

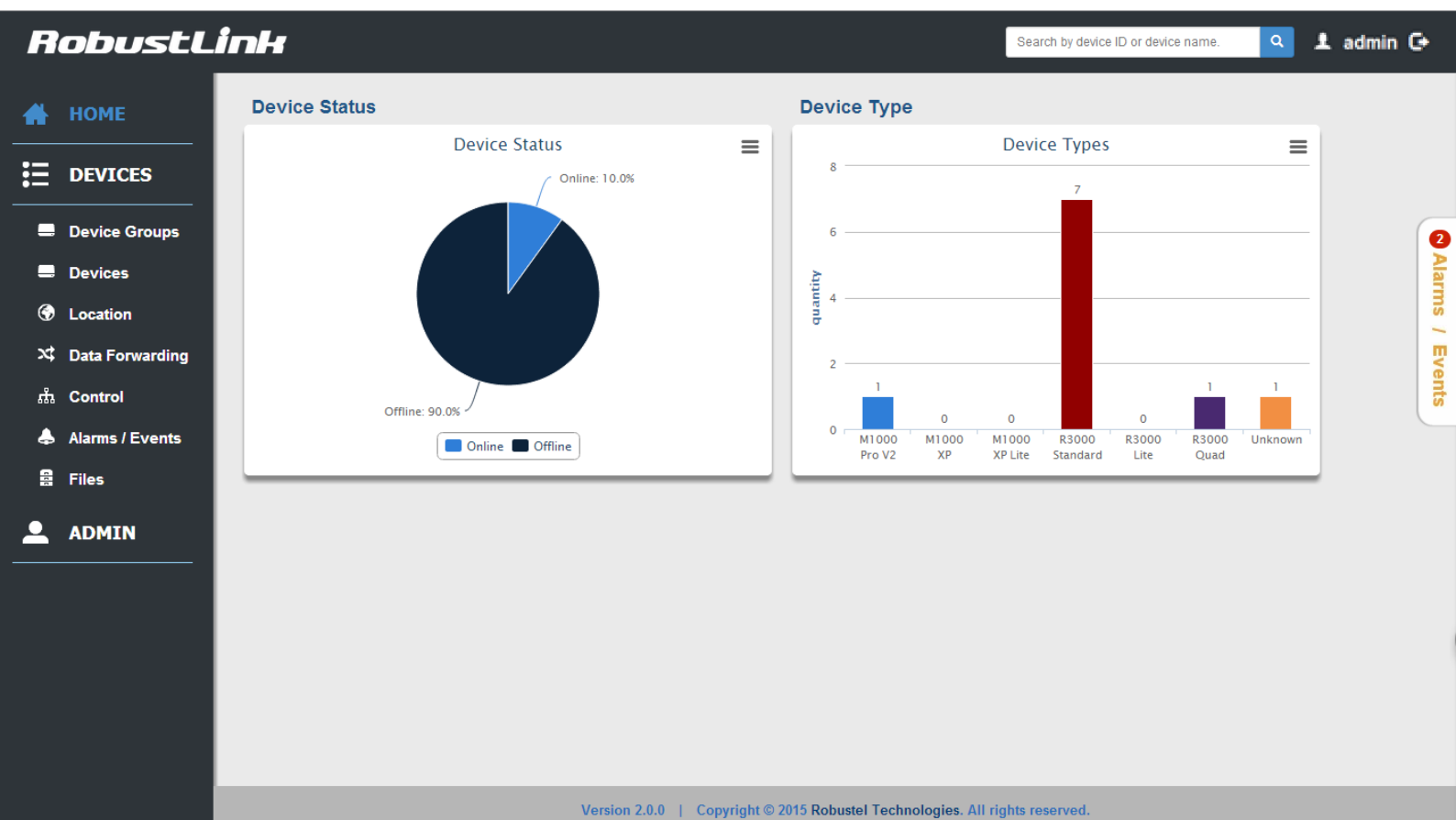
Robustel Centre Manager RobustLink

Centralized M2M Management Platform

For GoRugged Series Router & Gateway

User Guide

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About This Document

This document describes the software of Robustel RobustLink, Centralized M2M Management Platform.

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Revision History

Updates between document versions are cumulative. Therefore, the latest document version contains all updates made to previous versions.

Release Date	RobustLink Version	Doc Version	Details
2015-07-01	2.0.0	v1.0.0	First release
2015-11-13	2.0.3	v.1.1.0	Increase section: Syslog, Alarm—Assi, Email sample Modify section: Control, Sample, Software and hardware requirment.

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Chapter 1 Product

1.1 Overview

Robustel RobustLink is an industrial-grade centralized management and administration system for Robustel GoRugged series router & gateway, including R3000, R3000 Quad, R3000 Lite, M1000 XP Lite, M1000 XP and M1000 Pro V2.

RobustLink 2.0 supports the firmware version of devices.

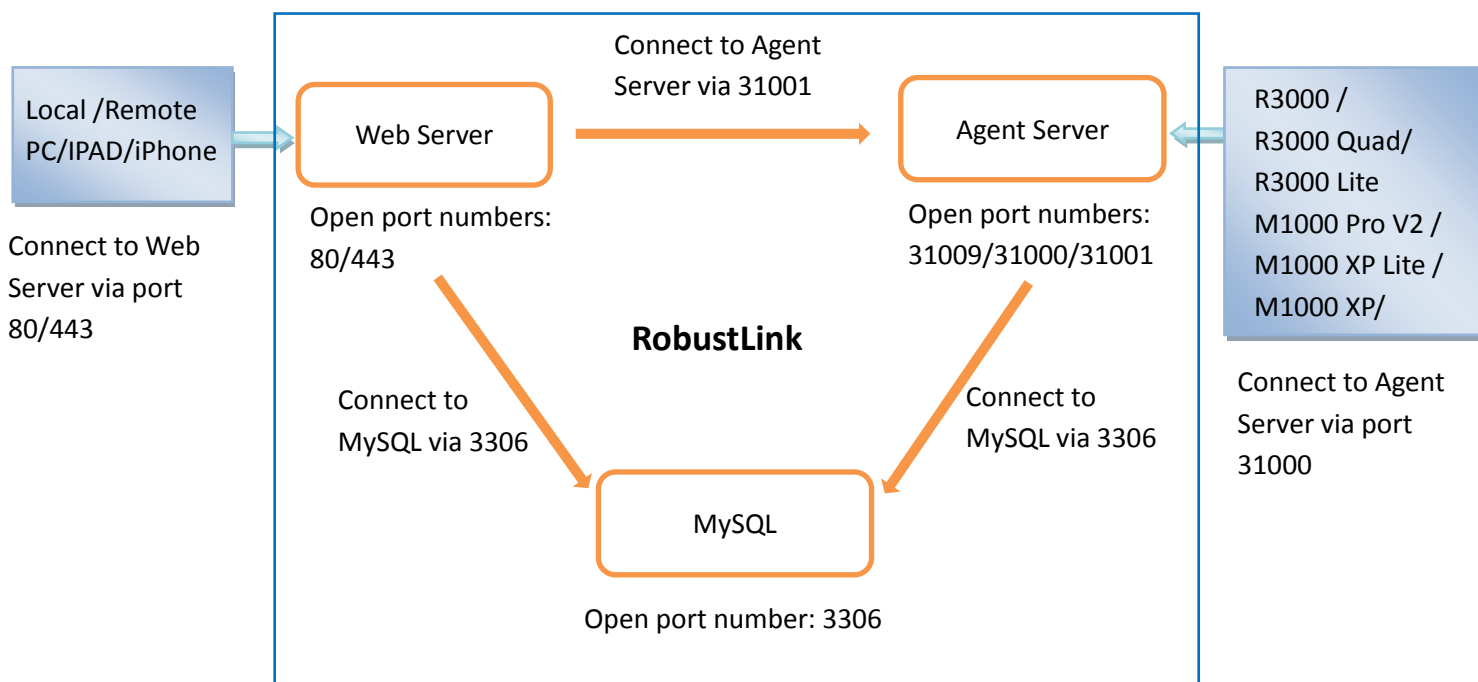
R3000, R3000 Quad and R3000 Lite: V1.2.4 or above.

M1000 Pro V2: V2.22.02 or above.

M1000 XP: 1.01.01 or above.

M1000 XP Lite: 1.00.01 or above.

RobustLink consists of three parts: Web Server (Apache), Agent Server and MySQL. Users can configure relevant parameters of RobustLink via Web Server; Agent Server is platform for data communication which will process all the data coming from slave device, or via vice; MySQL is a database used to store parameters and transaction data. Three parts should work together to ensure all the functions of RobustLink.



RobustLink allows user to monitor, configure and manage large numbers of remote devices on a private network over the web.

It mainly has following features:

- Remote Monitoring
- Remote Configuration
- Remote Firmware Updates
- Data Forwarding

- Number of Devices: 1000+
- Management: Web

1.2 Hardware Requirement

- 4 GHz CPU or above
- 4 GB RAM or above
- 500 GB disk space

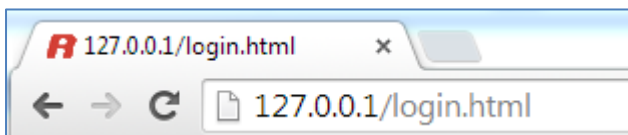
1.3 Software Requirement

- O/S: Linux CentOS 6.X
- Support installation packet
- Browser: IE 9.0 or above, Chrome, Firefox

Chapter 2 Configuration settings over web browser

2.1 Login In

Open the browser, such as IE 9.0, Chrome, Firefox --> enter `http://127.0.0.1/login.html` in the address bar.

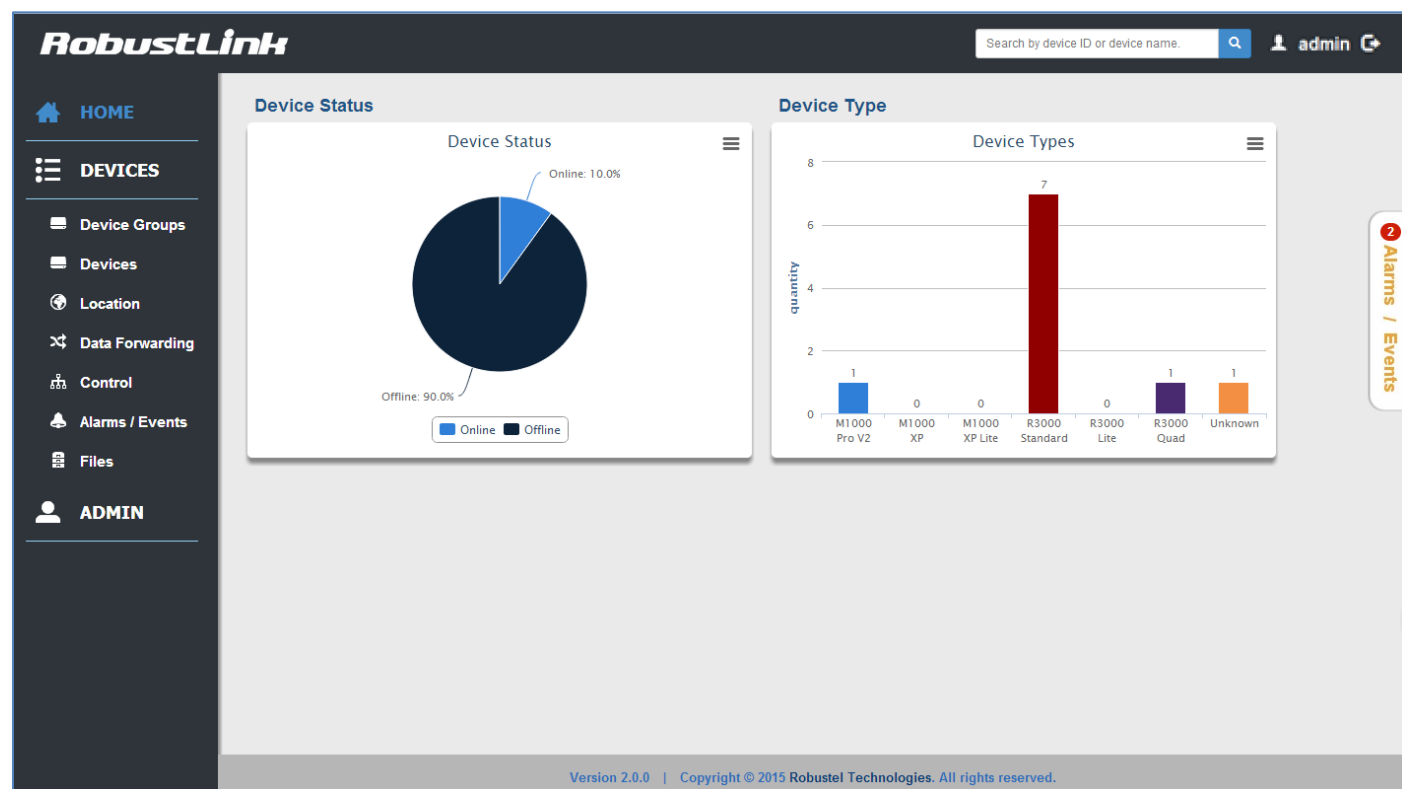


Enter the super user's username and password to login in RobustLink.



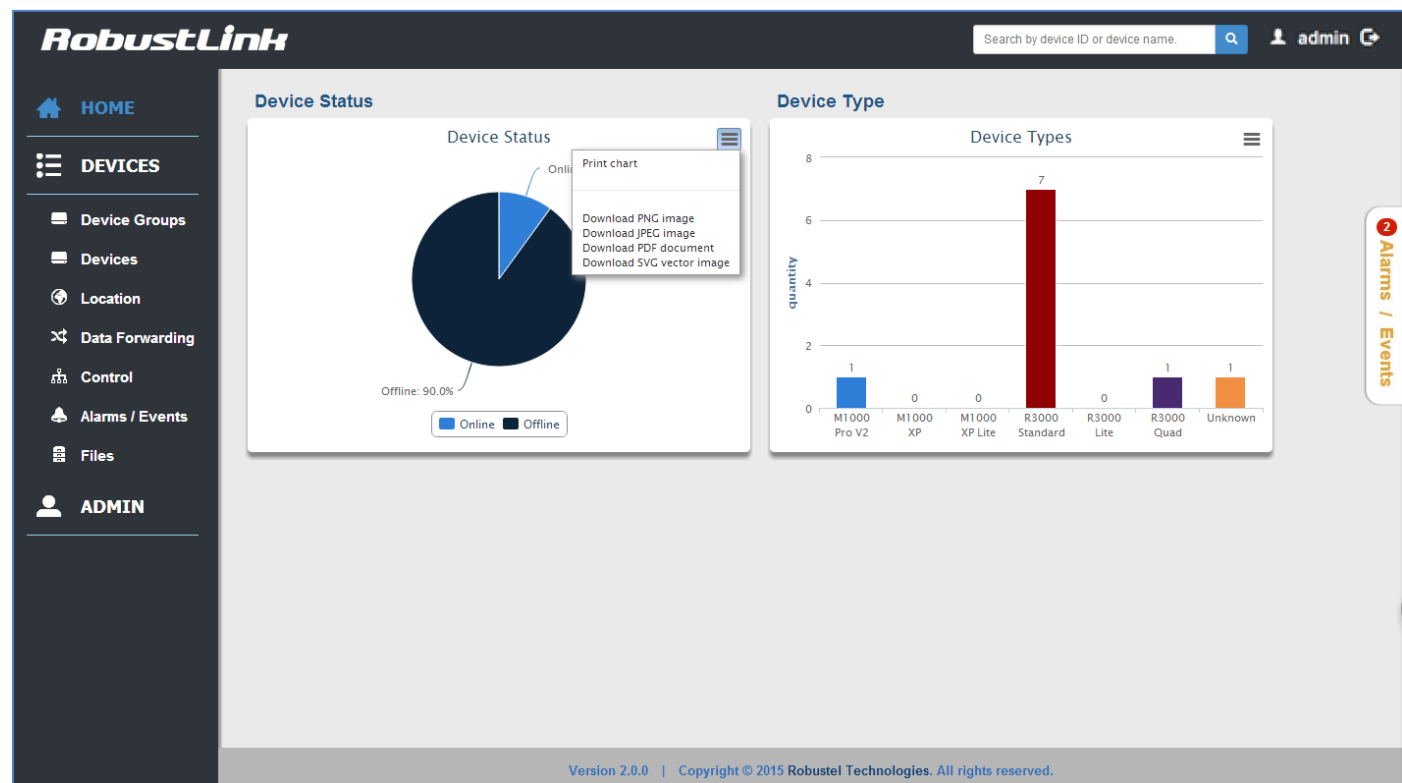
2.2 Control Panel

User can click " " button to logout RobustLink.




2.3 HOME

This section shows status of slave devices which had ever registered in RobustLink.

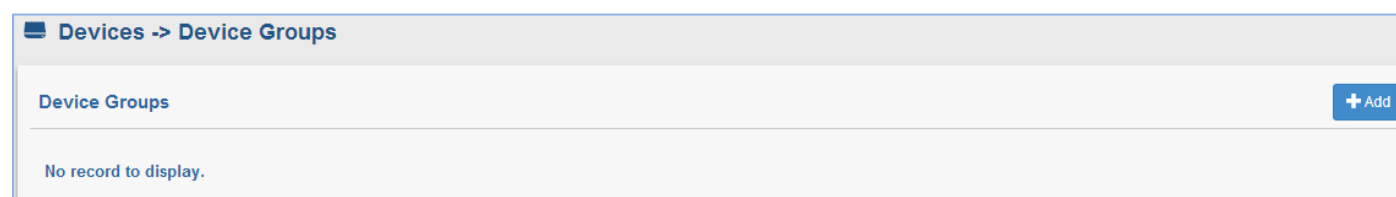



HOME

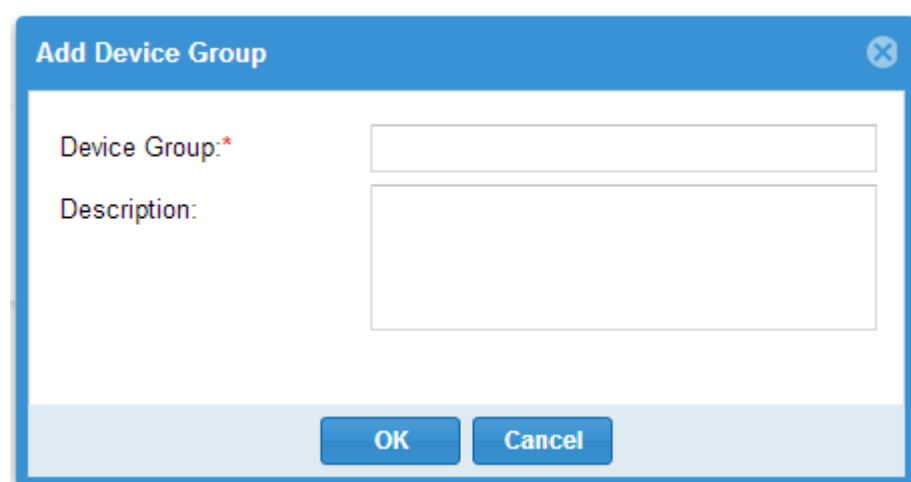
Item	Description
Search	Search by device ID or device name.
Device Status	The small window shows the Status of the registered devices.
	Click the button at the upper right, select you choice: Print chart, Download PNG image, Download JPEG image, Download PDF document, Download SVG vector image.
Online	Click the button, it only shows the status of the devices online.
Offline	Click the button, it only shows the status of the devices offline.
Device Type	The small window shows the type of the registered devices.

2.4 DEVICES -> Device Groups

This section allows user to add device groups.

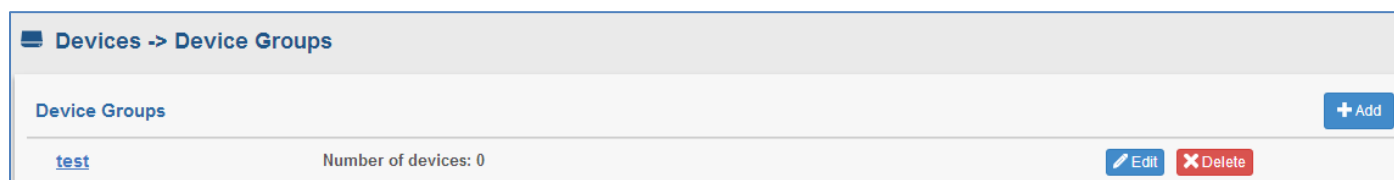


Click  to add a new device group.

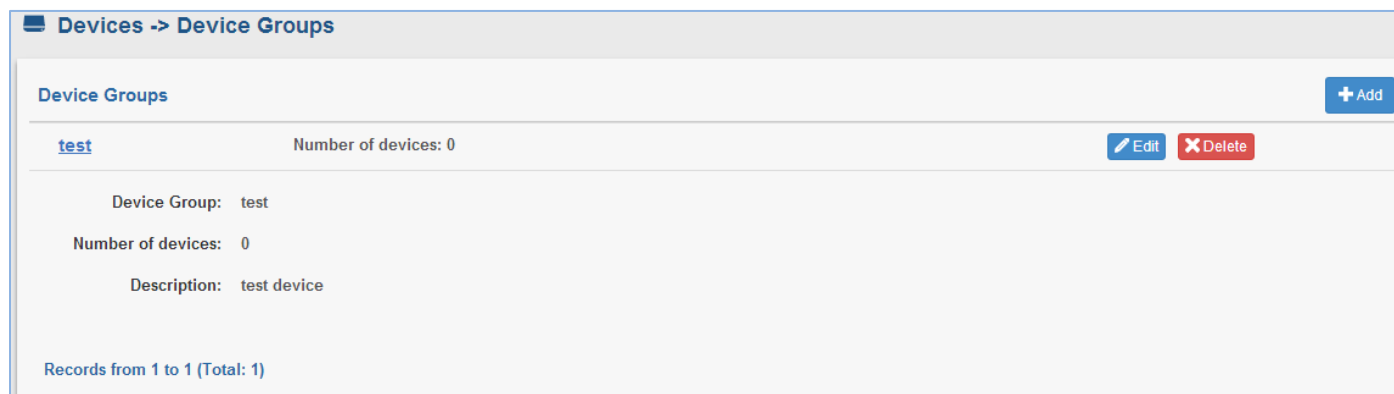


Device Groups		
Item	Description	Default
Device Group	Enter the device group name.	Null
Description	Enter some simple words about your device group.	Null

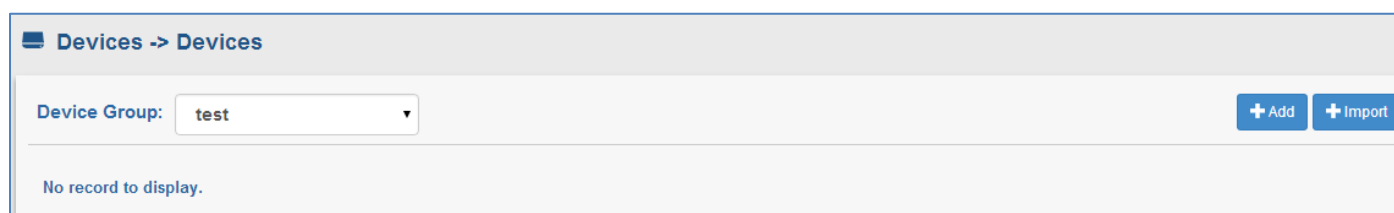
When it succeeds in adding a new device group, it will show as the following.



Click the line except the device group name (test), the information of device group will be displayed in follow.

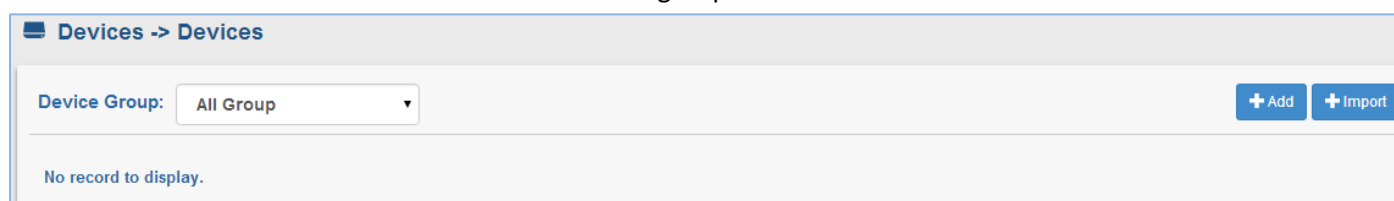



Click the device group name (test); it will switch to devices tab. And you can add devices in this page, more details refer to section 2.5 DEVICES->Devices.

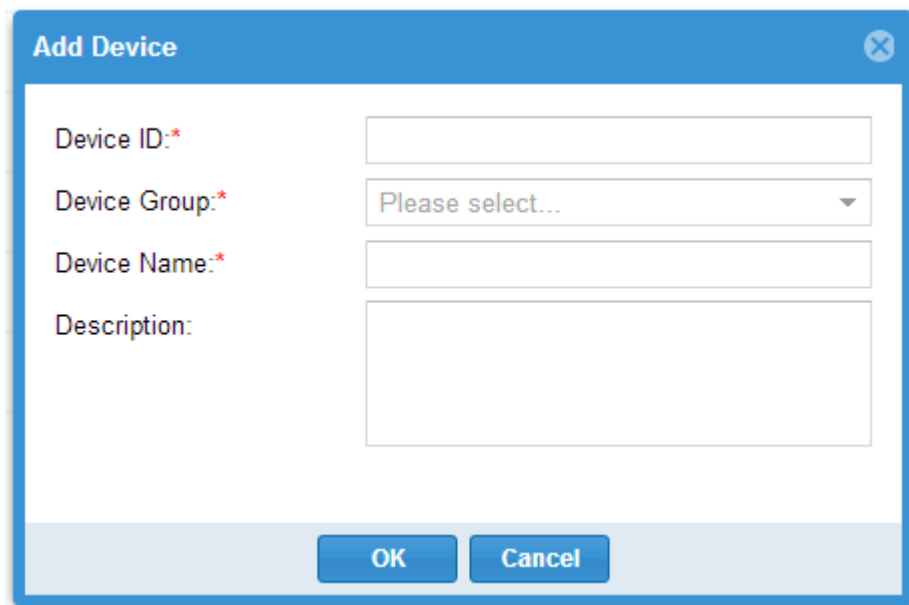


2.5 DEVICES -> Devices

This section allow user to add the device to the device group.



Click  to add device to device group.



Add Device

Device ID:*

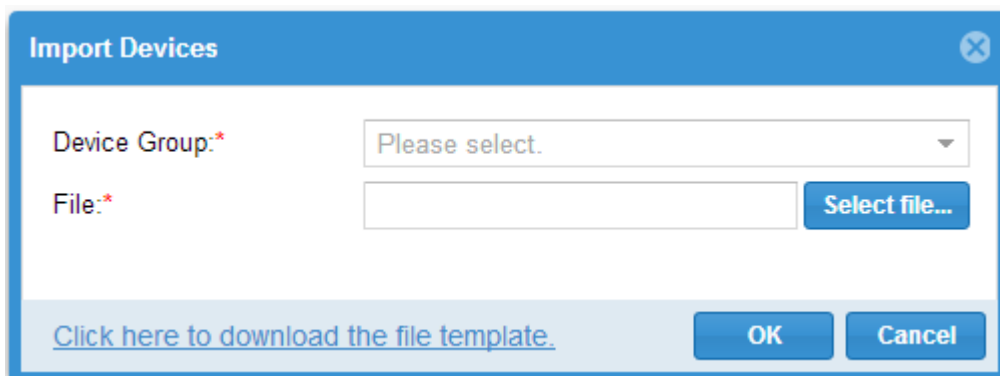
Device Group:*

Device Name:*

Description:

OK **Cancel**

Click  to import device list into device group.



Import Devices

Device Group:*

File:* **Select file...**

[Click here to download the file template.](#) **OK** **Cancel**

Devices		
Item	Description	Default
Device ID @ add	Enter the device ID of the device. A globally unique identifier. This ID is always used when addressing this device. Device ID of M1000 XP/M1000 Pro V2 is its IMEI number which will be found in the back label, or you can check this in Modem Configurator -> NMS -> M2M Platform -> Device ID. Device ID of R3000 is its SN number which will be found in the side label of R3000, or you can check this SN number in R3000's Web GUI -> Status -> System -> Router Information -> Serial Number.	Null
Device Group @ add	Select the device group to add device. This device group must have been added in section device groups.	Null
Device Name @ add	Enter the device name what you want.	Null
Description @ add	Enter some simple words about your device.	Null
Device Group@ import	Select the device group which you had added.	Null
File @ import	Choose the correct file to import you device list.	Null

Click here to download the file template	Download the template, and you can use it as your file to import.	/
--	---	---

When you succeed in adding a device in a device group, it will show as the following.

Devices -> Devices			
Device Group:	test	+ Add + Import	
✓ 00300314091221	R3000standard	R3000 Standard	Edit Delete

Click the line except the device ID (00300314091221), the key information of device will be displayed following.

Devices -> Devices			
Device Group:	test	+ Add + Import	
✓ 00300314091221	R3000standard	R3000 Standard	Edit Delete
<div>Device ID: 00300314091221 Status: ✓ Online</div> <div>IMEI: Device Group: test</div> <div>Device Name: R3000standard Device Type: R3000 Standard</div> <div>Firmware Version: 1.01.37 Wan IP: 172.16.99.42</div> <div>Registration Time: 2015-03-26 16:18:09 Last Online Time: 2015-03-26 16:28:01</div> <div>Description: test device</div>			
Records from 1 to 1 (Total: 1)			

Click device ID (00300314091221), the details of device will be displayed following. It includes Info, Statistics, Location, Control, Alarm, and Event.

The screenshot shows the 'Device Info' page for device 00300314091221. The page has a blue header with navigation tabs: Info, Statistics, Location, Control, Alarms, and Events. Below the header, the page title is '00300314091221 -> Device Info'. The main content area is titled 'Device Information' and contains a table of device details. A 'Refresh' button is located in the top right corner of the table area.

Device ID :	00300314091221	Status :	Online
Device Name :	R3000standard	Device Group :	test
Device Type :	R3000 Standard	Firmware Version :	1.01.37
hardware Version :	1.02.01	Kernel Version :	2.6.39-9
Module Type :	MU609	Module Version :	12.105.29.00.00
Data Socket State :	Disconnected	Startup Time :	2015-3-26 16:29:36
System Time :	2015-03-26 16:29:36	Registration Time :	2015-03-26 16:18:09
Last Online Time :	2015-03-26 16:28:01	Description :	test device

2.5.1 Info

This section shows the device's info. When the registered devices used different mode to connect to the RobustLink, the displayed info of those devices will be different.

The displayed info of R3000 series devices is as below.

Using Ethernet connect mode: Device information, Network information and Ethernet information.

Using Cellular connect mode: Device information, Network information and Cellular information.

Using Wifi connect mode: Device information, Network information and Wifi information.

The displayed info of M1000 series device includes Device information and Cellular information.

☰

Info

📊

Statistics

📍

Location

🏠

Control

🔔

Alarms

📅

Events

☰ 00300314091221 -> Device Info

Device Information

Refresh

Device ID :	00300314091221	Status :	🟢 Online
Device Name :	R3000standard	Device Group :	test
Device Type :	R3000 Standard	Firmware Version :	1.01.37
hardware Version :	1.02.01	Kernel Version :	2.6.39-9
Module Type :	MU609	Module Version :	12.105.29.00.00
Data Socket State :	Disconnected	Startup Time :	2015-3-26 16:29:36
System Time :	2015-03-26 16:29:36	Registration Time :	2015-03-26 16:18:09
Last Online Time :	2015-03-26 16:28:01	Description :	test device

Network Information

Refresh

Current WAN Link :	Ethernet	IP Address :	172.16.99.42
Gateway :	172.16.99.1	NetMask :	255.255.0.0
Primary DNS Server :	8.8.8.8	Second DNS Server :	0.0.0.0

LAN1

IP Address :	192.168.0.1
MAC Address :	00:ff:74:46:dc:b2
MTU :	1500
NetMask :	255.255.255.0

Ethernet Information

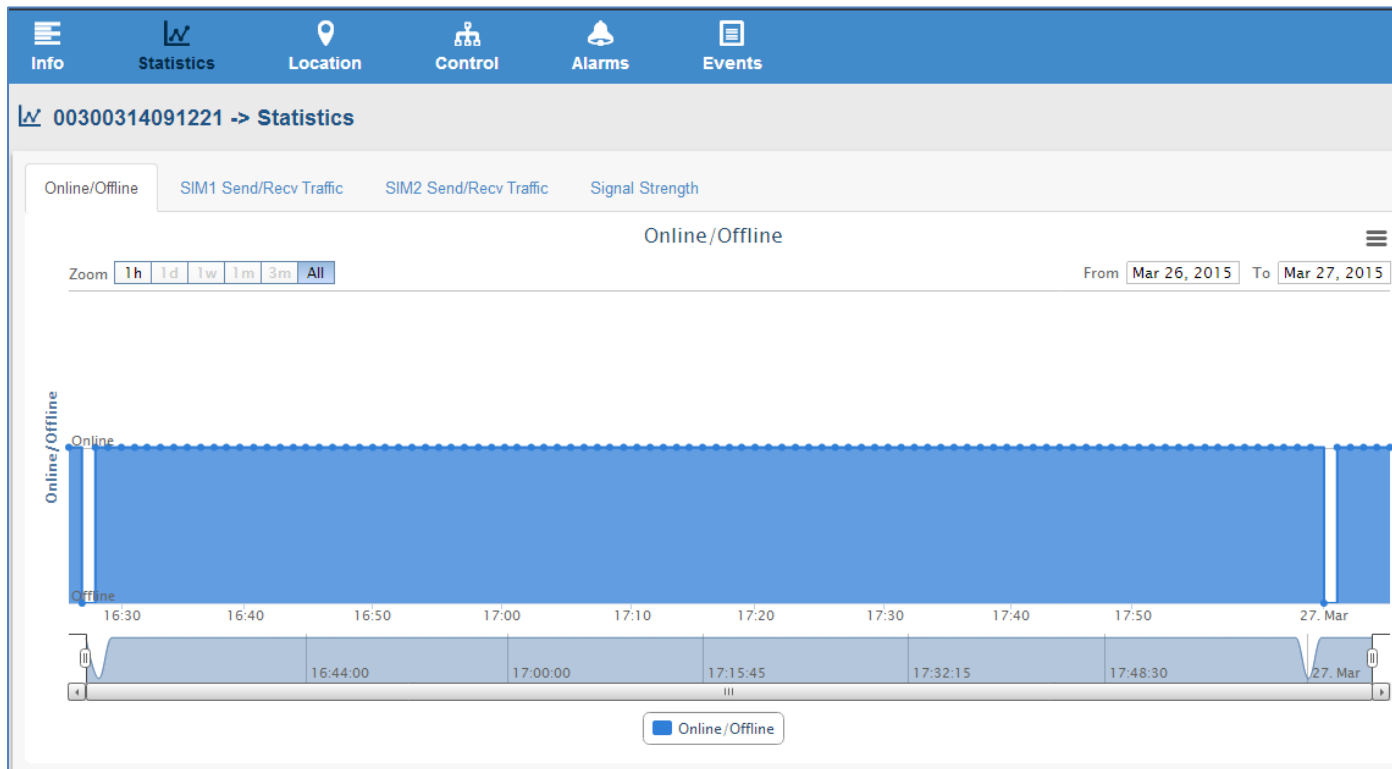
Refresh


WAN IP :	172.16.99.42	WAN MAC :	00:ff:74:46:d3:e3
WAN MTU :	1500	WAN Gateway :	172.16.99.1
WAN NetMask :	255.255.0.0	WAN Primary DNS Server :	8.8.8.8
WAN Second DNS Server :	0.0.0.0	Interface Type :	Static IP

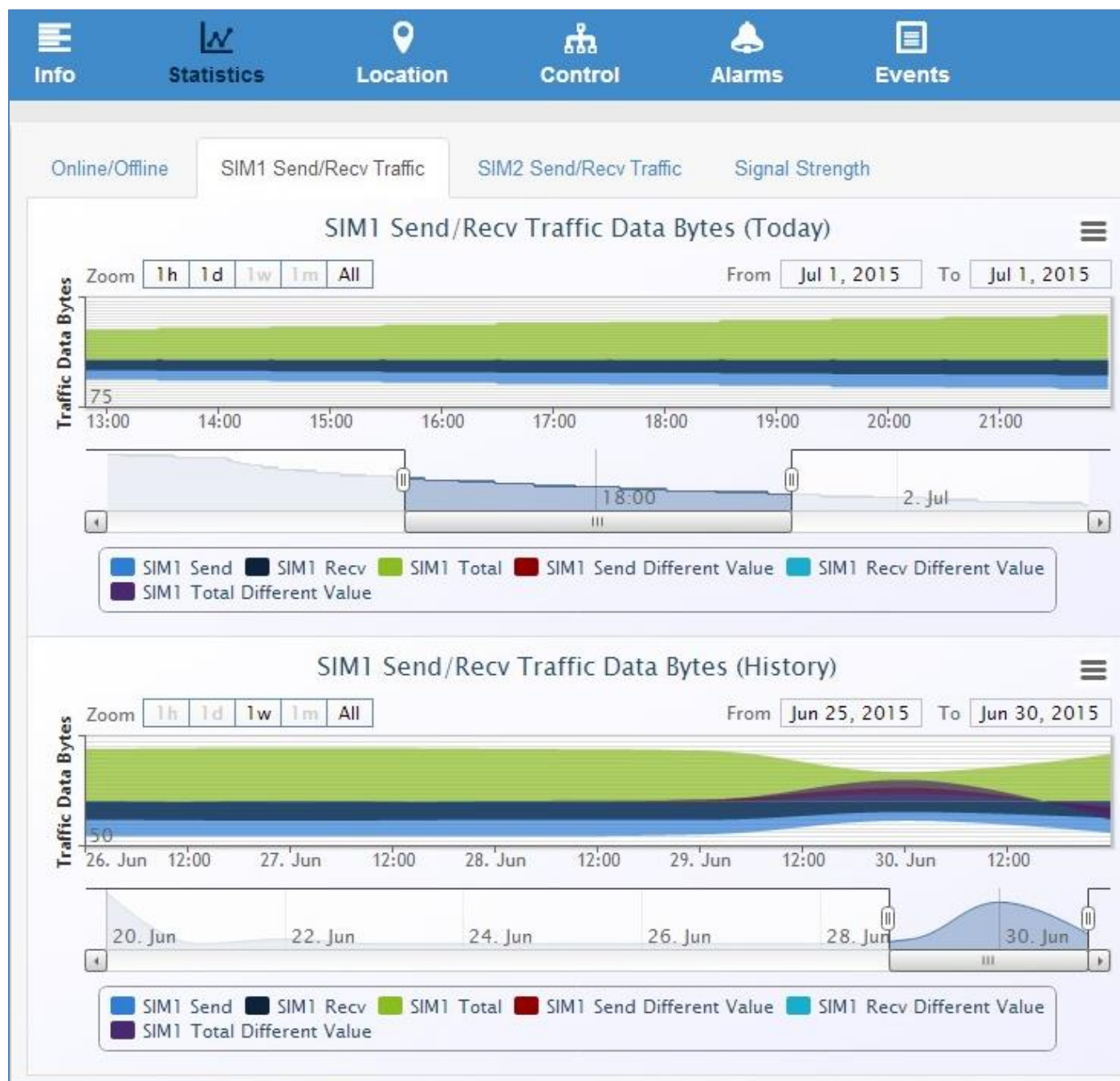
2.5.2 Statistics


This section shows the statistics of device online/offline, send/receive traffic and signal strength.

When the mouse moves to a certain point in time, it can display the status at the moment.

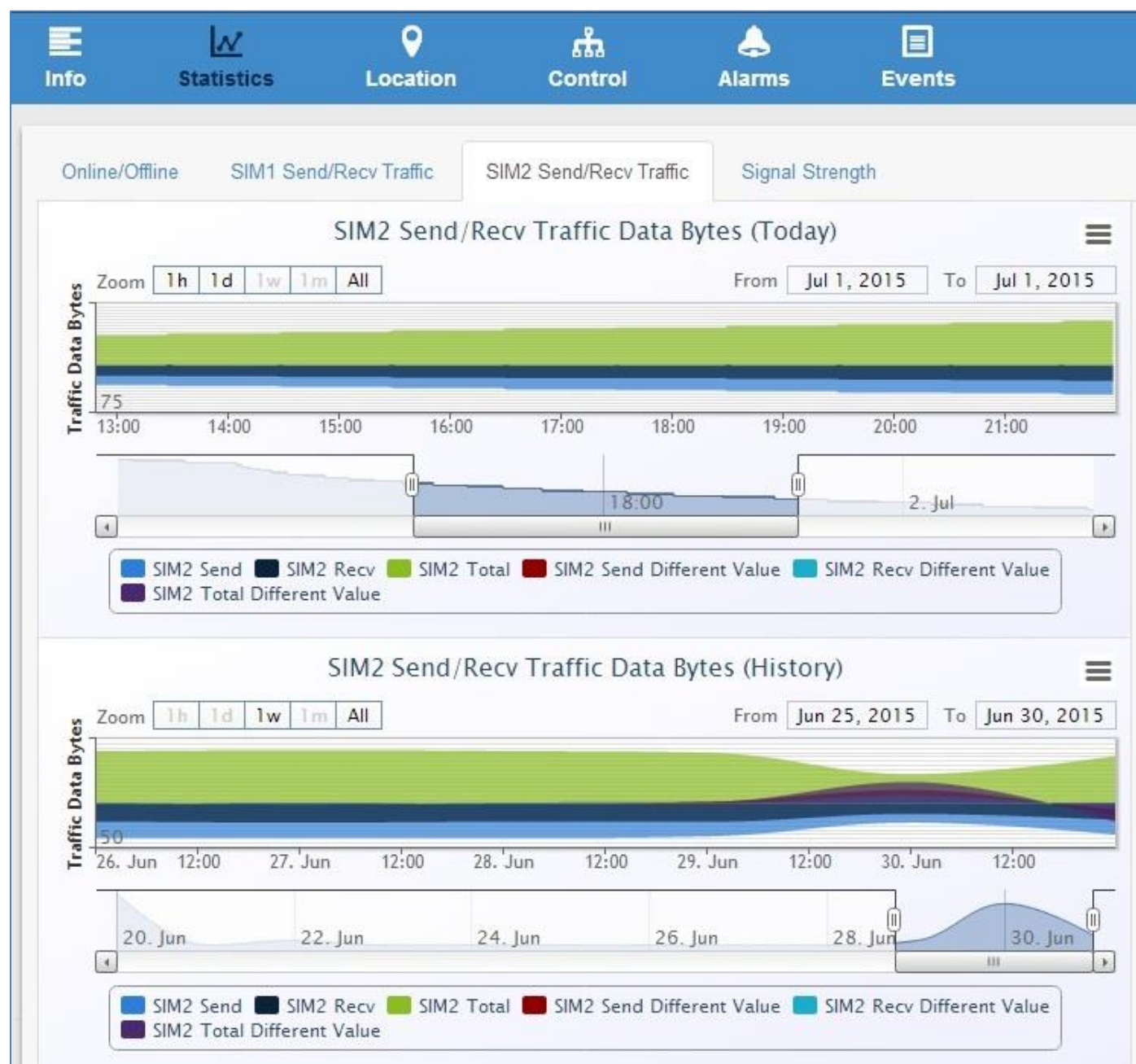



Online/Offline		
Item	Description	Default
Zoom	Select from "1h", "1d", "1w", "1m", "3m" and "All". 1h: one hour 1d: one day 1w: one week 1m: one month 3m: three month All: up to now since the registration moment	1h
	Click the button at the upper right, select you choice: Print chart, Download PNG image, Download JPEG image, Download PDF document, Download SVG vector image.	/
Online/Offline	Online: up Offline: down	/



SIM1 Send/Recv Traffic Data Bytes (Today)		
Item	Description	Default
Zoom	Select from "1h", "1d", "1w", "1m", "3m" and "All". 1h: one hour 1d: one day 1w: one week 1m: one month 3m: three month All: up to now since the registration moment	1h
	Click the button at the upper right, select you choice: Print chart,	/


	Download PNG image, Download JPEG image, Download PDF document, Download SVG vector image.	
SIM1 Send	The send traffic data, unit: KB.	/
SIM1 Recv	The receive traffic data, unit: KB.	/
SIM1 Total	Send traffic data added to Receive traffic data equal to the total value of traffic data.	/
SIM1 Send Different Value	The different value between the current send traffic data and last second send traffic data. Unit: KB.	/
SIM1 Recv Different Value	The different value between the current receive traffic data and last second receive traffic data. Unit: KB.	/
SIM1 Total Different Value	Send Different Value added to Recv Different Value equal to the Total Different Value.	/
SIM1 Send/Recv Traffic Data Bytes (History)		
This chart will display the history traffic data of the days before today.		



SIM2 Send/Recv Traffic Data Bytes (Today)		
Item	Description	Default
Zoom	Select from "1h", "1d", "1w", "1m", "3m" and "All". 1h: one hour 1d: one day 1w: one week 1m: one month 3m: three month All: up to now since the registration moment	1h
	Click the button at the upper right, select you choice: Print chart, Download PNG image,	/

	Download JPEG image, Download PDF document, Download SVG vector image.	
SIM2 Send	The send traffic data, unit: KB.	/
SIM2 Recv	The receive traffic data, unit: KB.	/
SIM2 Total	Send traffic data added to Receive traffic data equal to the total value of traffic data.	/
SIM2 Send Different Value	The different value between the current send traffic data and last second send traffic data. Unit: KB.	/
SIM2 Recv Different Value	The different value between the current receive traffic data and last second receive traffic data. Unit: KB.	/
SIM2 Total Different Value	Send Different Value added to Recv Different Value equal to the Total Different Value.	/
SIM2 Send/Recv Traffic Data Bytes (History)		
This chart will display the history traffic data of the days before today.		



Signal Strength (Today)		
Item	Description	Default
Zoom	Select from "1h", "1d", "1w", "1m", "3m" and "All". 1h: one hour 1d: one day 1w: one week 1m: one month 3m: three month All: up to now since the registration moment	1h
	Click the button at the upper right, select you choice: Print chart, Download PNG image,	/

	Download JPEG image, Download PDF document, Download SVG vector image.	
Signal Strength	Unit: asu	/
Signal Strength (History)		
This chart will display the signal strength history of the days before today.		

2.5.3 Location

This section shows the location map of the device and allows user to configure the locating mode. Click the locating point, it will show the details of device's location.

00300513070066 -> Location

Location

GPS:
Longitude:
Latitude:
Refresh

Manual Positioning:
Longitude:
Latitude:
Save

00300513070066
Status: ● Online
Device Type: R3000 Standard
Device Name: R3000-test1
Location (Manual Positioning)
Long.: 113.409194
Lat.: 23.129947

© OpenStreetMap contributors

Location		
Item	Description	Default
Longitude	Enter the longitude of the device location.	0.000000
Latitude	Enter the latitude of the device location.	0.000000
Refresh	Click to refresh the device location by GPS.	/
Save	Click to save the longitude and latitude by manual positioning.	/

2.5.4 Control

This section allows user to update firmware, configuration file and reboot the device.

Info

Statistics

Location

Control

Alarms

Events

00300314091221 -> Control

Update Firmware

File Path:

Please select...

Update Time:

2015-3-27 11:32:25

You should add firmware first. [Go to upload firmware.](#)

Update Firmware

Configuration

File Path:

Please select...

☐ Reboot device(s) after configure.

You should add configuration file first. [Go to upload configuration file.](#)

configure

Remote Control

Reboot:

Reboot

Control		
Item	Description	Default
File Path @ Update Firmware	Select the firmware file, which you had imported in Files. Note: After updating the firmware, the device will reboot automatically.	Null
Update Time @ Update Firmware	Enter the time that you want to update the firmware.	The current time
Update Firmware	Click to update the firmware.	/
File Path @ Configuration	Select the configuration XML file, which you had imported in Files.	Null
Reboot device(s) after configuration	Click to enable that Reboot device(s) after configuration which will make the configuration effect.	Unable
configure	Click to configure RobustLink web according to the configuration file.	/
Reboot	Click to reboot the device.	/

2.5.5 Alarms

This section shows the status of Alarms.

Alarm Configurations

Device Offline

Enable : ☐ Name :
 Level : ☐ Fire Condition :
 Description :

Network Traffic Flow

Enable : ☐ Name :
 Level : ☐ Fire Condition :
 Description :

Rssi

Enable : ☒ Enable Name : 1
 Level : ☒ Critical Fire Condition : Detects when network rssi for device less than or equal to this count(unit:asu): 30
 Description :

Current Alarms

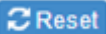
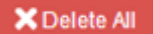

Alarm ID	Device	Alarm Name	Condition	Actions
1111222222222222	R3L Router Lite	Network Traffic Flow		Ack Reset
1111222222222222	R3L Router Lite	Rssi		Ack Reset

History Alarms

Alarm ID	Device	Alarm Name	Condition	Actions
1111222222222222	R3L Router Lite	Rssi		Delete

Records from 1 to 1 (Total: 1)






Alarms	
Item	Description
Device Offline	This part shows the configuration of Device Offline alarm.
Network Traffic Flow	This part shows the configuration of Network Traffic Flow alarm.
Rssi	This part shows the configuration of singnal strength alarm.
Current Alarm	This part shows the current alarm.
	Click to acknowledge all the alarms.
	Click to reset all the alarms and RobustLink will detect the device if it occur the alarm again.
	Click to acknowledge the current alarms.

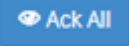



	Click to reset the alarm and RobustLink will detect the device if it occur the alarm again.
History Alarm	This part shows the history alarm.
	Delete all the historical alarms.
	Delete this historical alarm.

2.5.6 Events

This section shows the status of current events.

Note: Firstly, user should enable the Event function in R3000's configuration Web. The path in R3000's configuration web is Configuration->Event.

Info	Statistics	Location	Control	Alarms	Events
🔔 00300513070066 -> Events					
Current Events					 
 Notice	00300513070066	R3000-ssss	R3000 Standard	3G-DOWN	 
Records from 1 to 1 (Total: 1)					

Events	
Item	Description
	Click to acknowledge all the events.
	Click to acknowledge this current event.
	Delete all the current events.
	Delete this current event.

2.5.7 SysLogs

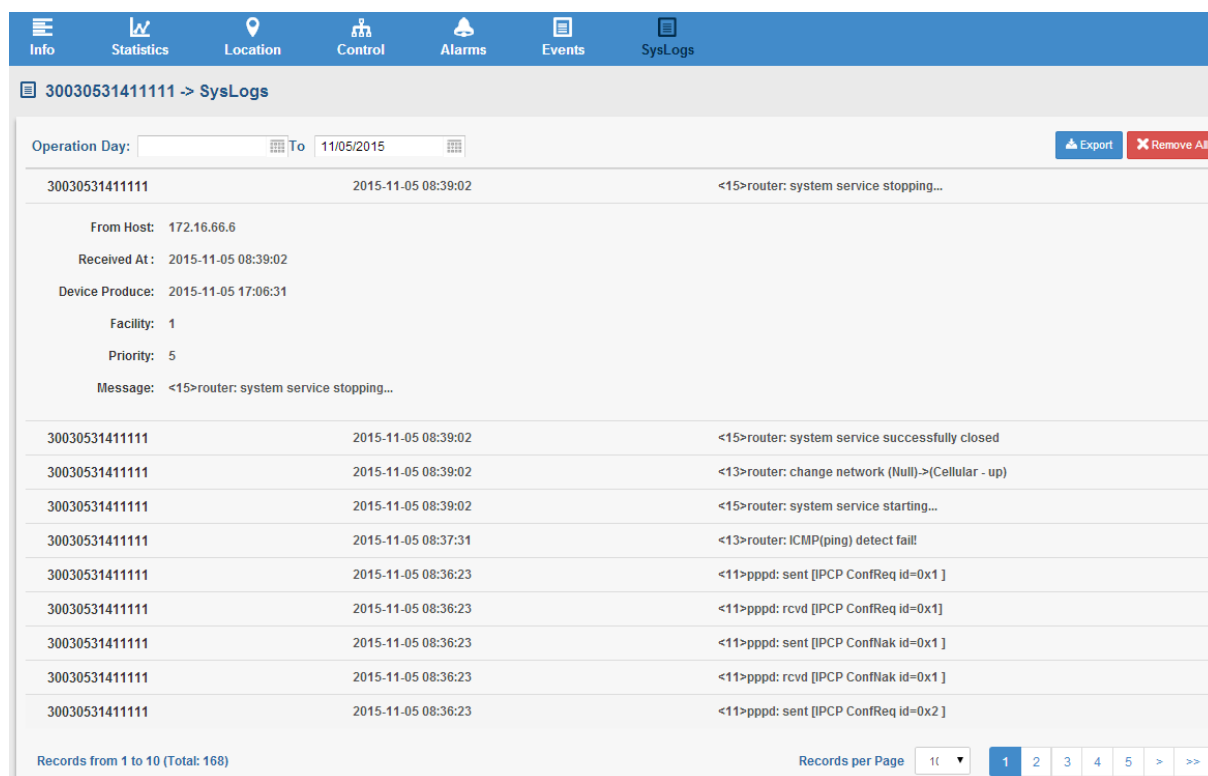
This section allow user to check and export the Syslog.

Note: In device side, it should be enabled the Syslog server function firstly, enters the port (defaults 514), the path is Configuration-->Syslog-->Syslog Remote Settings.

Click the white space of the log row, the details information will be displayed below.

Click  button to export the device's syslog file.

Click  button to delete all the syslog.



30030531411111 -> SysLogs

Operation Day: To 11/05/2015 Export Remove All

30030531411111	2015-11-05 08:39:02	<15>router: system service stopping...
<p>From Host: 172.16.66.6</p> <p>Received At: 2015-11-05 08:39:02</p> <p>Device Produce: 2015-11-05 17:06:31</p> <p>Facility: 1</p> <p>Priority: 5</p> <p>Message: <15>router: system service stopping...</p>		
30030531411111	2015-11-05 08:39:02	<15>router: system service successfully closed
30030531411111	2015-11-05 08:39:02	<13>router: change network (Null)->(Cellular - up)
30030531411111	2015-11-05 08:39:02	<15>router: system service starting...
30030531411111	2015-11-05 08:37:31	<13>router: ICMP(ping) detect fail!
30030531411111	2015-11-05 08:36:23	<11>pppd: sent [IPCP ConfReq id=0x1]
30030531411111	2015-11-05 08:36:23	<11>pppd: rcvd [IPCP ConfReq id=0x1]
30030531411111	2015-11-05 08:36:23	<11>pppd: sent [IPCP ConfNak id=0x1]
30030531411111	2015-11-05 08:36:23	<11>pppd: rcvd [IPCP ConfNak id=0x1]
30030531411111	2015-11-05 08:36:23	<11>pppd: sent [IPCP ConfReq id=0x2]

Records from 1 to 10 (Total: 168) Records per Page 1 2 3 4 5 > >>

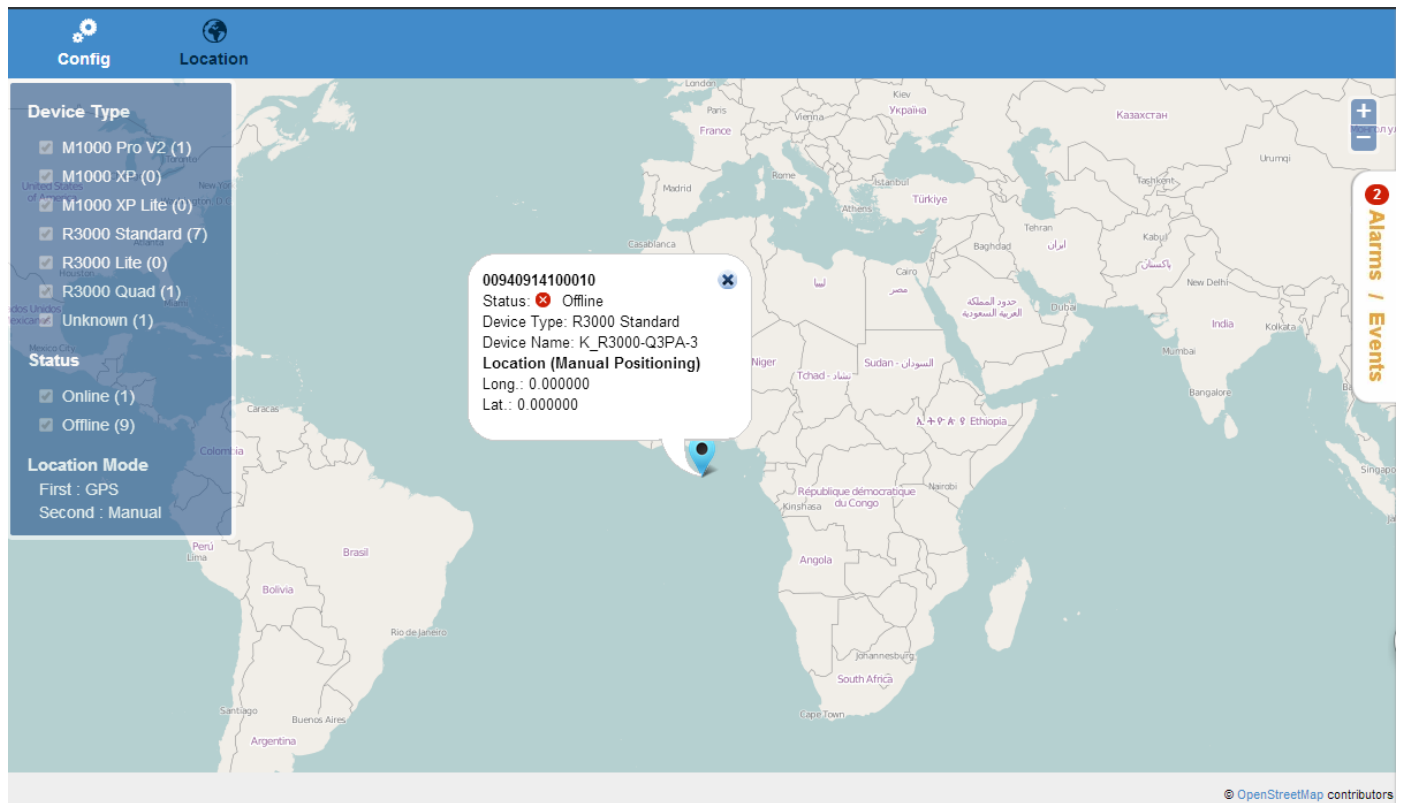
2.6 DEVICES ->Location

This section allows user to configure the locating mode.

Config @ Location		
Item	Description	Default
All Devices	Enable “Show All Devices”, following options of “Device Type” and “Status” will all be chosen.	Unable
Device Type	A device type represents a category of devices that have the same characteristics, typically a hardware family. Select from “M1000 Pro V2”, “M1000 XP”, “M1000 XP Lite”, “R3000 Standard”, “R3000 Lite”, “R3000 Quad” and “Unknown”. Your choice will be showed in section location, the path is location\location.	Unable
Status	Select from “Online” and “Offline”. Your choice will be showed in section location, the path is location\location.	Unable
The first Mode	Select “GPS” or “Manual Positioning”, which you want to be the preferred locating mode.	Null
The Second Mode	Select “GPS” or “Manual Positioning”, which you want to be the second locating mode.	Null

The section show the location map of devices.

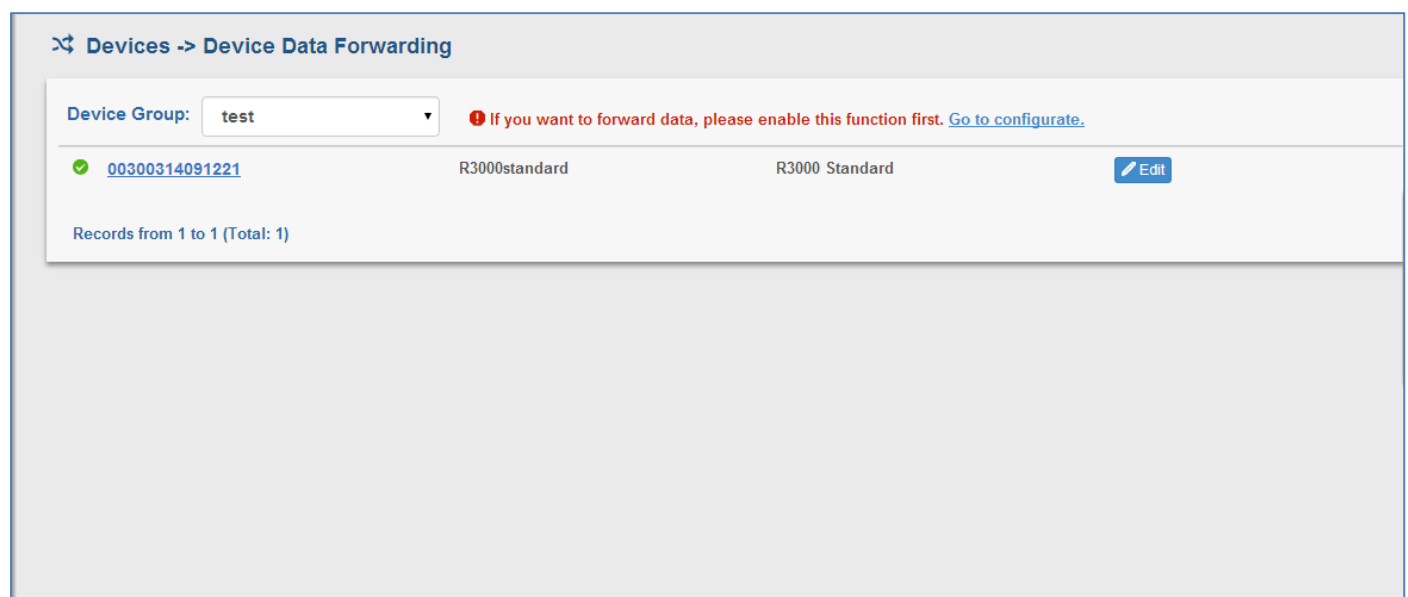
Click the locating point, it will show the details of device's location.




2.7 DEVICES ->Data Forwarding

The section allows user to configure Data Forwarding.

Note: If you want to forward data, please enable this function first. The path is ADMIN\Agent Server\Agent Server Basic Setting.



Click  to set Device Data Forwarding Configuration.

Set Device Data Forwarding Configurations

Device ID:*

00300314091221

Port:*

0

Modbus Start Addr:

0

Modbus End Addr:

0

OK

Cancel

Data Forwarding		
Item	Description	Default
Device ID	Enter the Serial Number of the device.	Null
Port	Enter the port to forward data. And then the port of receiving data must be consistent with this data forwarding port.	0
Modbus Start Addr	Enter the Modbus Start Address, the maximum value for this field is 247.	0
Modbus End Addr	Enter the Modbus End Address, the maximum value for this field is 247.	0

2.8 DEVICES ->Control

In this section, user can batch processing those devices. The processing for devices includes update firmware, import XML and reboot devices.

Note: You should add firmware for this device type first. The path is DEVICES\Files\Upload.

Update firmware

Import XML

Reboot

Devices -> Control -> Update Firmware


Device Group: All Group




All Devices


Update Firmware

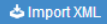
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	00300314091221	R3000standard	R3000 Standard	1.01.37	i Normal
-------------------------------------	-------------------------------------	----------------	---------------	----------------	---------	-----------------

Records from 1 to 1 (Total: 1)

Update firmware @ Control		
Item	Description	Default
Device Group	Select device group from the drop-down box. This device group must have added in section device groups.	All Group
All Devices	Click to choose all devices.	Unable
	Click to update the firmware.	/


 Update firmware
  Import XML
  Reboot




 Devices -> Control -> Import XML


Device Group: All Group ☐ All Devices 

<input type="checkbox"/>	<input checked="" type="checkbox"/>	00300314091221	R3000standard	R3000 Standard
--------------------------	-------------------------------------	--------------------------------	---------------	----------------

Records from 1 to 1 (Total: 1)

Import XML @ Control		
Item	Description	Default
Device Group	Select device group from the drop-down box. This device group must have added in section device groups.	All Group
All Devices	Click to choose all devices.	Unable
	Click to import XML.	/


 Update firmware
  Import XML
  Reboot

 **Devices -> Control -> Reboot**

Device Group: All Group ☐ All Devices Reboot

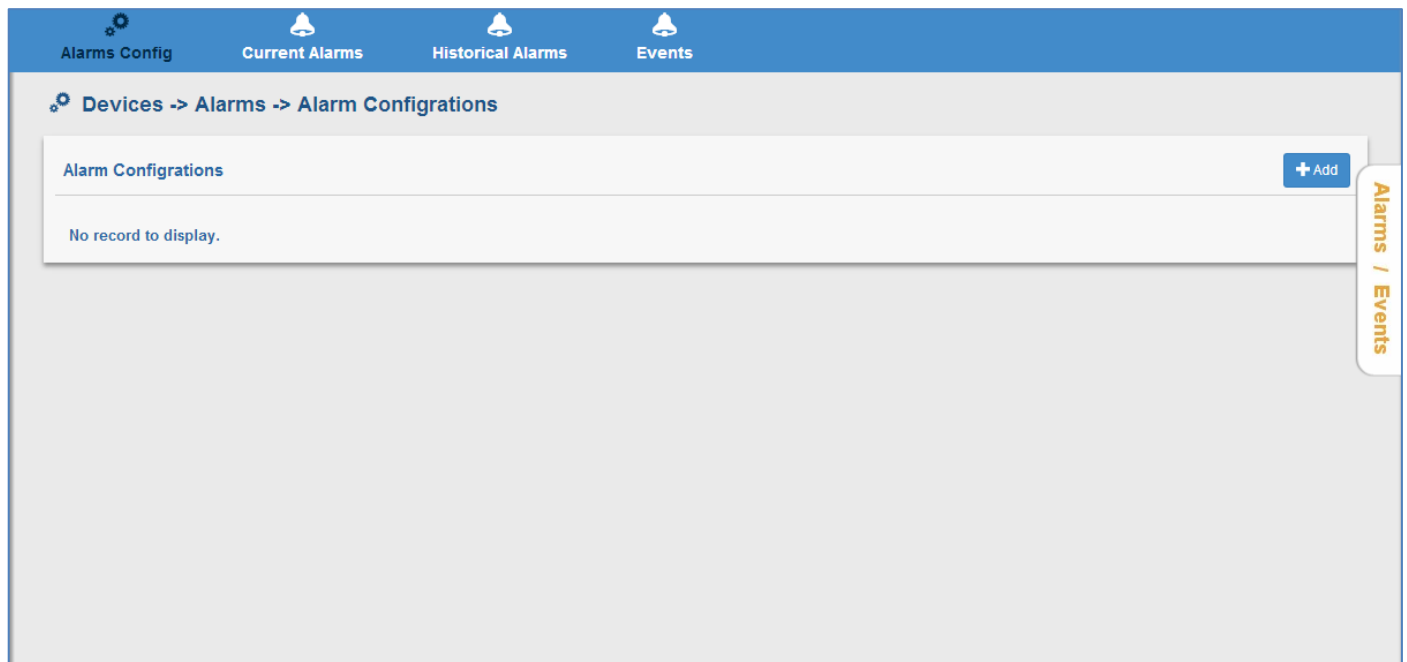
<input type="checkbox"/>	<input checked="" type="checkbox"/> 00300314091221	R3000standard	R3000 Standard
--------------------------	--	---------------	----------------

Records from 1 to 1 (Total: 1)

Reboot @ Control		
Item	Description	Default
Device Group	Select device group from the drop-down box. This device group must have been added in section device groups.	All Group
All Devices	Click to choose all devices.	Unable
 Reboot	Click to reboot devices.	/

2.9 DEVICES -> Alarms/ Events

This section allows user to add the alarms and ack those occurred Alarms and Events.



Click  to add a new alarm.

Add Alarm Configuration

Enable:

☒ Enable this Configuration

Alarm Name:*

Alarm Type:*

Please select.

Alarm Scope (Device Group):*

Please select...

Description:

alarm Level:*

☒ Critical
 ☐ Major
 ☐ Minor
 ☐ Warning

Fire Condition

Compare Condition:*

More than or equal to

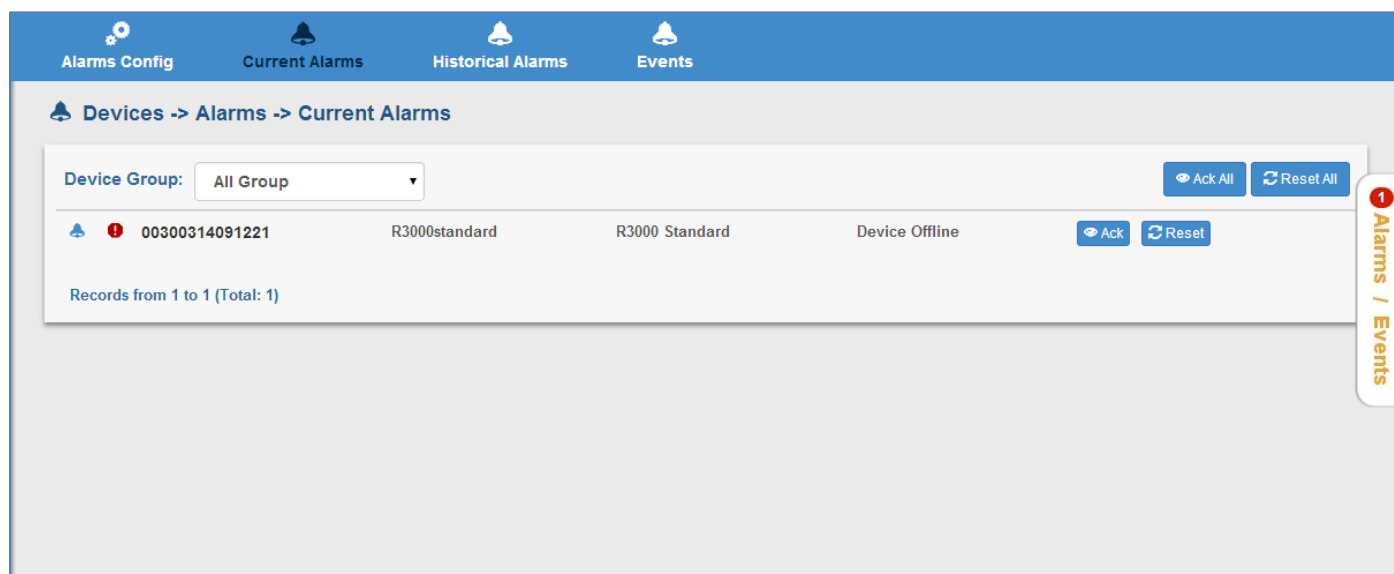
More than or equal to:*

0

OK

Cancel

Alarms Config @ Alarms/Events		
Item	Description	Default
Enable	Click to enable the alarm configuration.	Enable
Alarm Name	Enter the alarm name.	Null
Alarm Type	Select from "Device Offline", "Network Traffic Flow" or "Rssi".	Null
Alarm Scope (Device Group)	Select device group from the drop-down box. This device group must have been added in section device groups.	Null
Description	Enter some simple words about the alarm.	Null
Alarm level	Select from "Critical", "Major", "Minor", "Warning".	Critical
Compare Condition	Select "More than or equal to" or "Less than or equal to" according the alarm type.	Null



Current Alarms @ Alarms/Events		
Item	Description	Default
Device Group	Select device group from the drop-down box. This device group must have been added in section device groups.	All Group
	Click to acknowledge all the alarms.	/
	Click to reset all the alarms and RobustLink will detect the device if it occur the alarm again.	/
	Click to acknowledge the current alarms.	/
	Click to reset all alarm and RobustLink will detect the device if it occur the alarm again.	/

Click the line, the information of device historical alarm will be displayed.

Devices -> Alarms -> Historical Alarms

Device Group: All Group X Delete All

Device ID	Device Name	Device Type	Alarm Status	Alarm Level	Alarm Name	Alarm Type	Fire Time	Reset Time	Description	Action
00300314091221	R3000standard	R3000 Standard	Automatic Reset	Critical	deviceoff	Device Offline	2015-3-31 15:58:22	2015-3-31 16:28:51	off	X Delete

Records from 1 to 1 (Total: 1)

Historical Alarms @ Alarms/Events		
Item	Description	Default
Device Group	Select device group from the drop-down box. This device group must have been added in section device groups.	All Group
X Delete All	Delete all the historical alarms.	/
X Delete	Delete this historical alarm.	/

Devices -> Events -> Current Events





Device Group: All Group Ack All X Delete All

Event Type	Device ID	Device Name	Device Type	Event Type	Action
Notice	00300513070066	R3000-ssss	R3000 Standard	3G-DOWN	Ack X Delete


Records from 1 to 1 (Total: 1)

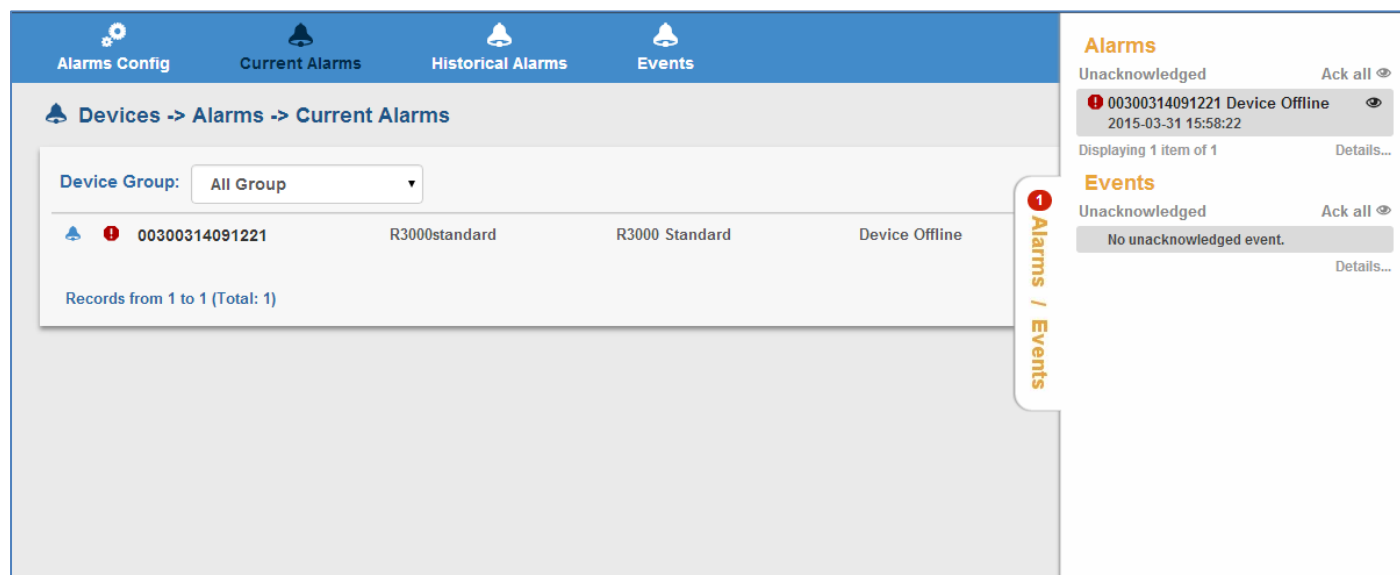
Note: Firstly, user should enable the Event function in R3000's configuration Web. The path in R3000's configuration web is Configuration->Event.

Events @ Alarms/Events		
Item	Description	Default

Device Group	Select device group from the drop-down box. This device group must have been added in section device groups.	All Group
	Click to acknowledge all the events.	/
	Click to acknowledge this current event.	/
	Delete all the current events.	/
	Delete this current event.	/

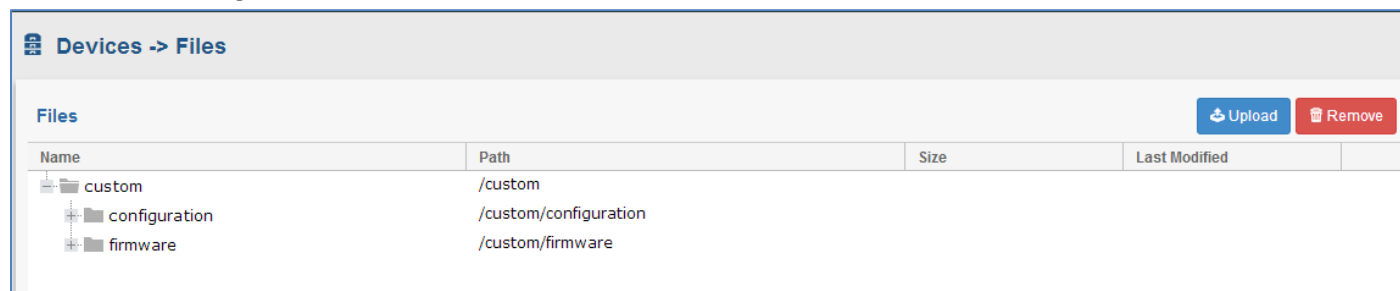



Click , the following page will appear, those are the status of alarms and events of the devices.

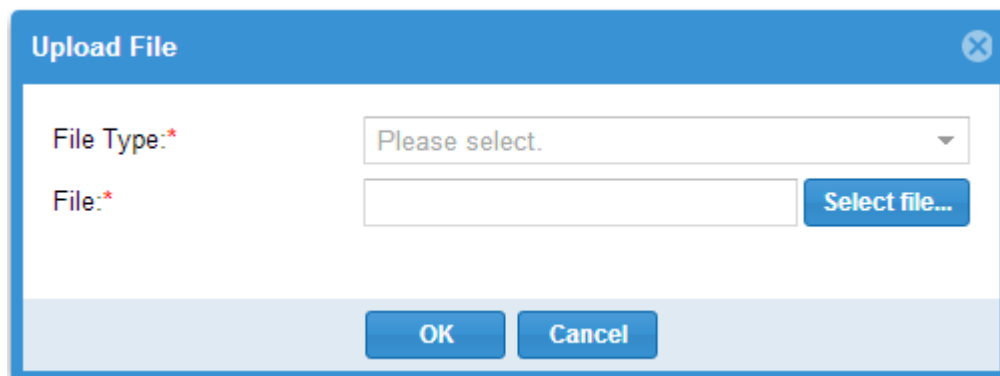


2.10 DEVICES -> Files


This section allows user to upload firmware and configuration file. And then user can use those file to update the firmware and configuration in tab “DEVICES>“Control”.



Click  to upload the correct file.




The 'Upload File' dialog box has a blue header with a close button. It contains two fields: 'File Type:*' with a dropdown menu showing 'Please select.', and 'File:*' with a text input field and a 'Select file...' button. At the bottom are 'OK' and 'Cancel' buttons.

Events @ Alarms/Events		
Item	Description	Default
File Type @ Upload File	Select from “firmware” and “configuration file”.	Null
File @ Upload File	Select the correct file from your PC.	Null
	Remove the file.	/

2.11 DEVICES -> Syslogs

This section allow user to check and export the Syslog.

Note: In device side, it should be enabled the Syslog server function firstly, enters the port (defaults 514), the path is **Configuration-->Syslog-->Syslog Remote Settings**.

Click  button to export the device's syslog file.

Click  button to delete all the syslog.


SysLogs		
Operation Day:	To 11/06/2015	Export Remove All
00000000009968	2015-11-05 16:55:27	<15>router: Router login to RobusteLink platform successfully
00000000009968	2015-11-05 16:55:22	<15>router: start dhcpd
00000000009968	2015-11-05 16:55:19	<13>router: change network (Null)->(Ethernet - up)
00000000009968	2015-11-05 16:55:19	<15>router: system service starting...
00000000009968	2015-11-05 16:10:34	<15>router: Router login to RobusteLink platform successfully
00000000009968	2015-11-05 16:10:29	<15>router: start dhcpd
00000000009968	2015-11-05 16:10:26	<13>router: change network (Null)->(Ethernet - up)
00000000009968	2015-11-05 16:10:26	<15>router: system service starting...
00000000009968	2015-11-05 14:53:28	<15>router: Router login to RobusteLink platform successfully
00000000009968	2015-11-05 14:53:23	<15>router: start dhcpd
Records from 1 to 10 (Total: 12)		Records per Page 10 1 2 > >>

2.12ADMIN -> User Groups

This section allows user to add user groups.

Note: the super_user group can only add one user, and the user in super_user group has the highest authority.

Admin -> User Groups	
User Groups	+ Add
super_user	Number of users: 1
Records from 1 to 1 (Total: 1)	

Click  to add a new user group.

Add User Group

User Group:*

OK

Cancel

Add User Group		
Item	Description	Default
User group	Enter the user group name.	Null

Click the user group name which you have added, and then it will switch to Users page. The path of Users' page is \ADMIN\Users. More details of Users configuration refers to 2.12ADMIN->Users.

2.13ADMIN -> Users

This section allows users to add users to user group.

Note: the super_user group can only add one user, and the user in super_user group has the highest authority.

Admin -> Users

User Group: All Group

+ Add

admin

super-user

Last Login: 2015-04-01 09:44:51

Edit

Pwd

Records from 1 to 1 (Total: 1)

Click

+ Add

 to add a new user to user group.

Add User

User Name:*

User Group:*

Please select.

Password:*

Confirm Password:*

Privilege:*

Please select.

Email:*

Description:

OK

Cancel

Add @ User		
Item	Description	Default
User Name	Enter the user name.	Null
User Group	Select the user group which you want to add user in.	Null
Password	Enter the password. The range of data length is from 5 to 64.	Null
Confirm Password	Enter again the password as what you set in "New Password". The range of data length is from 5 to 64.	Null
Privilege	Select from "administrator", "user" and "readonly". Administrator: User can read and change the settings of all configuration items.	Null

	User: it can read the status of tab “HOME” and “DEVICES and change the settings. readonly: it can only read the status of tab “HOME” and “DEVICES, but can’t change the settings	
Email	Enter the email which uses to receive the alarm of slave device.	Null
Description	Enter some simple words about the user.	Null

2.14ADMIN-> Agent Server

This section allows user to configure the agent server.

Admin -> Agent Server

Agent Server Connection

Agent Server Address: 127.0.0.1

Web Server Connection Port: 31001

Protocol: tcp

Timeout (s): 30

Connect

Agent Server Basic Setting

Device Login Password: admin



Heartbeat Interval (min): 1

Enable Data Forwarding: ☒ Enable

Forward Data By Modbus Address (Modbus TCP): ☒ Enable


Apply

Agent Server		
Item	Description	Default
Agent Server Address	Set IP address of Agent Server. For example, when Agent Server and Apache installed in the same server, user can enter “localhost” or “127.0.0.1” in this field; If Agent Server is set away from Apache, not in the same IP address, user should enter the IP address of Agent Server. For example, when Agent Server is installed in remote server (PC), its IP address is 120.197.58.89, and then we shall enter “120.197.58.89” in this field.	127.0.0.1
Web server Connection Port	Enter the port number which was set by agent server. For example, when start the agent server and set the 31001 for web server to access the agent server, user should enter 31001 in this field.	31001

Protocol	The protocol for web server to connect agent server.	tcp
Timeout (s)	Set timeout when web server connects to Agent Server. For example, if "Timeout" is set as "30", when web server keep on connecting Agent Server, after 30 seconds but still can't succeed to connect to Agent Server, log information will show connection timeout. Data range is from 5 to 60 seconds.	30
	Click to update settings to Agent Server after above settings.	/
Device Login Password	Enter the device login password.	Null
Heartbeat Interval (min)	When using GPRS/UMTS with a session running, most ISPs will monitor the traffic flow. If there is none for a predetermined period of time then it will shut the connection down at either the DHCP server or the APN, this is performed so that system resources are not taken up unnecessarily. To stop this happening you will need to send periodic Heartbeat bytes to keep the TCP connection always online. This item allows user to set time interval between two Heartbeat packets. The range is from 1 to 1440 min.	10
Enable Data Forwarding	Click to enable data forwarding.	unable
Forward Data By Modbus Address (Modbus TCP)	Click to enable forward data by Modbus address.	unable
	Click to make you configuration effect.	/

2.15ADMIN -> Mysql

This section allows user to send params from MySQL to agent server.

 Admin -> MySQL

MySQL Connection


Agent-Server dbhost:

Username:

Password:

Port:

DataBase Name:




Mysql		
Item	Description	Default

Send params to agent server	Click to send params from MySQL to agent server.	/
---	--	---

2.16ADMIN-> Emails

This section allows user to set the SMTP server.

 **Admin -> Email**

SMTP Server Setting

SMTP Server:

SMTP Port:

SMTP SSL:

None ▼

Auth. Username:

Auth. Password:

Email		
Item	Description	Default
SMTP Server	Enter the SMTP server IP address or domain. Only support Gmail, Hotmail, Sina and 163 SMTP servers.	Null
SMTP Port	Enter the port of SMTP server.	Null
SMTP SSL	Select from "None", "SSL" and "TLS". None: without certificate SSL: Secure Sockets Layer TLS: Transport Layer Security Gmail SMTP server supports TLS and SSL. Hotmail SMTP server supports TLS. Sina SMTP server supports all. 163 SMTP server supports all.	None
Auth. Username	Enter the username which had been authenticated by SMTP Server.	Null
Auth. Password	Enter the password which had been authenticated by SMTP Server.	Null
<input type="button" value="Apply"/>	Click to apply your setting.	/

2.17ADMIN -> Logs

This section shows the historical logs of RobustLink.

Admin -> Log


User Group: All Group

Operation Time: To 04/01/2015

Remove All

admin	Remove log(s)	2015-04-01 14:46:02
-------	---------------	---------------------

Records from 1 to 1 (Total: 1)

Logs		
Item	Description	Default
User Group	Select the user group which you want.	All group
Operation Time	Click  to select the date.	Null
<div>Remove All</div>	Click to delete all the logs.	/

2.18ADMIN -> License

This section allows user to import the license key of RobustLink.

RobustLink have two versions, one is trial version and the other is paid version. The trial version only supports five devices connections. The paid version has no limitation to number of client connections. If you want to use RobustLink without limitation, you will need to register for this software.

RobustLink

Search by device ID or device name.

admin

HOME

DEVICES

ADMIN

User Groups

Users

Agent Server

Mysql

Email

Logs

License

Admin -> License

Instructions

System ID : 0005db73

RobustLink have two versions, one is trial version and the other is paid version. The trial version only supports five client connections. The paid version has no limitation to number of client connections. If you want to use RobustLink without limitation, you will need to register for this software, the following steps :

1. Offer the System ID to us, we will according to your System ID to generate a License Key.
2. Enter the License Key in this web page, then apply.

Register

License Key:

987A8F13E3D70D7A17FA9993FB8775D5

Apply

Offer the System ID to our sales, we will according to your System ID to generate a License Key.

E.g.

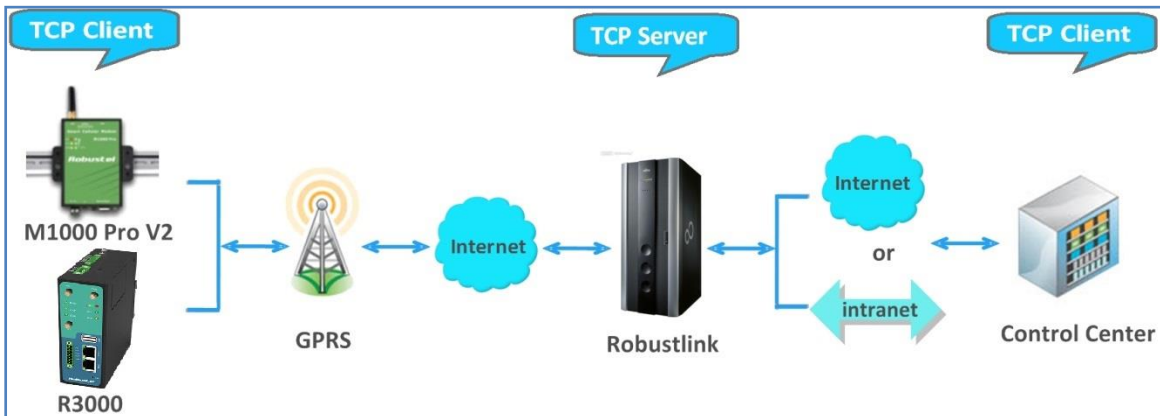
System ID: 0005db73

License key: 987A8F13E3D70D7A17FA9993FB8775D5

Enter the License Key in RobustLink, then click "Apply".

Chapter 3 Examples


3.1 Application Diagram for Introduction

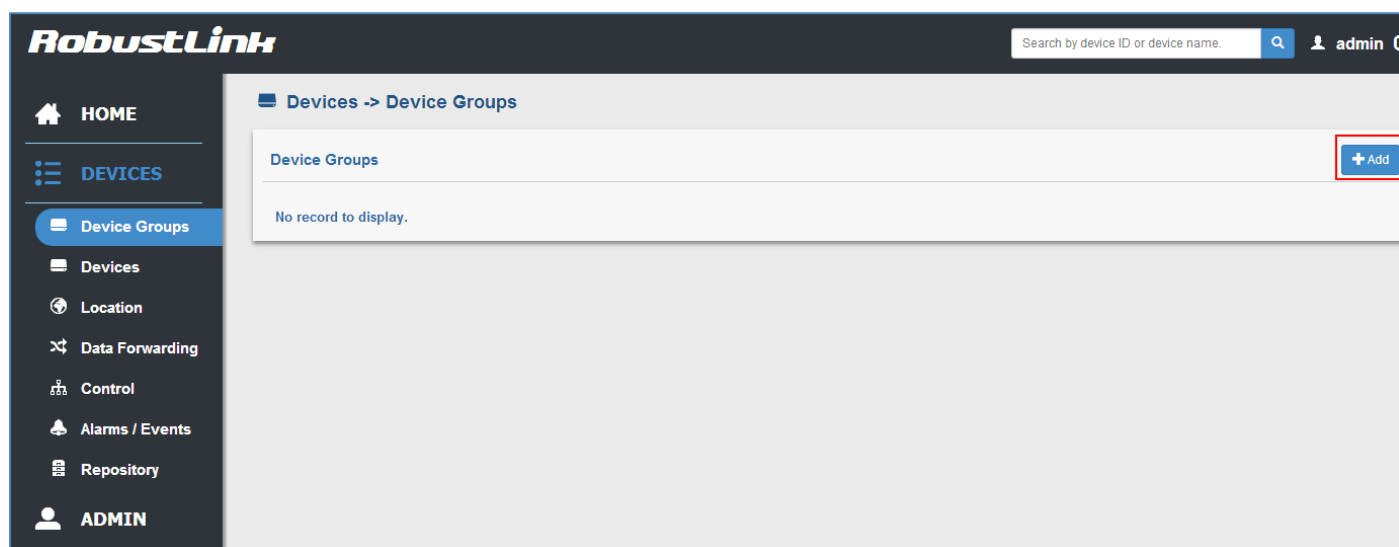


1. M1000 Pro V2/ R3000 works as TCP Client with any IP which can access to Internet.
2. RobustLink works as TCP Server with fixed public IP or dynamic IP with domain name.
3. Another TCP Client site, Control Center for example, works as another TCP Client which connects with RobustLink via intranet (LAN port) or via Internet.


3.2 Manage M1000 Pro V2 via RobustLink

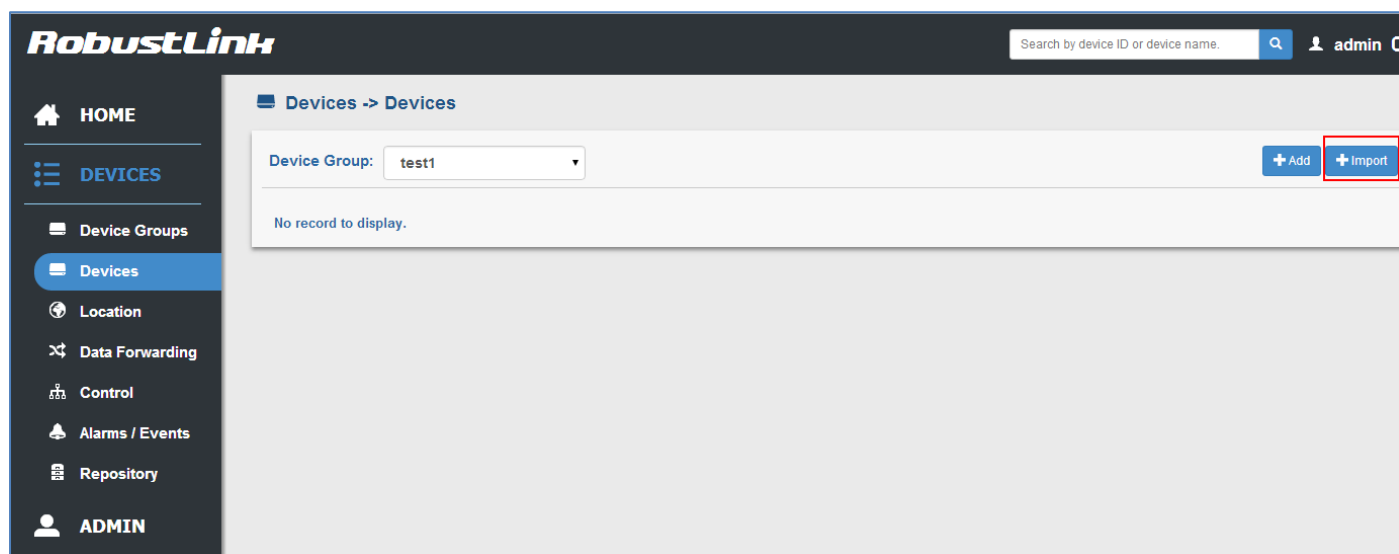
3.2.1 Connect M1000 Pro V2 to RobustLink

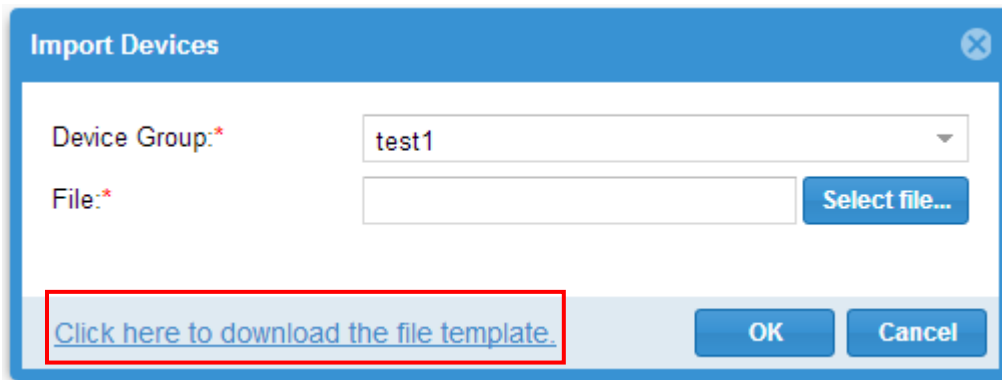
1. Login RobustLink Web GUI, go to tab "DEVICES" -> "Devices Groups", click " Add" to add a new group. The device group names test1.



2. Click “test1” (device group name), and then it will switch to Devices page.

Click “ Import”, download the file template. File name: devices.xls





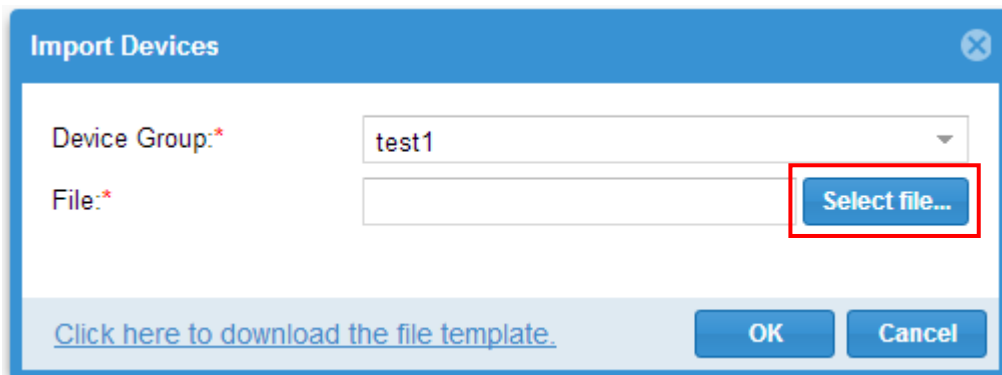
The 'Import Devices' dialog box has a blue header with a close button. It contains two input fields: 'Device Group:*' with a dropdown menu showing 'test1', and 'File:*' with an empty text box and a 'Select file...' button. At the bottom, there is a link 'Click here to download the file template.' enclosed in a red rectangle, and two buttons: 'OK' and 'Cancel'.

- Open devices.xls, enter IMEI number of M1000 Pro V2 in tab "Device ID" and **M1000_ProV2** in tab "Device Name", and then save this file. **Section 2.5 DEVICES -> devices-> device ID** will show how to find IMEI number of M1000 Pro V2.

	A	B	C
1	Device ID	Device Name	Description
2	351535052009180	M1000_ProV2	tes1
3			

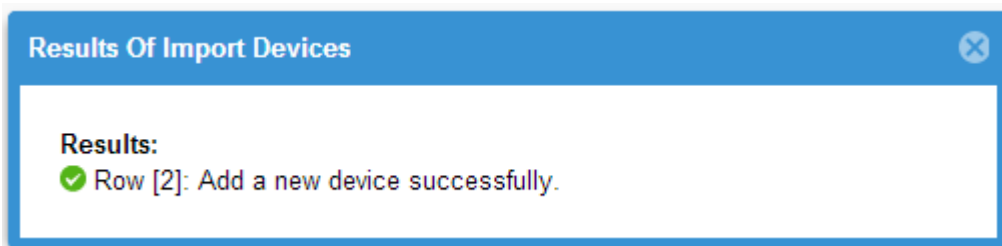
Note: In tab "Device Name", it could consist of the characters "0-9", "A-Z", "a-z", "_", ".", "-".

- Click tab "Select file ..." to import file devices.xls which you have filled in "Device ID" and "Device Name" of M1000 Pro V2.



This is the same 'Import Devices' dialog box as above, but the 'Select file...' button is highlighted with a red rectangle.

Click "OK", the following page will display. It means M1000 Pro V2 registers the RobustLink successfully.

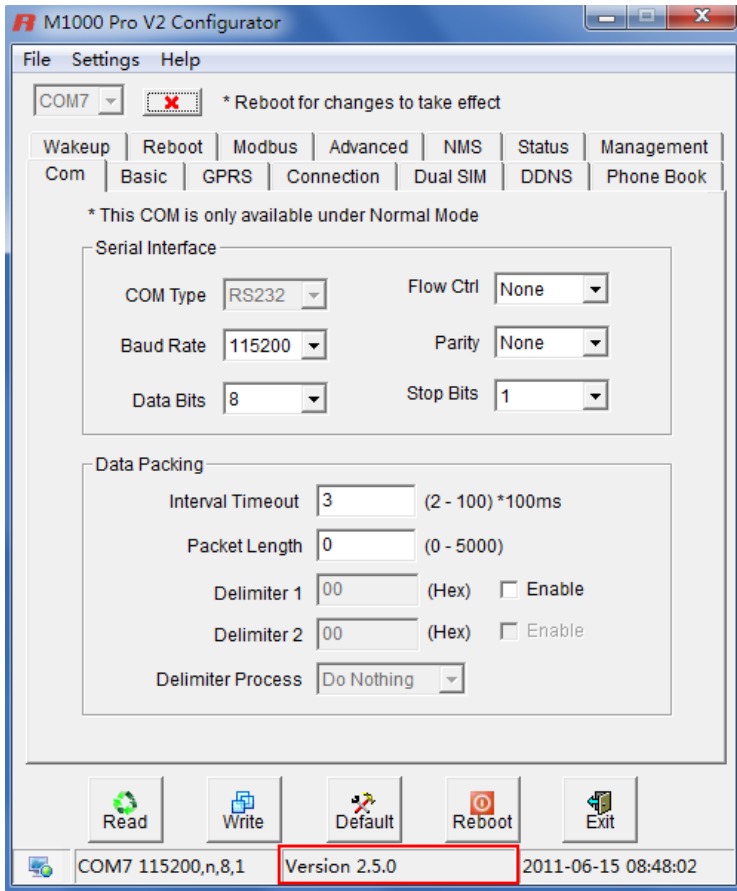


The 'Results Of Import Devices' dialog box has a blue header with a close button. It contains a section titled 'Results:' with a green checkmark icon and the text 'Row [2]: Add a new device successfully.'

- Regarding of M1000 Pro V2: install an antenna -> insert SIM card into one of the SIM card slots -> connects M1000 Pro V2 to the PC's serial port -> switch to **Config Mode** -> power on M1000 Pro V2.

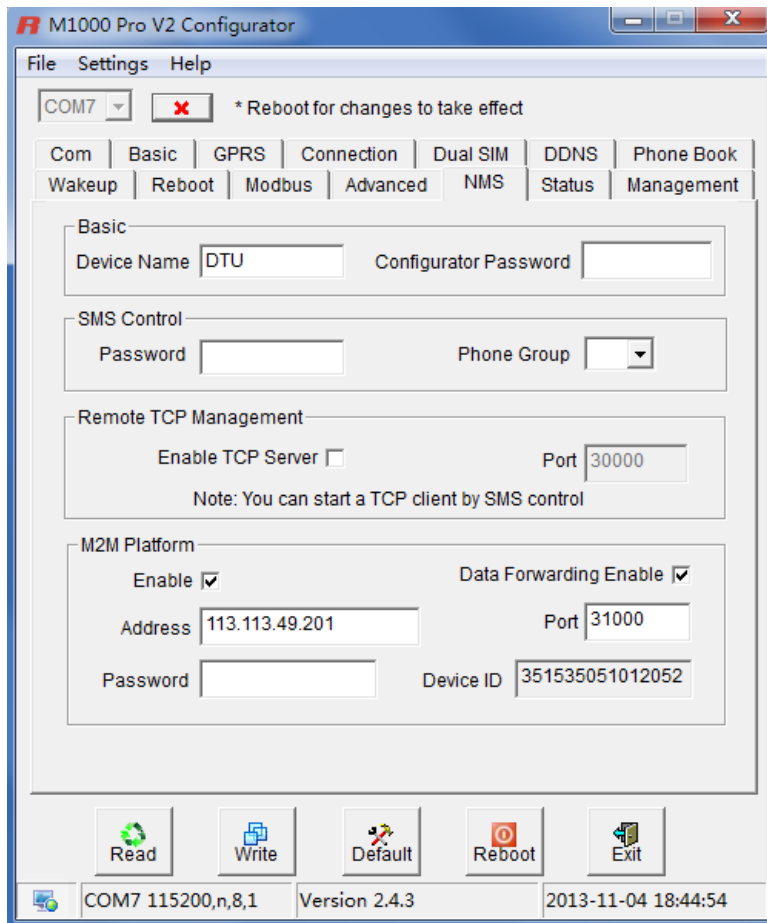


6. Run M1000 Pro V2 Configurator, Upgrade M1000 Pro V2's firmware to "Version **2.22.02**" (firmware version greater than or equal to version 2.22.02, such as version 2.5.0, will support RobustLink function), and then use M1000 Pro V2 Configurator V2.5.0.exe to configure.



Note: Please check the firmware version at the button of the Configurator to confirm that if it is newer than Version 2.22.02. If not please let us know what your firmware version is, we will provide you the proper firmware and configurator.

7. Go to tab "**COM**", select relevant com Type and Baud Rate. For example, COM type RS232, Baud Rate 115200, Data Bits 8, Flow Ctrl None, Parity None, and Stop Bits 1.
8. Go to tab "**GPRS**" --> enter relevant ISP information, for example APN, User Name, etc. Make sure M1000 Pro V2 can establish PPP connection successfully.
9. Go to tab "**Connection**" --> go to item "Connection Control" --> select "Always Online" mode. Other settings stay default.
10. Go to tab "**NMS**" --> M2M Platform, click Enable to allow M1000 Pro V2 connect to RobustLink --> enter IP address and Port number of RobustLink's in item "Address" and "Port" --> enter a password which set in the RobustLink's Web in item "Password" --> click to enable data forwarding in item "Data Forwarding Enable".

**Note:**

- **Address:** This address is RobustLink's IP address, which should be a public IP address or domain name. For example, 113.113.49.201, the address of USB dongle we use for test in this document.
- **Port:** This port number is the local port number of Agent Server (default port number is 31000), and then enter this number in this field. If Agent Server's port number is changed to another port number basing on the real application, 11021 for example, please enter 11021 in this field.
- **Password:** This password is configured in the RobustLink. This item shall be same with the password set in the RobustLink. Please refer to section **2.13 DEVICES -> Server -> Device Login Password**.
- **Device ID:** This item let you know the default single ID number of M1000 Pro V2, can't be changed.
- **Data Forwarding Enable:** Click to enable data forwarding, the topology is: data from M1000 Pro V2 (TCP client) --> RobustLink (TCP server) --> another TCP Client. At this time tab "Connection"--> "Socket Application" can't be configure. If you disable this tab, data will not be forwarded via RobustLink, they will be sent normally as you set in tab "Connection"--> "Socket Application". But RobustLink still can manage and monitor the status of M1000 Pro V2. Whether Data Forwarding should be enabled depends on customer (user). "Data Forwarding Enable" will be enabled for instruction in this document.

11. Go to tab "**Status**" --> go to item "TCP/IP", if succeed to establish PPP connection and TCP connection, "PPP Status" will show "Up" and "TCP Status" will show "Connected".

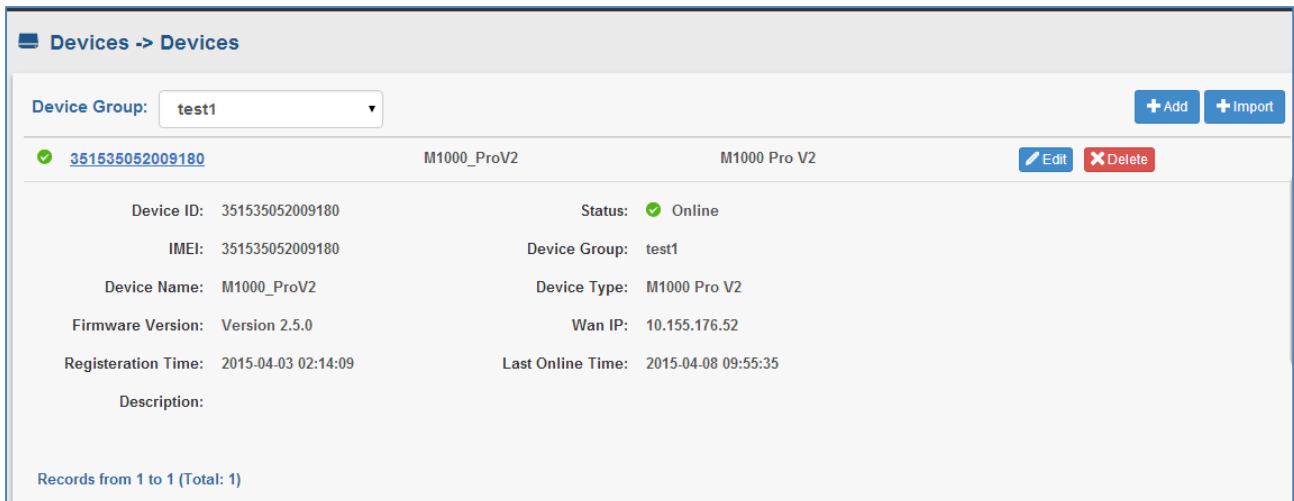
12. Other tabs stay default. Click "**Write**" to save the settings --> click "**Reboot**".

13. Switch to **Normal Mode** (data transmission mode).

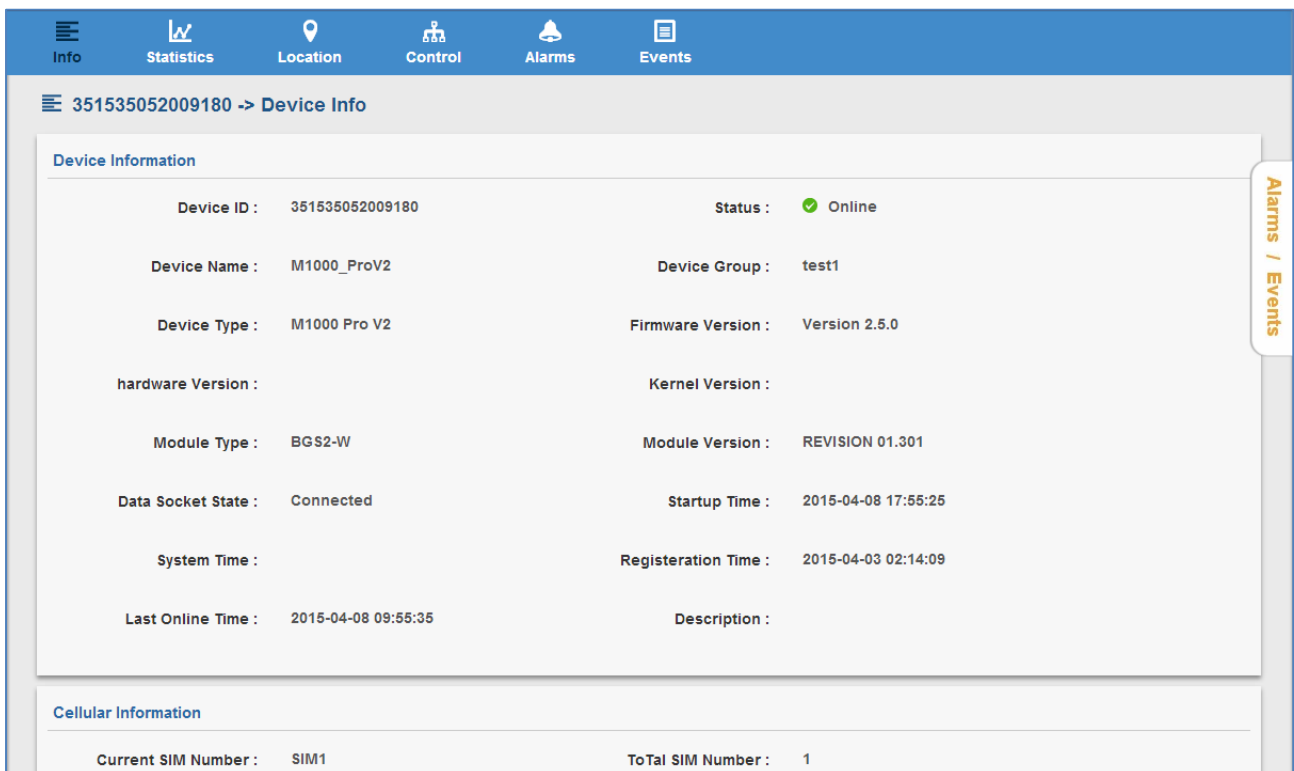
14. If M1000 Pro V2 login RobustLink successfully, it will show the following diagram.



15. If click the any place of device name (M1000_ProV2), it will show the key information of M1000 ProV2.

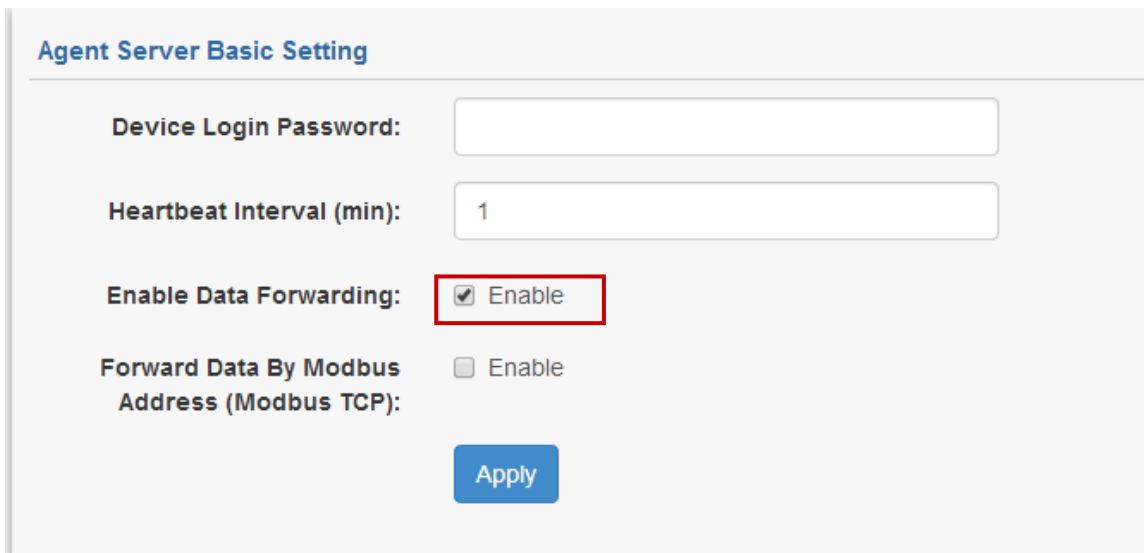


16. Click the device ID (00300500011111), it will show the detail information of M1000 Pro V2 which include Info, Statistics, Location, Control, Alarms and Events.



3.2.2 Forward data from M1000 Pro V2 to RobustLink

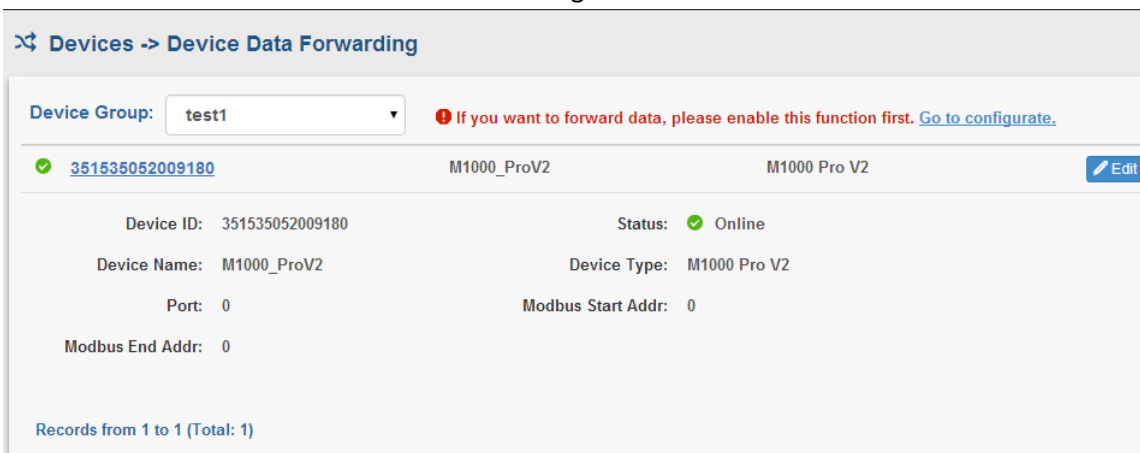
1. Open RobustLink, go to tab "CONFIGURATION" --> Basic Settings--> click "Enable Data Forwarding"--> click "Apply" to activate these settings.



The screenshot shows the 'Agent Server Basic Setting' form. It contains the following fields and controls:

- Device Login Password:** A text input field.
- Heartbeat Interval (min):** A text input field containing the value '1'.
- Enable Data Forwarding:** A checkbox labeled 'Enable' which is checked. This checkbox is highlighted with a red rectangle.
- Forward Data By Modbus Address (Modbus TCP):** A checkbox labeled 'Enable' which is unchecked.
- Apply:** A blue button at the bottom right of the form.

2. Go to tab "CONFIGURATION"--> Data Forwarding.

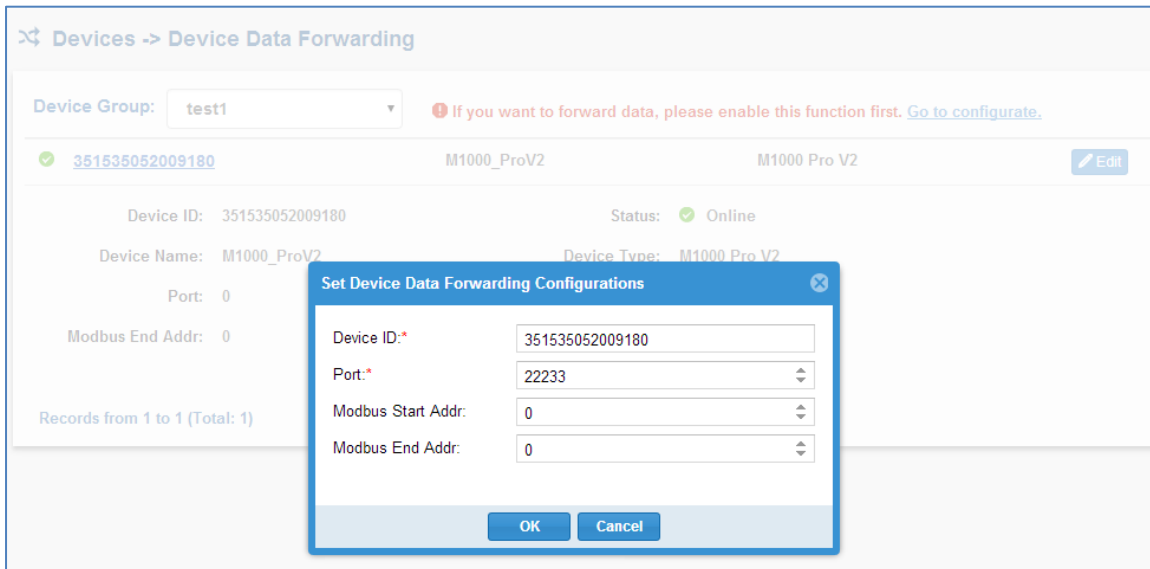


The screenshot shows the 'Devices -> Device Data Forwarding' page. It contains the following elements:

- Device Group:** A dropdown menu with 'test1' selected.
- Warning:** A red icon and text: "If you want to forward data, please enable this function first. [Go to configure.](#)"
- Device List:** A table with one device entry.

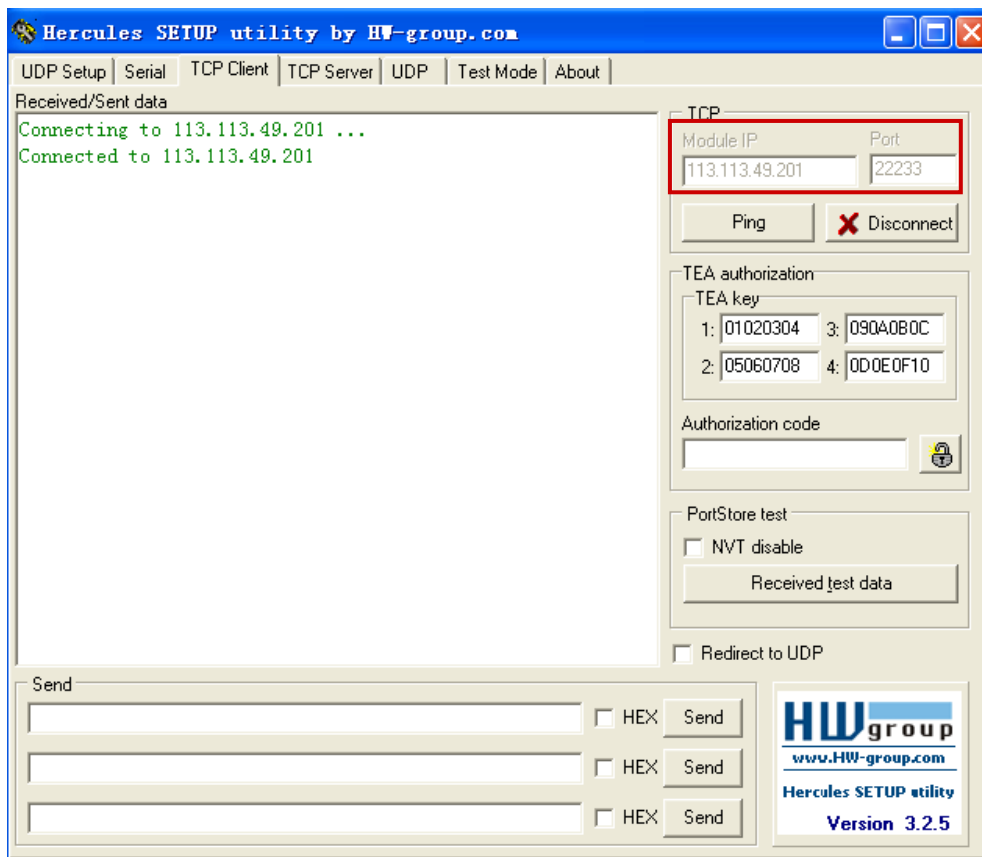
Device ID	Device Name	Device Type	Status	Port	Modbus Start Addr	Modbus End Addr
351535052009180	M1000_ProV2	M1000 Pro V2	Online	0	0	0
- Records from 1 to 1 (Total: 1)**

3. Click the white place of Index 1, show details of Data Forwarding information. Set an idle port number, for example 22233. Then click "Apply".



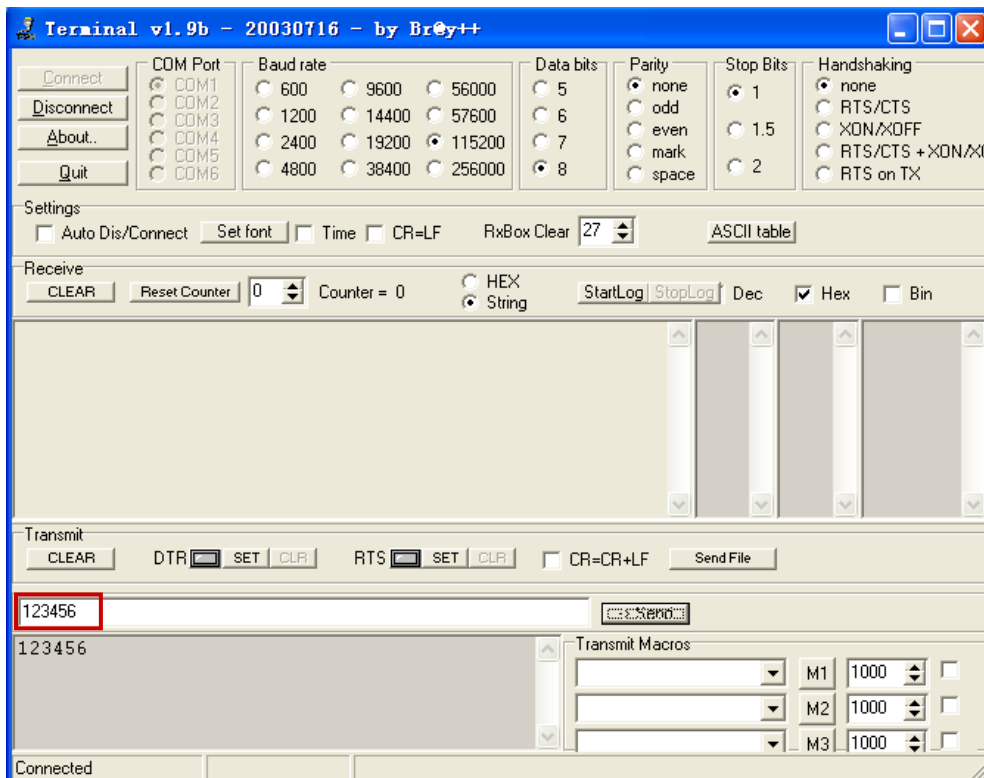
Note: Now RobustLink agent has become a TCP server, IP address is 113.113.49.201, local port number is 22233.

4. Run Hercules (download via link http://www.hw-group.com/products/hercules/index_en.html) --> go to tab "TCP Client" --> enter IP address and Port number of above TCP server which has been created in RobustLink --> click "Connect". If succeed to connect to the TCP Server, in this document, it will show up message "Connecting to 113.113.49.201 ...
Connected to 113.113.49.201".

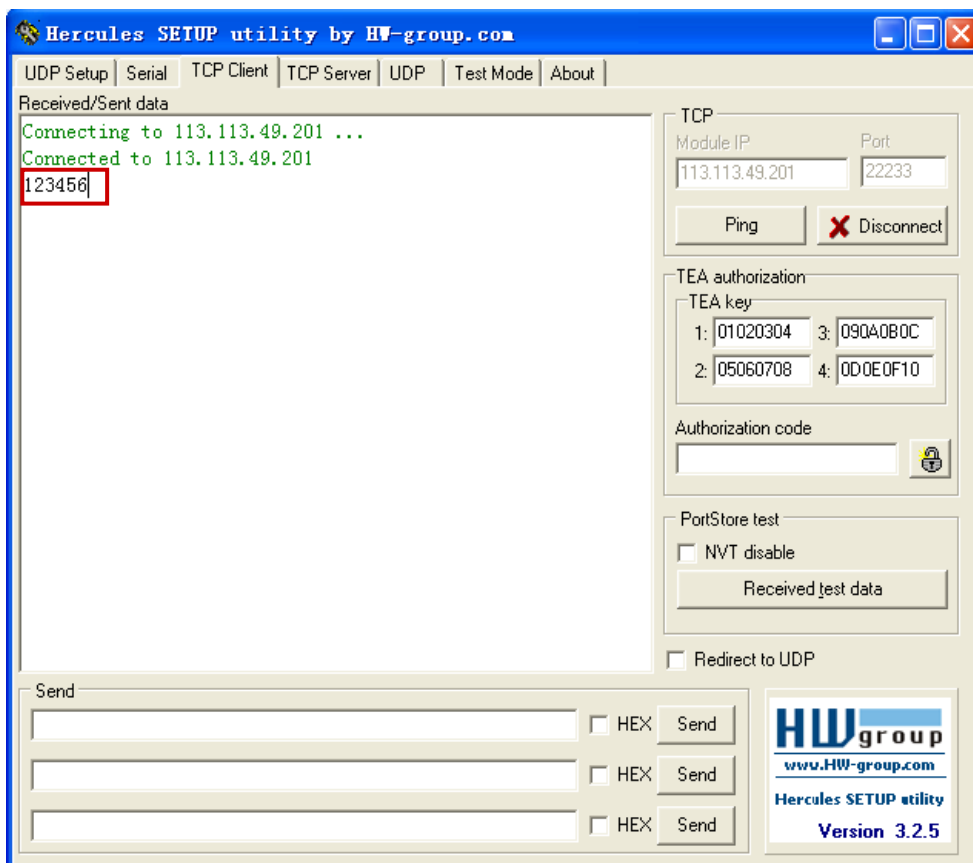


5. Run Terminal exe (download via link <https://www.box.com/s/67a68jraki9k1r0lijuz>) --> select the same serial port settings of M1000 Pro V2: COM 1, Baud Rate 115200, Data Bits 8, Parity none, Stop Bits 1, Handshaking none -->

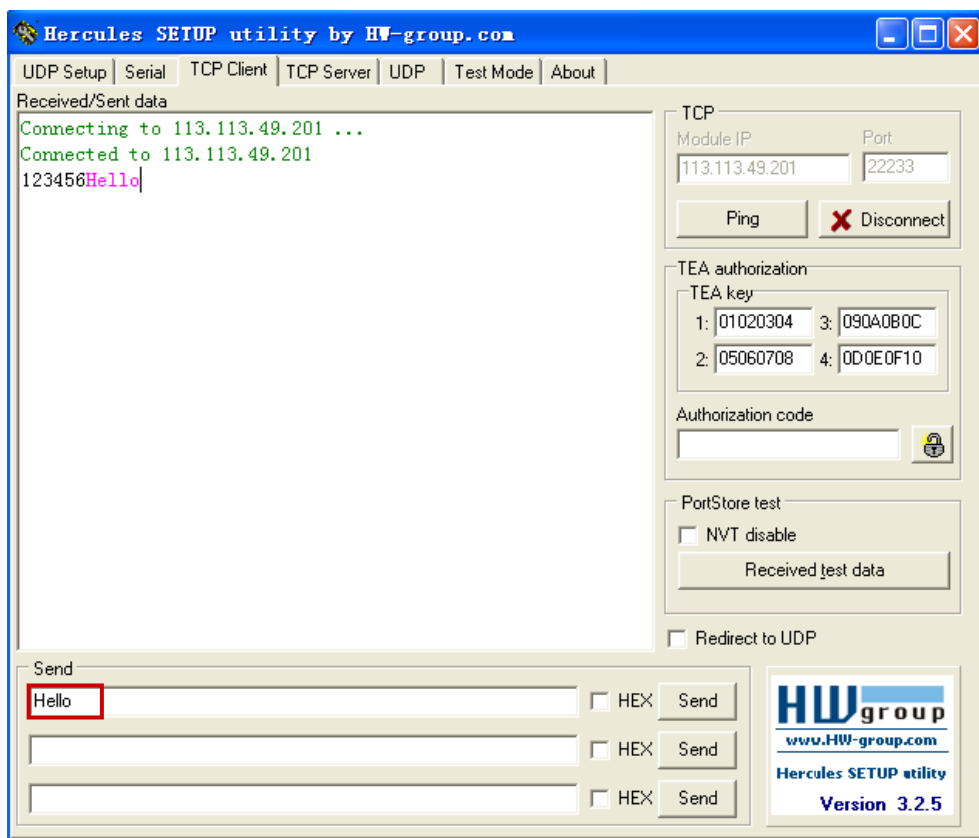
click “Connect” --> enter characters like “123456” --> click “Send”.



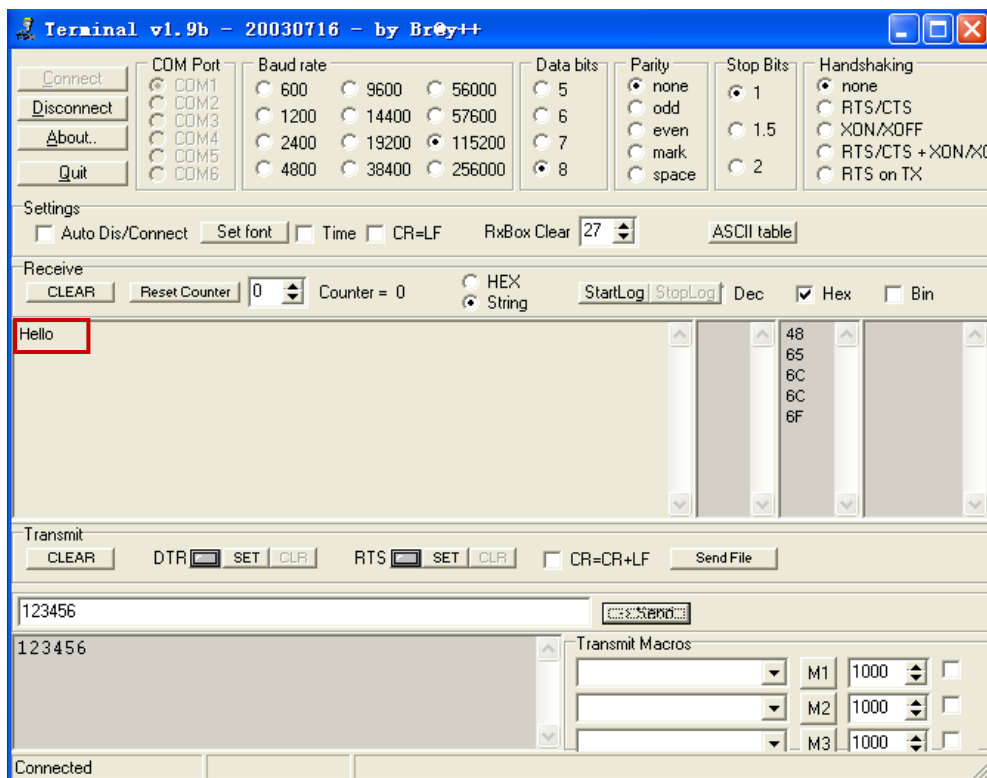
6. Check Hercules, if data “123456” shows up, that means RobustLink succeed to forward data “123456” sent from M1000 Pro V2.



7. Enter characters “Hello” in Hercules --> click “Send”.




8. Check Terminal.exe, if data “Hello” shows up, that means RobustLink succeed to forward data “Hello” which is sent from Control Center.

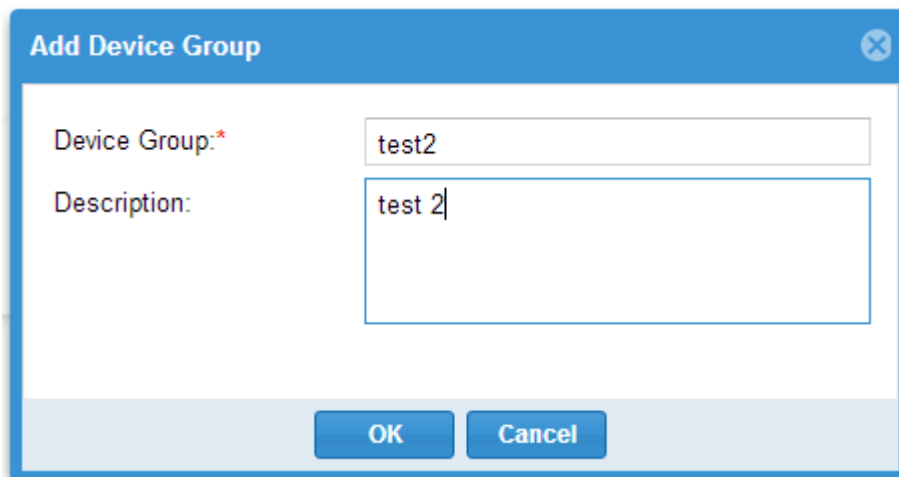
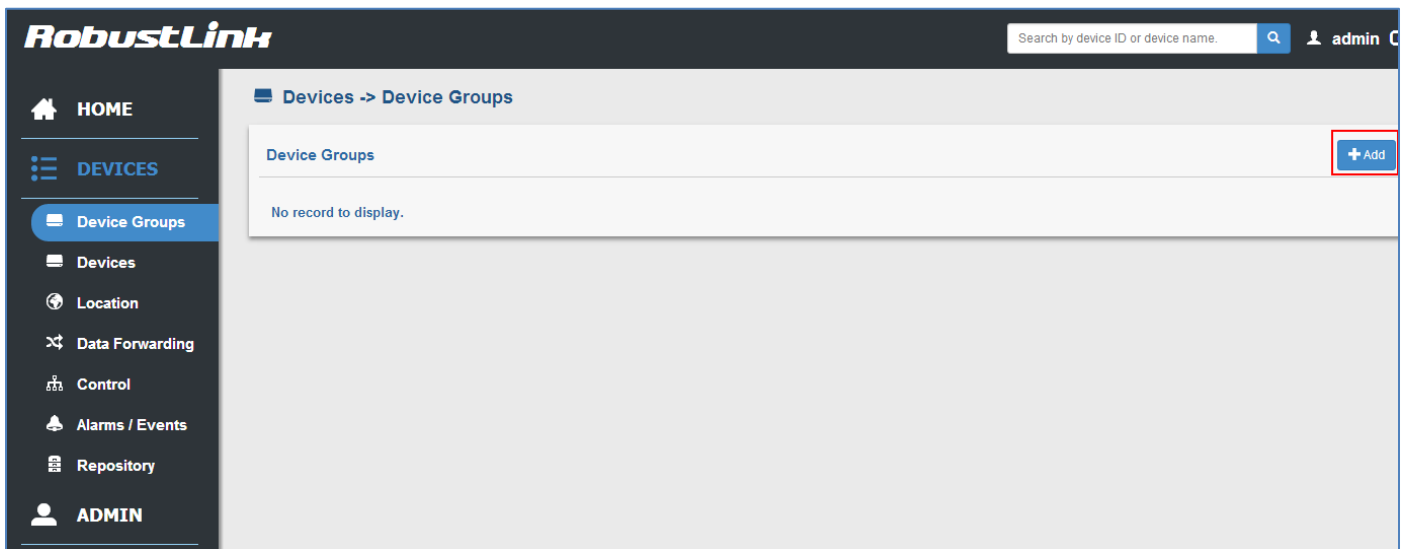



3.3 Manage R3000 Standard via RobustLink

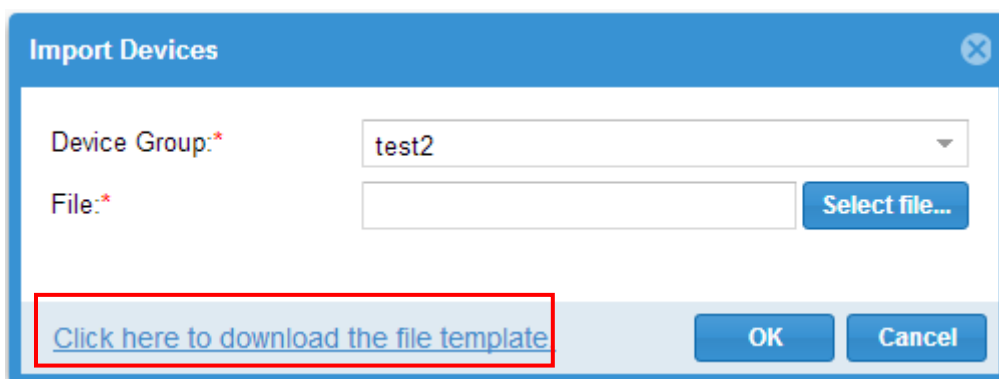
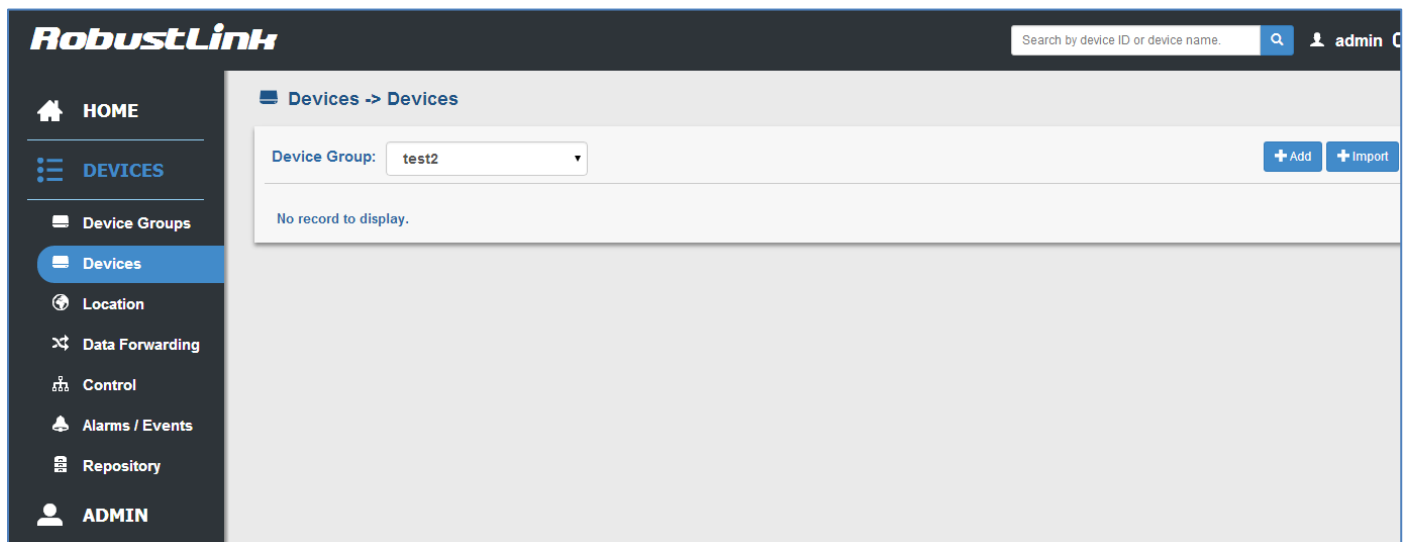
3.3.1 Connect to RobustLink

There are two ways for R3000 Standard to connect to RobustLink, one is R3000 Standard connect to Internet through cellular network (GPRS), then connect to RobustLink; the other is to connect to Internet through Ethernet (broadband), then connect to RobustLink. In this document we use the first method.

1. Login RobustLink Web GUI, go to tab “DEVICES” -> “Devices Groups”, click “ Add” to add a new group.
The device group names test2.



2. Click “test2” (device group name), and then it will switch to Devices page.
Click “ Import”, download the file template. File name: devices.xls

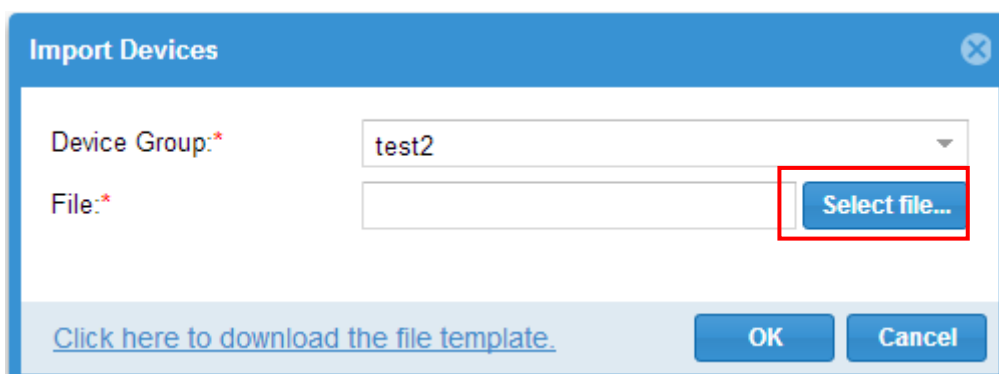


- Open devices.xls, enter Serial Number of R3000 Standard in tab "Device ID" and **R3000_Standard** in tab "Device Name", and then save this file. **Section 2.5 DEVICES -> devices -> Device ID @ add** will show how to find Serial Number of R3000 Standard.

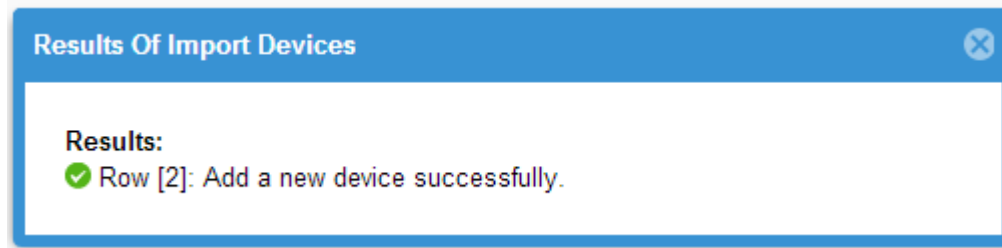
	A	B	C
1	Device ID	Device Name	Description
2	351535052009180	M1000_ProV2	tes1
3	300500011111	R3000_Standard	test2
4			

Note: In tab "Device Name", it could consist of the characters "0-9", "A-Z", "a-z", "_", ":", "-".

- Click tab "Select file ..." to import file devices.xls which you have filled in "Device ID" and "Device Name" of R3000 Standard.



Click “Ok”, the following page will display. It means R3000 Standard registers the RobustLink successfully.



- Regarding of R3000 Standard, Install an antenna, insert SIM card into one of the card slot. Power on R3000 Standard, login R3000 Standard's Web GUI page.

User authentication required. Login please.

Username:

Password:

Language:

Please enter your login username and password.

- Go to tab “Configuration”--> “Cellular WAN” --> enter relevant correct ISP settings --> click “Apply”.

Logged in as: admin

Status | **Basic** | **Advanced** | **ISP Profile**

Configuration

- Link Management
- Cellular WAN**
- Ethernet
- Serial
- USB
- NAT/DMZ
- Firewall
- IP Routing
- DynDNS
- IPsec
- OpenVPN
- GRE
- L2TP
- VPN

Cellular Settings

	SIM1	SIM2
Status:	Not inserted	Ready
Network Provider Type:	Auto	china-mobile
APN:		3gnet
Username:		
Password:		
Dialup No.:		*99***1#
PIN code request:	<input type="button" value="Set PIN Code"/>	<input type="button" value="Set PIN Code"/>

Connection Mode

Connection Mode: Always online

Redial Interval (s): 30

Max Retries: 3

Dual SIM Policy

Main SIM Card: SIM1

- ☒ Switch to backup SIM card when connection fails
- ☐ Switch to backup SIM card when roaming is detected
- ☐ Switch to backup SIM card when data limit is exceeded
- ☐ Switch back Main SIM card after timeout

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- Go to tab “Configuration”--> “RobustLink” --> enter server (RobustLink) address and local port in the item “Server Address” and “Port”. If you want set a login password for RobustLink, go to item “Password”, enter a password which is preseted in the RobustLink. For example, if RobustLink set password “1234”, we need to enter “1234” in here --> click “Apply” --> click “Save” --> click “Reboot”.

Note: Please check the firmware version and confirm that if it is newer than Version 1.2.4.

RobustLink

RobustLink Settings

☒ Enable RobustLink

Server Address: 113.113.49.201

Port: 31000

Password:

Apply Cancel

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Note:

- **Server Address:** This address is RobustLink's IP address, which should be a public IP address or URL. For example, 113.113.49.201, the address of USB dongle we use for test in this document.
- **Port:** This port number is the local port number of Agent Server (default port number is 31000), and then enter this number in this field. If Agent Server's port number is changed to another port number basing on the real application, 11021 for example, please enter 11021 in this field.
- **Password:** Enter the password which set in the RobustLink. Please refer to section **2.13 DEVICES -> Server -> Device Login Password**.

8. If R3000 Standard login RobustLink successfully, it will show the following diagram.

Devices -> Devices

Device Group: All Group

+ Add + Import

✓	00300500011111	R3000_Standard	R3000 Standard	Edit Delete
---	----------------	----------------	----------------	-------------

Records from 1 to 1 (Total: 1)

9. If click any place of device name (R3000_standard), it will show the key information of R3000 Standard.

Devices -> Devices

Device Group: test2

+ Add + Import

00300500011111 R3000_Standard R3000 Standard Edit Delete

Device ID: 00300500011111 Status: Online

IMEI: Device Group: test2

Device Name: R3000_Standard Device Type: R3000 Standard

Firmware Version: 1.01.18 Wan IP:

Registration Time: 2015-04-08 11:45:41 Last Online Time: 2015-04-08 13:39:51

Description:

Records from 1 to 1 (Total: 1)

Alarms / Events

- Click the device ID (00300500011111), it will show the detail information of R3000 Standard which include Info, Statistics, Location, Control, Alarms and Events.

Info Statistics Location Control Alarms Events

00300500011111 -> Device Info

Device Information

Device ID : 00300500011111 Status : Online

Device Name : R3000_Standard Device Group : test2

Device Type : R3000 Standard Firmware Version : 1.01.18

hardware Version : Kernel Version :

Module Type : BGS2 Module Version : REVISION 01.301

Data Socket State : Disconnected Startup Time : 2015-4-8 13:37:36

System Time : Registration Time : 2015-04-08 11:45:41

Last Online Time : 2015-04-08 13:39:51 Description :

Cellular Information

Current SIM Number : Total SIM Number : 0

Alarms / Events

3.3.2 Forward data from R3000 Standard to RobustLink

- Before forwarding data from R3000 Standard via RobustLink, please check **section 3.3.1 Connect to RobustLink**, configure settings such as “Cellular WAN” and “Portal” to confirm R3000 Standard can successfully connect to RobustLink. After that, go to tab “Configuration” --> “Serial” --> “RS232” --> “Protocol Settings” --> “Protocol”,

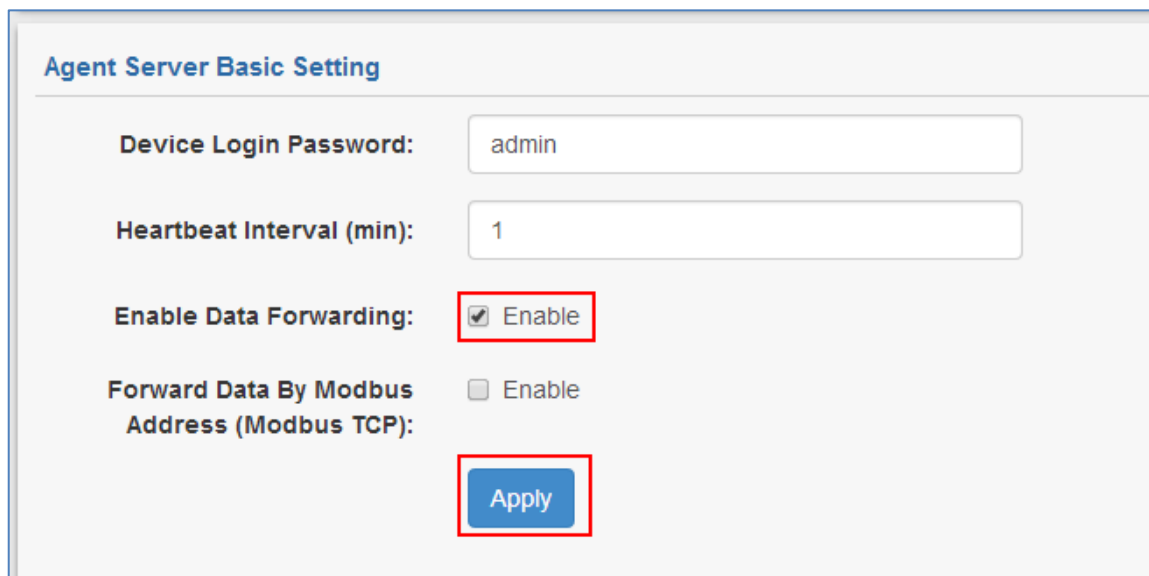
select “**Transparent Over Rlink**”. Other settings such as “Interval Timeout” and “Serial Port Settings” stay default
--> click “Apply” --> click “Save” --> click “Reboot”.

The screenshot shows the RobustLink configuration interface. The top bar includes the RobustLink logo, a language dropdown set to English, and links for Save, Reboot, Logout, and a user status indicator 'Logged in as: admin'. The left sidebar contains a 'Status' section with links to System, Network, Route, VPN, Services, and Event/Log, and a 'Configuration' section with links to Link Management, Cellular WAN, Ethernet, Serial (highlighted), DI/DO, USB, NAT/DMZ, Firewall, IP Routing, DynDNS, IPsec, OpenVPN, GRE, L2TP, PPTP, SNMP, and VRRP. The main content area has tabs for RS232 (selected) and RS485. Under the RS232 tab, there are two sections: 'Serial Port Settings' and 'Protocol Settings'. The 'Serial Port Settings' section includes dropdowns for Baudrate (115200), Data bit (8), Parity (None), Stop bit (1), and Flow control (None). The 'Protocol Settings' section includes a dropdown for Protocol (Transparent Over Rlink) and a text input for Interval Timeout (1*10ms) set to 10. At the bottom right of the main content area are 'Apply' and 'Cancel' buttons. The footer contains the copyright notice: 'Copyright © 2013 Robustel Technologies. All rights reserved.'

- Open RobustLink, go to tab “Home”, confirm R3000 Standard (device number is 300513060001) has logged in RobustLink.

The screenshot shows the 'Devices -> Devices' page in RobustLink. It features a 'Device Group' dropdown set to 'test2' and buttons for '+ Add' and '+ Import'. Below this is a table with one entry: a green checkmark, the device ID '00300500011111', the name 'R3000_Standard', and the description 'R3000 Standard'. To the right of the entry are 'Edit' and 'Delete' buttons. At the bottom, it says 'Records from 1 to 1 (Total: 1)'.

- Go to tab “ADMIN” --> “Agent Server” --> “Agent Server Basic Setting”--> click “☐ Enable” Enable Data Forwarding--> click “**Apply**” to activate these settings.



Agent Server Basic Setting

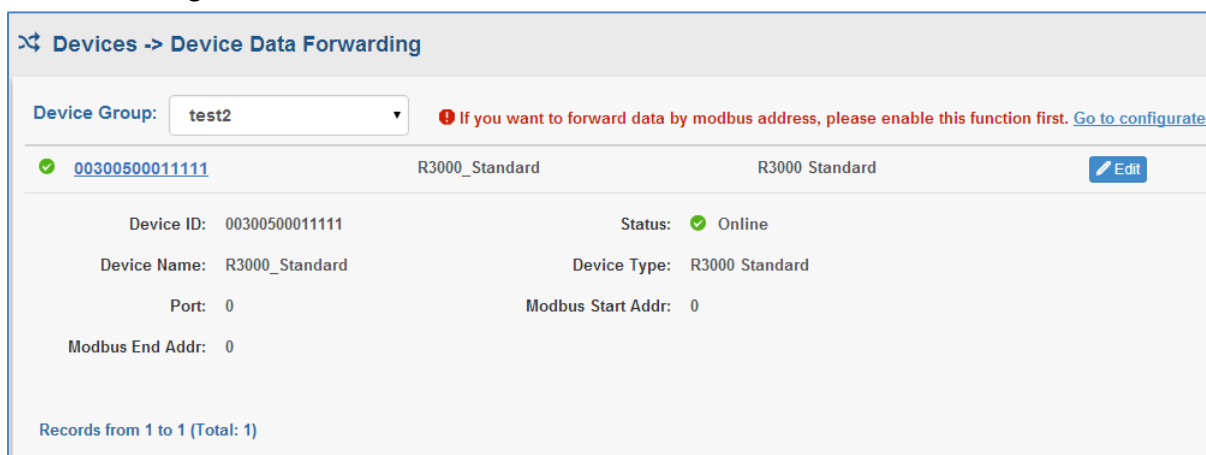
Device Login Password:

Heartbeat Interval (min):

Enable Data Forwarding: ☒ Enable

Forward Data By Modbus Address (Modbus TCP): ☐ Enable

4. Go to tab “DEVICES”--> “Data Forwarding”. Click any place of device name “R3000_Standard”, show details of Data Forwarding information.



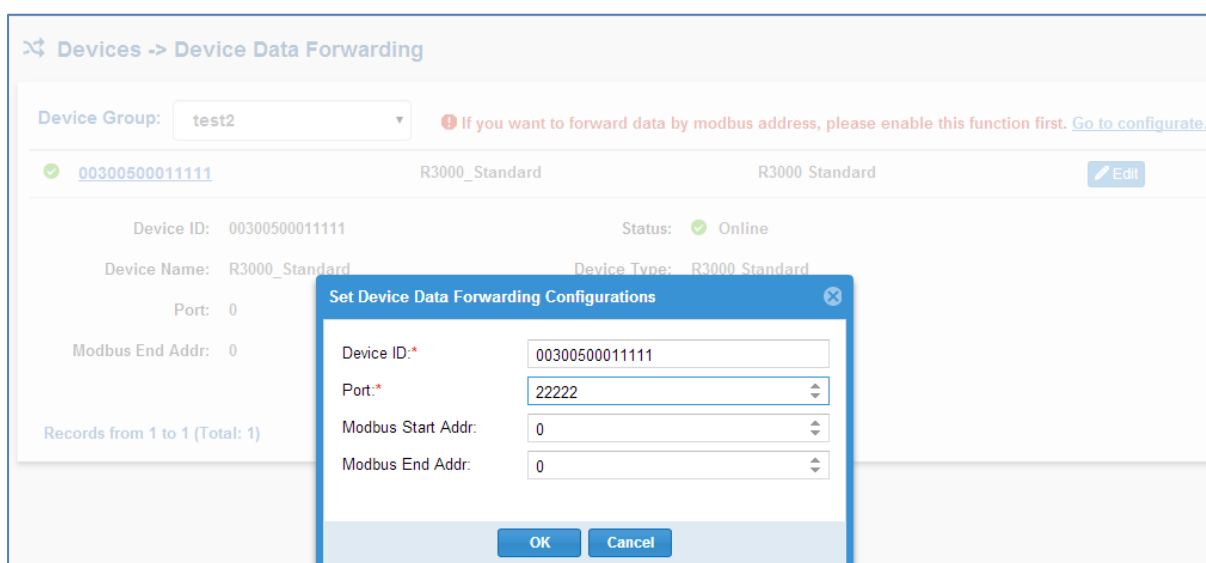
Devices -> Device Data Forwarding

Device Group: ! If you want to forward data by modbus address, please enable this function first. [Go to configure.](#)

Device ID	Device Name	Device Type	Status	Port	Modbus Start Addr	Modbus End Addr	Action
00300500011111	R3000_Standard	R3000 Standard	Online	0	0	0	<input type="button" value="Edit"/>

Records from 1 to 1 (Total: 1)

5. Click to set an idle port number, for example 22222. Then click “Apply”.



Devices -> Device Data Forwarding

Device Group: ! If you want to forward data by modbus address, please enable this function first. [Go to configure.](#)

Device ID	Device Name	Device Type	Status	Port	Modbus Start Addr	Modbus End Addr	Action
00300500011111	R3000_Standard	R3000 Standard	Online	0	0	0	<input type="button" value="Edit"/>

Records from 1 to 1 (Total: 1)

Set Device Data Forwarding Configurations

Device ID:*

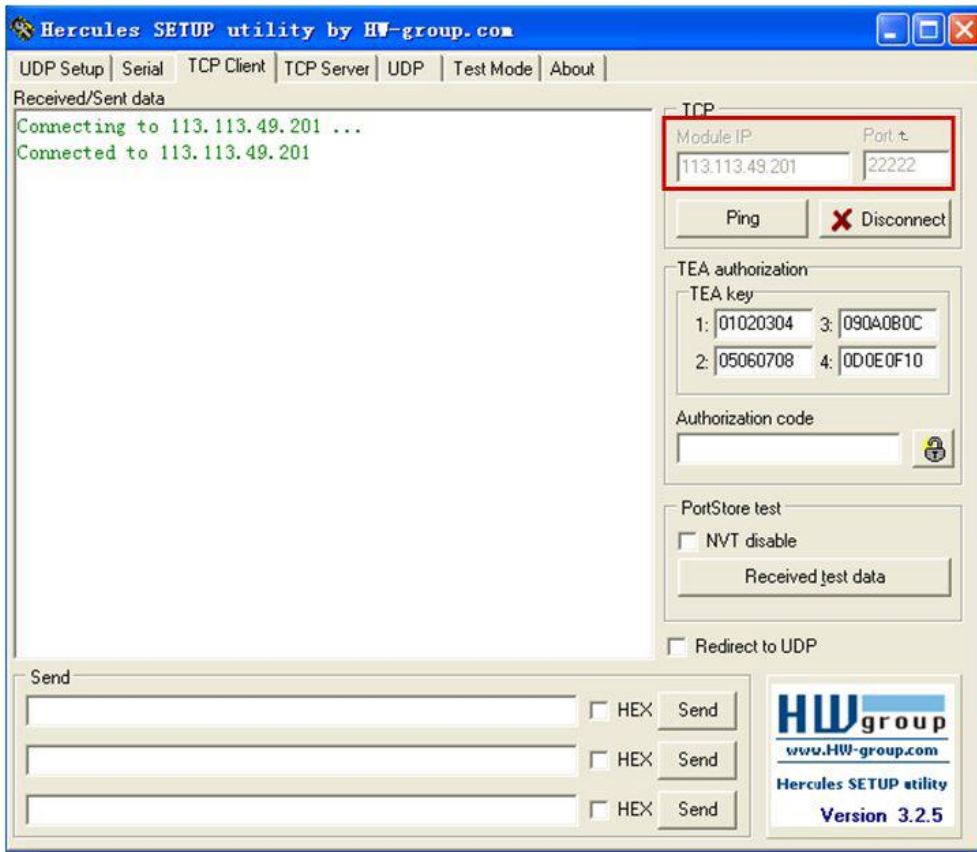
Port:*

Modbus Start Addr:

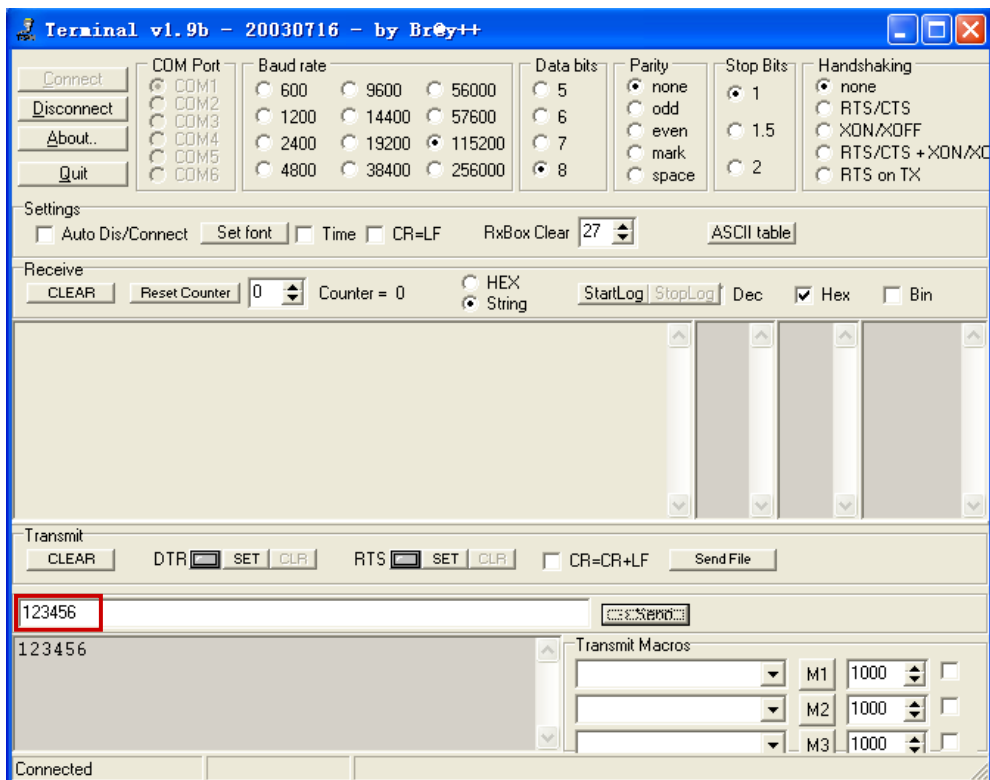
Modbus End Addr:

Note: Now RobustLink agent has become a TCP server, IP address is 113.113.49.201, local port number is 22222.

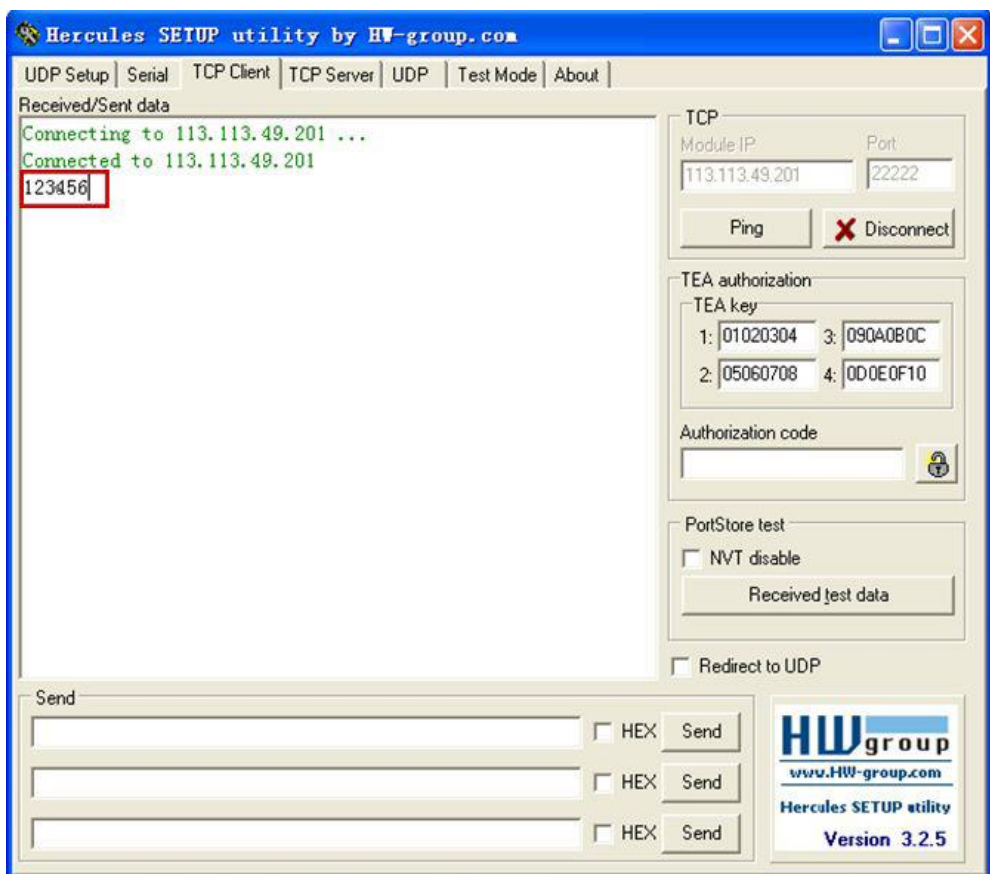
6. Run **Hercules** (download via link http://www.hw-group.com/products/hercules/index_en.html) --> go to tab "TCP Client" --> enter IP address and Port number of above TCP server which has been created in RobustLink --> click "Connect". If succeed to connect to the TCP Server, in this document, it will show up message "Connecting to 113.113.49.201 ...
Connected to 113.113.49.201".



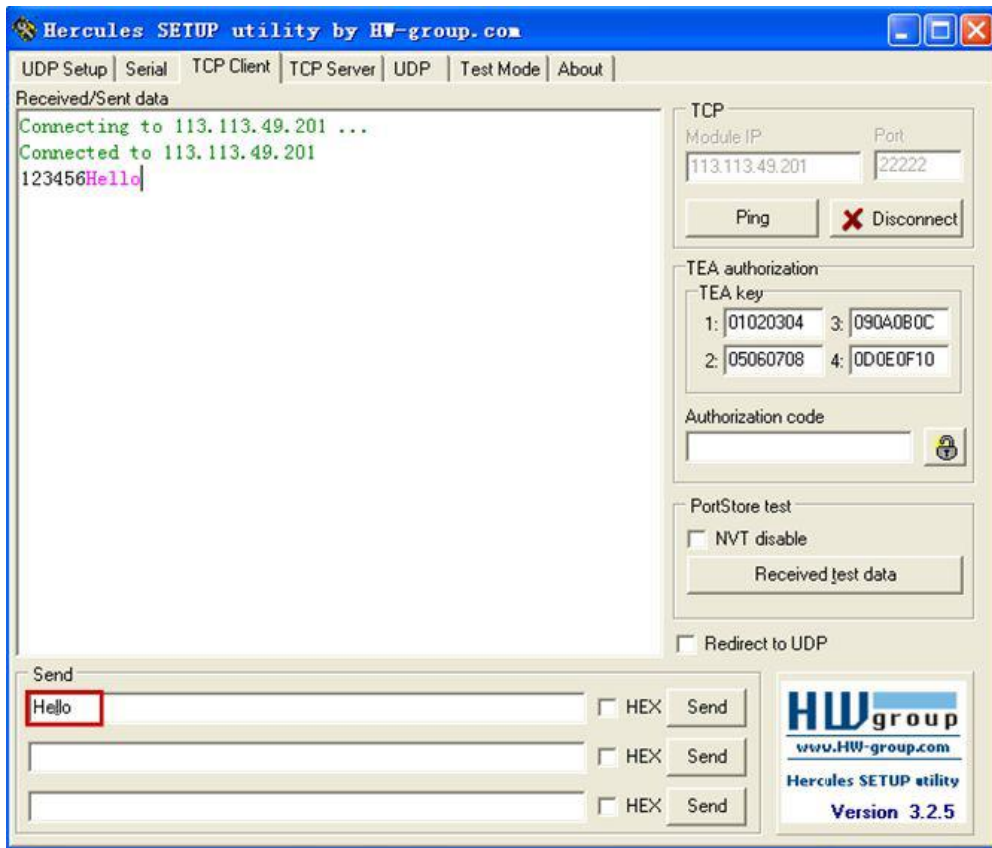
7. Run **Terminal exe** (download via link <https://www.box.com/s/67a68jraki9k1r0lijuz>) --> select the same serial port settings of R3000 Standard: COM 1, Baud Rate 115200, Data Bits 8, Parity none, Stop Bits 1, Handshaking none --> click "Connect" --> enter characters like "123456" --> click "Send".



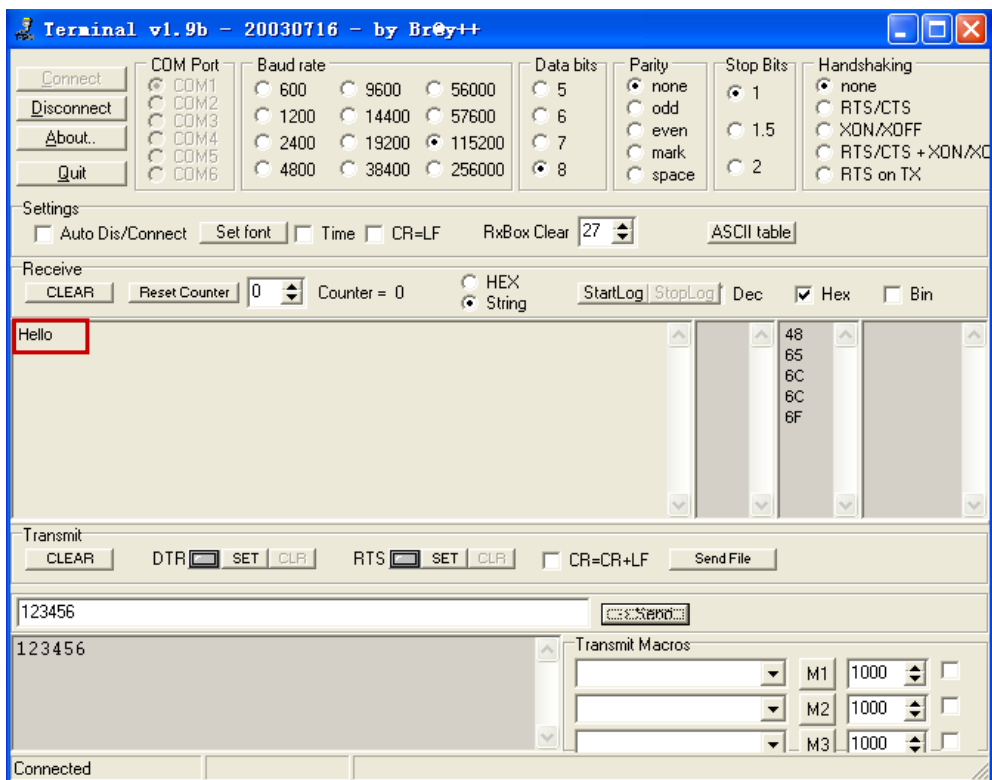
8. Check **Hercules**, if data “123456” shows up, that means RobustLink succeed to forward data “123456” sent from R3000 Standard.



9. Enter characters “Hello” in **Hercules** --> click “Send”.



10. Check **Terminal.exe**, if data “Hello” shows up, that means RobustLink succeed to forward data “Hello” which is sent from Control Center.

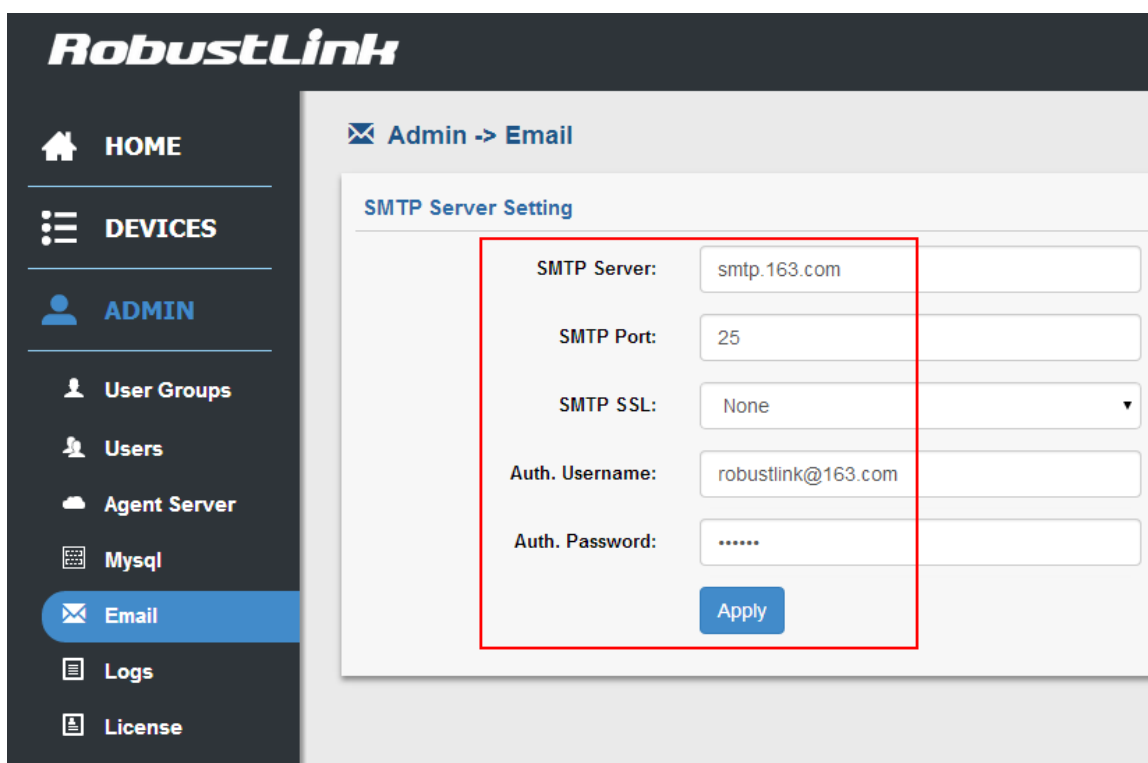


3.4 Email report the alarm

The email function is used with Alarm, when there one device generate one alarm, this alarm will be sent to a user's email box by email.

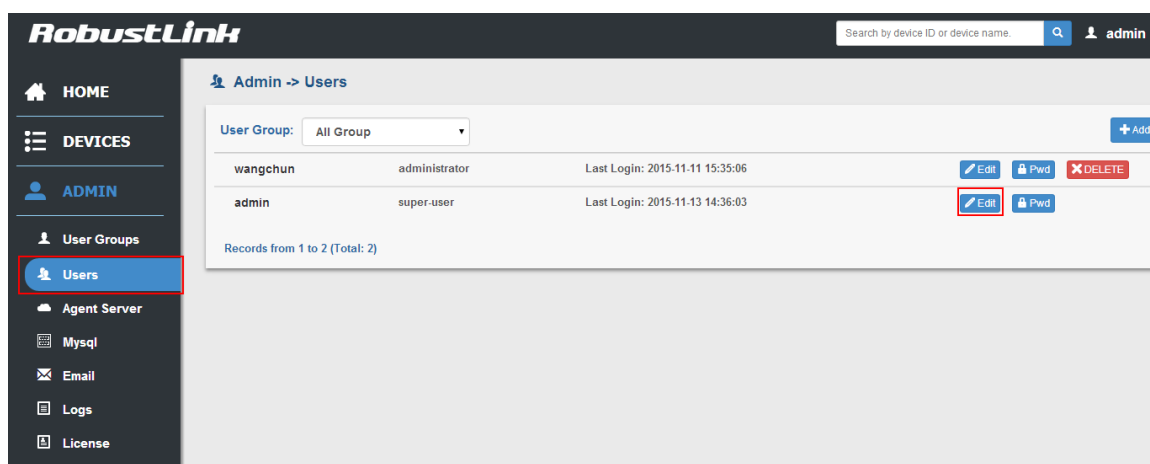
1. Configure a SMTP Server in RobustLink, and this server is used to send the email.

Note: the SMTP Server and the port should be matched with the username. Because this RobustLink will check the SMTP Server, make sure it can access in internet.



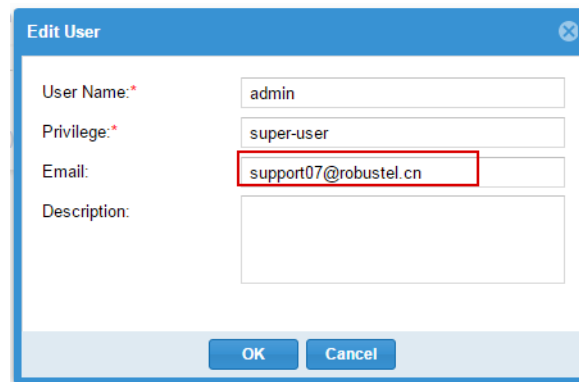
The screenshot shows the RobustLink Admin interface. On the left is a dark sidebar with navigation links: HOME, DEVICES, ADMIN, User Groups, Users, Agent Server, Mysql, Email (highlighted), Logs, and License. The main content area is titled 'Admin -> Email' and contains a 'SMTP Server Setting' form. The form fields are: SMTP Server (smtp.163.com), SMTP Port (25), SMTP SSL (None), Auth. Username (robustlink@163.com), and Auth. Password (masked with dots). An 'Apply' button is at the bottom right of the form. A red rectangle highlights the entire form area.

2. Set user's email box to receive the alarm report in user tab.



The screenshot shows the RobustLink Admin interface. On the left is a dark sidebar with navigation links: HOME, DEVICES, ADMIN, User Groups, Users (highlighted), Agent Server, Mysql, Email, Logs, and License. The main content area is titled 'Admin -> Users' and shows a table of users. The table has columns for User Group, Username, Role, Last Login, and Action. There are two users listed: 'wangchun' (administrator) and 'admin' (super-user). The 'Edit' button for the 'admin' user is highlighted with a red rectangle. A '+ Add' button is at the top right of the table. Below the table, it says 'Records from 1 to 2 (Total: 2)'.

Go to Users section, click , and add the email for current user.

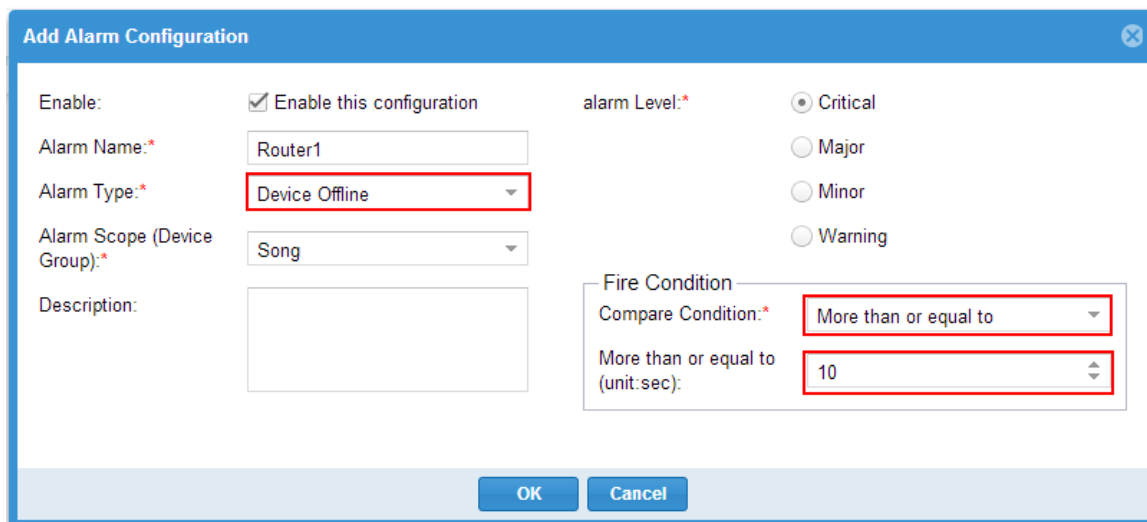


The 'Edit User' dialog box contains the following fields and values:

Field	Value
User Name:*	admin
Privilege:*	super-user
Email:	support07@robustel.cn
Description:	

Buttons: OK, Cancel

3. Set alarm. More details about the configuration step please refer to section **2.9 DEVICES -> Alarms/ Events**. In this example, setting means that when device offline time is more than or equal to 10 second, the RobutsLink will receive the alarm.



The 'Add Alarm Configuration' dialog box contains the following fields and values:

Field	Value
Enable:	<input checked="" type="checkbox"/> Enable this configuration
Alarm Name:*	Router1
Alarm Type:*	Device Offline
Alarm Scope (Device Group):*	Song
Description:	
alarm Level:*	<input checked="" type="radio"/> Critical <input type="radio"/> Major <input type="radio"/> Minor <input type="radio"/> Warning
Fire Condition	
Compare Condition:*	More than or equal to
More than or equal to (unit:sec):	10

Buttons: OK, Cancel

4. When RobustLink detects that the device is disconnected with RobustLink server, it will start to triggering the alarm configuration and counting the offline time which in order to judge the alarm if it should be happened.
5. Check the email to receive the mail which was sent from RobustLink SMTP server. In the mail, it can find the .html file. Open the .html file; we can know what happen with the device.

"Robustlink" ★

robustlink


发给 support07

发件人: robustlink<robustlink@163.com>

收件人: support07 <support07@robustel.cn>

时间: 10 November 2015 (Tue) 14:47

大小: 5 KB

 RobustLink.html (2 KB)

Dear admin,

The attachment is alarm message.

Please check it.