TRBONET Dispatch Systems

neocom software

AUTHORIZED APPLICATION PROVIDER DIMETRA™ MOTOROLA SOLUTIONS

AUTHORIZED APPLICATION PROVIDER MOTOTRBO™ MOTOROLA SOLUTIONS

TRBOnet Enterprise | PLUS

Alarm Management

User Guide

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1 Introduction

1.1 About This Guide

This document is intended for administrators setting up evaluation and proof-of-concept deployments of MOTOTRBO Dispatch over IP solutions. The document describes how to configure and use the Alarm Management feature.

1.2 About TRBOnet

TRBOnet is a suite of professional applications for MOTOTRBO digital two-way radio networks. TRBOnet manages voice and data communication paths across network endpoints. It provides a unified graphical dispatcher workbench interface for the entire range of workforce fleet management tasks.

For more information about TRBOnet products, refer to our website.

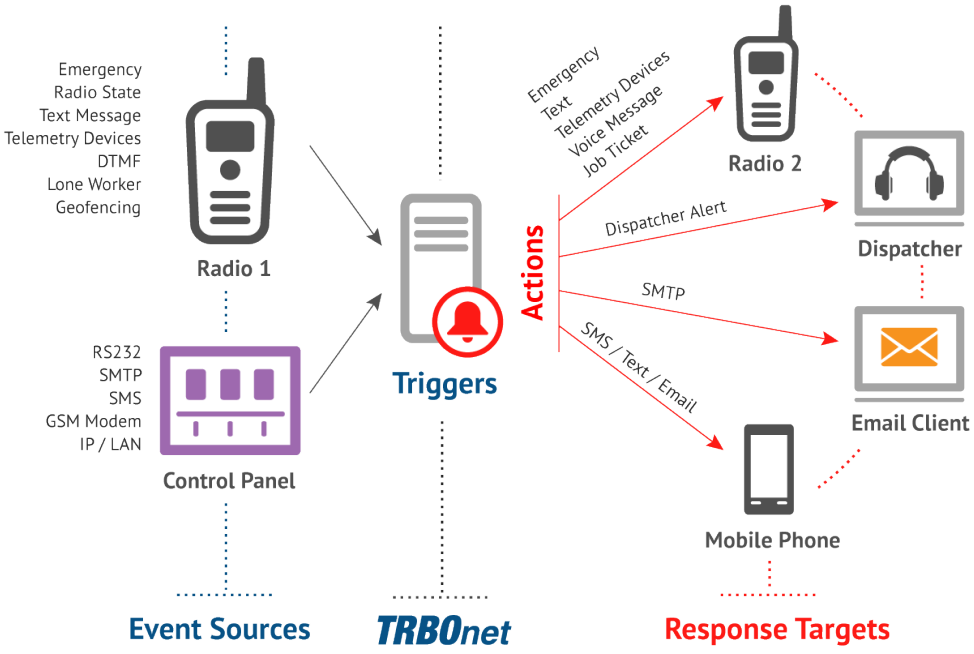
1.3 Contacts

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EMEA	+44 203 608 0598	info@trbonet.com — general and commercial inquiries support@trbonet.com — technical support https://trbonet.com/kb/ — online knowledge base
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2 Overview

The Alarm Management feature allows you to create rules for Alarms, Emails, Notifications, Text Messages to radios, and other events. When a configured rule is executed, the appropriate action(s) will start.

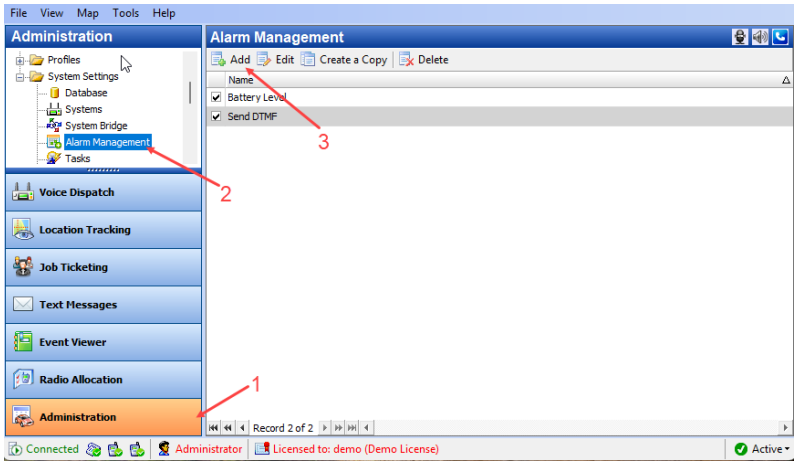
For example, an external application sends some text data, which contains the text "alarm", to TRBOnet software. The text "Alarm" is configured as the rule to start sending a predefined voice message (for example, "Alarm in Sector N") to selected radios (for example, the group "firemen"). As a result, the group "firemen" are notified about an emergency condition.



3 Configuring Rules

This section describes how to configure rules for a variety of events.

- Go to **Administration** (1), **System Settings > Alarm Management** (2) to configure Alarm Management rules:



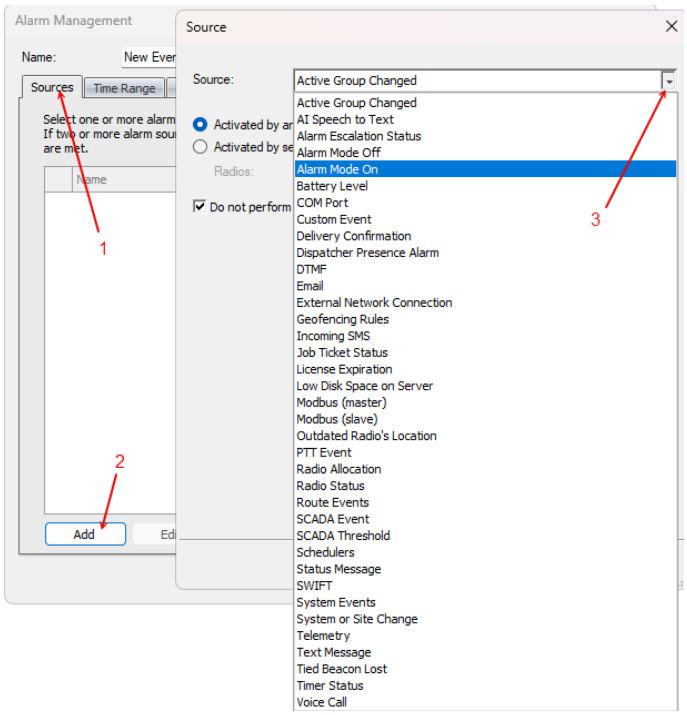
- Click **Add** (3) to create a new Alarm Management rule.

  Note: The administrator can also create a copy of the existing Alarm Management rule. Select a rule in the list and click the **Create a Copy** button. The system will create a copy of the rule with the same configuration parameters.

  - **Name**
    Enter a name for the alarm rule.

3.1 Sources

- On the **Sources** tab (1), click **Add** (2) to add an alarm source to the alarm rule.



  - **Source**
    From the drop-down list (3), select the alarm source to add to the rule.

The following alarm sources can be added to the alarm rule:

3.1.1 Active Group Changed

This event is triggered when the active group is changed on a Capacity Max system.

- **Activated by any radio**
  The active group is changed for any radio in the system.
- **Activate by selected radios only**
  The active group is changed for selected radios in the system.
- **Do not perform actions if active group is not set**
  Select this option to not perform the associated action(s) if the active group is not assigned on a Capacity Max system.

3.1.2 AI Speech to Text

This event is triggered when the Speech-to-Text occurs. Note that this event source can only be used if the 'Enable live transcription' option is enabled in the AI Speech to Text module.

- **Activated by any radio**
  The Speech-to-Text occurs for any radio in the system.
- **Activate by selected radios only**
  The Speech-to-Text occurs for selected radios in the system.
- **Event**
  From the list, select one of the following:
  - **Call End**
    Event occurs after the call ends.
  - **Transmit End**
    Event occurs after the PTT button is released.
- **Text contains**
  Event occurs if the transcription contains the specified words.

3.1.3 Alarm Escalation Status

This event is triggered when the selected alarm escalation has stopped.

- **Alarm escalation rule**
  From the list, select the alarm escalation rule.
- **Status**
  From the list, select one of the following items.
  - **Unacknowledged**
    Select this item if the selected alarm escalation has not been acknowledged.
  - **Acknowledged**
    Select this item if the selected alarm escalation has been acknowledged.
  - **Any**
    Select this item if it does not matter how the selected alarm escalation has stopped, acknowledged or unacknowledged.

3.1.4 Alarm Mode Off

This event is triggered when the alarm mode is cleared on the radio(s).

- **Activated by any radio**
  The alarm mode is cleared for any radio in the system.
- **Activate by selected radios only**
  The alarm mode is cleared for selected radios in the system.

3.1.5 Alarm Mode On

This event is triggered when an alarm is received from the radio.

- **Activated by any radio**
  An alarm is triggered on/for any radio in the system.

- **Activate by selected radios only**
  An alarm is triggered on/for selected radios in the system.
- **Alarm**
  - **Emergency Alarm**
    An Emergency alarm is received from the radio.
  - **Man Down**
    A Man-Down alarm is received from the radio.
  - **No Movement**
    A No-Movement alarm is received from the radio.
  - **Lone Worker**
    A Lone-Worker alarm is triggered for the radio.
  - **Crash Detect**
    A Crash-Detect alarm is received from the radio.
  - **Geofencing**
    A Geofencing alarm is triggered for the radio.
  - **RFID Tracker**
    An RFID alarm is triggered for the radio.
  - **All**
    Any of the above-listed alarms is triggered on/for the radio.
- **Do not perform actions if radio is already in alarm mode**
  Select this option to not perform the associated action(s) upon receiving a repeated alarm from the radio.
- **All Systems**
  An alarm is triggered on all radio systems.
- **Selected Systems**
  An alarm is triggered on selected radio systems.

3.1.6 Battery Level

This event is triggered when the specified battery level is reached on the radio or smartphone.

TRBOnet Software for option boards as well as mobile apps like TRBO.SOS or Mobile Client are capable of sending the battery charge level of a radio or a mobile device respectively to the dispatch software. Radios equipped with non-Impres batteries can only report a Low Battery status. Impres batteries determine the remaining capacity as a percentage except when a radio is being charged. Depending on the version, TRBO.SOS and Mobile Client apps are also able to send information about the battery percentage to TRBOnet.

Update intervals

Radios with option boards update their battery status depending on the Reports configuration that can be changed via Swift CPS.

Mobile apps send the battery information as soon as they are connected to TRBOnet. After successful connection, mobile apps pass the battery level to the server with every location update, voice transmission and text message. Regardless of its activity, a mobile app will update the battery charge level when it goes down to 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 15%, 10%, 5%.

- **Activated by any radio**
  A pre-defined low battery threshold level is reached on any radio in the system.
- **Activate by selected radios only**
  A pre-defined low battery threshold level is reached on selected radios in the system.
- **Battery level is less than or equal to**
  Select this option and enter the level, in percent.
- **Low Battery warning (non-Impres batteries)**
  Select this option if the radio is equipped with a non-Impres battery.

3.1.7 COM Port

- **COM Port**
  Select the COM Port connection configured in TRBOnet Server.
- **Regular Expression**
  Enter the text or characters that the external application data must contain.

3.1.8 Custom Event

- **Event ID**
  Enter the ID of the event.

3.1.9 Delivery Confirmation

- **Activated by any radio**
  A delivery is confirmed/not confirmed on any radio in the system.
- **Activate by selected radios only**
  A delivery is confirmed/not confirmed on selected radios in the system.
- **Text message delivered**
  Text message delivery is confirmed.
- **Text message not delivered**
  Text message delivery is not confirmed.
- **Telemetry delivered**
  Telemetry delivery is confirmed.
- **Telemetry not delivered**
  Telemetry delivery is not confirmed.

3.1.10 Dispatcher Presence Alarm

- **All Dispatchers**
  A presence alarm is triggered for any of the dispatchers.
- **Selected Dispatchers**
  A presence alarm is triggered for selected dispatchers only.

3.1.11 DTMF

- **Activated by any radio**
  A specific DTMF command is received from any radio.
- **Activate by selected radios only**
  A specific DTMF command is received from selected radios in the system.
- **Command**
  Enter a DTMF command.

3.1.12 Email

- **Sender**
  Enter the sender of an email.
- **Recipient**
  Enter the recipient of an email.
- **Regular Expression**
  Enter the text or characters that the email must contain.

3.1.13 External Network Connection

- **Connection**
  Select the TCP/IP connection configured in TRBOnet Server.
- **Regular Expression**
  Enter the text or characters that the external application data must contain.

3.1.14 Geofencing Rules

This event is triggered when one or all of the Geofencing rules is triggered for the selected radio(s).

- **Activated by any radio**
  A Geofencing rule is triggered for any radio.
- **Activate by selected radios only**
  A Geofencing rule is triggered for selected radios in the system.
- **All Rules**
  Any of the Geofencing rules is triggered.
- **Selected Rules**
  Only selected Geofencing rules are triggered.

3.1.15 Incoming SMS

This event is triggered when there is an incoming SMS.

- **Received from any phone number**
  The event is triggered when an SMS is received from any phone number.
- **Received from selected phone numbers**
  The event is triggered for an SMS is received from the selected phone number(s).
  - **Phones**
    Populate the list of phone numbers by using the **Add** button.
- **Text Contains**
  Enter the text that must be present in the SMS message to trigger the event. Leaving this box blank means that the message may contain any text.

3.1.16 Job Ticket Status

This event is triggered when the job ticket status changes to the selected status.

- **Statuses**
  Select the job ticket status(es).

3.1.17 License Expiration

This event is triggered when one of the licenses expires.

- **Scheduler**
  Select the scheduler(s) in the list. Or, click the Plus button on the right and add the scheduler.
- **Notify no earlier than this number of days before license expiration**
  In the box, specify the number of days before expiration to start sending notifications.
- **Demo license**, **TRBOnet support, TRBOnet Mobile**, **TRBO.SOS**
  Select the corresponding checkboxes.

3.1.18 Low Disk Space on Server

This event is triggered when the free disk space on the server's PC decreases to a specified threshold.

- **Server disk**
  Select the disk on the server's PC to be monitored.
- **Low disk space threshold**
  Enter the lower threshold, in percent. Passing this threshold will trigger the event.

3.1.19 Modbus (master)

This event is triggered when the specified memory cell on the connected Modbus device being polled by TRBOnet Server holds the specific value.

- **Connection**
  Select the Modbus master connection configured in TRBOnet Dispatch Console.
- **Table**
  Select the Modbus table.
- **Address**
  Enter the memory address on the Modbus device.
- **Value**
  Enter the value that is held in the specified memory address.

3.1.20 Modbus (slave)

This event is triggered when the connected Modbus device sends a command to write the specified value to the specific memory cell.

- **Connection**
  Select the Modbus slave connection configured in TRBOnet Dispatch Console.
- **Table**
  Select the Modbus table.
- **Address**
  Enter the memory address on the Modbus device.
- **Value**
  Enter the value to be written to the specified memory address.

3.1.21 Outdated Radio's Location

This event is triggered when location data from the radio(s) is outdated.

- **Activated by any radio**
  The event is triggered from any radio.
- **Activate by selected radios only**
  The event is triggered from selected radio(s) only.
- **Monitoring**
  Select which location data (GPS, Beacon, or both) to consider.
- **Interval**
  Enter the time interval, in seconds, during which location data are not received from the radio(s).
- **Online radios only**
  Select this option so that only online radios will be considered.

3.1.22 PTT Event

This event is triggered when the PTT button is pressed (the specified number of times during the specific time interval) on the radio.

- **Activated by any radio**
  The PTT button is pressed on any radio.
- **Activate by selected radios only**
  The PTT button is pressed on selected radios.
- **PTT Press**
  Enter how many times the PTT button must be pressed.
- **Interval**
  Enter the time interval during which the specified number of PTT presses must occur.

3.1.23 Radio Allocation

This event is triggered when the radio is taken/returned by the user(s) by signing in/out.

- **Activated by any radio**
  The selected user takes/returns any radio.
- **Activate by selected radios only**
  The selected user takes/returns selected radios.
- **Users**
  Select the user(s).
- **User took radio**
  Select this option to trigger the event when the user takes the radio.
- **User returned radio**
  Select this option to trigger the event when the user returns the radio.
- **User failed to take radio**
  Select this option to trigger the event when the user fails to take the radio.

3.1.24 Radio Status

This event is triggered when the radio changes its status (online/offline, fixed/lost GPS, detected/lost beacon).

- **Activated by any radio**
  The event is triggered from any radio.
- **Activate by selected radios only**
  The event is triggered from selected radio(s) only.

Select one or more of the following options:

- **Radio is offline**

- **Radio is online**
- **Radio has a GPS fix**
- **Radio lost a GPS fix**
- **Radio detects a beacon**
  In addition, select the beacon(s) to be detected by the radio.
  - **Group**
    Select this option to group selected beacons, so that this event is triggered only once when the radio detects any beacon in this group.
- **Radio lost a beacon**
  In addition, select the beacon(s) to be lost by the radio.
  - **Group**
    Select this option to group selected beacons, so that this event is triggered only when the radio loses all beacons in this group.

3.1.25 Route Events

This event is triggered when various route events occur (route started/finished, waypoint attended/not attended, etc.).

- **Activated by any radio**
  The event is triggered for any radio.
- **Activate by selected radios only**
  The event is triggered for selected radio(s) only.
- **Events**
  In the list, select the route event(s) to be triggered.
- **All Routes**
  The event is triggered for all routes.
- **Selected Routes**
  The event is triggered for selected routes only.

3.1.26 SCADA Event

This event is triggered when a certain SCADA tag equals (is less, greater, less or equal, greater or equal) a certain value.

- Click the **Add** button.
- Select the tag, the relation symbol and the value.

3.1.27 SCADA Threshold

This event is triggered when a certain SCADA tag's value exceeds the defined threshold.

- **Tag**
  Select the tag from the drop-down list.

- **Error Status**
  Choose this option to trigger the event when the tag's value falls into the error status.
- **Default Status**
  Choose this option to trigger the event when the tag's value falls into the default status.
- **Custom Threshold**
  Choose this option to trigger the event when the tag's value exceeds the specified threshold.

3.1.28 Schedulers

This event is triggered when the selected schedulers are started.

- **Scheduler**
  Select the scheduler(s) in the list. Or, click the Plus button on the right and add the scheduler.

3.1.29 Status Message

This event is triggered when the radio gets the specified **Status**.

3.1.30 SWIFT

This event is triggered when a Low Battery event or one of the Swift commands is received from the radio(s).

- **Activated by any radio**
  The event is triggered for any radio.
- **Activate by selected radios only**
  The event is triggered for selected radio(s) only.
- **Event**
  Select the Swift command from the drop-down list.
- **Description**
  Enter a description of the SWIFT event.

3.1.31 System Events

This event is triggered when one or more of the following system events are triggered.

Common

- **Lost connection to master device**
- **Restored connection to master device**
- **Server lost connection to primary remote agent**
- **Connection to primary remote agent restored**

- **License expiration**

Modbus

- **Lost connection to Modbus device**
  - **Wait for connection**
- **Restored connection to Modbus device**

Swift Agents

- **All Swift Agents**
- **Selected Swift Agents**
- **Lost connection to Swift Agent**
- **Restored connection top Swift Agent**
- **Swift Agent alarm**
- **Swift Agent event (PIN changed)**
  - **Swift PIN ID**
  - **PIN status**

3.1.32 System or Site Change

This event is triggered when the radio enters or leaves the coverage area of the specified radio system or site.

- **Activated by any radio**
  The event is triggered for any radio.
- **Activate by selected radios only**
  The event is triggered for selected radio(s) only.
- **Events**
  In the list, select which event to be triggered: when the specified radio system is **Detected** by the radio or **Left** by the radio.
- **System**
  Click the **Add** link below and select the available radio system.

3.1.33 Telemetry

This event is triggered when a telemetry command is received from the radio.

- **Activated by any radio**
  The event is triggered when receiving telemetry from any radio.
- **Activate by selected radios only**
  The event is triggered when receiving telemetry from selected radio(s) only.
- **VIO**
  Enter the VIO-pin on the radio.

- **Command**
  From the drop-down list, select the command for the selected VIO.

3.1.34 Text Message

This event is triggered when a text message is received from the radio.

- **Activated by any radio**
  The event is triggered when receiving a text message from any radio.
- **Activate by selected radios only**
  The event is triggered when receiving a text message from selected radio(s) only.
- **Text contains**
  Enter the text that must be present in the text message to trigger the event. Leaving this box blank means that the message may contain any text.
  - **Apply this rule if message has attachment(s)**
    Select this checkbox to trigger the event only if the message has attachment(s).

3.1.35 Tied Beacon Lost

This event is triggered when a beacon tied to the radio is lost by that radio.

- **Activated by any radio**
  The event is triggered when any radio loses the tied beacon.
- **Activate by selected radios only**
  The event is triggered when only selected radio(s) lose the tied beacon.

3.1.36 Timer Status

This event is triggered when the timer status changes.

- **Activated by any radio**
  The event is triggered when any radio changes the timer status.
- **Activate by selected radios only**
  The event is triggered when only selected radio(s) change the timer status.
- **Timers**
  In the list, select the timer(s).
- **Timer Statuses**
  In the list, select the desired timer status(es).

3.1.37 Voice Call

This event is triggered when a voice call is initialized/started/ended.

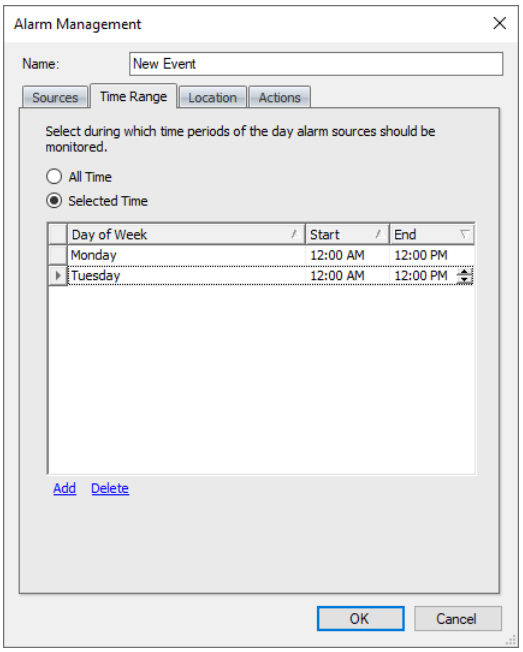
- **Event**
  From the list, select one of the following:
  - **Call started**
  - **Call established**
  - **Call ended**
- **Call Type**
  In the list, select the call type (Private Call, Group Call, All Call, Remote Monitor, Conference, or all of them)
- **Call Priority**
  In the list, select the call priority (Emergency, High, Normal, Low, or all of them)
- **System**
  In the list, select the system(s) where the voice call occurs.
- **Caller**
  In the list, select the caller(s) of the call.
- **Destination**
  In the list, select the call destination(s).

If the **Call ended** event is selected, the following additional parameters become available for this source:

- **Call Status**
  From the list, you can select **Success**, **Missed**, or both statuses.
- **Call Duration**
  Select the call duration (from-to)
- **Ring Time**
  Select the ring time (from-to)
- **Talk Time**
  Select the talk time (from-to)

3.2 Time Range

- Click the **Time Range** tab to set the time at which the alarm rule will be applied.

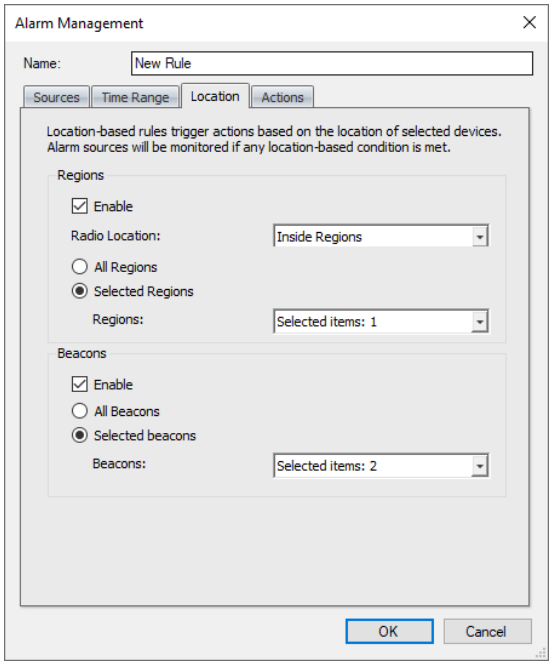


  - **All Time**
    Choose this option so that the rule will be valid all the time.
  - **Selected Time**
    Choose this option so that the alarm rule will be applied on the selected days of the week at the selected time.
    - Select the days of the week and specify the time ranges.

3.3 Location

- Under the **Location** tab, select the regions inside or outside of which the alarm rule will be applied. You can also select the beacons in the coverage zone of which the alarm rule will be applied.

> Note: If **COM Port** and/or **External Network Connection** are selected as the alarm source, the **Location** rule won't be applied.



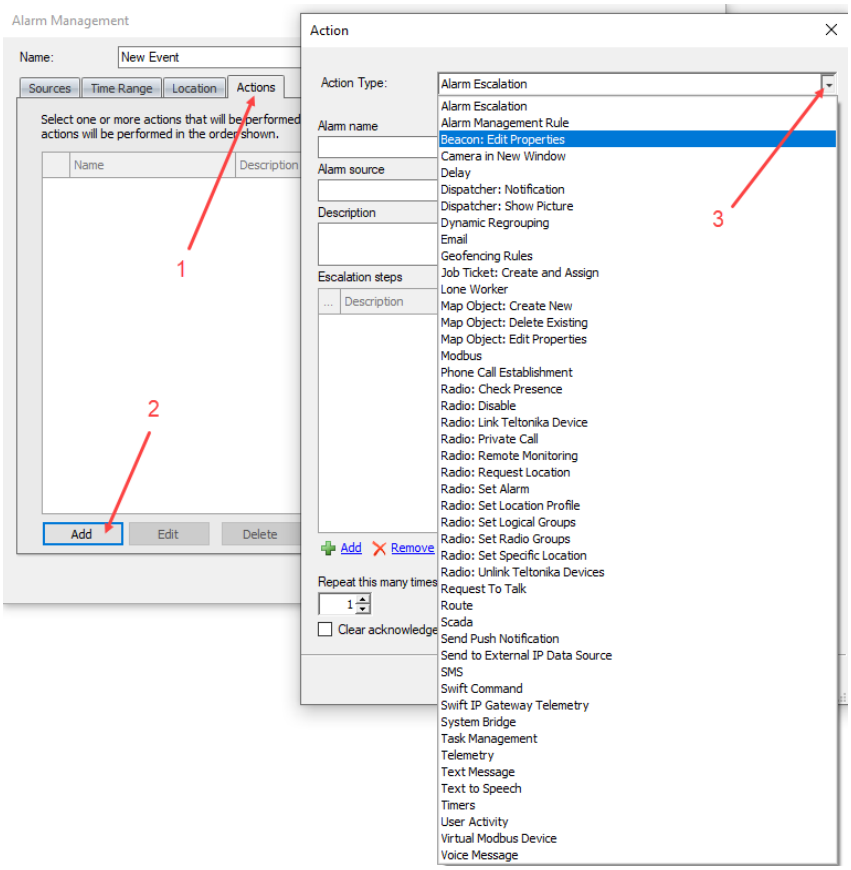
- **Regions**
  Select **Enable** to add regions to the alarm rule.
  - **Radio Location**
    From the drop-down list, select whether the alarm rule will be applied **Inside Regions** or **Outside Regions**.
  - **All Regions**
    Choose this option to apply the alarm rule inside/outside all map regions.
  - **Selected Regions**
    Choose this option to apply the alarm rule only inside/outside selected regions.
    - ✓ **Regions**
      In the list, select the region(s).
- **Beacons**
  Select **Enable** to add beacons to the alarm rule.
  - **All Beacons**
    Choose this option to add all beacons to the alarm rule.
  - **Selected Beacons**
    Choose this option to add only selected beacons to the alarm rule.
    - ✓ **Beacons**
      In the list, select the beacon(s).

3.4 Actions

- Click the **Actions** tab (1) to set actions for the rule.

  In the Actions list, the administrator can add and configure actions to be performed when the events configured and selected in the **Sources** page are triggered.

- Click **Add** (2) to add an action:



  - **Action Type**
    From the drop-down list (3), select the action type.

The following actions can be added to the rule:

3.4.1 Alarm Escalation

- **Alarm name**
  Enter the name of the alarm to be escalated.
- **Alarm source**
  Enter the radio or other device that is the source of the alarm.
- **Description**
  Enter a description for the alarm escalation.

Note: You can also add variables like `%RADIO_ID%` and `%RADIO_NAME%`, which will be automatically substituted with the corresponding 'Radio ID' or 'Radio Name' when the radio is the alarm source.

- **Escalation steps / Finalizing steps**

  Note: Finalizing steps will be performed once the main escalation steps are completed.

  - Click the **Add** link and from the drop-down menu select the type of the escalation (finalizing) step.
    - **Text Message**
      - ✓ **Duration**
        Enter the time period allocated for the step.
      - ✓ **Recipients**
        In the list, select the radio(s)/radio group(s)/logical group(s) that will receive the text message.
      - ✓ **Text message**
        Enter the text of the text message.
        Acknowledgement code
        Click this link to add an acknowledgement code to the text.
      - ✓ **Stop escalation if alarm is acknowledged**
        Select this option so that the alarm escalation will be stopped as soon as at least one user has acknowledged the alarm.
        In the box below enter the code that will be used as an acknowledgement code for the alarm.
        Or, select the **Auto-generate codes** option, and in the **Number of digits** box enter the desired number of digits to be used in the auto-generated acknowledgement code.
    - **Voice Call**
      - ✓ **Duration**
        Enter the time period allocated for the step.
      - ✓ **Call Type**
        From the drop-down list, select the call type (Group Call, Private Call, or Phone Cal)
      - ✓ **Channel**
        If the Group Call is selected above, select the radio channel through which to make the voice call.
      - ✓ **Target**
        Select the call target which depends on the type (radio group, radio, or phone number).

- ✓ **Prerecorded announcement**
  Choose this option and then click either **Load from file** or **Record message**.
- ✓ **Text to Speech**
  Choose this option and enter the text to be converted to speech.
  Acknowledgement code
  Click this link to add an acknowledgement code to the text.
- ✓ **Stop escalation if alarm is acknowledged**
  Select this option so that the alarm escalation will be stopped as soon as at least one user has acknowledged the alarm.
  In the **DTMF code** box below enter the code that will be used as an acknowledgement code for the alarm.
  Or, select the **Auto-generate codes** option, and in the **Number of digits** box enter the desired number of digits to be used in the auto-generated acknowledgement code.

- **Email**
  - ✓ **Duration**
    Enter the time period allocated for the step.
  - ✓ **Recipients**
    From the drop-down list, select the recipients of the email message.
  - ✓ **Subject**
    Enter the subject of the email message.
    Acknowledgement code
    Click this link to add an acknowledgement code to the subject.
  - ✓ **Message**
    Enter the text of the email message.
    Acknowledgement code
    Click this link to add an acknowledgement code to the text.
  - ✓ **Stop escalation if alarm is acknowledged**
    Select this option so that the alarm escalation will be stopped as soon as at least one user has acknowledged the alarm.
    In the box below enter the code that will be used as an acknowledgement code for the alarm.
    Or, select the **Auto-generate codes** option, and in the **Number of digits** box enter the desired number of digits to be used in the auto-generated acknowledgement code.
- **Telemetry**
  - ✓ **Duration**
    Enter the time period allocated for the step.

- ✓ **VIO**
  Enter the VIO-pin on the radio.
- ✓ **Command**
  From the drop-down list, select the command for the selected VIO.
- ✓ **Recipients**
  In the list, select the radio(s)/radio group(s) to which to send the Telemetry command.
- ✓ **Stop escalation if alarm is acknowledged**
  Select this option so that the alarm escalation will be stopped as soon as at least one user has acknowledged the alarm.
  In the boxes below, select **VIO** and **Command** that will be used for acknowledgement.

- **SMS**
  - ✓ **Duration**
    Enter the time period allocated for the step.
  - ✓ **Recipients**
    In the list, select the recipients of the SMS message.
  - ✓ **Message**
    Enter the text of the SMS message.
    Acknowledgement code
    Click this link to add an acknowledgement code to the text.
  - ✓ **Stop escalation if alarm is acknowledged**
    Select this option so that the alarm escalation will be stopped as soon as at least one user has acknowledged the alarm.
    In the box below enter the code that will be used as an acknowledgement code for the alarm.
    Or, select the **Auto-generate codes** option, and in the **Number of digits** box enter the desired number of digits to be used in the auto-generated acknowledgement code.
- **Swift Command**
  - ✓ **Duration**
    Enter the time period allocated for the step.
  - ✓ **Recipients**
    In the list, select the recipients (radios or radio groups) of the Swift Command.

    Send only to the following radios from the list of recipients

    - o **Online radios**
      Select this option so that the Swift command will be sent only to online radios.

- **This many radios closest to source radio**
  Select this option and specify the number of closest radios to the source radio.
- **Radios within this radius from source radio**
  Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).

✓ **Swift Event**
Select the Swift command from the drop-down list (and the parameters, if required).

✓ **Stop escalation if alarm is acknowledged**
Select this option so that the alarm escalation will be stopped as soon as at least one user has acknowledged the alarm.
In the boxes below, select the **Swift Command** (and the parameters, if required) that will be used for acknowledgement.

- **Pause**

✓ **Duration**
Enter the time period for the pause.

- **Repeat this many times**
  Enter the number of times to repeat the specified escalation steps until someone acknowledges the alarm.
- **Clear acknowledged alarms**
  Select this option so that the acknowledged alarms be cleared from the display.

3.4.2 Alarm Management Rules

In the table of available Alarm Management rules, select actions for the rules:

- **Enable** to enable the rule.
- **Disable** to disable the rule.
- **Toggle** to toggle the rule status.
- **Execute** to execute the rule's action.

3.4.3 Beacon: Edit Properties

- **Beacon**
  Select the beacon whose properties will be modified.
- **Name**
  Enter the new name of the beacon.
  Click the links below to add specific fields to the beacon name.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

- **Description**
  Enter the new description of the beacon.
  Click the links below to add specific fields to the beacon description.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.4 Camera in New Window

- **Dispatchers**
  In the list, select the dispatcher(s) for whom to display the window.
- **Cameras**
  From the drop-down list, select the camera to be displayed in the window.

3.4.5 Delay

- **Interval**
  Set the time interval, in seconds, for a delay between actions.

3.4.6 Dispatcher: Notification

- **Dispatchers**
  In the list, select the dispatcher(s) for whom to display the notification.
  - **Always show**
    Select this option so that the dispatcher won't be able to hide the visibility of the notification dialog box.
- **Severity**
  From the drop-down list, select the notification severity ('Information', 'Warning', or 'Alarm').
- **Text**
  Enter the text of the notification.
  Click the links below to add specific fields to the notification text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.7 Dispatcher: Show Picture

- **Dispatchers**
  In the list, select the dispatcher(s) for whom to display the specified image file.
- **Load**
  Click this link and locate the desired image file (PNG, JPG, TIFF, GIS) on your computer. The specified image file will be displayed in the box above the link.

- **Description**
  If necessary, enter a description for the image.
  Click the links below to add specific fields to the image description.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.8 Dynamic Regrouping

- **Action**
  From the list, select the action (Assign to, or Exclude from dynamic group).
- **Group**
  From the list, select the radio group to which to assign (or, from which to exclude) radios.
- **Group Alias**
  Enter an alias for the radio group.
- **Radios**
  In the list, select the radio(s)/radio group(s) that will be dynamically regrouped.
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that only online radios will be regrouped.
    - **This many radios closest to source radio**
      Select this option and specify the number of closest devices to the source radio.
    - **Radios within this radius from source radio**
      Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
- **Notify if action is not accepted**
  Select this option to send notifications to dispatchers, Email and/or SMS groups if a radio is not regrouped within the time specified in the box below.
  - **Notification List**
    Click this link and choose the recipients of selected notifications.

3.4.9 Email

- **Recipients**
  In the list, select the email group(s) to which the email message will be sent.

- **Attachments**
  From the drop-down list, select how to process attachments if this action is assigned to the Text Message event which is triggered only if the test message has attachments (see section 3.1.34, Text Message).
  - **Don't send**
    Select this option not to resend attachments in the email.
  - **Send all attachments in one email**
    Select this option to send the attachments in one email once they are all uploaded to the server.
  - **Send separate emails**
    Select this option to send the attachments in separate emails as soon as each attachment is uploaded to the server.
- **Subject**
  Enter the subject of the email message.
  Click the links below to add specific fields to the email subject.
  For more information on date and time formats, see section 3.5, Date and Time Formats.
- **Text**
  Enter the text of the email message.
  Click the links below to add specific fields to the email text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.10 Geofencing Rules

In the table of available Geofencing rules, select actions for the rules:

- **Enable** to enable the rule.
- **Disable** to disable the rule.
- **Toggle** to toggle the rule status.

3.4.11 Job Ticket: Create and Assign

- **Enable Deadline**
  Select this option and enter the ticket's **Deadline** (in minutes, hours, or days).
- **Recipients**
  In the list, select the radio(s)/radio group(s) to which to assign the ticket.
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that the ticket will be assigned to online devices only.

- **This many radios closest to source radio**
  Select this option and specify the number of closest devices to the source radio.
- **Radios within this radius from source radio**
  Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).

- **Send copy to source radio**
  Select this option to assign the ticket to the radio that triggered the source event.
- **Notify on status changes**
  Select this option to send notifications to Dispatchers, Email and/or SMS groups when a Job Ticket status changes.
- **Notify if ticket is not accepted**
  Select this option to send notifications to dispatchers, Email and/or SMS groups if a radio does not accept the Job Ticket within the time specified in the box below.
  - **Notification List**
    Click this link and choose the recipients of selected notifications.
- **Assign tickets to groups via selected systems**
  Select this option and in the list below, select the radio system(s).
- **Description**
  Enter the description of the ticket.
  Click the links below to add specific fields to the ticket description.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.12 Lone Worker

- **Recipients**
  In the list, select the radio(s)/ radio group(s).
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that only online radios will be disabled.
    - **This many radios closest to source radio**
      Select this option and specify the number of closest devices to the source radio.
    - **Radios within this radius from source radio**
      Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
- **Send to source radio**
  Select this option to also set the Lone Worker task for the radio that triggered the source event.

- **Lone Worker**
  In the list, select the Lone Worker task(s). Or, click the plus button on the right to create a new Lone Worker task.
- **Action**
  Select whether to **Start** or **Stop** the selected Lone Worker task(s).

3.4.13 Map Object: Create New

- **Type**
  From the list, select the object type.
- **Name**
  Enter the name of the created object.
  Click the links below to add specific fields to the object name.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.14 Map Object: Delete Existing

- **Delete only automatically created map objects**
  Select this option to delete only those map objects that were created automatically.
- **Radius**
  Specify the radius, in meters. There will be deleted only those map objects that are located within this radius around the radio that triggered the source event.

3.4.15 Map Object: Edit Properties

- **Map Object**
  Select the map object to be edited.
- **Name**
  Enter the new name for the map object.
  Click the links below to add specific fields to the object name.
  For more information on date and time formats, see section 3.5, Date and Time Formats.
- **Description**
  Enter the new description for the map object.
- **Additional parameters**
  Select the new object type, if a point object is to be edited.
  Select the new color, fill and transparency, if the object is a region or a route.

3.4.16 Modbus

- **Connection**
  Select the Modbus master connection.
- **Slave ID**
  Enter the Slave ID of the Modbus device.
- **Type**
  Select the Modbus data type.
- **Address**
  Enter the memory address whose value to set.
- **Value**
  Enter the value to set to the specified address.

3.4.17 Phone Call Establishment

Called Party

- **Call Type**
  Select the called party (Group Call, Private Call, Phone Call, or Intercom).
- **Channel**
  If the Group Call is selected above, select the radio channel through which to make the phone call.
- **Target**
  Select the call target which depends on the type (radio group, radio, phone number, dispatcher or dispatcher group).
- **Priority**
  Select the priority of the radio call.

Caller

- **SIP ID**
  Enter the SIP ID of the caller.
- **Play audio**
  Select this option to play the audio message, and then select one of the following:
  - **Recorded Audio Message**
    Choose to either:
    - **Load form file**

    or:
    - **Record message**

- **Text to Speech**
  Choose this option and enter the text to be converted to speech.
  Click the links below to add specific fields to the text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.18 Radio: Check Presence

- **Radios**
  In the list, select the radio(s) to which to send a Radio Check command.
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that only online radios will be checked for presence.
    - **This many radios closest to source radio**
      Select this option and specify the number of closest devices to the source radio.
    - **Radios within this radius from source radio**
      Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
  - **Send copy to source radio**
    Select this option so that the radio that triggered the source event will be checked for presence.

3.4.19 Radio: Disable

- **Radios**
  In the list, select the radio(s) to be disabled.
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that only online radios will be disabled.
    - **This many radios closest to source radio**
      Select this option and specify the number of closest devices to the source radio.
    - **Radios within this radius from source radio**
      Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
  - **Send copy to source radio**
    Select this option so that the radio that triggered the source event will be disabled.
- **Enable**
  Select this option and enter the time period, in minutes, after which the radio(s) will be enabled again.

- **Reason**
  Enter the reason for disabling the radio(s).
  Click the links below to add specific fields to the reason text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.20 Radio: Link Teltonika Device

- **Radio**
  From the drop-down list, select the radio to link a Teltonika device to.
  - **Source Radio**
    Select this option so that a Teltonika device will be linked to the radio that triggered the source event.
- **Teltonika device**
  From the drop-down list, select the Teltonika device that will be linked to the selected radio.
- **Location Source**
  From the list, select the desired source of location data.
  - **Teltonika**
    Select this item to use only location data received from the Teltonika device. In this case, location data received from the radio will be ignored, that is, they won't be recorded to the database and so won't be used in the reports.
  - **Built-in GPS receiver (Radio)**
    Select this item to use only location data received from the radio. In this case, location data received from the Teltonika device will be ignored, that is, they won't be recorded to the database and so won't be used in the reports.
  - **Mixed mode**
    If this item is selected, location data received from both devices will be used.
- **Positioning mode**
  If **Mixed mode** is selected from the **Location Source** list, select from where the Positioning mode will be taken (radio's Location Profile or Teltonika Profile).
- **Unlink already linked device**
  Select this option so that if the radio is already linked to a Teltonika device, it will be unlinked and linked to the selected Teltonika device. If this option is not selected, the selected new Teltonika device won't be linked to the radio that is already linked to another Teltonika device.

3.4.21 Radio: Private Call

- **Radio**
  From the drop-down list, select the radio to which to make a private call.
  - **Source Radio**
    Select this option so that a private call will be made to the radio that triggered the source event.
- **Dispatchers**
  In the list, select the dispatcher(s) who will be prompted to make a private call to the specified radio.
  - **Online Dispatchers**
    Select this option so that only online dispatchers will be prompted to initiate a private call to the specified radio.
- **Description**
  Enter the text that will be displayed in the dialog box prompting the dispatcher to make a private call to the radio.
  Click one or more fields below to add them to the notification text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.22 Radio: Remote Monitor

- **Radio**
  From the drop-down list, select the radio on which to activate the microphone in hidden mode (remote monitor duration – 30 sec.)
  - **Source Radio**
    Select this option so that the microphone will be activated on the radio that triggered the source event.

3.4.23 Radio: Request Location

This action will send a location request to the radio that triggered the source event.

3.4.24 Radio: Set Alarm

This action will set an alarm for the radio that triggered the source event.

3.4.25 Radio: Set Location Profile

- **Device Type**
  From the list, select the device type (Digital Radio, TRBOnet Mobile, TRBO.SOS, or Teltonika)
- **Recipients**
  In the list, select the device(s)/radio group(s) for which to set the location profile.

- **Send only to the following radios from the list of recipients**
  - **Online radios**
    Select this option so that the location profile will be set only for online devices.
  - **This many radios closest to source radio**
    Select this option and specify the number of closest devices to the source radio.
  - **Radios within this radius from source radio**
    Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
- **Send copy to source radio**
  Select this option so that the location profile will also be set for the radio that triggered the source event.
- **Radios in Alarm**
  Select this option so that the location profile will also be set for the devices that are in Alarm mode.

- **Location Profile**
  Select the location profile to be set for the selected device(s).
- **Action**
  Select whether to Start or Stop Location Updates.

3.4.26 Radio: Set Logical Groups

Select the logical groups to assign to the radio(s) that triggered the source event.

3.4.27 Radio: Set Radio Groups

This action will change the Home group and radio groups on the radio that triggered the source event.

- **Change home group**
  Select this option and from the list below select the group that will be set as a Home group on the source radio.
  If you select **Source Radio**, the Home group will be set to the group that is active on the radio. If there is no active group on the radio, the Home group won't be changed.
  If you select **None**, the Home group will be cleared on the radio.
- **Change radio groups**
  Select this option and in the list below select the radio group(s) that will be set on the source radio.

3.4.28 Radio: Set Specific Location

This action will set the selected radio(s) to a specific location.

- **Radio**
  In the list, select the radio(s) which location to set.
  - **Source Radio**
    Select this option so that a specific location will be set for the radio that triggered the source event.
- **Coordinates**
  Click the link on the right and specify the latitude and longitude of the location.

3.4.29 Radio: Unlink Teltonika Devices

This action will unlink Teltonika devices from the selected radio(s).

- **Radios**
  In the list, select the radio(s) you want to unlink from Teltonika devices.
- **Unlink from source radio**
  Select this option so that a Teltonika device will also be unlinked from the radio that triggered the source event.

3.4.30 Request To Talk

This action will send a request to talk to all dispatchers or selected dispatcher group.

3.4.31 Route

- **Route**
  From the drop-down list, select the route to assign to the radio and start.
- **Radio Owner**
  From the drop-down list, select the radio user.
- **Radio**
  Select the radio to which to assign the route.
  - **Send copy to source radio**
    Select this option so that the route will be assigned to the radio that triggered the source event.
- **Dispatcher**
  Select the dispatcher who will track the route.

3.4.32 SCADA

- **Tag**
  Select the tag to which to set the value.
- **Value**
  Enter the value to set to the selected tag.

3.4.33 Send Push Notification

- **Recipients**
  In the list, select the select the mobile device(s)/radio group(s) to which to send the push notification.
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that the push notification will be sent only to online devices.
    - **This many radios closest to source radio**
      Select this option and specify the number of closest devices to the source radio.
    - **Radios within this radius from source radio**
      Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
  - **Send copy to source radio**
    Select this option so that the push notification will also be sent to the mobile device that triggered the source event.
- **Sender**
  From the drop-down list, select the dispatcher who will send the push notification.
- **Subject**
  Enter the subject of the push notification.
  In addition, you may click the button on the right and select the notification severity ('Information', 'Warning', or 'Alarm').
- **Text Message**
  Enter the text of the push notification.
  Click one or more fields below to add them to the text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.34 Send to External IP Data Source

- **Connection**
  Select the TCP/IP connection configured in TRBOnet Server.
- **Message**
  Enter the message that will be sent to an external IP data source.
  Click the links below to add specific fields to the message text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.35 SMS

- **Recipients**
  In the list, select the recipients of the SMS message.
- **Text**
  Enter the text of the message.
  Click one or more fields below to add them to the text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.36 Swift Agent Telemetry

- **Swift Agent**
  In the list, select the Swift Agent connected to TRBOnet.
- **Pin ID**
  Specify the ID of the Swift Agent's pin which value to modify.
- **Command**
  From the drop-down list, select the value (ON or OFF) that will be sent to the specified pin.

3.4.37 Swift Command

- **Recipients**
  In the list, select the radio(s)/radio group(s) to which to send the Swift command.
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that the Swift command will be sent only to online radios.
    - **This many radios closest to source radio**
      Select this option and specify the number of closest radios to the source radio.
    - **Radios within this radius from source radio**
      Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
  - **Send copy to source radio**
    Select this option so that the Swift command will also be sent to the radio that triggered the source event.
- **Swift Event**
  Select the Swift command from the drop-down list.

3.4.38 System Bridge

- **Profiles**
  In the list, select the radio bridge(s) available across the radio systems.
- Choose to either **Activate** or **Deactivate** the selected radio bridge(s).

3.4.39 Task Management

In the table of available tasks, select actions for the tasks:

- **Enable** to enable the task.
- **Disable** to disable the task.
- **Toggle** to toggle the task status.

3.4.40 Telemetry

- **VIO**
  Enter the VIO-pin on the radio.
- **Command**
  From the drop-down list, select the command for the selected VIO.
- **Recipients**
  In the list, select the radio(s)/radio group(s) to which to send the Telemetry command.
  - **Send only to the following radios from the list of recipients**
    - **Online radios**
      Select this option so that the Telemetry command will be sent only to online radios.
    - **This many radios closest to source radio**
      Select this option and specify the number of closest radios to the source radio.
    - **Radios within this radius from source radio**
      Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
  - **Send copy to source radio**
    Select this option so that the Telemetry command will also be sent to the radio that triggered the source event.

3.4.41 Text Message

- **Dispatchers**
  In the list, select the dispatcher(s) to which to send the text message.
- **Recipients**
  In the list, select the select the radio(s)/radio group(s) to which to send the text message.

- **Send only to the following radios from the list of recipients**
  - **Online radios**
    Select this option so that the text message will be sent only to online radios.
  - **This many radios closest to source radio**
    Select this option and specify the number of closest radios to the source radio.
  - **Radios within this radius from source radio**
    Select this option and specify the radius (in units selected in **Tools > Options > Advanced > Measurement system**).
- **Send copy to source radio**
  Select this option so that the text message will also be sent to the radio that triggered the source event.

- **Sender**
  From the drop-down list, select the dispatcher who will send the text message.
- **Text Message**
  Enter the text of the text message.
  Click one or more fields below to add them to the text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.42 Text to Speech

- Click the **Add** link.
  Select the **Call Type**, **Channel**, and **Call Destination** to which the voice message will be sent.
- **Priority**
  Select the priority of the voice message.
- **Text**
  Enter the text to be converted to speech.
  Click one or more fields below to add them to the text.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.43 Timers

- **Timer**
  From the drop-down list, select the desired timer.
- **Action**
  From the drop-down list, select what to do with the selected timer: **Start**, **Stop**, **Pause**, or **Reset**.

3.4.44 User Activity

- **Radios**
  In the list, select the radio(s)/radio group(s) to which to assign the user activity.
  - **Source Radio**
    Select this option so that the user activity will also be assigned to the radio that triggered the source event.
- **Activity**
  From the drop-down list, select the user activity. Or click the ellipsis button on the right to create a new user activity.
- **Note**
  Enter the note for the user activity.
  Click the links below to add specific fields to the note.
  For more information on date and time formats, see section 3.5, Date and Time Formats.

3.4.45 Virtual Modbus Device

- **Modbus Device**
  Select the Modbus device configured in TRBOnet Dispatch Console.
- **Table**
  Select the Modbus table.
- **Address Source**
  Select the memory address source (**Manual** or **Radio ID**).
- **Address**
  Enter the memory address, if **Manual** is selected above.
- **Value Source**
  Select the value source (**Manual**, **Beacon ID**, or **Map Region ID**).
- Enter the value, if **Manual** is selected above.

3.4.46 Voice Message

- **Voice Messages**
  In the list, select the predefined voice message(s). Or click the plus button on the right to create a new voice message.
  - **Send to source radio**
    Select this option so that the predefined voice message(s) will also be sent to the radio that triggered the source event.

3.5 Date and Time Formats

If TRBOnet Server service is running under Local System account, the date and time formats for the `%DATE%` and `%TIME%` variables are stored in the Windows registry. If you need to change the date and/or time formats:

1. Start *regedit.exe* on the computer running TRBOnet Server service.
2. Navigate to the `HKEY_USERS\Default User\Control Panel\International` registry subkey.
3. Double-click the `sShortDate` (`sShortTime`) registry entry and set the value to the date (time) format required, then click OK.