Upgrade Domain Controller
From Windows Server 2003 to Windows Server 2016
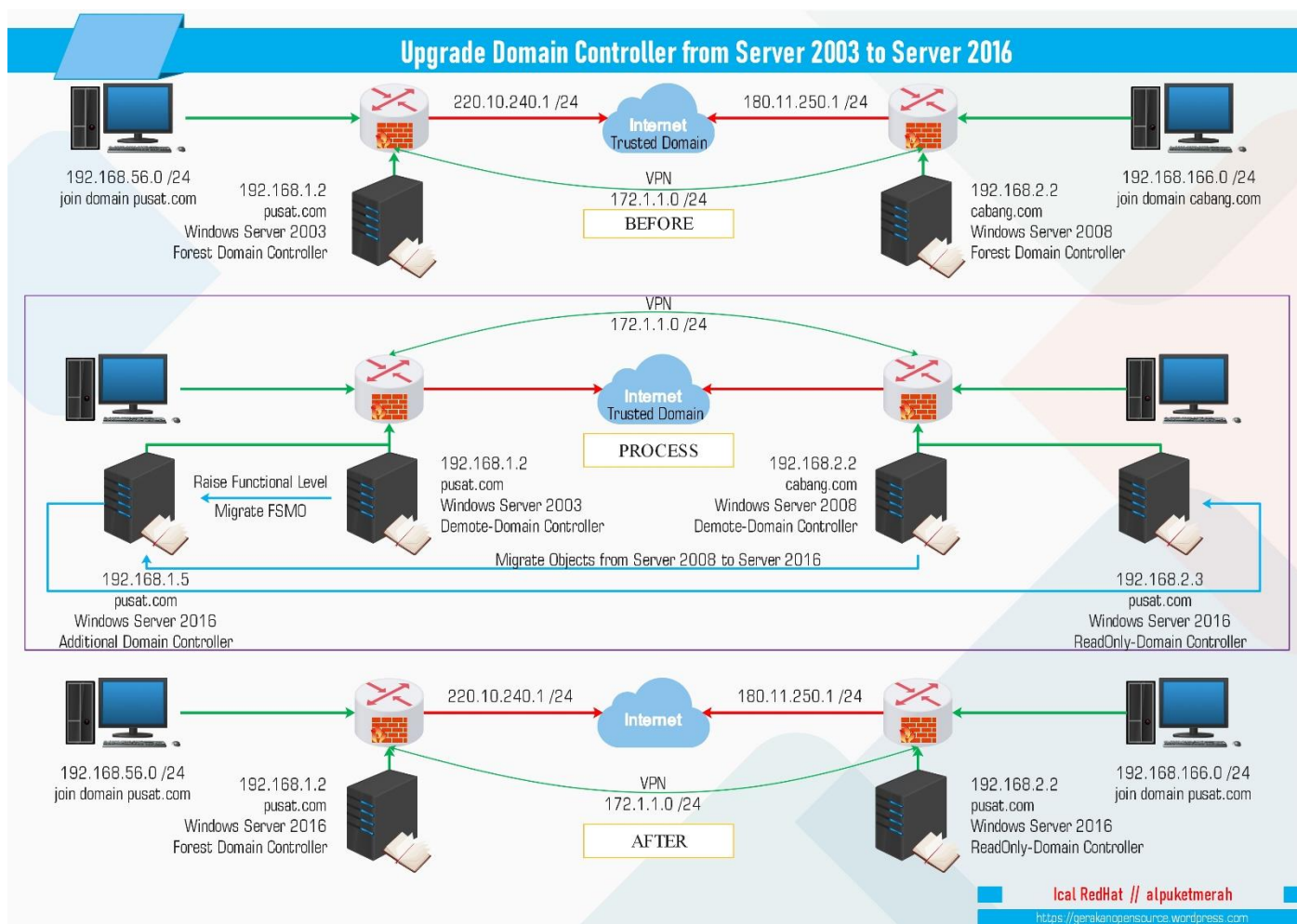
Author: ical redhat // alpuketmerah
https://gerakanopensource.wordpress.com

Spesifikasi & Requirement

- MikroTik RouterOS - PUSAT.COM
  IP inet: 220.10.240.1 /24, IP lan: 192.168.56.1 /24, IP server: 192.168.1.1 /24, IP pptp: 172.1.1.1 /24
- MikroTik RouterOS - CABANG.COM
  IP inet: 180.11.250.1 /24, IP lan: 192.168.166.1 /24, IP server: 192.168.2.1 /24, IP pptp: 172.1.1.2 /24
- Windows Server 2003 - PUSAT.COM
  IP: 192.168.1.2, domain: pusat.com, Global Cataloge, Trusted Domain
- Windows Server 2008 R2 - CABANG.COM
  IP: 192.168.2.2, domain: cabang.com, Global Cataloge, Trusted Domain, ADMT Password
- Windows Server 2016 PUSAT.COM
  IP: 192.168.1.3, join domain: pusat.com, Additional Domain Controller, Migrate FSMO, Net Framework 2.0, SQLexpress2005, ADMT
- Windows Server 2016 PUSAT.COM
  IP: 192.168.2.3, join domain: pusat.com, ReadOnly Domain Controller

{1}_ Setting IP Address MikroTik pusat.com

IP address internet: 220.10.240.1/24 , IP address lan: 192.168.56.88/24, IP address server: 192.168.1.1/24, Setting DNS: 192.168.1.2 (ip server pusat.com), 192.168.2.2 (ip server cabang.com).

{2}_ Setting PPTP Server MikroTik pusat.com

Enable pptp server, edit profile default-encryption, local address: 172.1.1.1, remote address: 172.1.1.2, dns server 192.168.1.2, create user: 1 password: 1, add pptp server binding, name: vpn, user: 1

{3}_ Setting Routing MikroTik pusat.com

Dst.address: 0.0.0.0/0 gateway: 220.10.240.10, Dst.address: 192.168.2.0/24 gateway: vpn, Dst.address: 192.168.166.0/24 gateway: vpn

{4}_ Setting Firewall MikroTik pusat.com

Allow port:

Tcp/udp: 53 (dns) , Tcp/udp: 88 (kerberos) , Tcp/udp: 389 (ldap) , Tcp: 135 (rpc endpoint) , Tcp: 139 (netbios) , Tcp: 445 (smb) , tcp: 464 (kerberos) , tcp: 636 (ldaps) , tcp: 3268 (ldap) , tcp: 3289 (ldaps).

{5}_ Setting IP Address MikroTik cabang.com

IP address internet: 180.11.250.1/24 , IP address lan: 192.168.166.88/24, IP address server: 192.168.2.1/24, Setting DNS: 192.168.1.2 (ip server pusat.com), 192.168.2.2 (ip server cabang.com).

{6}_ Setting PPTP Client MikroTik cabang.com

Add pptp client, connect to: 220.10.240.1, create user: 1 password: 1,

{7}_ Setting Routing Static MikroTik cabang.com

Dst.address: 0.0.0.0/0 gateway: 180.11.250.11, Dst.address: 192.168.1.0/24 gateway: vpn, Dst.address: 192.168.56.0/24 gateway: vpn

{8}_ Setting Firewal MikroTik cabang.com

Allow port:

Tcp/udp: 53 (dns) , Tcp/udp: 88 (kerberos) , Tcp/udp: 389 (ldap) , Tcp: 135 (rpc endpoint) , Tcp: 139 (netbios) , Tcp: 445 (smb) , tcp: 464 (kerberos) , tcp: 636 (ldaps) , tcp: 3268 (ldap) , tcp: 3289 (ldaps).

{9}_ Install Active Directory Windows Server 2003 pusat.com

Setting ip address: 192.168.1.2 , gateway: 192.168.1.1 , primary dns: 192.168.1.2 , secondary dns: 192.168.1.1 . Computer name: ad2003 . Install active directory dengan nama domain pusat.com

{10}_ Install Active Directory Windows Server 2008 cabang.com

Setting ip address: 192.168.2.2 , gateway: 192.168.2.1 , primary dns: 192.168.1.2 , secondary dns: 192.168.1.1 . Computer name: ad2008 . Install active directory dengan nama domain cabang.com

{11}_ Trusted Domain Windows Server 2003 pusat.com

Buka Active Directory Domain and Trust, Properties, Trusts
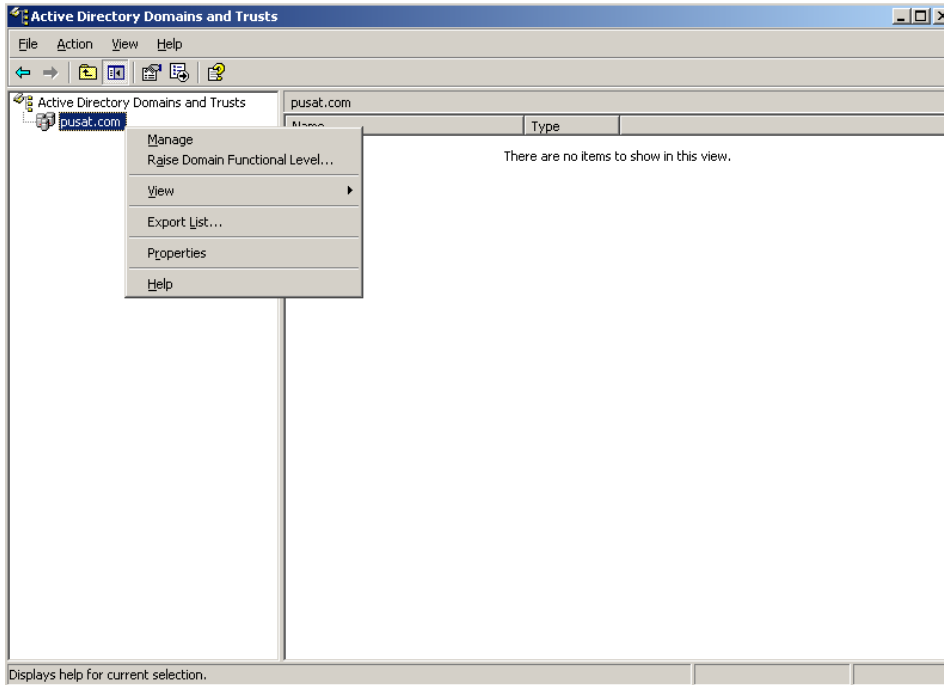
New Trust…
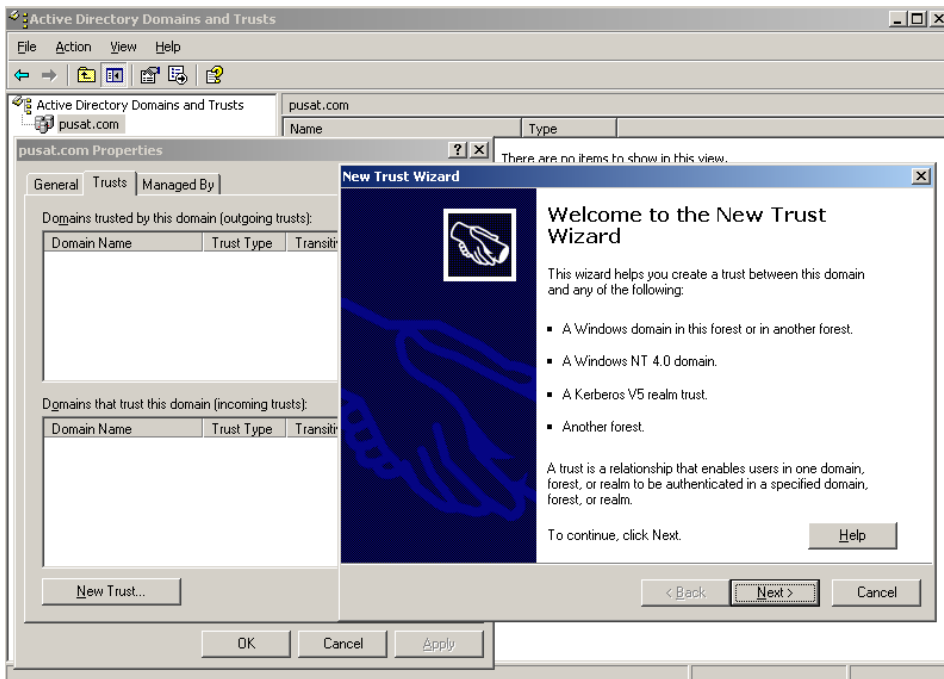
Trust name: cabang.com (domain windows server 2008)
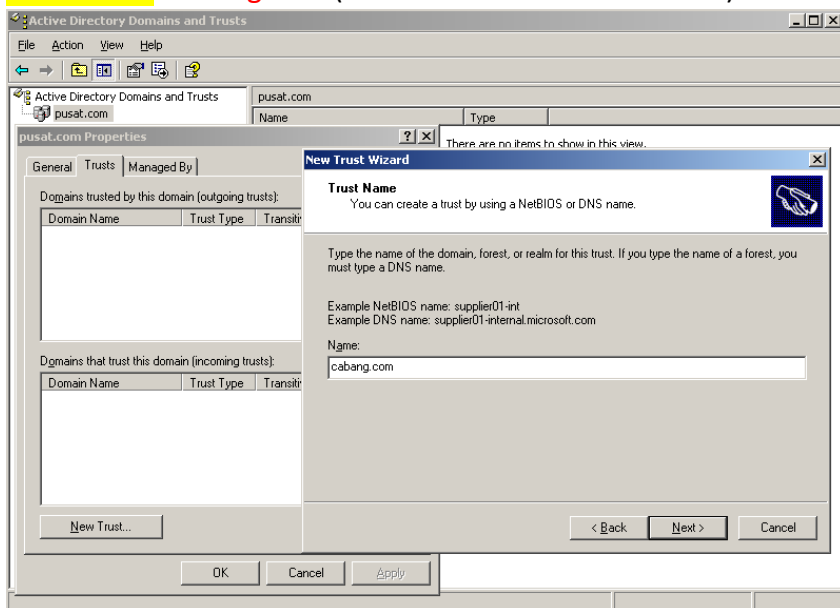
Trust Type: Forest trust
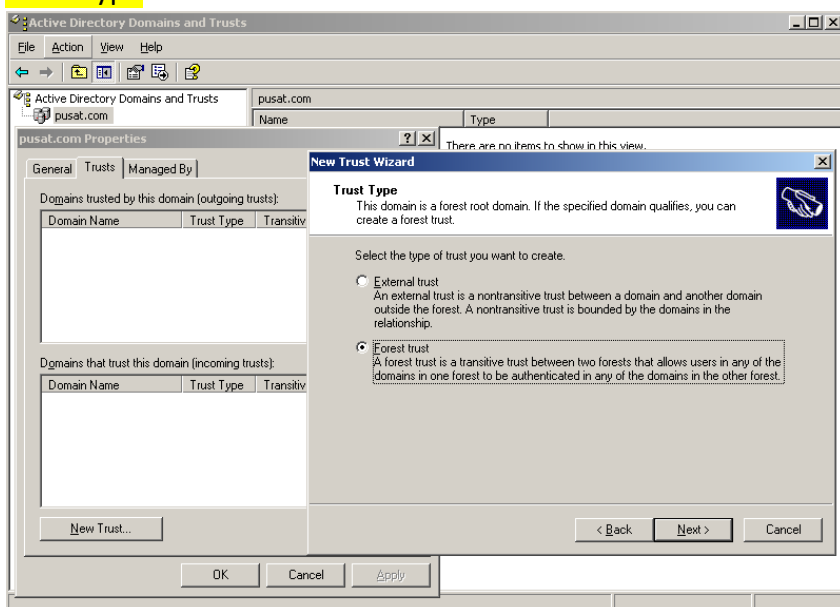
Direction of Trust: Two-way
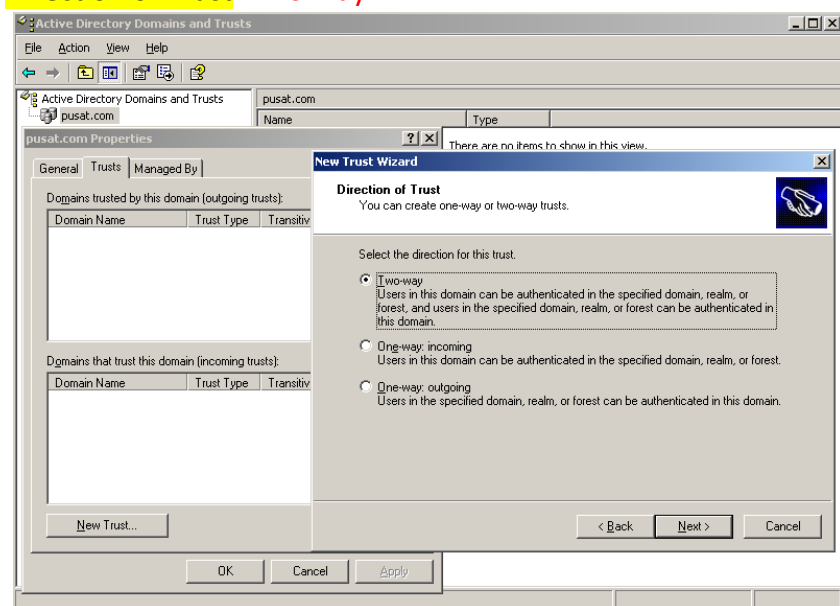
Sides of Trust: Both this domain and the specified domain,
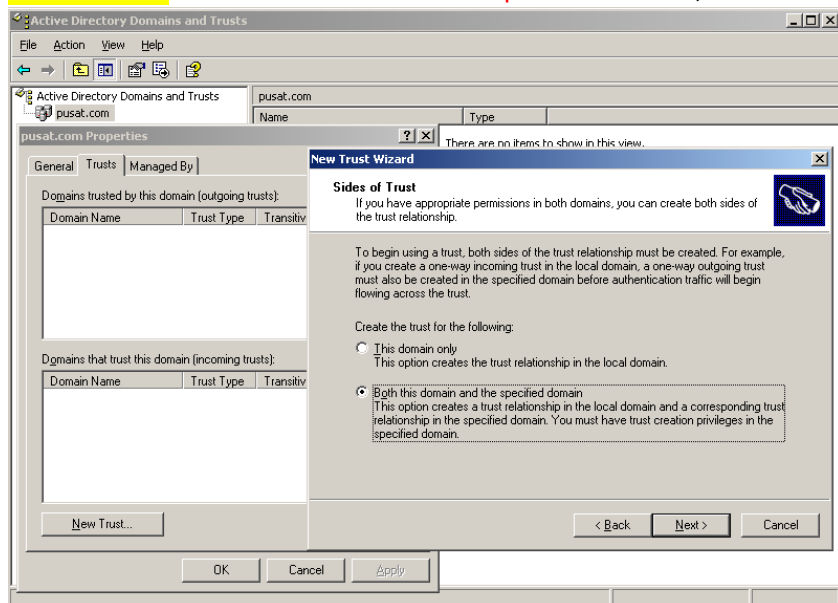
User Name and Password: admincabang (user ad yang ada di cabang.com)
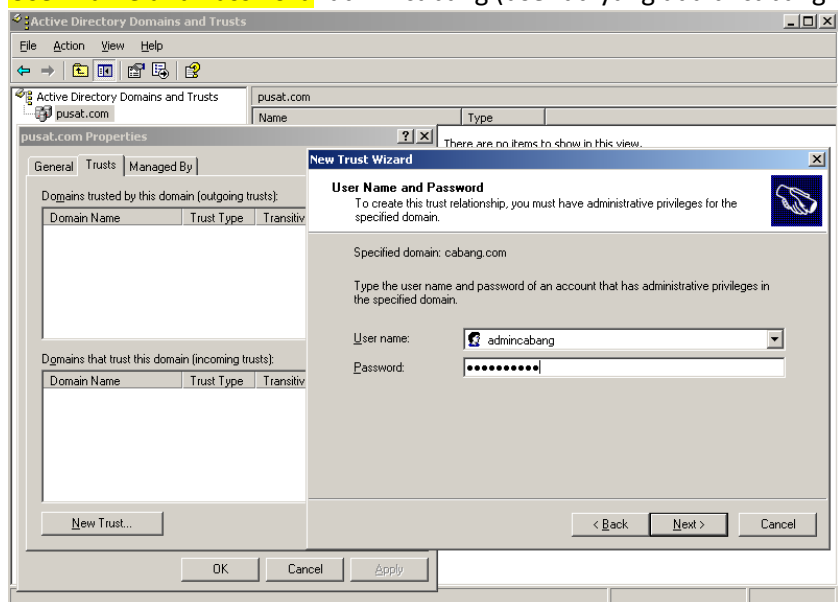
Outgoing Trust Authentication Level-Level Forest: Forest-wide authentication
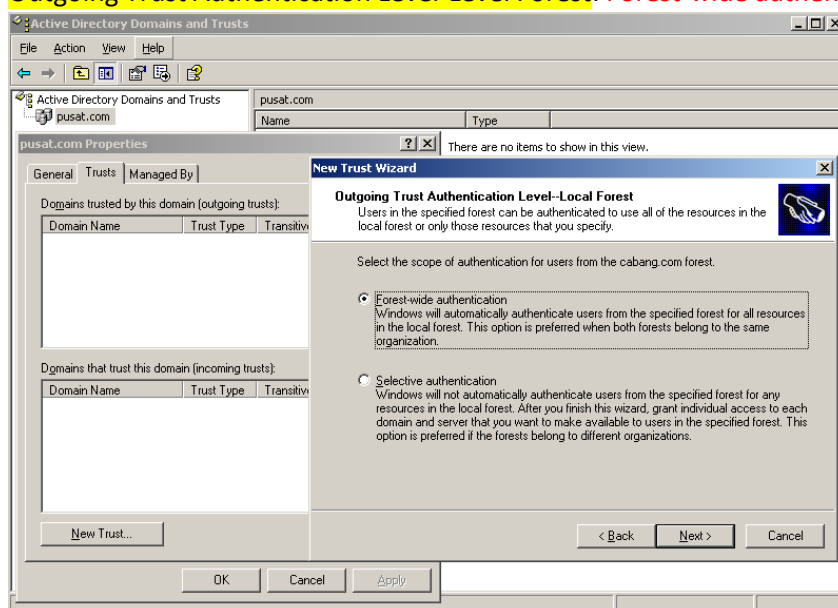
Outgoing Trust Authentication Level-Specified Forest: Forest-wide authentication
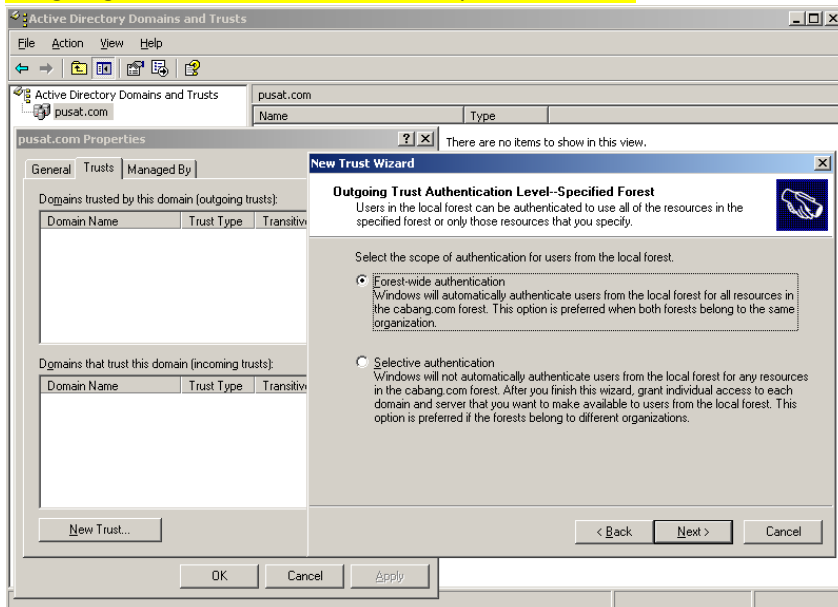
Trust Selection Complete
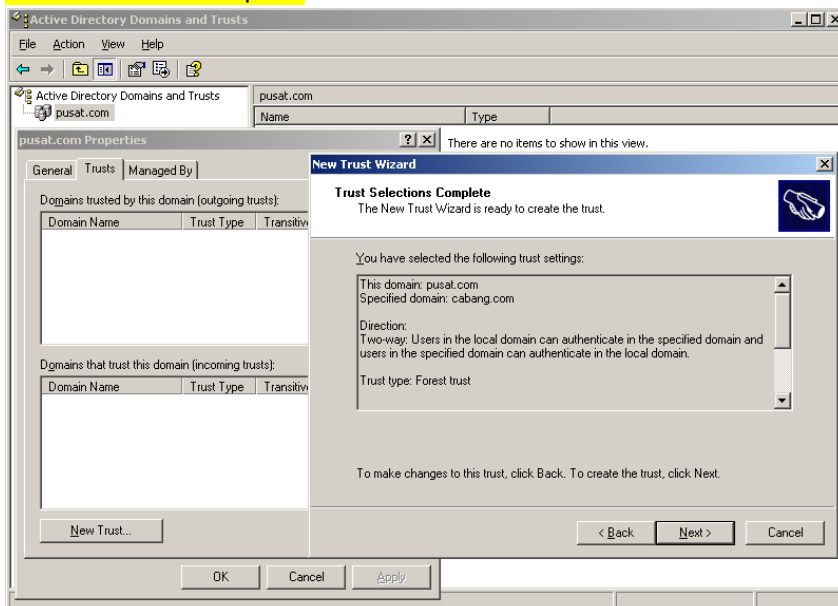
Trust Creation Complete
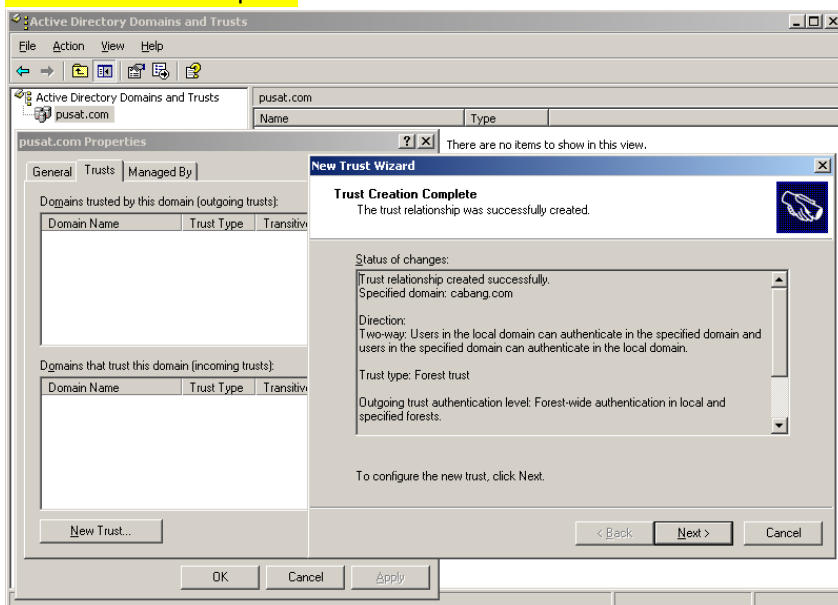
Confirm Outgoing Trust: Yes, confirm the outgoing trust
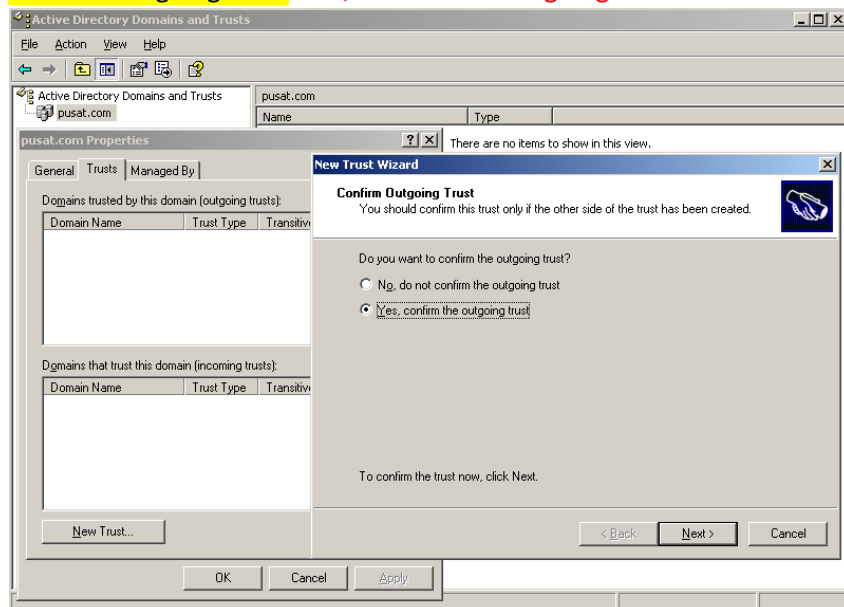
Confirm Incoming Trust: Yes, confirm the incoming trust
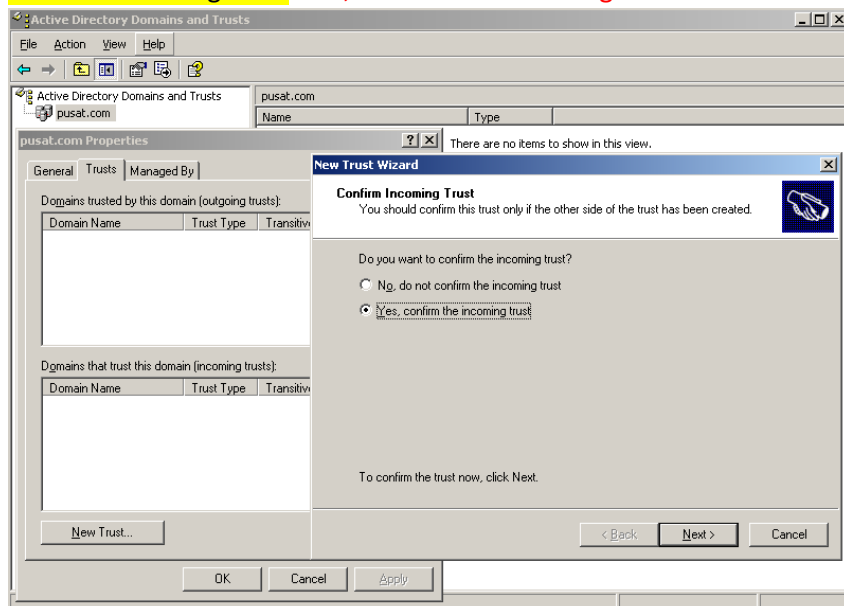
Completing the New Trust Wizard: Finish
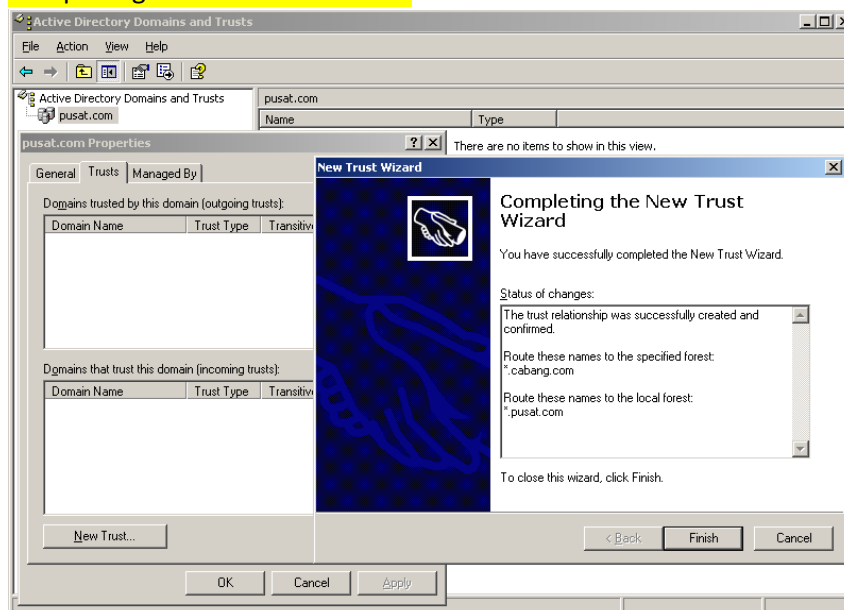
Akan terlihat, outgoing trust: cabang.com – forest – yes , incoming trust: cabang.com – forest – yes
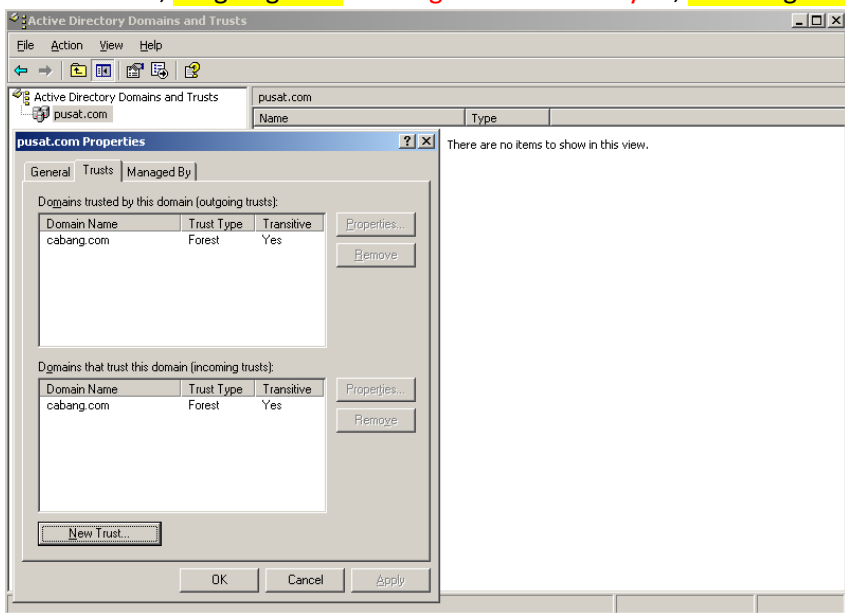
{12}_ Join domain ke server pusat.com

Hostname: win7pusat , ip address: 192.168.56.254 (dhcp) , gateway: 192.168.56.1 , dns: 192.168.1.2 ; 192.168.2.2 , join domain: pusat.com , masukan username dan password user active directory yang ada pada server pusat.com (windows server 2003).
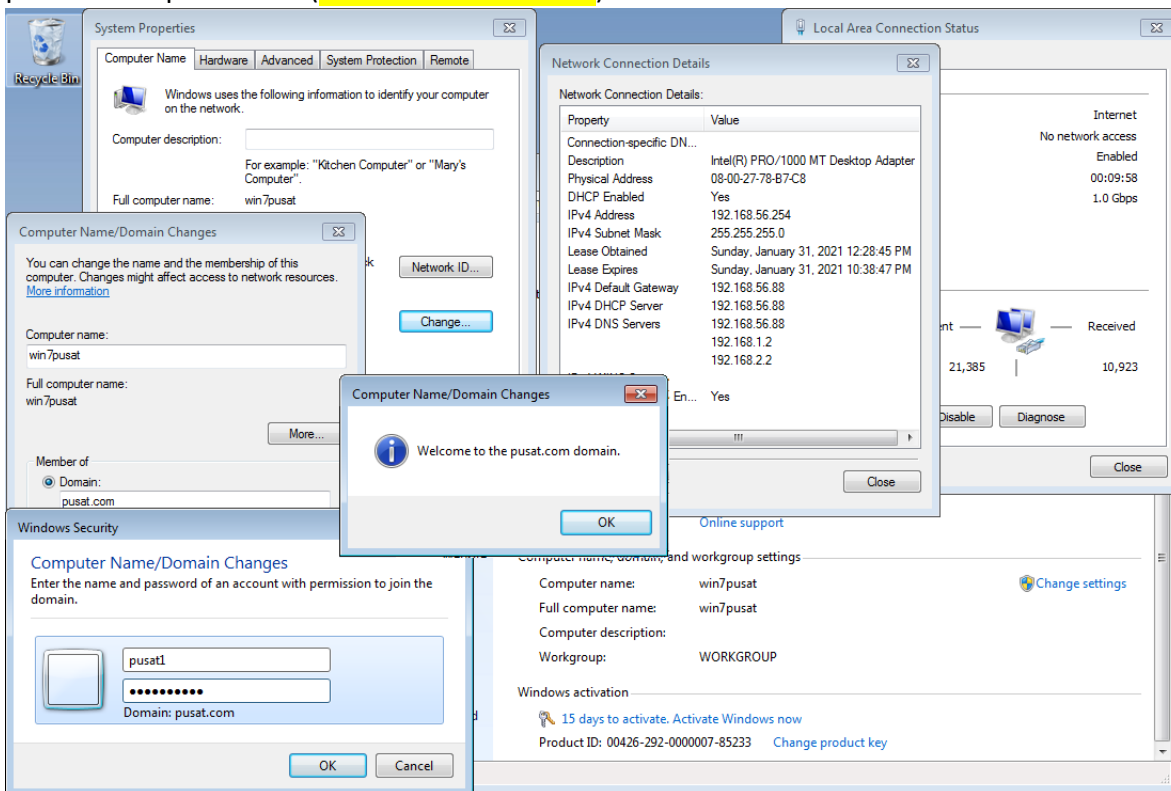
Tes login user active directory yang ada pada windows server 2008 (cabang.com) di komputer win7pusat
User PUSAT\pusat1 dan CABANG\cabang1 berhasil login di komputer win7pusat

{13}_ Join domain ke server cabang.com
Hostname: win7cabang , ip address: 192.168.166.254 (dhcp) , gateway: 192.168.166.1 , dns: 192.168.2.2
; 192.168.1.2 , join domain: cabang.com , masukan username dan password user active directory yang
ada pada server cabang.com (windows server 2008).
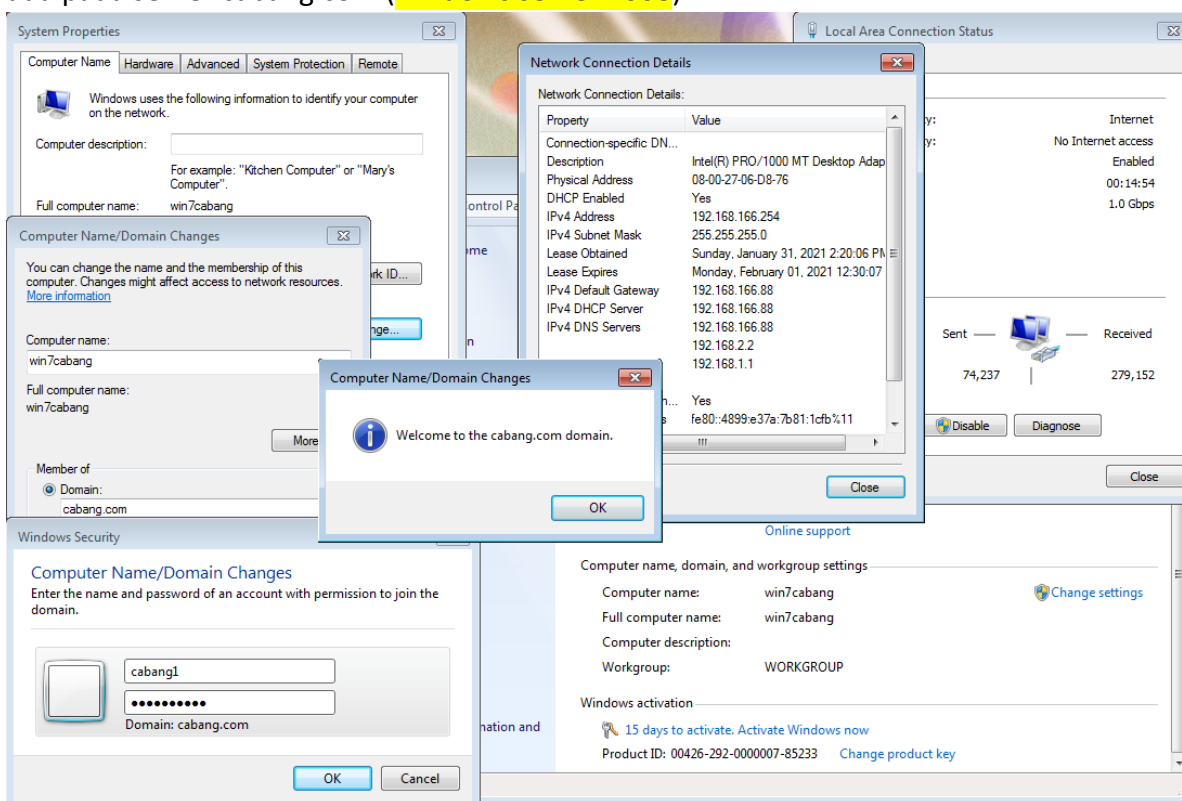
Tes login user active directory yang ada pada windows server 2003 (pusat.com) di komputer win7cabang
User CABANG\cabang1 dan PUSAT\pusat1 berhasil login di komputer win7cabang
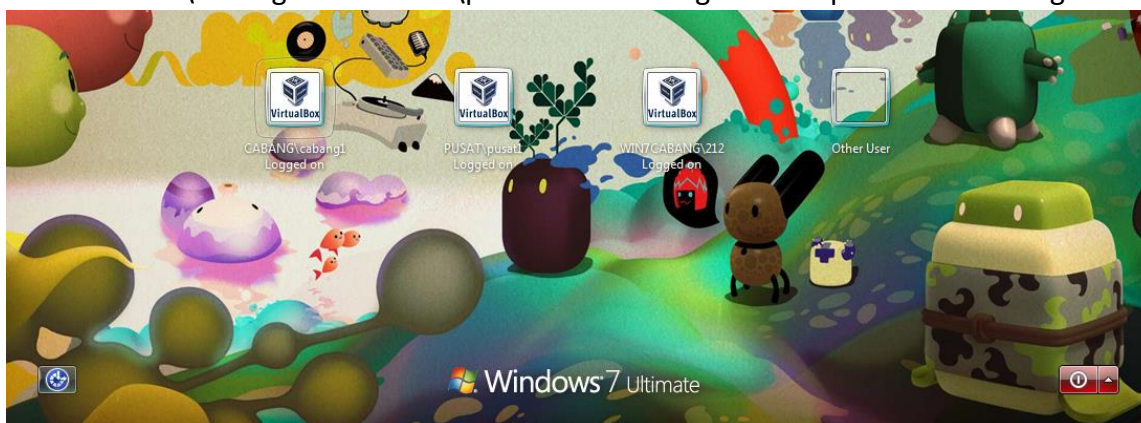
{14}_ Windows server 2016 join domain pusat.com

Hostname: ad2016, ip address: 192.168.1.5, gateway: 192.168.1.1, dns: 192.168.1.2 ; 192.168.1.1, join domain pusat.com.
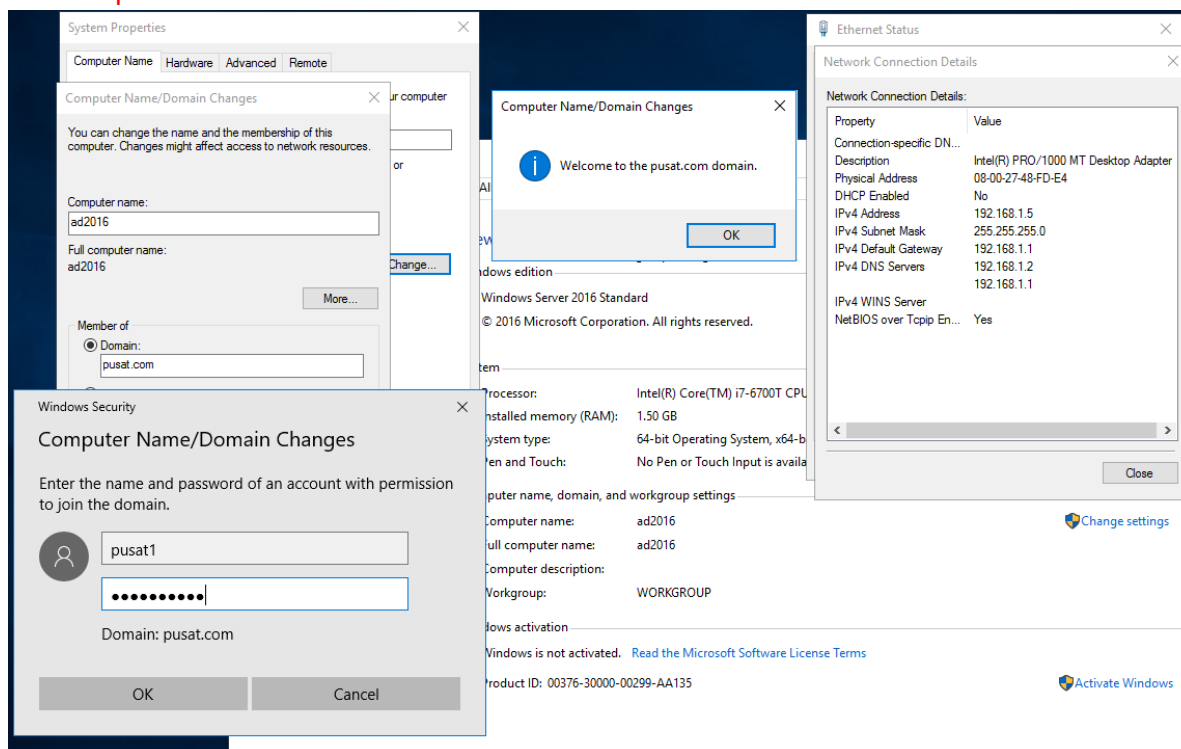
{15}_ Install Active Directory Windows Server 2016

Server Manager, Add Roles and Features
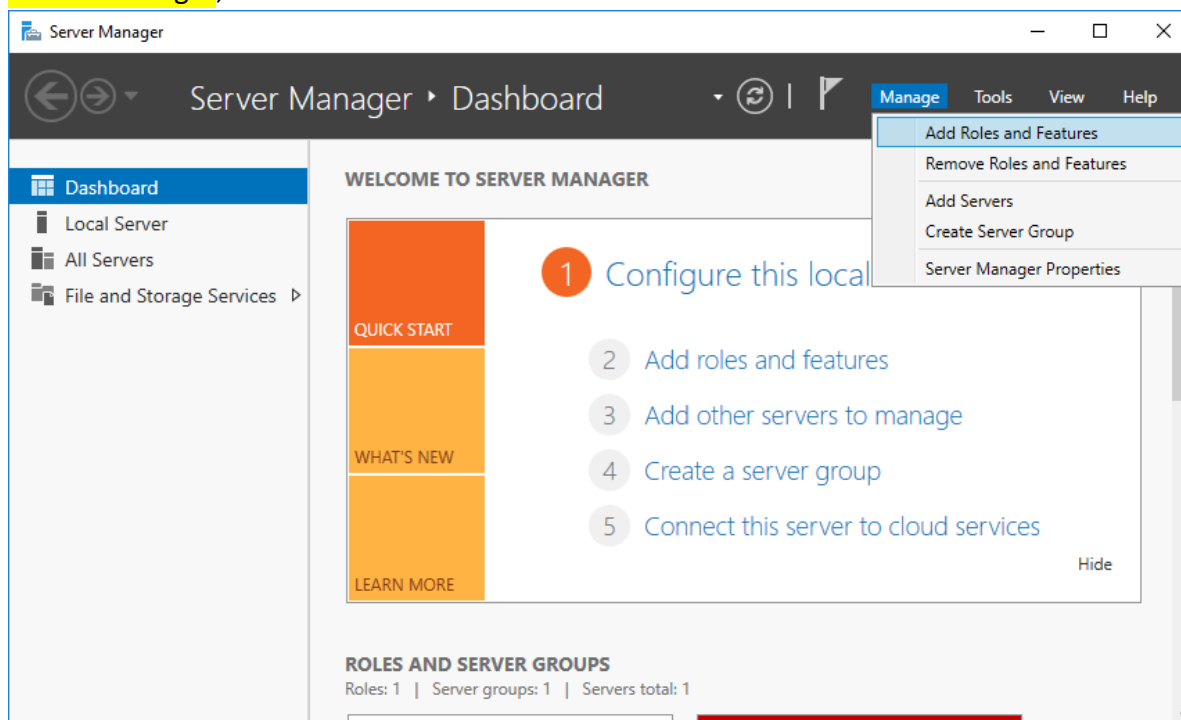
Installation type: Role-based or feature-based installation
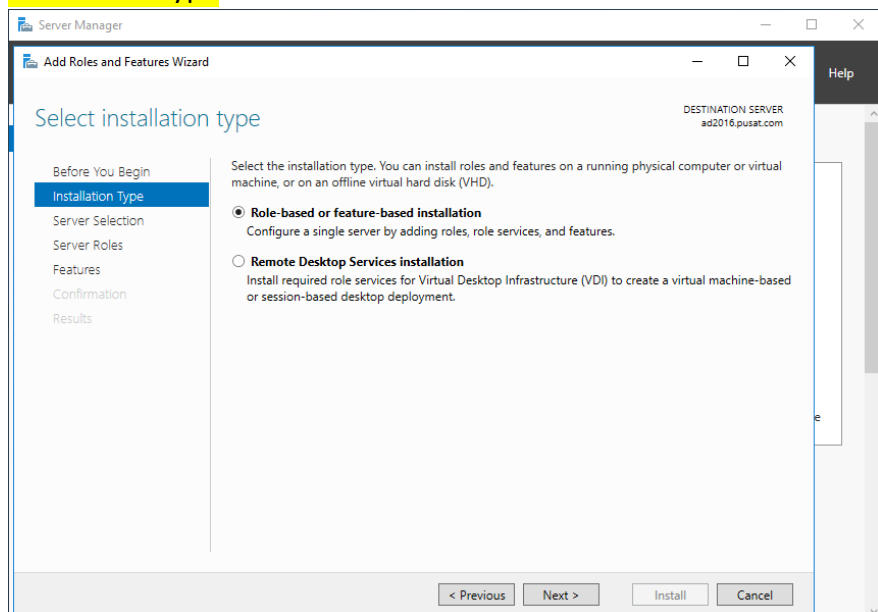
Server Selection: Select a server from the server pool , ad2016.pusat.com
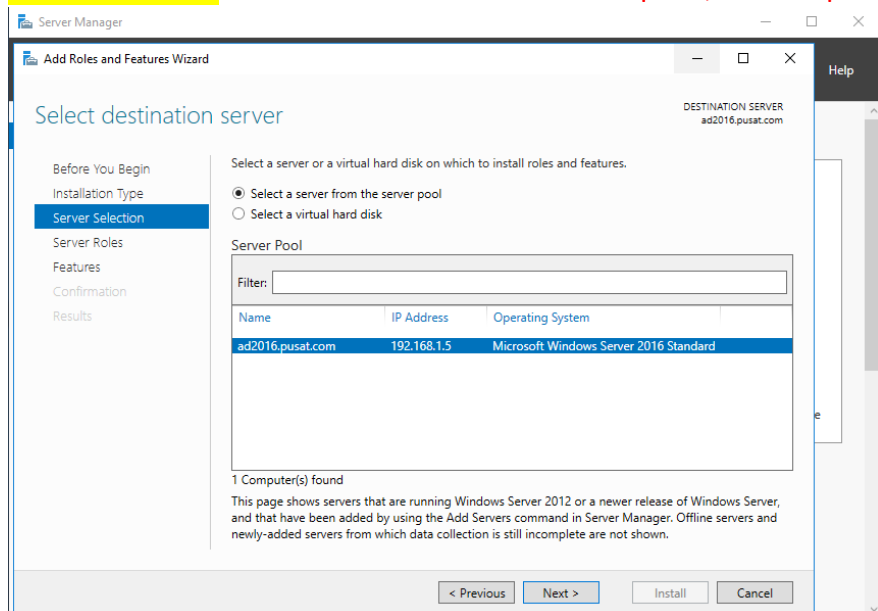
Server Role: Active Directory Domain Services
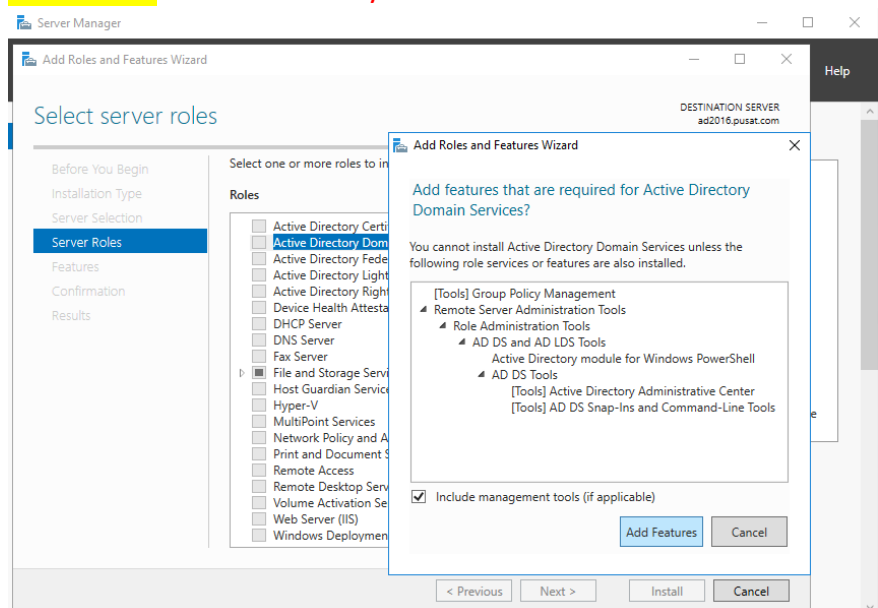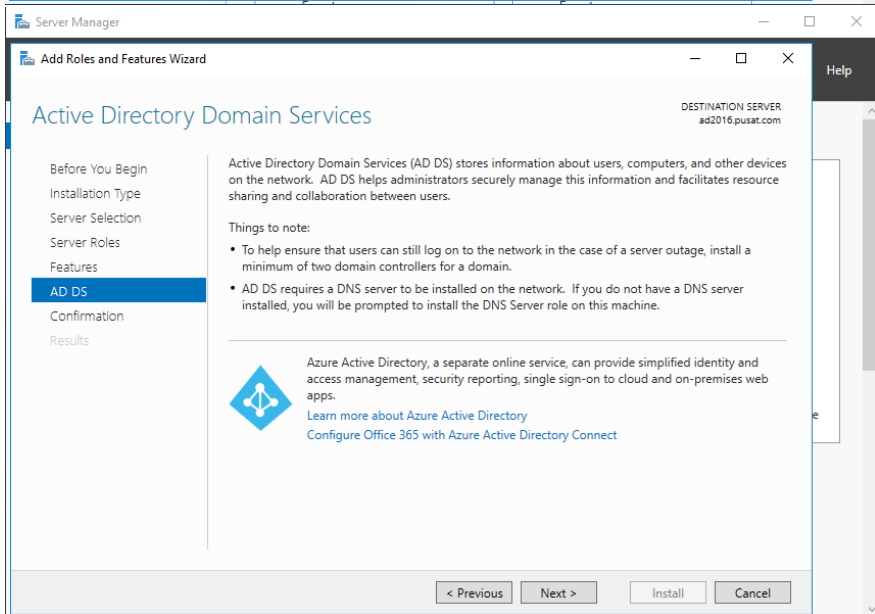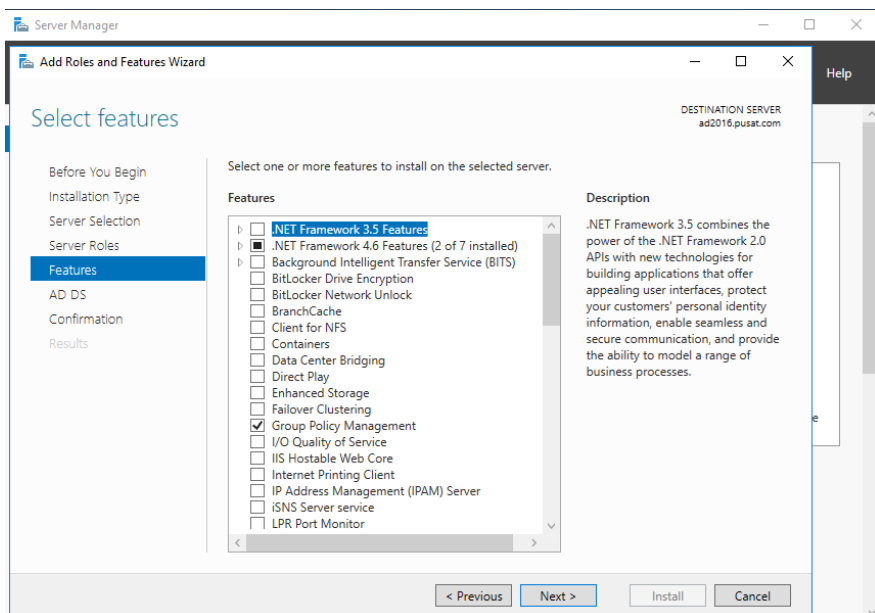
Confirmation: Install
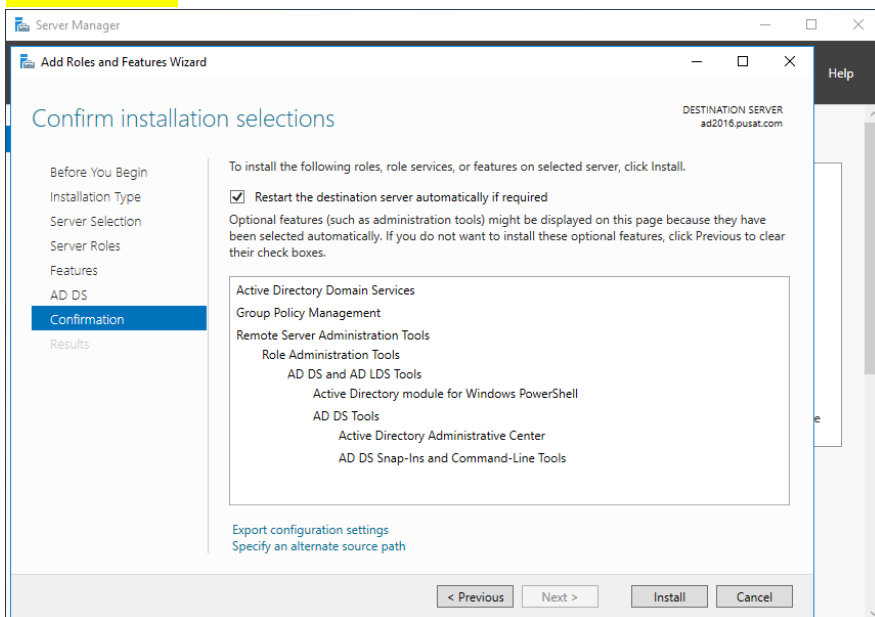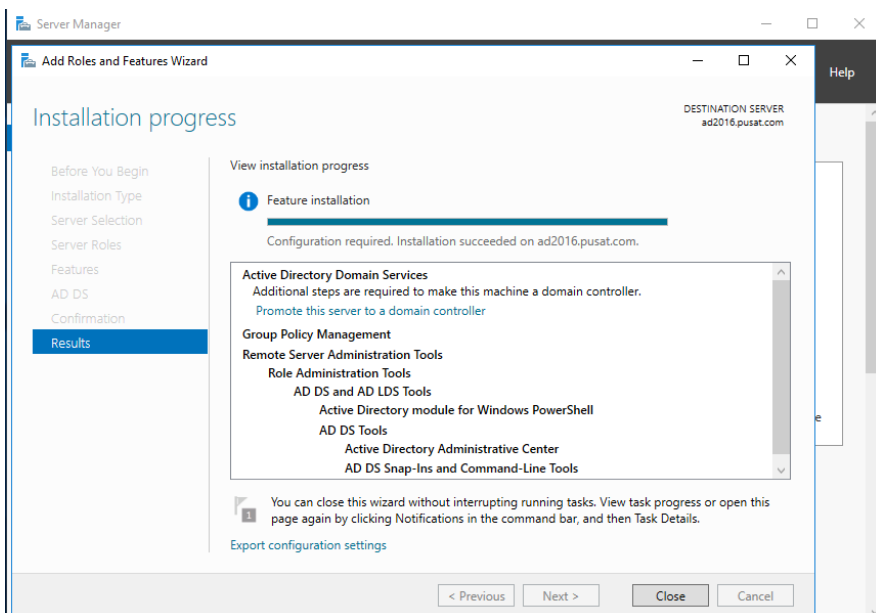
Server Manager: Promote this server to a domain controller
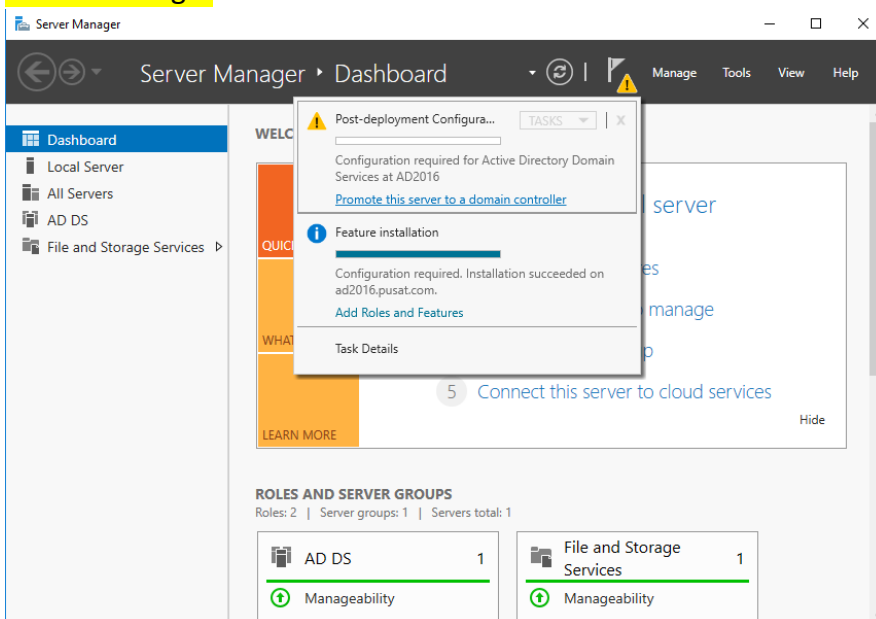
Deployment Configuration: Add a domain controller to an existing domain , **domain**: pusat.com , **credentials**: PUSAT\administrator (user administrator pusat.com)

Domain Controller Options: Domain Name System (DNS) Server and Global Catalog (GC)

Additional Options: replicate from: ad2003.pusat.com

Server Manager

Active Directory Domain Services Configuration Wizard

Paths

TARGET SERVER
ad2016.pusat.com

Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
Preparation Options
Review Options
Prerequisites Check
Installation
Results

Specify the location of the AD DS database, log files, and SYSVOL

Database folder:	C:\Windows\NTDS
Log files folder:	C:\Windows\NTDS
SYSVOL folder:	C:\Windows\SYSVOL

More about Active Directory paths

< Previous   Next >   Install   Cancel

Preparetion Options: PUSAT\administrator (user administrator pusat.com)

Server Manager

Active Directory Domain Services Configuration Wizard

Preparation Options

TARGET SERVER
ad2016.pusat.com

Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
Preparation Options
Review Options
Prerequisites Check
Installation
Results

To install this domain controller, the wizard needs to perform the following operation(s):

• Forest and schema preparation
• Domain preparation

The current user credentials do not have sufficient permissions to run the preparation operation(s). Please specify a user that is a member of Enterprise Admins group and Schema Admins group.

PUSAT\adminpusat (Current user)   Change...

More about preparation options

< Previous   Next >   Install   Cancel

Server Manager

Active Directory Domain Services Configuration Wizard

Review Options

TARGET SERVER
ad2016.pusat.com

Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
Preparation Options
Review Options
Prerequisites Check
Installation
Results

Review your selections:

Configure this server as an additional Active Directory domain controller for the domain "pusat.com".

Site Name: Default-First-Site-Name

Additional Options:

Read-only domain controller: No

Global catalog: Yes

DNS Server: Yes

Update DNS Delegation: No

Source DC: ad2003.pusat.com

These settings can be exported to a Windows PowerShell script to automate additional installations   View script

More about installation options

< Previous   Next >   Install   Cancel

<mark>Prerequisites Check</mark>: Install

Jika error seperti ini, harus ulangi Promote this server to a domain controller dan menggunakan user administrator domain pusat.com

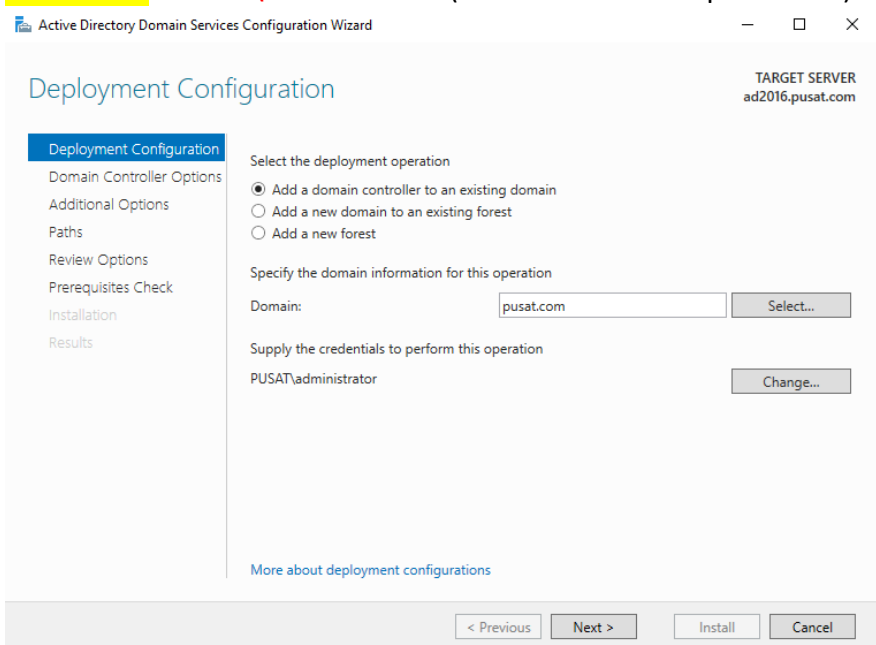## {16}_ Active Directory Windows Server 2016

Windows server 2016 sudah menjadi additional domain controller pusat.com, user dan dns berhasil ter-replikasi, ad2016 berhasil join domain ke ad2003.

Pastikan ad2016 sudah join ke server ad2003

{17}_ Create Zone di server 2016

DNS Manager: AD2016, New Zone
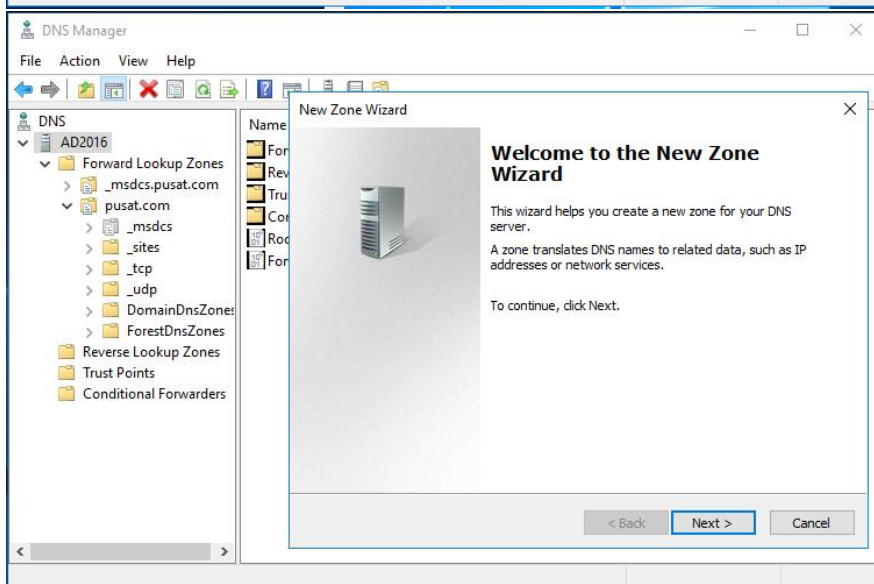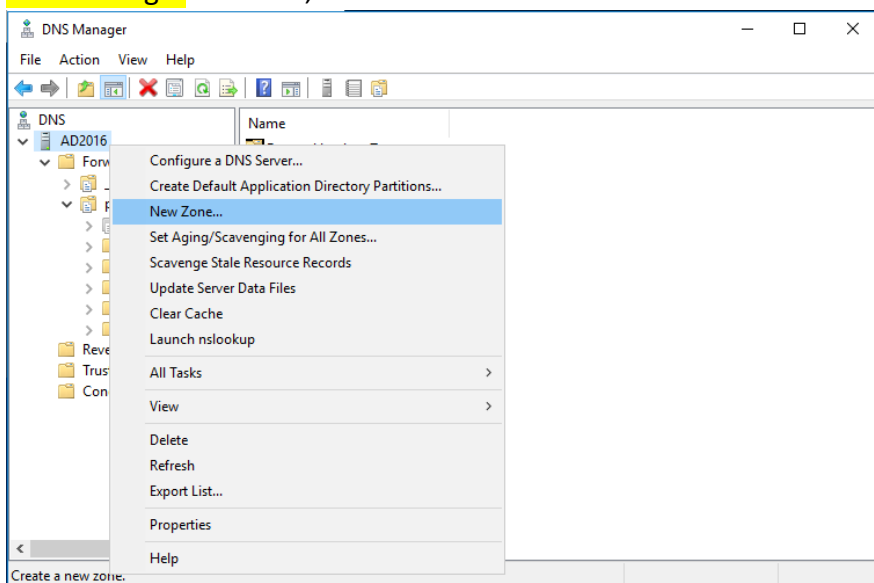
Zone Type: Primary zone , Store the zone in Active Directory
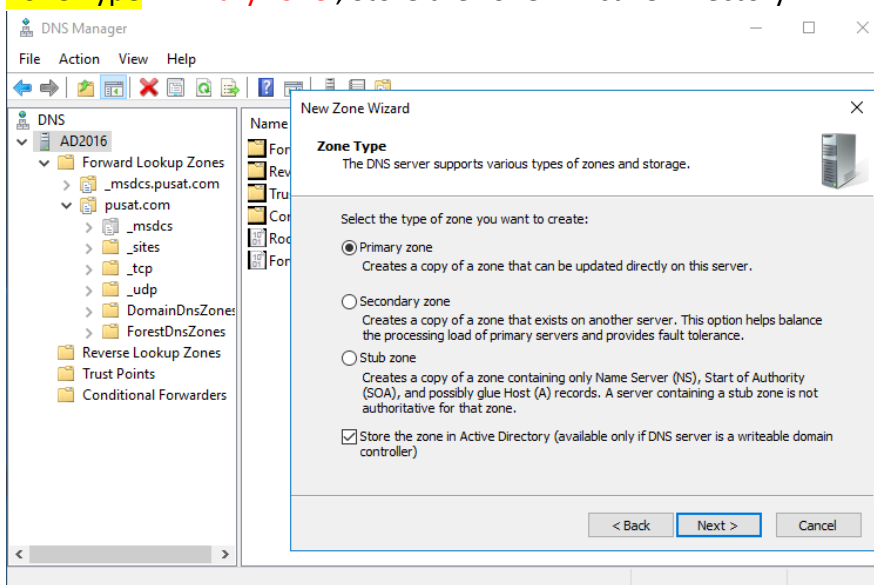
Active Directory Zone Replication: To all DNS servers running on domain controller in this domain: pusat.com
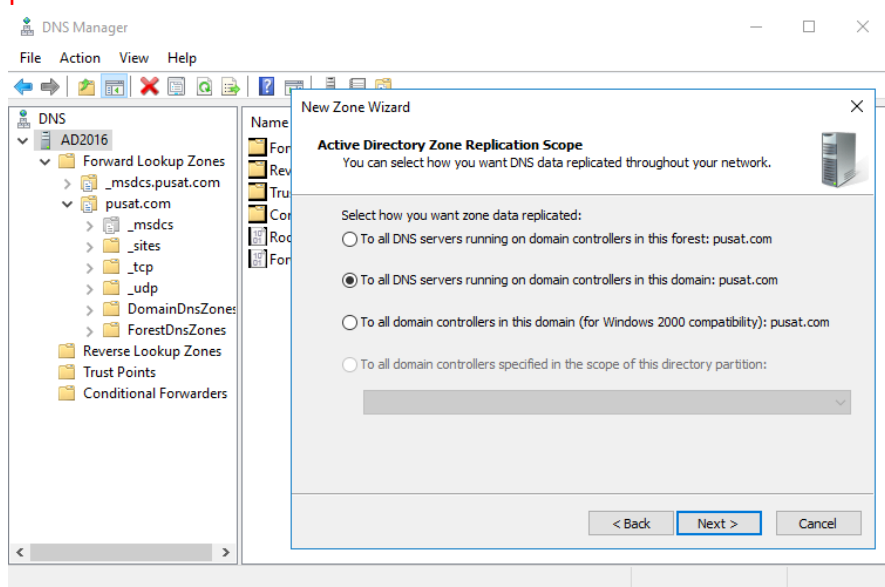
Forward or Reverse Lookup Zone: Reserver lookup zone
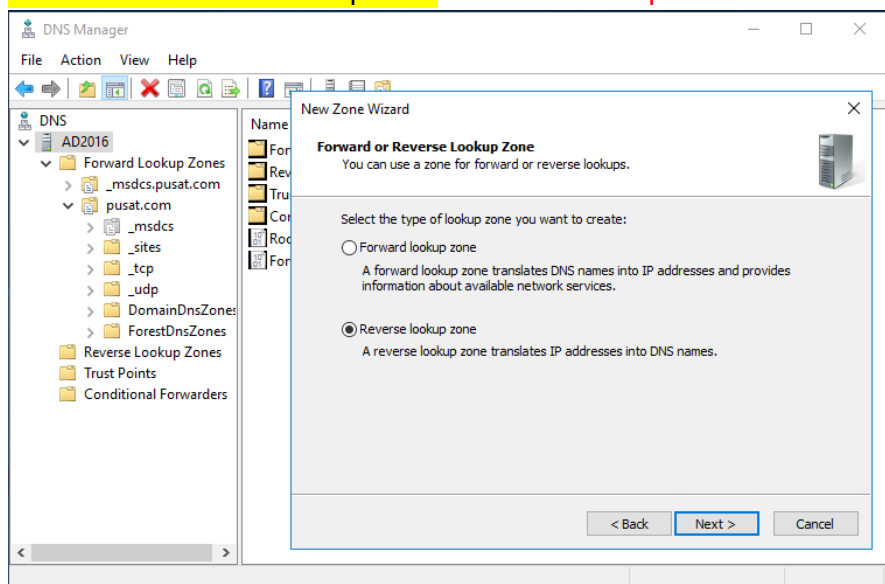
Reverse Lookup Zone Name: IPv4 Reverse Lookup Zone
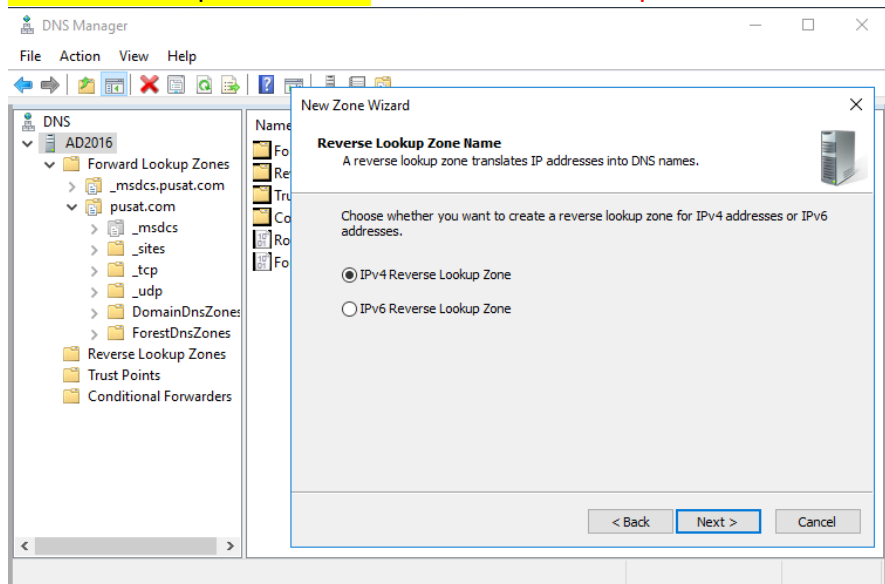
Network ID: 192.168.1 (network server pusat.com)
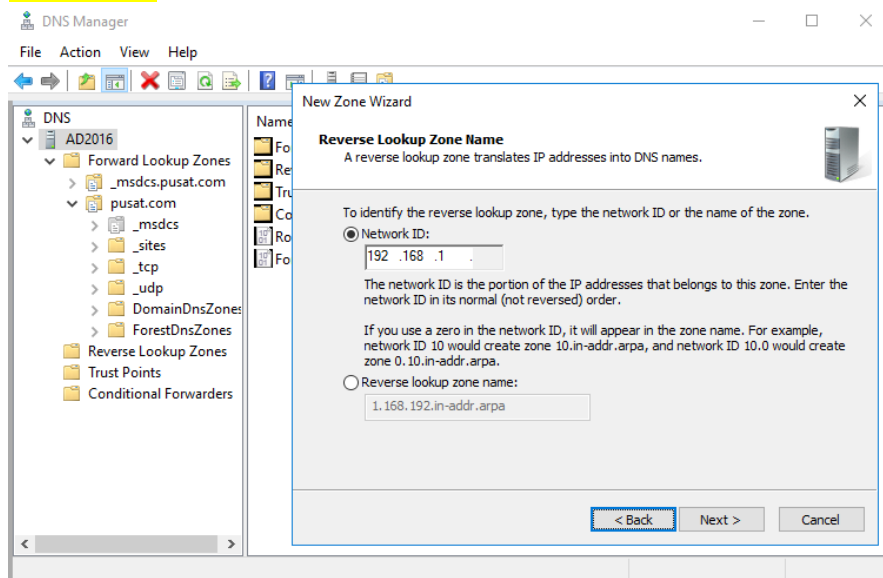
Dynamic Update: Allow only secure dynamic update (recommended for active directory)
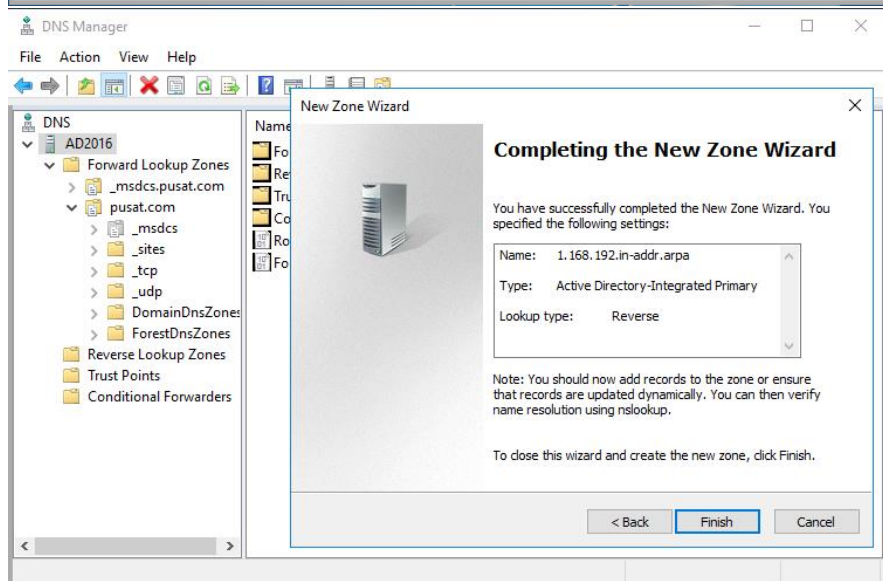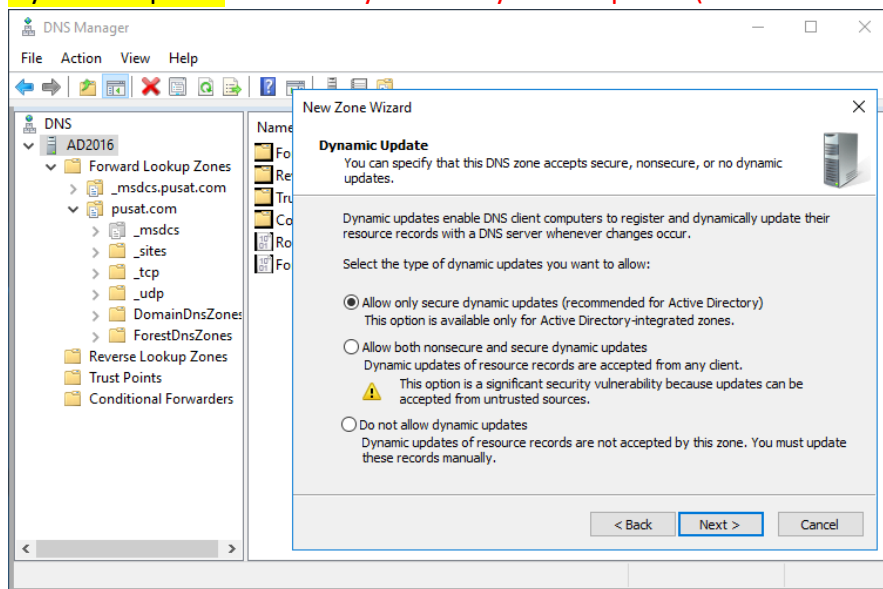
{18}_ Cek FSMO di server ad2016

PowerShell: netdom query fsmo (fsmo masih di ad2003)

```
Windows PowerShell

PS C:\Users\adminpusat> netdom query fsmo
Schema master              ad2003.pusat.com
Domain naming master       ad2003.pusat.com
PDC                        ad2003.pusat.com
RID pool manager           ad2003.pusat.com
Infrastructure master      ad2003.pusat.com
The command completed successfully.

PS C:\Users\adminpusat>
```

{19}_ Replikasi Konfigurasi dari ad2003 Ke ad2016

Active Directory Sites and Services, Sites, Default-First-Site-Name, Servers, AD2003, NTDS Settings:
Replicate configuration from the selected DC.
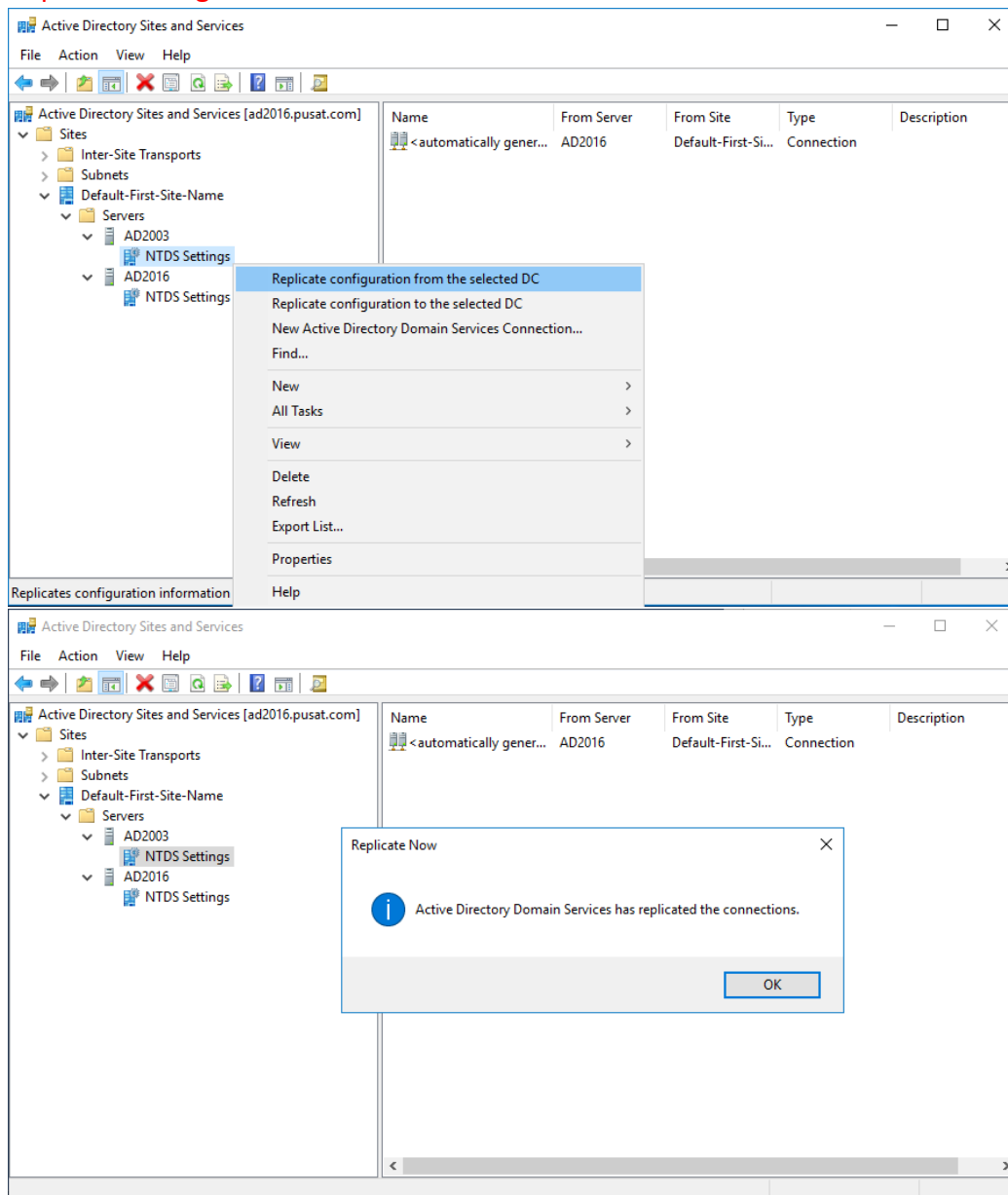
{20}_ Migrate RID, PDC, Infrastructure from AD2003 to AD2016

Active Directory Users and Computers, pusat.com: Operations Masters…
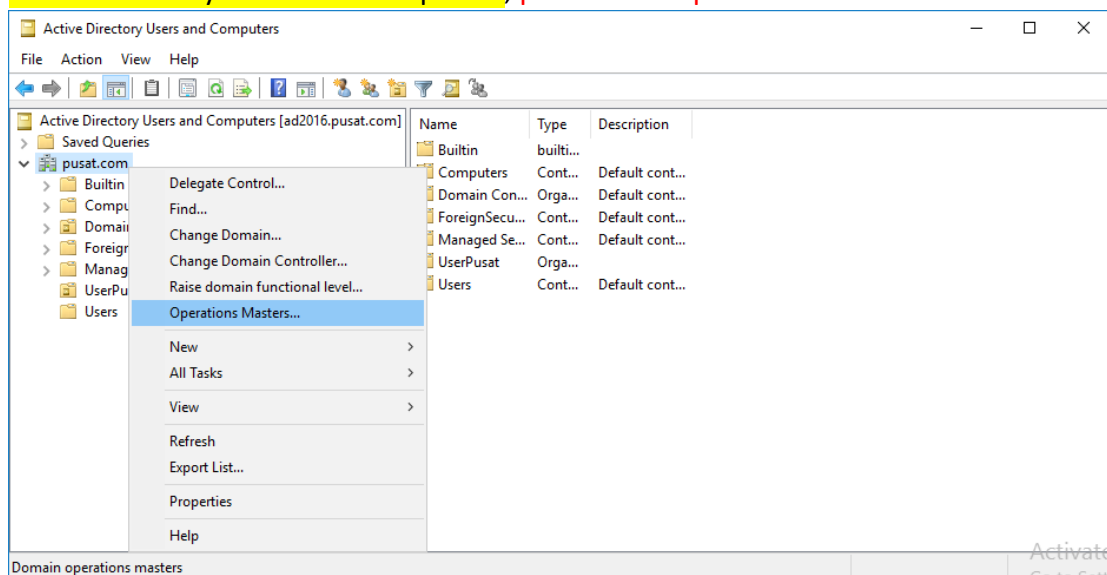
Change RID to ad2016.pusat.com
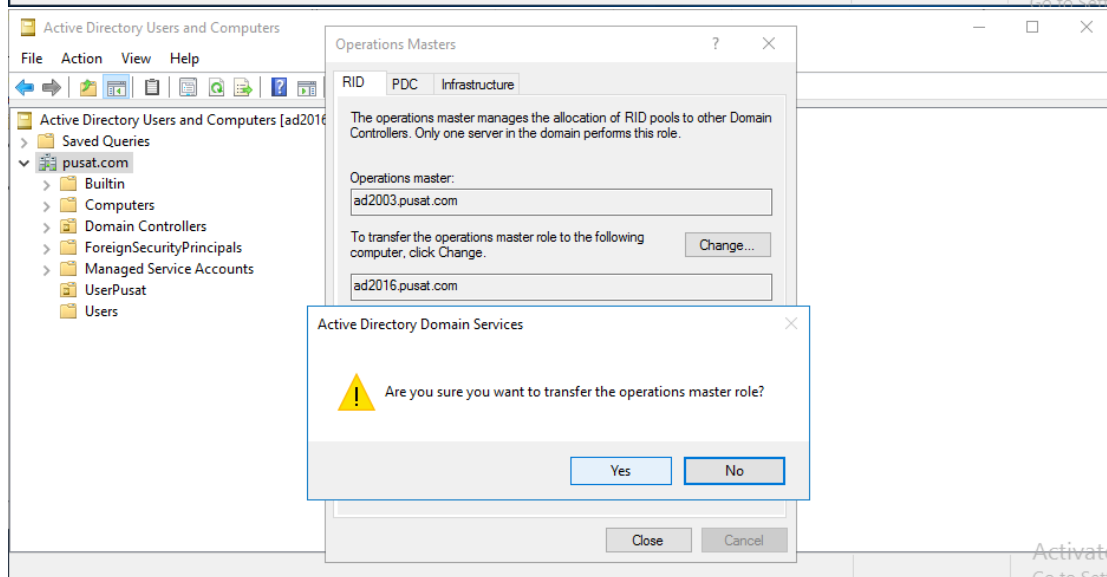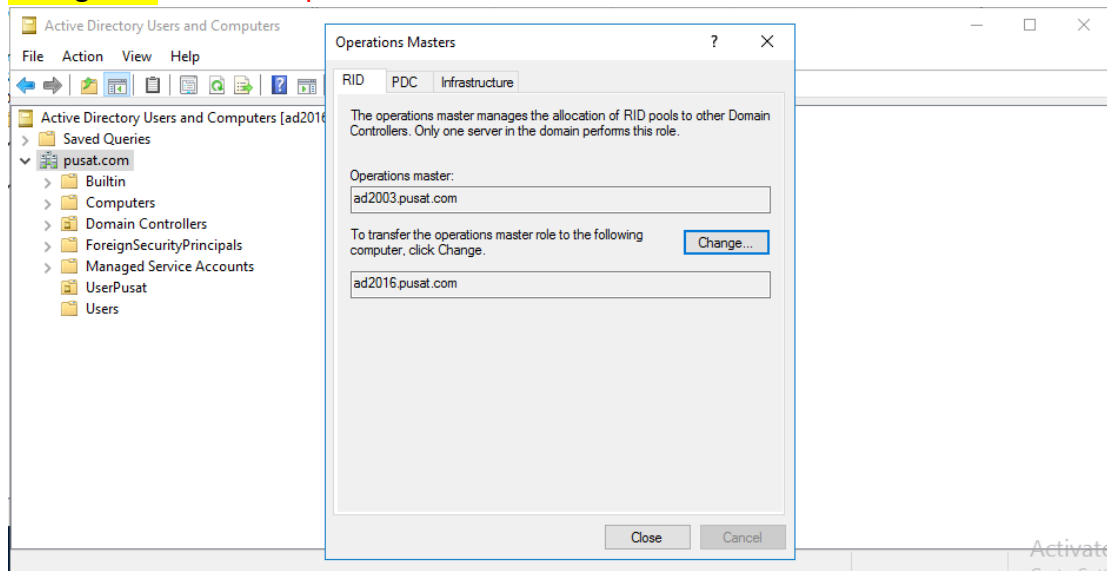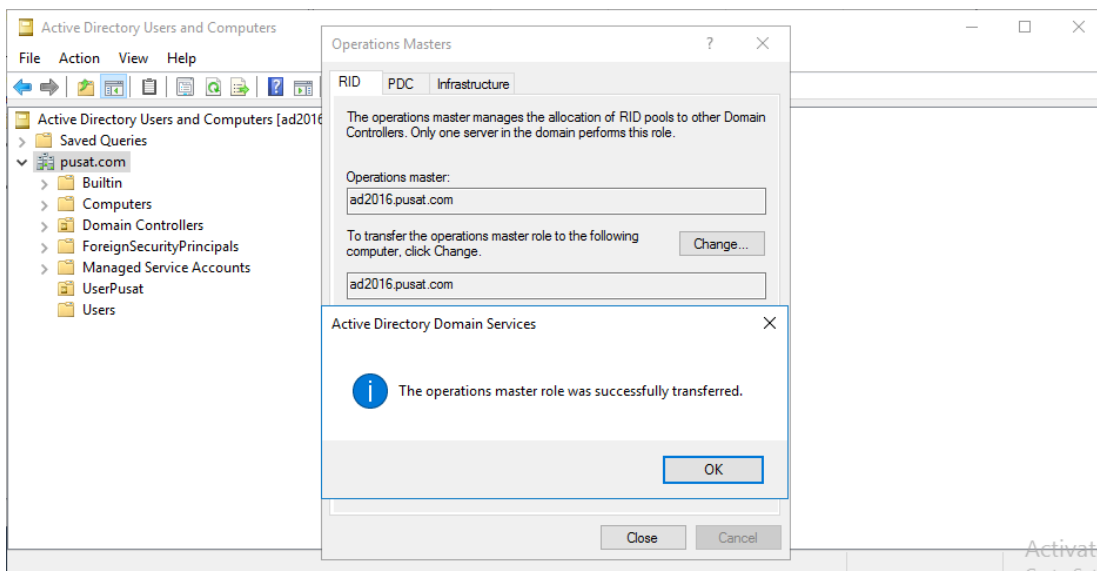
Change PDC to ad2016.pusat.com
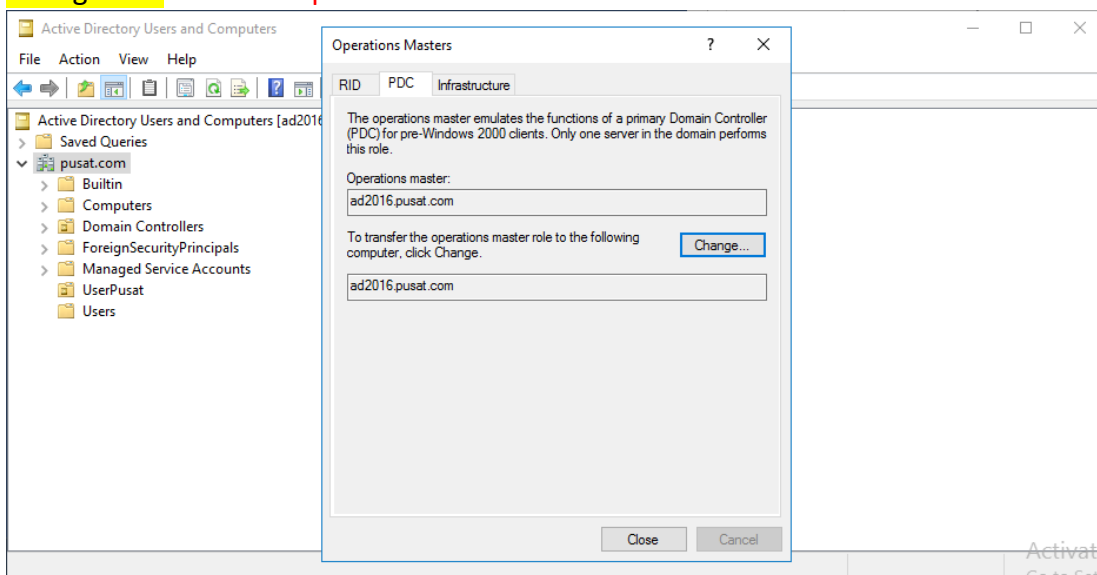
Change Infrastructure to ad2016.pusat.com
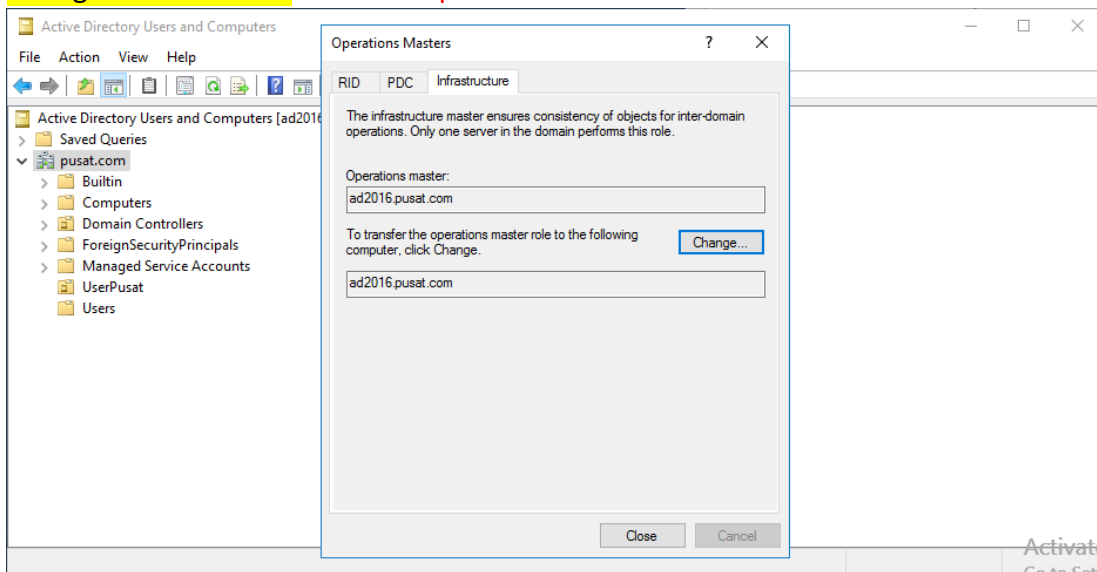
{21}_ Cek FSMO di server ad2016

PowerShell: netdom query fsmo

(PDC, RID pool manager, Infrastructure master sudah di ad2016.pusat.com)

{22}_ Migrate Domain Naming Master from AD2003 to AD2016

Active Directory Domain and Trusts [ad2016.pusat.com] , Operatios Master…
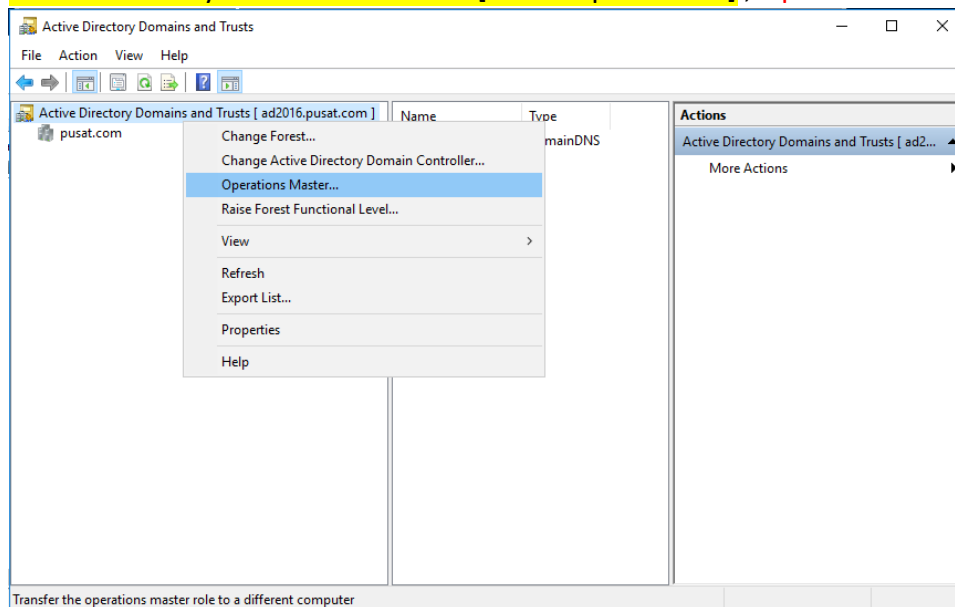
Change Domain Naming to ad2016.pusat.com
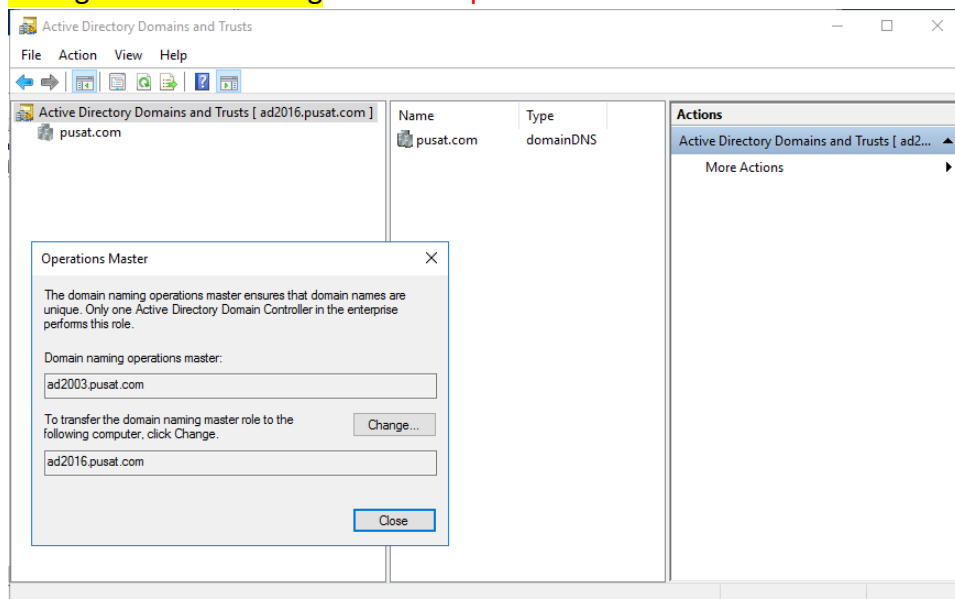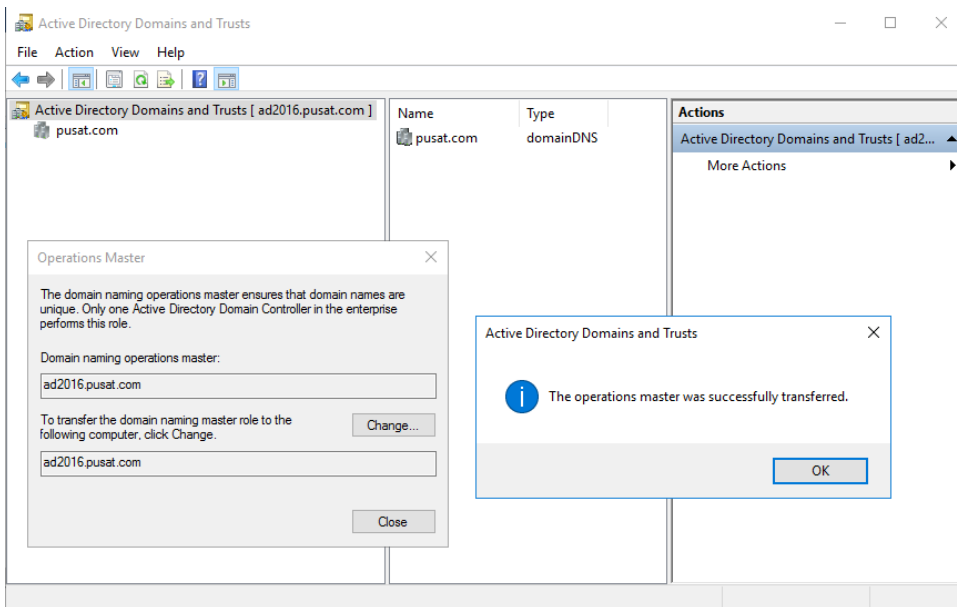
{23}_ Cek FSMO di server ad2016

PowerShell: netdom query fsmo

(PDC, RID pool manager, Infrastructure master, Domain Naming master sudah di ad2016.pusat.com)

{24}_ Migrate Schema Master from AD2003 to AD2016

Run (administrative privileges): regsvr32 schmmgmt.dll
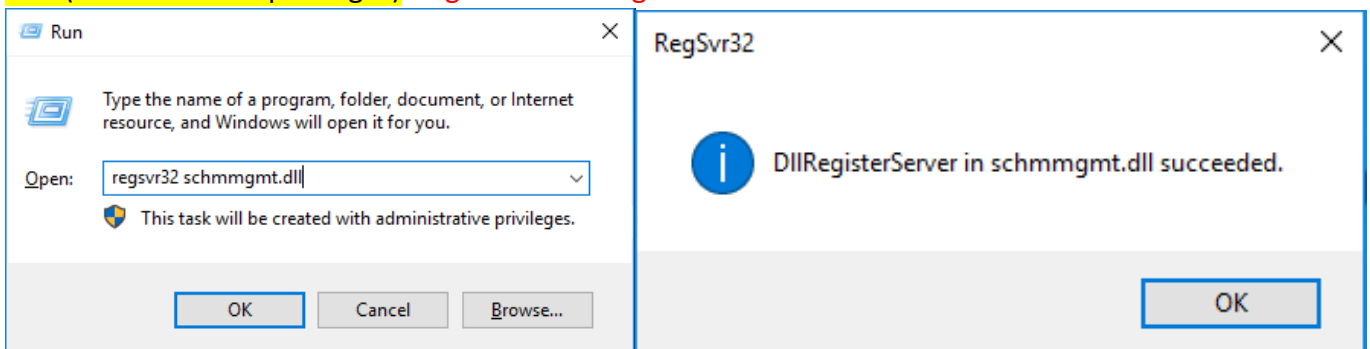
Run: mmc (Microsoft Management Console)
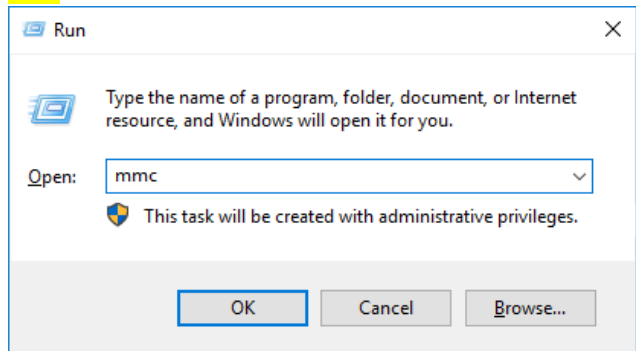
Microsoft Management Console, File, Add/Remove Snap-in…
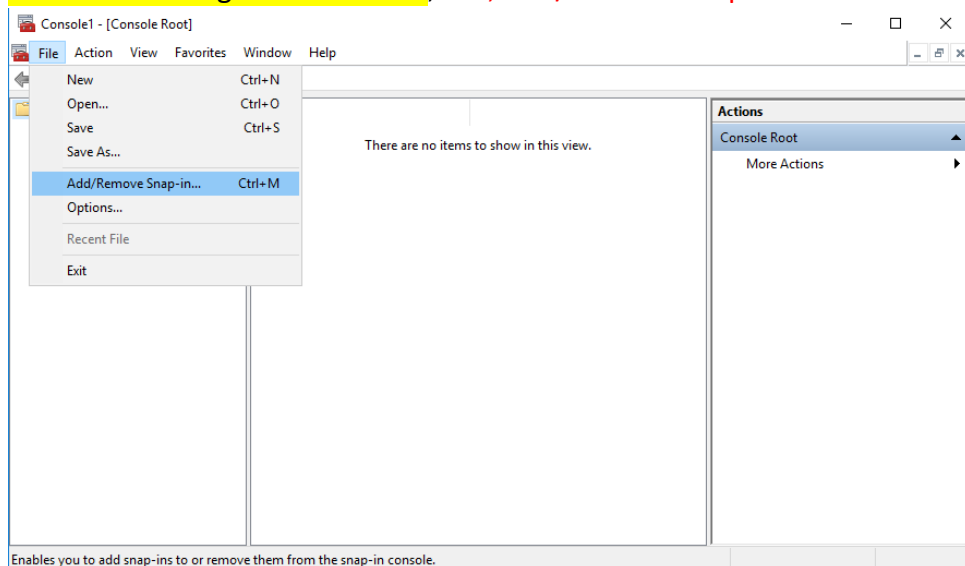
Add: Active Directory Schema , OK
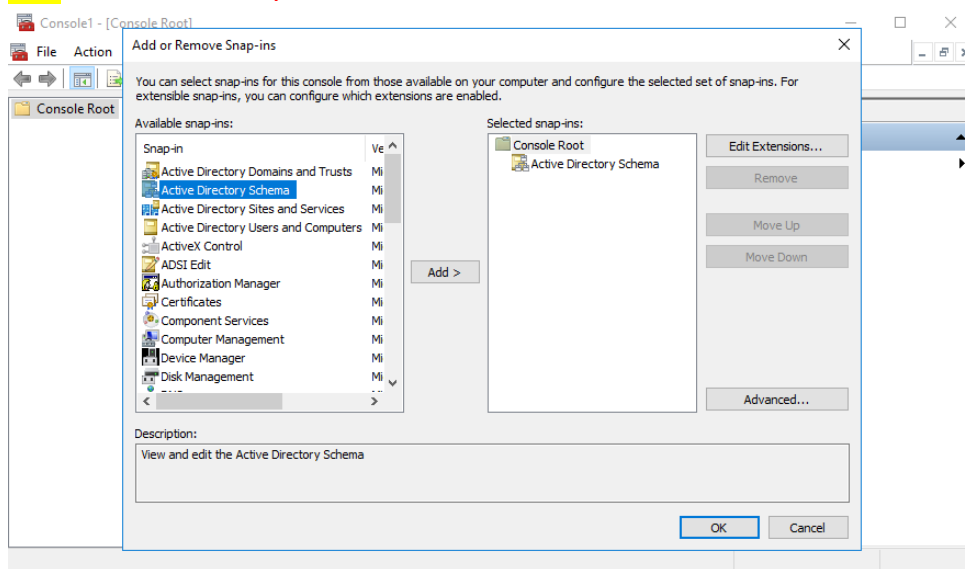
Active Directory Schema [ad2003.pusat.com] : Change Active Directory Domain Controller…
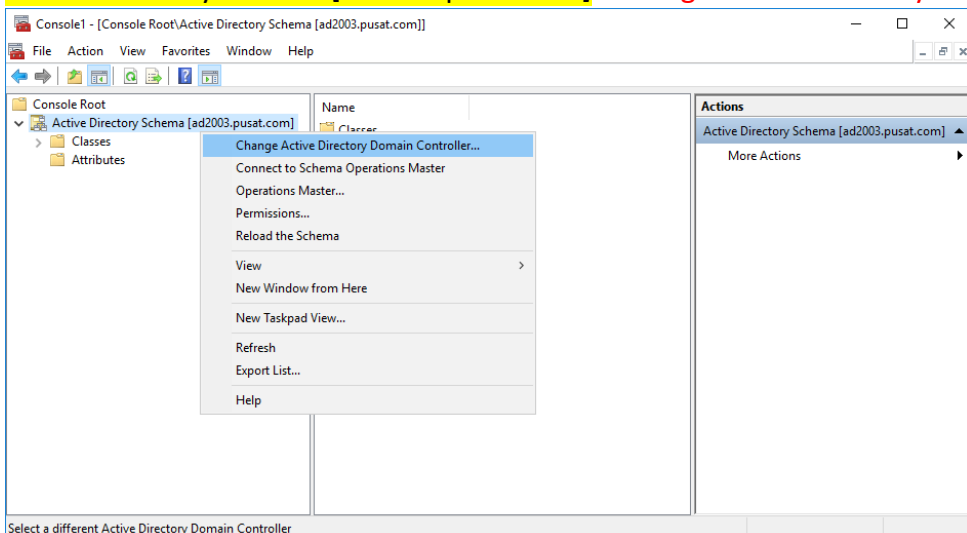
The Domain Controller or AD LDC Instance: ad2016.pusat.com

Status unavailable karena ipv6 disable

Active Directory Schema [ad2003.pusat.com] : Operations Master…

Change Schema master to ad2016.pusat.com

{25}_ Cek FSMO di server ad2016

PowerShell: netdom query fsmo

(PDC, RID pool manager, Infrastructure master, Domain Naming master, Schema master sudah di ad2016.pusat.com) fsmo sudah berhasil di migrate ke ad2016 (windows server 2016)

{26}_ Demote Role Active Directory dari server 2003

Active Directory Sites and Services: AD2003, NTDS Settings, Properties
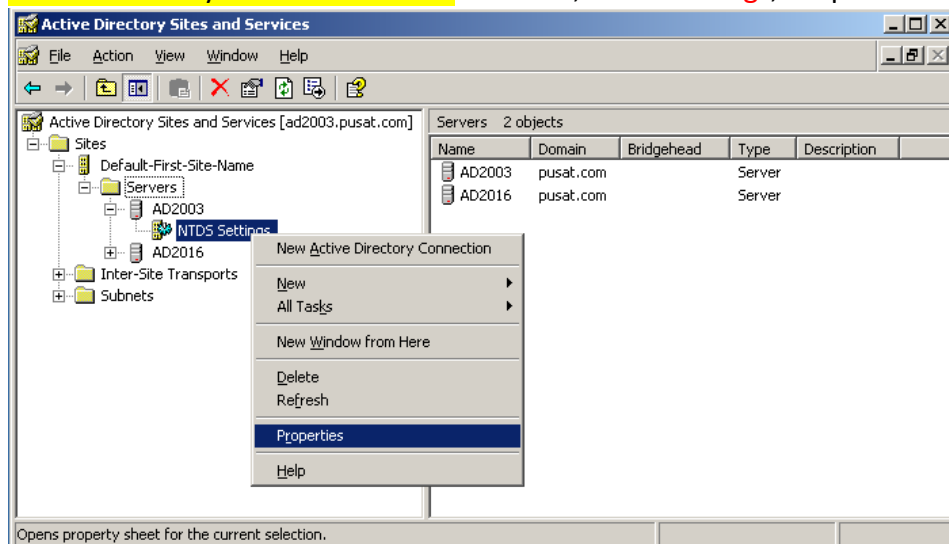
Uncheck Global Catalog
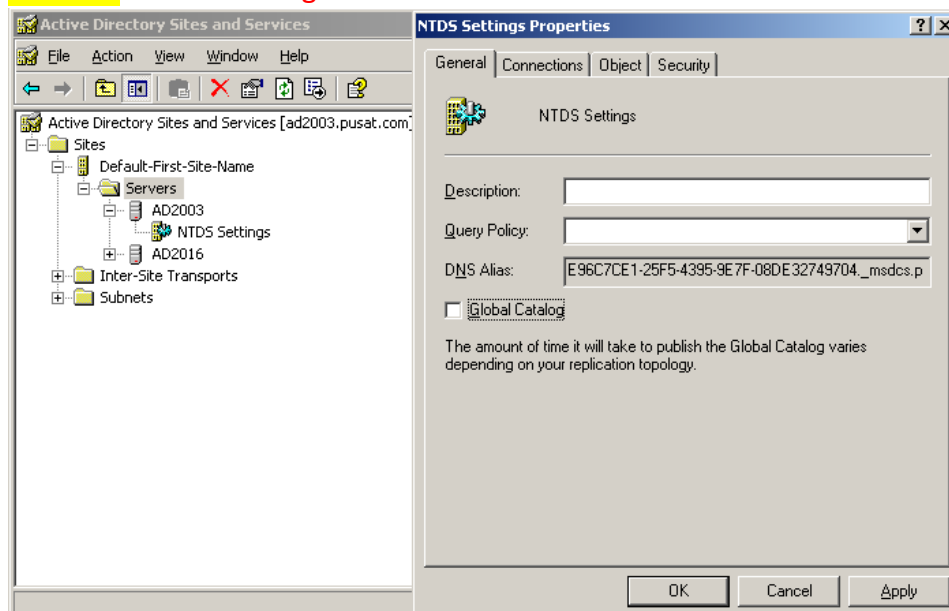
Hapus Role Active Directory
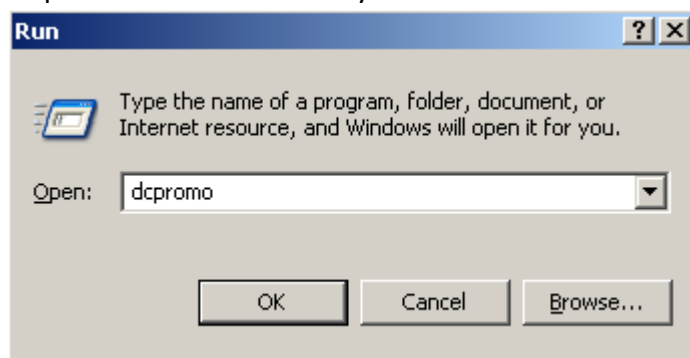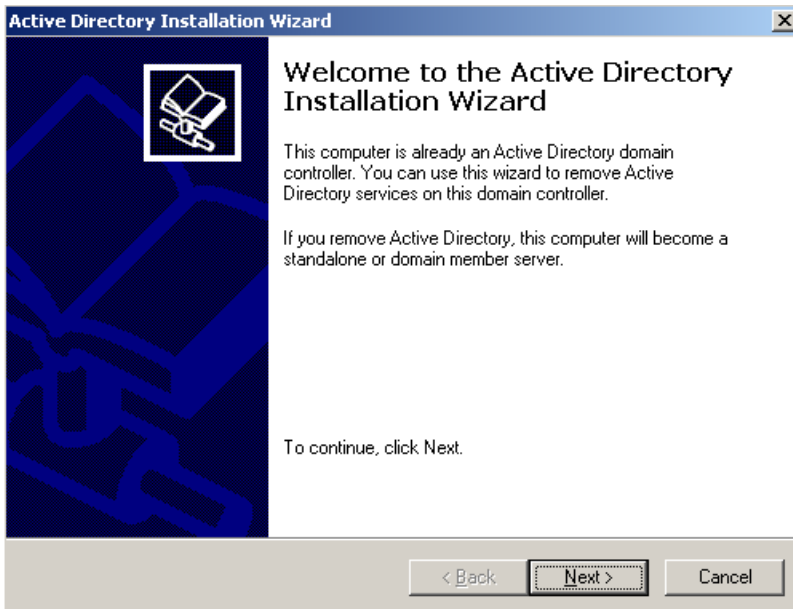
Pastikan Uncheck
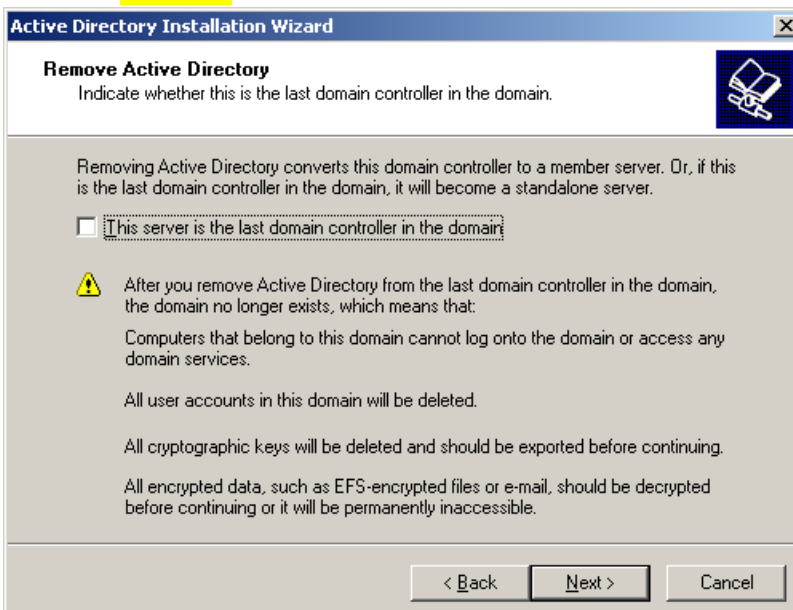
Masukan password administrator windows server 2003 yang baru
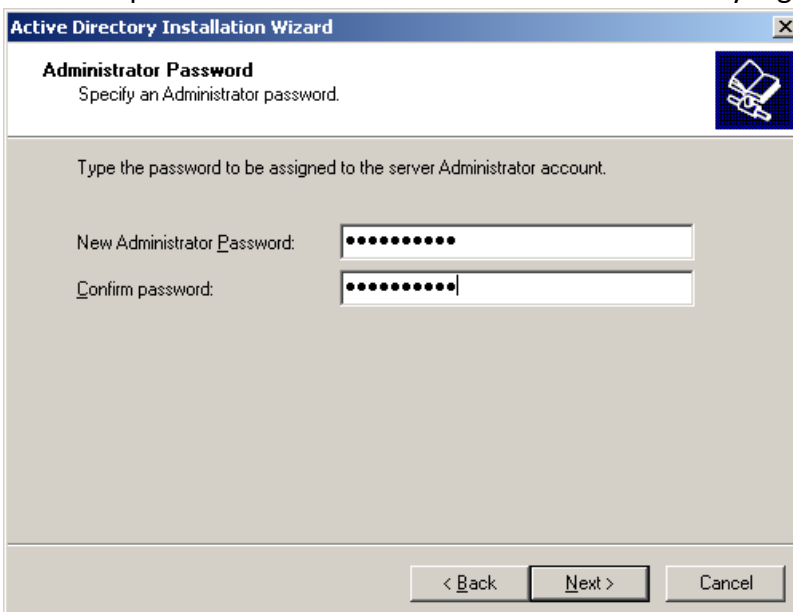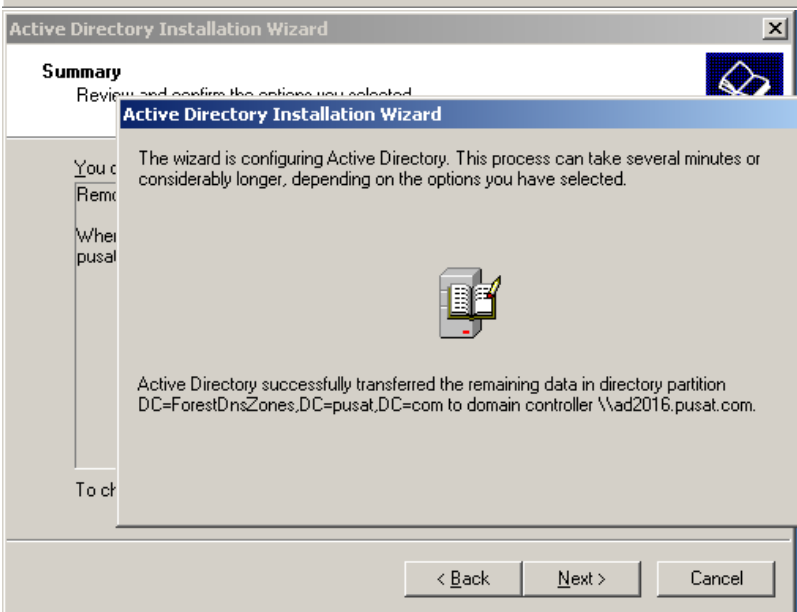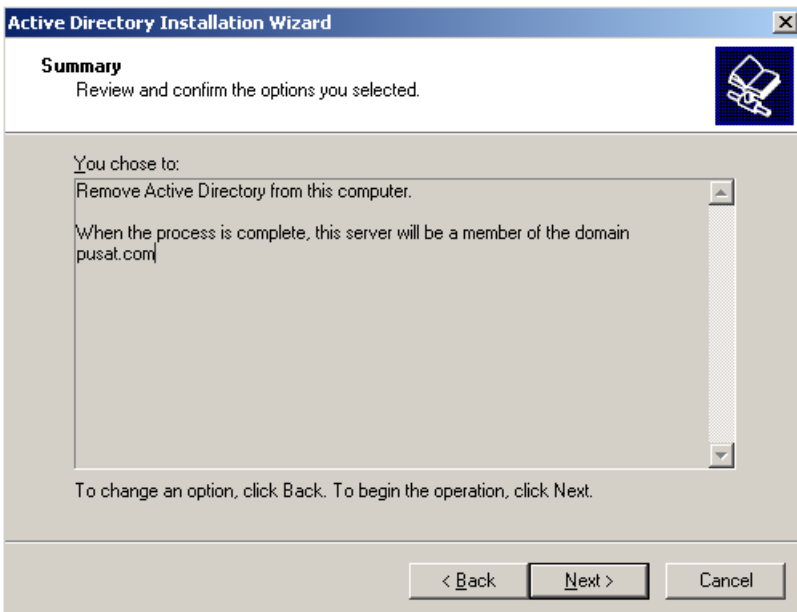
Jika Error , ganti dns server windows server 2003 dengan ip server 2016
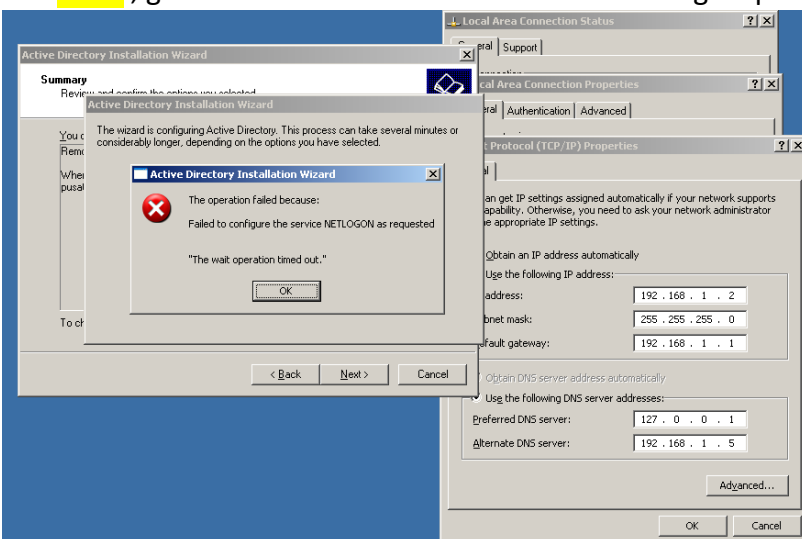
Proses demote selesai dan harus restart server. Kemudian matikan windows server 2003
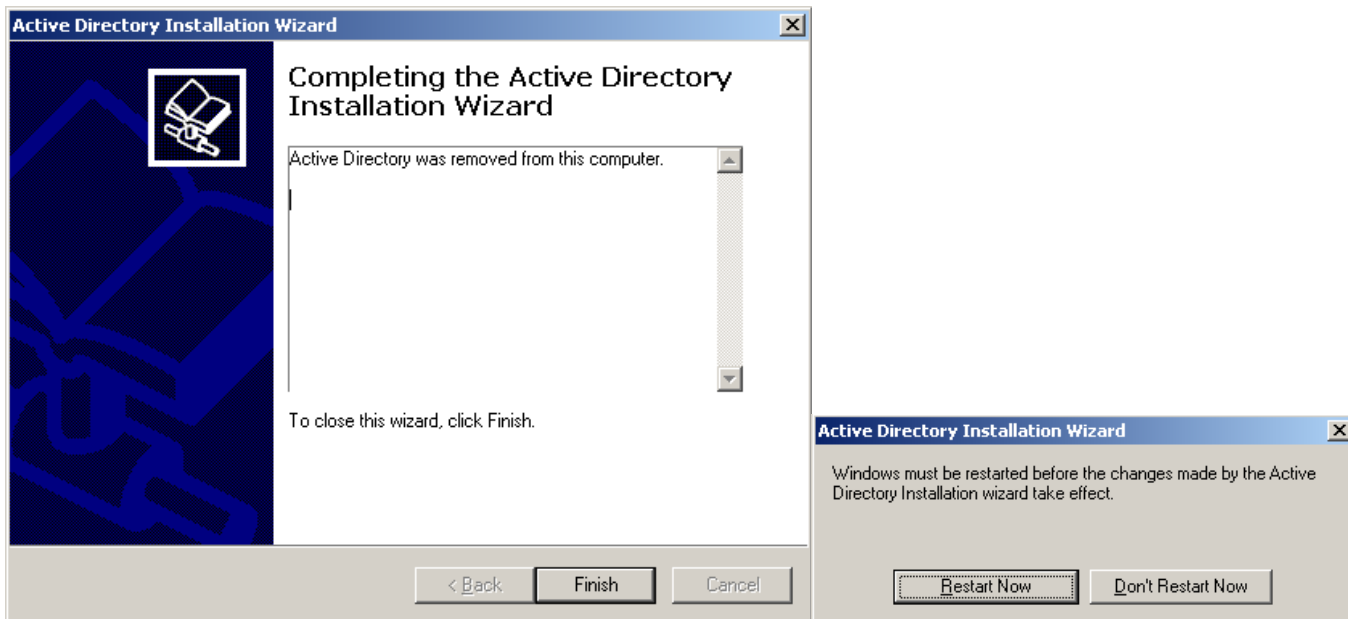
{27}_ Ganti IP Windows Server 2016

Ganti menjadi 192.168.1.2
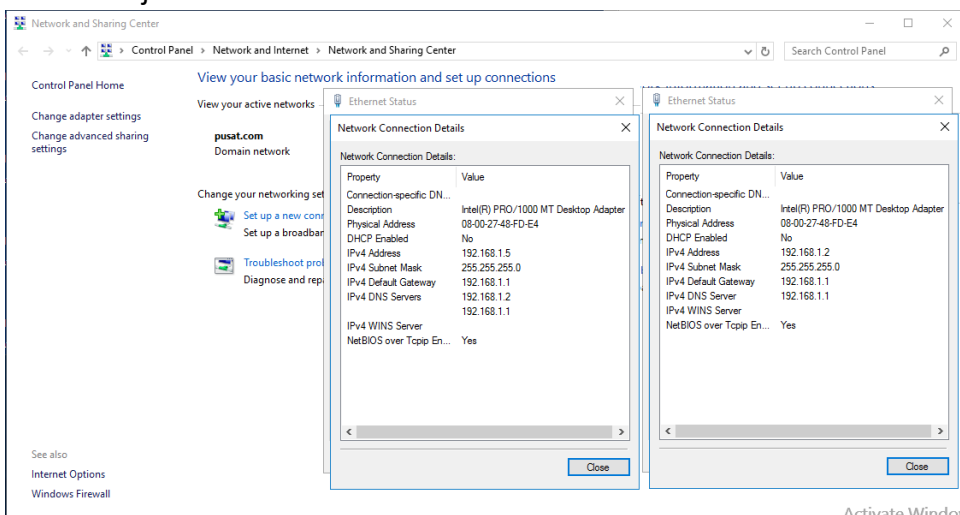
{28}_ Install .NET Framework 2.0 Windows Server 2016

Insert dvd installer windows server 2016, bukan cmd (administrator)

Dism /online /enable-feature /featurename:NetFx3 /Source:D:\sources\sxs

Install sqlexpress 2005 (require .NET Framework 2.0)

{29}_ Install Microsoft SQLexpress 2005

Microsoft SQL Server 2005 Setup

Installing Prerequisites
Installs software components required prior to installing SQL Server.

SQL Server Component Update will install the following components required for SQL Server Setup:

✔ Microsoft SQL Native Client
✔ Microsoft SQL Server 2005 Setup Support Files

The required components were installed successfully.

Next >   Cancel

Microsoft SQL Server 2005 Setup

► **Welcome to the Microsoft SQL Server Installation Wizard**

Setup will help you install, modify or remove Microsoft SQL Server. To continue, click Next.

< Back   Next >   Cancel

Microsoft SQL Server 2005 Setup

System Configuration Check
Wait while the system is checked for potential installation problems.

✔ **Success**   13 Total   0 Error
                 12 Success   1 Warning

Details:

	Action	Status	Message
✔	Minimum Hardware Requirement	Success	
✔	Pending Reboot Requirement	Success	
✔	Default Installation Path Permission Re...	Success	
✔	Internet Explorer Requirement	Success	
✔	COM Plus Catalog Requirement	Success	
⚠	ASP.Net Version Registration Require...	Warning	Messages...
✔	Minimum MDAC Version Requirement	Success	
✔	Edition Change Check	Success	

Filter ▼   Stop   Report ▼

Help   Next >

Microsoft SQL Server 2005 Express Edition Setup

Registration Information
The following information will personalize your installation.

The Name field must be filled in prior to proceeding. The Company field is optional.

Name:
Windows User

Company:

☑ Hide advanced configuration options

[Help]   [< Back]   [Next >]   [Cancel]

Microsoft SQL Server 2005 Express Edition Setup

Feature Selection
Select the program features you want installed.

Click an icon in the following list to change how a feature is installed.

- Database Services
- Client Components
  - Connectivity Components
  - Software Development Kit

Feature description
Installs the SQL Server Database Engine, tools for managing relational and XML data, and replication.

This feature requires 126 MB on your hard drive. It has 2 of 3 subfeatures selected. The subfeatures require 100 MB on your hard drive.

Installation path
c:\Program Files (x86)\Microsoft SQL Server\

[Browse...]
[Disk Cost...]

[Help]   [< Back]   [Next >]   [Cancel]

Microsoft SQL Server 2005 Express Edition Setup

Authentication Mode
The authentication mode specifies the security used when connecting to SQL Server.

Select the authentication mode to use for this installation.

◉ Windows Authentication Mode

○ Mixed Mode (Windows Authentication and SQL Server Authentication)

Specify the sa logon password below:

Enter password:

Confirm password:

[Help]   [< Back]   [Next >]   [Cancel]

Microsoft SQL Server 2005 Express Edition Setup ✕

Configuration Options
Configure user and administrator accounts

☑ Enable User Instances

This option enables users without administrator permissions to run a separate instance of the SQL Server Express Database Engine.

☐ Add user to the SQL Server Administrator role

This option adds the user who is running the SQL Server Express installation program to the SQL Server System Administrator role. By default, users on Microsoft Windows Vista operating system are not members of the SQL Server System Administrator role.

| Help | < Back | Next > | Cancel |

Microsoft SQL Server 2005 Express Edition Setup ✕

Error and Usage Report Settings
Help Microsoft improve some of the SQL Server 2005 components and services.

☐ Automatically send Error reports for SQL Server 2005 to Microsoft or your corporate error reporting server. Error reports include information regarding the condition of SQL Server 2005 when an error occurred, your hardware configuration and other data. Error reports may unintentionally include personal information, which will not be used by Microsoft.

☐ Automatically send Feature Usage data for SQL Server 2005 to Microsoft. Usage data includes anonymous information about your hardware configuration and how you use our software and services.

By installing Microsoft SQL Server 2005, SQL Server and its components will be configured to automatically send fatal service error reports to Microsoft or a Corporate Error Reporting Server. Microsoft uses error reports to improve SQL Server functionality, and treats all information as confidential.

| Help | < Back | Next > | Cancel |

Microsoft SQL Server 2005 Express Edition Setup ✕

Ready to Install
Setup is ready to begin installation.

Setup has enough information to start copying the program files. To proceed, click Install. To change any of your installation settings, click Back. To exit setup, click Cancel.

The following components will be installed:

• **SQL Server Database Services**
(Database Services)

| Help | < Back | Install | Cancel |

{30}_ Install Active Directory Migration Tool 3.2

Active Directory Migration Tool Installation Wizard ☒

Welcome to the Active Directory Migration Tool Installation

Before you install, you must set up a SQL Server database instance to be used by the Active Directory Migration Tool. We recommend that you install SQL Server 2005 Express Edition with SP3 or later or SQL Server 2008 Express Edition with SP1 or later.

Download SQL Server Express Edition

We also recommend that you:
- Back up your system
- Close all open programs

To complete this installation, Windows might require restarting after you finish this wizard. To continue, click Next.

[< Back] [Next >] [Cancel] [Help]

Active Directory Migration Tool Installation Wizard ☒

License Agreement

Please read the following license agreement. To continue with setup, you must accept the agreement. For future reference, you may print the text of the EULA by copying the contents from the text box containing the EULA into an editor such as Microsoft Word or Notepad. You may also receive a copy of this EULA by contacting the Microsoft subsidiary serving your country or write: Microsoft Sales Information Center/One Microsoft Way/Redmond, WA 98052-6399.

> MICROSOFT SOFTWARE LICENSE TERMS
> MICROSOFT ACTIVE DIRECTORY MIGRATION TOOL v3.2
> These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
> * updates,
> * supplements,

◉ I Agree   ○ I Do Not Agree

[< Back] [Next >] [Cancel] [Help]

Active Directory Migration Tool Installation Wizard ☒

Customer Experience Improvement Program

We invite you to join our Customer Experience Improvement Program to improve the quality, reliability, and performance of the Active Directory Migration Tool (ADMT).

The program collects information about your hardware configuration and how you use our software and services without interrupting you. This helps Microsoft identify which ADMT features to improve. No information collected is used to identify or contact you.

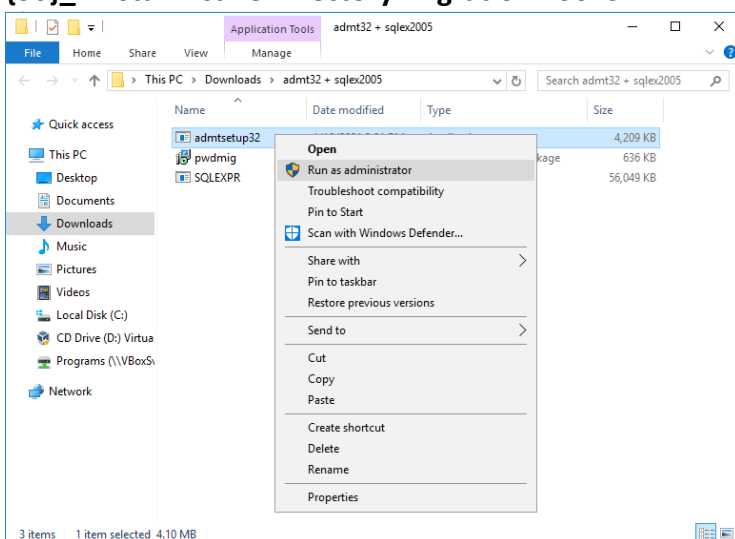Read more about the program

○ Join the Customer Experience Improvement Program

◉ I don't want to join the program at this time

[< Back] [Next >] [Cancel] [Help]

.\SQLEXPRESS

Active Directory Migration Tool Installation Wizard

Database Selection

Please specify which database instance you would like to connect to. You can specify a locally installed SQL Server Express Edition or a remote or local SQL Server installation. If you specify SQL Express, the instance name is SQLEXPRESS by default and you may specify .\SQLEXPRESS or <server>\SQLEXPRESS.

Database (Server\Instance):

.\SQLEXPRESS

If a connection can be established we will attempt to install/upgrade ADMT database on the specified instance in the subsequent pages.

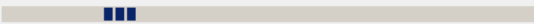< Back | Next > | Cancel | Help

---

Active Directory Migration Tool Installation Wizard

Configuring Components

Please wait while Setup configures ADMT. This may take several minutes, depending on the components being installed.

Status: Installing Active Directory Migration Tool Version 3.2 ...

< Back | Next > | Cancel | Help

Active Directory Migration Tool Installation Wizard

Database Import

You can optionally import data from an existing ADMT v3.0 or v3.1 database.

Do you wish to import data from an ADMT v3.0 or v3.1 database?

◉ No, do not import data from an existing database (Default)

◯ Yes, import data from an existing ADMT v3.0 or ADMT v3.1 database

Browse...

The ADMT v3.0 database file has to be detached from the previous ADMT v3.0 and SQL Server Desktop Edition (Windows) instance by using SQL commands. Click Help for more details.
The ADMT v3.1 database file has to be detached from the previous ADMT v3.1 and SQL Server 2005 Express Edition by using SQL commands. Click Help for more details.
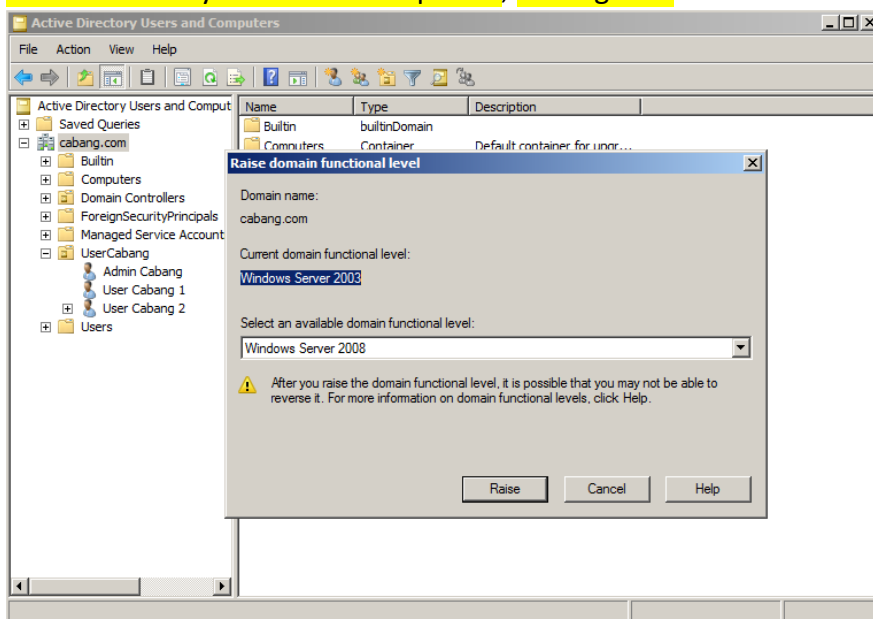
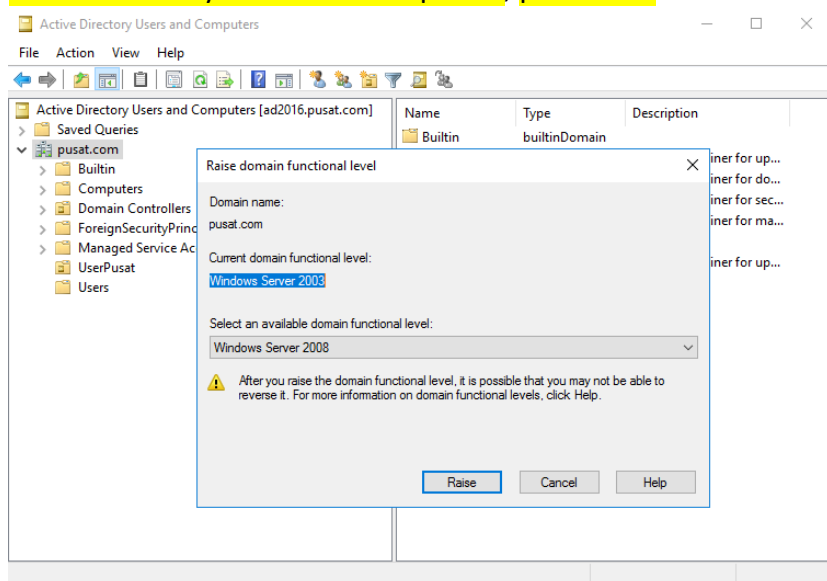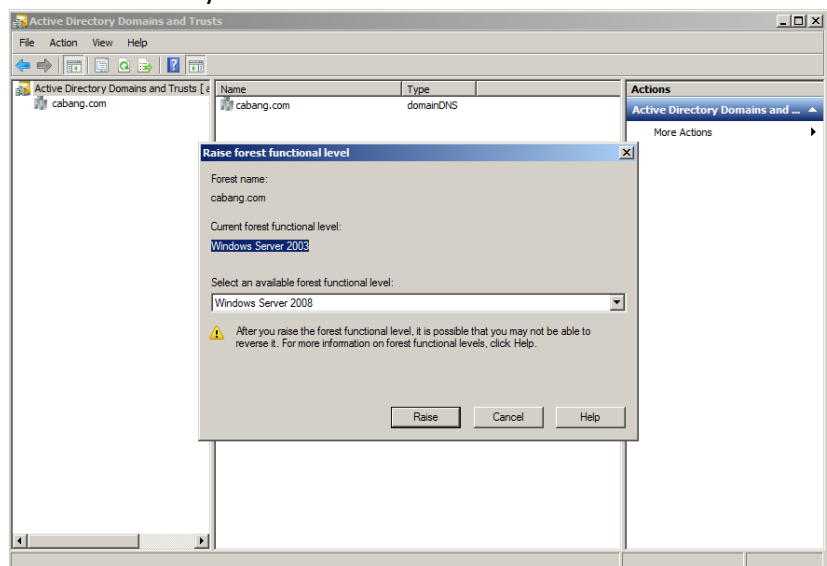< Back | Next > | Cancel | Help
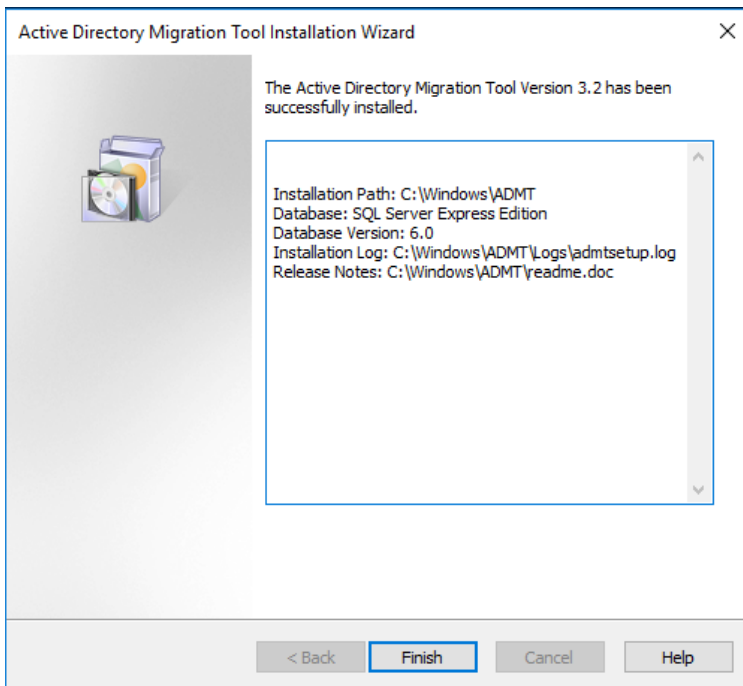
{31}_ Cek domain functional level

Cek Domain functional level server 2008

Active Directory Users and Computers, cabang.com: Raise domain functional level (pastikan sama)

Cek Domain functional level server 2016
Active Directory Users and Computers, pusat.com: Raise domain functional level (pastikan sama)

{32}_ Cek Forest functional level

Cek Forest functional level server 2008
Active Directory Domain and Trusts: Raise forest functional level

Cek Forest functional level server 2016
Active Directory Domain and Trusts: Raise forest functional level
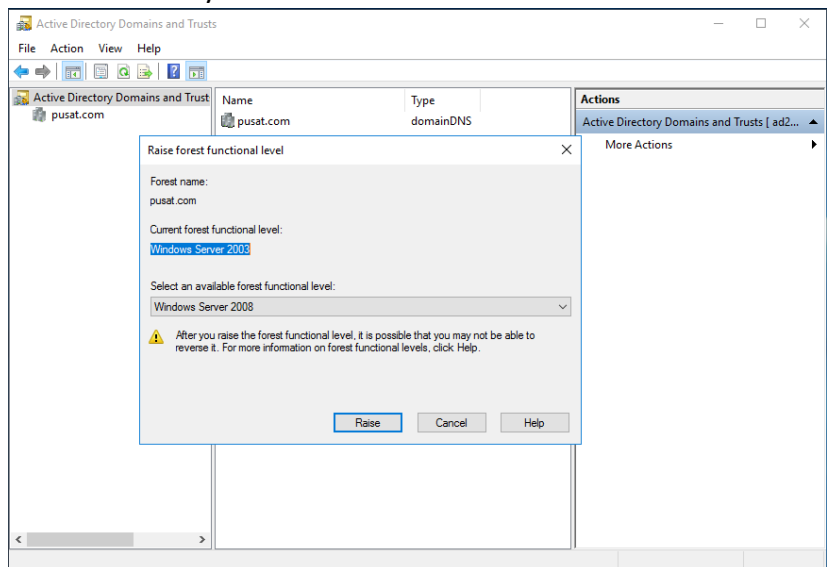
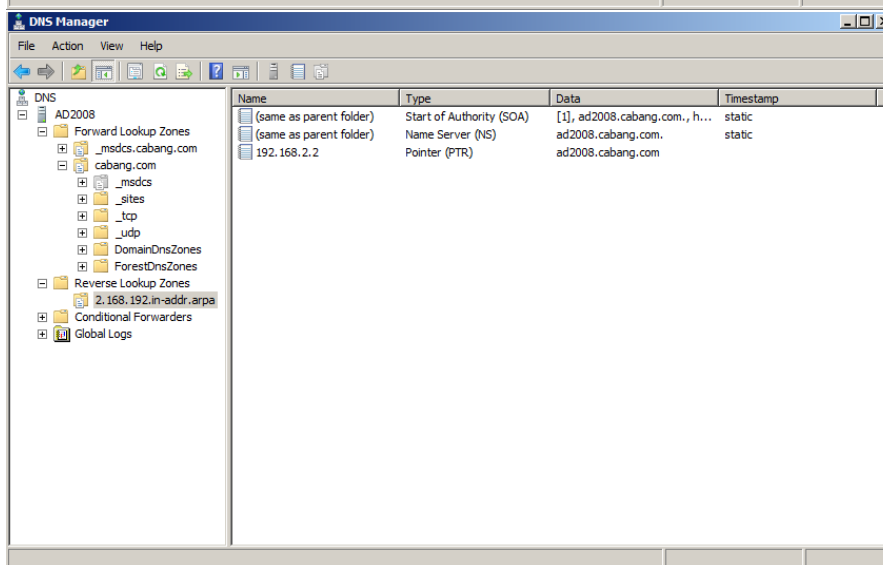**{33}_ Cek objects (user, group, komputer) di 2008 yang akan di migrate ke 2016**
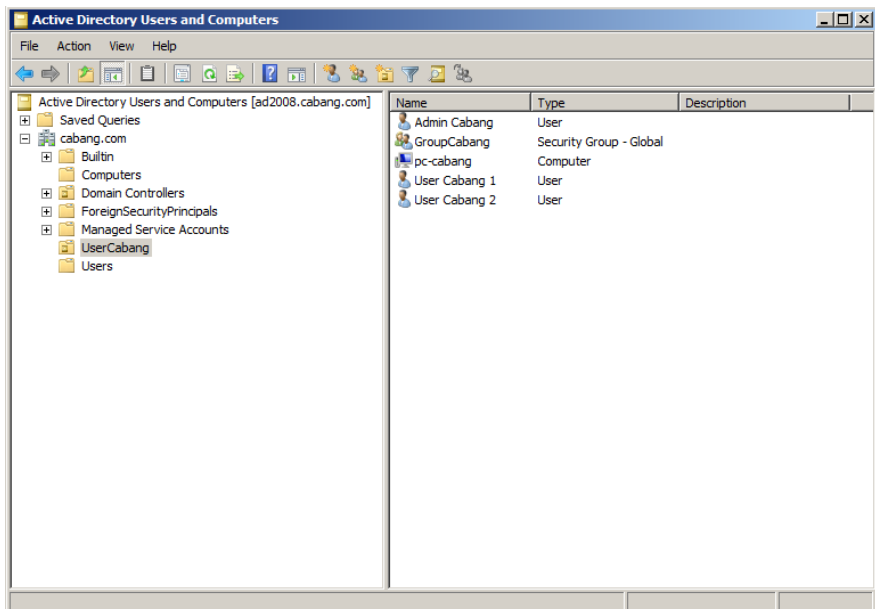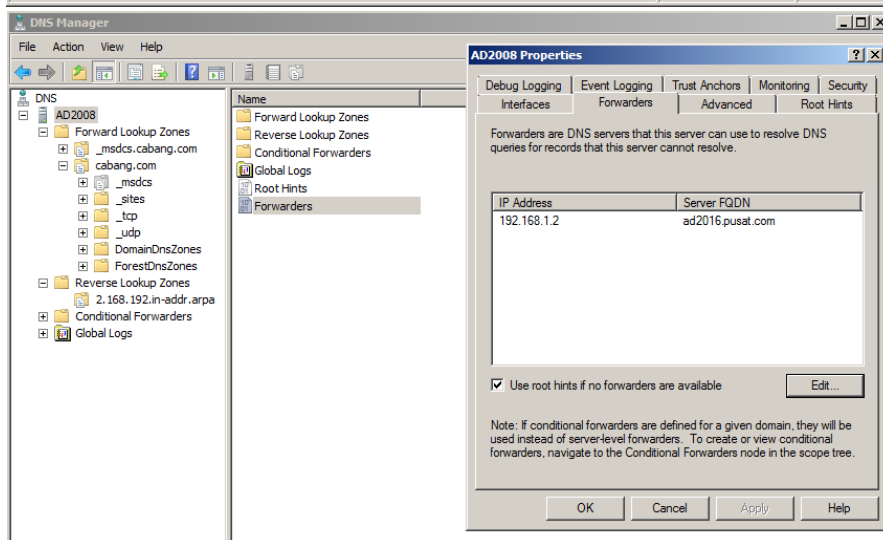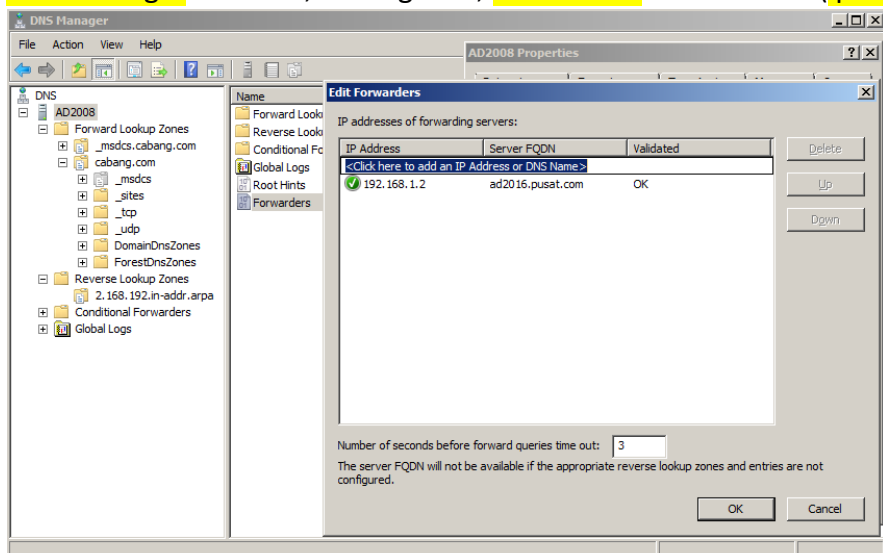

{34}_ Create Organizational Unit di server 2016

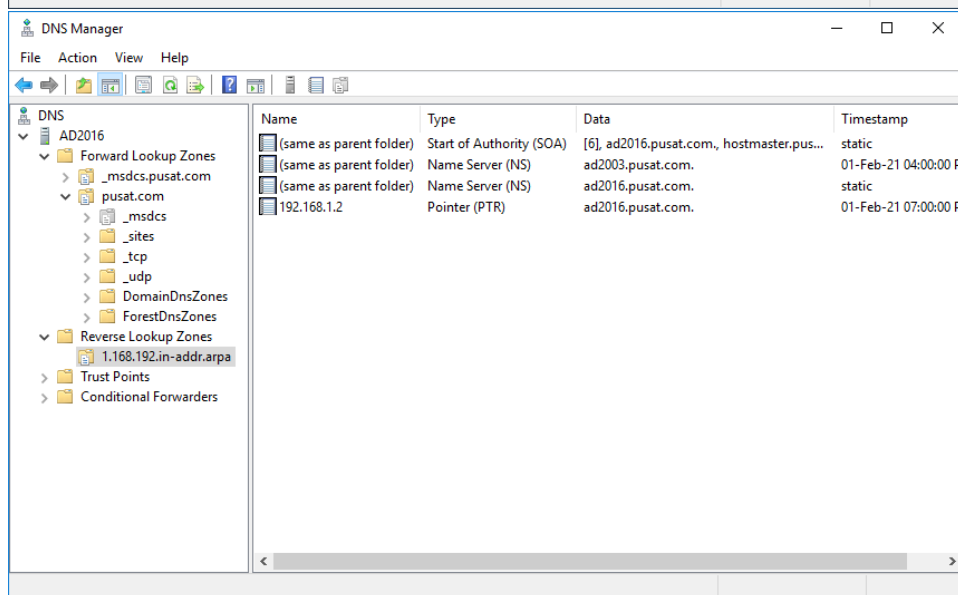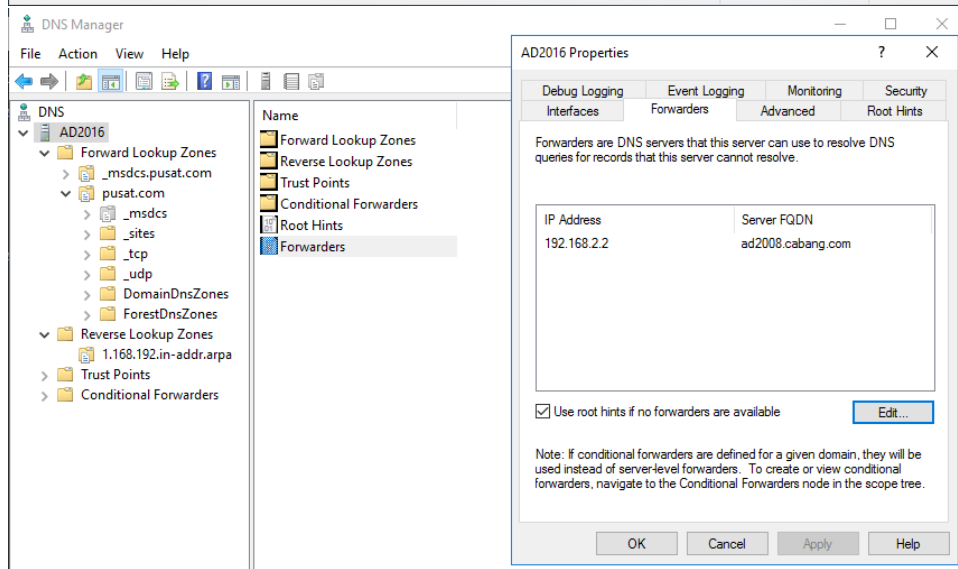Active Directory Users and Computers: pusat.com, New, Organizational Unit: UserCabang
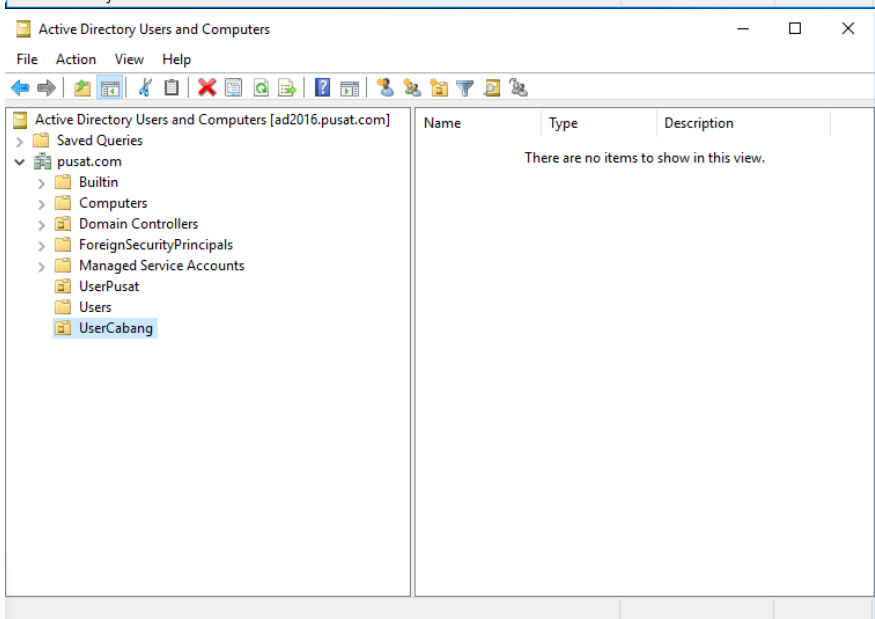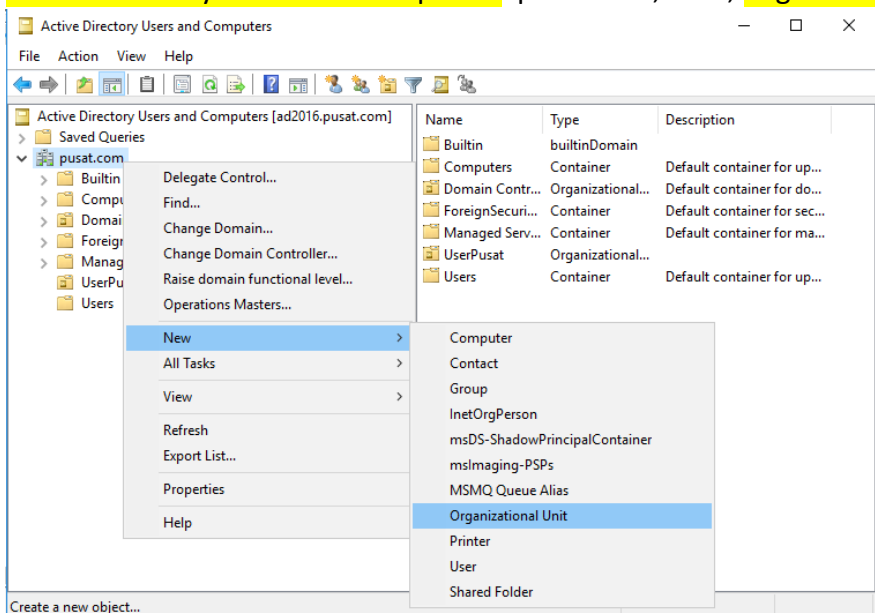
{35}_ Forwarder Domain server 2008

DNS Manager: AD2008, cabang.com, Forwarders: 192.168.1.2 (ip server 2016)

{36}_ Forwarder Domain Server 2016

DNS Manager: AD2016, pusat.com, Forwarders: 192.168.2.2 (ip server 2008)
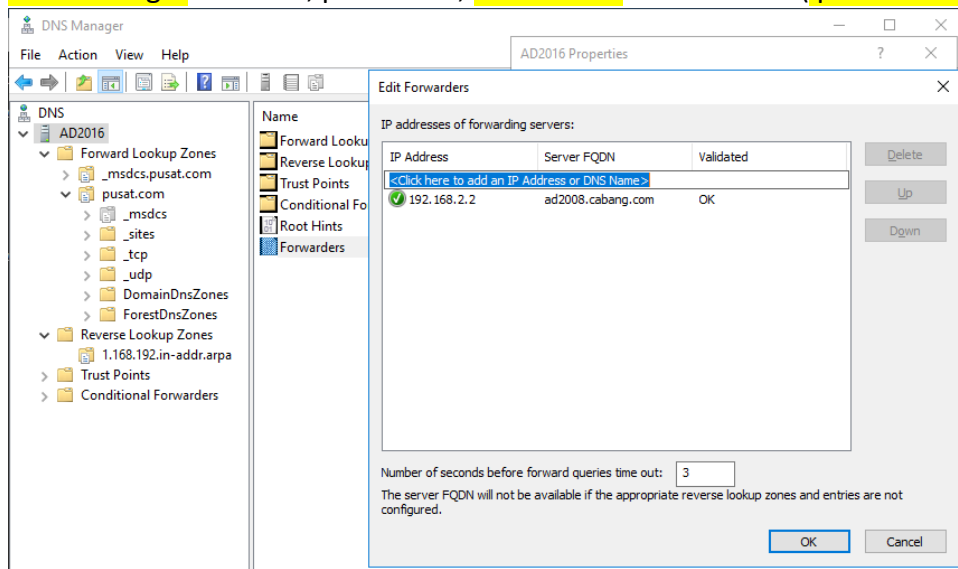
{37}_ Add pusat\administrator on administrator group Server 2008

<mark>Active Directory Users and Computers</mark>: cabang.com, Builtin, Administrators, Properties, <mark>Members</mark>:

Administrator pusat.com/Users (pusat\administrator)
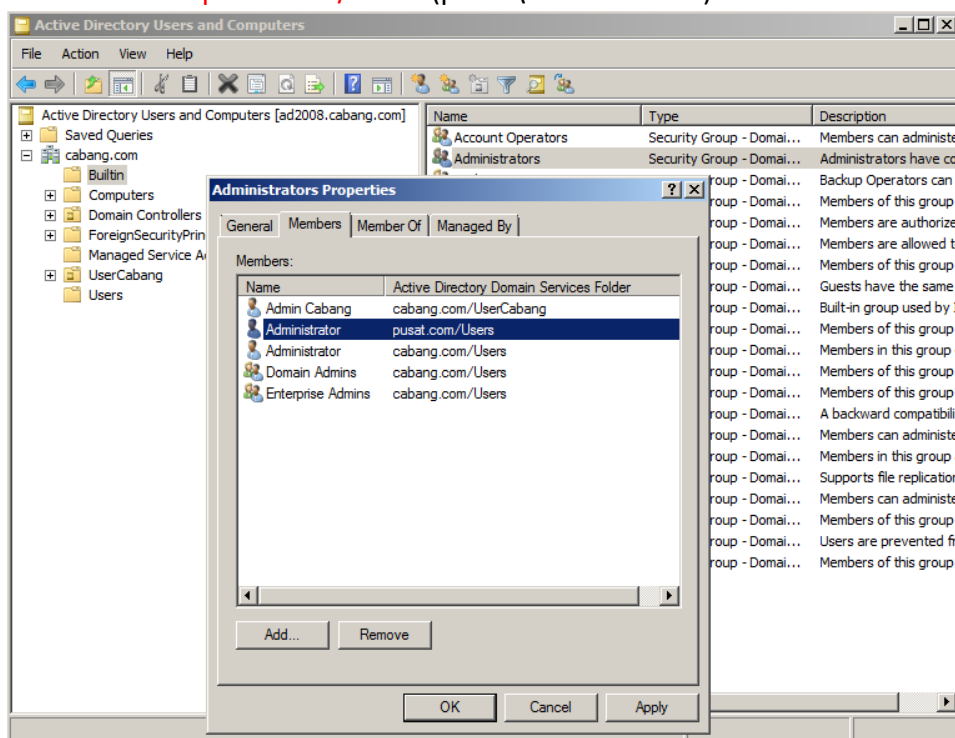
{38}_ Create ADMT Password Windows Server 2016

<mark>PowerShell</mark>: admt key /option:create /sourcedomain:cabang.com /keyfile:KeyAD.pes
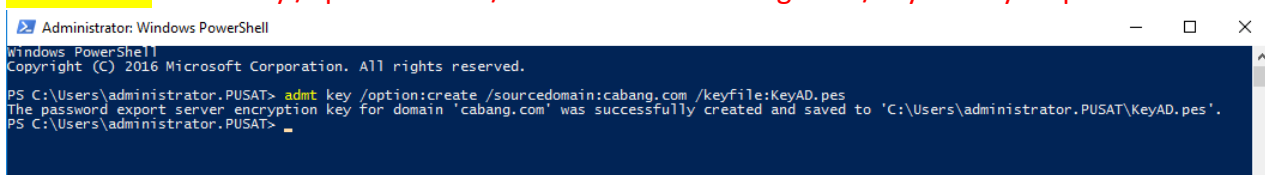
{39}_ Install ADMT Password Windows Server 2008
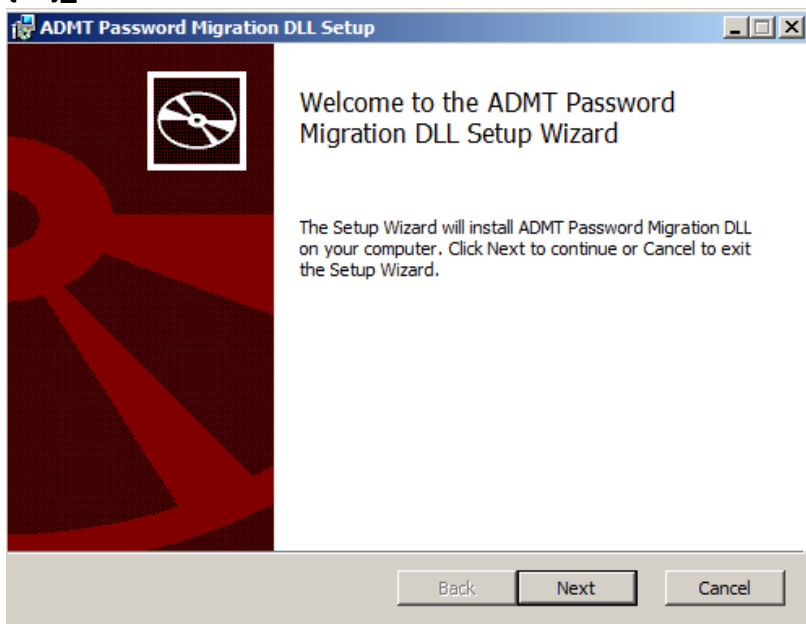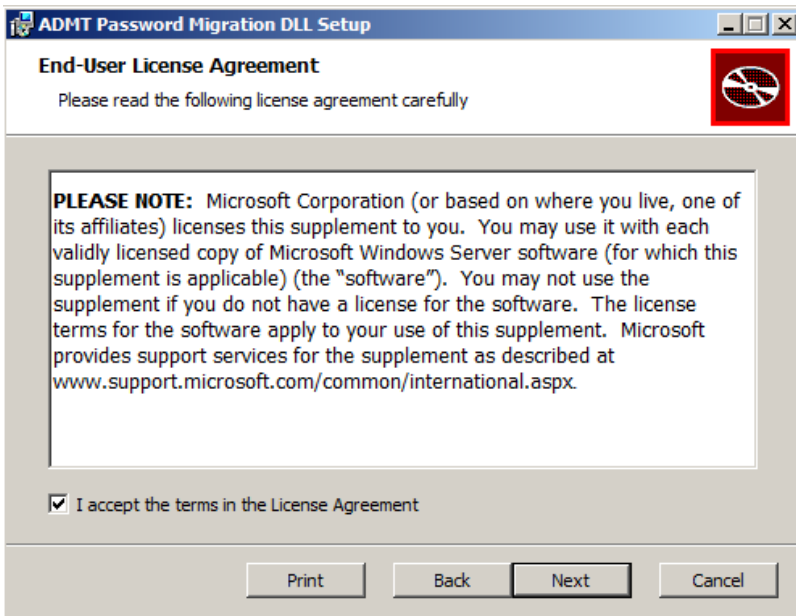
Pindahkan file admt password KeyAD.pes dari server 2016 ke server 2008
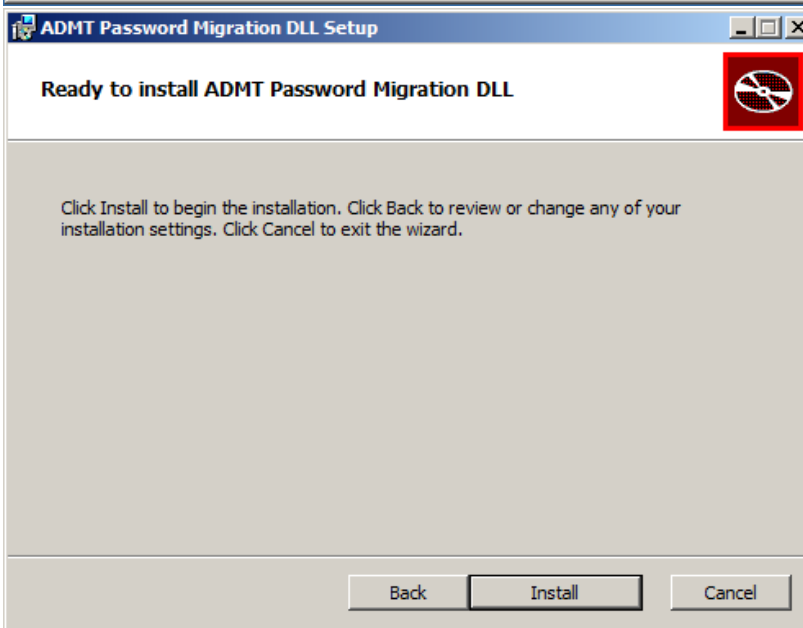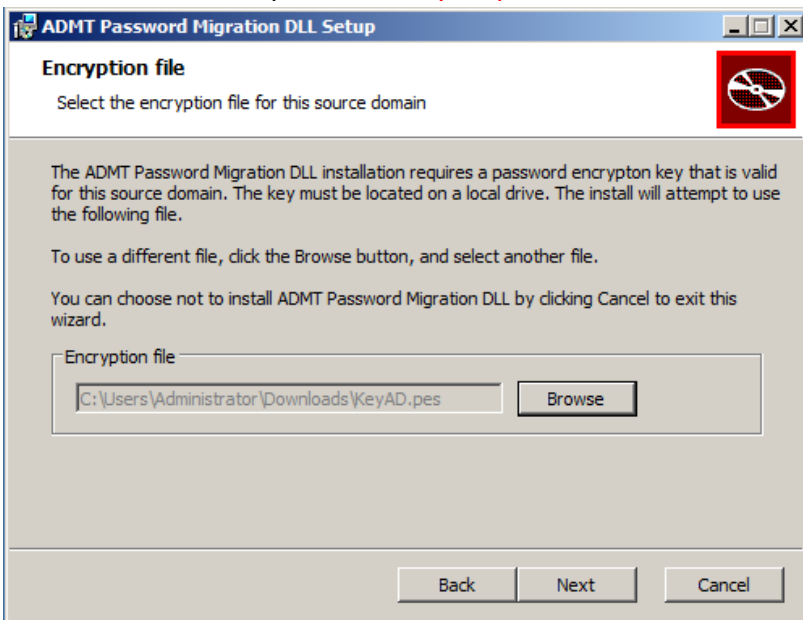
Run the service as: Local System account (administrator)
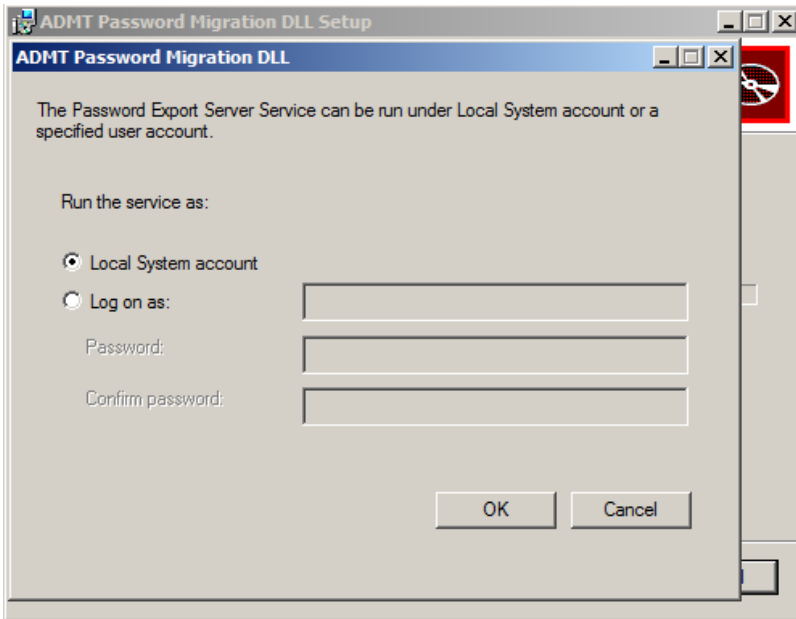
Install ADMT Password selesai, restart server 2008
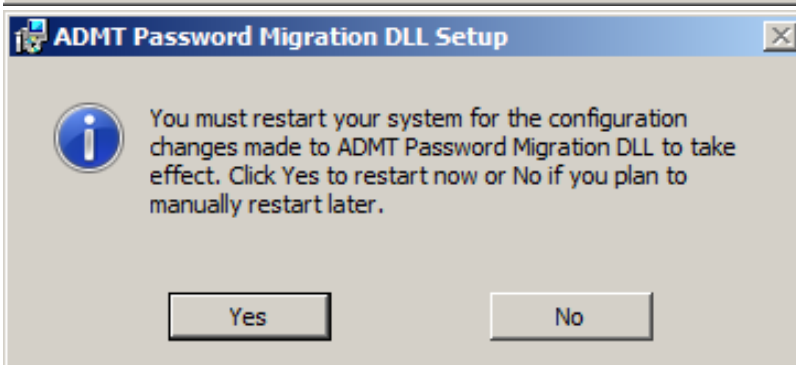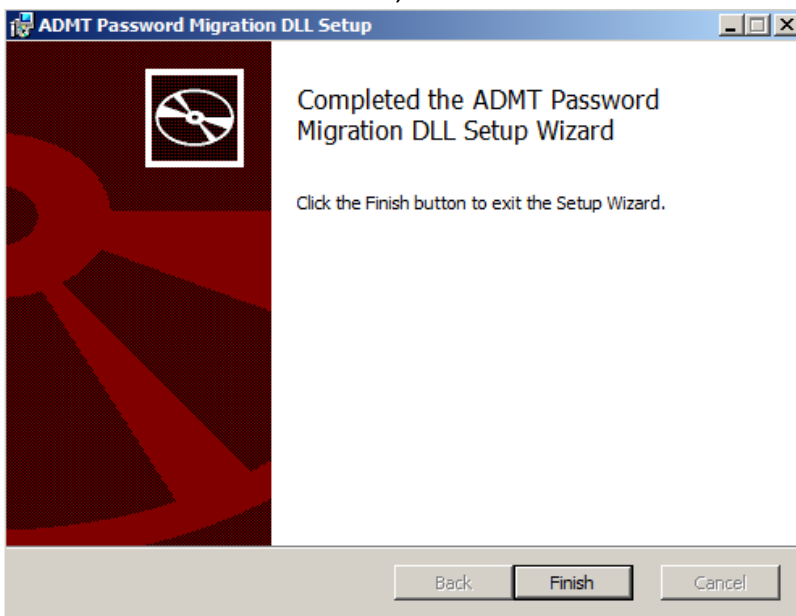
Services.msc, Password Export Server Service, Start Service.
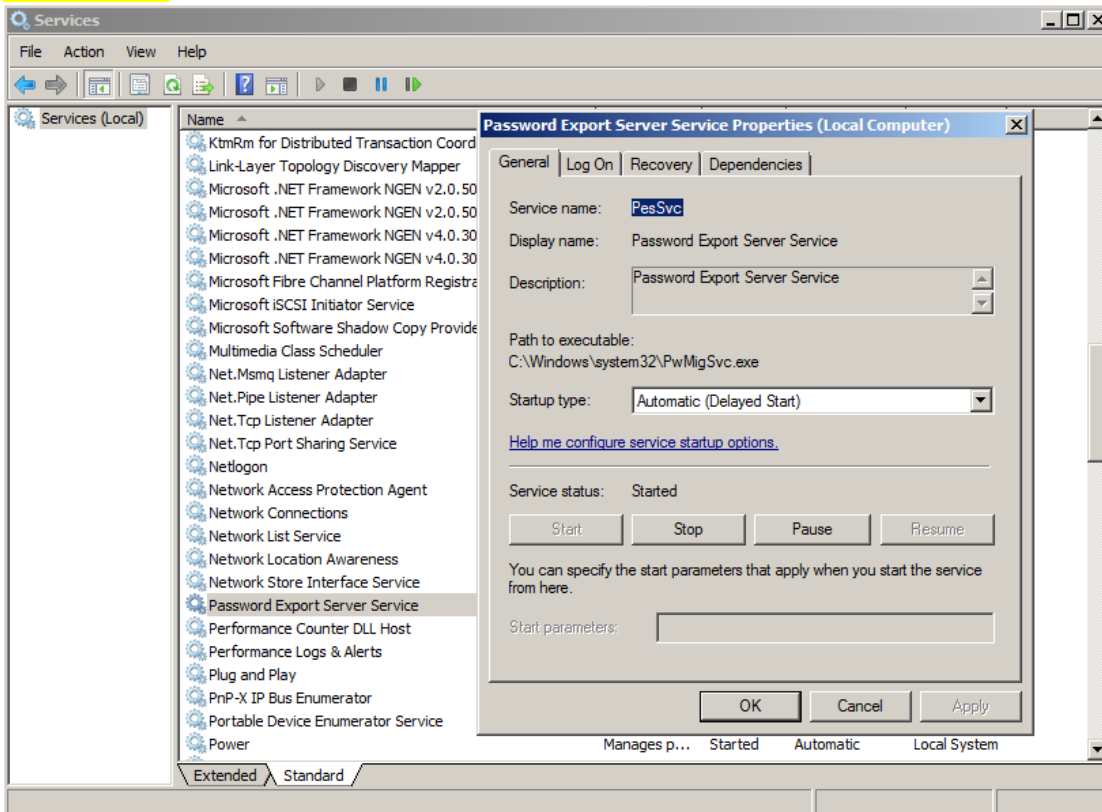
{40}_ Setting ADMT (Active Directory Migration Tool) Windows Server 2016
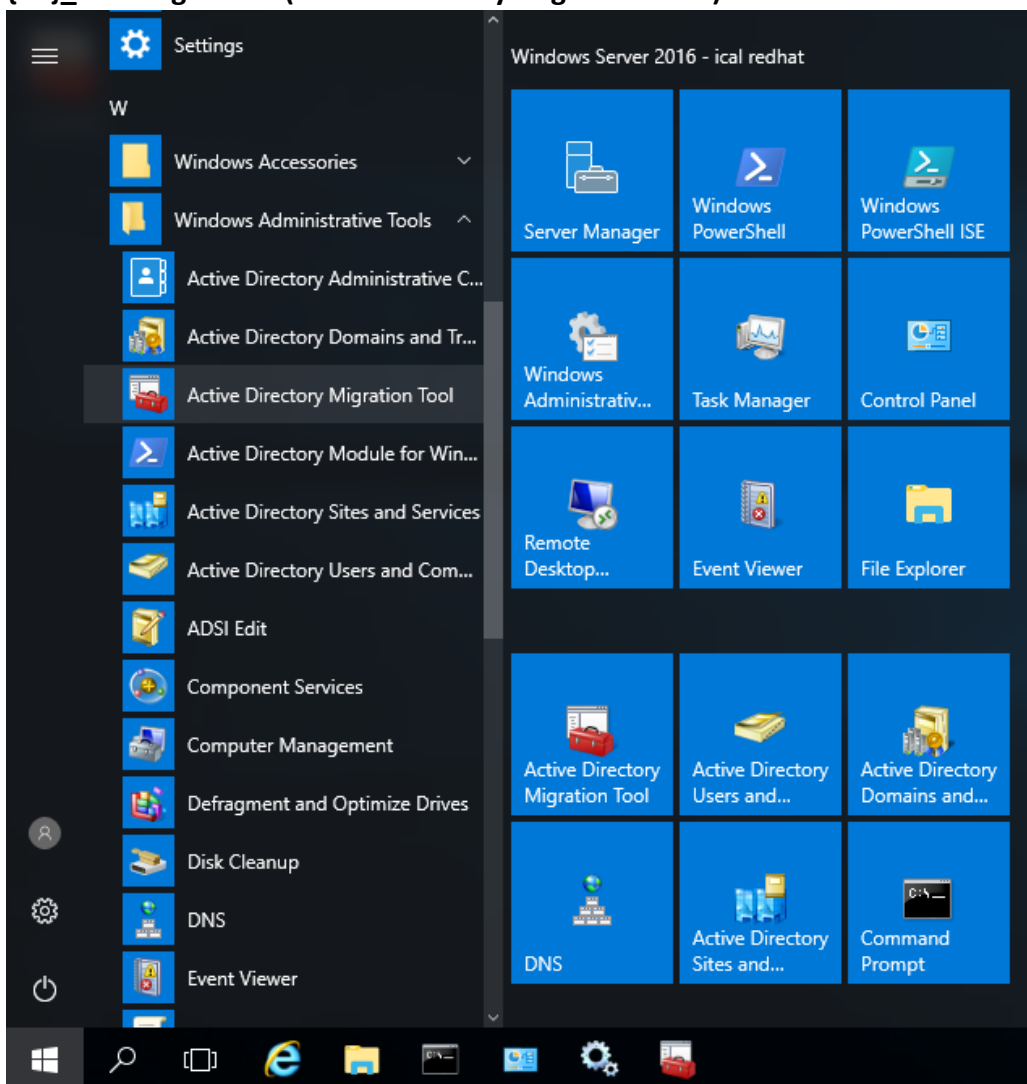
Active Directory Migration Tool, User Account Migration Wizard
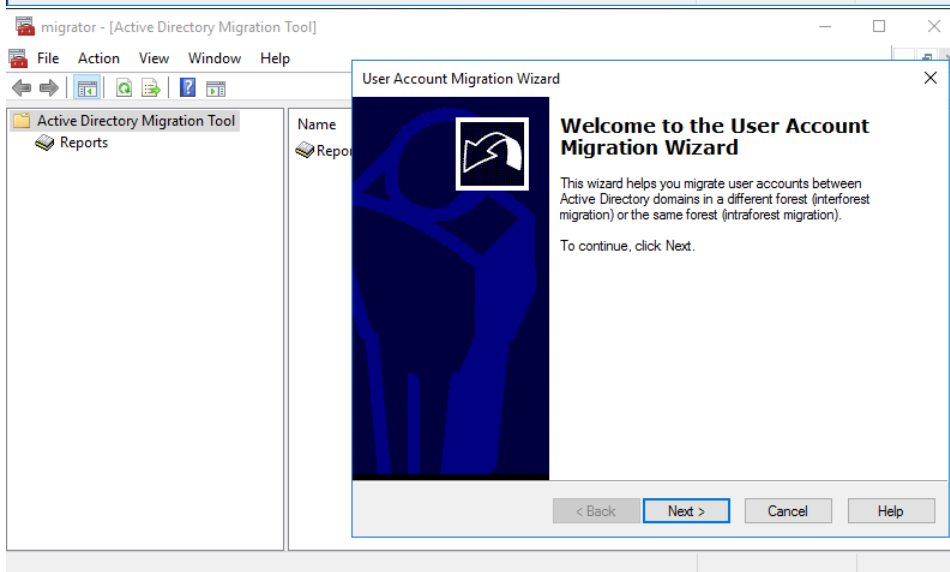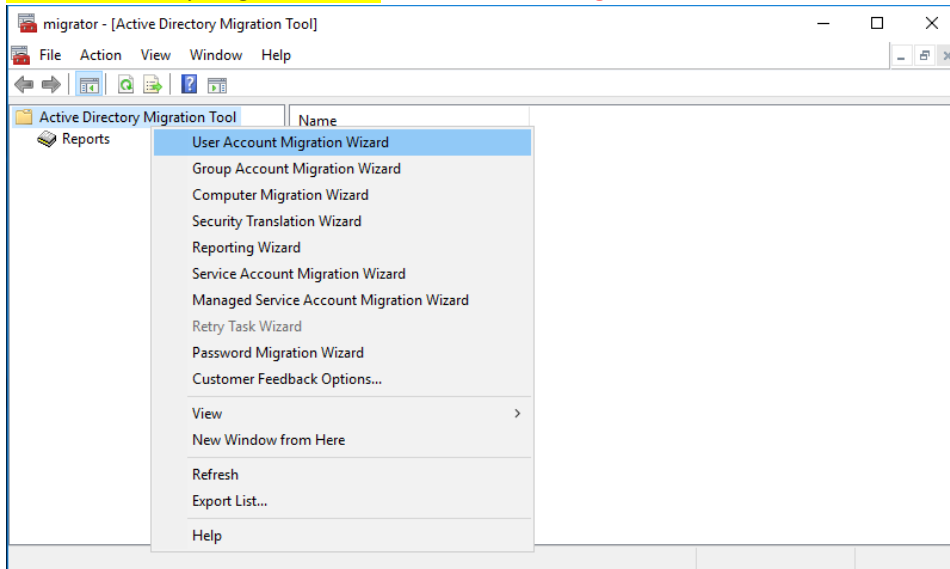
Domain Selection:

Source Domain: cabang.com

Source Domain Controller: \\ad2008.cabang.com

Target Domain: pusat.com

Target Domain Controller: \\ad2016.pusat.com
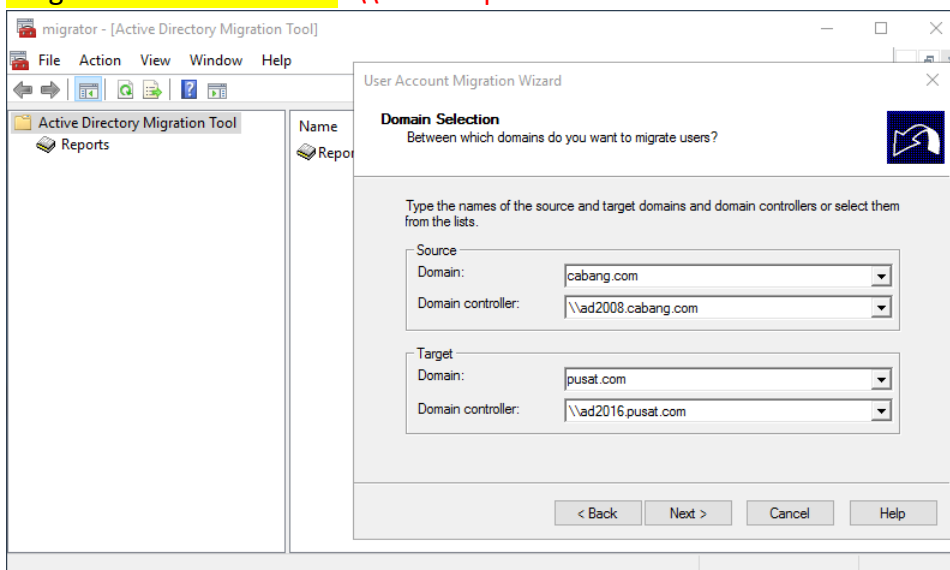
User Selection Option: Select users from domain
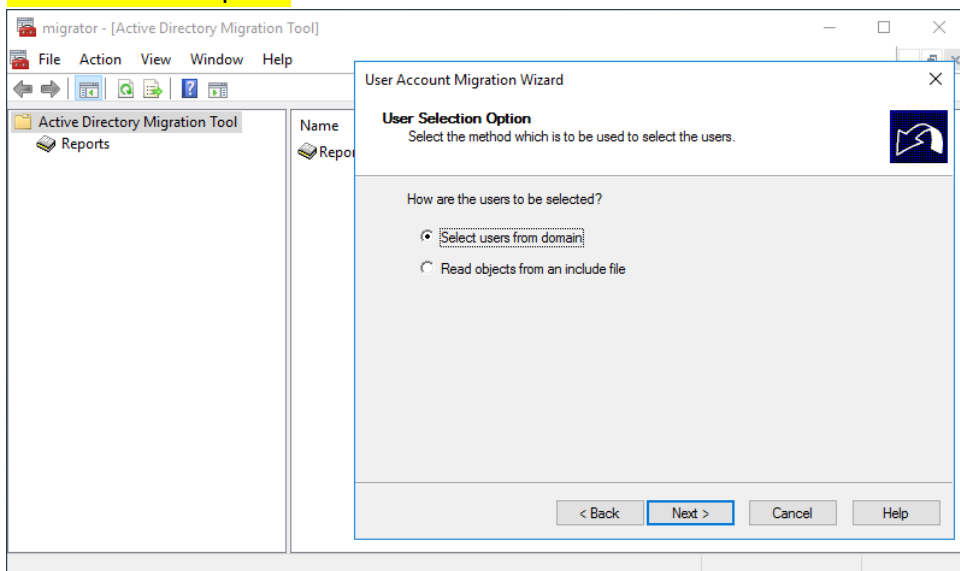
User Selection: Add… user actiove directory yang akan dimigrasi ke server 2016
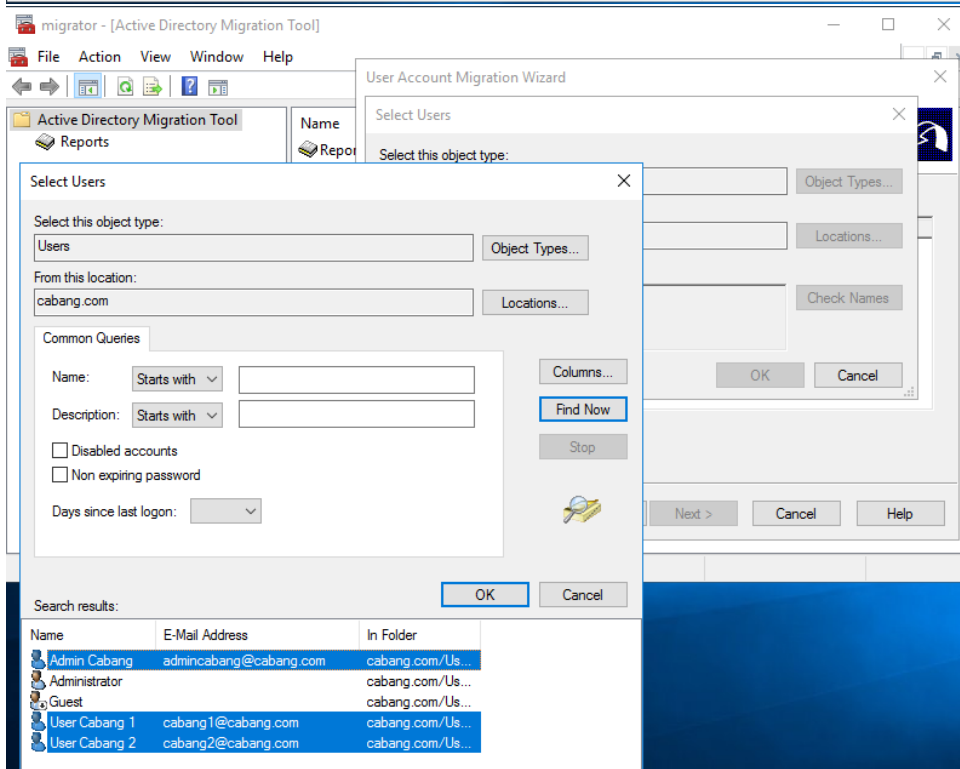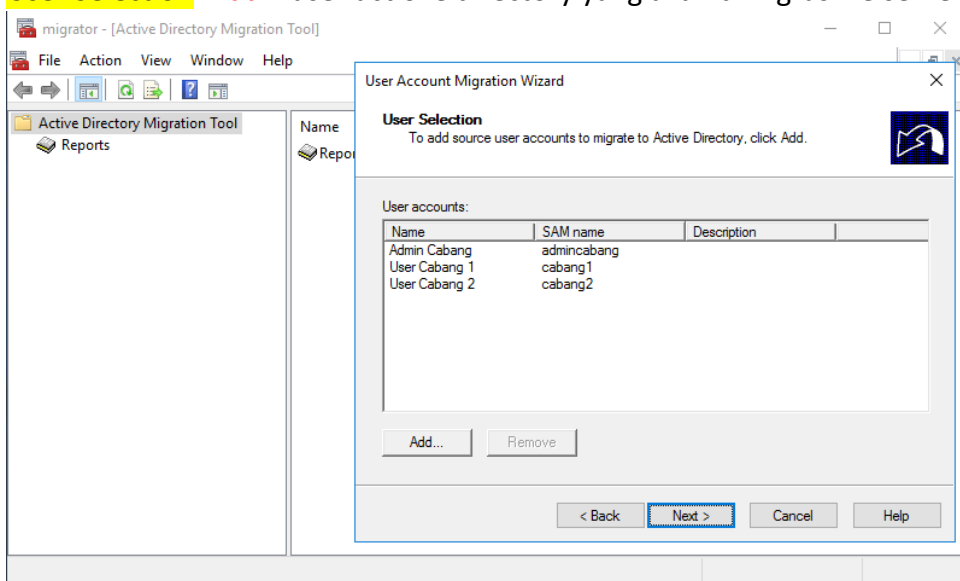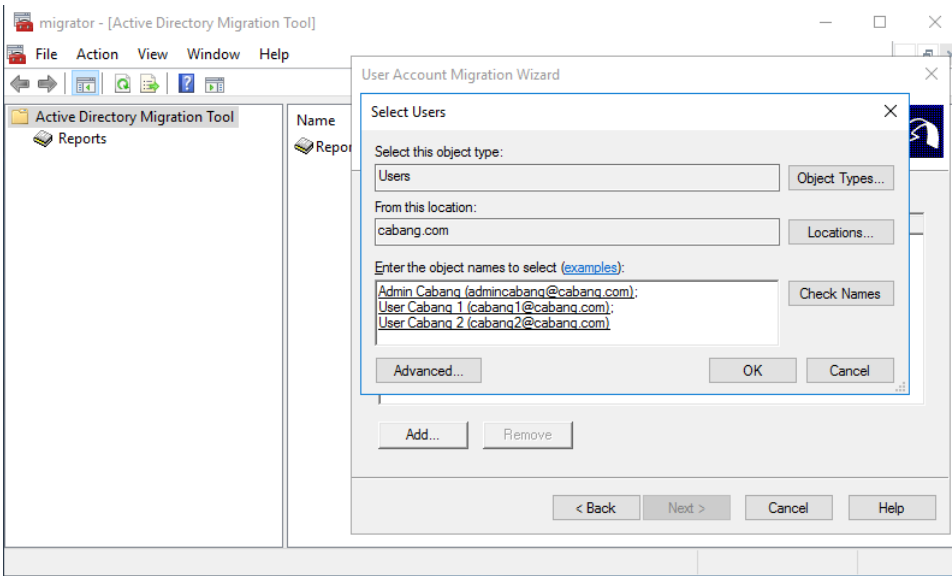
Organizational Unit Selection, Target OU: UserCabang (pusat.com)
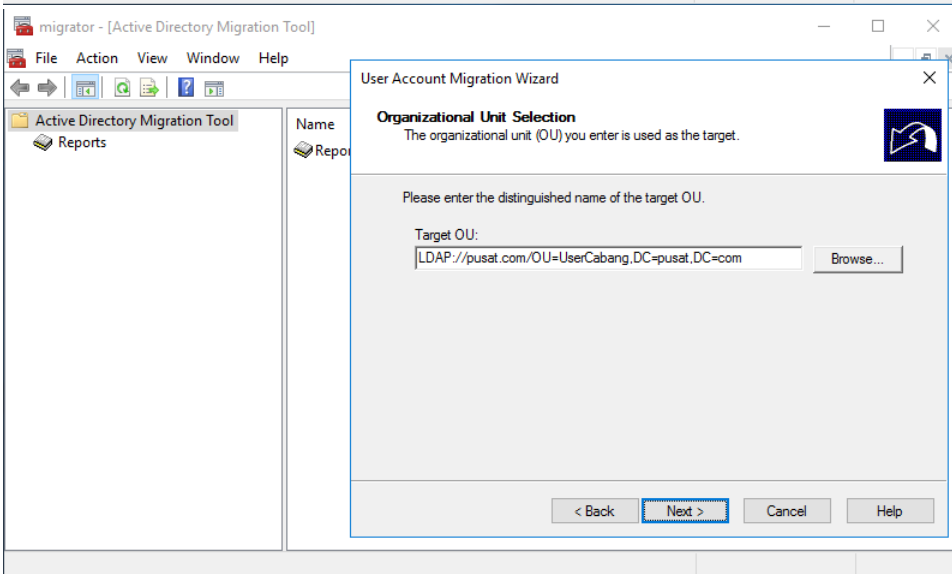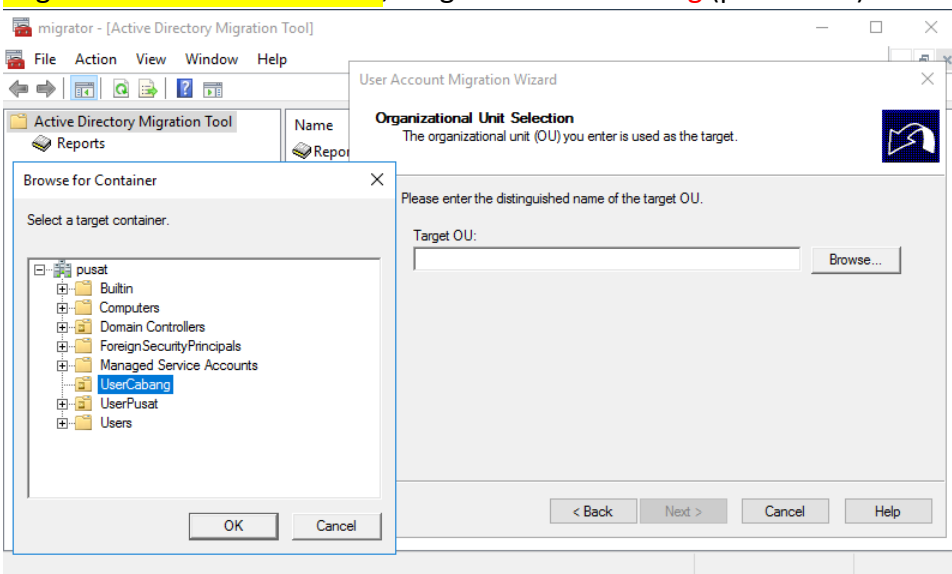
Password Options: Migrate passwords, password migration source DC: ad2008.cabang.com
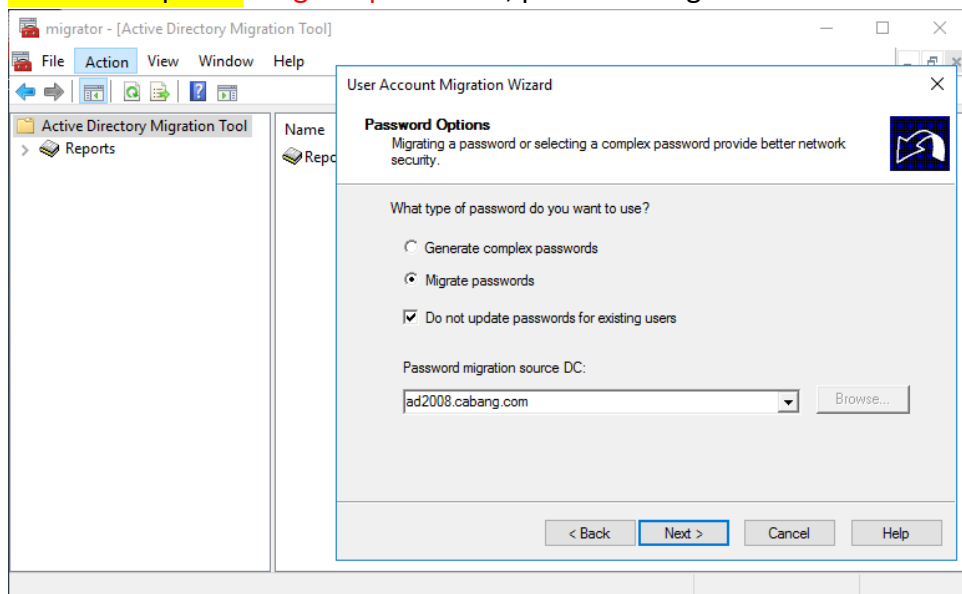
Target Account State: Enable target accounts, Migrate user SIDs to target domain
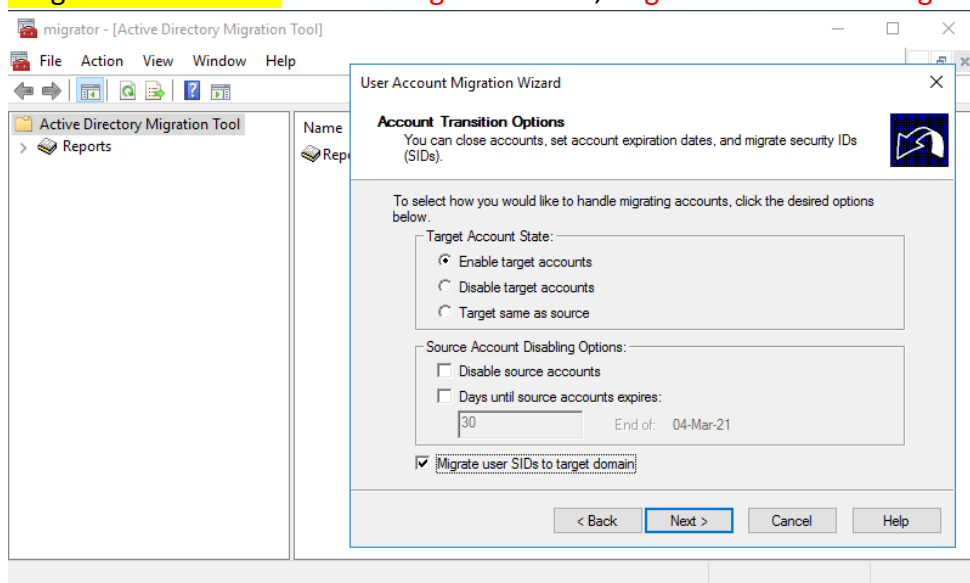
Would you like to enable auditing: Yes
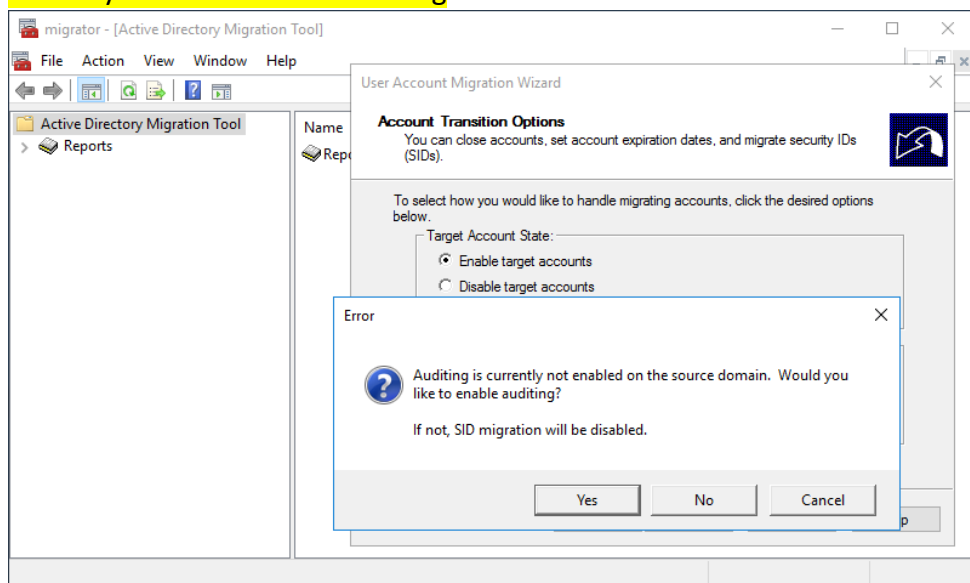
Would you like to create local group CABANG$$$: Yes
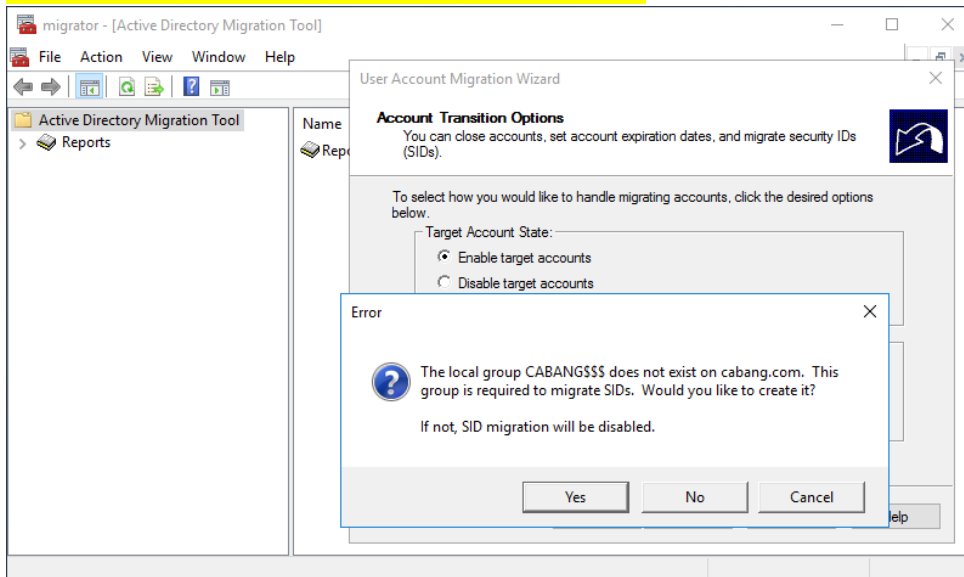
User Account: administrator, Domain: CABANG
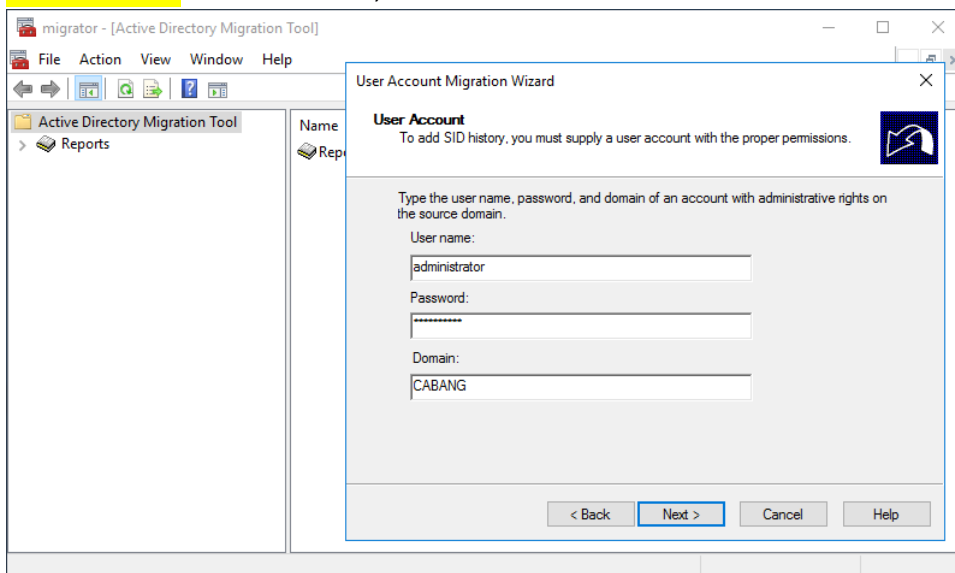
User Options: Update user rights, Migrate associated user groups, Fix user group memberships
(jika user masuk kedalam group tertentu, maka group tersebut akan ikut ter-migrasi)
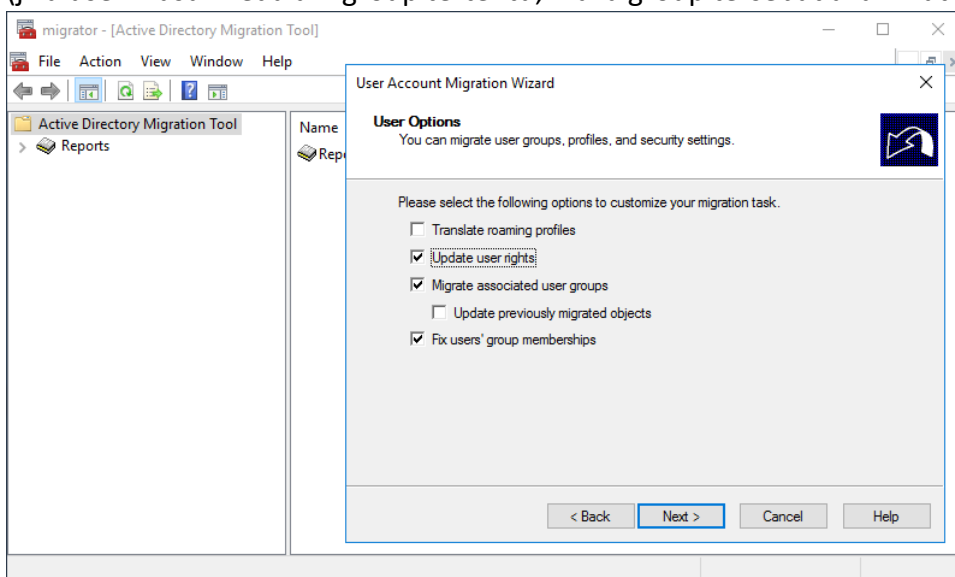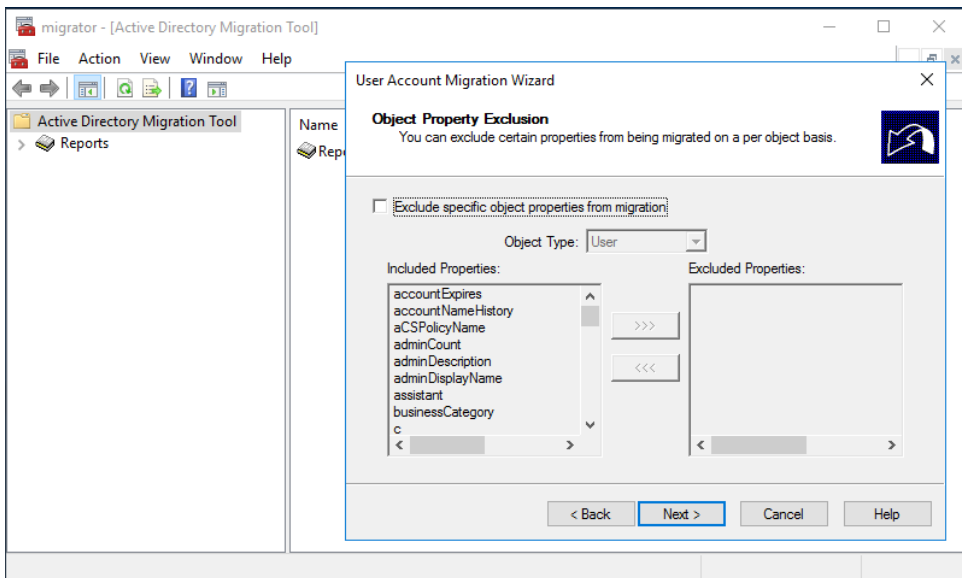
Conflict Management: Do not migrate source object if a conflict is detected in the target domain
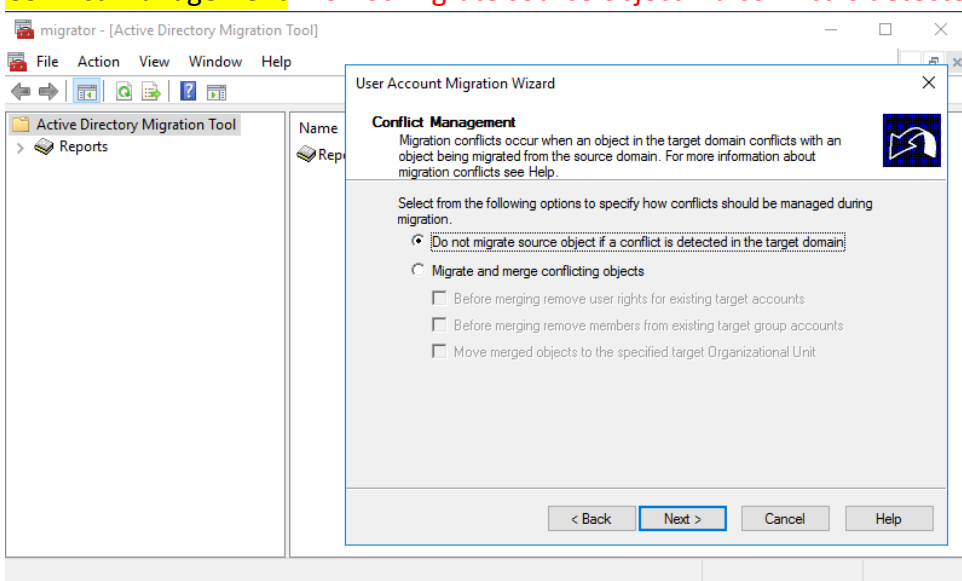
Migrasi User selesai dan berhasil.
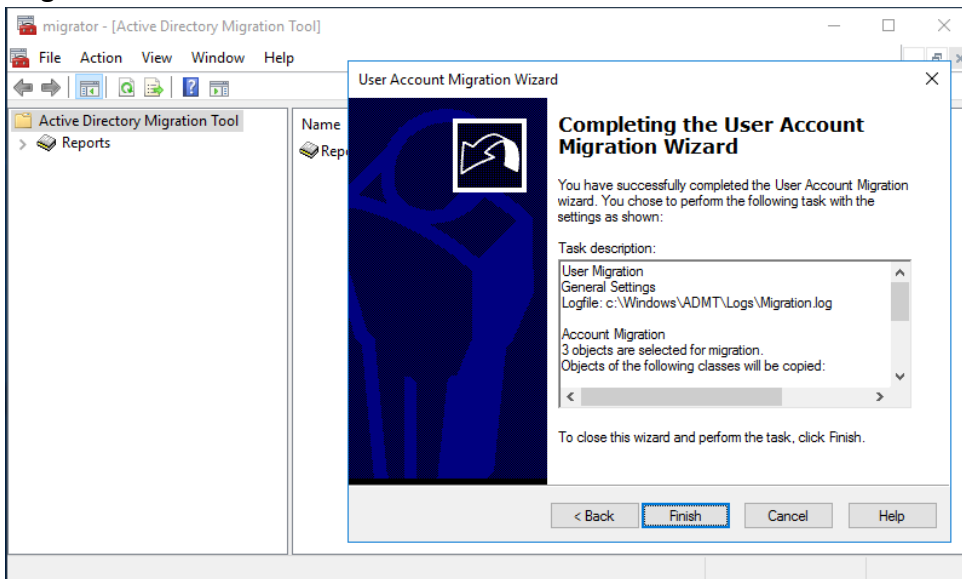
Terdapat 3 user dan 1 group yang sudah dimigrasi dari server 2008 ke server 2016.
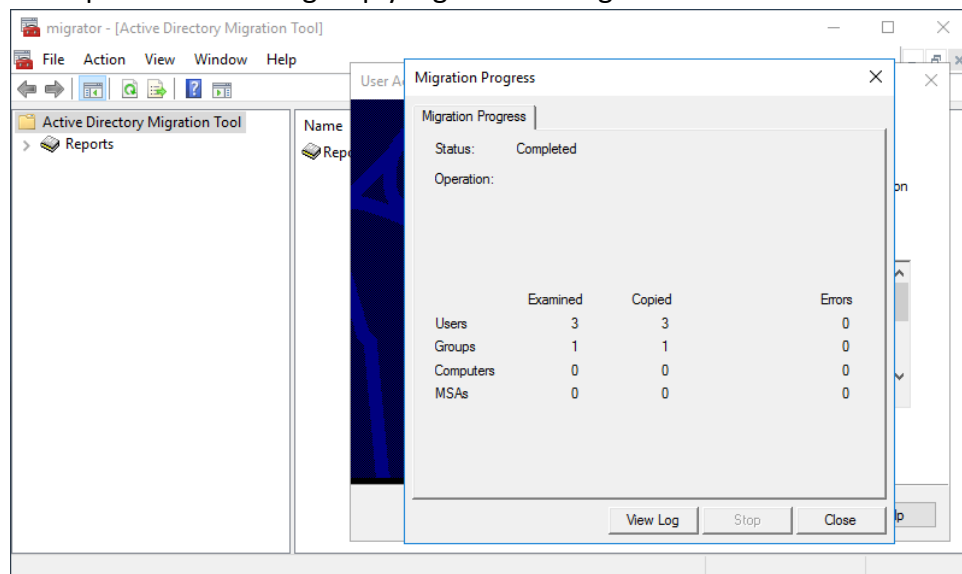
Cek Log


```
[Settings Section]
Task: User Migration (1)
ADMT Console
    User:       PUSAT\administrator
    Computer:   ad2016.pusat.com (AD2016)
        Domain:     pusat.com (PUSAT)
        OS:         Windows Server 2016 Standard 10.0 (14393)
Source Domain
    Name:   cabang.com (CABANG)
    DC:     ad2008.cabang.com (AD2008)
        OS:     Windows Server 2008 R2 Standard 6.1 (7601) Service Pack 1
    OU:
Target Domain
    Name:   pusat.com (PUSAT)
    DC:     ad2016.pusat.com (AD2016)
        OS:     Windows Server 2016 Standard 10.0 (14393)
    OU:     LDAP://pusat.com/OU=UserCabang,DC=pusat,DC=com
Intra-Forest: No
Password Option:        Copy passwords, only for new objects = No
Password Export Server: ad2008.cabang.com
Migrate Security Identifiers: Yes
Update Rights: Yes
Translate Roaming Profiles: No
Fix group membership: Yes
Conflict Option: Ignore
Source Disable Option: Leave source account
Source Expiration: Do not expire source account
Target Disable Option: Enable target account
Migrate groups: Yes
Update Migrated Objects: No
Migrate service accounts: Yes

[Object Migration Section]
2021-02-02 05:55:33 Starting Account Replicator.
2021-02-02 05:55:36 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Domain Admins,CN=Users,DC=cabang,DC=com
2021-02-02 05:55:36 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Schema Admins,CN=Users,DC=cabang,DC=com
2021-02-02 05:55:36 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Domain Controllers,CN=Users,DC=cabang,DC=com
2021-02-02 05:55:36 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Administrators,CN=Builtin,DC=cabang,DC=com
2021-02-02 05:55:37 CN=Admin Cabang      - Created
2021-02-02 05:55:37 SID for CABANG\admincabang added to the SID History of PUSAT\admincabang
2021-02-02 05:55:38   CN=Admin Cabang      - Password Copied.
2021-02-02 05:55:38 WRN1:7874 Disabled the "password never expires" account option for account 'CN=Admin Cabang'.
2021-02-02 05:55:39 CN=User Cabang 1      - Created
2021-02-02 05:55:39 SID for CABANG\cabang1 added to the SID History of PUSAT\cabang1
2021-02-02 05:55:39   CN=User Cabang 1      - Password Copied.
2021-02-02 05:55:39 WRN1:7874 Disabled the "password never expires" account option for account 'CN=User Cabang 1'.
2021-02-02 05:55:39 CN=User Cabang 2      - Created
2021-02-02 05:55:40 SID for CABANG\cabang2 added to the SID History of PUSAT\cabang2
2021-02-02 05:55:40   CN=User Cabang 2      - Password Copied.
2021-02-02 05:55:40 WRN1:7874 Disabled the "password never expires" account option for account 'CN=User Cabang 2'.
2021-02-02 05:55:40 CN=GroupCabang      - Created
2021-02-02 05:55:40 SID for CABANG\GroupCabang added to the SID History of PUSAT\GroupCabang
2021-02-02 05:55:40 Processing group membership for CN=GroupCabang.
2021-02-02 05:55:40     Cannot add WIN7CABANG$ to CN=GroupCabang, because WIN7CABANG$ has not been migrated to the target domain.
2021-02-02 05:55:40 LDAP://ad2016.pusat.com/CN=Admin Cabang,OU=UserCabang,DC=pusat,DC=com added.
2021-02-02 05:55:40 LDAP://ad2016.pusat.com/CN=User Cabang 2,OU=UserCabang,DC=pusat,DC=com added.
2021-02-02 05:55:40 LDAP://ad2016.pusat.com/CN=User Cabang 1,OU=UserCabang,DC=pusat,DC=com added.
2021-02-02 05:55:40 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Domain Admins,CN=Users,DC=cabang,DC=com
2021-02-02 05:55:40 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Schema Admins,CN=Users,DC=cabang,DC=com
2021-02-02 05:55:40 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Domain Controllers,CN=Users,DC=cabang,DC=com
2021-02-02 05:55:40 WRN1:7372 ADMT does not process BUILTIN accounts or change the membership of BUILTIN groups (Administrators, etc.). Skipping LDAP://cabang.com/CN=Administrators,CN=Builtin,DC=cabang,DC=com
2021-02-02 05:55:40 Updated user rights for CN=Admin Cabang
2021-02-02 05:55:40 Updated user rights for CN=User Cabang 1
2021-02-02 05:55:40 Updated user rights for CN=User Cabang 2
2021-02-02 05:55:40 Updated user rights for CN=GroupCabang
2021-02-02 05:55:41 Operation completed.
```

{41}_ Reporting ADMT

**Active Directory Migration Tool**: Reporting Wizard

**Domain Selection:**
Source Domain: cabang.com
Source Domain Controller: \\ad2008.cabang.com
Target Domain: pusat.com
**Target Domain Controller**: \\ad2016.pusat.com

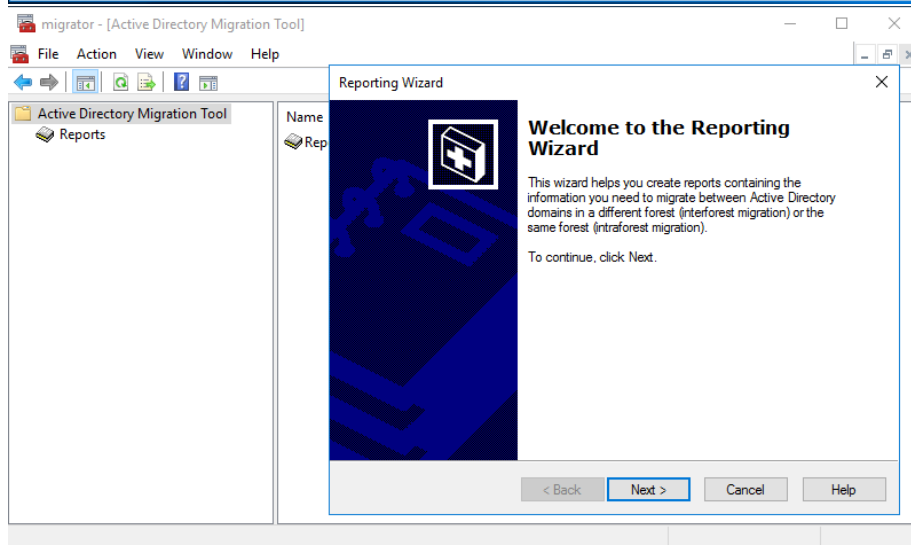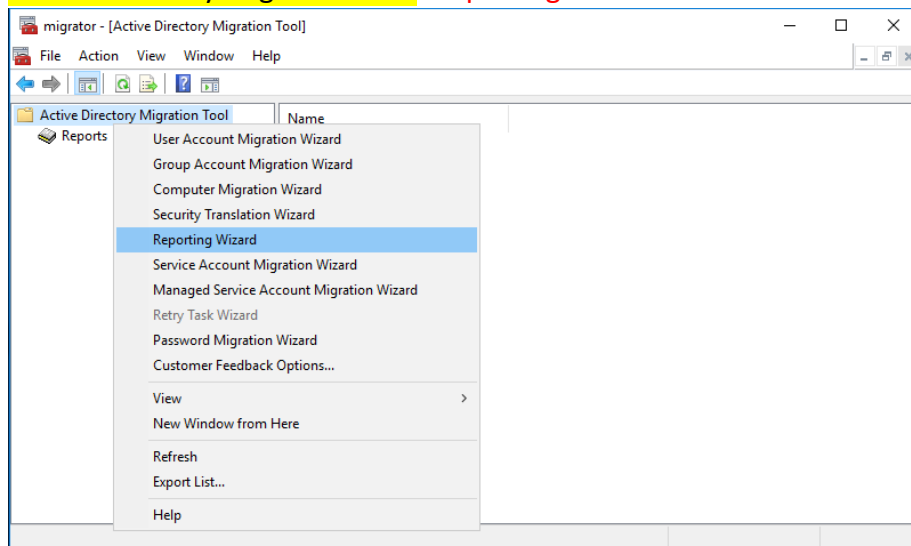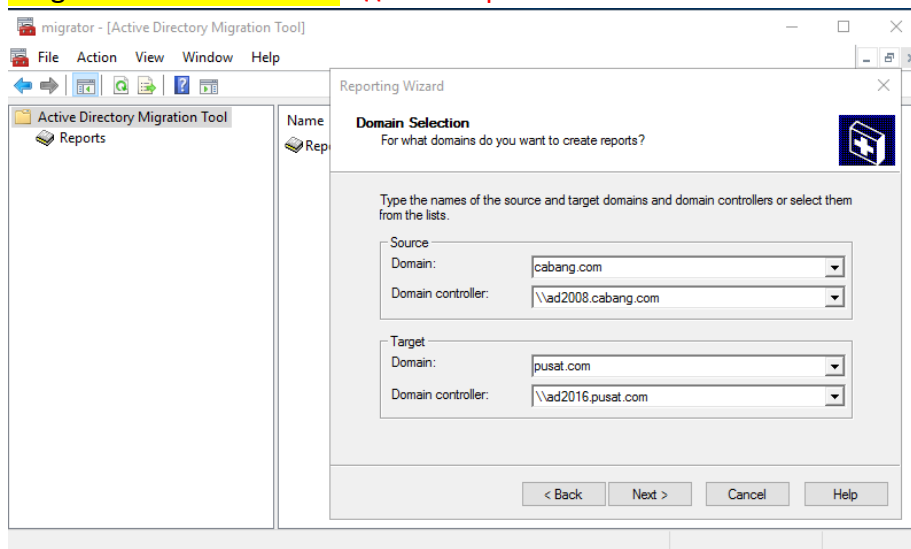**Location file report**: C:\Windows\ADMT\Reports
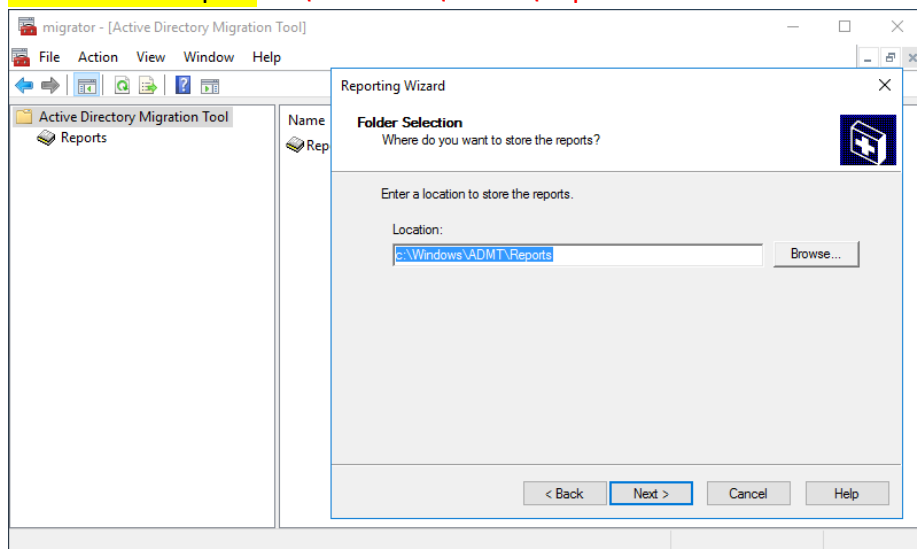
Report Selection: Migrated accounts

Reports: Migrated Accounts

{42}_ Cek User Active Directory Windows Server 2016

Active Directory Users and Computers: pusat.com, UserCabang

(User AD dari server 2008 sudah termigrasi ke server 2016)

{43}_ Cek SID di server 2008 before migrate

Cek SID dengan Active Directory Explorer

{44}_ Cek SID di server 2016 after migrate

SID berhasil di migrate dari server 2008 ke server 2016 (SID yang ada di server 2008 sama identik denagn yang ada di server 2016)

{45}_ Cek SID komputer client before migrate

Cek SID user cabang1 di komputer yang terhubung dengan domain cabang.com

Registry: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\ProfileList

Cmd: whoami /user

{46}_ Cek SID komputer client after migrate

Cek SID user cabang1 di komputer yang terhubung dengan domain pusat.com

Di folder Users akan terdpat 2 folder: cabang1 dan cabang1.PUSAT (folder cabang1 dari domain cabang.com, sedangkan cabang1.PUSAT dari domain pusat.com)

Cmd: whoami /user

Ketika awal login dengan domain pusat.com akan diminta untuk mengganti password
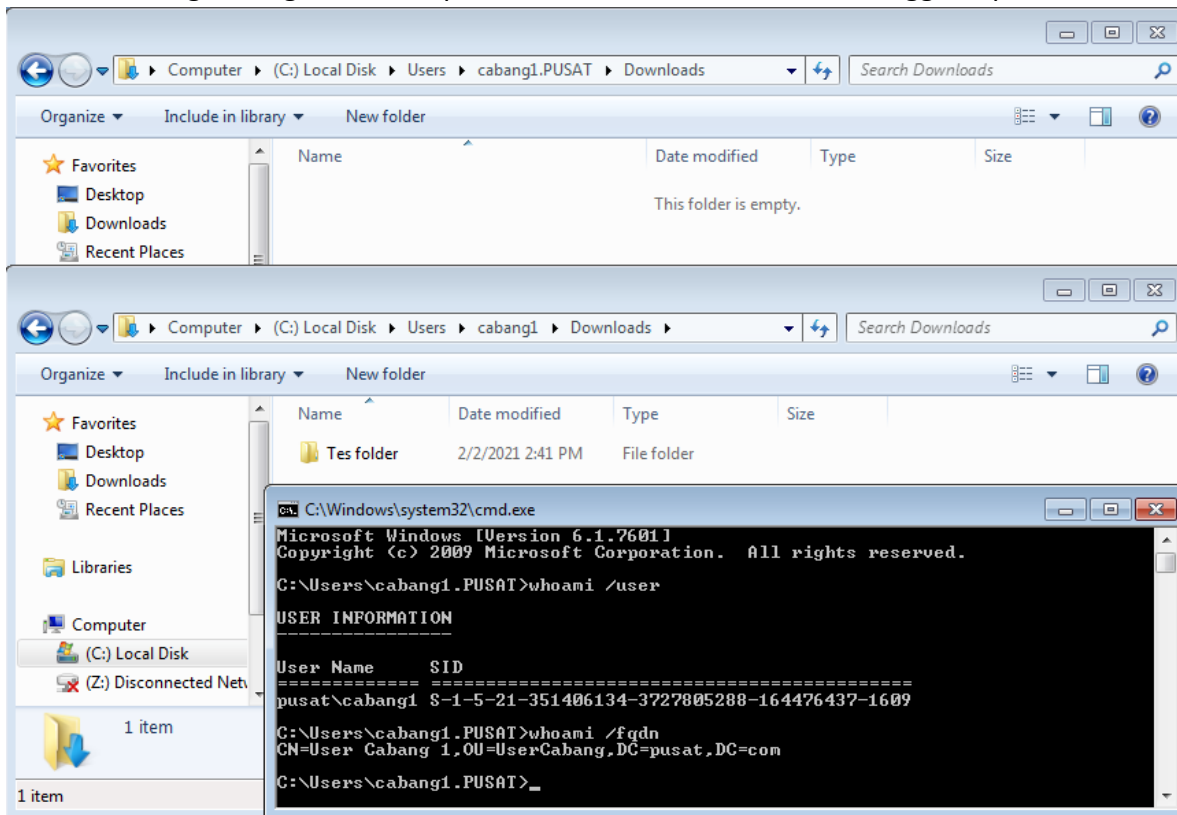
Agar profile user ketika login diarahkan ke folder user yang lama, maka harus di ubah dari registry dengan user administrator

Ganti folder path ke lokasi lama, hapus .PUSAT
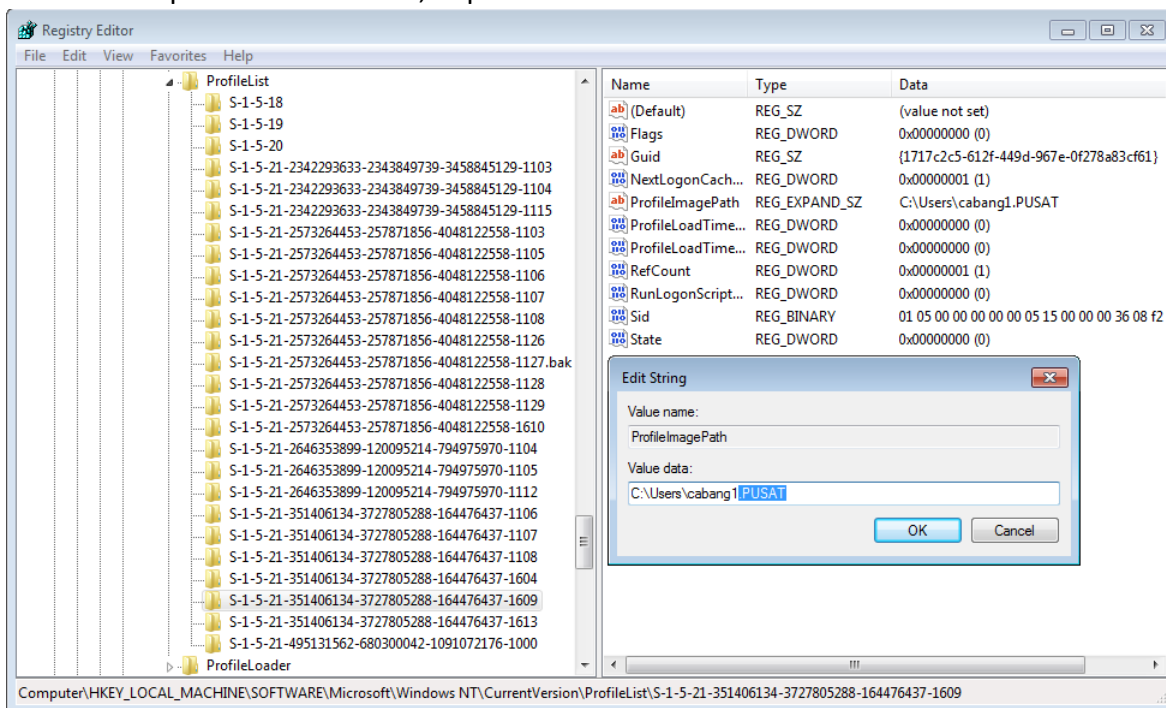
{47}_ Raise domain dan forest functional level

Active Directory Domain and Trusts: pusat.com, Raise domain functional level, pilih Windows Server 2016
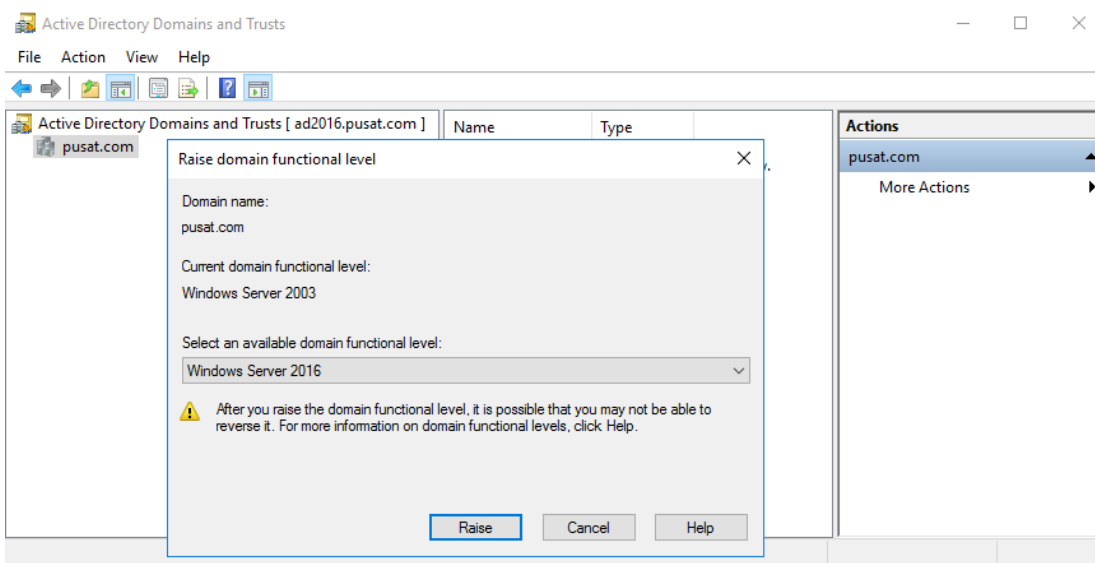
Active Directory Domain and Trusts [ad2016.pusat.com] : Raise forest functional level, pilih Windows Server 2016
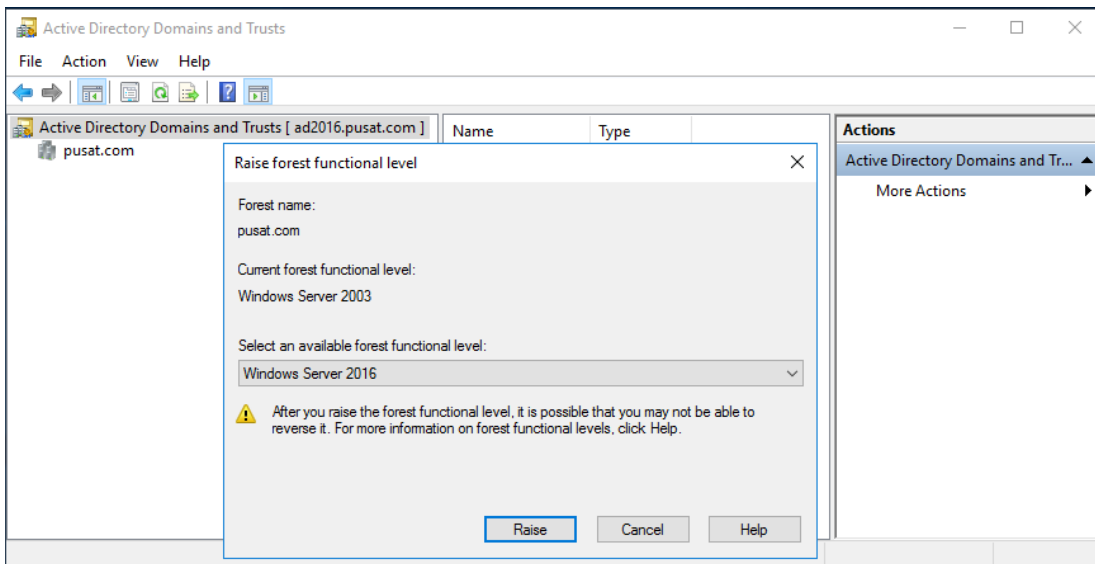
{48}_ Windows Server 2016 RODC join domain pusat.com

Hostname: rodc2016, ip address: 192.168.2.3, gateway: 192.168.2.1, dns: 192.168.2.3 ; 192.168.2.1, join domain pusat.com.
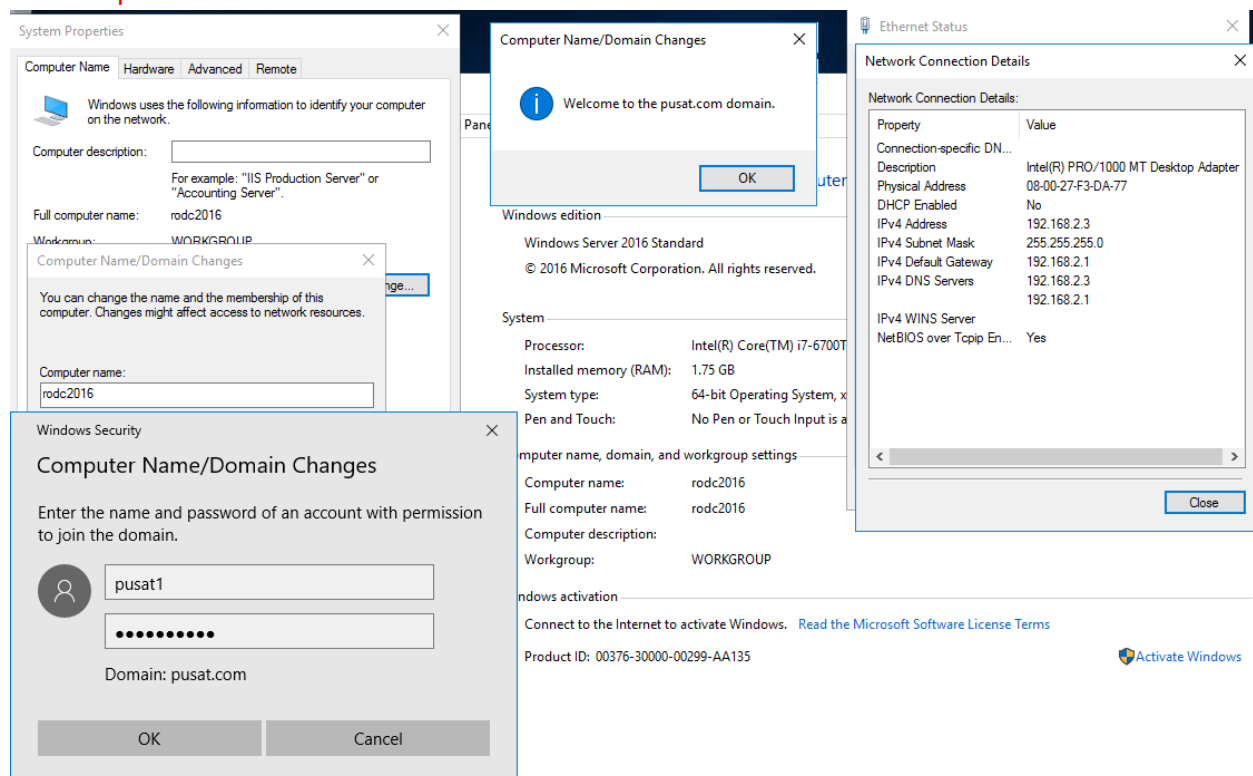
{49}_ Install Active Directory Windows Server 2016 RODC

Server Manager, Add Roles and Features

Select installation type: Role-based or feature-based installation

Select destination server: rodc2016.pusat.com

Server Roles: Active Directory Domain Services

Server Manager

Add Roles and Features Wizard

Select features

DESTINATION SERVER
rodc2016.pusat.com

Before You Begin
Installation Type
Server Selection
Server Roles
Features
AD DS
Confirmation
Results

Select one or more features to install on the selected server.

Features

- ▷ ☐ .NET Framework 3.5 Features
- ▷ ◼ .NET Framework 4.6 Features (2 of 7 installed)
- ▷ ☐ Background Intelligent Transfer Service (BITS)
- ☐ BitLocker Drive Encryption
- ☐ BitLocker Network Unlock
- ☐ BranchCache
- ☐ Client for NFS
- ☐ Containers
- ☐ Data Center Bridging
- ☐ Direct Play
- ☐ Enhanced Storage
- ☐ Failover Clustering
- ☑ Group Policy Management
- ☐ I/O Quality of Service
- ☐ IIS Hostable Web Core
- ☐ Internet Printing Client
- ☐ IP Address Management (IPAM) Server
- ☐ iSNS Server service
- ☐ LPR Port Monitor

Description

.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

< Previous | Next > | Install | Cancel

Server Manager

Add Roles and Features Wizard

Active Directory Domain Services

DESTINATION SERVER
rodc2016.pusat.com

Before You Begin
Installation Type
Server Selection
Server Roles
Features
AD DS
Confirmation
Results

Active Directory Domain Services (AD DS) stores information about users, computers, and other devices on the network. AD DS helps administrators securely manage this information and facilitates resource sharing and collaboration between users.

Things to note:

- To help ensure that users can still log on to the network in the case of a server outage, install a minimum of two domain controllers for a domain.
- AD DS requires a DNS server to be installed on the network. If you do not have a DNS server installed, you will be prompted to install the DNS Server role on this machine.

Azure Active Directory, a separate online service, can provide simplified identity and access management, security reporting, single sign-on to cloud and on-premises web apps.

Learn more about Azure Active Directory
Configure Office 365 with Azure Active Directory Connect

< Previous | Next > | Install | Cancel

Server Manager

Add Roles and Features Wizard

Confirm installation selections

DESTINATION SERVER
rodc2016.pusat.com

Before You Begin
Installation Type
Server Selection
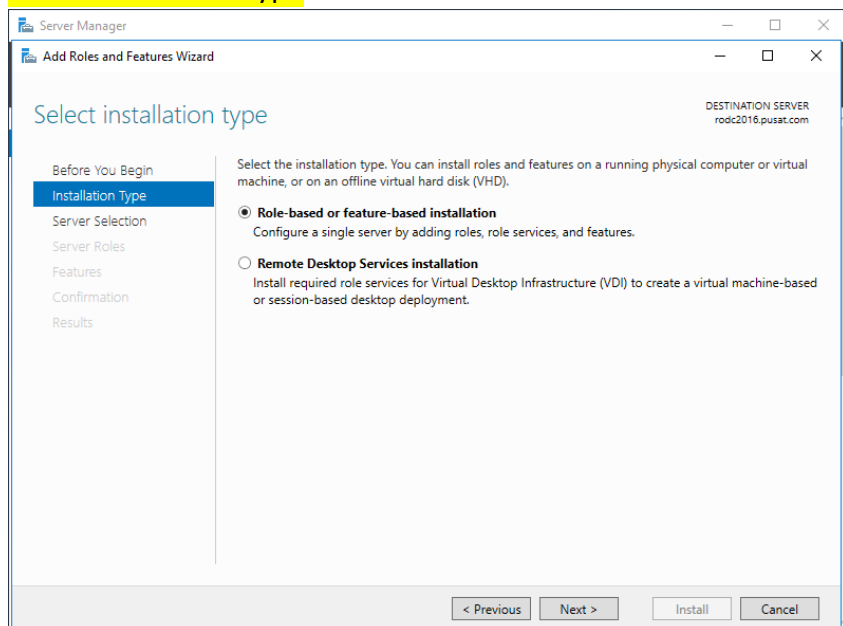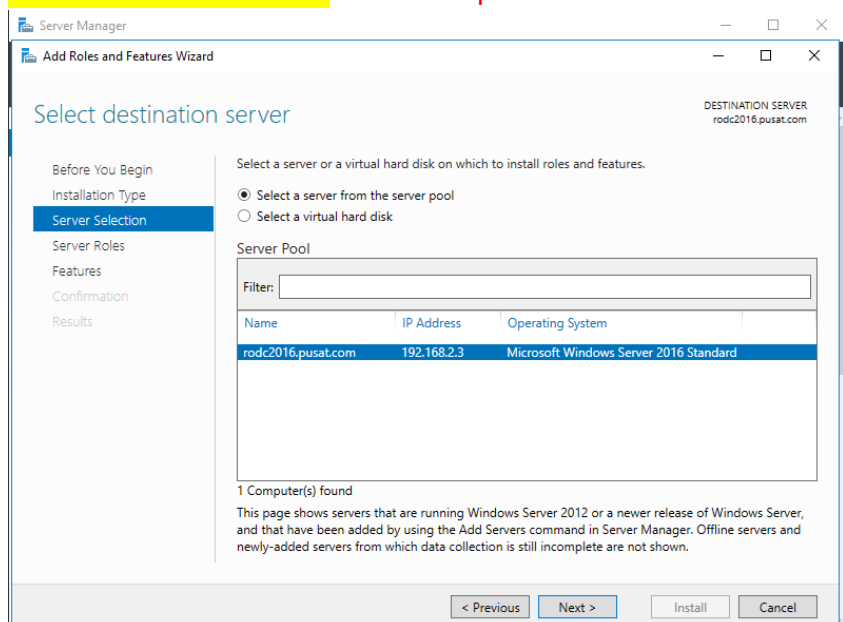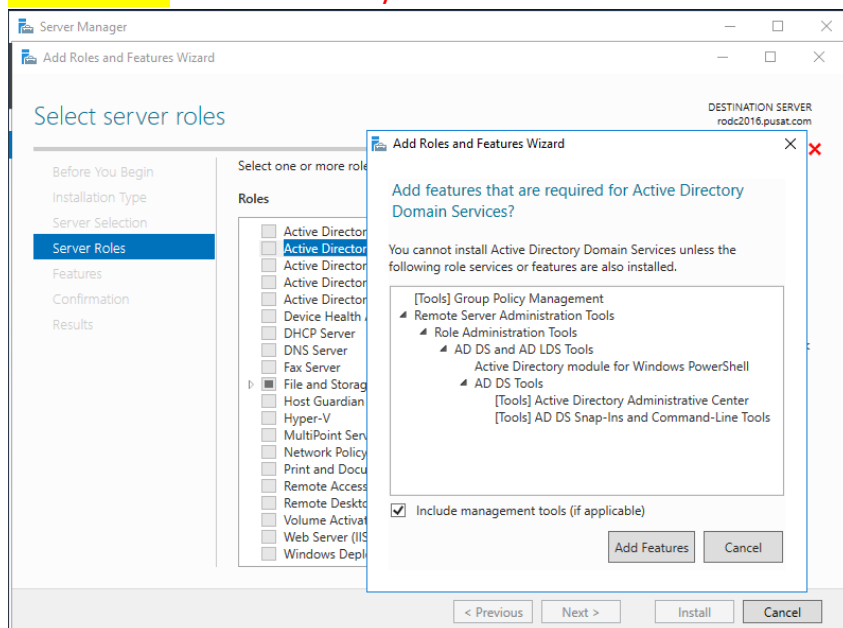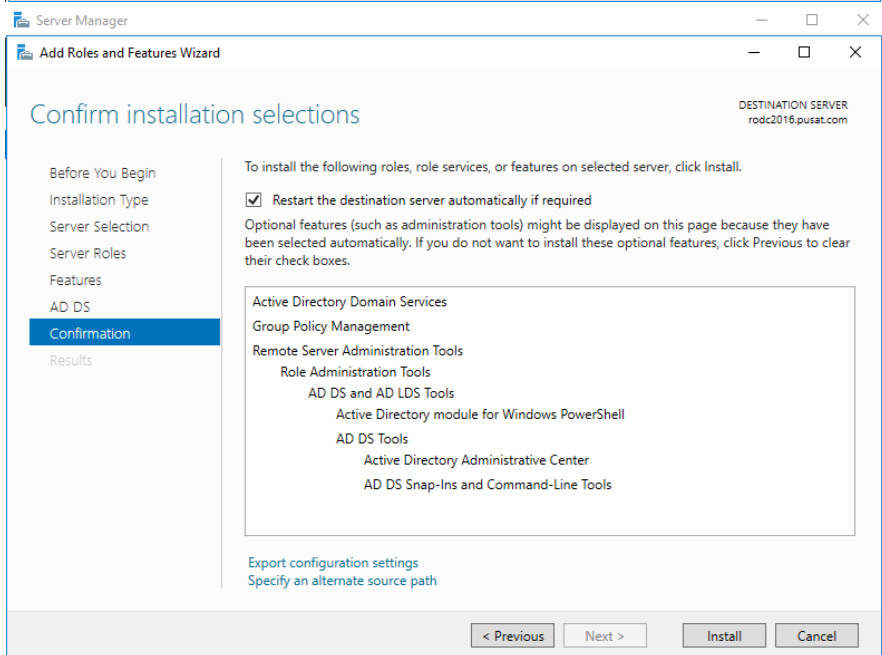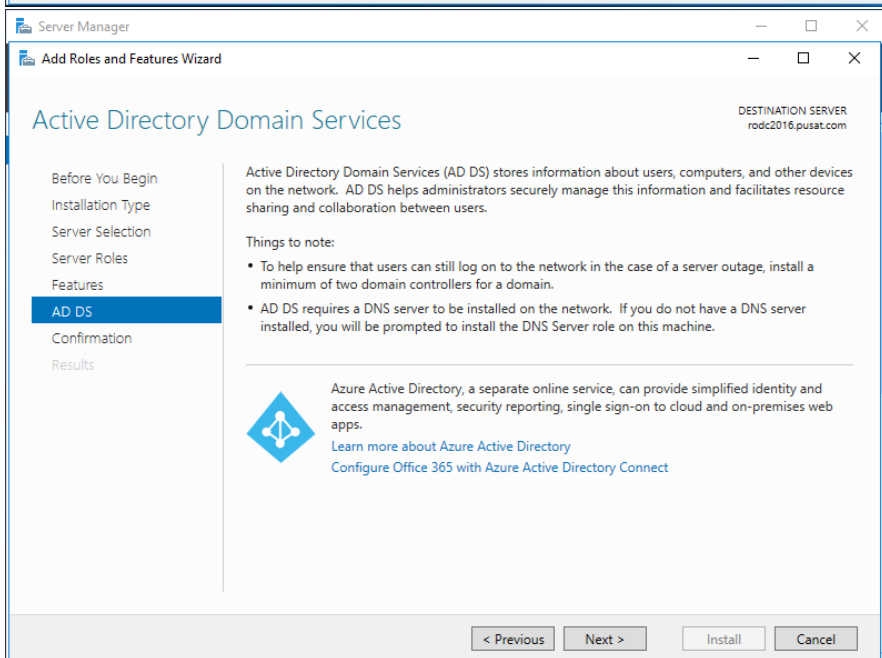Server Roles
Features
AD DS
Confirmation
Results

To install the following roles, role services, or features on selected server, click Install.

☑ Restart the destination server automatically if required

Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.

Active Directory Domain Services
Group Policy Management
Remote Server Administration Tools
    Role Administration Tools
        AD DS and AD LDS Tools
            Active Directory module for Windows PowerShell
        AD DS Tools
            Active Directory Administrative Center
            AD DS Snap-Ins and Command-Line Tools

Export configuration settings
Specify an alternate source path

< Previous | Next > | Install | Cancel

Server manager: Promote this server to a domain controller

Deployment Configuration: add a domain controller to an existing domain, domain: pusat.com, user: PUSAT\administrator

Domain Controller Options:

Domain Name System (DNS) server, Global Catalog (GC), Read only domain controller (RODC)

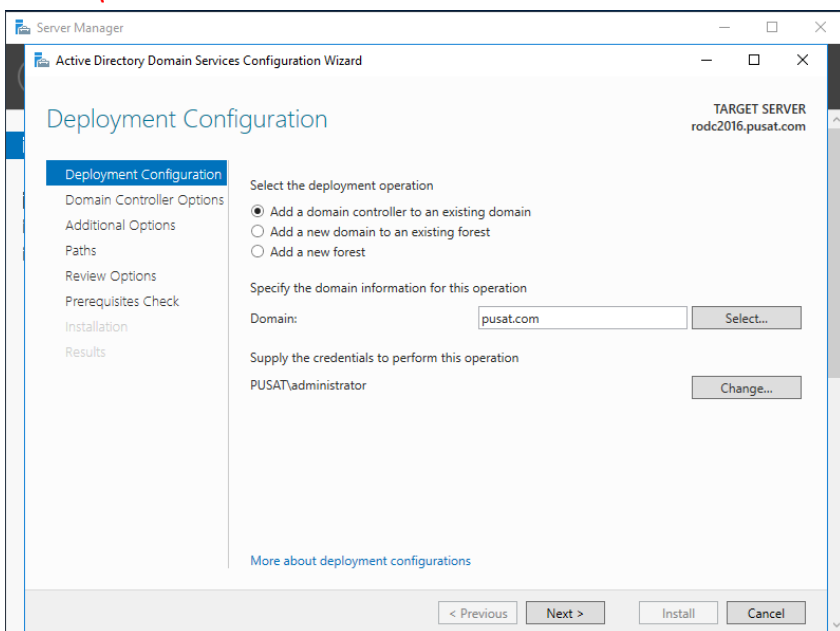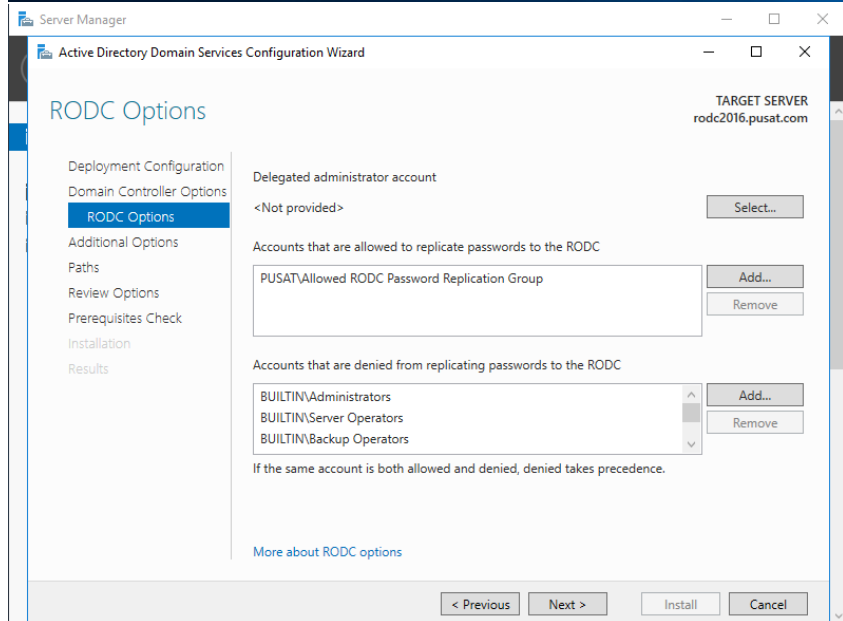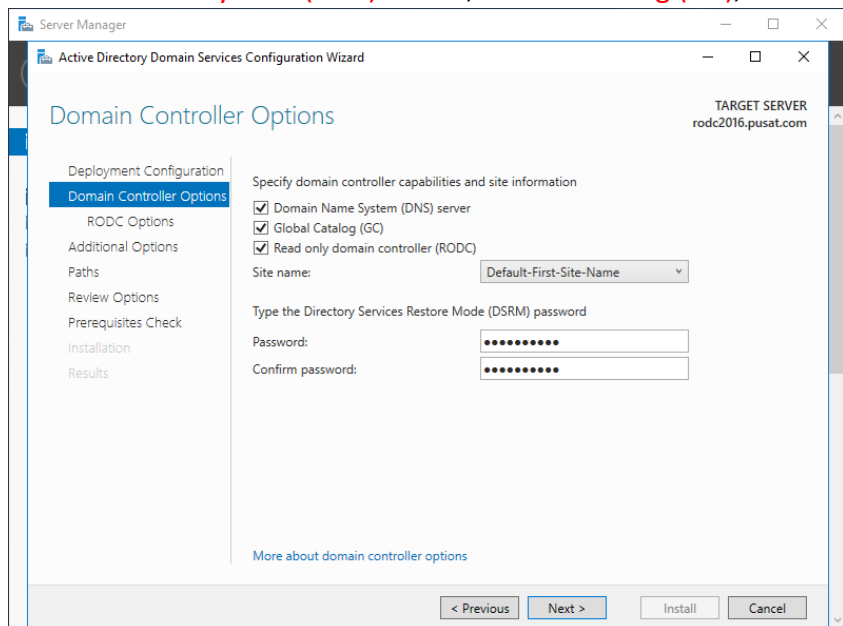**Replicate from**: ad2016.pusat.com

Server Manager

Active Directory Domain Services Configuration Wizard

Paths

TARGET SERVER
rodc2016.pusat.com

Deployment Configuration
Domain Controller Options
RODC Options
Additional Options
Paths
Preparation Options
Review Options
Prerequisites Check
Installation
Results

Specify the location of the AD DS database, log files, and SYSVOL

Database folder:	C:\Windows\NTDS
Log files folder:	C:\Windows\NTDS
SYSVOL folder:	C:\Windows\SYSVOL

More about Active Directory paths

< Previous   Next >   Install   Cancel

Server Manager

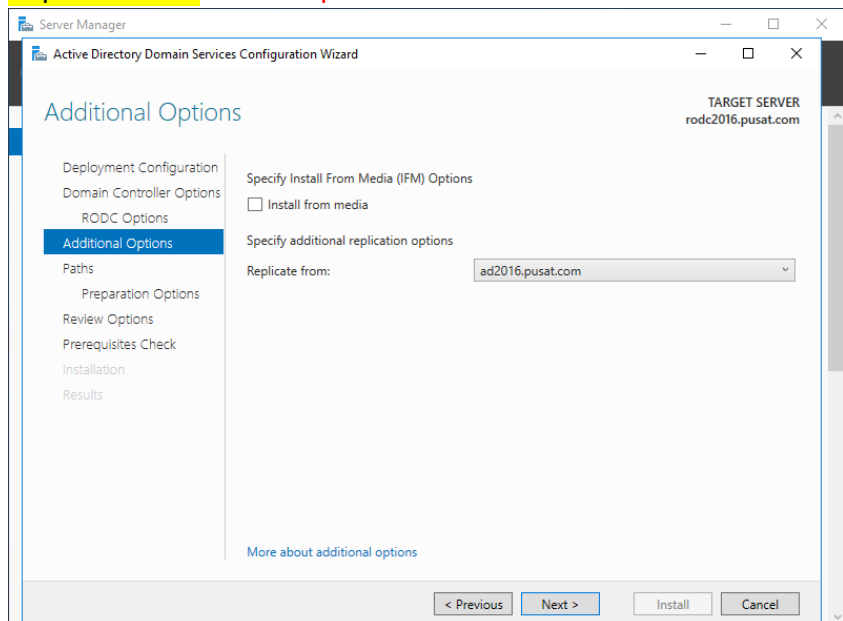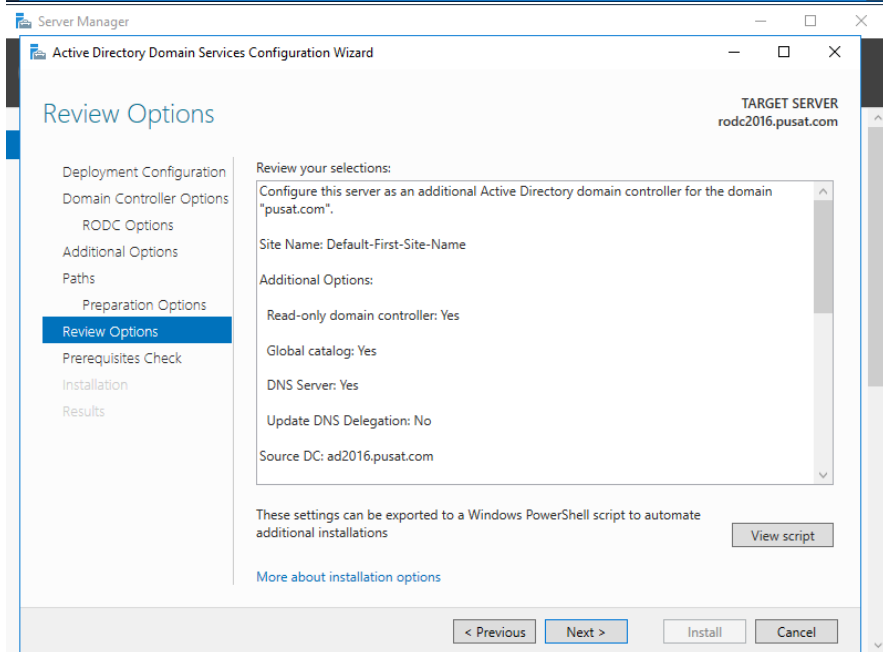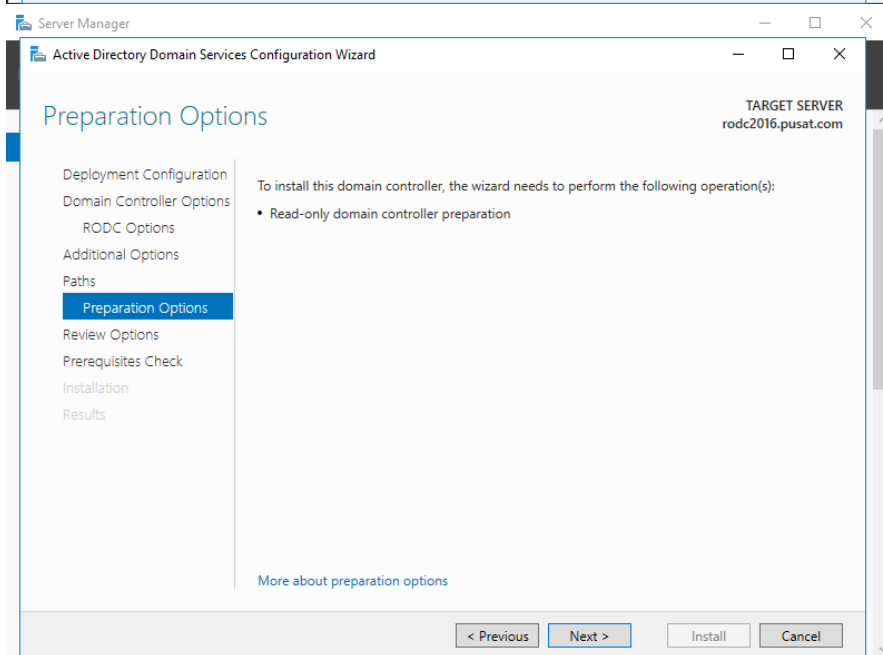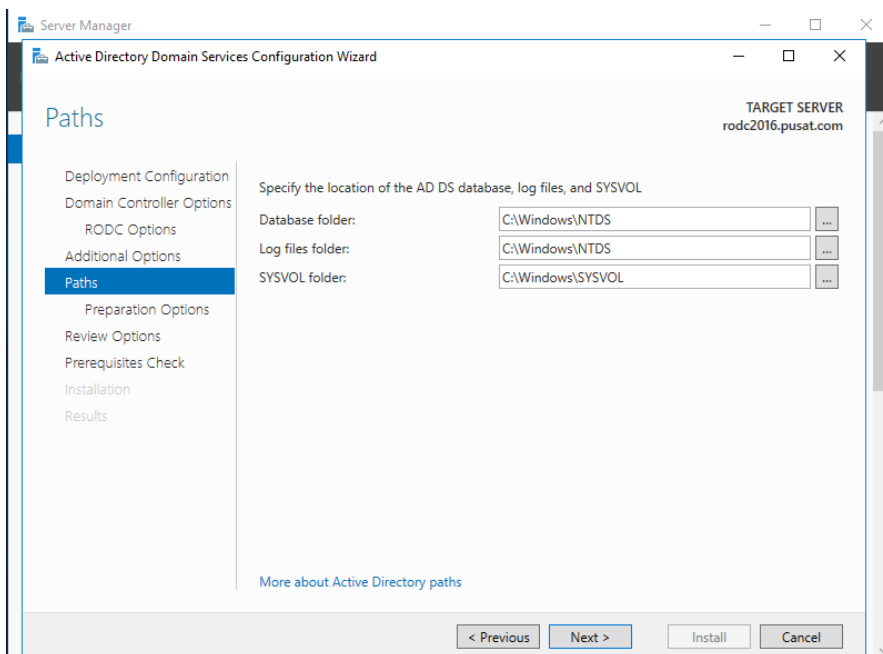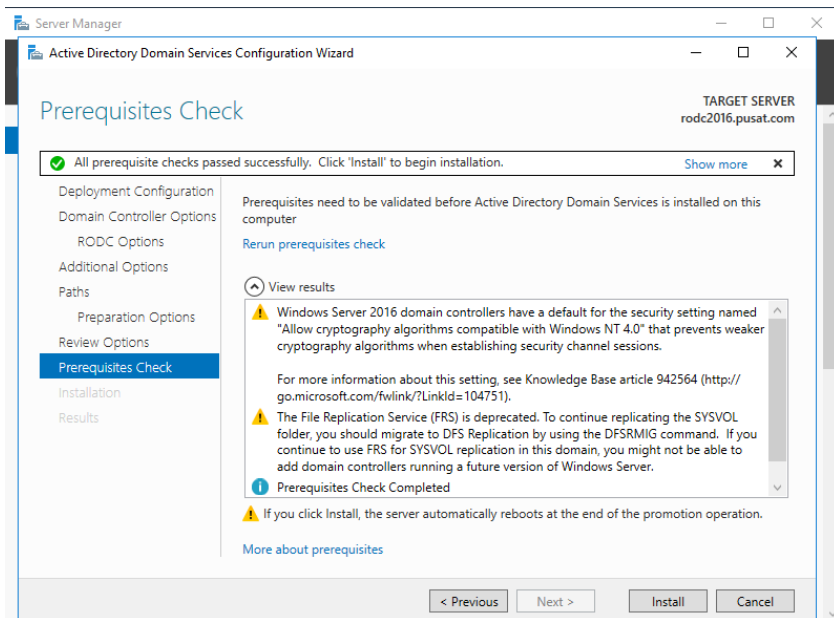**Active Directory Domain Services Configuration Wizard**

Preparation Options

TARGET SERVER
rodc2016.pusat.com

Deployment Configuration
Domain Controller Options
RODC Options
Additional Options
Paths
Preparation Options
Review Options
Prerequisites Check
Installation
Results

To install this domain controller, the wizard needs to perform the following operation(s):

• Read-only domain controller preparation

More about preparation options

< Previous   Next >   Install   Cancel

Server Manager

Active Directory Domain Services Configuration Wizard

Review Options

TARGET SERVER
rodc2016.pusat.com

Deployment Configuration
Domain Controller Options
RODC Options
Additional Options
Paths
Preparation Options
Review Options
Prerequisites Check
Installation
Results

Review your selections:

Configure this server as an additional Active Directory domain controller for the domain "pusat.com".

Site Name: Default-First-Site-Name

Additional Options:

Read-only domain controller: Yes

Global catalog: Yes

DNS Server: Yes

Update DNS Delegation: No

Source DC: ad2016.pusat.com

These settings can be exported to a Windows PowerShell script to automate additional installations

View script

More about installation options

< Previous   Next >   Install   Cancel
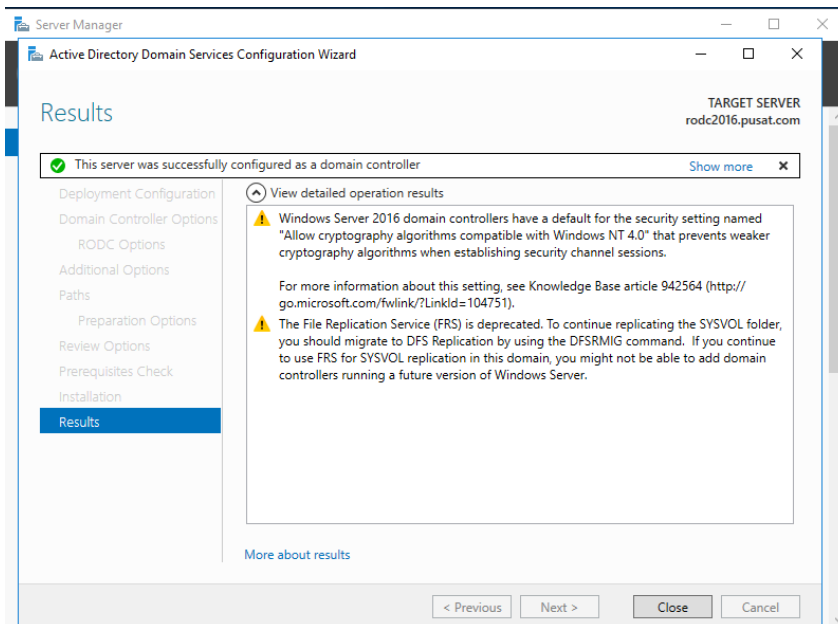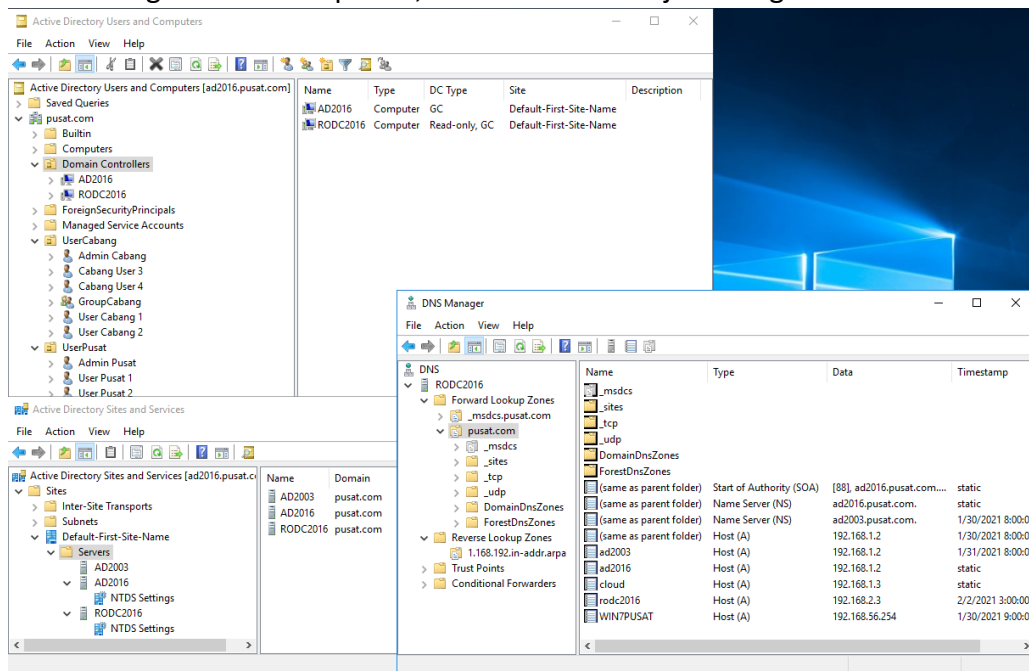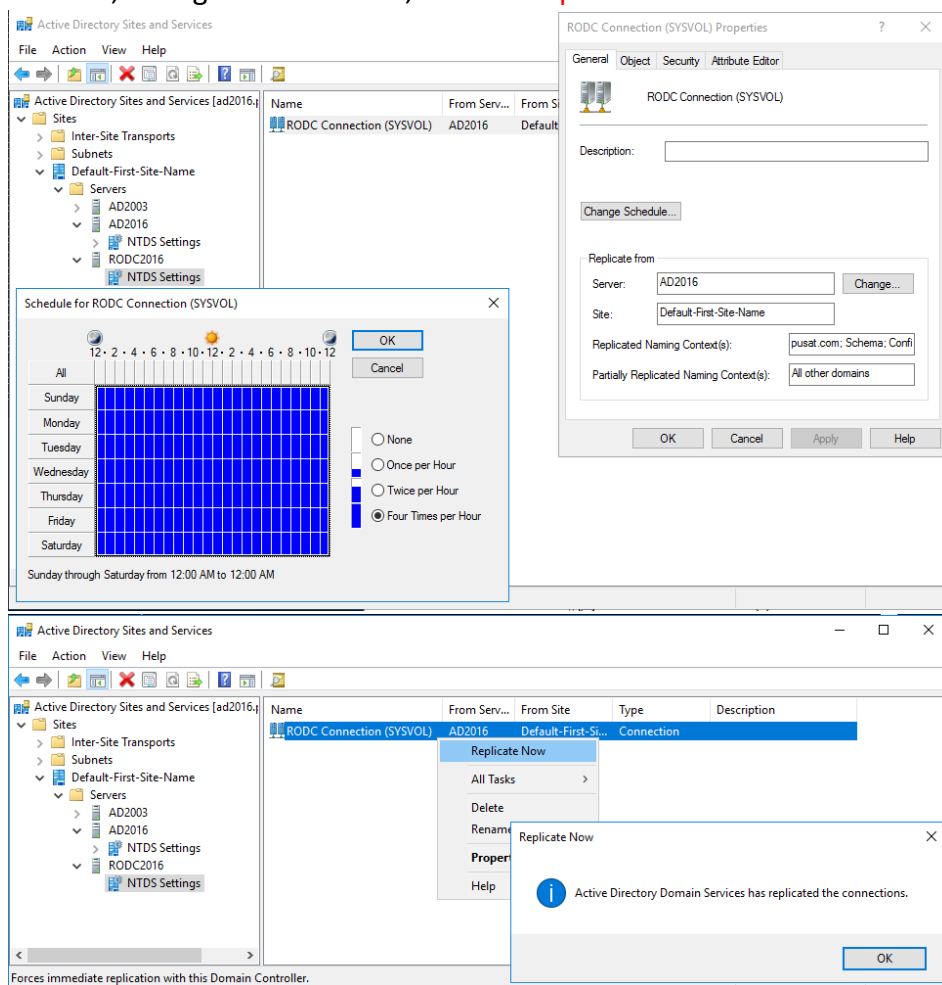
Installasi RODC berhasil.

{50}_ Cek Server RODC

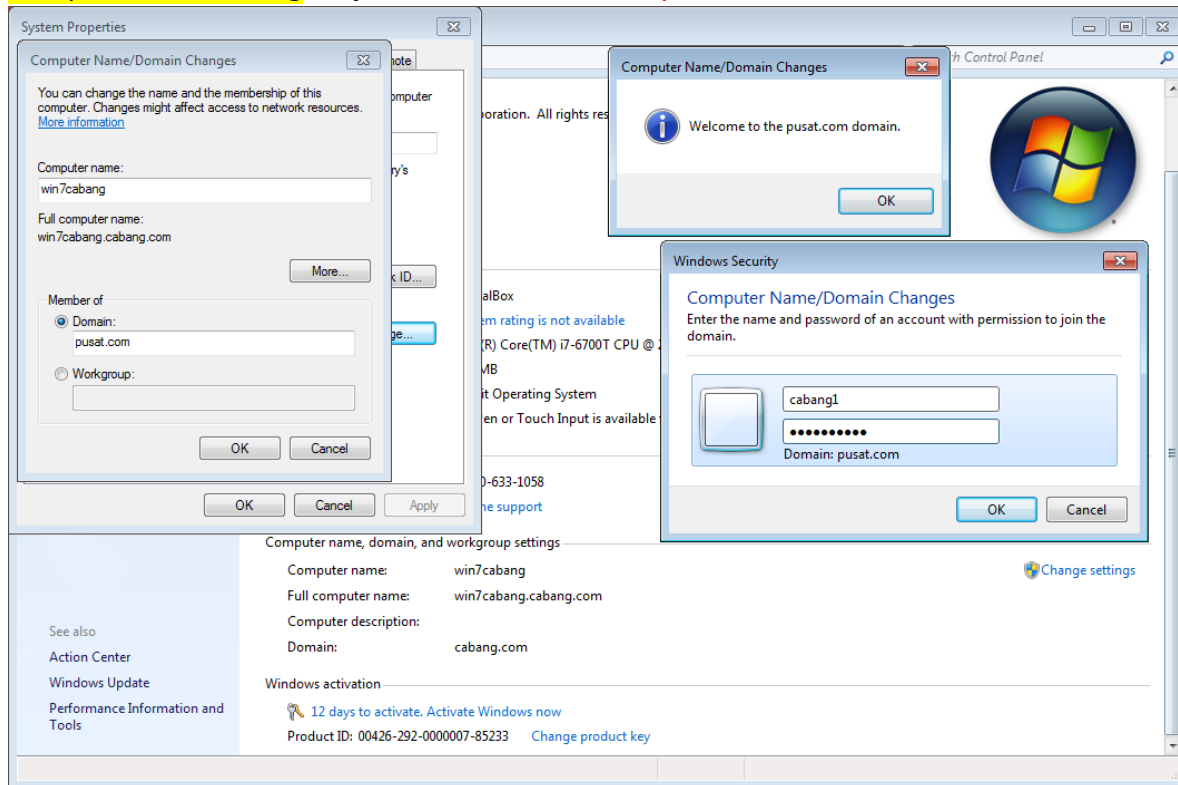DNS Manager sudah tereplikasi, RODC2016 sudah join dengan AD2016

{51}_ Schedule Replikasi

Active Directory Sites and Services, RODC2016, NTDS Settings, RODC Conection (SYSVOL), Properties, General, Change Schedule.. All, Four Time per Hour.
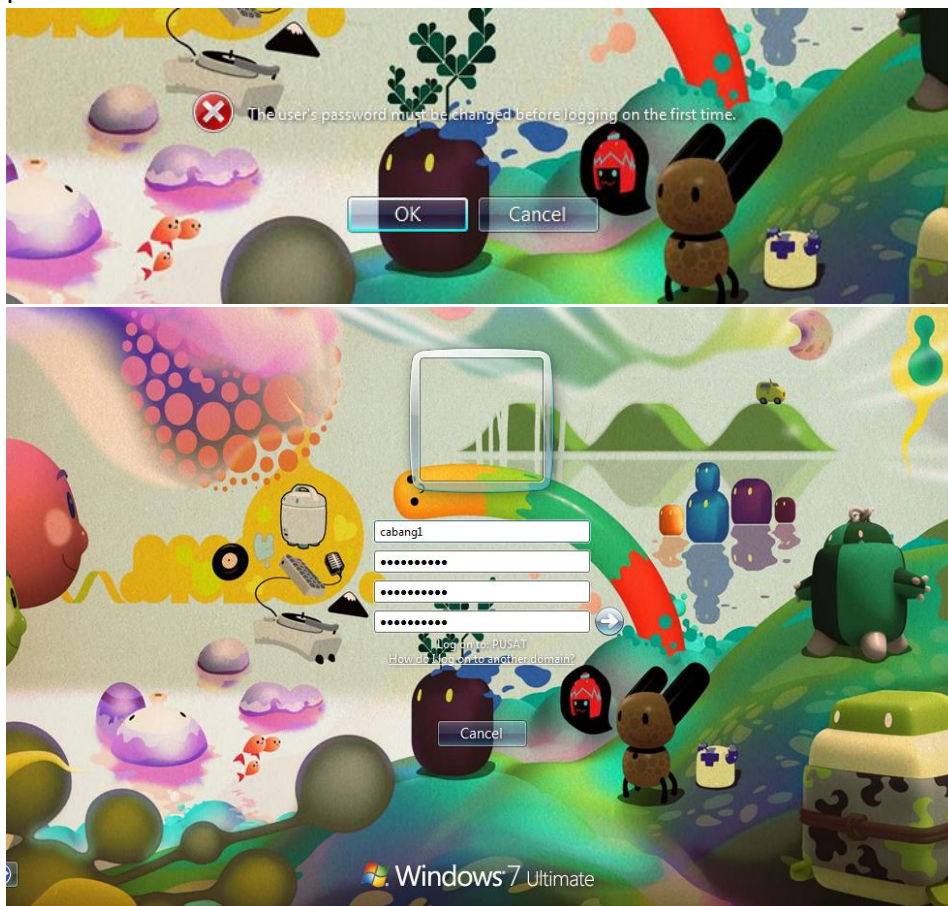
{52}_ Re-join Domain ke pusat.com

Komputer win7cabang, re-join domain ke domain pusat.com

Saat akan login dengan user cabang1 di domain pusat.com maka akan disuruh untuk mengubah password terlebih dahulu.

Ganti User Profile lokasi folder dengan folder lama.