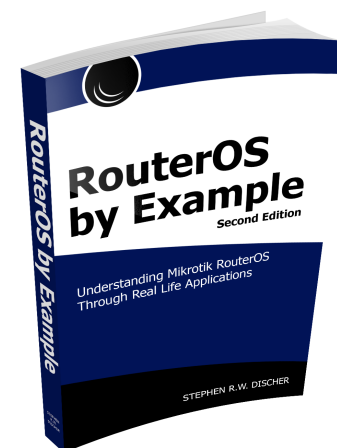


About Me

- Steve Discher, from College Station, Texas, USA
- MikroTik Certified Trainer since 2008 and teach RouterOS classes, LearnMikroTik.com, ISPSupplies.com, and blog at SteveDischer.com
- mikrotikconfig.com, Firewall, QOS, Load Balance and Country IP Block address list generator now updated daily
- Author of RouterOS by Example, 1st and 2nd Editions from ISPSupplies.com and Amazon.
- Thanks Ty Bermea!



Congratulations to 24 Students Completed MTCNA Class This Week



13 Past US MUMs

2007 Orlando

2013 St Louis

2008 Chicago

2014 Pittsburg

2009 Dallas

2015 Miami

2010 Phoenix

2016 Dallas

2011 Las Vegas

2017 Denver

2012 New Orleans

2018 Baltimore

2019 Austin

Top Ten RouterOS HowTo Questions

What & How

What: What are the top ten Google Key word search terms including “MikroTik How to”?

How: Use an SEO tool which displays search suggestions based on volume for the base key phrase “mikrotik how to”

Top Ten Search Phrases

1. mikrotik how to port forward
2. mikrotik how to backup config
3. mikrotik how to install package
4. mikrotik how to export config
5. mikrotik how to reset
6. mikrotik how to block youtube
7. mikrotik how to upgrade
8. mikrotik how to block mac address
9. mikrotik how to upgrade firmware
10. mikrotik how to set up a wireless bridge

Your Brain Is Safe!



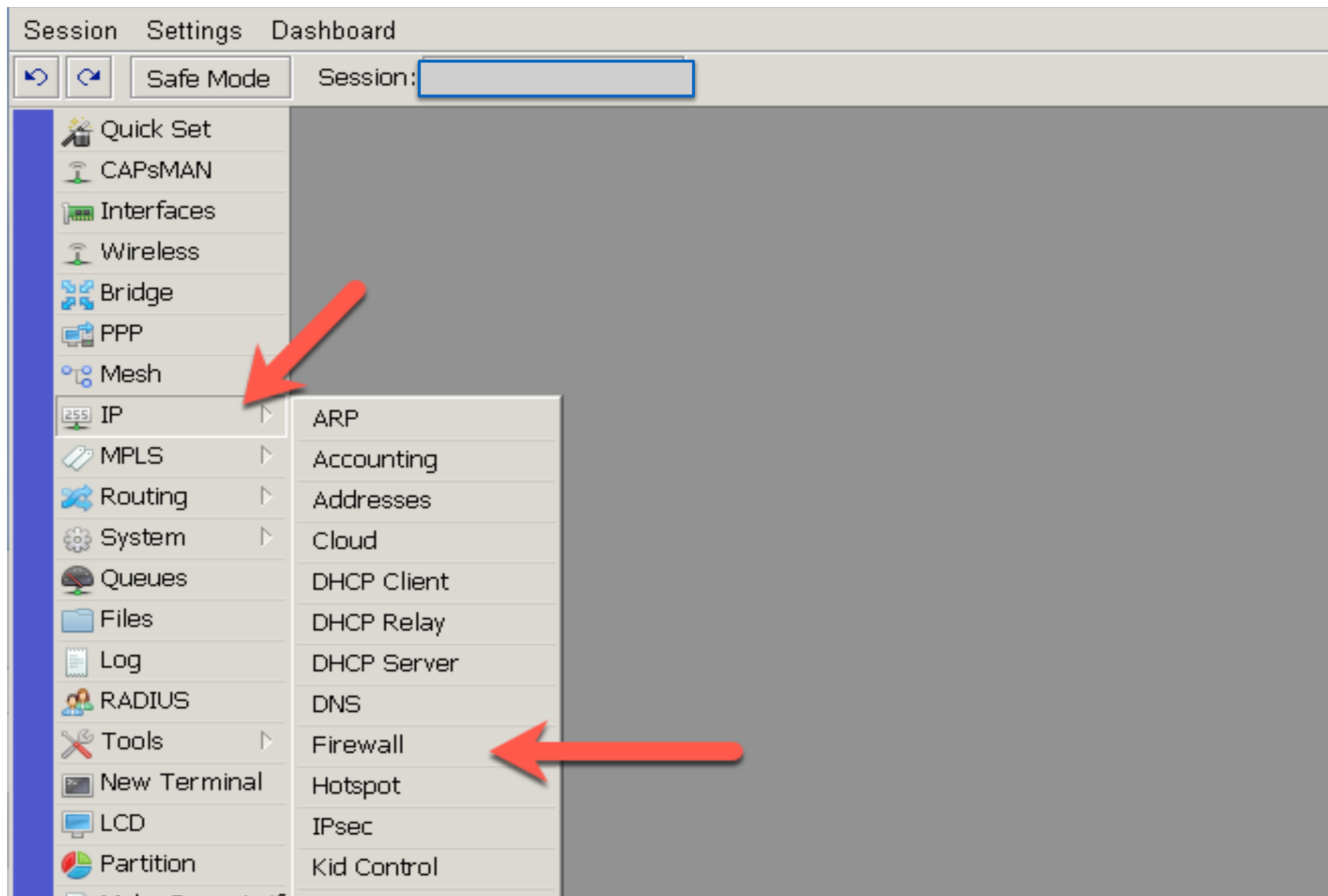
- Greg Sowell
- Kevin Myers
- Thomas Kirnak
- The Brothers WISP
- many more

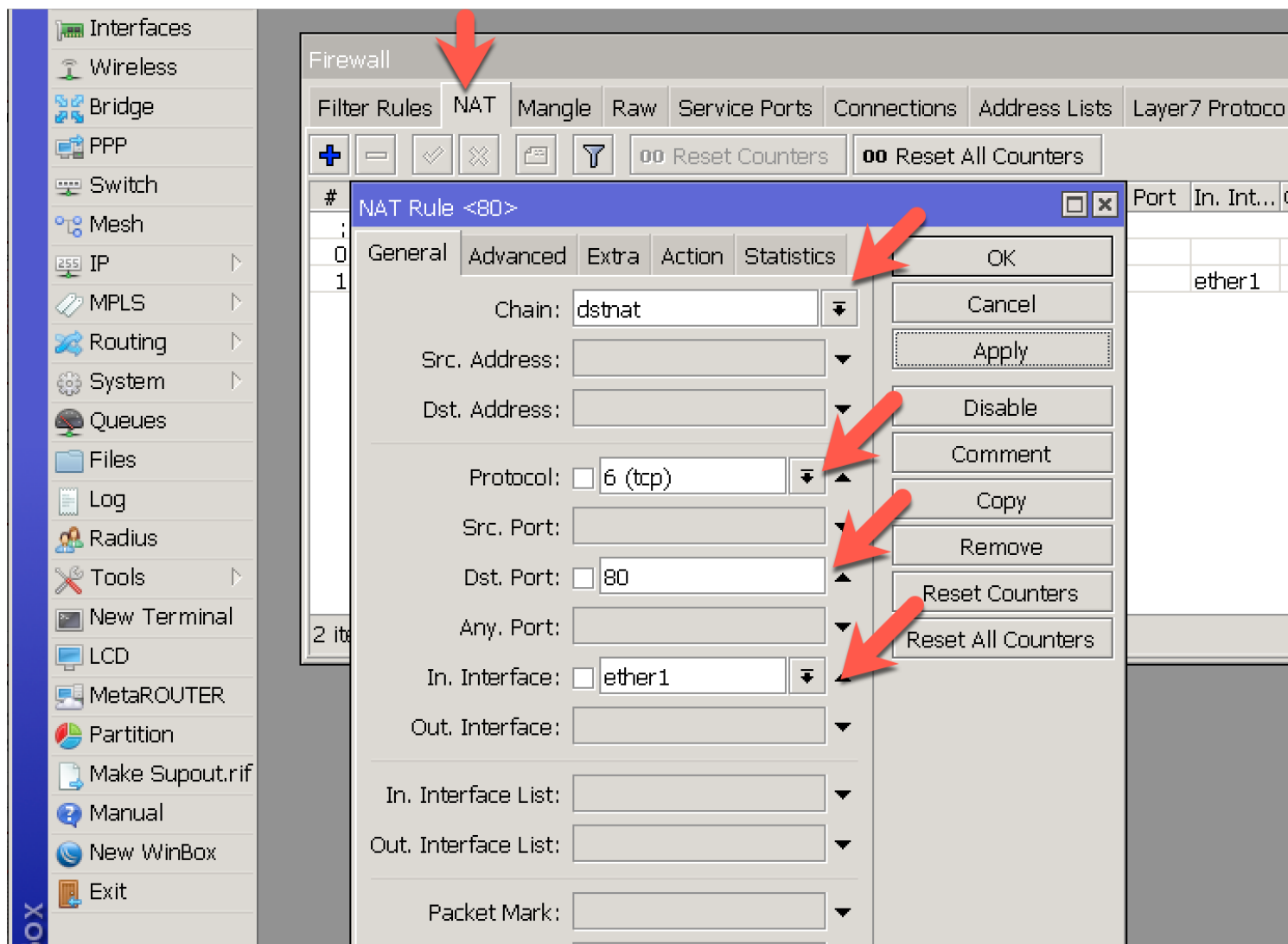
Walk through each of
these processes

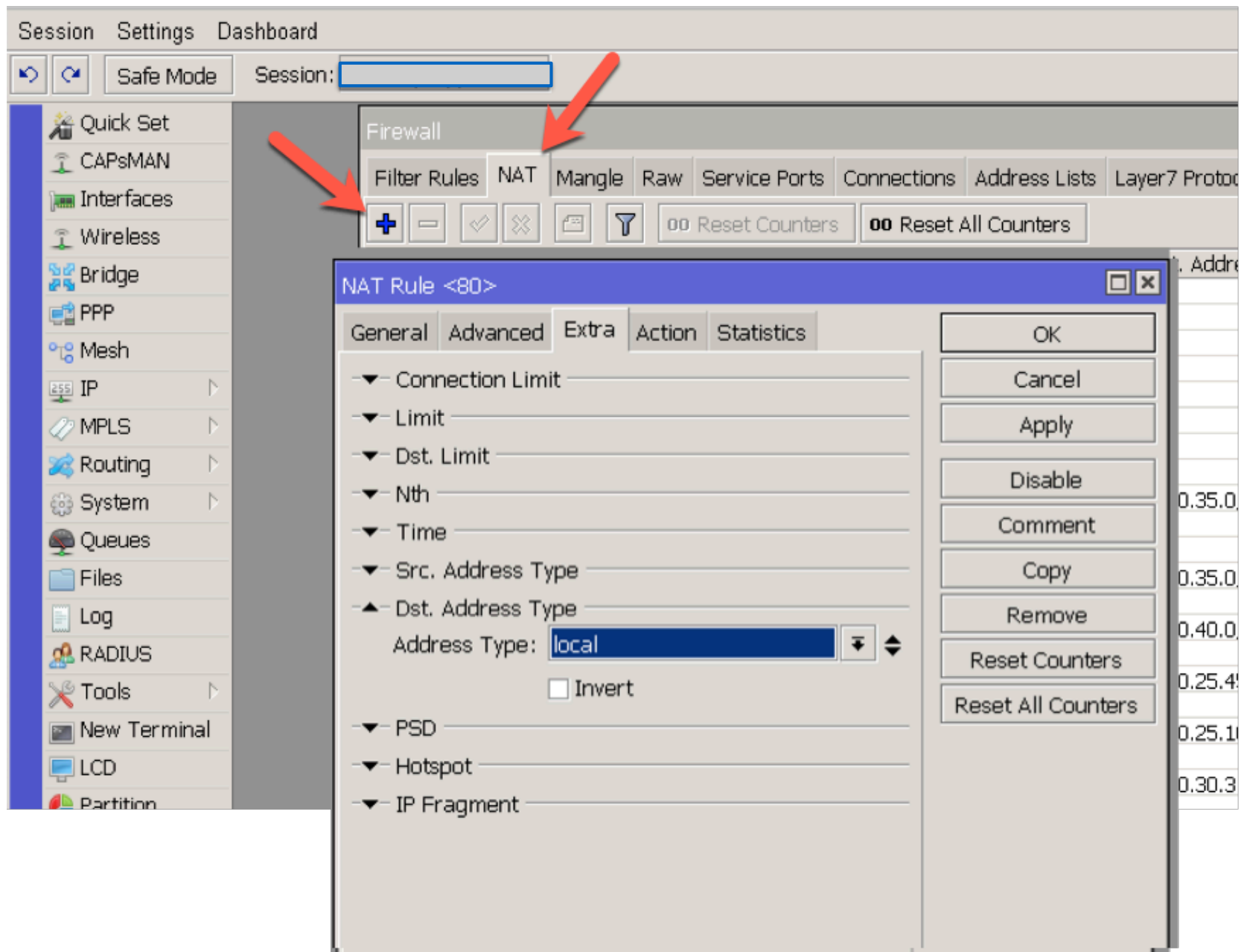
I. How to Port Forward

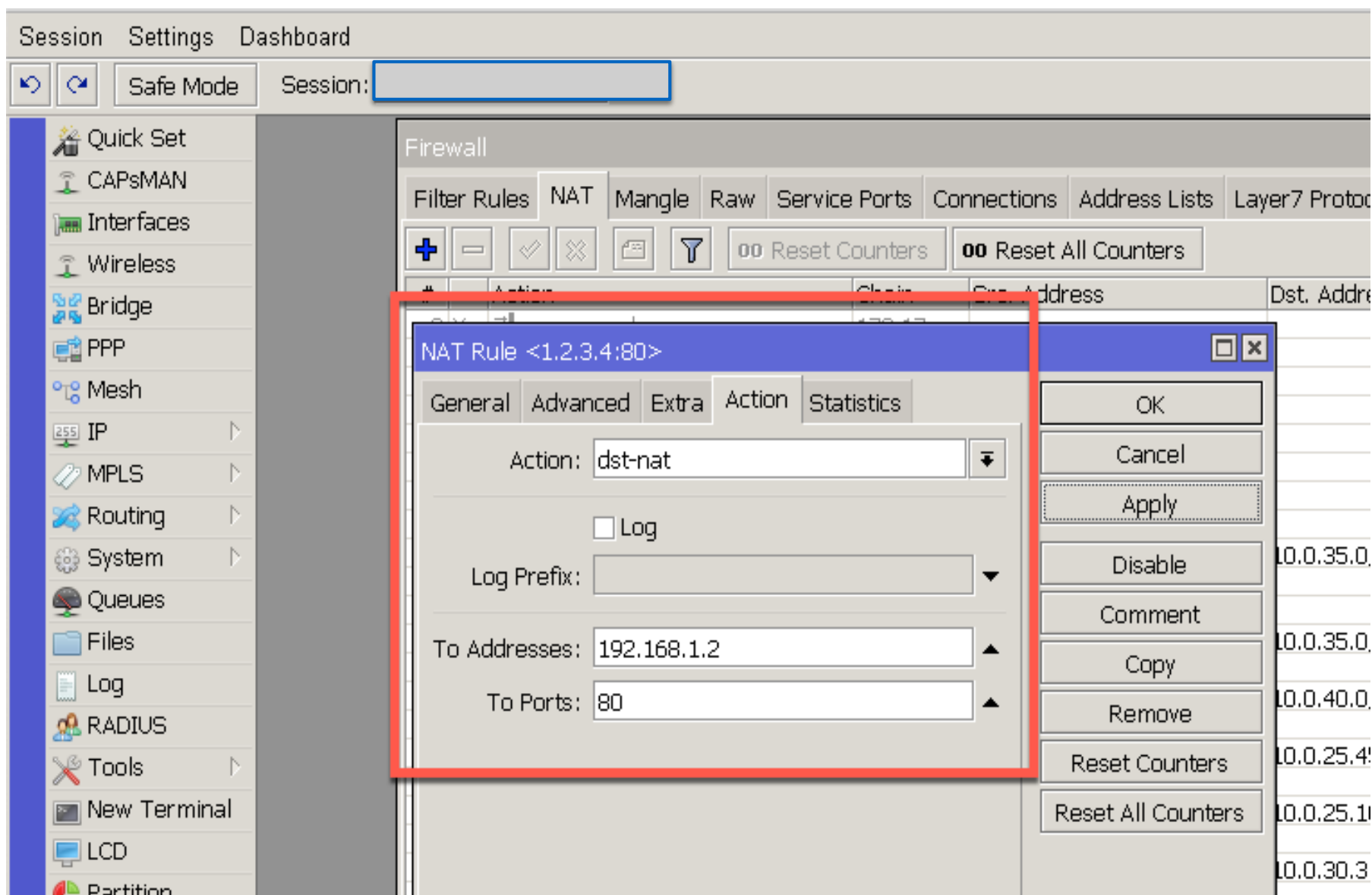
Port Forwarding

- Port forwarding is really “destination NAT”
- Used to allow public access to private resources
- Example: public access to a private web server, IP camera DVR's, etc.

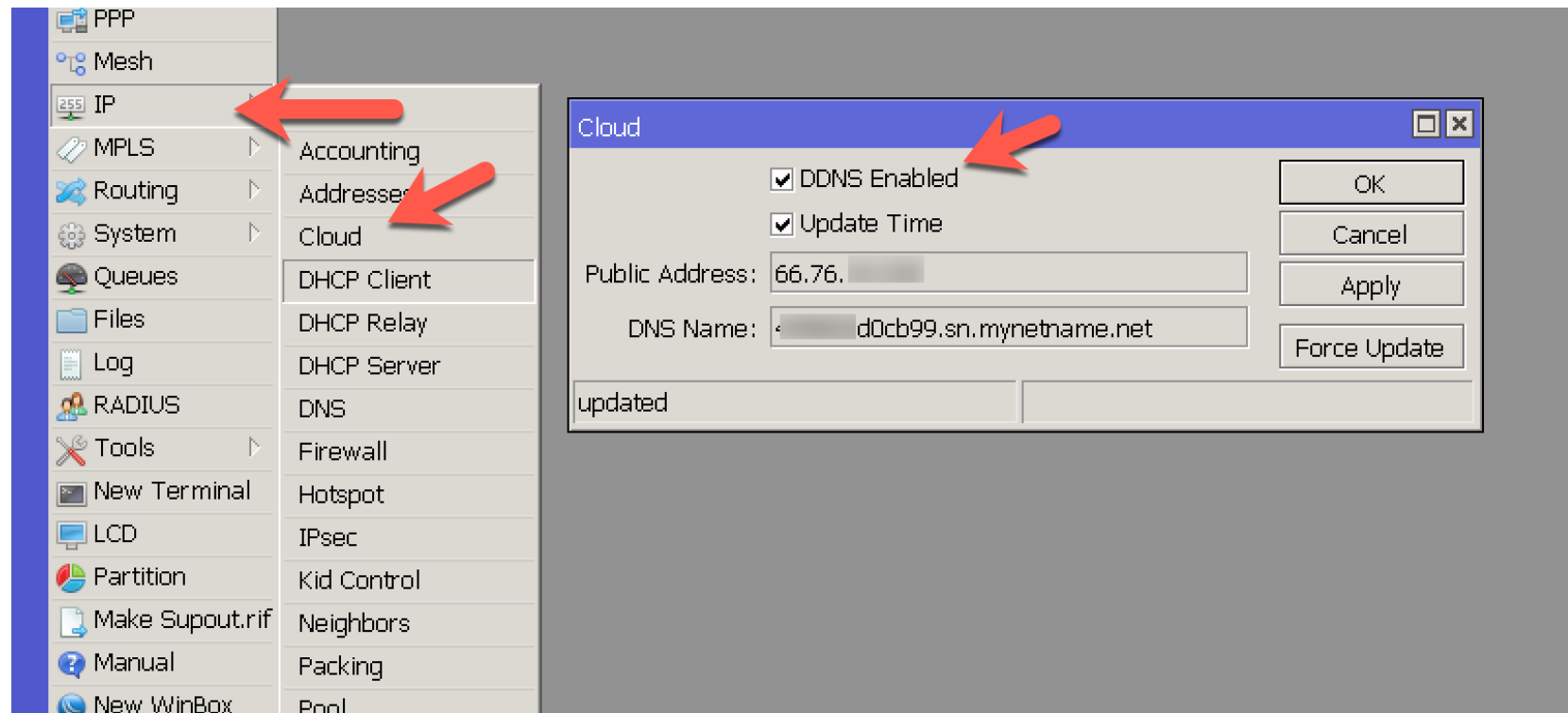








IP Cloud - Dynamic DNS



Make it even easier by publishing a CNAME

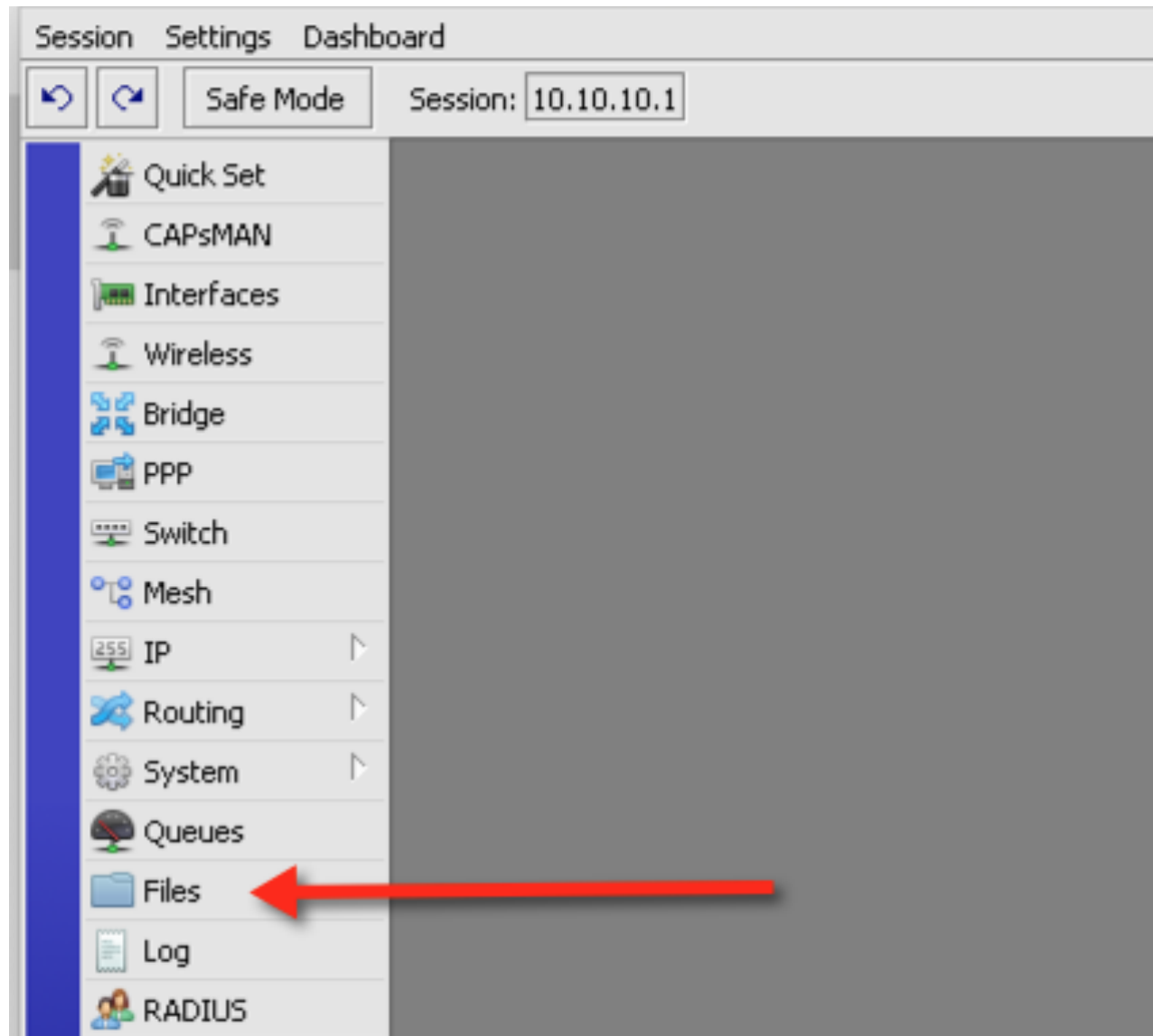
2. How to Backup a Config

How to Backup a Config

- How can I create a snapshot of my router and restore it later?
- How can I clone my router from one device to another, full or partial?

Making backups and storing them
on your router is not a backup
strategy!

Option I - System Backup (Snapshot)



Session Settings Dashboard

Safe Mode Session: 10.10.10.1

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
Routing
System
Queues

File List

Backup Restore Upload...

File Name	Type	Size	Cr
disk1	disk		
disk1/US-Subnets.rsc	script	3490.4 KiB	
disk1/USA-IP-Aggrigated.rsc	script	800.3 KiB	
disk1/dude.db	.db file	4192.0 KiB	
disk1/dude.db-shm	.db-shm file	32.0 KiB	
disk1/dude.db-wal	.db-wal file	5.6 MiB	
disk1/files	directory		
disk1/files/default	disk		
disk1/files/default/Vera.ttf	.ttf file	64.4 KiB	
disk1/files/default/VeraMono.ttf	.ttf file	48.1 KiB	
disk1/files/default/certificate.p...	.pem file	3406 B	
disk1/files/default/done.wav	.wav file	9.8 KiB	
disk1/files/default/images	directory		

ir/13/2016 05:56:28

ir/13/

ir/13/

ir/13/

ir/13/

ir/13/

ir/13/

ir/13/

ir/13/

ir/13/

ir/13/2016 05:56:28

The image shows a 'Backup' dialog box from Mikrotik RouterOS. The dialog has a blue title bar with the word 'Backup' and standard window controls (minimize, maximize, close). Inside, there are three input fields: 'Name' with the text 'today', 'Password' (empty), and 'Encryption' with the dropdown menu set to 'aes-sha256'. Below these is a checkbox labeled 'Don't Encrypt' which is checked. To the right of the input fields are two buttons: 'Backup' and 'Cancel'. Three red arrows are overlaid on the image: one points to the 'Name' field, another points to the 'Backup' button, and a third points to the 'Don't Encrypt' checkbox.

Backup

Name: today

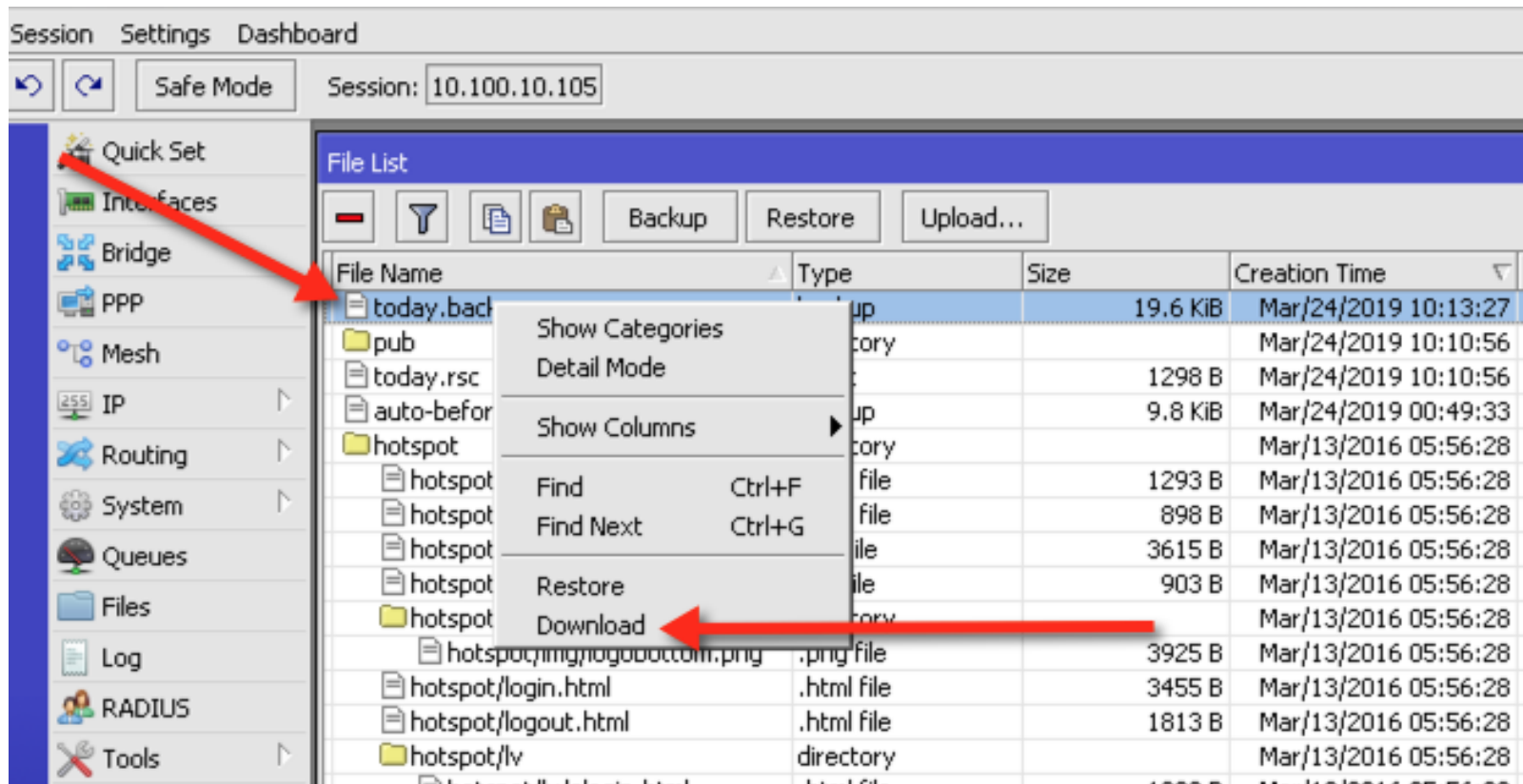
Password:

Encryption: aes-sha256

☒ Don't Encrypt

Backup

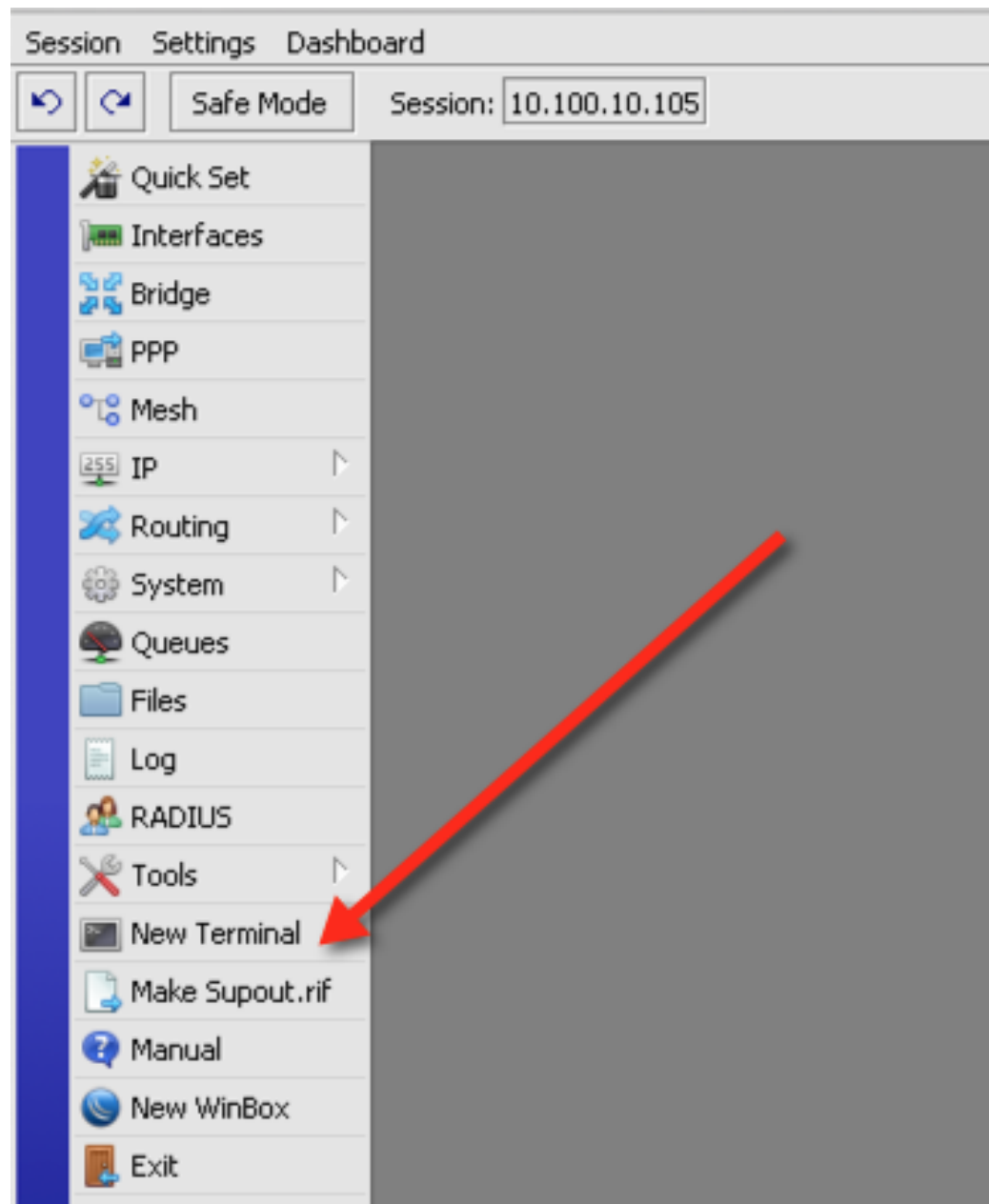
Cancel



- Best for saving a router state at a point in time such as before a major configuration change
- Not good for cloning

Option 2 - Backup Using an Export

(portable, for cloning)



Session Settings Dashboard

Safe Mode Session: 10.100.10.105

Quick Set
Interfaces
Bridge
PPP
Mesh
IP
Routing
System
Queues
Files
Log
RADIUS
Tools
New Terminal
Make Supout.rif
Manual
New WinBox
Exit

Terminal

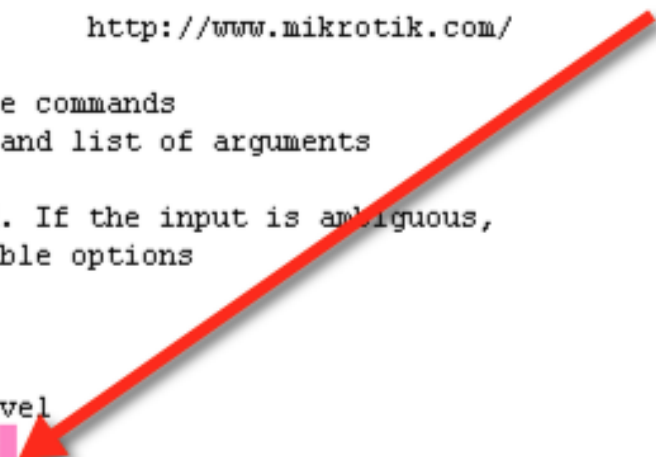
```
MMM      MMM      KKK      TTTTTTTTTTT      KKK
MMMM     MMMM     KKK      TTTTTTTTTTT      KKK
MMM MMMM MMM III KKK KKK RRRRRR 000000 TTT III KKK KKK
MMM MM  MMM III KKKKK RRR RRR 000 000 TTT III KKKKK
MMM      MMM III KKK KKK RRRRRR 000 000 TTT III KKK KKK
MMM      MMM III KKK KKK RRR RRR 000000 TTT III KKK KKK

MikroTik RouterOS 6.44.1 (c) 1999-2019      http://www.mikrotik.com/

[?]          Gives the list of available commands
command [?]  Gives help on the command and list of arguments

[Tab]        Completes the command/word. If the input is ambiguous,
              a second [Tab] gives possible options

/            Move up to base level
..           Move up one level
/command     Use command at the base level
[bermeajt@Virtual] > export file=today.rsc
```



Session Settings Dashboard

Safe Mode Session: 10.100.10.105

Quick Set
Interface
Bridge
PPP
Mesh
IP
Routing
System
Queues
Files
Log
RADIUS
Tools
New Terminal
Make Supout.rif

File List

Backup Restore Upload...

File Name	Type	Size	Creation Time
pub	directory		Mar/24/2019 10:10:56
today.rsc	script	1298 B	Mar/24/2019 10:10:56
auto-before	file	9.8 KiB	Mar/24/2019 00:49:33
hotspot	directory		Mar/13/2016 05:56:28
hotspot/	file	1293 B	Mar/13/2016 05:56:28
hotspot/	file	898 B	Mar/13/2016 05:56:28
hotspot/	file	3615 B	Mar/13/2016 05:56:28
hotspot/	file	903 B	Mar/13/2016 05:56:28
hotspot/	directory		Mar/13/2016 05:56:28
hotspot/	file	3925 B	Mar/13/2016 05:56:28
hotspot/	file	3455 B	Mar/13/2016 05:56:28
hotspot/	file	1813 B	Mar/13/2016 05:56:28
hotspot/lv	directory		Mar/13/2016 05:56:28
hotspot/lv/login.html	.html file	1303 B	Mar/13/2016 05:56:28
hotspot/lv/errors.txt	.txt file	3810 B	Mar/13/2016 05:56:28
hotspot/lv/login.html	.html file	3408 B	Mar/13/2016 05:56:28
hotspot/lv/logout.html	.html file	1843 B	Mar/13/2016 05:56:28

Show Categories
Detail Mode
Show Columns
Find Ctrl+F
Find Next Ctrl+G
Restore
Download

```
Terminal

MMM      MMM      KKK      TTTTTTTTTT      KKK
MMM      MMM      KKK      TTTTTTTTTT      KKK
MMM MMM MMM III KKK KKK RRRRRR 000000 TTT III KKK KKK
MMM MM  MMM III KKKKK RRR RRR 000 000 TTT III KKKKK
MMM      MMM III KKK KKK RRRRRR 000 000 TTT III KKK KKK
MMM      MMM III KKK KKK RRR RRR 000000 TTT III KKK KKK

MikroTik RouterOS 6.43.2 (c) 1999-2018      http://www.mikrotik.com/

[?]          Gives the list of available commands
command [?]  Gives help on the command and list of arguments

[Tab]        Completes the command/word. If the input is ambiguous,
              a second [Tab] gives possible options

/            Move up to base level
..           Move up one level
/command     Use command at the base level
apr/04/2019 00:58:43 system,error,critical login failure for user admin from 10.0.
40.238 via ssh
apr/04/2019 00:58:45 system,error,critical login failure for user sdischer from 10
.0.40.238 via ssh
[admin@10.0.0.3-To-TBB-VPN-Router] > import file=today.rsc
```

- To restore the file, use import command
- Best done with an un-configured router

```
ktop/backup.rsc
terOS 6.44
```

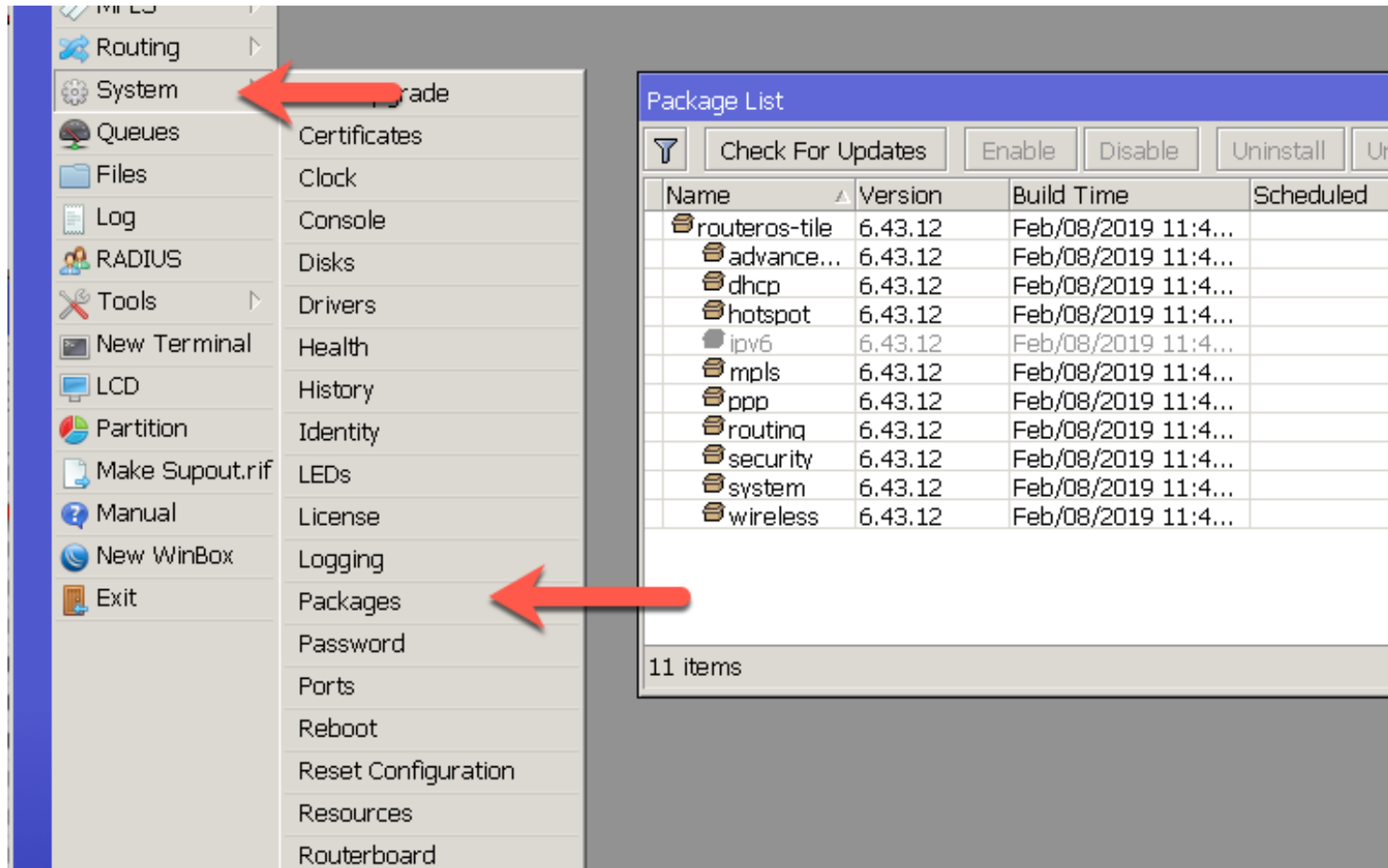
```
#
# model = RB760iGS
# serial number = 976C09C6E129
/interface bridge
add fast-forward=no name=LAN
add fast-forward=no name=loopback
/interface ethernet
set [ find default-name=ether1 ] comment="Office Switch" speed=100Mbps
set [ find default-name=ether2 ] disabled=yes speed=100Mbps
set [ find default-name=ether3 ] disabled=yes speed=100Mbps
set [ find default-name=ether4 ] comment="Verizon Fios" mac-address=\
```

4. How to Install Package

How to Install Package

- All functions in RouterOS are controlled by packages
- If you are missing a functionality like wireless, maybe you are missing a package

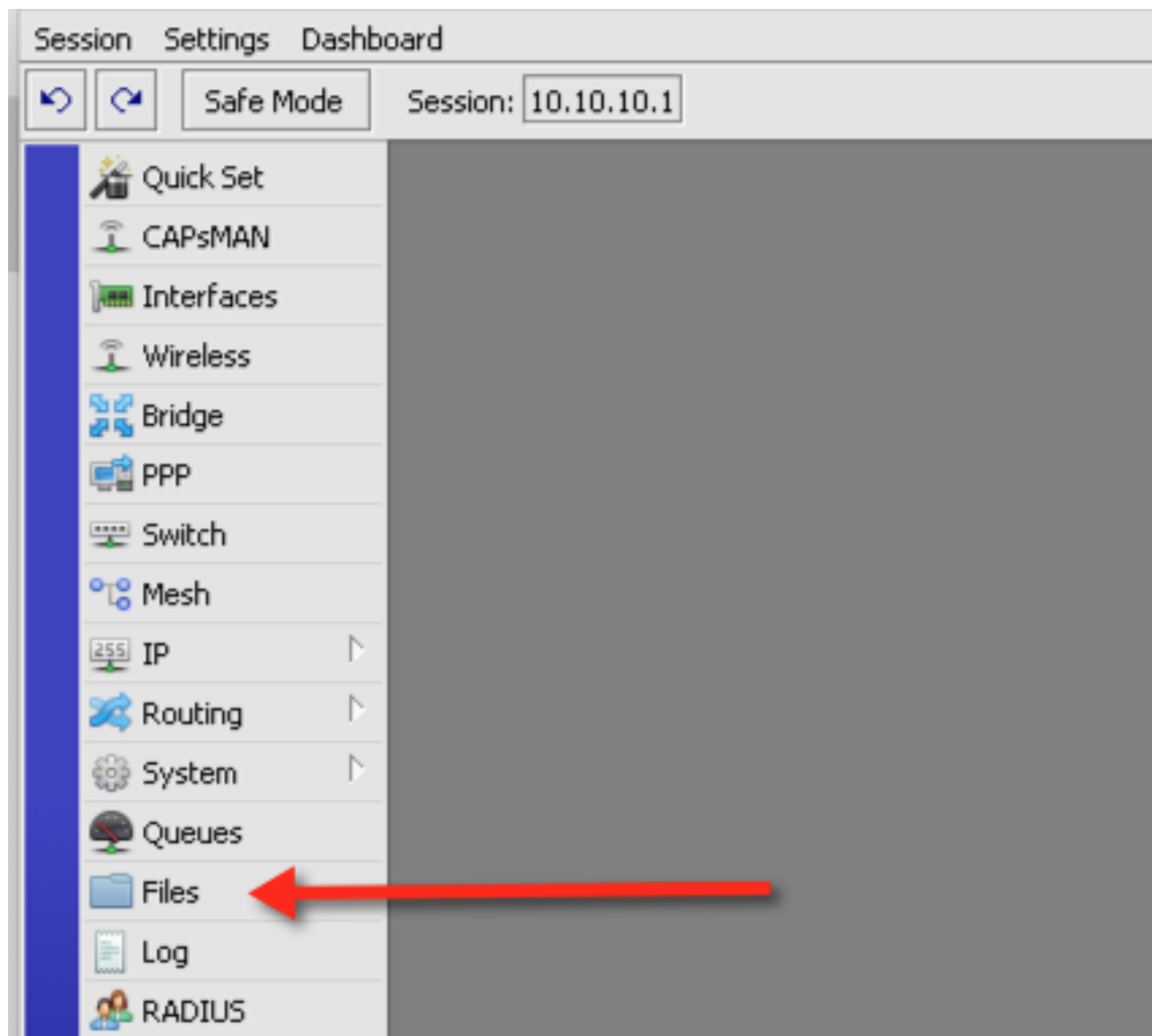
What Packages Do I Have?



The screenshot shows the Mikrotik WinBox interface. On the left, the 'System' menu is open, with a red arrow pointing to it. The 'Packages' option in the System menu is also highlighted with a red arrow. On the right, the 'Package List' window is displayed, showing a table of installed packages. The table has columns for Name, Version, Build Time, and Scheduled. Below the table, it indicates '11 items'.

Name	Version	Build Time	Scheduled
routeros-tile	6.43.12	Feb/08/2019 11:4...	
advance...	6.43.12	Feb/08/2019 11:4...	
dhcp	6.43.12	Feb/08/2019 11:4...	
hotspot	6.43.12	Feb/08/2019 11:4...	
ipv6	6.43.12	Feb/08/2019 11:4...	
mpls	6.43.12	Feb/08/2019 11:4...	
ppp	6.43.12	Feb/08/2019 11:4...	
routing	6.43.12	Feb/08/2019 11:4...	
security	6.43.12	Feb/08/2019 11:4...	
system	6.43.12	Feb/08/2019 11:4...	
wireless	6.43.12	Feb/08/2019 11:4...	

	6.43.13 (Long-term)	6.44.1 (Stable)
MIPSBE	CRS1xx, CRS2xx, DISC, FiberBox, hAP, hAP ac, hAP ac lite, LDF, LHG, ItAP mini, mANTBox, mAP, NetBox, NetM Lite, RB4xx, wAP, BaseBox, DynaDish, RB2011, SXT, OmniTik, Groove, Metal, Sextant, RB7xx	
Main package		
Extra packages		
X86	RB230, X86	
Main package		
Extra packages		 
CD Image		
The Dude server		



Session Settings Dashboard

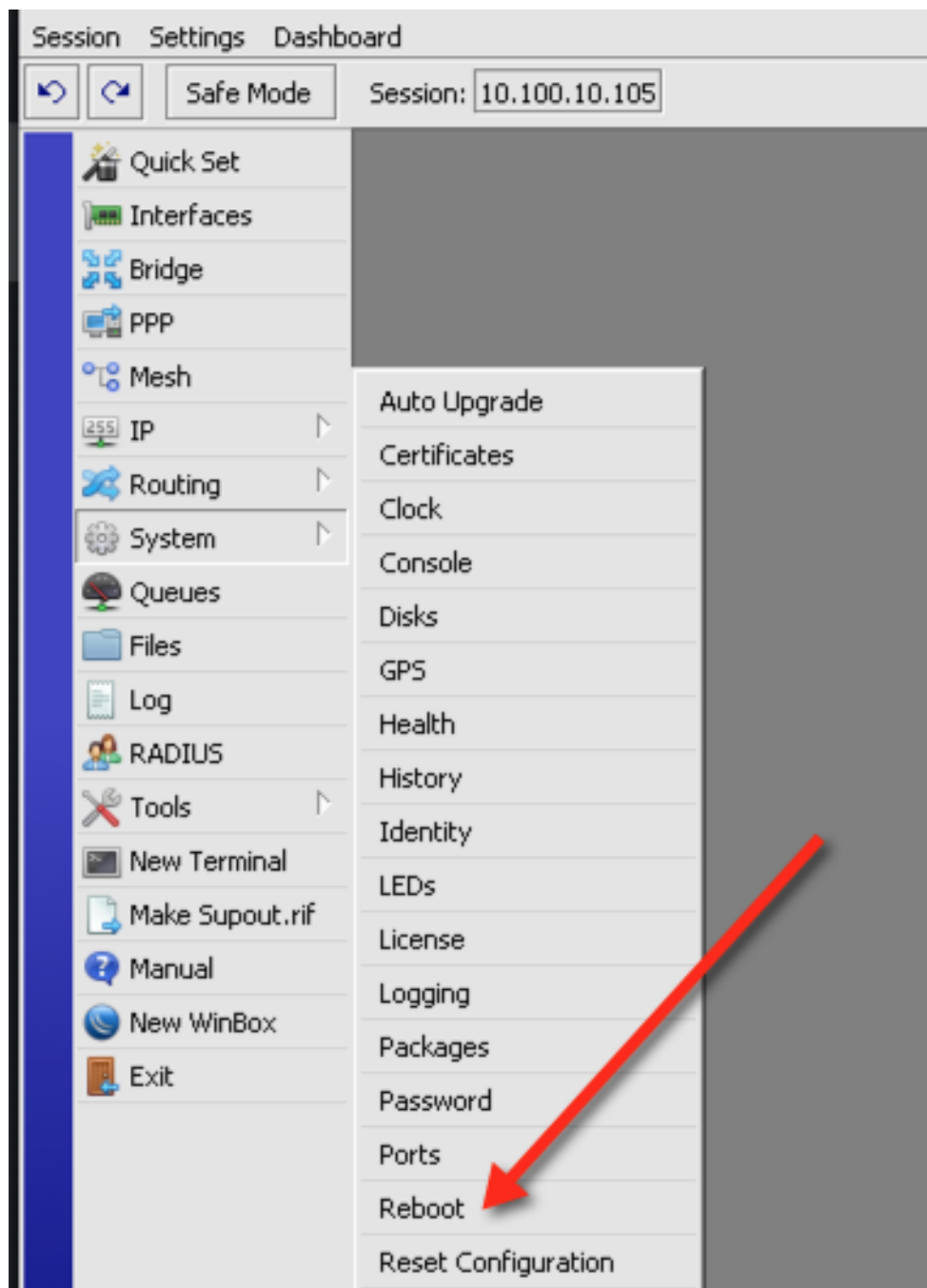
Safe Mode Session: 10.100.10.105

Quick Set
Interfaces
Bridge
PPP
Mesh
IP
Routing
System
Queues
Files
Log

File List

Backup Restore Upload...

File Name	Type	Size	Creation Time
gps-6.44.1.npk	package	52.1 KiB	Mar/24/2019 10:15:30
today.backup	backup	19.6 KiB	Mar/24/2019 10:13:27
pub	directory		Mar/24/2019 10:10:56
today.rsc	script	1298 B	Mar/24/2019 10:10:56
auto-before-reset.backup	backup	9.8 KiB	Mar/24/2019 00:49:33
hotspot	directory		Mar/13/2016 05:56:28
hotspot/alogin.html	.html file	1293 B	Mar/13/2016 05:56:28
hotspot/error.html	.html file	898 B	Mar/13/2016 05:56:28
hotspot/errors.txt	.txt file	3615 B	Mar/13/2016 05:56:28
hotspot/favicon.ico	.ico file	903 B	Mar/13/2016 05:56:28
hotspot/img	directory		Mar/13/2016 05:56:28



Package List



Check For Updates

Enable

Disable

Uninstall

Unschedule

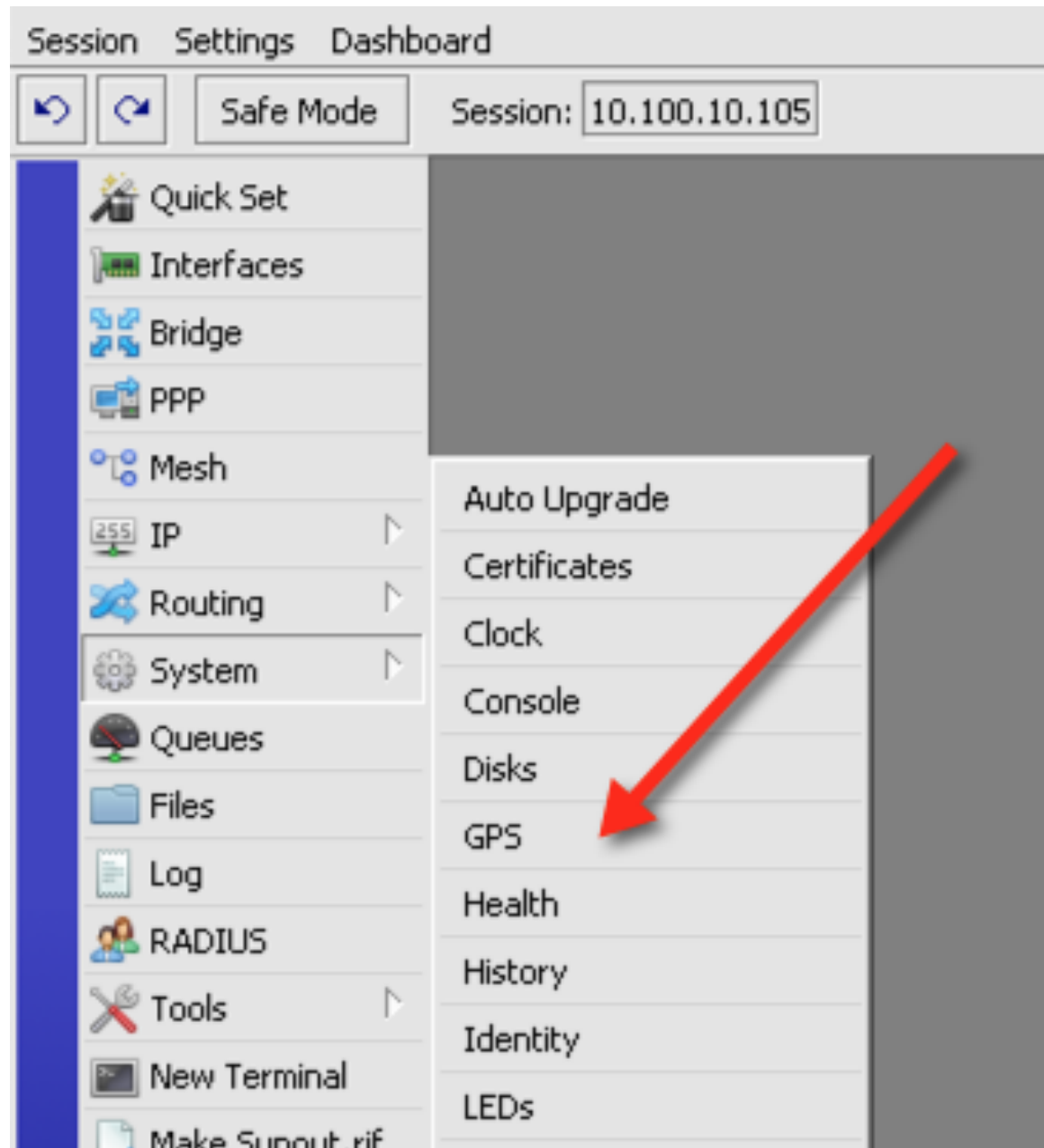
Downgrade

Check Installation

Find

Name	Version	Build Time	Scheduled	
 calea	6.44.1	Mar/13/2019 08:38:51		
 gps	6.44.1	Mar/13/2019 08:38:51		
 multicast	6.44.1	Mar/13/2019 08:38:51		
 ntp	6.44.1	Mar/13/2019 08:38:51		
 openflow	6.44.1	Mar/13/2019 08:38:51		
 routeros-x86	6.44.1	Mar/13/2019 08:38:51		
 advanced-...	6.44.1	Mar/13/2019 08:38:51		
 dhcp	6.44.1	Mar/13/2019 08:38:51		
 hotspot	6.44.1	Mar/13/2019 08:38:51		
 ipv6	6.44.1	Mar/13/2019 08:38:51		
 mpls	6.44.1	Mar/13/2019 08:38:51		
 ppp	6.44.1	Mar/13/2019 08:38:51		
 routing	6.44.1	Mar/13/2019 08:38:51		
 security	6.44.1	Mar/13/2019 08:38:51		
 system	6.44.1	Mar/13/2019 08:38:51		

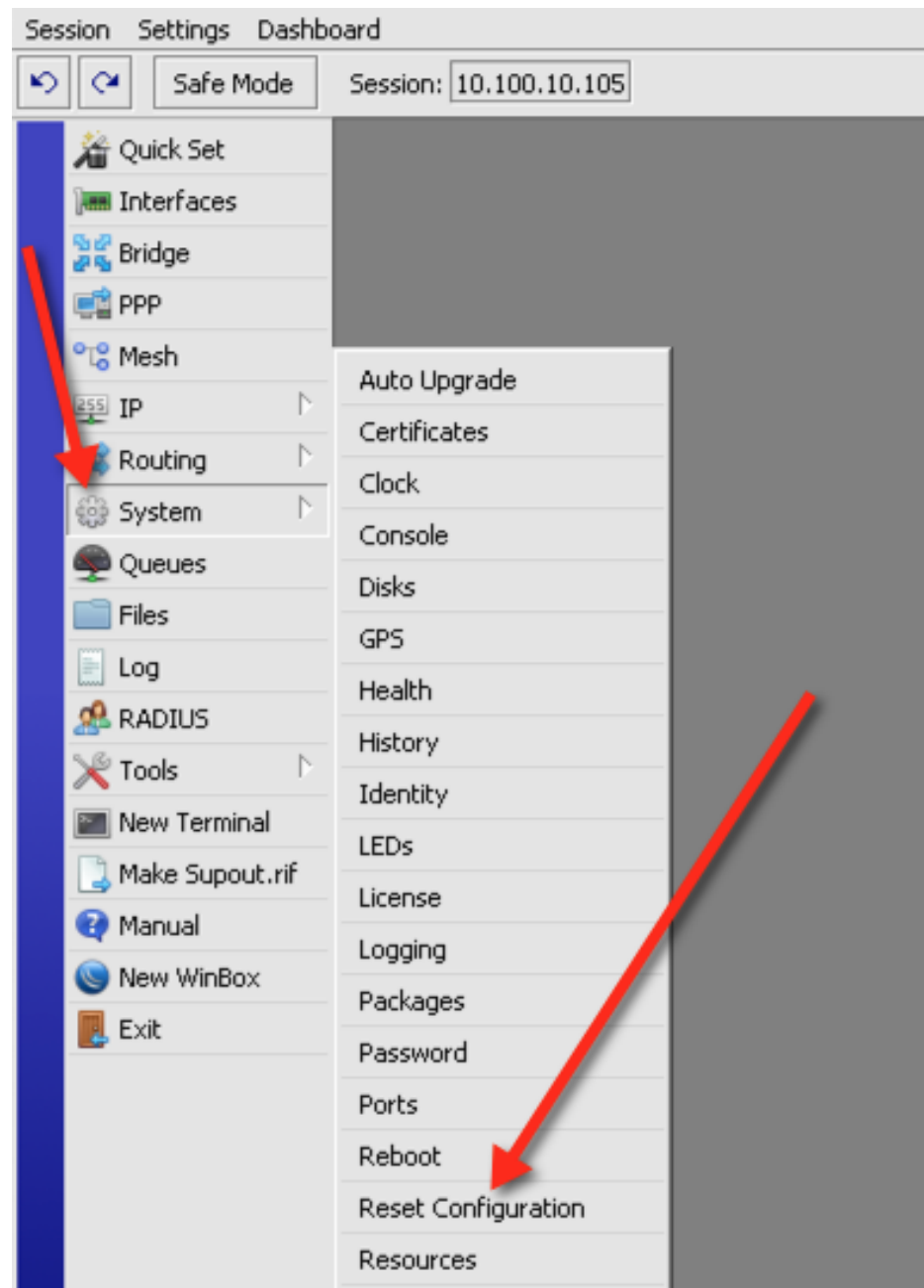
18 items

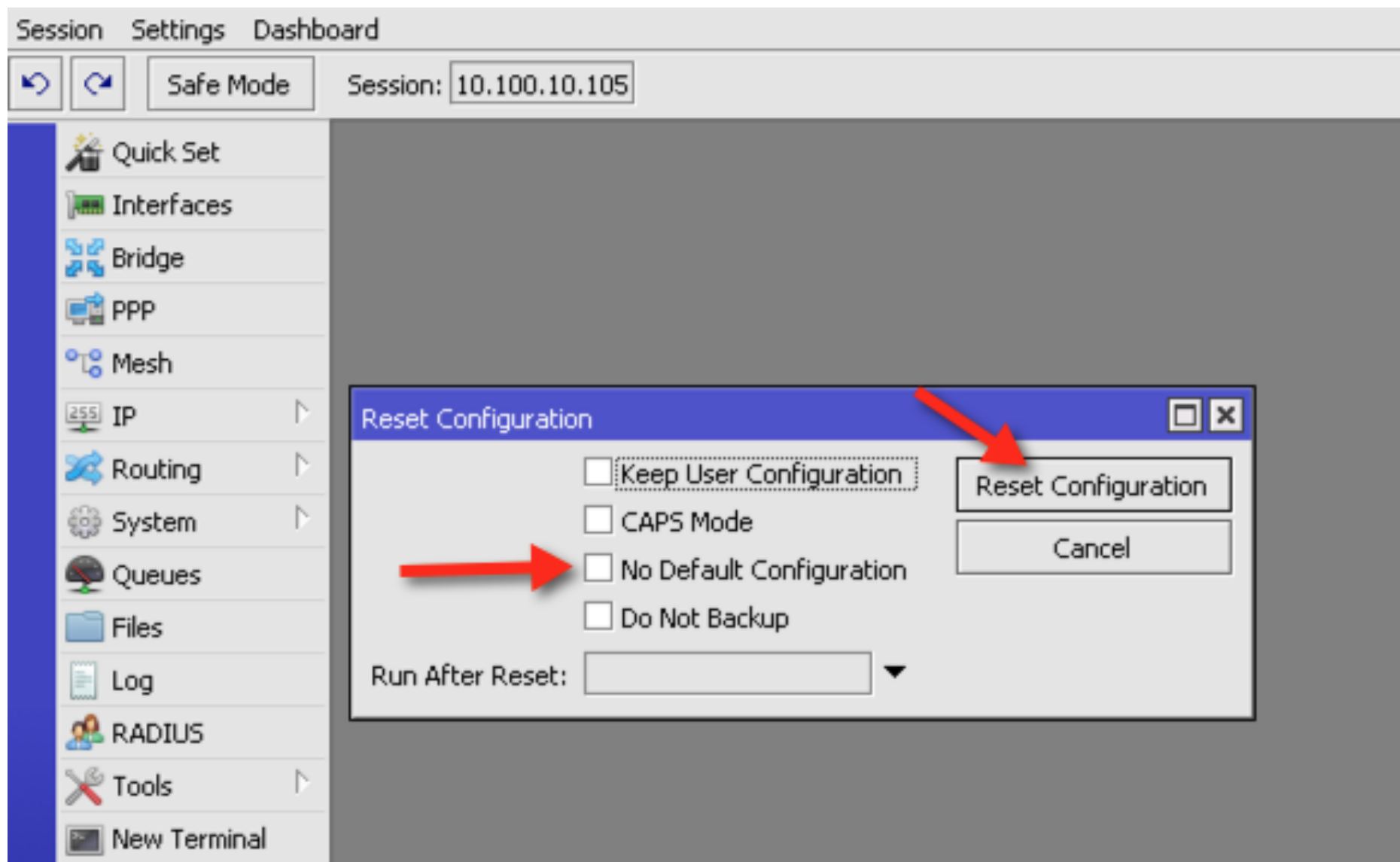


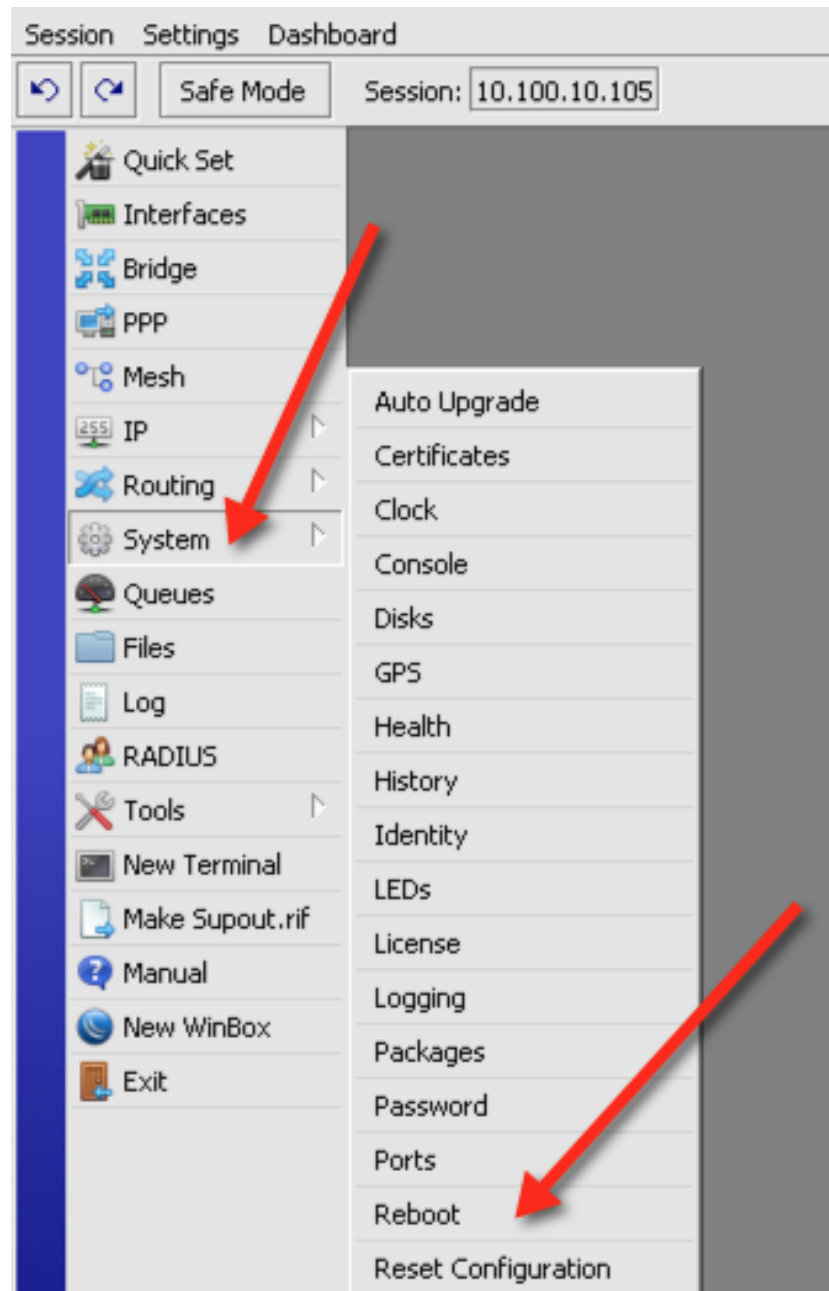
5. How to Reset Your Router

How to Reset Your Router

- Resetting lets you “start over”
- Allow access to the original default configuration or to clear all configurations







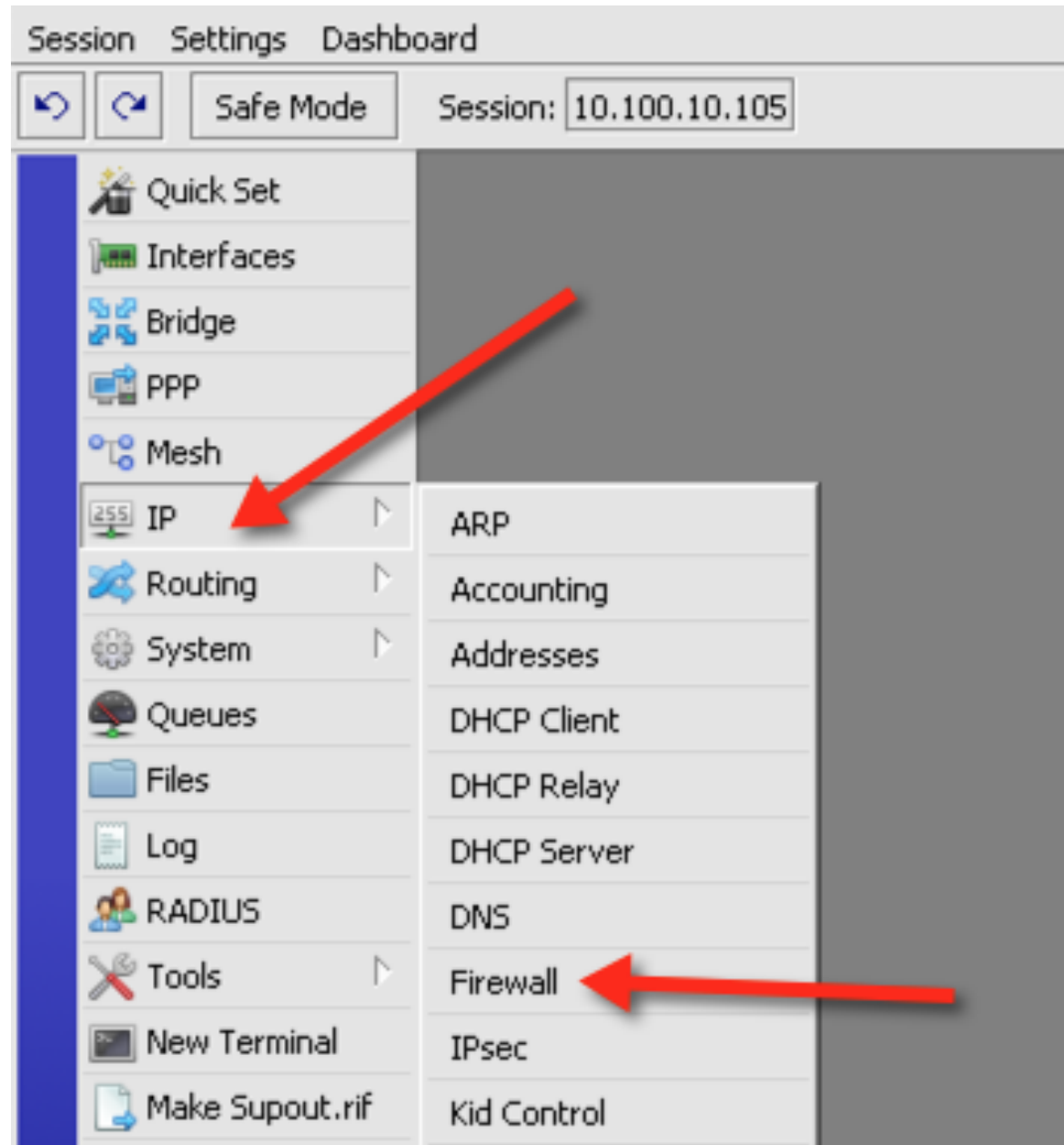
6. How to Block YouTube

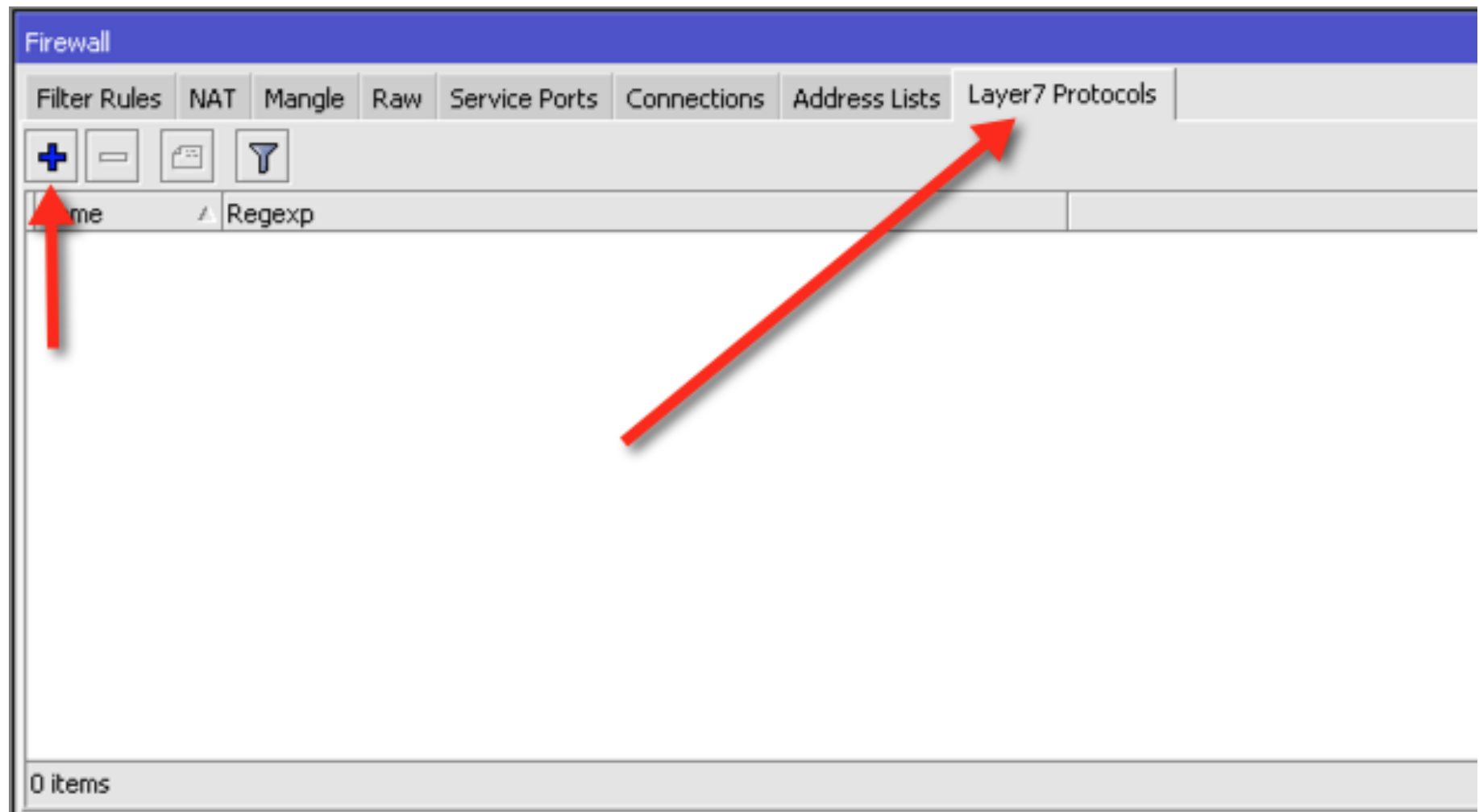
How to Block YouTube

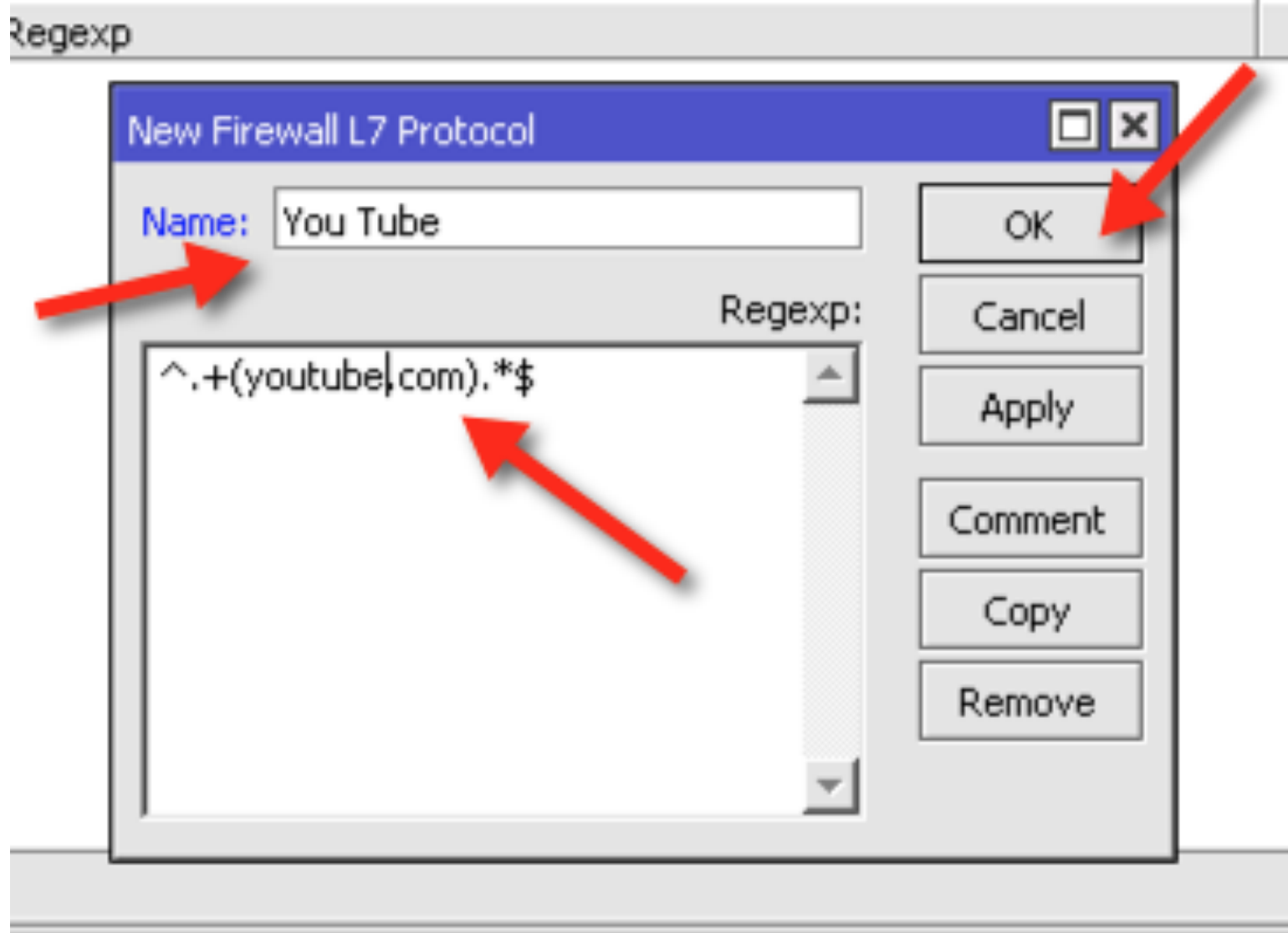
- Some sites and protocols can be blocked with reasonable effectiveness
- There are many strategies, I will show you two because they are the most reliable and the most expandable

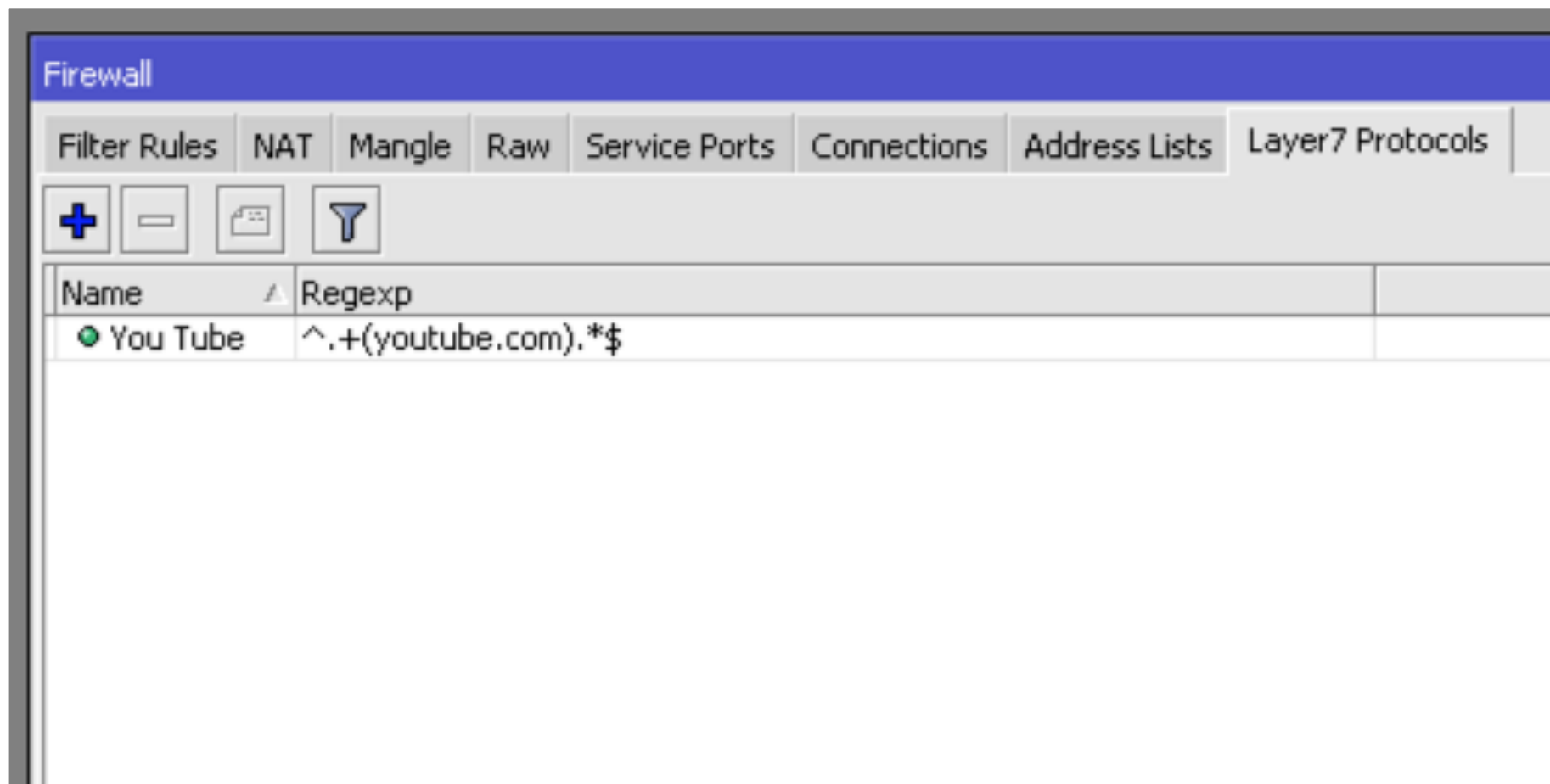
Option 1 - Layer7

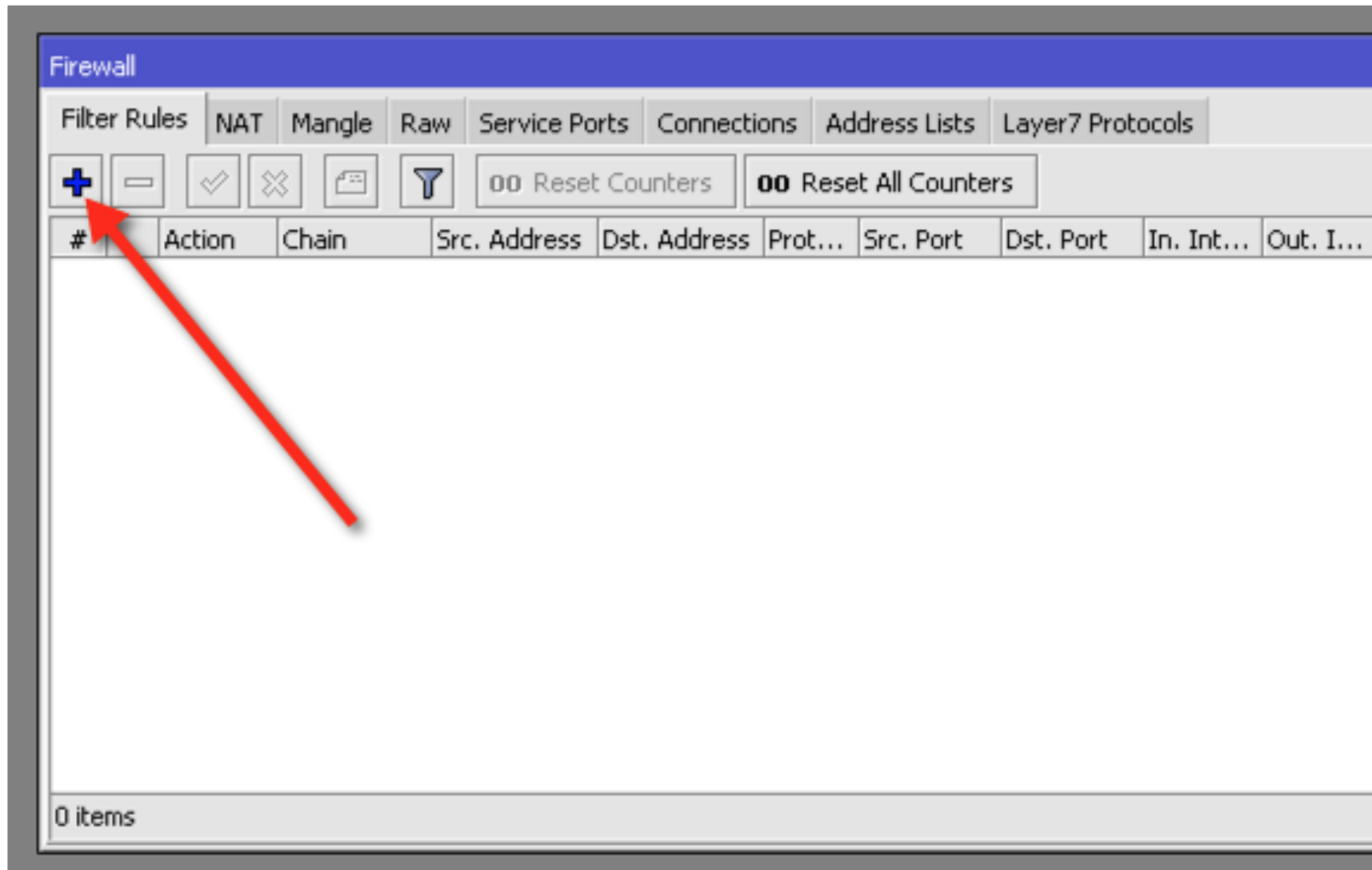
(can be processor intensive
for large implementations
so use with caution)











New Firewall Rule

General | **Advanced** | Extra | Action | ...

Chain: forward

Src. Address:

Dst. Address:

Protocol: ☐ 6 (tcp)

Src. Port:

Dst. Port: ☐ 80,443

Any. Port:

In. Interface:

Out. Interface:

OK

Cancel

Apply

Disable

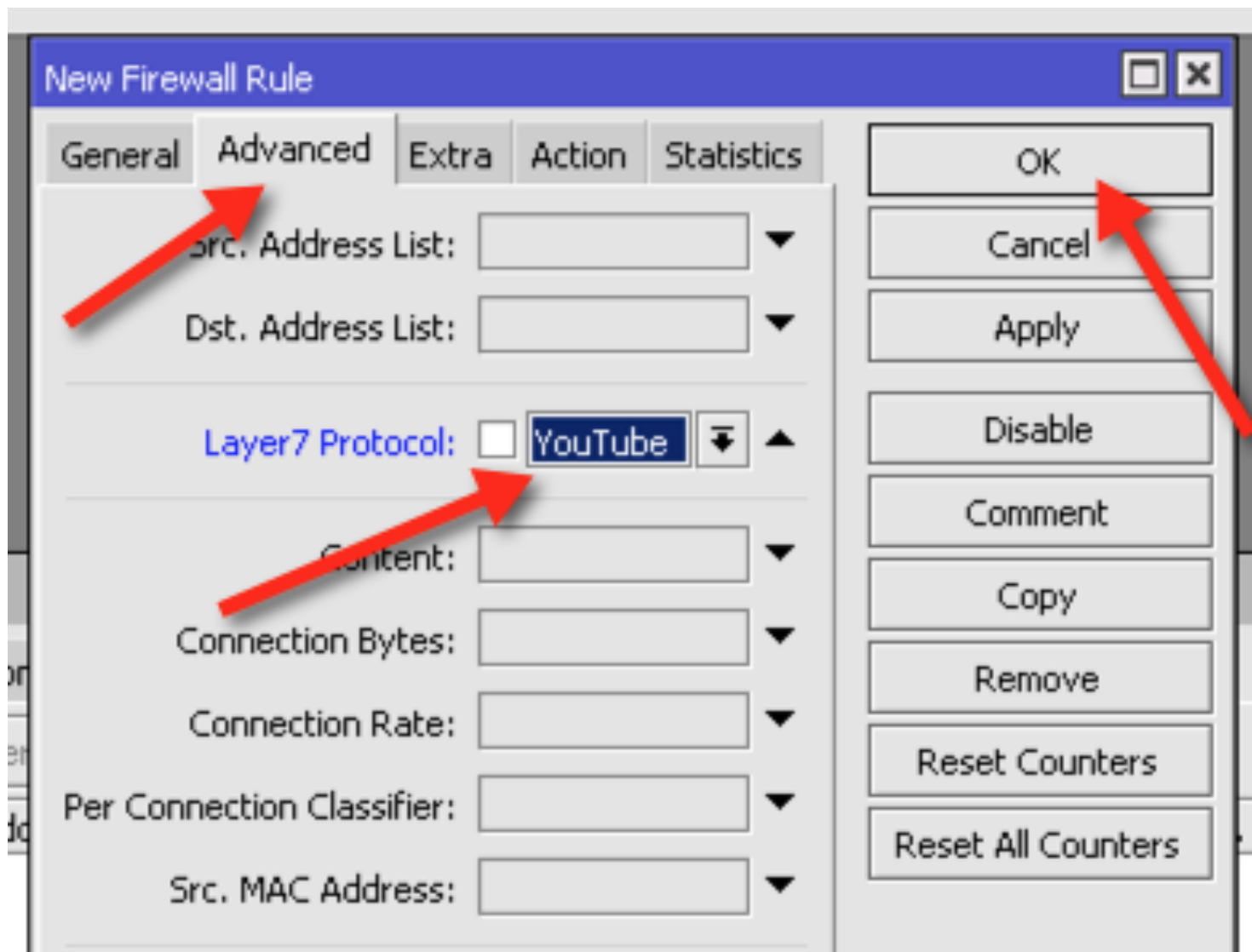
Comment

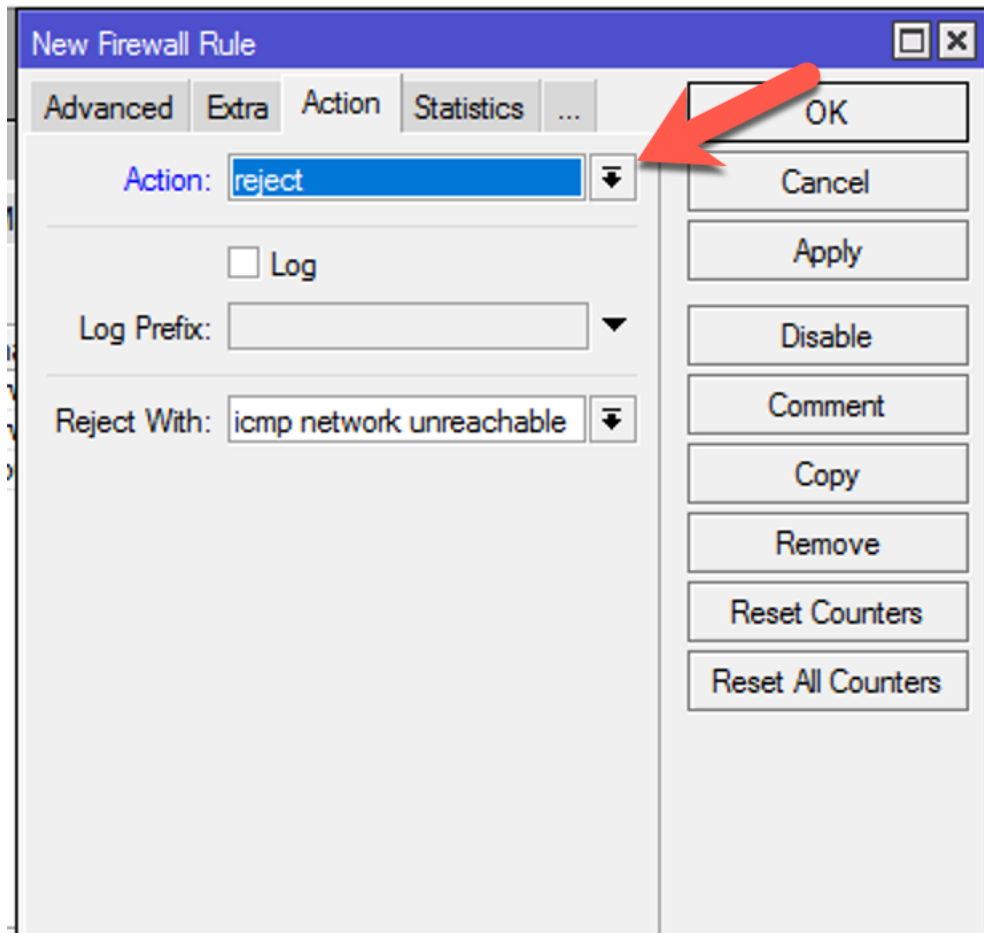
Copy

Remove

Reset Counters

Reset All Counters





Reject or Drop



This site can't be reached

www.youtube.com refused to connect.

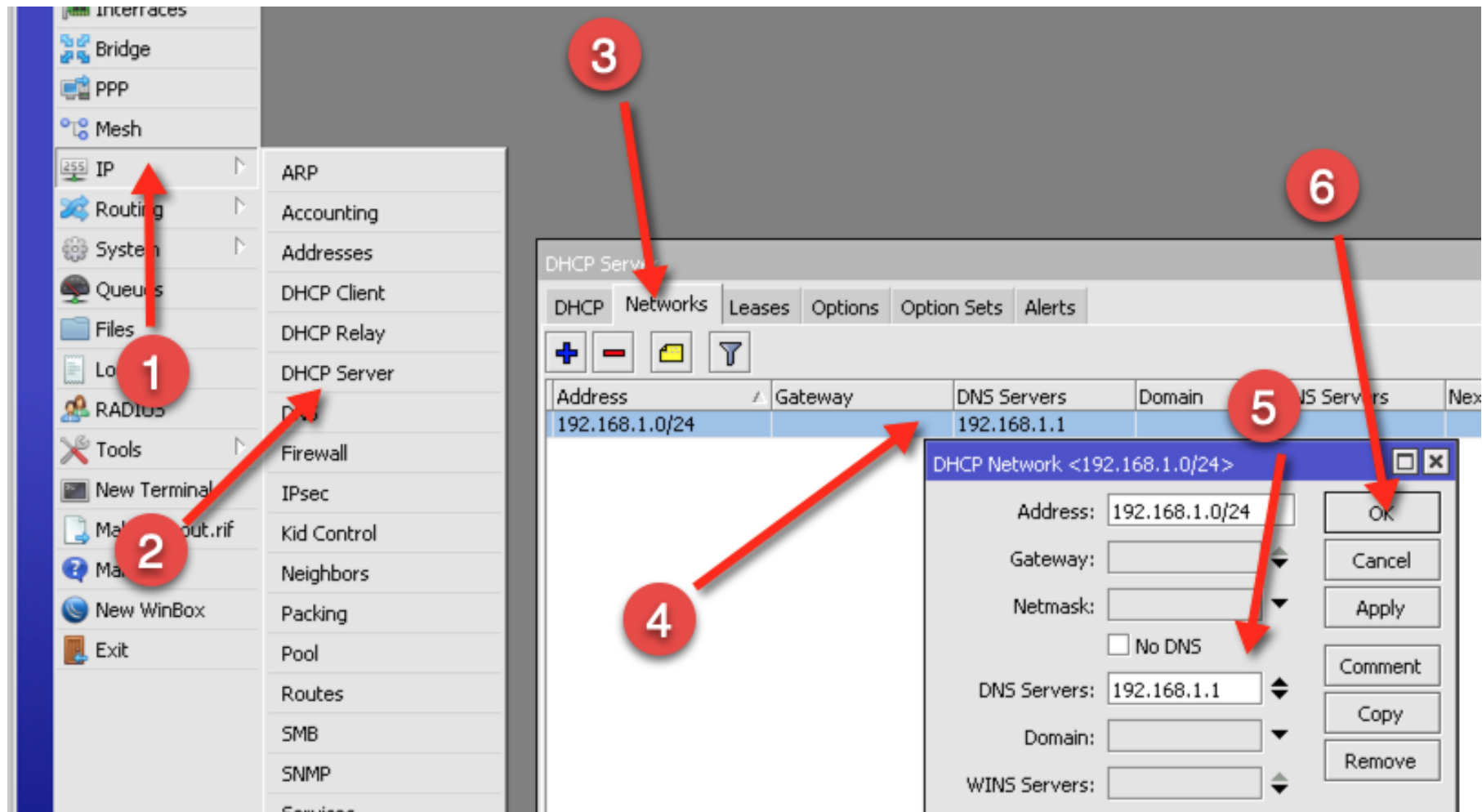
Try:

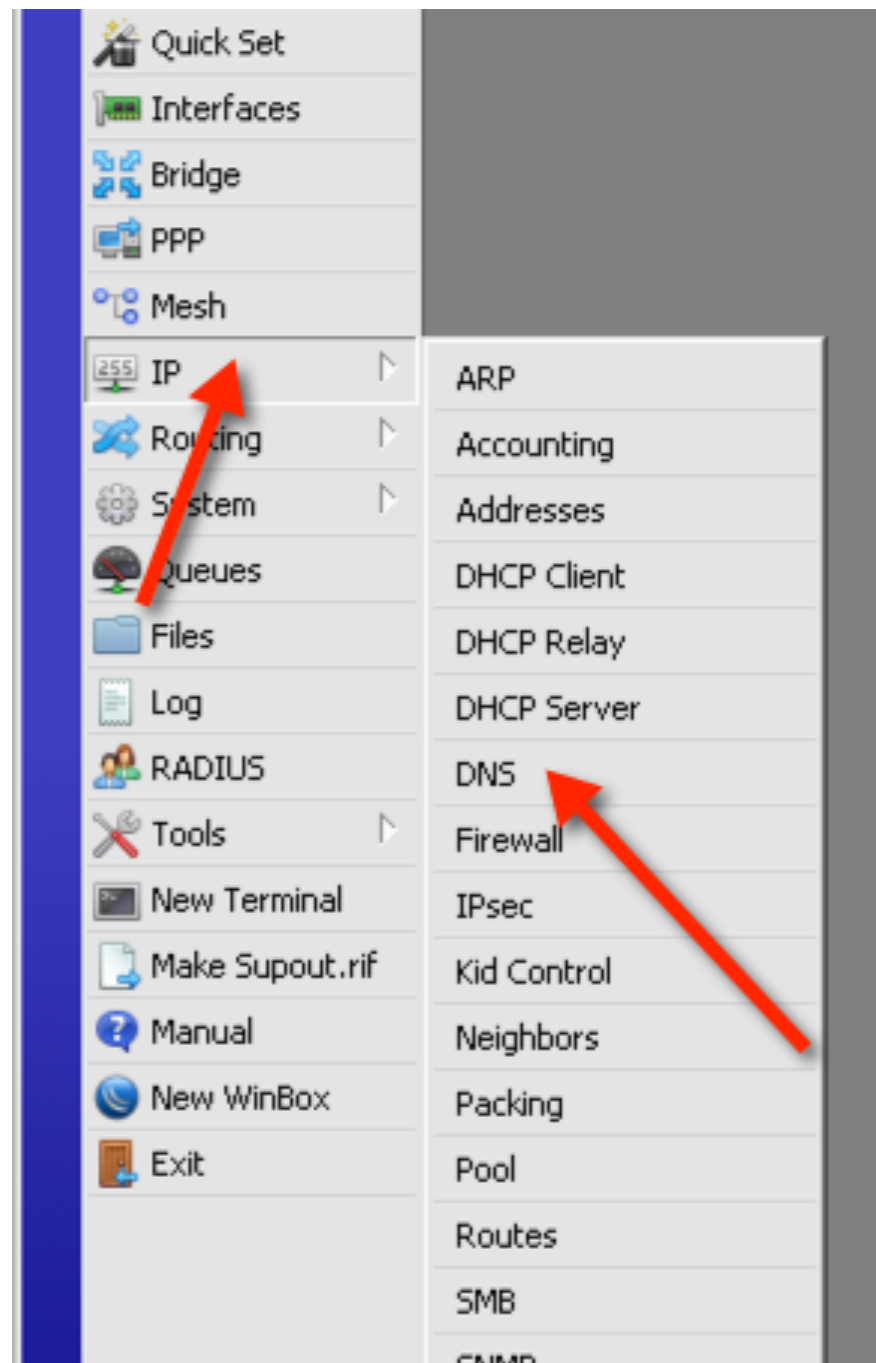
- Checking the connection
- [Checking the proxy and the firewall](#)

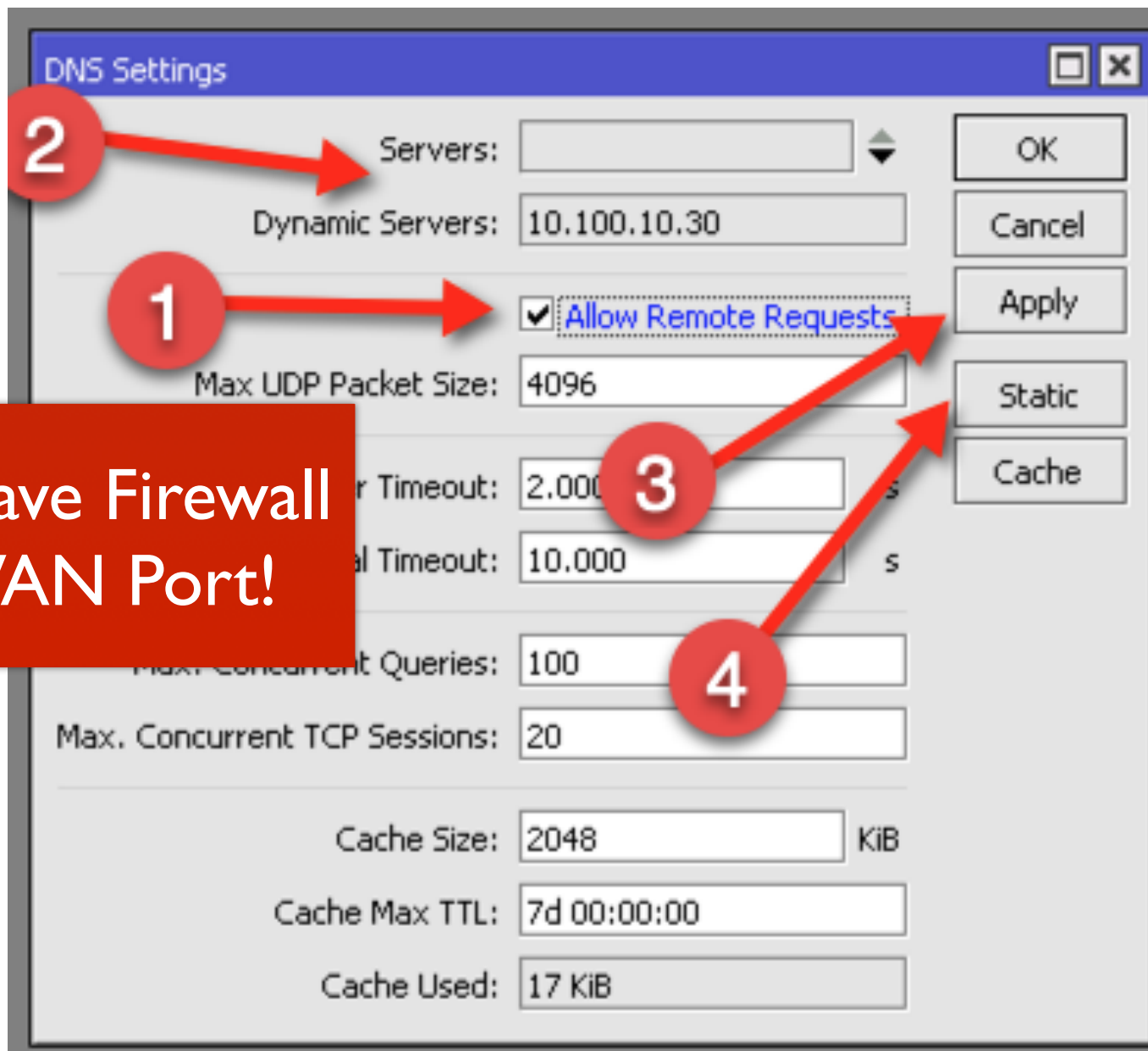
ERR_CONNECTION_REFUSED

Details

Option 2 - Block YouTube Using DNS







Must have Firewall
on WAN Port!



localhost, web
request goes
nowhere!

DNS Static

#	Name	Regex	Address
0	googlevideo.com		127.0.0.1
1	yting.com		127.0.0.1
2	youtube.com		127.0.0.1
3	youtube-ui.l.google.com		127.0.0.1
4	yting.l.google.com		127.0.0.1
5	ytstatic.l.google.com		127.0.0.1
6	youtubei.googleapis.com		127.0.0.1

Static DNS

DNS Cache

Flush Cache

Name	Type	Data
1.0.0.127.in-addr.arpa	PTR	googlevideo.com
1.0.0.127.in-addr.arpa	PTR	yting.com
1.0.0.127.in-addr.arpa	PTR	youtube.com
1.0.0.127.in-addr.arpa	PTR	youtube-ui.l.google.com
1.0.0.127.in-addr.arpa	PTR	yting.l.google.com
1.0.0.127.in-addr.arpa	PTR	ytstatic.l.google.com
1.0.0.127.in-addr.arpa	PTR	youtubei.googleapis.com
googlevideo.com	A	127.0.0.1
updates-hermes-mb-prod-4872374...	A	35.169.41.170
updates-hermes-mb-prod-4872374...	A	54.86.251.59
updates-hermes-mb-prod-4872374...	A	54.236.152.62
updates-hermes-mb-prod-4872374...	A	34.226.221.200
www.youtube.com	CNAME	youtube-ui.l.google.com
youtube-ui.l.google.com	A	127.0.0.1
youtube.com	A	127.0.0.1
youtubei.googleapis.com	A	127.0.0.1
yting.com	A	127.0.0.1
yting.l.google.com	A	127.0.0.1
ytstatic.l.google.com	A	127.0.0.1

Reverse

Forward



This site can't be reached

www.youtube.com refused to connect.

Try:

- Checking the connection
- [Checking the proxy and the firewall](#)

ERR_CONNECTION_REFUSED

Tip: Force your router to proxy DNS by using
dst-nat rule for port 53, TCP and UDP with
redirect action

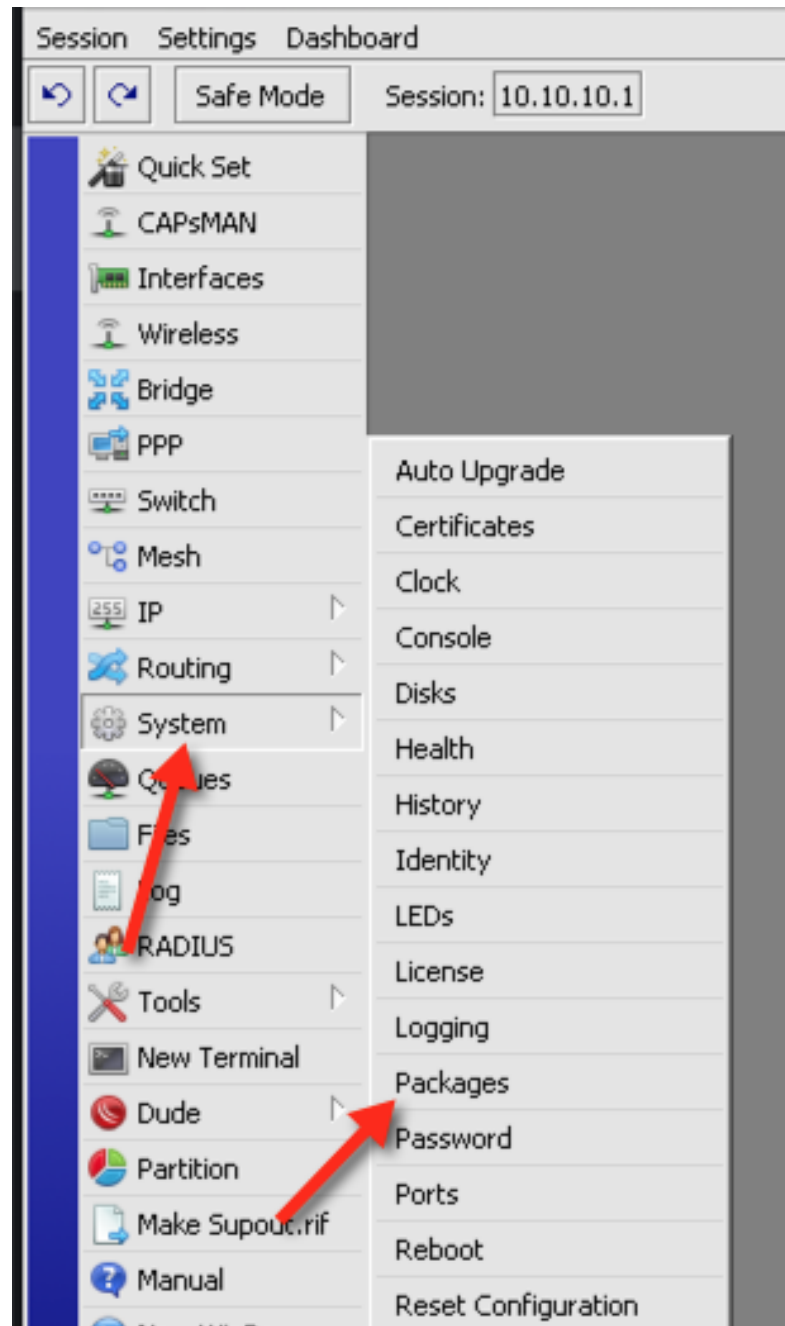
Why Not Use the TLS-Host Matcher?

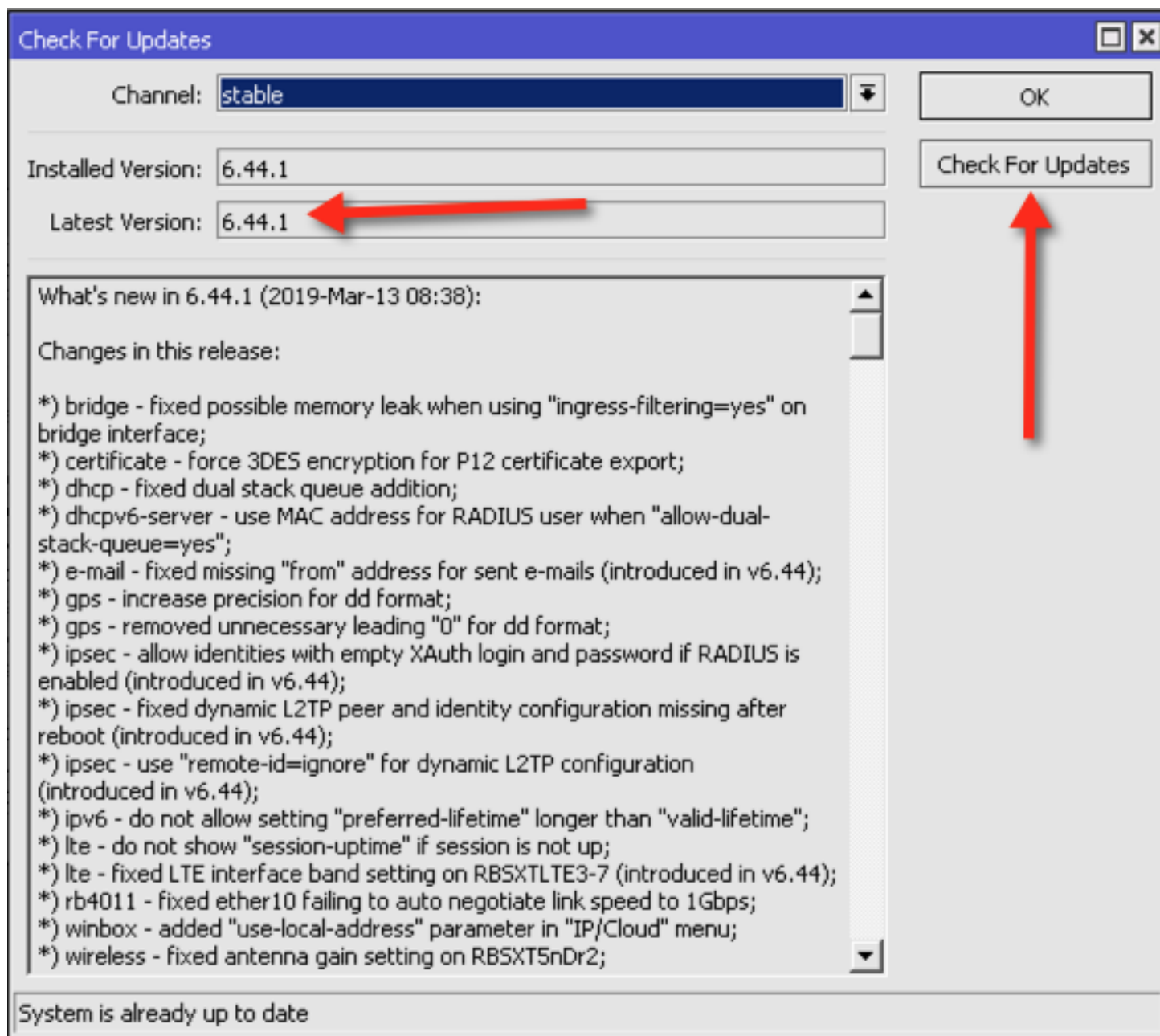
- TLS-Host matcher was made available in 6.41 to easily match TLS traffic (https, formerly SSL)
- Google began implementing **QUIC** (Quick UDP Internet Connections) in Chrome, a new encrypted-by-default Internet transport protocol, that provides a number of improvements designed to accelerate HTTP traffic as well as make it more secure, with the intended goal of eventually replacing TCP and TLS on the web.
- This makes TLS-Host hit or miss right now

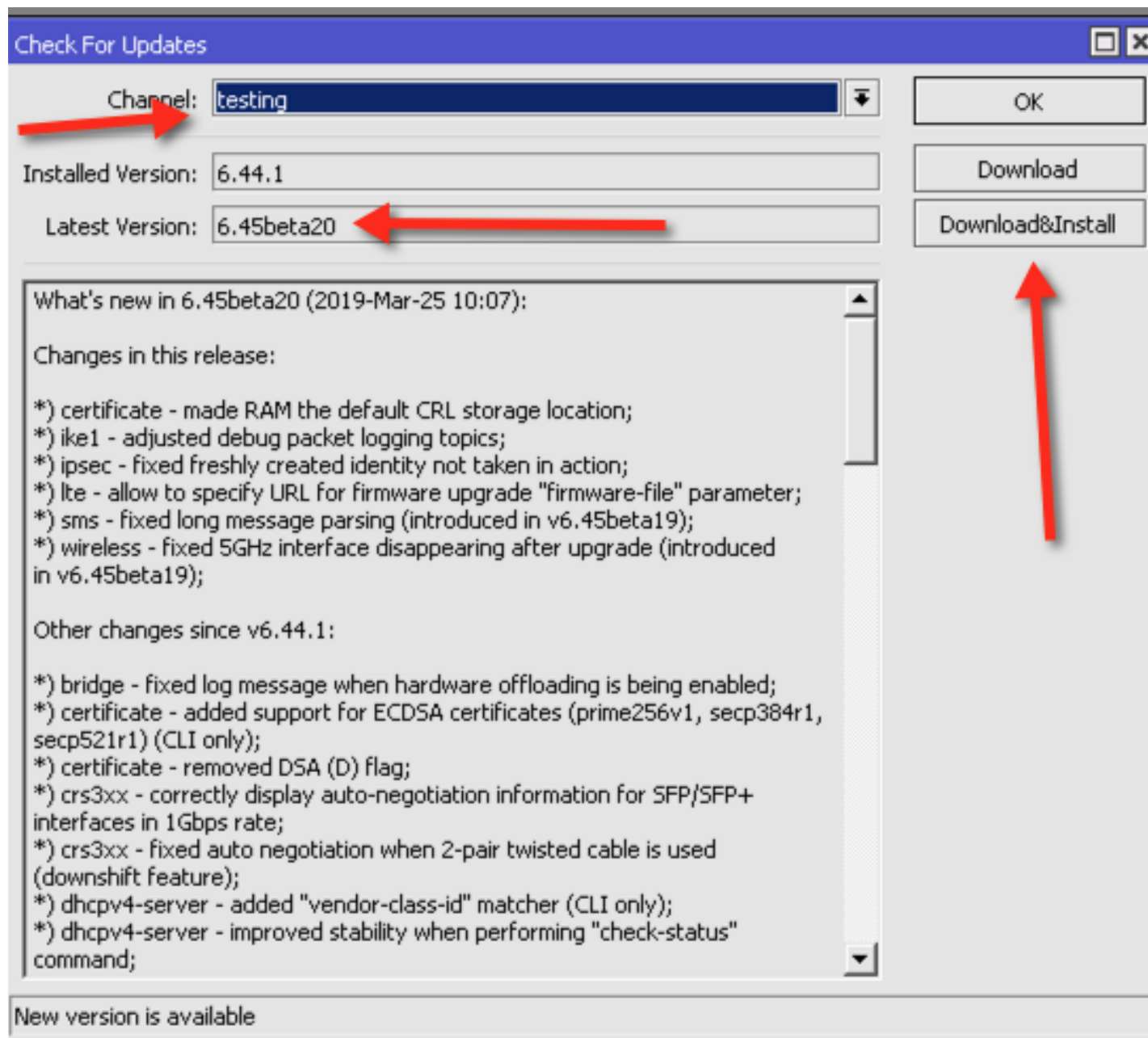
7. How to Upgrade RouterOS

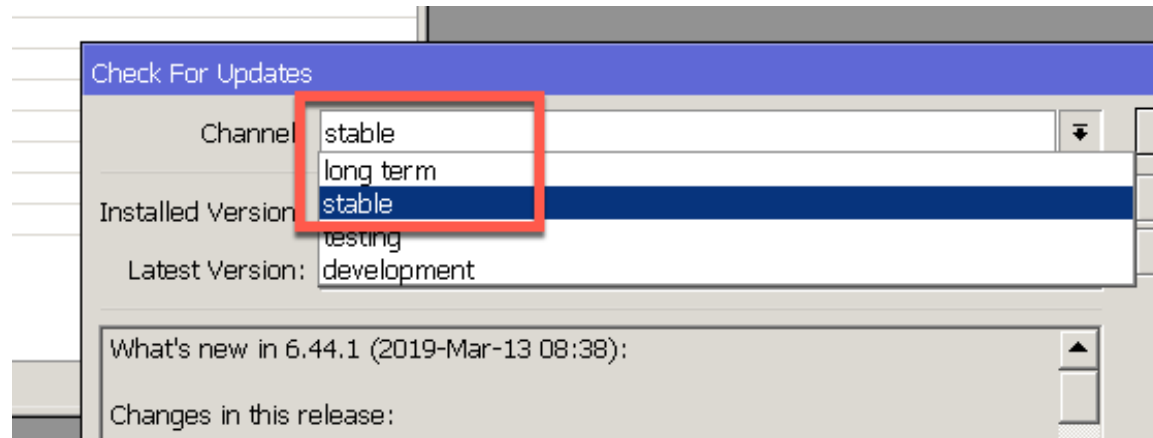
How to Upgrade RouterOS

- Keeping your device current is the best way to ensure safety and security of the network

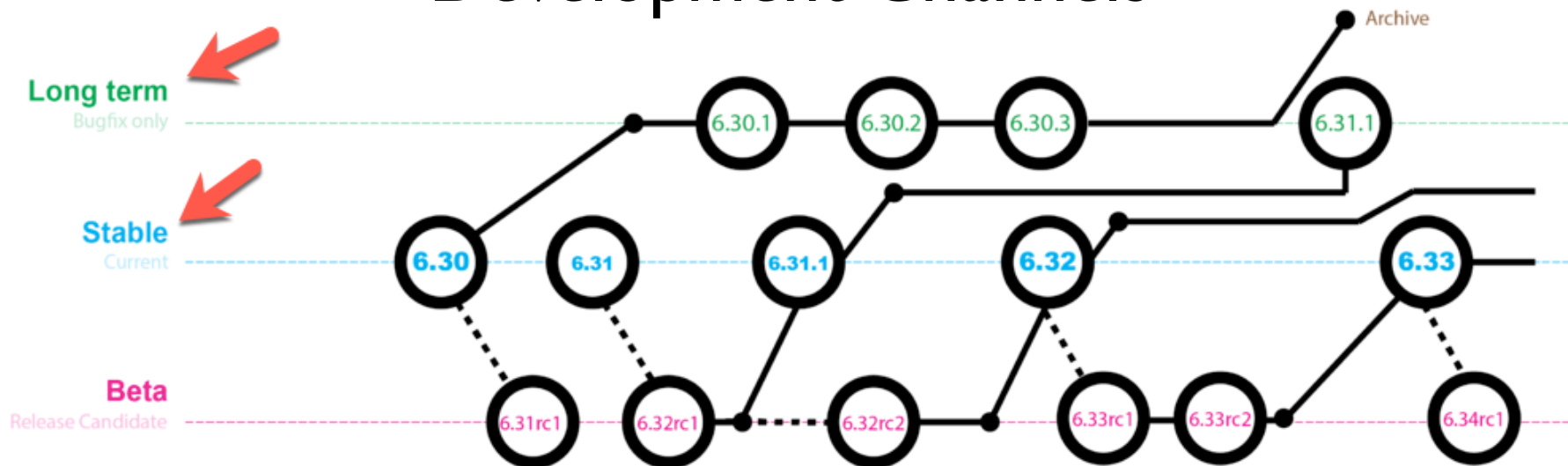


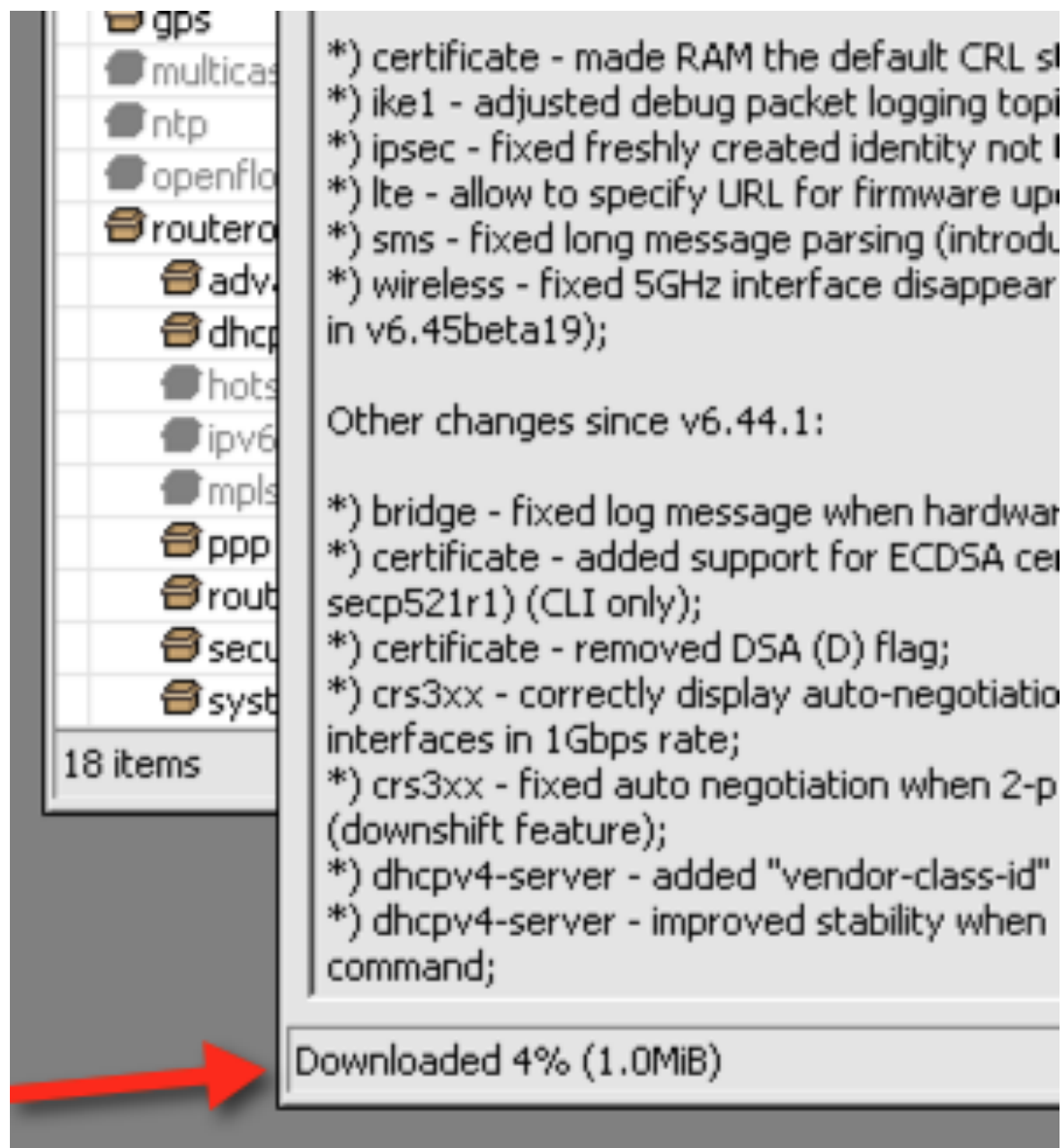






Development Channels

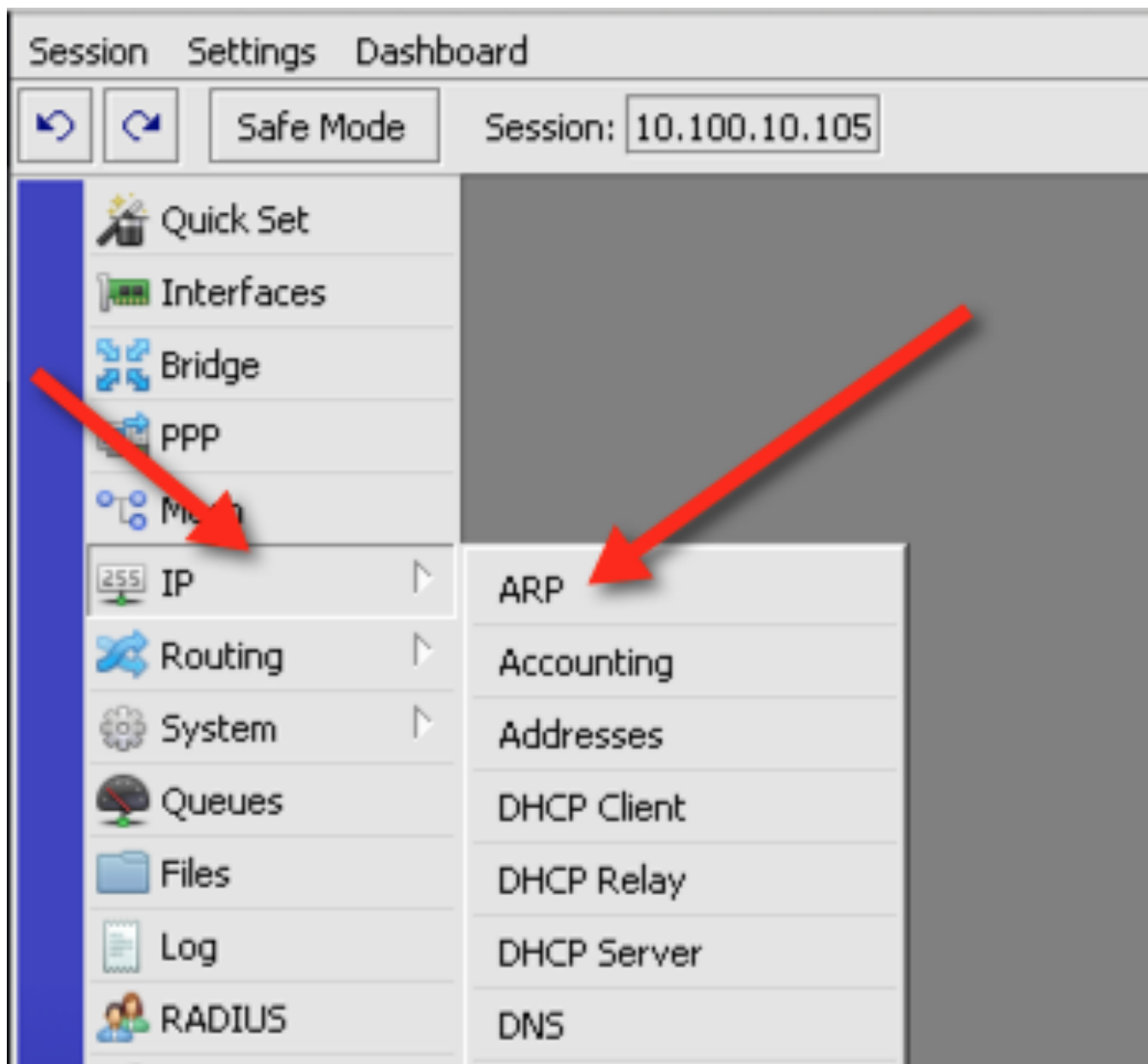


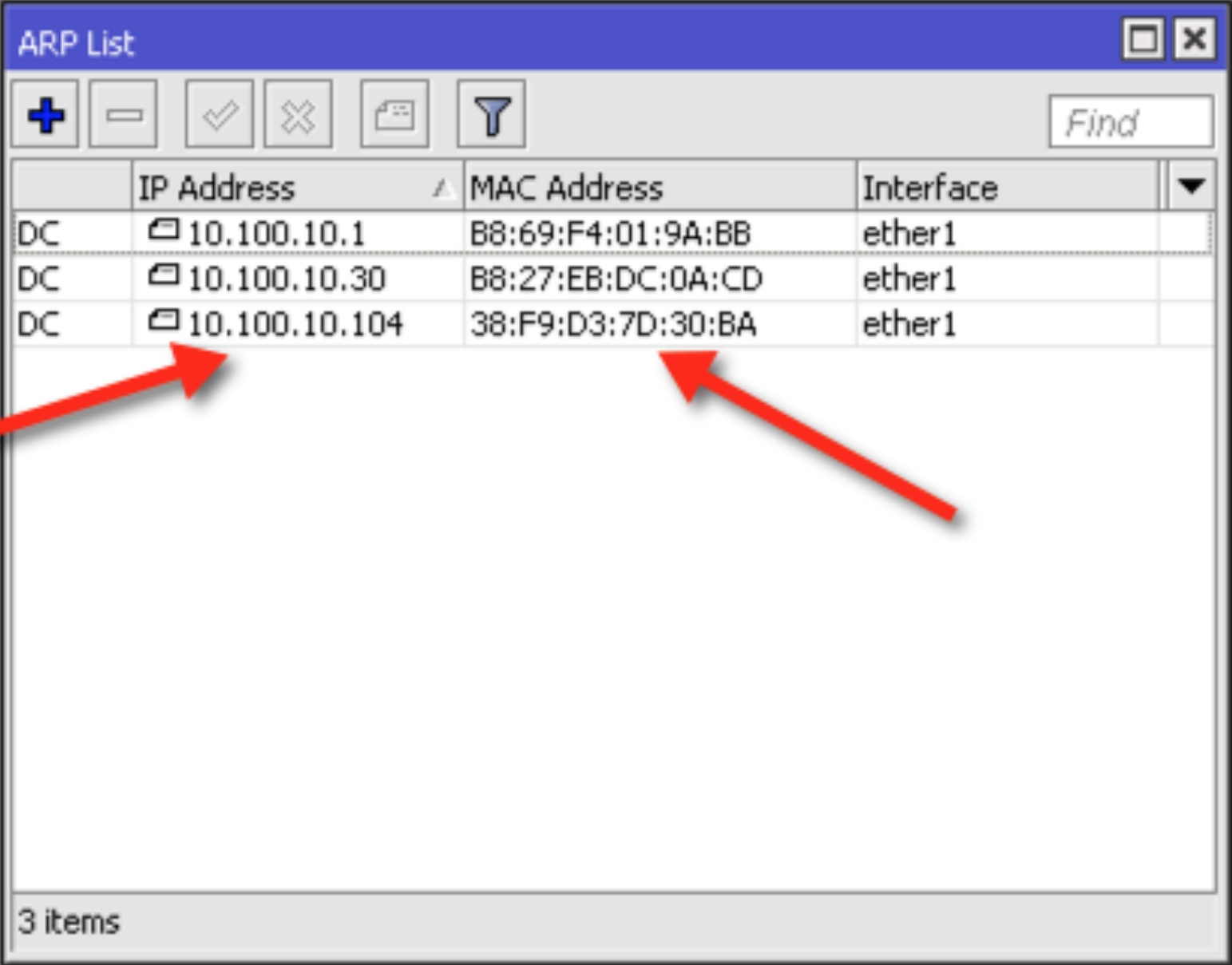


8. How to Block MAC Address

How to Block MAC Address

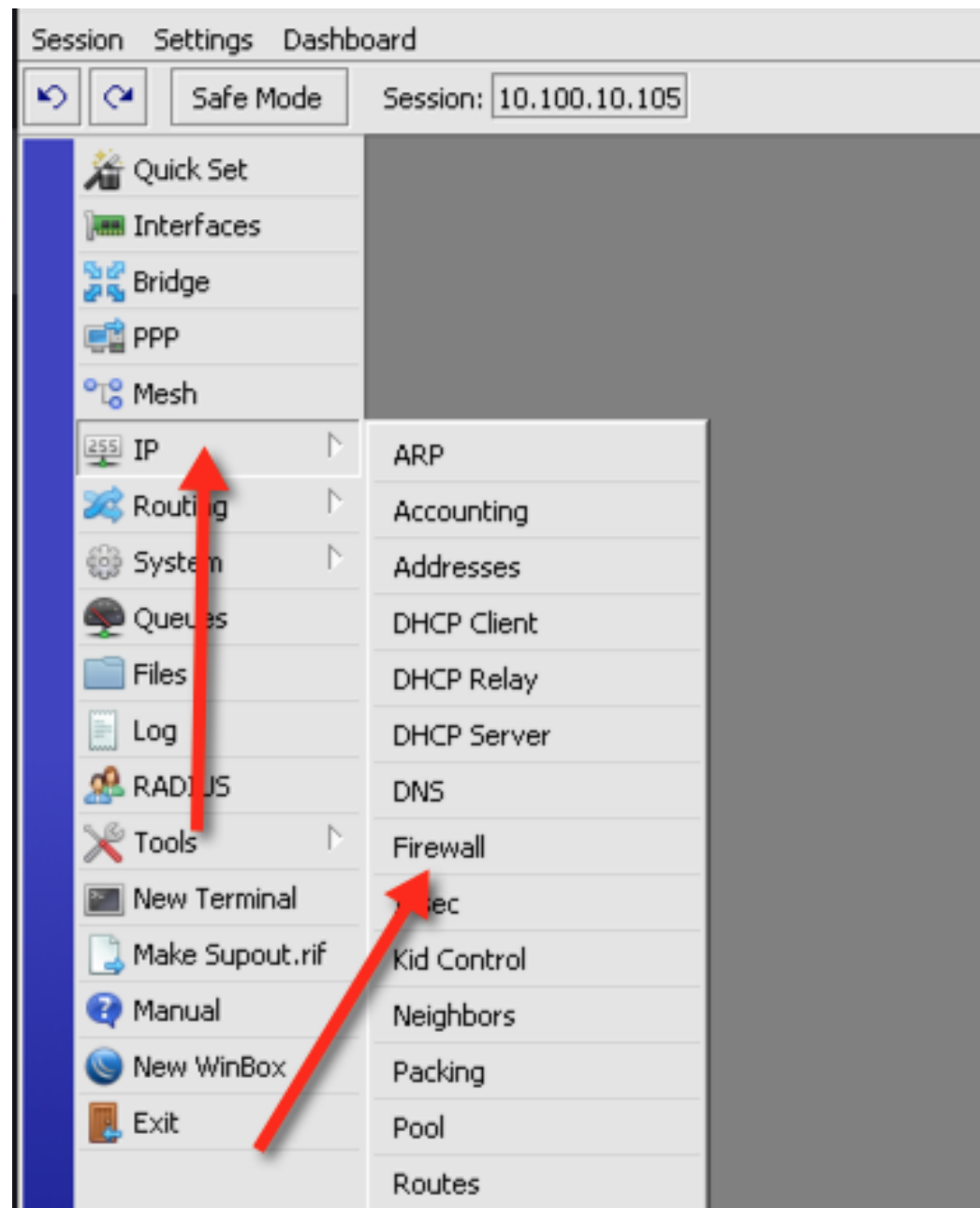
- Regardless of the clients IP address, maybe you want to block a certain MAC





	IP Address	MAC Address	Interface	
DC	10.100.10.1	B8:69:F4:01:9A:BB	ether1	
DC	10.100.10.30	B8:27:EB:DC:0A:CD	ether1	
DC	10.100.10.104	38:F9:D3:7D:30:BA	ether1	

3 items



Session Settings Dashboard

Life Mode Session: 10.10.10.1

Firewall

Filter Rules NAT Mangle Raw Service Ports Connections Address Lists Layer7 Protocols

+ - ✓ ✗ [Filter Icon] [Reset Counters] [Reset All Counters]

#	Action	Chain	Src. Address	Dst. Address	Protocol	Src....	Dst. Port
---	--------	-------	--------------	--------------	----------	---------	-----------

New Firewall Rule

General Advanced Extra Action Statistics

Chain: forward

3 Src. Address:

Dst. Address:

Protocol:

Src. Port:

Dst. Port:

Any. Port:

In. Interface:

Out. Interface:

4

OK

Cancel

Apply

Disable

Comment

Copy

Remove

Reset Counters

Reset All Counters

1

2

5

New Firewall Rule

General Advanced Extra Action Statistics

Src. Address List:

Dst. Address List:

Layer7 Protocol:

Content:

Connection Bytes:

Connection Rate:

Per Connection Classifier:

Src. MAC Address: ☐ 38:F9:D3:7D:30:BA

Out. Bridge Port:

In. Bridge Port:

In. Bridge Port List:

Out. Bridge Port List:

Ipssec Policy:

OK

Cancel

Apply

Disable

Comment

Copy

Remove

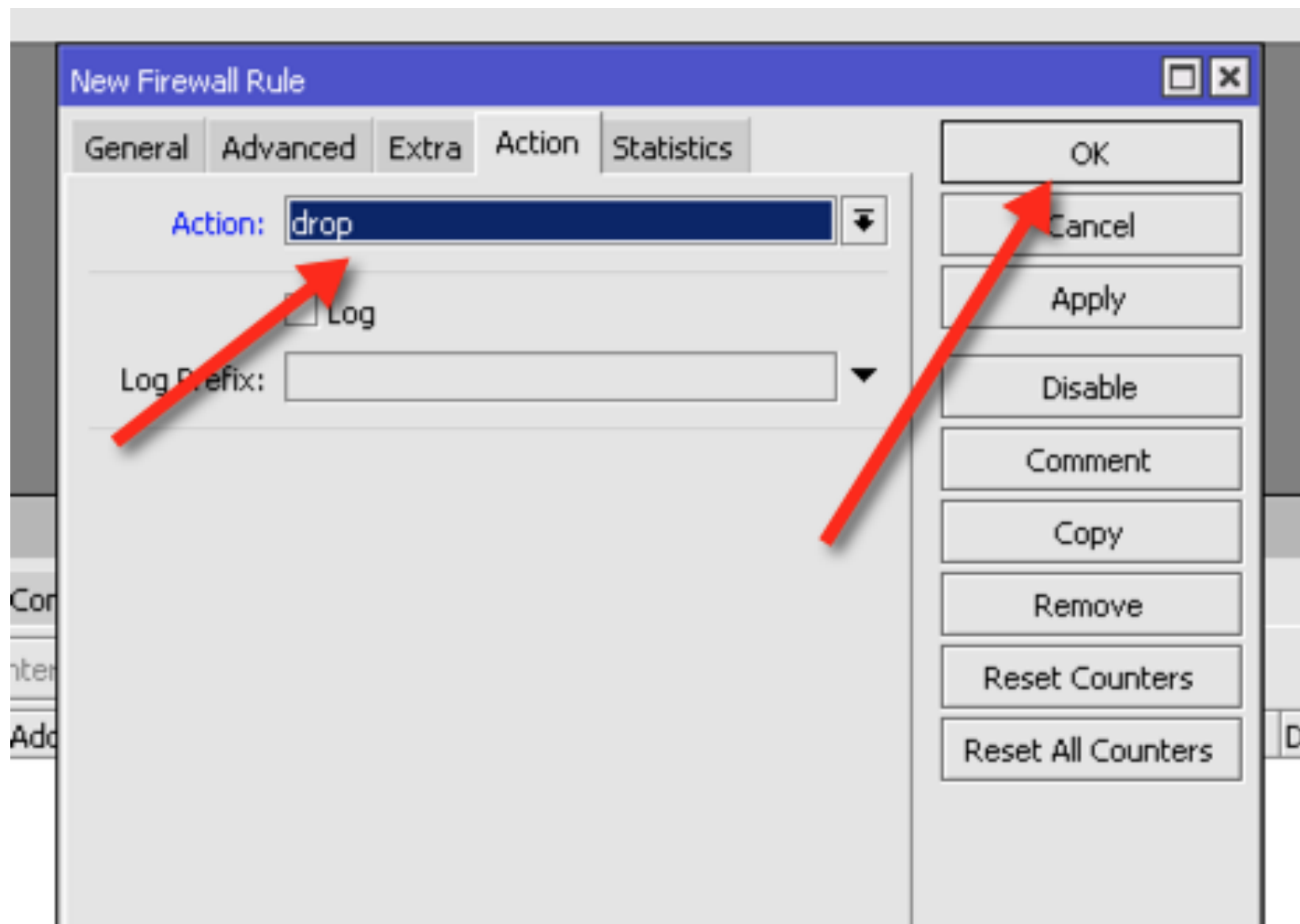
Reset Counters

Reset All Counters

1

2

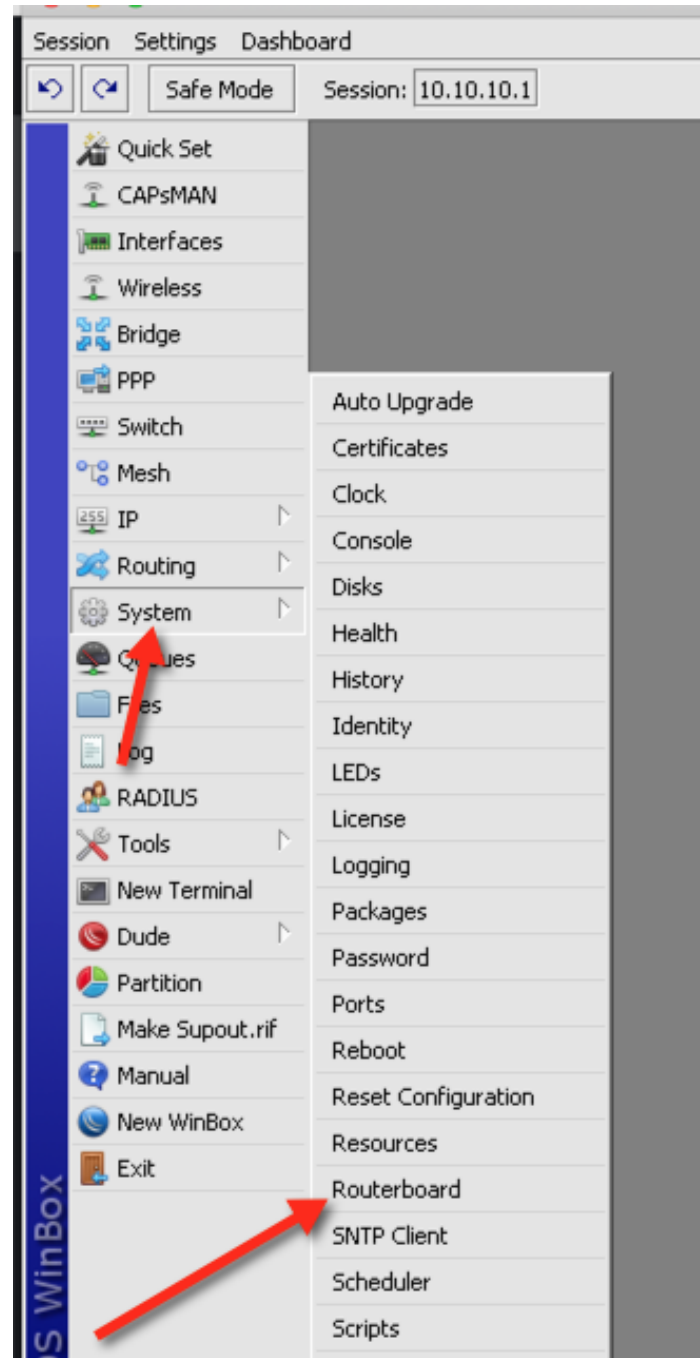
3

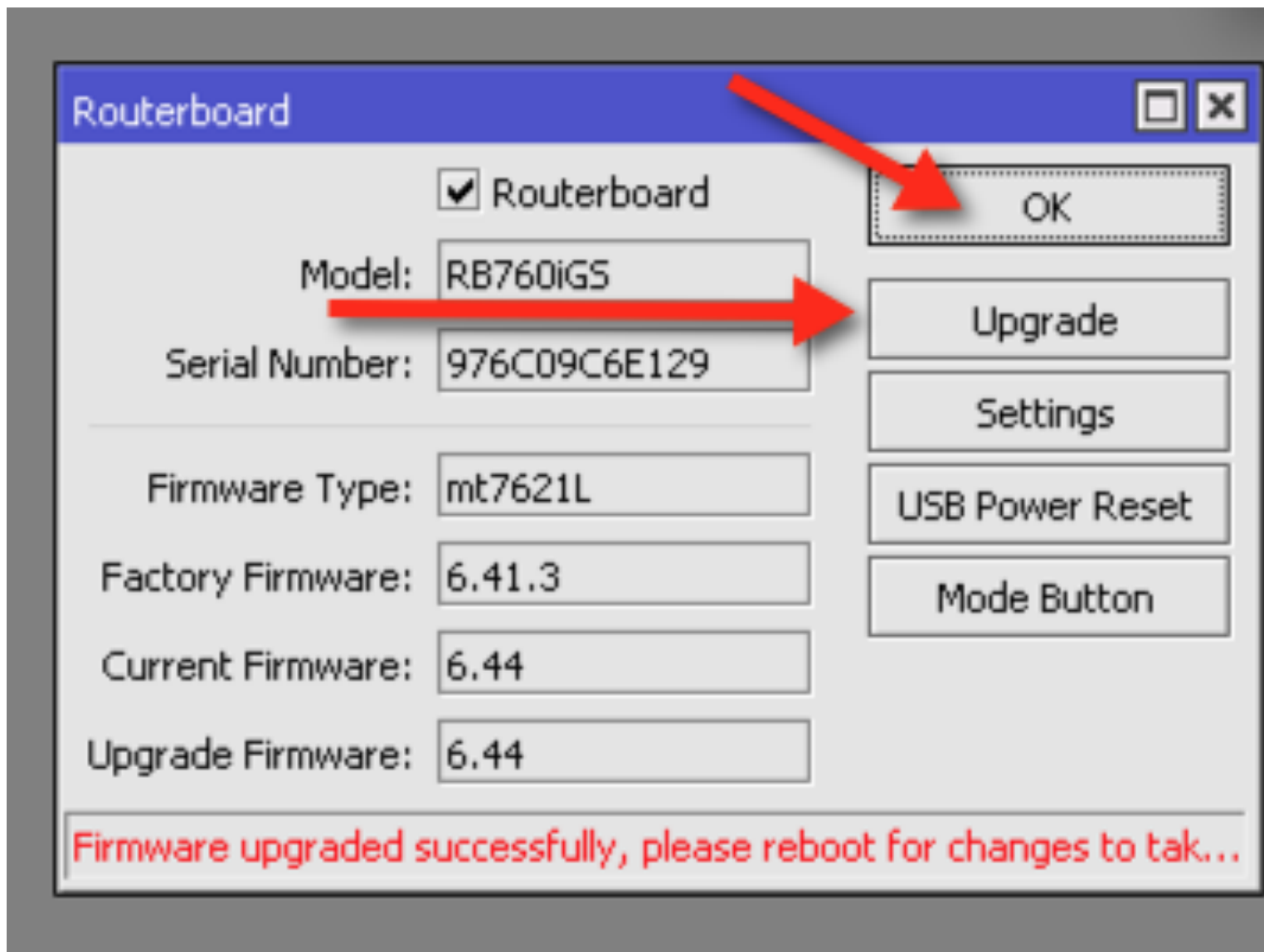


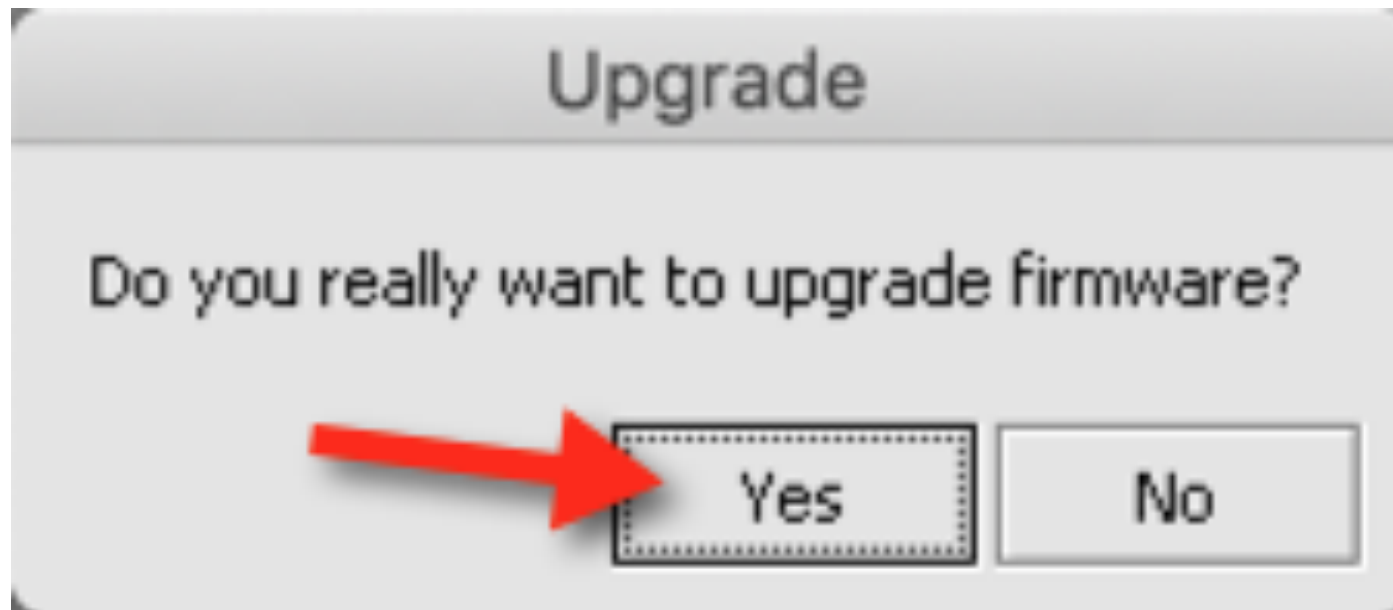
9. How to Upgrade Firmware

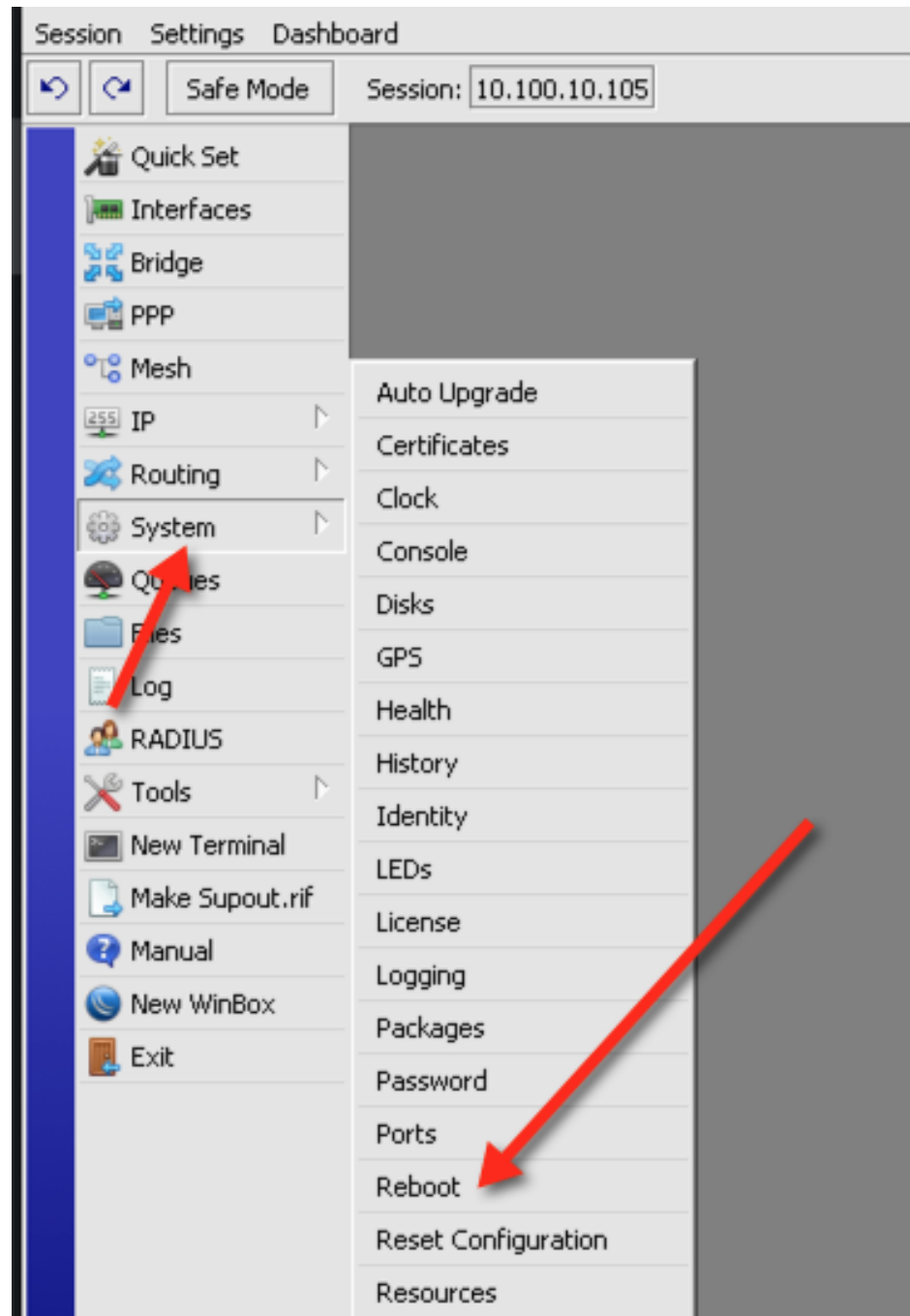
How to Upgrade Firmware

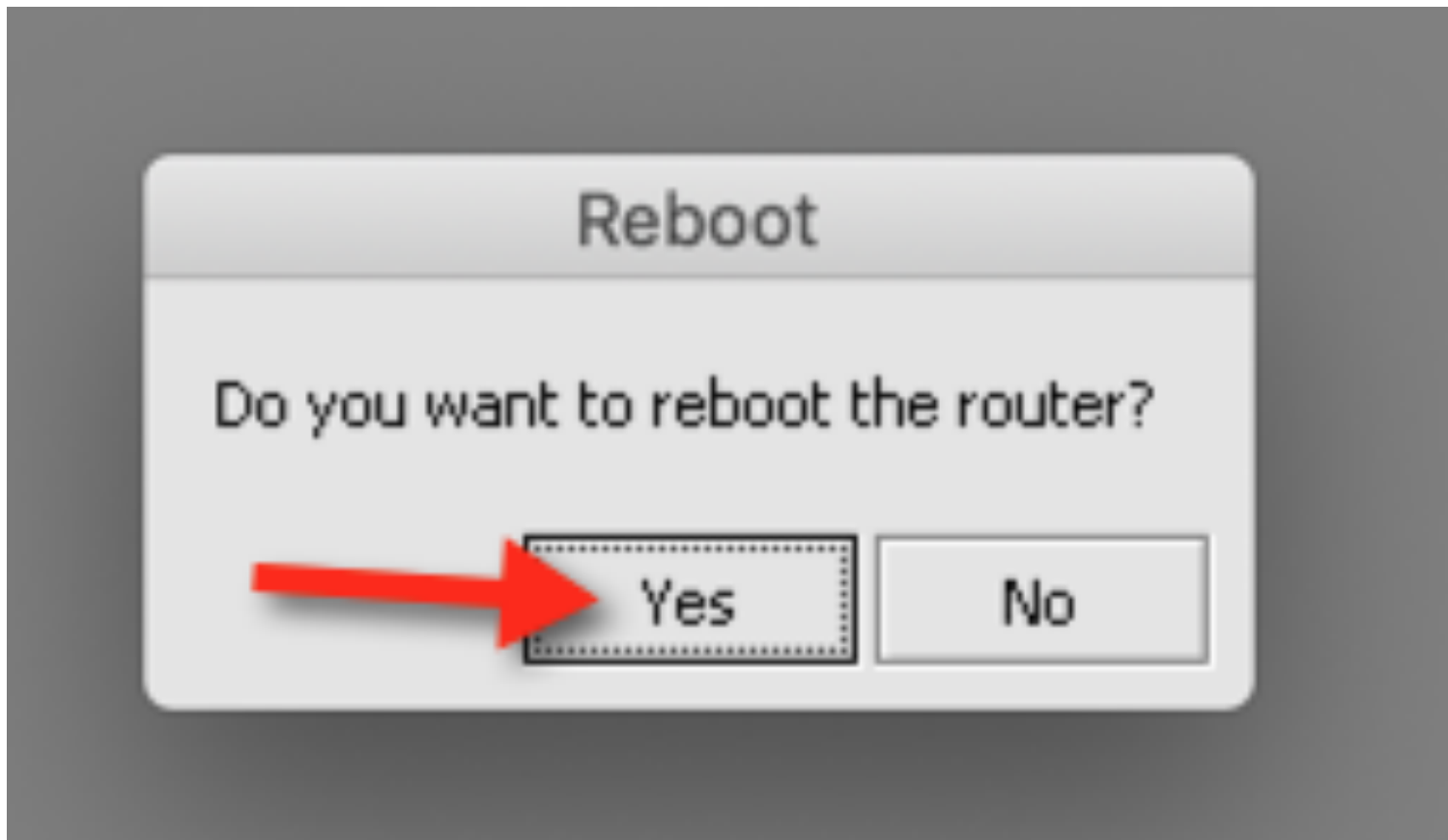
- Keeping the boot loader in sync with the current version helps ensure router stability











10. How to Setup a Wireless Bridge

How to Set Up Wireless Bridge

- Extend Ethernet connectivity from Point A to Point B, no routing required

Session Settings Dashboard

Safe Mode Session: 10.100.20.1

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
Routing
System
Queues
Files
Log
Radius
Tools
New Terminal
MetaROUTER
Partition
Make Supout.rif
Manual
New WinBox
Exit

Wireless Tables

WiFi Interfaces W60G Station Nstreme Dual Access List Registration Connect List Security Profiles Channels

+ - [Folder Icon] [Filter Icon]

Name	Mode	Authenticatio...	Unicast Ciphers	Group Ciphers	WPA Pre-Shared ...	WPA2 Pre-Share...
Test	dynamic keys	WPA2 PSK	aes ccm	aes ccm	*****	*****
default	none				*****	*****

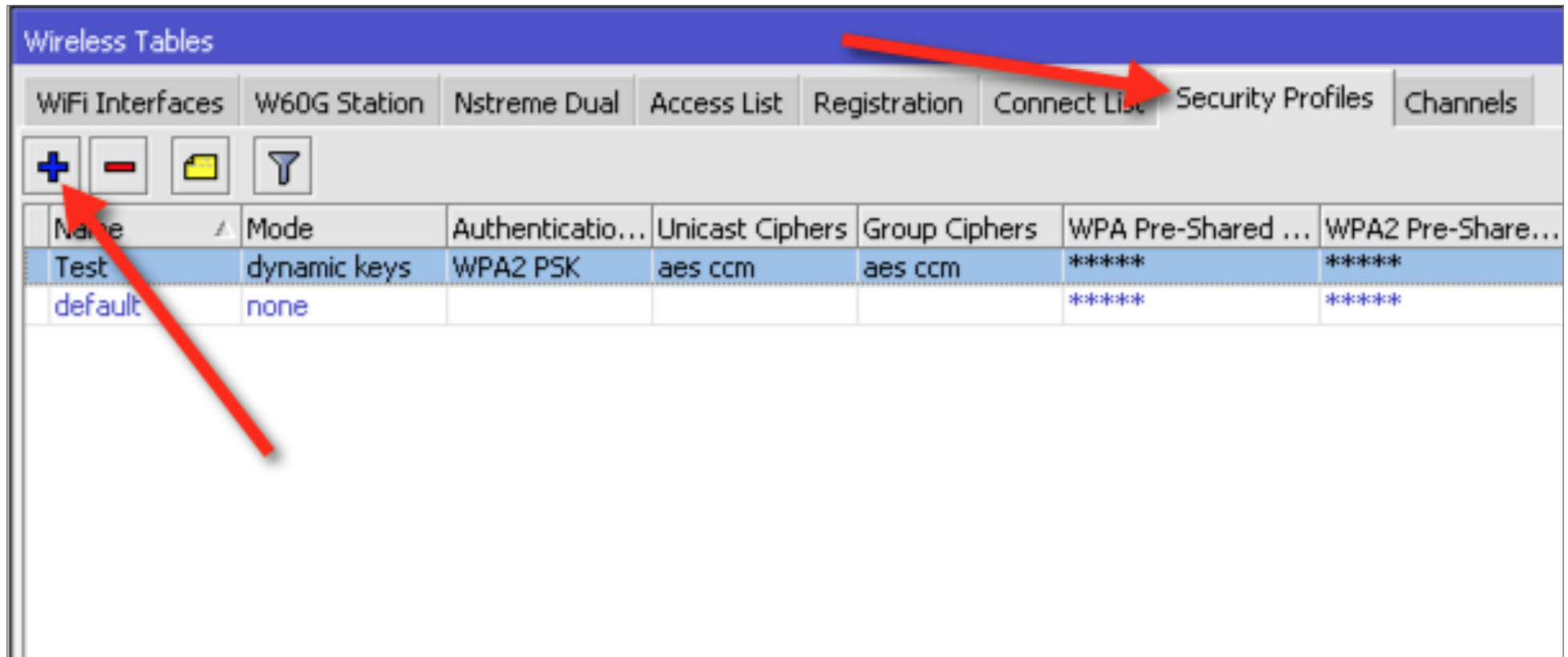
1 item out of 7 (1 selected)

Wireless Tables

WiFi Interfaces | W60G Station | Nstreme Dual | Access List | Registration | Connect List | **Security Profiles** | Channels

+ - [Folder Icon] [Filter Icon]

Name	Mode	Authenticatio...	Unicast Ciphers	Group Ciphers	WPA Pre-Shared ...	WPA2 Pre-Share...
Test	dynamic keys	WPA2 PSK	aes ccm	aes ccm	*****	*****
default	none				*****	*****



Security Profile <Test>

General | **RADIUS** | EAP | Static Keys

1 → Name: → 4

Mode: ↓

Authentication Types: ☐ WPA PSK ☒ WPA2 PSK
☐ WPA EAP ☐ WPA2 EAP

Unicast Ciphers: ☒ aes ccm ☐ tkip

Group Ciphers: ☒ aes ccm ☐ tkip → 2

WPA Pre-Shared Key:

WPA2 Pre-Shared Key: ← 3

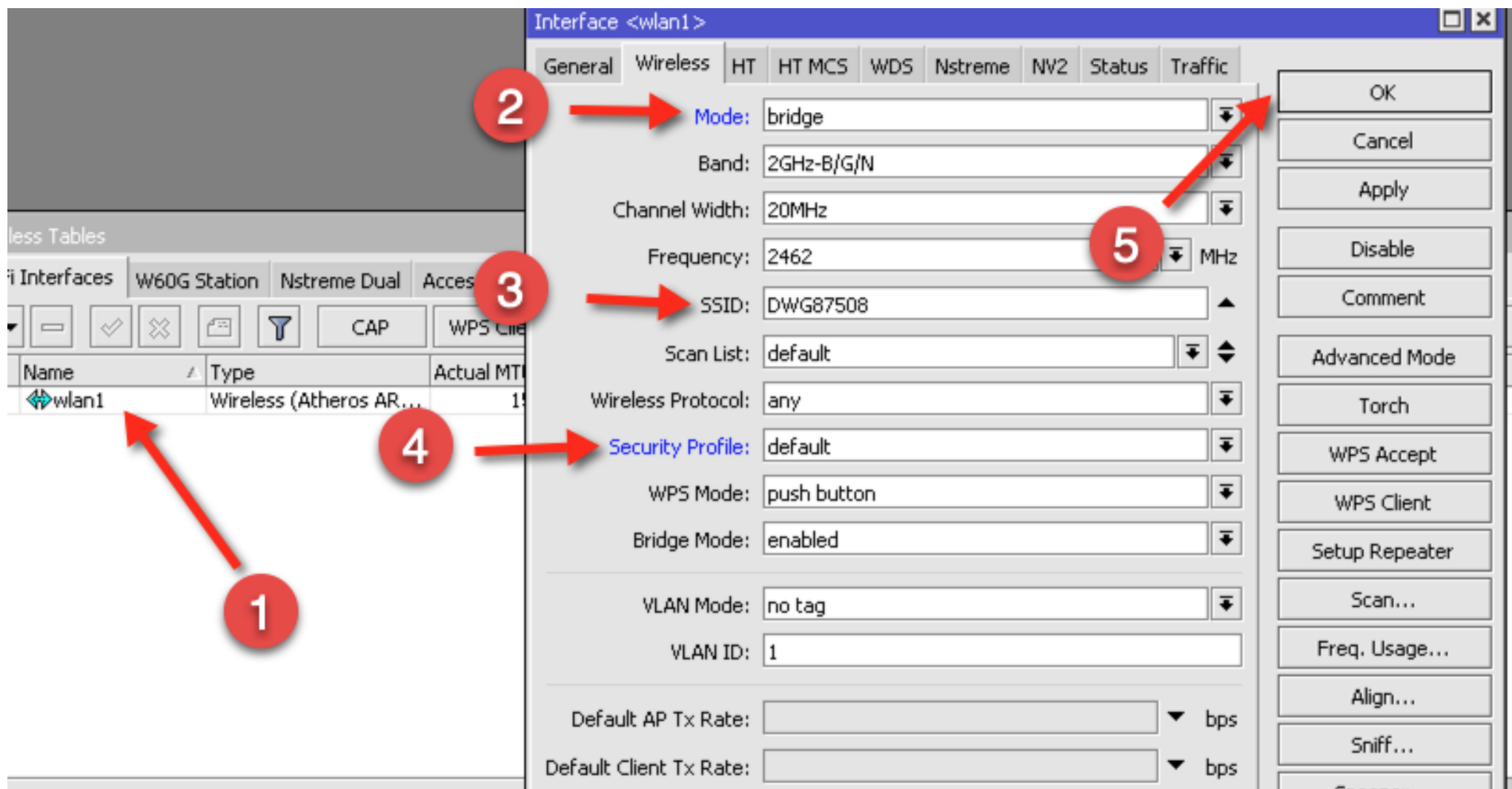
Supplicant Identity:

Group Key Update:

Management Protection: ↓

Management Protection Key:

OK
Cancel
Apply
Comment
Copy
Remove



Session Settings Dashboard

Safe Mode Session: 10.100.20.1

- Quick Set
- CAPsMAN
- Interfaces
- Wireless
- Bridge
- PPP
- Switch
- Mesh
- IP
- Routing
- System
- Queues
- Files
- Log
- Radius
- Tools
- New Terminal
- MetaROUTER

Bridge

Bridge Ports VLANs MSTIs Port MST Overrides Filters NAT Hosts MDB

+ - ✓ ✗ 📁 📏 Settings

	Name	Type	L2 MTU	Tx	Rx
R	bridge	Bridge	65535	0 bps	0 bps

Interface <bridge>

General STP VLAN Status Traffic

Name: bridge

Type: Bridge

MTU:

Actual MTU: 1500

L2 MTU: 65535

MAC Address: 7A:11:F2:9E:25:C7

ARP: enabled

ARP Timeout:

Admin. MAC Address:

☐ IGMP Snooping

☐ Fast Forward

OK

Cancel

Apply

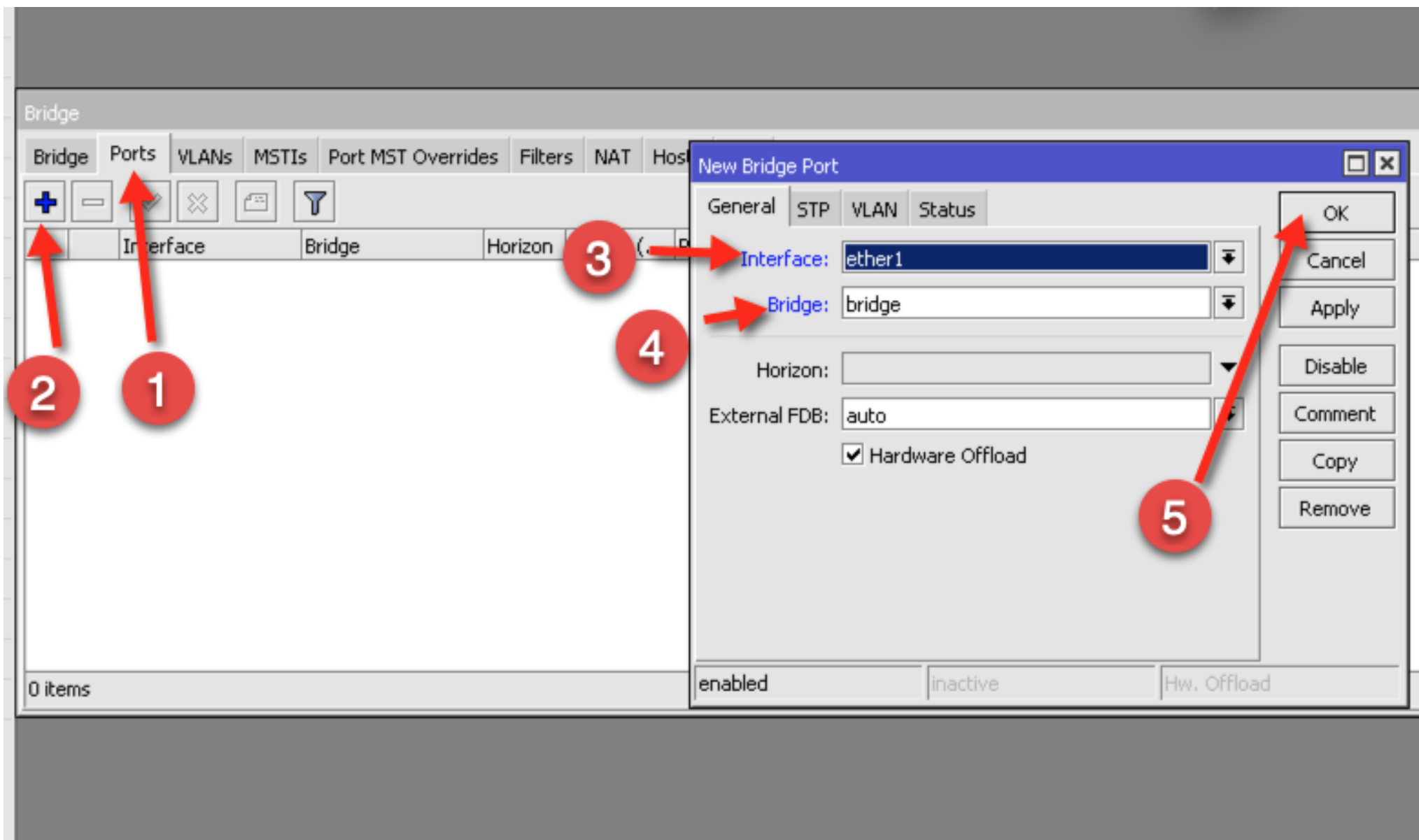
Disable

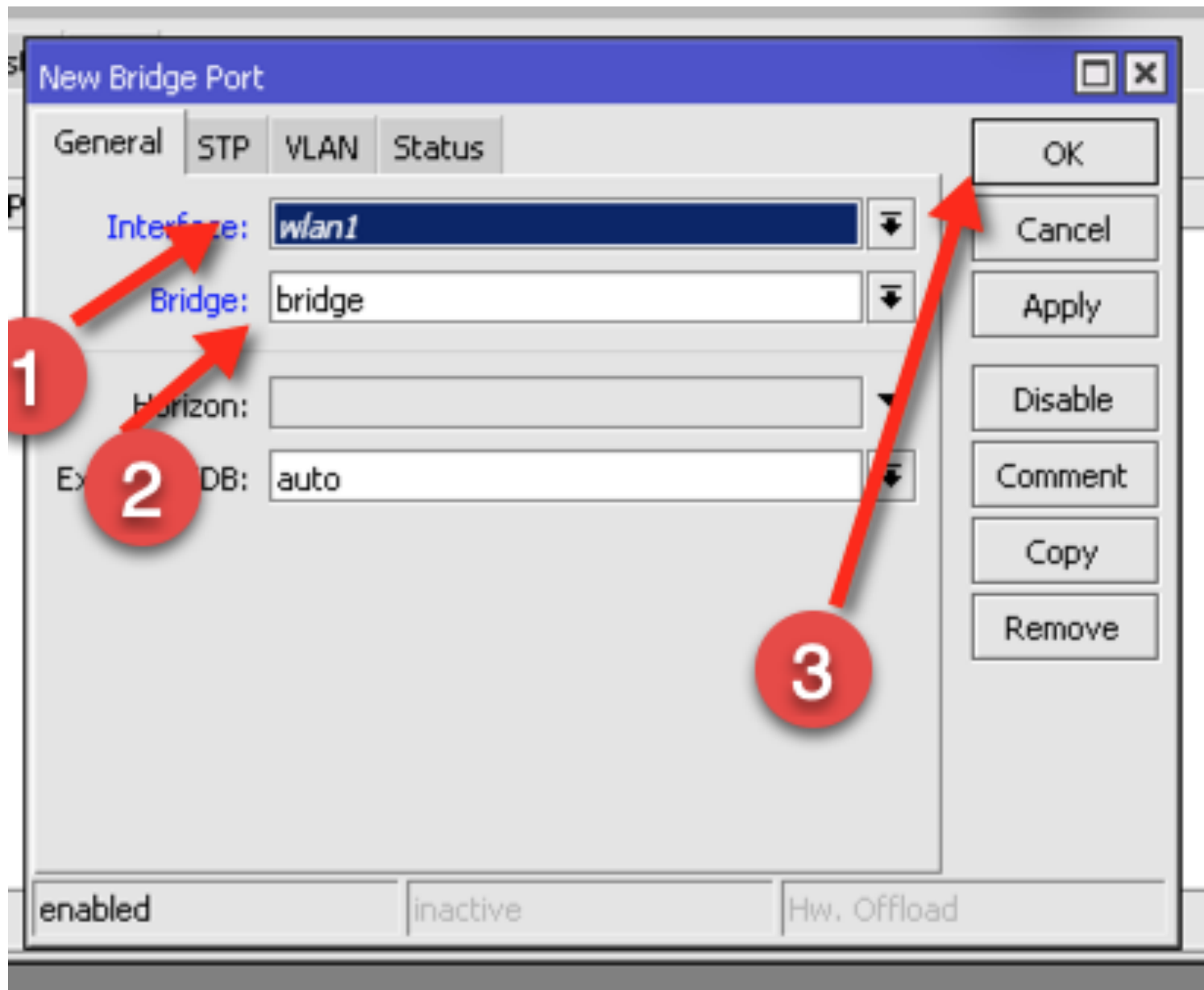
Comment

Copy

Remove

Torch





On the other side of the wireless bridge...

Session Settings Dashboard

Safe Mode Session: 10.100.20.1

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
Routing
System
Queues
Files
Log
Radius
Tools
New Terminal
MetaROUTER
Partition
Make Supout.rif
Manual
New WinBox
Exit

Wireless Tables

WiFi Interfaces W60G Station Nstreme Dual Access List Registration Connect List Security Profiles Channels

+ - [Folder Icon] [Filter Icon]

Name	Mode	Authenticatio...	Unicast Ciphers	Group Ciphers	WPA Pre-Shared ...	WPA2 Pre-Share...
Test	dynamic keys	WPA2 PSK	aes ccm	aes ccm	*****	*****
default	none				*****	*****

1 item out of 7 (1 selected)

Wireless Tables

WiFi Interfaces W60G Station Nstreme Dual Access List Registration Connect List **Security Profiles** Channels

+ - [Folder Icon] [Filter Icon]

Name	Mode	Authenticatio...	Unicast Ciphers	Group Ciphers	WPA Pre-Shared ...	WPA2 Pre-Share...
Test	dynamic keys	WPA2 PSK	aes ccm	aes ccm	*****	*****
default	none				*****	*****

Security Profile <Test>

General | **RADIUS** | EAP | Static Keys

1 → Name: → 4

Mode: ↓

Authentication Types: ☐ WPA PSK ☒ WPA2 PSK
☐ WPA EAP ☐ WPA2 EAP

Unicast Ciphers: ☒ aes ccm ☐ tkip

Group Ciphers: ☒ aes ccm ☐ tkip → 2

WPA Pre-Shared Key:

WPA2 Pre-Shared Key: ← 3

Supplicant Identity:

Group Key Update:

Management Protection: ↓

Management Protection Key:

OK
Cancel
Apply
Comment
Copy
Remove

Session Settings Dashboard

Safe Mode Session: 10.100.20.1

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
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System
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New Terminal
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Make Supout.rif
Manual
New WinBox
Exit

Wireless Tables

Name	Type
wlan1	Wire

1 item out of 7 (1 selected)

Interface <wlan1>

General Wireless HT HT MCS WDS Nstreme Advanced Status ...

Mode: station bridge
Band: 2GHz-B/G/N
Channel Width: 20MHz
Frequency: auto MHz
SSID: DWG87508
Scan List: default
Wireless Protocol: 802.11
Security Profile: Test
☒ Default Authenticate

OK
Cancel
Apply
Disable
Comment
Advanced Mode
Torch
WPS Accept
WPS Client
Setup Repeater
Scan...
Freq. Usage...
Align...

Session Settings Dashboard

Safe Mode Session: 10.100.20.1

- Quick Set
- CAPsMAN
- Interfaces
- Wireless
- Bridge
- PPP
- Switch
- Mesh
- IP
- Routing
- System
- Queues
- Files
- Log
- Radius
- Tools
- New Terminal
- MetaROUTER

Bridge

Bridge Ports VLANs MSTIs Port MST Overrides Filters NAT Hosts MDB

+ - ✓ ✗ 📁 📏 Settings

	Name	Type	L2 MTU	Tx	Rx
R	bridge	Bridge	65535	0 bps	0 bps

Interface <bridge>

General STP VLAN Status Traffic

Name: bridge

Type: Bridge

MTU: ▼

Actual MTU: 1500

L2 MTU: 65535

MAC Address: 7A:11:F2:9E:25:C7

ARP: enabled ▼

ARP Timeout: ▼

Admin. MAC Address: ▼

☐ IGMP Snooping

☐ Fast Forward

OK

Cancel

Apply

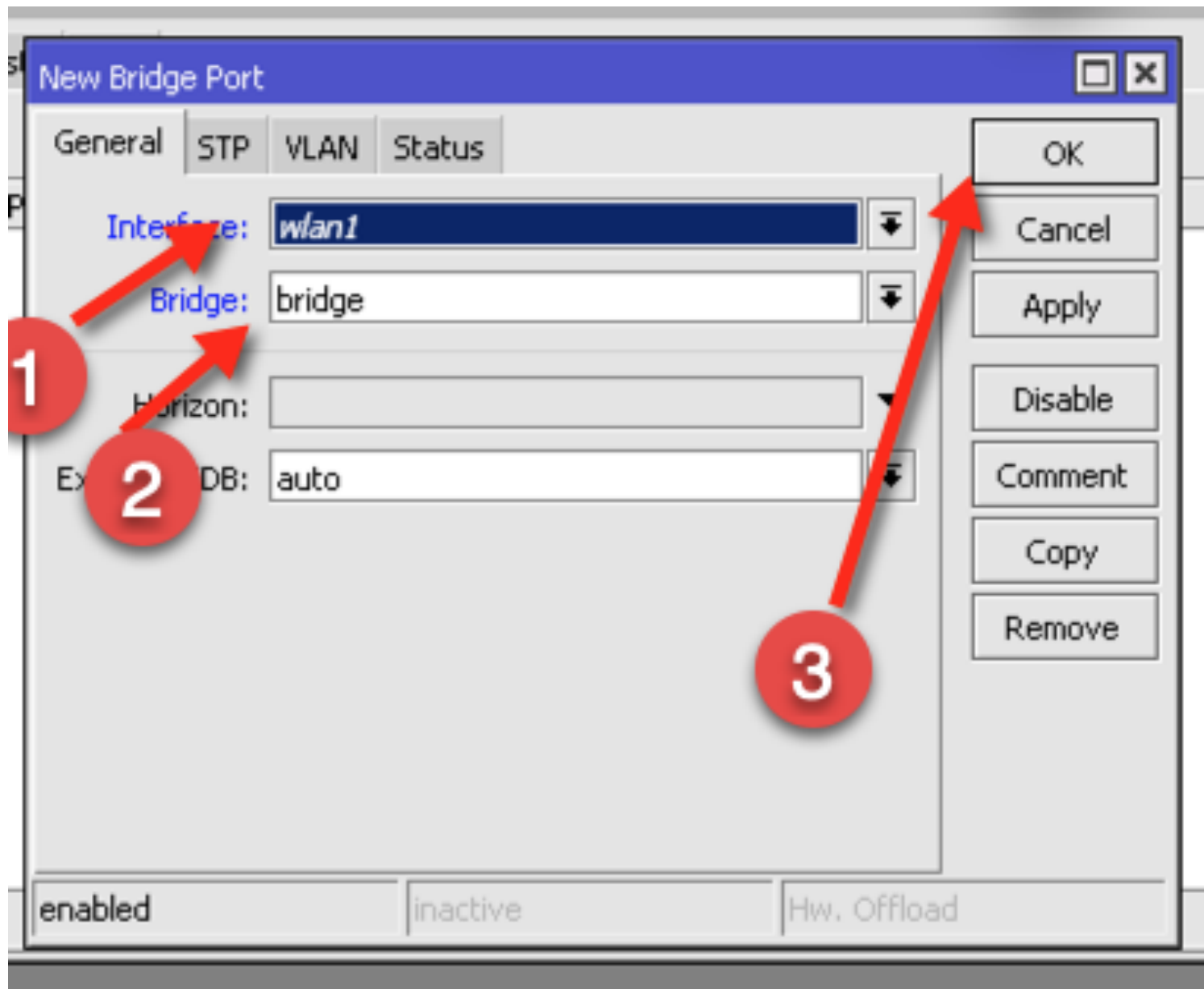
Disable

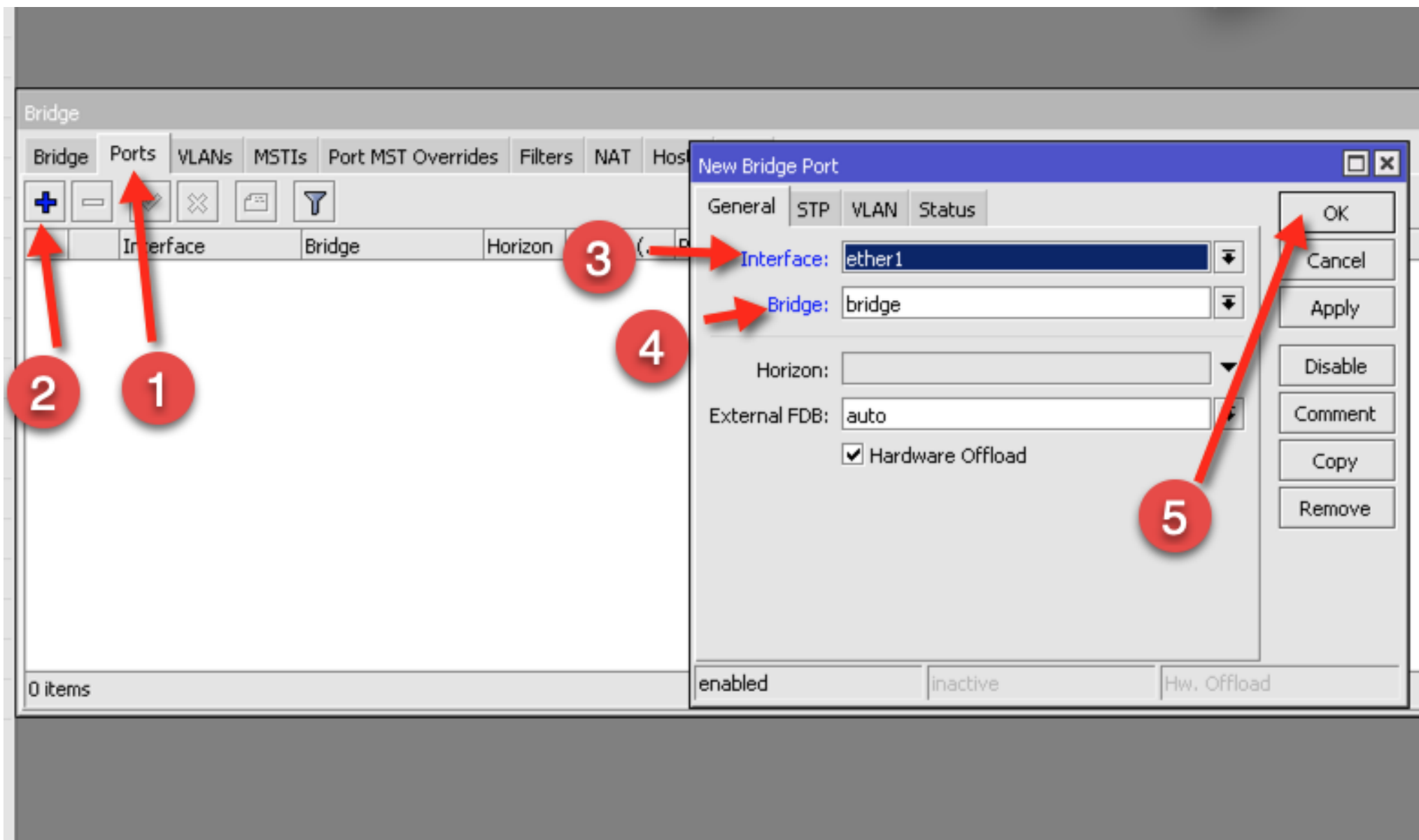
Comment

Copy

Remove

Torch





Questions?

Thank You!

- Steve Discher, from College Station, Texas, USA
- MikroTik Certified Trainer since 2008 and teach RouterOS classes, LearnMikroTik.com, ISPSupplies.com, and blog at SteveDischer.com
- mikrotikconfig.com, Firewall, QOS, Load Balance and Country IP Block address list generator now updated daily
- Author of RouterOS by Example, 1st and 2nd Editions from ISPSupplies.com and Amazon.

