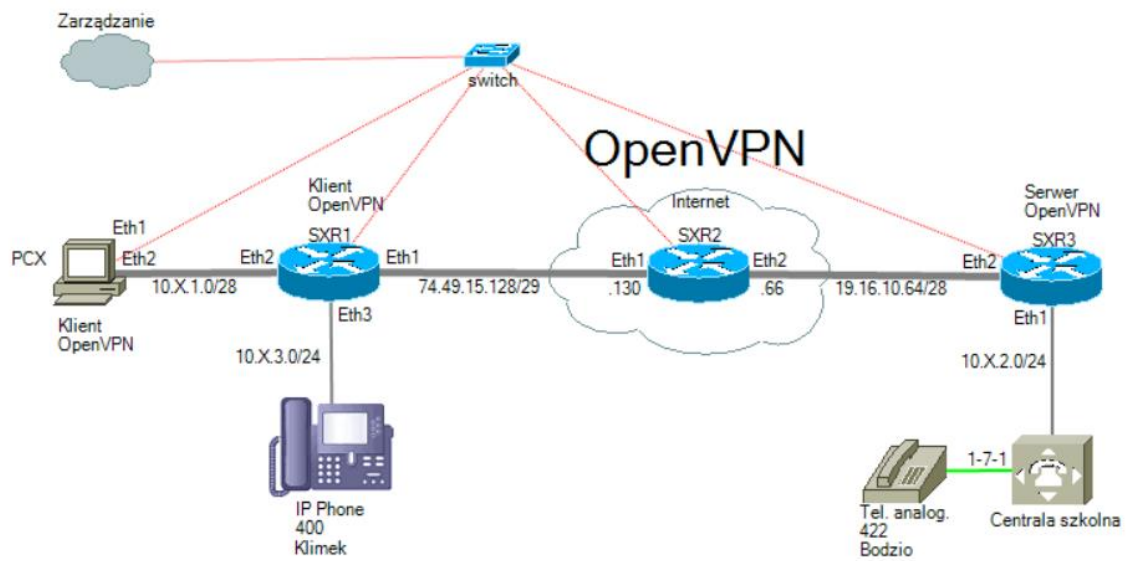
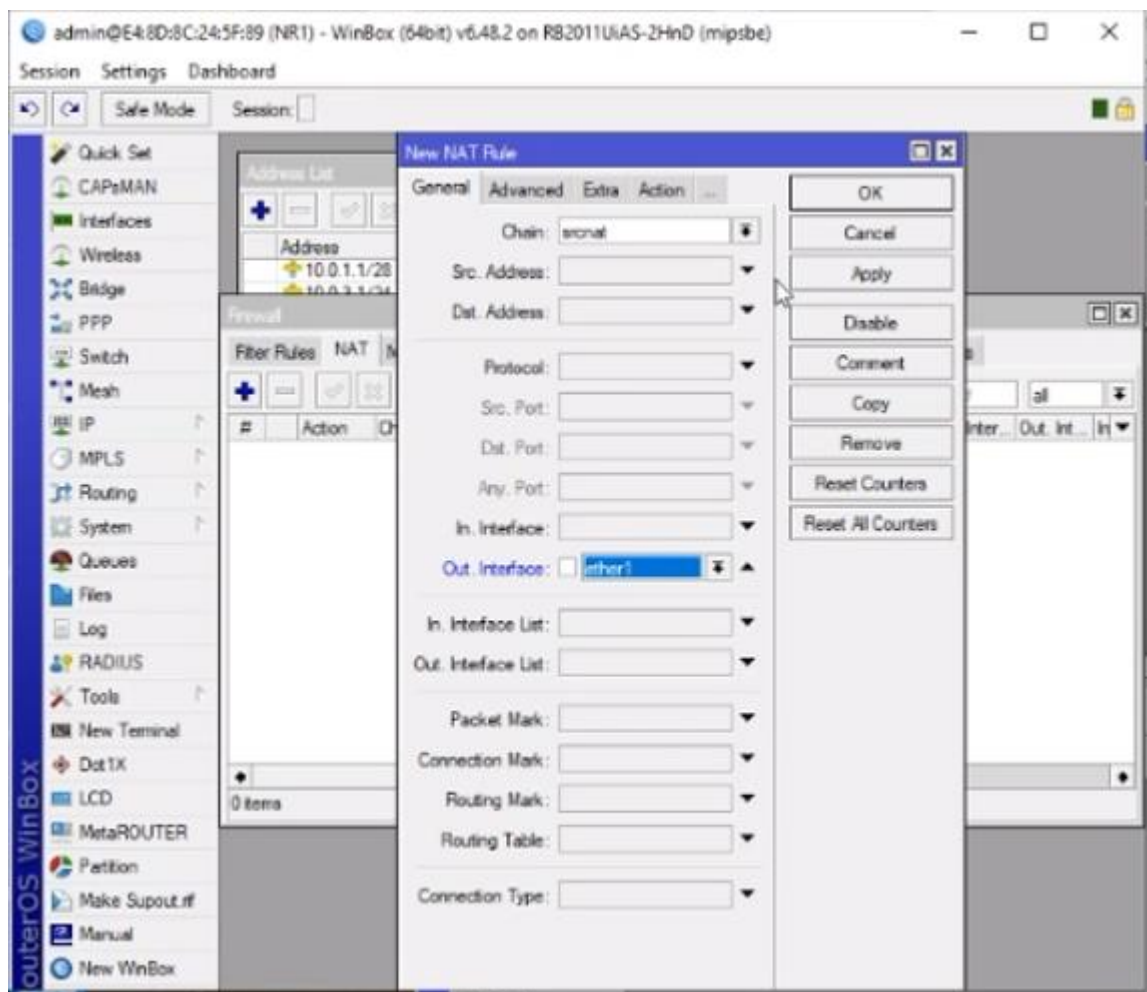


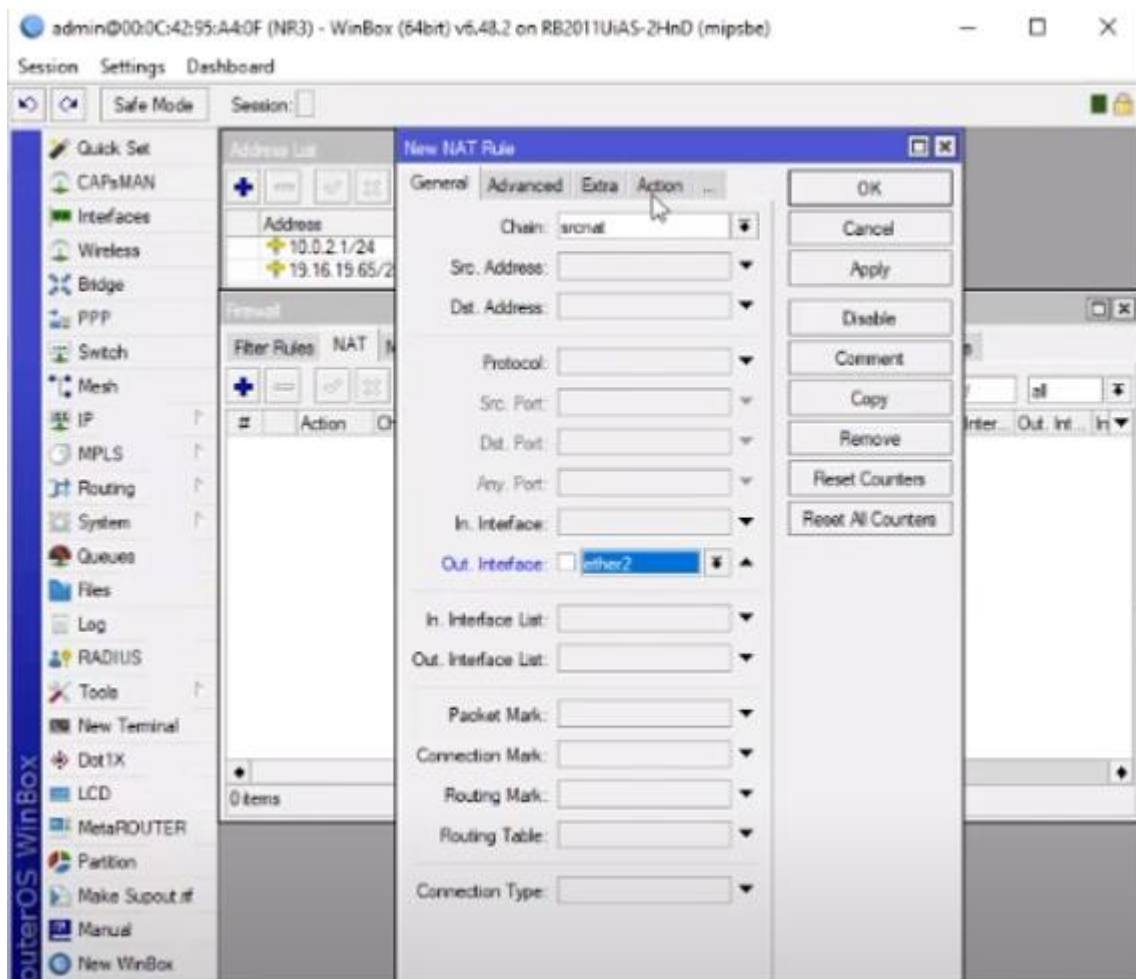
Open VPN



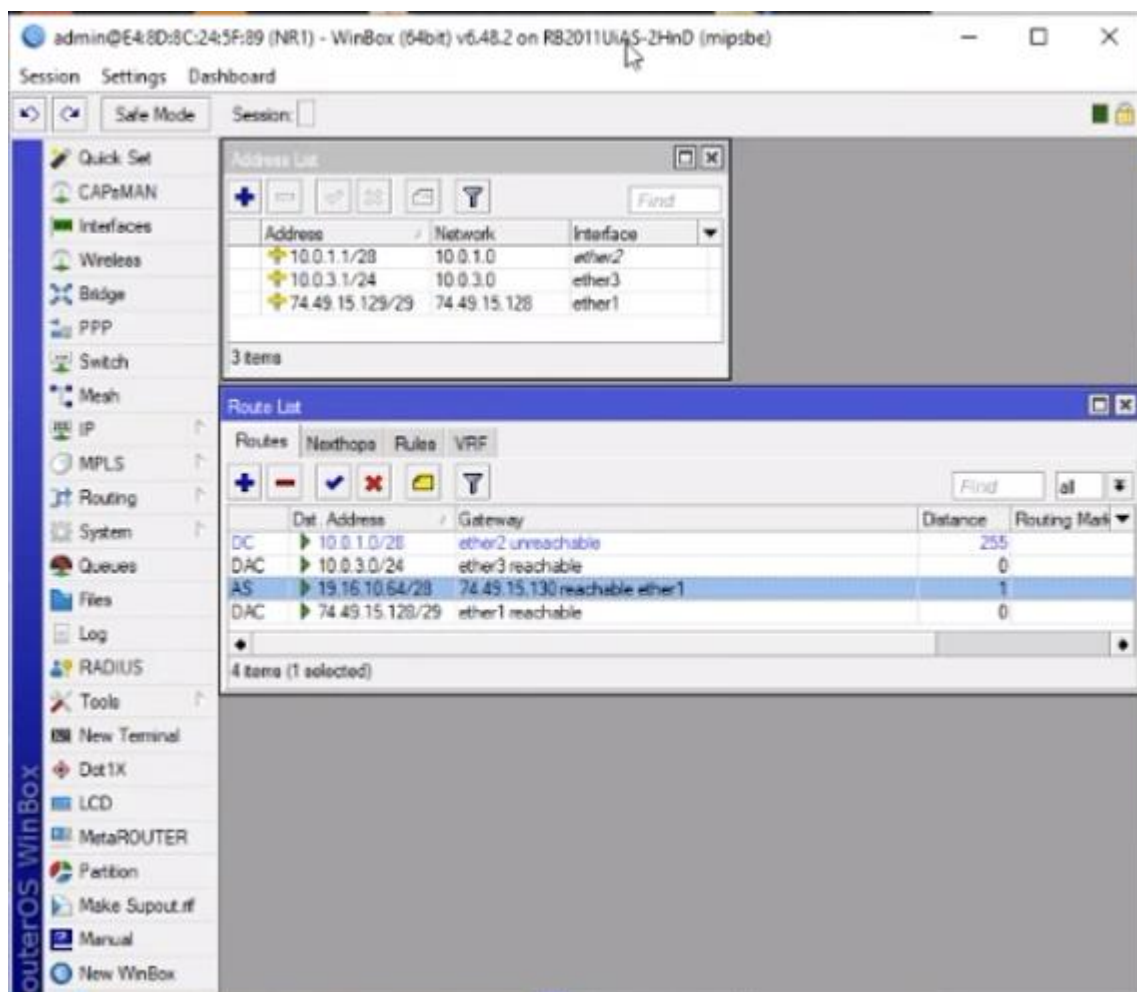
Firewall R1



Firewall R3



Routing statyczny R1



Routing statyczny R3

admin@00:0C:42:95:A4:0F (NR3) - WinBox (64bit) v6.48.2 on RB2011UIAS-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session

Quick Set CAPsMAN Interfaces Wireless Bridge PPP Switch Mesh IP MPLS Routing System Queues Files Log RADIUS Tools New Terminal Dot1X LCD MetaROUTER Partition Make Supout.rtf Manual New WinBox

Address List

Address	Network	Interface
10.0.2.1/24	10.0.2.0	ether1
19.16.10.65/28	19.16.10.64	ether2

2 items (1 selected)

Route List

Routes Nexthop Rules VRF

	Dest. Address	Gateway	Distance	Routing Mark
DAC	10.0.2.0/24	ether1 reachable	0	
DAC	19.16.10.64/28	ether2 reachable	0	
AS	74.49.15.128/29	19.16.10.65 reachable ether2	1	

3 items

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

Filter Rules

#	Action	Chain	Src. Address	Dest. Address	Proto...	Src. Port	Dest. Port	In. Inter...	Out. Int...	In
0	mas...	srcnat							ether2	

1 item

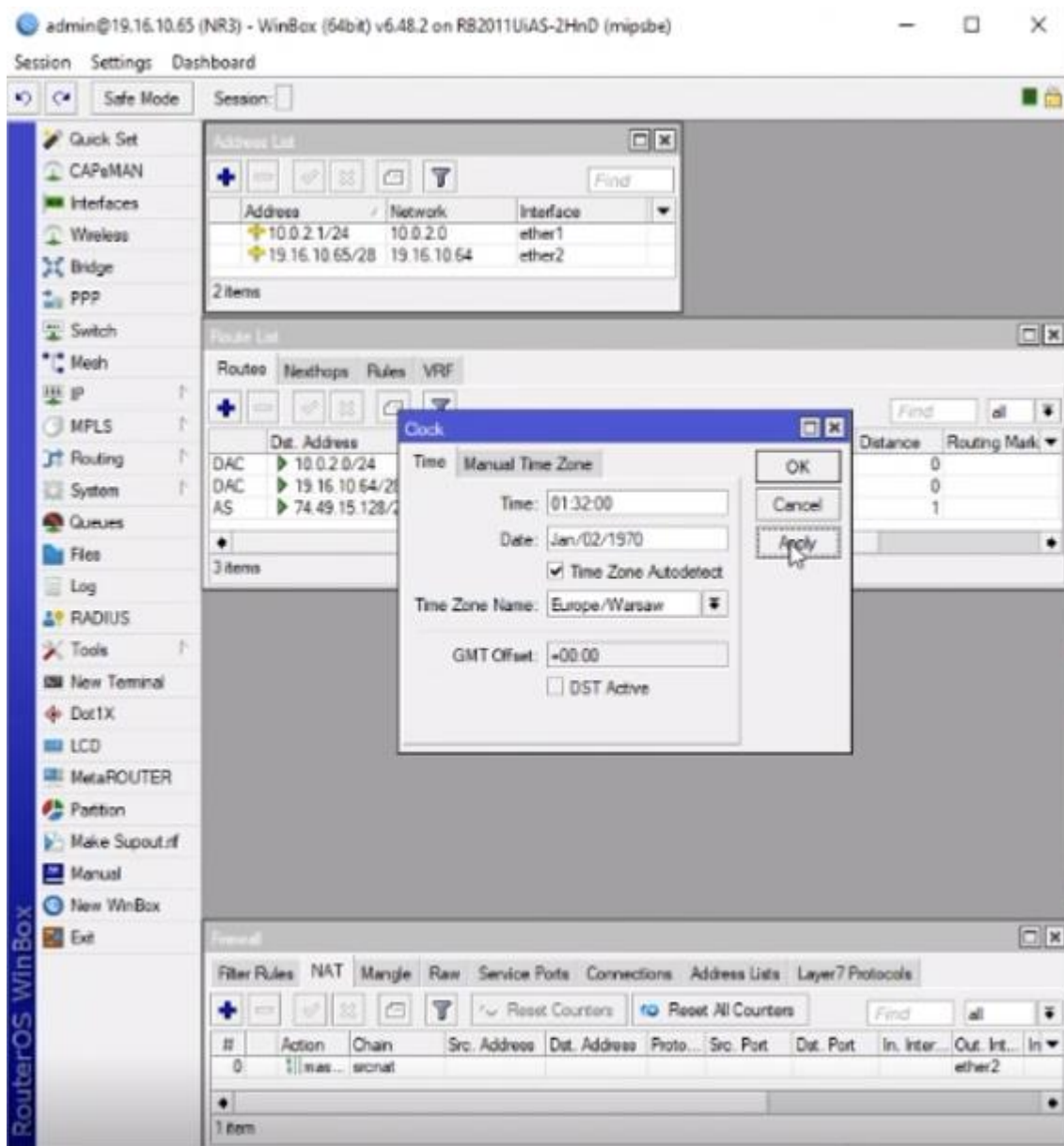
CMD

```
WybierzAdministrator: Wiersz polecenia

1.....Software Loopback Interface 1
-----
IPv4 Route Table
-----
Active Routes:
Network Destination    Netmask          Gateway          Interface        Metric
0.0.0.0                0.0.0.0          192.168.77.254   192.168.77.137   35
0.0.0.0                0.0.0.0          10.0.1.1         10.0.1.2         281
10.0.1.0              255.255.255.240   On-link         10.0.1.2         281
10.0.1.2              255.255.255.255   On-link         10.0.1.2         281
10.0.1.15             255.255.255.255   On-link         10.0.1.2         281
10.0.3.0              255.255.255.0     10.0.1.1         10.0.1.2         26
19.16.10.64           255.255.255.240   10.0.1.1         10.0.1.2         26
74.49.15.128          255.255.255.248   10.0.1.1         10.0.1.2         26
127.0.0.0             255.0.0.0         On-link         127.0.0.1        331
127.0.0.1             255.255.255.255   On-link         127.0.0.1        331
127.255.255.255       255.255.255.255   On-link         127.0.0.1        331
192.168.77.0          255.255.255.0     On-link         192.168.77.137   291
192.168.77.137        255.255.255.255   On-link         192.168.77.137   291
192.168.77.255        255.255.255.255   On-link         192.168.77.137   291
224.0.0.0             240.0.0.0         On-link         127.0.0.1        331
224.0.0.0             240.0.0.0         On-link         192.168.77.137   291
224.0.0.0             240.0.0.0         On-link         10.0.1.2         281
255.255.255.255       255.255.255.255   On-link         127.0.0.1        331
255.255.255.255       255.255.255.255   On-link         192.168.77.137   291
255.255.255.255       255.255.255.255   On-link         10.0.1.2         281
-----
Persistent Routes:
Network Address        Netmask  Gateway Address  Metric
0.0.0.0                0.0.0.0   10.0.1.1        Default
-----
IPv6 Route Table
-----
Active Routes:
If Metric Network Destination      Gateway
1    331 ::1/128                On-link
15   291 fe80::/64                On-link
5    281 fe80::/64                On-link
15   291 fe80::3d0c:b07c:40f7:dc1/128
On-link
5    281 fe80::78e4:109a:6bea:bfe1/128
On-link
1    331 ff00::/8                  On-link
15   291 ff00::/8                  On-link
```

Na routerach R1,R2 i R3

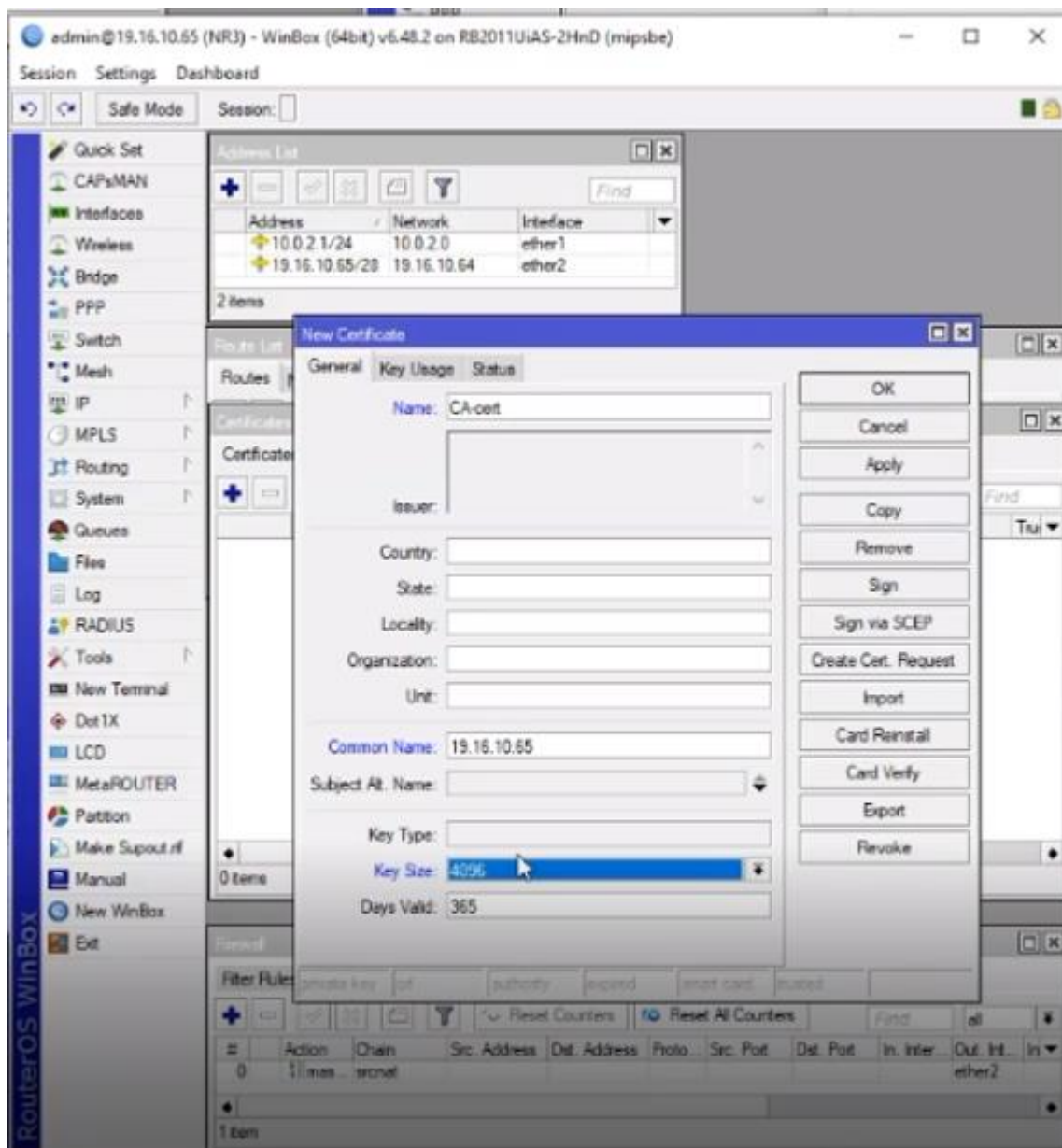
System-->Clock

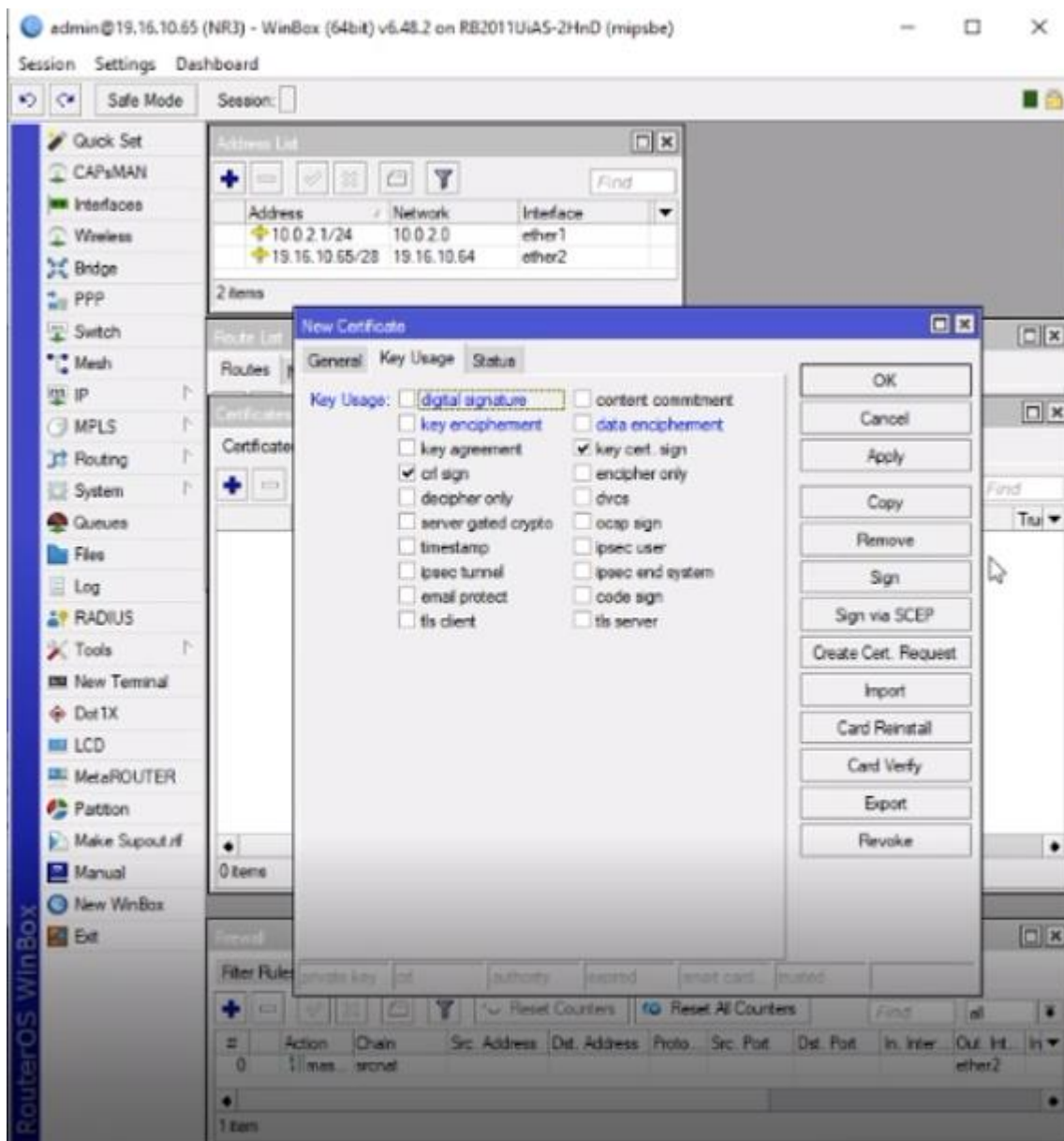


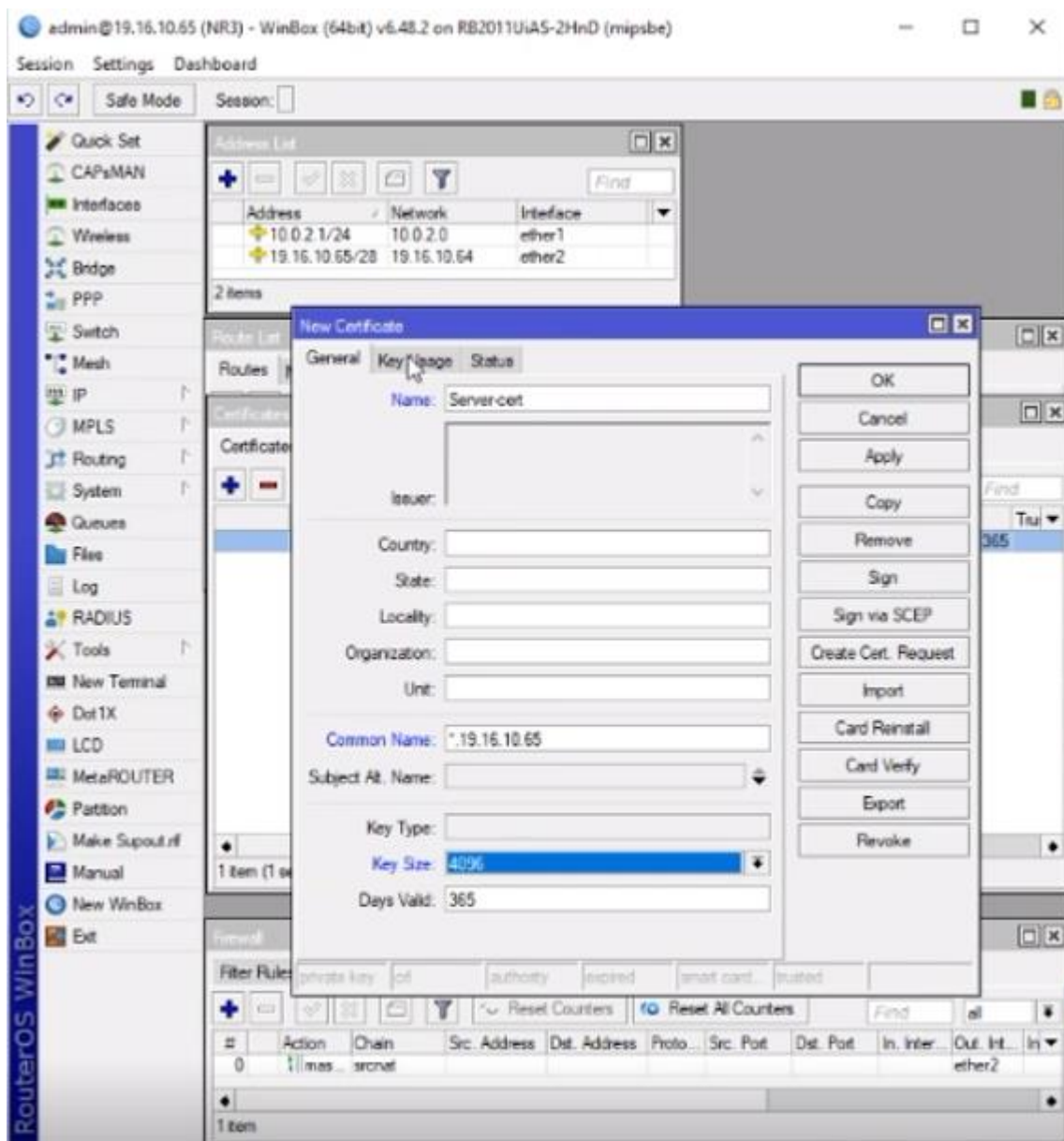
System-->Certificates

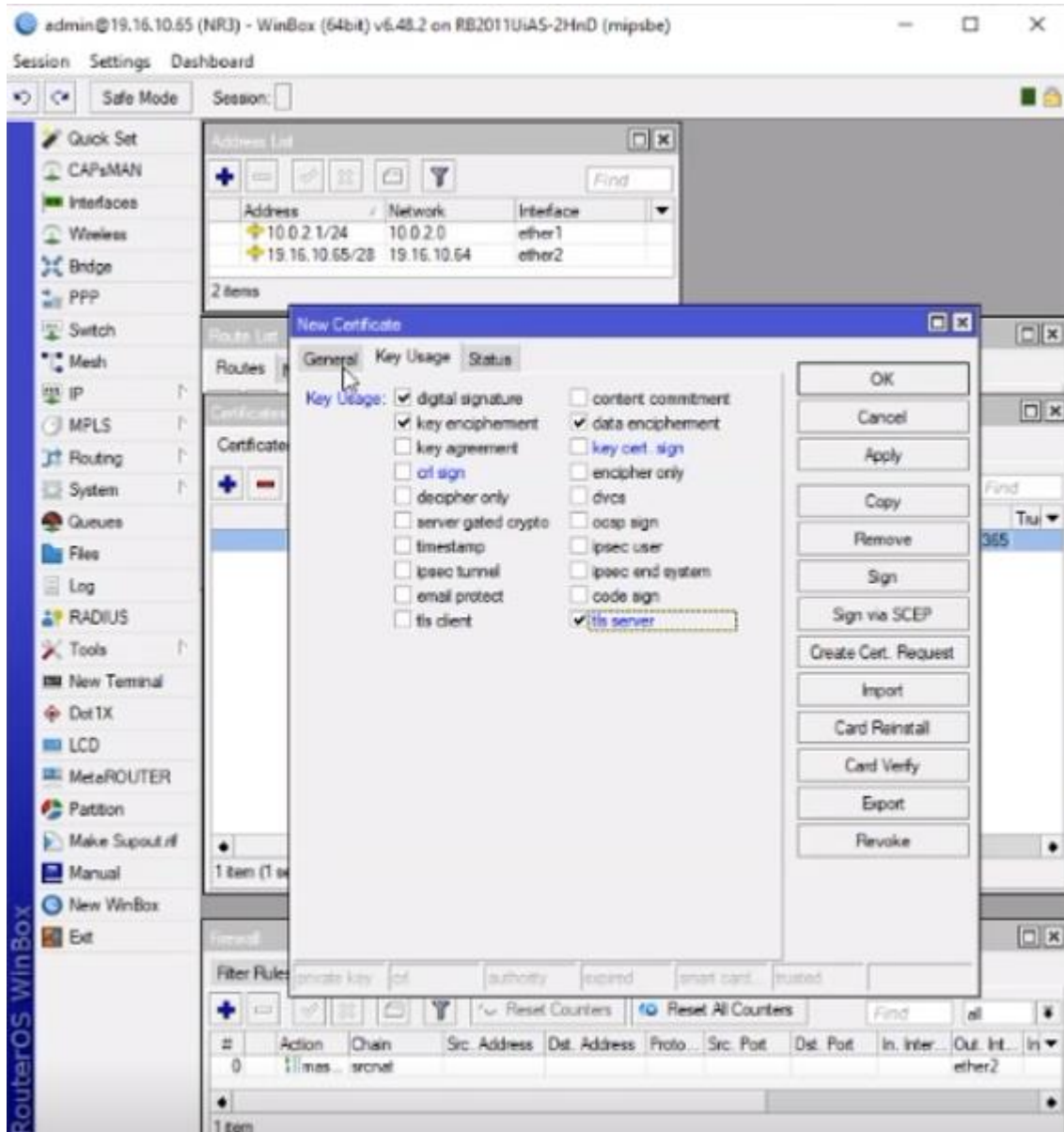
<https://nsix.pl/kb/serwer-openvpn-na-mikrotik-chr/>

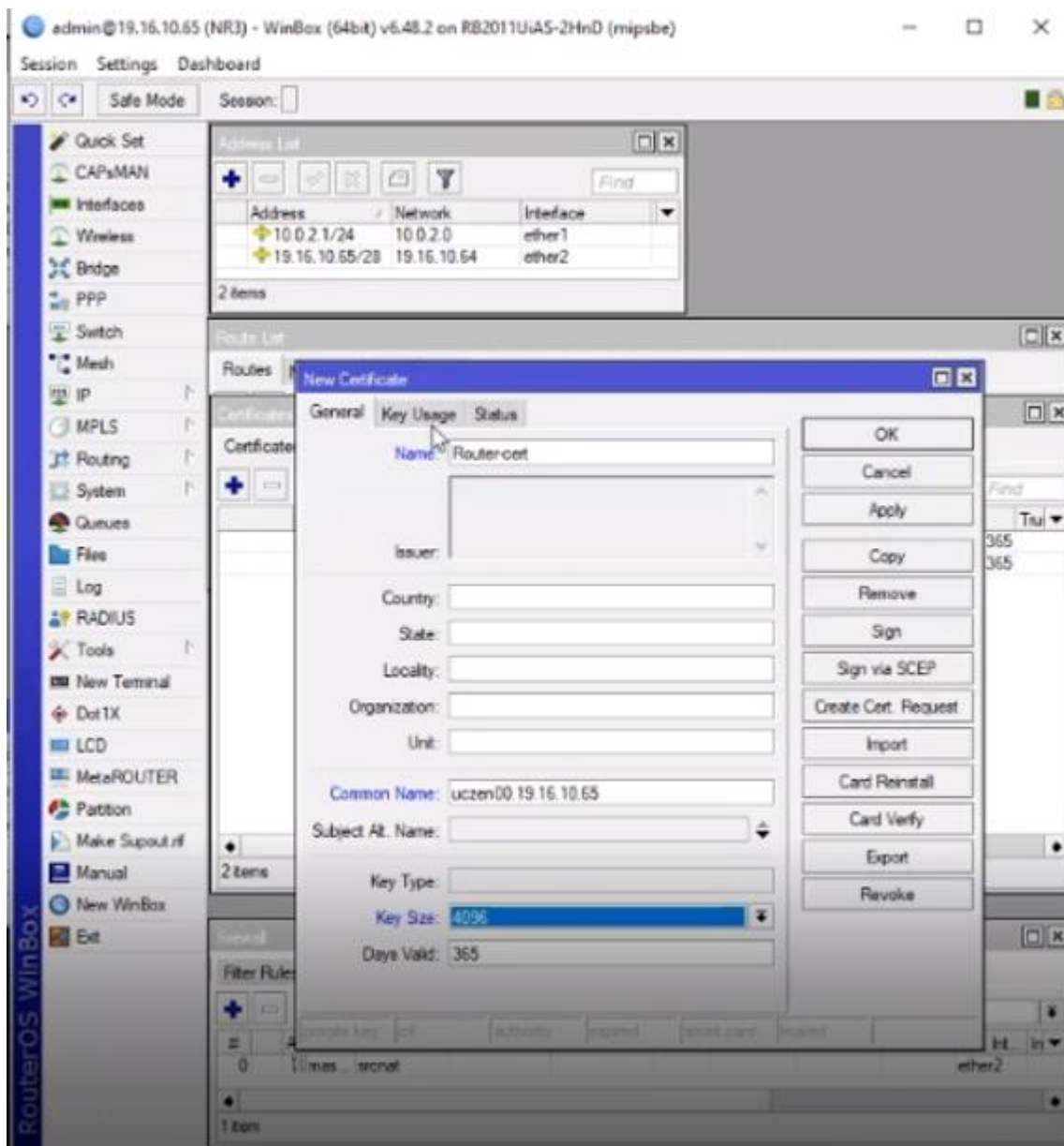
R3

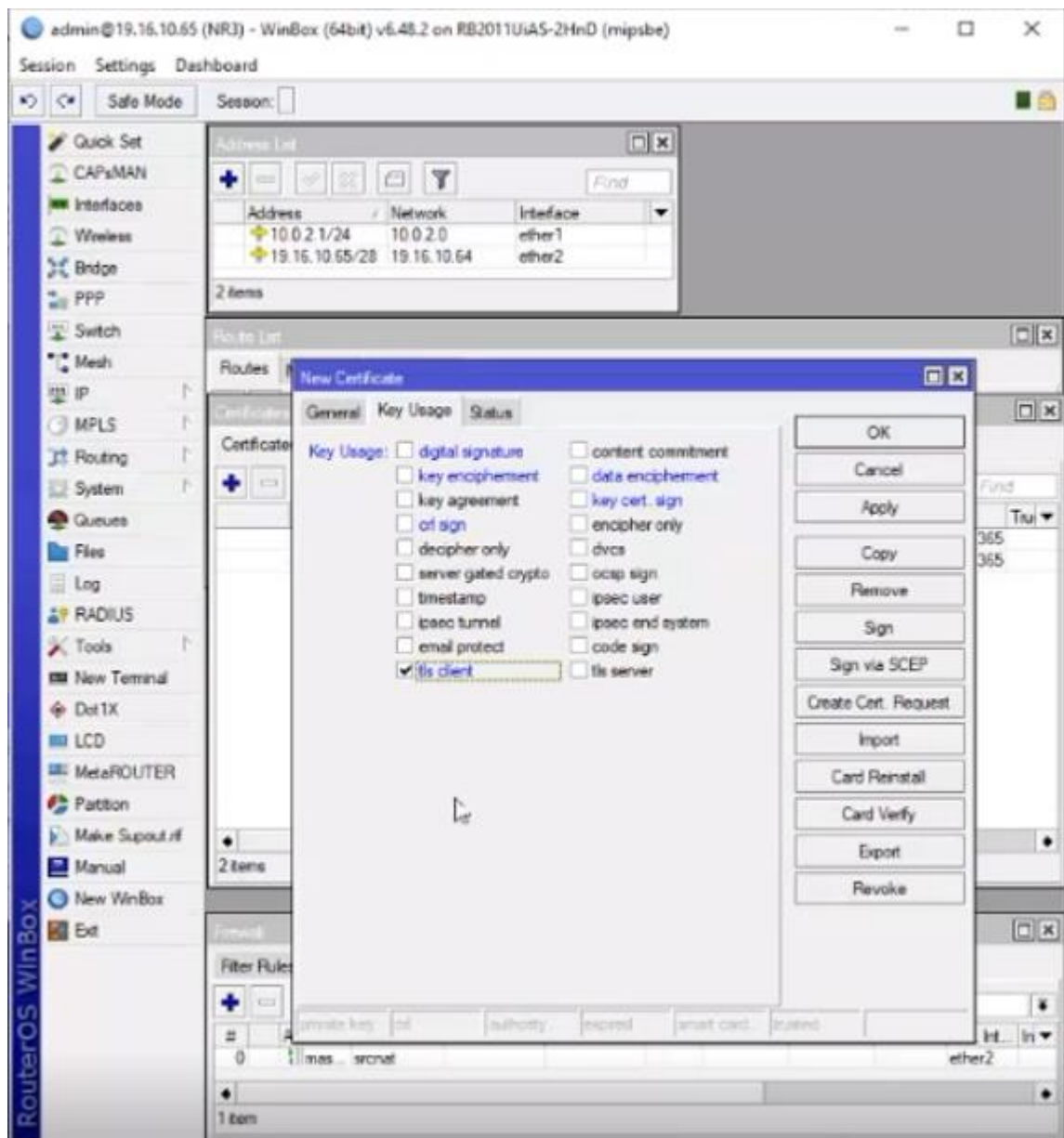


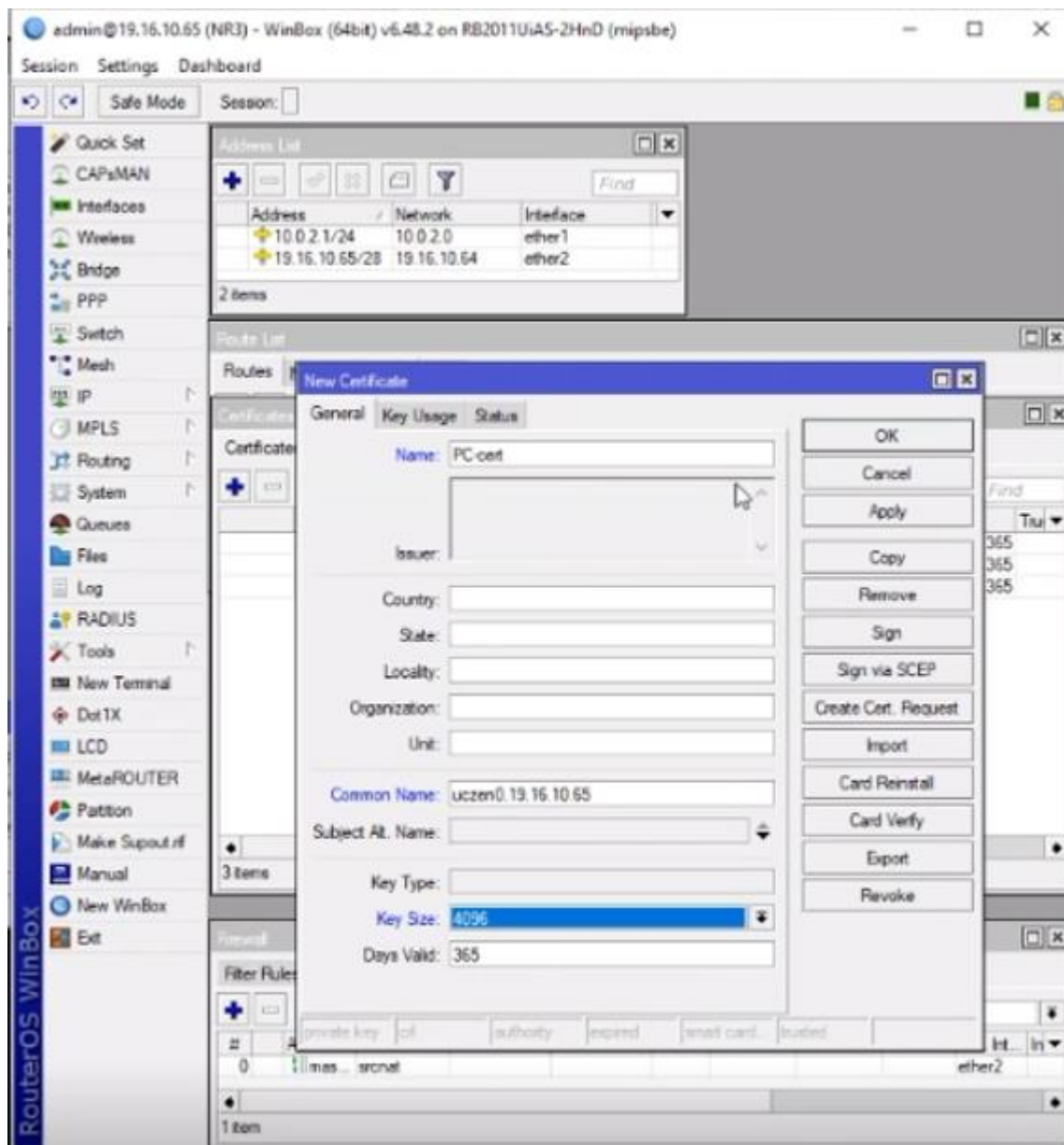


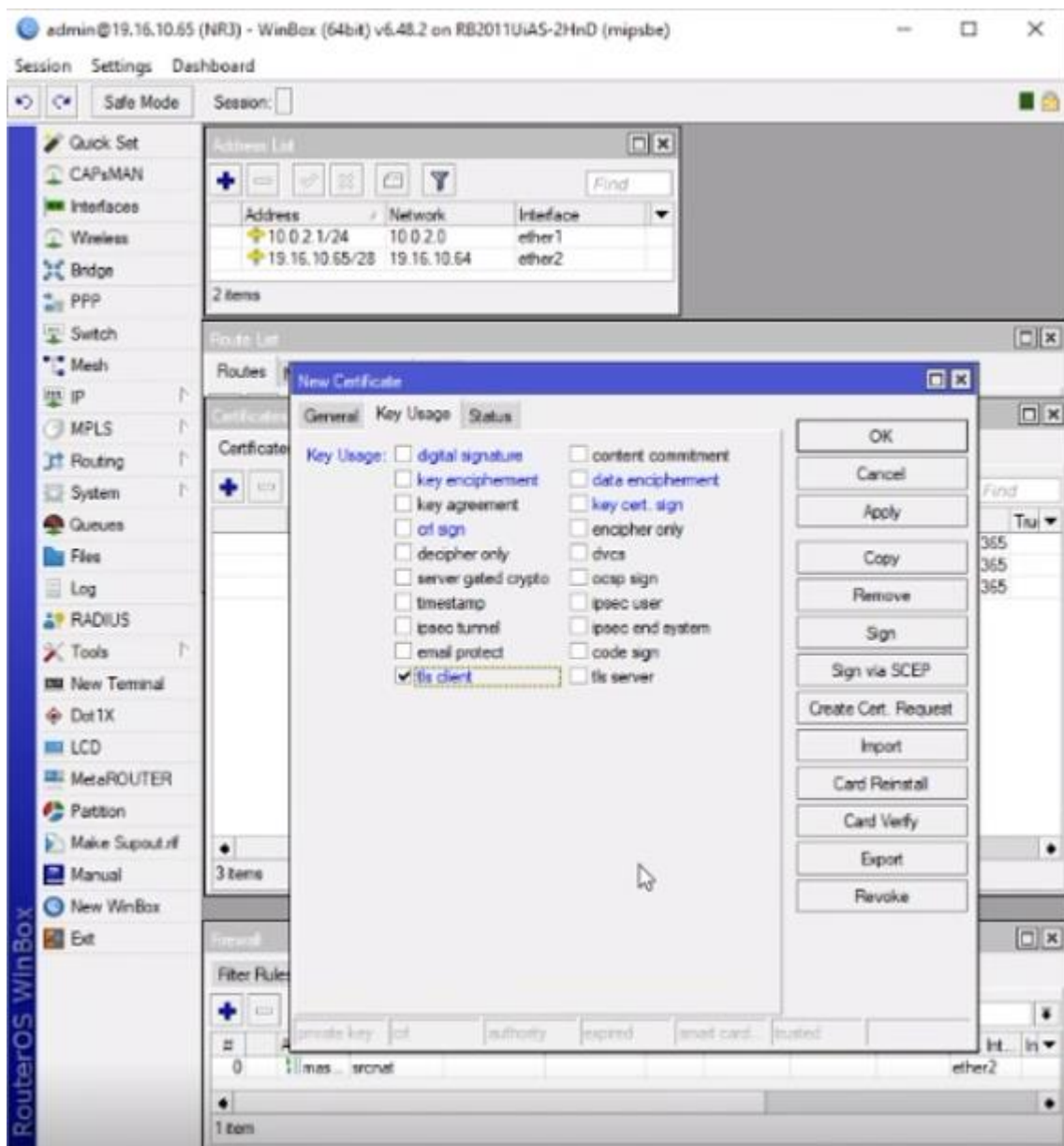












admin@19.16.10.65 (NR3) - WinBox (64bit) v6.48.2 on RB2011UiAS-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session:

RouterOS WinBox

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

Address List

Address	Network	Interface
10.0.2.1/24	10.0.2.0	ether1
19.16.10.65/28	19.16.10.64	ether2

2 items

Route List

Routes Nexthops Rules VRF

Certificates

Certificates SCEP Servers SCEP RA Requests OTP CRL

Import Card Reinstall Card Verify Revoke Settings Find

Name	Issuer	Common Name	Subject Alt. N...	Key Size	Days Valid	Trusted
CA-cert	19.16.10.65			4096	365	
PC-cert	uczen0.19.16.10.65			4096	365	
Router-cert	uczen00.19.16.10.65			4096	365	
Server-cert	*.19.16.10.65			4096	365	

4 items

Firewall

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

Reset Counters Reset All Counters Find all

#	Action	Chain	Src. Address	Dst. Address	Proto	Src. Port	Dst. Port	In. Inter...	Out. Int...	In
0	mas	srcnat							ether2	

1 item

Terminal

admin@19.16.10.65 (NR3) - WinBox (64bit) v6.48.2 on RB2011UiAS-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: CPU:100%

RouterOS WinBox

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
MPLS
Routing
System
Queues
Files
Log
RADIUS
Tools
New Terminal
Dot1X
LCD
MetaROUTER
Partition
Make Supout.rf
Manual
New WinBox
Exit

Address List

Terminal

MikroTik RouterOS 6.48.2 (c) 1999-2021 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
[admin@NR3] > certificate
[admin@NR3] /certificate> sign CA-cert name=CA-certificate

3 items

Certificates

Certificates SCEP Servers SCEP RA Requests OTP CRL

+ - Import Card Reinstall Card Verify Revoke Settings Find

Name	Issuer	Common Name	Subject Alt N.	Key Size	Days Valid	Trusted
CA-cert		19.16.10.65		4096	365	
PC-cert		uczen0.19.16.10.65		4096	365	
Router-cert		uczen00.19.16.10.65		4096	365	
Server-cert		*.19.16.10.65		4096	365	

4 items (1 selected)

Filter Rules

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

+ - Reset Counters Reset All Counters Find all

#	Action	Chain	Src. Address	Dest. Address	Proto.	Src. Port	Dest. Port	In. Inter.	Out. Int.	In
0	mas...	srcnat							ether2	

1 item

admin@19.16.10.65 (NR3) - WinBox (64bit) v6.48.2 on RB2011UiAS-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: CPU: 3%

RouterOS WinBox

- Quick Set
- CAPsMAN
- Interfaces
- Wireless
- Bridge
- PPP
- Switch
- Mesh
- IP
 - IP
 - MPLS
 - Routing
 - System
- Queues
- Files
- Log
- RADIUS
- Tools
- New Terminal
- Dot1X
- LCD
- MetaROUTER
- Partition
- Make Supout.rf
- Manual
- New WinBox
- Exit

Address List

Address	Network	Interface
10.0.2.1/24	10.0.2.0	ether1
19.16.10.65/28	19.16.10.64	ether2

2 items

Route List

Routes

Dst. Address	Distance	Routing Mark
DAC 10.0.2.0	0	
DAC 19.16.10.64	0	
AS 74.49.1	1	

3 items

Certificates

Certificates SCEP

Name	Key Size	Days Valid	Trusted
KLAT CA-cert	4096	365	yes
PC-cert	4096	365	
Router-cert	4096	365	
Server-cert	4096	365	

4 items (1 selected)

Filter Rules

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

#	Action	Chain	Src. Address	Dst. Address	Proto.	Src. Port	Dst. Port	In. Inter.	Out. Int.	In.
0	in...	srcnat							ether2	

1 item

Context Menu:

- Show Categories
- Detail Mode
- Show Columns
- Find (Ctrl+F)
- Find Next (Ctrl+G)
- Select All (Ctrl+A)
- Add (INS)
- Remove (DEL)
- Sign
- Sign via SCEP
- Create Cert. Request
- Export

admin@19.16.10.65 (NR3) - WinBox (64bit) v6.48.2 on RB2011UiAS-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: CPU:99%

RouterOS WinBox

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
MPLS
Routing
System
Queues
Files
Log
RADIUS
Tools
New Terminal
Dot1X
LCD
MetaROUTER
Partition
Make Supout.rf
Manual
New WinBox
Exit

Address List

Address	Network	Interface
10.0.2.1/24	10.0.2.0	ether1
19.16.10.65/28	19.16.10.64	ether2

2 items

Route List

Routes Neighbors Rules VRF

	Dest. Address	Gateway	Distance	Routing Mark
DAC	10.0.2.0/24	ether1 reachable	0	
DAC	19.16.10.64/28	ether2 reachable	0	
AS	74.49.15.128/29	19.16.10.65 reachable ether2	1	

3 items

Certificates

Certificates SCEP Servers SCEP

Import

KLAT CA-certificate
PC-cert
Router-cert
KI Server-cert

Issuer
uczen0 19.16.10.65
uczen00.19.16.10.65
*19.16.10.65

Days Valid
365
365
365
365

Trusted
yes
yes
yes
no

4 items (1 selected)

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

Filter Rules

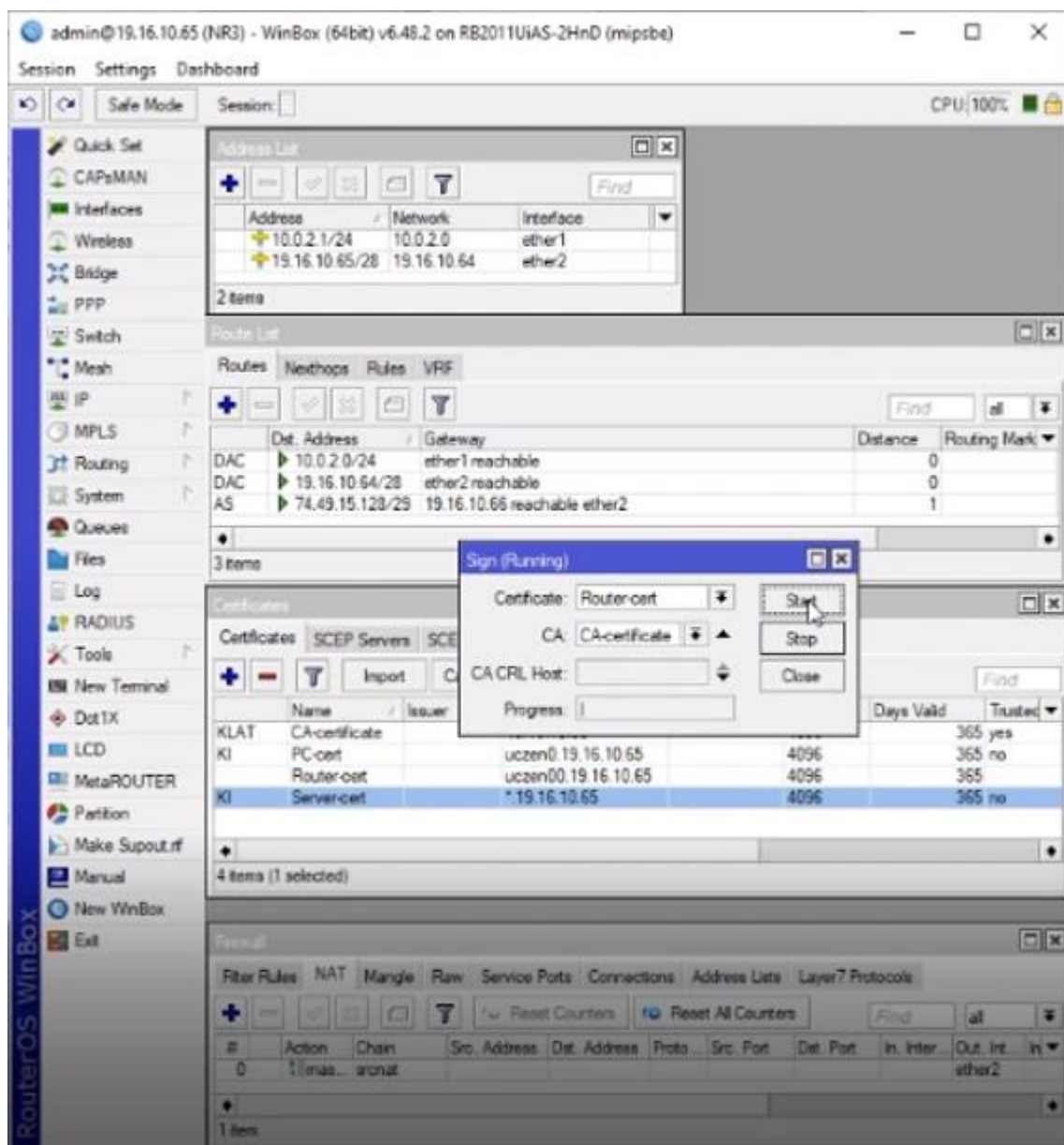
#	Action	Chain	Src. Address	Dest. Address	Proto...	Src. Port	Dest. Port	In. Inter...	Out. Int...	In
0	mas...	srcnat							ether2	

1 item

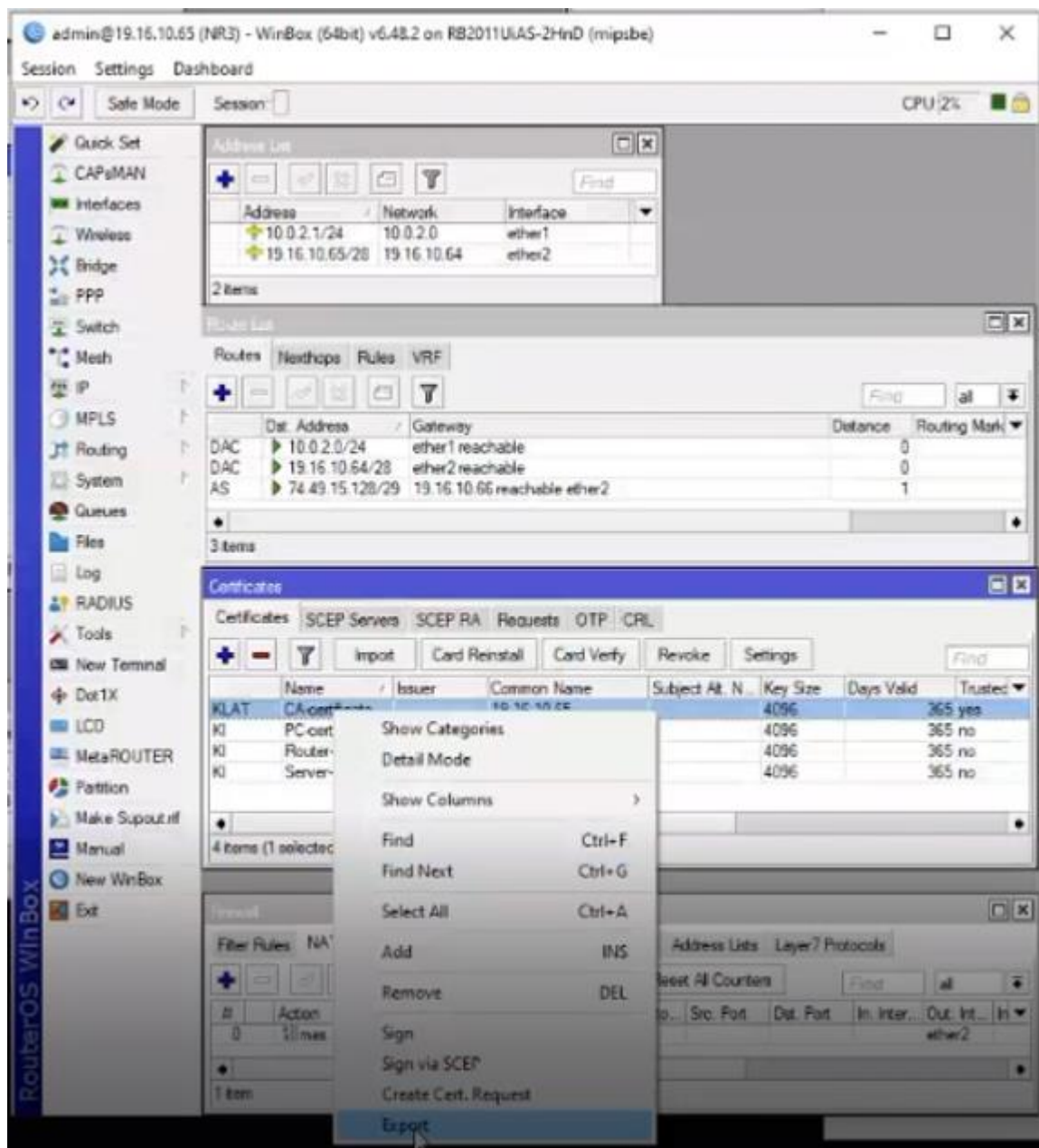
Sign (Running)

Certificate: PC-cert
CA: CA-certificate
CA CRL Host:
Progress: |

Start
Stop
Close



Export certyfikatów i przeniesienie ich potem na R1



Główny certyfikat bez hasła

Potem router i 8 znakowe hasło

Potem PC również 8 znaków

R1

admin@10.0.1.1 (NR1) - WinBox (64bit) v6.48.2 on RB2011UiAS-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: []

RouterOS WinBox

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
MPLS
Routing
System
Queues
Files
Log
RADIUS
Tools
New Terminal
Dot1X
LCD
MetaROUTER
Partition
Make Supout.tif
Manual
New WinBox
Exit

Address List

Address	Network	Interface
10.0.1.1/28	10.0.1.0	ether2
10.0.3.1/24	10.0.3.0	ether3
74.49.15.129/29	74.49.15.128	ether1

3 items

Route List

Routes Nexthops Rules VRF

Certificates

Certificates SCEP Servers SCEP RA Requests OTP CRL

Import Card Reinstall Card Verify Revoke Settings

Name Issuer Common Name Subject Alt. N... Key Size Days Valid True

Input

Only File: cert_export_CAcertificate.cer

Passphrase:

Import Cancel

0 items

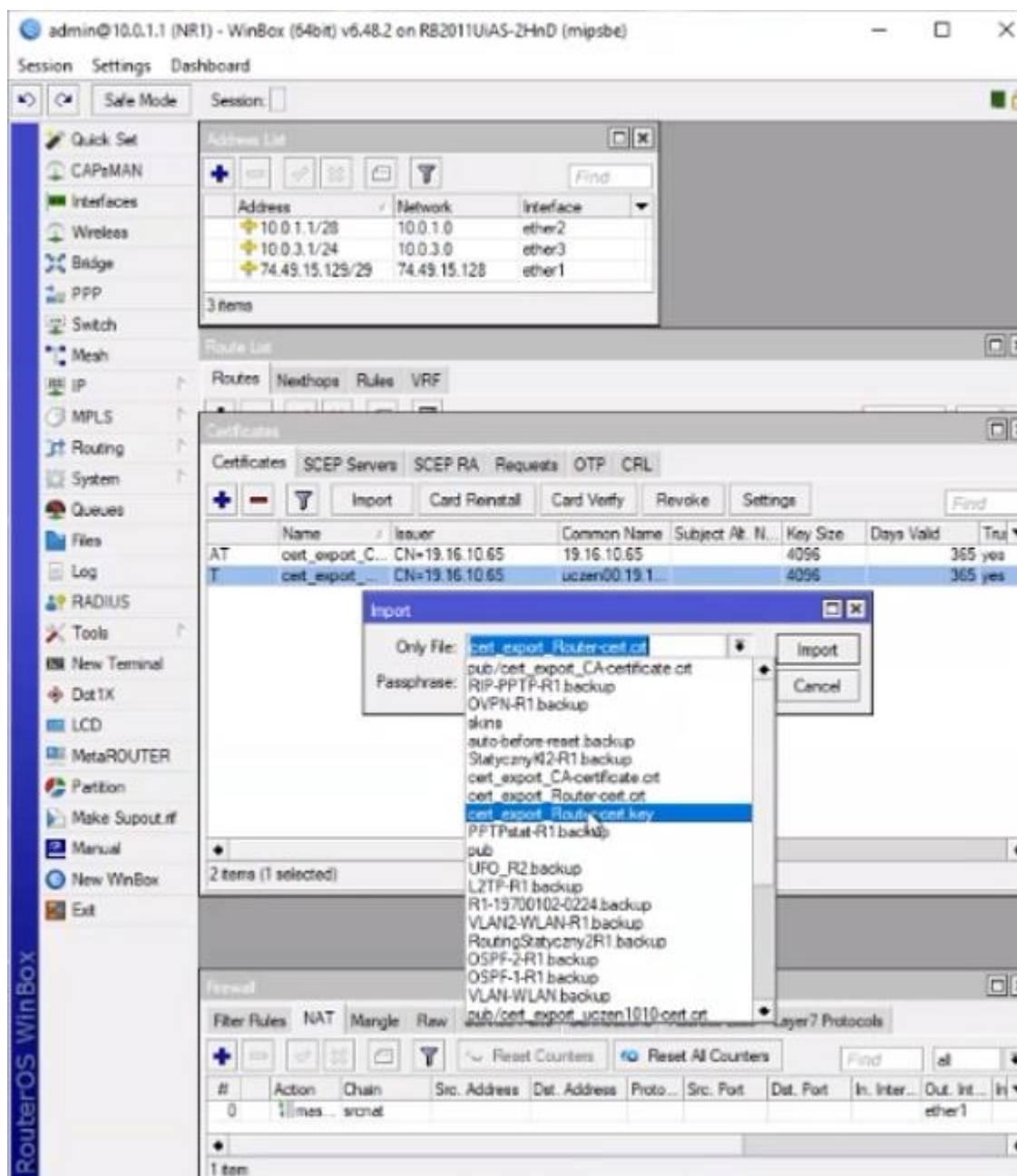
Firewall

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

Reset Counters Reset All Counters

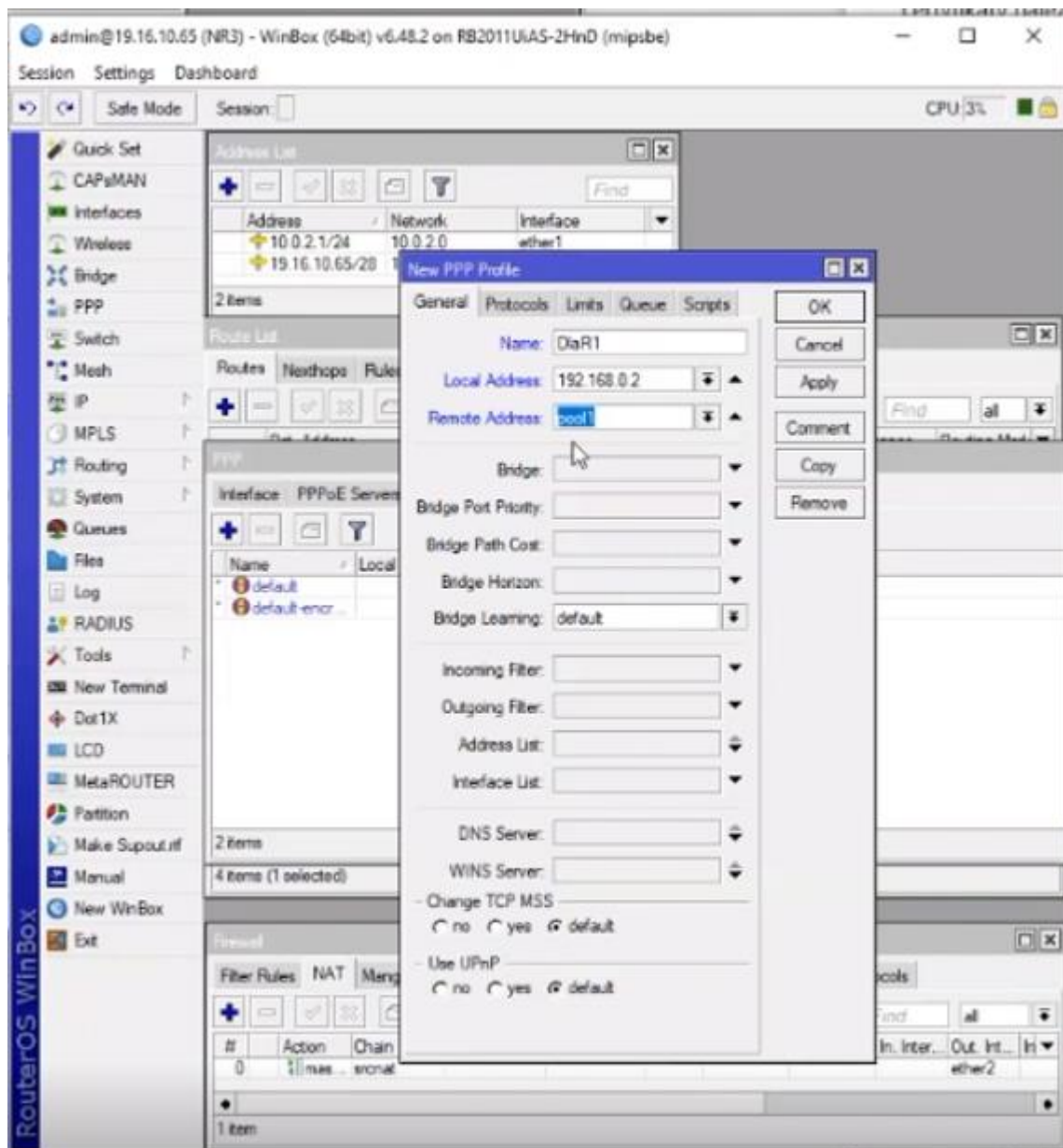
#	Action	Chain	Src. Address	Dest. Address	Proto...	Src. Port	Dest. Port	In. Inter...	Out. Int...	In...
0	mes...	srcnat							ether1	

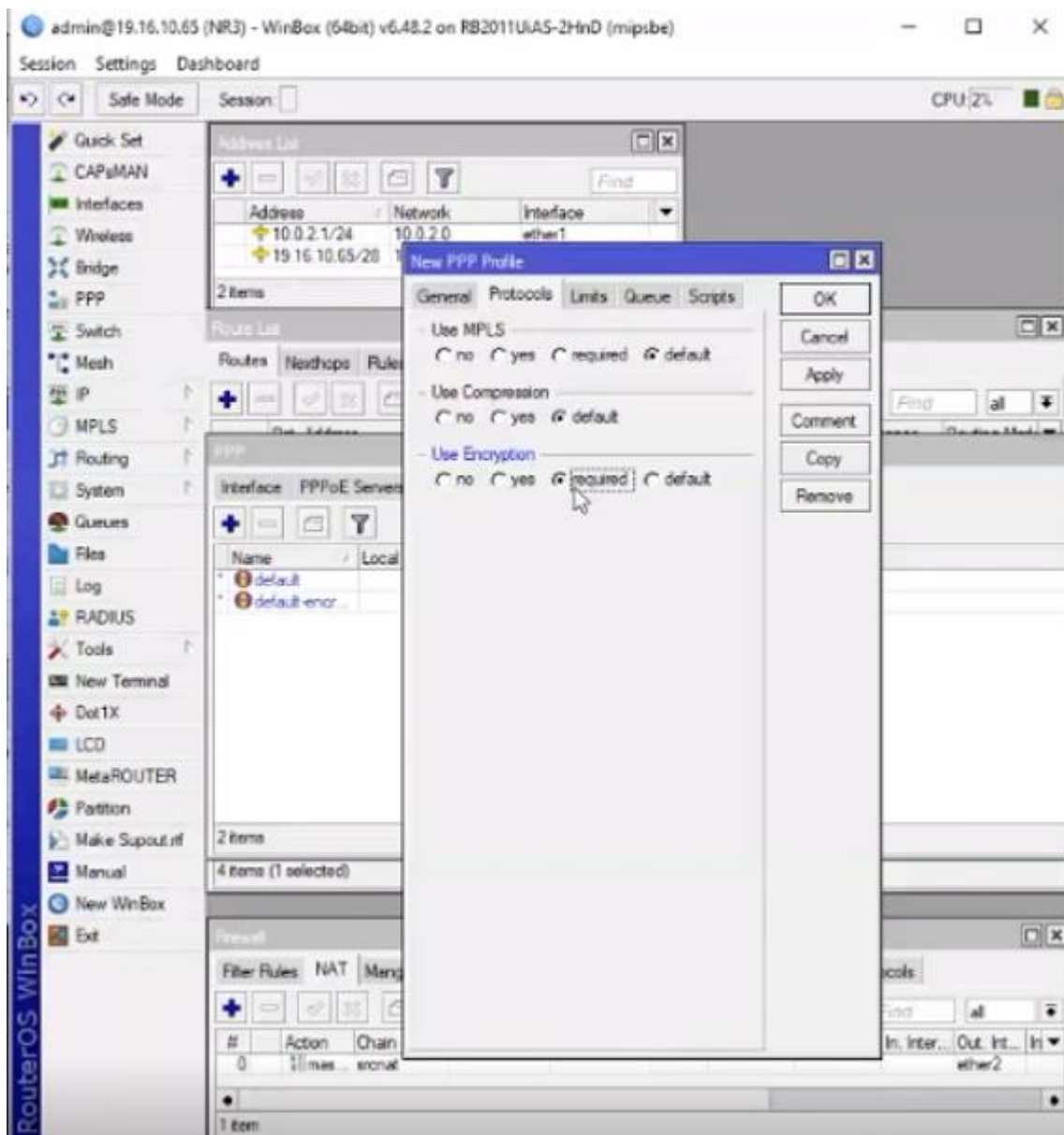
1 item

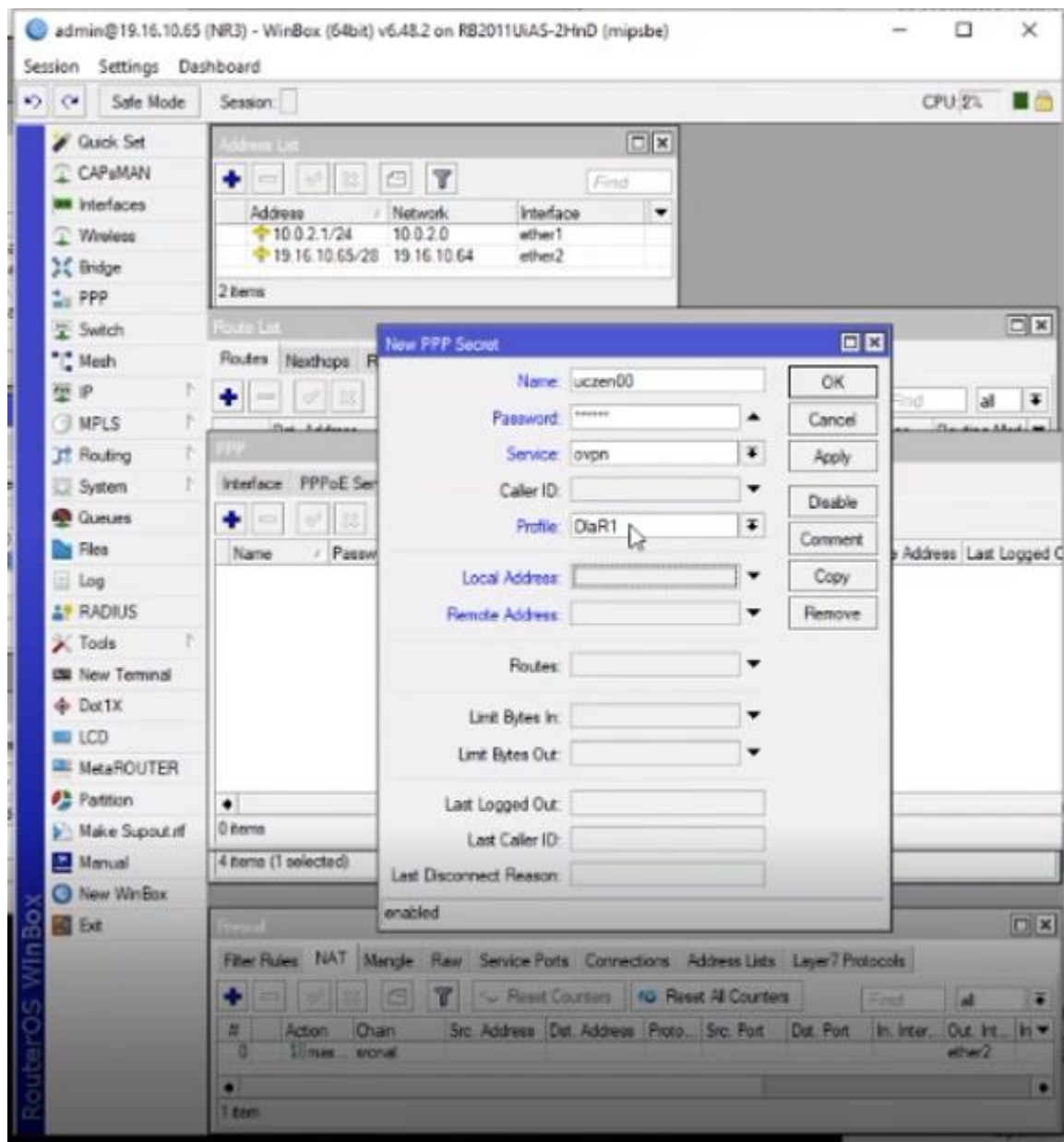


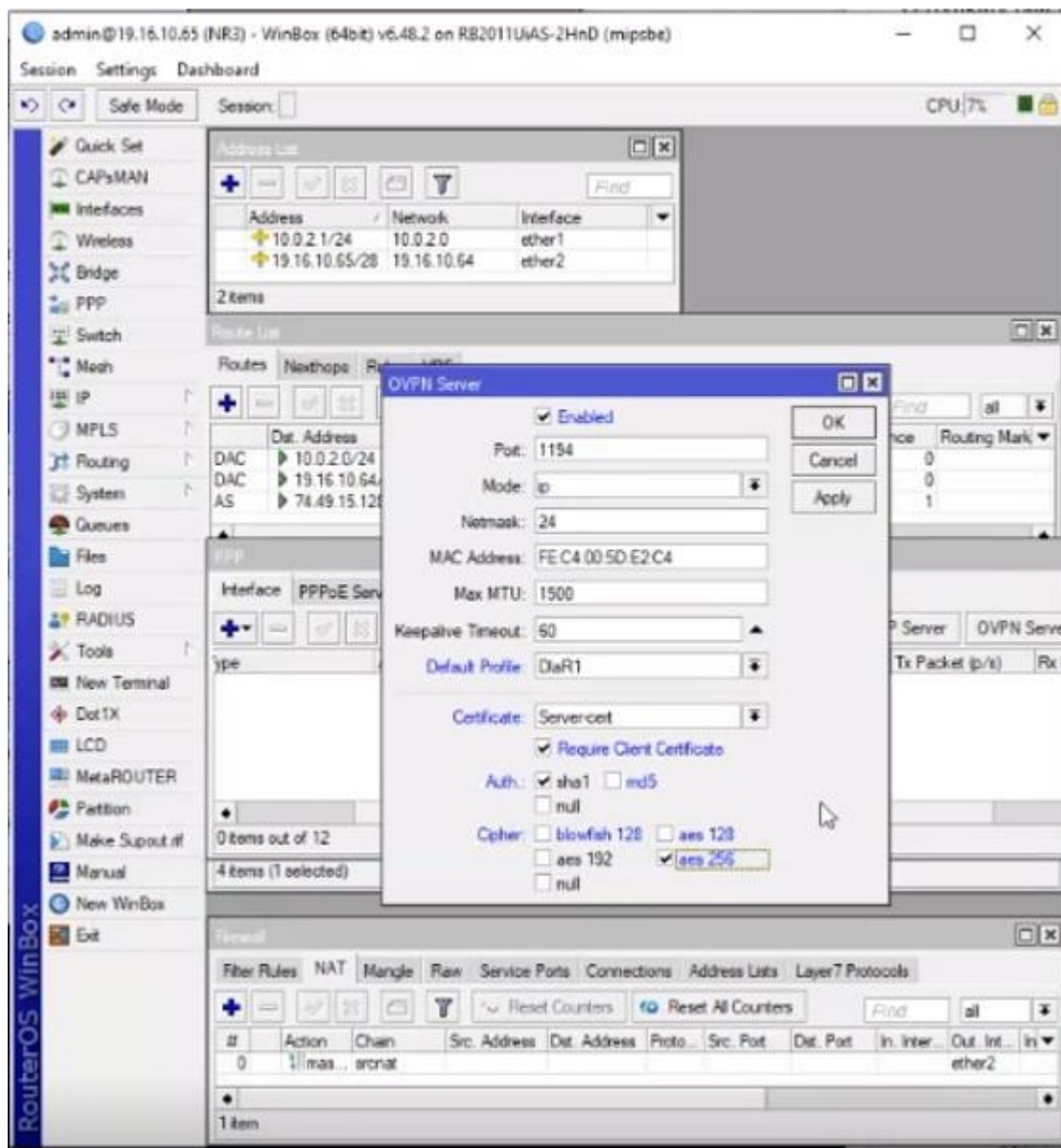
Tutaj tez haslo 8 znakowe

R3 PPP

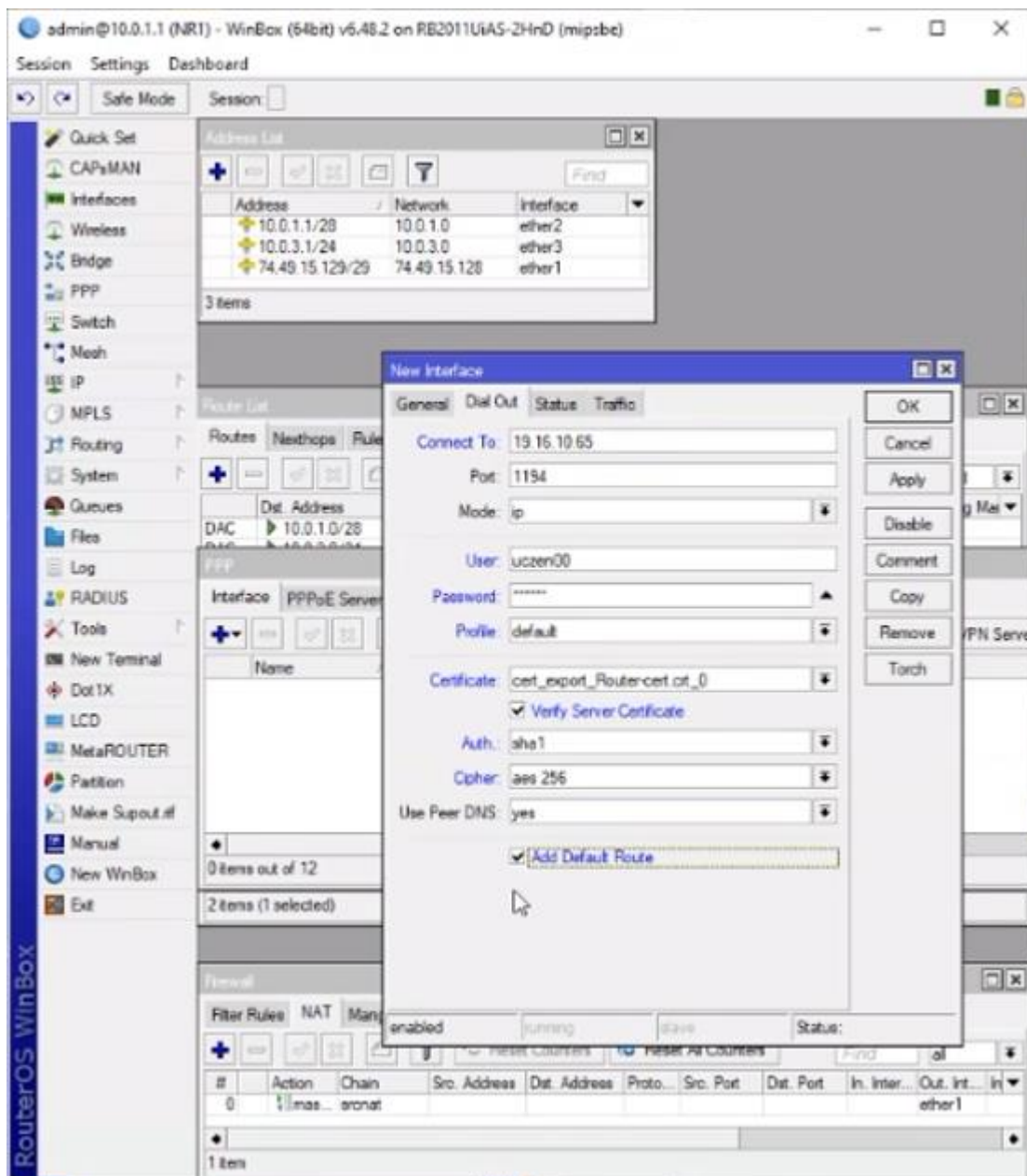








R1 PPP



Address List

Address	Network	Interface
10.0.1.1/28	10.0.1.0	ether2
10.0.3.1/24	10.0.3.0	ether3
74.49.15.129/29	74.49.15.128	ether1
192.168.0.112/24	192.168.0.0	export-Router

R3

RouterOS WinBox

Quick Set
CAPsMAN
Interfaces
Wireless
Bridge
PPP
Switch
Mesh
IP
MPLS
Routing
System
Queues
Files
Log
RADIUS
Tools
New Terminal
Dot1X
LCD
MetaROUTER
Partition
Make Supout if
Manual
New WinBox
Exit

Address List

Find

Address	Network	Interface
10.0.2.1/24	10.0.2.0	ether1

Route List

Routes Nexthops Rules VRF

Find all

New Route

General Attributes

Dest. Address: 10.0.3.0/24

Gateway: 192.168.0.112

Check Gateway:

Type: unicast

Distance:

Scope: 30

Target Scope: 10

Routing Mark:

Pref. Source:

enabled active

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

Reset Counters Reset All Counters Find all

#	Action	Chain	Src. Address	Dest. Address	Proto	Src. Port	Dest. Port	In. Inter	Out. Inter	In
0	mas	ironat							ether2	

1 item