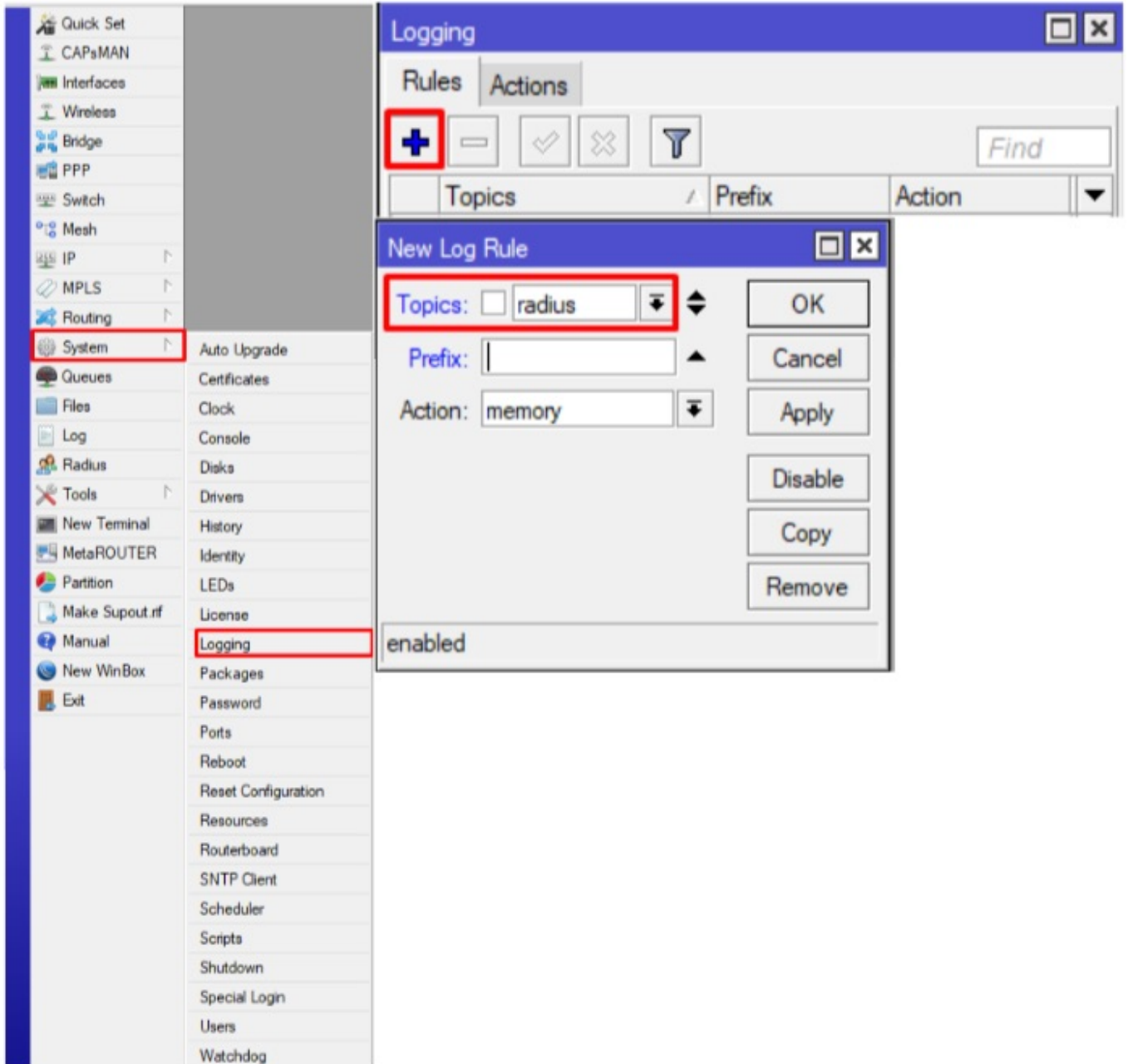


Mikrotik Necessities

The following are settings that are needed and or should be enabled on your Mikrotik Router. The following does not need to be completed in any specific order.

1. Enable Radius Logging on the Mikrotik

The benefits of this is that when an issue does appear, yourself and the HeroTill team will be able to track and identify the issue faster and be able to assist.



2. IP Services are active and enabled correctly

Make sure all needed IP services are active and enabled correctly. Below is a list of items that needs to be set to active.

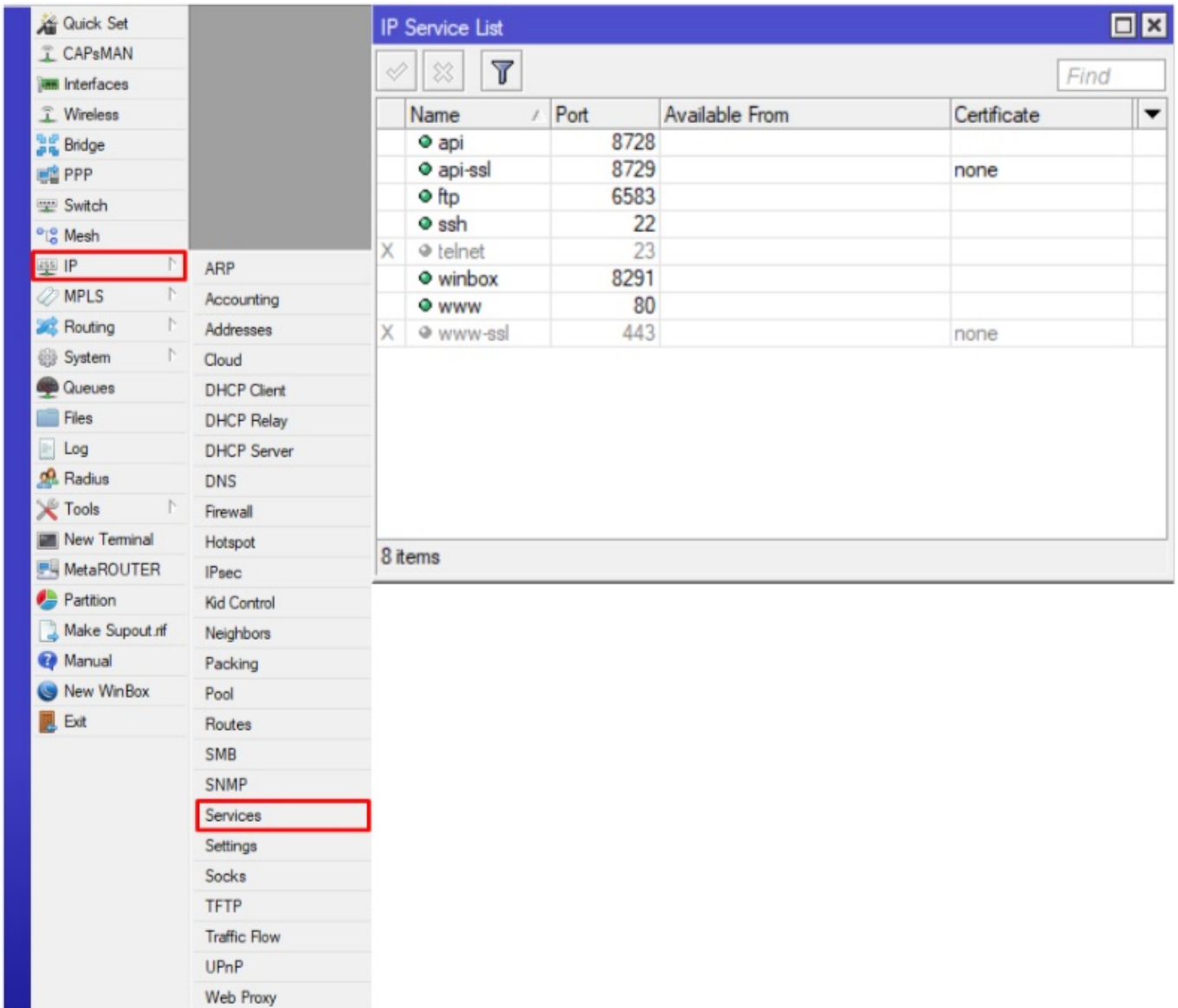
API This is for HeroTill to connect.

API-SSL This is for HeroTill to connect.

FTP This is for HeroTill to connect and pull backups/configs. (HeroTill will auto detect the port)

SSH Access

Winbox Access



The screenshot shows the Mikrotik WinBox interface. On the left is a navigation tree with categories like Quick Set, CAPsMAN, Interfaces, Wireless, Bridge, PPP, Switch, Mesh, IP, MPLS, Routing, System, Queues, Files, Log, Radius, Tools, New Terminal, MetaROUTER, Partition, Make Supout.tif, Manual, New WinBox, and Exit. The 'IP' category is highlighted with a red box. In the center, a list of services is displayed under the 'IP Service List' window. The 'Services' menu item at the bottom of the navigation tree is also highlighted with a red box.

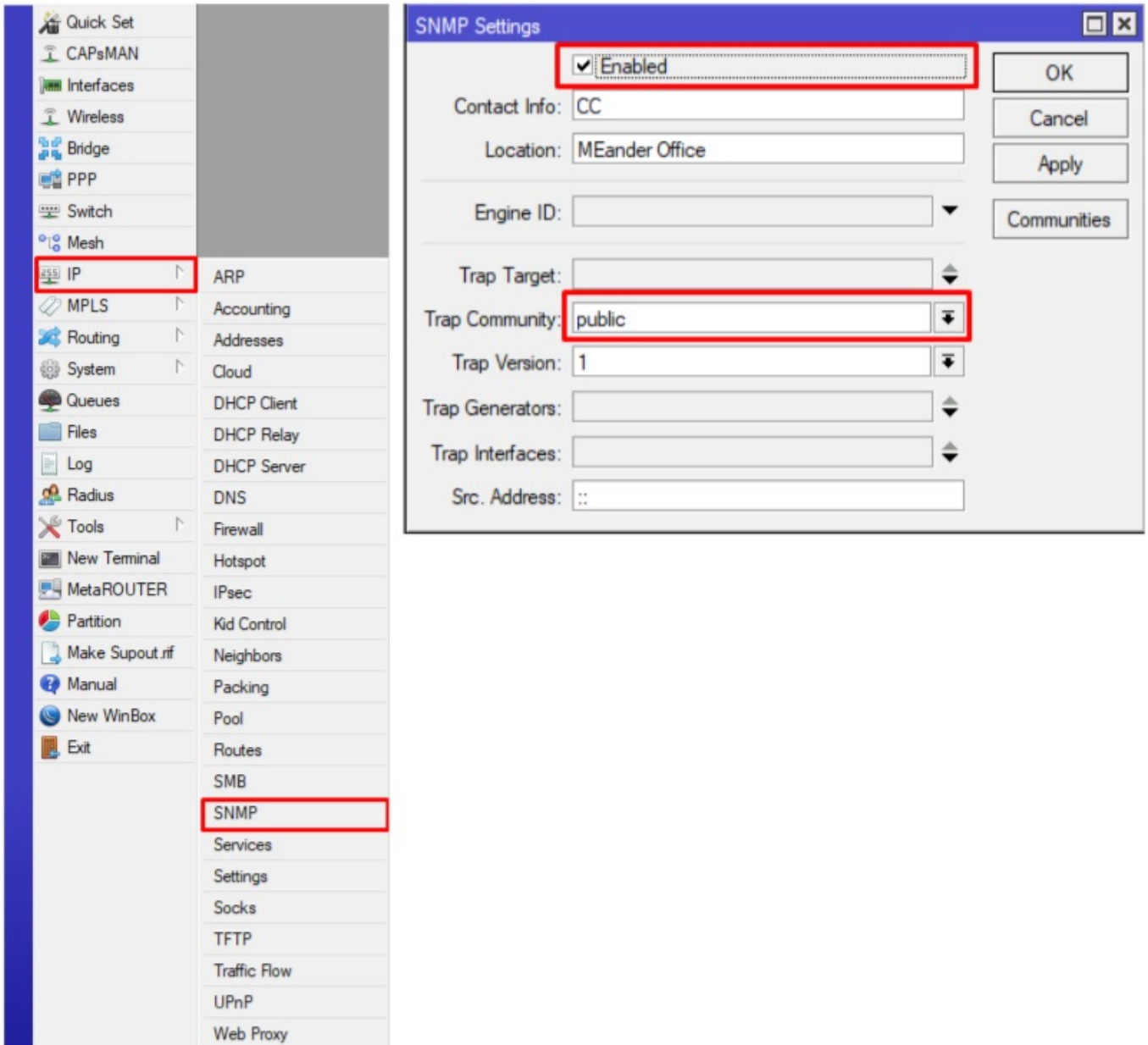
Name	Port	Available From	Certificate
api	8728		
api-ssl	8729		none
ftp	6583		
ssh	22		
X telnet	23		
winbox	8291		
www	80		
X www-ssl	443		none

8 items

3. Enabled SNMP:

Please ensure that you SNMP is enabled. Simple Network Management Protocol (SNMP) is a popular protocol for network management. It is used for collecting information from and configuring, network devices, such as servers, printers, hubs, switches, and routers on an Internet Protocol (IP) network.

HeroTill uses this to gain information about the device.



4. Radius settings and Timeouts

Please ensure the correct ports are allowed and that the timeouts are set for Radius for Login. You will need to enable the following

- PPP
- Login

Please set the following accordingly:

- Authentication port: 1812
- Accounting port: 1813
- Time-out: 3000 ms

The image shows the Mikrotik WinBox interface with the Radius configuration window open. The left sidebar contains various menu items, with 'Radius' highlighted. The main window has two tabs: 'General' and 'Status'. The 'General' tab is active and contains the following fields:

- Service:** ppp login
 hotspot wireless
 dhcp ipsec
- Called ID:** [Empty field]
- Domain:** [Empty field]
- Address:** [Empty field]
- Secret:** [Masked field]
- Authentication Port:** 1812
- Accounting Port:** 1813
- Timeout:** 3000 ms
- Accounting Backup
- Realm:** [Empty field]
- Src. Address:** [Empty field]

At the bottom of the window, the status is shown as 'enabled'. On the right side, there are several buttons: OK, Cancel, Apply, Disable, Comment, Copy, Remove, and Reset Status.

5. PPP Accounting Settings:

Please ensure that the PPP accounting is set to use “**Accounting**” and the **Interval** set to 00:05:00 as this allows the account updates to take place correctly.

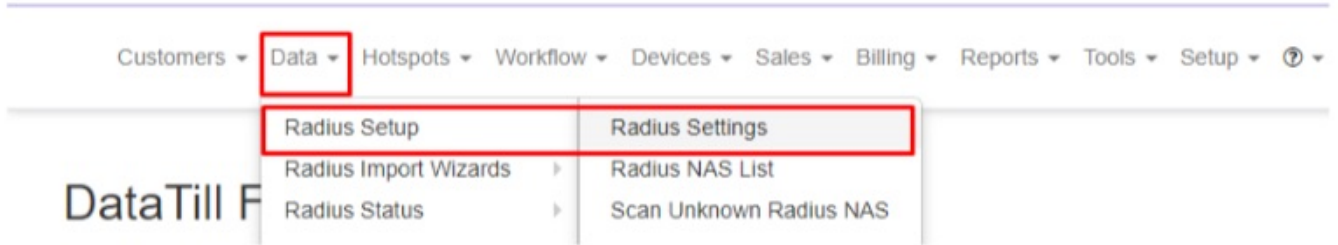
The screenshot displays the Mikrotik WinBox interface. On the left is a vertical menu with various system tools, where 'PPP' is highlighted with a red box. The main window is titled 'PPP' and has several tabs: 'Interface', 'PPPoE Servers', 'Secrets', 'Profiles', 'Active Connections', and 'L2TP Secrets'. The 'Secrets' tab is active and contains a table with the following data:

Name	Password	Service	Caller ID	Profile	Local Address
keepalive	*****	pptp		default	10.5.57.1

Below the table, a dialog box titled 'PPP Authentication&Accounting' is open. It features several options: 'Use Radius' (checked), 'Accounting' (checked), and 'Use Circuit ID in NAS Port ID' (unchecked). The 'Interim Update' field is set to '00:05:00'. The dialog also includes 'OK', 'Cancel', and 'Apply' buttons.

6. On HeroTill:

Apart from The Mikrotik please have a look and adjust the following settings accordingly to what you prefer in relation to Stale Session timeout removal and Interim Update.



Freeradius Settings

Openserve Session Auto Disconnect Timeout	90 minutes
Wireless Session Auto Disconnect Timeout	15 minutes
Radius Interim Update Interval	1 Minute

Number of seconds to wait before closing detached or stale Openserve radius sessions.

Number of seconds to wait before closing detached or stale wireless radius sessions. This value must always be greater than the value for Radius Interim Update interval below.

Interval to wait before sending radius accounting update packets. The higher the value, the fewer updates to real-time usage information. This value must always be less than the value for Wireless Session Auto Disconnect Timeout above.
Note: Talcom OpenServe uses a fixed 1 hour interval.