

How to Authenticate All Stations using Capsman and user manager?

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Georgia , Tbilisi , MUM 2018

About Me .

- Experienced in IT Field About 17 Years
- Consultor of Mikrotik
- Designer of Network
- Implomentation Network
- Penetration Test
- MTCNA,MTCRE,MTCWE,MTCUME,MTCTCE,MTCI
PV6E,MTCINE
- Mikrotik Certified Trainer
- MCSA,MCP,MCSE
- Microsoft Certified Trainer

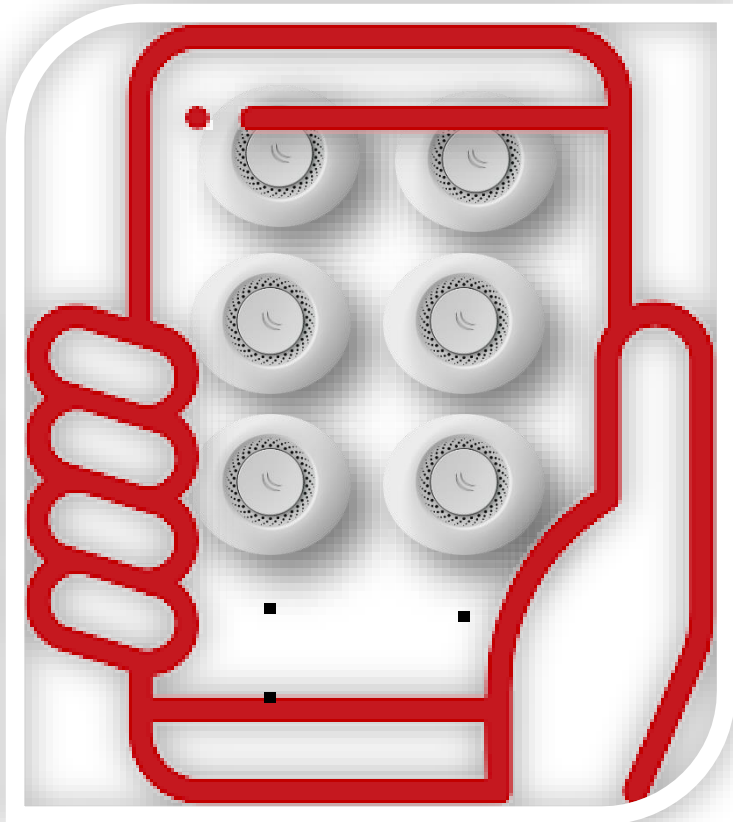


Outline

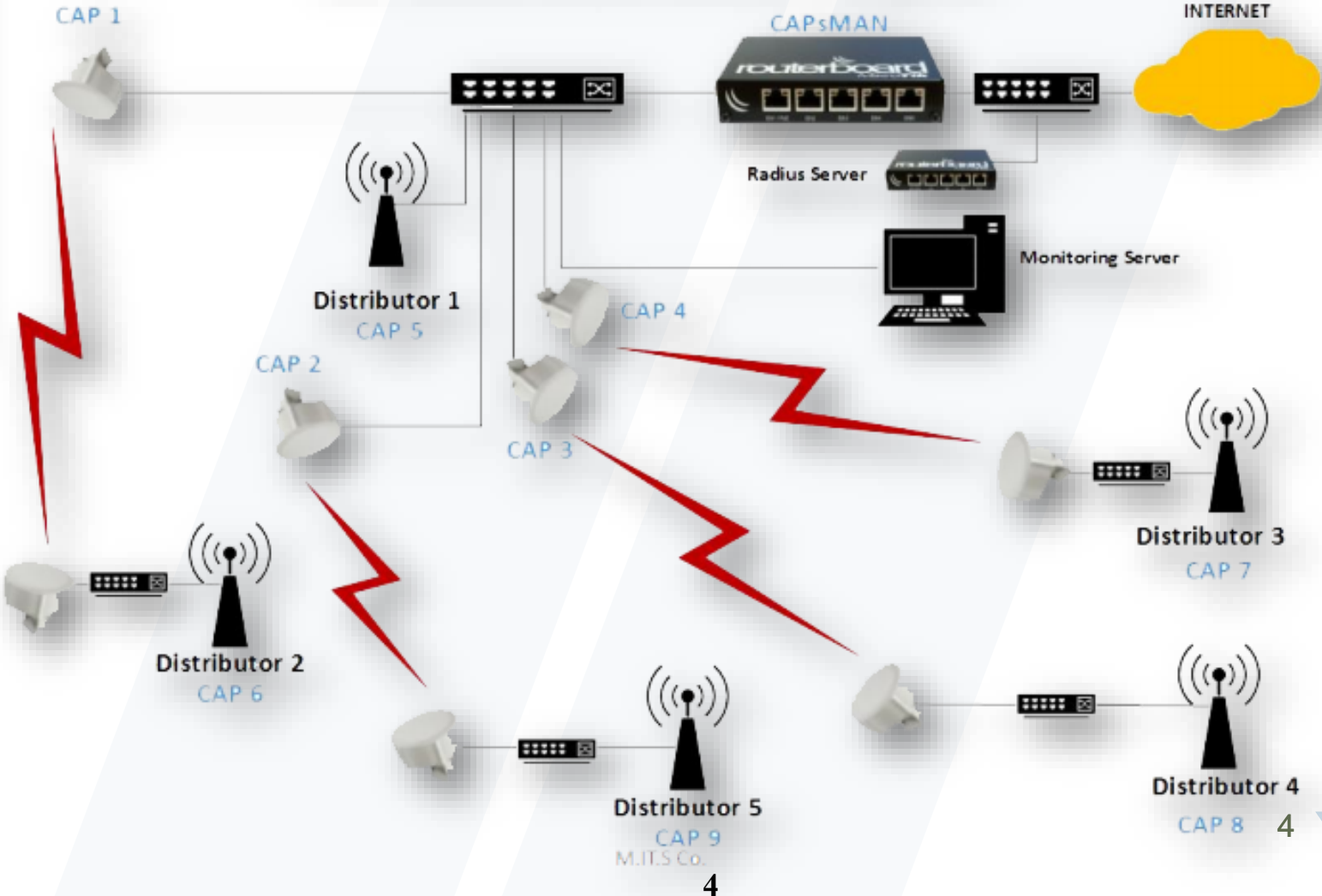
- Capsman
- Certificate
- C.A
- Public Key / Private Key
- Access List
- Capsman Configuration
- Radius Server
- User Manager
- Integration Capsman and User Manager

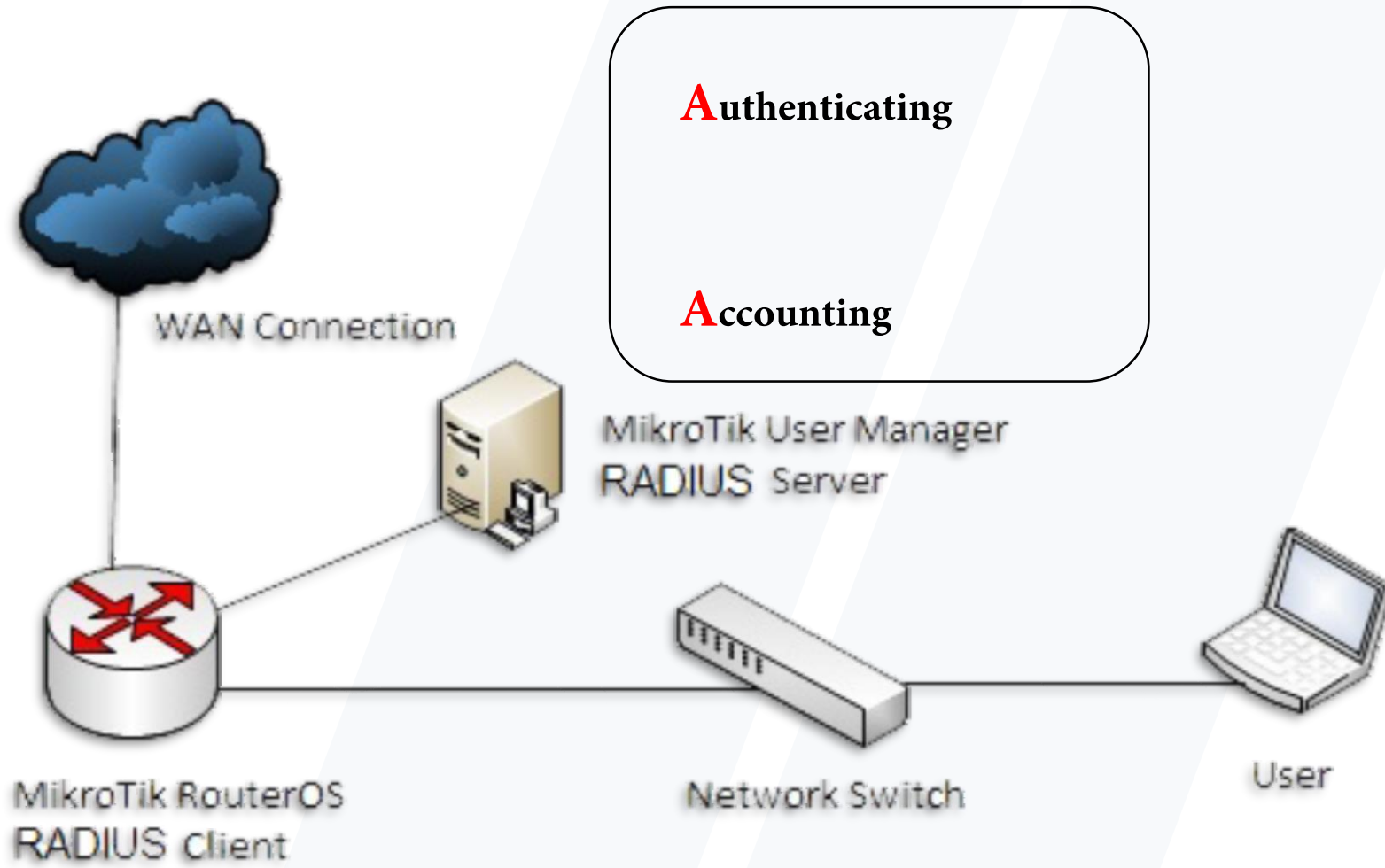


Mikrotik Solution As a Caps Man



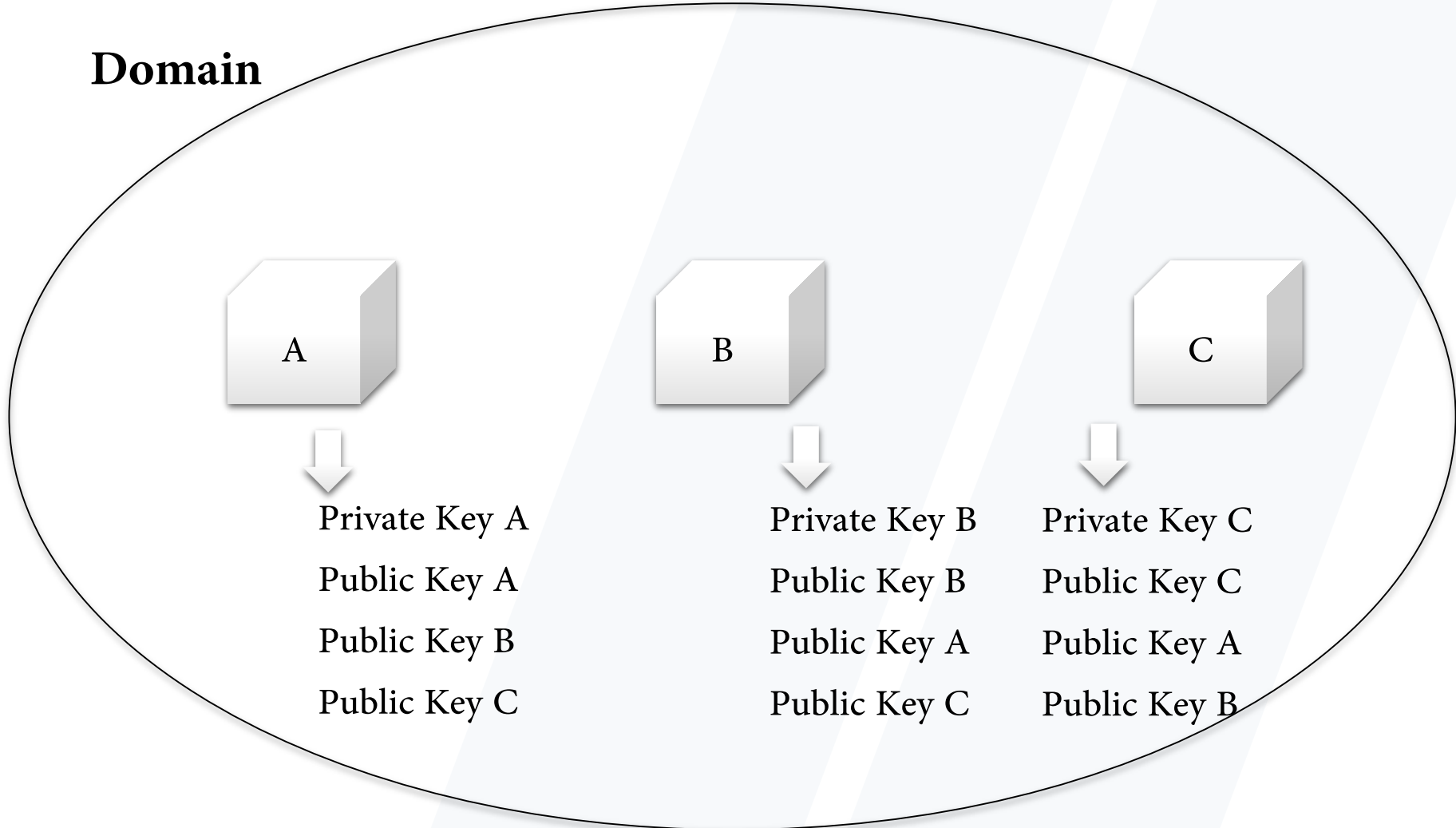
CAP to CAPsMAN Network Diagram



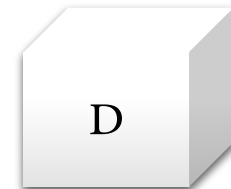


C . A

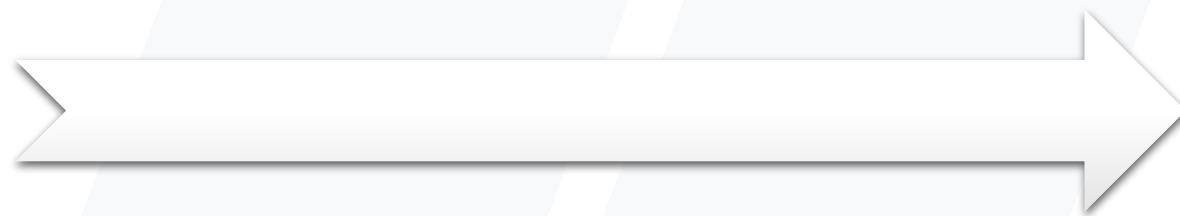
Domain



Hacker

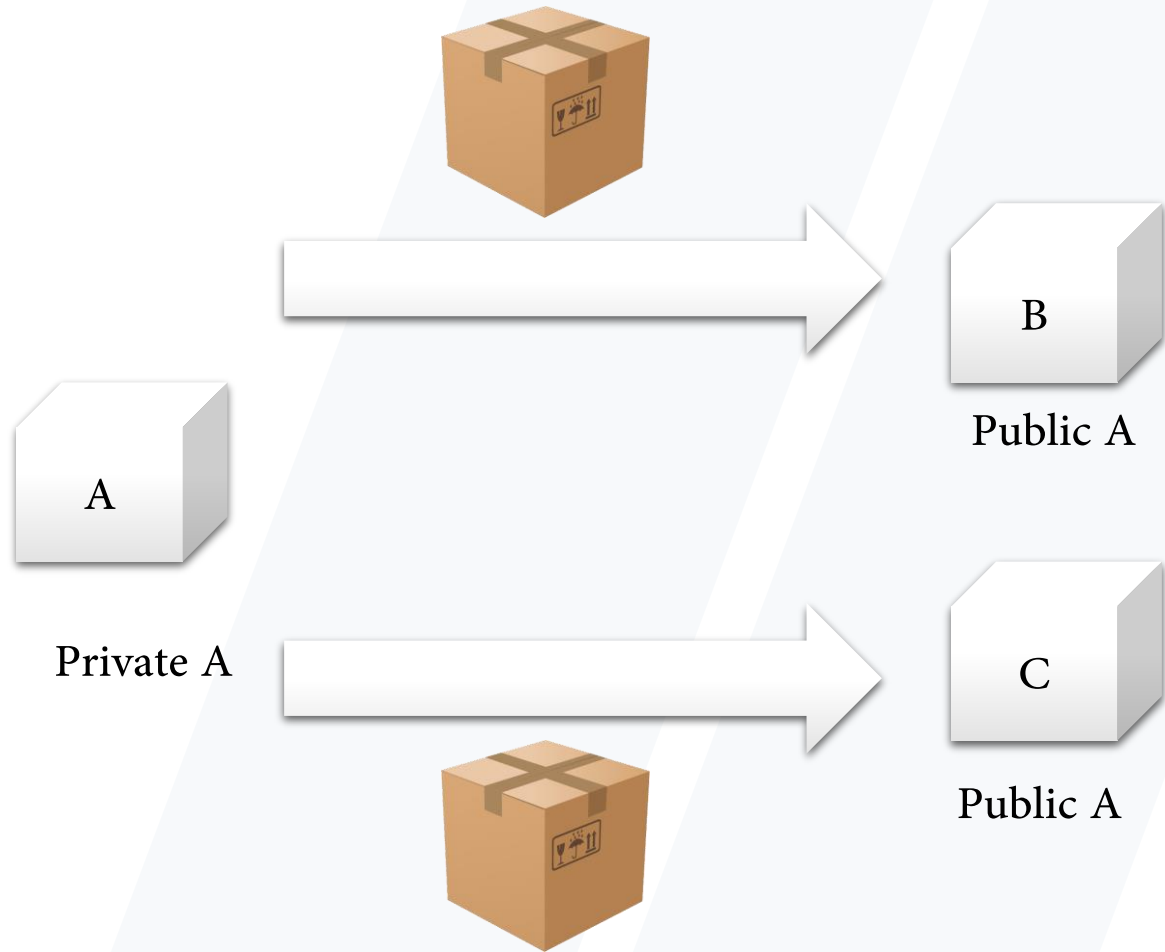


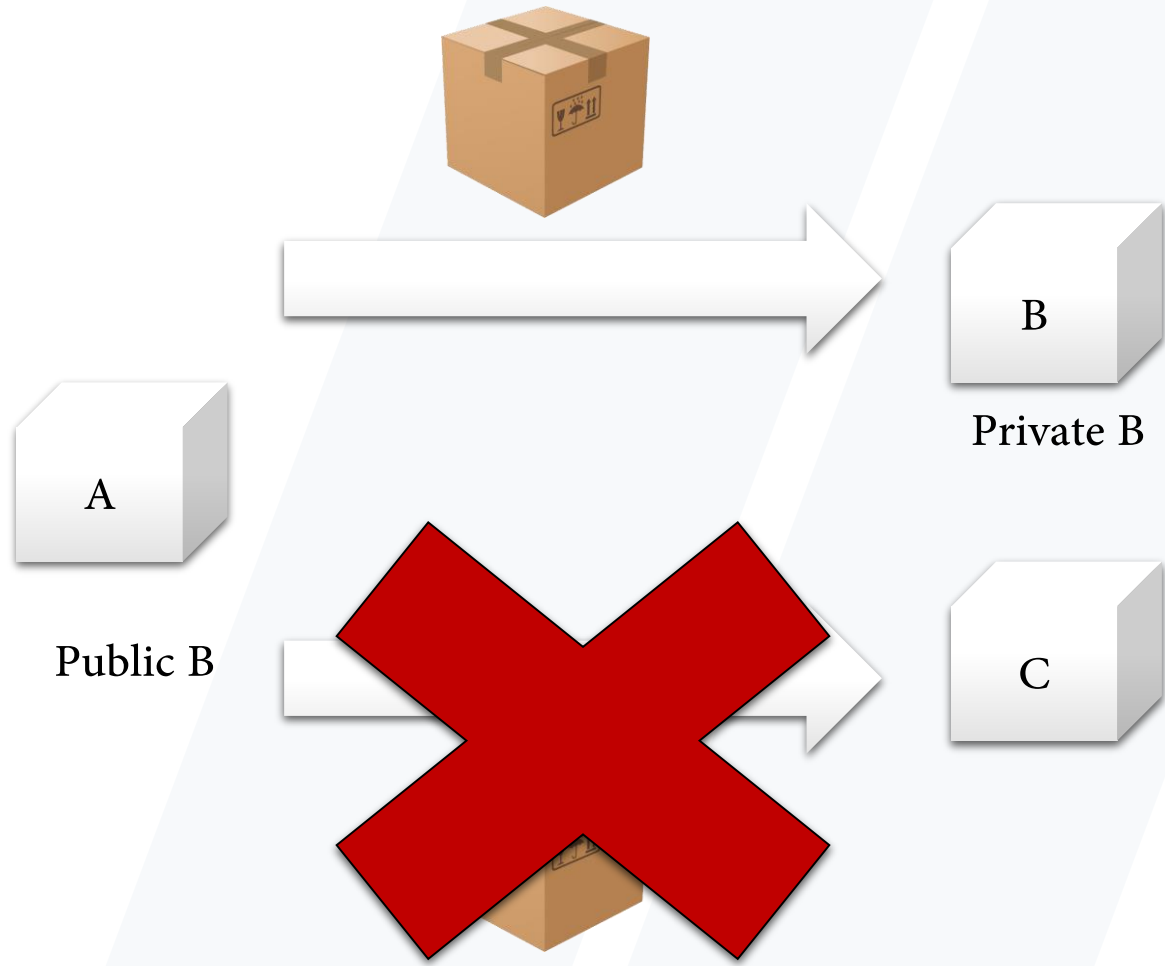
Public



Private







Certificate

on Settings Dashboard

Safe Mode Session: 64:D1:54:3B:03:FD

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
IPv6
MPLS
OpenFlow
Routing
System
Queues
Files
Log
Radius
Tools
New Terminal
TR069
LCD
MetaROUTER
Partition
Make Supout.rf
Manual
New WinBox
Exit

1 → Certificates

2 → +

Name	Issuer
cert1	

3 → cert1

4 → Key Size: 2048, Days Valid: 365

5 → Sign

6 → Select Certificate → Certificate: cert1

7 → Export

Export

Certificate: cert1
Type: PEM
Export Passphrase: Farkiantech

Export

Cancel

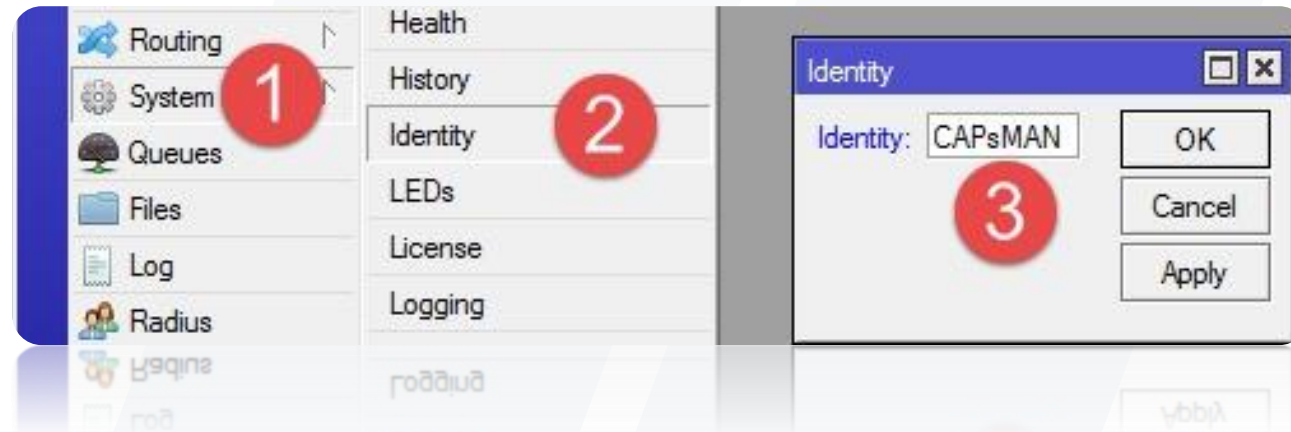
Country: GA
State: Tbilisi
Locality: Narikakla
Organization: Farkiantech
Unit:

Common Name:
Subject Alt. Name: IP

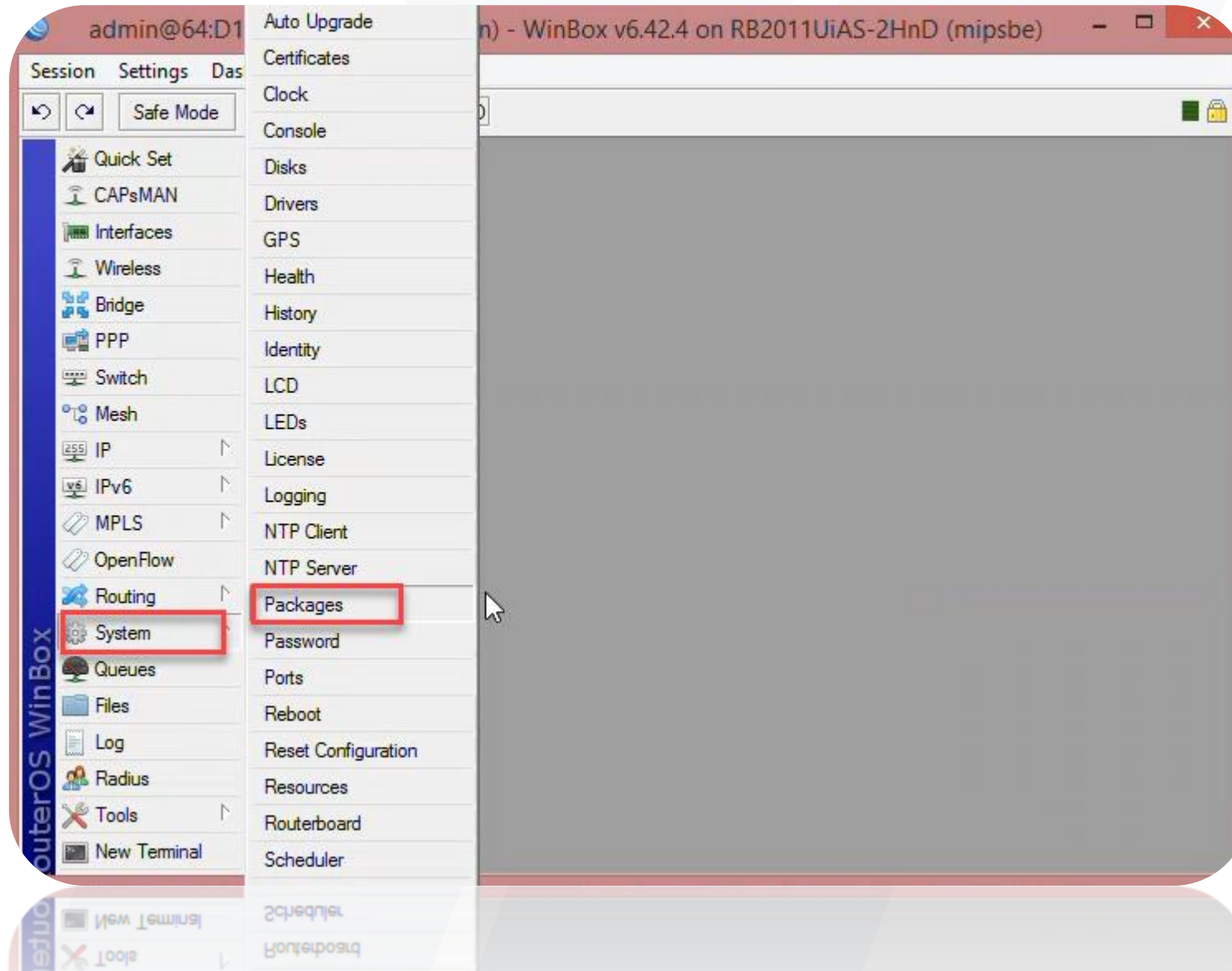
OK
Cancel
Apply
Copy
Remove
Sign
Sign via SCEP
Import
Card Reinstall
Card Verify
Set CA Passphrase
Export
Revoke

private key | cf | authority | expired | smart card key | trusted

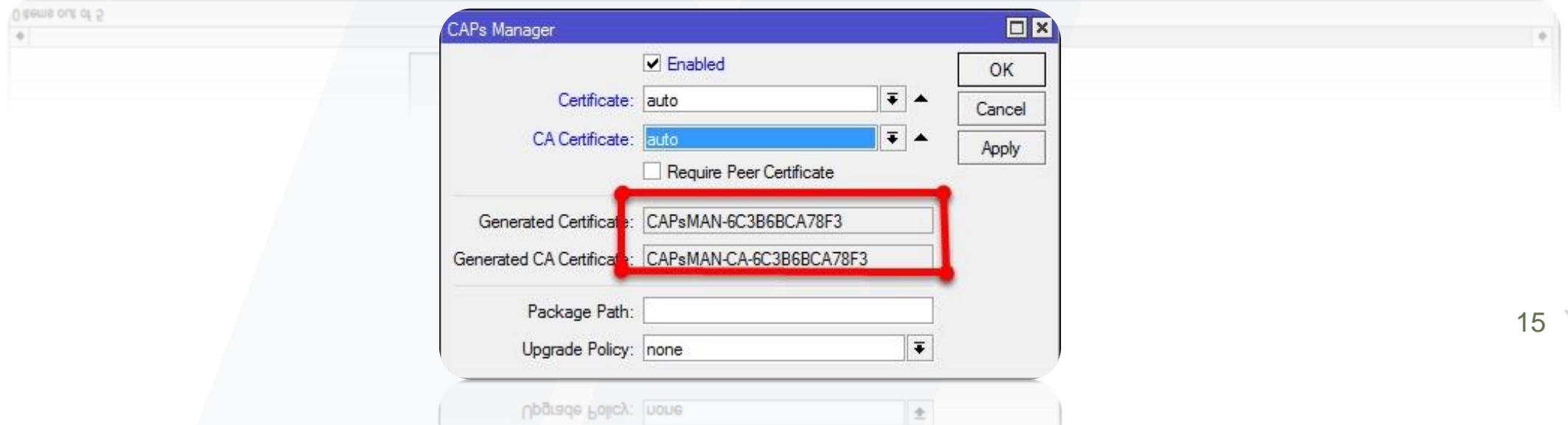
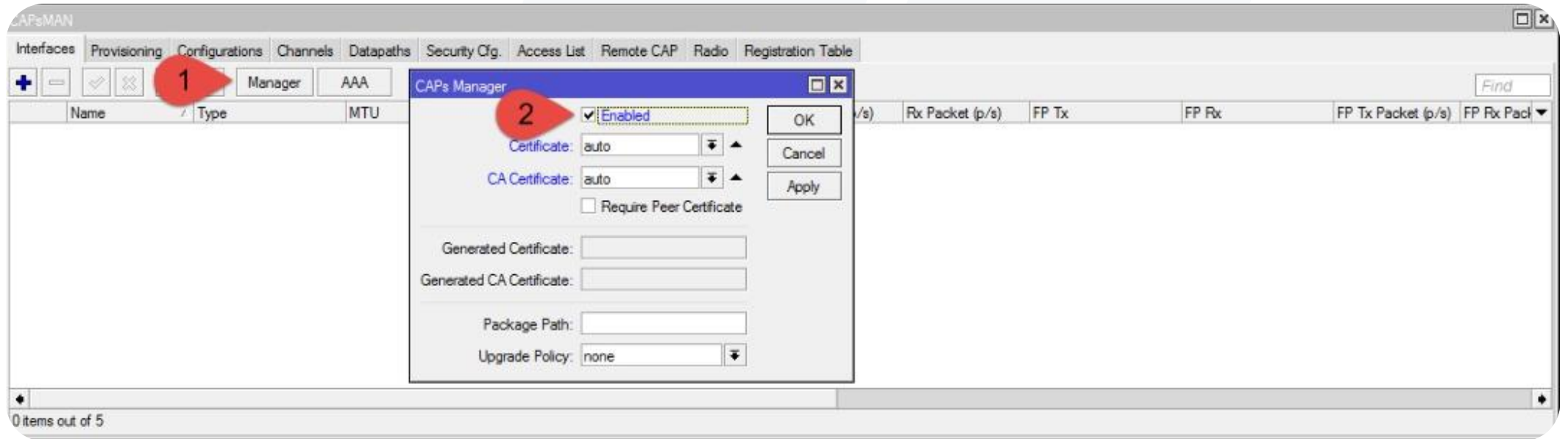
Change Router Name

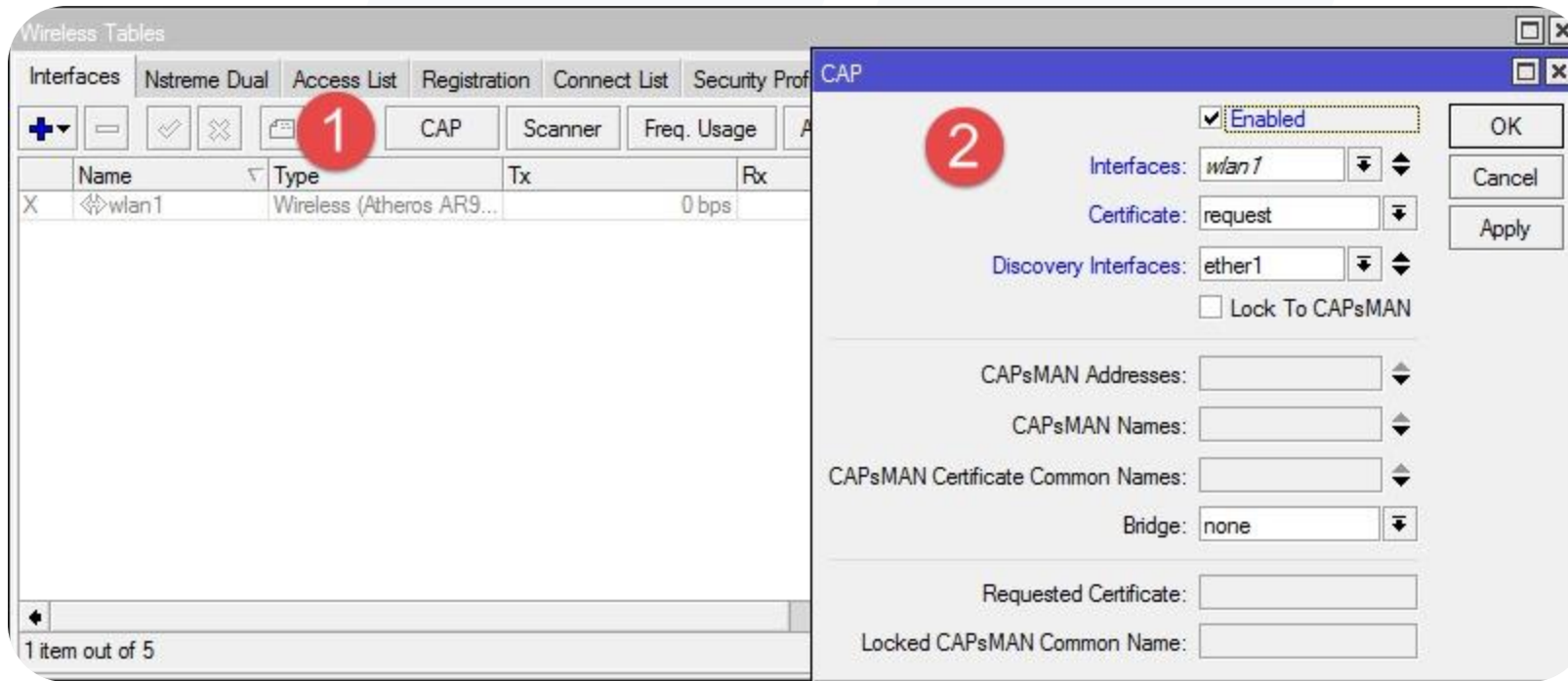


Check the Installation of CapsMan Package



Enable CapsMan





Wireless Tables

Interfaces Nstream Dual Access List Registration Connect List Security Prof

1

4

CAP

2

3

OK

Cancel

Apply

Enabled

Interfaces: wlan1

Certificate: request

Discovery Interfaces: ether1

Lock To CAPsMAN

CAPsMAN Addresses:

CAPsMAN Names:

CAPsMAN Certificate Common Names:

Bridge: bridge1

Requested Certificate:

Locked CAPsMAN Common Name:

Name Type Tx Rx

XS wlan1 Wireless (Mbps AR9... 0 bps

1 item out of 6

CAPsMAN

CAP Interface Provisioning Configurations Channels Datapaths Security Op. Access List Rates Remote CAP Radio Registration Table

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The image shows a screenshot of the Mikrotik WinBox interface. On the left, the 'CAPs-MAN' section is active, showing a table with columns: Name, SSID, Hide SSID, Load Bal..., Country, and Channel. The table is currently empty, displaying '0 items'. A red circle '1' points to the 'Configurations' tab, and a red circle '2' points to the table area. On the right, the 'New CAPs Configuration' dialog box is open, with the 'Wireless' tab selected. A red circle '3' highlights the 'Name' field, which contains the text 'Tbilisi'. Other fields in the dialog include Mode, SSID, Hide SSID, Load Balancing Group, Distance, Hw. Retries, Hw. Protection Mode, Frame Lifetime, Disconnect Timeout, Keepalive Frames, Country, Max Station Count, Multicast Helper, HT Tx Chains, HT Rx Chains, HT Guard Interval, and several other advanced settings.

The screenshot shows a network management interface with a 'New CAPs Security Configuration' dialog box open. The dialog box contains the following fields and options:

- Name:** security1
- Authentication Type:** WPA PSK WPA2 PSK WPA EAP WPA2 EAP
- Encryption:** aes ccm tkip
- Group Encryption:** aes ccm
- Group Key Update:** (empty field)
- Passphrase:** 123@Farkiantech
- EAP Methods:** (empty field)
- EAP Radius Accounting:** (empty field)
- TLS Mode:** (empty field)
- TLS Certificate:** (empty field)

Buttons on the right side of the dialog include: OK, Cancel, Apply, Comment, Copy, and Remove.

Red circles with numbers 1, 2, and 3 highlight the 'Security Cfg.' tab, the '+' button, and the dialog title respectively.

Wireless Tables

WiFi Interfaces W60G Station Nstreme Dual Acc

CAPsMAN

CAP Interface Provisioning Configurations Channels Datapaths

+ - ✓ ✗ 📁 🗑️ Reselect Channel Manager

	Name	Type	MTU	Actual
MB	cap1	CAP Interface	1500	
MB	cap2	CAP Interface	1500	
MB	cap3	CAP Interface	1500	

<cap1>

General Wireless Channel Rates Datapath Security Status Traffic

Configuration: Tbilisi

Mode:

SSID:

Hide SSID:

Load Balancing Group:

Distance:

Hw. Retries:

Hw. Protection Mode:

Frame Lifetime:

Disconnect Timeout:

Keepalive Frames:

Disconnect Timeout:

Frame Lifetime:

Hw. Protection Mode:

OK

Cancel

Apply

Disable

Comment

Copy

Remove

Torch

Scan...

Reselect Channel

CAPsMAN

CAP Interface | Profiles | **1** Configurations | Channels | Datapaths | Security Cfg. | Access List | Rates | Remote CAP | Radio | Registration Table

+ - ✓ ✗ 📁 🏠 Reselect Channel **2** AAA

	Name	Type	MTU	Actual MTU	L2 MTU	Tx	Rx	Tx Packet (p/s)
MB	cap1	CAP Interface	1500	1500	1600	0 bps	0 bps	0
MB	cap2	CAP Interface	1500	1500	1600	0 bps	0 bps	0
MB	cap3	CAP Interface	1500	1500	1600	0 bps	0 bps	0

3 AAA

MAC Format: XX:XX:XX:XX:XX:XX

MAC Mode: as username and password

MAC Caching: 00:00:00

Interim Update: 00:00:59

OK Cancel Apply

Interim Update: 00:00:29

Radius

The image shows a Mikrotik WinBox interface. On the left is a navigation tree with 'Radius' highlighted and marked with a red circle '1'. The main window shows the 'CAPsMAN' configuration page with a table of CAP interfaces. A red circle '2' is over the '+' icon to add a new interface. The table contains the following data:

Name	Type	MTU	Actual MTU
cap1	CAP Interface	1500	1500
cap2	CAP Interface	1500	1500
cap3	CAP Interface	1500	1500

On the right, the 'New Radius Server' dialog box is open, marked with a red circle '3'. It has the following fields and options:

- Service: ppp, login, hotspot, wireless, dhcp, ipsec
- Called ID: []
- Domain: []
- Address: 127.0.0.1
- Secret: hellohello
- Authentication Port: 1812
- Accounting Port: 1813
- Timeout: 300 ms
- Accounting Backup
- Realm: []
- Src. Address: []

Buttons on the right include OK, Cancel, Apply, Disable, Comment, Copy, Remove, and Reset Status.

User Manager

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Name	Version	Build Time	Scheduled
ipv6	6.42.4	Jun/15/2018 14:14:17	
lcd	6.42.4	Jun/15/2018 14:14:17	
lte	6.42.4	Jun/15/2018 14:14:17	
mpls	6.42.4	Jun/15/2018 14:14:17	
multicast	6.42.4	Jun/15/2018 14:14:17	
ntp	6.42.4	Jun/15/2018 14:14:17	
openflow	6.42.4	Jun/15/2018 14:14:17	
ppp	6.42.4	Jun/15/2018 14:14:17	
routing	6.42.4	Jun/15/2018 14:14:17	
security	6.42.4	Jun/15/2018 14:14:17	
system	6.42.4	Jun/15/2018 14:14:17	
tr069-client	6.42.4	Jun/15/2018 14:14:17	
ups	6.42.4	Jun/15/2018 14:14:17	
user-manager	6.42.4	Jun/15/2018 14:14:17	
wireless	6.42.4	Jun/15/2018 14:14:17	

The image shows a web browser window displaying the Mikrotik User Manager interface. The browser's address bar shows the URL `192.168.100.1/userman`. The page title is "MikroTik Mikrotik User Manager".

On the left side, there is a navigation menu with the following items: Routers, Users, Sessions, Customers, Logs, Payments, Profiles, Settings, Reports, 0 A sessions, 0 A users, Advanced search, Maintenance, and Logout. The "Routers" item is highlighted.

The main content area shows a table with columns for "Name" and "IP address". Below the table, there is a "Router details" form. The form fields are as follows:

- Name: Capl
- Owner: admin
- IP address: 0.0.0.0
- Shared secret: (empty)
- Time zone: Parent time zone
- Disabled:
- Log events: Authorization failure, Accounting success, Accounting failure

At the bottom of the form, there is an "Add" button.

Four red circles with numbers 1, 2, 3, and 4 are overlaid on the image to highlight specific elements: 1 is on the browser address bar, 2 is on the "Routers" menu item, 3 is on the "Add" button in the top navigation bar, and 4 is on the "Router details" form title.



Mikrotik User Manager

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

Profile: 1G1M512K
Name: 1G1M512K
Name for users:
Owner: admin
Validity:
Starts: At first logon
Price: 0.00
Shared users: not used

Save profile Remove profile

Unlimited profile

Add new limitation **1**

Limit details **2**

▼ Main
Name:
Owner: admin

▲ Limits
Download: 0B
Upload: 0B
Transfer: 102400
Uptime:

▲ Rate limits
Rate limit: Rx 512k Tx 512k
Burst rate: Rx Tx
Burst threshold: Rx Tx
Burst time: Rx Tx
Min rate: Rx Tx
Priority: Not specified

▼ Constraints
Add

← → ↻ ⓘ Not secure | 192.168.100.1/userman

MikroTik
Mikrotik User Manager

Add Edit Generate

☑ Username Till time Total time left

1

2

User details

Main

Username: 00:0A:0B:BC:A0:12

Password: 00:0A:0B:BC:A0:12

Disabled:

Owner: admin

▼ Constraints

▼ Wireless

▼ Private information

Assign profile: 1G1M512K

Add

1G1M512K



**THANK
YOU!**

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Porshegefti**

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ANY?
QUESTIONS

