



SETTING MIKROTIK ROUTER SAMPAI DENGAN ONLINE INTERNET

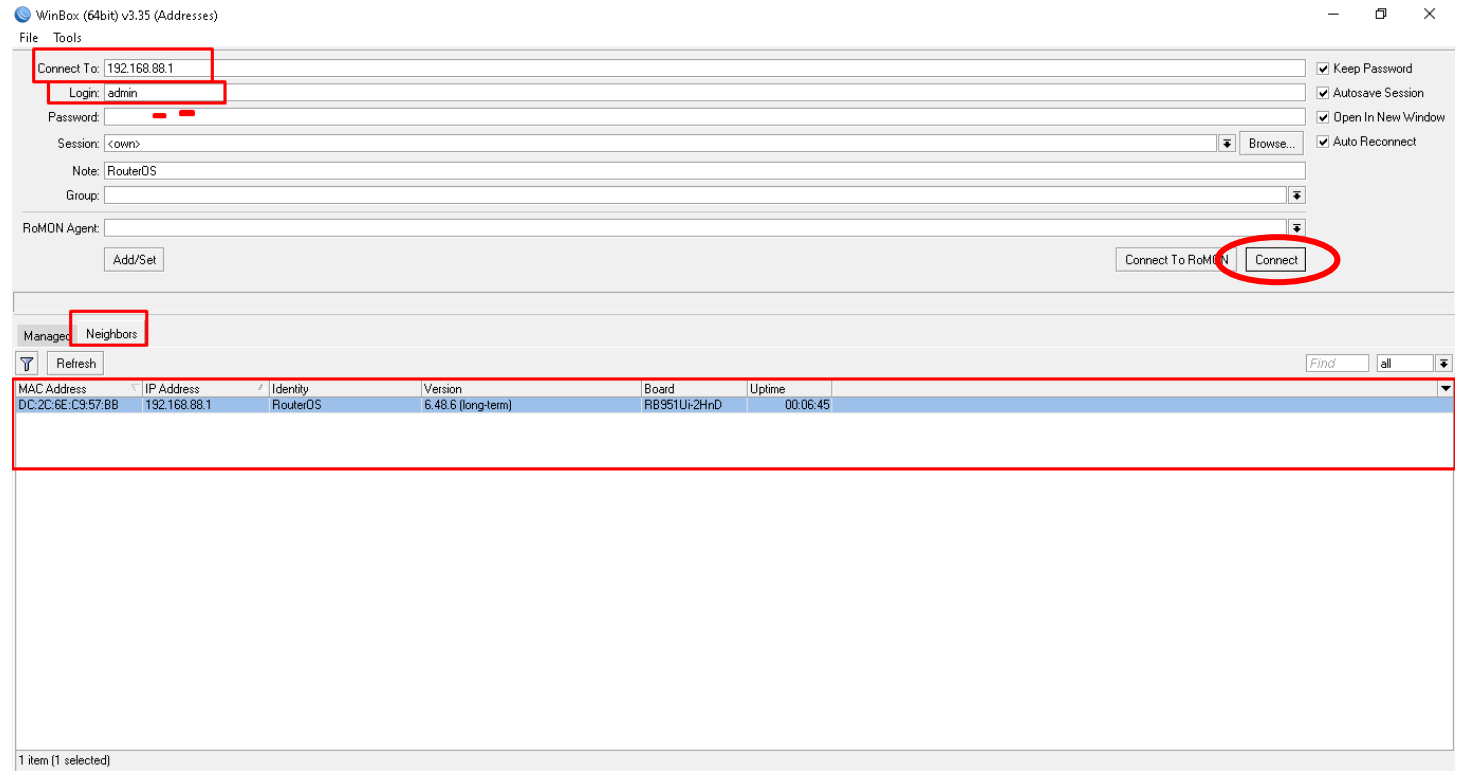
Setting Mikrotik

Reset Mikrotik

User Name : admin

Password :(kosong)

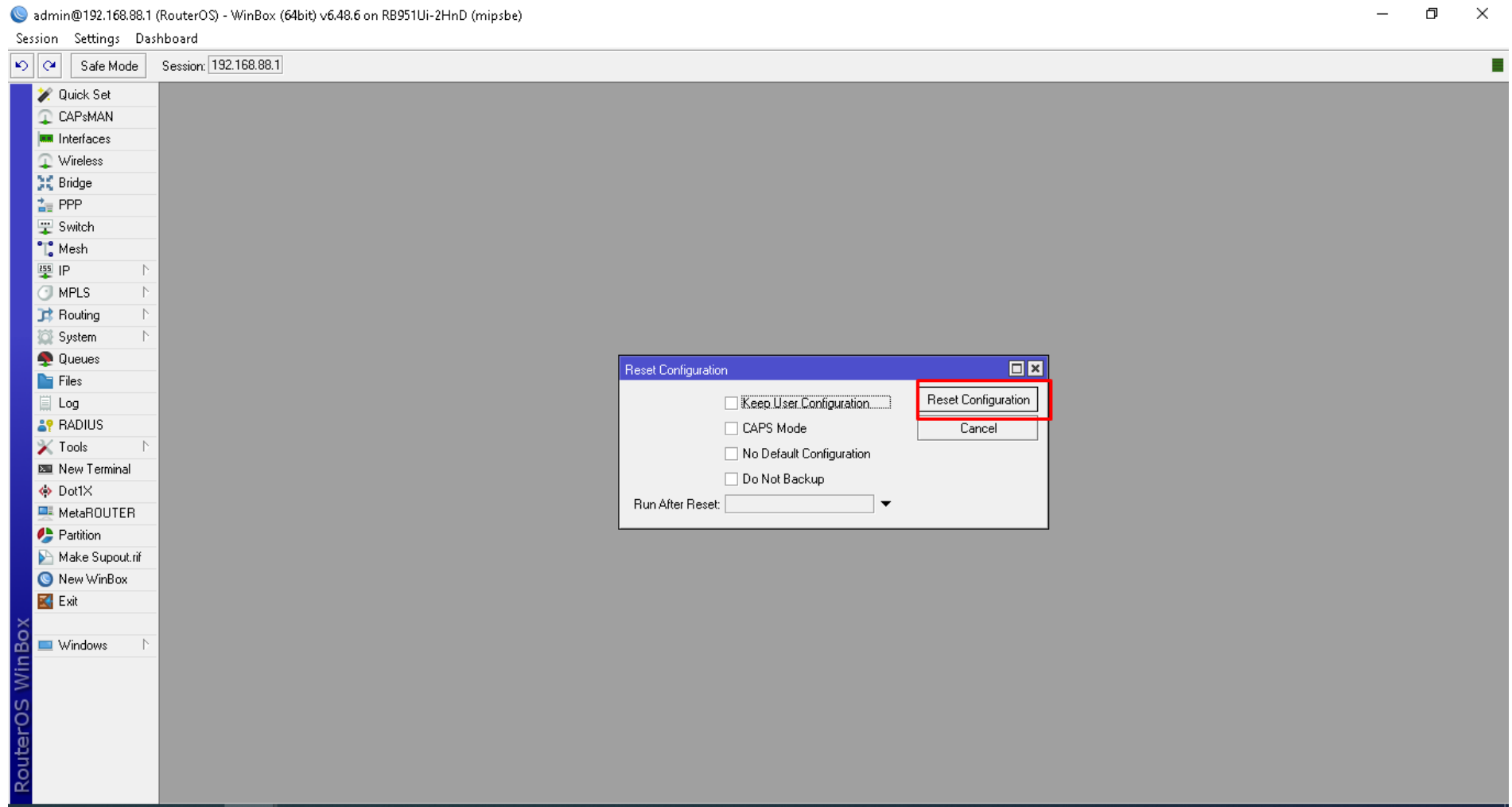
Pilih Connect



Pilih **SYSTEM** kemudian **RESET CONFIGURATION**



RESET CONFIGURATION



Beri Nama Interface

Ether1 (Input Internet)
Ether2 (Output Internet 1)

The screenshot shows the Mikrotik WinBox interface for configuring a router. The main window displays the 'Interface List' table, and a configuration dialog for 'Interface <ether1>' is open in the foreground.

| Interface | Name | Type | Actual MTU | L2 MTU | Tx | Rx | Tx Packet (p/s) | Rx Packet (p/s) | FP Tx | FP Rx | FP Tx Packet (p/s) | FP Rx Packet (p/s) |
|-----------|--------|--------------------------|------------|--------|----|----|-----------------|-----------------|-------|-------|--------------------|--------------------|
| R | ether1 | Ethernet | 1500 | 1598 | | | 19.8 kbps | 0 | 22 | 0 bps | 18.4 kbps | 0 |
| R | ether2 | Ethernet | 1500 | 1598 | | | | | | 0 bps | 7.3 kbps | 12 |
| | ether3 | Ethernet | 1500 | 1598 | | | | | | 0 bps | 0 bps | 0 |
| | ether4 | Ethernet | 1500 | 1598 | | | | | | 0 bps | 0 bps | 0 |
| | ether5 | Ethernet | 1500 | 1598 | | | | | | 0 bps | 0 bps | 0 |
| X | wlan1 | Wireless (Atheros AR9... | 1500 | 1600 | | | | | | 0 bps | 0 bps | 0 |

The configuration dialog for 'Interface <ether1>' shows the following settings:

- Name: ether1 (Input Internet)
- Type: Ethernet
- MTU: 1500
- Actual MTU: 1500
- L2 MTU: 1598
- Max L2 MTU: 2028
- MAC Address: DC:2C:6E:C9:57:BA
- ARP: enabled
- ARP Timeout: [dropdown]

Buttons: OK, Cancel, Apply, Disable, Comment, Torch, Cable Test, Blink, Reset MAC Address, Reset Counters.

Status: enabled, running, slave, link ok.

Hasil penggantian Nama Ether1 dan Ether2

admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: DC:2C:6E:C9:57:BB

Interface List

Interface Interface List Ethernet EoIP Tunnel IP Tunnel GRE Tunnel VLAN VRRP Bonding LTE

+ - [check] [x] [lock] [filter] Detect Internet Find

| Name | Type | Actual MTU | L2 MTU | Tx | Rx | Tx Packet (p/s) | Rx Packet (p/s) | FP Tx | FP Rx | FP Tx Pa |
|------------------------------|-----------------------|------------|--------|-----------|-----------|-----------------|-----------------|-----------|-----------|----------|
| R ether1 (Input Internet) | Ethernet | 1500 | 1598 | 0 bps | 14.3 kbps | 0 | 16 | 0 bps | 13.8 kbps | |
| R ether2 (Output Internet 1) | Ethernet | 1500 | 1598 | 76.8 kbps | 6.7 kbps | 11 | 11 | 76.4 kbps | 6.4 kbps | |
| ether3 | Ethernet | 1500 | 1598 | 0 bps | 0 bps | 0 | 0 | 0 bps | 0 bps | |
| ether4 | Ethernet | 1500 | 1598 | 0 bps | 0 bps | 0 | 0 | 0 bps | 0 bps | |
| ether5 | Ethernet | 1500 | 1598 | 0 bps | 0 bps | 0 | 0 | 0 bps | 0 bps | |
| ether6 | Wireless (Atheros AR9 | 1500 | 1500 | 0 bps | 0 bps | 0 | 0 | 0 bps | 0 bps | |

RouterOS WinBox

6 items (1 selected)

Supaya mikrotik dapat ip otomatis dari perangkat lainnya atau asal sumber internet(modem).

The screenshot shows the Mikrotik WinBox interface. On the left, the 'IP' menu is expanded, and 'DHCP Client' is selected. A 'New DHCP Client' dialog box is open, with the 'Interface' dropdown set to 'ether1 (Input Internet)'. The 'Advanced' tab is active, showing 'Use Peer DNS' and 'Use Peer NTP' checked. The 'Status' tab shows 'enabled' and 'Status: stopped'. The 'OK' button is highlighted.

admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)
Session Settings Dashboard
Safe Mode Session: DC:2C:6E:C9:57:BB

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

ARP
Accounting
Addresses
Cloud
DHCP Client
DHCP Relay
DHCP Server
DNS
Firewall
Hotspot
IPsec
Kid Control
Neighbors
Packing
Pool
Routes
SMB
SNMP
Services
Settings
Socks
TFTP
Traffic Flow
UPnP
Web Proxy

DHCP Client
DHCP Client Options
+ - ✓ ✗ [icon] [icon] Release Renew Find

| Interface | Use P... | Add D... | IP Address | Expires After | Status |
|-----------|----------|----------|------------|---------------|--------|
| 0 items | | | | | |

New DHCP Client
DHCP Advanced Status
Interface: ether1 (Input Internet)
 Use Peer DNS
 Use Peer NTP
Add Default Route: yes
enabled Status: stopped
OK Cancel Apply Disable Comment Copy Remove Release Renew

09 26

Berhasil dapat ip otomatis dari perangkat lainnya atau asal sumber internet (modem).

The screenshot shows the Mikrotik WinBox interface for configuring a DHCP Client. The window title is "admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)". The left sidebar contains a menu with categories like Quick Set, CAPsMAN, Interfaces, Wireless, Bridge, PPP, Switch, Mesh, IP, MPLS, Routing, System, Queues, Files, Log, RADIUS, Tools, New Terminal, Dot1X, MetaROUTER, Partition, Make Supout.rif, New WinBox, Exit, and Windows. The main area is titled "DHCP Client" and "DHCP Client Options". A table lists the configuration for the "ether1 (Input Internet)" interface. The table has columns for Interface, Use P..., Add D..., IP Address, Expires After, and Status. The row shows "ether1 (Input Internet)", "yes", "yes", "192.168.7.28/24", "00:09:51", and "bound".

| Interface | Use P... | Add D... | IP Address | Expires After | Status |
|-------------------------|----------|----------|-----------------|---------------|--------|
| ether1 (Input Internet) | yes | yes | 192.168.7.28/24 | 00:09:51 | bound |



Setting Firewall - Nat - Masquerade supaya ip lokal mendapatkan akses internet.

The screenshot shows the Mikrotik WinBox interface. The left sidebar contains a menu with 'IP' and 'Firewall' highlighted with red boxes. The main window displays the 'Firewall' configuration page, with the 'NAT' tab selected. A red box highlights the '+' icon in the top left of the NAT configuration area. Below the configuration area is a table with the following columns: #, Action, Chain, Src. Address, Dst. Address, Proto..., Src. Port, Dst. Port, In. Inter..., Out. Int..., In. Inter..., Out. Int..., Src. Ad..., Dst. Ad..., Bytes, and Packets. The table is currently empty, showing '0 items' at the bottom.

Masquerade

admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: DC:2C:6E:C9:57:BB

RouterOS WinBox

Quick Set
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Dot1X
MetaROUTER
Partition
Make Supout.tif
New WinBox
Exit
Windows

Firewall

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

+ - [check] [x] [filter] [reset] [reset all]

| # | Action | Chain | Src. Address | Dst. Address | Proto... | Src. Port | Dst. Port | In. Inter... | Out. Int... | In. Inter... | Out. Int... | S... |
|---------|--------|-------|--------------|--------------|----------|-----------|-----------|--------------|-------------|--------------|-------------|------|
| 0 items | | | | | | | | | | | | |

New NAT Rule

Advanced Extra Action Statistics ...

Action: masquerade

Log

Log Prefix: [dropdown]

To Ports: [dropdown]

enabled

OK Cancel Apply Disable Comment Copy Remove Reset Counters Reset All Counters

Beri Ip Address otomatis ether2(Ouput Internet1)/ DHCP Server, dari sisi pengguna dapat ip address otomatis.

The screenshot shows the Mikrotik WinBox interface. The left sidebar contains a menu with 'IP' and 'Addresses' highlighted in red. The main window displays the 'Address List' table with one entry: '192.168.7.28/...' on 'ether1 (Input Int...)' with network '192.168.7.0'. A 'New Address' dialog box is open, with 'Address: 192.168.100.1/24' and 'Interface: ether2(Output Internet 1)' highlighted in red. The 'OK' button is also highlighted in red.

admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: DC:2C:6E:C9:57:BB

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Log
RADIUS
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Dot1X
MetaROUTER
Partition
Make Supout.trif
New WinBox
Exit
Windows

ARP
Accounting
Addresses
Cloud
DHCP Client
DHCP Relay
DHCP Server
DNS
Firewall
Hotspot
IPsec
Kid Control
Neighbors
Packing
Pool
Routes
SMB
SNMP
Services
Settings
Socks
TFTP
Traffic Flow
UPnP
Web Proxy

| Address | Network | Interface |
|------------------|-------------|-----------------------|
| 192.168.7.28/... | 192.168.7.0 | ether1 (Input Int...) |

1 item

New Address

Address: 192.168.100.1/24
Network: [dropdown]
Interface: ether2(Output Internet 1)

OK
Cancel
Apply
Disable
Comment
Copy
Remove

enabled

Hasil setting DHCP Server ether2 untuk Ip Address Otomatis

The screenshot displays the Mikrotik WinBox interface. The top bar shows the user 'admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)'. The main window is titled 'Address List' and contains a table with the following data:

| | Address | Network | Interface |
|---|------------------|---------------|----------------------------|
| D | 192.168.7.28/24 | 192.168.7.0 | ether1 (Input Internet) |
| | 192.168.100.1/24 | 192.168.100.0 | ether2 (Output Internet 1) |

The second row, representing the DHCP server for ether2, is highlighted with a red border. The left sidebar shows the 'RouterOS WinBox' menu with various configuration options like Quick Set, CAPsMAN, Interfaces, Wireless, Bridge, PPP, Switch, Mesh, IP, MPLS, Routing, System, Queues, Files, Log, RADIUS, Tools, New Terminal, Dot1X, MetaROUTER, Partition, Make Supout.tif, New WinBox, Exit, and Windows.

Kemudian Pilih Ip-DHCP Server-DHCP-DHCP Setup kemudian pilih ether2 yang akan dijadikan pengalamanan Ip Address Otomatis dari sisi pengguna.

The screenshot shows the Mikrotik WinBox interface for configuring a DHCP server. The main window is titled "DHCP Server" and has several tabs: "DHCP", "Networks", "Leases", "Options", "Option Sets", "Vendor Classes", and "Alerts". The "DHCP" tab is active, and the "DHCP Setup" sub-tab is selected. A table with columns "Name", "Interface", "Relay", "Lease Time", "Address Pool", and "Add AR..." is visible. A sidebar menu on the left shows the "IP" menu expanded, with "DHCP Server" highlighted. A "DHCP Setup" dialog box is open on the right, prompting the user to "Select interface to run DHCP server on". The "DHCP Server Interface" dropdown menu is set to "ether2(Output Internet 1)", and the "Next" button is highlighted.

admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: DC:2C:6E:C9:57:BB

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Neighbors
Packing
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Routes
SMB
SNMP
Services
Settings
Socks
TFTP
Traffic Flow
UPnP
Web Proxy

DHCP Server

DHCP Networks Leases Options Option Sets Vendor Classes Alerts

+ - ✓ ✕ ⚙ Find

DHCP Config DHCP Setup

| Name | Interface | Relay | Lease Time | Address Pool | Add AR... |
|------|-----------|-------|------------|--------------|-----------|
|------|-----------|-------|------------|--------------|-----------|

DHCP Setup

Select interface to run DHCP server on

DHCP Server Interface: ether2(Output Internet 1)

Back Next Cancel

Hasil akhir DHCP Server di ether 2

admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: DC:2C:6E:C9:57:BB

RouterOS WinBox

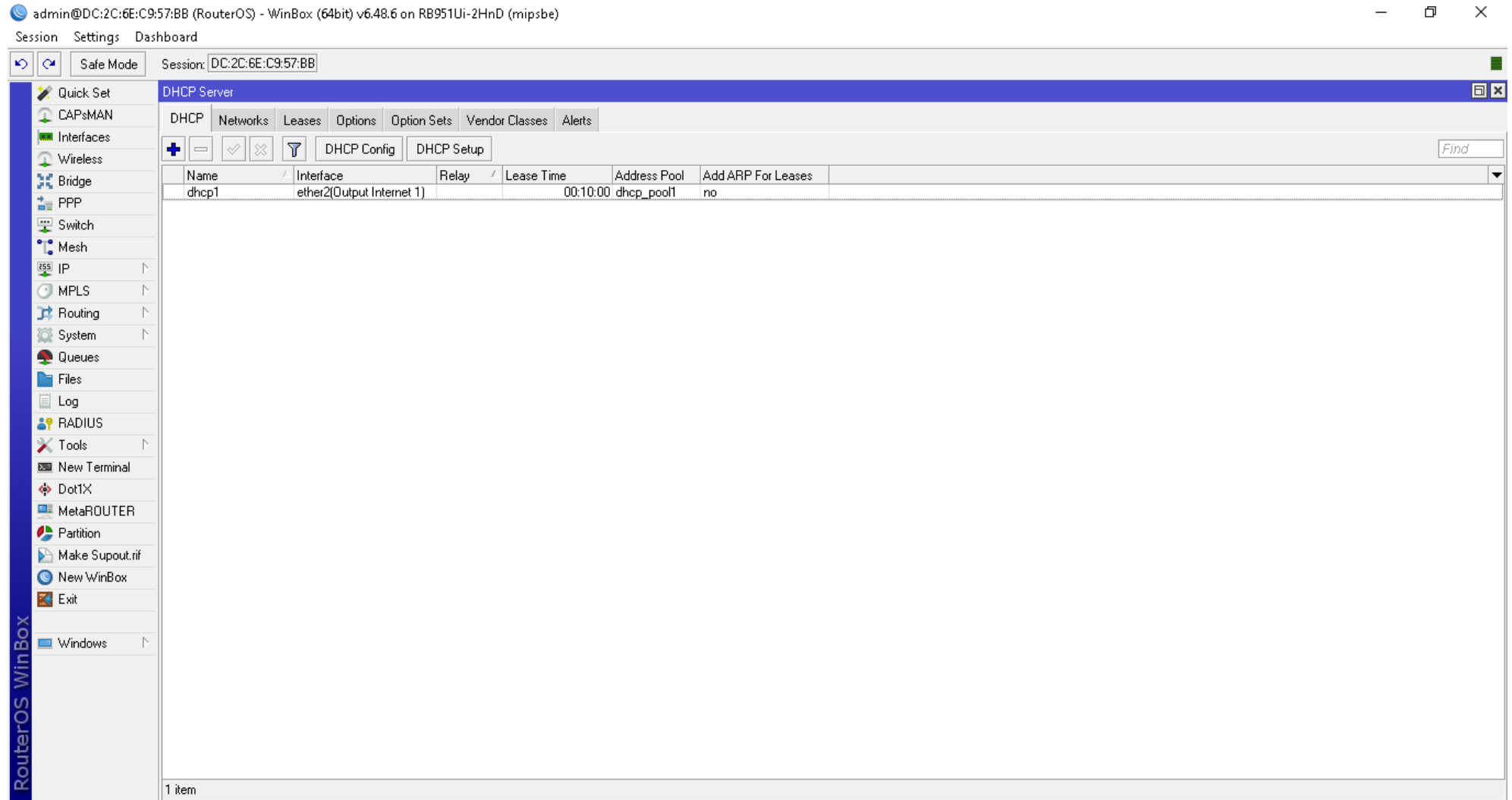
DHCP Server

DHCP Networks Leases Options Option Sets Vendor Classes Alerts

+ - ✓ ✕ 🔍 DHCP Config DHCP Setup Find

| Name | Interface | Relay | Lease Time | Address Pool | Add ARP For Leases |
|-------|---------------------------|-------|------------|--------------|--------------------|
| dhcp1 | ether2(Output Internet 1) | | 00:10:00 | dhcp_pool1 | no |

1 item



Klik 2 kali pada ether2, kemudian dicentang Always Broadcast dan Add Arp For Leases.

admin@DC:2C:6E:C9:57:BB (RouterOS) - WinBox (64bit) v6.48.6 on RB951Ui-2HnD (mipsbe)

Session Settings Dashboard

Safe Mode Session: DC:2C:6E:C9:57:BB

Quick Set
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IP
MPLS
Routing
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Queues
Files
Log
RADIUS
Tools
New Terminal
Dot1X
MetaROUTER
Partition
Make Supout.nif
New WinBox
Exit
Windows

DHCP Server

| Name | Interface | Relay | Lease Time | Address Pool | Add ARP For Leases |
|-------|---------------------------|-------|------------|--------------|--------------------|
| dhcp1 | ether2(Output Internet 1) | | 00:10:00 | dhcp_pool1 | no |

DHCP Server <dhcp1>

Generic Queues Script

Name: dhcp1
Interface: ether2(Output Internet 1)
Relay:
Lease Time: 00:10:00
Bootp Lease Time: forever
Address Pool: dhcp_pool1
DHCP Option Set:
Src. Address:
Delay Threshold:
Authoritative: yes
Bootp Support: static
Client MAC Limit:
Use RADIUS: no

Always Broadcast
 Add ARP For Leases
 Use Framed As Classless
 Conflict Detection

enabled

1 item (1 selected)

Reboot mikrotik atau restart. Pilih System-Reboot.



Dari sisi klien atau pengguna sudah berhasil

The screenshot displays the Windows Network Connections control panel. The 'Ethernet' connection is highlighted with a red box. A 'Network Connection Details' dialog box is open, showing the configuration for the selected Ethernet network. The 'IPv4 Address' section is also highlighted with a red box, indicating successful configuration.

Network Connection Details:

| Property | Value |
|---------------------------|--|
| Connection-specific DN... | |
| Description | Realtek PCIe FE Family Controller |
| Physical Address | E0-DB-55-90-1C-BF |
| DHCP Enabled | Yes |
| IPv4 Address | 192.168.100.254 |
| IPv4 Subnet Mask | 255.255.255.0 |
| Lease Obtained | Jumat, 14 Oktober 2022 09.50.35 |
| Lease Expires | Jumat, 14 Oktober 2022 10.01.43 |
| IPv4 Default Gateway | 192.168.100.1 |
| IPv4 DHCP Server | 192.168.100.1 |
| IPv4 DNS Server | |
| IPv4 WINS Server | |
| NetBIOS over Tcpi... | Yes |
| Link-local IPv6 Address | fe80::cd2f:abaa:f820:5c3c%3 |
| IPv6 Default Gateway | |
| IPv6 DNS Servers | fec0:0:0:ffff::1%1 fec0:0:0:ffff::2%1 |

Dari sisi klien atau pengguna sudah berhasil. Kita tes **tracert google.com**

```
C:\WINDOWS\system32\cmd.exe - tracert google.com

C:\Users\>tracert google.com

Tracing route to google.com [142.251.12.100]
over a maximum of 30 hops:

  0  <1 ms    <1 ms    <1 ms    192.168.100.1
  1  <1 ms    <1 ms    <1 ms    192.168.7.1
  2  *         12 ms    *        ip-103-83-6-241.moratelindo.net.id [103.122.33.241]
  3  13 ms    13 ms    13 ms    ip-103-83-6-161.moratelindo.net.id [103.83.6.161]
  4  25 ms    25 ms    25 ms    ip-103-83-6-18.moratelindo.net.id [103.83.6.18]
  5  *         27 ms    27 ms    74.125.118.220
  6  28 ms    25 ms    25 ms    108.170.254.225
  7  27 ms    27 ms    37 ms    108.170.254.227
  8  *         28 ms    *        216.239.35.174
  9  26 ms    26 ms    26 ms    209.85.250.37
 10  25 ms    26 ms    28 ms    142.251.52.243
 11  *         *        *        Request timed out.
 12  *         *        *        Request timed out.
 13  *         *        *        Request timed out.
 14  *         *        *        Request timed out.
 15  *         *        *        Request timed out.
 16  *         *        *        Request timed out.
 17  _
```