

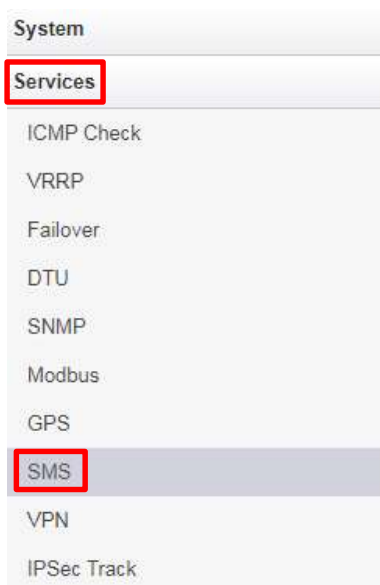
Configuring DIO SMS/Email Notification on the CM685VX and CM950W

The CM685VX comes with four DIO ports that can be used as digital output ports to control electrical devices via SMS, such as turning on a pump or opening a gate. The four DIO ports can also be used as digital input ports that can send an email or an SMS when triggered for alarm notification.

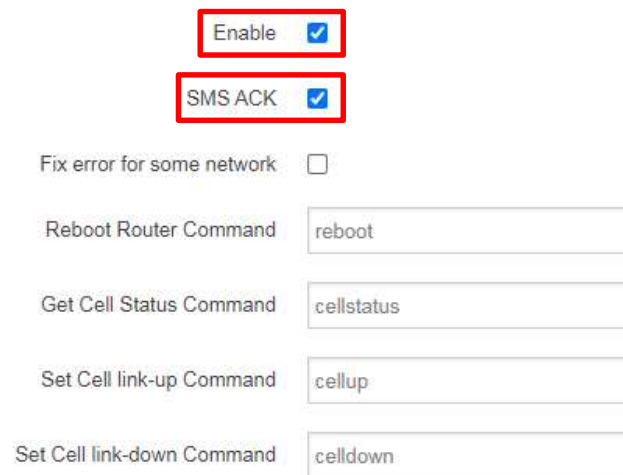
This guide is to show you how to configure DIO on the router to send alarm notifications via SMS or Email.

SMS Notification

1. Navigate to Services -> SMS -> SMS Command -> enable the SMS function and SMS ACK. Click on 'Save & Apply'. See screenshot below.



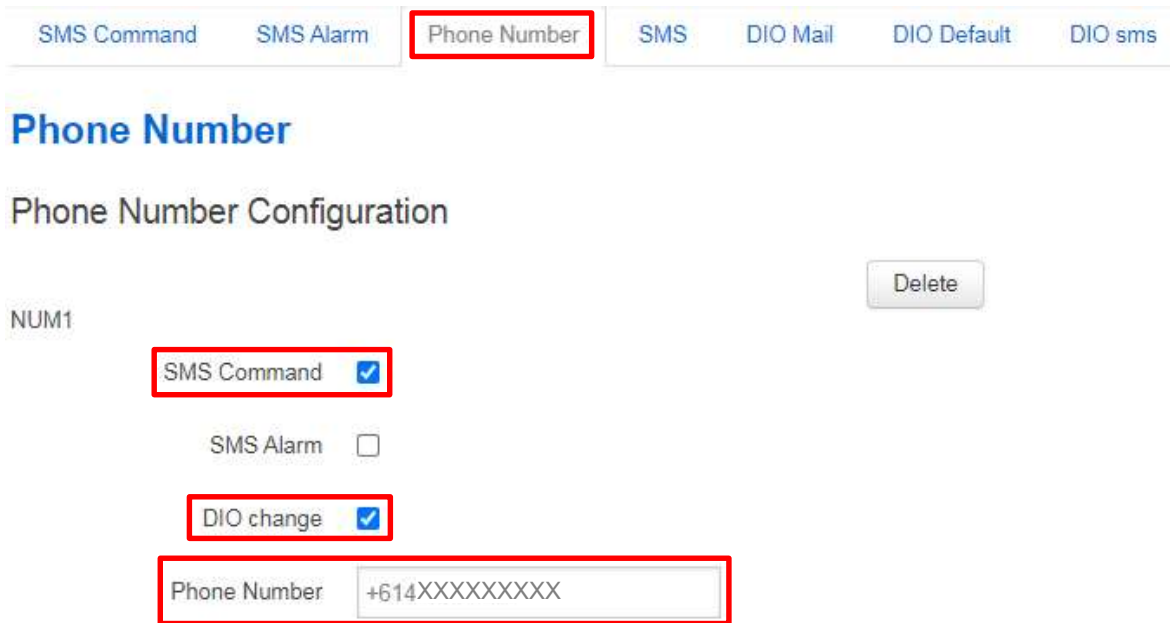
SMS Command



A screenshot of the 'SMS Command' configuration page. At the top, there are two checkboxes: 'Enable' and 'SMS ACK', both of which are checked and highlighted with red boxes. Below these are several configuration fields:

- 'Fix error for some network' with an unchecked checkbox.
- 'Reboot Router Command' with a text input field containing 'reboot'.
- 'Get Cell Status Command' with a text input field containing 'cellstatus'.
- 'Set Cell link-up Command' with a text input field containing 'cellup'.
- 'Set Cell link-down Command' with a text input field containing 'celldown'.

2. Go to the 'Phone Number' tab to set the user's mobile number that will receive SMS notifications. Click on 'Save & Apply'. See screenshot below.



SMS Command SMS Alarm **Phone Number** SMS DIO Mail DIO Default DIO sms

Phone Number

Phone Number Configuration

NUM1 Delete


SMS Command

SMS Alarm

DIO change

Phone Number

3. By default, the direction for each DIO is 'Output'. To receive alarms this needs to be set to 'Input'. Go to 'DIO Default' and set the desired DIO to 'Input' and click on 'Save & Apply'. See screenshot below.



DIO_0 direction Input

DIO_1 direction Output

DIO_2 direction Output

DIO_3 direction Output

Note: After saving, the status of DIO0 (or any DIO set as an input) should be changed to 1. See below.



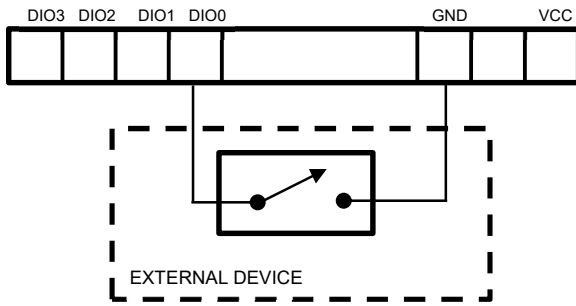
DIO_0 Status 1

DIO_1 Status 0

DIO_2 Status 0

DIO_3 Status 0

4. To test SMS notification, short DIO0 and Ground. Refresh the page to see that DIO0 has changed to '0'.



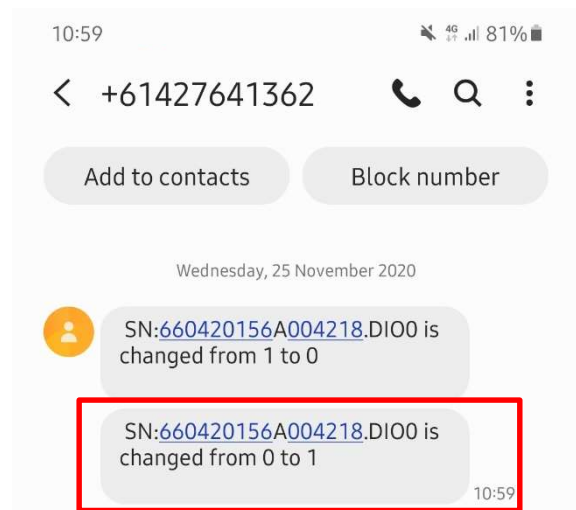
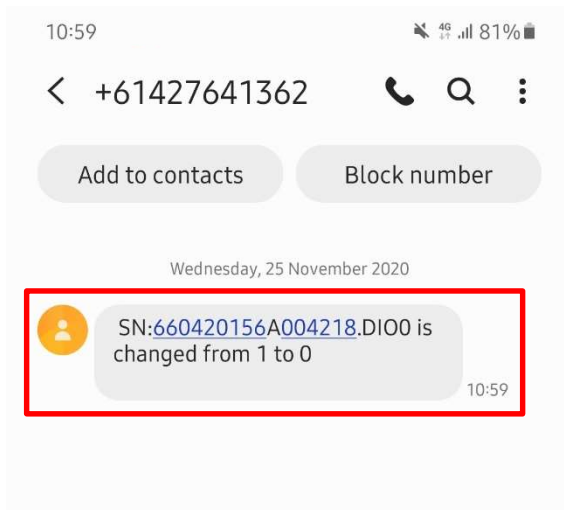
DIO_0 Status 0

DIO_1 Status 0

DIO_2 Status 0

DIO_3 Status 0

5. You will receive a text confirming that DIO0 has been changed from '1' to '0', shown on the left below. Once you remove the short, you will also receive a message saying that DIO0 has been changed from '0' to '1' (shown right).



Email Notification

1. Go to Services -> SMS -> DIO Mail.

Status	SMS Command	SMS Alarm	Phone Number	SMS	DIO Mail	DIO Default
System	Mail Configuration					
Services	Send email to specified address when DIO changed					
ICMP Check	Enable	<input type="checkbox"/>				
VRRP	SMTP server	<input type="text"/>				
Failover	Port	<input type="text" value="25"/>				
DTU	Username/Account	<input type="text"/>				
SNMP	SMTP Authentication	<input type="checkbox"/>				
Modbus						
GPS						
SMS						

2. Set appropriate parameters based on your email account settings. Please see screenshot below.

Mail Configuration

Send email to specified address when DIO changed

Enable


SMTP server

Port

Username/Account

SMTP Authentication

Username

Password 

TLS ▼

StartTLS ▼

Check server certificate ▼

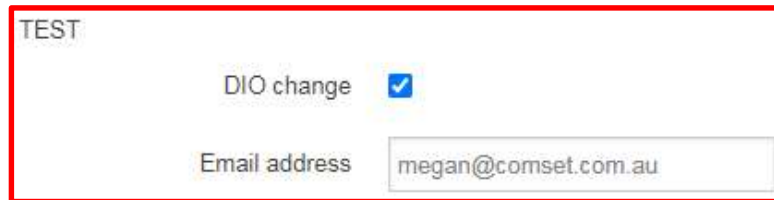
TLS trust file No file chosen

3. Set DIO_0 name, high text and low text to identify status via email (optional). See screenshot below.

DIO_0 name	<input type="text" value="Gate01"/>
DIO_0 high text	<input type="text" value="Closed"/>
DIO_0 low text	<input type="text" value="Open"/>

4. Add a new Group under 'Receiver Configuration' and check the box 'DIO change' to enable email notifications. See below screenshot.

Receiver Configuration



TEST


DIO change

Email address

New group name

5. You should now be able to receive an email notification from the router to your email client host when there is a change of the DIO status value. This can be tested by shorting the DIO to ground, like in Step 4 of configuring SMS notifications. The screenshot below shows the email received when the DIO is changed from '1' (closed) to '0' (open).

Gate01 changed

 M megan@comset.com.au
To

Hostname:CM685VX, Gate01 is changed from Closed to Open