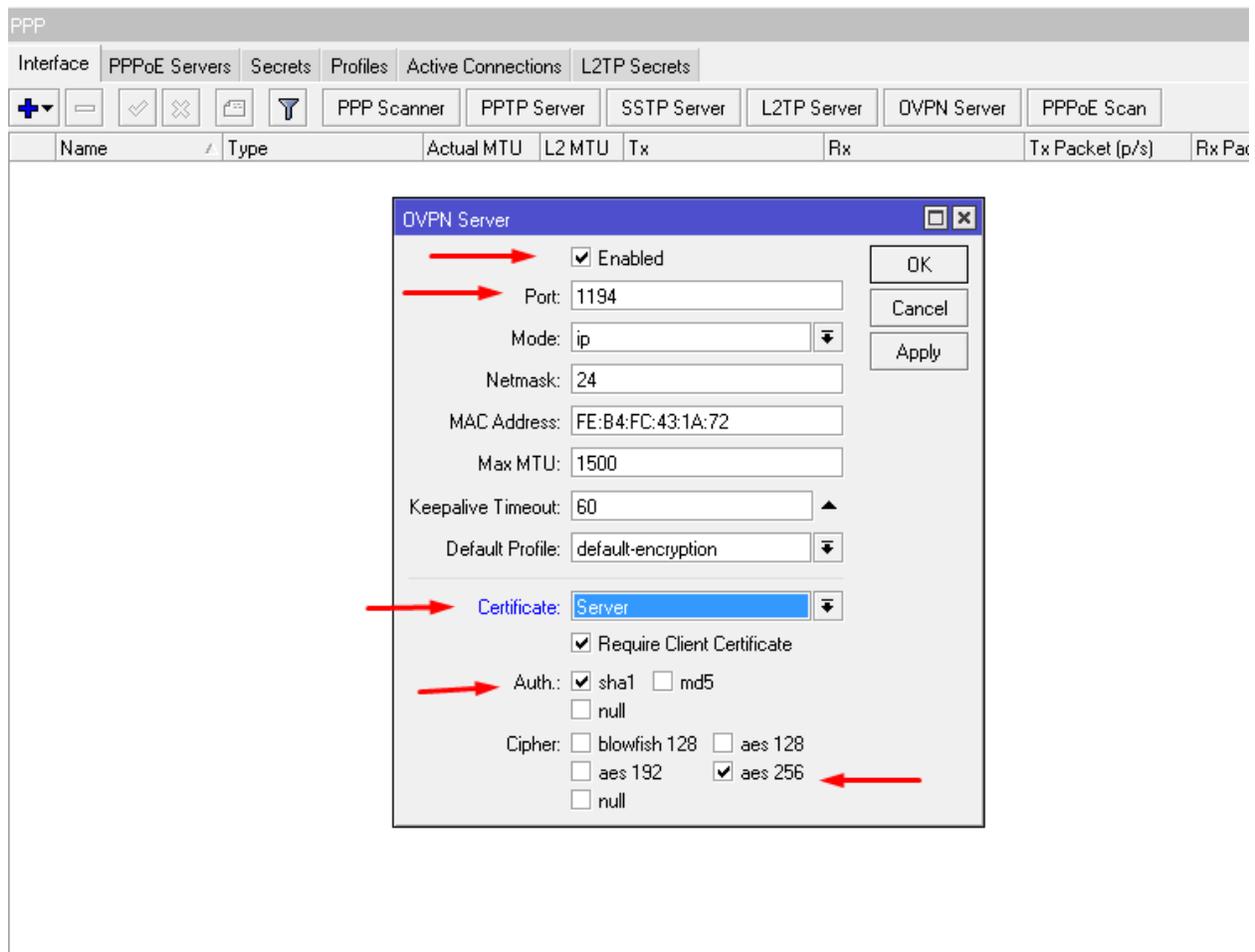


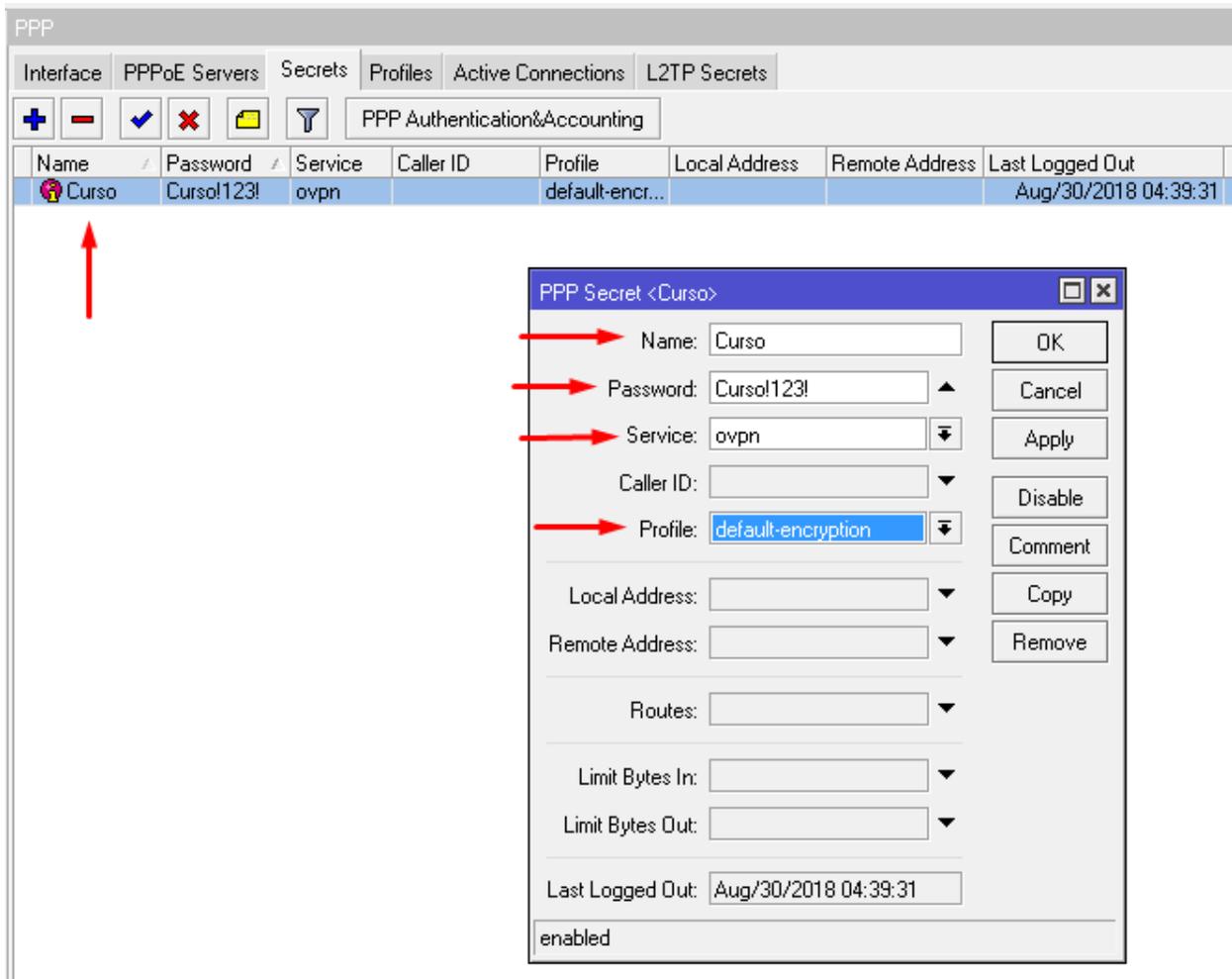
Laboratorio 4.2: Configuración Openvpn server mikrotik, Client Mikrotik

Objetivos: Configurar un openvpn server con certificados en Mikrotik, crear cliente en mikrotik

- **Paso 1:** Una vez creados los certificados en el Mikrotik nos dirigimos a la pestaña de configuración y damos click en **OVPN Server**. Allí habilitaremos el servidor y en mi caso dejare el **puerto por defecto(1194)**



- **Paso 2:** Luego procedemos a crear nuestro usuario en la pestaña **Secrets** tomando en cuenta que en **Service** deberá colocar **ovpn** y seleccione el **profile** que ya usted allá asignado a esa conexión.



PPP

Interface | PPPoE Servers | **Secrets** | Profiles | Active Connections | L2TP Secrets

PPP Authentication&Accounting

Name	Password	Service	Caller ID	Profile	Local Address	Remote Address	Last Logged Out
Curso	Curso!123!	ovpn		default-encr...			Aug/30/2018 04:39:31

PPP Secret <Curso>

Name: Curso

Password: Curso!123!

Service: ovpn

Caller ID:

Profile: default-encryption

Local Address:

Remote Address:

Routes:

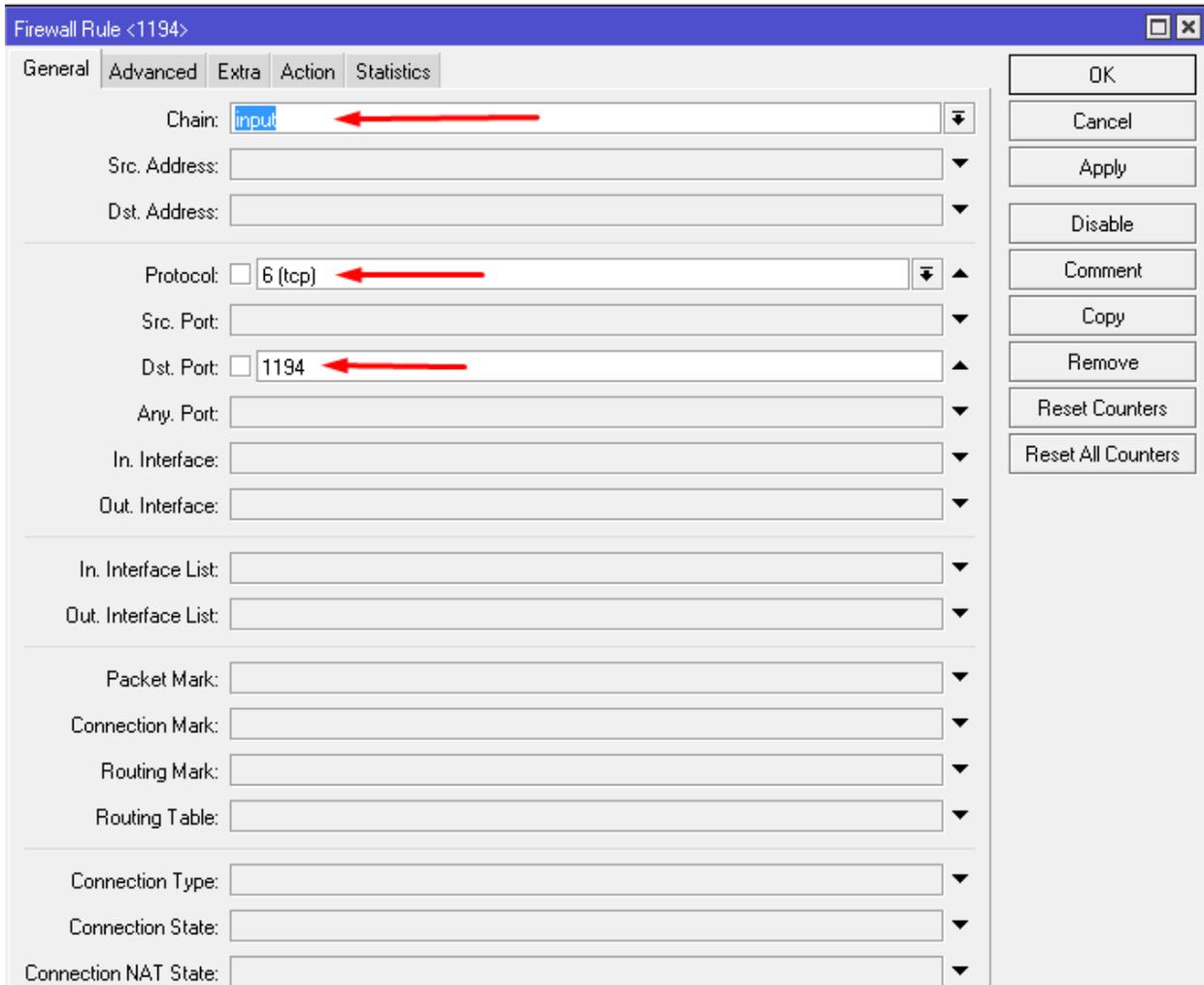
Limit Bytes In:

Limit Bytes Out:

Last Logged Out: Aug/30/2018 04:39:31

enabled

- **Paso 3:** En este paso revisar la regla de input en nuestro firewall en donde abriremos el puerto **1194**.



Firewall Rule <1194>

General | Advanced | Extra | Action | Statistics

Chain: ←

Src. Address:

Dst. Address:

Protocol: 6 (tcp) ←

Src. Port:

Dst. Port: 1194 ←

Any. Port:

In. Interface:

Out. Interface:

In. Interface List:

Out. Interface List:

Packet Mark:

Connection Mark:

Routing Mark:

Routing Table:

Connection Type:

Connection State:

Connection NAT State:

OK

Cancel

Apply

Disable

Comment

Copy

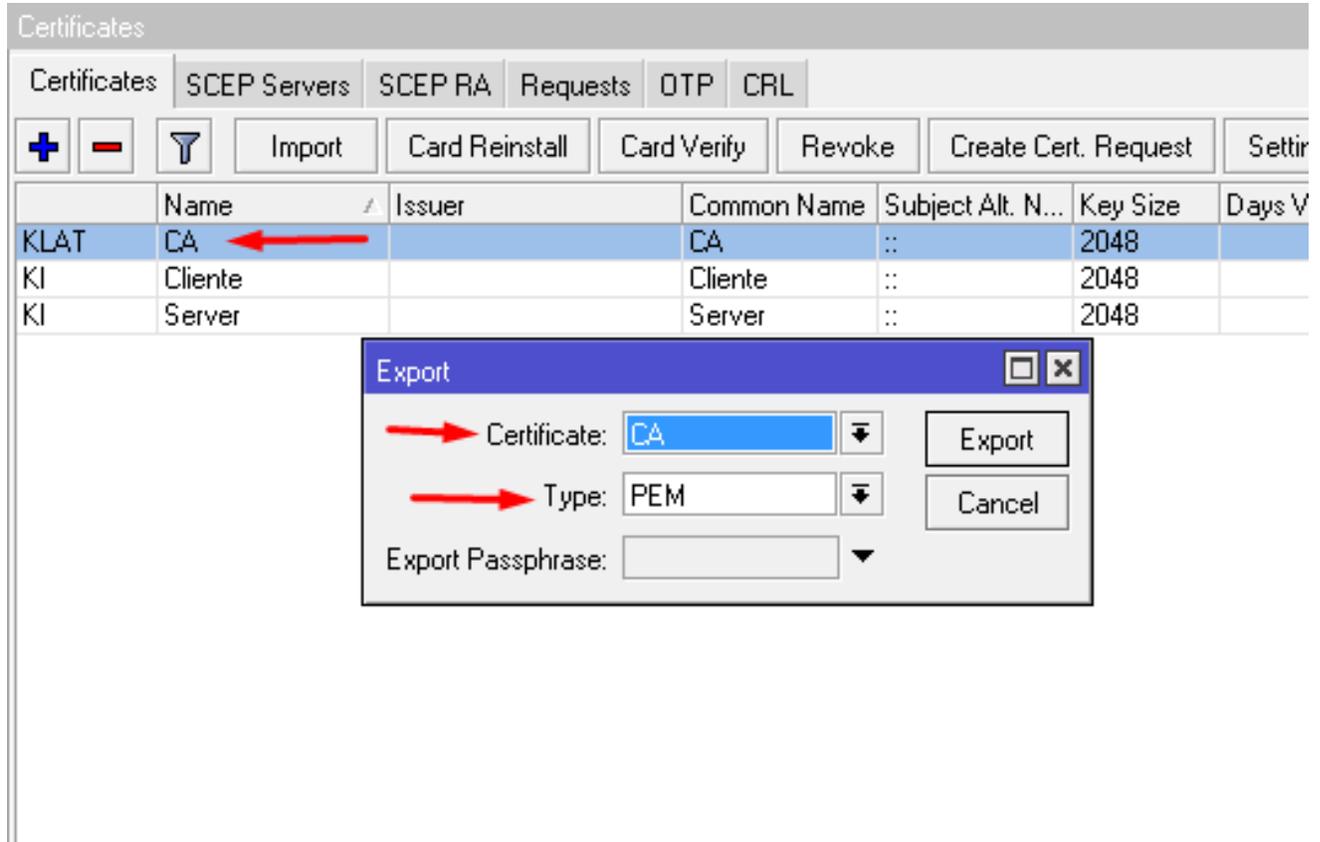
Remove

Reset Counters

Reset All Counters

- **Paso 4:** En el siguiente paso, para iniciar con la configuración de nuestro cliente, empezamos a descargar nuestros certificados. El primero será el **CA**.

Este lo exportaremos sin clave.



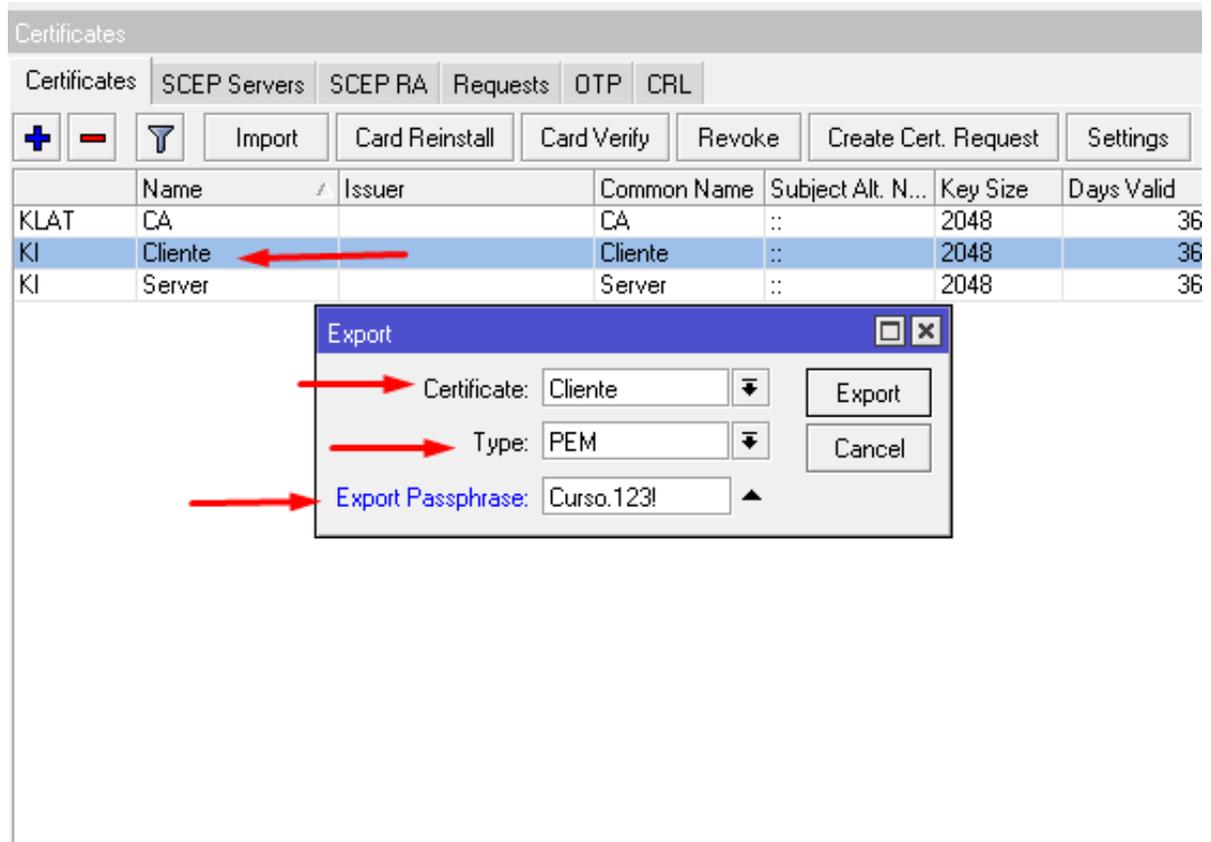
The screenshot shows the Mikrotik WinBox interface for managing certificates. The 'Certificates' window is open, displaying a table of certificates. The 'CA' certificate is selected, and an 'Export' dialog box is overlaid on top. In the dialog, the 'Certificate' field is set to 'CA' and the 'Type' is set to 'PEM'. The 'Export Passphrase' field is empty. The 'Export' button is visible.

Name	Issuer	Common Name	Subject Alt. N...	Key Size	Days V
KLAT CA		CA	::	2048	
KI Cliente		Cliente	::	2048	
KI Server		Server	::	2048	

Export dialog box fields:

- Certificate: CA
- Type: PEM
- Export Passphrase: (empty)

- **Paso 5:** En el siguiente paso vamos a exportar el certificado cliente y este **si llevara la clave**. En mi caso será [Curso.123!](#)



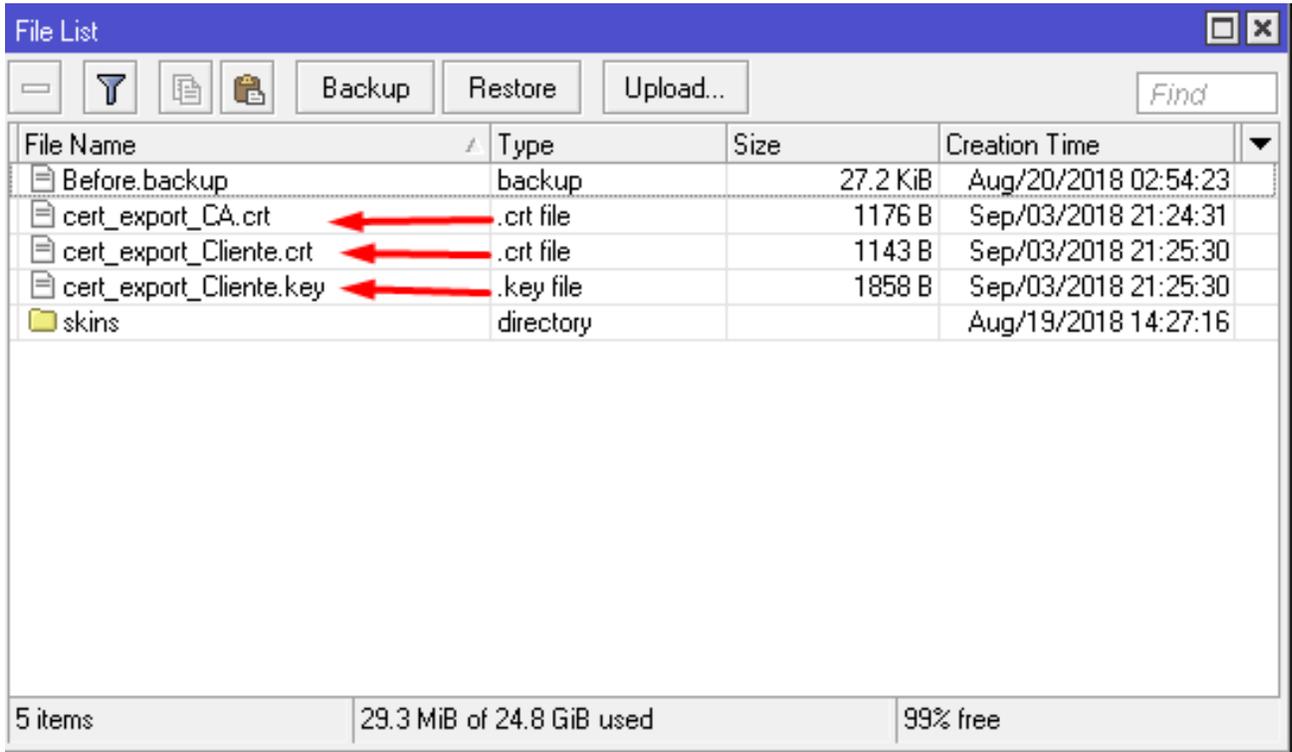
The screenshot shows the Mikrotik WinBox interface for managing certificates. The 'Certificates' window is open, displaying a table of certificates. The 'Cliente' certificate is selected. An 'Export' dialog box is overlaid on the table, with the following settings:

Name	Issuer	Common Name	Subject Alt. N...	Key Size	Days Valid
KLAT CA		CA	::	2048	36
KI Cliente		Cliente	::	2048	36
KI Server		Server	::	2048	36

The 'Export' dialog box contains the following fields and buttons:

- Certificate: Cliente
- Type: PEM
- Export Passphrase: Curso.123!
- Buttons: Export, Cancel

- **Paso 6:** Una vez completado el paso anterior nos dirigimos hacia la opción **File**. Allí se nos mostrarán los certificados exportados y listos para ser descargados.

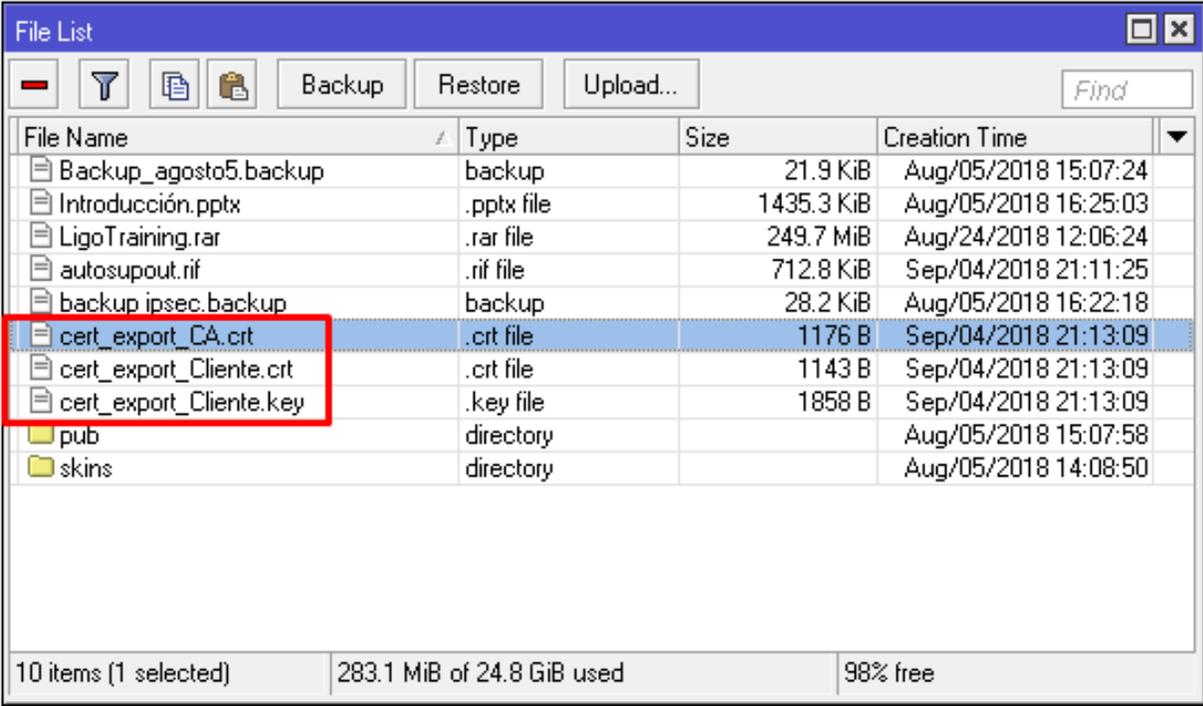


File Name	Type	Size	Creation Time
Before.backup	backup	27.2 KiB	Aug/20/2018 02:54:23
cert_export_CA.crt	.crt file	1176 B	Sep/03/2018 21:24:31
cert_export_Cliente.crt	.crt file	1143 B	Sep/03/2018 21:25:30
cert_export_Cliente.key	.key file	1858 B	Sep/03/2018 21:25:30
skins	directory		Aug/19/2018 14:27:16

5 items | 29.3 MiB of 24.8 GiB used | 99% free

Cliente Mikrotik

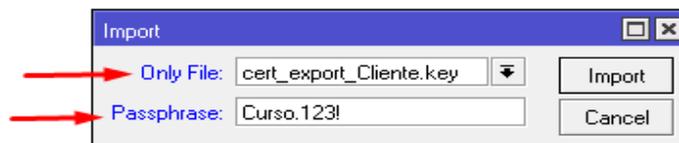
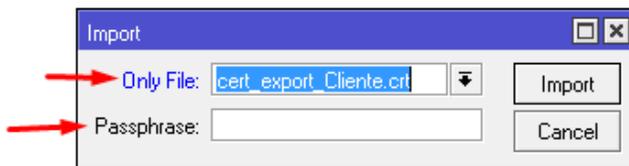
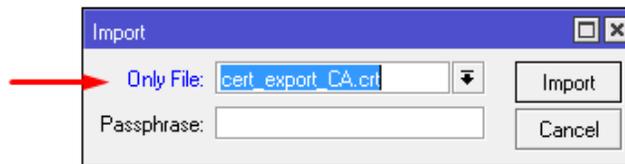
- **Paso 1:** Exportamos nuestros certificados al Mikrotik cliente.



File Name	Type	Size	Creation Time
Backup_agosto5.backup	backup	21.9 KiB	Aug/05/2018 15:07:24
Introducción.pptx	.pptx file	1435.3 KiB	Aug/05/2018 16:25:03
LigoTraining.rar	.rar file	249.7 MiB	Aug/24/2018 12:06:24
autosupout.rif	.rif file	712.8 KiB	Sep/04/2018 21:11:25
backup ipsec.backup	backup	28.2 KiB	Aug/05/2018 16:22:18
cert_export_CA.crt	.crt file	1176 B	Sep/04/2018 21:13:09
cert_export_Cliente.crt	.crt file	1143 B	Sep/04/2018 21:13:09
cert_export_Cliente.key	.key file	1858 B	Sep/04/2018 21:13:09
pub	directory		Aug/05/2018 15:07:58
skins	directory		Aug/05/2018 14:08:50

10 items (1 selected) 283.1 MiB of 24.8 GiB used 98% free

- **Paso 2:** Ahora importamos nuestros certificados clientes, empezamos con el CA este ira sin password.
- Luego importaremos el **Cliente.crt** sin password, y por ultimo importaremos el **cliente.key** este si llevara el **password** que nosotros le asignamos al momento de exportarlo.



- **Paso 3:** una vez importado deberá presentarse en el menú de certificados de la siguiente forma.

Certificates

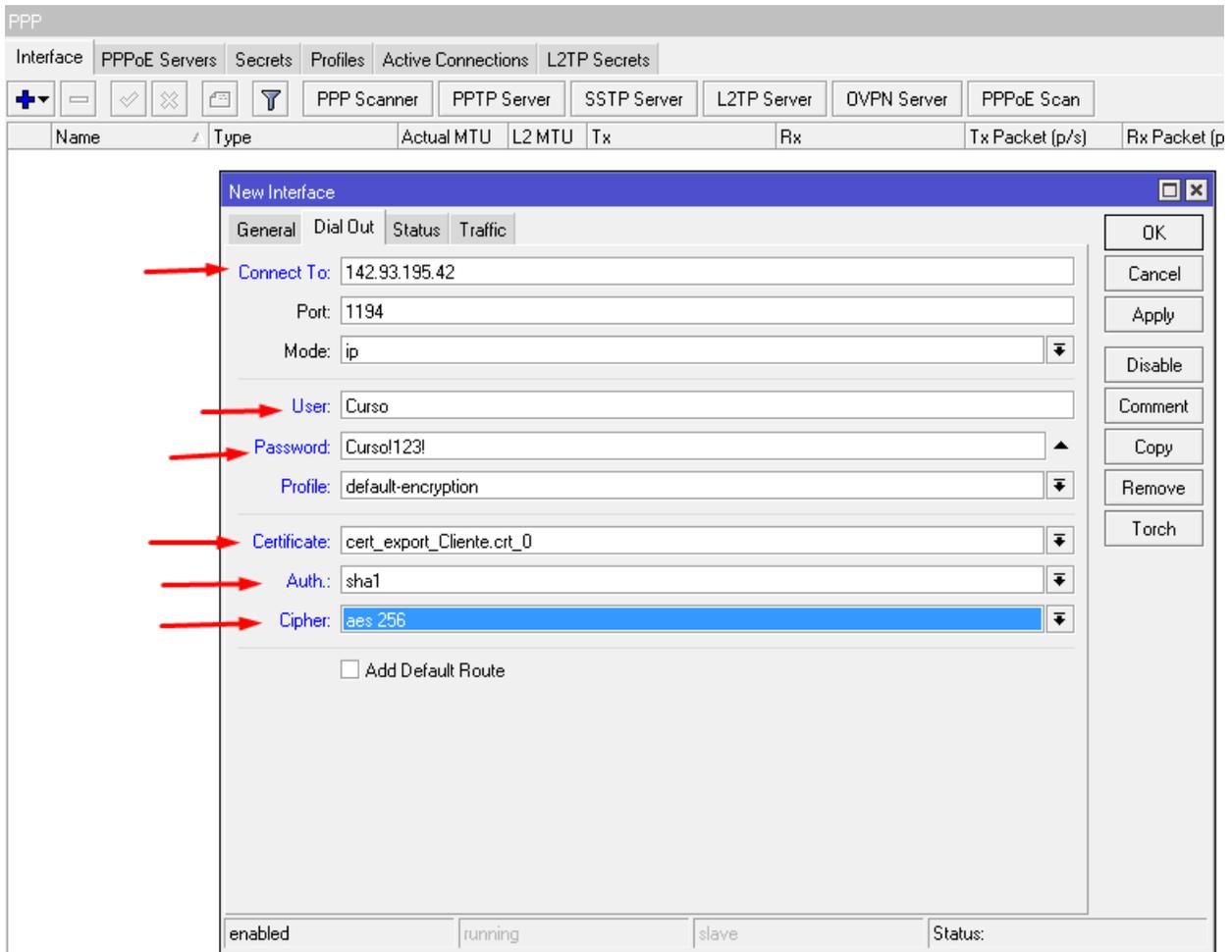
Certificates SCEP Servers SCEP RA Requests OTP CRL

+ - Filter Import Card Reinstall Card Verify Revoke Create Cert. Request Settings

	Name	Issuer	Common Name	Subject Alt. N...	Key Size	Days Valid	Trusted
LAT	cert_export_C...	CN=CA	CA	::	2048	3650	yes
KT	cert_export_C...	CN=CA	Cliente	::	2048	3650	yes



- **Paso 4:** Ahora nos dirigimos hacia **PPP – Interface** damos click al signo de **+** y añadimos una interface **openvpn client**, allí configuraremos los siguientes campos mostrados en la imagen
- Tomar en cuenta la colocación de certificados y que la **Auth:** y el **Cipher** sean iguales al del server.

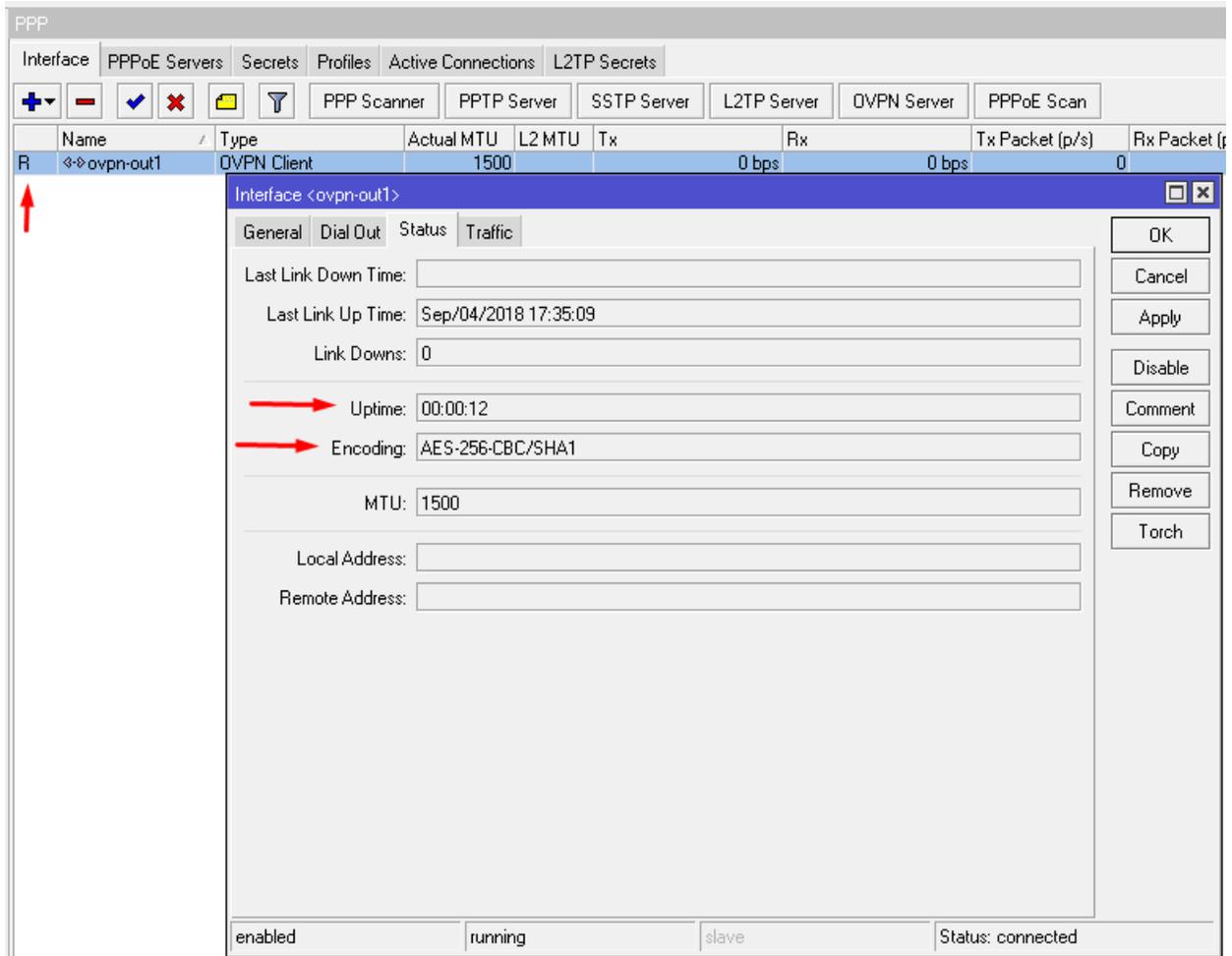


The image shows the Mikrotik WinBox interface for configuring a new PPP interface. The 'New Interface' dialog box is open, and the 'General' tab is selected. The configuration fields are as follows:

Field	Value
Connect To:	142.93.195.42
Port:	1194
Mode:	ip
User:	Curso
Password:	Curso!123!
Profile:	default-encryption
Certificate:	cert_export_Cliente.crt_0
Auth:	sha1
Cipher:	aes 256

At the bottom of the dialog, there is a checkbox for 'Add Default Route' which is currently unchecked. The status bar at the bottom of the WinBox window shows 'enabled', 'running', 'slave', and 'Status:'.

Paso 5: Si todos los pasos fueron completados correctamente debe mostrarse de la siguiente forma donde la **R** nos indica, el uptime etc. Ver imagen.



The screenshot displays the Mikrotik WinBox interface for configuring a PPP connection. The main window is titled "PPP" and shows a list of interfaces. The interface "ovpn-out1" is selected, and its configuration is shown in a detailed view. The configuration includes the following fields:

Name	Type	Actual MTU	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)
ovpn-out1	OVPN Client	1500			0 bps	0 bps	0

The detailed view for the "ovpn-out1" interface shows the following configuration:

- Last Link Down Time: (empty)
- Last Link Up Time: Sep/04/2018 17:35:09
- Link Downs: 0
- Uptime: 00:00:12
- Encoding: AES-256-CBC/SHA1
- MTU: 1500
- Local Address: (empty)
- Remote Address: (empty)

At the bottom of the configuration window, the status is shown as "enabled", "running", "slave", and "Status: connected". A red arrow points to the "Uptime" field, and another red arrow points to the "Encoding" field.