



Hotel Wifi Solution with MikroTik

CAPsMAN, HotSpot and User Manager

Presented By Aung Myo

MikroTik MUM Myanmar October 1, 2015

About Me

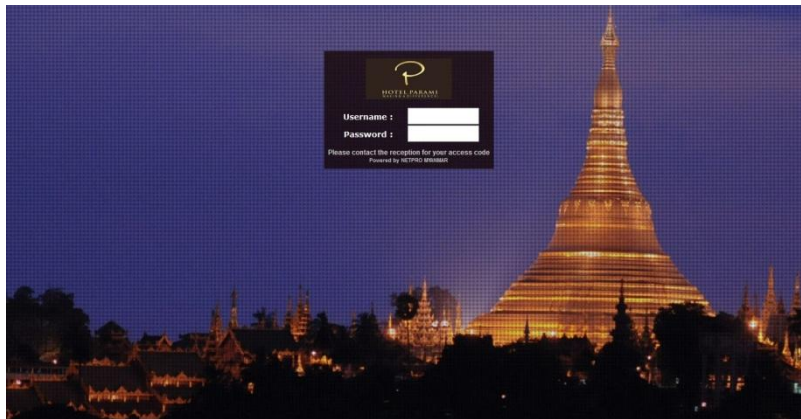


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Hotel Wifi Solution



▼ Username	▼ Status	▼ User IP	▼ From time	▼ Till time	▼ Uptime	▼ Download	▼ Upload	▼ Calling station ID
SAN	Start & Stop & Interim	172.30.0.195	08/19/2014 07:23:57	08/19/2014 08:07:00	43m3s	76.6 KIB	27.4 KIB	00:66:4B:EA:17:22
MYO	Start & Stop & Interim	172.30.0.191	08/19/2014 07:20:13	08/19/2014 07:21:51	1m38s	122.1 KIB	17.0 KIB	44:2A:60:FB:46:7C
SAN	Start & Interim & Close	172.30.0.228	08/19/2014 07:22:57	08/19/2014 11:05:57	3h43m	166.1 KIB	88.9 KIB	80:96:B1:FA:42:C6
SAN	Start & Stop & Interim	172.30.0.191	08/19/2014 07:22:09	08/19/2014 07:34:11	12m2s	252.1 KIB	53.4 KIB	44:2A:60:FB:46:7C
aghrv	Start & Stop & Interim	172.30.0.60	09/04/2014 11:21:17	09/04/2014 12:06:02	44m46s	821.5 KIB	387.2 KIB	00:18:DE:62:84:44
aghrv	Start & Interim	172.30.0.60	09/05/2014 02:23:13	09/05/2014 02:52:14	29m1s	1503.7 KIB	922.8 KIB	00:18:DE:62:84:44
pwlgdk	Start & Stop & Interim	172.30.0.19	09/04/2014 10:50:13	09/04/2014 11:16:00	25m47s	1653.2 KIB	441.8 KIB	90:48:9A:12:8D:89
kt4mp	Start & Stop & Interim	172.30.0.231	09/04/2014 11:25:30	09/04/2014 11:30:02	4m32s	1734.7 KIB	257.0 KIB	00:17:C4:53:7E:36
leeq4m	Start & Stop & Interim	172.30.0.51	09/04/2014 11:16:52	09/04/2014 12:14:02	57m10s	2.7 MIB	409.1 KIB	F0:25:B7:EC:72:7B
MYO	Start & Stop & Interim	172.30.0.195	08/19/2014 07:20:20	08/19/2014 07:23:11	2m50s	2.9 MIB	217.8 KIB	00:66:4B:EA:17:22
kmt696	Start & Stop & Interim	172.30.0.53	09/04/2014 11:18:39	09/04/2014 11:46:41	28m2s	3.9 MIB	324.3 KIB	A8:BE:24:54:B9:40
kt2wfc	Start & Stop & Interim	172.30.1.7	09/04/2014 11:19:03	09/04/2014 11:52:01	32m57s	3.9 MIB	670.3 KIB	F0:7B:CB:10:6A:8C
leeq4m	Start & Interim	172.30.1.3	09/05/2014 02:25:01	09/05/2014 02:53:00	27m59s	4.1 MIB	893.6 KIB	08:ED:89:32:ES:47
kt2wfc	Start & Stop & Interim	172.30.0.66	09/04/2014 11:39:00	09/04/2014 12:14:40	35m40s	4.1 MIB	323.1 KIB	BC:2D:AA:BC:E7:CE
leeq4m	Start & Interim	172.30.0.51	09/05/2014 02:43:20	09/05/2014 02:52:21	9m	5.1 MIB	267.8 KIB	F0:25:B7:EC:72:7B
nchnntz	Start & Stop & Interim	172.30.0.23	09/04/2014 10:56:58	09/04/2014 12:01:29	1h4m31s	5.2 MIB	1100.9 KIB	D0:22:BE:8B:95:DC
leeq4m	Start & Stop & Interim	172.30.1.3	09/04/2014 11:13:09	09/04/2014 12:05:37	52m27s	6.3 MIB	2.1 MIB	08:ED:89:32:ES:47
pstv9u	Start & Interim	172.30.0.19	09/05/2014 02:46:26	09/05/2014 02:52:27	6m1s	6.6 MIB	971.6 KIB	90:48:9A:12:8D:89
mnne3	Start & Stop & Interim	172.30.0.152	09/04/2014 11:26:00	09/04/2014 12:01:33	35m34s	8.4 MIB	1252.7 KIB	80:EA:9E:DF:29:35
wmndyz	Start & Stop & Interim	172.30.0.111	09/04/2014 11:13:48	09/04/2014 11:40:20	26m33s	8.9 MIB	1964.2 KIB	90:48:9A:12:90:15
mkjga	Start & Stop & Interim	172.30.0.63	09/04/2014 11:32:14	09/04/2014 12:11:02	38m48s	9.4 MIB	399.0 KIB	48:5A:B6:32:23:6F
kt2wfc	Start & Stop & Interim	172.30.0.61	09/04/2014 11:22:51	09/04/2014 12:14:43	51m52s	11.2 MIB	583.2 KIB	ED:F8:47:D5:50:23
nchnntz	Start & Interim	172.30.0.58	09/05/2014 02:33:41	09/05/2014 02:52:43	19m2s	12.5 MIB	2.8 MIB	90:48:9A:13:93:85
nchnntz	Start & Stop & Interim	172.30.0.58	09/04/2014 11:18:26	09/04/2014 12:08:44	50m17s	14.8 MIB	2.9 MIB	90:48:9A:13:93:85
mkjga	Start & Interim	172.30.0.64	09/04/2014 11:34:25	09/05/2014 02:52:25	15h18m	21.7 MIB	949.0 KIB	ED:CB:EE:0A:CA:8E
mkjga	Start & Stop & Interim	172.30.0.110	09/04/2014 11:37:35	09/04/2014 11:57:05	19m30s	31.3 KIB	1218.0 KIB	84:3B:3B:A2:F1:05
kt4mp	Start & Interim	172.30.0.231	09/05/2014 02:15:33	09/05/2014 02:52:32	36m58s	32.6 MIB	2.5 MIB	00:17:C4:53:7E:36
SAN	Start & Stop & Interim	172.30.0.229	08/19/2014 07:22:55	08/19/2014 08:29:50	1h6m56s	58.6 MIB	2.7 MIB	14:89:68:49:DA:23
kt2wfc	Start & Stop & Interim	172.30.0.116	09/04/2014 11:32:12	09/04/2014 12:09:14	37m2s	111.5 MIB	4.7 MIB	F4:F1:5A:29:9A:10
kt2wfc	Start & Stop & Interim	172.30.1.9	09/04/2014 11:32:59	09/04/2014 12:09:07	36m8s	133.8 MIB	8.6 MIB	94:94:26:4D:49:78



1. Receptionist Create the Wifi Internet access account in Mikrotik User Manager depend on room type or whatever
2. Generate voucher and give it to Guest for Internet Access

Hotel Wifi Solution with MikroTik

- CAPsMAN (Controlled Access Point system Manager) also known as WLAN controller
- HotSpot
- User Manager

CAPsMAN Feature

- Centralized management of RouterOS 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

CAPsMAN Version

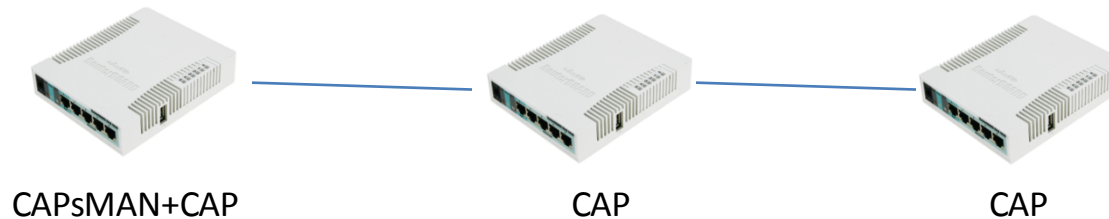
- CAPsMAN v1

- CAPsMAN v2

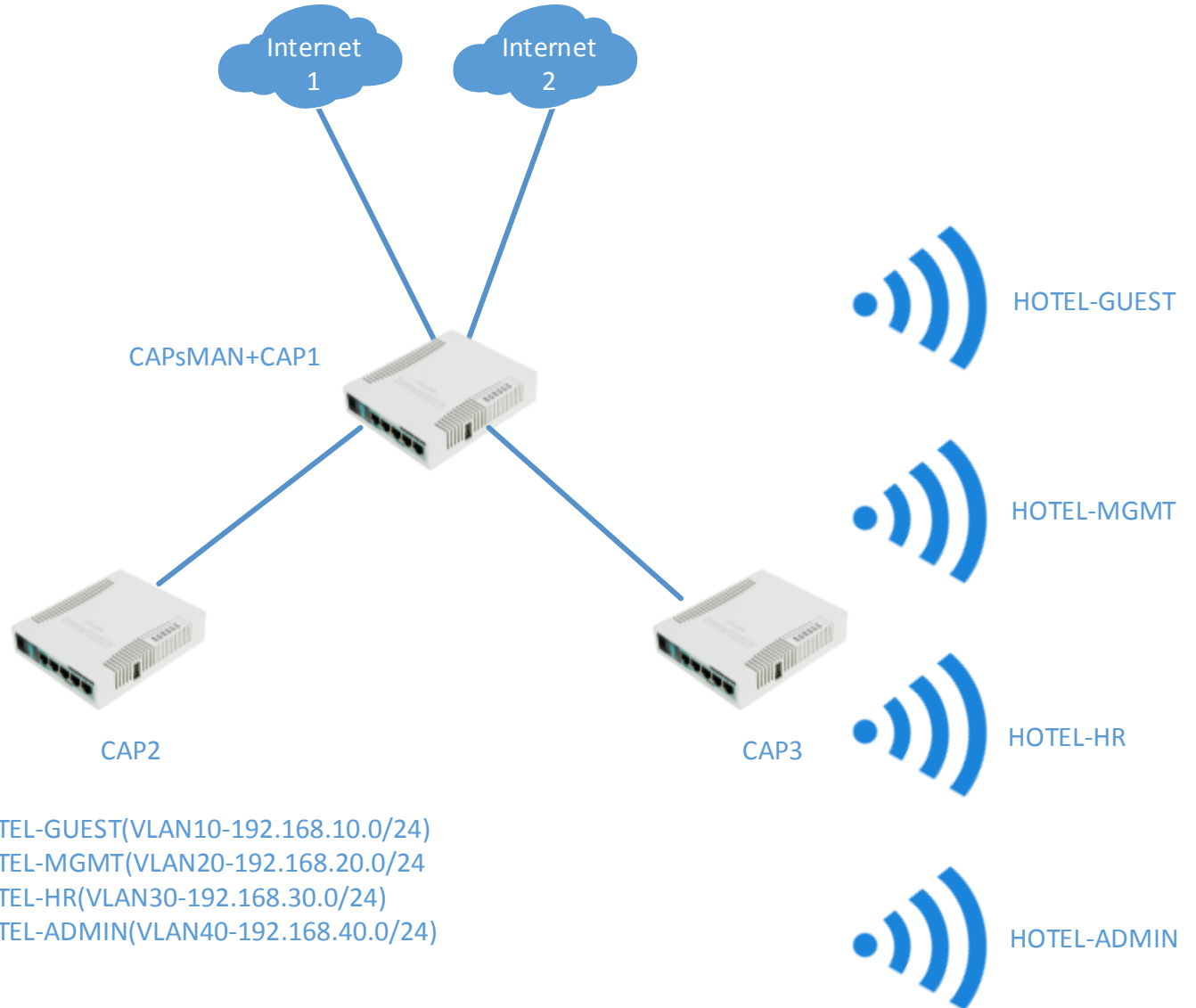
NOTE: CAPsMAN v2 is NOT compatible with CAPsMAN v1

(CAPsMAN)
Controlled Access Point system Manager
Controller

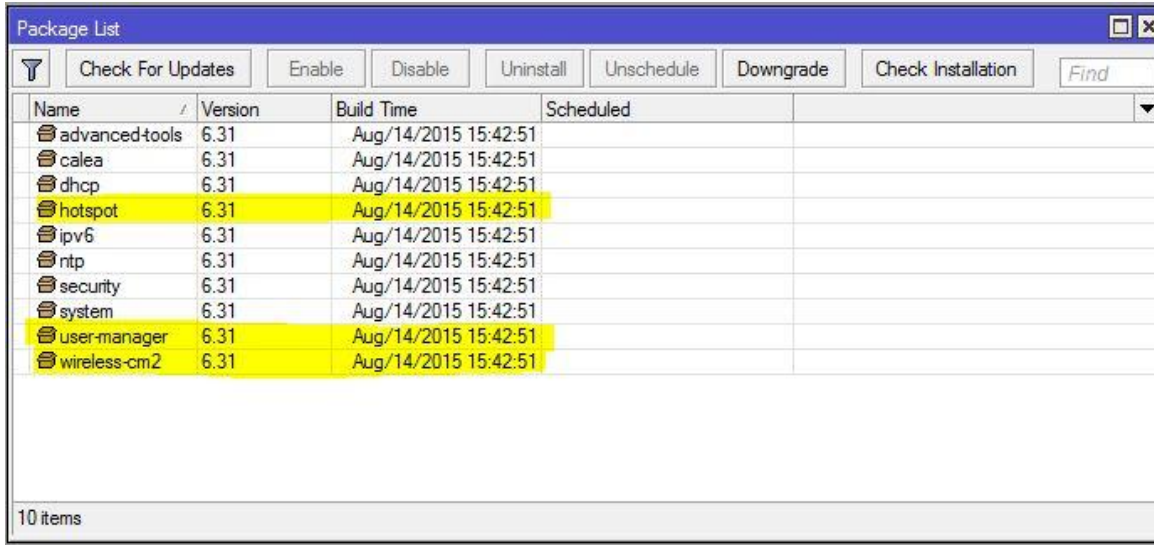
(CAP)
Controlled Access Points
AP



CAPsMAN LAB



Require Package List

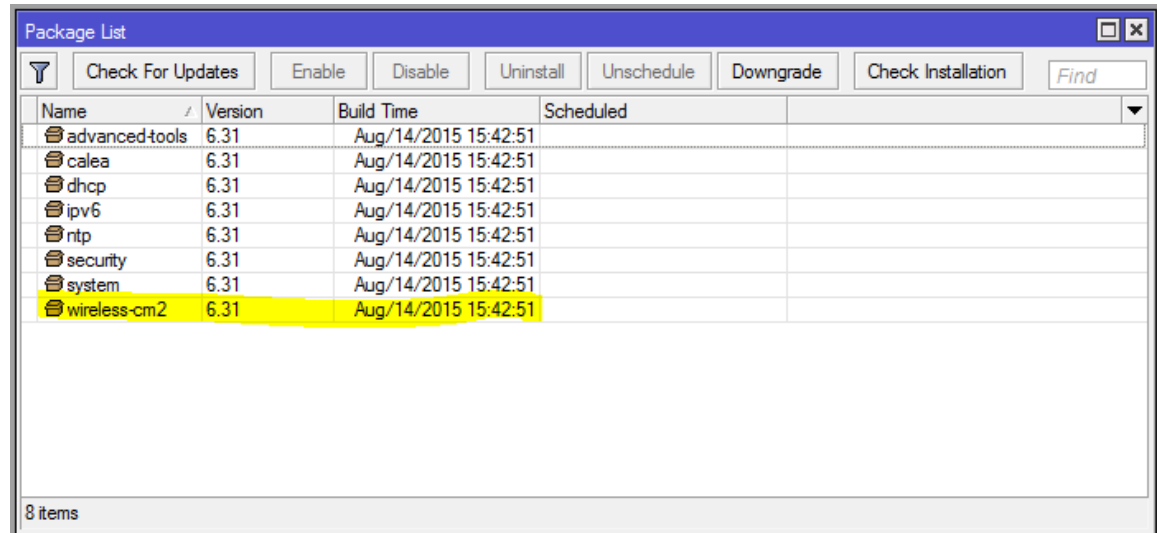


A screenshot of a 'Package List' window. The window title is 'Package List'. It features a toolbar with buttons: 'Check For Updates', 'Enable', 'Disable', 'Uninstall', 'Unschedule', 'Downgrade', 'Check Installation', and a 'Find' text box. Below the toolbar is a table with columns: 'Name', 'Version', 'Build Time', and 'Scheduled'. The table contains 10 rows of data. The rows for 'hotspot', 'user-manager', and 'wireless-cm2' are highlighted in yellow. At the bottom left, it says '10 items'.

Name	Version	Build Time	Scheduled
advanced-tools	6.31	Aug/14/2015 15:42:51	
calea	6.31	Aug/14/2015 15:42:51	
dhcp	6.31	Aug/14/2015 15:42:51	
hotspot	6.31	Aug/14/2015 15:42:51	
ipv6	6.31	Aug/14/2015 15:42:51	
ntp	6.31	Aug/14/2015 15:42:51	
security	6.31	Aug/14/2015 15:42:51	
system	6.31	Aug/14/2015 15:42:51	
user-manager	6.31	Aug/14/2015 15:42:51	
wireless-cm2	6.31	Aug/14/2015 15:42:51	

CAPsMAN

CAP



A screenshot of a 'Package List' window. The window title is 'Package List'. It features a toolbar with buttons: 'Check For Updates', 'Enable', 'Disable', 'Uninstall', 'Unschedule', 'Downgrade', 'Check Installation', and a 'Find' text box. Below the toolbar is a table with columns: 'Name', 'Version', 'Build Time', and 'Scheduled'. The table contains 8 rows of data. The row for 'wireless-cm2' is highlighted in yellow. At the bottom left, it says '8 items'.

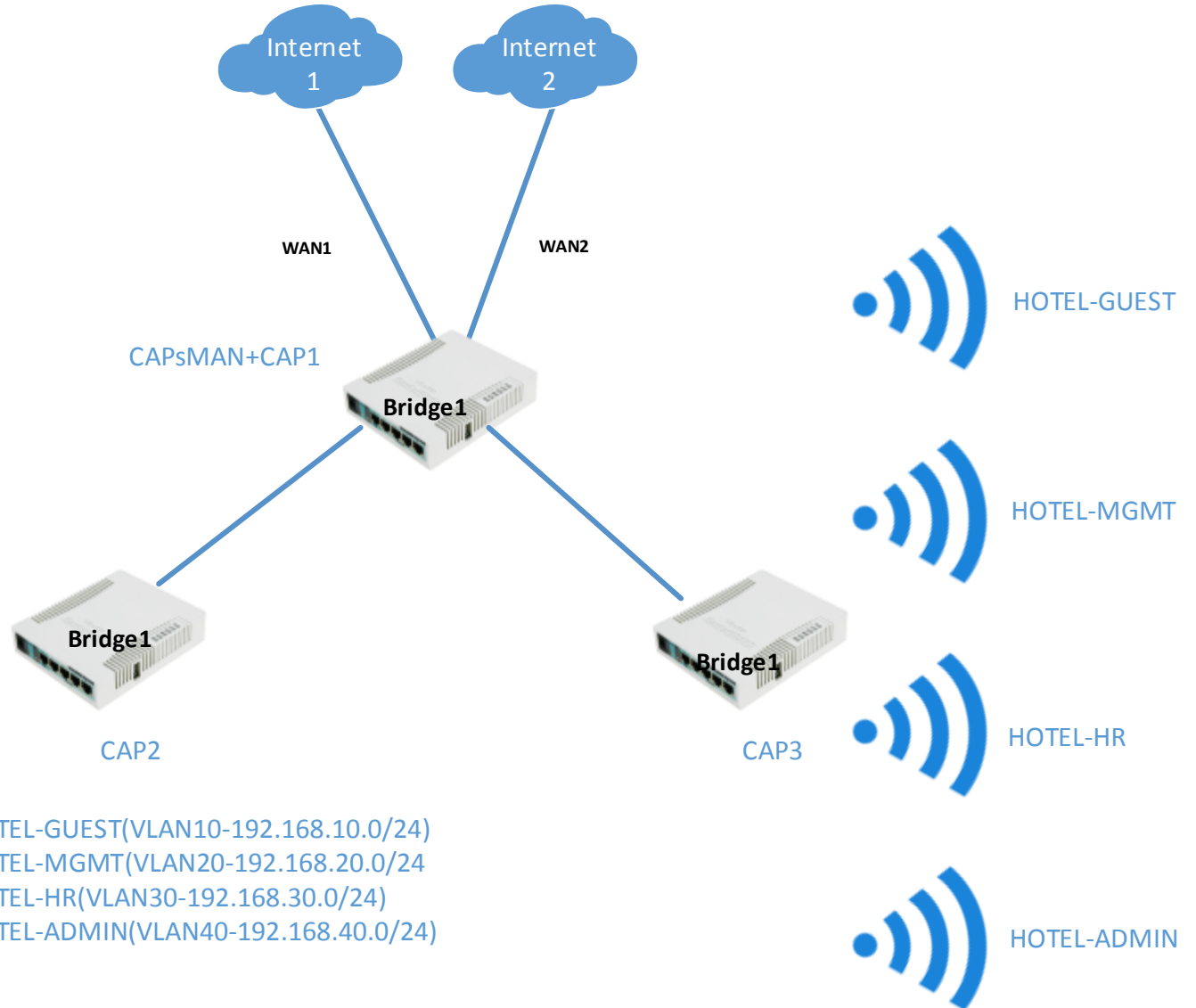
Name	Version	Build Time	Scheduled
advanced-tools	6.31	Aug/14/2015 15:42:51	
calea	6.31	Aug/14/2015 15:42:51	
dhcp	6.31	Aug/14/2015 15:42:51	
ipv6	6.31	Aug/14/2015 15:42:51	
ntp	6.31	Aug/14/2015 15:42:51	
security	6.31	Aug/14/2015 15:42:51	
system	6.31	Aug/14/2015 15:42:51	
wireless-cm2	6.31	Aug/14/2015 15:42:51	

Network Infra Configuration

CAPsMAN+CAP1, CAP2, CAP3

- 1. Interface Master/Slave Configuration
- 2. Bridge Configuration
- 3. VLAN Configuration
- 4. IP addressing
- 5. WAN Configuration with Load Balancing
- 6. NAT, NTP, Timezone and DNS

CAPsMAN LAB



CAPsMAN and CAPs configuration

The screenshot shows the 'CAPs Manager' configuration window. It features a blue title bar with the text 'CAPs Manager' and standard window controls. The main area contains several fields and controls: a checked 'Enabled' checkbox, 'Certificate' and 'CA Certificate' dropdown menus, an unchecked 'Require Peer Certificate' checkbox, 'Generated Certificate' and 'Generated CA Certificate' text boxes, a 'Package Path' text box, and an 'Upgrade Policy' dropdown menu set to 'none'. On the right side, there are three buttons: 'OK', 'Cancel', and 'Apply'.

The screenshot shows the 'CAP' configuration window. It has a blue title bar with the text 'CAP' and standard window controls. The main area contains: a checked 'Enabled' checkbox, an 'Interfaces' dropdown menu set to 'wlan1', a 'Certificate' dropdown menu set to 'none', a 'Discovery Interfaces' dropdown menu set to 'bridge1', an unchecked 'Lock To CAPsMAN' checkbox, 'CAPsMAN Addresses', 'CAPsMAN Names', and 'CAPsMAN Certificate Common Names' dropdown menus, a 'Bridge' dropdown menu set to 'bridge1', a 'Requested Certificate' text box, and a 'Locked CAPsMAN Common Name' text box. On the right side, there are three buttons: 'OK', 'Cancel', and 'Apply'.

- ✓ Click CAPsMAN interface, check the “Enabled” for CAPsManager device.
 - ✓ Click Wireless interface>click Interfaces tab>click the CAP button and Check the “Enabled” for CAP device.
- * CAPsManager device itself can be enable CAP.

CAPsMAN see all CAPs

The top screenshot shows the CAPsMAN configuration interface with the 'Registration Table' tab selected. The table below shows the registration details for three CAPs.

Address	Name	Board	Serial	Version	Identity	Base MAC	State	Radios
192.168.1.1	[4C:5E:0C:A6:19:CB]	RB951G-2HnD	557E04EB2969	6.31	CAPsMAN+CAP1	4C:5E:0C:A6:19:CB	Run	1
4C:5E:0C:F8:4B:F6	[4C:5E:0C:F8:4B:F6]	RB951G-2HnD	557E04CC97BB	6.31	CAP2	4C:5E:0C:F8:4B:F6	Run	1
4C:5E:0C:F8:4C:2C	[4C:5E:0C:F8:4C:2C]	RB951G-2HnD	557E04C1B9AE	6.31	CAP3	4C:5E:0C:F8:4C:2C	Run	1

The bottom screenshot shows the CAPsMAN configuration interface with the 'Remote CAP' tab selected. The table below shows the configuration for three remote CAPs.

Radio MAC	Remote CAP Name	Remote CAP Identity	Interface
P 4C:5E:0C:A6:19:D0	[4C:5E:0C:A6:19:CB]	CAPsMAN+CAP1	cap3
P 4C:5E:0C:F8:4B:FB	[4C:5E:0C:F8:4B:F6]	CAP2	cap2
P 4C:5E:0C:F8:4C:31	[4C:5E:0C:F8:4C:2C]	CAP3	cap1

- ✓ When we enabled CAPsMAN and CAP, you may see the remote AP under the tab of Remote CAP of CAPsMAN device.

Recipe of CAPsMAN

- Channel
 - Can define Frequency and width, etc..
- Datapath
 - Can define the data forwarding related settings, such as bridge to which particular interfaces should be added automatically as port.
- Security
 - Can define authentication types or passphrase
- Configuration
 - Main wireless settings group, includes setting such as SSID and additionally binds together with other setting such as channel, datapath, security, etc...
- Provisioning
 - Can define each AP for provisioning.

Channel Configuration

CAPsMAN

Interfaces Provisioning Configurations Channels Datapaths Security Cfg. Access List Remote CAP Radio Registration Table

+ - [] []

Name	Frequency	Width	Band	Extension Channel	Tx. Power
channel1	2412MHz	20MHz	2ghz-b/g/n		
channel6	2437MHz	20MHz	2ghz-b/g/n		
channel11	2462MHz	20MHz	2ghz-b/g/n		

3 items

CAPs Channel <channel1>

Name: channel1 OK

Frequency: 2412 MHz ▲ Cancel

Width: 20 MHz ▲ Apply

Band: 2ghz-b/g/n ▼ ▲ Comment

Extension Channel: ▼ Copy

Tx. Power: ▼ Remove

CAPs Channel <channel6>

Name: channel6 OK

Frequency: 2437 MHz ▲ Cancel

Width: 20 MHz ▲ Apply

Band: 2ghz-b/g/n ▼ ▲ Comment

Extension Channel: ▼ Copy

Tx. Power: ▼ Remove

CAPs Channel <channel11>

Name: channel11 OK

Frequency: 2462 MHz ▲ Cancel

Width: 20 MHz ▲ Apply

Band: 2ghz-b/g/n ▼ ▲ Comment

Extension Channel: ▼ Copy

Tx. Power: ▼ Remove

Datapath Configuration

CAPsMAN

Interfaces Provisioning Configurations Channels Datapaths Security Cfg. Access List Remote CAP Radio Registration Table

Name	Bridge	Local For...	Client To ...	VLAN Mo...	VLAN ID
VLAN10	bridge1	yes		use tag	10
VLAN20	bridge1	yes	yes	use tag	20
VLAN30	bridge1	yes	yes	use tag	30
VLAN40	bridge1	yes	yes	use tag	40

CAPs Datapath Configuration <VLAN10>

Name: VLAN10 OK

Bridge: bridge1 Cancel

Bridge Cost: Apply

Bridge Horizon: Comment

Local Forwarding: Copy

Client To Client Forwarding: Remove

VLAN Mode: use tag

VLAN ID: 10

CAPs Datapath Configuration <VLAN20>

Name: VLAN20 OK

Bridge: bridge1 Cancel

Bridge Cost: Apply

Bridge Horizon: Comment

Local Forwarding: Copy

Client To Client Forwarding: Remove

VLAN Mode: use tag

VLAN ID: 20

CAPs Datapath Configuration <VLAN30>

Name: VLAN30 OK

Bridge: bridge1 Cancel

Bridge Cost: Apply

Bridge Horizon: Comment

Local Forwarding: Copy

Client To Client Forwarding: Remove

VLAN Mode: use tag

VLAN ID: 30

CAPs Datapath Configuration <VLAN40>

Name: VLAN40 OK

Bridge: bridge1 Cancel

Bridge Cost: Apply

Bridge Horizon: Comment

Local Forwarding: Copy

Client To Client Forwarding: Remove

VLAN Mode: use tag

VLAN ID: 40

Security Configuration

CAPsMAN

Interfaces Provisioning Configurations Channels Datapaths Security Cfg. Access List Remote CAP Radio Registration Table

Name	Authentication Type	Encryption	Group Encryption	Passphrase	EAP Methods
VLAN20	WPA PSK WPA2 ...	aes ccm	aes ccm	VLAN20123456789	
VLAN30	WPA PSK WPA2 ...	aes ccm	aes ccm	VLAN30123456789	
VLAN40	WPA PSK WPA2 ...	aes ccm	aes ccm	VLAN40123456789	

CAPs Security Configuration <VLAN20>

Name:

Authentication Type: WPA PSK WPA2 PSK WPA EAP WPA2 EAP ▲

Encryption: aes ccm tkip ▲

Group Encryption: ▼ ▲

Passphrase: ▲

EAP Methods: ▲ ▼

TLS Mode: ▼

TLS Certificate: ▼

OK Cancel Apply Comment Copy Remove

CAPs Security Configuration <VLAN30>

Name:

Authentication Type: WPA PSK WPA2 PSK WPA EAP WPA2 EAP ▲

Encryption: aes ccm tkip ▲

Group Encryption: ▼ ▲

Passphrase: ▲

EAP Methods: ▲ ▼

TLS Mode: ▼

TLS Certificate: ▼

OK Cancel Apply Comment Copy Remove

CAPs Security Configuration <VLAN40>

Name:

Authentication Type: WPA PSK WPA2 PSK WPA EAP WPA2 EAP ▲

Encryption: aes ccm tkip ▲

Group Encryption: ▼ ▲

Passphrase: ▲

EAP Methods: ▲ ▼

TLS Mode: ▼

TLS Certificate: ▼

OK Cancel Apply Comment Copy Remove

Virtual AP Configuration

The screenshot displays the CAPsMAN interface. At the top, there are tabs for 'Interfaces', 'Provisioning', 'Configurations', 'Channels', 'Datapaths', 'Security Cfg.', 'Access List', 'Remote CAP', 'Radio', and 'Registration Table'. Below the tabs is a table with the following data:

Name	Mode	SSID	Hide SSID	Load Bal...	Country	Channel	Frequency	Band	Datapath	Bridge	VLAN Mo...	VLAN ID	Security
VLAN10	ap	HOTEL-GUEST							VLAN10				
VLAN20	ap	HOTEL-MGMT							VLAN20			VLAN20	
VLAN30	ap	HOTEL-HR							VLAN30			VLAN30	
VLAN40	ap	HOTEL-ADMIN							VLAN40			VLAN40	

Below the table, there are four configuration dialog boxes, each titled 'CAPs Configuration <VLAN...>'. Each dialog has tabs for 'Wireless', 'Channel', 'Datapath', and 'Security'. The 'Wireless' tab is active in all four. The fields in each dialog are:

- Name: VLAN10, VLAN20, VLAN30, VLAN40
- Mode: ap
- SSID: HOTEL-GUEST, HOTEL-MGMT, HOTEL-HR, HOTEL-ADMIN
- Hide SSID: (empty)
- Load Balancing Group: (empty)
- Country: (empty)
- Max Station Count: (empty)
- Multicast Helper: (empty)
- HT Tx Chains: (empty)
- HT Rx Chains: (empty)
- HT Guard Interval: (empty)

Each dialog also has buttons for OK, Cancel, Apply, Comment, Copy, and Remove.

Manual Provisioning

CAPsMAN

Interfaces Provisioning Configurations Channels Datapaths Security Cfg. Access List Remote CAP Radio Registration Table

#	Radio MAC	Identity Regexp	Common Nam...	Action	Master Configurati...	Slave Configuration
0	4C:5E:0C:A6:19:D0			create enabled	VLAN10	VLAN20, VLAN30, VLAN40
1	4C:5E:0C:F8:4B:FB			create enabled	VLAN10	VLAN20, VLAN30, VLAN40
2	4C:5E:0C:F8:4C:31			create enabled	VLAN10	VLAN20, VLAN30, VLAN40

CAPs Provisioning <4C:5E:0C:A6:19:D0>

Radio MAC:

Hw. Supported Modes:

Identity Regexp:

Common Name Regexp:

IP Address Ranges:

Action:

Master Configuration:

Slave Configuration:

Name Format:

Name Prefix:

enabled

CAPs Provisioning <4C:5E:0C:F8:4B:FB>

Radio MAC:

Hw. Supported Modes:

Identity Regexp:

Common Name Regexp:

IP Address Ranges:

Action:

Master Configuration:

Slave Configuration:

Name Format:

Name Prefix:

enabled

CAPs Provisioning <4C:5E:0C:F8:4C:31>

Radio MAC:

Hw. Supported Modes:

Identity Regexp:

Common Name Regexp:

IP Address Ranges:

Action:

Master Configuration:

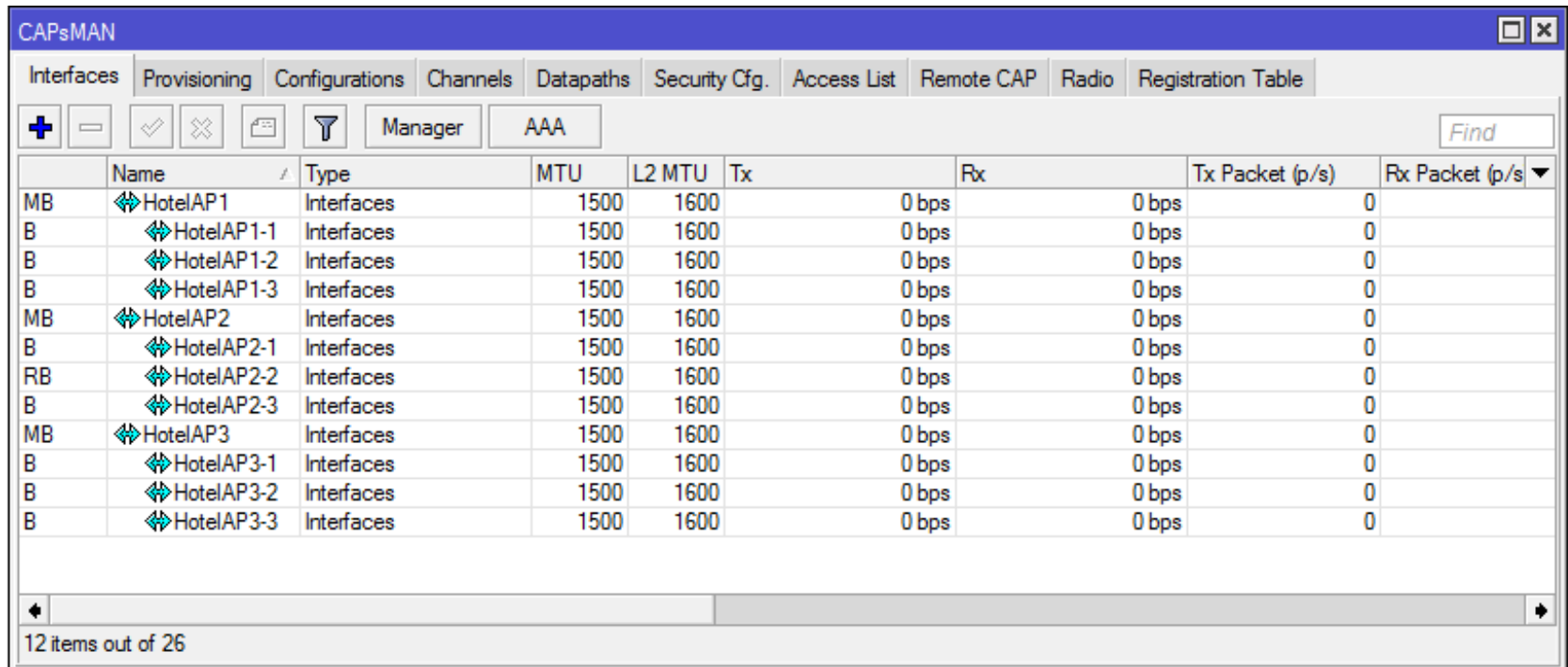
Slave Configuration:

Name Format:

Name Prefix:

enabled

CAPsMAN Finished!!!!



The screenshot shows the CAPsMAN web interface with the 'Interfaces' tab selected. The interface includes a navigation menu at the top with options like 'Provisioning', 'Configurations', 'Channels', 'Datapaths', 'Security Cfg.', 'Access List', 'Remote CAP', 'Radio', and 'Registration Table'. Below the menu is a toolbar with icons for adding, deleting, and filtering, along with 'Manager' and 'AAA' buttons and a search box labeled 'Find'. The main content area displays a table of virtual AP configurations.

	Name	Type	MTU	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)
MB	↔ HotelAP1	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP1-1	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP1-2	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP1-3	Interfaces	1500	1600	0 bps	0 bps	0	
MB	↔ HotelAP2	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP2-1	Interfaces	1500	1600	0 bps	0 bps	0	
RB	↔ HotelAP2-2	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP2-3	Interfaces	1500	1600	0 bps	0 bps	0	
MB	↔ HotelAP3	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP3-1	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP3-2	Interfaces	1500	1600	0 bps	0 bps	0	
B	↔ HotelAP3-3	Interfaces	1500	1600	0 bps	0 bps	0	

12 items out of 26

All created virtual AP can see with bounding condition.

HotSpot Configuration

To use this feature, you must have installed and enabled "hotspot" package.

1.Go to IP>hotspot. Click the hotspot setup button under the server tab.

So you will see the pop-up box will appear. Select a desire interface from the drop down list. Then, Click Next.

2.It is automatically detect the IP address of the interface. Then, Click Next.

3.Check the IP pool ranges. You can adjust your pool ranges to give out. Then, Click Next.

4.We don't need certificate and SMTP server address. Leave as default.

5.Set the DNS server IP address. And then, Click Next.

6.Set the DNS Name.(Example :www.example.com)

7.You must create at least one hotspot user account.

If you set up those step correctly, you will be created hotspot successfully.

* You can manage the hotspot user by connecting with User Manager.

HotSpot Configuration

Hotspot Setup

Select interface to run HotSpot on

HotSpot Interface: VLAN10

1

Back Next Cancel

Hotspot Setup

Set HotSpot address for interface

Local Address of Network: 192.168.10.1/24

Masquerade Network

2

Back Next Cancel

Hotspot Setup

Set pool for HotSpot addresses

Address Pool of Network: 192.168.10.2-192.168.10.254

3

Back Next Cancel

Hotspot Setup

Setup DNS configuration

DNS Servers: 192.168.10.1

4

Back Next Cancel

Hotspot Setup

DNS name of local hotspot server

DNS Name: www.hotelparami.com

5

Back Next Cancel

Hotspot Setup

Create local HotSpot user

Name of Local HotSpot User: admin

Password for the User: admin

6

Back Next Cancel

Customize the Wi-Fi Login Page

1. Click the "Files" tab. In the "File List", find the hotspot folder.
 2. In the "hotspot" folder, you may see the subfolder such as "hotspot/img", "hotspot/lv", etc... and files such as "hotspot/login.html", "hotspot/logout.html", etc..
 3. You can simply drag and drop the "hotspot/login.html" and "hotspot/img" to your desktop to edit.
 4. After finished your editing, place those file correctly to the destination folder.
- *If you have web programming experiences you can do more beautiful.

HotSpot Files

File Name	Type	Size	Creation Time
CAP1-20020101-0124.backup	backup	26.8 KiB	Jan/01/2002 07:54:05
CAP1-20020101-0130.backup	backup	27.6 KiB	Jan/01/2002 08:00:34
auto-before-reset.backup	backup	27.6 KiB	Jan/01/2002 07:41:31
hotspot	directory		Aug/25/2015 15:01:50
hotspot/alogin.html	.html file	1293 B	Aug/25/2015 15:01:50
hotspot/error.html	.html file	898 B	Aug/25/2015 15:01:50
hotspot/errors.txt	.txt file	3615 B	Aug/25/2015 15:01:50
hotspot/img	directory		Aug/25/2015 15:01:50
hotspot/img/logobottom.png	.png file	3925 B	Aug/25/2015 15:01:50
hotspot/login.html	.html file	3454 B	Aug/25/2015 15:01:50
hotspot/logout.html	.html file	1813 B	Aug/25/2015 15:01:50
hotspot/iv	directory		Aug/25/2015 15:01:50
hotspot/iv/alogin.html	.html file	1303 B	Aug/25/2015 15:01:50
hotspot/iv/errors.txt	.txt file	3810 B	Aug/25/2015 15:01:50
hotspot/iv/login.html	.html file	3408 B	Aug/25/2015 15:01:50
hotspot/iv/logout.html	.html file	1843 B	Aug/25/2015 15:01:50
hotspot/iv/radvert.html	.html file	1475 B	Aug/25/2015 15:01:50
hotspot/iv/status.html	.html file	2760 B	Aug/25/2015 15:01:50
hotspot/md5.js	.js file	7.0 KiB	Aug/25/2015 15:01:50
hotspot/radvert.html	.html file	1481 B	Aug/25/2015 15:01:50
hotspot/redirect.html	.html file	318 B	Aug/25/2015 15:01:50
hotspot/rlogin.html	.html file	850 B	Aug/25/2015 15:01:50
hotspot/status.html	.html file	3009 B	Aug/25/2015 15:01:50
hotspot/xml	directory		Aug/25/2015 15:01:50
hotspot/xml/WISPAccessGa...	.xsd file	4251 B	Aug/25/2015 15:01:50
hotspot/xml/alogin.html	.html file	821 B	Aug/25/2015 15:01:50
hotspot/xml/error.html	.html file	416 B	Aug/25/2015 15:01:50
hotspot/xml/flogout.html	.html file	361 B	Aug/25/2015 15:01:50
hotspot/xml/login.html	.html file	787 B	Aug/25/2015 15:01:50
hotspot/xml/logout.html	.html file	359 B	Aug/25/2015 15:01:50
hotspot/xml/rlogin.html	.html file	530 B	Aug/25/2015 15:01:50
skins	directory		Jan/01/1970 06:30:03
um-before-migration.tar	.tar file	17.5 KiB	Jan/01/2002 07:30:14
user-manager	directory		Jan/01/2002 07:30:06
user-manager/logsqldb	file	6.0 KiB	Jan/01/2002 07:30:12
user-manager/sqldb	file	80.0 KiB	Jan/01/2002 07:30:13

36 items (1 selected) | 16.8 MiB of 128.0 MiB used | 86% free

Customize the Login Page

Latviski

Please log on to use the internet hotspot service

login

password

HOTSPOT GATEWAY
powered by *MikroTik*

Powered by MikroTik RouterOS



Username :

Password :

Please contact the reception for your access code
Powered by NETPRO MYANMAR

RADIUS Setup for User Manager

User Manager is one of built-in radius alike software includes in Router OS packages.

To use this feature, you must have installed and enabled "usermanager" package.

1. Click the "Radius" tab. Simply press the + button to add "New Radius Server"

2. Check you desire service, type the IP address or User Manager router address or 127.0.0.1 and secret.

And then click apply and ok.

3. Open the web browser, type the [User Manager router address/userman](#) to access the User Manager Page.

4. In the "User Manager" page, create new profile, limitation, user, etc... as per requirement.

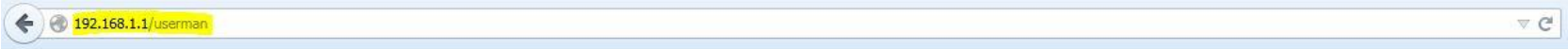
RADIUS Setup for User Manager

The image displays three overlapping windows from the User Manager software interface:

- Hotspot Window:** Shows a table of hotspot profiles. The 'hsprof1' profile is selected, with a DNS Name of 'www.hotelpar...' and an HTML Directory of 'hotspot'.
- Hotspot Server Profile <hsprof1> Window:** The 'RADIUS' tab is active. It shows the 'Use RADIUS' checkbox checked. Other fields include 'Default Domain', 'Location ID', 'Location Name', 'MAC Format' (set to 'XX:XX:XX:XX:XX:XX'), 'Accounting' checked, 'Interim Update', and 'NAS Port Type' set to '19 (wireless-802.11)'. Buttons for 'OK', 'Cancel', 'Apply', 'Copy', and 'Remove' are visible.
- New Radius Server Window:** The 'General' tab is active. The 'Service' dropdown is set to 'hotspot' (checked). Other fields include 'Called ID', 'Domain', 'Address' (127.0.0.1), 'Secret' (1234567890), 'Authentication Port' (1812), 'Accounting Port' (1813), 'Timeout' (300 ms), and 'Accounting Backup' unchecked. 'Realm' and 'Src. Address' are also present. Buttons for 'OK', 'Cancel', 'Apply', 'Disable', 'Comment', 'Copy', 'Remove', and 'Reset Status' are visible.

The background window shows a 'Radius' table with columns for '#', 'Service', 'Called ID', 'Domain', 'Address', and 'Secret'.

User Manager Setup



MikroTik
Mikrotik User Manager

Login |

Password

The image shows a login page for MikroTik User Manager. It features the MikroTik logo and the text "Mikrotik User Manager" at the top. Below this, there are two input fields: one for "Login" and one for "Password". A "Log in" button is positioned below the password field. The entire form is set against a light gray background with a dark gray header bar.

User Manager Setup

1. Add Routers

- IP address and secret key of income routers, logs , etc...

2. Create "Profile Limitation"

- Bandwidth, Data upload and download limitation, etc...

3. Create "profile"

- Shared user, Time Validity, etc...

4. Create User

- Single user or Batch user with profile assignment

5. Creat Voucher Code

- Generate one or many voucher code at a time.

6. Customize the page

- this is optional

Continue.. Setup

The screenshot displays the MikroTik User Manager web interface. The browser address bar shows `192.168.1.1/userman`. The left sidebar contains a navigation menu with the following items: Routers (highlighted), Users, Sessions, Customers, Logs, Payments, Profiles, Settings, Reports, 0 A sessions, 0 A users, Advanced search, Maintenance, and Logout. The main content area features a table with columns for Name and IP address. A modal window titled "Router details" is open, showing the configuration for a router named "AAA".

Router details

▲ Main

Name: AAA

Owner: admin

IP address: 127.0.0.1

Shared secret: 1234567890

Time zone: Parent time zone

Disabled:

Log events:

- Authorization success
- Authorization failure
- Accounting success
- Accounting failure

▼ Radius incoming

Add

Continue.. Setup

192.168.1.1/userman

MikroTik
Mikrotik User Manager

Routers
Users
Sessions
Customers
Logs
Payments
Profiles
Settings
Reports
1 A sessions
1 A users
Advanced search
Maintenance
Logout

Profiles Limitations

Profile: Premier
Name: Premier
Name for users:
Owner: admin
Validity: 1w
Starts: At first logon
Price: 0.00
Shared users: 3

Save profile Remove profile

Profile limitations

<input checked="" type="checkbox"/>	Active	Constraints
<input checked="" type="checkbox"/>	Always	Rate limits: 512K/512K 0/0 0/0 0/0 0 512K/512K

Add new limitation Remove selected limitations

Continue.. Setup

192.168.1.1/userman

MikroTik
Mikrotik User Manager

- Routers
- Users
- Sessions
- Customers
- Logs
- Payments
- Profiles**
- Settings
- Reports
- 1 A sessions
- 1 A users
- Advanced search
- Maintenance
- Logout

Profiles Limitations

Profile: +

Name:

Name for users:

Owner: admin

Validity:

Starts:


Price:

Shared users:

Profile limitations

<input checked="" type="checkbox"/>	Active	Constraints
<input checked="" type="checkbox"/>	Always	Rate limits: 256K/256K 0/0 0/0 0/0 0 256K/256K

Continue.. Setup



Hotels Karame WiFi

- Routers
- Users**
- Sessions
- Customers
- Logs
- Payments
- Profiles
- Settings
- Reports
- 0 A sessions
- 0 A users
- Advanced search
- Maintenance
- Logout

Add Edit Generate

<input type="checkbox"/>	▼ Username	▼ Till time	▼ Total time left	▼ Actual profile
<input type="checkbox"/>	hg8k	09/01/2015 11:46:31	5d18h17m47s	Deluxe
<input type="checkbox"/>	4rwb	Unknown	1w	Deluxe
<input type="checkbox"/>	9u2r	Unknown	1w	Deluxe
<input type="checkbox"/>	75ue	Unknown	1w	Deluxe
<input type="checkbox"/>	xh3g	Unknown	1w	Deluxe
<input type="checkbox"/>	i5bf	Unknown	1w	Deluxe
<input type="checkbox"/>	uhus	Unknown	1w	Deluxe
<input type="checkbox"/>	zfmt	Unknown	1w	Deluxe
<input type="checkbox"/>	gmdh	Unknown	1w	Deluxe
<input type="checkbox"/>	ecvn	Unknown	1w	Deluxe
<input type="checkbox"/>	6ugg	Unknown	1w	Deluxe
<input type="checkbox"/>	k74r	Unknown	1w	Deluxe

Per page [20] ▼

Customize the User Manager Page

1. Log into your Mikrotik User Manager, go to settings tab.

A new window will appear and see tabs “Appearances, Style, Template,” etc...

2. Click on Style tab, modify the Main background, Logo, Logo text, etc...

3. Click on Templates tab, edit the HTML code for voucher code template.

Customize the User Manager Page

2



The image shows the user management interface. On the left is a sidebar with buttons for 'Routers', 'Users' (highlighted), and 'Sessions'. The main area has a header with 'Add', 'Edit', and 'Generate' buttons. Below is a table with the following data:

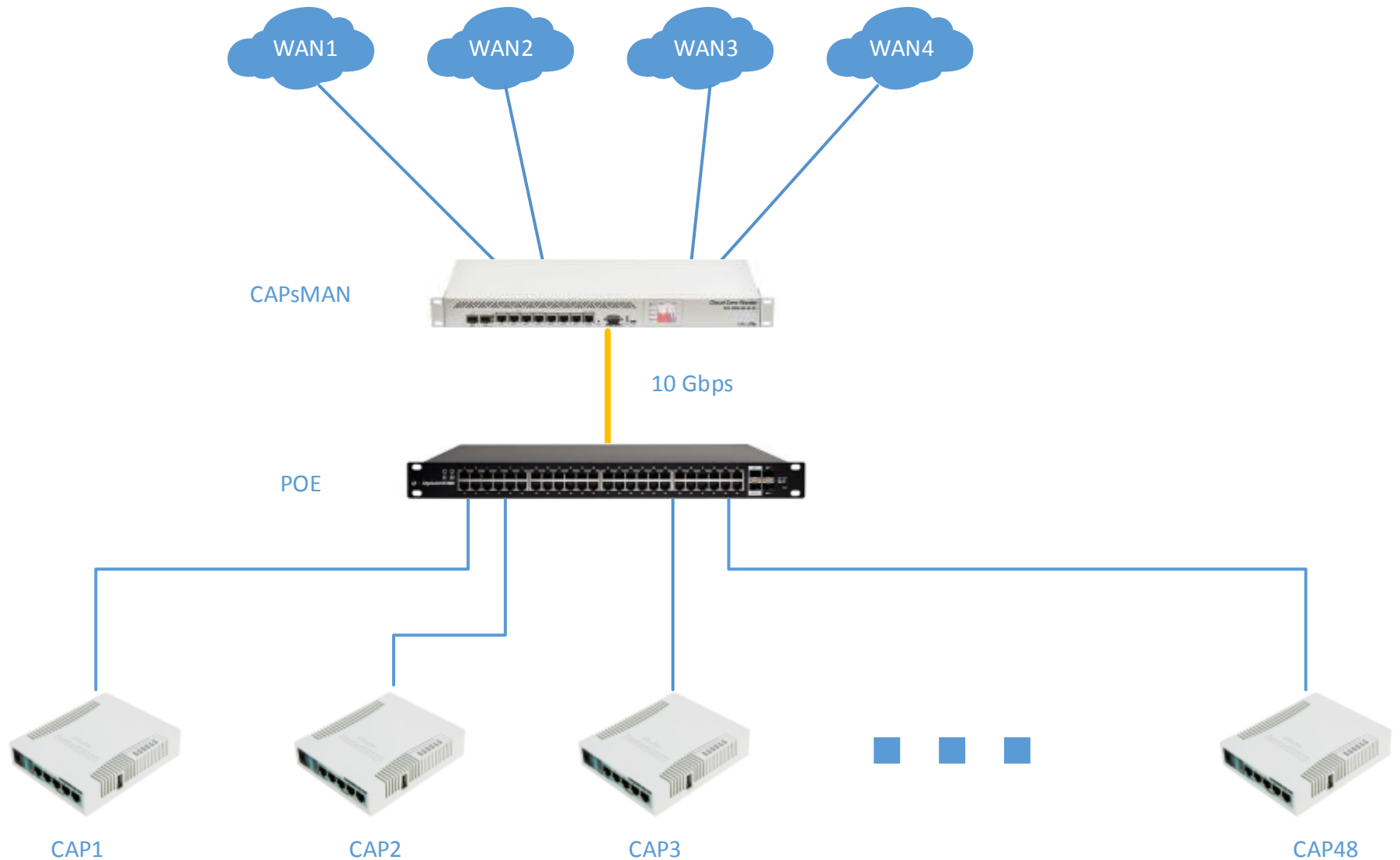
<input type="checkbox"/>	▼ Username	▼ Till time	▼ Total time left
<input type="checkbox"/>	hg8k	09/01/2015 11:46:31	5d18h17m47s
<input type="checkbox"/>	4rwb	Unknown	1w
<input type="checkbox"/>	9u2r	Unknown	1w
<input type="checkbox"/>	7Fuo	Unknown	1w

Customize the Voucher Code

Username	Password	Time	Shared Users	Profile
hg8k	aaaa	5d18h13m1s	3	Deluxe
4rwb	x9jq	1w	3	Deluxe
9u2r	8ts7	1w	3	Deluxe
75ue	27i2	1w	3	Deluxe
xh3g	5abt	1w	3	Deluxe
i5bf	vx3q	1w	3	Deluxe

Username	Password	Time	Shared Users	Profile
uhus	ik64	1w	3	Deluxe
zftt	fngv	1w	3	Deluxe
gmdh	ev3r	1w	3	Deluxe
ecvn	v27t	1w	3	Deluxe
6ugg	33uq	1w	3	Deluxe
k74r	gfef	1w	3	Deluxe

Real World Hotel Wifi Infra



Any Question?

- **References;**

- <http://wiki.mikrotik.com/wiki/Manual:CAPsMAN>
- http://wiki.mikrotik.com/wiki/Manual:Hotspot_Introduction
- http://wiki.mikrotik.com/wiki/Manual:User_Manager

Thank You