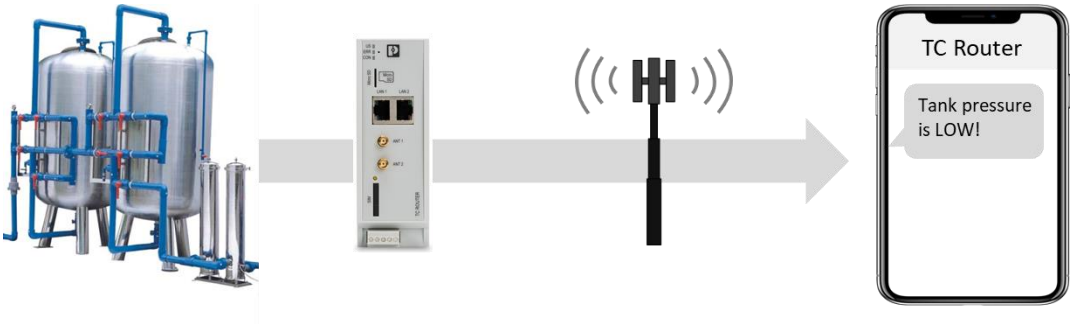
TC Router SMS Configuration Guide



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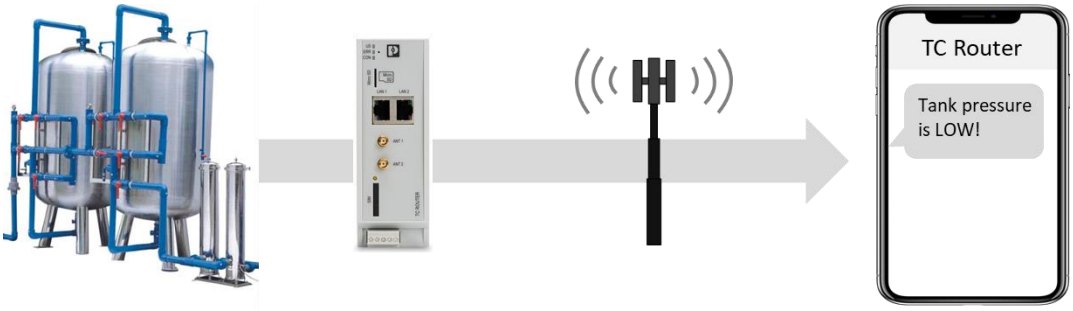
Overview

The TC Router has 2 inputs and 1 output that can be used to monitor and control applications.

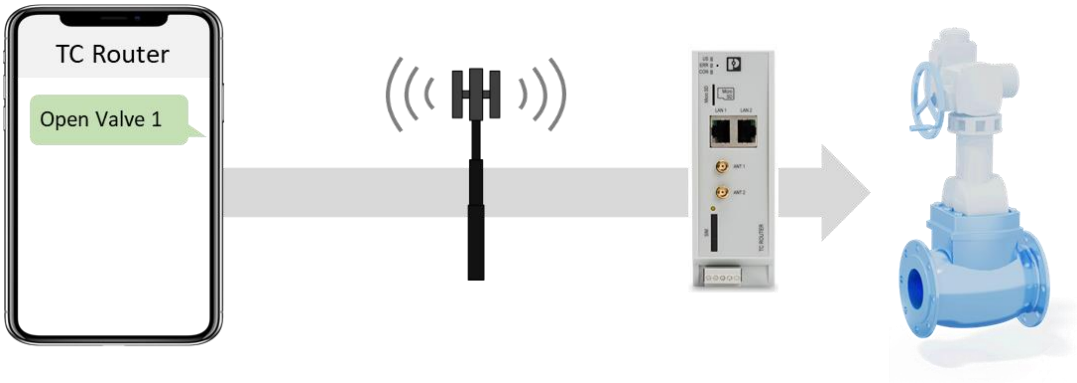
Inputs

The inputs of the TC Router can be used to send technicians SMS messages whenever they change from high to low or low to high. For example, the TC Router inputs can monitor the pressure in a water tank, and alert technicians when the tank becomes empty.



Outputs

The TC Router can turn on a 24V output upon receiving a SMS message. This output can thus be used to turn on a motor, open a valve, or activate some other actuator.



******Please read before setup******

*The SMS functionality of the TC Router requires an active data plan **with SMS enabled** through AT&T or Verizon. Please contact your cellular provider to add SMS to your data plan if necessary.*

Configure a TC Router to send a SMS message based on the status of Input 1 or Input 2

Step 1

Add the phone number for each recipient into the phonebook. Phone numbers can be in either form:

- +1-111-222-3333 (country code; dashes separating numbers)
- 1112223333 (10-digit number without dashes)

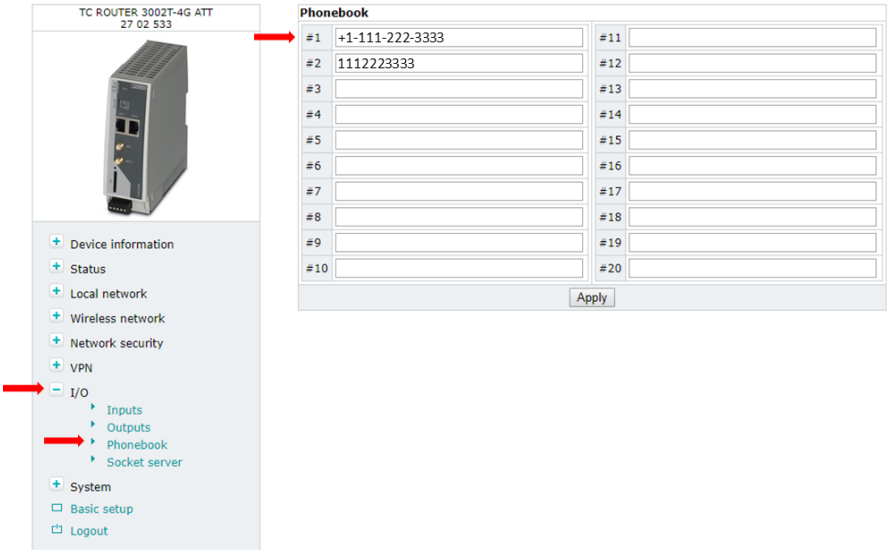


Figure 1: Add phone numbers for desired recipients

Step 2

Navigate to the input menu

Choose the input, and the state of the input that you would like to trigger a SMS message from.

- E.g. if you would like to receive a SMS message when input 1 goes high
    - Check “high” and choose “SMS” for input 1 (refer to Figure 2)

Click Apply

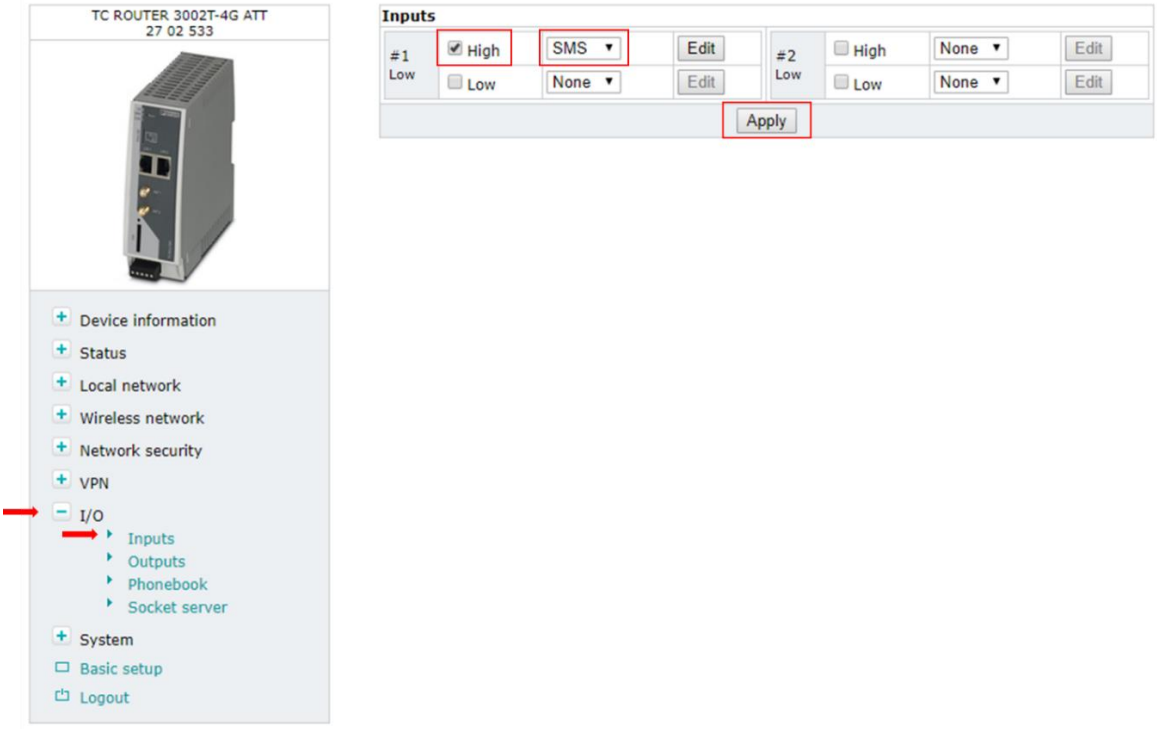


Figure 2: Chose the input and the state of the input that will be used to trigger a SMS message.

Step 3

Click Edit

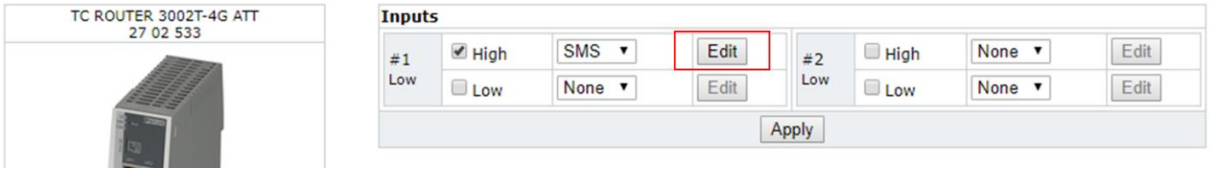


Figure 3: Edit the input

Step 4

Check the numbers from the phonebook that you would like to receive the SMS message

In the “Message Text” box, type a custom message that the chosen recipients will receive.

Figure 4 shows an example where the first number in the phonebook will receive a message saying “Input 1 is HIGH!” whenever the input goes high.

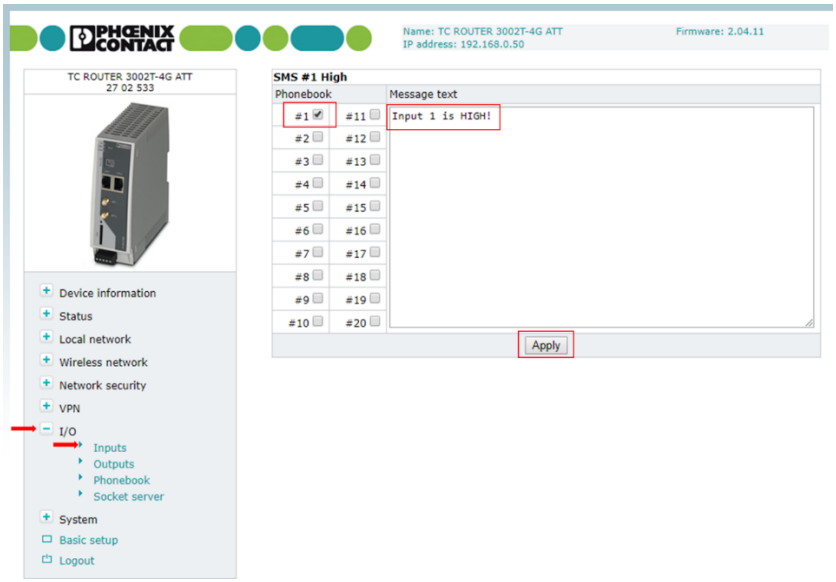


Figure 4: Configure who will receive the message, and what the message will say.

Step 5

Test the SMS functionality by applying 24V to Input 1.

- The status of Input 1 should turn to HIGH
- You should receive a text message from the phone number associated to your SIM card.

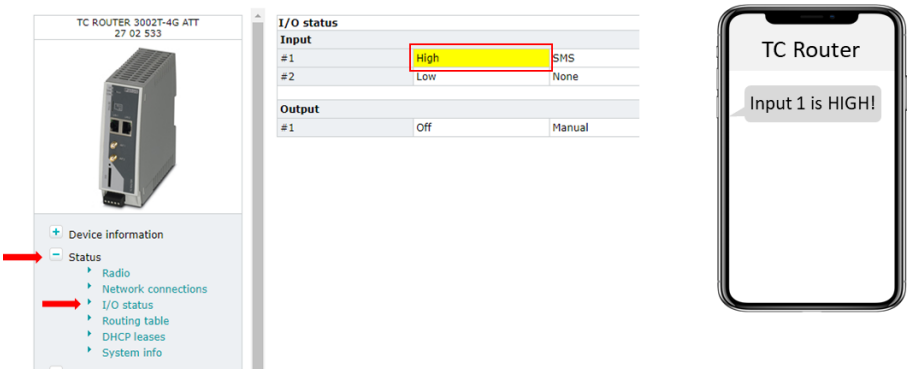


Figure 5: Example showing the TC Router sending a text message when Input 1 goes high

Congratulations you have successfully configured the TC Router to send a SMS Message!

Configure a TC Router to turn on Output 1 via SMS message

Step 1

Navigate to wireless network > SMS configuration

Enable SMS control, and enter a SMS password

- The password can contain up to 7 alphanumeric characters (e.g. abc1234)

Click Apply

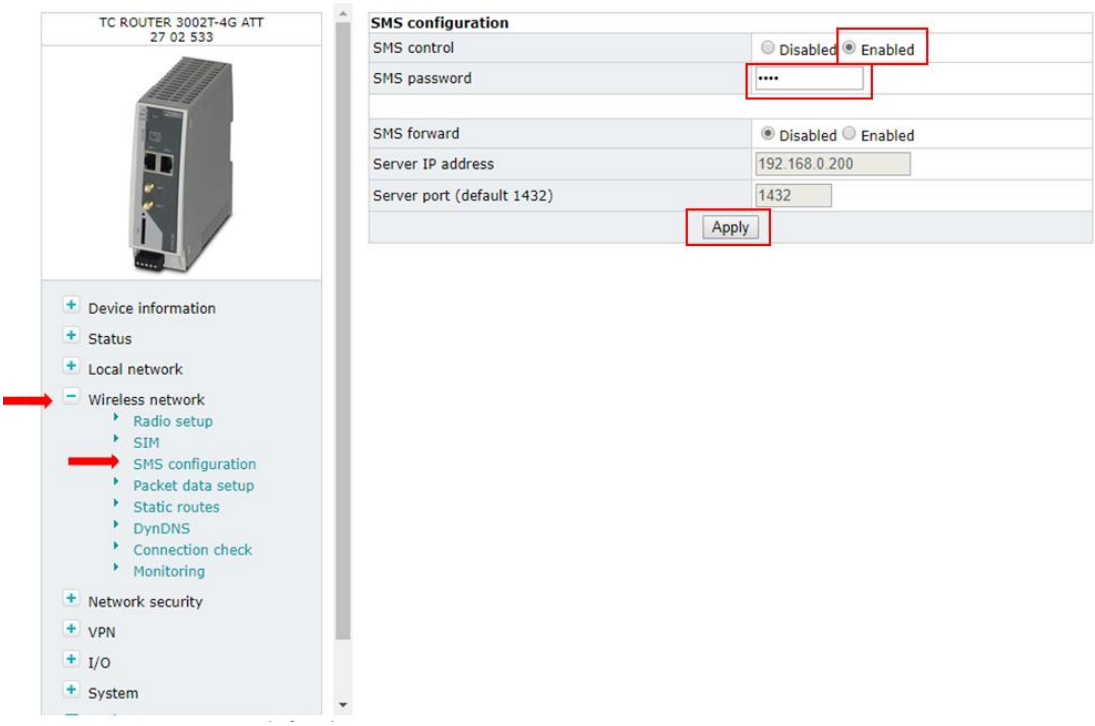


Figure 6: Enable SMS control

Step 2

Navigate to I/O > Outputs

Select Remote Controlled by the drop-down menu

- Refer to the Appendix for information on the other output choices

Select “Autoreset” if you would like the output to turn off automatically after a period of time.

Click Apply

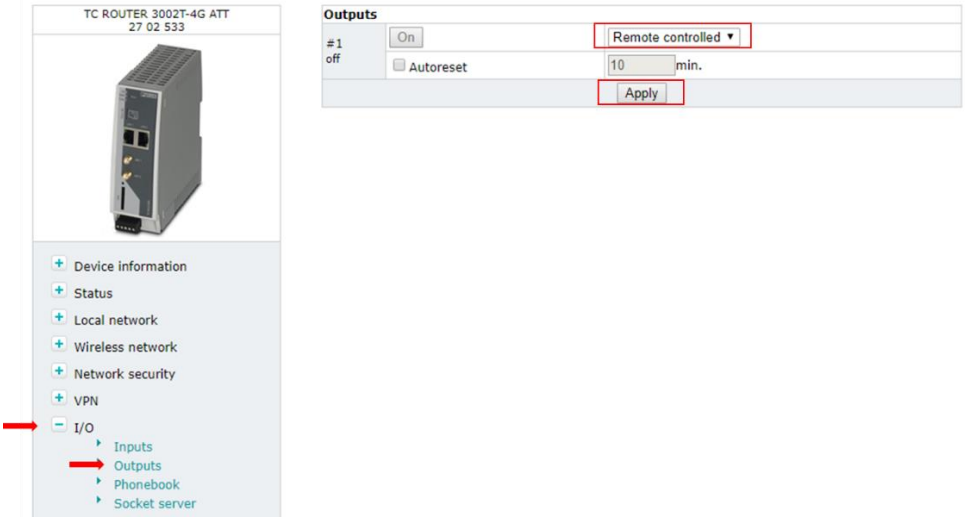


Figure 7: Enable the output to be remote controlled via SMS

Step 3

Send a text message to the phone number associated with the SIM and verify the output has turned on.

<u>Texting Syntax:</u>

Turn Output 1 ON

- #1234:SET:OUTPUT
    - 1234 refers to the SMS password set in step 1

Turn Output 1 OFF

- #1234:CLR:OUTPUT

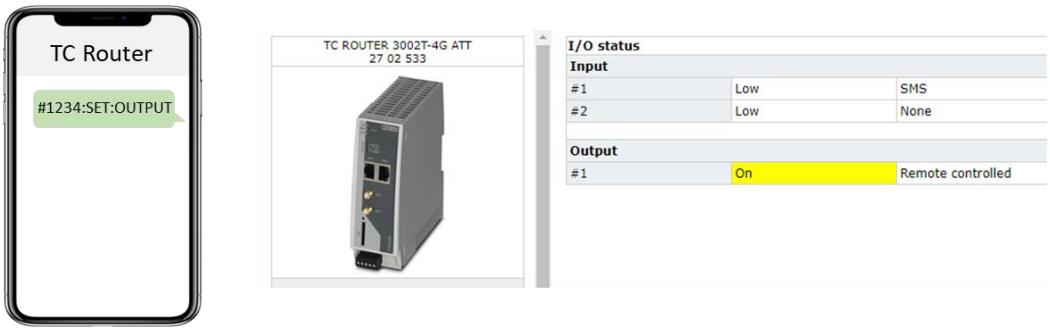


Figure 8: Send text message to TC Router to turn on the output

Refer to the Appendix for alternative texting commands.

Congratulations you have successfully configured the TC Router to receive a text message and activate the output!

Configure a TC Router to turn on a VPN via SMS message

****Note: You need an active VPN setup on the TC Router for this to work. Please refer to the application notes on the product website for setting up a VPN tunnel****

Step 1

Navigate to wireless network > SMS configuration

Enable SMS control and enter a SMS password

- The password can contain up to 7 alphanumeric characters (e.g. abc1234)

Click Apply

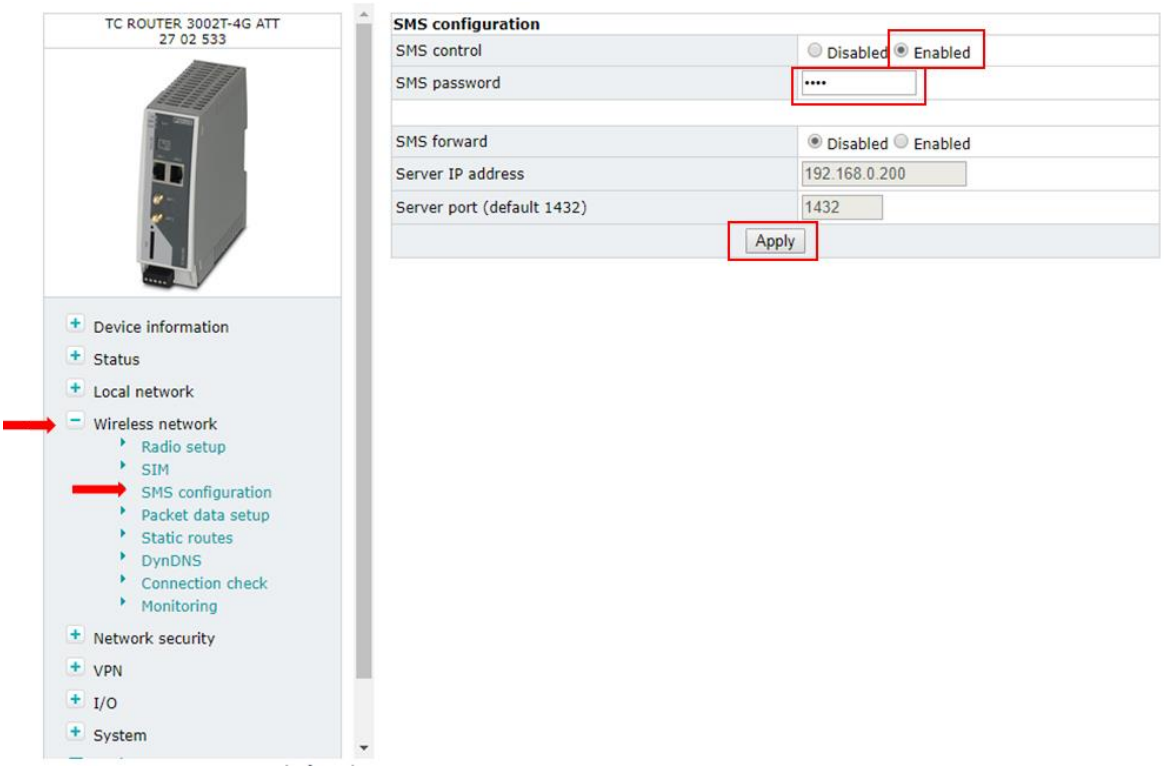


Figure 9: Enable SMS control

Step 2

Navigate to VPN > IPsec > Connections

Enable the desired VPN and Click Apply.

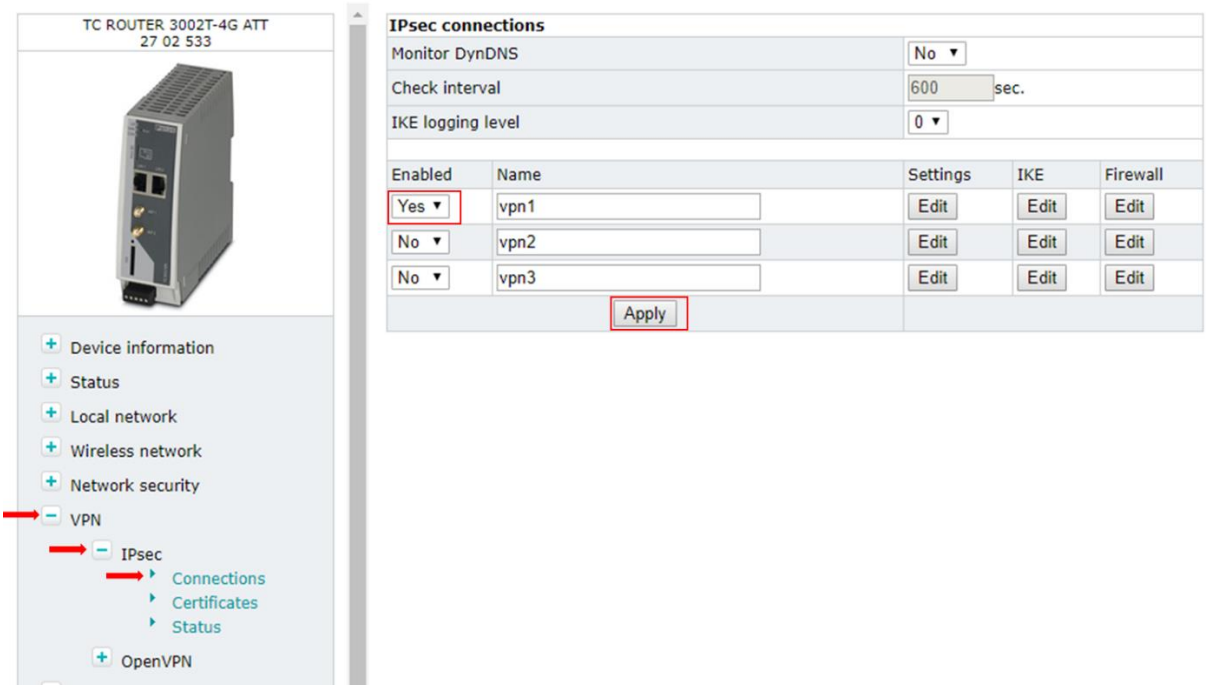


Figure 10: Enable VPN tunnel

Click Edit to edit the VPN settings

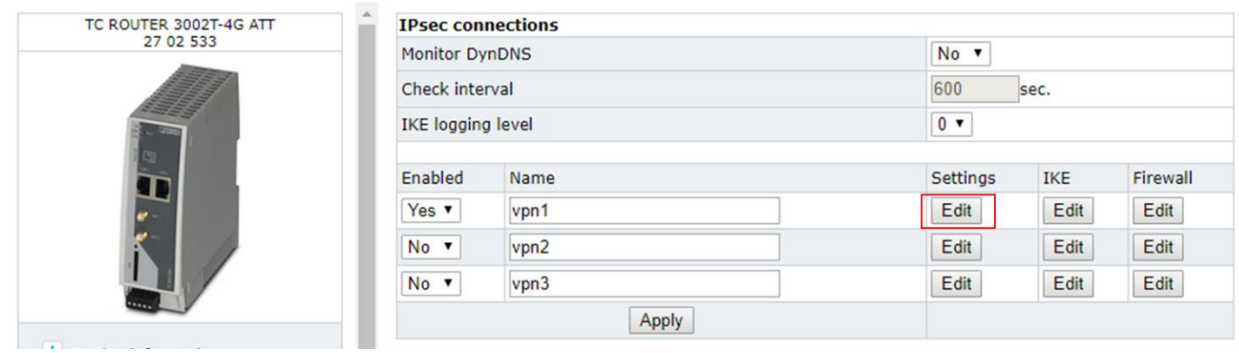


Figure 11: Edit VPN Settings

Step 3

Select “Initiate on SMS” from the Remote Connection drop down menu

Click Apply

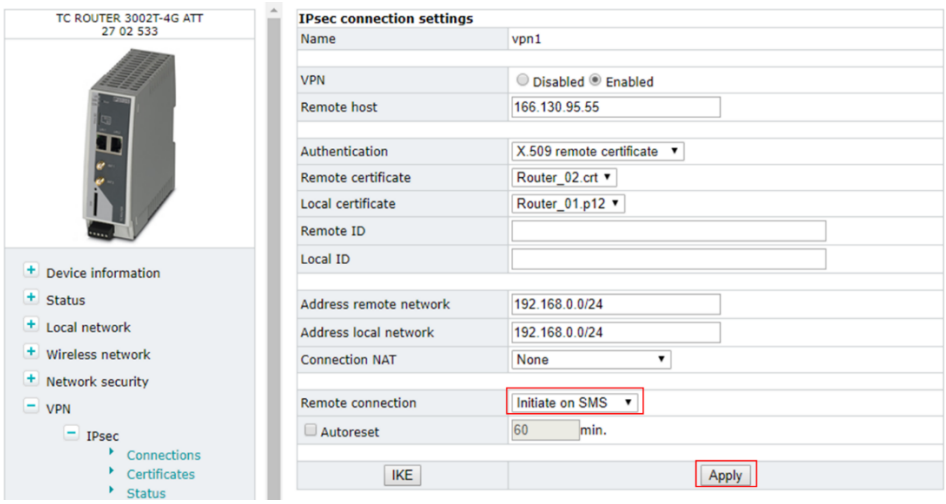


Figure 12: Enable the VPN to be controlled by SMS

Step 4

Send a text message to the phone number associated with the SIM and verify the VPN has turned on.

<u>Texting Syntax:</u>

Turn VPN 1 ON

- #1234:SET:IPSEC
    - 1234 refers to the SMS password set in step 1

Turn VPN 1 OFF

- #1234:CLR:IPSEC

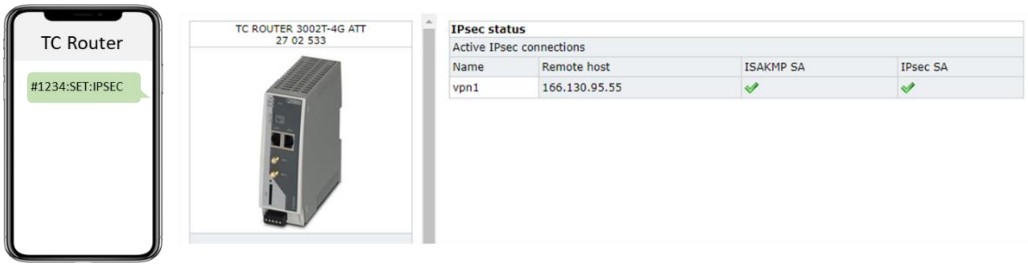


Figure 13: Turn on the VPN with SMS

Refer to the Appendix for alternative texting commands.

Congratulations you have successfully configured the TC Router to receive a text message and control the VPN!

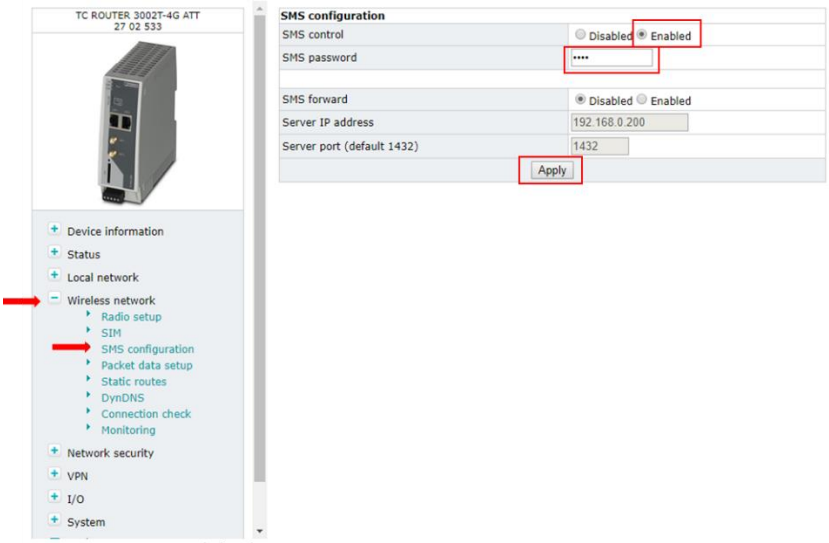
SMS Communication Between Two TC Routers

When input 1 on Sending TC Router goes HIGH, Turn on Output 1 on Receiving TC Router

Configure the Receiving TC Router

Step 1

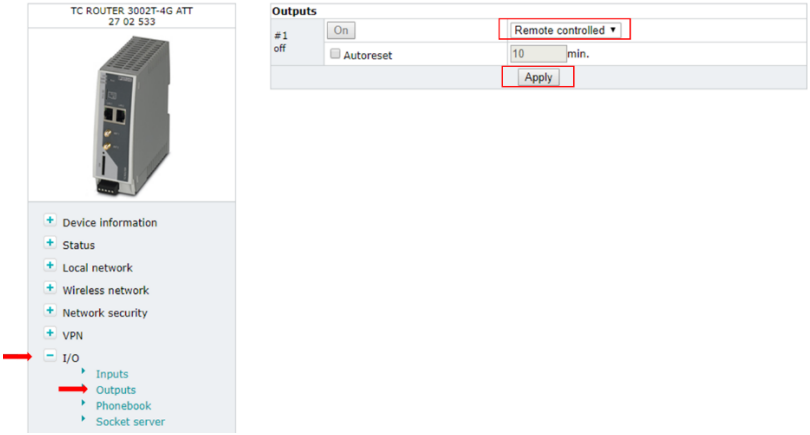
Enable SMS control, set an SMS password (e.g. 1234), and click apply



Step 2

Set the Output to be remote controlled and click apply.

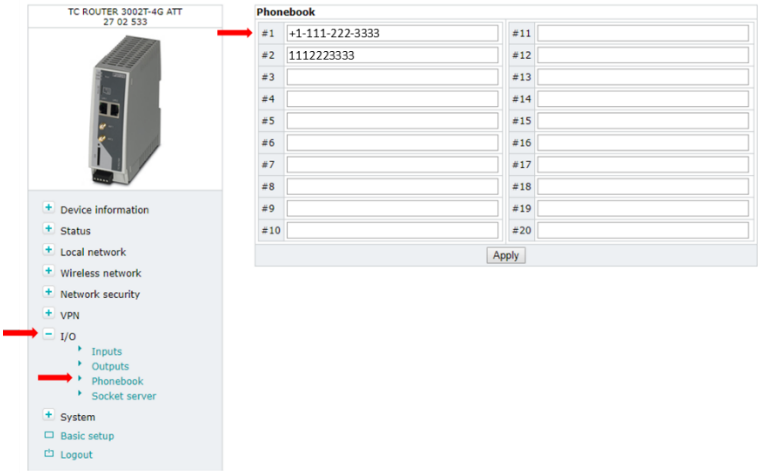
- Check autoreset if you would like the output to turn off after a predetermined time



Configure the Sending TC Router

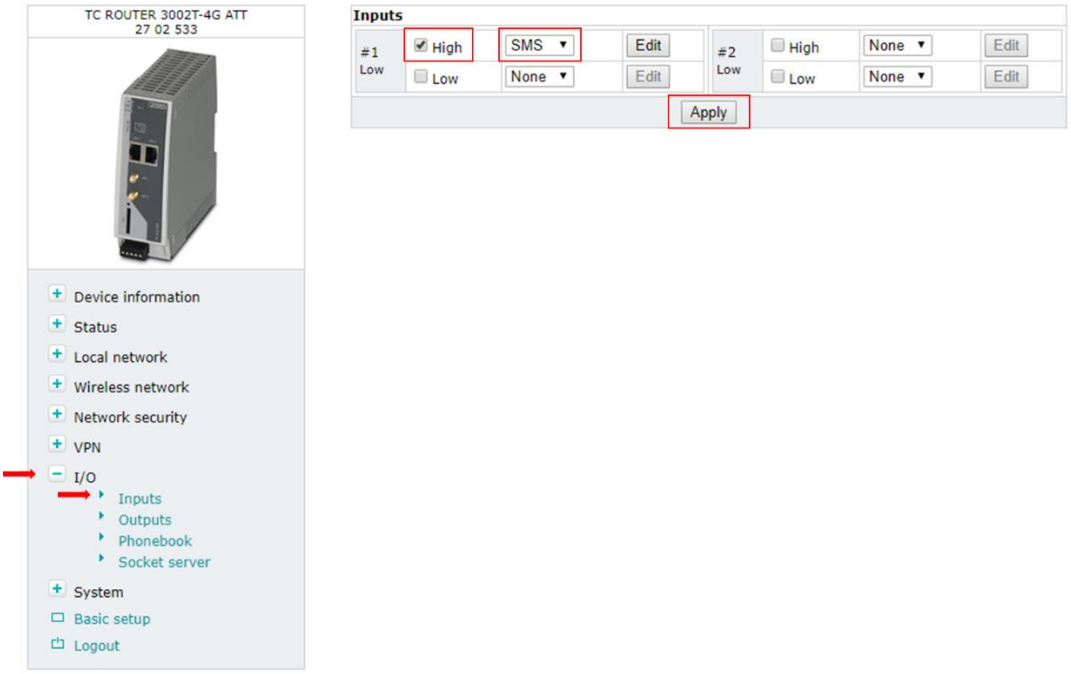
Step 1

Enter phone number of Receiving TC Router and click Apply



Step 2

Enable SMS when Input 1 goes High and click apply, then click edit

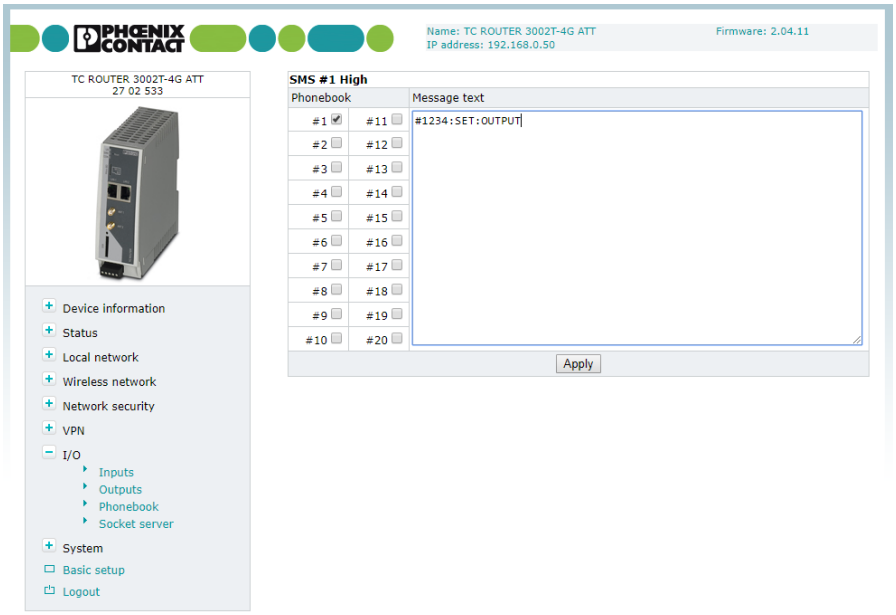


Step 3

Input the Message Text to turn on or off the output on the receiving TC Router

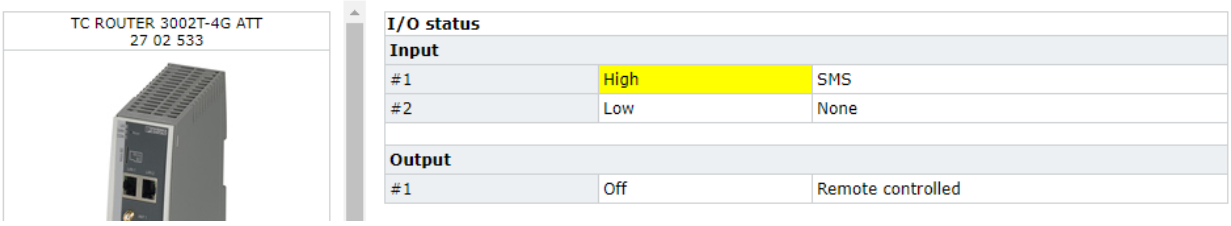
- #1234:SET:OUTPUT will turn on the output

- #1234:CLR:OUTPUT will turn off the output
- ***Note: 1234 is a the sms password of the receiving TC Router***



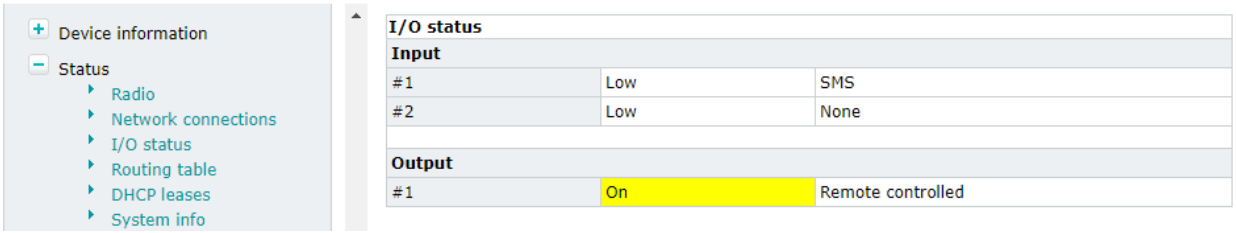
Step 4

Apply 24VDC to input 1 on the Sending TC Router to turn it to High and send the SMS



Step 5

Receive message from Sending TC Router and verify the output turns on



Appendix

TC Router Alternative Output Options

I/O, Outputs		
Outputs		– **Manual**: manual switching of the output via the web-based Management – **Remote controlled**: remote switching via SMS or socket server. Automatic reset of the output can be used as an option. To do this, activate "Autoreset" and specify the duration in minutes. – **Radio network**: the output is switched if the router is logged in to a mobile network. – **Packet service**: the output is switched if the router has established a packet data connection and received a valid IP address from the provider. – **VPN service**: the output is switched if the router has established a VPN connection. – **Incoming call**: the output is switched if the router is called by a phone number listed in the phonebook. – **Connection lost**: the output is switched if the router connection check does **not** reach the configured reference address.
	Autoreset	Duration in minutes until the output is reset automatically

TC Router SMS Commands

Function command	Description
SET:<sub_cmd>	General command for starting functions (ON), must be supplemented with subcommand
CLR:<sub_cmd>	General command for stop functions (OFF), must be supplemented with subcommand
SEND:STATUS	Query status of the mobile router
RESET	Reset alarms
REBOOT	Restart mobile router

Table 3-2 Subcommands <sub_cmd> for the function commands "SET" and "CLR"

Subcommand <sub_cmd>	Description
GPRS	Start or stop packet data connection
OUTPUT	Switch output 1: ON/OFF
OUTPUT:n	Switch output n: ON/OFF, n={1...4}
IPSEC	Start or stop IPsec VPN 1: ON/OFF
IPSEC:n	Start or stop IPsec VPN n: ON/OFF, n={1...3}
OPENVPN	Start or stop VPN 1: ON/OFF
OPENVPN:n	Start or stop VPN n: ON/OFF, n={1...3}