you will then be presented with the screen to enter the configuration information. Much of the configuration has default options however they should be checked and validated for the installation. Edit the applicable fields as follows.



Eco User Name
This is the user account username that is used to login to the EcoStruxure Building Operation Enterprise Server or Automation Server and subscribe to alarms.

Eco Password
This is the user account password that is used to login to the EcoStruxure Building Operation Enterprise Server or Automation Server and subscribe to alarms.

Endpoint Address
This is the URL for the EWS endpoint on the Enterprise Server or Automation Server. You need to replace localhost with the IP address if the processor is not installed on the Enterprise Server.

SMS Gateway Address
This is the IP address of the 4G Router.

SMS Gateway User Name
This is the username configured for the API in the 4G Router – See the router configuration section.

SMS Gateway Password
This is the password configured for the API in the 4G Router – See the router configuration section.

Server Name
This is the name given to the EWS endpoint created by the processor.

User Name
This is the username that the Enterprise Server or Automation Server used to connect to the processors EWS endpoint.

Password
This is the password that the Enterprise Server or Automation Server used to connect to the processors EWS endpoint.

EWS Address
This is the EWS endpoint that is created by the processor.

In the configuration window select the Control Tab, you will then be presented with several options to define the Processor's default behavior. It is recommended to set the following;

Runs on Start – Yes (To enable the Processor to automatically start with the machine)
Runs on Schedule – Yes (Although this processor should never terminate, attaching a short cycling schedule will ensure that if it stops unexpectedly, it will attempt to auto restart on the schedule.)
Manually Startable – Yes (To allow a user to start through the configuration window

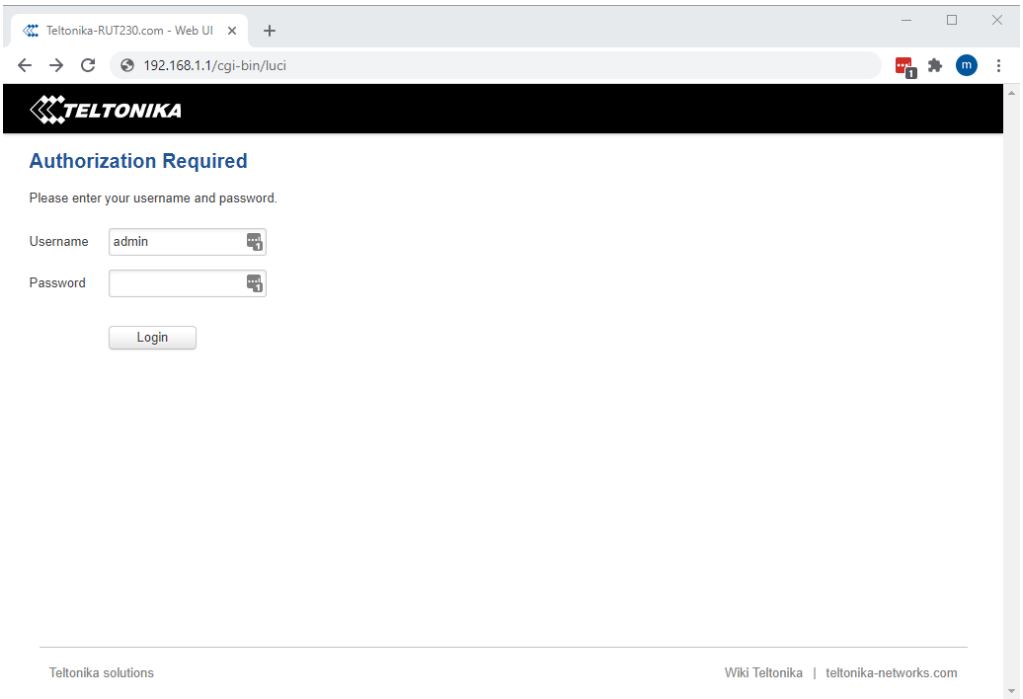
Manually Stoppable - Yes

The Save Button allows the process configuration to be saved to the database.

4.4 4G Router Configuration

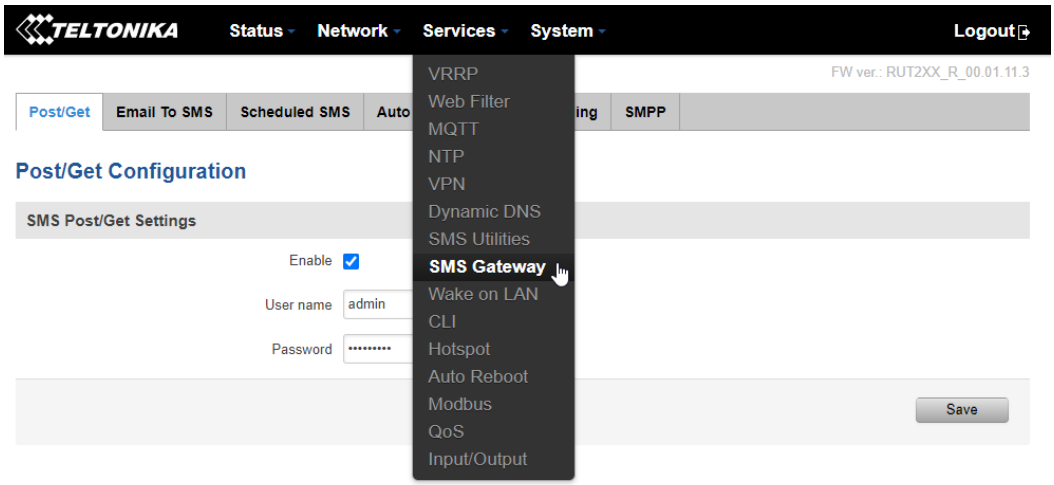
To connect to the 4G Router use a browser with the following URL ‘http://192.168.0.1’

You should now see the below login page where;
The default username is ‘admin’
The default password is ‘admin’

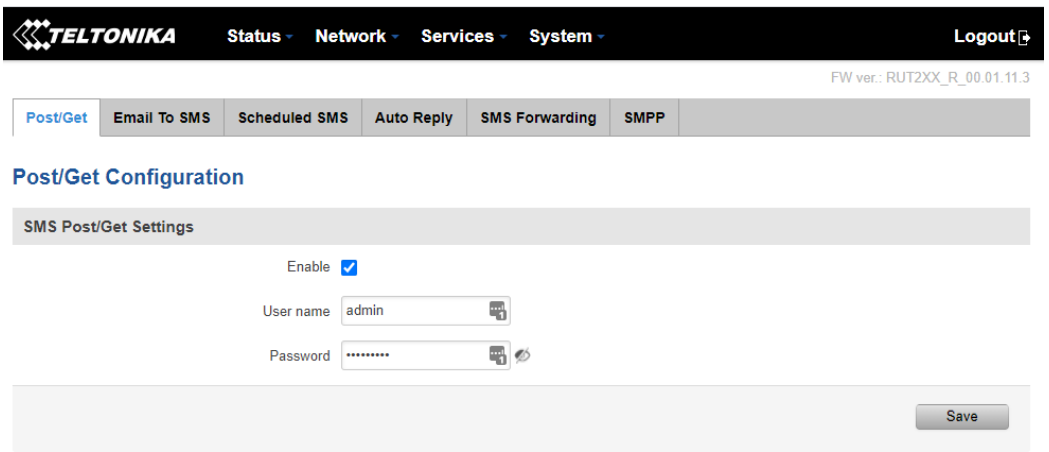


Once logged in it will force you to change the password, a complex password should be used.

Now select ‘Services’ from the menu bar and finally ‘SMS Gateway’.



Within the ‘Post/Get’ tab you configure the username and password for the API that the processor uses to communicate with the 4G Router. This must match the configuration in the SmartConnector processor.



All other services within the 4G router can be disabled as they are not required for this solution.

We recommend that the following services are disabled

- Wireless
- SSH
- CLI
- SMS Utilities

Notes:

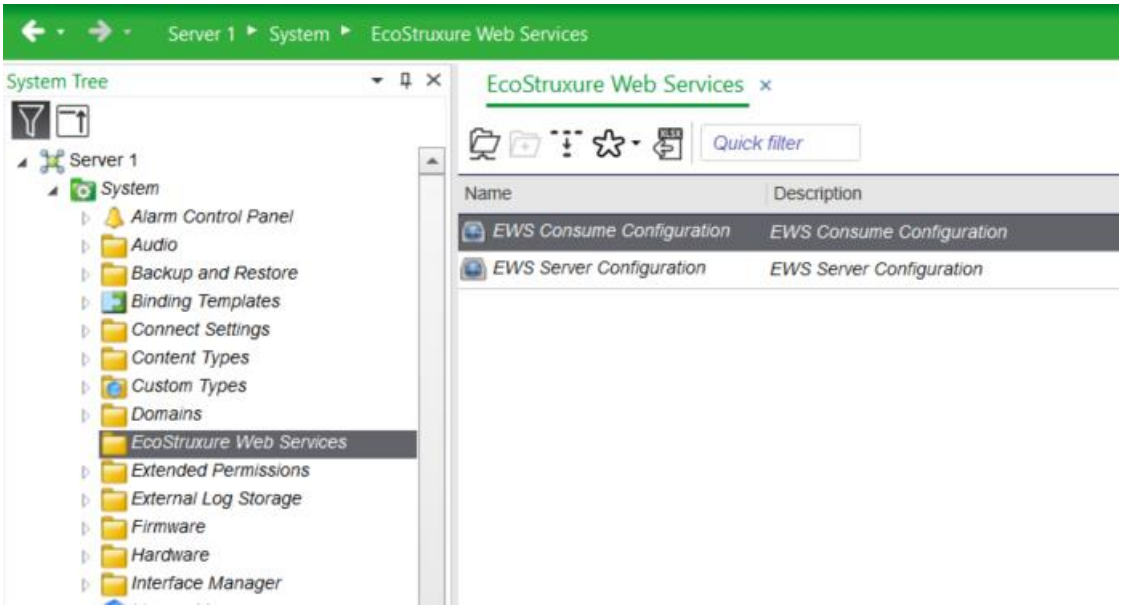
The complete configuration for the 4G Router are beyond the scope of this manual, but as with any router the LAN port doesn't support a default gateway setting's so if the 4G Router is to be deployed on a different subnet to the SmartConnector Framework consult with a network engineer as to the appropriate configuration.

Manufacturer's documentation
https://teltonika-networks.com/product/RUT240/

4.5 EcoStruxure Configuration

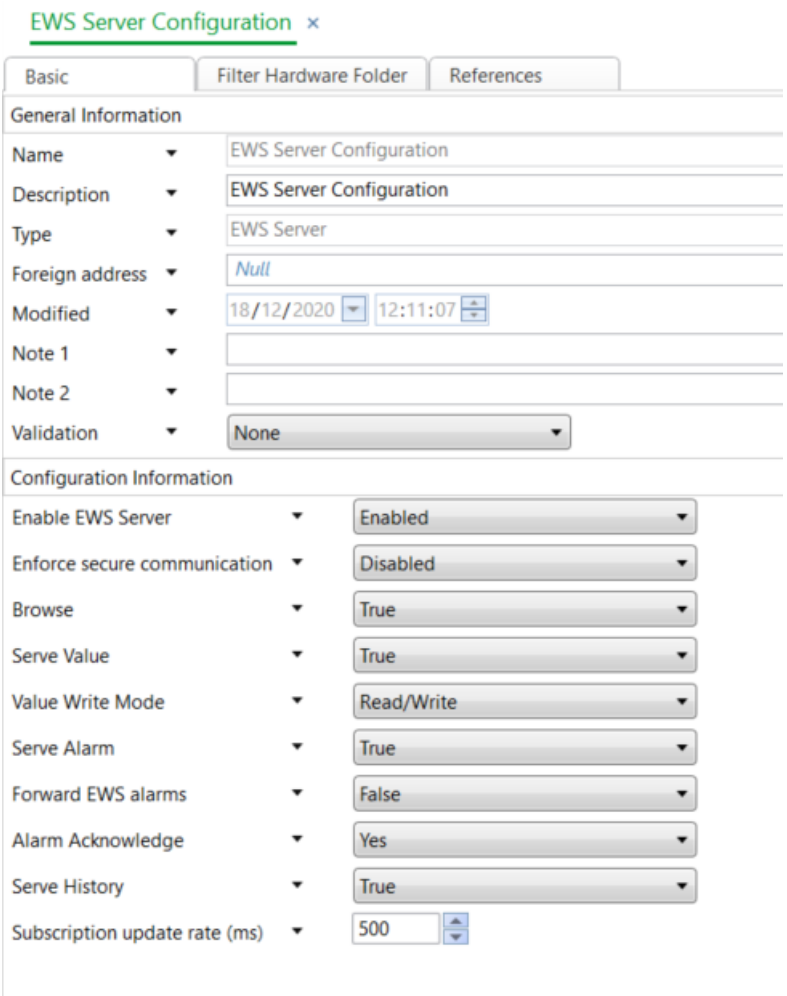
To need to enable the EWS server so that the processor can subscribe to the alarms.

Navigate to the Server \ System \ EcoStruxure Web Services folder

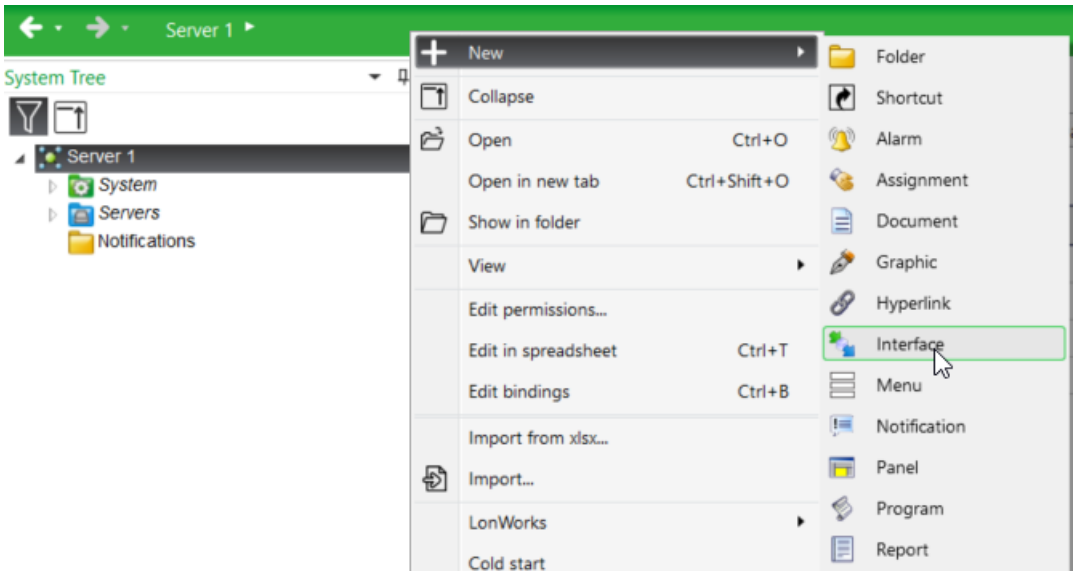


And double click the EWS Server Configuration.

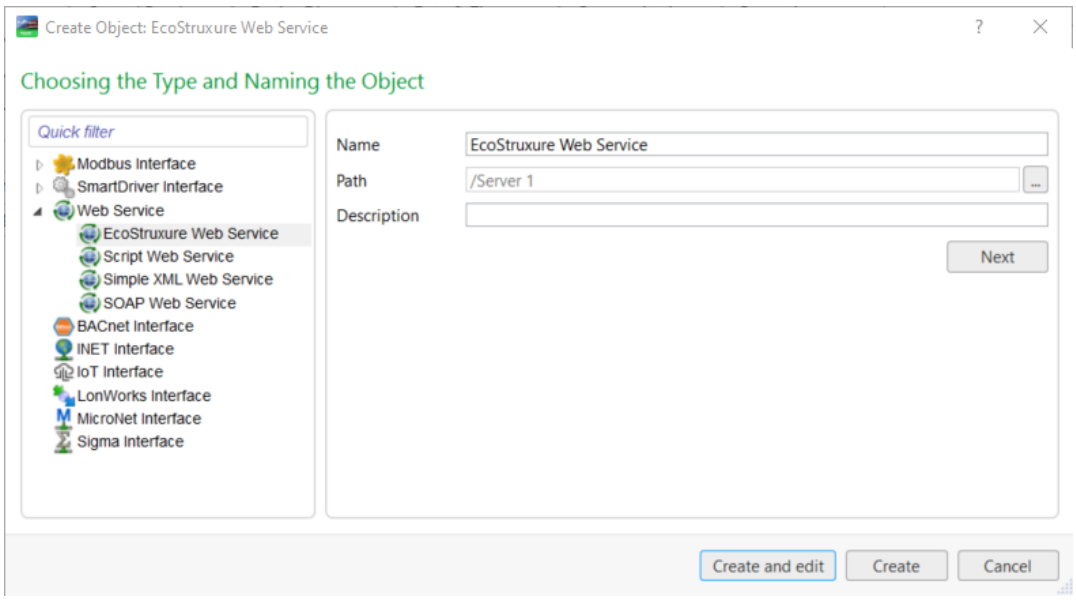
Enable the EWS Server interface as shown below.



To create the EWS connection to the processor we need to right click on the Servers root and select ‘New’ ‘Interface’

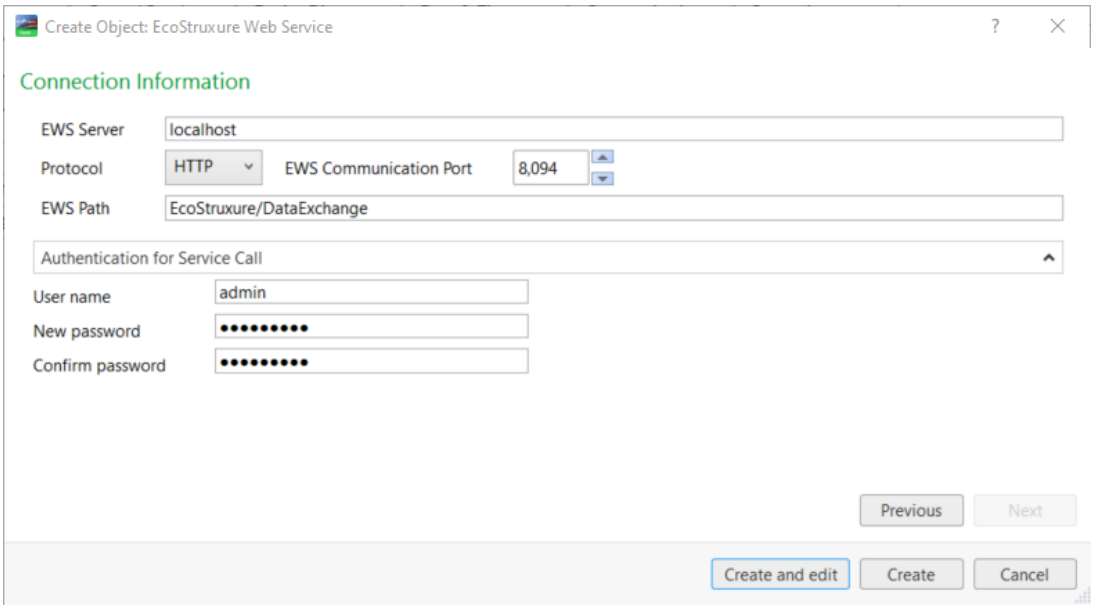


Then select the EcoStruxure Web Service in the Web Services container.



Fill in the EWS Sever field as localhost if the processor is installed on the same Enterprise Server or replace with the IP address if remote.

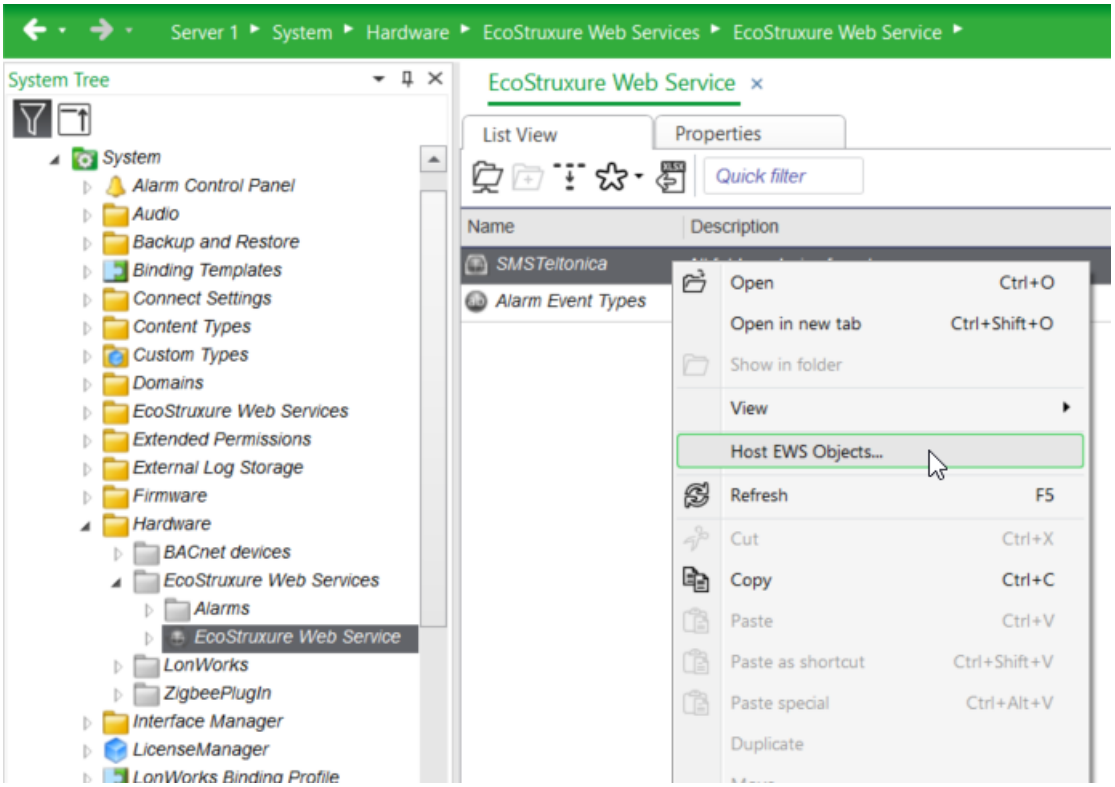
The Port Number, Path and Credentials should match the configuration in the processor.



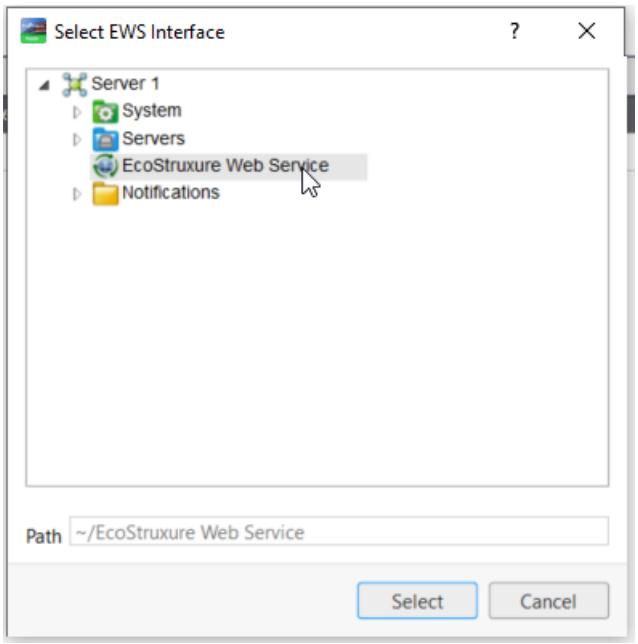
Click Create.

To host the EWS objects we should navigate to
Server \ System \ Hardware \ EcoStruxure Web Services.

We should see the ‘SMSTeltonika’ endpoint as configured in the processor.

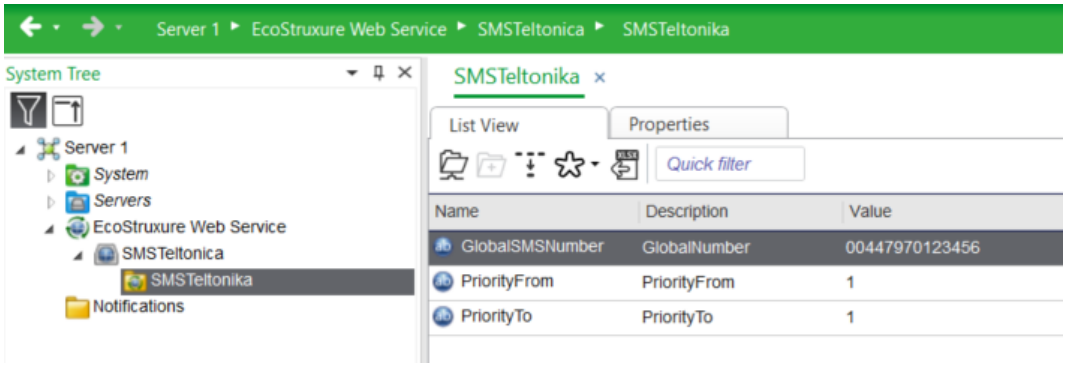


Right click on the ‘SMSTeltonika’ object and select ‘Host EWS Objects’ from the menu.
Now select the EcoStruxure Web Service we created in the previous steps and click ‘Select’



You should now see the ‘GlobalSMSNumber’ object, this is where you enter the recipients phone number.
The below represents a UK mobile number 07970 123 456

You should see ‘PriorityFrom’ and ‘PriorityTo’ object where you can enter the alarm priorities you need to escalate to SMS.



You can now trigger priority 1 alarms and they will be sent to the phone number specified.

For simple scheduling you can programmatically change the number stored in the EWS object.

5 Troubleshooting

If you experience issues sending SMS using this solution, please see the below guidance.

Does the SIM card have a PIN number configured?

Please enter the PIN number in the 4G Router configuration

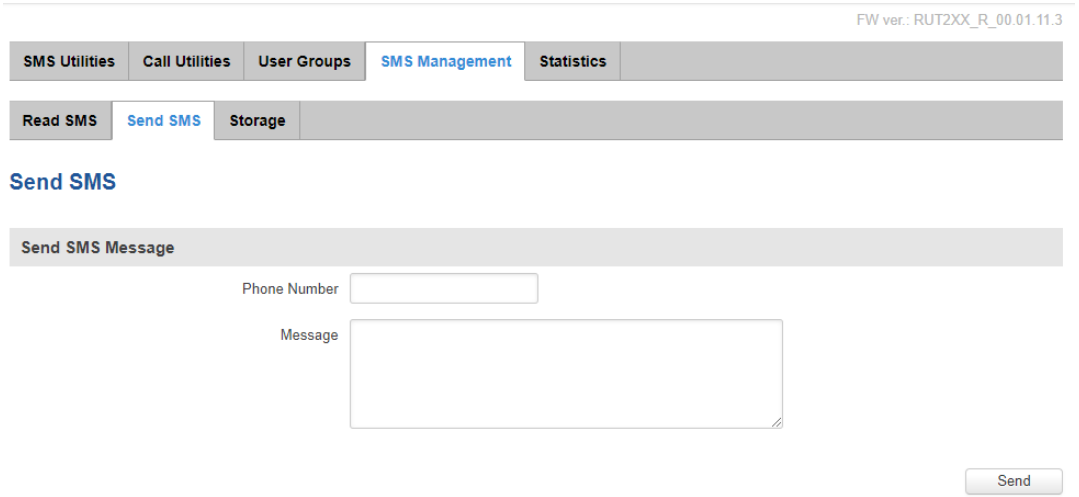
Does the SIM card have a good signal, or does the SIM card have a connection to the mobile operator's network?

Please use the 4G Routers status page to check this

Mobile	-77 dBm
Data connection	0d 0h 46m 46s (since 2020-12-18, 09:21:15)
State	Registered (home); vodafone UK; 3G (HSDPA+HSUPA)
SIM card status	SIM (Ready)
Bytes received/sent *	153.3 KB / 130.5 KB

Does the 4G Router send an SMS directly?

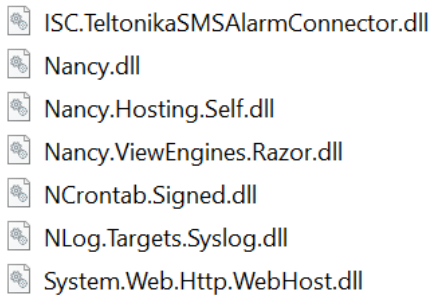
Use the Services, SMS Utilities, SMS Management, Send SMS to verify this. If this works as expected please check the configuration of the processor and EcoStruxure Building Operation.



6 Revision History

Version	Assembly File Details	Date
1.1.0.1773	ISC.TeltonikaSMSAlarmConnector.dll	06th June 2024

Assembly files required:



7 References

SmartConnector Installation and Configuration Guide.pdf
(TDS-M-INSTALLCONFIG-US.BU.N.EN.12.2017.2.30.CC)

SmartConnector Version 2.4 Release Notes.pdf
(TDS-M-RELEASENOTES-US.BU.N.EN.12.2017.2.30.CC)

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