

MODUL PRAKTIKUM 03

VIRTUALIZATION, DHCP, DNS

TUJUAN

Setelah praktikum dilaksanakan, peserta praktikum diharapkan memiliki kemampuan

1. Membuat dan melakukan konfigurasi pada mesin virtual dengan menggunakan VirtualBox
2. Melakukan instalasi dan konfigurasi DHCP Server pada Windows Server 2008
3. Melakukan instalasi dan konfigurasi DNS Server pada Windows Server 2008

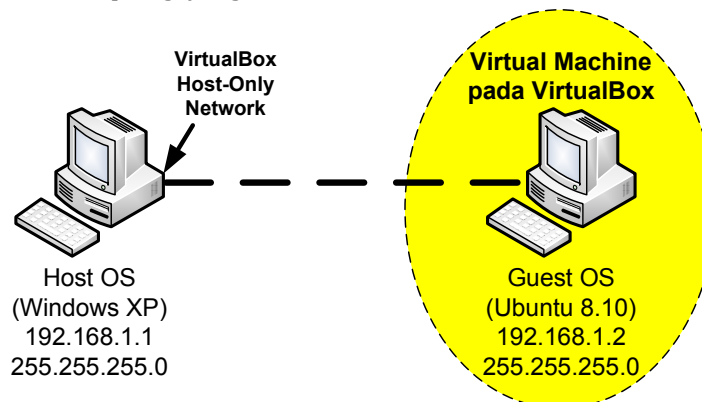
PERANGKAT

Perangkat yang digunakan untuk praktikum adalah sbb :

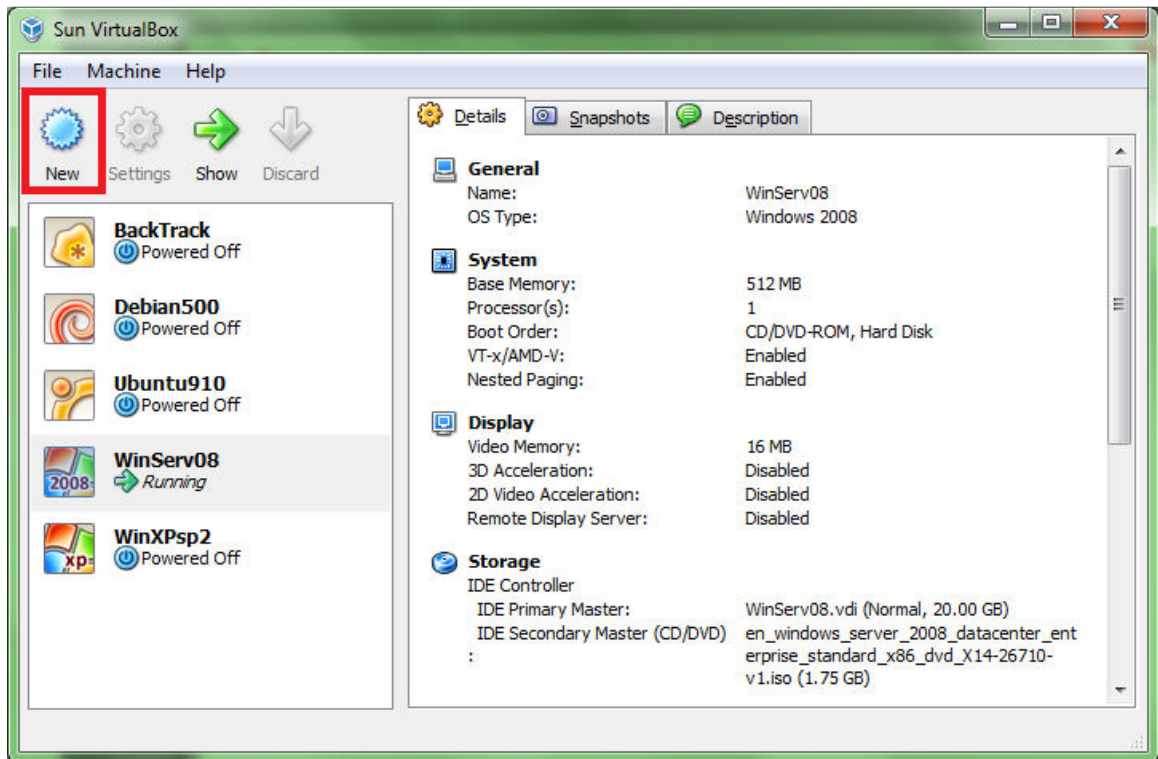
1. VirtualBox
2. CD Linux Ubuntu 8.10
3. Windows Server 2008
4. Kabel UTP Straight atau Cross
5. Switch

PROSEDUR PRAKTIKUM

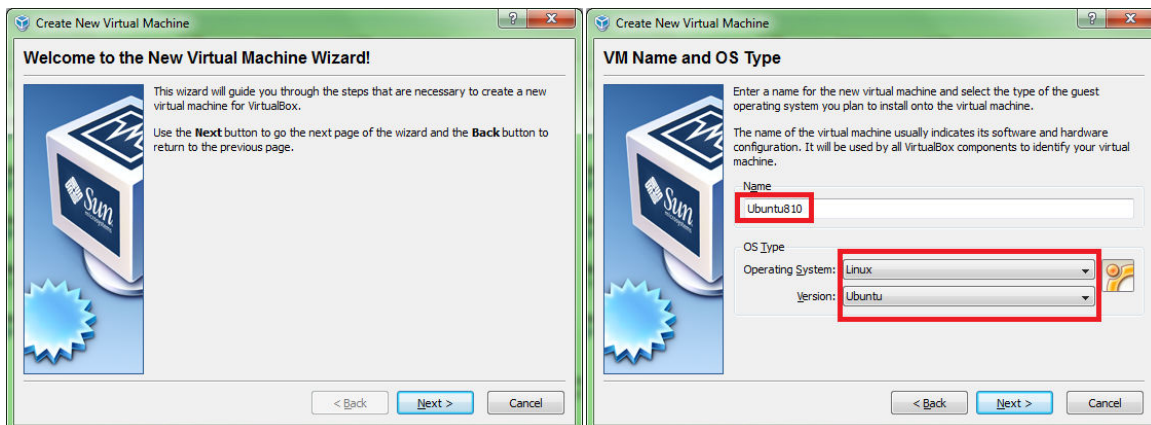
1. Membuat mesin virtual dengan VirtualBox
 - a. Jalankan program VirtualBox
 - i. Mesin yang akan dibuat pada VirtualBox (Guest OS) adalah Ubuntu 8.10 LiveCD dengan menggunakan instalasi melalui CD
 - ii. Mesin yang menjalankan VirtualBox (Host OS) adalah Windows XP
 - iii. Berikut topologi yang akan dibuat

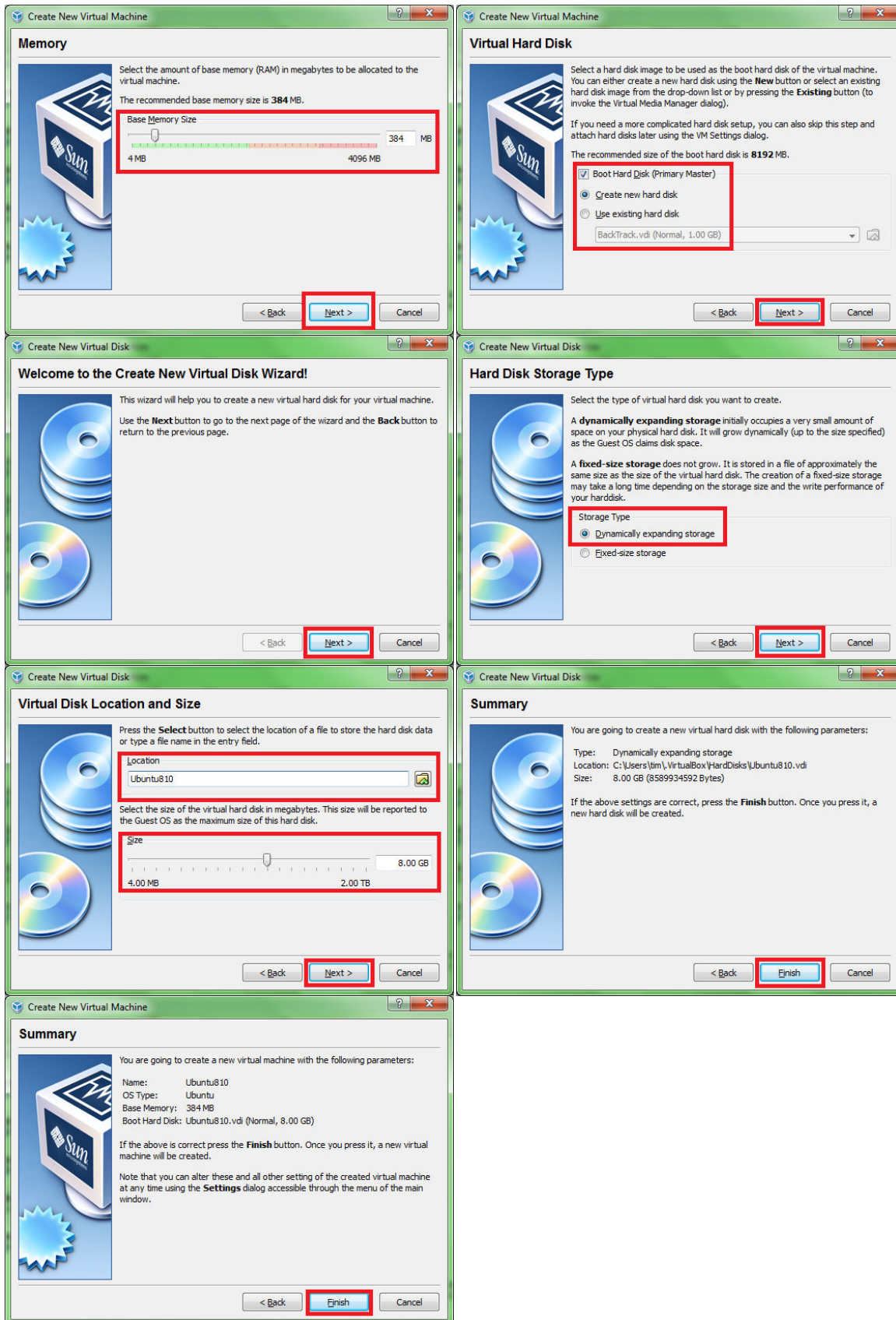


b. Buat Guest OS dengan menekan tombol **New** atau dari menu **Machine---New...**

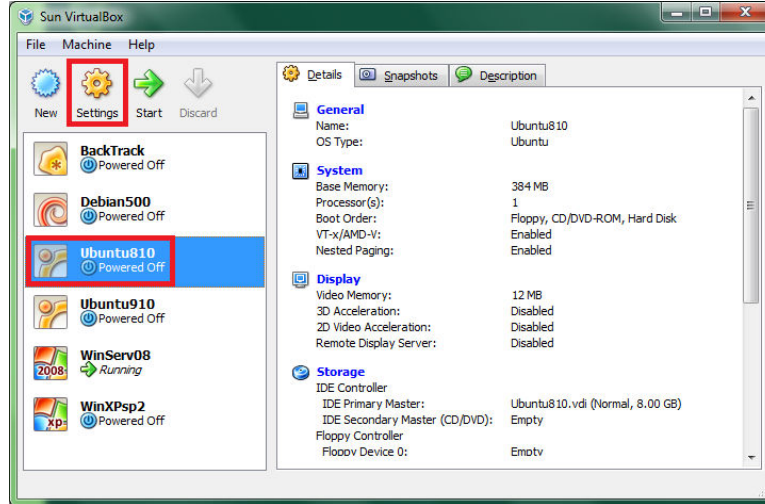


c. Ikuti Wizard pembuatan Guest OS

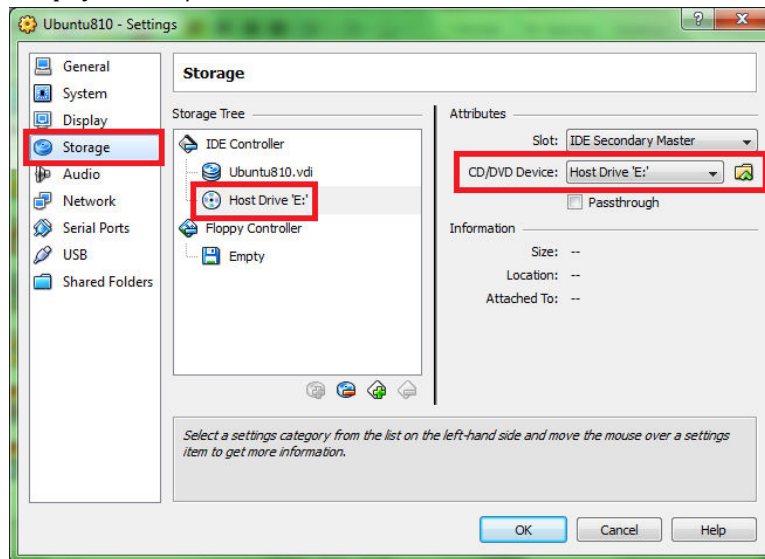




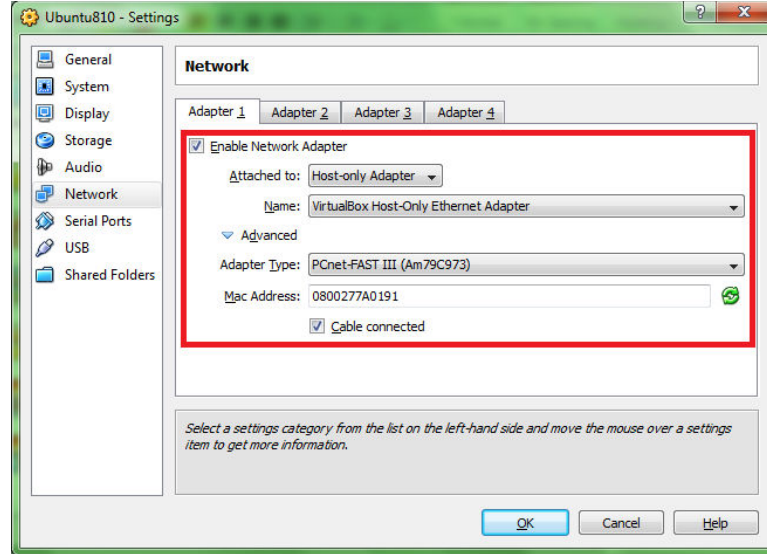
- d. Setting Guest OS yang baru dibuat
- i. Pilih mesin yang akan dijalankan dan tekan tombol **Settings**



- ii. Masukkan CD Ubuntu 8.10 serta atur agar Host Drive pada Storage agar diarahkan pada physical CD/DVD Drive



- iii. Atur Network Adapter 1 agar terarah pada Host-only Adapter supaya Guest OS dapat berkomunikasi langsung dengan Host OS



- iv. 5 mode pada Network Adapter : (sumber : Sun VirtualBox Help)

1. *Not attached*

In this mode, VirtualBox reports to the guest that a network card is present, but that there is no connection -- as if no Ethernet cable was plugged into the card. This way it is possible to "pull" the virtual Ethernet cable and disrupt the connection, which can be useful to inform a guest operating system that no network connection is available and enforce a reconfiguration.

2. *Network Address Translation (NAT)*

If all you want is to browse the Web, download files and view e-mail inside the guest, then this default mode should be sufficient for you, and you can safely skip the rest of this section. Please note that the ping utility does not work over NAT, and that there are certain limitations when using Windows file sharing

3. *Bridged networking*

This is for more advanced networking needs such as network simulations and running servers in a guest. When enabled, VirtualBox sets up an additional, software-based network interface on the host to which the virtual machine is connected.

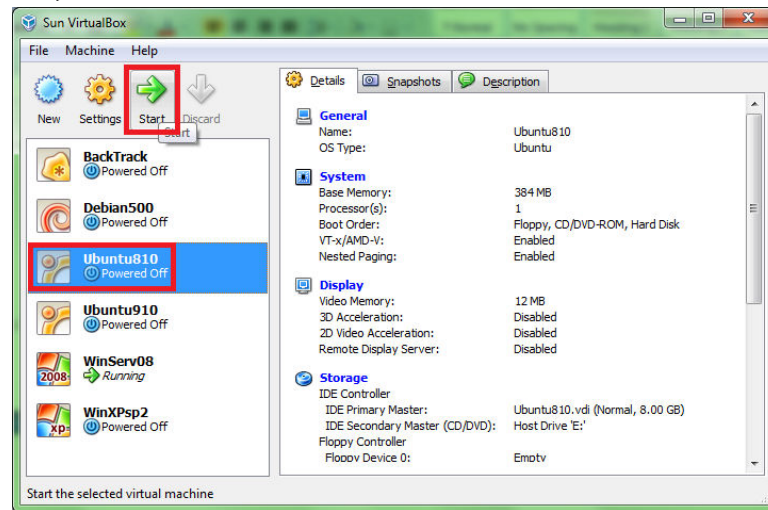
4. *Internal networking*

This can be used to create a different kind of software-based network which is visible to selected virtual machines, but not to applications running on the host or to the outside world.

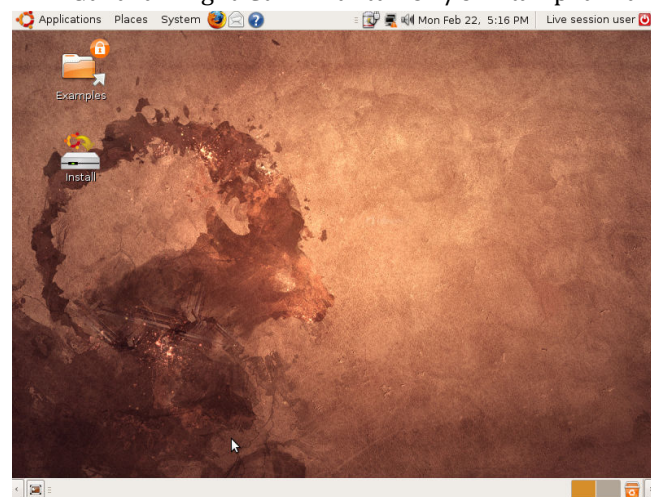
5. *Host-only networking*

This can be used to create a network containing the host and a set of virtual machines, without the need for the host's physical network interface. Instead, a virtual network interface (similar to a loopback interface) is created on the host, providing connectivity among virtual machines and the host.

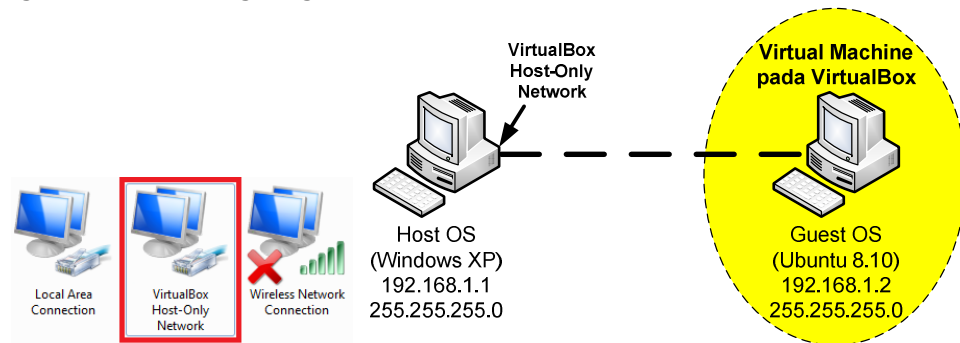
v. Jalankan Guest OS



- vi. Tunggu sampai Guest OS masuk ke Desktop dan mulai lakukan pengaturan IP Address
 - Gunakan Right-Ctrl untuk mengalihkan fokus antara Host OS dan Guest OS
 - Gunakan Right-Ctrl + F untuk ON/OFF tampilan full-screen Guest OS



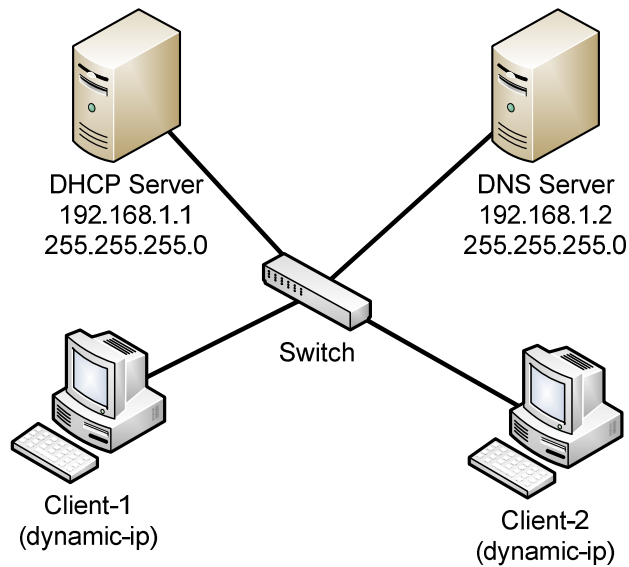
- vii. Konfigurasi IP Address pada VirtualBox Host-Only Network di Host OS (Windows XP) agar bisa tersambung dengan Guest OS



- viii. Uji sambungan Host OS dan Guest OS dengan perintah ping

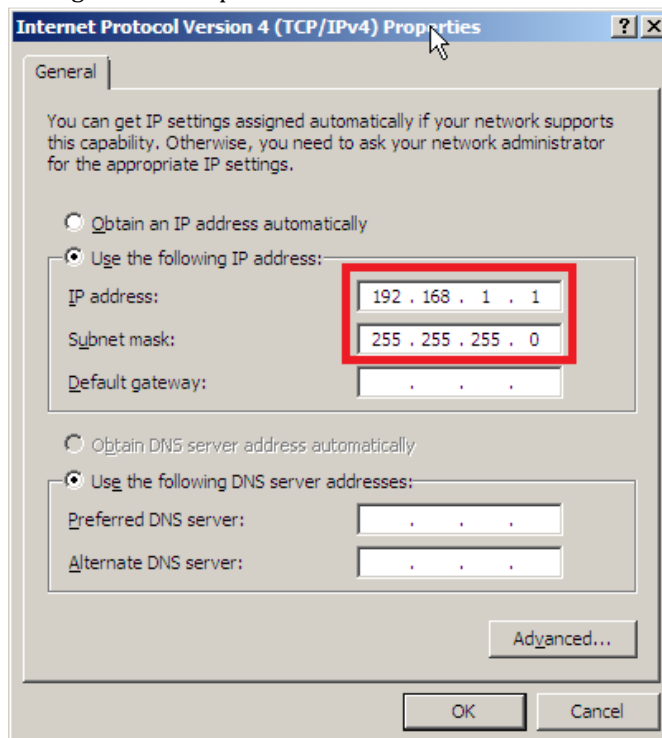
2. Melakukan instalasi dan konfigurasi DHCP Server pada Windows Server 2008

a. Berikut topologi yang akan dibuat

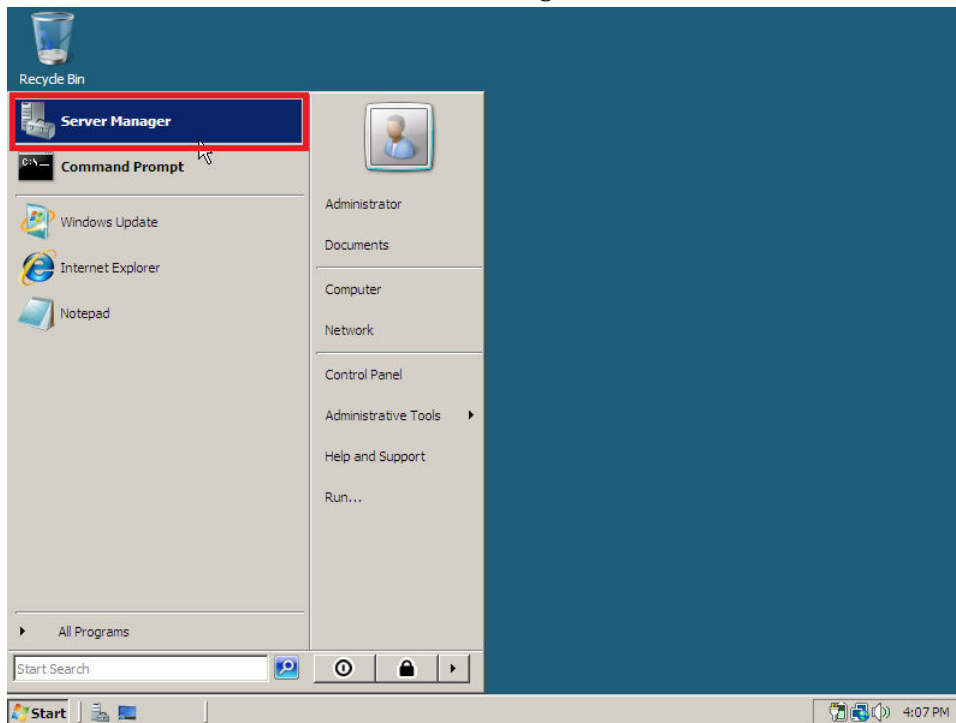


b. Jalankan Windows Server 2008 pada VirtualBox (atur Network Adapter pada VirtualBox Setting agar terarah pada Bridged Adapter)

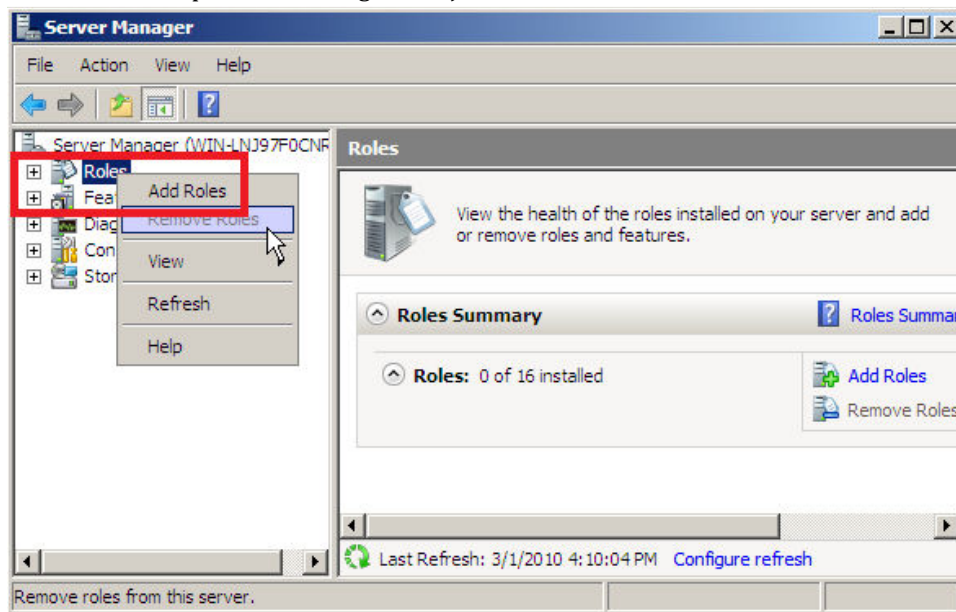
c. Pasang IP Address pada Windows Server 2008



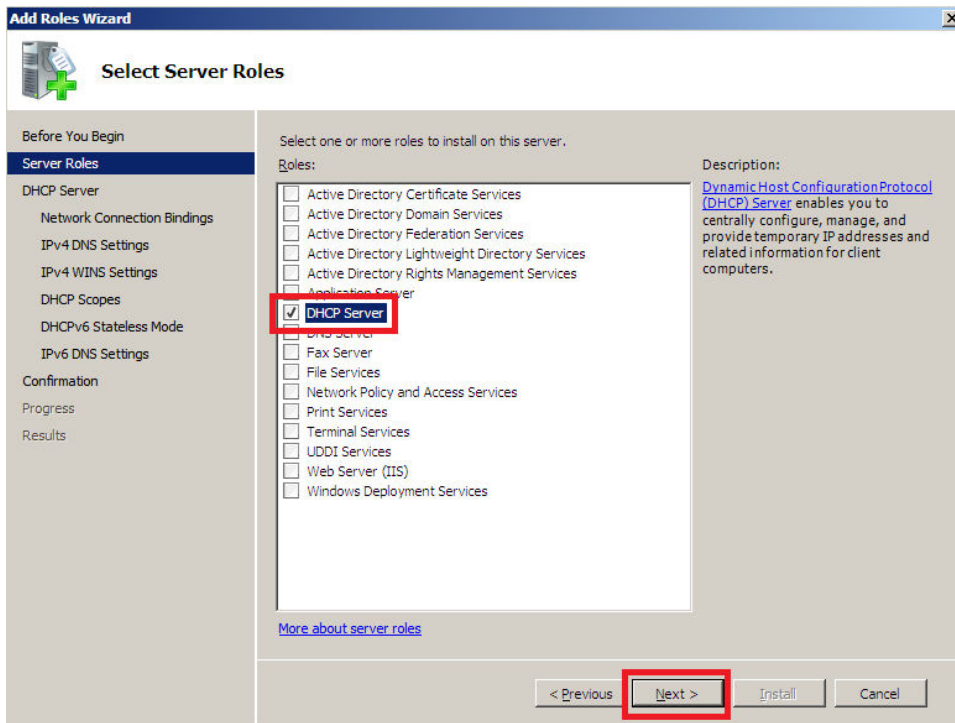
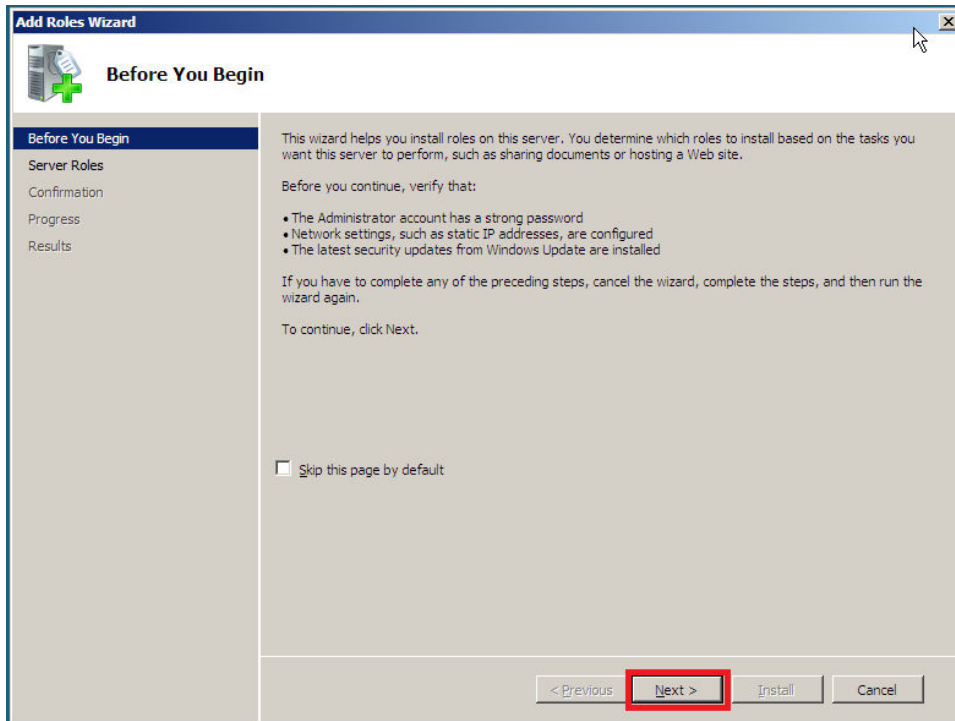
d. Instalasi DHCP Server melalui Server Manager

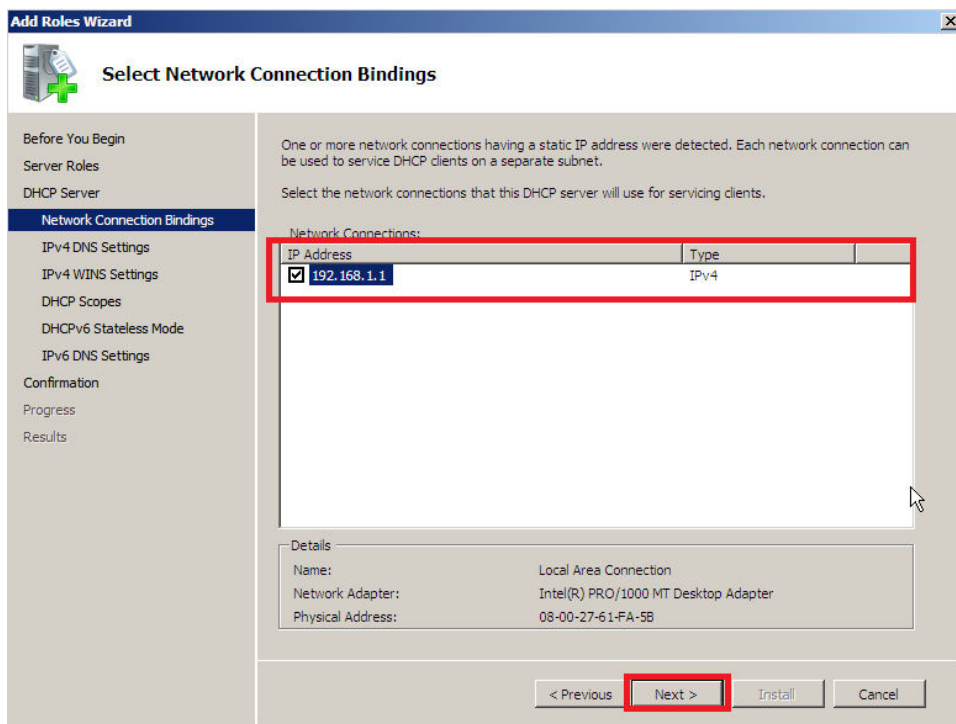
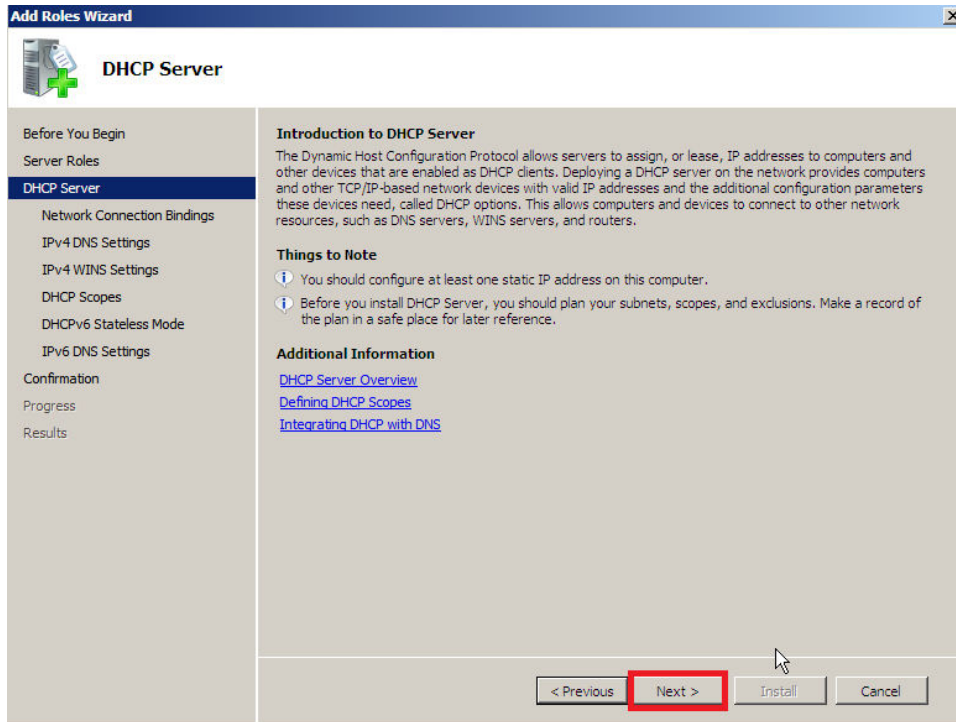


e. Tambahkan peran Server agar menjadi DHCP Server



f. Ikuti Wizard instalasi DHCP Server





Add Roles Wizard

Specify IPv4 DNS Server Settings

Before You Begin

Server Roles

DHCP Server

- Network Connection Bindings
- IPv4 DNS Settings
- IPv4 WINS Settings
- DHCP Scopes
- DHCPv6 Stateless Mode
- IPv6 DNS Settings

Confirmation

Progress

Results

When clients obtain an IP address from the DHCP server, they can be given DHCP options such as the IP addresses of DNS servers and the parent domain name. The settings you provide here will be applied to clients using IPv4.

Specify the name of the parent domain that clients will use for name resolution. This domain will be used for all scopes you create on this DHCP server.

Parent Domain:
jarkom.com

Specify the IP addresses of the DNS servers that clients will use for name resolution. These DNS servers will be used for all scopes you create on this DHCP server.

Preferred DNS Server IPv4 Address:
192.168.1.2

Alternate DNS Server IPv4 Address:

[More about DNS server settings](#)

< Previous **Next >** Install Cancel

Add Roles Wizard

Specify IPv4 WINS Server Settings

Before You Begin

Server Roles

DHCP Server

- Network Connection Bindings
- IPv4 DNS Settings
- IPv4 WINS Settings
- DHCP Scopes
- DHCPv6 Stateless Mode
- IPv6 DNS Settings

Confirmation

Progress

Results

When clients obtain an IP address from the DHCP server, they can be given DHCP options such as the IP addresses of WINS servers. The settings you provide here will be applied to clients using IPv4.

WINS is not required for applications on this network

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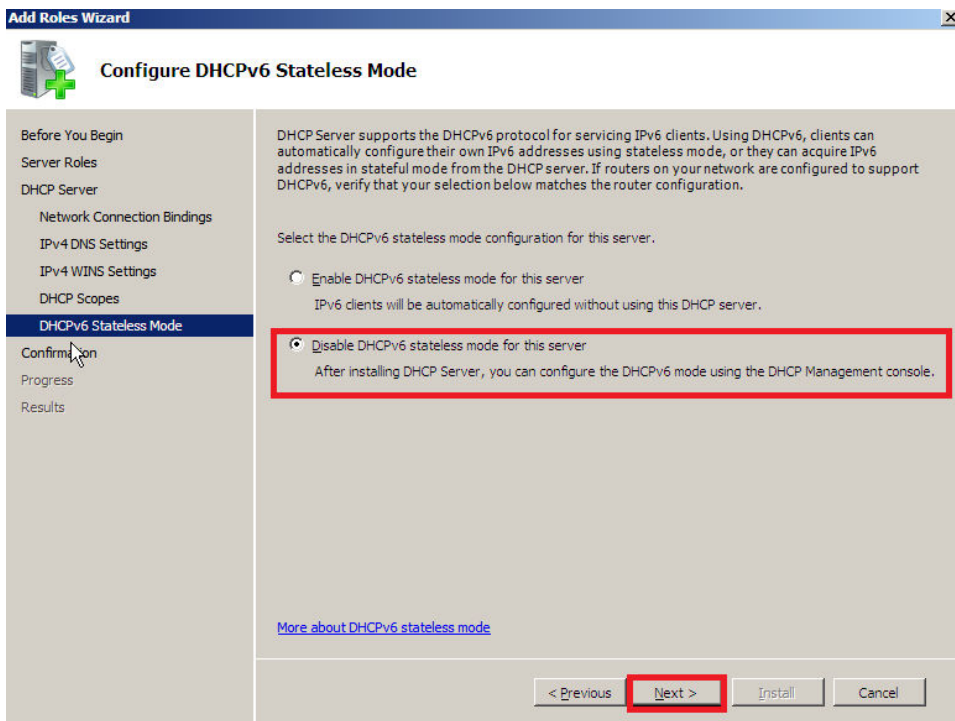
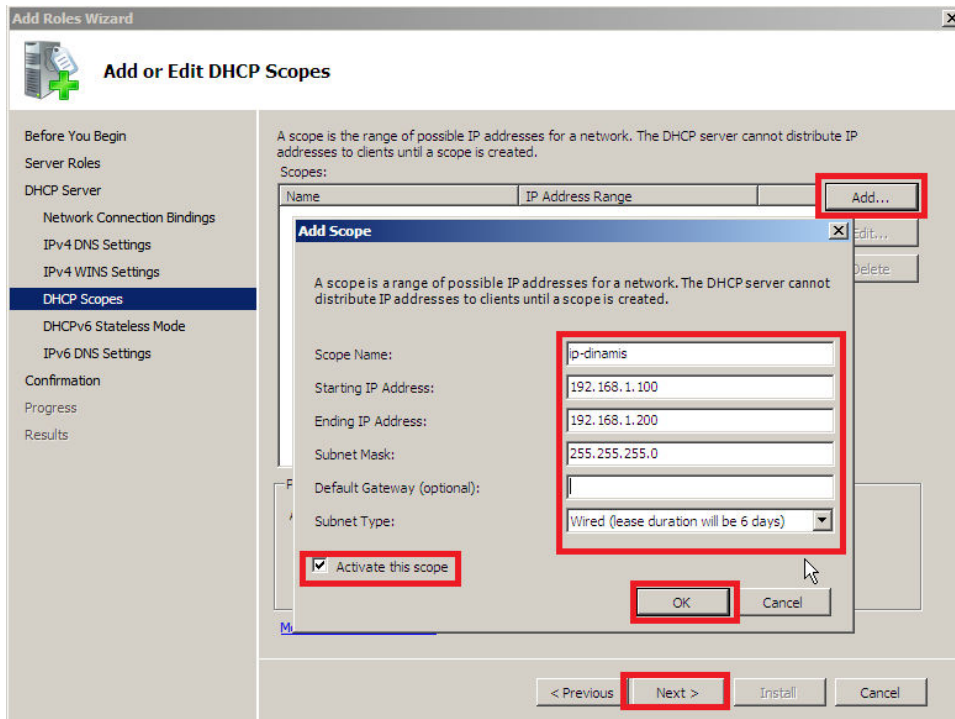
Specify the IP addresses of the WINS servers that clients will use for name resolution. These WINS servers will be used for all scopes you create on this DHCP server.

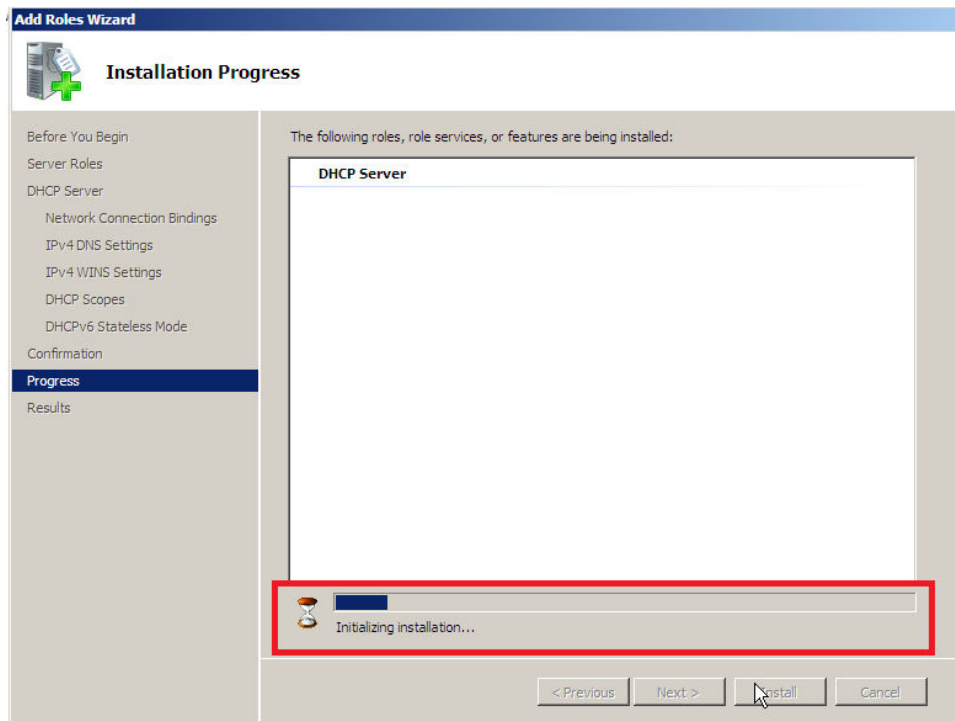
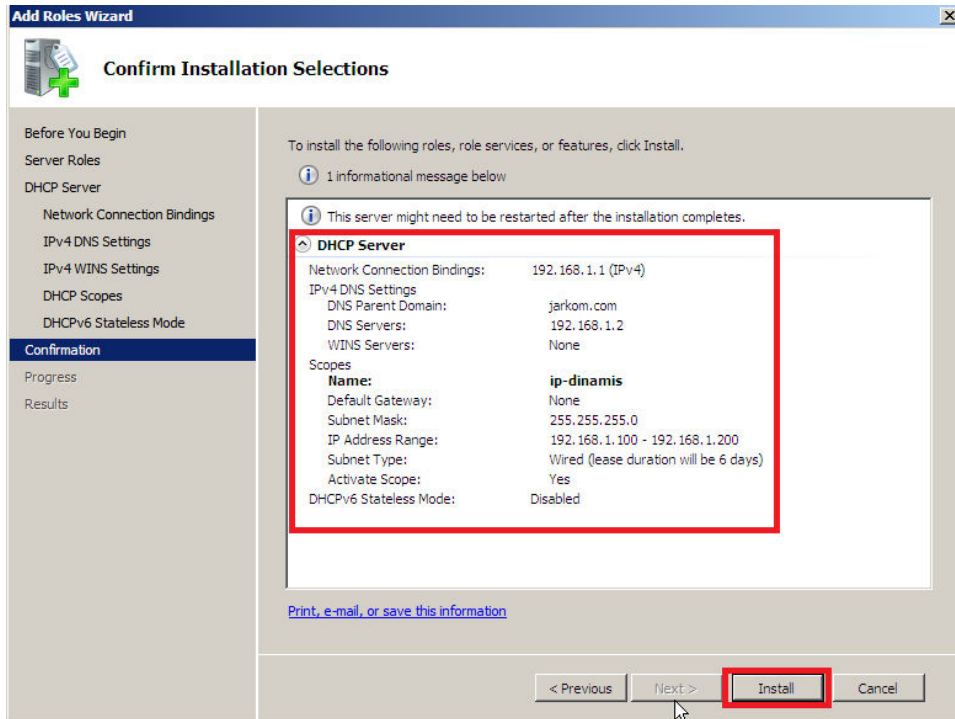
Preferred WINS Server IP Address:

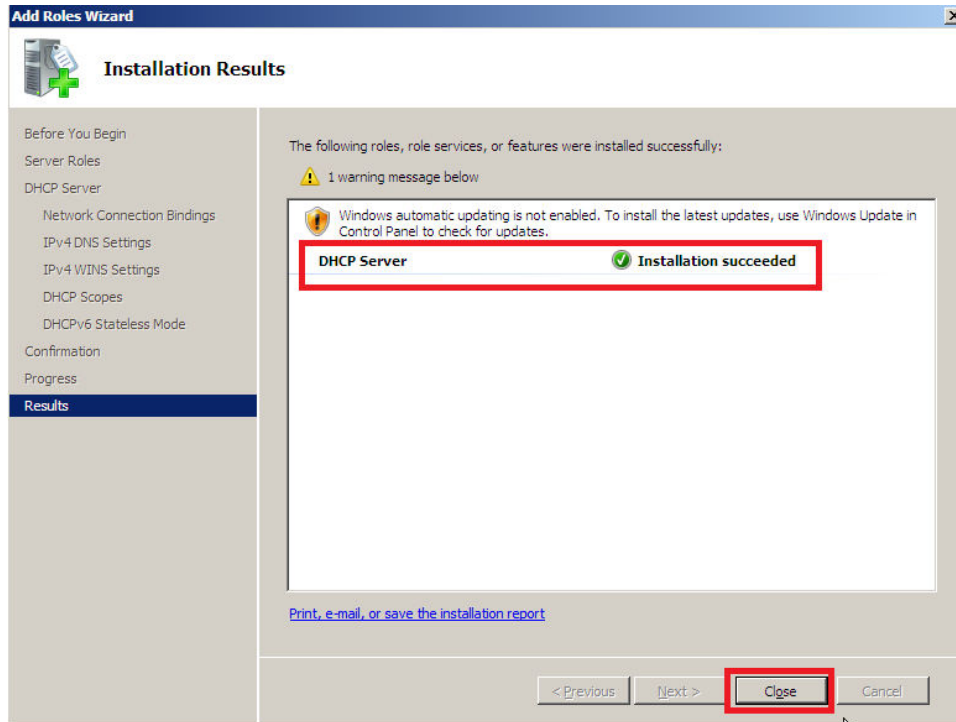
Alternate WINS Server IP Address:

[More about WINS server settings](#)

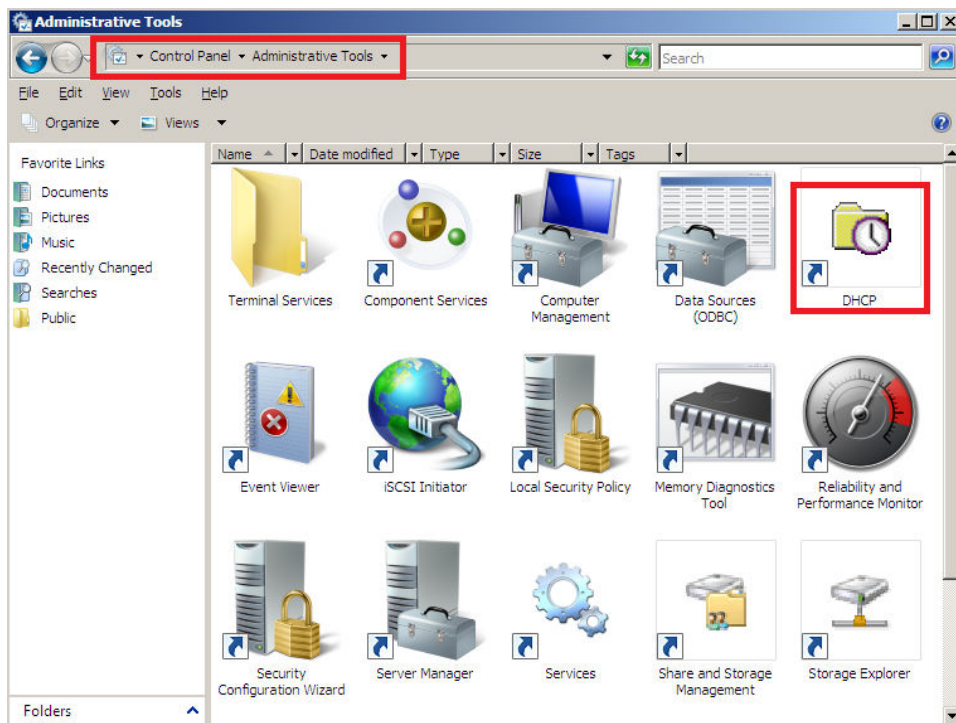
< Previous **Next >** Install Cancel

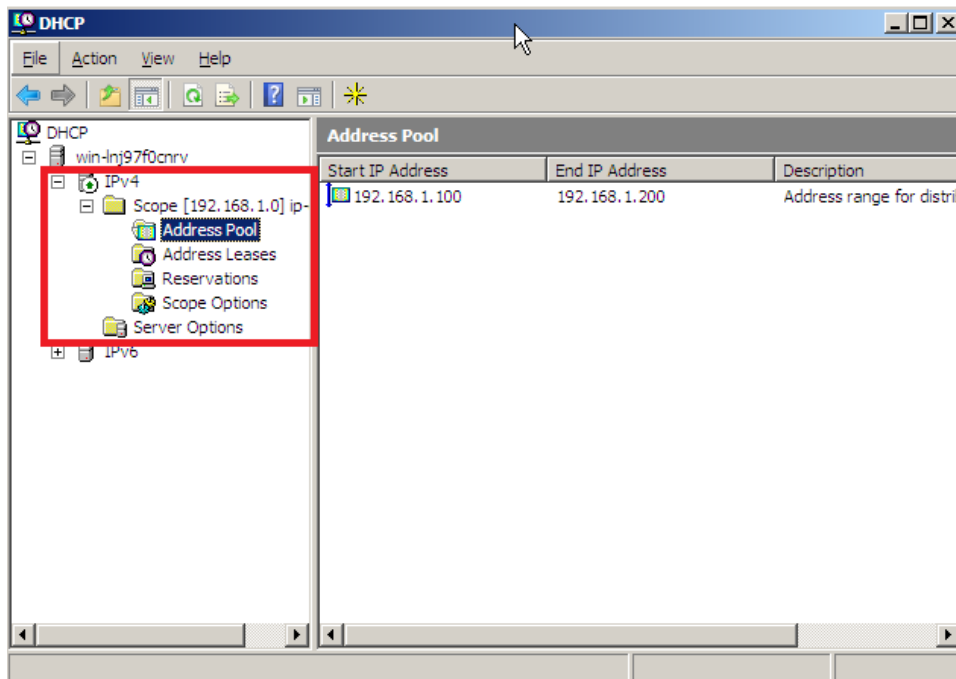




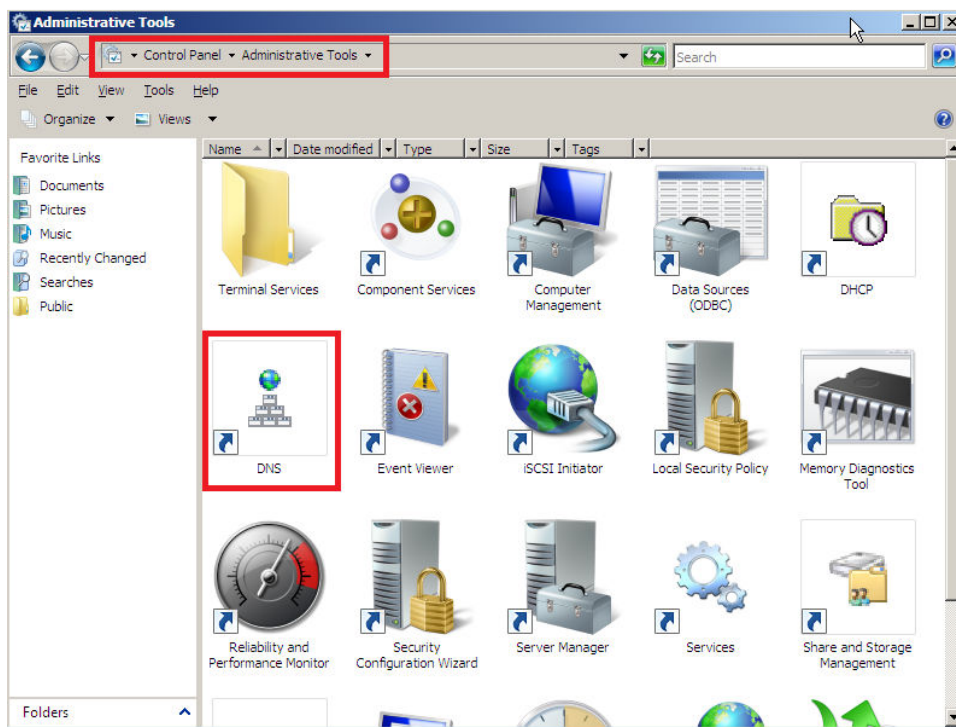


g. Pengaturan DHCP Server lebih lanjut dapat dilakukan melalui **Control Panel --- Administrative Tools --- DHCP**

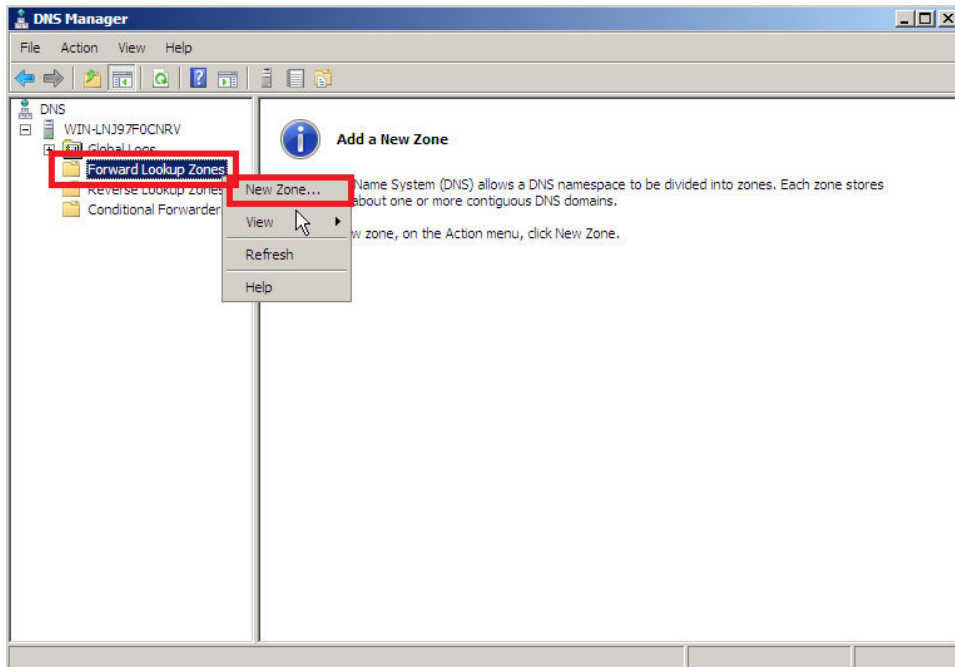




3. Melakukan instalasi dan konfigurasi DNS Server pada Windows Server 2008
 - a. Instalasi DNS Server melalui Server Manager (langkah detail sama dengan instalasi DHCP Server)
 - b. Pengaturan DHCP Server lebih lanjut dapat dilakukan melalui **Control Panel --- Administrative Tools --- DNS**

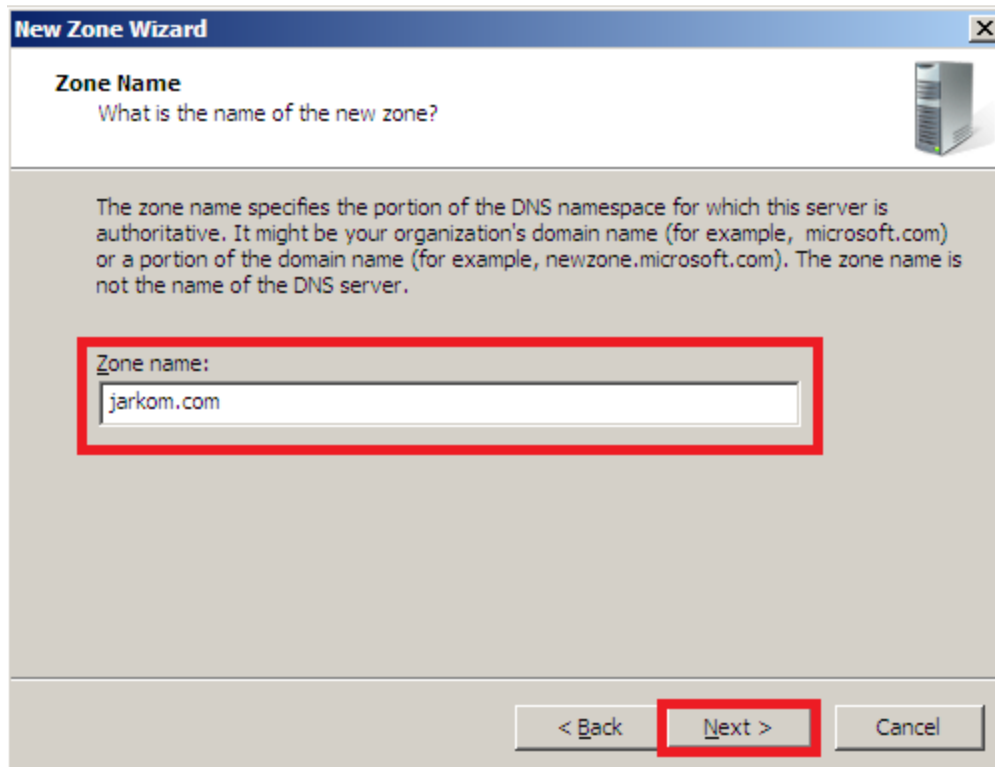
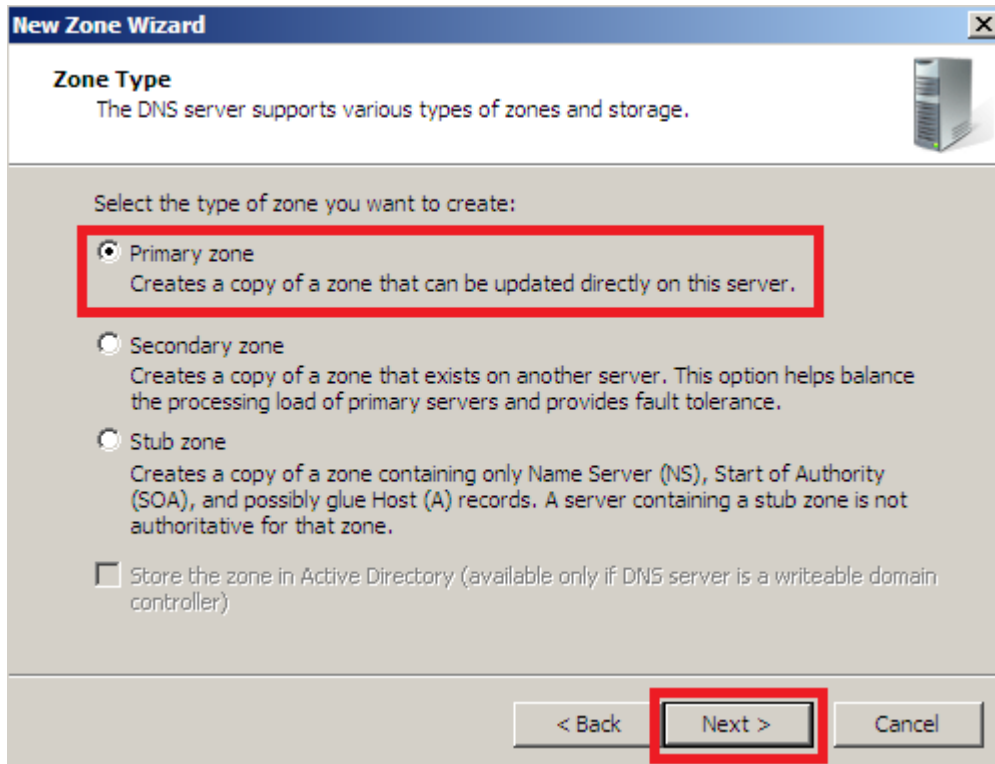


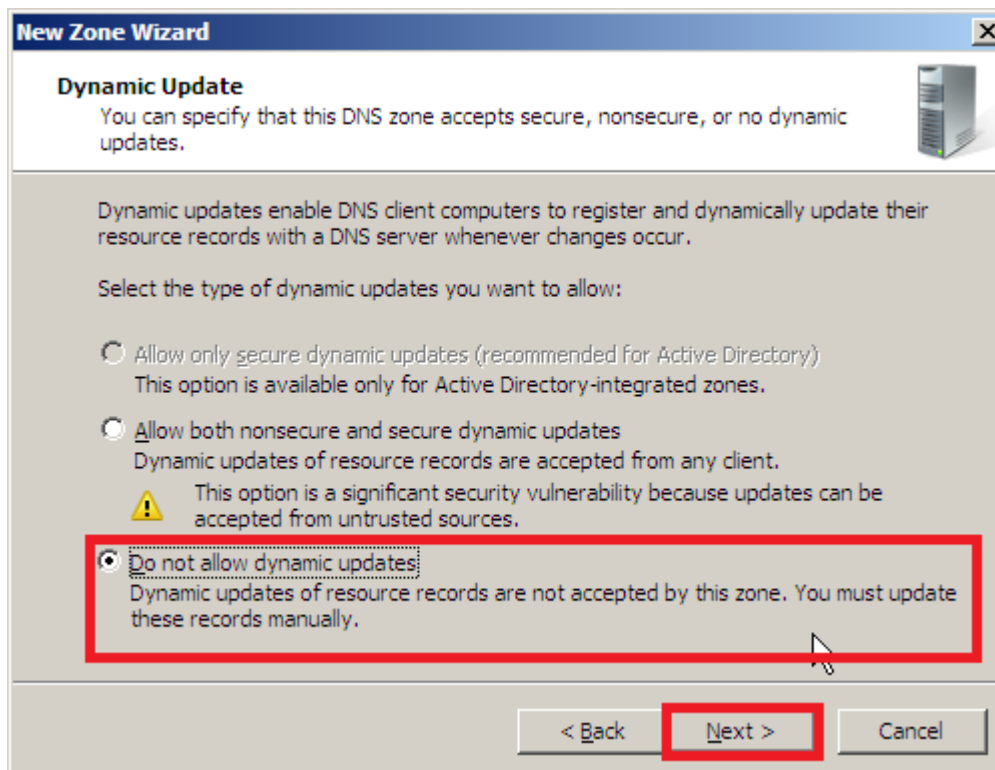
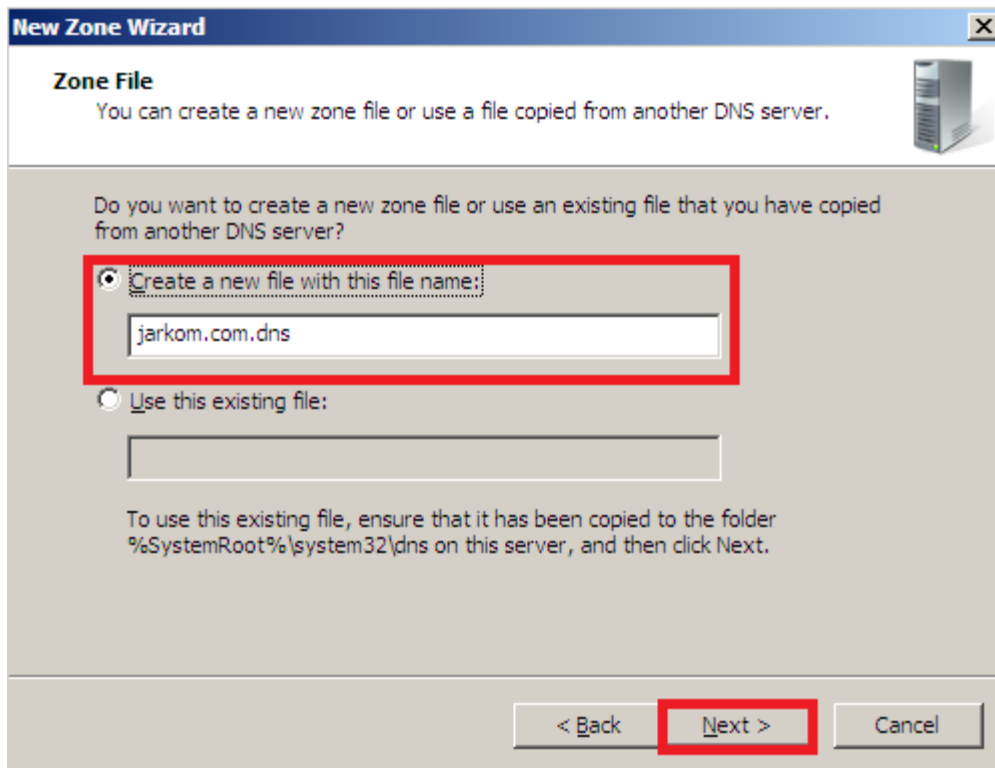
c. Buat Zone baru melalui **Forward Lookup Zones** --- **New Zone ...**

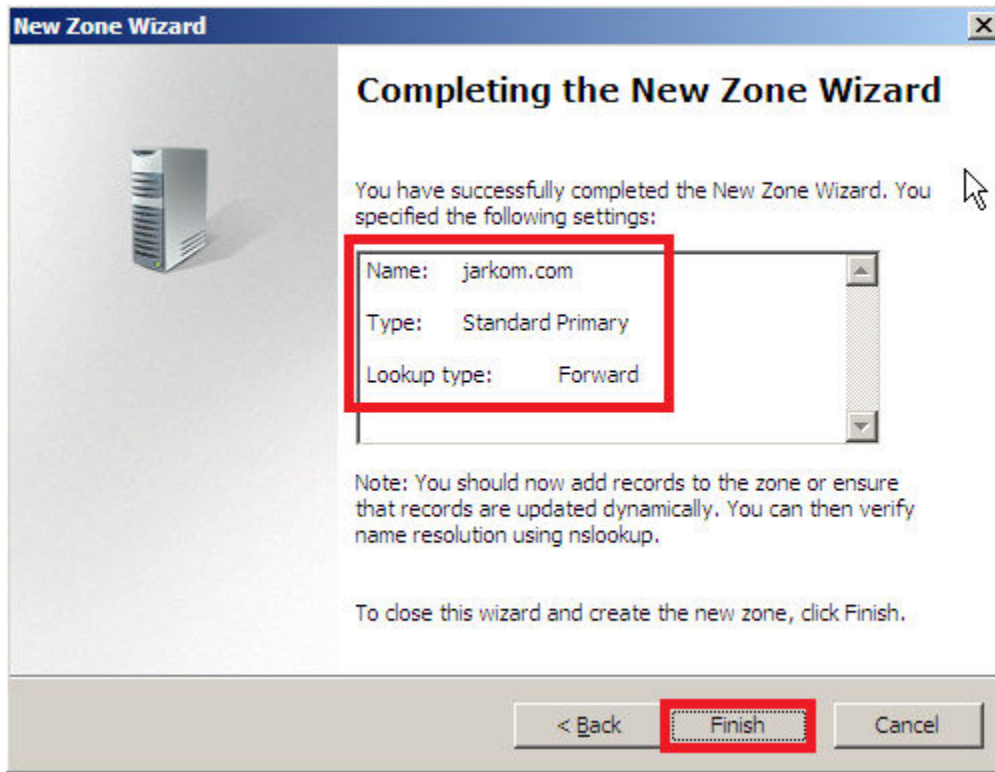


d. Ikuti New Zone Wizard

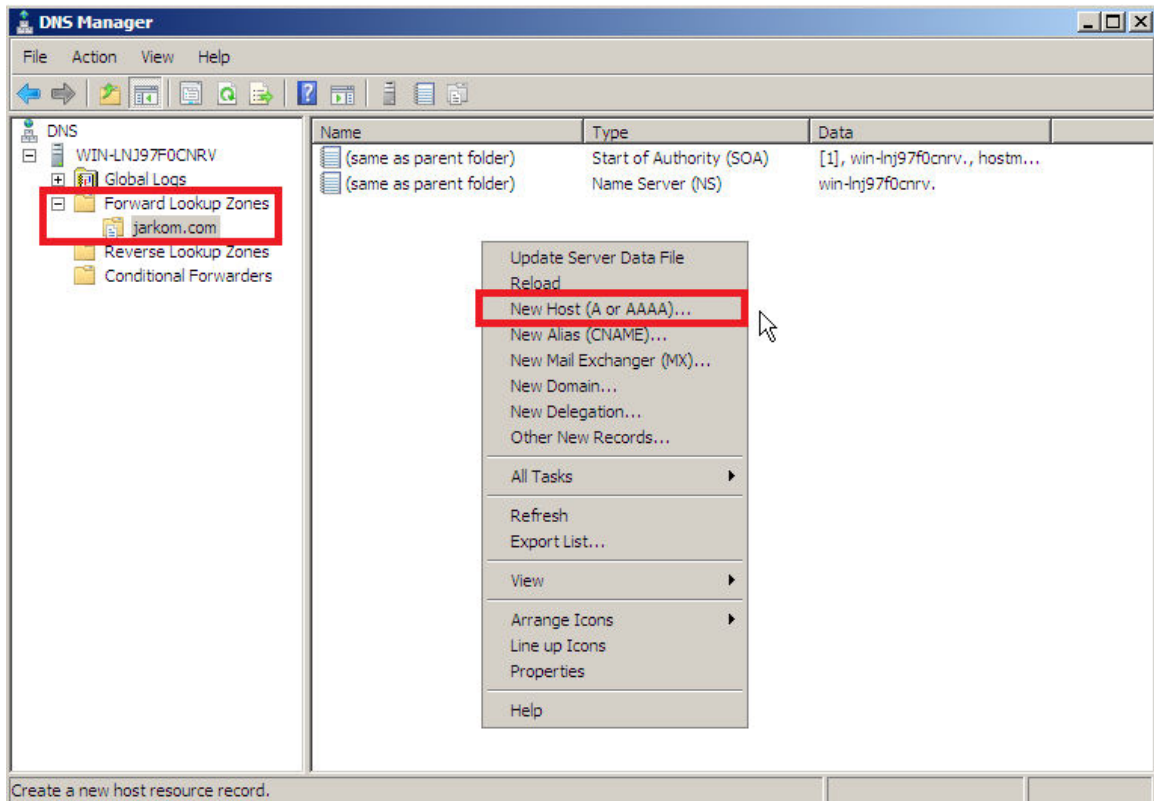


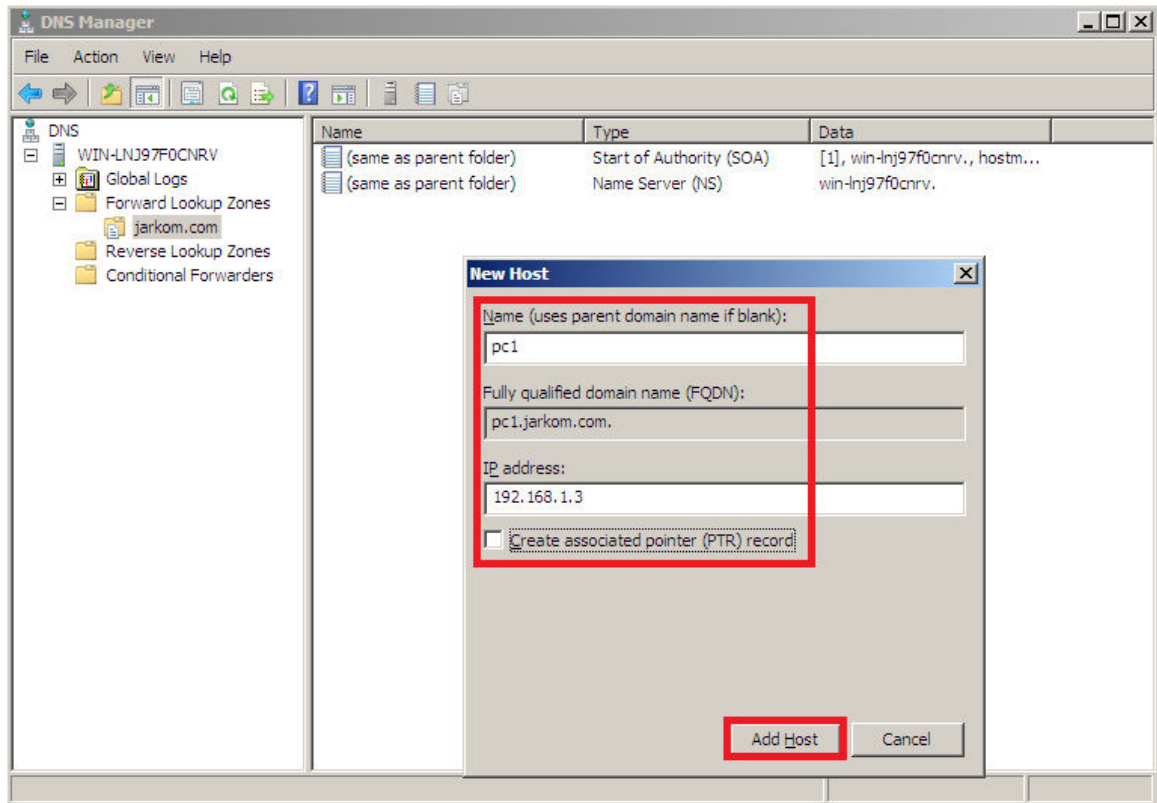






e. Tambahkan Host Baru (A) dengan menu (klik kanan) pada layar Zone yang baru dibuat





f. Uji penambahan Host Baru dengan perintah **nslookup** ataupun **ping**

