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CAPsMAN SICE Controller

CAPsMAN Features

- Centralized management of SICE APs
- Dual Band AP support
- Provisioning of APs
- MAC and IP Layer communication with APs
- Certificate support for AP communication
- Full and Local data forwarding mode
- RADIUS MAC authentication

- Custom configuration support

Requirements

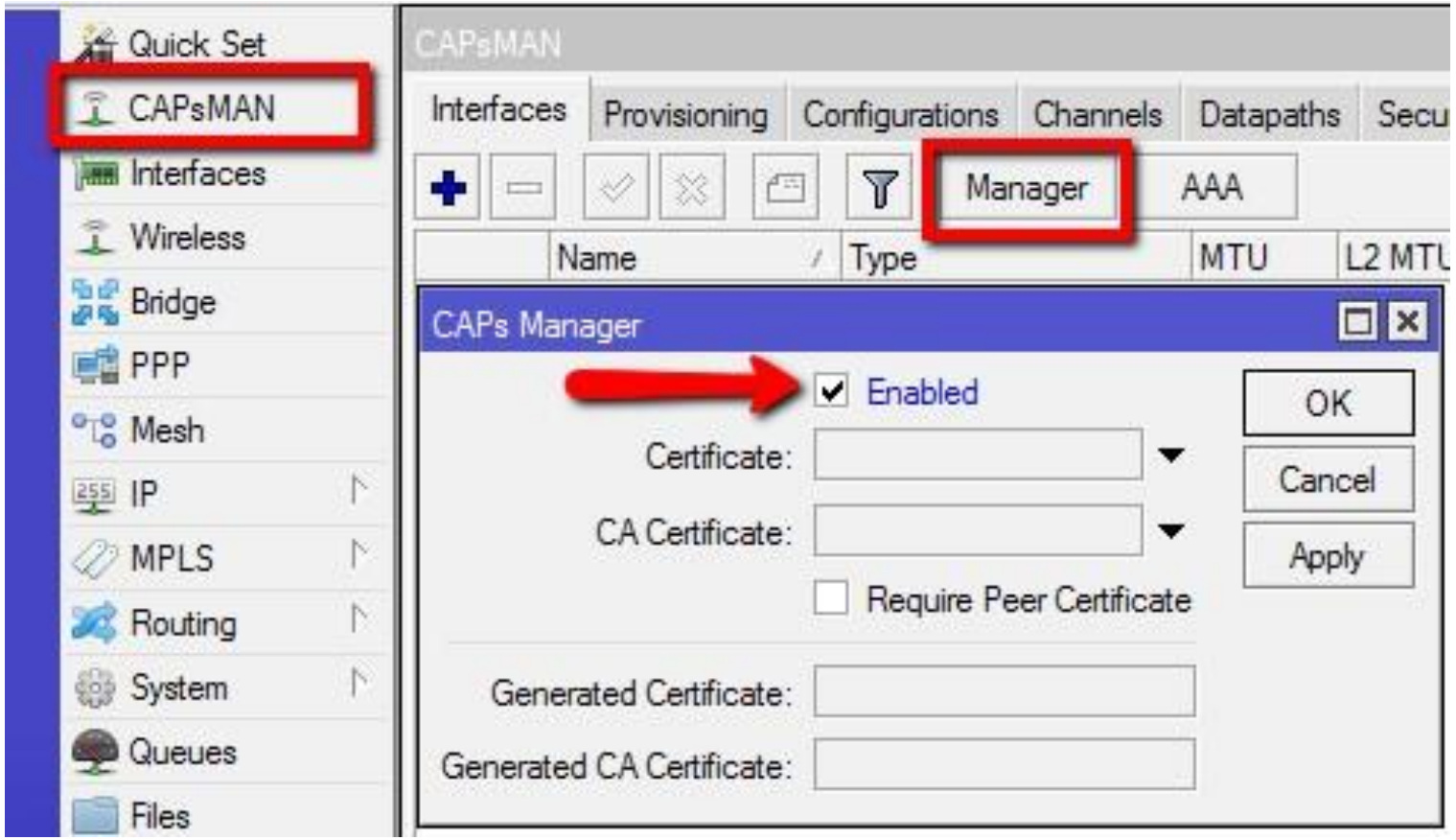
- CAPsMAN controller
  - Newest OS v6.36.3 version
  - Wireless-rep package installed and enabled

- CAP
  - SICE based device
  - Newest OS v6.36.3 version
  - Radio (a/b/g/n/ac) wireless card
  - Wireless-rep package installed and enabled
  - At least Level4 license

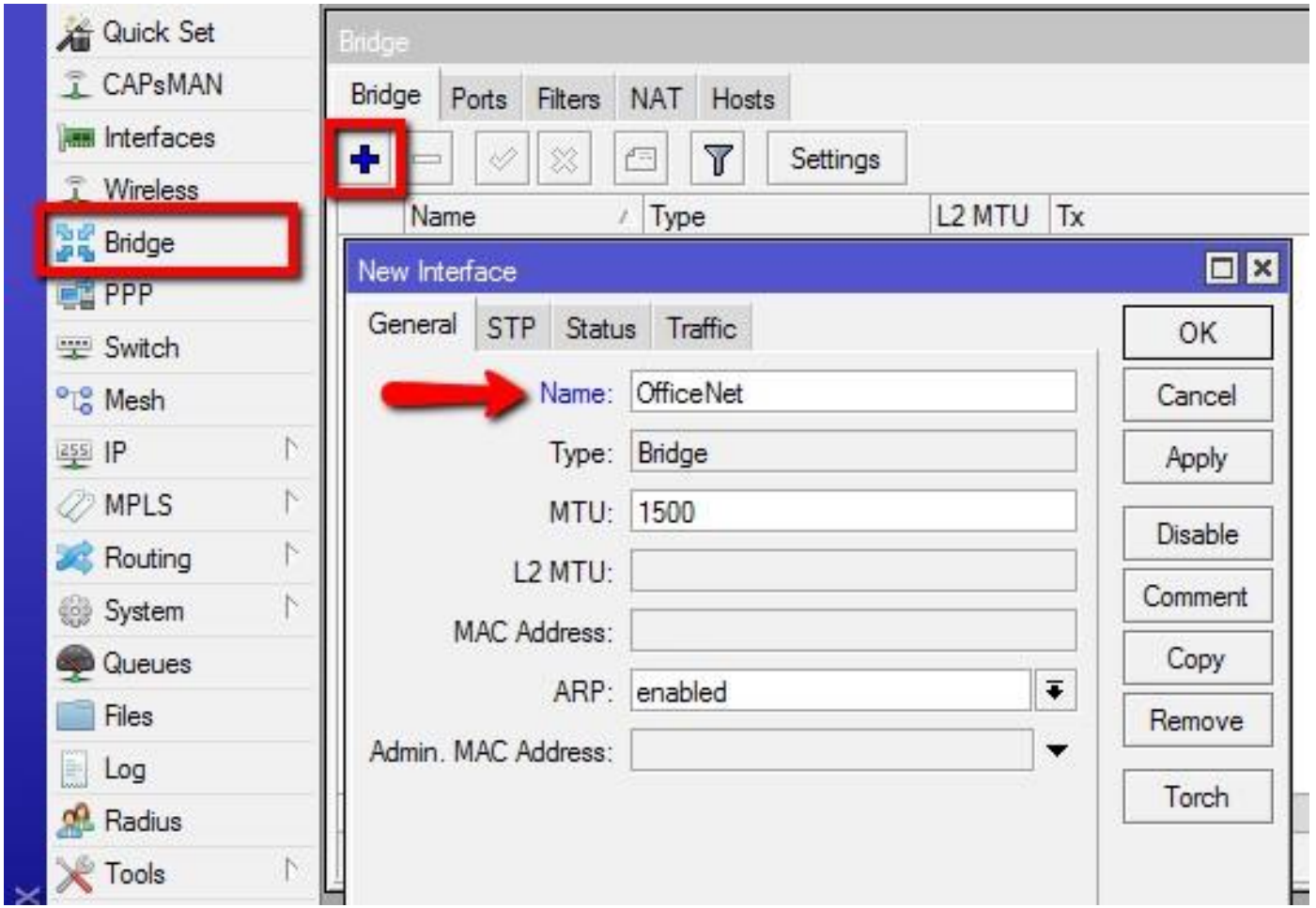
CAPsMAN Simple Setup

- Enable CAPsMAN service
- Create Bridge interface
- Add IP configuration to Bridge interface
- Create CAPsMAN Configuration
- Create Provisioning rule
- Enable CAP mode on the APs

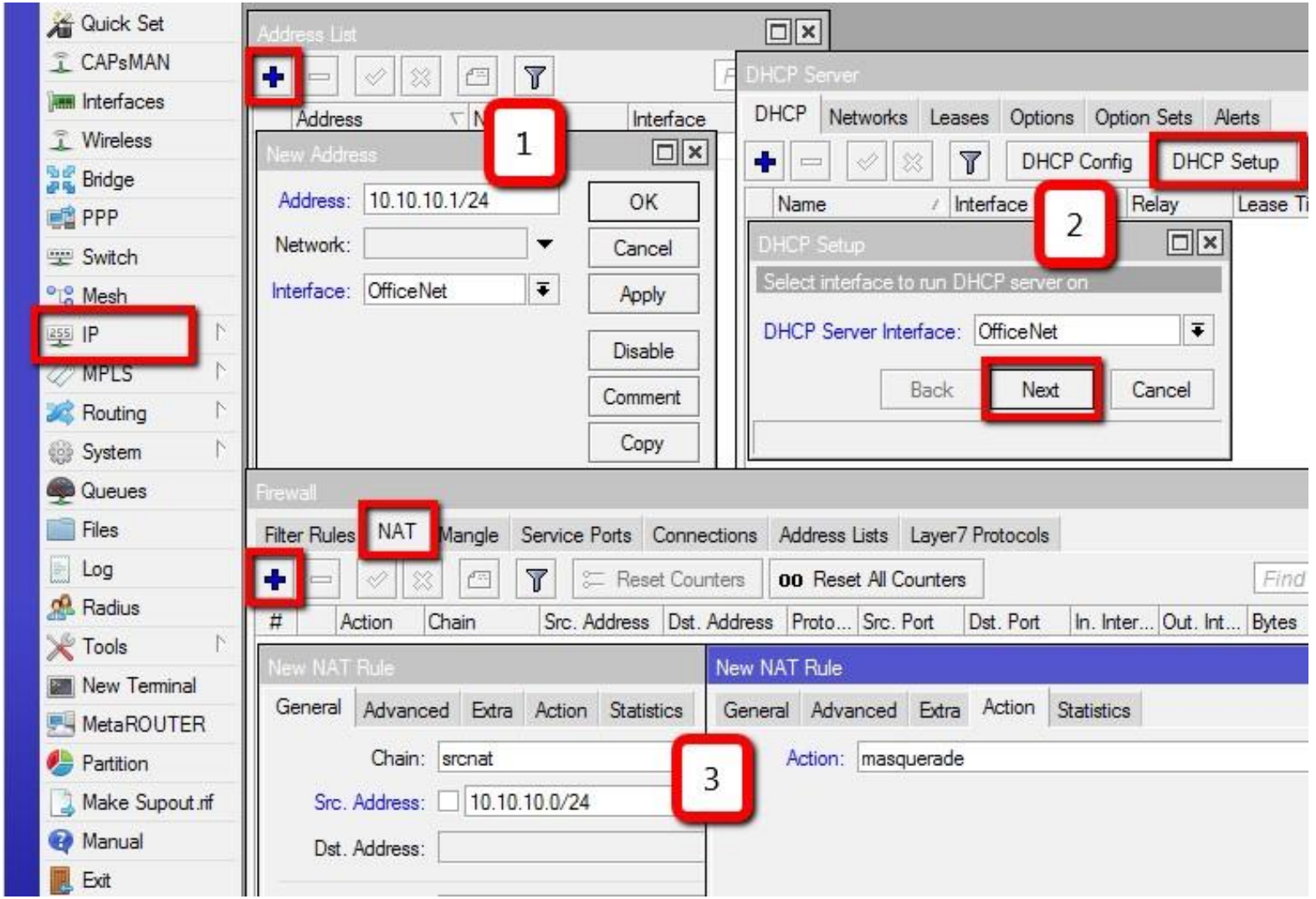
- Enable the CAPsMAN service
-



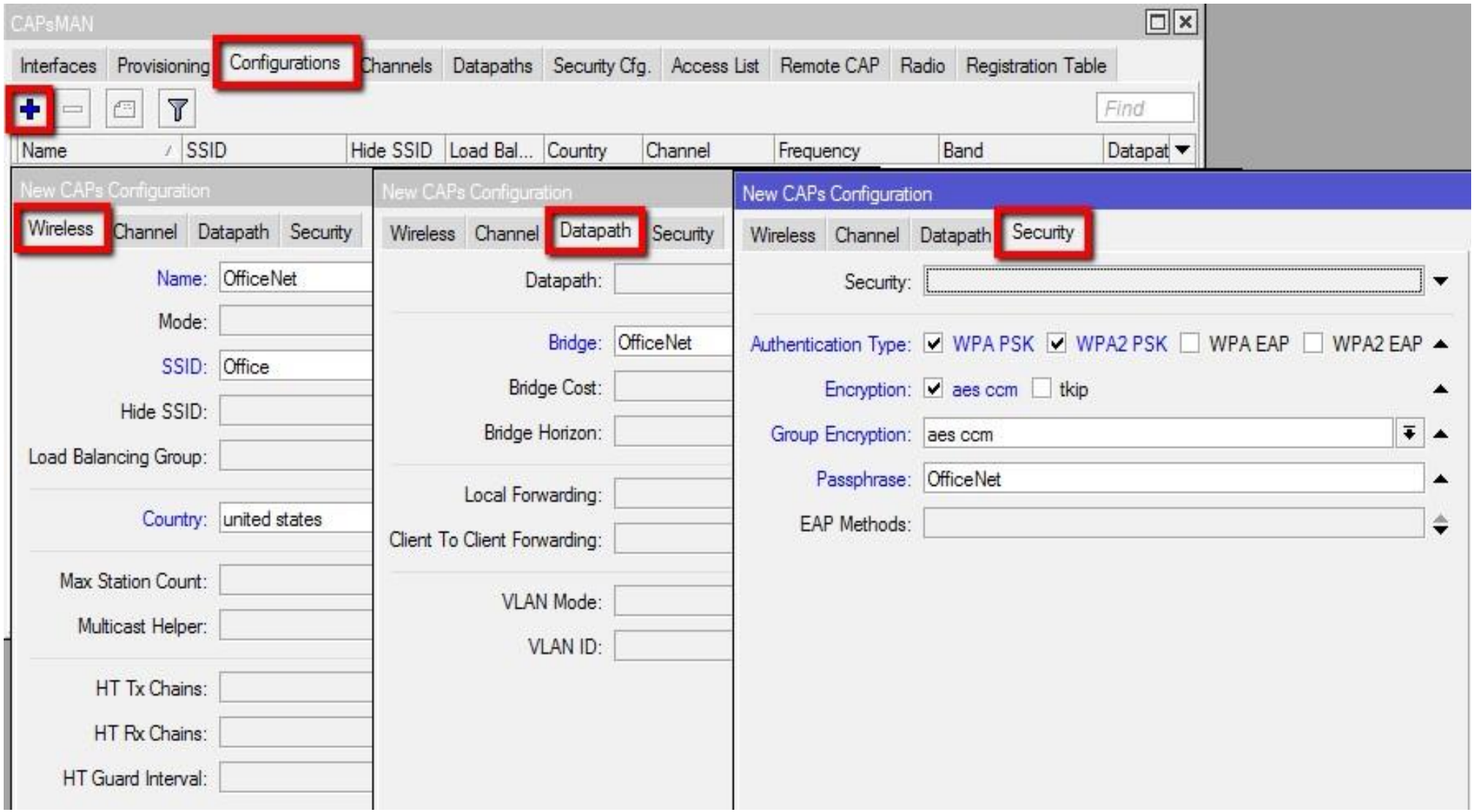
- Create Bridge Interface



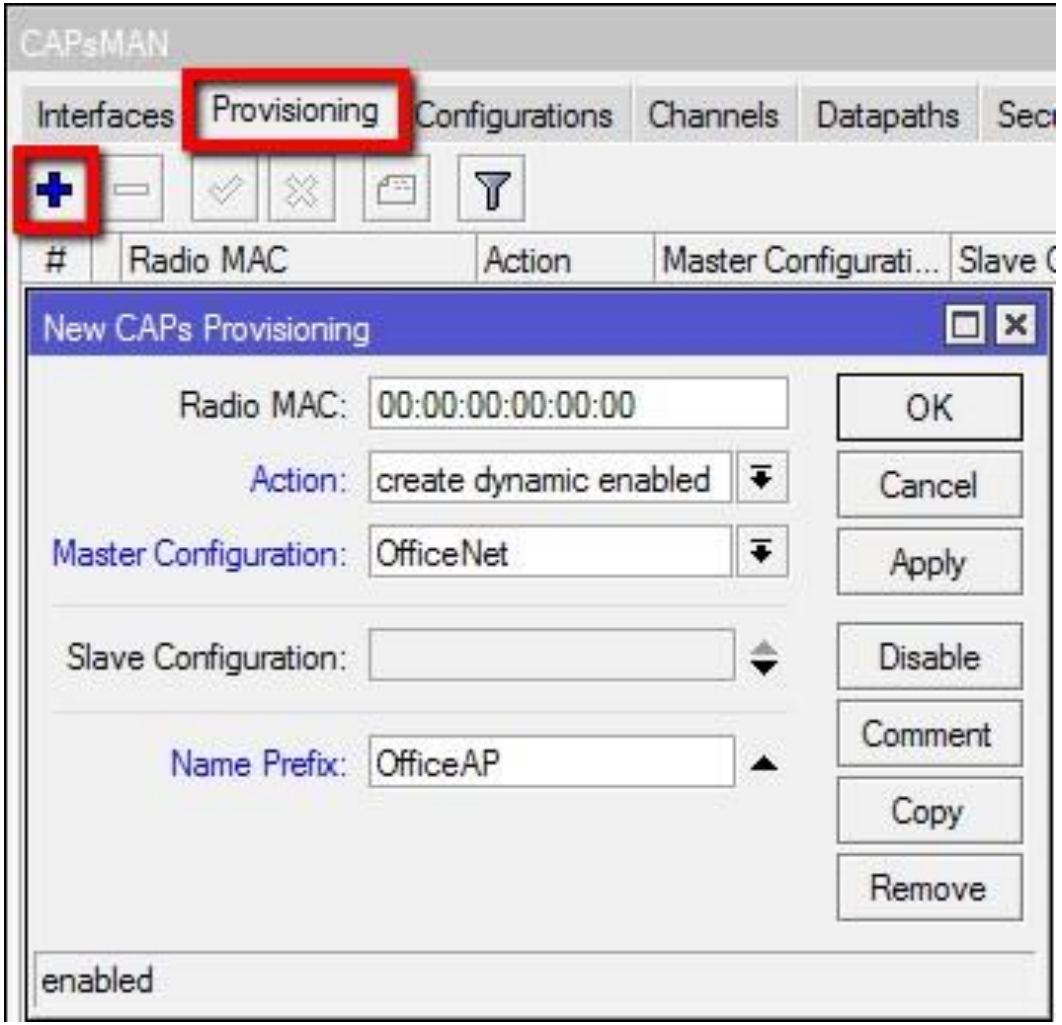
1. Add IP address
2. Add DHCP Server
3. Add NAT rule



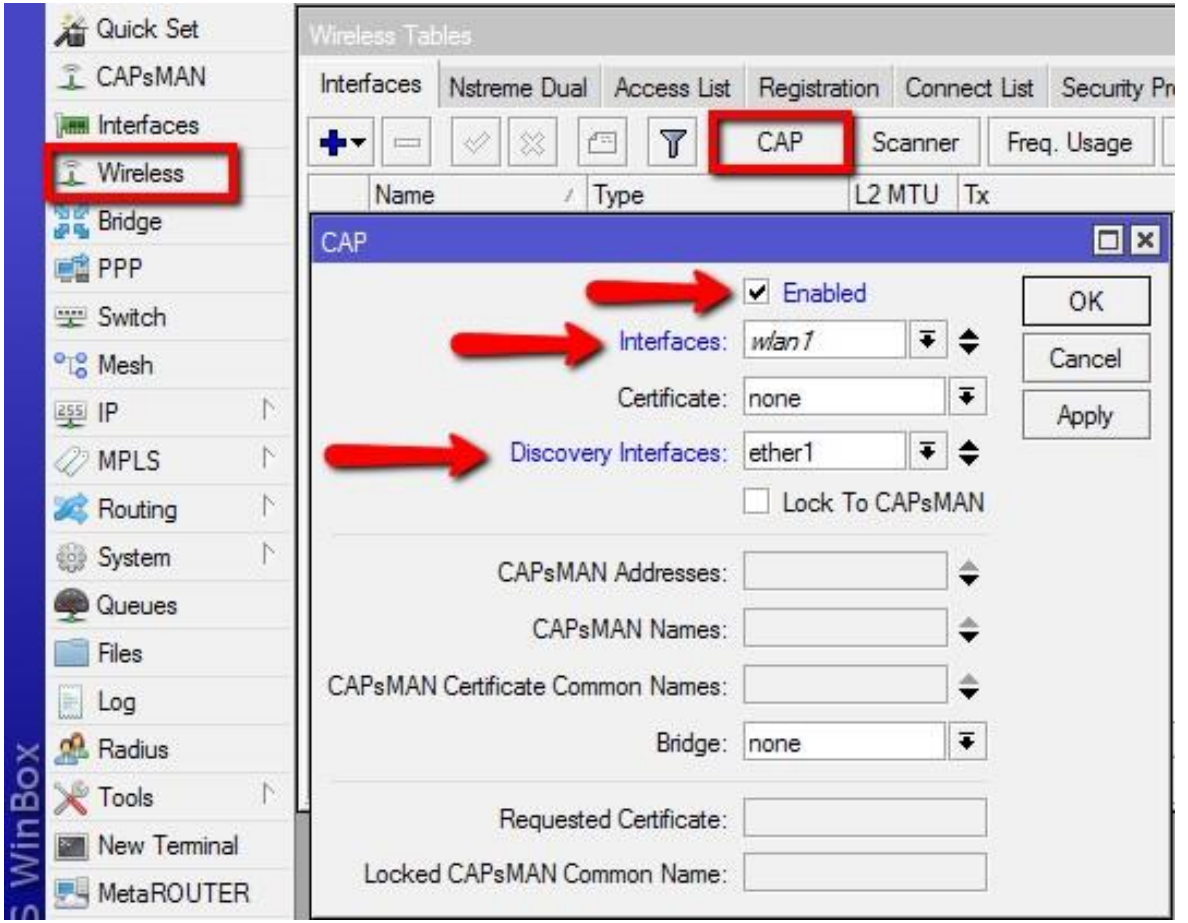
- Add New CAPsMAN Configuration
-



- Add new Provisioning rule

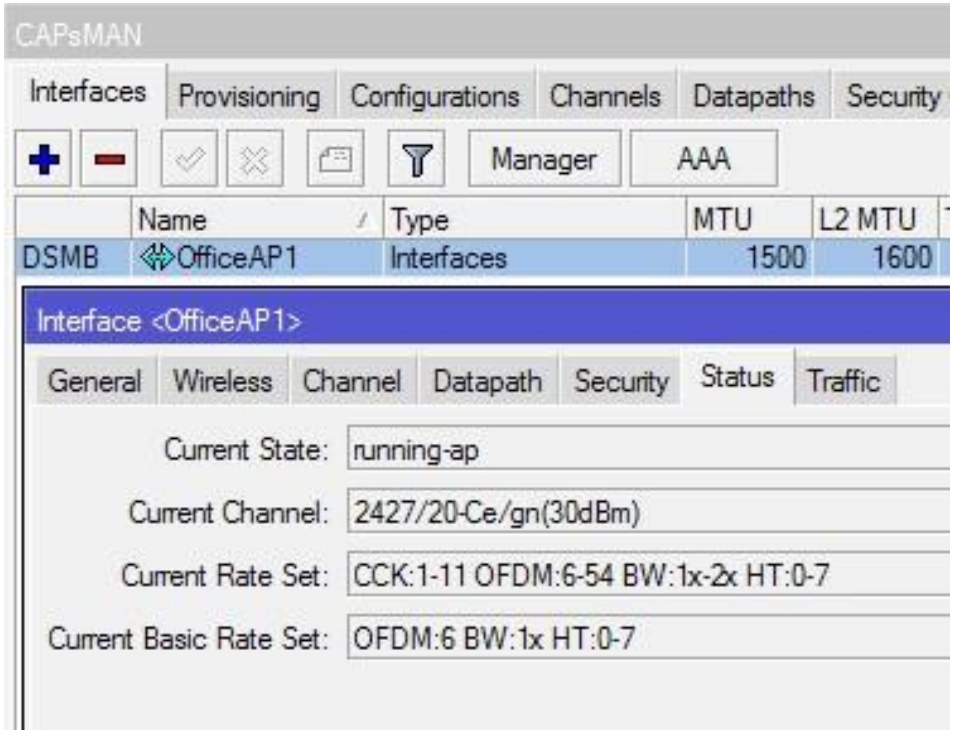


- Configure the AP to use CAP mode
  - Enable wireless-rep package
  - Enable CAP mode
- By configuration in Wireless CAP menu



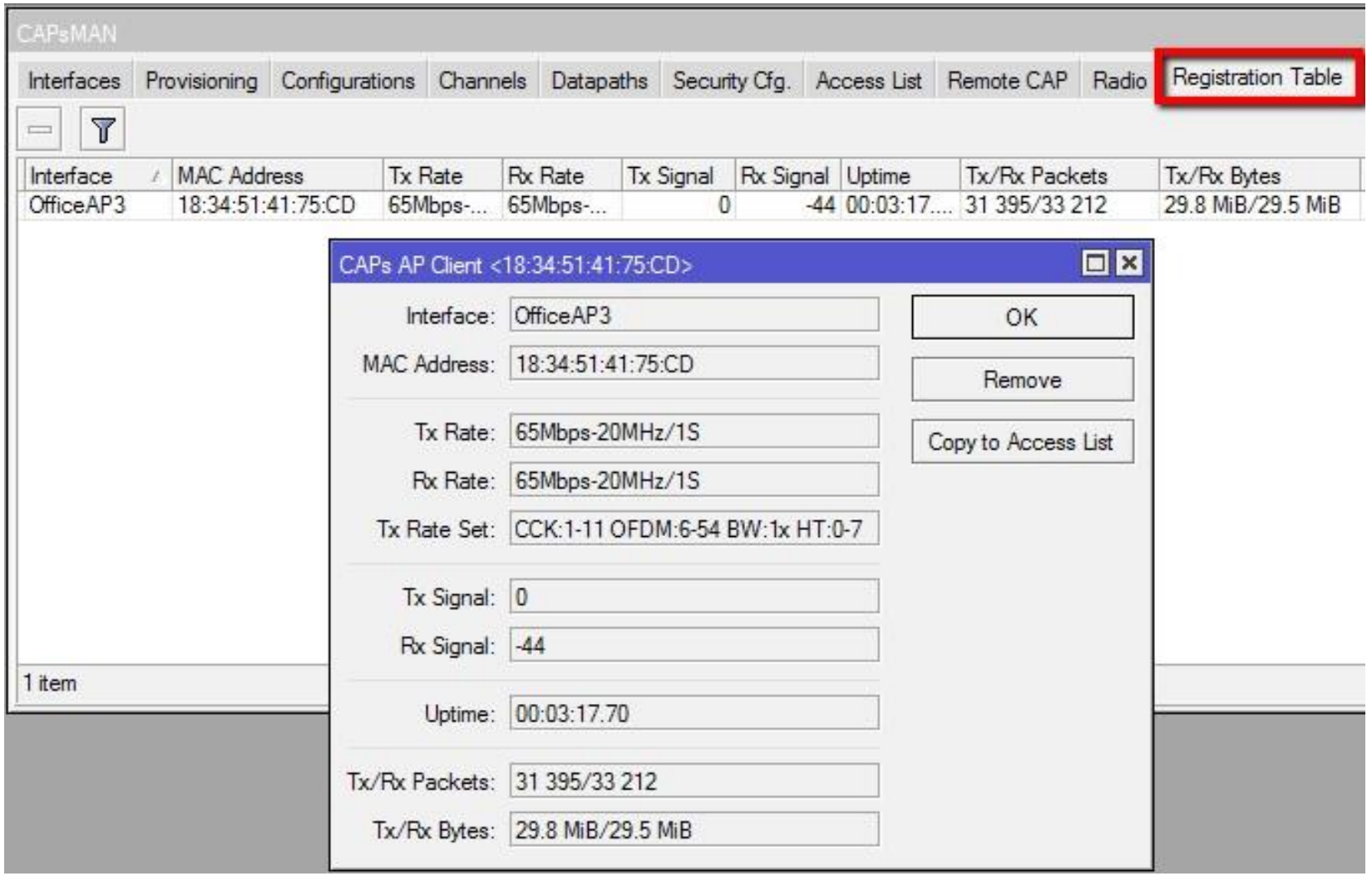
- Check the Status of the CAPsMAN CAP interface

CAPsMAN



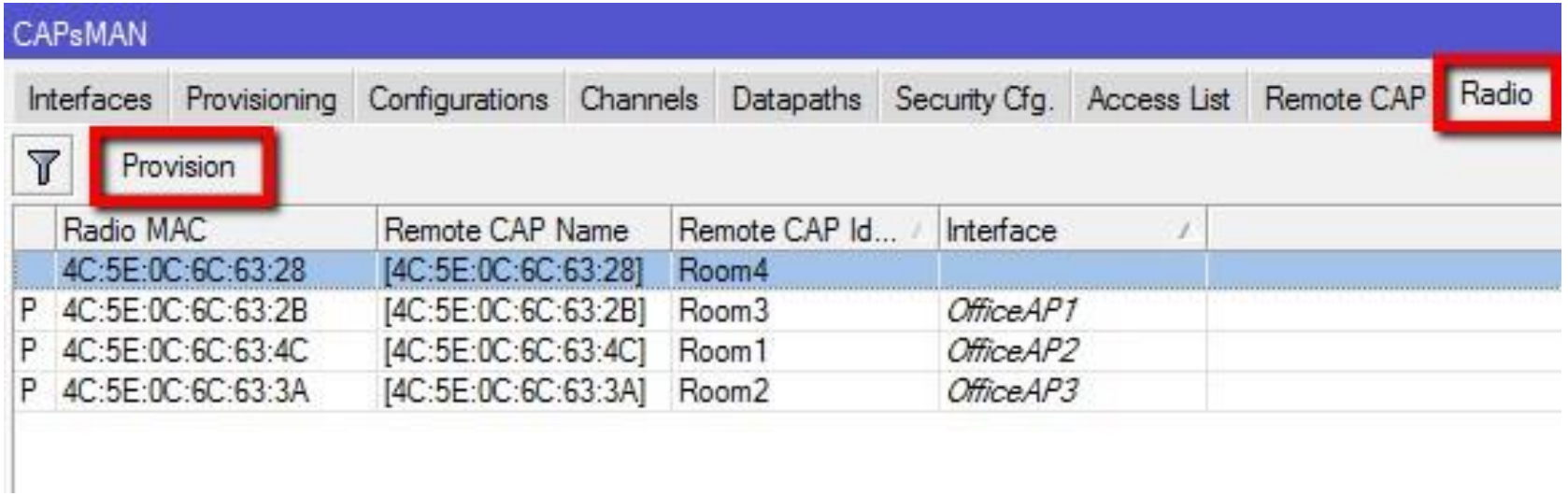
CAP

CAPsMAN Registration table



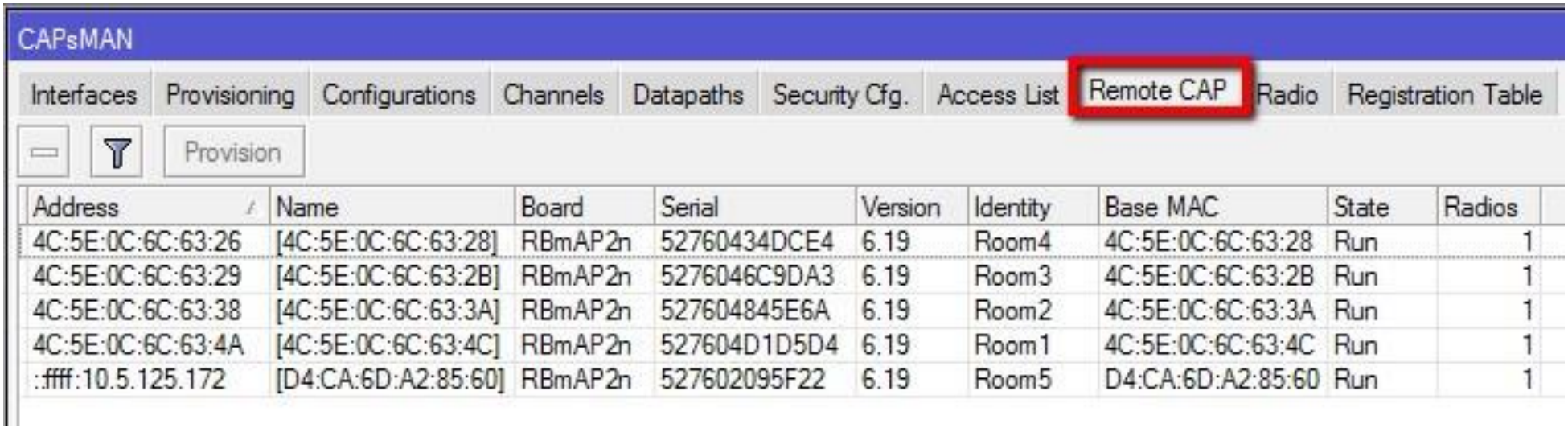
Provisioning

- Changing Provisioning rules doesn't effect already configured CAPs, manual Provisioning required:
  - Remove CAP interface
  - Initiate Provision command on the CAP



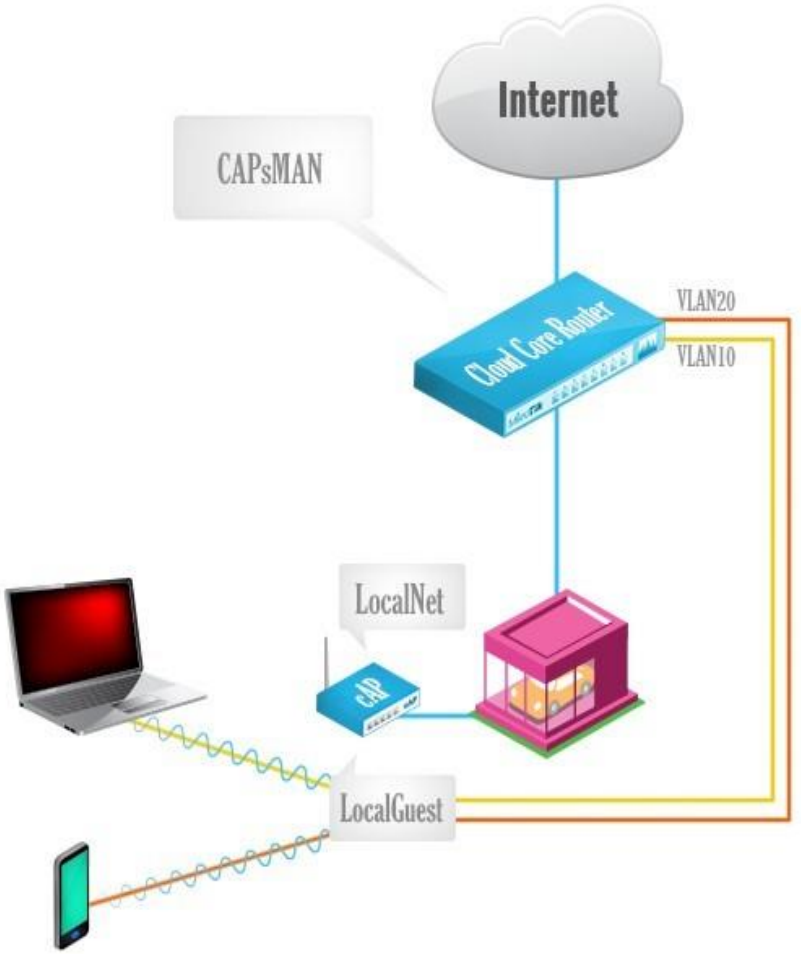
CAP Identification

- MAC/IP address
- System Identity
- Board model
- Main wireless MAC
- Serial Number of the Board
- State of the CAP
- OS version
- Provided radio count

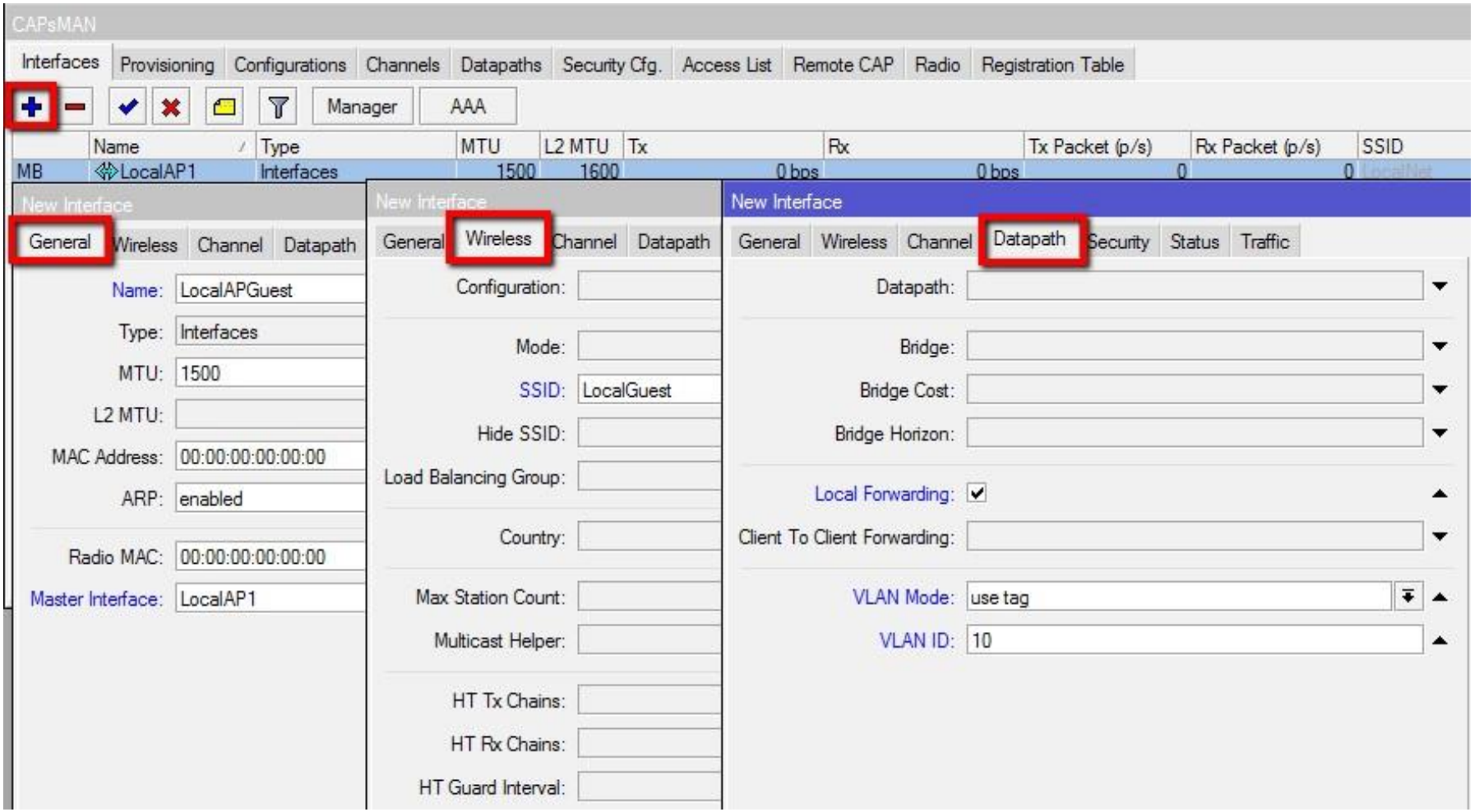


Address	Name	Board	Serial	Version	Identity	Base MAC	State	Radios
4C:5E:0C:6C:63:26	[4C:5E:0C:6C:63:28]	RBmAP2n	52760434DCE4	6.19	Room4	4C:5E:0C:6C:63:28	Run	1
4C:5E:0C:6C:63:29	[4C:5E:0C:6C:63:2B]	RBmAP2n	5276046C9DA3	6.19	Room3	4C:5E:0C:6C:63:2B	Run	1
4C:5E:0C:6C:63:38	[4C:5E:0C:6C:63:3A]	RBmAP2n	527604845E6A	6.19	Room2	4C:5E:0C:6C:63:3A	Run	1
4C:5E:0C:6C:63:4A	[4C:5E:0C:6C:63:4C]	RBmAP2n	527604D1D5D4	6.19	Room1	4C:5E:0C:6C:63:4C	Run	1
:ffff:10.5.125.172	[D4:CA:6D:A2:85:60]	RBmAP2n	527602095F22	6.19	Room5	D4:CA:6D:A2:85:60	Run	1

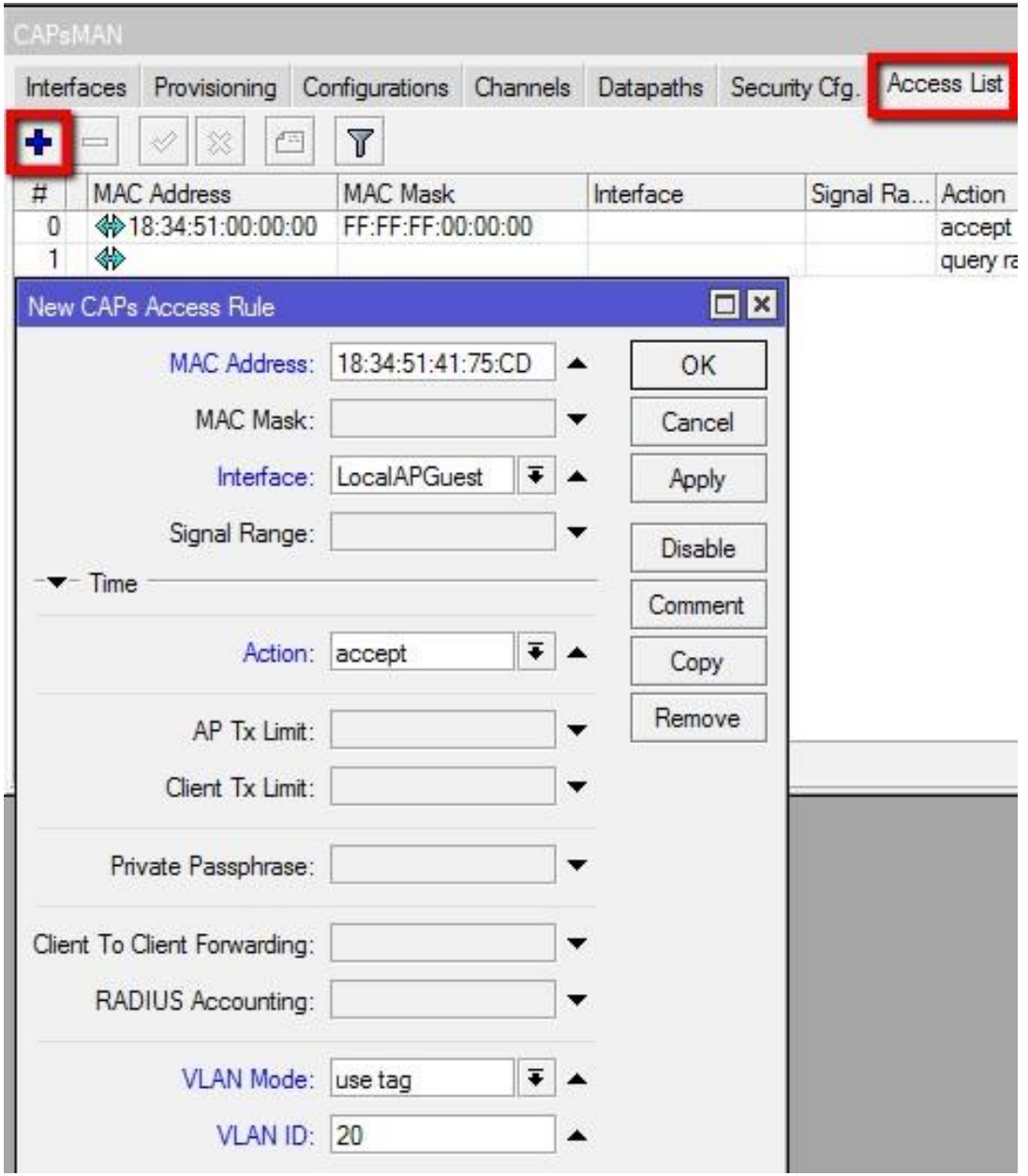
CAPSMAN VLAN ASSIGNMENT



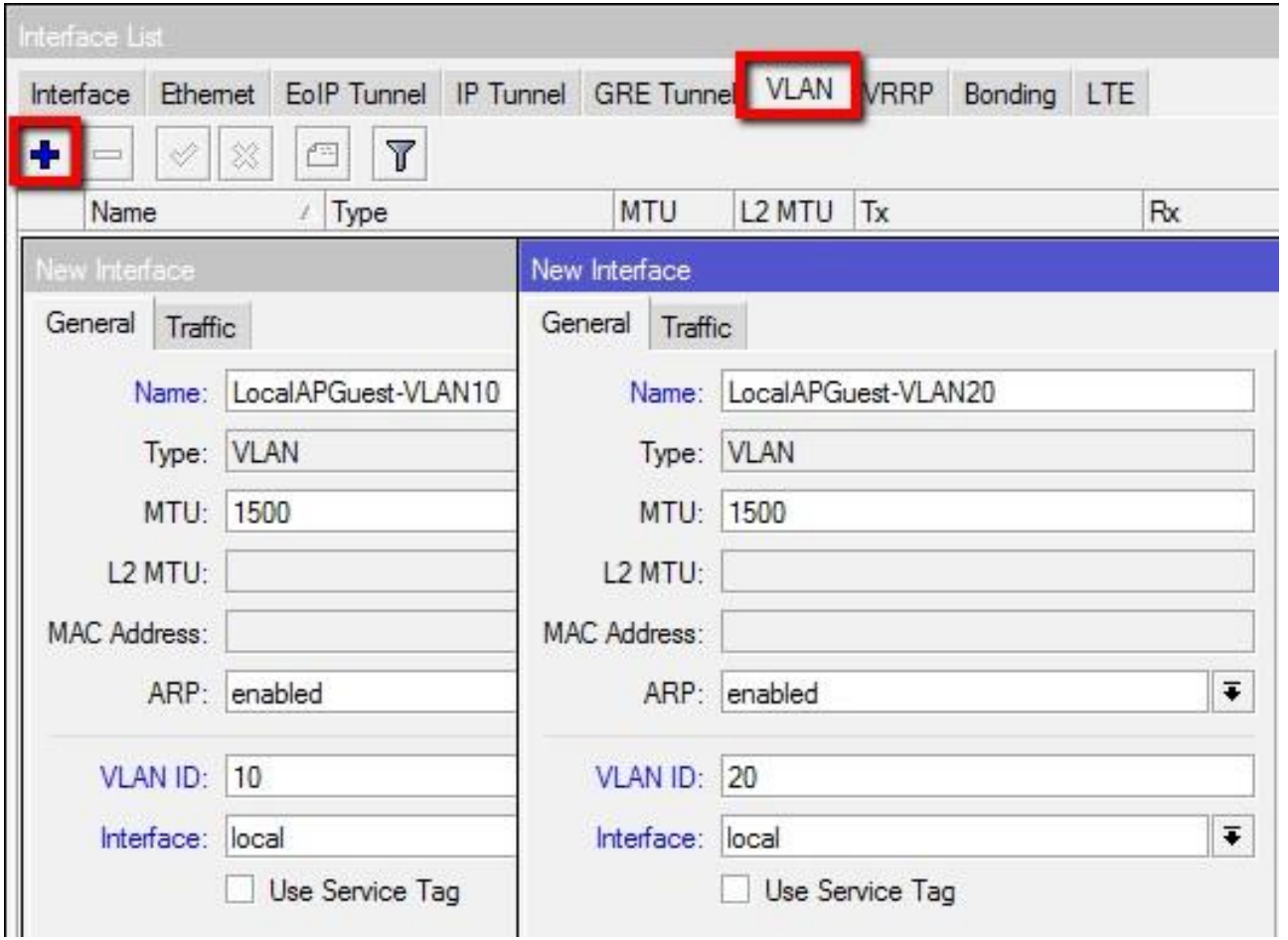
- When using Local Forwarding CAPsMAN can assign VLAN ID to specific CAP interface or even specific wireless client
- Create Slave interface with Vlan tag



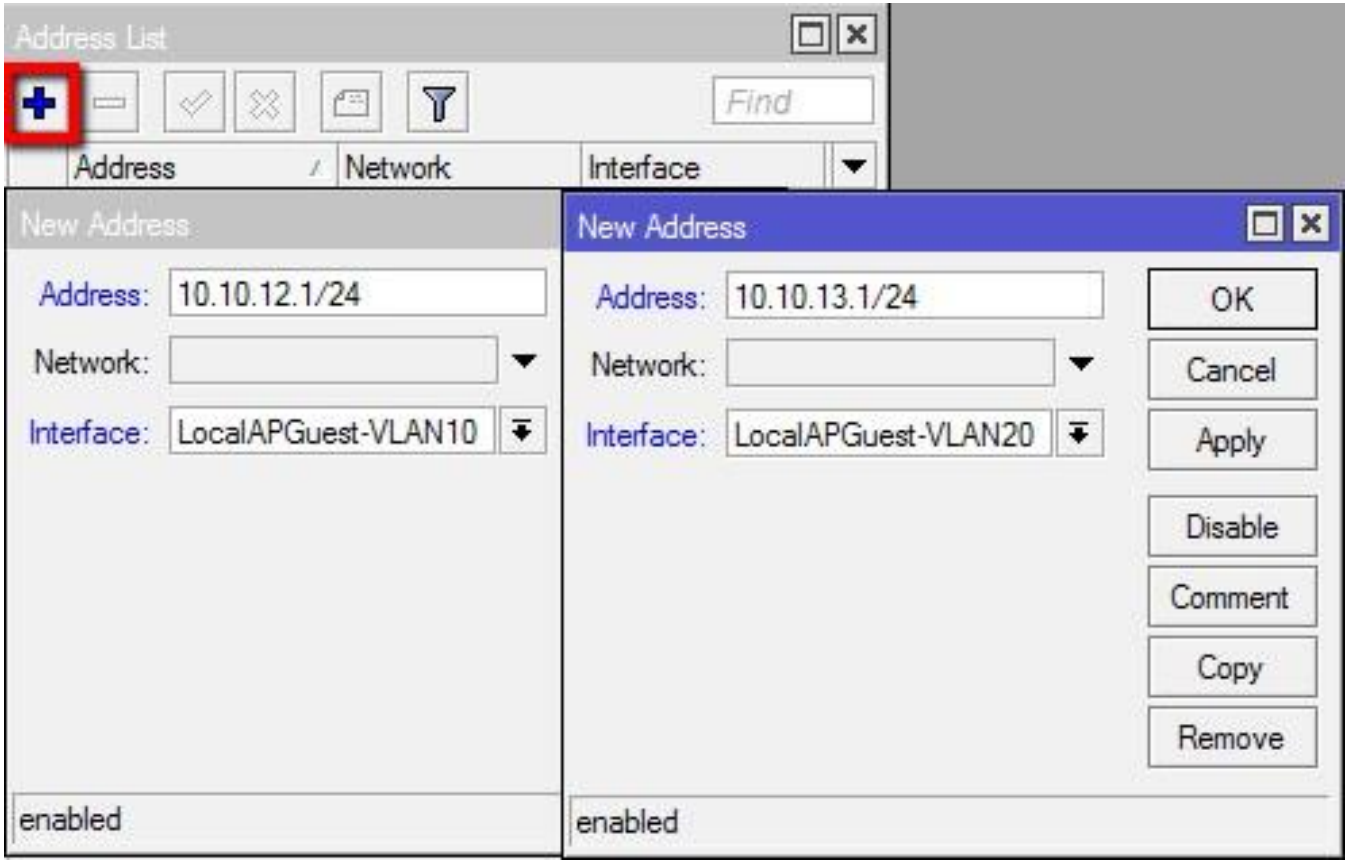
- Create Access List rule for specific client to get tagged to Management Vlan on the same CAP interface
- Move the Access List rule above the previous ones
- Create VLAN interfaces on the



CAPsMAN router interface where the CAPs are connected

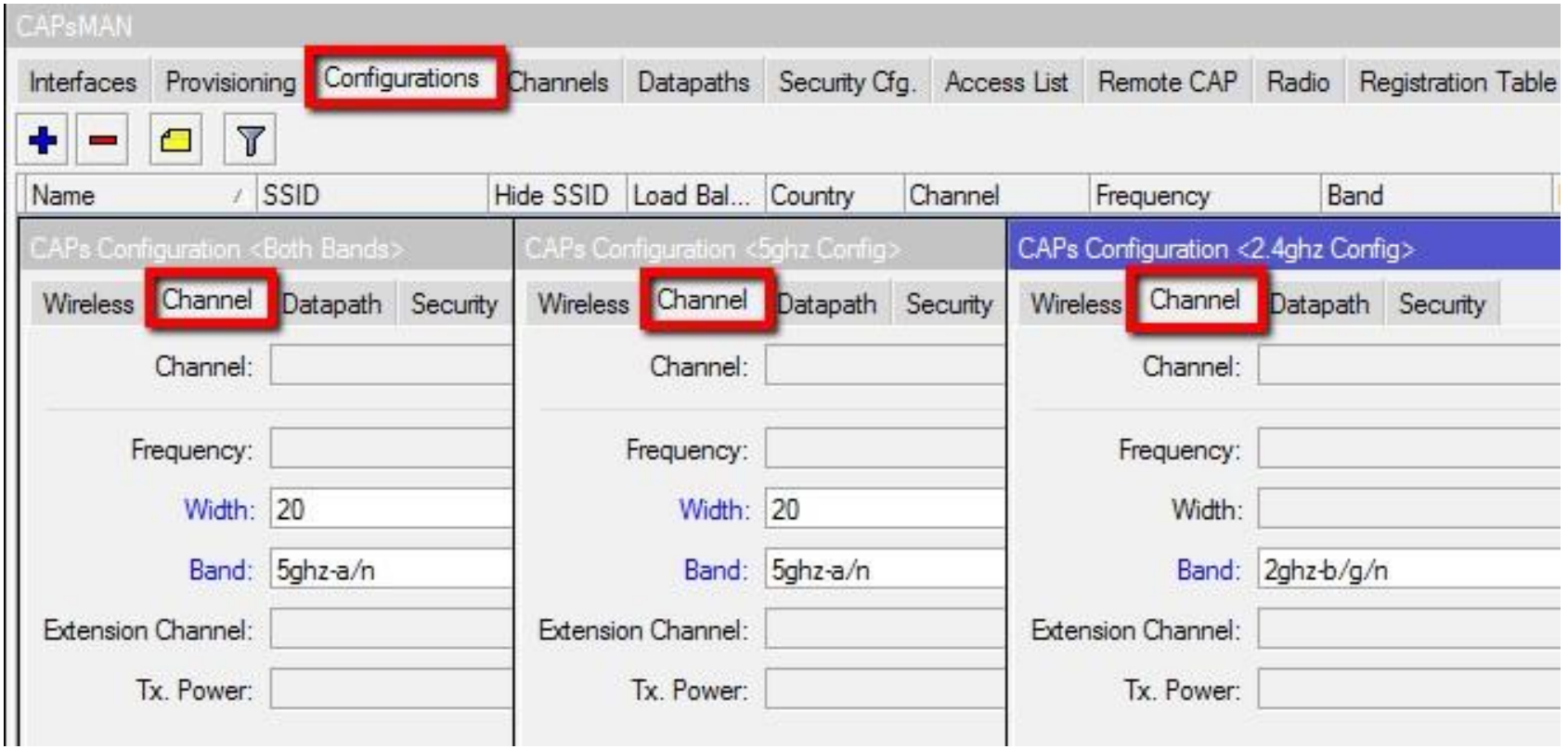


- Assign IPs to VLAN interfaces on CAPsMAN

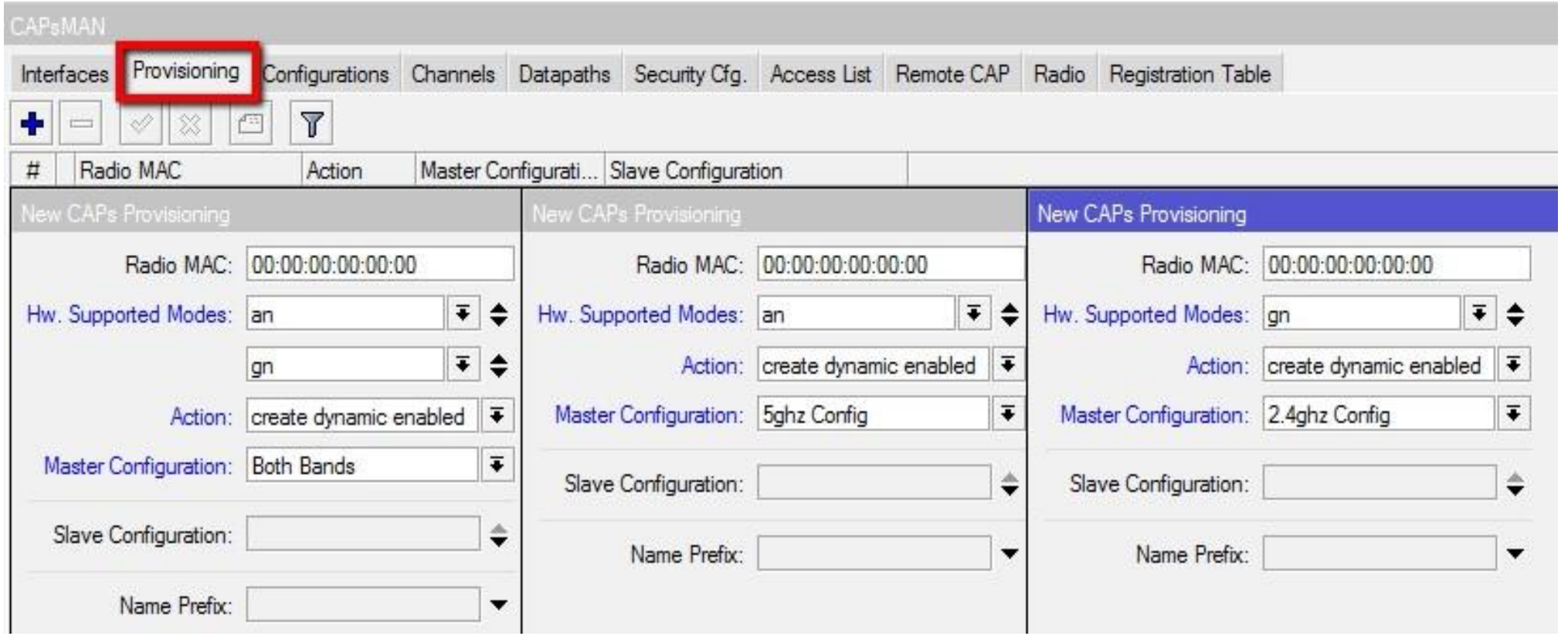

Address List
Find
Address
Network
Interface
New Address
Address: 10.10.12.1/24
Network:
Interface: LocalAPGuest-VLAN10
enabled
New Address
Address: 10.10.13.1/24
Network:
Interface: LocalAPGuest-VLAN20
OK
Cancel
Apply
Disable
Comment
Copy
Remove
enabled

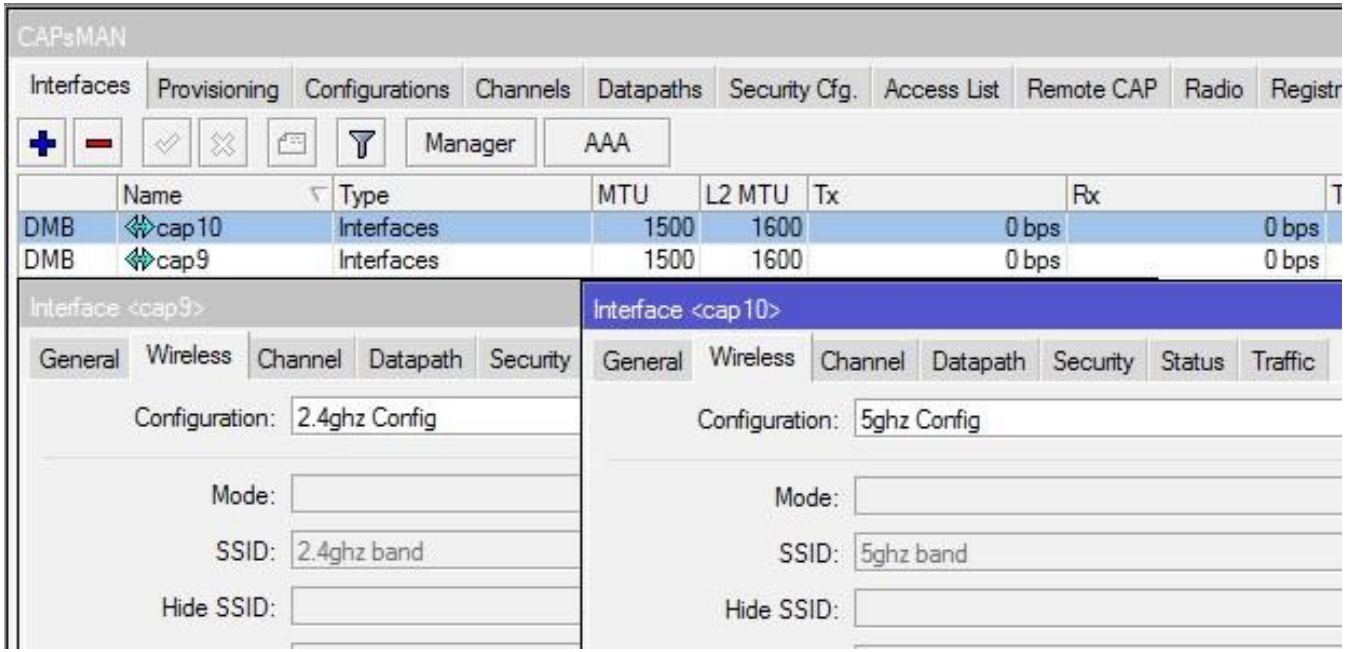
CAPsMAN Dual Band CAP

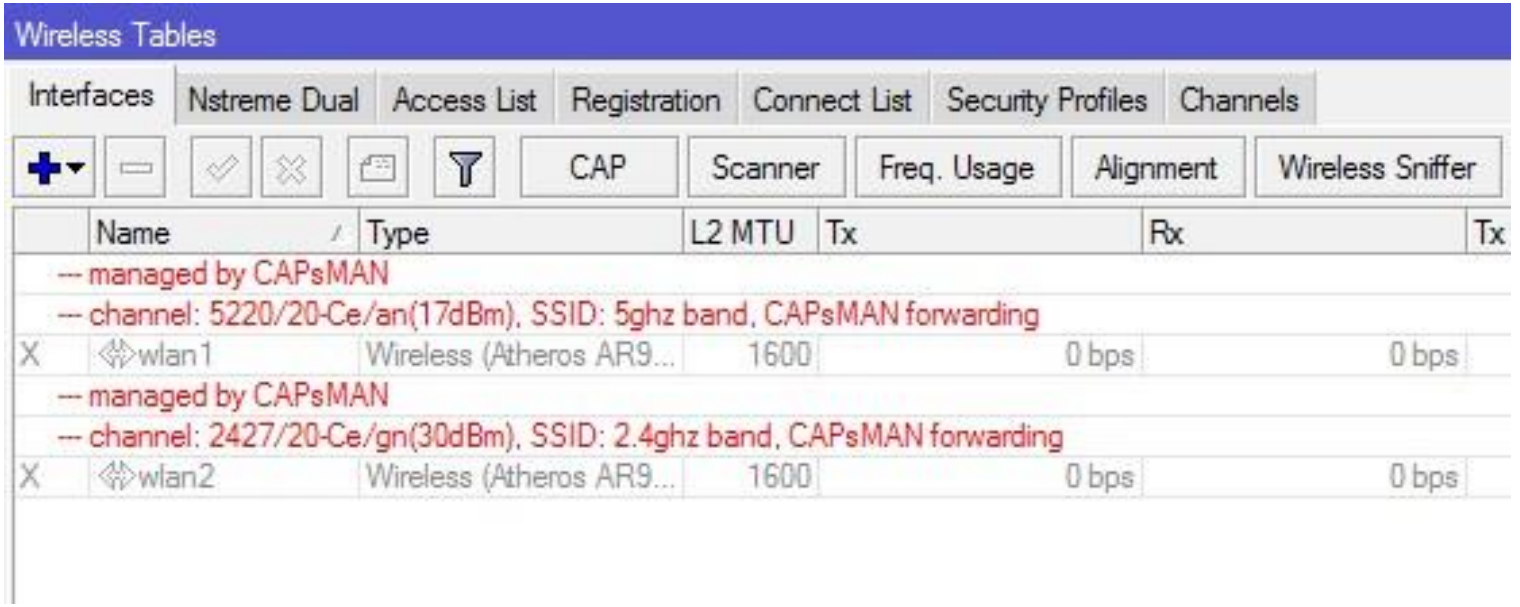
- If the Channel settings are not specified it will automatically use the supported band/channel
- If specific Channel settings are required then specific Provisioning rules are required
  - Custom Channel settings
  - Dual band wireless interface support
- Create 3 configurations:
  - Config for both bands radio
  - Config for 5ghz only radio
  - Config for 2.4ghz only radio



- Create 3 Provisioning rules
  - For A/N,G/N hardware use Both Bands config
  - For A/N hardware use 5ghz config
  - For G/N hardware use 2.4ghz config


CAPsMAN
Interfaces
Provisioning
Configurations
Channels
Datapaths
Security Cfg.
Access List
Remote CAP
Radio
Registration Table
| Radio MAC | Action | Master Configurati... | Slave Configuration
New CAPs Provisioning
Radio MAC: 00:00:00:00:00:00
Hw. Supported Modes: an
gn
Action: create dynamic enabled
Master Configuration: Both Bands
Slave Configuration:
Name Prefix:
New CAPs Provisioning
Radio MAC: 00:00:00:00:00:00
Hw. Supported Modes: an
Action: create dynamic enabled
Master Configuration: 5ghz Config
Slave Configuration:
Name Prefix:
New CAPs Provisioning
Radio MAC: 00:00:00:00:00:00
Hw. Supported Modes: gn
Action: create dynamic enabled
Master Configuration: 2.4ghz Config
Slave Configuration:
Name Prefix:


CAPsMAN
Interfaces
Provisioning
Configurations
Channels
Datapaths
Security Cfg.
Access List
Remote CAP
Radio
Manager
AAA
Name
Type
MTU
L2 MTU
Tx
Rx
DMB
cap10
Interfaces
1500
1600
0 bps
0 bps
DMB
cap9
Interfaces
1500
1600
0 bps
0 bps
Interface <cap9>
General
Wireless
Channel
Datapath
Security
Configuration:
2.4ghz Config
Mode:
SSID:
2.4ghz band
Hide SSID:
Interface <cap10>
General
Wireless
Channel
Datapath
Security
Status
Traffic
Configuration:
5ghz Config
Mode:
SSID:
5ghz band
Hide SSID:


Wireless Tables
Interfaces
Nstreme Dual
Access List
Registration
Connect List
Security Profiles
Channels
CAP
Scanner
Freq. Usage
Alignment
Wireless Sniffer
Name
Type
L2 MTU
Tx
Rx
--- managed by CAPsMAN
--- channel: 5220/20-Ce/an(17dBm), SSID: 5ghz band, CAPsMAN forwarding
X
wlan1
Wireless (Atheros AR9...
1600
0 bps
0 bps
--- managed by CAPsMAN
--- channel: 2427/20-Ce/gn(30dBm), SSID: 2.4ghz band, CAPsMAN forwarding
X
wlan2
Wireless (Atheros AR9...
1600
0 bps
0 bps

CAPsMAN Configuration

override Configuration

overrides Channel setting

- Interface overrides Channel and Configuration setting