Manual:Wireless AP Client

Applies to RouterOS: v3, v4

Summary

Configuration example shows how to establish simple wireless network by using MikroTik RouterOS. MikroTik RouterOS is fully compliant with IEEE802.11a/b/g/n standards, MikroTik RouterOS device [1] can be used as wireless access-point and wireless station (other modes [2] are supported too).

Configuration setup
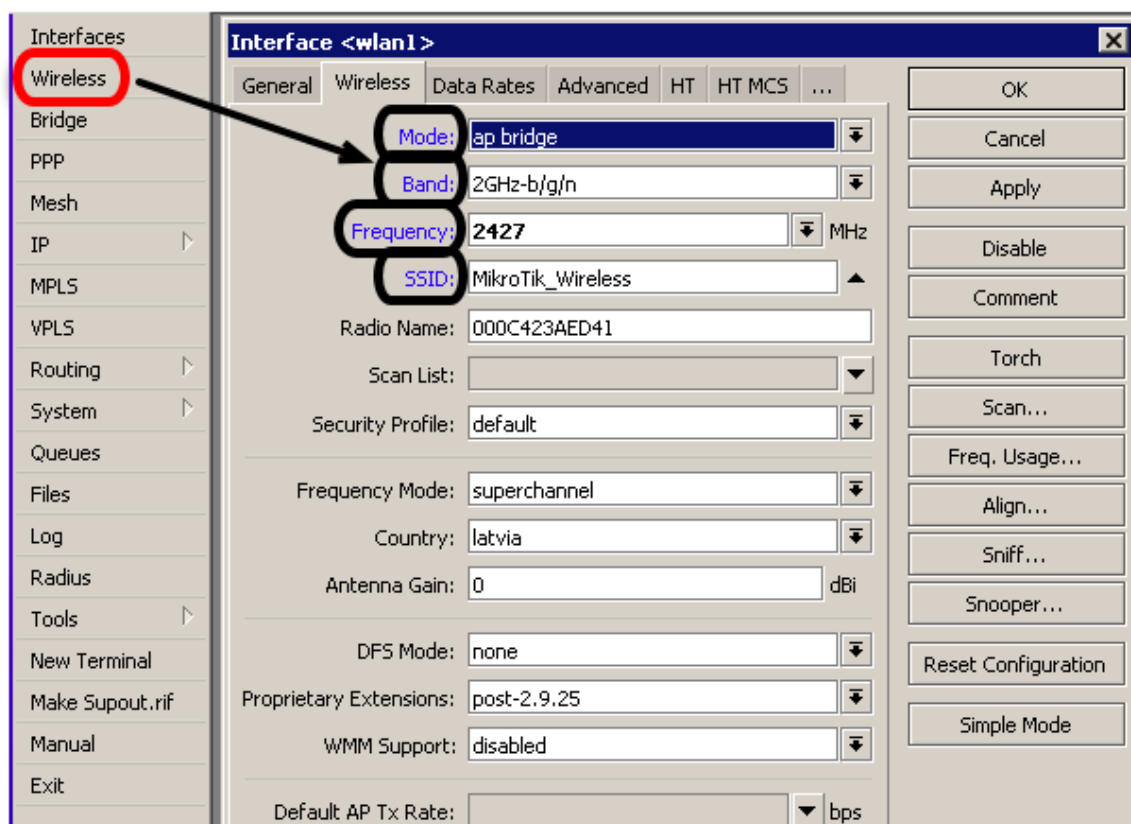
Our basic configuration setup is
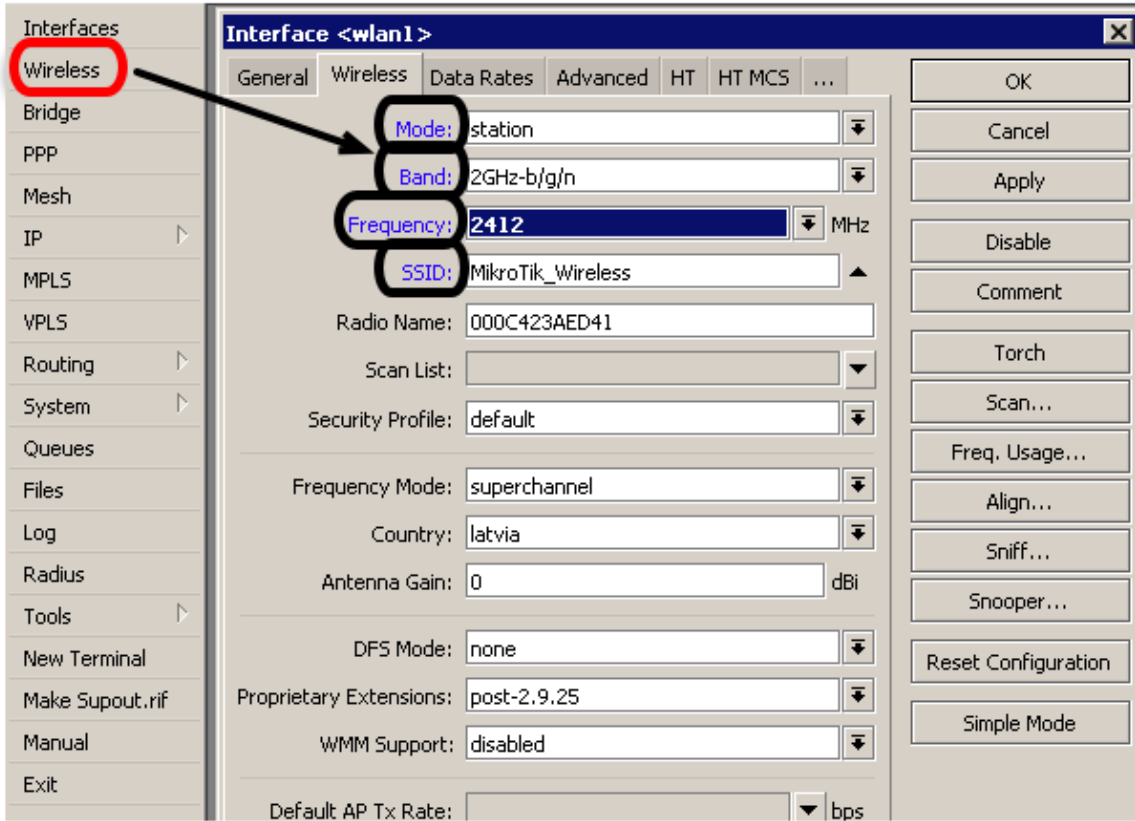
Access Point Configuration

- Connect to the router via Winbox [3]
- Setup **Wireless** interface, necessary configuration options are **mode=**ap-bridge **band=**ap_operated_band **frequency=**ap_operated_frequency **ssid=**network_identification

- These settings are enough to establish wireless connection, additionally you need to add IP address for the wireless interface for IP routing, optionally add security and other settings.

Station Configuration

- Wireless client configuration example is for MikroTik RouterOS, other vendor OS configuration should be looked in the appropriate documentation/forum/mailing list etc.
- Connect to the client router via the same way and proceed to the **Wireless** interface configuration.
- Necessary configuration options are **mode=**station **band=**band_ap_operates_on **ssid=ap_network_ssid**
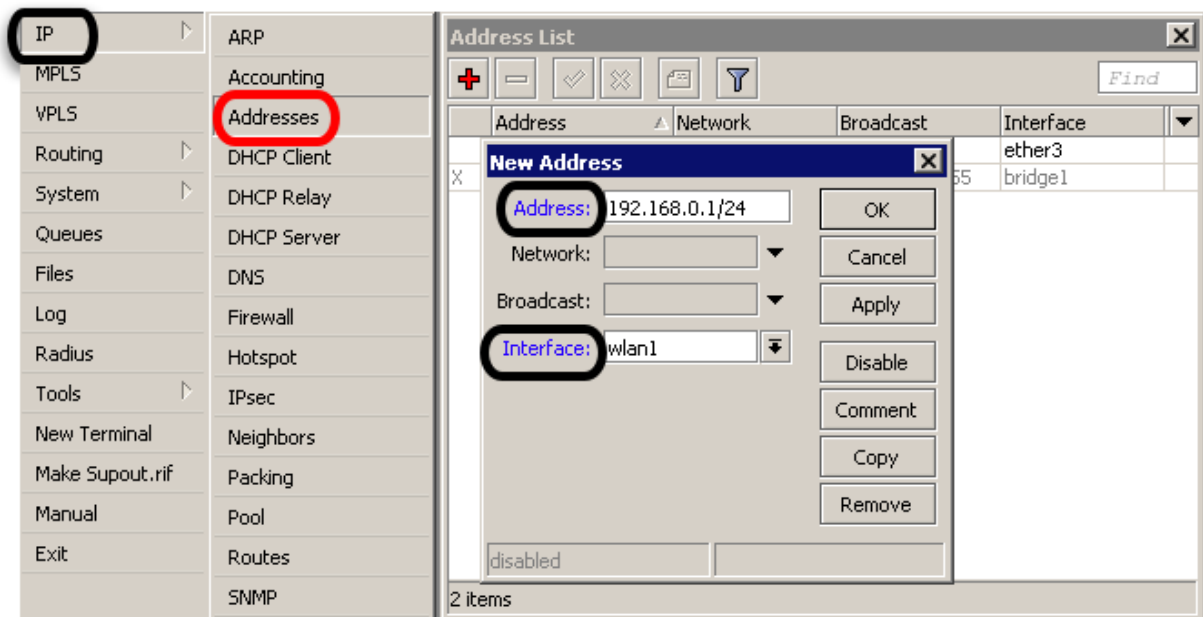

- These settings are enough to establish wireless connection, additionally you need to set IP address for the wireless interface to establish IP routing communication with access point, optionally use security and other settings.
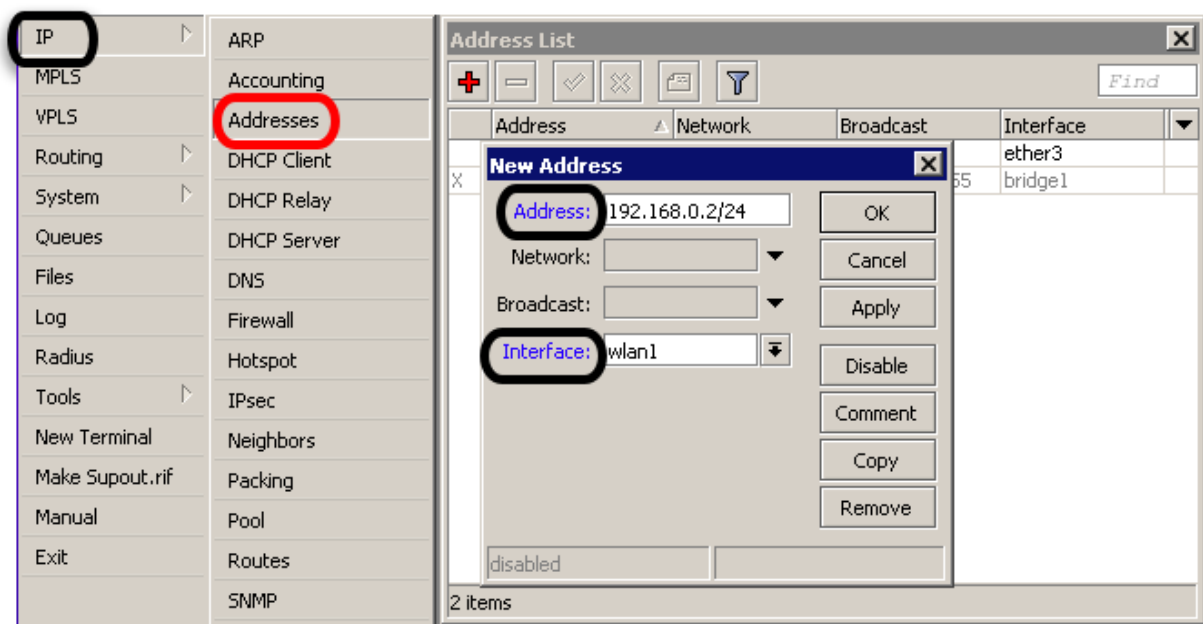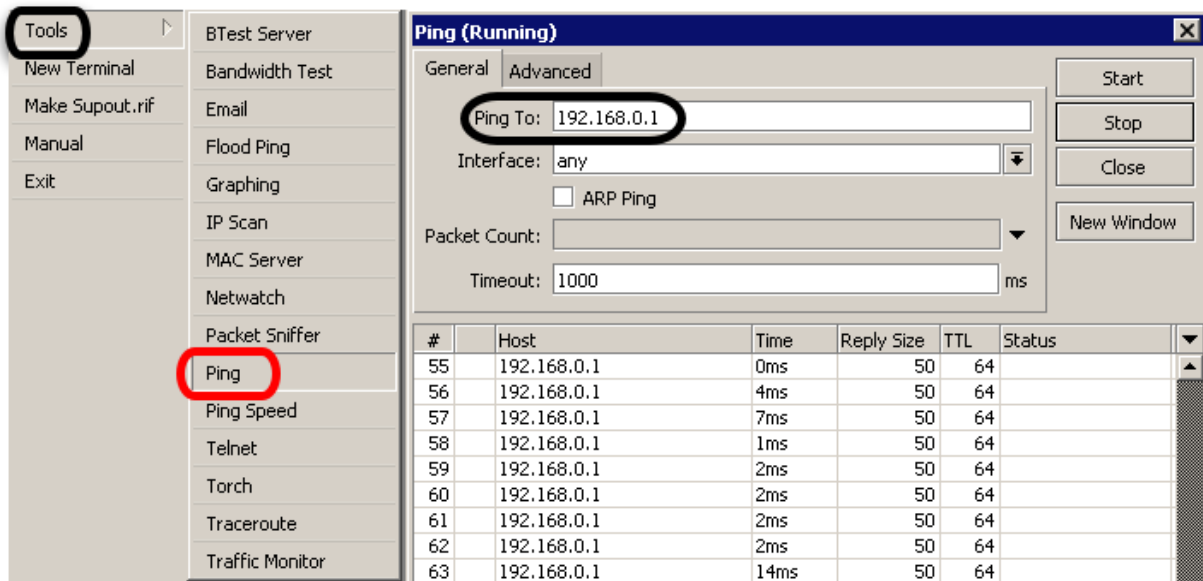
Additional Configuration

IP Configuration

- Add IP address to Access Point router, like 192.168.0.1/24

- Add IP address to Client router, address should be from the same subnet like 192.168.0.2/24

- Check IP communication by ping from station (for example),

Additional Access Point Configuration

- All the necessary settings for the simple Access Point are showed here [4].
- Security profiles are used for WPA/WPA2 protection, configuration options are explained here [5]. Usually all wireless clients share the same security configuration as access point.
- **mode**=ap-bridge allows 2007 clients, max-station-count is used to limit the number of wireless client per Access Point. Wireless **mode**=bridge is used for point-to-point wireless links and allows connection for one station only.
- MikroTik RouterOS license level4 is minimum for mode=ap-bridge
- Other wireless settings are (http://wiki.mikrotik.com/wiki/Category:Wireless explained here)

Additional Station Configuration

- Station adapts to wireless access point frequency, despite of the frequency configuration in Wireless menu. Station uses scan-list to select available Access Point, when superchannel mode is used on wireless Access Point, set custom Access Point frequency to mode=station **scan-list**.

References

[1] http://routerboard.com/

[2] http://wiki.mikrotik.com/wiki/Manual:Interface/Wireless#Wireless_interface_configuration

[3] http://wiki.mikrotik.com/wiki/First_time_startup

[4] http://wiki.mikrotik.com/wiki/Manual:Making_a_simple_wireless_AP

[5] http://wiki.mikrotik.com/wiki/Manual:Interface/Wireless#Security_profiles

Article Sources and Contributors

Manual:Wireless AP Client *Source*: http://wiki.mikrotik.com/index.php?oldid=20439 *Contributors*: Marisb, SergejsB

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