MikroTik

MUM
MIKROTIK USER MEETING

Router Management with SMS

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What is Router Management ?

Current Status of Router.

Monitoring all aspects.

Ensuring smooth function through regular maintenance.

Troubleshooting.

Basically Ensuring That Your Network Functions With Minimum Problems and Disruptions

Need For Router Management?

Preventing Resource Overload :

CPU Over Load.
Low Router Memory.

Monitor Interfaces:

Interface Down.
No Bandwidth.

Monitor Wireless Signal Quality:

Bad Signal results poor performance.
Wireless interface load management.

Network Devices Monitoring:

Disconnection of other routers in network
Rebooting Network Devices

MikroTik

Network Admins Must Be Well Informed!

During a network fault or any router error, admins must be aware of the problem.

WHAT IF THERE IS NO INTERNET??

Notification Via E-mail is Not Always Possible.

It requires active internet connection at both server and admin end

THERE IS A SOLUTION!!!

"SMS"

We have GSM connectivity at almost every corner.

ALL WE NEED IS A SIM CARD CAPABLE OF SENDING AND RECEIVING TEXT MESSAGES!

Things we can do with SMS tool ?

- Run Scripts.
- Check Router Status.
- Check CPU Load.
- Check Traffic Load.
- Enable Disable Interfaces.
- Get Notifications on event of Network failure.
- Inform Customers about usage information.
- Inform Customers about Down time.
- And almost every thing we can do using SMS Gateway.

Things needed for Implementation:

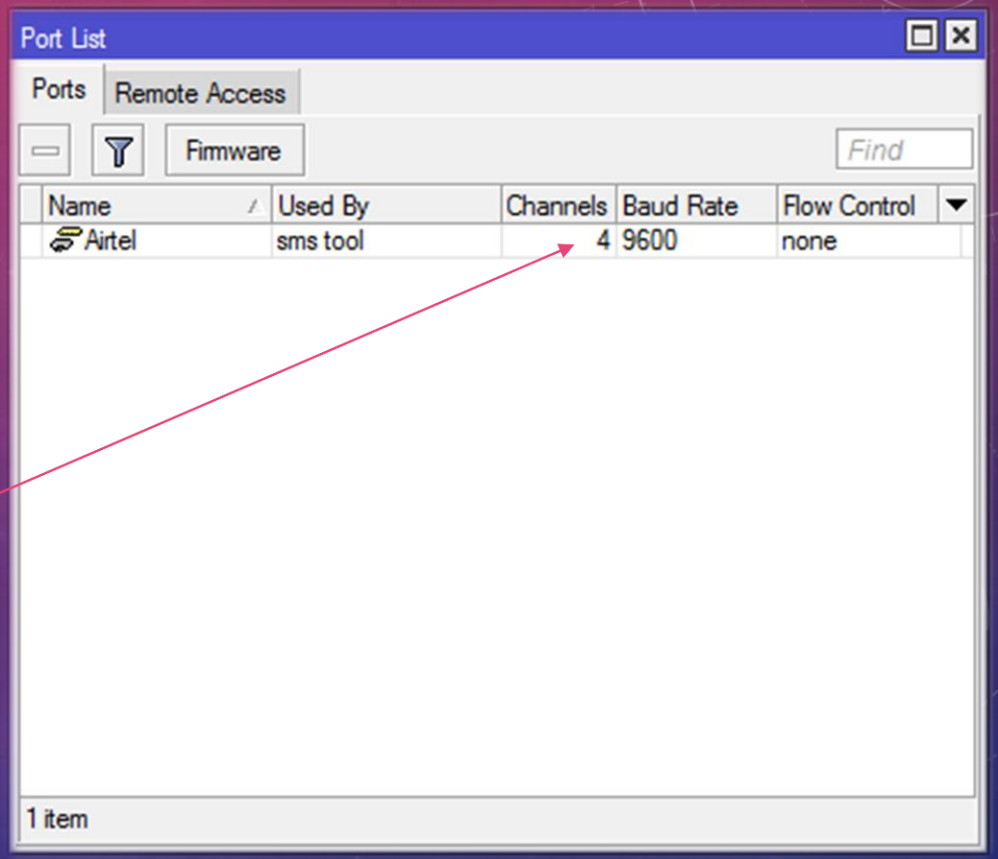
- RouterBoard with USB port.
- 2g/3g/4g Dongle (Usb)
- Sim Card capable of sending and receiving sms.
- A little bit of Scripting knowledge.

Setting Up SMS in Router OS.

Connect USB Dongle via USB port.

Go to: System -> Ports

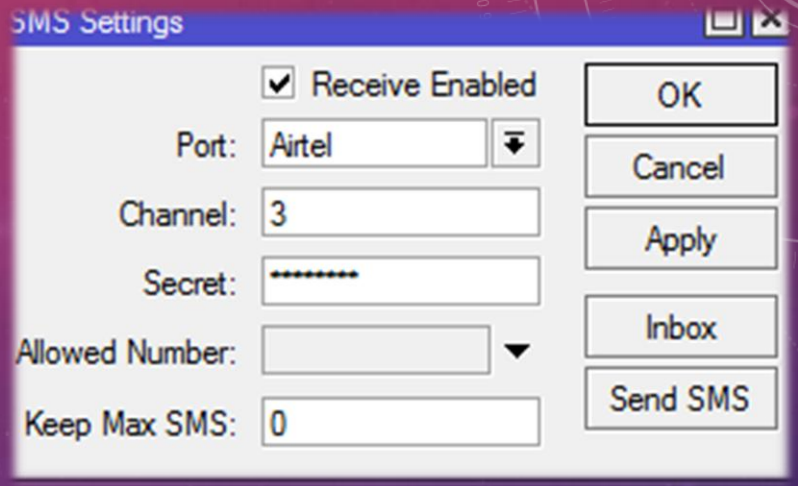
Terminal:
:port print



USB Modems have single port but multiple channels to communicate simultaneously

Setting Up SMS in Router OS.

Then go to: Tools -> SMS
Set Port-> “Port for USB Modem”
Set Channel -> “0-3”
Set Receive-Enabled -> yes
Secret -> “A password”



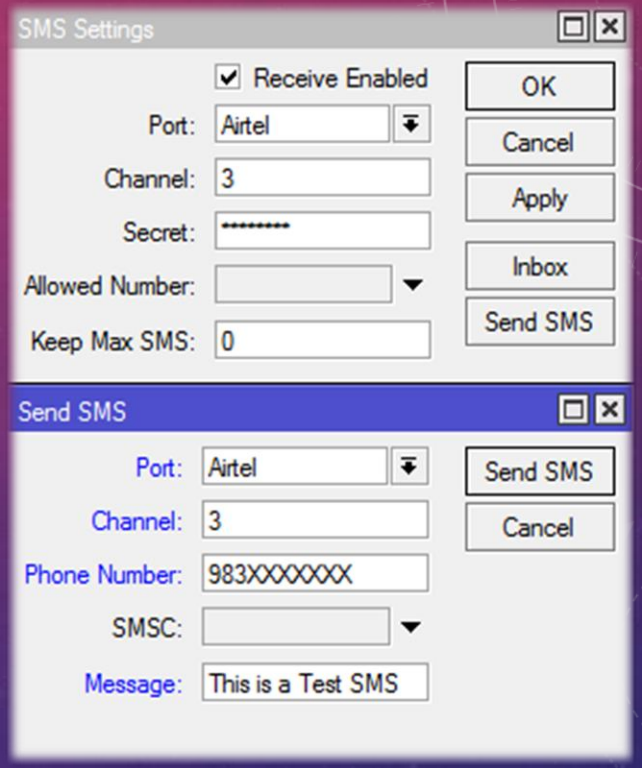
Using Terminal:

tool sms set port=Airtel channel=3 secret=******** receive-enabled=yes

NOTE: Receive Enabled Must be ticked to get Incoming text.

Sending SMS in Router OS.

To Send SMS,
Go to: Tools -> SMS -> Send SMS



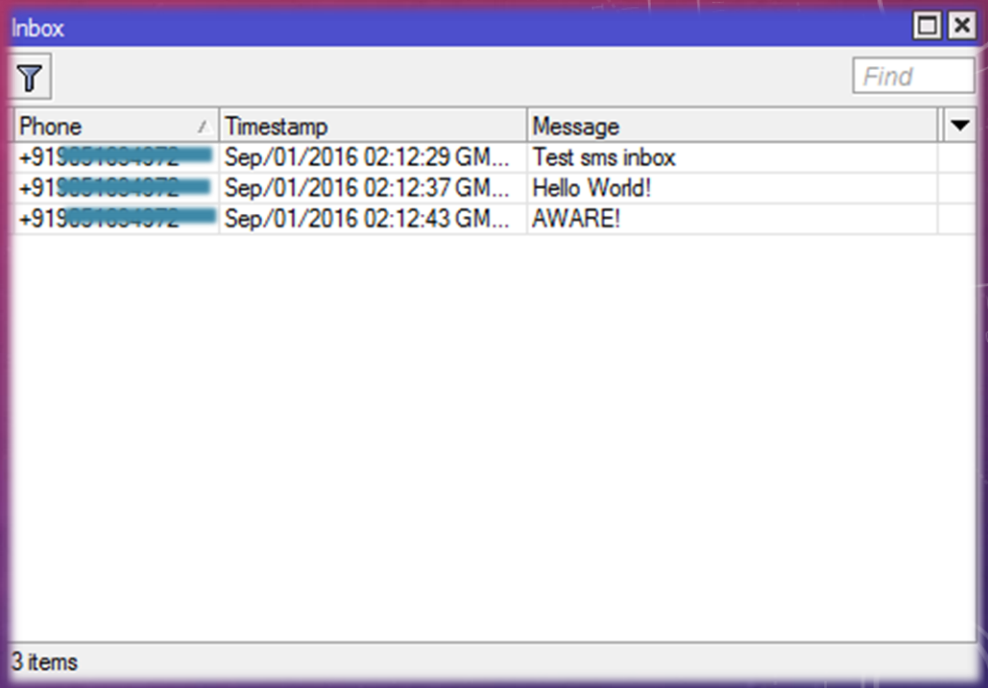
From Terminal:

tool sms send port=Airtel channel=3 phone-number=+91983xxxxxxx message ="This is a Test Message"

```
[admin@TEST ROUTER] > tool sms send port=Airtel channel=3 phone-number=9051xxxxxx message="this
is a test Message"
```

Receiving SMS in Router OS.

To Check Inbox,
Go to: Tools -> SMS -> Inbox



Terminal:
tool sms inbox print

```
[admin@TEST ROUTER] > tool sms inbox print
 # PHONE            TIMESTAMP                      MESSAGE
 0 +91[redacted]    Sep/01/2016 02:12:29 GMT +5    Test sms inbox
 1 +91[redacted]    Sep/01/2016 02:12:37 GMT +5    Hello World!
 2 +91[redacted]    Sep/01/2016 02:12:43 GMT +5    AWARE!
[admin@TEST ROUTER] >
```

Triggering Scripts by SMS in Router OS.

MikroTik Allows us to execute a script by sending an SMS to the router.

HOW ?

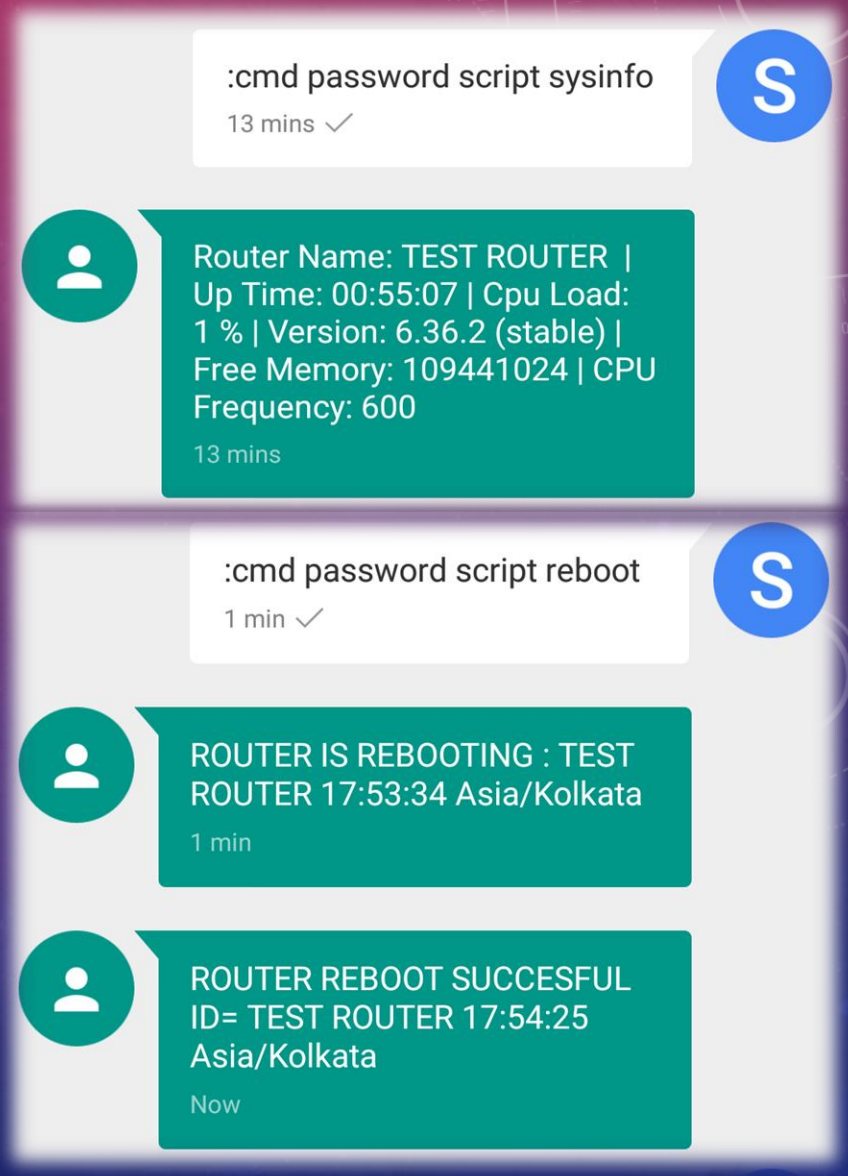
SMS Command:

```
:cmd “secret” script “script-name”
```

Practical uses of running Scripts via SMS !

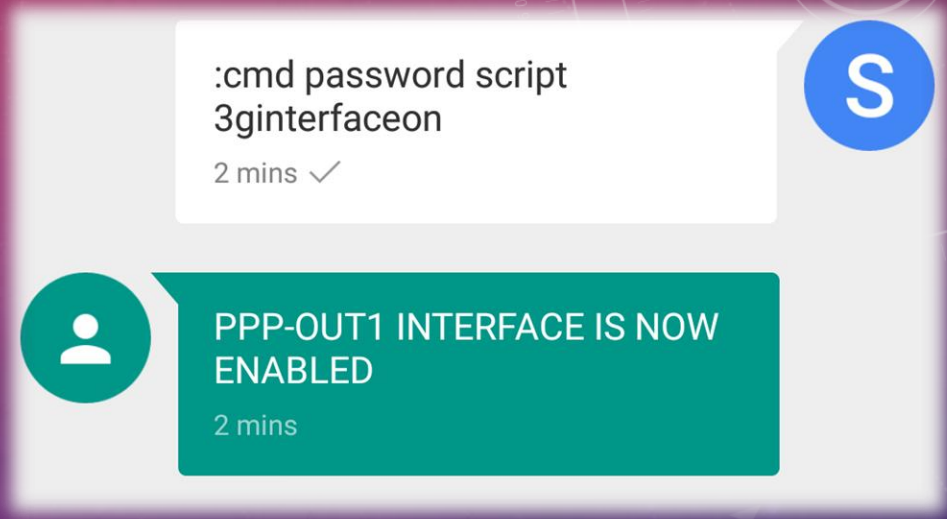
GET ROUTER INFORMATION:
(CPU Usage, Memory, UP Time, Disk Space)

REBOOT ROUTER REMOTELY:

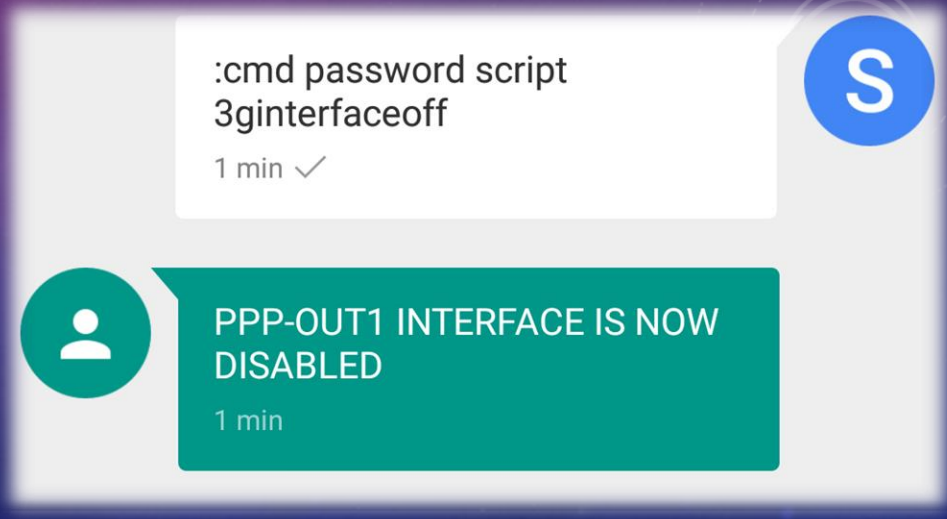


Practical uses of running Scripts via SMS !

ENABLE An INTERFACE:



DISABLE An INTERFACE:



Demonstration

We will fetch router information Via SMS

We will enable and disable our 3g interface with SMS.

We Switch Our Gateway with an SMS.

We reboot the Router Via SMS


Questions

Thank You.