NetCommWireless

Event Notification

Technical Support Guide

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DOCUMENT VERSION	DATE
1.0 - Initial document release	26 October 2015

Table 1 - Document Revision History

Introduction

The event notification feature is an advanced remote monitoring tool providing you with the ability to send alerts via SMS, e-mail, TCP or UDP when pre-defined system events occur. This document describes the types of events for which alerts can be sent and outlines the steps necessary to configure a notification.

Applicable devices

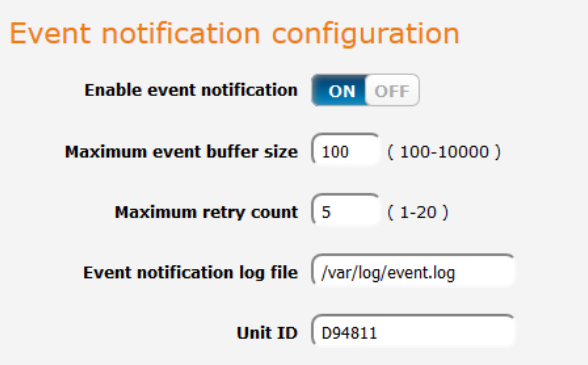
- NTC-140-02
- NTC-140W
- NTC-6200
- NTC-30WV
- NTC-40WV
- NWL-25

The above device models include the Event notification feature, however, due to the different hardware features of each model, the event types vary between models. For details specific to your device, please refer to the product's user guide.

Event notification

Notification configuration

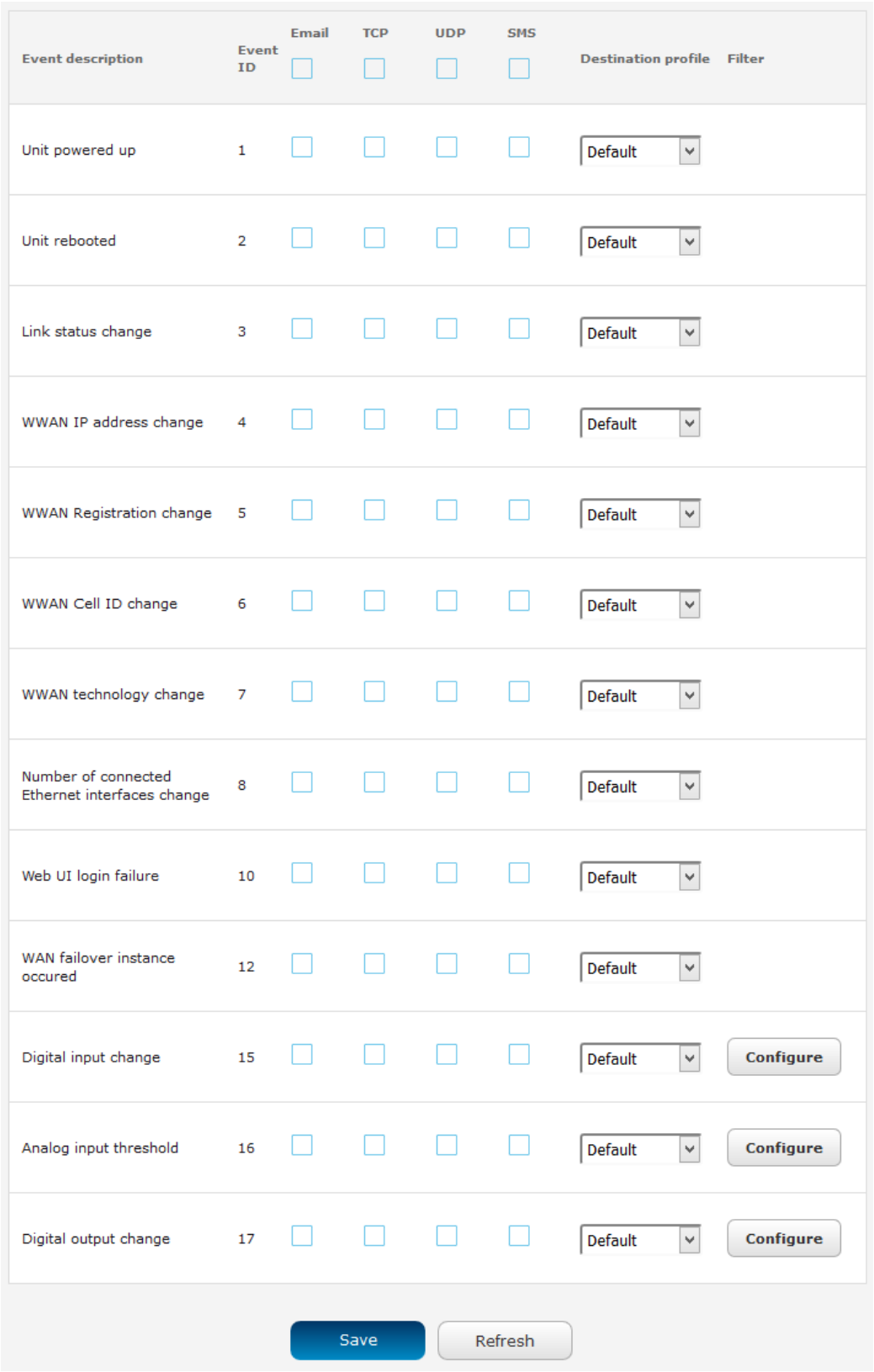
The Notification configuration screen is used to select the event types, methods of notification and the destinations for the notifications. Up to four types of alerts for a particular event may be sent to a single destination profile containing the contact details.



ITEM	DESCRIPTION
Enable event notification	Toggles the event notification feature on and off.
Maximum event buffer size	Specifies the buffer size for event notifications which failed to be delivered or are yet to be sent. The minimum size is 100 and the maximum is 10000.
Maximum retry count	Specifies the maximum number of attempts that the router will make to deliver an event notification. The range is between 1 and 20.
Event notification log file	Specifies to the location and name of the file used to log the event notification activity.
Event notification prefix	The Unit ID field is used to specify an identifier for the router which are sent in the event notifications so that you know which router has an event.

Event types

The screenshot below shows the event configuration screen for the NTC-6200 model. Hovering the mouse over the event description on the user interface provides more details of the event notification type.



Event description	Event ID	Email	TCP	UDP	SMS	Destination profile	Filter
Unit powered up	1	☐	☐	☐	☐	Default	
Unit rebooted	2	☐	☐	☐	☐	Default	
Link status change	3	☐	☐	☐	☐	Default	
WWAN IP address change	4	☐	☐	☐	☐	Default	
WWAN Registration change	5	☐	☐	☐	☐	Default	
WWAN Cell ID change	6	☐	☐	☐	☐	Default	
WWAN technology change	7	☐	☐	☐	☐	Default	
Number of connected Ethernet interfaces change	8	☐	☐	☐	☐	Default	
Web UI login failure	10	☐	☐	☐	☐	Default	
WAN failover instance occured	12	☐	☐	☐	☐	Default	
Digital input change	15	☐	☐	☐	☐	Default	Configure
Analog input threshold	16	☐	☐	☐	☐	Default	Configure
Digital output change	17	☐	☐	☐	☐	Default	Configure

Save Refresh

The table below lists all the event types that are currently available on NetComm Wireless M2M routers.

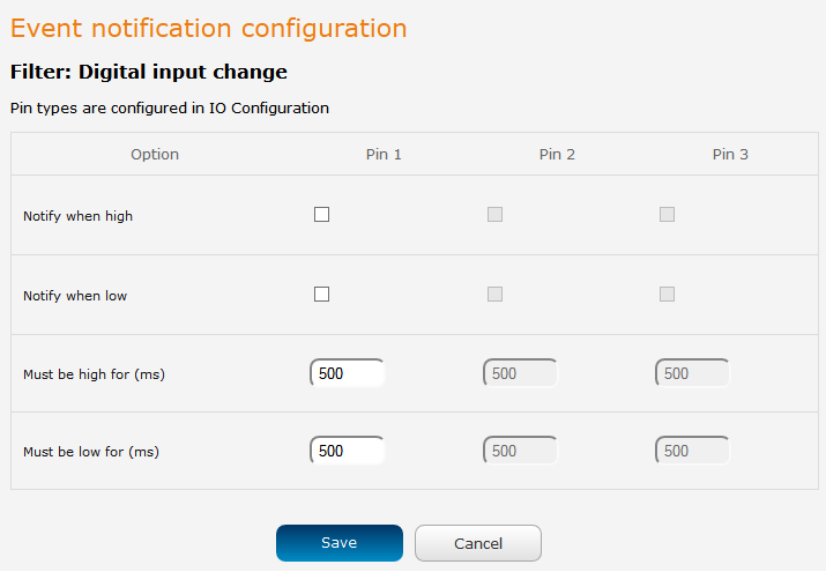
NUMBER	EVENT	DESCRIPTION	EXAMPLE MESSAGE
1	Unit powered up	Notification is sent when the unit is powered up through connection of a power source or after a soft-reset.	Power is up
2	Unit rebooted	Notification is sent when the unit is rebooted via Web UI, SMS diagnostics or via command line/telnet session.	Rebooting triggered by internal application
3	Link status change	Notification is sent if the status of the data connection profile or any IPSec/OpenVPN/PPTP/GRE tunnel endpoint changes i.e. the link goes up or down.	Profile 1 WWAN status changed : down --> up
4	WWAN IP address change	Notification is sent if an active data connection profile's WWAN IP address changes.	WWAN IP address changed : N/A --> 10.103.4.149
5	WWAN Registration change	Notification is sent if the network registration status changed between "registered", "unregistered" or "roaming".	WWAN registration status changed : Not registered --> Registered to home network
6	WWAN Cell ID change	Notification is sent if the router connects to a different cell, marked by a changed in the Cell ID.	Cell ID changed : --> 15224145 Cell ID changed : 15224148 --> 15224145
7	WWAN technology change	Notification is sent if the router connects to a different network technology, e.g. 3G/2G.	WWAN network changed : N/A() --> 3G(UMTS) WWAN network changed : 3G(UMTS) --> 2G(GSM)
8	Number of connected Ethernet interfaces change	Notification is sent if there is a change to the number of directly connected Ethernet interfaces.	Ethernet device number changed : 0 --> 1
10	Web UI login failure	Notification is sent if there was a failure to log in to the router via the Web UI.	Failover instance occurred: N/A --> wwan.0 Failover instance occurred: eth.0 --> wwan.0
11	SD card status changed	Notification is sent if the status of the SD card changes, i.e. a card is removed or inserted.	SD card status changed: removed --> inserted
12	WAN failover instance occurred	Notification is sent if a failover between WAN interfaces occurs.	Failover instance occurred: N/A --> wwan.0 Failover instance occurred: eth.0 --> wwan.0
13	WiFi clients number changed	Notification is sent if the number of connected WiFi clients changes.	WiFi clients number changed : 0 --> 1
15	Digital input change	Notification is sent if an IO pin configured as a digital input goes high or low for a specified period.	IO pin 1 now high IO pin 2 now low
16	Analog input threshold	Notification is sent if an IO pin configured as an analog input reaches a specified high or low voltage for a specified period.	IO pin 1 now high IO pin 2 now low
17	Digital output change	Notification is sent if an IO pin configured as a digital output goes high or low for a specified period.	IO pin 1 now high IO pin 2 now low

IO event configuration

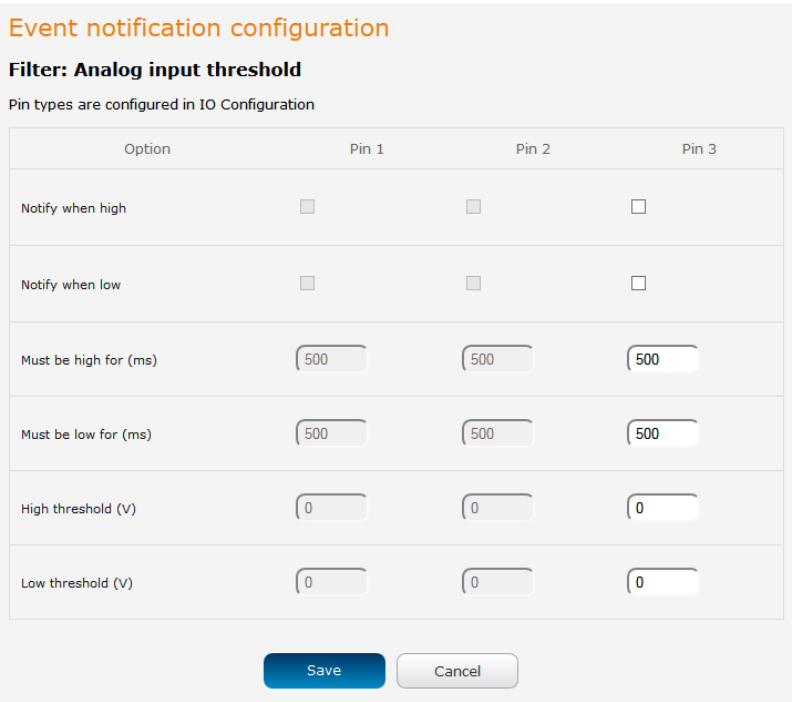
IO events have an additional configuration screen which can be accessed by clicking on the **Configure** button for the chosen event type. Note that pins which do not have a configuration that matches the event type have their options greyed out, for example, a pin configured as an analogue input or digital output may not be configured to notify on digital input change. Check the configuration of the IO pins before configuring the event notification for IO events.
Each IO event can be configured to notify both when a high and a low value is reached for a specified period of time provided in milliseconds. The analog input IO event also allows you to specify the high and low voltage thresholds that must be reached for the specified period before a notification is sent.

Note: Take care when setting the IO event notification values since certain configurations may result in a large number of notifications being sent and this can cause additional data to be consumed or SMS messages to be sent which can lead to additional charges on your wireless broadband account.

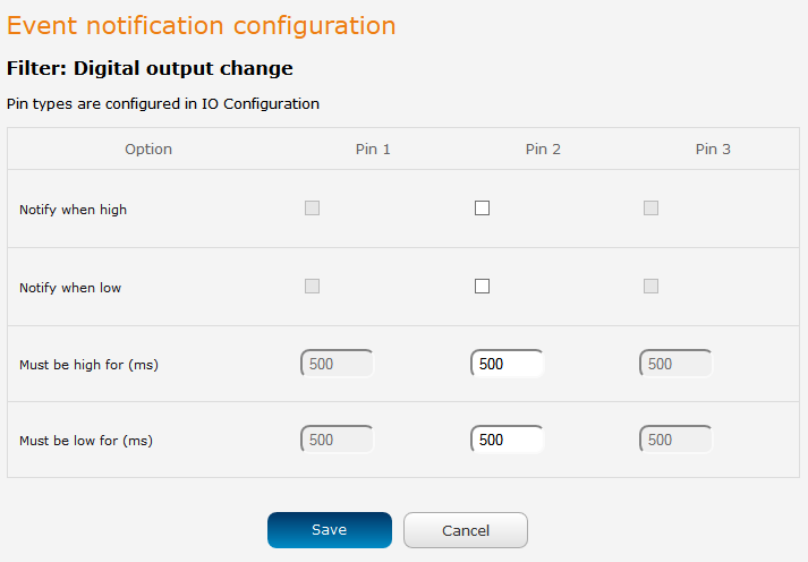
Digital input change



Analog input threshold



Digital output change



Destinations

A "destination" is a profile on the router containing the contact details of a recipient of event notification alerts i.e. the e-mail address, SMS number, TCP or UDP server addresses of the recipient. The destination profile must contain the details of at least one destination type in order to be used.

Destination configuration

The Destination configuration screen displays a list of the destination "profiles" that have been configured on the device as well as providing the option to add new profiles.

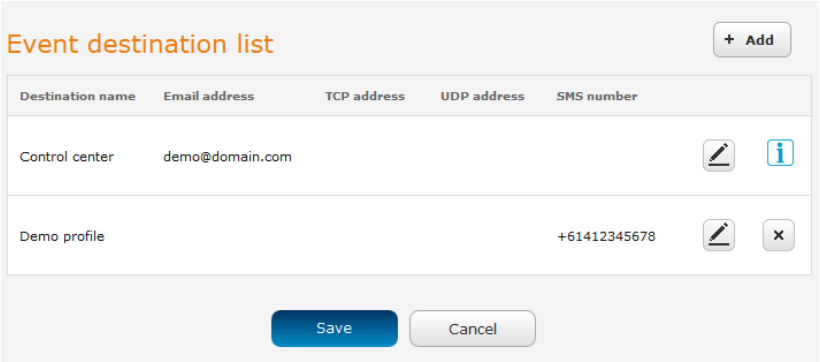


Figure 1 - Event destination list

To add a new destination profile:

1. Click the **+Add** button at the top right corner of the window. The Event destination edit screen is displayed.
2. In the **Destination name** field enter a name for the destination profile then enter the contact details for the each type of destination i.e. Email address, TCP address and port, UDP address and port and/or SMS number.
3. Click the **Save** button when you have entered the required details.

To edit a destination profile:

1. From the Event destination list, click the edit button for the corresponding destination profile. The Event destination edit page is displayed. Make the required changes.
2. Click the **Save** button.

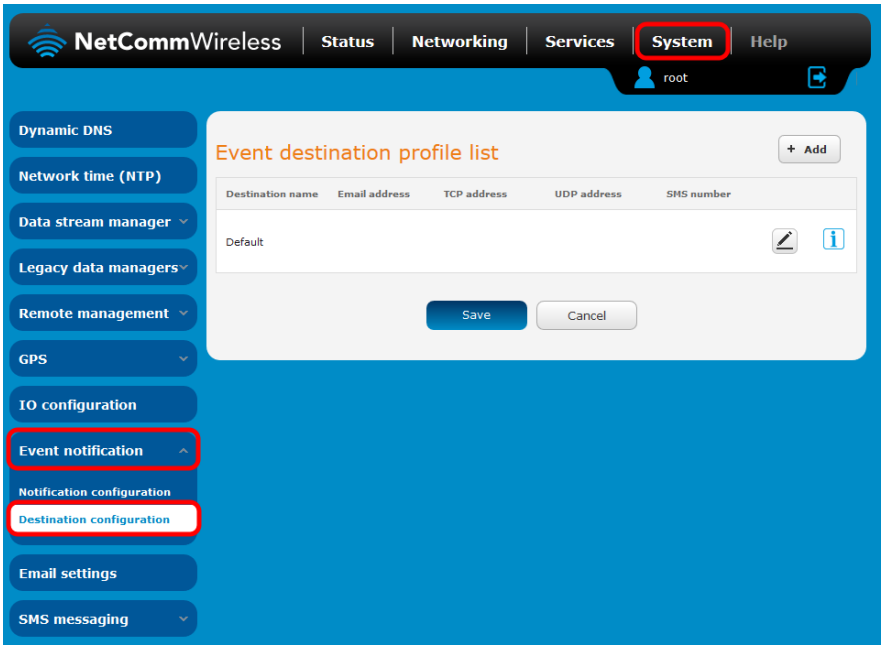
To delete a destination profile:

1. From the Event destination list, select the delete button for the corresponding destination profile that you would like to delete. If the destination profile is linked to an event notification type, the **i** button is displayed instead of the delete button. In this case, you must go to the **Notification configuration** screen and remove the check marks from all the notification types for each event for which the destination profile is configured. When you have done that, return to the Event destination list and select the delete button.
2. Click the **Save** button.

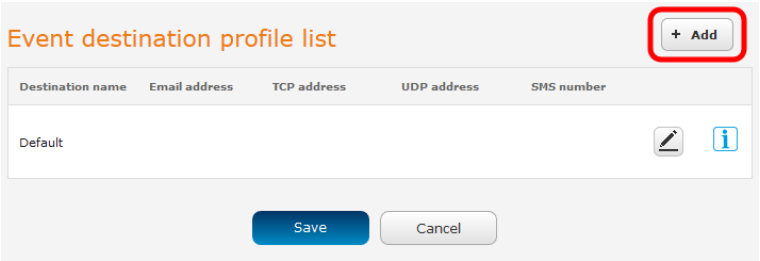
Configuring Event notification

To configure the event notification feature:

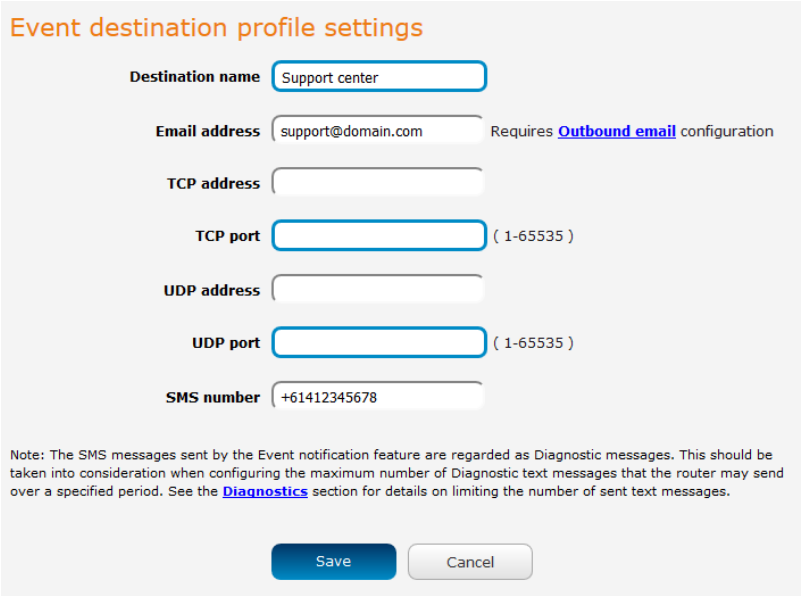
1. Click the Services menu item at the top of the screen. From the Event notification menu on the left of the screen, select the **Destination configuration** menu item.



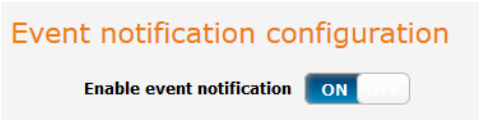
2. Click the **+Add** button at the top right corner of the window. The Event destination edit screen is displayed.



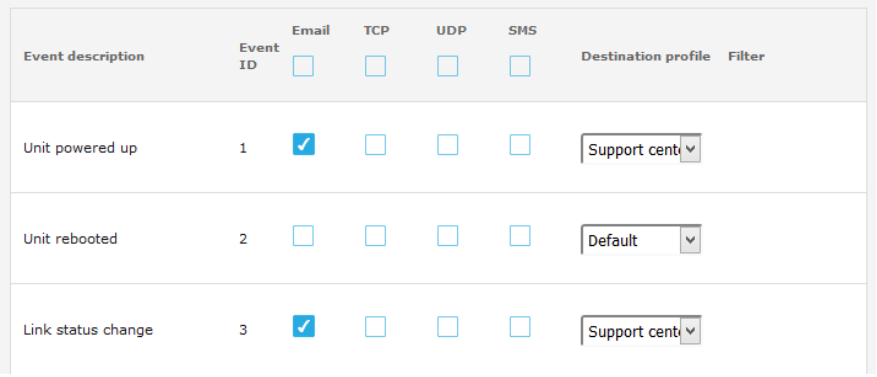
3. In the **Destination name** field enter a name for the destination profile then enter the contact details for the each type of destination i.e. Email address, TCP address and port, UDP address and port and/or SMS number.



4. Click the **Save** button when you have entered the required details.
5. From the Event notification menu on the left of the screen, select the **Notification configuration** menu item.
6. Select the **Enable event notification** toggle key to turn it to the **ON** position.



7. If desired, set the **Maximum event buffer size**, **Maximum retry count**, **Event notification log file** and **Event notification prefix** fields.
8. From the **Destination profile** column, use the drop down menus to select the desired destination profiles to use for the corresponding events, then select the checkboxes for the types of notifications to send to the chosen destination profile. If the Destination profile does not contain the required contact details, a pop-up warns you to enter the required details in the Destination profile.



9. Click the **Save** button.

Note: If you have selected the Email notification type for any of the events, you must also configure Email client settings to allow the router to send e-mail messages.