Opsview and SMS

Warning

The procedure described in this article is not part of Opsview and is not supported. If you continue to follow the instructions in this document, there are no assurances or product support offered.

Environment:

Opsview 6.8.6 on Oracle Linux 8 running on Proxmox VM

USB-Serial adapter

Siemens Modem

SIM-card for modem (in my case I used Telia Prepaid). Asking PIN code has been disabled

Moxa 5110A RJ-45/RJ-232 converter

HW install (option1)

Install modem & USB-serial converter to Proxmox host... select Opsview VM and Hardware... add USB-device USB-Serial Controller D (067b:2303) to VM as passthrough device

(check dmesg to find USB address)

```
[root@opsview ~]# dmesg |grep tty
[    0.001000] printk: console [tty0] enabled
[    3.753985] usb 2-1: pl2303 converter now attached to ttyUSB0
[root@opsview ~]#
```

HW install (option2)

Install modem behind Moxa. Check IP address of Moxa and login to that (web UI or telnet).

Change Operating Settings -> Port 1 -> Operating mode to: TCP Server Mode

Set Max connection to 2 (if you operate modem from more hosts than one)

SW install

Download smstools to Opsview

```
[root@opsview ~]# wget https://downloads.opsview.com/opsview-support/smstools-2021.11.30.1.20211130155919.el8.x86_64.rpm -P /root
```

Install smstools to Opsview

```
[root@opsview ~]# dnf install /root/smstools-2021.11.30.1.20211130155919.el8.x86_64.rpm -y
```

```
[root@opsview sms]# chmod 777 /var/spool/sms/outgoing
```

SW configuration (option 1: USB-to-serial approach)

modify “device = /dev/ttyS0” to “device = /dev/ttyUSB0”

[root@opsview ~]# vi /etc/smsd.conf

[GSM1]
device = /dev/ttyUSB0
incoming = yes
#pin = 1111

check that port is active

[root@opsview ~]# ll /dev/ttyUSB0
crw-rw---- 1 root dialout 188, 0 26. 1. 09:41 /dev/ttyUSB0
[root@opsview ~]#

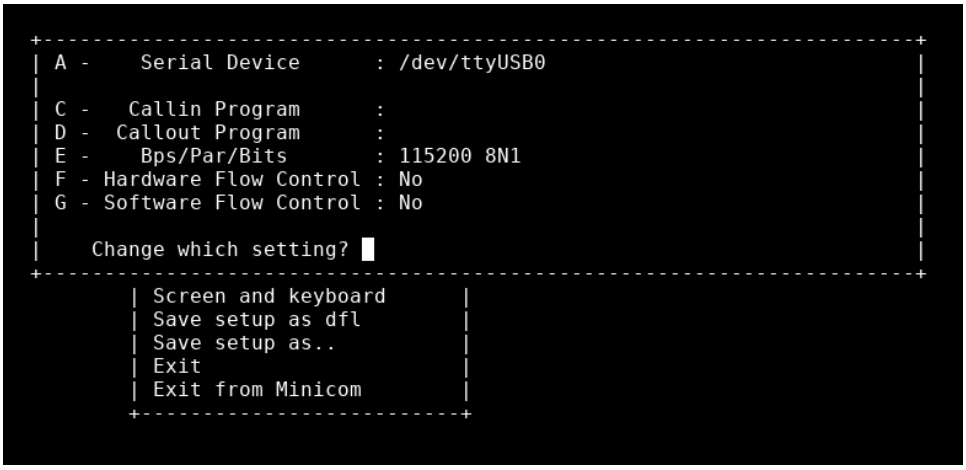
Check modem access (option 1: USB-to-serial approach)

Install minicom

[root@opsview ~]# dnf install minicom -y

[root@opsview ~]# minicom -s

1. change serial port settings to /dev/ttyUSB0 by pressing ‘A’ and change /dev/modem to /dev/ttyUSB0
2. Press ‘F’ to change Hardware Flow Control to No



3. Press Enter
4. Select “Save setup as dfl”
5. Select “Exit from Minicom”

[root@opsview ~]# minicom

Welcome to minicom 2.7.1

OPTIONS: I18n

Compiled on May 11 2019, 15:00:54.

Port /dev/ttyUSB0, 10:21:59

Press CTRL-A Z for help on special keys

try to type "at" and press enter

if modem respond **OK**, you are good to go... if not, press CTRL-A + Z and select initialize modem from menu

Some optional checks

Check operator:

at+cops?

+COPS: 0,0,"FI SONERA"

OK

Send test message:

at+cmgf=1

OK

at+cmgs="04084xxx18"

> test message (press CTRL-Z) to end message writing

+CMGS: 0

OK

Press CTRL-A + Z anytime to open menu and select Q to quit

SW configuration (option 2: Moxa approach)

Modify device to use Moxa IP-address:

[root@opsview ~]# vi /etc/smsd.conf

[GSM1]
#device = /dev/ttyS0
incoming = yes
#pin = 1111
device=@192.168.0.15:4001
baudrate=115200
needs_wakeup_at=yes
voicecall_ignore_modem_response=yes

Check modem access (option 2: Moxa approach)

[root@opsview ~]# telnet <moxa IP> 4001

Trying 192.168.0.15...
Connected to 192.168.0.15.
Escape character is '^]'.
at

OK

(press Ctrl – combination to exit to telnet)

telnet> quit

SMS Service enable/start and testing SMS sending

[root@opsview ~]# systemctl enable --now smsd

[root@opsview ~]# systemctl status smsd

● smsd.service - smsd

Loaded: loaded (/usr/lib/systemd/system/smsd.service; disabled; vendor preset: disabled)

Active: active (running) since Thu 2023-01-26 10:30:31 EET; 1s ago

Process: 62239 ExecStartPre=/bin/chown smstools:smstools /var/run/smsd.working (code=exited, status=0/SUCCESS)

Process: 62237 ExecStartPre=/bin/touch /var/run/smsd.working (code=exited, status=0/SUCCESS)

Process: 62235 ExecStartPre=/bin/chown smstools:smstools /var/run/smsd.pid (code=exited, status=0/SUCCESS)

Process: 62233 ExecStartPre=/bin/touch /var/run/smsd.pid (code=exited, status=0/SUCCESS)

Main PID: 62242 (smsd)

Tasks: 2 (limit: 102266)

Memory: 4.1M

CGroup: /system.slice/smsd.service

├─62242 /usr/sbin/smsd -t

└─62245 /usr/sbin/smsd -t

tammi 26 10:30:31 opsview systemd[1]: Starting smsd...

tammi 26 10:30:31 opsview systemd[1]: Started smsd.

[root@opsview ~]#

Check log files for issues: /var/log/smsd/smsd.log

Test with smssend

(NOTE! Leave '+' sign out of your mobile number, but include country code)

[root@opsview ~]# smssend 3584xxxxxxx8 "testing modem behind opsview"

--

Text: testing modem behind opsview

To: 3584xxxxxxx8

[root@opsview ~]#

Check smsd directories

[root@opsview ~]# watch ls -la /var/spool/sms/*

Also check log:

[root@opsview ~]# less /var/log/smsd/smsd.log

2023-01-27 08:39:50,5, smsd: SMS To: 3584xxxxxxx8. Moved file /var/spool/sms/outgoing/send_O9fFUC to /var/spool/sms/checked

2023-01-27 08:39:53,5, GSM1: SMS sent, Message_id: 14, To: 3584xxxxxxx8, sending time 3 sec.

Modify Opsview

Edit submit_sms_script file... like below:

[root@opsview ~]# vi /opt/opsview/monitoringscripts/notifications/submit_sms_script

45,46c45

< #$command = '/usr/local/bin/submit_sms';

< $command = '/usr/bin/smssend';

84,86c83

< #my @command = ($command, '-n', $number, '-t', $text);

< my @command = ($command, $number, $text);

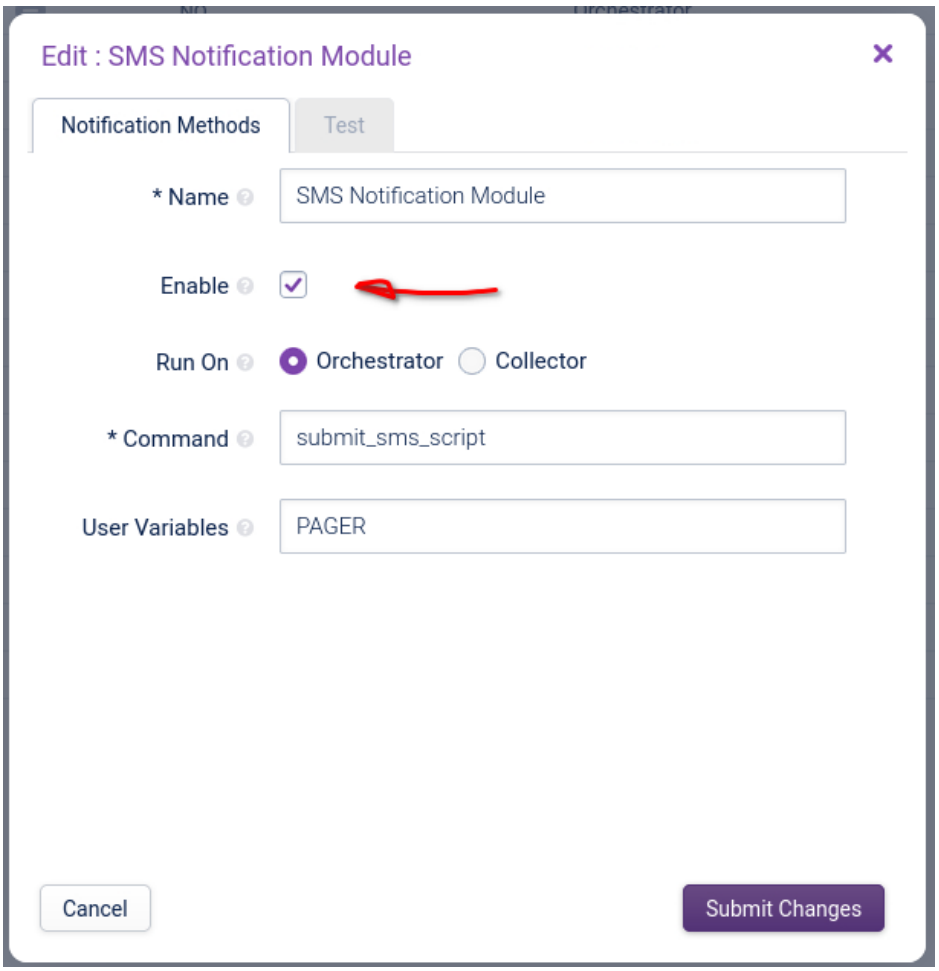
[root@opsview ~]#

Configure Opsview

Set & test SMS Notification Module

Configuration -> Notification methods -> SMS Notification Module -> Edit

Tick box: Enable

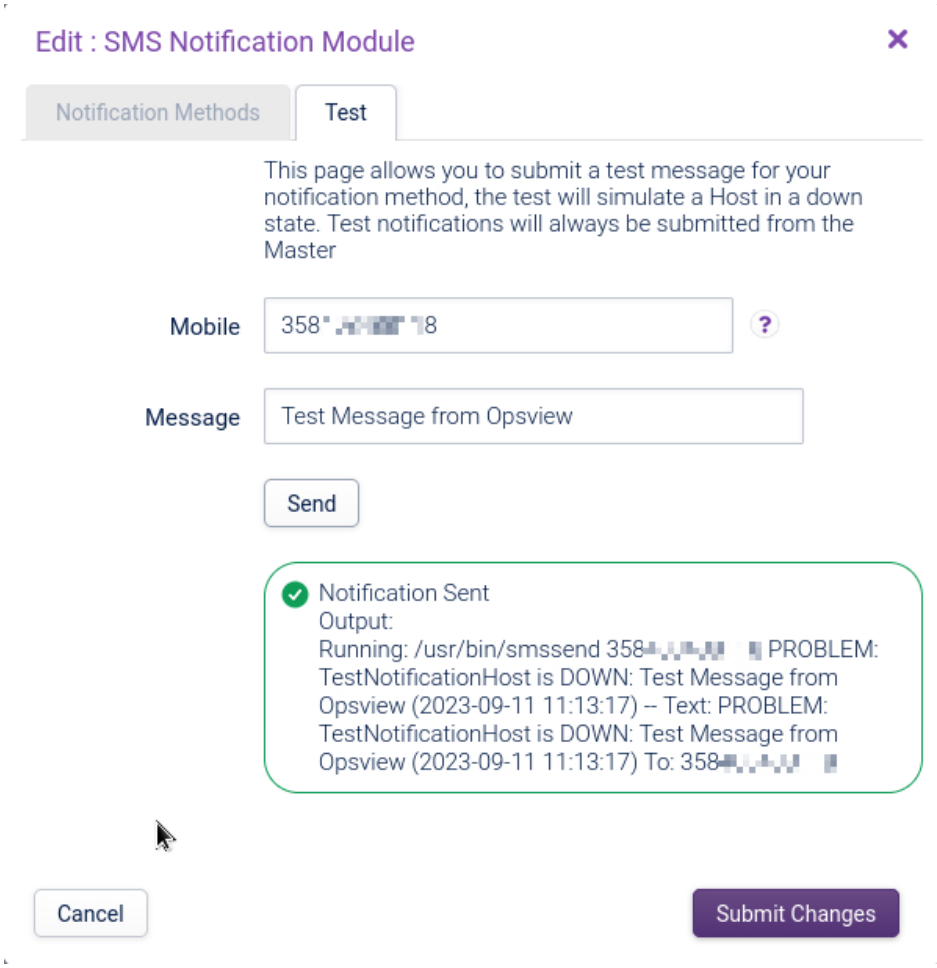


Select "Test" tab:

Mobile: 3584xxxxxxx8 (NOTE!!! without +)

Message: write message of your own or use "Test Message" which is default

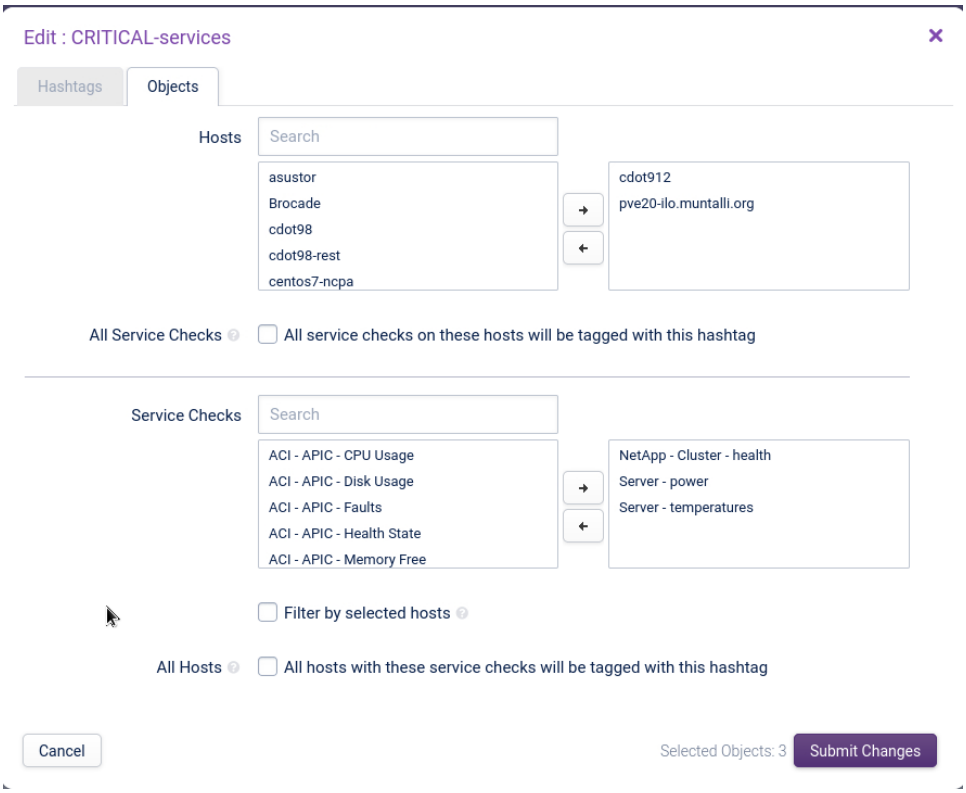
Click "Send" and you should get “Nofitication Sent” - message like below



Click “Submit Changes”

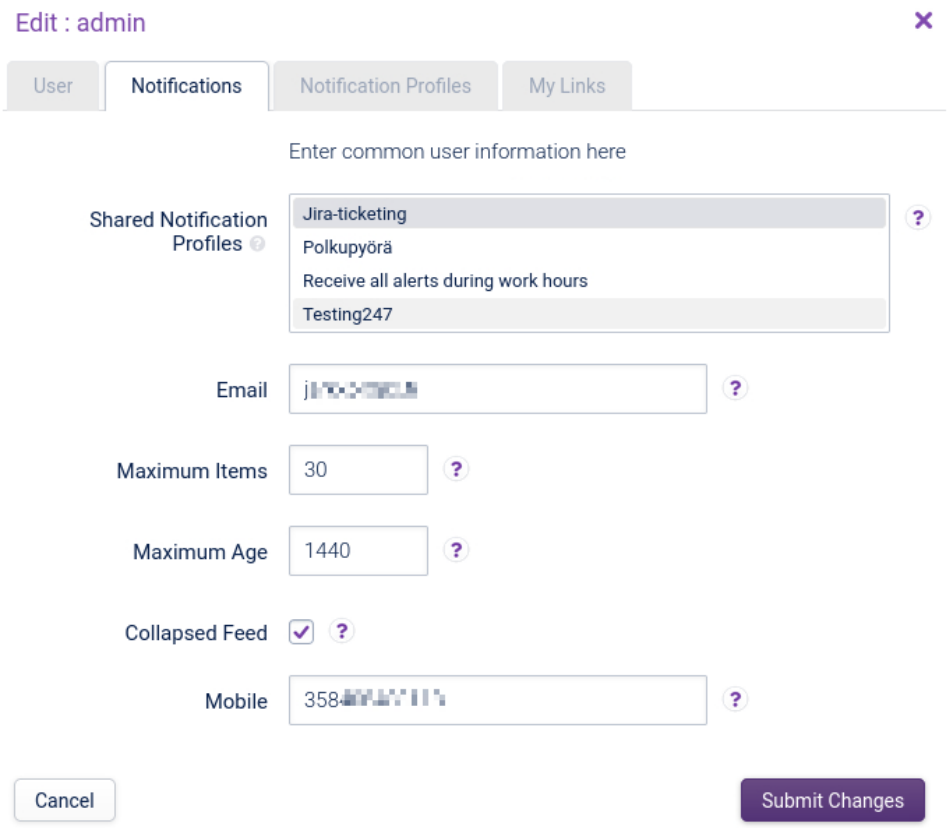
In this example I use **admin**-user and I have prepared “CRITICAL-services” hashtag earlier which have few most critical servicechecks from NetApp storage (Cluster health, power supplies, temperatures etc.) and from my Proxmox virtualization platform. Those services should send me SMS if there are any issues.

Example:

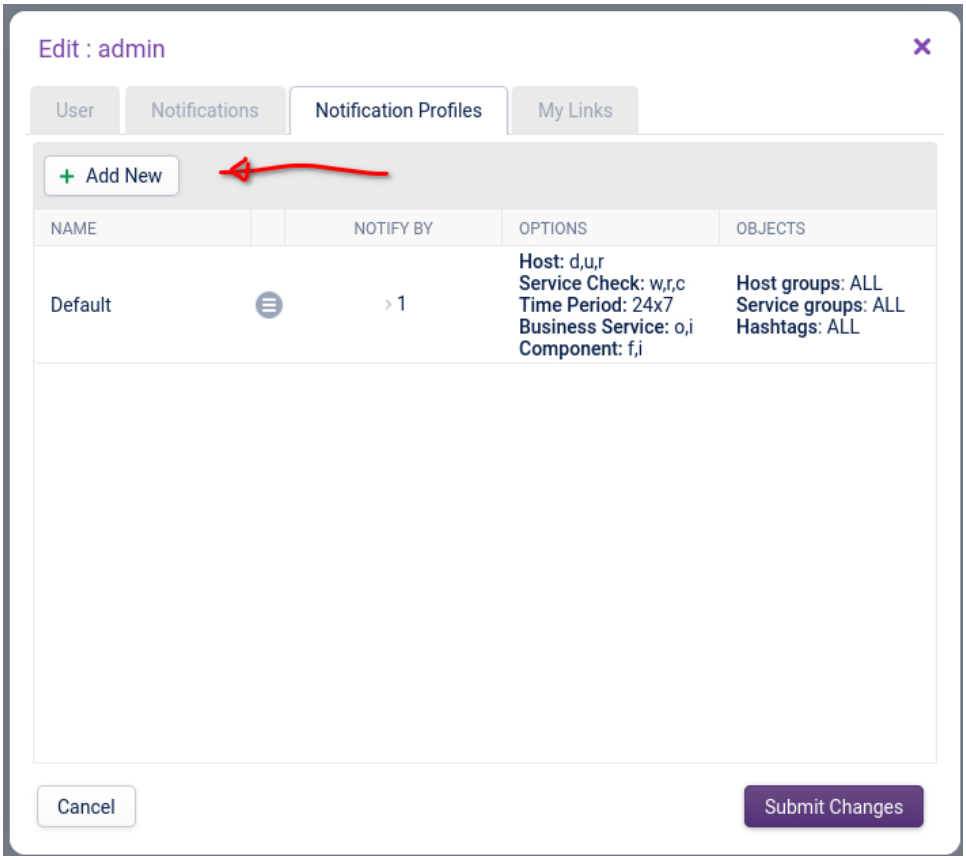


Select user from “Users and Roles”...

Select Notifications tab and enter your Mobile number



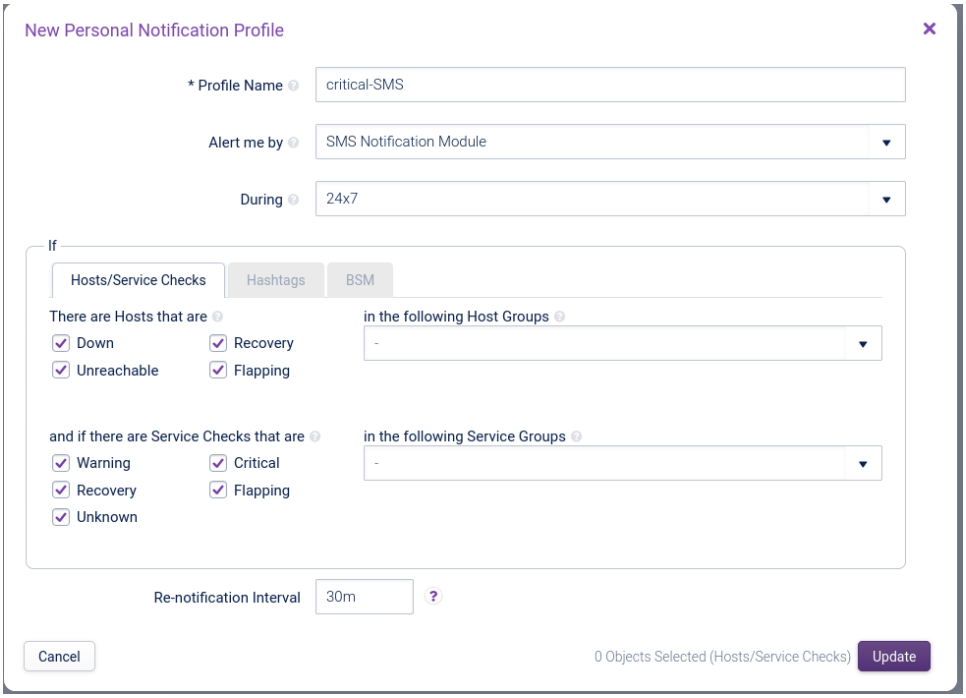
Select “Notification Profiles” tab and click “Add New”



Enter “Profile Name” as you like

Select “Alert me by”: SMS Notification Module

Deselect “All” from Hosts/Service Checks dropdown menus



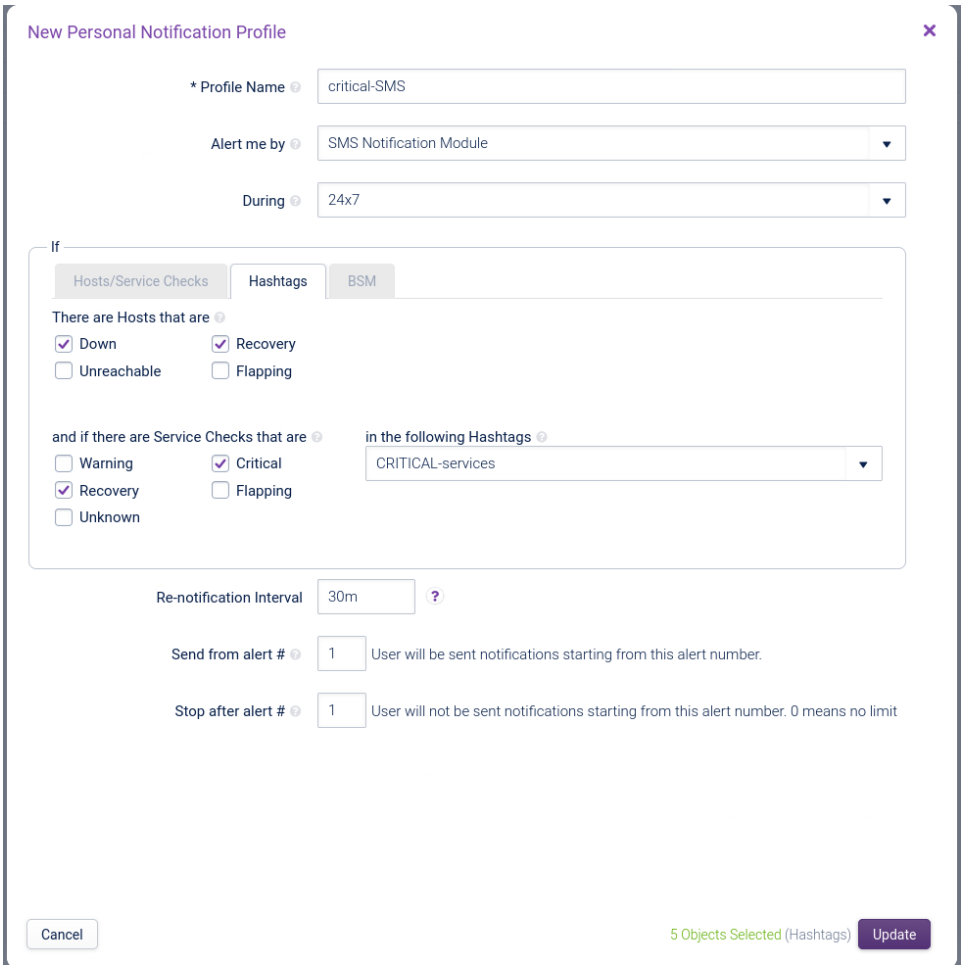
Select “Hashtag”-tab

Select “Alert me by”: SMS Notification Module

Select “During”: <select your timeperiod as you like>

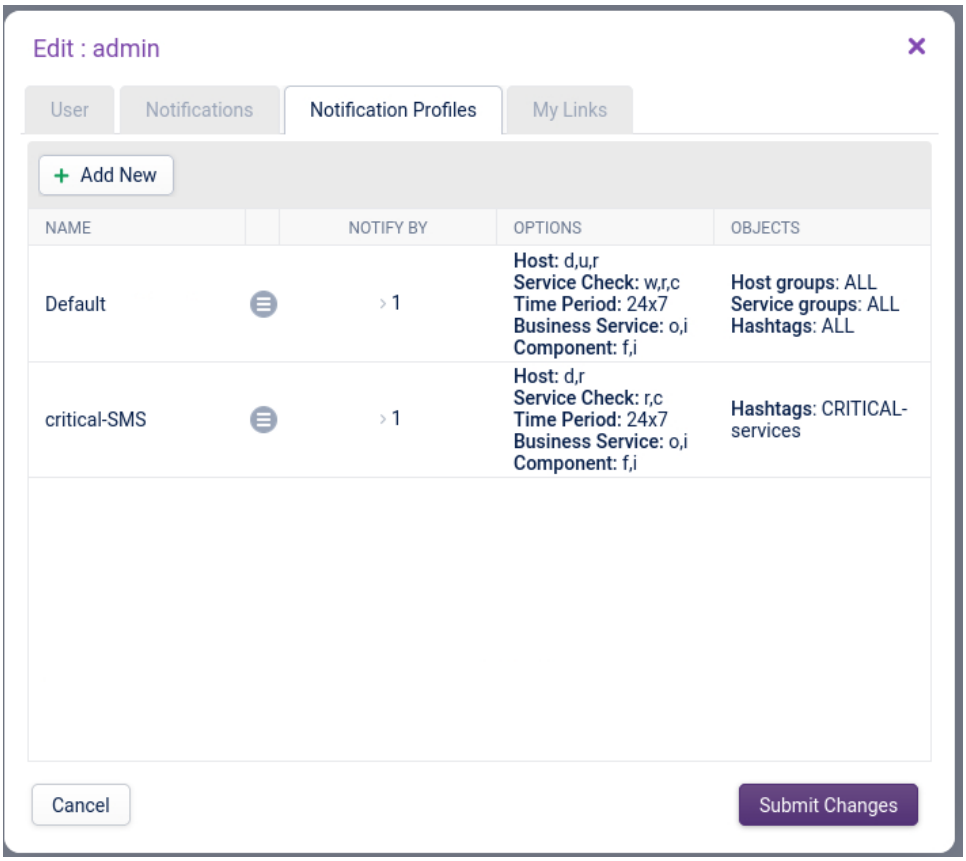
Tick the boxes as you like and select CRITICAL-services from dropdown menu

Select “Stop after alert #”: 1 (just to get one SMS)



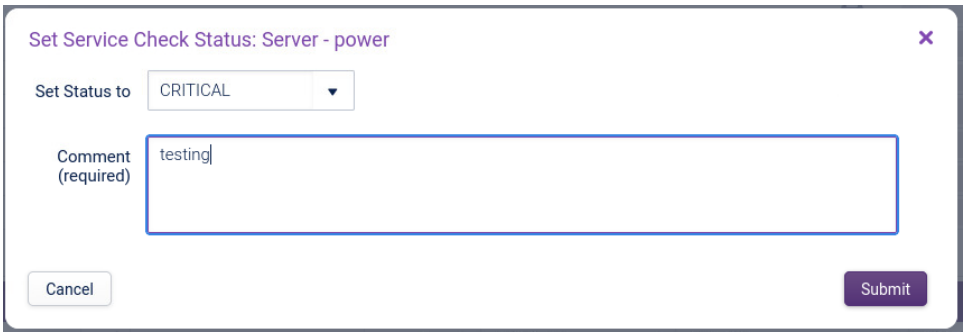
Click “Update”

Now you should see something similar



Finally click “Submit Changes” and remember to Apply changes after that.

If you have configured “Maximum Check Attempts” to 1, you can easily test SMS by setting specific service status to CRITICAL like below



Now you should receive SMS and recovery message after five minutes.