Topic

How to Set Up a Single Secure WiFi Network Across a Space Using MikroTik Routers (as Access Points)

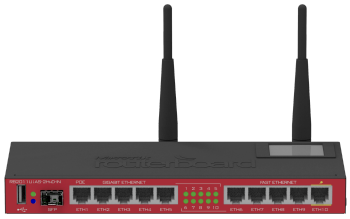
GOAL:

We want all your MikroTik devices to broadcast **one WiFi name (SSID)**, with **the same password**, but from different positions — so people can move around and **stay connected without disconnection**.

Author : SAMUEL GEORGE

REQUIREMENTS:

Item	Description
1 MikroTik main router	This will provide internet and control others
1–3 MikroTik routers/APs	These will extend the WiFi across the space
Laptop with WinBox/WebFig	To configure devices
Ethernet cables (optional)	Better if you can connect devices via cable



STEP 1: Setup the Main Router

We'll first set up your **main MikroTik router** that's connected to the internet.

1. **Connect to the route**

- Plug your laptop into the MikroTik router using Ethernet.
- Open **WinBox** (or type `192.168.88.1` in your browser).
- Login using:
    - **Username:** `admin`
    - **Password:** (leave blank if default)

2 Configure Wireless

- Go to `Wireless > WiFi Interfaces > wlan1`
- Click **Wireless tab**, and set:
    - **Mode:** `ap bridge`
    - **SSID:** `LightupSecureWiFi`
    - **Frequency:** `2412` MHz (this is **Channel 1** for 2.4GHz)
    - **Country:** your country (e.g. Nigeria)
- Go to **Security Profiles**:
    - Set `WPA2-PSK`
    - Password: `StrongPass2025!`

3 Enable DHCP Server (usually already on)

- Go to `IP > DHCP Server`
- Ensure DHCP is enabled (it gives IP addresses to devices)

Done! Your main router now broadcasts `LightupSecureWiFi` with a strong password.

STEP 2: Setup a Secondary MikroTik Router as Access Point (AP)

Repeat this for each other MikroTik router.

1 Connect the new MikroTik device

- Plug in power
- Connect your laptop via Ethernet
- Open WinBox or browser (default IP is `192.168.88.1`)
- Login: `admin`, no password

2 Reset to clear factory config (optional but safe)

- Go to `System > Reset Configuration`
- Tick: **No Default Configuration**
- Click **Reset Configuration**

Router will reboot and be blank.

3 Set as Access Point

- After reboot, login again.
- Go to `Wireless > wlan1`:
    - **Mode:** `ap bridge`
    - **SSID:** `LightupSecureWiFi` (**same as main router**)
    - **Frequency:** `2437` MHz (this is **Channel 6**, different from main)
- Go to **Security Profiles**:

    - Use `WPA2-PSK`, password `StrongPass2025!` (same as main)

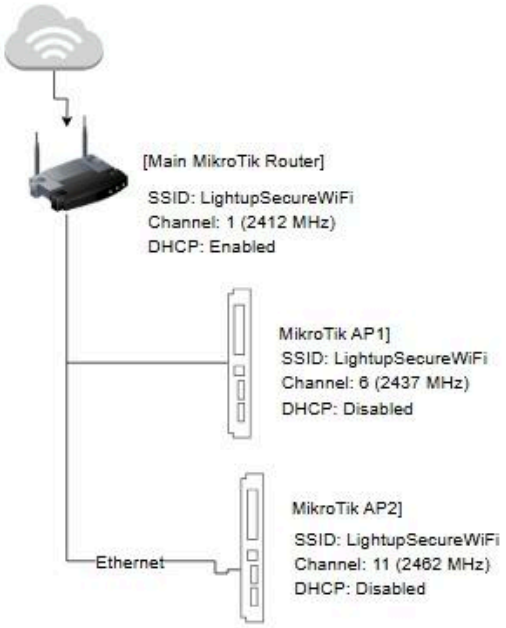
4 Disable DHCP Server

- Go to `IP > DHCP Server` — if listed, **disable** it.

5 Enable DHCP Client (to get IP from main router)

- Go to `IP > DHCP Client`
- Add new client to `ether1` (or whichever port is connected)
- This allows this AP to get internet access from the main router.

This AP now extends your WiFi network securely.



How It Works:

When you move around with your phone or laptop:

- It **automatically connects** to the strongest access point.
- You stay on the **same network**, with the same WiFi name and password.

You Are Configuring:

- A **second MikroTik router** (not your main internet router)
- It will broadcast the same WiFi name (SSID) as your main router
- It will act as an **Access Point** only (no DHCP)

PREP:

Before we run commands:

- You're logged in to the MikroTik device using **WinBox or Web Browser**
- You've reset it to default or no config (optional but best)
- You have connected **ether1** on this router to your main router via Ethernet

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GOAL:

- SSID: `LightupSecureWiFi`
- Password: `StrongPass2025!`
- Channel: 2437 MHz (Channel 6)
- Mode: AP Bridge
- DHCP: Off
- IP: Will get IP from main router (via DHCP client)

OPTION A: Use WinBox GUI (for Beginners)

1. Set Wireless as Access Point:

- Go to **Wireless > WiFi Interfaces > wlan1**
- In **Wireless tab**:
    - **Mode:** `ap bridge`

- **Band:** `2GHz-B/G/N`
- **Frequency:** `2437` (or Channel 6)
- **SSID:** `LightupSecureWiFi`

2. Create Security Profile:

- Go to **Wireless > Security Profiles**
- Click Add:
  - Name: `SecureWiFi`
  - Mode: `dynamic keys`
  - Authentication Types: `WPA2-PSK`
  - WPA2 Pre-Shared Key: `StrongPass2025!`
- Go back to **wlan1 > Wireless tab** → select this profile under "Security Profile"

3. Enable DHCP Client:

- Go to **IP > DHCP Client**
- Click ➕ Add:
  - Interface: `ether1`
- This allows it to get an IP from the main router.

4. Turn Off DHCP Server:

- Go to **IP > DHCP Server**
- If one exists, **disable or remove it**

5. Apply + Reboot:

- Apply all settings
- Go to `System > Reboot`

DONE! Your second MikroTik is now an Access Point.

Use Terminal Commands (Copy + Paste)

If you're in **WinBox Terminal**, run this command block:

```
/interface wireless set wlan1 mode=ap-bridge ssid="LightupSecureWiFi" frequency=2437
band=2ghz-b/g/n security-profile=SecureWiFi
/interface wireless security-profiles add name=SecureWiFi authentication-types=wpa2-psk
mode=dynamic-keys wpa2-pre-shared-key=StrongPass2025!

/ip dhcp-client add interface=ether1 disabled=no
/ip dhcp-server disable [find]
```

VERIFY IT WORKS

After reboot:

- Check **Wireless Clients** tab — should show connected devices
- You should see the same SSID as main router
- Test roaming with your phone between both routers