

To see the hotspot setup on HeroTill's side, see: [Hotspot Overview](#)

Hotspot setup guide for Winbox


Please remember, that in order to run a hotspot on HeroTill the MikroTik must have a level 4 MikroTik license and up.

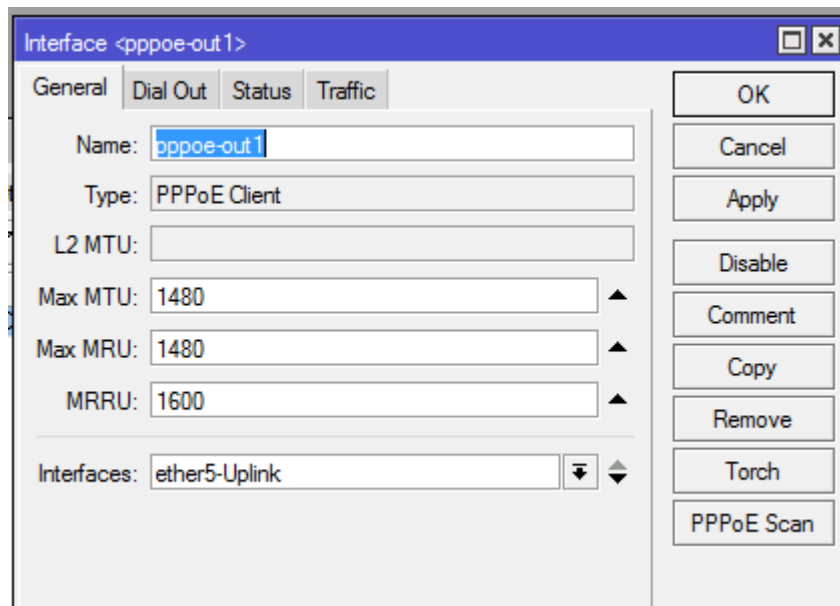
This is the hotspot setup guide that explains how to configure a [MikroTik hotspot](#) to work with HeroTill to provide free trial access, hotspot vouchers, prepaid accounts and radius account authentication.

Step 1. Upgrade router-board firmware and software packages.

Please note that when upgrading router board firmware and software always start with the firmware then the software packages. Reason: You will lose your wireless package if you upgrade the firmware last!

Step 2. SETUP PPPoE ACCOUNT

1. Go to the PPP tab
2. Click on following button: 
3. Click on PPPoE Client
4. Leave NAME as default
5. Select the UPLINK port for the INTERFACE tab.



Interface <pppoe-out 1>

General | Dial Out | Status | Traffic

Name: pppoe-out 1

Type: PPPoE Client

L2 MTU:

Max MTU: 1480 ▲

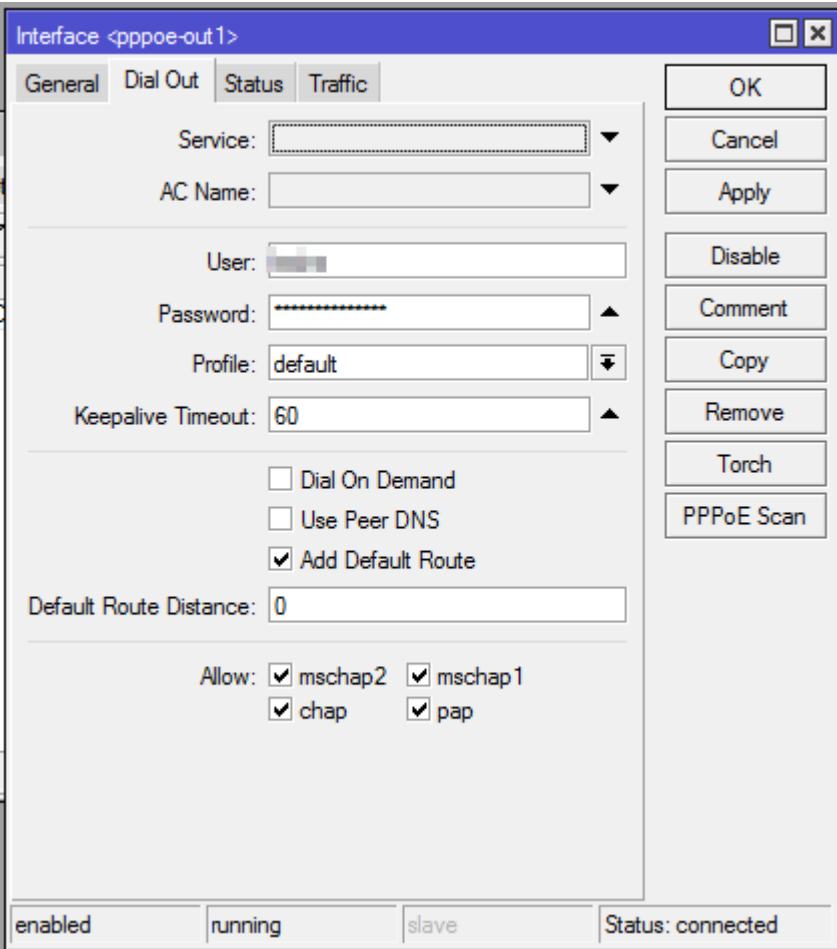
Max MRU: 1480 ▲

MRRU: 1600 ▲



Interfaces: ether5-Uplink ▼ ▲

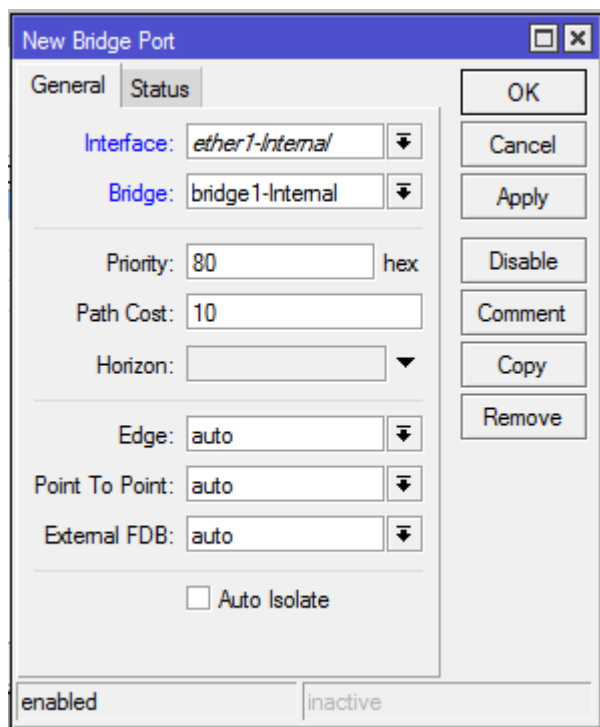
OK
Cancel
Apply
Disable
Comment
Copy
Remove
Torch
PPPoE Scan

6. Navigate to DIAL OUT tab and fill in client PPPoE details as shown below.




Step 3. Configure Bridge on network:

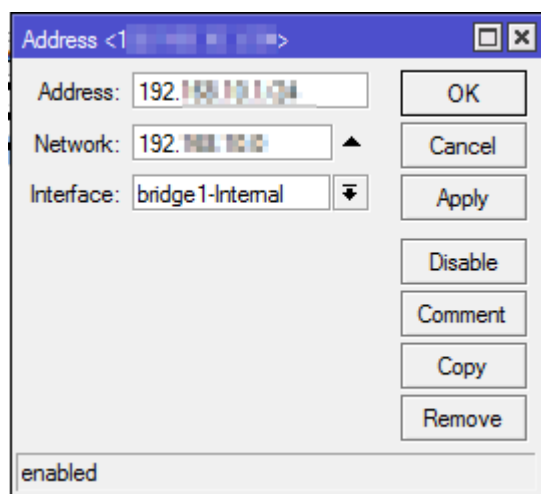
1. Navigate to BRIDGE tab
2. Click on icon as shown 
3. Create bridge and name as follow: bridge1-Internal
4. Navigate to PORTS tab.
5. Click on icon as shown 
6. Insert ports 1,2,3,4 in the bridge. **NB: DO NOT INSERT UPLINK PORT IN BRIDGE**



7. Navigate to **IP/ADDRESSES**

8. Click on icon as shown 

9. Insert IP range for bridge created on previous steps.



10. Navigate to **IP/DHCP SERVER**

11. Insert DHCP on bridge1-Internal

Step 4. Hotspot firewall setup

1. Navigate to **ip/firewall/NAT**

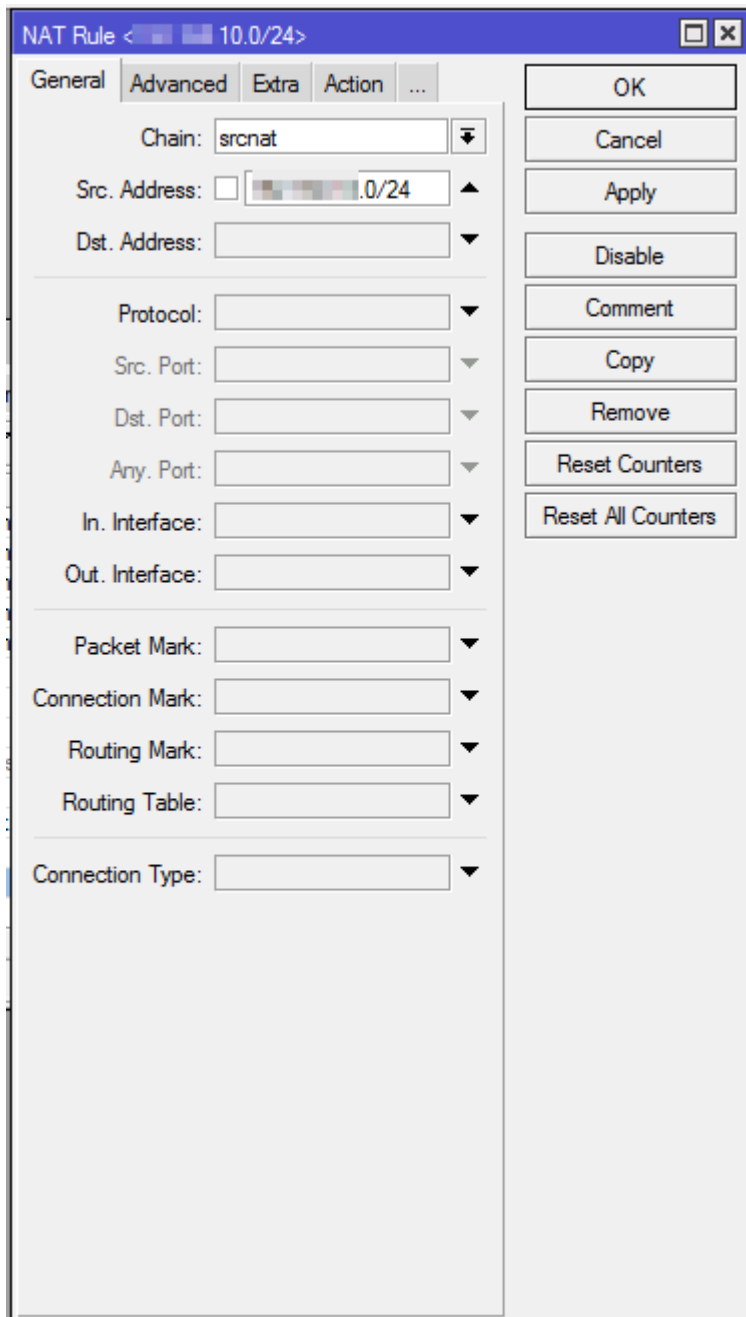
2. Click on icon as shown



3. NAT bridge1-Internal ip as masquerade

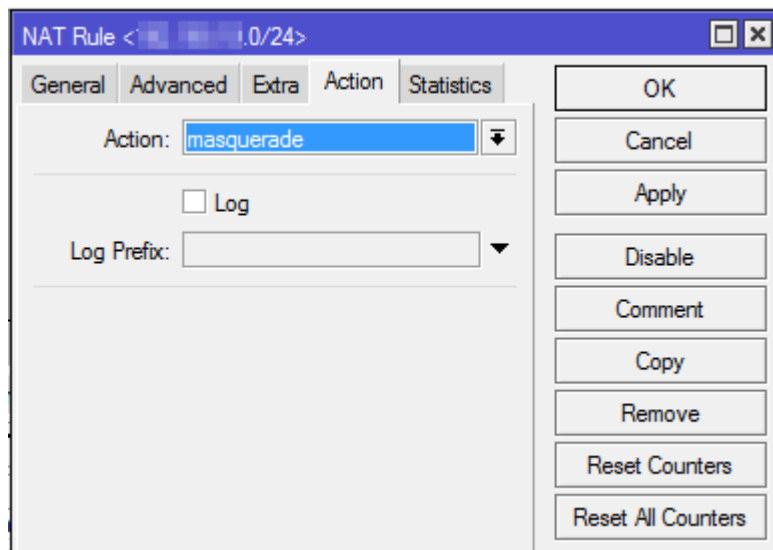
4. Choose Chain as **srcnat**

5. Fill in **Address:** include whole range __10.0/24 **NB: Do not choose an interface**



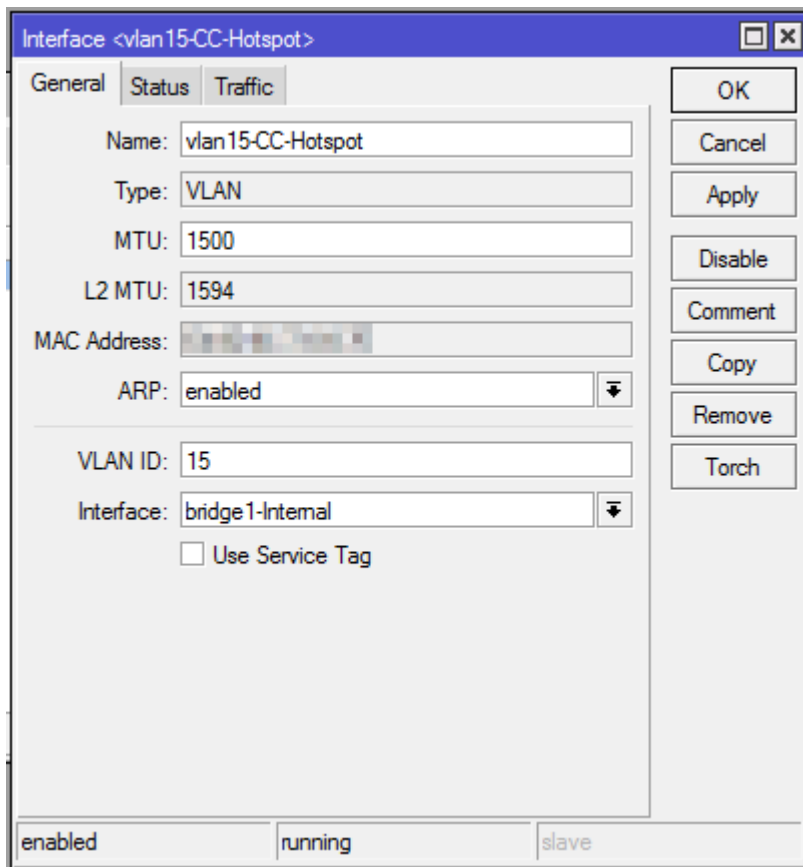
6. Navigate to **Action** tab

7. Choose **Action** as **masquerade**



Step 5. VLAN SETUP

1. Navigate to **Interfaces/VLAN**
2. Add VLAN as shown below



Interface <vlan15-CC-Hotspot>

General | Status | Traffic

Name: vlan15-CC-Hotspot

Type: VLAN

MTU: 1500

L2 MTU: 1594

MAC Address: [MAC Address]

ARP: enabled

VLAN ID: 15

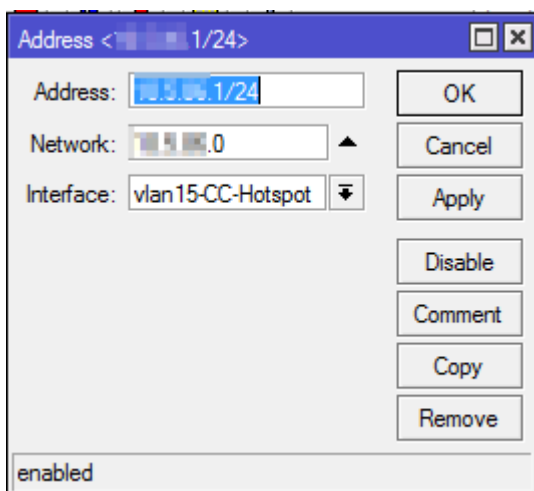
Interface: bridge1-Internal

☐ Use Service Tag

OK
Cancel
Apply
Disable
Comment
Copy
Remove
Torch

enabled | running | slave

3. Choose interface as bridge1-Internal
4. Navigate to **IP/Addresses**
5. Insert hotspot IP on VLAN interface



Address <10.0.0.1/24>

Address: 10.0.0.1/24

Network: 10.0.0.0

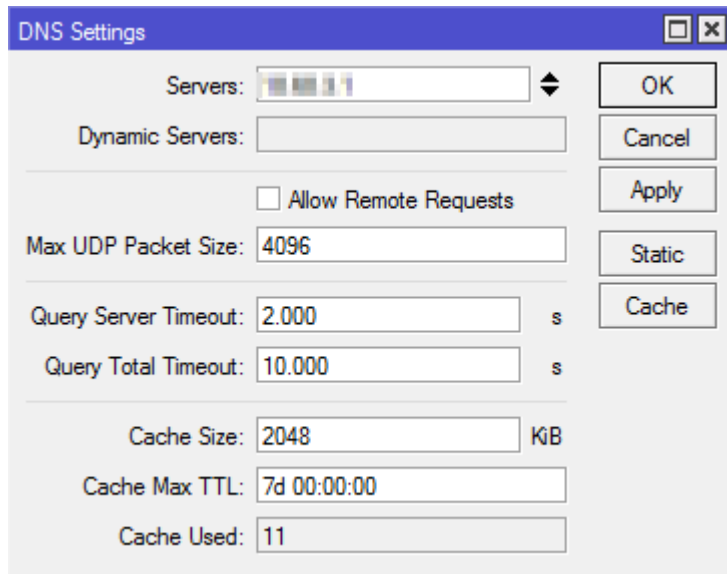
Interface: vlan15-CC-Hotspot

OK
Cancel
Apply
Disable
Comment
Copy
Remove

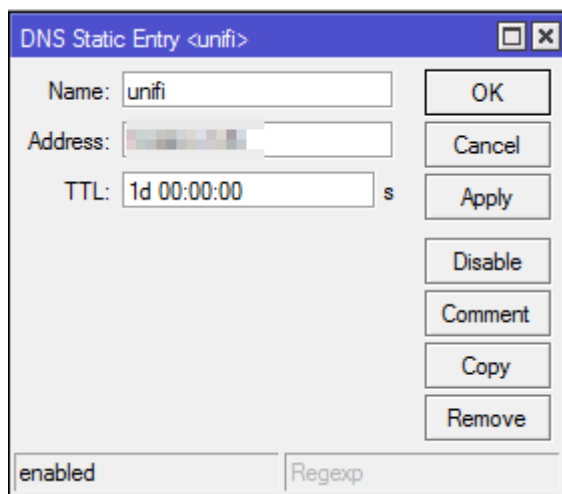
enabled

Step 6. DNS Setup

1. Navigate to **IP/DNS**
2. Insert DNS IP on **Servers** tab



3. **DO NOT ALLOW REMOTE REQUESTS**
4. Navigate to **Static** Tab
5. Insert Static Unifi DNS IP



Step 7. Setup Radius

1. Navigate to **Radius** tab
2. On service select **hotspot**
3. On **Address** add the radius IP

4. On **Secret** add Radius Password
5. On **Timeout** insert 3000ms
6. On **Src Address** insert PPPoE IP address

Radius Server <15>

General Status

Service: ☐ ppp ☐ login
☒ hotspot ☐ wireless
☐ dhcp

Called ID:

Domain:

Address:

Secret:

Authentication Port:

Accounting Port:

Timeout: ms

☐ Accounting Backup

Realm:

Src. Address:

OK
Cancel
Apply
Disable
Comment
Copy
Remove
Reset Status

enabled

7. Navigate to **Incoming** tab and complete as shown below

Radius Incoming

☒ Accept

Port:

Requests:

Bad Requests:

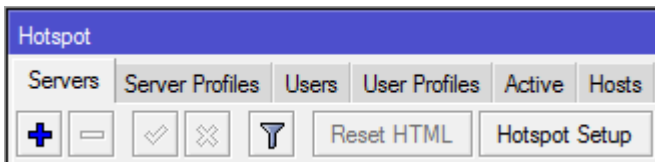
Acks:

Naks:

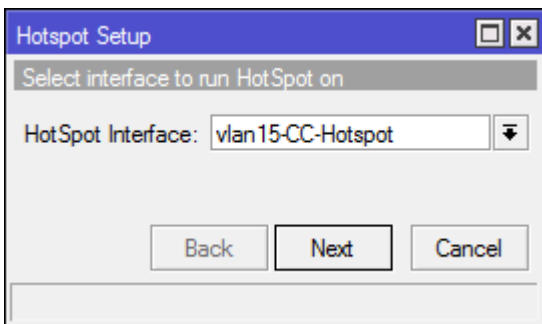
OK
Cancel
Apply
Reset Status

Step 8. Hotspot Config Setup

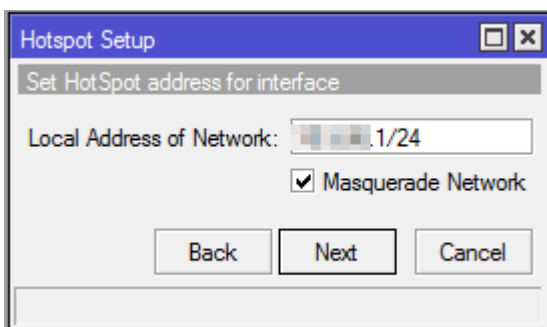
1. Navigate to **IP/Hotspot**
2. On server tab select **Hotspot Setup** tab



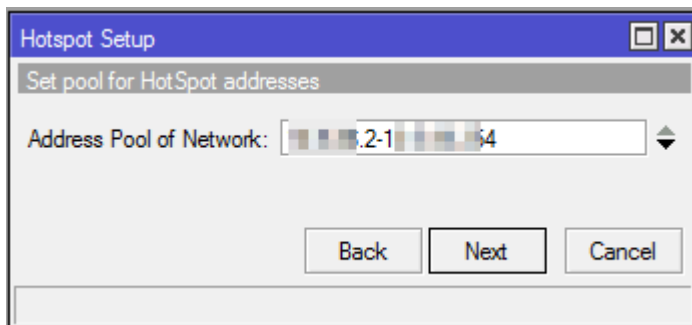
3. Follow Hotspot setup Wizard as shown
4. **Hotspot Interface:** Select your VLAN interface



5. **Local Address of Network:** Ensure that **Masquerade Network** is **enabled**



6. **Address Pool of Network:**



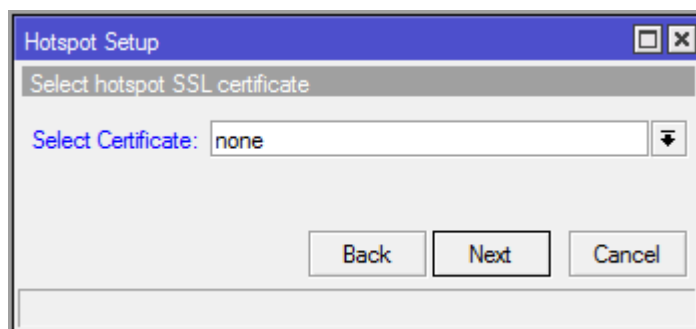
Hotspot Setup

Set pool for HotSpot addresses

Address Pool of Network: [192.168.1.2-192.168.1.254]

Back Next Cancel

7. Select Certificate:



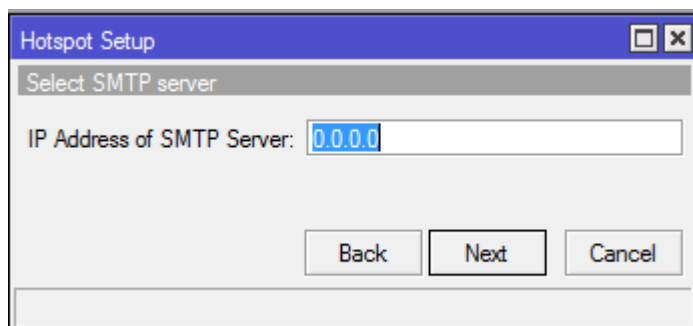
Hotspot Setup

Select hotspot SSL certificate

Select Certificate: [none]

Back Next Cancel

8. IP Address of SMTP server:



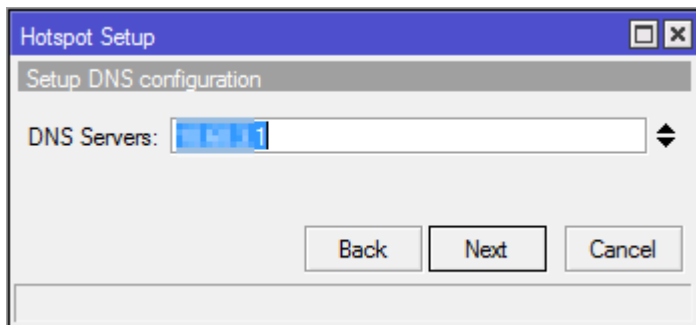
Hotspot Setup

Select SMTP server

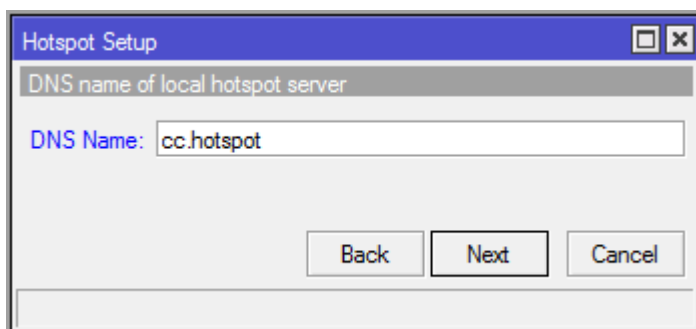
IP Address of SMTP Server: [0.0.0.0]

Back Next Cancel

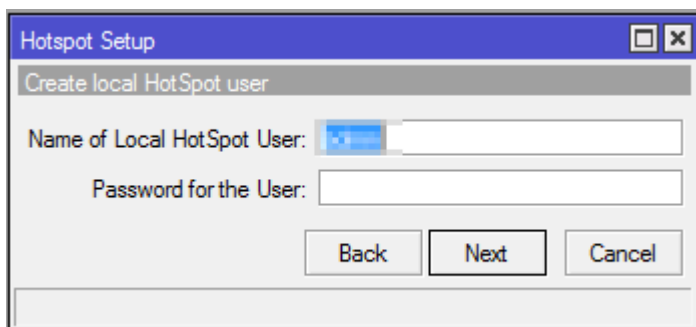
9. DNS Server:



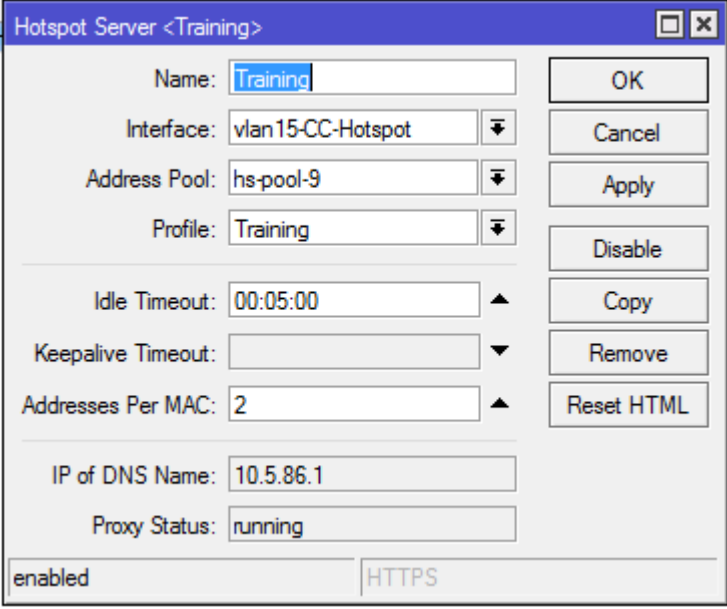
10. **DNS Name:**



11. **Create local Hotspot user:**



12. Basic hotspot setup has now been completed
13. Navigate to **IP/Hotspot/Users** and **delete** the user that was created through the Wizard setup
14. Navigate to **IP/Hotspot/Servers** and select your hotspot server
15. **Name:** Insert your hotspot name here
16. **Profile:** Select your default profile here



Hotspot Server <Training>

Name:

Interface:

Address Pool:

Profile:

Idle Timeout:

Keepalive Timeout:

Addresses Per MAC:

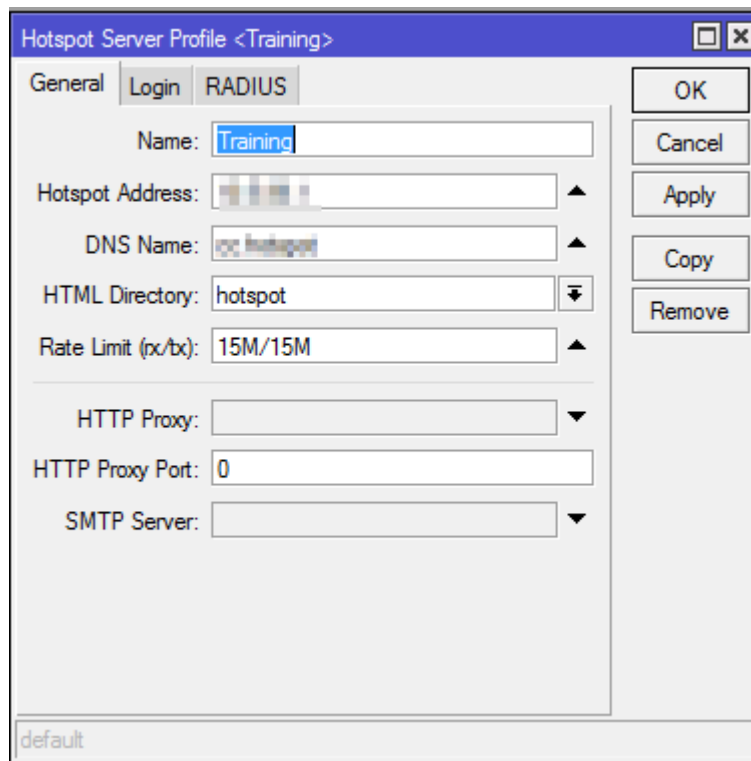
IP of DNS Name:

Proxy Status:

☐ enabled ☐ HTTPS

Buttons: OK, Cancel, Apply, Disable, Copy, Remove, Reset HTML

17. Navigate to **Server Profiles** and select created hotspot profile
18. **General tab:** Fill in same name exactly the same as given in step 15 of **Hotspot Config Setup**
19. **Rate Limit (rx/tx):** This is for queueing the entire hotspot please see below



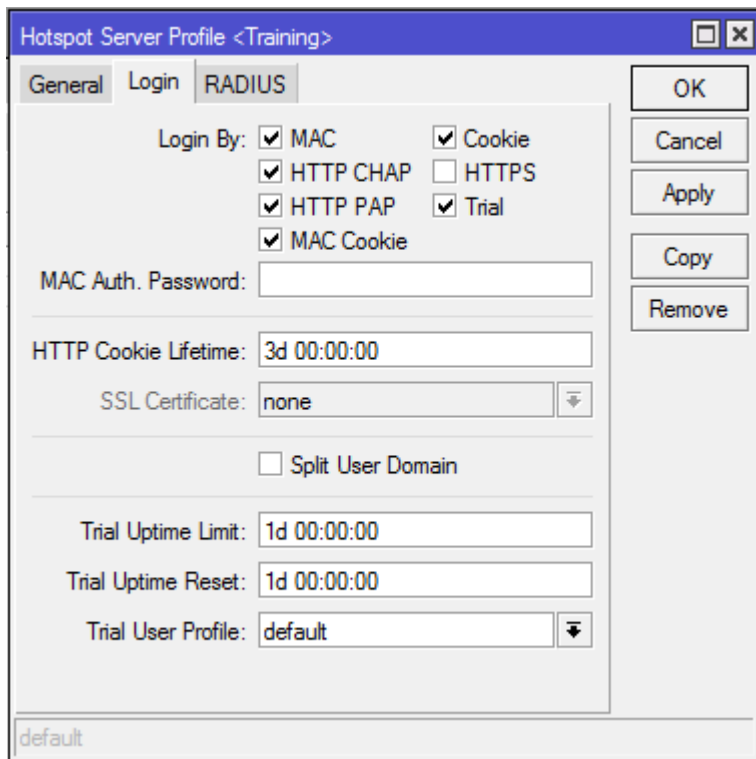
The screenshot shows a Windows-style dialog box titled "Hotspot Server Profile <Training>". It has three tabs: "General", "Login", and "RADIUS". The "General" tab is selected. The fields are as follows:

- Name: Training
- Hotspot Address: [IP address]
- DNS Name: [DNS name]
- HTML Directory: hotspot
- Rate Limit (px/bx): 15M/15M
- HTTP Proxy: [empty]
- HTTP Proxy Port: 0
- SMTP Server: [empty]

On the right side of the dialog, there are buttons for "OK", "Cancel", "Apply", "Copy", and "Remove". At the bottom left, there is a "default" button.

screenshot

20. **HTML Directory:** Select landing page that was uploaded from datatill (See screensot above.)
21. Navigate to **Login** tab: Ensure that your Login tab is exactly configured as screenshot below



The screenshot shows the 'Hotspot Server Profile <Training>' dialog box with the 'RADIUS' tab selected. The 'General' tab is also visible. The 'Login' section has the following settings: 'Login By' is set to 'MAC' (checked), 'Cookie' (checked), 'HTTP CHAP' (checked), 'HTTPS' (unchecked), 'HTTP PAP' (checked), 'Trial' (checked), and 'MAC Cookie' (checked). The 'MAC Auth. Password' field is empty. The 'HTTP Cookie Lifetime' is set to '3d 00:00:00'. The 'SSL Certificate' is set to 'none'. The 'Split User Domain' checkbox is unchecked. The 'Trial Uptime Limit' is set to '1d 00:00:00'. The 'Trial Uptime Reset' is set to '1d 00:00:00'. The 'Trial User Profile' is set to 'default'. The 'default' profile is also listed at the bottom of the dialog box.

Hotspot Server Profile <Training>

General Login RADIUS

Login By: ☒ MAC ☒ Cookie
☒ HTTP CHAP ☐ HTTPS
☒ HTTP PAP ☒ Trial
☒ MAC Cookie

MAC Auth. Password:

HTTP Cookie Lifetime:

SSL Certificate:

☐ Split User Domain

Trial Uptime Limit:

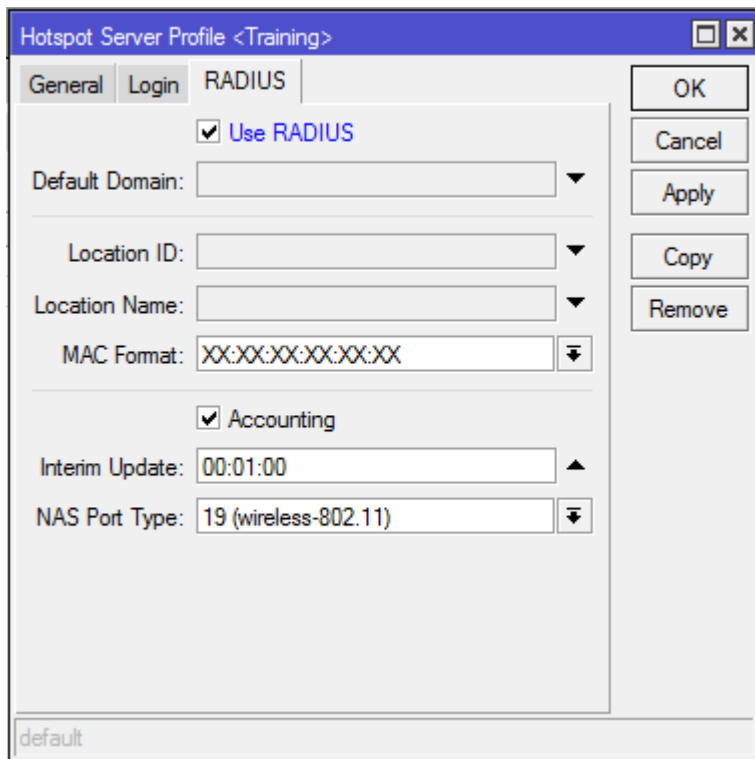
Trial Uptime Reset:

Trial User Profile:

default

OK Cancel Apply Copy Remove

22. Navigate to **IP/Hotspot/Server Profile/Radius**: Ensure that your RADIUS tab is exactly configured as screenshot below



The screenshot shows a Windows-style dialog box titled "Hotspot Server Profile <Training>". It has three tabs: "General", "Login", and "RADIUS", with "RADIUS" being the active tab. The dialog contains several configuration fields and checkboxes. On the right side, there are five buttons: "OK", "Cancel", "Apply", "Copy", and "Remove".

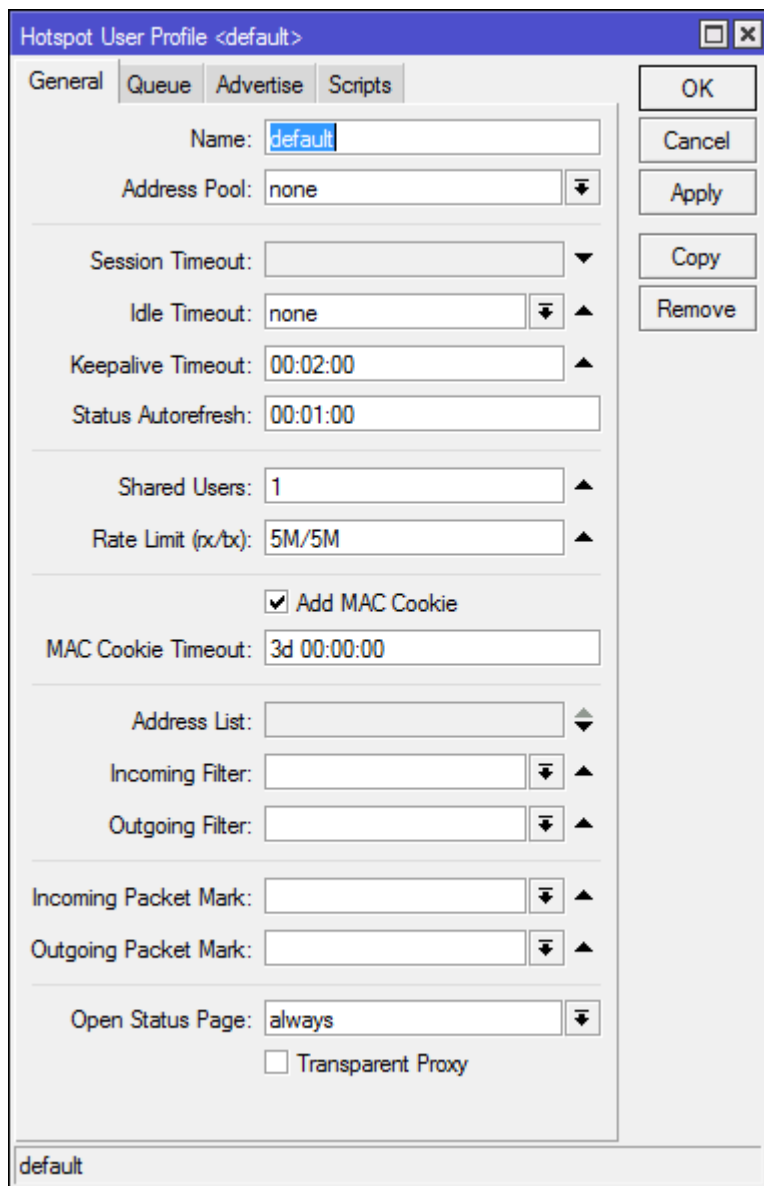
General Tab:

- ☒ Use RADIUS
- Default Domain: [Empty text box]
- Location ID: [Empty text box]
- Location Name: [Empty text box]
- MAC Format: XX:XX:XX:XX:XX:XX
- ☒ Accounting
- Interim Update: 00:01:00
- NAS Port Type: 19 (wireless-802.11)

At the bottom left of the dialog, the word "default" is displayed.

23. Navigate to **IP/Hotspot/User Profile**

24. Insert **Rate Limit (rx/tx)** with entry of **5M/5M** as shown in screenshot below



The screenshot shows the 'Hotspot User Profile <default>' window with the 'General' tab selected. The window contains various configuration fields for a user profile. On the right side of the window, there are buttons for 'OK', 'Cancel', 'Apply', 'Copy', and 'Remove'. The 'Name' field is set to 'default'. The 'Address Pool' is set to 'none'. The 'Session Timeout' is set to a dropdown menu. The 'Idle Timeout' is set to 'none'. The 'Keepalive Timeout' is set to '00:02:00'. The 'Status Autorefresh' is set to '00:01:00'. The 'Shared Users' is set to '1'. The 'Rate Limit (px/bx)' is set to '5M/5M'. There is a checked checkbox for 'Add MAC Cookie'. The 'MAC Cookie Timeout' is set to '3d 00:00:00'. The 'Address List' is set to a dropdown menu. The 'Incoming Filter' and 'Outgoing Filter' are set to dropdown menus. The 'Incoming Packet Mark' and 'Outgoing Packet Mark' are set to dropdown menus. The 'Open Status Page' is set to 'always'. There is an unchecked checkbox for 'Transparent Proxy'. The bottom of the window shows the profile name 'default'.

Hotspot User Profile <default>

General Queue Advertise Scripts

Name: default

Address Pool: none

Session Timeout:

Idle Timeout: none

Keepalive Timeout: 00:02:00

Status Autorefresh: 00:01:00

Shared Users: 1

Rate Limit (px/bx): 5M/5M

☒ Add MAC Cookie

MAC Cookie Timeout: 3d 00:00:00

Address List:

Incoming Filter:

Outgoing Filter:

Incoming Packet Mark:

Outgoing Packet Mark:

Open Status Page: always

☐ Transparent Proxy

default

Step 9. User List, SNMP and NTP Setup

1. Setup an **apiuser** user and password with **full permissions**
2. Navigate to **IP/SNMP**: Enable and complete SNMP
3. **Contact Info**: Insert your Business Name here
4. **Location**: Insert client Business Name here
5. Navigate to **System/SNTP Client**: Enable and complete SNTP Client
6. **Primary SNTP Server**: 98.1.1 (This address can change)

Hotspot setup completed.

Now we move to **HeroTill** to add a network device, Hotspot Location and NAS list.

Here we also adopt the APs.

HeroTill system side notes:

Step 1. Configure MikroTik hotspot

This step is the same as the Winbox hotspot guide above. There are just a few settings to double check compatibility with HeroTill, such as the ports to be used.

Create a hotspot server and ensure you give it a unique server name. This name must be unique across all hotspots.

This name is used to identify the hotspot when the requests reaches HeroTill.

Create a hotspot profile using the following settings:

- The hotspot address must be a local IP address defined on the router, it does not need to be on the same interface as the hotspot.
- The DNS name should be short, and preferably not an existing public address. The MikroTik router will auto add a local DNS entry on the router pointing to the IP address defined above.
- If multiple hotspot profiles are defined on the router they can share the same DNS name and hotspot address, but not the same interface.
- Note that the HTML directory can be left default for now. Once you have created the hotspot location in HeroTill the system will generate a new HTML folder which will need to be selected here.
- Tick all the login by settings except for HTTPS
- Change the http cookie lifetime to 3 days. (This can be tuned to your own preference)
- Set trail uptime limit and trial uptime reset to 24 hours. The HeroTill server will be controlling the disconnection of free trial sessions.
- Enable the radius tick box. Ensure that the radius server is defined in the MikroTik

router and that the NAS is defined in HeroTill

- Tick the Accounting tick box
- Change the interim update interval to 1 minute

Add a Radius server to the router

At least the hotspot service needs to be checked.

Make sure the secret matches the secret defined under the NAS in HeroTill. Use the following ports:

- Authentication Port: 1812
- Accounting Port: 1813
- Incoming Port: 1700

Make sure the timeout is increased from 300ms to 3000ms.

Step 2. Create walled garden entries in HeroTill

Go to “Hotspot, Walled Garden Entries”

Add the following walled garden entries as a minimum:

- IP address of the HeroTill server
- IP address of your DNS server

You will be able to update the walled garden entries across all MikroTik routers at once by clicking on the red “Update Routers” button.

Note that all existing walled garden entries are removed from the MikroTik router when the update is done.

Step 3. Create network device in HeroTill.

Go to “Devices, Network Devices”

Add a new device for each MikroTik hotspot you are adding.

Note that you must use a valid Device Location when adding a Network Device.

To add a new location go to the device location drop down at “ISP Workflow, Workflow

Setup, Locations”

First enter the IP Address. HeroTill will check whether the IP address is reachable.

Then enter the login username and password. This account should be configured as a full user on the MikroTik router (system/users). Also ensure the MikroTik API is enabled on the router (ip/services)

Then click on the “Scan” button. HeroTill will connect to the router via SNMP. If this connection is successful it will update the device type, device make and device model, as well as the device description.

It will then connect to the router via the MikroTik API, and retrieve the firmware version.

If HeroTill cannot connect to the router via the MikroTik API then it will not be able to make changes to the router or manage free trial sessions.

Step 4. Create hotspot in HeroTill.

Go to “Hotspot, Locations”

Add a new hotspot location for each MikroTik hotspot you are adding.

(Note that entries may be auto added to this list users access the hotspot before you have configured the hotspot location in HeroTill)

The default options for all new hotspots can be configured under “Setup, Hotspots”. All new hotspots created defaults to these values.

If the defaults are set up correctly it can save a lot of time when adding new hotspot locations.

The Hotspot ID must match the hotspot name as defined on the MikroTik router under the hotspot server definition.

Make sure that the hotspot router previously defined under network devices above are selected. This is used to link the router API to the landing pages. If not done or incorrectly linked weird results will happen.

Under the free trial section you should add the limits that needs to be applied to free trial sessions. This includes data and time limits.

If no limit is defined then trial users will have unlimited access!

Lots of other hotspot settings are available, and are self explanatory.

To see the hotspot setup on HeroTill's side, see: [Hotspot Overview](#)

Step 5. Download settings to MikroTik router.

To download the settings to the MikroTik router click on the yellow button next to the router just added.

This will update the walled garden settings on the router and will generate and download the hotspot files to a specific folder on the router.

You need to take note of the name of the folder displayed on this popup window, as you need to edit the MikroTik hotspot server definition to use this html folder.

There are various reports available to show hotspot activity, under the "Hotspots" menu.