SSI-DR-SMSIP Driver

Software installation and configuration manual.

Ver: 2.3.0.1

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History

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1.0.3	02.10.020	S. Strapparava	1.0.3
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Index

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1 . Introduction

Requirements

- Niagara 4.x (>= 4.4)
- A license to use the SSI-DR-SMSIP driver. Other device limit or proxy-point limits may apply to your license. For license details and options, see the SSI-DR-SMSIP price list.

Module

The SSI-DR-SMSIP Driver is contained in two files:

- `ssiSMSIP-rt.jar`
- `ssiSMSIP-wb.jar`

Compatibility

Platforms

The SSI-DR-SMSIP driver runs on Niagara 4.x (>= 4.4) platforms.

Tested versions

Niagara 4.9.x

2 . License

The `device.limit` number in your license, is referred to **registered and enabled** Mobile Phone numbers

`(User defined in SMSRecipient).`

i.e.:

If your license has a device.limit of 5, you can register 5 (or more) different phone numbers in your station's database, but only 5 could be enabled simultaneously.

The same phone number can be registered many times (in different SMSRecipient), consuming only one license slot.

3 . Installing the software

Installing the SSI-DR-SMSIP driver is simple.

It requires a basic knowledge of the Tridium Niagara 4 and execute a few steps as described hereafter.

The driver, a Java "`.jar`" executable file, is usually shipped in a zip file.

Its name is generated according to the following structure:

`ssiSMSIP-rt_<version number>` (i.e. ssiSMSIP-rt_v1.0.3.1)

`ssiSMSIP-wb_<version number>` (i.e. ssiSMSIP-wb_v1.0.3.1)

The number of the version characterises the features included in the driver and may vary from time to time.

An additional text file is normally added to the zip file, in order to explain the main features of the release.

Its name may appear as follow:

`Note on SwVer <version number>` (i.e. Note on SwVer 1.0.3)

Installing the driver on your PC

The following procedures describe how to set-up the driver.

Step 1	First of all unzip the files which contains the driver and technical notes.

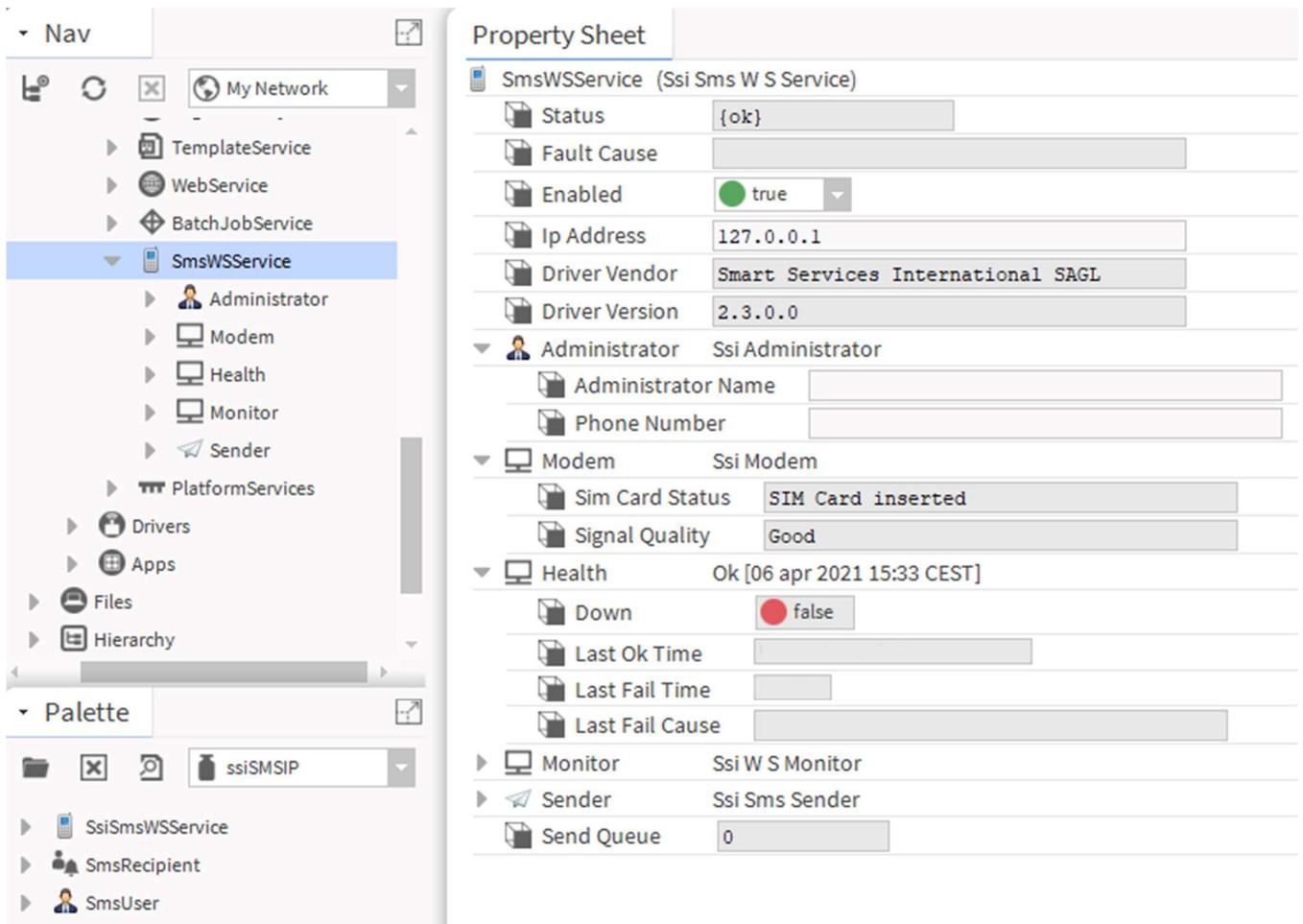| Step 2	Rename the files, changing theirs name into **ssiSMSIP-rt and ssiSMSIP-wb** Extension `.jar` should remain as well.
Step 3	Copy the two `jar` files into the **modules** directory of your Niagara **Work Bench**.
Step 4	Restart your **Work Bench**.
Step 5	After restarting, the file should appears in the list of available software, which can be shown clicking on the **Software Manager** section of the **Platform** of your **Work Bench**.

Installing the driver into the JACE/HAWK unit

Step 1	Through the **Work Bench** get connected to a JACE/HAWK running unit.
Step 2	Transfer the **ssiSMSIP** module into the unit under the folder **modules**.
Step 3	This can be done by activating the standard Tridium procedure for software upgrading or simply copying the **jar** files by the **File Transfer Client** procedure, available under the list of the **Platform** options in your **Work Bench**. Destination directory inside the Jace8000 is: **/opt/niagara/modules** For further details on how to transfer files from **Work Bench** to JACE/HAWK units, refer to the official Tridium documentation.
Step 4	After copying the driver into the JACE/HAWK unit, force a reboot.

4 . Driver configuration

Installing the SsiSmsWSService

The first step of the driver configuration is the installation of the **SsiSmsWSService** under the station running in the JACE/HAWK unit.

A simple way to complete this task is to open the **Palette** named **ssiSMSIP** (see figure below), select the **SsiSmsWSService** component and drag and drop it under the **Services** folder of the running station.

This component is a network-level component in the Niagara architecture. It provides the main configuration properties necessary to allow the driver to communicate with the SSI-HW-GATW Gateway.

Configuring the Network Parameters

To proceed with this task, right click on the **SsiSmsWSService** (just dragged to station Services) and open its **Property Sheet**:

- Set the **"IP Address"** accordingly to SSI-HW-GATW IP address.

Here is a concise description of all the configuration parameters of the driver interface inside Niagara.

Status

It shows the general Status of the driver (i.e. Ok, fault etc.)

Fault Cause

It Shows the reason of a faulty connection to the gateway (i.e. Unable to connect to the SMS server at: ###.###.###.### IP Address)

Enabled

It is the switch to make the driver in ON status or OFF (i.e. for maintenace)

Ip Address

It is the IP address of the SMS router gateway in your Network.

Driver Vendor

Smart Services International Sagl

Driver Version

It shows the current version of the installed driver.

Administrator

Administrator Name

Phone Number

If compiled, these fields are the references of delivery for the System Administrator who will receive a warning by SMS, when the daily limit of SMS messages sent is going to be reached. This works when the daily limit is set and activated (see Daily SMS limit here below).

Modem

Sim Card Status

It reports if the SIM card is present and correctly inserted.

Signal Quality

It returns the signal strength of the communication with the Mobile Network (i.e. Vodafone).

Health

Down

If it is True it warns on a communication problem.

Last OK Time

Date and time of the last Ok condition.

Last Fail Time

Date and time of the last Failure condition.

Last Fail Cause

Reports the last failure cause.

Monitor

Function not in use.

Sender

Daily SMS Limit

Inable/Disable the following options

Max Sendable Per Day

Max number of messages allowed per day.

Number Sent Today

Max number of messages sent during the current day.
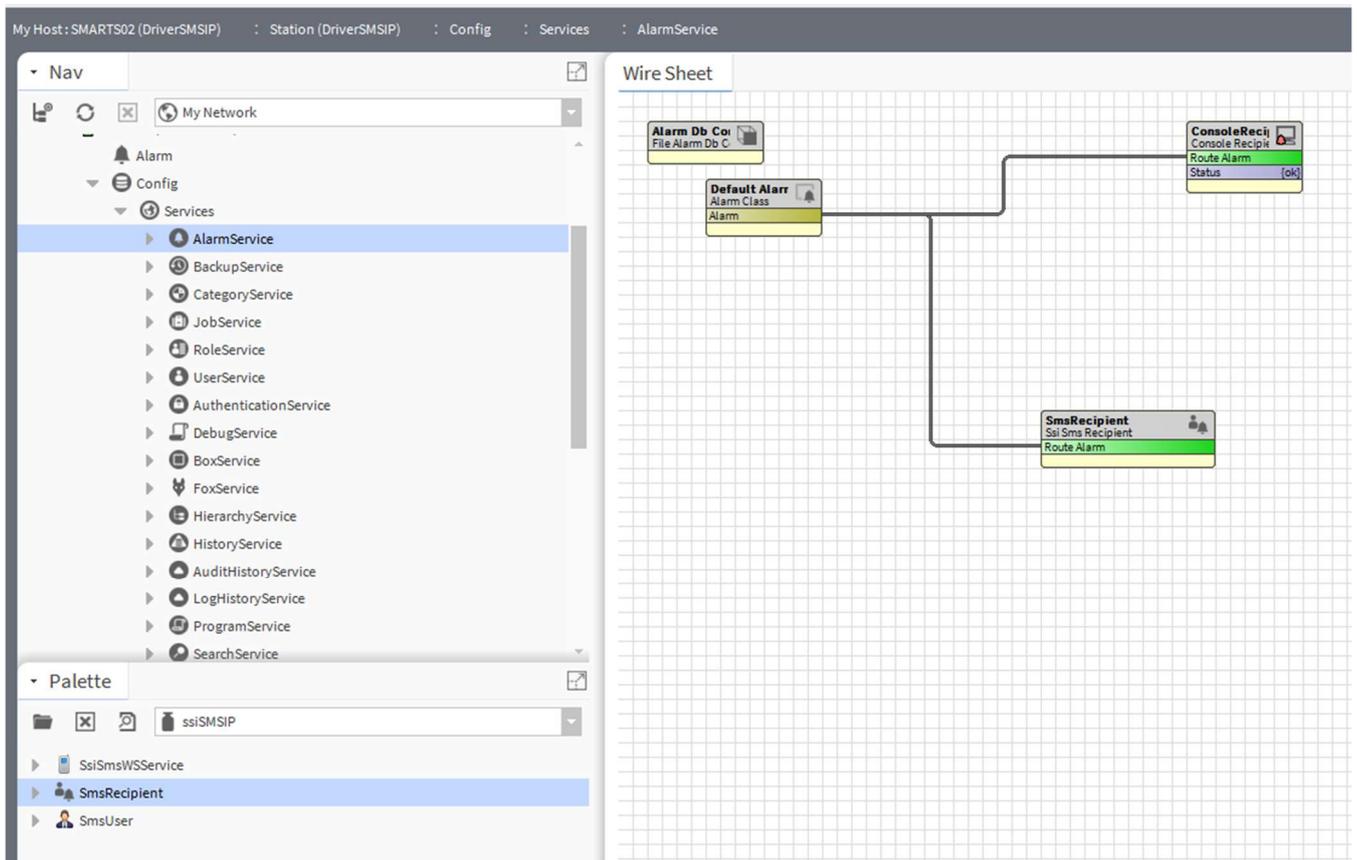
Last Date

Date of the last sent message.

Send Queue

Number of messages sent during the current day.
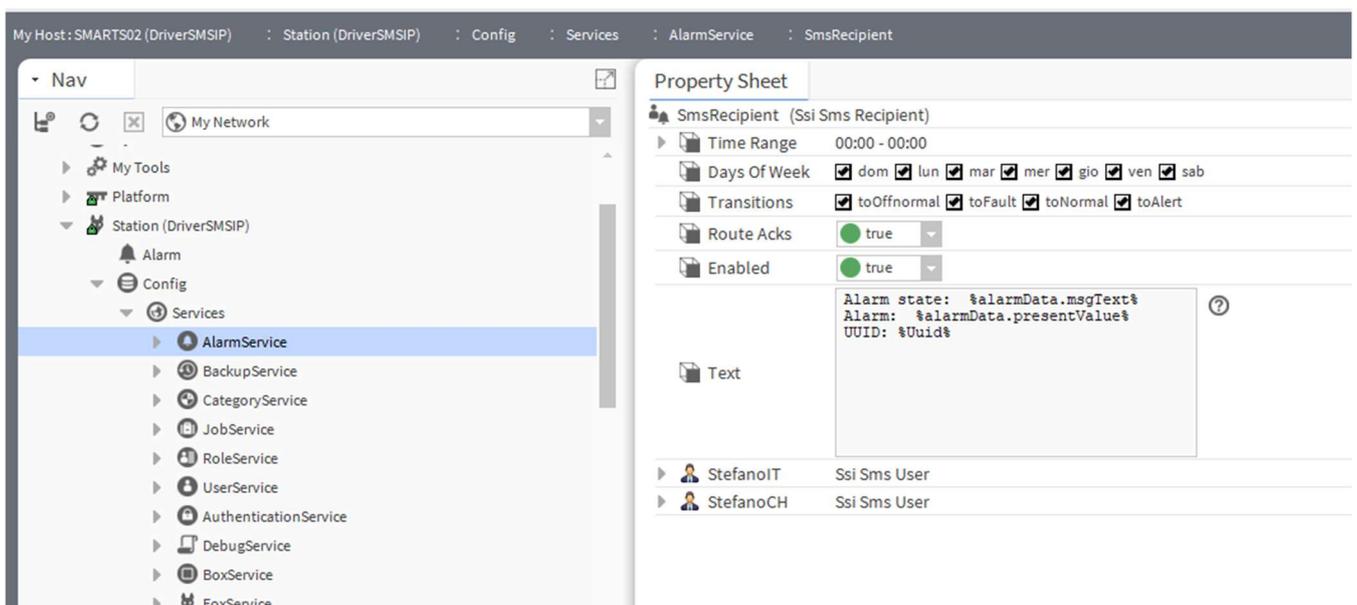
Installing and configuring the SmsRecipient

Select the `SmsRecipient` component in the palette and drag and drop it under the `Services →` `AlarmServices` folder of the running station.
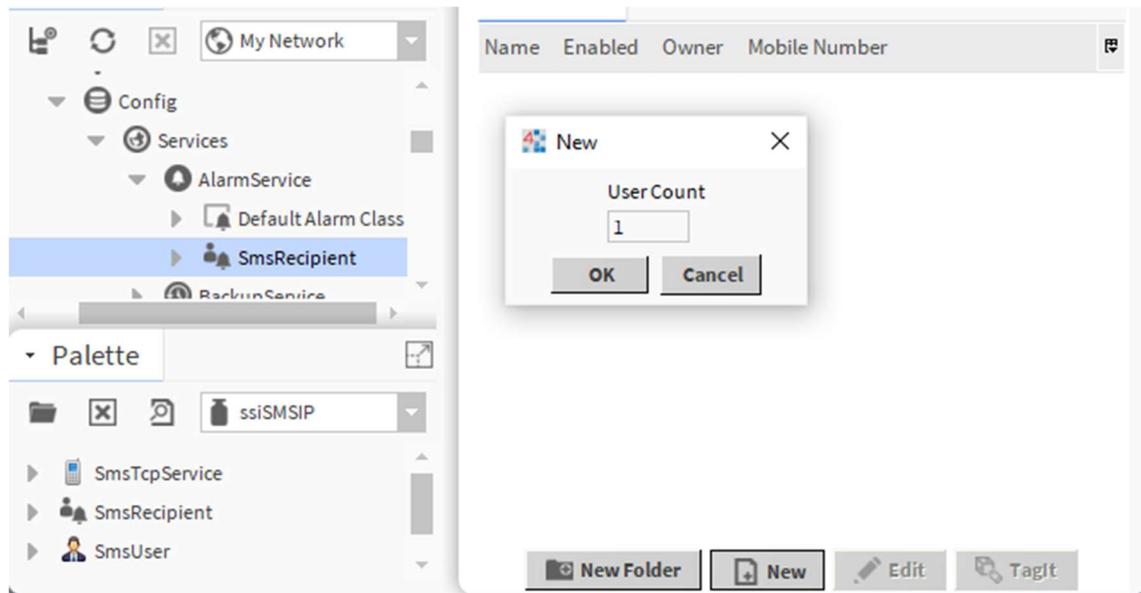
Open the `SmsRecipient` wire sheet and link it to `Default Alarm`.

Add Users in SmsRecipient
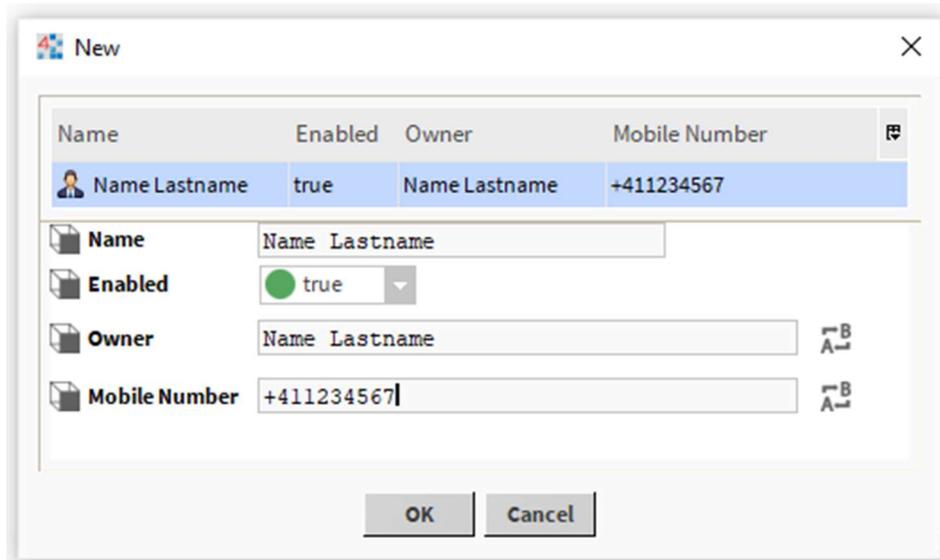
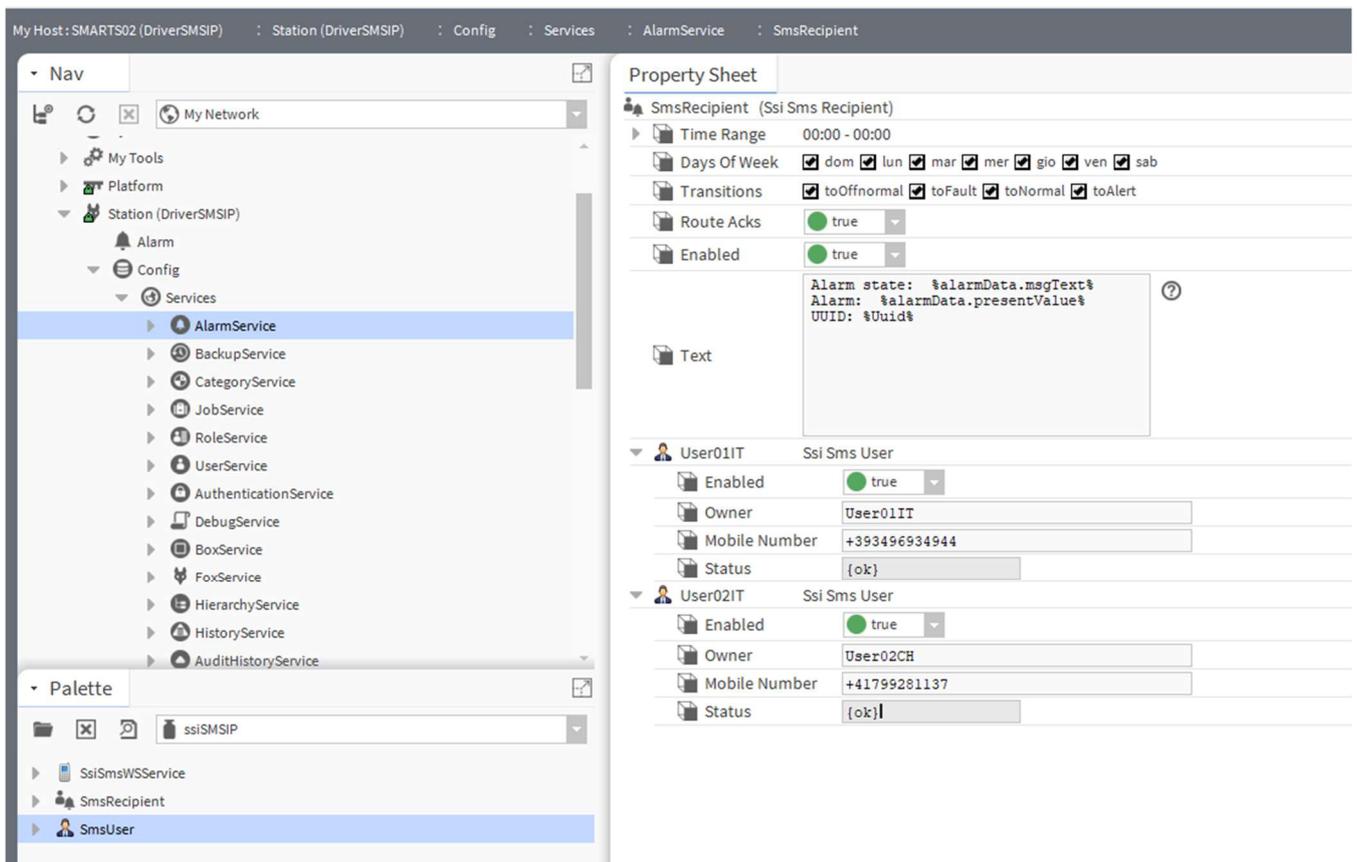Double click on the `SmsRecipient` to access the `Sms User Manager`.

Click on **New** and choose how many users you want to add.

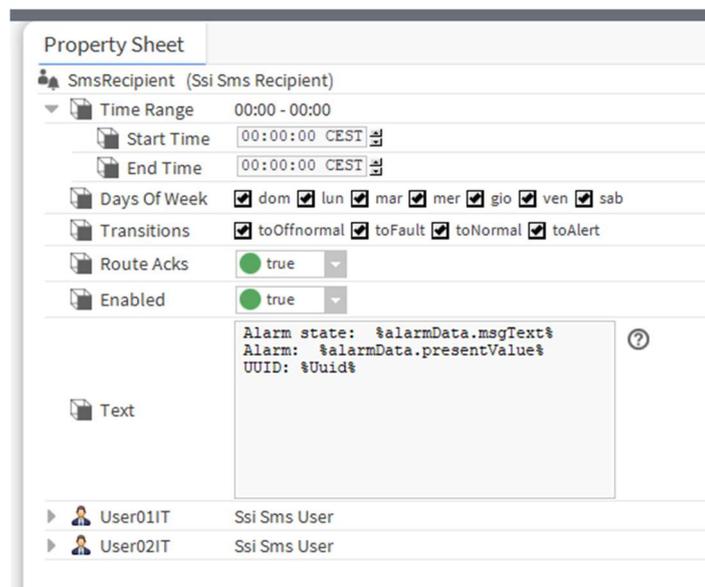Add user details and save.

Configure the Text of the SMS message

An important feature of the driver is the possibility to fully customise the SMS text.

Time Range

It allows to limit the Alarm Service during the day. It is according to the standard Tridium rules.

Start Time: starting time of the service during the day;

End Time: ending time of the service during the day.

Days of Week

Days of the week when the Alarm Service is active.

Transitions

Alarm Service rules, according to Tridium standards.

Route Aks

According to Tridium standards.

Enabled

Enable/Disable the alarm SMS Service.

Text

In this filed it is possible to configure the structure of the text message sent as SMS.

The example shows how to get the Alarm State (i.e. New Alarm, Alarm Closed and so on). Syntax is the one of Niagara standard messages. Refer to Niagara documentation for further information.

IMPORTANT

An important feature of the SSI-DR-SMSIP driver is that if this number (the pure UUID number only) is returned to the router as SMS, the alarm is automatically acknowledged inside the Tridium alarm console.

Here is an example.

SMS message incoming to a Mobile Phone:

Alarm state: On going alarm!

Alarm: true

UUID: b14d9d0e-9618-43c5-b052-69460a91b373

SMS message to be returned with the Mobile Phone:

b14d9d0e-9618-43c5-b052-69460a91b373

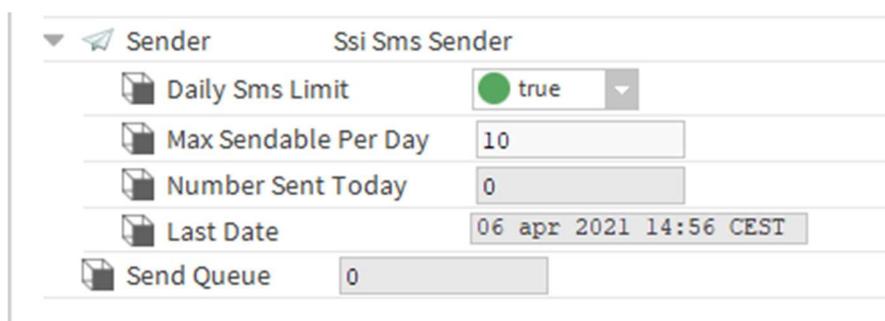Then the alarm will be acknowledged in the alarm console of Niagara.

One important field id the UUID number, which represent the unique ID of any alarm generated inside Tridium Alarm Data Base.

Configure SmsSender

Go back to `SsiSmsWSService` and select the `Sender` sub-component.

If you want set a limit for SMS sendable in a single day, set "`Daily Sms Limit`" to `true`, and set the limit in "`Max Sendable per Day`" field.

If "`Daily Sms Limit`" is `false`, the value of "`Max Sendable per Day`" is ignored.

Before the daily limit is reached, the administrator will be notified by SMS (see also Installing the SsiSmsWSService paragraph.)

After that, the SMS generated will be discarded, until the next day or until the daily limit is manually increased.

5 . Acknowledgement

To acknowledge an alarm using SMS, send an SMS containing only the alarm UUID (received in alert SMS) to the SIM card number of the SSI-HW-GATW.

See also "Configure the Text of the SMS message" paragraph for a full explanation.

6 . How to create a simulator

In order to test the driver, you can create a simulator in your station.

First complete the driver installation as explained in this document.

In your station create a dedicated folder named, for example, "`Alarm Generator`" or any other name which fits with your needs.
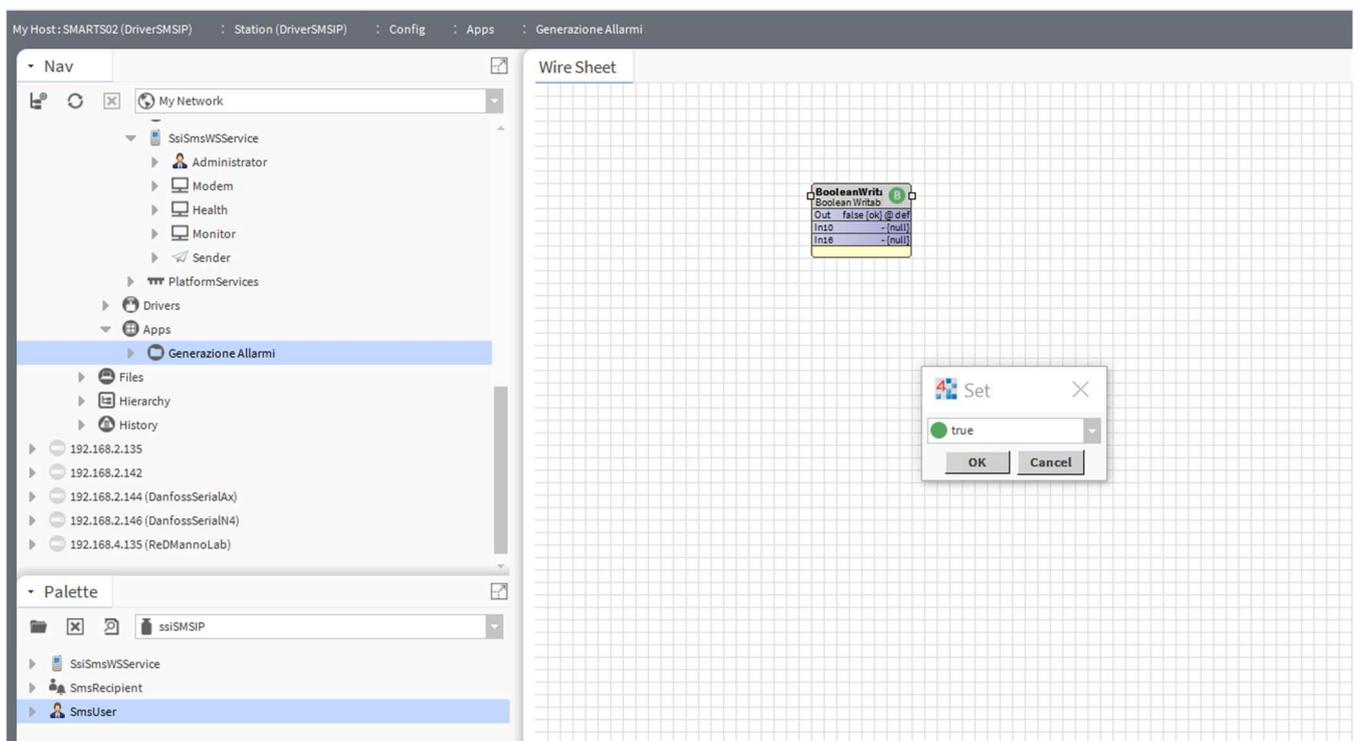

In its `Wire Sheet`, create a `Boolean Writable` point with a `Boolean Chang Of State Alarm Extension`, as shown in the following figure:
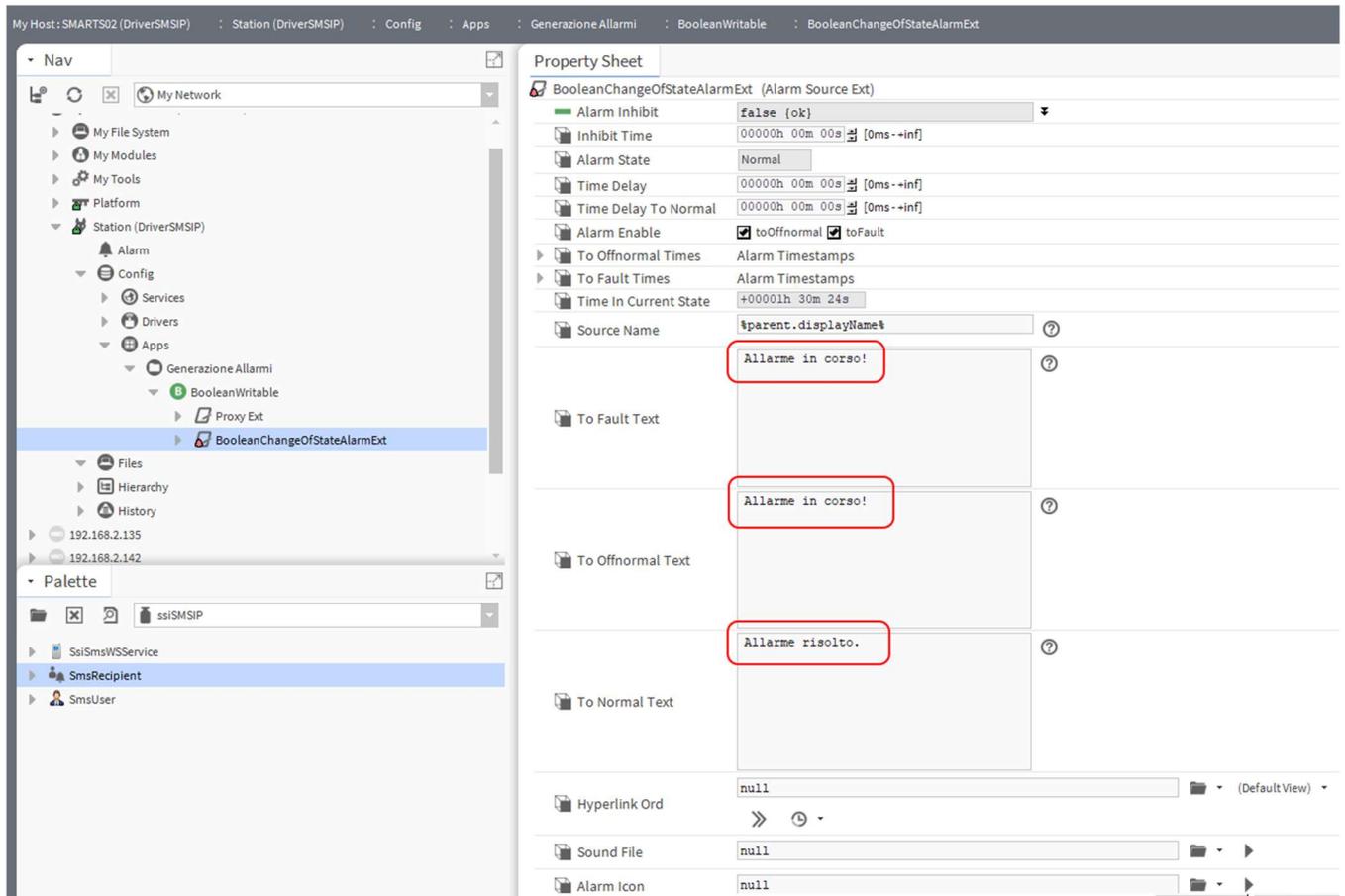
In the **`Property Sheet`** of the **`Alarm Extension`**, it is possible to specify the messages that will be generated and sent when the alarm occurs. All the other fields are according to Tridium standard rules.

Right click on the **`Boolean Writable`** component and select the **`Set`** option.

Then activate the alarm with the option **`True`** as shown:
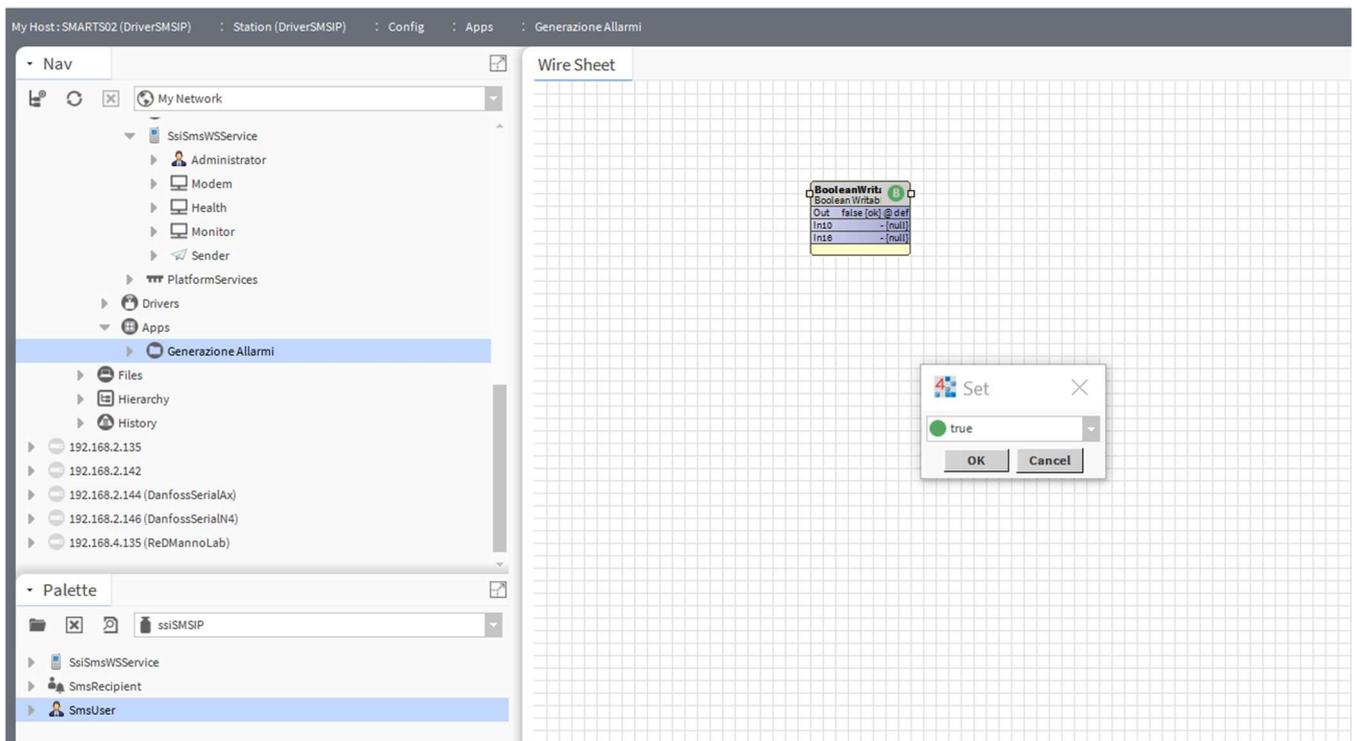
An alarm will pop up in the alarm console:
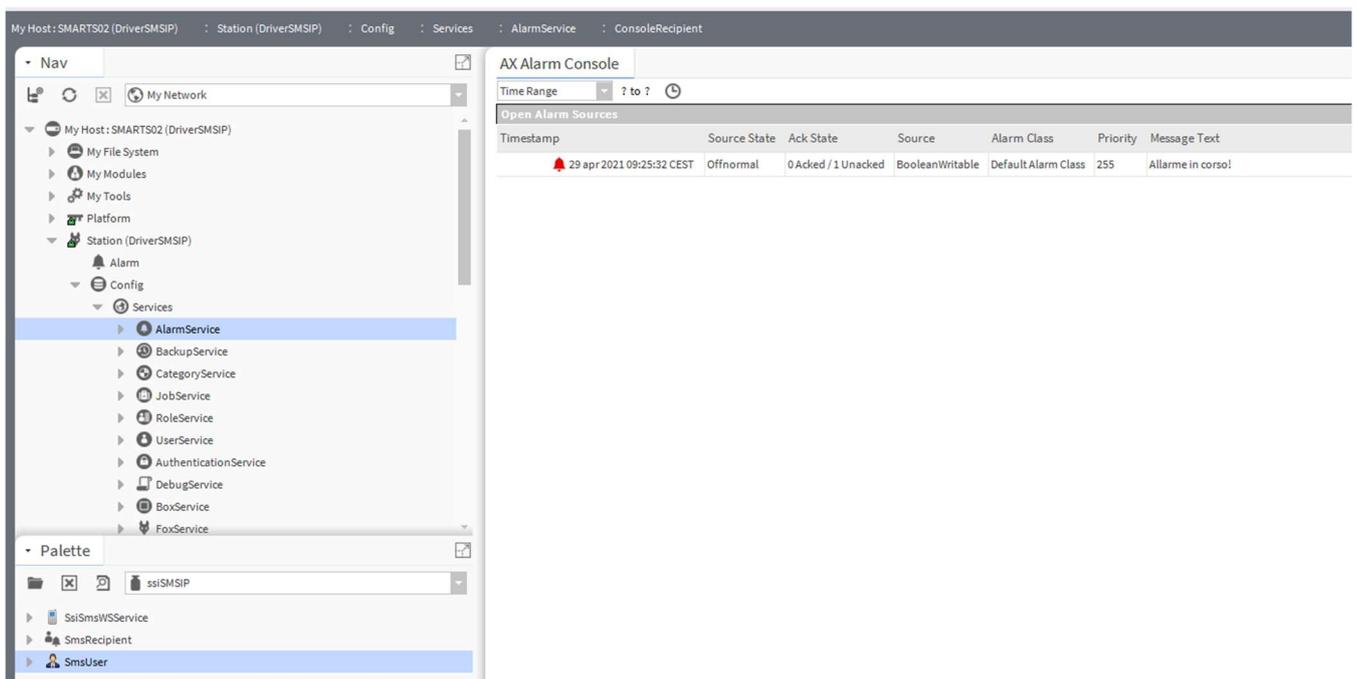
Subsequent actions are:

1. The alarm will be immediately forwarded as SMS text message to the telephone numbers previously configured.

2. Setting the **Boolean Writable** to **False** will put the alarm in an **Offnormal** state and a new SMS message will be sent to the configured numbers stating that the Alarm is over..

3. Its content is according to the configuration made in the **SsiSmsRecipent**.

4. If from the Mobile Phone a return SMS will be sent containing the UUID only, the alarm will be automatically acknowledged in the Alarm Console.