



Configuración de CAPsMAN

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QUIENES SOMOS



Tacnatel Perú es una empresa de telecomunicaciones emergente, brindamos capacitación, soporte, distribución a nivel nacional, implementación de soluciones e integración de tecnologías en Perú.

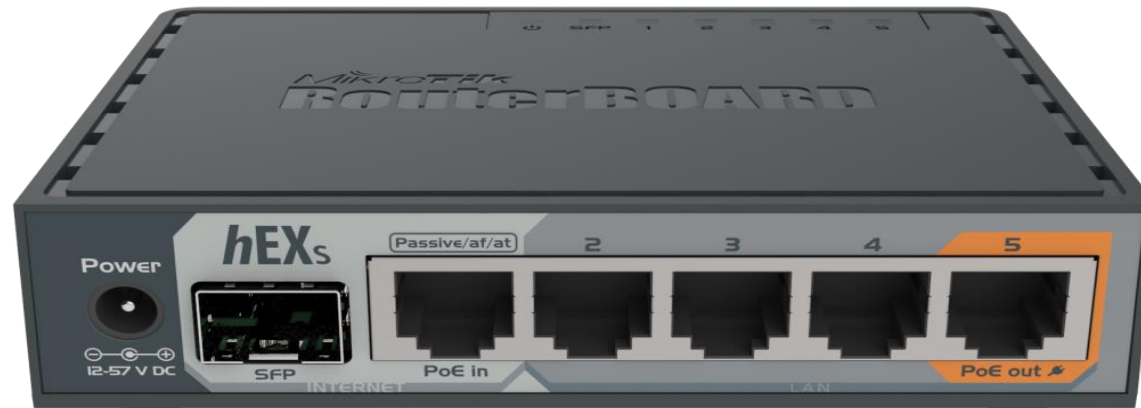
TEMARIO:

- ¿Qué es CAPsMAN y CAP?
- Evolución de CAPsMAN
- Configuración de CAPsMAN L2 y L3
- Certificados
- Configuraciones del CAP
 - Configuración Security
 - Configuración Datapath
 - Configuración Channel
- Aprovisionamiento Automático
- Lista de acceso centralizado
- Tabla de registro centralizada
- Set Identity
- Actualización automática de CAP



OBJETIVO:

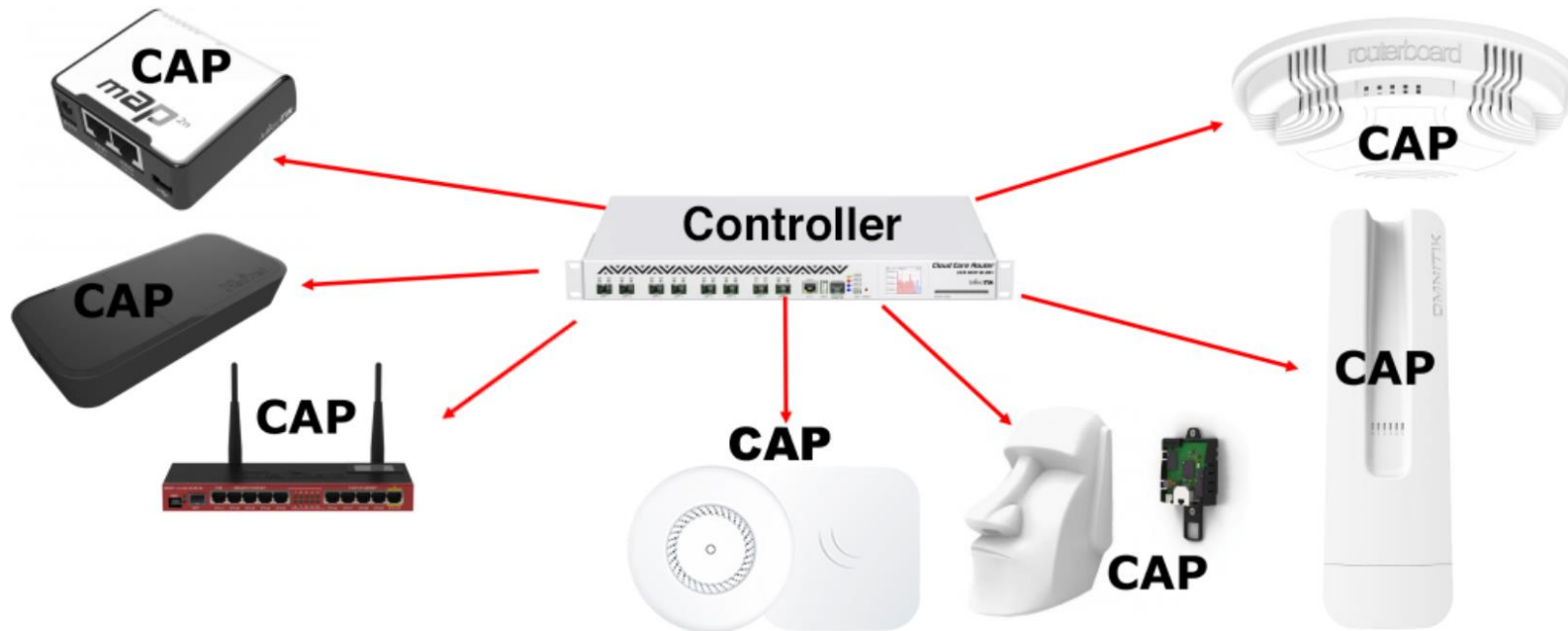
! Configuración del CAPsMAN y el CAPs !



¿ Qué es CAPsMAN ?

Es un potente software que te permite controlar y gestionar los dispositivos inalámbricos MikroTik desde una única ubicación sin ningún software adicional o costes de licencias adicionales.

“Administrador de sistema de punto de acceso controlado”



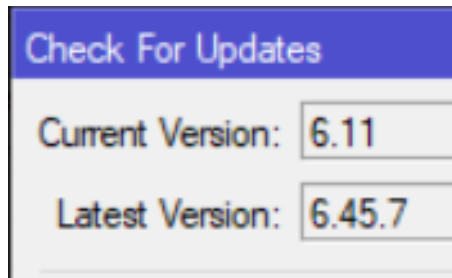
¿Qué es CAP?

Es un equipo MikroTik controlado por el CAPsMAN. El CAP puede ser cualquier equipo MikroTik, que tenga una tarjeta inalámbrica y RouterOS Lv4.



Evolución de CAPsMAN

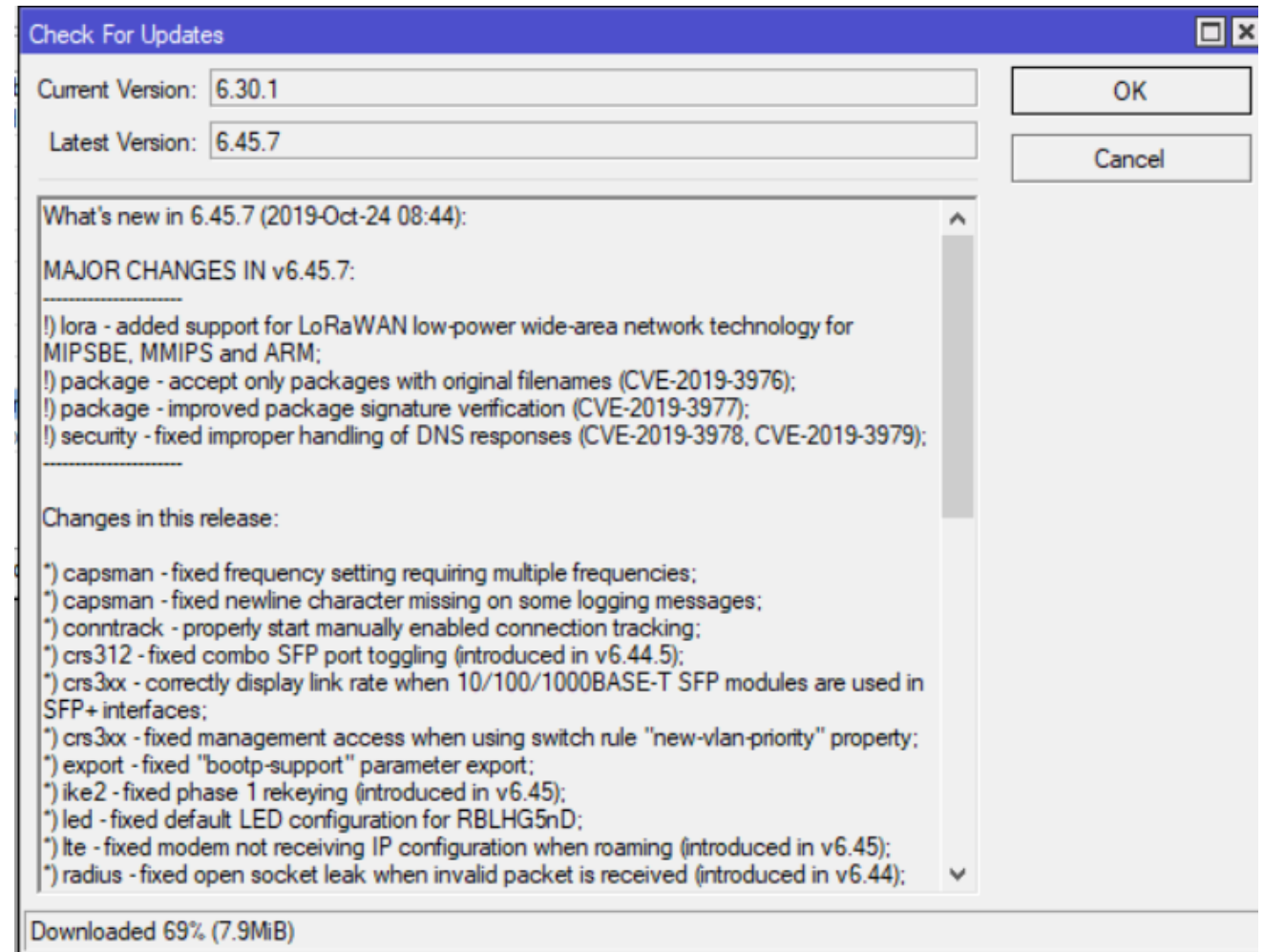
- ✓ No te compliques la vida
- ✓ Actualiza a la ultima versión



! EMPEZEMOS !

1. Actualiza el CAPsMAN
2. Actualiza los CAPs

¿Qué?



Evolución de CAPsMAN

- Solo habrá un paquete “ **wireless** ” RouterOS v6.37

~~wireless-fp~~
~~wireless-em2~~

admin@D4:CA:6D:92:54:32 (Tacnatel) - WinBox v6.37.2 on RB750 (mipsbe)

Session Settings Dashboard

Safe Mode Session: D4:CA:6D:92:54:32

- Quick Set
- CAPsMAN
- Interfaces
- Wireless
- Bridge
- PPP
- Switch
- Mesh
- IP
- MPLS
- Routing

Package List

Check For Updates

Name	Version
routeros-mipsbe	6.37.2
advancedt...	6.37.2
dhcp	6.37.2
hotspot	6.37.2
ipv6	6.37.2
mpls	6.37.2
ppp	6.37.2
routing	6.37.2
security	6.37.2
system	6.37.2
wireless	6.37.2

CAPsMAN

Interfaces

Provisioning

Configurations

Chann

+ - ✓ ✗

Manager

	Name	Type
DSMB	↔ 2-ALAMACEN-1	Interfaces
DSB	↔ 2-ALAMAC...	Interfaces
DSB	↔ 2-ALAMAC...	Interfaces
DSMB	↔ 2-TIENDA-1	Interfaces
DSB	↔ 2-TIENDA-...	Interfaces
DSB	↔ 2-TIENDA-...	Interfaces
DSMB	↔ 5-TIENDA-1	Interfaces
DSB	↔ 5-TIENDA-...	Interfaces
DSB	↔ 5-TIENDA-...	Interfaces

¿ Qué puedo hacer con CAPsMAN ?

Administrar y gestionar la red WI-FI de forma segura y centralizada.

- Manejo del tráfico de clientes
- Monitoreo de conexiones de clientes
- Autenticación y control de acceso de clientes
- Controla interfaces físicas y Aps virtuales
- Es capaz de gestionar AP de doble banda
- Gestión manual o automática de frecuencias
- Aprovisionamiento (configuración) de puntos de acceso
- Modo de reenvío de datos completo y local

¿ Qué seguridad ofrece CAPsMAN ?

- ✓ Conexión entre CAPsMAN y CAP es segura usando DTLS
- ✓ Conectividad en L2 o L3 entre CAPs y CAPsMAN
- ✓ Permite usar certificados para autenticar la conexión entre CAPs y CAPsMAN.
- ✓ CAPsMAN puede pedir actualizar la versión RouterOS del CAP.
- ✓ Lock to CAPsMAN
 - Fijación del CAP a un determinado CAPsMAN.
- ✓ Autenticación RADIUS MAC

Ventajas

- ✓ Bajo costo
- ✓ Fácil instalación
- ✓ Altamente escalable
- ✓ No se requiere licencia adicional
- ✓ Actualizaciones Automáticas

Ventajas

- ✓ Puede gestionar un número ilimitado de CAPs.
- ✓ Roaming de usuarios
- ✓ Cambios en tiempo real
- ✓ Puede atravesar NAT si es necesario
- ✓ Soporte de configuración personalizada

Desventajas

Si el CAP pierde la comunicación con su CAPsMAN, pierde la configuración de sus interfaces wireless.



Recomendaciones

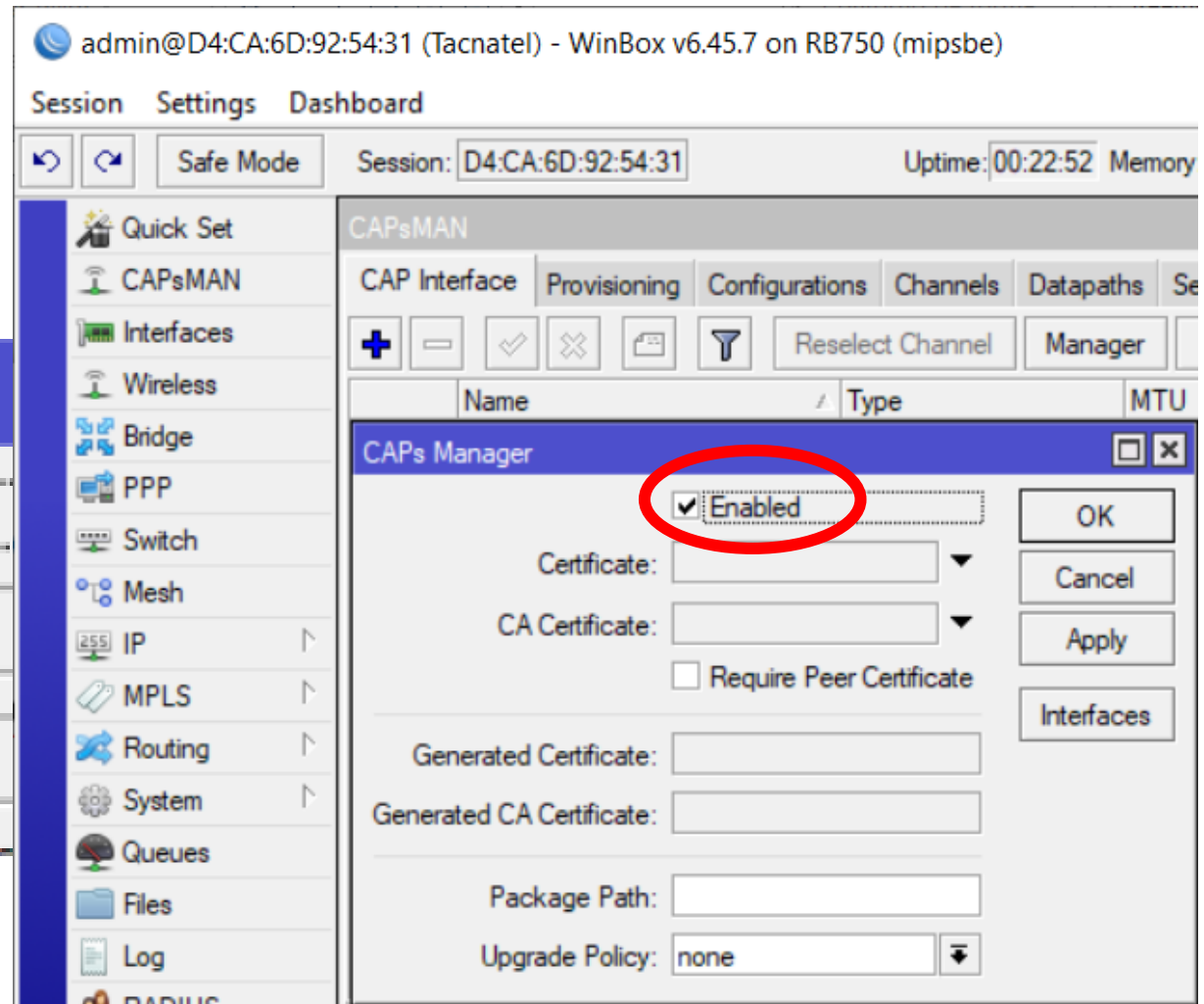
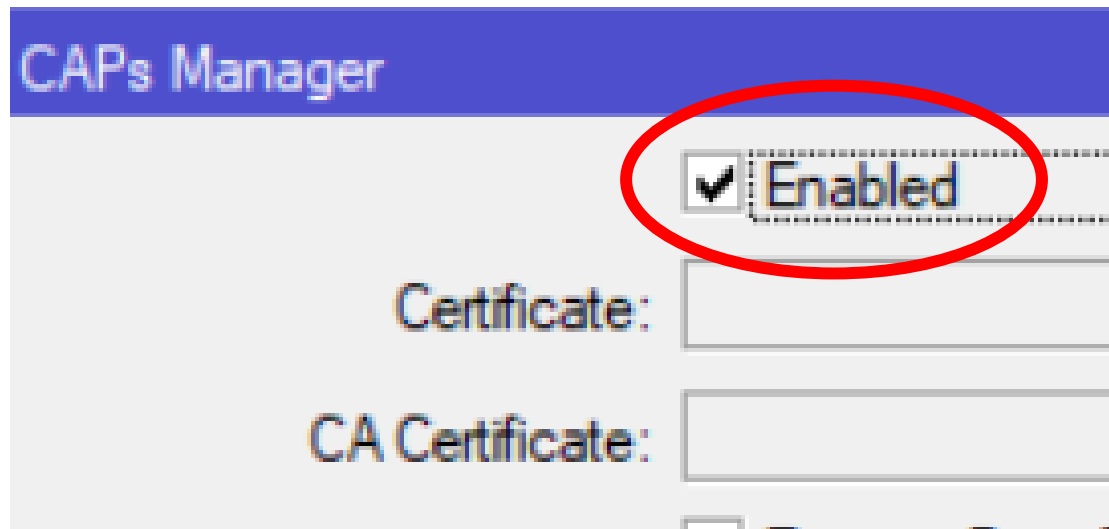
- ✓ MikroTik alojado en la nube – CHR
- ✓ Tener un sistema de contingencia aprueba de fallas
 - Crear copias de seguridad
 - Equipo de respaldo
 - Generar alertar por correo o sms
 - Etc.

¿Qué necesitamos para implementar CAPsMAN?

1. RouterOS superior a la versión 6.37
2. CAPsMAN no se requiere interfaces inalámbricas
 - RouterBoard
 - CHR
 - x86
3. CAP debe tener licencia de RouterOS Lv4
4. CAP debe tener 1 interfaz inalámbrica

Configuración en layer 2

- Configuración del **CAPsMAN**
 1. Haga click en **Enabled**



Configuración en layer 2

- Configuración del **CAP**

- Haga click en **Enabled**
- Selecione las interfaces Inalámbricas
- Selecione la interfaz de comunicación con el CAPsMAN

The screenshot shows the WinBox interface for configuring CAPsMAN. The top bar indicates the user is 'admin@6C:3B:6B:C6:C5:0B (CAP-Tacnatel)' using 'WinBox v6.45.7 on hAP ac lite (mipsbe)'. The main menu includes 'Session', 'Settings', and 'Dashboard'. The 'Settings' menu is open, showing 'Quick Set', 'CAPsMAN', and 'Interfaces'. The 'CAPsMAN' menu is selected, showing a list of CAPs. The 'CAP' configuration window is open, showing the 'Enabled' checkbox checked and circled in red. The 'Interfaces' list contains 'wlan1' and 'wlan2'. The 'Discovery Interfaces' list contains 'ether1'. The 'Certificate' is set to 'none'. The 'Discovery Interfaces' are set to 'ether1'. The 'Lock To CAPsMAN' checkbox is unchecked.

Name	Type	Actual MTU	Tx
wlan1	WLAN	1500	1500
wlan2	WLAN	1500	1500

Wireless Tables

WiFi Interfaces W60G Station Nstreme Dual Access List Registration Connect List

CAP WPS Client Setup Repeater S

Name / Type Actual MTU Tx

CAP

Enabled

Interfaces: wlan1 wlan2

Certificate: none

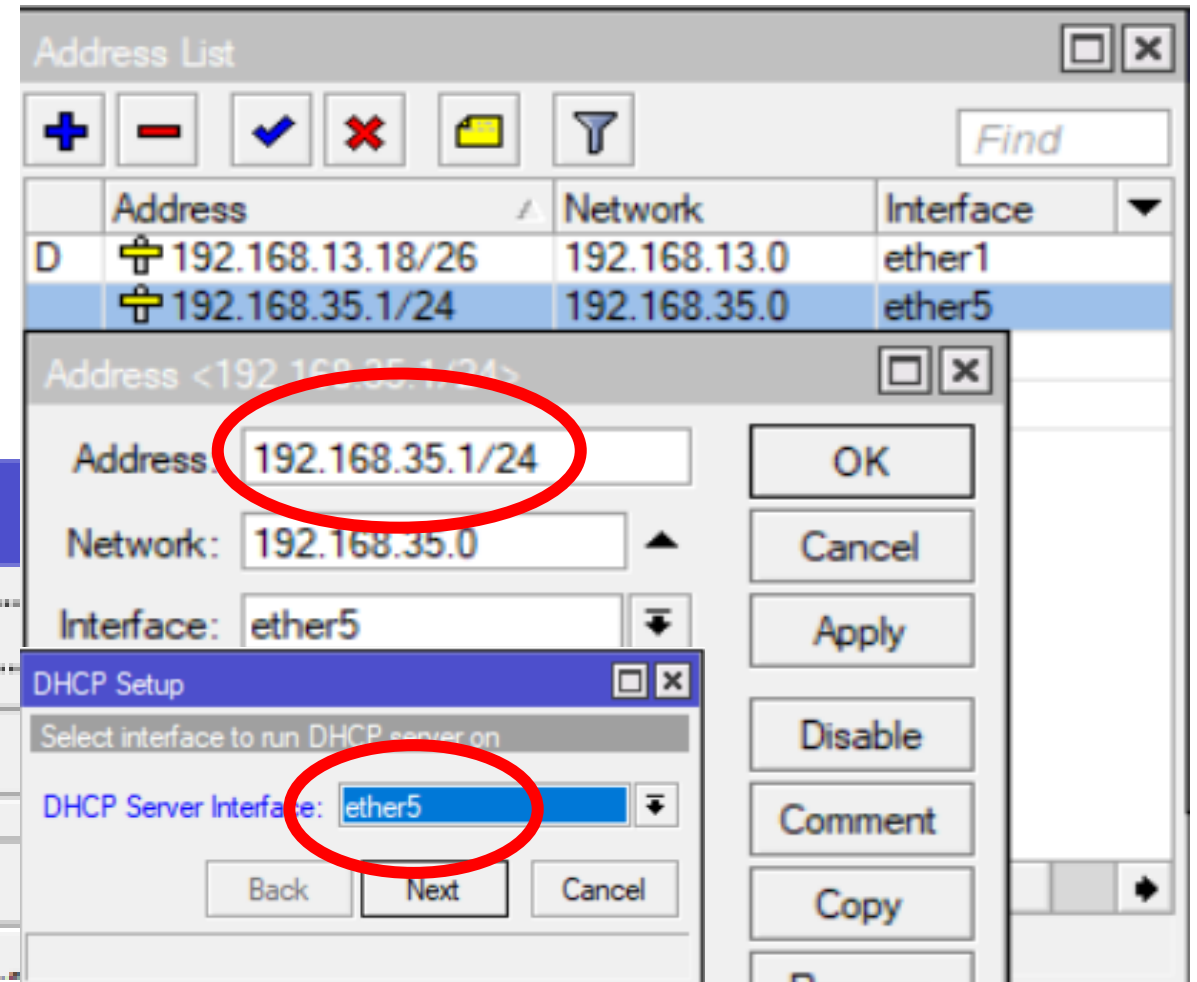
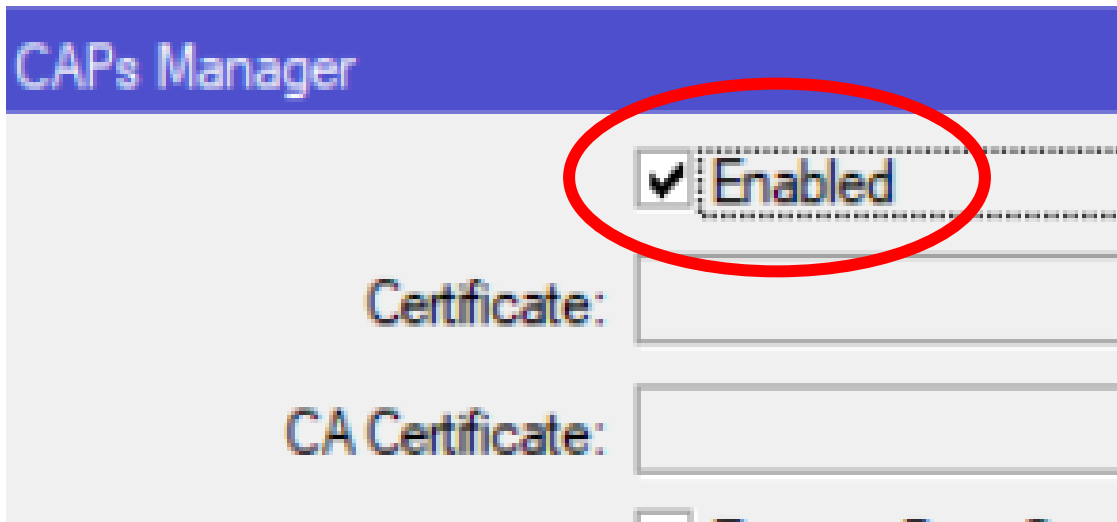
Discovery Interfaces: ether1

Lock To CAPsMAN

OK Cancel Apply

Configuración en layer 3

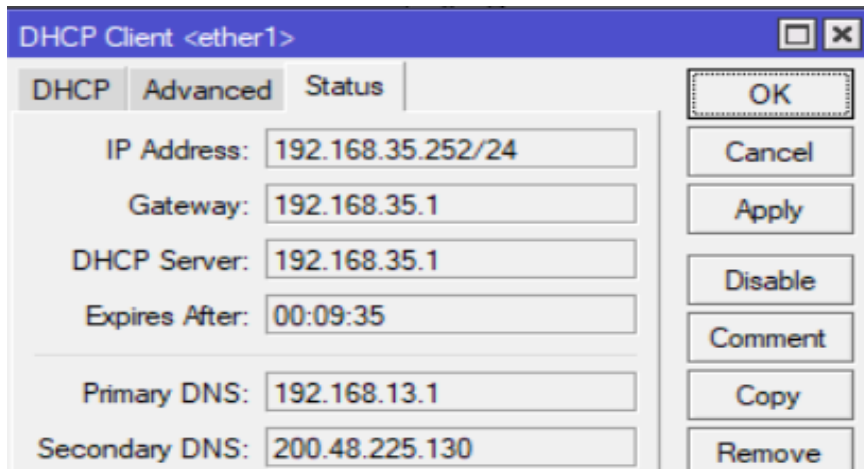
- Configuración del **CAPsMAN**
 1. Haga click en **Enabled**
 2. Asignar un IP 192.168.35.1/24
 3. Crear un DHCP Server



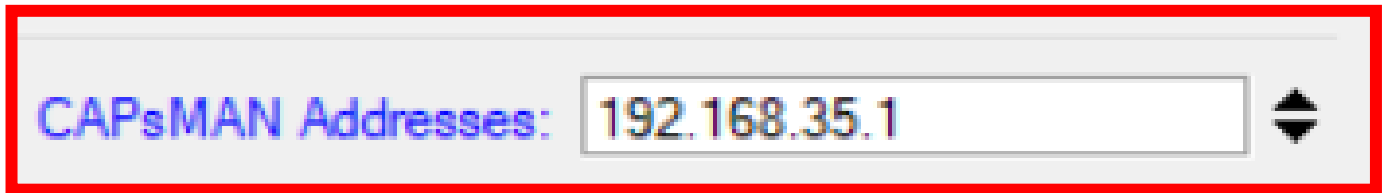
Configuración en layer 3

- Configuración del **CAP**

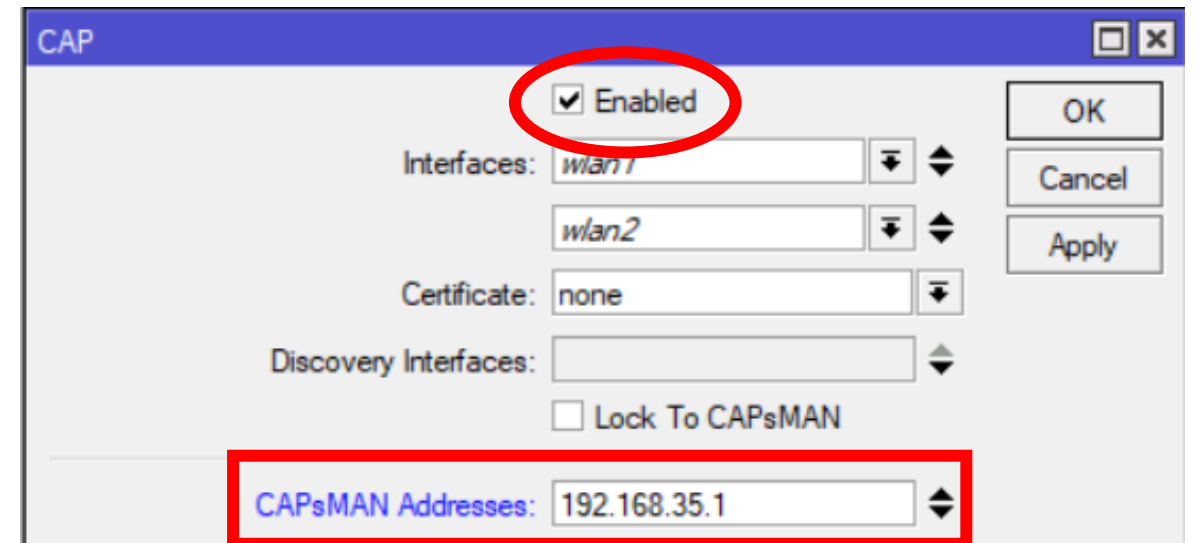
1. Haga click en **Enabled**
2. Seleccione las interfaces Inalámbricas
3. Ingrese la dirección IP del CAPsMAN
4. Crear un DHCP-Client



The screenshot shows the 'DHCP Client <ether1>' configuration window. It has three tabs: 'DHCP', 'Advanced', and 'Status'. The 'DHCP' tab is active, showing fields for IP Address (192.168.35.252/24), Gateway (192.168.35.1), DHCP Server (192.168.35.1), Expires After (00:09:35), Primary DNS (192.168.13.1), and Secondary DNS (200.48.225.130). On the right side, there are buttons for OK, Cancel, Apply, Disable, Comment, Copy, and Remove.



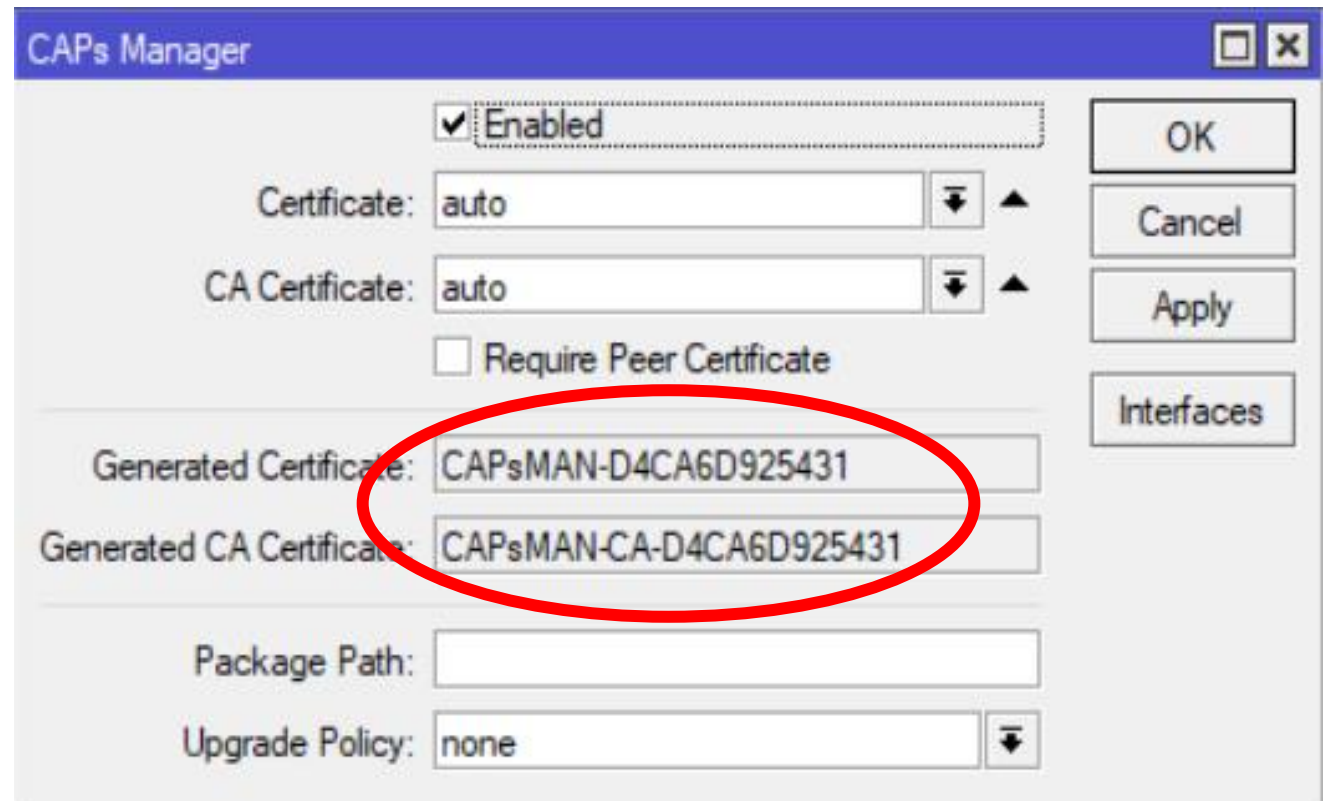
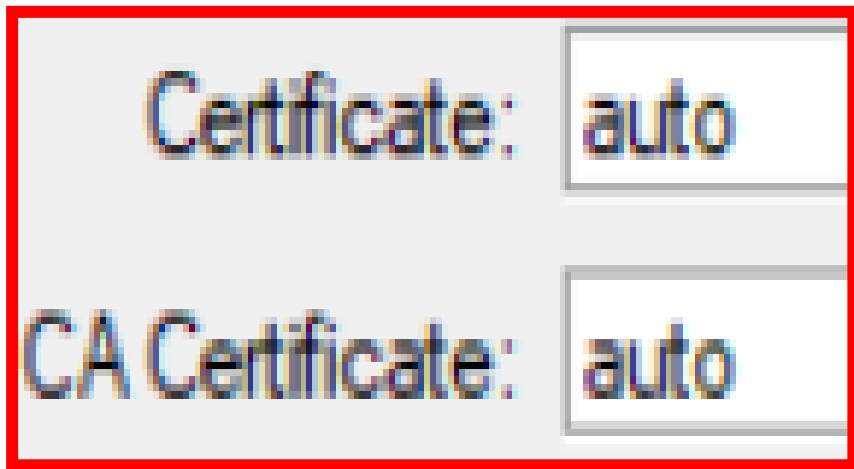
A close-up of the 'CAPsMAN Addresses' field, which is highlighted with a red border. The field contains the IP address '192.168.35.1' and has a dropdown arrow on the right.



The screenshot shows the 'CAP' configuration window. The 'Enabled' checkbox is checked and circled in red. Below it, the 'Interfaces' field contains 'wlan1' and 'wlan2'. The 'Certificate' field is set to 'none'. The 'Discovery Interfaces' field is empty. There is a 'Lock To CAPsMAN' checkbox which is unchecked. At the bottom, the 'CAPsMAN Addresses' field is highlighted with a red border and contains the IP address '192.168.35.1'. On the right side, there are buttons for OK, Cancel, and Apply.

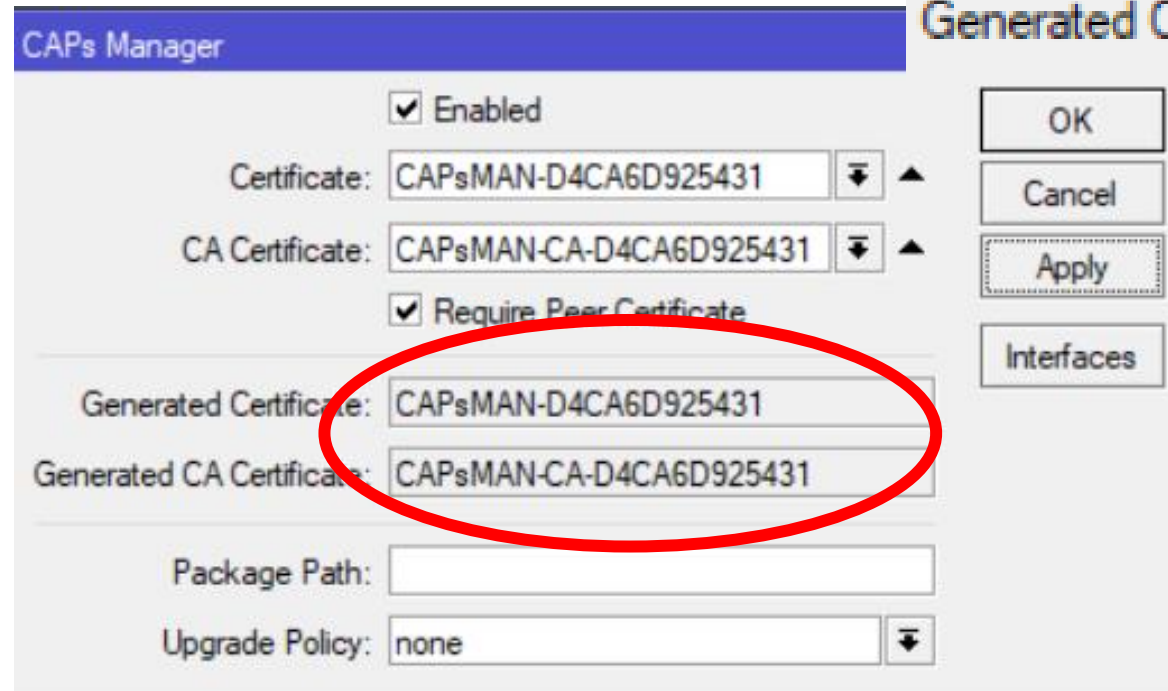
Certificado del CAPsMAN

- Configuración del **CAPsMAN**
 1. **auto** Certificate
 2. **auto** CA Certificate



Certificado del CAPsMAN

- Configuración del **CAPsMAN**
 1. Acepte conexiones solo de CAP con certificado válido



CAPs Manager

☒ Enabled

Certificate: CAPsMAN-D4CA6D925431

CA Certificate: CAPsMAN-CA-D4CA6D925431

☒ Require Peer Certificate

Generated Certificate: CAPsMAN-D4CA6D925431

Generated CA Certificate: CAPsMAN-CA-D4CA6D925431

Package Path:

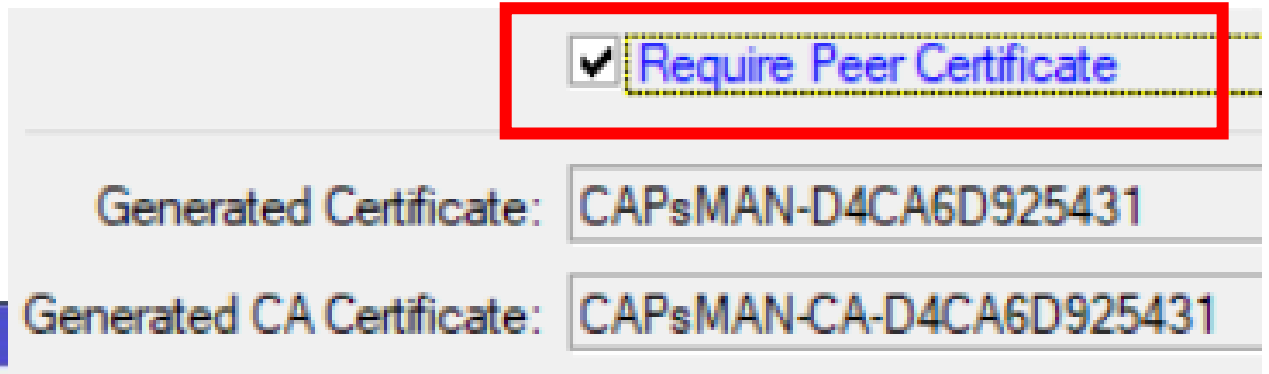
Upgrade Policy: none

OK

Cancel

Apply

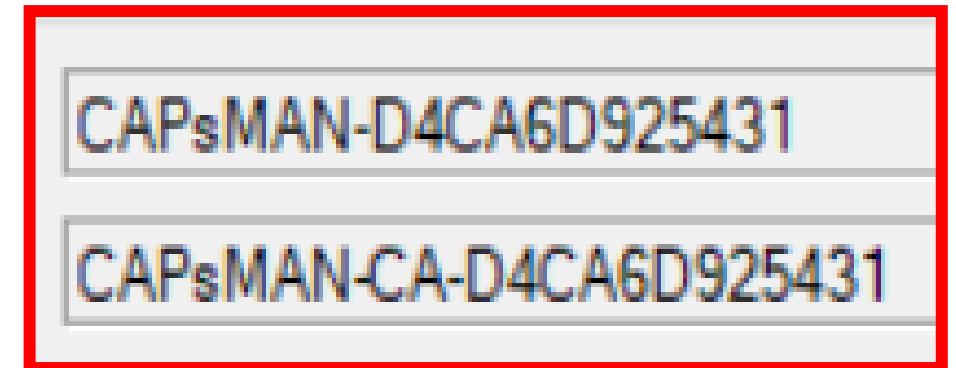
Interfaces



☒ Require Peer Certificate

Generated Certificate: CAPsMAN-D4CA6D925431

Generated CA Certificate: CAPsMAN-CA-D4CA6D925431



CAPsMAN-D4CA6D925431

CAPsMAN-CA-D4CA6D925431

Certificados del CAP

- Configuración del **CAP**
1. Seleccionar “Request” Certificate

Certificate: request

Certificado válido

Requested Certificate: CAP-6C3B6BC6C508



Eliseo@206.81.11.199 (Tacnatel) - WinBox v6.45.7 on CHR (x86_64)

¿Cómo instalar un CHR?

- Registrarse en:
 - cloud.digitalocean.com
- Descargar la Imagen VMDK
 - <https://download.mikrotik.com/routers/6.45.7/chr-6.45.7.vmdk>

Eliseo@206.81.11.199 (Tacnatel) - WinBox v6.45.7 on CHR (x86_64)

Session Settings Dashboard

Safe Mode Session: MUM BOLIVIA Time: 10:15:32 Memory: 902.9 MiB CPU: 0%

Quick Set CAPsMAN Interfaces Wireless Bridge PPP

CAPsMAN

Channels Datapaths Security Cfg. Access List Rates Remote CAP Radio Registration Table ...

Provision Upgrade Set Identity Find

Address	Name	Board	Serial	Version	Identity	Base MAC
10.10.10.2	[6C:3B:6B:C6...	RB952Ui-5ac...	71B206FD82...	6.45.7	VISITAS	6C:3B:6B:C6:C5:0
179.6.42.103	[74:4D:28:72:...	RBcAPL-2nD	A6080A48208B	6.45.7	C1_ALMACEN	74:4D:28:72:E2:9
179.6.42.103	[B8:69:F4:F7:...	RB931-2nD	94A2097F15C6	6.43.14	VENTAS	B8:69:F4:F7:37:0

Configuración CAP en layer 3

CAPsMAN Addresses: 206.81.11.199

Session: MUM BOLIVIA Time: 10:19:12 Memory: 8.2 MiB CPU: 2%

Wireless Tables

WiFi Interfaces W60G Station

+ - ✓ ✕

	Name	Type
	--- managed by CAPsMAN	
	--- channel: 2462/20/gn(8dBm)	
R	wlan1	Wireless
	--- managed by CAPsMAN	
	--- SSID: Tacnatel, CAPsMAN	
DX	wlan18	Virtual

CAP

☒ Enabled

Interfaces: wlan1

Certificate: none

Discovery Interfaces:

☐ Lock To CAPsMAN

CAPsMAN Address: 206.81.11.199

OK Cancel Apply

Configuración CAP con L2TP/IPsec

The image displays two configuration windows from Mikrotik WinBox. The 'L2TP Server' window on the left has 'Enabled' checked, 'Max MTU' and 'Max MRU' set to 1450, 'MRRU' empty, 'Keepalive Timeout' at 30, 'Default Profile' as 'default-encryption', 'Max Sessions' empty, 'Authentication' with 'mschap2', 'mschap1', 'chap', and 'pap' all checked, 'Use IPsec' set to 'yes', and 'IPsec Secret' as 'Tacnatel'. The 'CAPsMAN' window on the right has 'Enabled' checked, 'Interfaces' set to 'wlan2', 'Certificate' as 'none', 'Discovery Interfaces' empty, 'Lock To CAPsMAN' unchecked, 'CAPsMAN Addresses' set to '10.10.10.1', and 'CAPsMAN Names' empty. A central table titled 'Wireless Tables' shows 'W60G Station' with three entries: 'wlan1' (Wireless), 'wlan3' (Virtual), and 'wlan2' (Wireless). Red text below the table indicates 'managed by CAPsMAN' and 'channel: 5180/20-Ceee/ac()'. A status bar at the top right shows 'Time: 10:21:48', 'Memory: 35.9 MiB', and 'CPU: 5%'.

L2TP Server Configuration:

- ☒ Enabled
- Max MTU: 1450
- Max MRU: 1450
- MRRU: [empty]
- Keepalive Timeout: 30
- Default Profile: default-encryption
- Max Sessions: [empty]
- Authentication: ☒ mschap2 ☒ mschap1 ☒ chap ☒ pap
- Use IPsec: yes
- IPsec Secret: Tacnatel

CAPsMAN Configuration:

- ☒ Enabled
- Interfaces: wlan2
- Certificate: none
- Discovery Interfaces: [empty]
- ☐ Lock To CAPsMAN
- CAPsMAN Addresses: 10.10.10.1
- CAPsMAN Names: [empty]

Wireless Tables:

Name	Type
wlan1	Wireless
wlan3	Virtual
wlan2	Wireless

--- managed by CAPsMAN
--- channel: 5180/20-Ceee/ac()

Configuración CAP con EoIP/IPsec

Session: MUM BOLIVIA

Interface <eoip-tunnel1>

General Loop Protect Status Traffic

Name: eoip-tunnel1

Type: EoIP Tunnel

MTU:

Actual MTU: 1408

L2 MTU: 65535

MAC Address: 02:01:93:B3:4E:A6

ARP: enabled

ARP Timeout:

Local Address: 10.10.10.1

Remote Address: 10.10.10.2

Tunnel ID: 2019

IPsec Secret: Tacnatel

Copy

Remove

Torch

Session: MUM BOLIVIA

Interface <eoip-tunnel1>

General Loop Protect Status Traffic

Name: eoip-tunnel1

Type: EoIP Tunnel

MTU:

Actual MTU: 1408

L2 MTU: 65535

MAC Address: 02:D7:89:86:6E:4A

ARP: enabled

ARP Timeout:

Local Address: 10.10.10.2

Remote Address: 10.10.10.1

Tunnel ID: 2019

IPsec Secret: Tacnatel

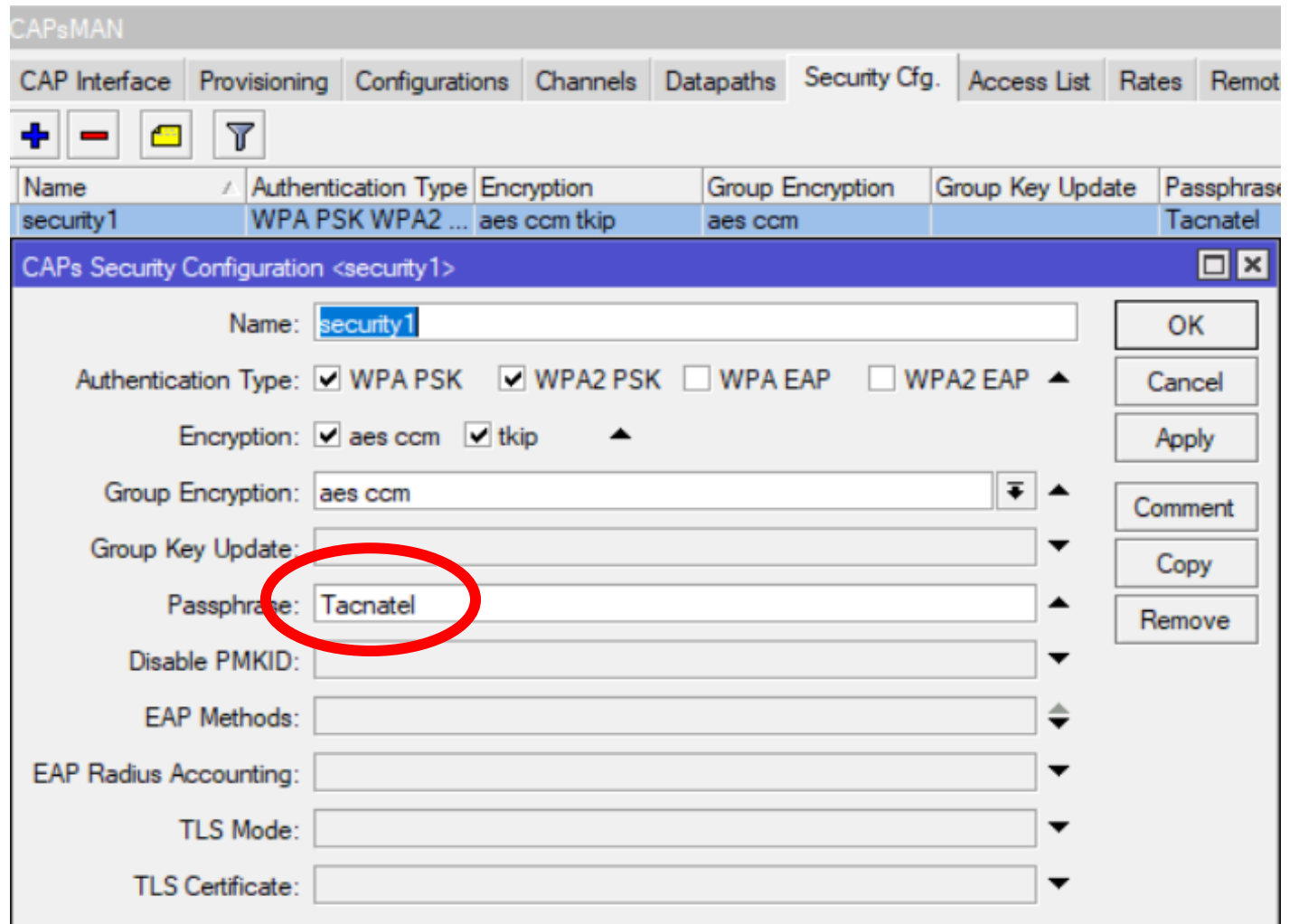
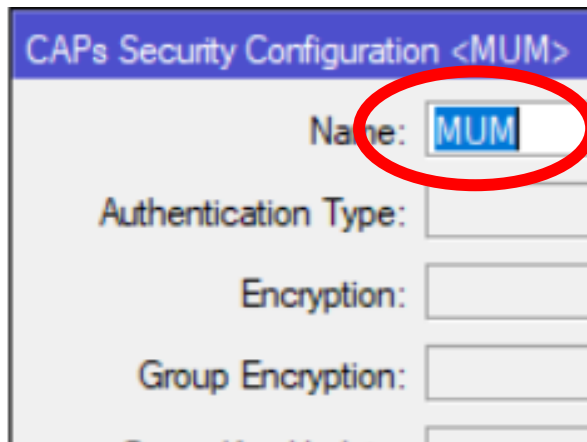
Copy

Remove

Torch

Configuración Security

El dispositivo CAP ahora solo tiene que proporcionar el cifrado y descifrado de la capa de enlace inalámbrico.



Datapath

La configuración de la ruta de datos controla los aspectos relacionados con el reenvío de datos.

- ✓ **Modo de reenvío local:** CAP reenvía datos localmente hacia y desde la interfaz inalámbrica. CAPsMAN solo controlará la configuración de la interfaz y el proceso de asociación del cliente.
- ✓ **Modo de reenvío de administrador:** CAP envía todos los datos recibidos por vía inalámbrica a CAPsMAN y solo envía por vía inalámbrica los datos recibidos de CAPsMAN. Incluido el reenvío de cliente a cliente.

Configuración Datapath

CAPsMAN

CAP Interface Provisioning Configurations Channels Datapaths Security Cfg. Access List Rates Remote

+ - [Folder Icon] [Filter Icon]

Name	Bridge	Local For...	Client To ...
datapath1	bridge1		

Local Forwarding: ☒

Bridge

Bridge Ports VLANs MSTIs Port MST Overrid

+ - [Checkmark Icon] [X Icon] [Folder Icon] [Filter Icon]

#		Interface	Bridge
0	DI	↕↕2-CAP-Tacnatel-1	bridge1
1	DI	↕↕2-TIENDA-1	bridge1
2	DI	↕↕2-TIENDA-1-1	bridge1
3	DI	↕↕2-CAP-Tacnatel-1-1	bridge1
4	DI	↕↕2-CAP-Tacnatel-1-2	bridge1
5	DI	↕↕2-TIENDA-1-2	bridge1

CAPs Datapath Configuration <datapath1>

Name: datapath1

MTU: []

L2 MTU: []

ARP: []

Bridge: bridge1

Bridge Cost: []

Bridge Horizon: []

Local Forwarding: []

Client Forwarding: []

OK Cancel Apply Comment Copy Remove

Name	Bridge	Local Forwarding
Data_Tacnatel	B_Tacnatel	no
Data_MUM	B_MUM	yes

Configuración Channel

La configuración del grupo de canales permite la configuración de listas de configuraciones relacionadas:

- ✓ canal de radio
- ✓ banda de radio
- ✓ Frecuencia
- ✓ Tx Power y etc.

The screenshot shows the CAPsMAN configuration interface. The 'Channels' tab is selected. A table lists several channels, with 'channel1' selected. A pop-up window titled 'CAPs Channel <channel1>' shows the configuration for 'channel1', with 'Frequency' set to 2412 and 'Control Channel Width' set to 20Mhz. Below the interface, a table summarizes the channel configurations.

Name	Frequency	Secondary Freque...	Control Channel ...	Band
Canal1	2412		20Mhz	2ghz-b/g/n
Canal6	2437		20Mhz	2ghz-b/g/n
Canal11	2462		20Mhz	2ghz-b/g/n
Canal149	5745		20Mhz	5ghz-a/n/ac
Canal157	5785		20Mhz	5ghz-a/n/ac

Configuraciones del CAP

The image shows the CAPsMAN web interface with the 'Configurations' tab selected. A table lists several configurations, with 'cfg1' (SSID: Tacnatel 1) highlighted. Three configuration dialog boxes are overlaid, each showing a different tab of the configuration for 'cfg1':

- Wireless Tab:** Shows the configuration for the wireless interface. Fields include Name (cfg1), Mode (ap), SSID (Tacnatel 1), and Hide SSID (unchecked).
- Channel Tab:** Shows the configuration for the channel. The Channel field is set to 'channel1'.
- Datapath Tab:** Shows the configuration for the datapath. The Datapath field is set to 'datapath1'.
- Security Tab:** Shows the configuration for security. The Security field is set to 'security1'.

Each dialog box includes OK, Cancel, and Apply buttons. The Security tab also includes a Comment field.

Configuraciones del CAP

CAPsMAN

CAP Interface

Provisioning

Configurations

Channels

Datapaths

Security Cfg.

Access List


Rates


Remote CAP

Radio

+

-

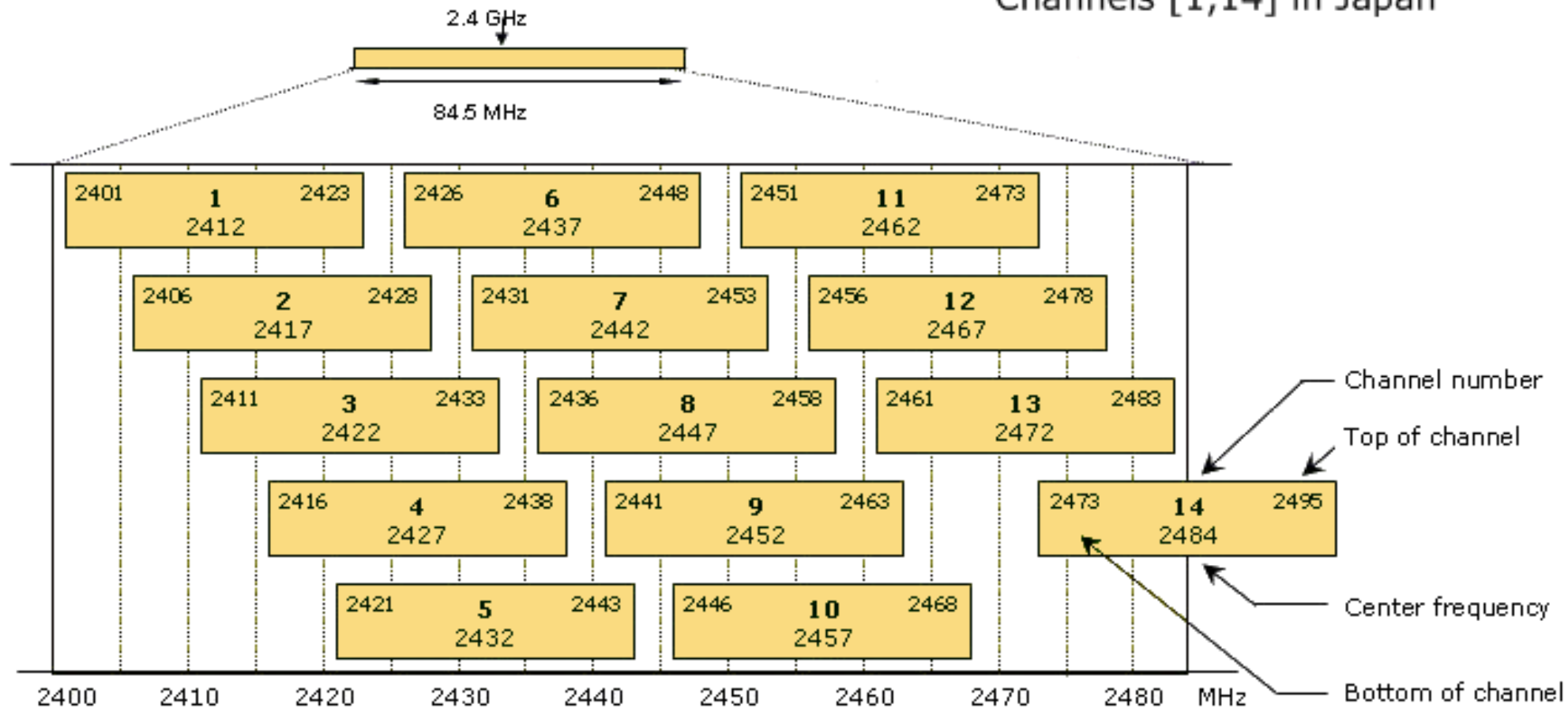




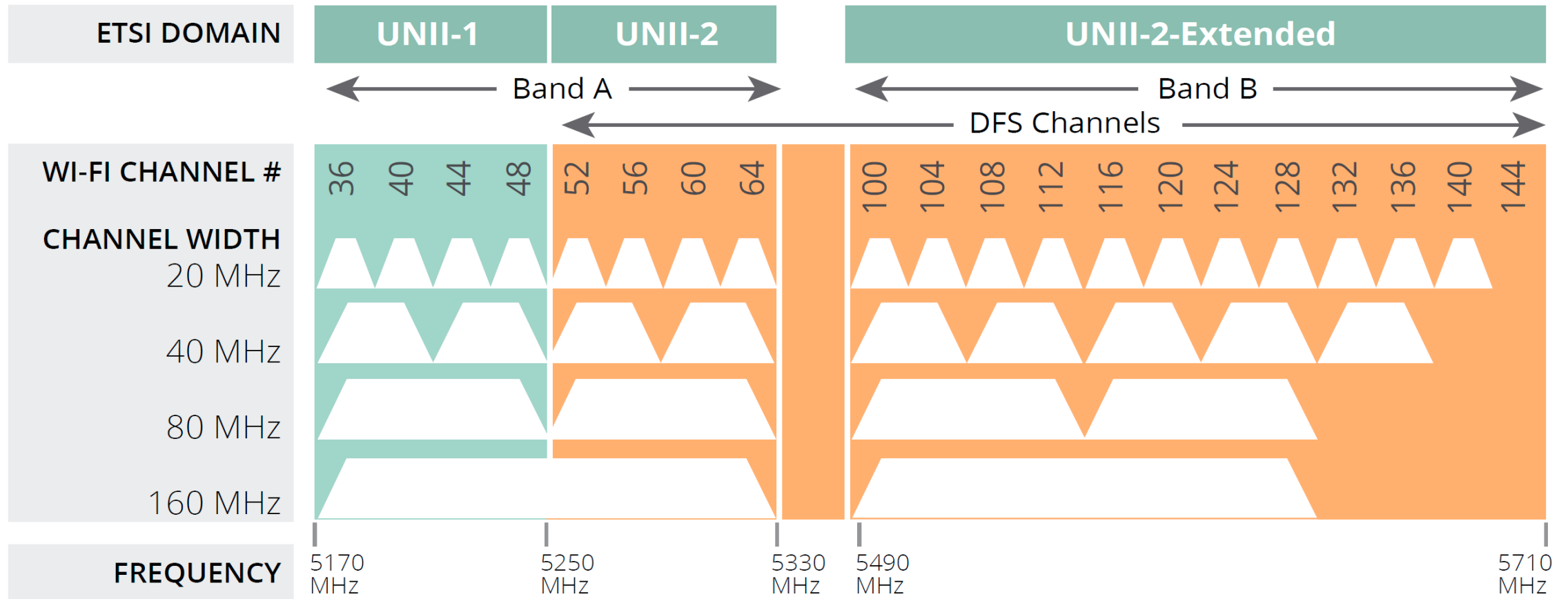
Name	SSID	Country	Install...	Channel	Datapath	Bridge	Security
Internet21	MUM-Bolivia	bolivia		Canal1	Data_MUM	B_MUM	MUM
Internet26	MUM-Bolivia	bolivia		Canal6	Data_MUM	B_MUM	MUM
Internet211	MUM-Bolivia	bolivia		Canal11	Data_MUM	B_MUM	MUM
Internet5149	MUM-Bolivia	bolivia		Canal149	Data_MUM	B_MUM	MUM
Internet5157	MUM-Bolivia	bolivia		Canal157	Data_MUM	B_MUM	MUM
Intranet21	Tacnatel	bolivia		Canal1	Data_Tacnatel	B_Tacnatel	Tacnatel
Intranet26	Tacnatel	bolivia		Canal6	Data_Tacnatel	B_Tacnatel	Tacnatel
Intranet211	Tacnatel	bolivia		Canal11	Data_Tacnatel	B_Tacnatel	Tacnatel
Intranet5149	Tacnatel	bolivia		Canal149	Data_Tacnatel	B_Tacnatel	Tacnatel
Intranet5157	Tacnatel	bolivia		Canal157	Data_Tacnatel	B_Tacnatel	Tacnatel

Solapamiento de Canales 2.4Ghz

2.4 GHz ISM Band: Channels [1,11] in North America; Channels [1,13] in Europe
Channels [1,14] in Japan



Solapamiento de Canales 5Ghz



Aprovisionamiento Automático

Si se encuentra la interfaz apropiada:
la radio se configura usando la
configuración de interfaz maestra y
esclava.

- Protocolo
- Identity
- IP Address

También podemos dar formato a los
CAPs

CAPsMAN

CAP Interface Provisioning Configurations Channels Datapaths Sec

+ - ✓ ✗ 📁 🔍

#	Radio MAC	Identity Regexp	Common Nam...	Action
0	00:00:00:00:00:00			create dy.
1	00:00:00:00:00:00			create dy.

CAPs Provisioning <00:00:00:00:00:00>

Radio MAC: 00:00:00:00:00:00

Hw. Supported Modes: an

Identity Regexp:

Common Name Regexp:

IP Address Ranges:

Action: create dynamic enabled

Master Configuration: cfg21

Slave Configuration: cfg23

cfg25

Name Format: prefix identity

Name Prefix: 5

enabled

OK Cancel Apply Disable Comment Copy Remove

Aprovisionamiento Automático

The image displays three screenshots of the 'CAPs Provisioning' configuration window, illustrating different settings for automatic provisioning. Red circles and rectangles highlight specific fields in each screenshot.

Screenshot 1 (Left):

- Radio MAC: 00:00:00:00:00:00
- Hw. Supported Modes: (empty)
- Identity Regexp: C1
- Common Name Regexp: (empty)
- IP Address Ranges: (empty)
- Action: create dynamic enabled
- Master Configuration: Internet21
- Slave Configuration: Intranet21
- Name Format: identity
- Name Prefix: C1_
- Status: enabled

Screenshot 2 (Middle):







- Radio MAC: 00:00:00:00:00:00
- Hw. Supported Modes: gn
- Identity Regexp: MikroTik
- Common Name Regexp: (empty)
- IP Address Ranges: (empty)
- Action: create dynamic enabled
- Master Configuration: Internet26
- Slave Configuration: Intranet26
- Name Format: prefix identity
- Name Prefix: C6
- Status: enabled

Screenshot 3 (Right):

- Radio MAC: 00:00:00:00:00:00
- Hw. Supported Modes: an
- Identity Regexp: (empty)
- Common Name Regexp: (empty)
- IP Address Ranges: 10.10.10.0/29
- Action: create dynamic enabled
- Master Configuration: Internet5149
- Slave Configuration: Intranet5149
- Name Format: prefix identity
- Name Prefix: C149
- Status: enabled
- Buttons: OK, Cancel, Apply, Disable, Comment, Copy, Remove

Access List

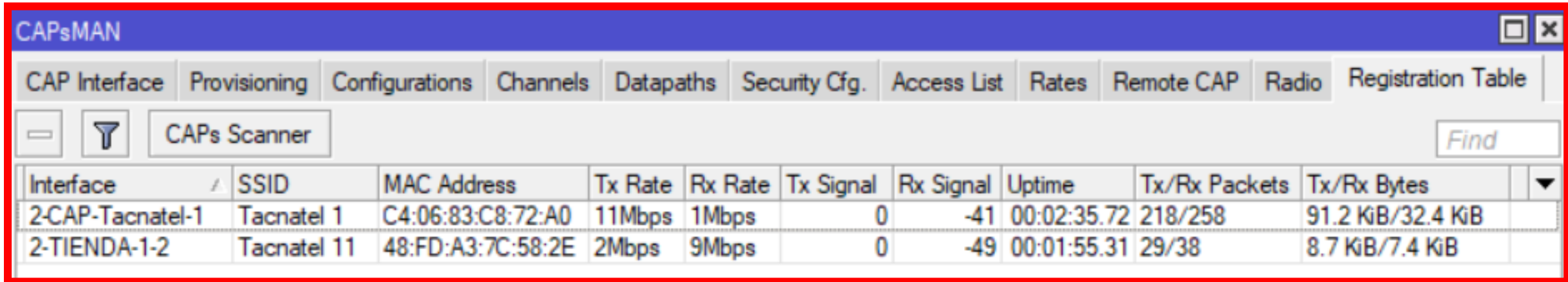
- Se utiliza para permitir / denegar a los clientes conectarse a cualquier CAP bajo el control de CAPsMAN.
- Cuando el cliente intenta conectarse a un CAP, este reenvía esa solicitud a CAPsMAN y consulta la lista de acceso para determinar si se debe permitir que el cliente se conecte.

CAPsMAN									
CAP Interface Provisioning Configurations Channels Datapaths Security Cfg. Access List Rates Remote CAP Radio Registration Table									
     									
#	MAC Address	MAC Mask	Interface	Signal Ra...	Action	Client To Clie...	VLAN Mo...	VLAN ID	
0	↔ C4:06:83:C8:72:A0		any	-120..120	accept	no			
1	↔ 48:FD:A3:7C:58:2E		2-CAP-Tacnatel-1	-70..120	reject				

Registration Table

- La tabla de registro contiene una lista de clientes que están conectados a radios controlados por CAPsMAN.

/caps-man registration-table



The screenshot shows the CAPsMAN web interface with the 'Registration Table' tab selected. The table lists two connected clients: '2-CAP-Tacnatel-1' and '2-TIENDA-1-2'. Each row displays details such as SSID, MAC Address, Tx/Rx Rates, Signal strength, Uptime, and Traffic volume.

Interface	SSID	MAC Address	Tx Rate	Rx Rate	Tx Signal	Rx Signal	Uptime	Tx/Rx Packets	Tx/Rx Bytes
2-CAP-Tacnatel-1	Tacnatel 1	C4:06:83:C8:72:A0	11Mbps	1Mbps	0	-41	00:02:35.72	218/258	91.2 KiB/32.4 KiB
2-TIENDA-1-2	Tacnatel 11	48:FD:A3:7C:58:2E	2Mbps	9Mbps	0	-49	00:01:55.31	29/38	8.7 KiB/7.4 KiB

Set Identity

- Proporciona un nombre de identificación único para cuando el CAP se identifica con otros CAPs de la red.

The screenshot displays the CAPsMAN web interface. A 'Set Identity' dialog box is open, showing the 'Remote AP' as '6C:3B:6B:C6:C5:08' and the 'Identity' as 'MUM-BOLIVIA'. The dialog box has 'Set Identity', 'Cancel', 'OK', 'Remove', 'Provision', 'Upgrade', and 'Set Identity' buttons. The 'Set Identity' button at the bottom right of the dialog is circled in red. In the background, the 'Wireless Tables' section is visible, showing a list of wireless interfaces and their configurations. The 'Session' field at the top right is also circled in red, showing '6C:3B:6B:C6:C5:08'.

Name	Type
---	managed by CAPsMAN
---	channel: 2412/20-Ce/gn(30dBm), SSID: cana
X	wlan1 Wireless (Atheros AR9...
---	managed by CAPsMAN
---	SSID: canal 6, CAPsMAN forwarding
DX	wlan3 Virtual
---	managed by CAPsMAN
---	SSID: canal 11, CAPsMAN forwarding
DX	wlan4 Virtual
---	managed by CAPsMAN
---	channel: 5805/20-Ce/an(30dBm), SSID: cana
X	wlan2 Wireless (Atheros AR9...
---	managed by CAPsMAN
---	SSID: canal 23, CAPsMAN forwarding
DX	wlan5 Virtual
---	managed by CAPsMAN
---	SSID: canal 25, CAPsMAN forwarding
DX	wlan6 Virtual

Name	Version
routeros-mipsbe	6.45.7
advanced-tools	6.45.7
dhcp	6.45.7
hotspot	6.45.7
ipv6	6.45.7
mpls	6.45.7
ppp	6.45.7
routing	6.45.7
security	6.45.7
system	6.45.7
wireless	6.45.7

Upgrade

La función de actualización automática se conecta a los servidores de descarga de Mikrotik y comprueba si hay una nueva versión de RouterOS para su dispositivo.

The screenshot shows the CAPsMAN web interface. The 'Upgrade' button in the main menu is circled in red. Below it, a table lists devices, with the first row highlighted. To the right, a dialog box for 'CAPs Remote AP <[6C:3B:6B:C6:C5:08]>' is open, showing fields for Address, Port, Name, Board, Serial, Version, Identity, Base MAC, State, and Radios. The 'Upgrade' button in this dialog is also circled in red.

Address	Name	Board	Serial	Version	Identity	Base MAC
6C:3B:6B:C6:C5:08	[6C:3B:6B:C6:C5:08]	RB952Ui-5ac2nD	71B206FD82D3	6.45.7	MUM-BOLIVIA	6C:3B:6B:C6:C5:08

File List

File Name	Type	Size	Created
flash	disk		Jan/1
routeros-mipsbe-6.45.7.npk	package	7.2 MiB	Nov/1

MUM BOLIVIA 2019 - IACNATEL PERU

Aprovisionamiento Automático

1. Aprovisionar equipos MikroTik con Identity=C1* en canal 1 de 2.4Ghz
2. Aprovisionar equipos MikroTik Nuevos al canal 6 de 2.4Ghz
3. Aprovisionar cualquier equipo MikroTik al canal 11 de 2.4Ghz
4. Aprovisionar equipos MikroTik con IP Address=10.10.10.0/29 en Canal 149 de 5Ghz
5. Aprovisionar cualquier equipo MikroTik al Canal 157 de 5Ghz

Gracias...



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