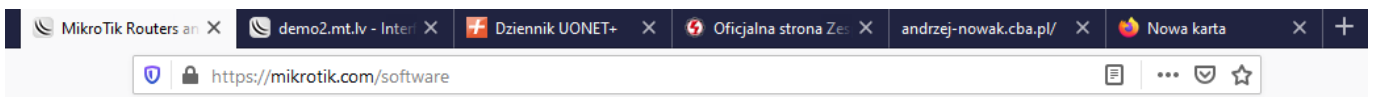


## MikroTik – ćwiczenia

Opracował: Andrzej Nowak

1. Przykładowy on-line z przeglądarki - <https://mikrotik.com/software> link [demo2.mt.lv](https://demo2.mt.lv)



Home About Buy Jobs Hardware Software Support Training Account

### Software

Downloads Changelogs Download archive RouterOS The Dude Mobile app

### Try RouterOS now by using our online demo routers

Connect via SSH or download our graphical application **WinBox (latest version)**. When connecting in either way, use the address [demo.mt.lv](https://demo.mt.lv) or [demo2.mt.lv](https://demo2.mt.lv). Username is "demo" and there is no password.

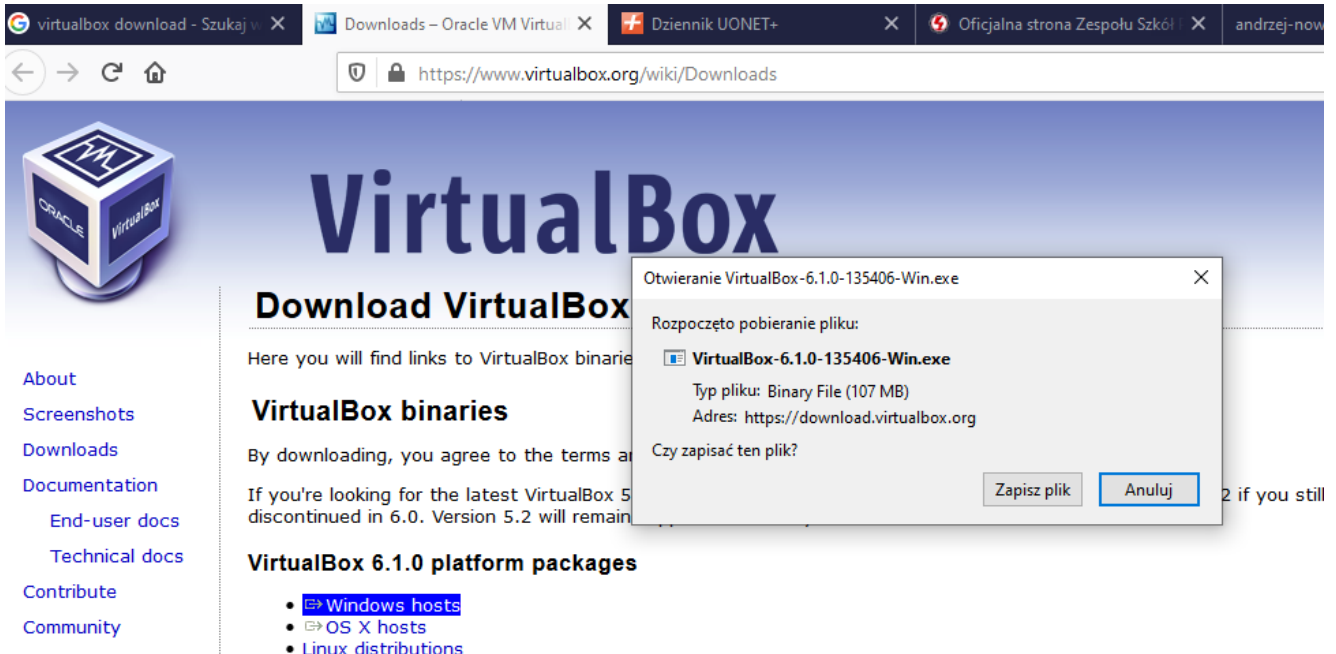


You can also open the web configuration interface in your web browser: [demo.mt.lv](https://demo.mt.lv) and [demo2.mt.lv](https://demo2.mt.lv)

	Name	Type	Actual MTU	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)	FP Tx	FP Rx
D	sfp1	Ethernet	1500	1600	0 bps	0 bps	0	0	0 bps	0 bps
D	ether5	Ethernet	1500	1598	0 bps	0 bps	0	0	0 bps	0 bps
D	ether4	Ethernet	1500	1598	0 bps	0 bps	0	0	0 bps	0 bps
D	ether3	Ethernet	1500	1598	0 bps	0 bps	0	0	0 bps	0 bps
D	R ether2	Ethernet	1500	1598	528.4 kbps	59.5 kbps	61	52	352.3 kbps	39.1 kbps
D	ether1	Ethernet	1500	1598	0 bps	0 bps	0	0	0 bps	0 bps
E	X wlan1	Wireless (Atheros AR9300)	1500	1600	0 bps	0 bps	0	0	0 bps	0 bps
E	X wlan2	Wireless (Atheros AR9888)	1500	1600	0 bps	0 bps	0	0	0 bps	0 bps

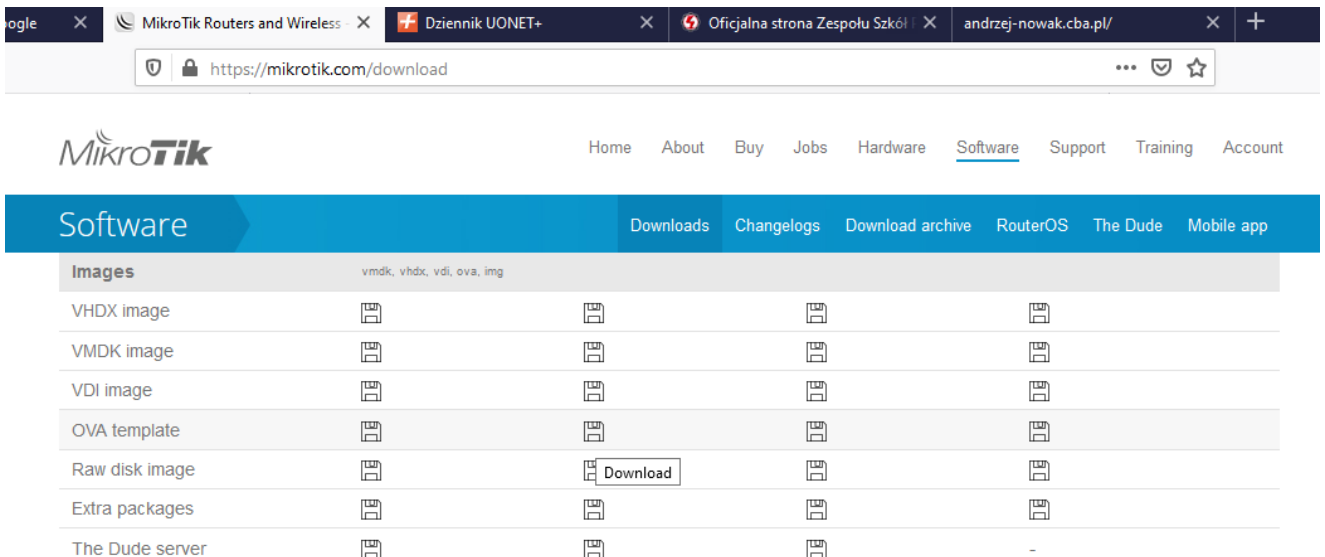
## 2. Router z Virtual Box – zarządzany poprzez program WinBox

a. Pobieramy Virtual Box ze strony i instalujemy



The screenshot shows the VirtualBox website at <https://www.virtualbox.org/wiki/Downloads>. A dialog box titled "Otwieranie VirtualBox-6.1.0-135406-Win.exe" is open, displaying the download progress for the file "VirtualBox-6.1.0-135406-Win.exe" (107 MB). The dialog asks "Czy zapisać ten plik?" (Do you want to save this file?) with "Zapisz plik" (Save file) and "Anuluj" (Cancel) buttons.

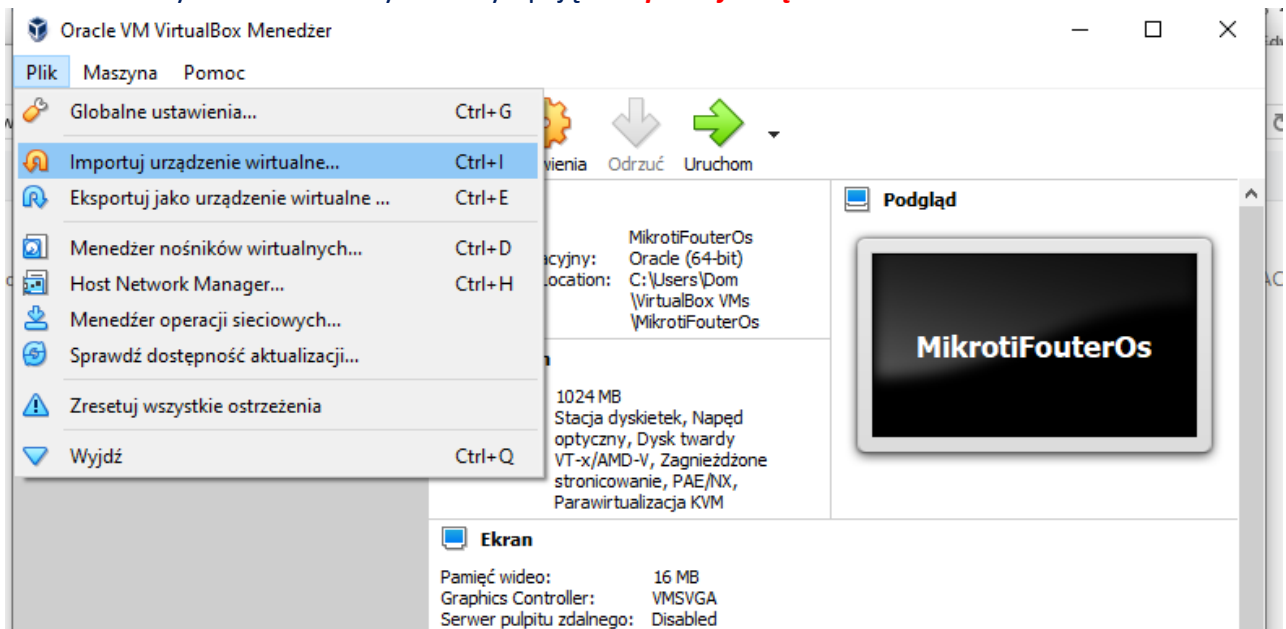
b. Pobieramy plik (... .ova) routera MikroTik ze strony (plik jest gotowy do użycia w Virtual Box)



The screenshot shows the MikroTik website's download page at <https://mikrotik.com/download>. The "Software" section is active, and the "Downloads" tab is selected. A table lists various image formats for download:

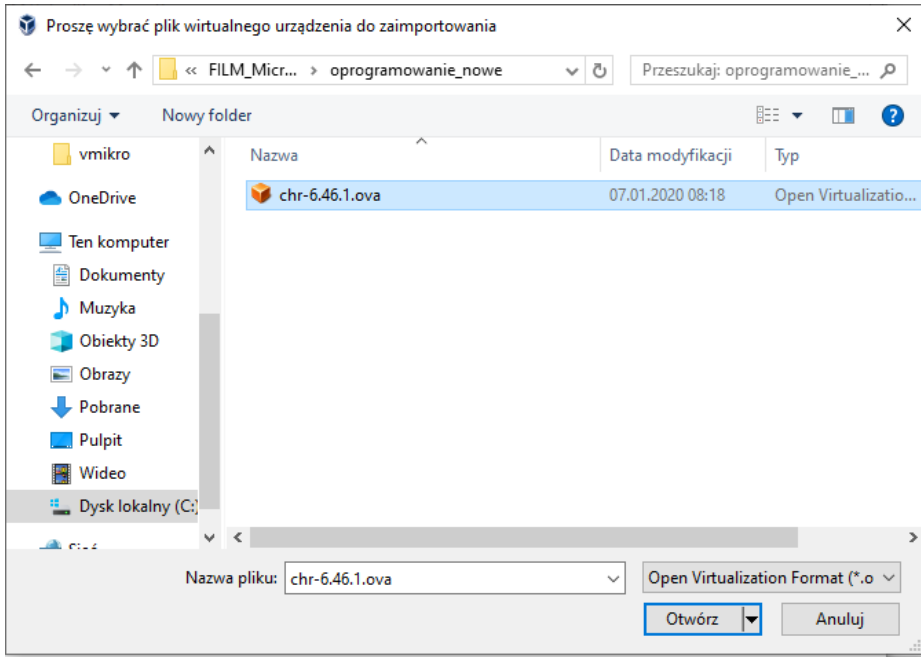
Images	vmdk, vhdx, vdi, ova, img
VHDX image	[Download]
VMDK image	[Download]
VDI image	[Download]
OVA template	[Download]
Raw disk image	[Download]
Extra packages	[Download]
The Dude server	[Download]

c. Uruchamiamy Virtual Box i wybieramy opcję – **Importuj urządzenie wirtualne**

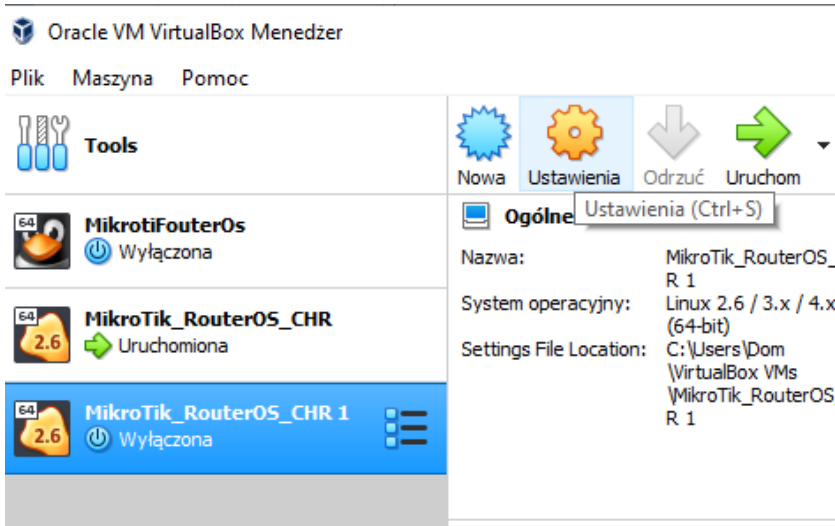


The screenshot shows the Oracle VM VirtualBox Manager interface. The "Importuj urządzenie wirtualne..." (Import virtual machine...) option is selected in the "Plik" (File) menu. The main window displays the details of a virtual machine named "MikrotiFouterOs" (note the typo in the image), including its location and hardware specifications.

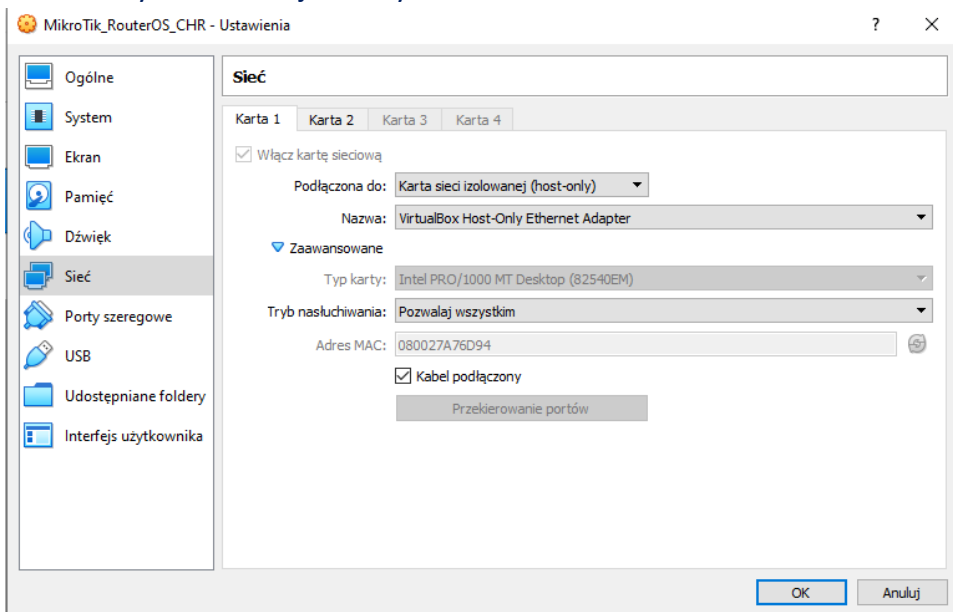
d. Po odnalezieniu pliku pobranego ze strony – klikamy otwórz

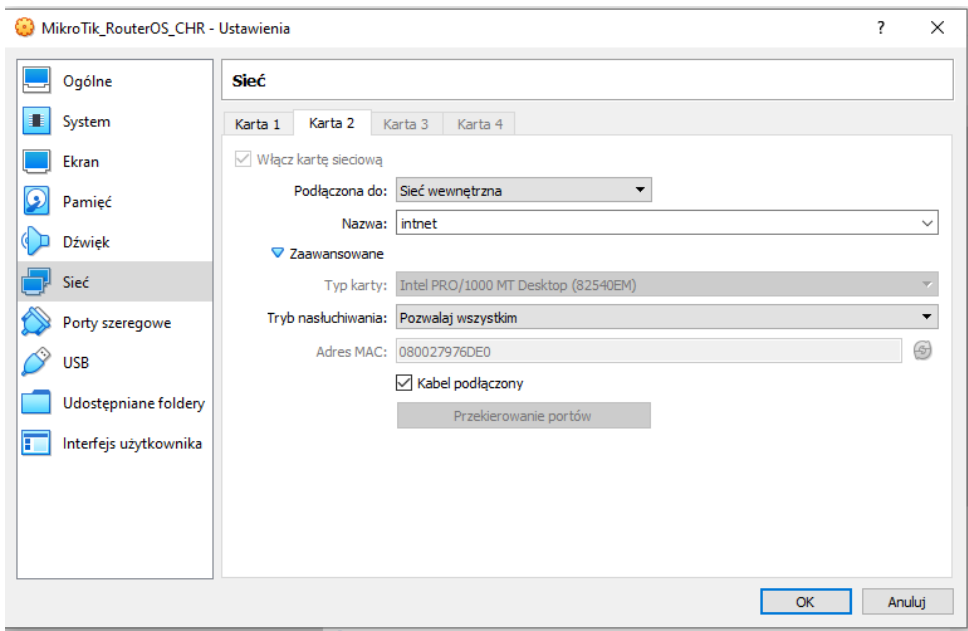


e. Po zainstalowaniu środowiska wybieramy przycisk Ustawienia – w celu ustawienia opcji interfejsów sieciowych:

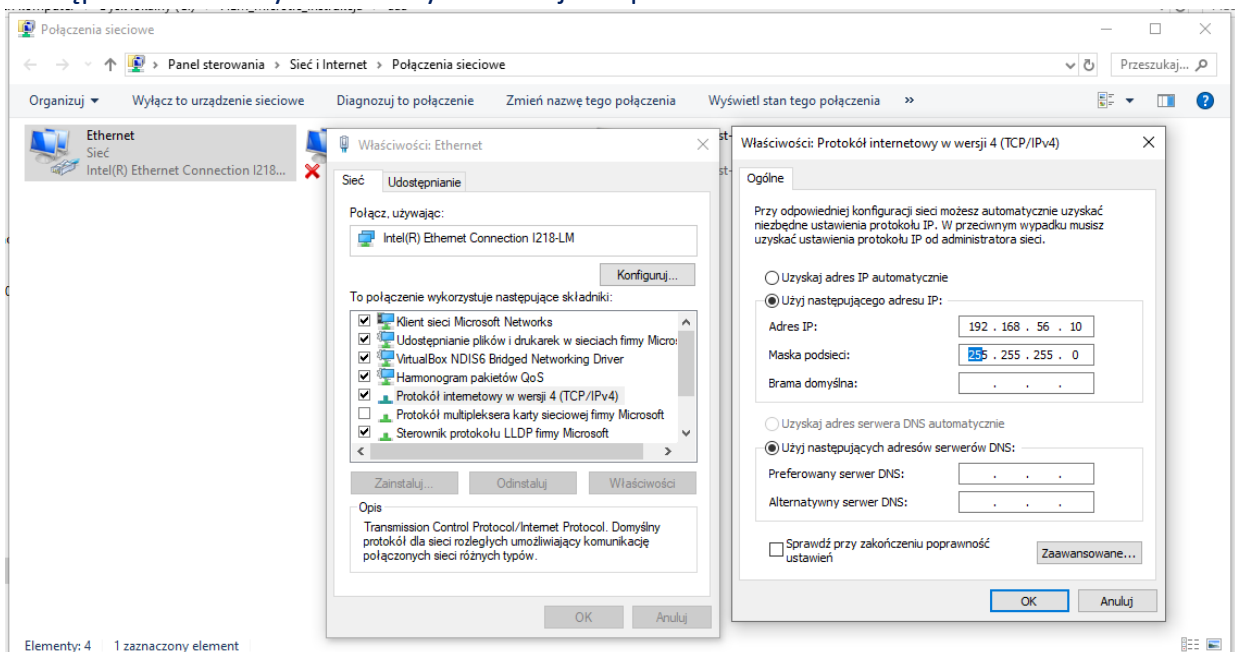


f. Ustawiamy wartości – jak na rysunkach:



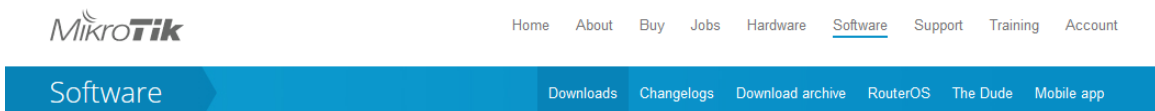
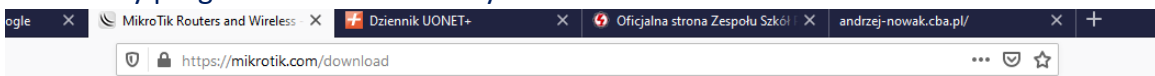


g. Następnie ustawimy adres karty sieciowej komputera:



h. Uruchamiamy router MikroTik w Virtual Box

i. Pobieramy program Winbox ze strony :

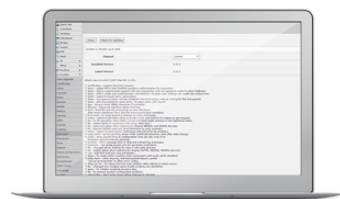
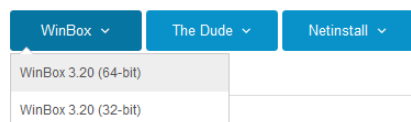


## Upgrading RouterOS

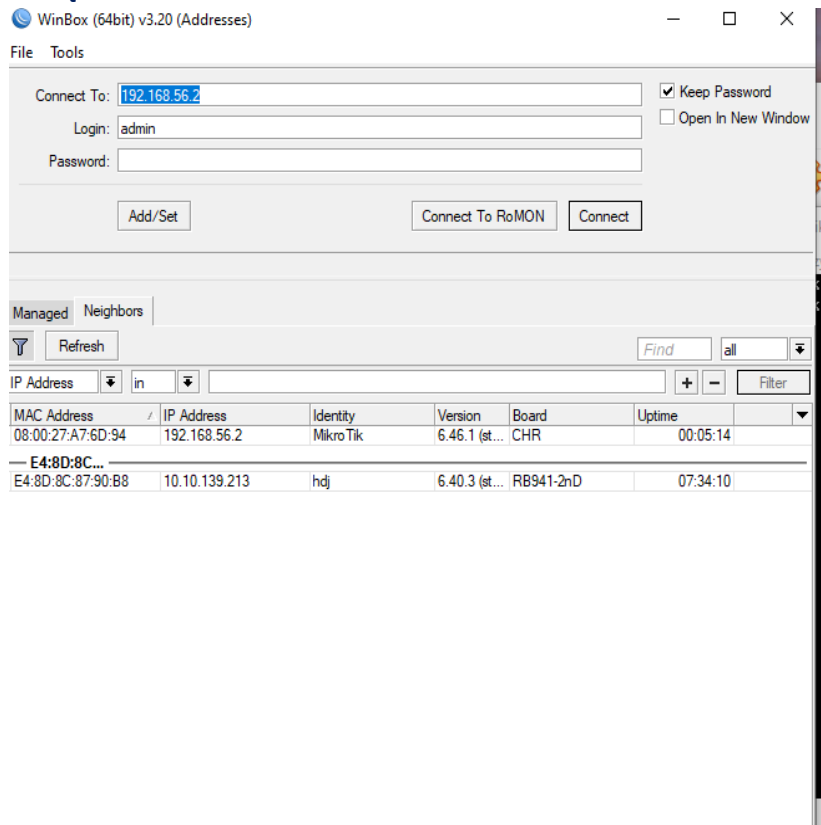
If you are already running RouterOS, upgrading to the latest version can be done by clicking on "Check For Updates" in **QuickSet** or **System > Packages** menu in WebFig or WinBox.

See the documentation for more information about upgrading and release types.

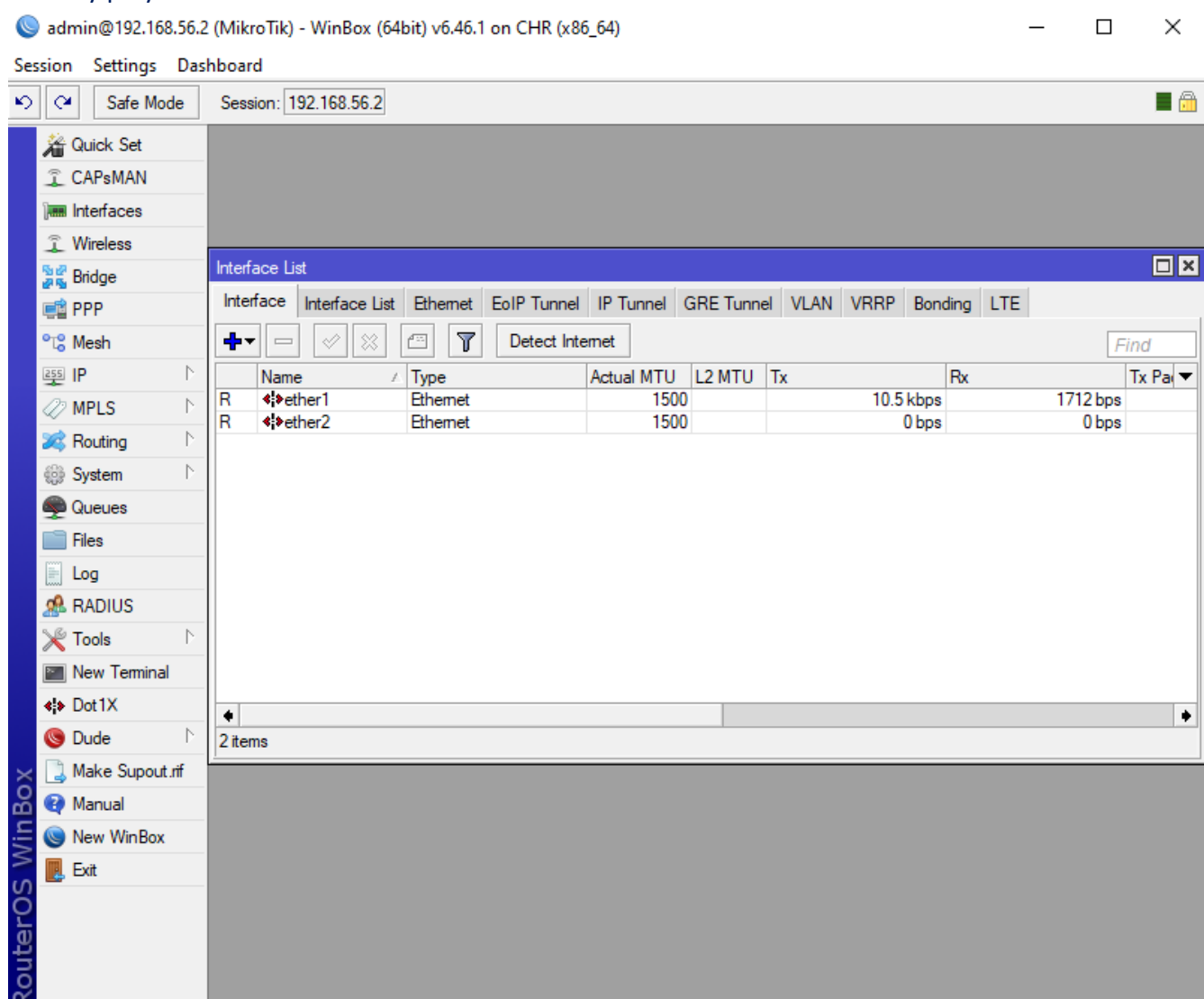
To manage your router, use the web interface, or download the maintenance utilities. Winbox to connect to your device, Dude to monitor your network and Netinstall for recovery and re-installation.



- j. Uruchamiamy program WinBox w celu połączenia się z routerem MikroTik , aby mieć możliwość zarządzania :



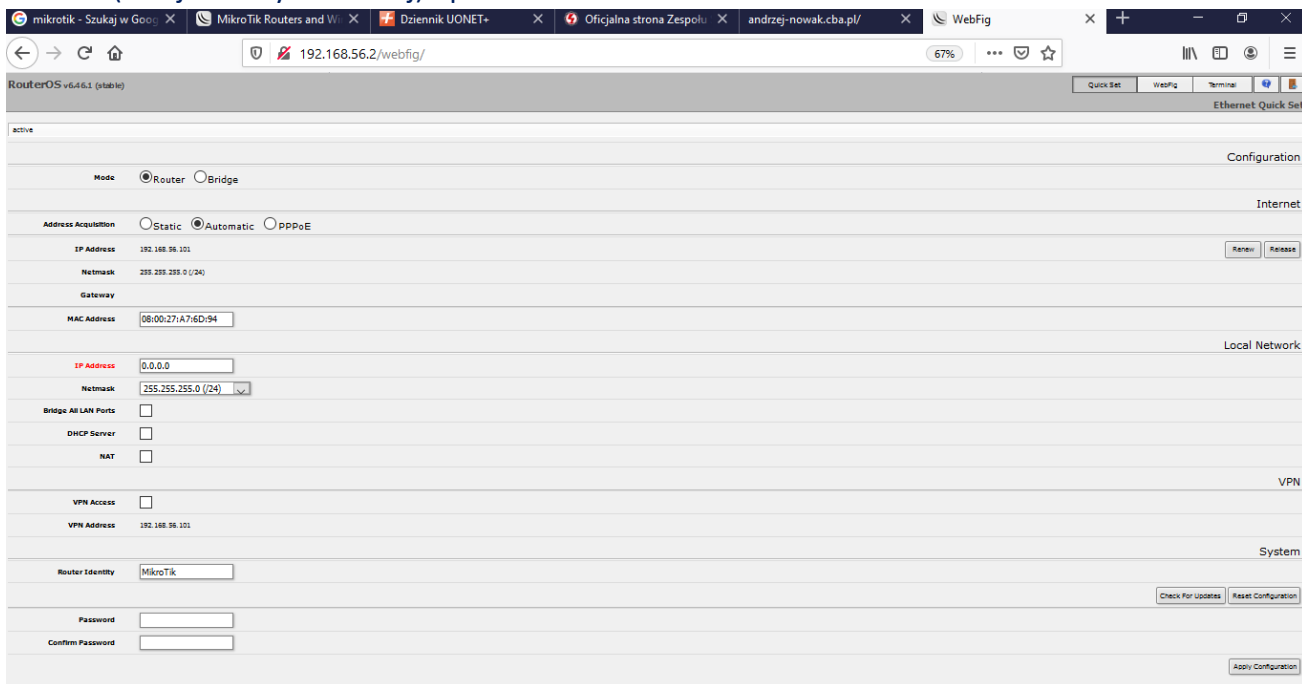
- k. Klikamy przycisk **Connect**



- l. Uzyskaliśmy możliwość zarządzania routerem MikroTik z poziomu programu WinBox

### 3. Router MikroTik uruchomiony w VirtualBox , zarządzany z przeglądarki :

- a. Po uruchomieniu routera w programie VirtualBox , uruchamiamy przeglądarkę i wpisujemy adres IP routera (taki jak karty sieciowej) np.: 192.168.56.2



Uzyskaliśmy możliwość zarządzania routerem z poziomu przeglądarki

### 4. Zarządzanie routerem MikroTik z poziomu konsoli routera