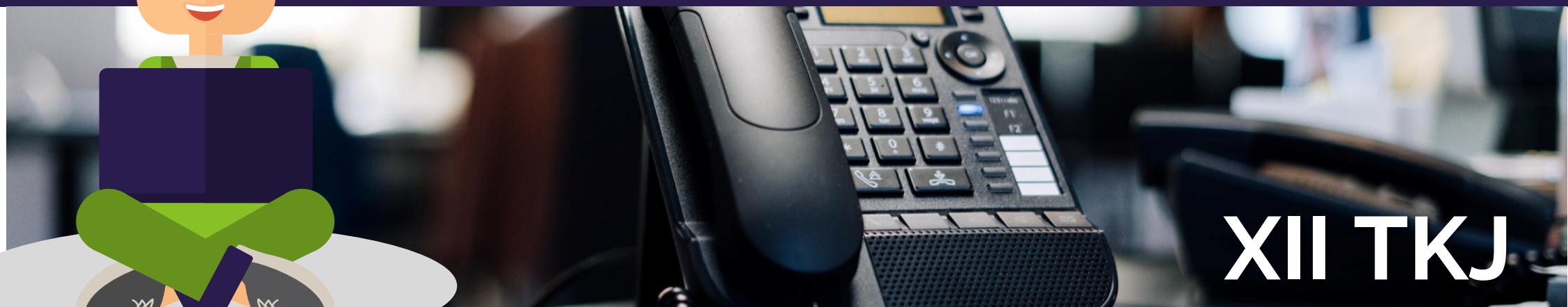


PENGANTAR TEKNOLOGI LAYANAN JARINGAN



XII TKJ

PENGERTIAN BRIKER



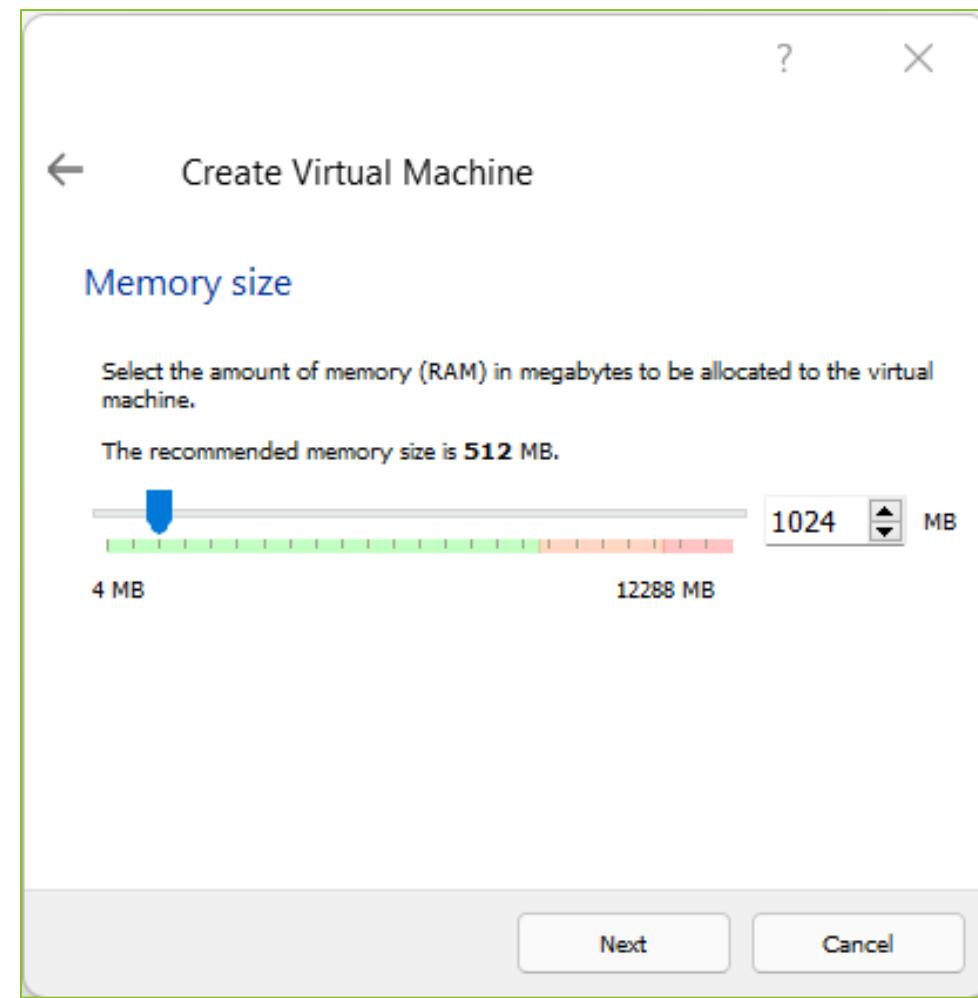
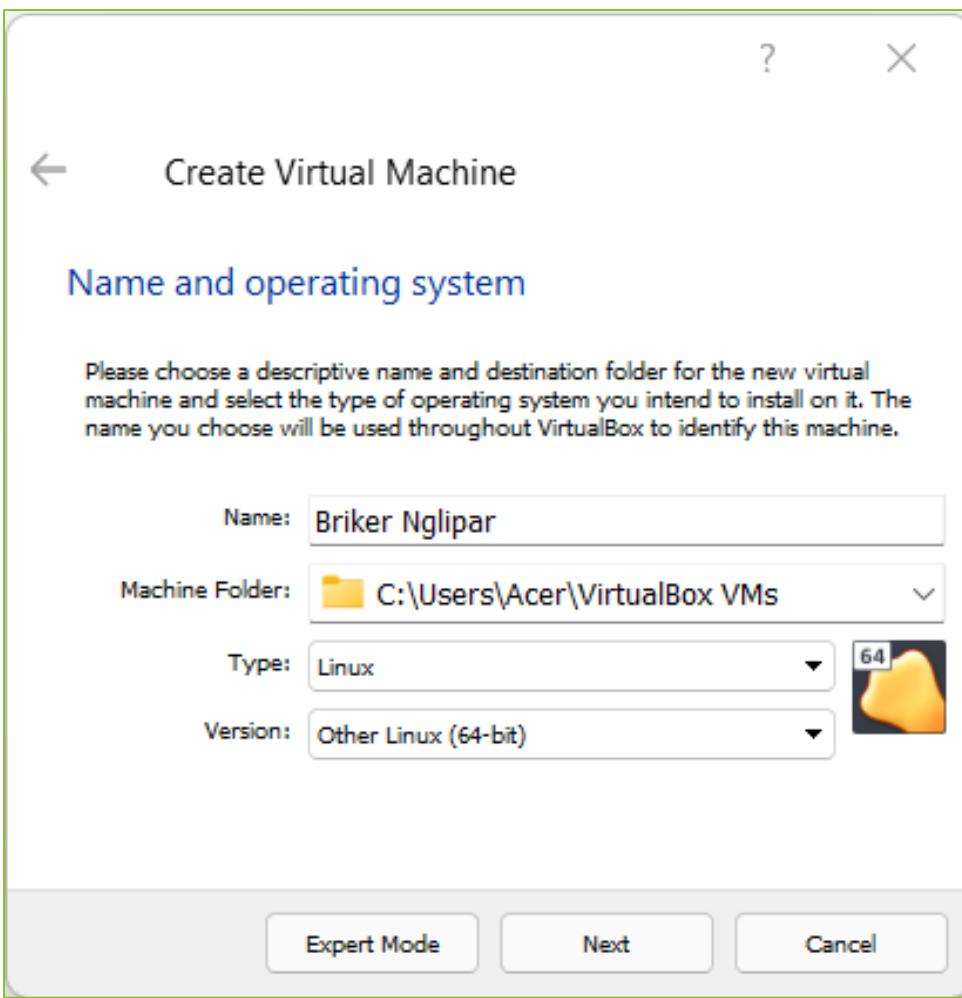
Briker adalah aplikasi yang memungkinkan pengguna linux menjadi server dalam layanan VoIP dan membangun sentral telephone sendiri.

PENGERTIAN IPBX

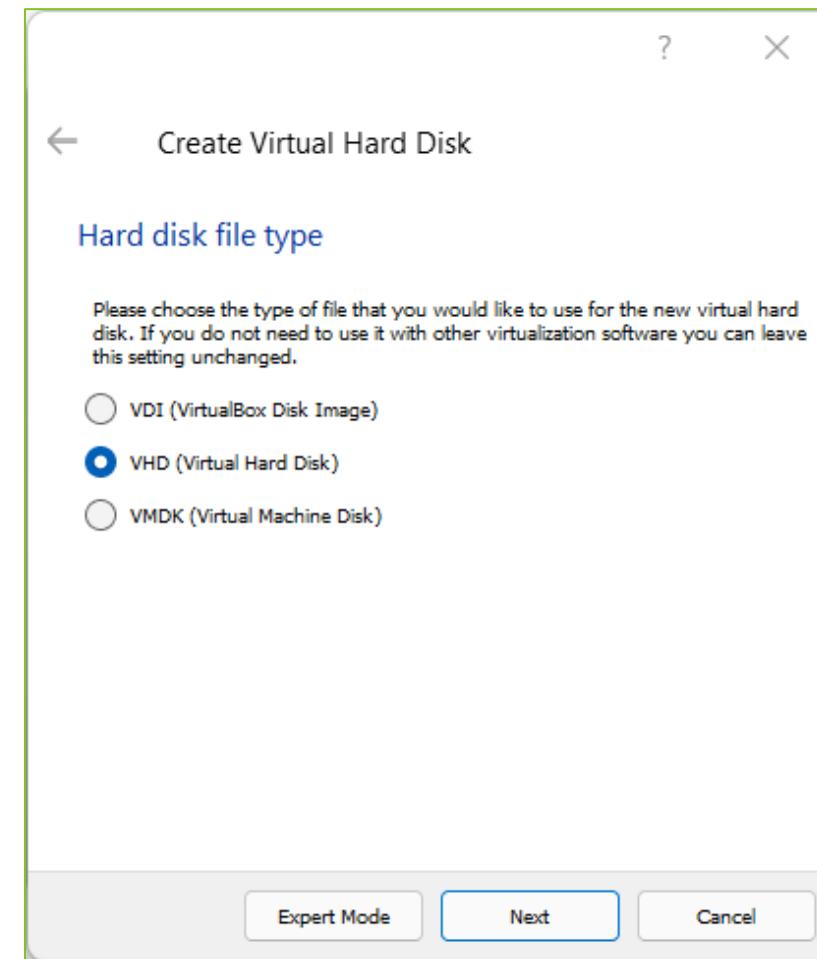
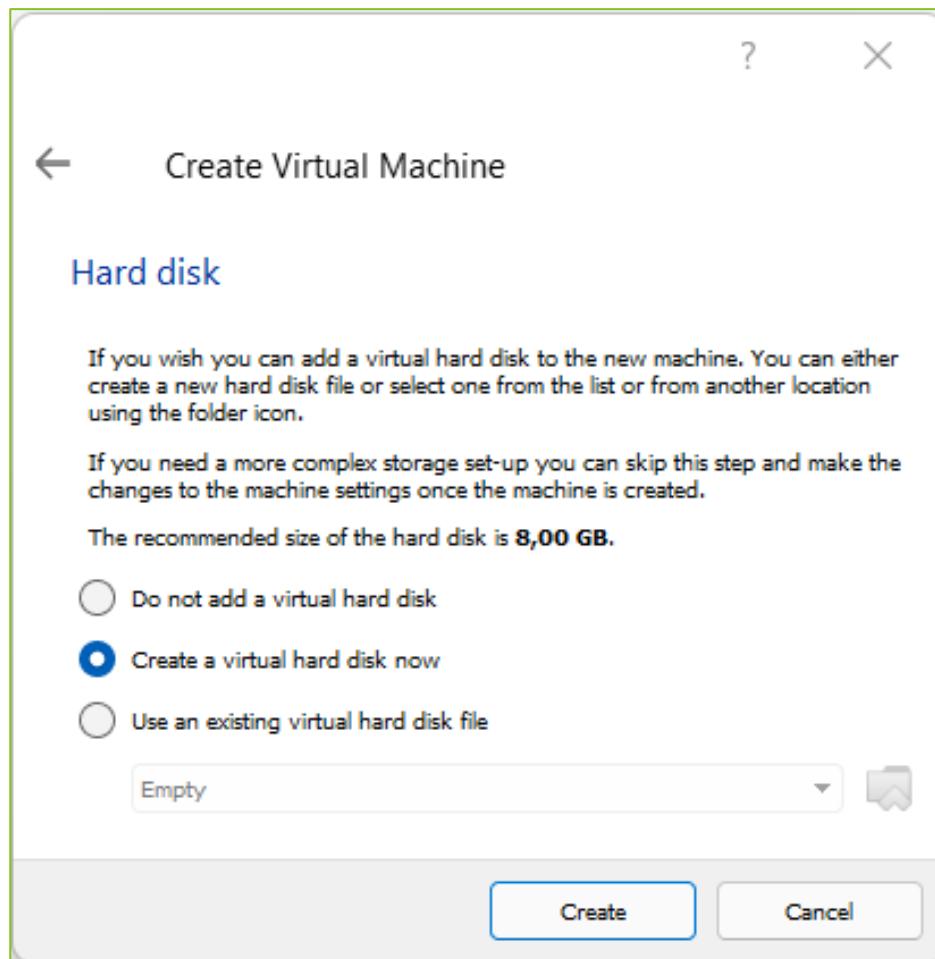


IP PBX atau Internet Protocol Private Branch Exchange adalah PABX yang menggunakan teknologi IP. IP PBX adalah perangkat switching komunikasi telepon dan data berbasis teknologi Internet Protocol yang mengendalikan ekstension telepon analog maupun ekstension IP Phone.

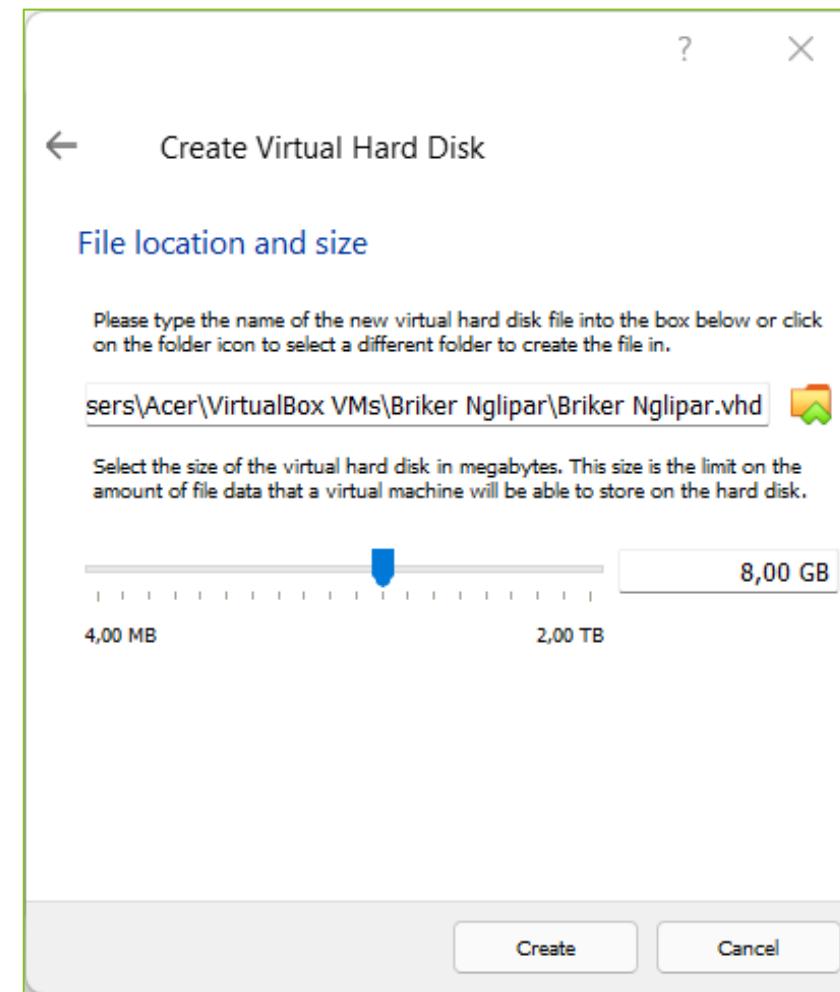
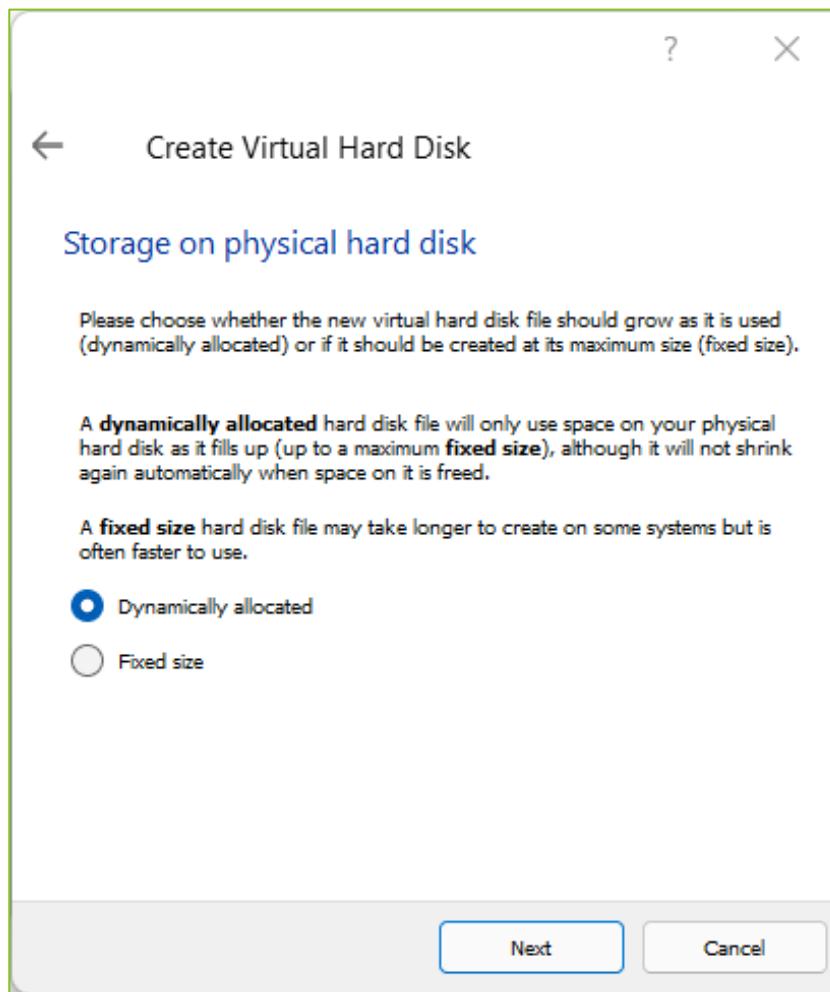
KONFIGURASI VIRTUAL BOX



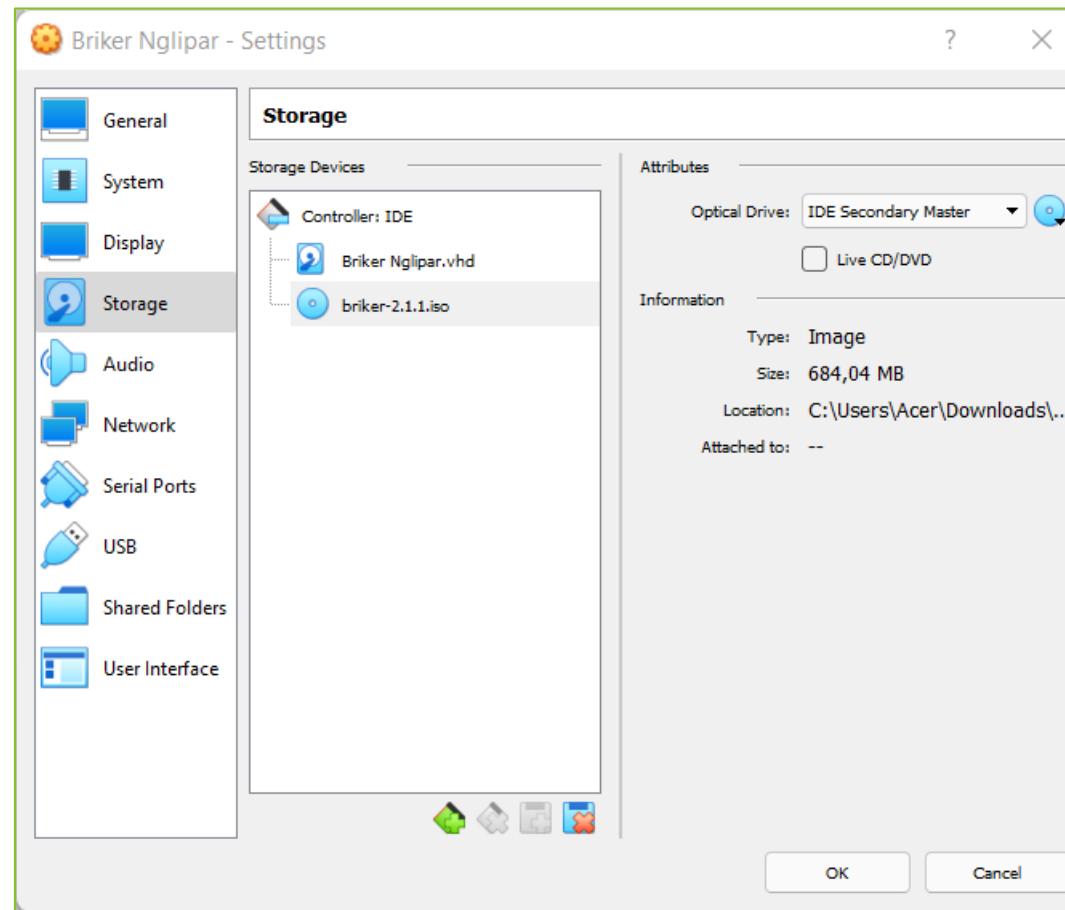
KONFIGURASI VIRTUAL BOX



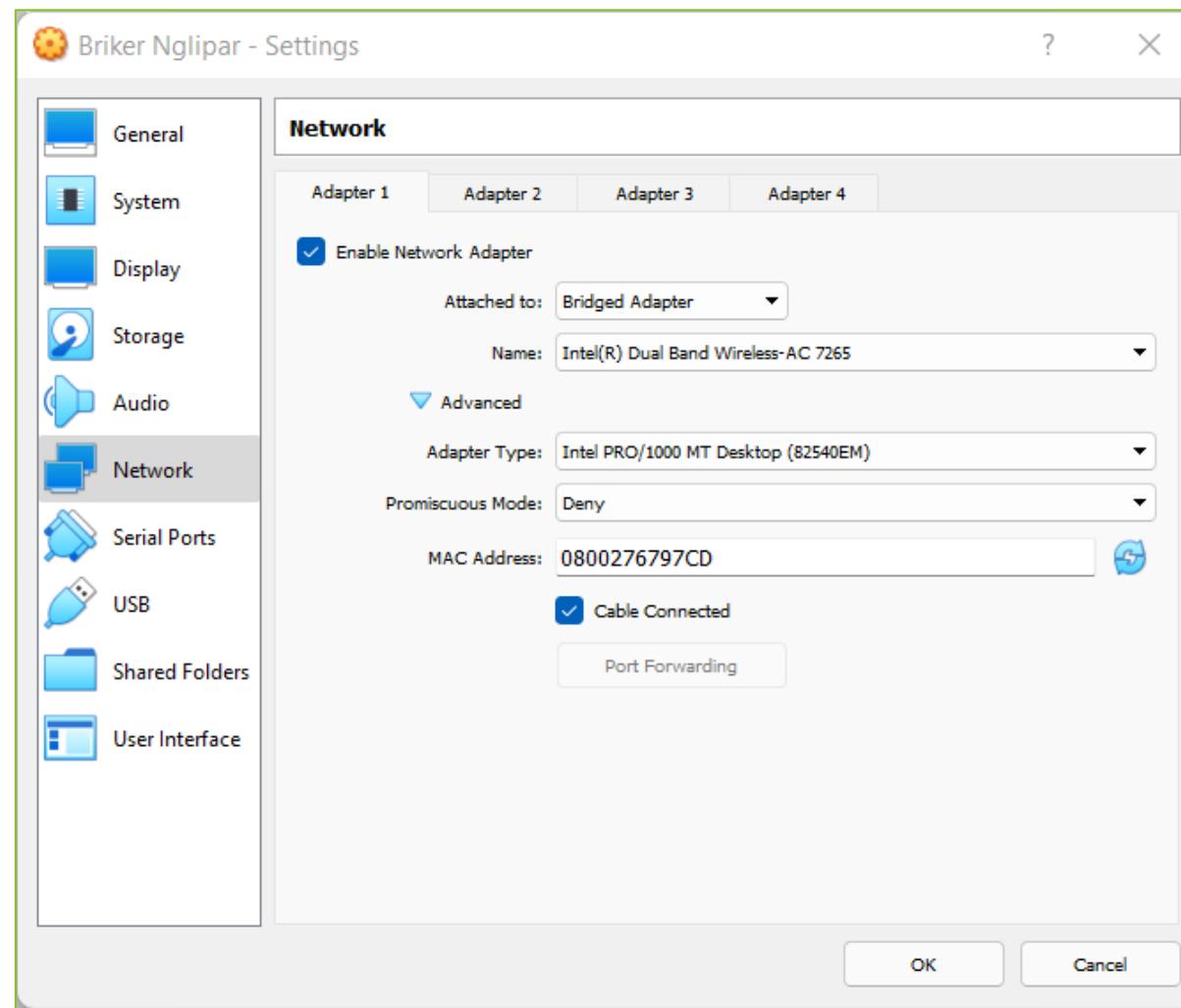
KONFIGURASI VIRTUAL BOX



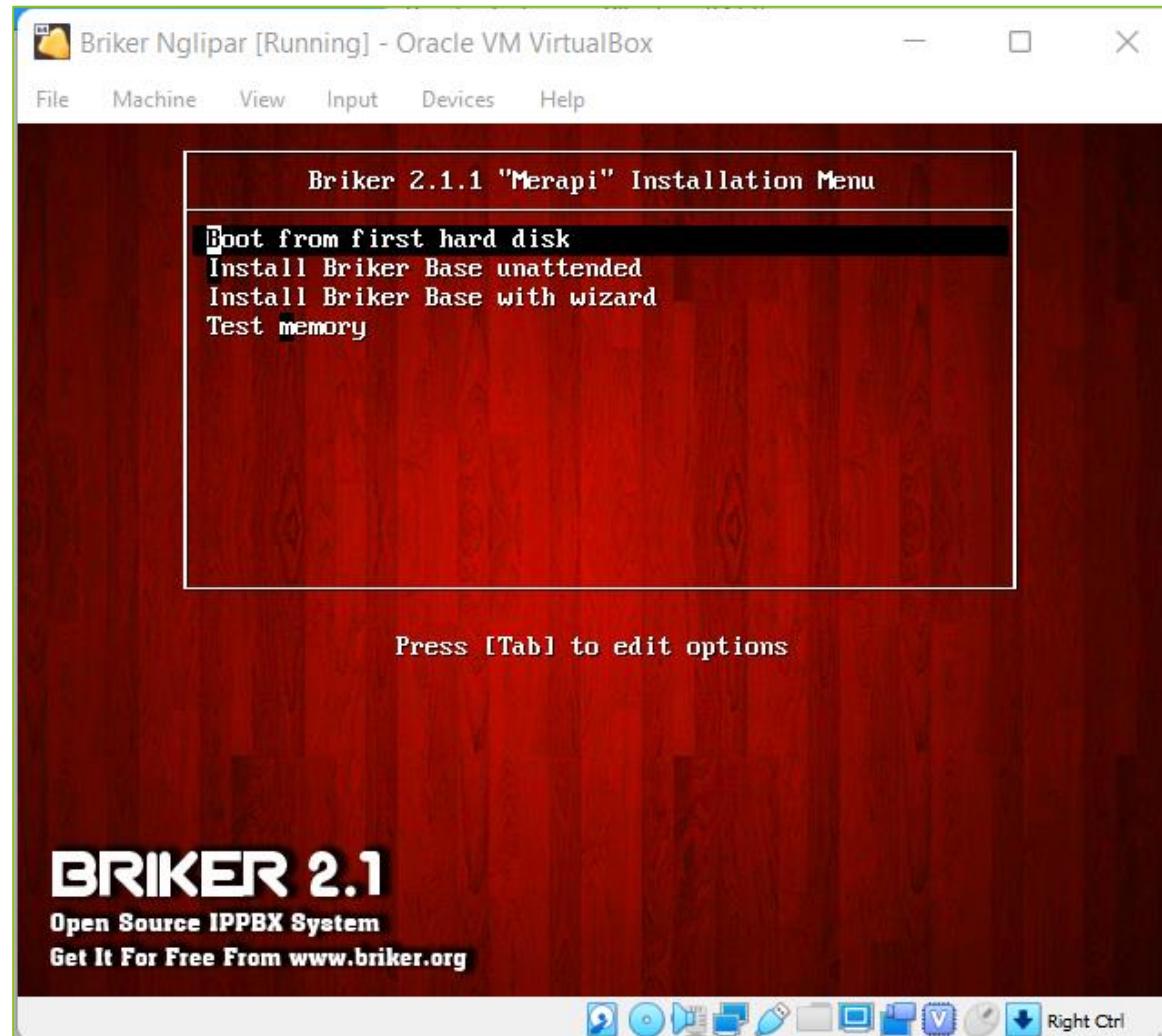
KONFIGURASI VIRTUAL BOX



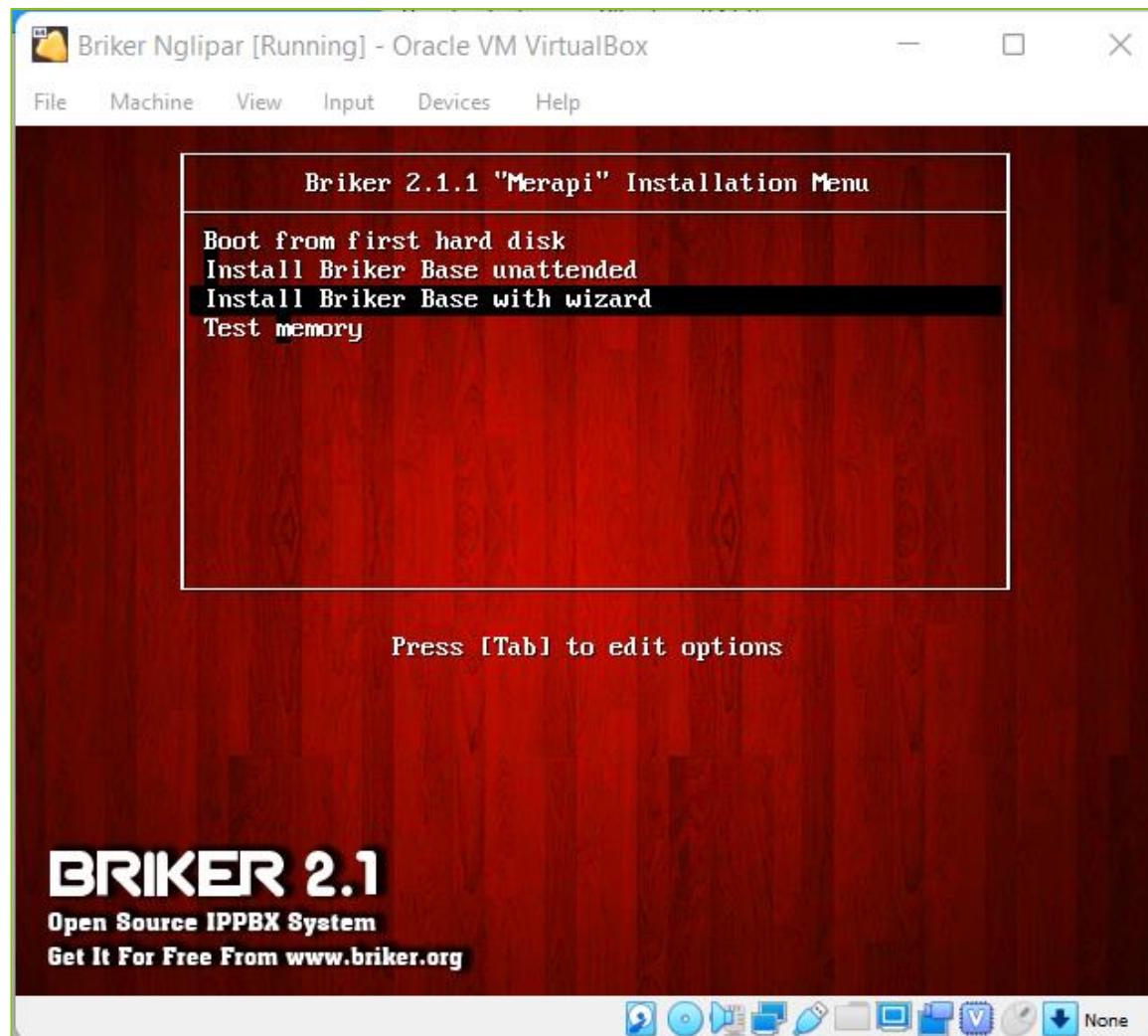
KONFIGURASI VIRTUAL BOX



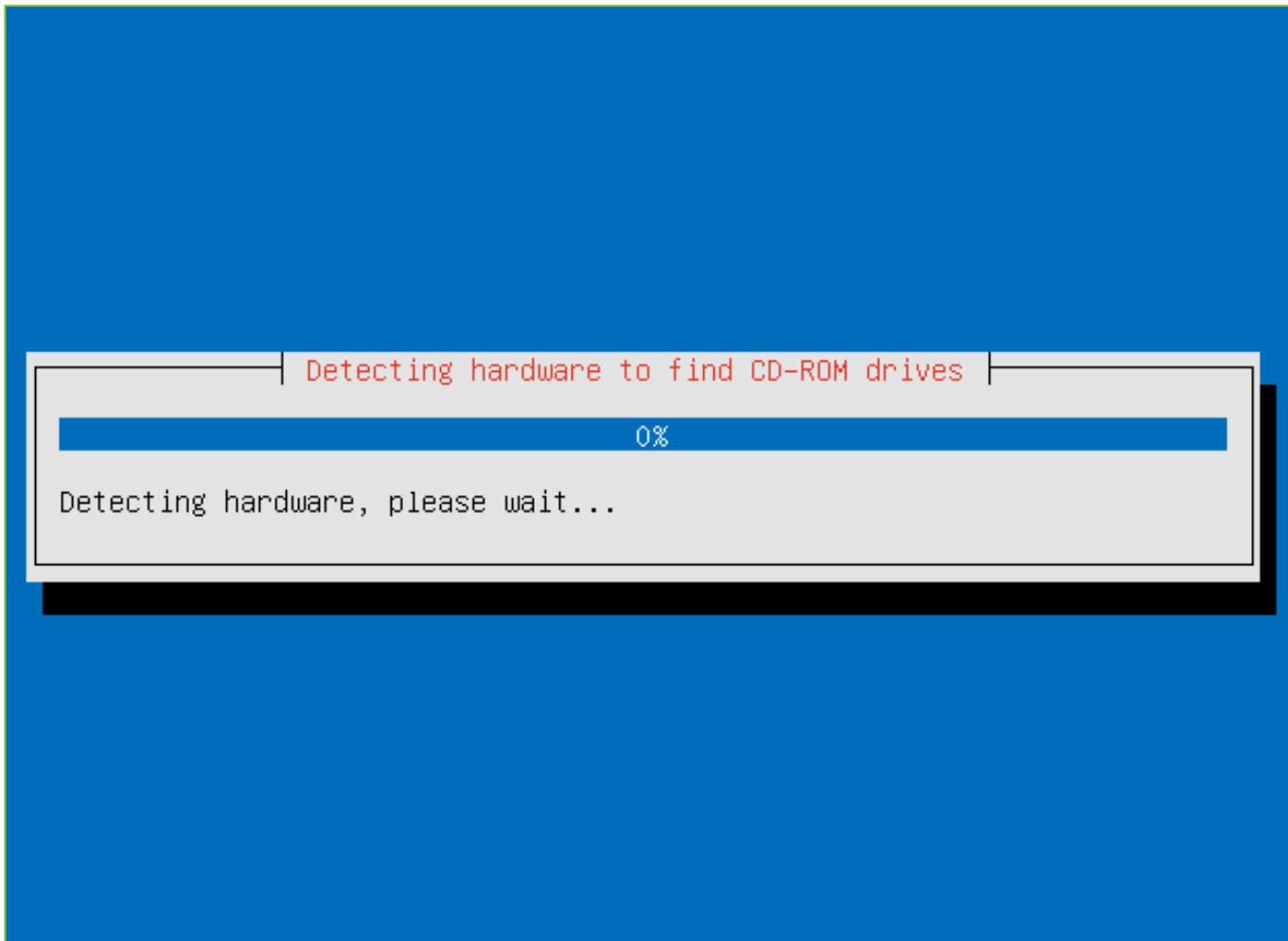
KONFIGURASI BRIKER



KONFIGURASI BRIKER



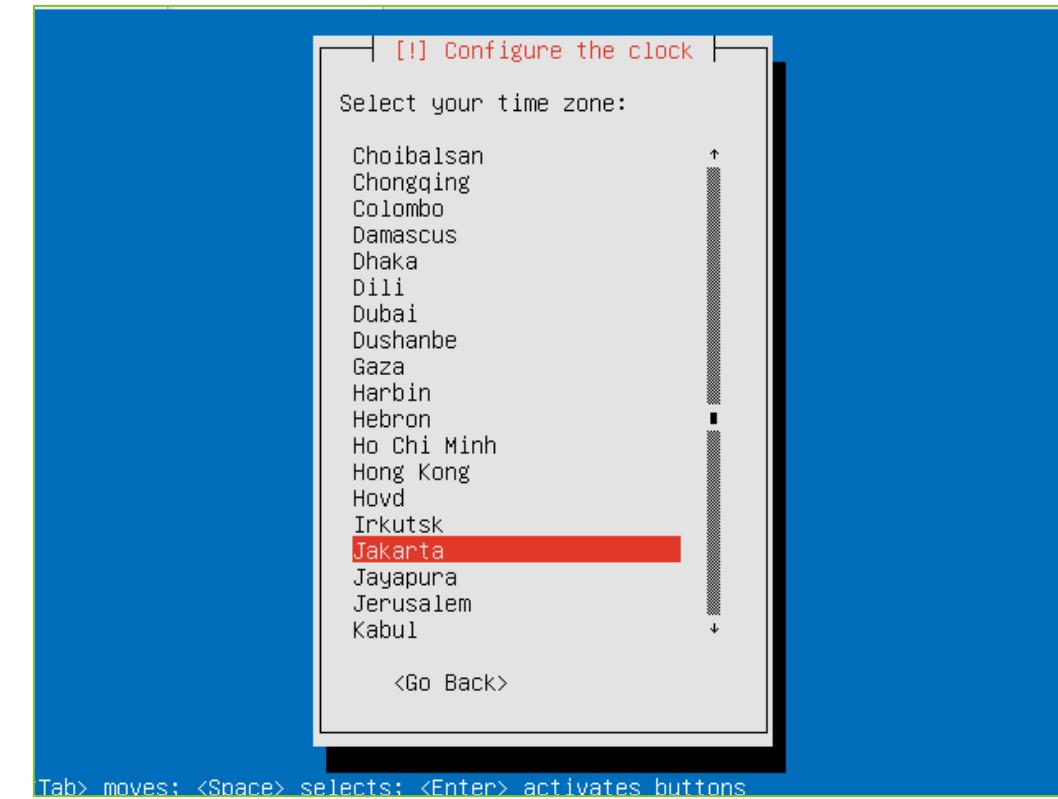
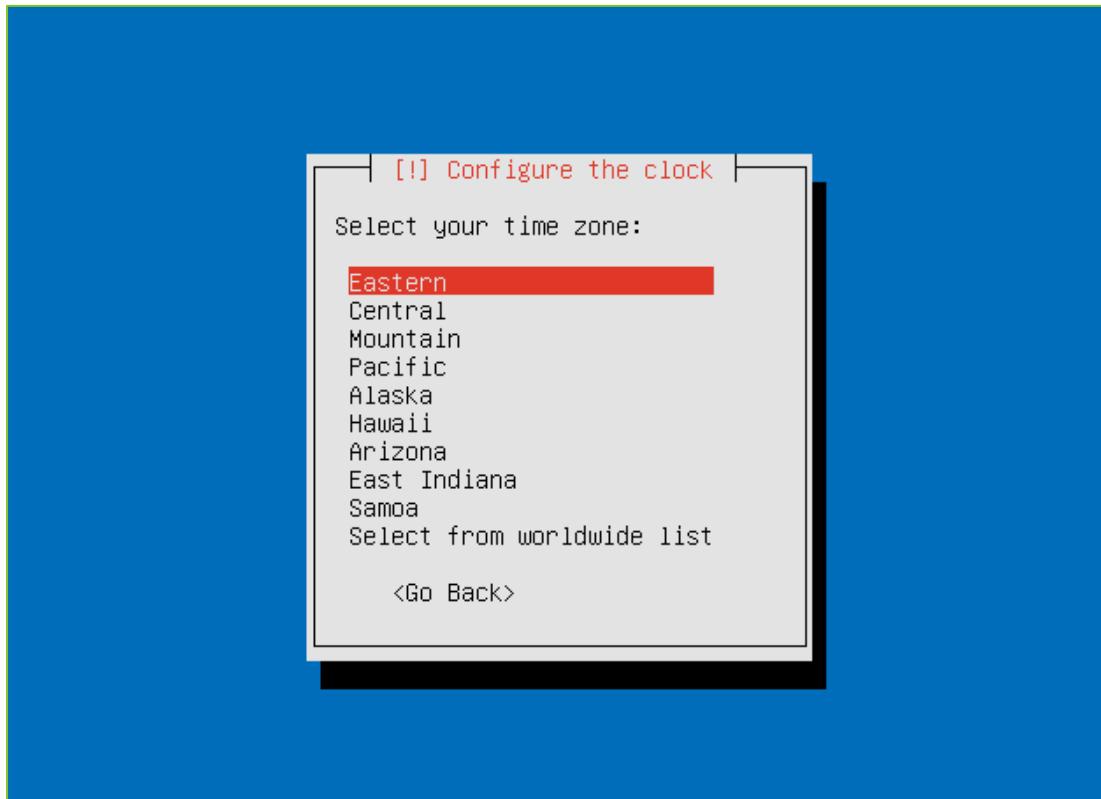
KONFIGURASI BRIKER



KONFIGURASI BRIKER

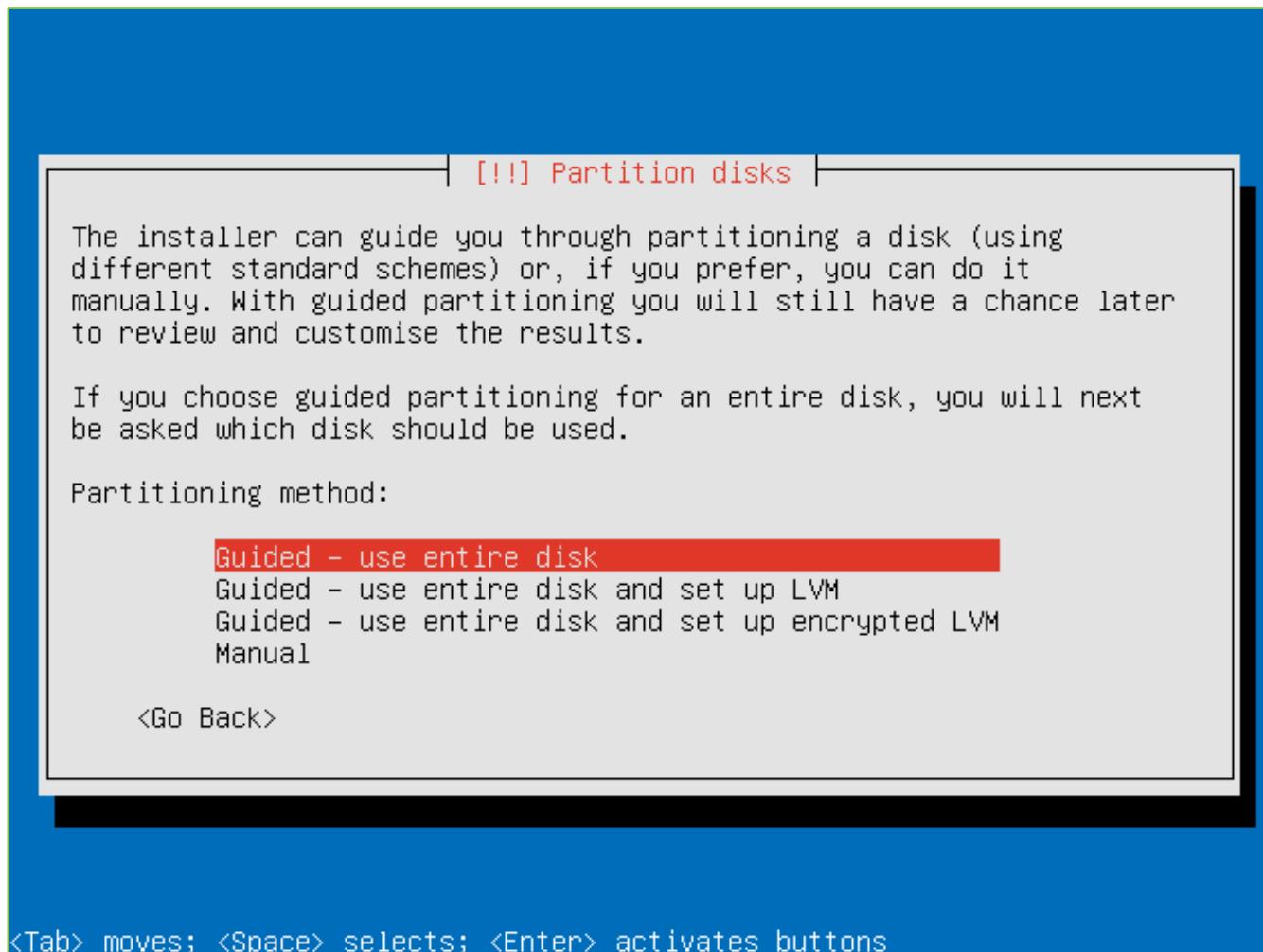


KONFIGURASI BRIKER

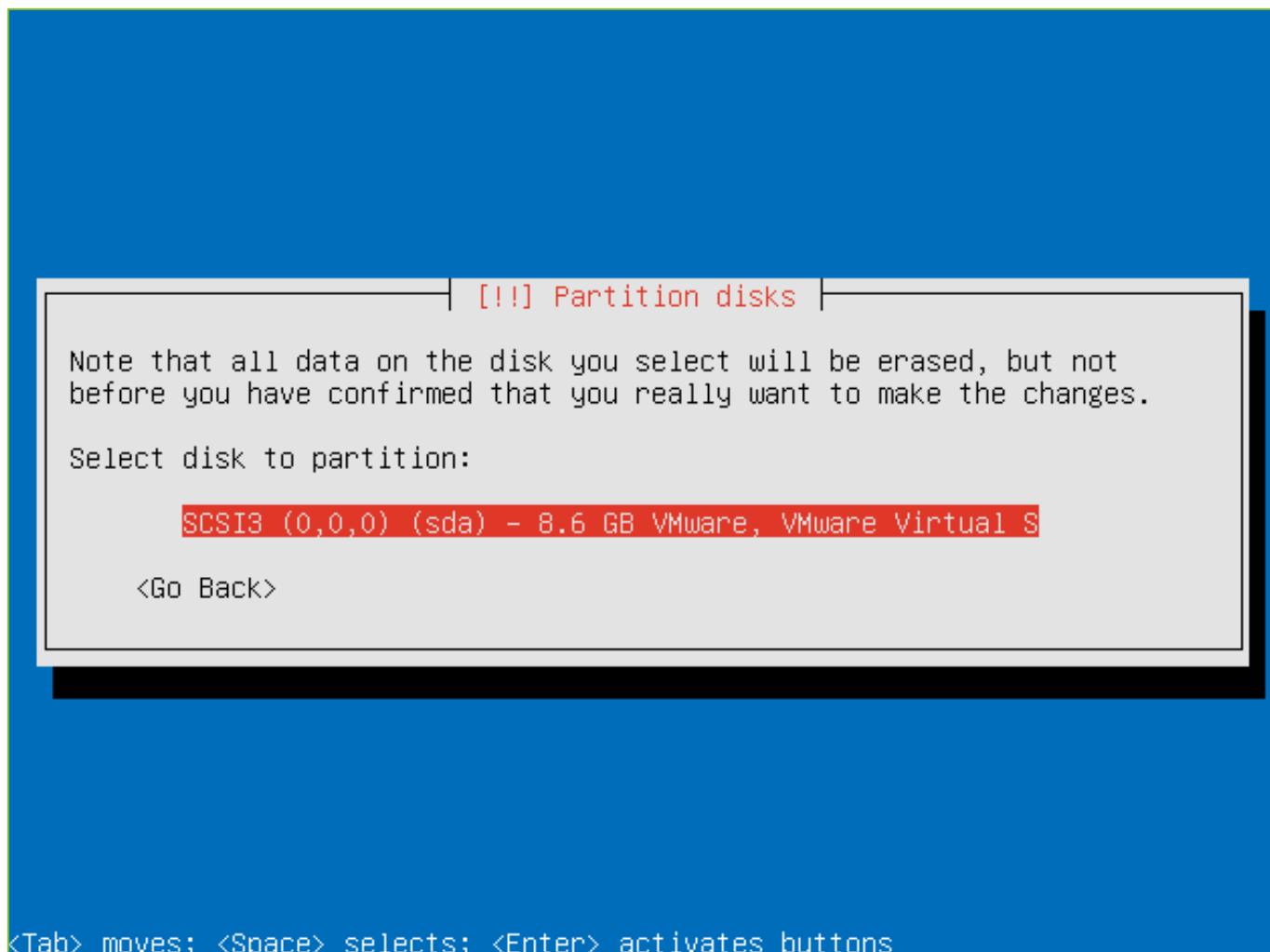


Tab> moves: <Space> selects: <Enter> activates buttons

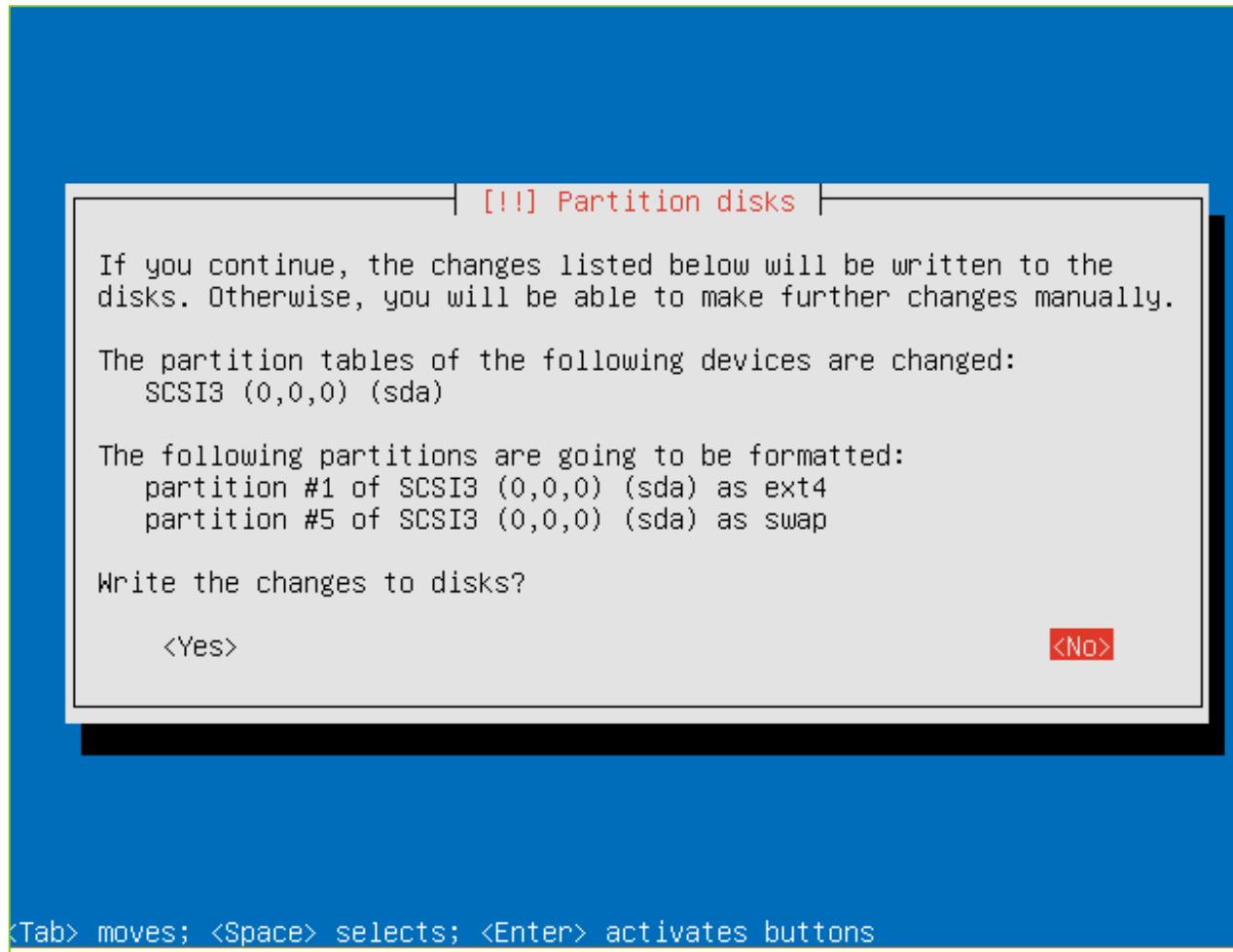
KONFIGURASI BRIKER



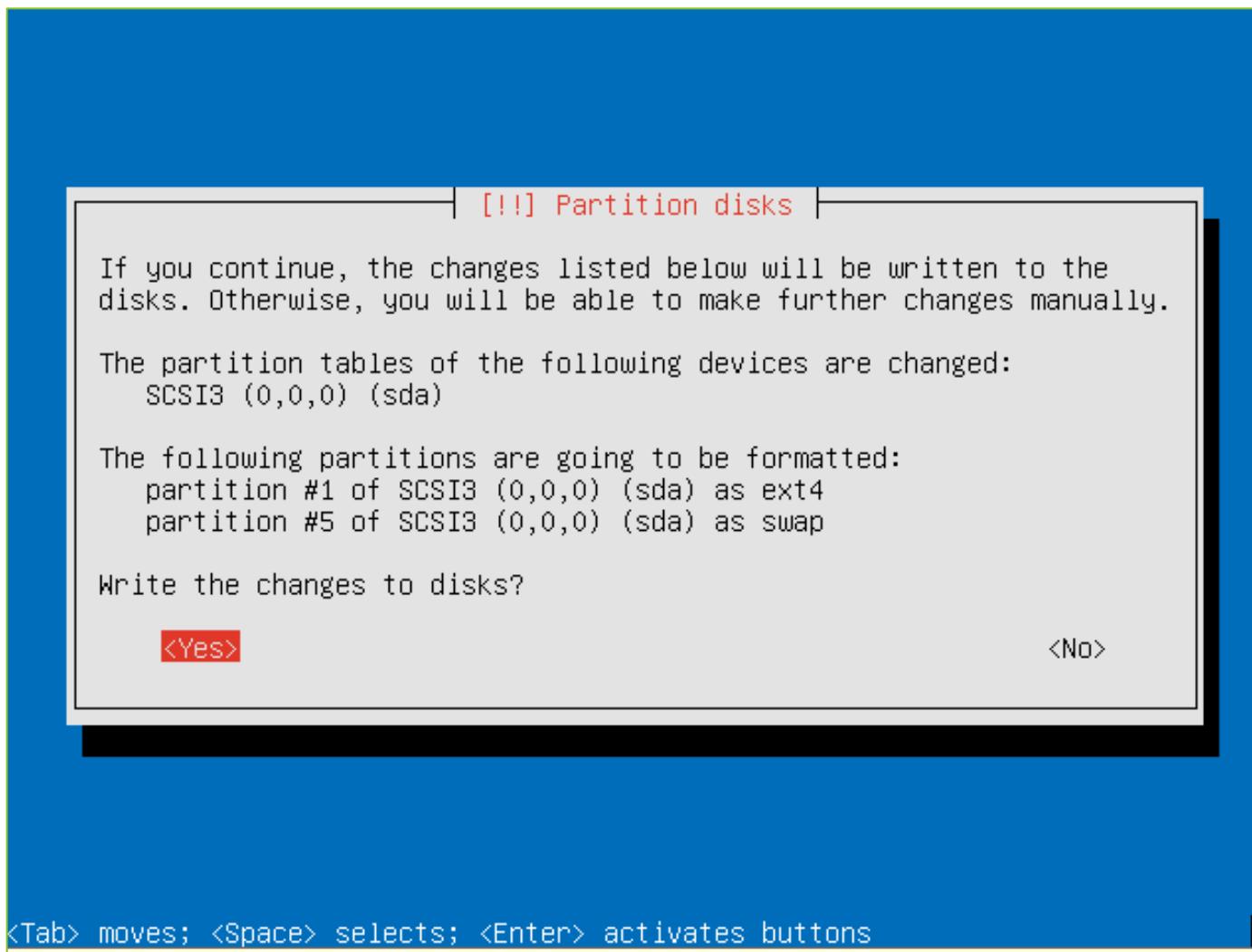
KONFIGURASI BRIKER



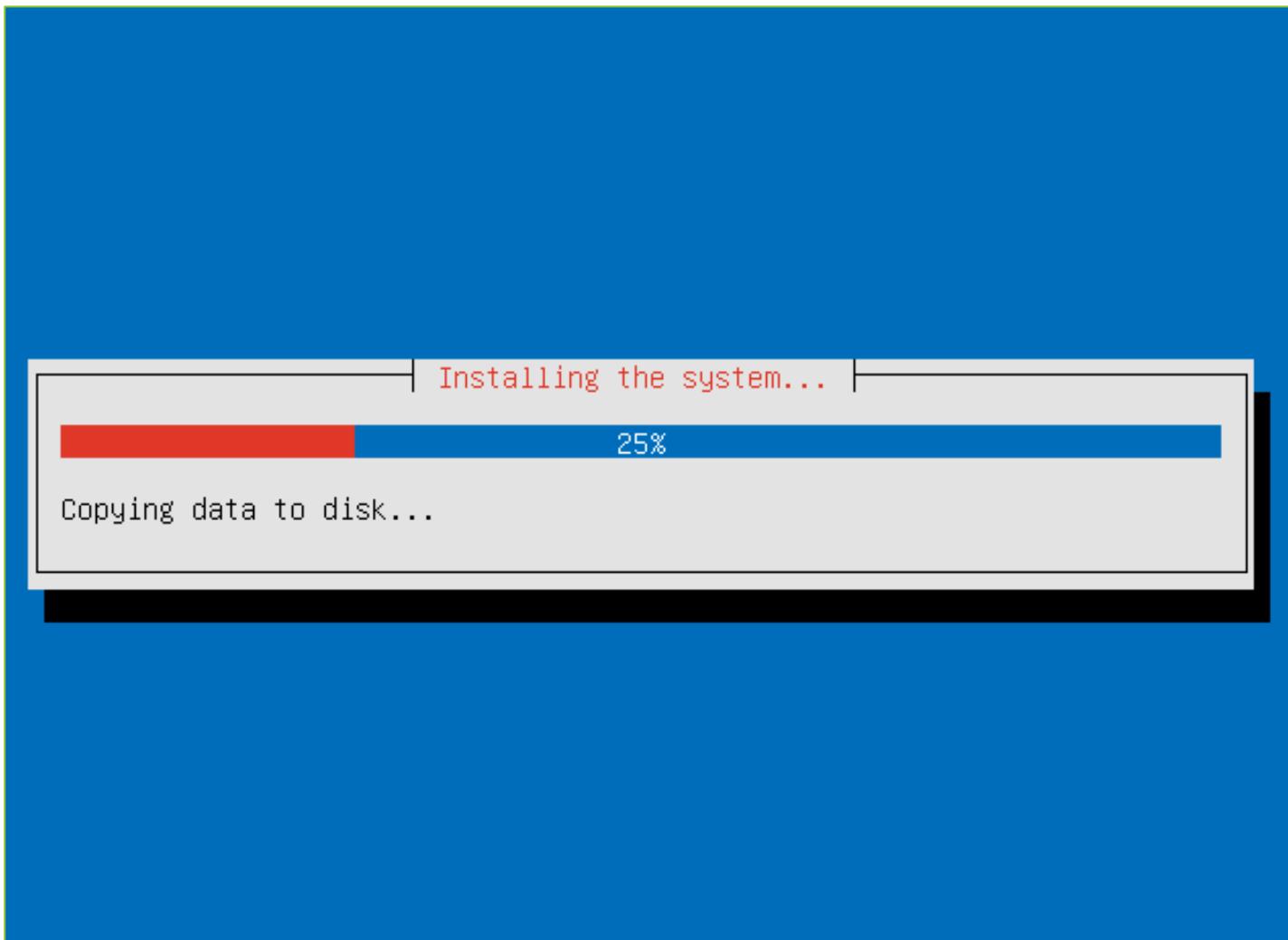
KONFIGURASI BRIKER



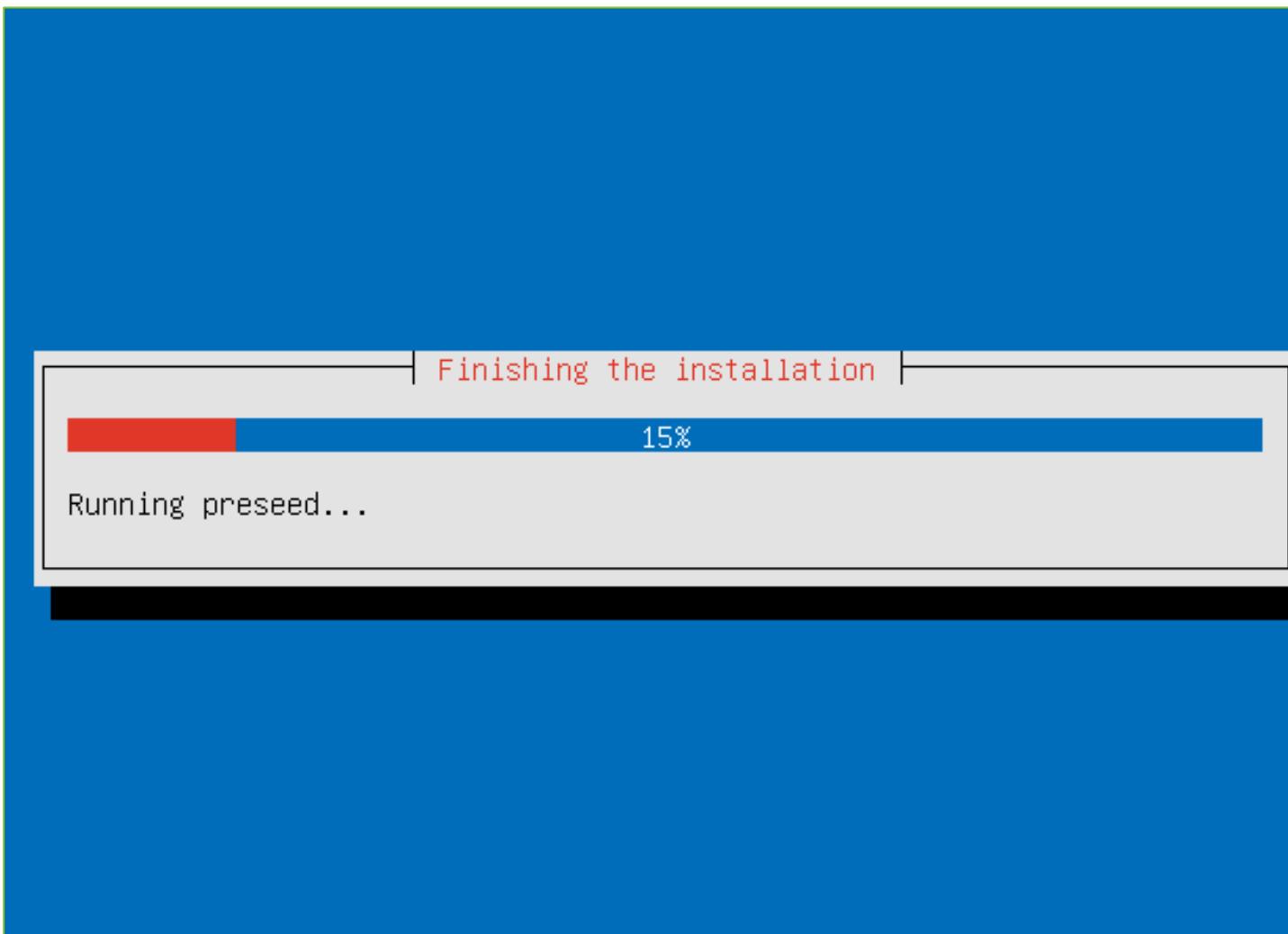
KONFIGURASI BRIKER



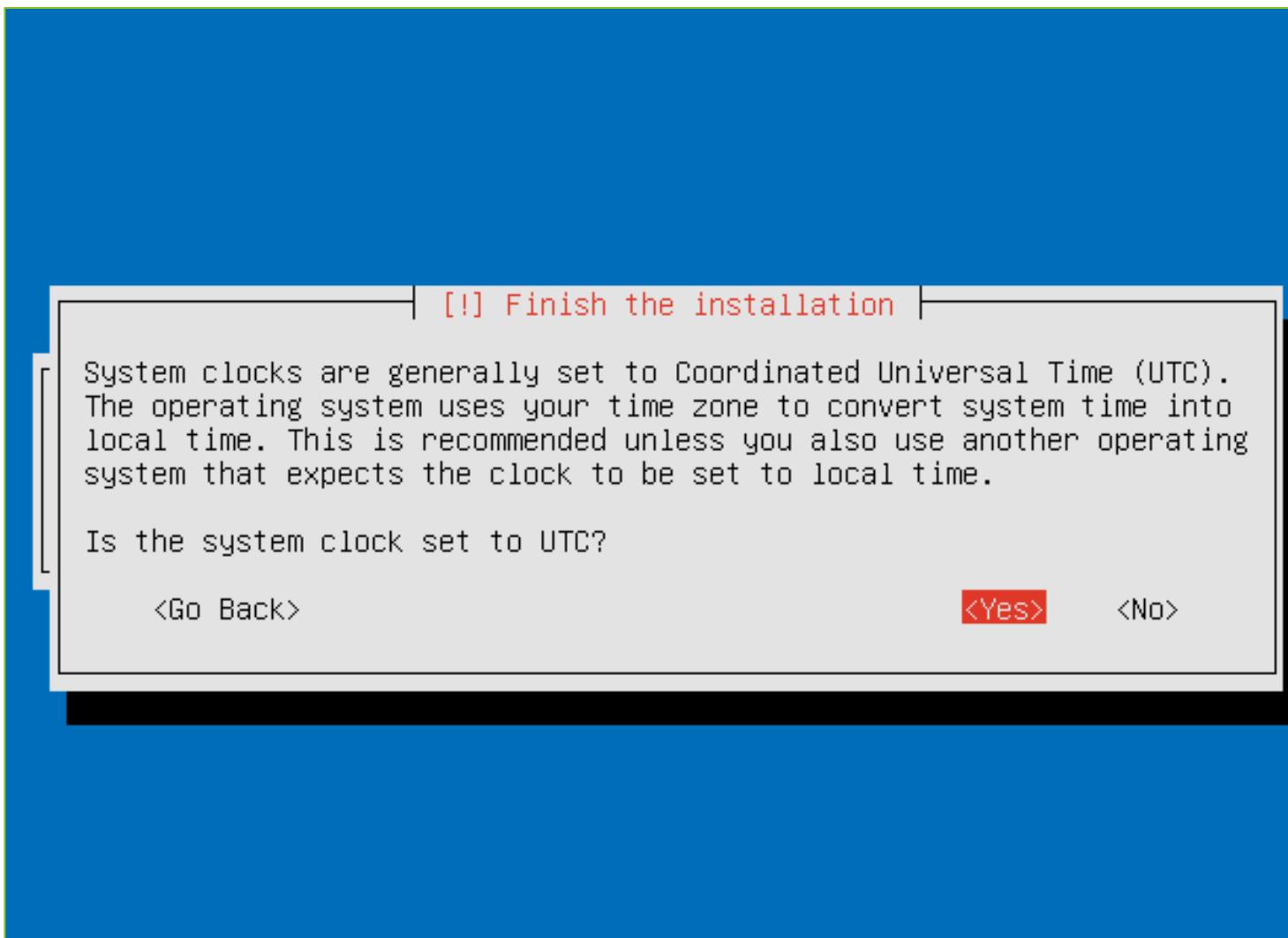
KONFIGURASI BRIKER



KONFIGURASI BRIKER



KONFIGURASI BRIKER

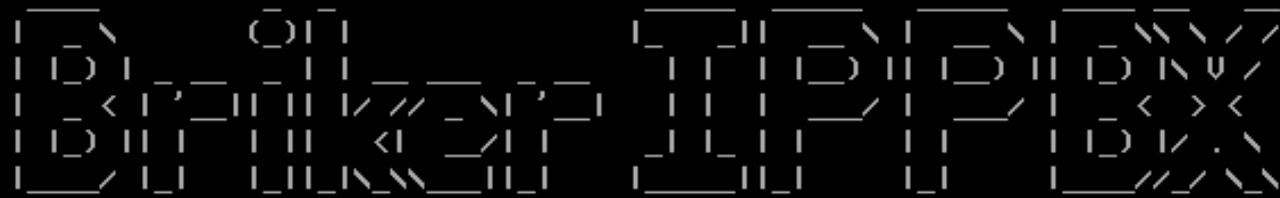


KONFIGURASI BRIKER

```
[ 1.278322] sd 2:0:0:0: [sda] Assuming drive cache: write through
```

KONFIGURASI BRIKER

```
Please Wait,  
Briker final installation  
.....
```

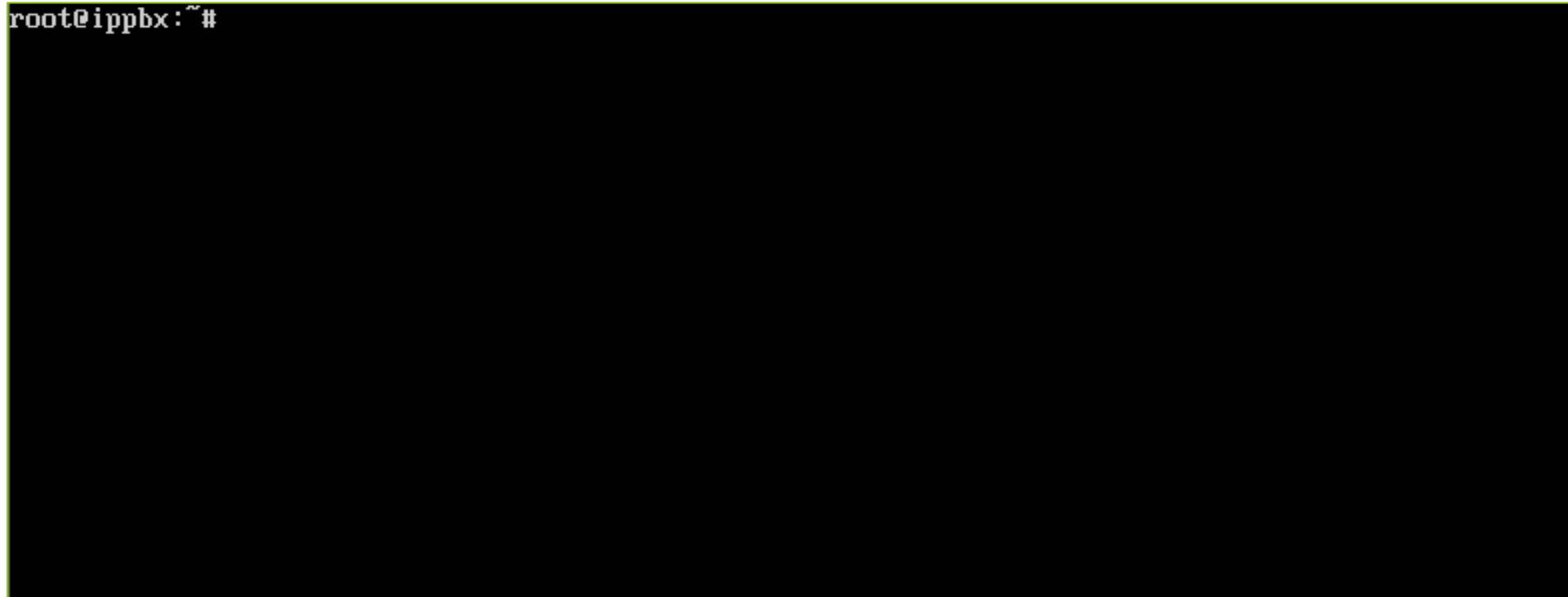


KONFIGURASI BRIKER

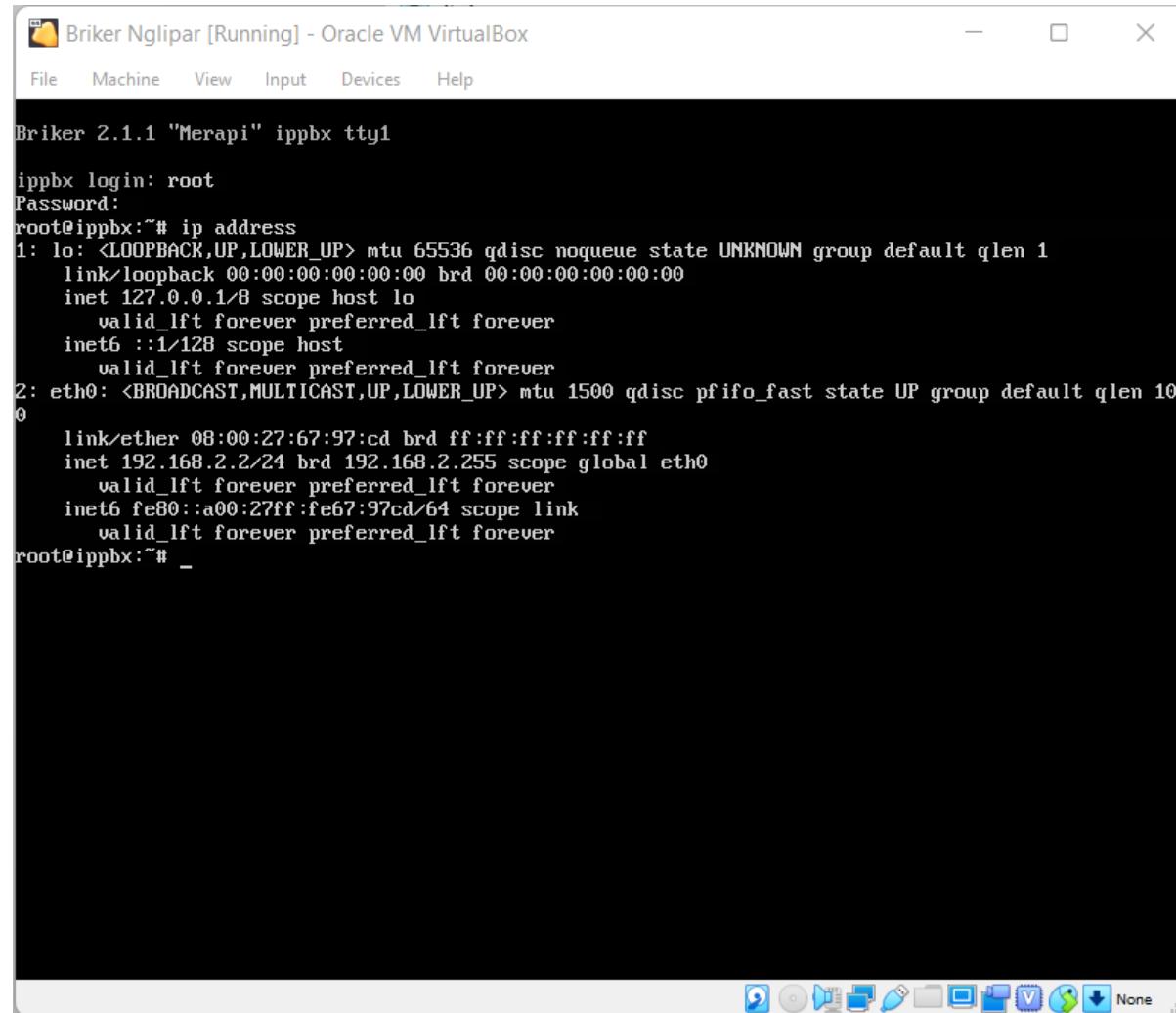
```
Briker 2.1.1 "Merapi" ippbx tty1  
ippbx login:
```

KONFIGURASI BRIKER

```
root@ippbx:~#
```



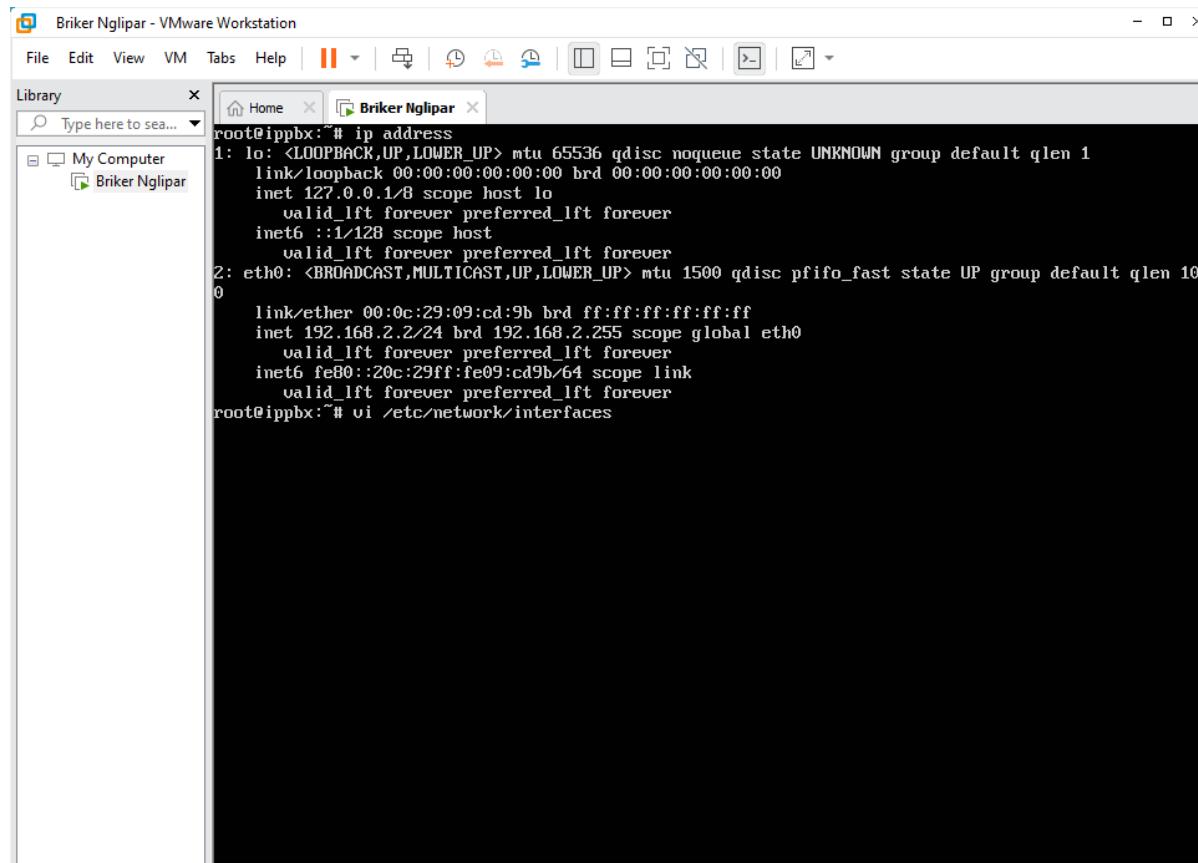
KONFIGURASI BRIKER



Briker 2.1.1 "Merapi" ippbx tty1

```
ippbx login: root
Password:
root@ippbx:~# ip address
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
        inet 127.0.0.1/8 scope host lo
            valid_lft forever preferred_lft forever
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:67:97:cd brd ff:ff:ff:ff:ff:ff
        inet 192.168.2.2/24 brd 192.168.2.255 scope global eth0
            valid_lft forever preferred_lft forever
        inet6 fe80::a00:27ff:fe67:97cd/64 scope link
            valid_lft forever preferred_lft forever
root@ippbx:~# _
```

KONFIGURASI BRIKER



```
root@ippbx:~# ip address
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
        inet 127.0.0.1/8 scope host lo
            valid_lft forever preferred_lft forever
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 100
    link/ether 00:0c:29:09:cd:9b brd ff:ff:ff:ff:ff:ff
    inet 192.168.2.2/24 brd 192.168.2.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe09:cd9b/64 scope link
        valid_lft forever preferred_lft forever
root@ippbx:~# vi /etc/network/interfaces
```

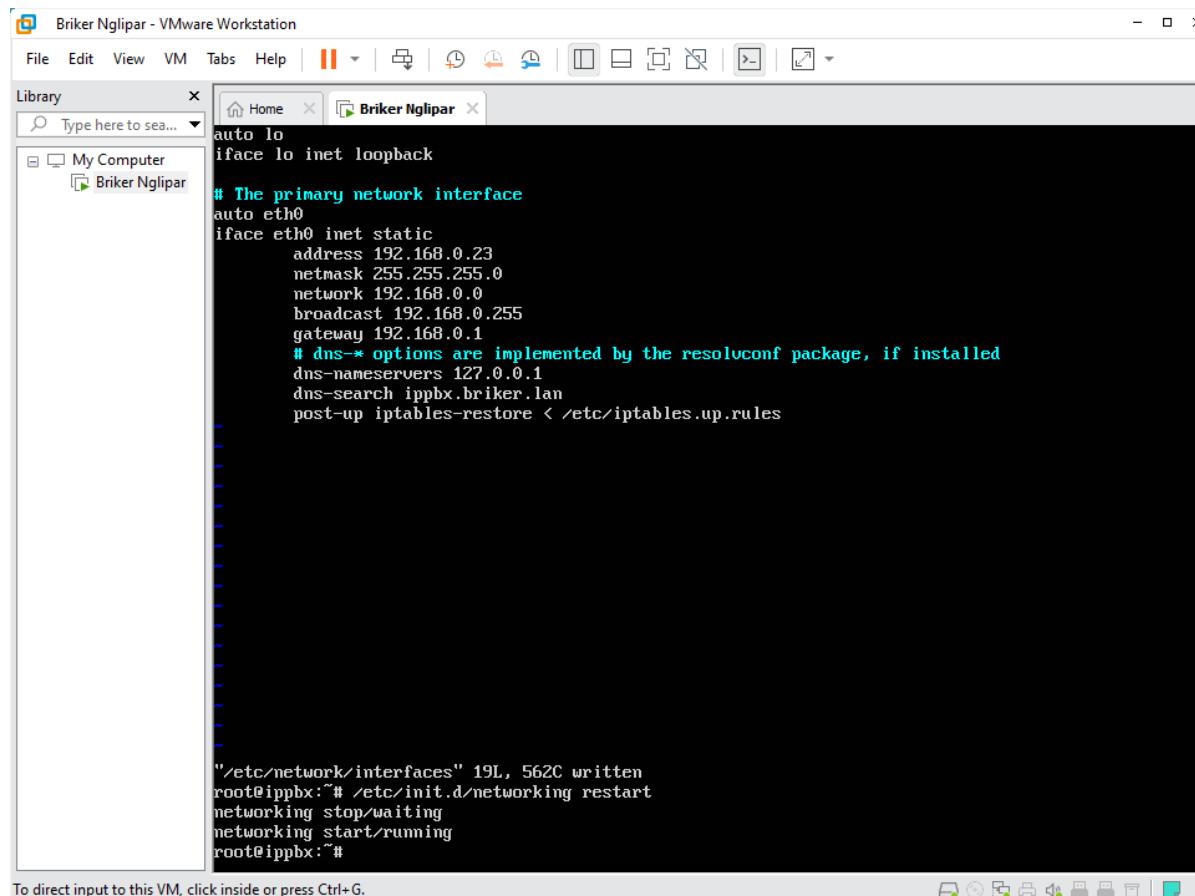
KONFIGURASI BRIKER

```
# and how to activate them. For more information, see interfaces(5).
# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet static
    address 192.168.0.23
    netmask 255.255.255.0
    network 192.168.0.0
    broadcast 192.168.0.255
    gateway 192.168.0.1
    # dns-* options are implemented by the resolvconf package, if installed
    dns-nameservers 127.0.0.1
    dns-search ippbx.briker.lan
    post-up iptables-restore < /etc/iptables.up.rules

"/etc/network/interfaces" 19L, 562C written
root@ippbx:~# _
```

KONFIGURASI BRIKER



The screenshot shows a VMware Workstation window titled "Briker Nglipar - VMware Workstation". Inside the window, a terminal session is running. The terminal window has tabs for "Home" and "Briker Nglipar". The content of the terminal shows the following configuration:

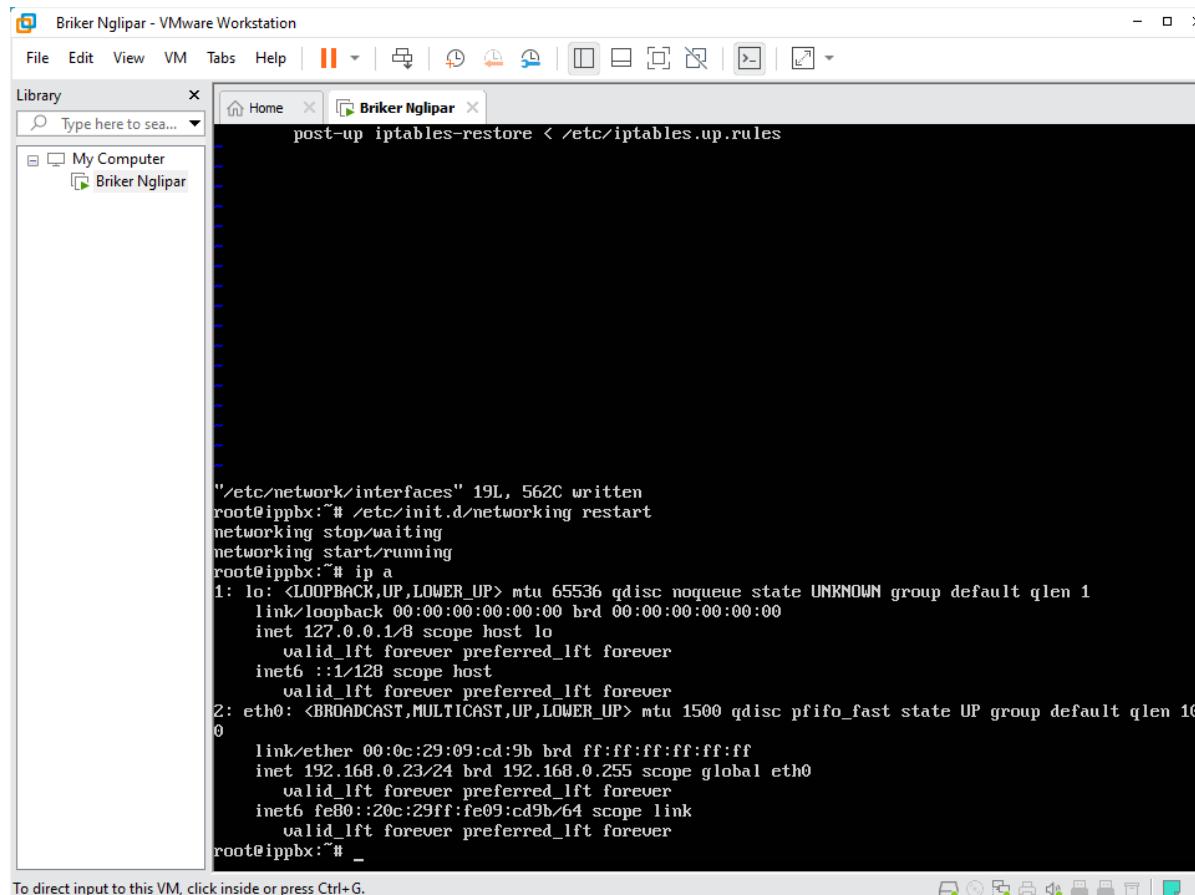
```
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet static
    address 192.168.0.23
    netmask 255.255.255.0
    network 192.168.0.0
    broadcast 192.168.0.255
    gateway 192.168.0.1
    # dns-* options are implemented by the resolvconf package, if installed
    dns-nameservers 127.0.0.1
    dns-search ippbx.briker.lan
    post-up iptables-restore < /etc/iptables.up.rules

"/etc/network/interfaces" 19L, 562C written
root@ippbx:~# /etc/init.d/networking restart
networking stop/waiting
networking start/running
root@ippbx:~#
```

At the bottom of the terminal window, there is a message: "To direct input to this VM, click inside or press Ctrl+G."

KONFIGURASI BRIKER



KONFIGURASI BRIKER

```
cmd Command Prompt
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . :
Link-local IPv6 Address . . . . : fe80::25f5:44f6:e7eb:9342%13
IPv4 Address. . . . . : 192.168.0.109
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.0.1

Ethernet adapter Bluetooth Network Connection:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :

C:\Users\Acer>ping 192.168.0.23

Pinging 192.168.0.23 with 32 bytes of data:
Reply from 192.168.0.23: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.23:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Acer>
```

KONFIGURASI BRIKER



KONFIGURASI BRIKER

Briker 2.1.1 "Merapi"

[Home](#) | [IPPBX Administration](#) | [Billing](#) | [CDR](#) | [ACD Statistics](#) | [User Portal](#) | [Fax](#)



[Operator Panel](#) | [Server Manager](#)

Briker Core © 2008 PT. Infotech Media Nusantara

IPPBX Login

Username	<input type="text"/>
Password	<input type="password"/>
<input type="button" value="Login"/>	

KONFIGURASI BRIKER

The screenshot shows the Briker 2.1.1 "Merapi" software interface. At the top, there is a navigation bar with links: Home | IPPBX Administration | Billing | CDR | ACD Statistics | User Portal | Fax. On the right side of the header, there are links for Operator Panel and Server Manager, and a copyright notice: Briker Core © 2008 PT. Infotech Media Nusantara. The main content area has a title "Welcome to Briker" and a sub-section "About Briker" with links to Changelog, F.A.Q, and License. On the left, there is a sidebar titled "Logged in: administrator" showing the status "Administrator". The sidebar contains a tree view with nodes: Home, My Account, Preferences, Administration, and Logout. Below the sidebar, there is a section about Briker's features and support information, followed by development details.

Welcome to Briker

About Briker | Changelog | F.A.Q | License

Briker 2.1.1 "Merapi"
Release date: 180622
Firmware: 210180622001

Briker is an IPPBX software, a softswitch.
Briker will automatically convert your computer into a powerful PBX machine with IP communication support built-in.

For supports and informations feel free to visit <https://www.briker.org>

Development HQ:
PT. Infotech Media Nusantara
<http://www.itmn.co.id>

KONFIGURASI BRIKER

The screenshot shows the Briker 2.1.1 "Merapi" web interface. The URL is https://192.168.0.145/?mit=fbc21ab9eed358707a6037658e7c9ba5&miu=adm. The page title is "Briker". The main content area displays the "IPPBX Status" page. On the left, there is a sidebar with various menu items under "Setup" and "Tools". Under "Tools", "IPPBX Status" is selected. The main content is divided into several sections: "IPPBX Notices" (No new notifications show all), "IPPBX Statistics" (Total active calls: 0, Internal calls: 0, External calls: 0, Total active channels: 0, IPPBX Connections: 0, IP Trunks Online: 0), "Uptime" (System Uptime: 7 minutes, IPPBX Server Uptime: 6 minutes, Last Reload: 6 minutes), "System Statistics" (Processor: Load Average 0.06, CPU 0%, Memory: Swap 0%, /dev 0%, /run 0%, / 29%, /sysfs/group 0%, /run/lock 0%, /run/shm 0%, /run/user 0%, Networks: eth0 receive 0.00 KB/s, eth0 transmit 0.00 KB/s), and "Server Status" (IPPBX Server: OK, Database Server: OK, Web Server: OK, Remote Shell Server: OK).

KONFIGURASI BRIKER

The screenshot shows the BRIKER 2.1.1 "Merapi" web interface. The top navigation bar includes links for Home, IPPBX Administration, Billing, CDR, ACD Statistics, User Portal, and Fax. On the right, there are links for Operator Panel, Server Manager, and IPPBX Administration, with a note that it is Powered by FreePBX 2.4. The main menu on the left is under the "Setup" tab and includes categories like Admin, IPPBX Status, Basic, Bulk Extensions, Custom Contexts, Device Auto Provisioning, Extensions (which is currently selected), Feature Codes, General Settings, Outbound Routes, Trunks, Inbound Call Control, Inbound Routes, Zap Channel DIDs, Announcements, Blacklist, CallerID Lookup Sources, DayNight Control, Follow Me, IVR, Queues / ACD, Ring Groups, Time Conditions, Internal Options & Configuration (which is also selected), Callback, Conferences, DISA, Misc Applications, Misc Destinations, Music on Hold, PIN Sets, Paging and Intercom, Parking Lot, and System Recordings. The central content area is titled "Add an Extension" and contains a sub-instruction "Please select your Device below then click Submit". It features a dropdown menu labeled "Device" with "Generic SIP Device" selected. A "Submit" button is located below the dropdown. To the right of the "Submit" button is a blue "Add Extension" button.

KONFIGURASI BRIKER

The screenshot shows the BRIKER 2.1.1 "Merapi" web interface. The top navigation bar includes links for Home, IPPBX Administration, Billing, CDR, ACD Statistics, User Portal, and Fax. The right side of the header features the BRIKER logo and links for Operator Panel and Server Manager, with a note that it is Powered by FreePBX 2.4.

The left sidebar contains a navigation menu with several sections: Admin, Basic, Bulk Extensions, Custom Contexts, Device Auto Provisioning, Extensions (which is currently selected), Feature Codes, General Settings, Outbound Routes, Trunks, Inbound Call Control (selected), Inbound Routes, Zap Channel DIDs, Announcements, Blacklist, CallerID Lookup Sources, DayNight Control, Follow Me, IVR, Queues / ACD, Ring Groups, Time Conditions, Internal Options & Configuration (selected), Callback, Conferences, DISA, Misc Applications, Misc Destinations, Music on Hold, PIN Sets, Paging and Intercom, Parking Lot, and System Recordings.

The main content area is titled "Add SIP Extension". It contains three main sections: "Add Extension", "Extension Options", and "Device Options".

Add Extension:

- User Extension: 1003
- Display Name: Ridwan
- CID Num Alias: (empty)
- SIP Alias: (empty)

Extension Options:

- Direct DID: (empty)
- DID Alert Info: (empty)
- Music on Hold: acc_1
- Outbound CID: (empty)
- Ring Time: Default
- Call Waiting: Enable
- Emergency CID: (empty)

Device Options:

This device uses sip technology.

- calllimit: 1
- calltimer: 0
- accountcode: 1003
- secret: 1003
- dtmfmode: rfc2833
- deny: 0.0.0.0/0.0.0.0
- permit: 0.0.0.0/0.0.0.0
- context: from-internal
- disallow: all
- allow: alaw&ulaw&h263p

KONFIGURASI BRIKER

Fax Handling

Fax Extension: IPPBX default

Fax Email:

Fax Detection Type: None

Pause after answer: 0

Privacy

Privacy Manager: No

Device Auto Provisioning

Status: Disabled

MAC Address:

Recording Options

Record Incoming: On Demand

Record Outgoing: On Demand

Voicemail & Directory

Status: Disabled

Voicemail Password:

Email Address:

Pager Email Address:

Email Attachment: yes no

Play CID: yes no

Play Envelope: yes no

Delete Vmail: yes no

VM Options:

VM Context: default

VmX Locater™: Disabled

KONFIGURASI BRIKER

The screenshot shows the BRIKER 2.1.1 "Merapi" configuration interface. The top navigation bar includes links for Home, IPPBX Administration, Billing, CDR, ACD Statistics, User Portal, and Fax. On the right, there are links for Operator Panel, Server Manager, IPPBX Administration, and Powered by FreePBX 2.4. The main menu on the left is organized into several categories: Admin, Basic, Bulk Extensions, Custom Contexts, Device Auto Provisioning, Extensions (which is currently selected), Feature Codes, General Settings, Outbound Routes, Trunks, Inbound Call Control, Inbound Routes, Zap Channel DIDs, Announcements, Blacklist, CallerID Lookup Sources, DayNight Control, Follow Me, IVR, Queues / ACD, Ring Groups, Time Conditions, Internal Options & Configuration, Callback, Conferences, DISA, Misc Applications, Misc Destinations, Music on Hold, PIN Sets, Paging and Intercom, Parking Lot, and System Recordings. The current page, "Add an Extension", displays a form with a dropdown menu for "Device" set to "Generic SIP Device". A "Submit" button is present at the bottom. To the right, there is a sidebar with "Add Extension" and "Ridwan <1003>" buttons.

KONFIGURASI BRIKER

The screenshot shows the BRIKER 2.1.1 "Merapi" configuration interface. The top navigation bar includes links for Home, IPPBX Administration, Billing, CDR, ACD Statistics, User Portal, and Fax. On the right, there are links for Operator Panel, Server Manager, IPPBX Administration, and a note that it is Powered by FreePBX 2.4. The main menu on the left is organized into several categories: Admin, Basic, Bulk Extensions, Custom Contexts, Device Auto Provisioning, Extensions (which is currently selected), Feature Codes, General Settings, Outbound Routes, Trunks, Inbound Call Control, Inbound Routes, Zap Channel DIDs, Announcements, Blacklist, CallerID Lookup Sources, Day/Night Control, Follow Me, IVR, Queues / ACD, Ring Groups, Time Conditions, Internal Options & Configuration, Callback, Conferences, DISA, Misc Applications, Misc Destinations, Music on Hold, PIN Sets, Paging and Intercom, Parking Lot, and System Recordings. The central content area is titled "Add an Extension" and contains a sub-instruction "Please select your Device below then click Submit". It features a dropdown menu labeled "Device" with "Generic SIP Device" selected. To the right, there is a list of extensions: Ridwan <1003> and Irawan <1004>. At the bottom left is a "Submit" button.

KONFIGURASI BRIKER

The screenshot shows the IPPBX Administration interface with the following details:

- Header:** Home | IPPBX Administration | Billing | CDR | ACD Statistics | User Portal | Fax | Operator Panel | Server Manager | IPPBX Administration | Powered by FreePBX 2.4
- Left Sidebar (Setup):**
 - Admin
 - IPPBX Status
 - Basic**
 - Bulk Extensions
 - Custom Contexts
 - Device Auto Provisioning
 - Extensions**
 - Feature Codes
 - General Settings
 - Outbound Routes
 - Trunks
 - Inbound Call Control
 - Inbound Routes
 - Zap Channel DIDs
 - Announcements
 - Blacklist
 - CallerID Lookup Sources
 - Day/Night Control
 - Follow Me
 - IVR
 - Queues / ACD
 - Ring Groups
 - Time Conditions
 - Internal Options & Configuration
 - Callback
 - Conferences
 - DISA
 - Misc Applications
 - Misc Destinations
 - Music on Hold
 - PIN Sets
 - Paging and Intercom
 - Parking Lot
 - System Recordings
- Central Content:**
 - Add an Extension**
 - Apply Configuration Changes**
 - You have made changes to the configuration that have not yet been applied. When you are finished making all changes, click on Apply Configuration Changes to put them into effect.**
 - Please select your Device below then click Submit
 - Device:** Generic SIP Device
 - Submit**
- Right Sidebar:**
 - Add Extension
 - Ridwan <1003>
 - Irawan <1004>

KONFIGURASI BRIKER

The screenshot shows the BRIKER 2.1.1 "Merapi" web interface. The top navigation bar includes links for Home, IPPBX Administration, Billing, CDR, ACD Statistics, User Portal, and Fax. The main menu on the left is under the "Setup / Tools" category, with "Admin" selected. The "IPPBX Status" section is expanded, showing "Basic", "Bulk Extensions", "Custom Contexts", "Device Auto Provisioning", "Extensions", "Feature Codes", "General Settings", "Outbound Routes", "Trunks", "Inbound Call Control" (which is highlighted in blue), "Inbound Routes", "Zap Channel DIDs", "Announcements", "Blacklist", "CallerID Lookup Sources", "Day/Night Control", "Follow Me", "IVR", "Queues / ACD", "Ring Groups", "Time Conditions", "Internal Options & Configuration" (which is expanded), "Callback", "Conferences", "DISA", "Misc Applications", "Misc Destinations", "Music on Hold", "PIN Sets", "Paging and Intercom", "Parking Lot", and "System Recordings". The main content area is titled "Add an Extension" and instructs the user to "Please select your Device below then click Submit". A dropdown menu shows "Device: Generic SIP Device". A "Submit" button is present. On the right side, there is a sidebar with "Add Extension" and two entries: "Ridwan <1003>" and "Irawan <1004>". At the bottom center, a modal dialog box titled "Apply Configuration Changes" contains the message: "Reloading will apply all configuration changes made in IPPBX to your PBX engine and make them active." It offers two options: "Continue with reload" (with a green checkmark) and "Cancel reload and go back to editing" (with a red cancel symbol). The BRIKER logo and "Operator Panel | Server Manager" are visible in the top right corner.

KONFIGURASI BRIKER

Briker 2.1.1 "Merapi"

Home | IPPBX Administration | Billing | CDR | ACD Statistics | User Portal | Fax

Operator Panel | Server Manager
IPPBX Administration | Powered by FreePBX 2.4

IPPBX Status

IPPBX Notices
2 extensions/trunks have weak secrets
show all

IPPBX Statistics

Total active calls	0
Internal calls	0
External calls	0
Total active channels	0
IPPBX Connections	0
IP Phones Online	0

Uptime
System Uptime: 13 minutes
IPPBX Server Uptime: 13 minutes
Last Reload: 10 seconds

System Statistics

Processor	Load Average 0.00
CPU	0%
Memory	Used Memory 65%
Swap	0%
Disks	/dev 0% /run 0% /var 29% /sys/fs/cgroup 0% /run/lock 0% /run/shm 0% /run/user 0%
Networks	eth0 receive 0.15 KB/s eth0 transmit 0.15 KB/s

Server Status

IPPBX Server	OK
Database Server	OK
Web Server	OK
Remote Shell Server	OK



Terima
Seri

XII TKJ

