RouterOS and USB Devices

Original USB Logo

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MikroTik

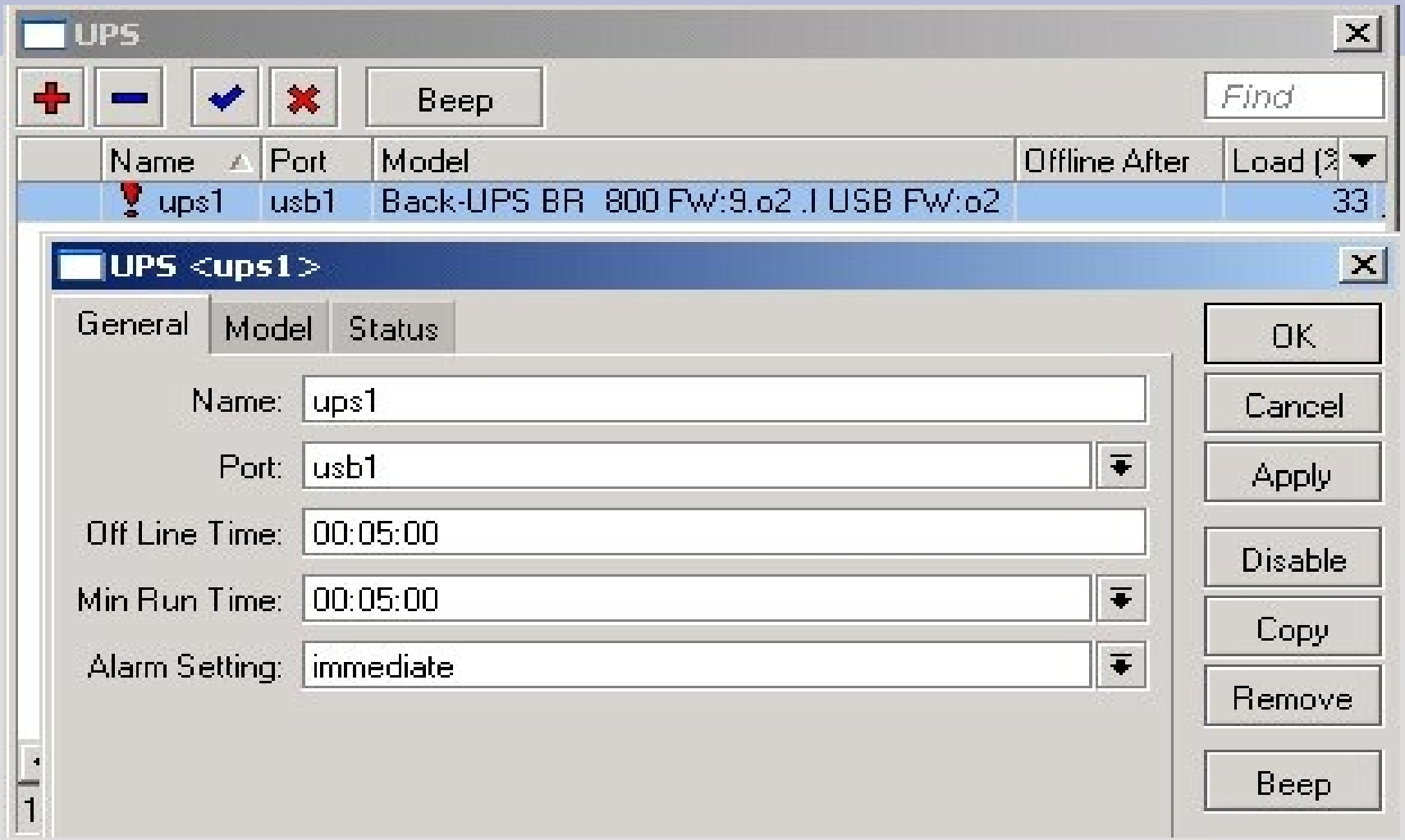
Supported USB Devices

- USB Peripheral Devices:
  - UPS
  - Ethernet Controllers
  - Flash Disks / Hard Disk Drives
  - HSDPA/EDGE/GPRS (3G) Modems
- USB 2.0 Hosts running RouterOS:
  - Any x86 hardware (PC)
  - RouterBoard 230 (USB 1.1)
  - RouterBoard 433U – new!

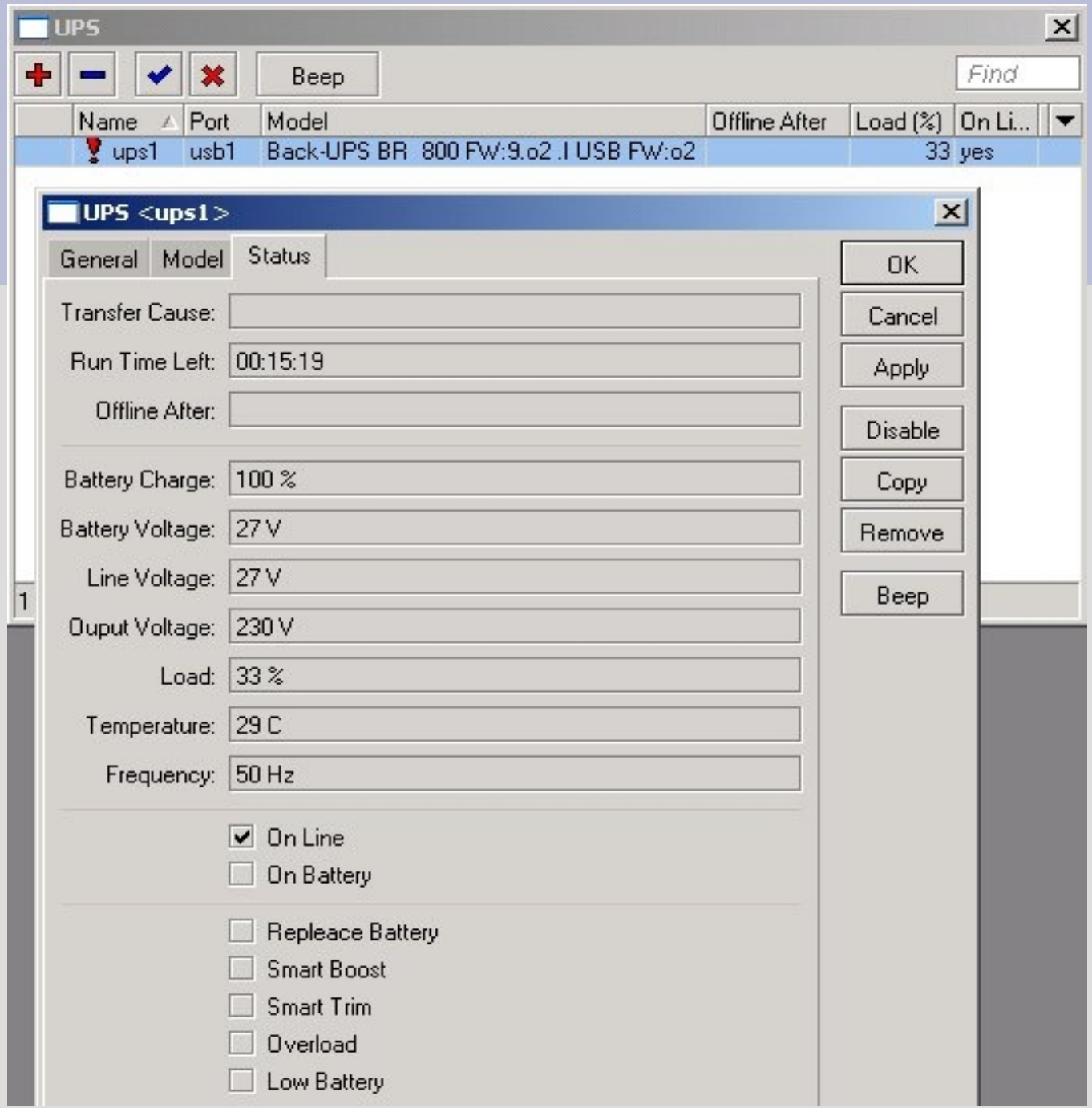
UPS Control

- Similar to the “old” style over serial port
- Requires the ups-3.x.npk or ups-2.9.x.npk software package installed

UPS Configuration



UPS Status


UPS
Beep
Find
Name
Port
Model
Offline After
Load (%)
On Li...
ups1
usb1
Back-UPS BR 800 FW:9.o2 .I USB FW:o2
33
yes
UPS <ups1>
General
Model
Status
OK
Cancel
Apply
Disable
Copy
Remove
Beep
Transfer Cause:
Run Time Left:
00:15:19
Offline After:
Battery Charge:
100 %
Battery Voltage:
27 V
Line Voltage:
27 V
Ouput Voltage:
230 V
Load:
33 %
Temperature:
29 C
Frequency:
50 Hz
On Line
On Battery
Repleace Battery
Smart Boost
Smart Trim
Overload
Low Battery

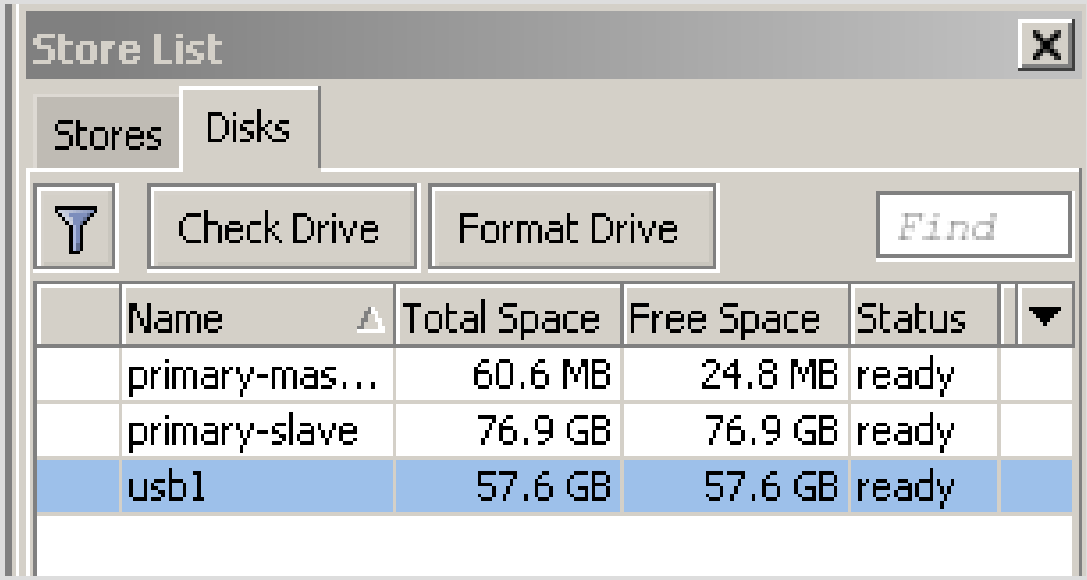
USB Ethernet

- RouterOS Supports:
  - Planet 10/100Base-TX USB Ethernet Adapter UE-9500
  - Linksys Instant EtherFast 10/100 USB Network Adapter USB100TX
- See the Device Driver List in the RouterOS Manual

USB Flash Disk

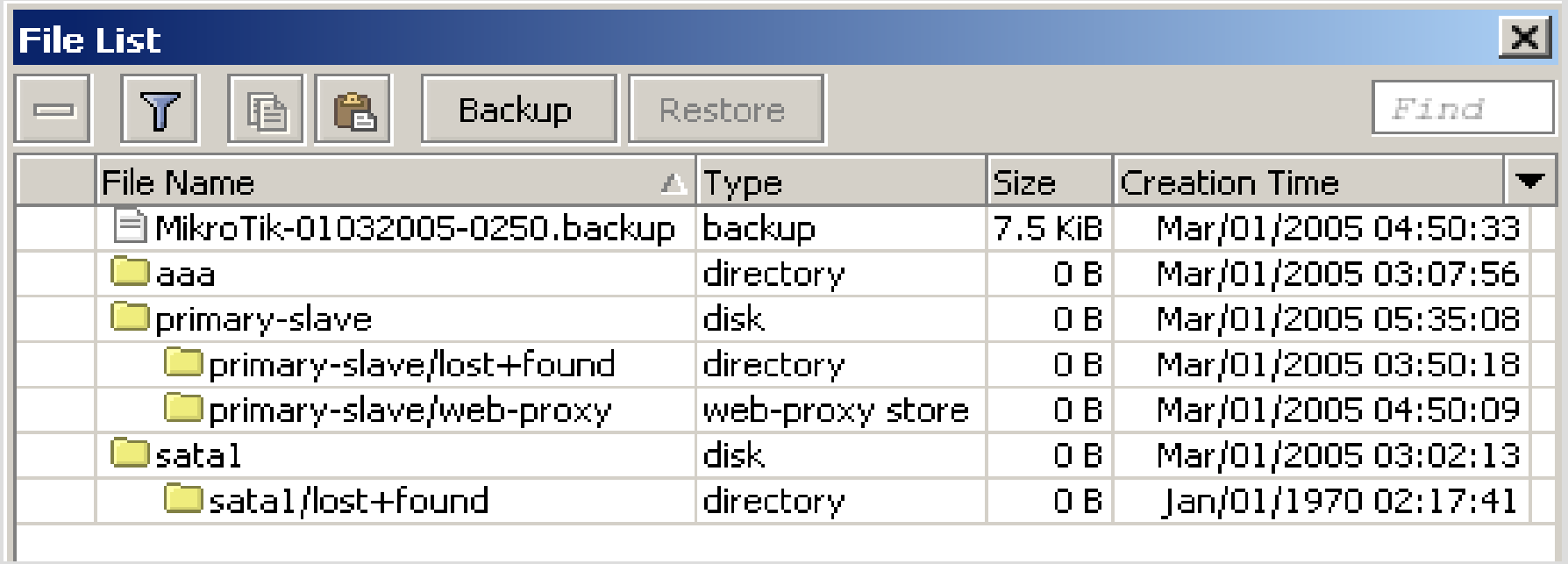
- Booting from Flash, if the hardware supports it
- Storage for proxy cache
- USB storage shows up under the new **/store disk** menu (since ROS V3.15)

Store Menu



- USB storage shows up under the new **/store disk** menu (since ROS V3.15)

Accessing External Storage



- USB storage can be accessed through the **/file** menu, where it shows up as a folder
- USB storage can be accessed by ftp

HSDPA/EDGE/GPRS Modems

- HUAWEI E220
- TELTONIKA

GSM Modem Applications

- Main link to the Internet
- Backup link
- Sending SMS from the router (V3.0rc11)
- Receiving SMS on the router and executing scripts (to be implemented)

Main Link over GSM

- Suitable for locations where WiFi or DSL cannot be used:
  - rural areas
  - public transport
  - in your car
  - on your yacht
  - in a hotel with overpriced Internet access

Backup Link over GSM

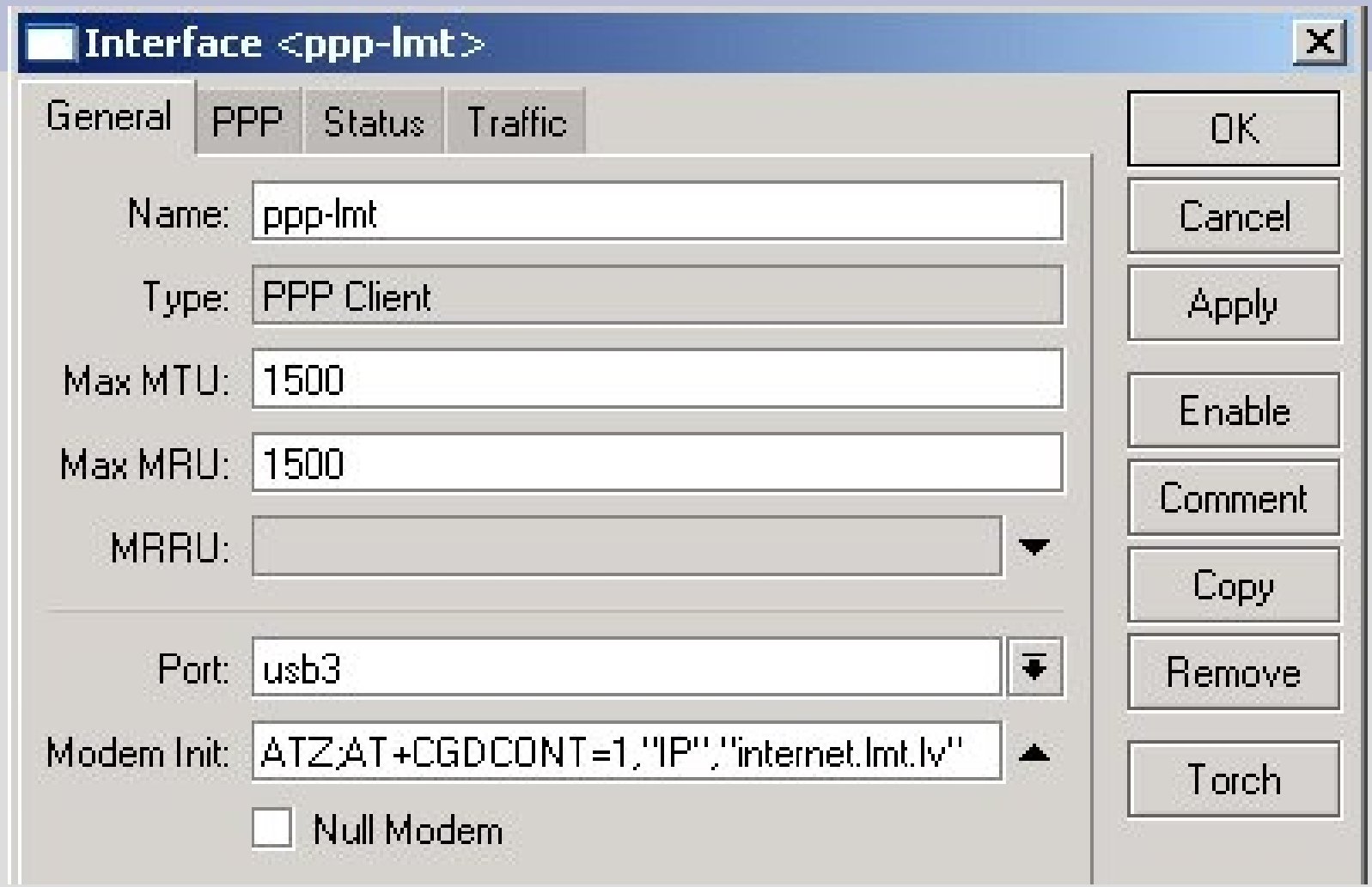
- In case the main link goes down router can be configured to use data connection over GSM network

Sending SMS over GSM Modem

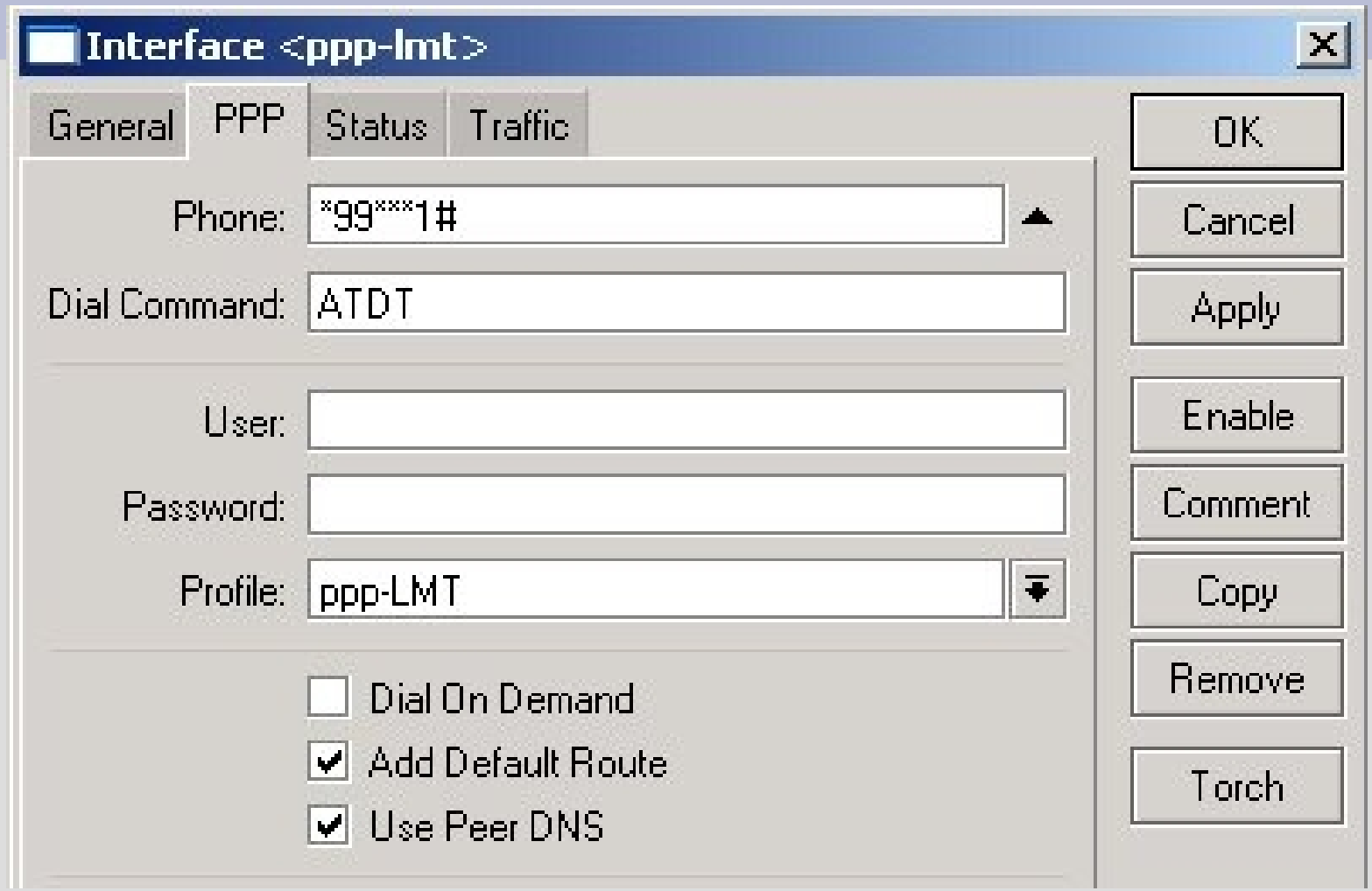
- Signaling the network status by sending SMS text directly through the GSM network (not to a SMS-to-email gateway)

GSM Modem Applications

Configuring the PPP



Configuring the PPP (2)



Sending SMS from Router

- Command line example to send an SMS:
  - /tool sms send usb3 "29111222" message="Help!"
- Additional arguments can be specified:
  - smsc=<number> is number of the SMS service center
  - type=<value> is for adjusting SMS properties. Currently only class 0 SMS messages are supported, thus, type=class-0 by default
- SMS cannot be sent while the port is used by other service (PPP or terminal)

Troubleshooting GPRS

- Can you talk to the modem at all?
  - Use serial terminal on usb port and try to issue some AT commands (AT, ATI, AT+CPIN=?
- Is the SIM card requiring to enter the PIN?
  - Disable PIN request, or,
  - Include it into the modem initialization string
- Consult
  - Any GPRS AT Command Reference
  - MikroTik WIKI

Thank you!