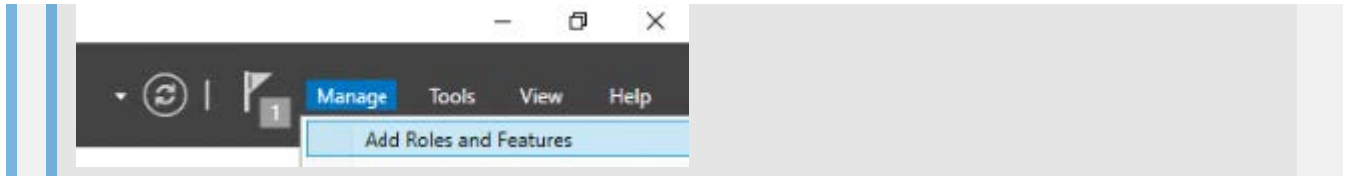


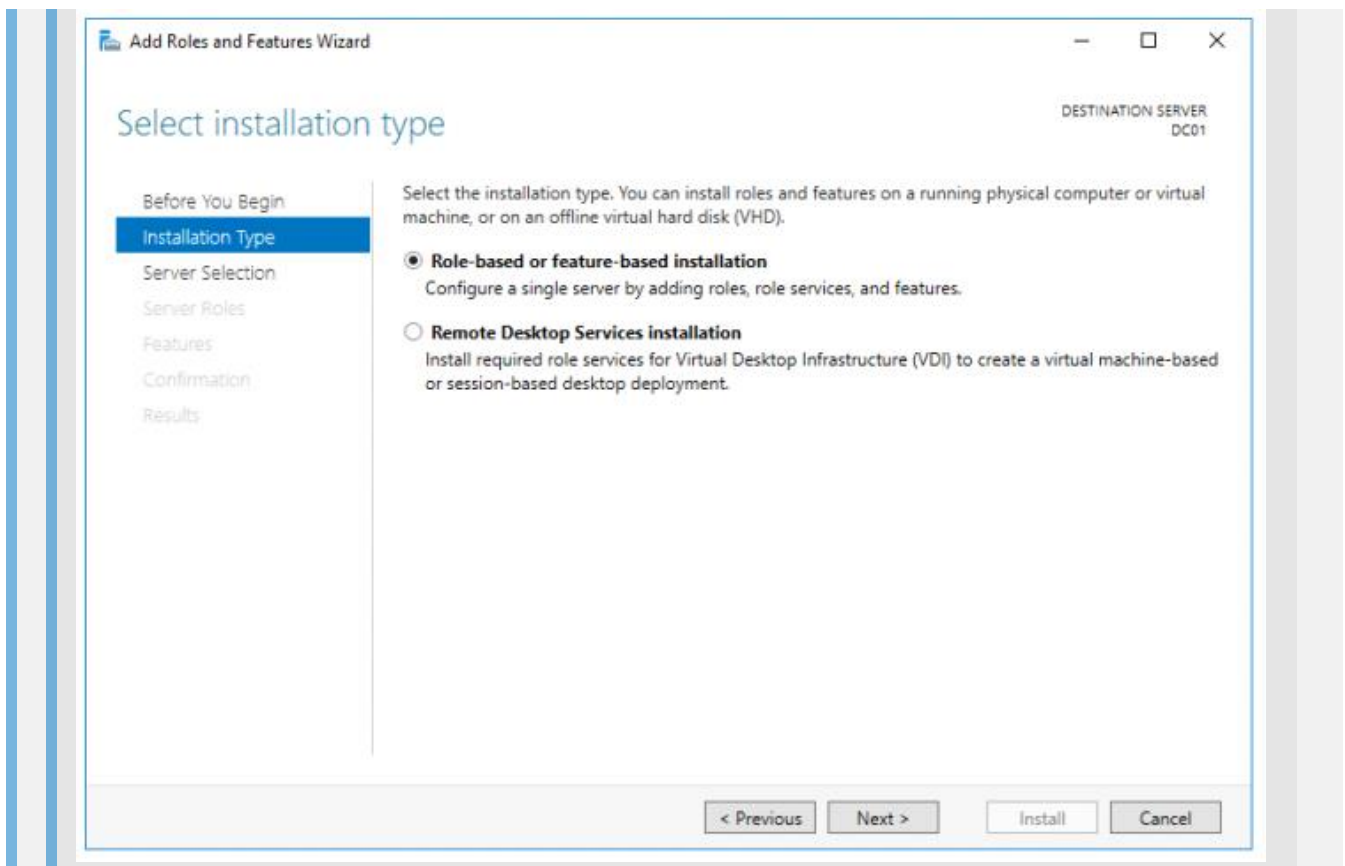
Root-Child Domain Setup

Root Domain

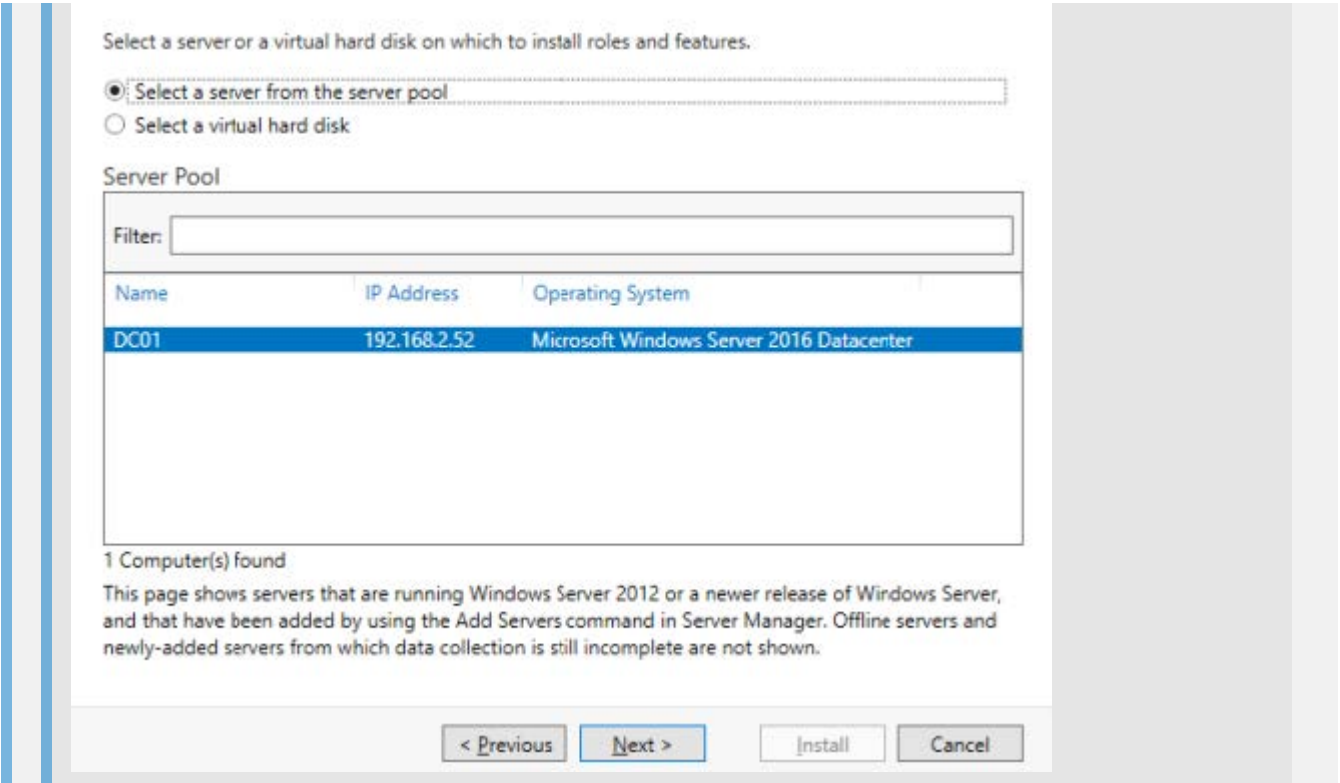
1. 部署4台VM: DC01;EX01;DC02;EX02
2. 登录DC01, 打开Server Manager, 右上角选择Add Roles and Features



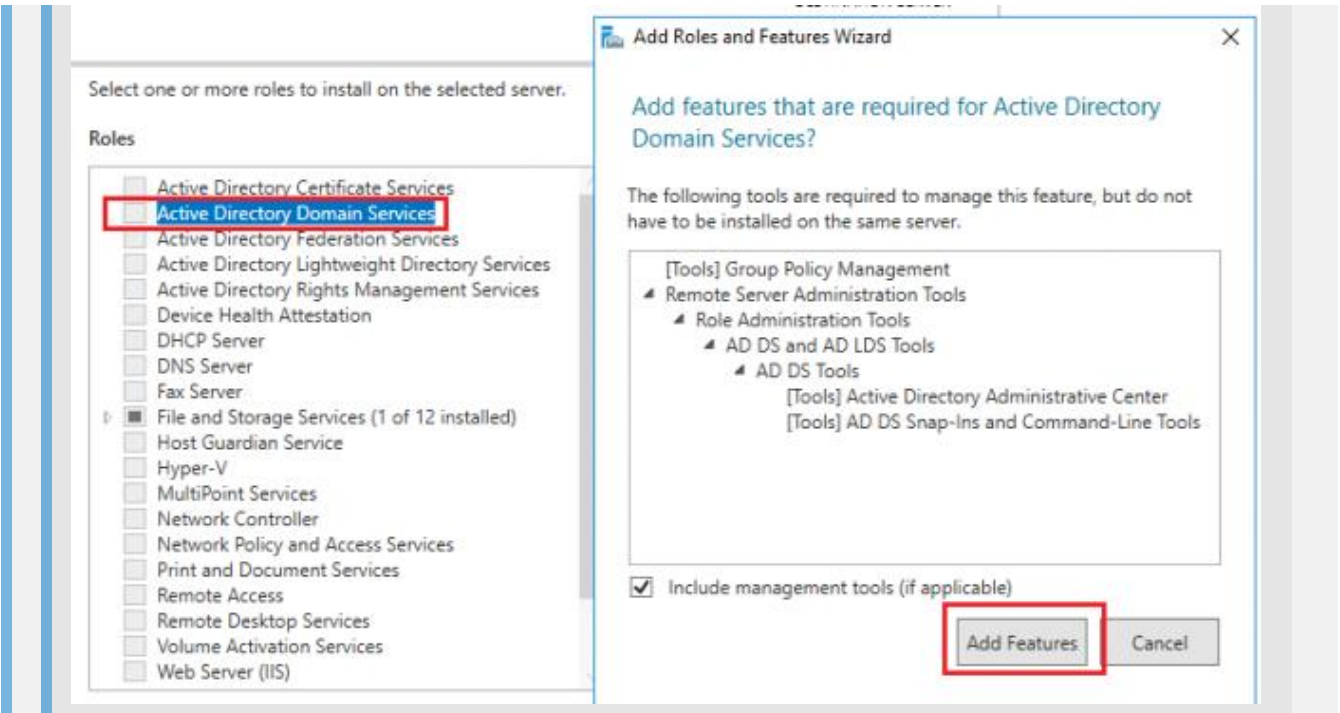
3. 选择Role-based or feature-based installation



4. 选择DC01

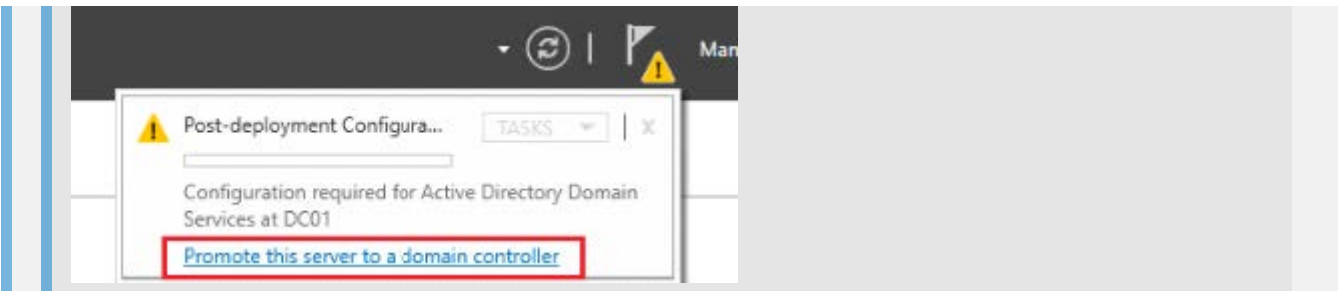


5. 添加Active Directory Domain Services



6. 全部默认下一步进行安装

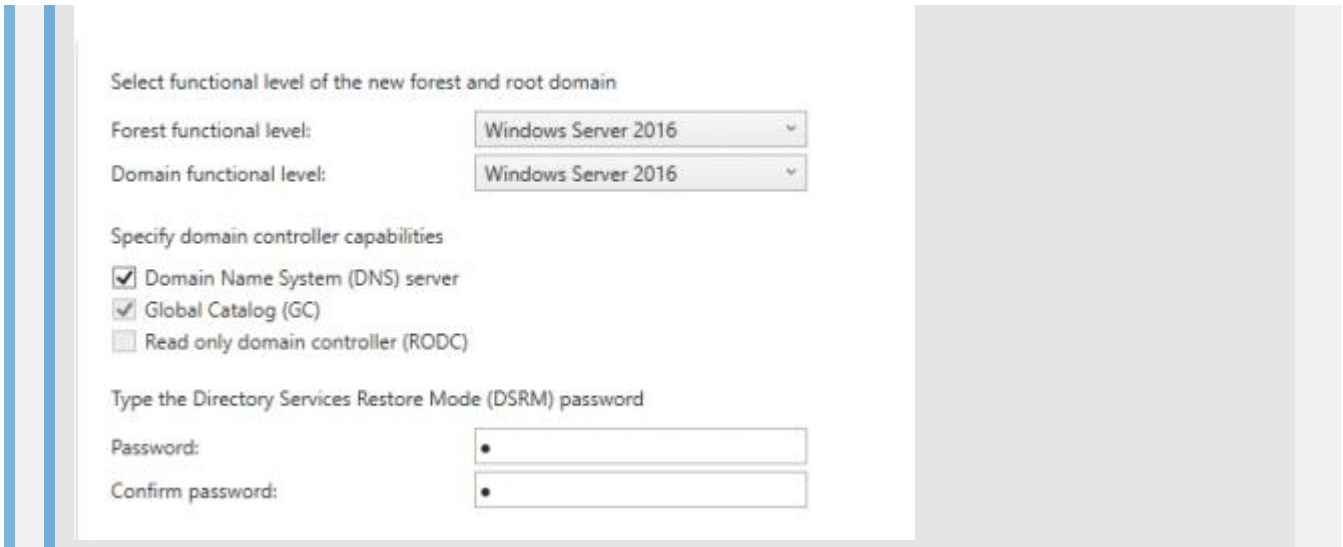
7. 在Server Manager中点击右上角， Promote this server to a domain controller



8. 选择add a new forest并填入父域名，下一步



9. 创建DSRM密码，下一步



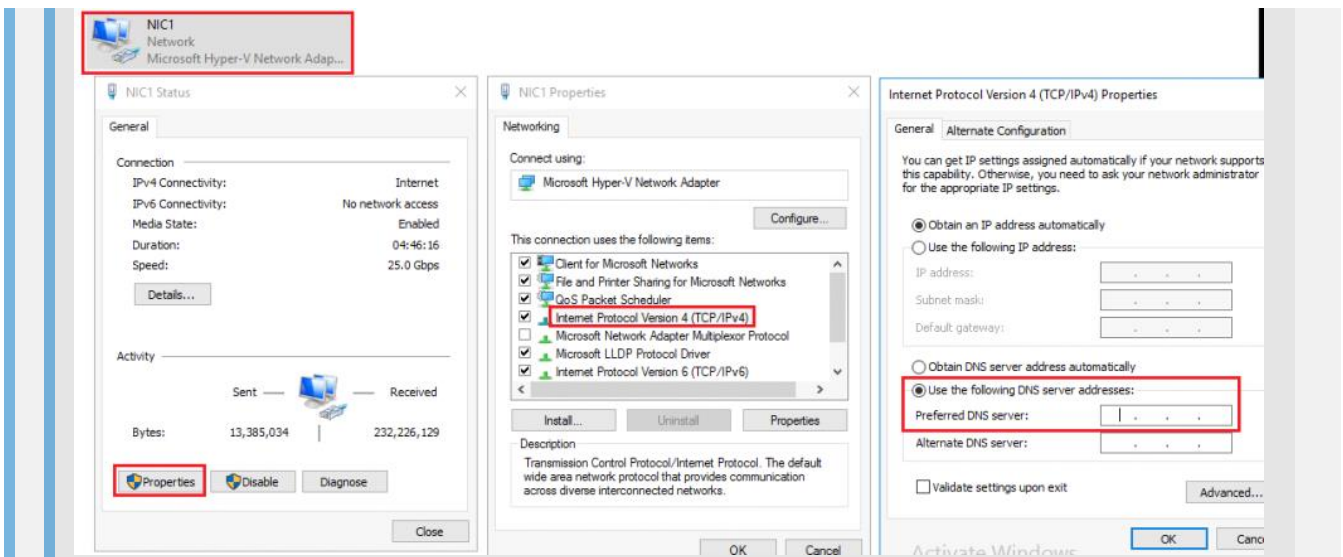
10. 全部默认下一步进行安装

11. 等待AD进行配置，使用新创建的域重新登录DC01

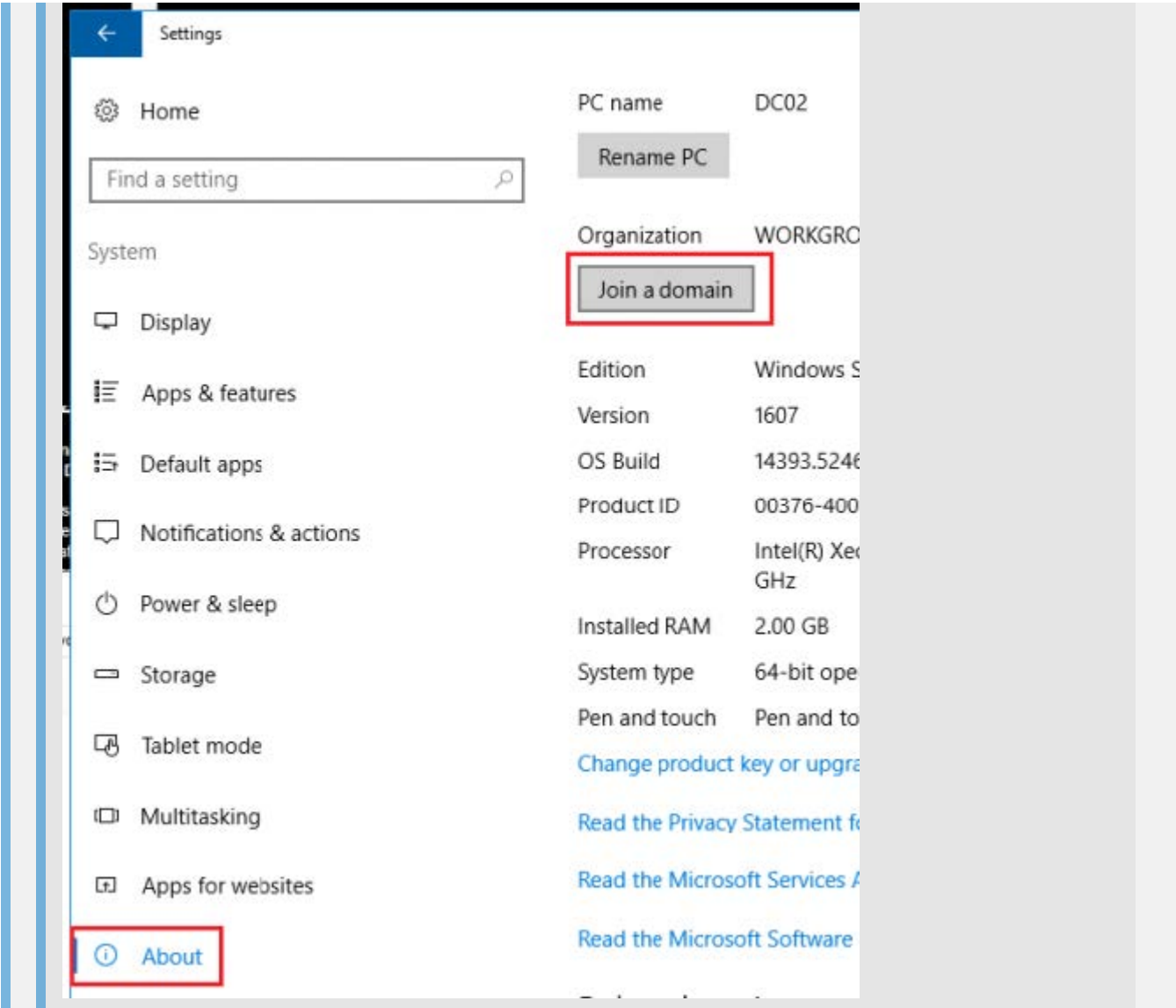
Child Domain

1. 登录准备部署子域的DC02

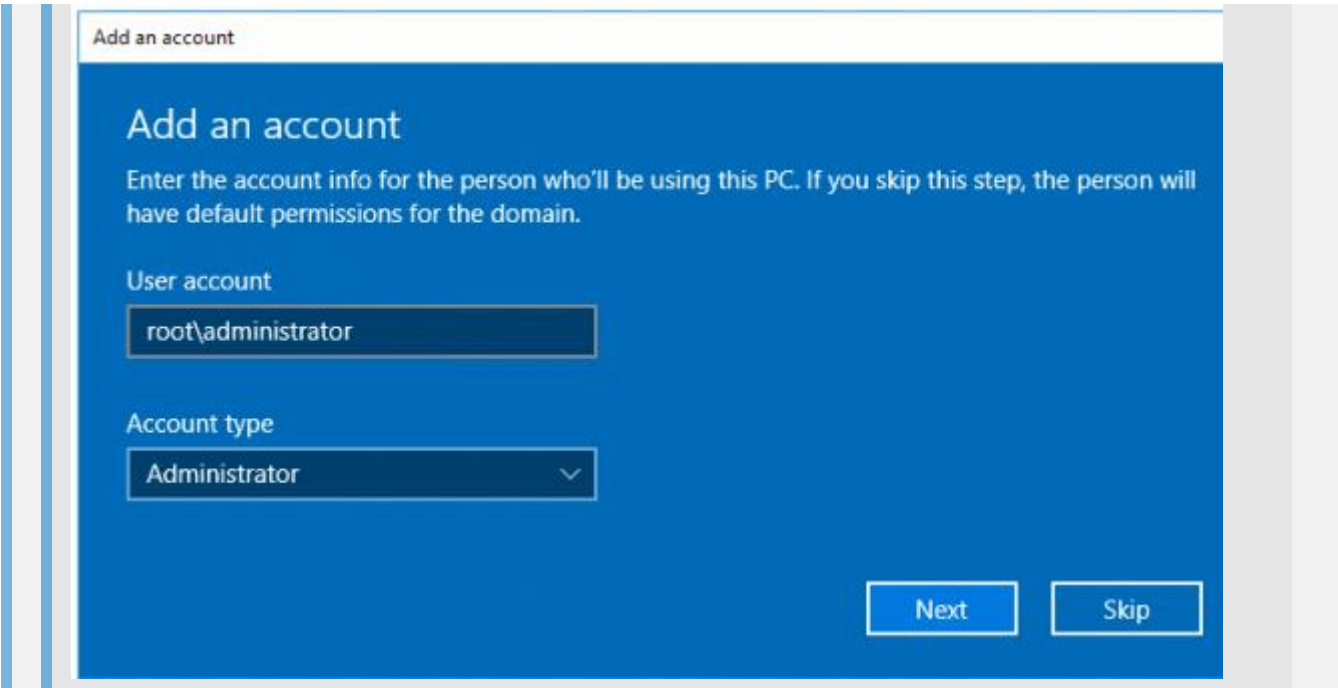
2. 打开网卡设置，双击打开，选择Properties，选择IPv4，将DC01的IP地址填入DNS服务器，IP地址网关等填写本机默认



3. 打开设置，导航至System -> About -> Join a domain

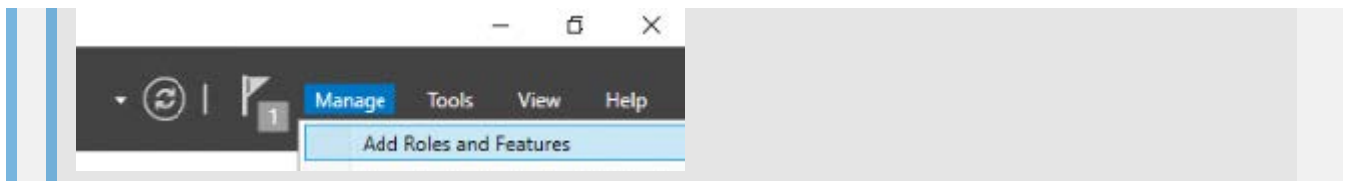


- 4. 输入父域域名并登陆父域管理员账号
- 5. 在本机上添加父域管理员账号并重启电脑完成加父域

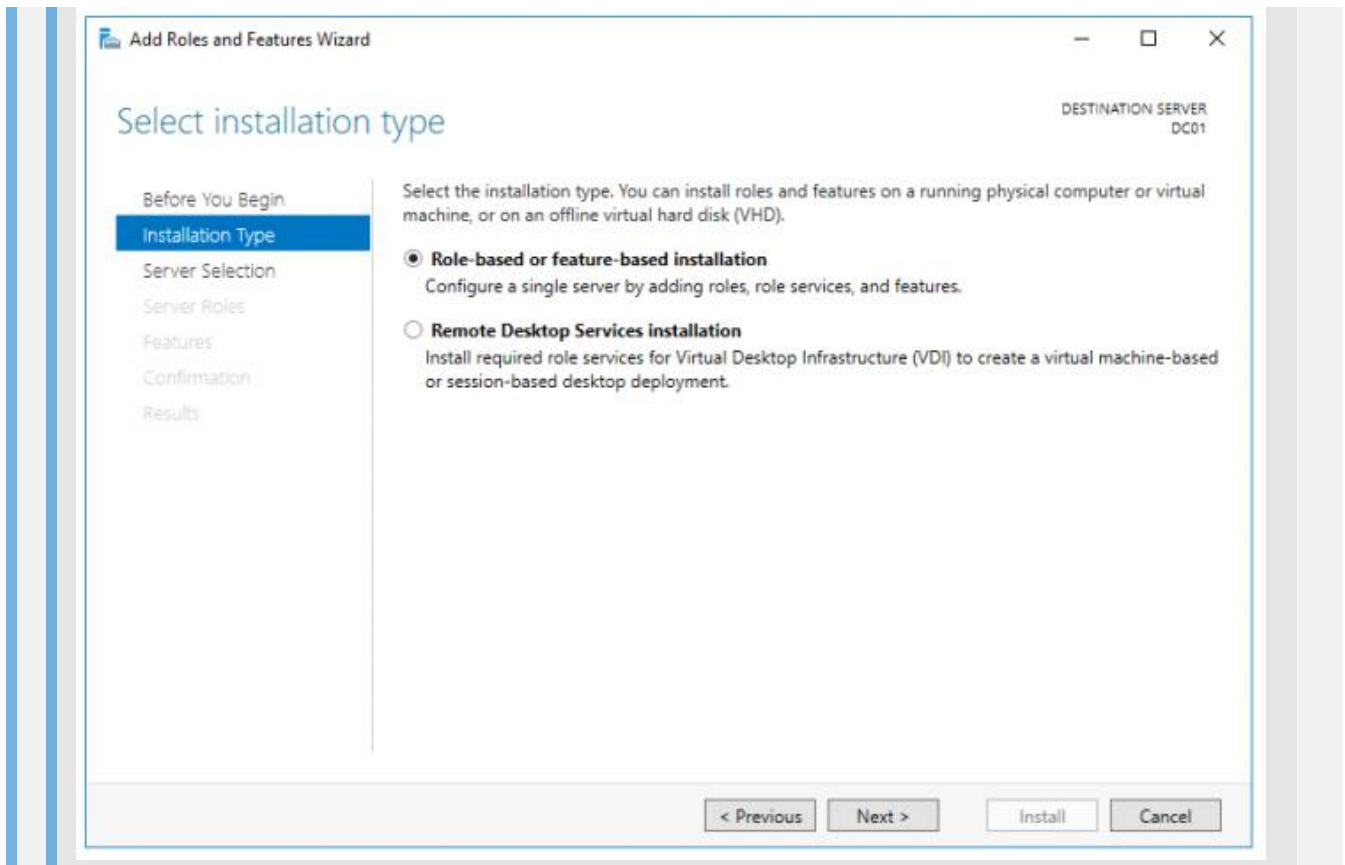


- 6. 使用父域管理员账号登陆DC02

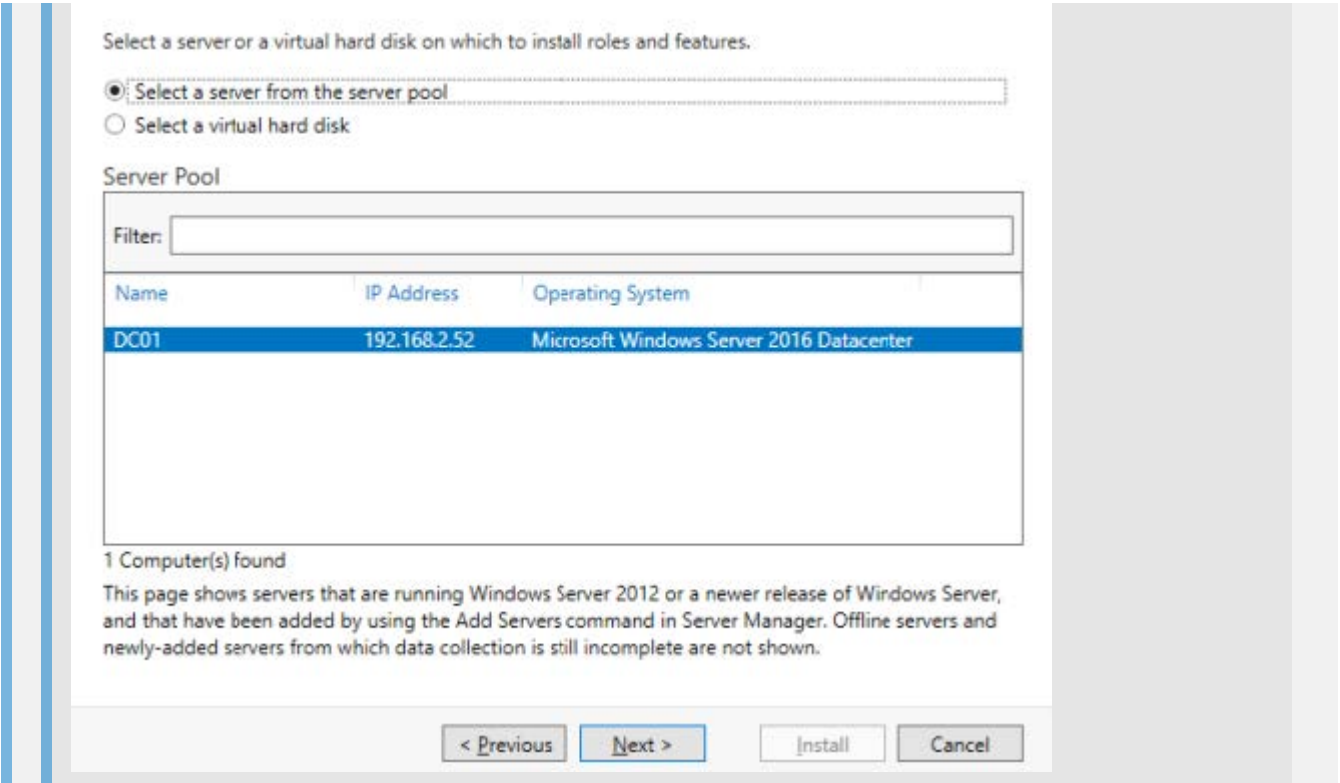
7. 打开Server Manager, 右上角选择Add Roles and Features



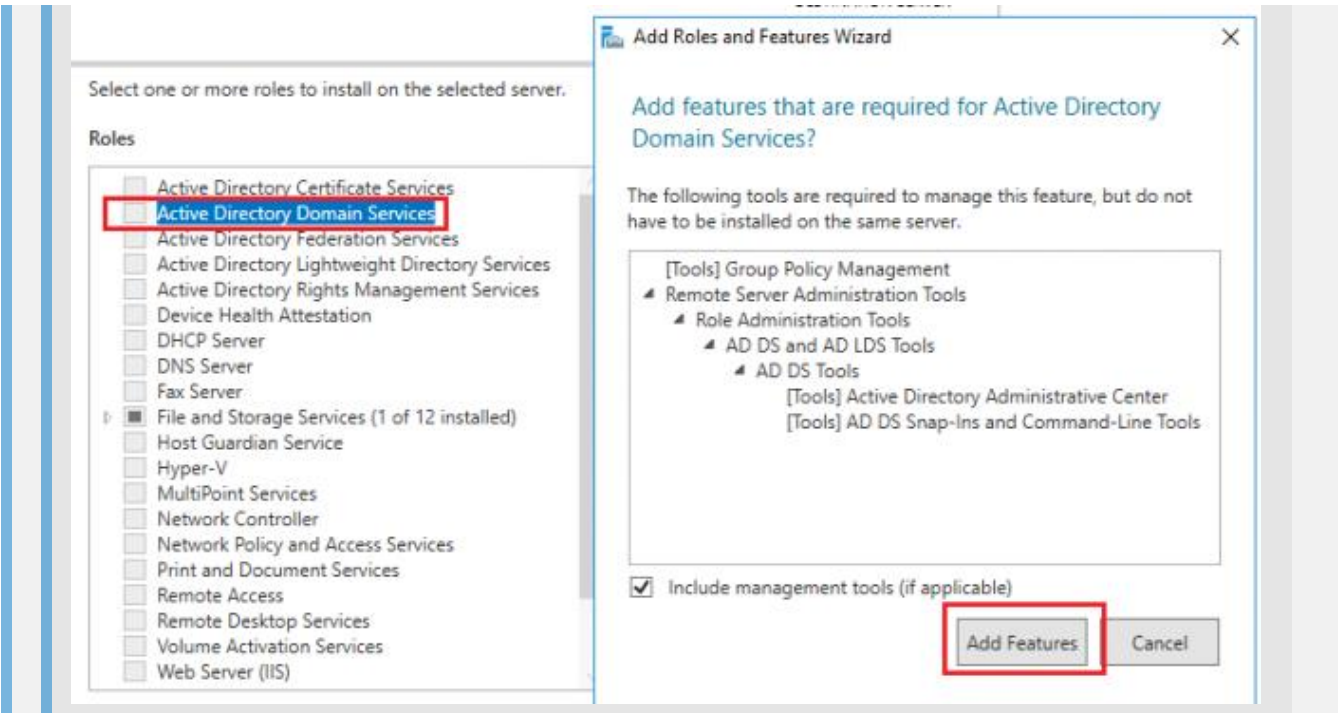
8. 选择Role-based or feature-based installation



9. 选择DC01

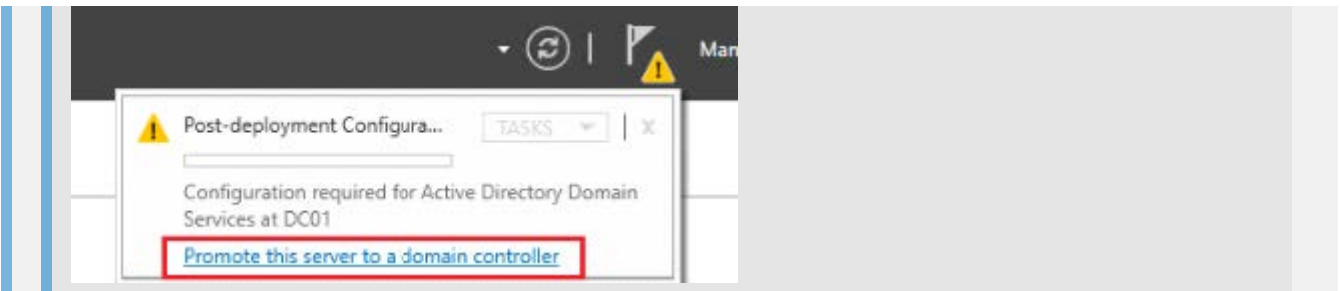


10. 添加Active Directory Domain Services



11. 全部默认下一步进行安装

12. 在Server Manager中点击右上角，Promote this server to a domain controller



13. 选择add a new domain to an existing forest, 选择child domain, 填入子域域名

Select the deployment operation:

- ☐ Add a domain controller to an existing domain
- ☒ Add a new domain to an existing forest
- ☐ Add a new forest

Specify the domain information for this operation

Select domain type: Child Domain

Parent domain name: root.com Select...

New domain name: child

Supply the credentials to perform this operation

ROOT\Administrator (Current user) Change...

14. 创建DSRM密码, 下一步

Select functional level of the new forest and root domain

Forest functional level: Windows Server 2016

Domain functional level: Windows Server 2016

Specify domain controller capabilities

- ☒ Domain Name System (DNS) server
- ☒ Global Catalog (GC)
- ☐ Read only domain controller (RODC)

Type the Directory Services Restore Mode (DSRM) password

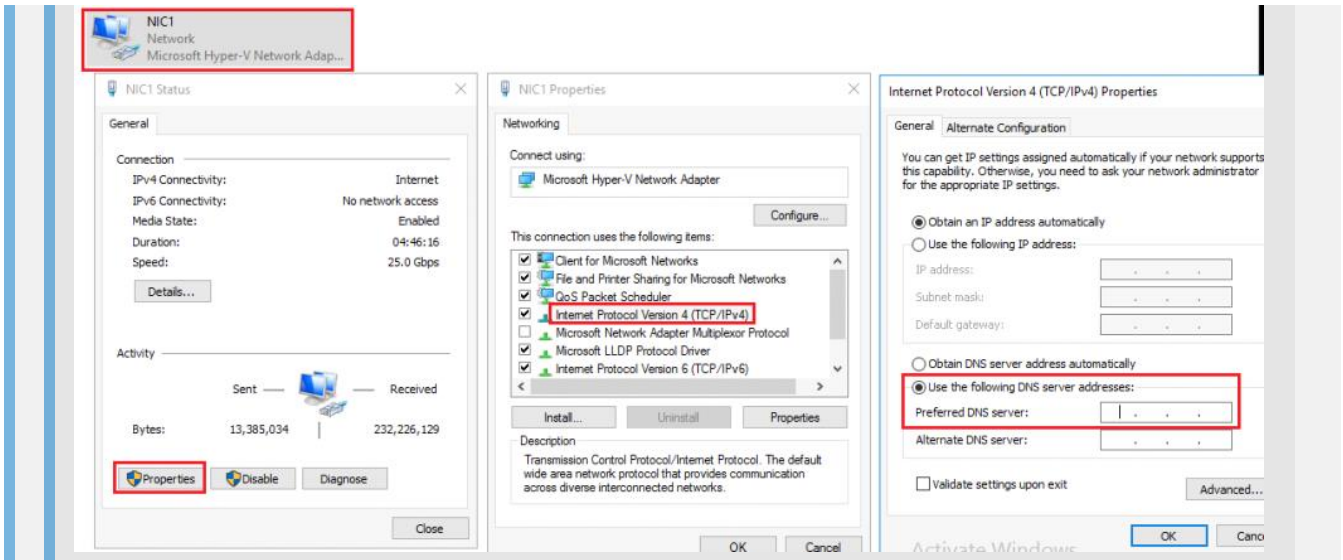
Password: *

Confirm password: *

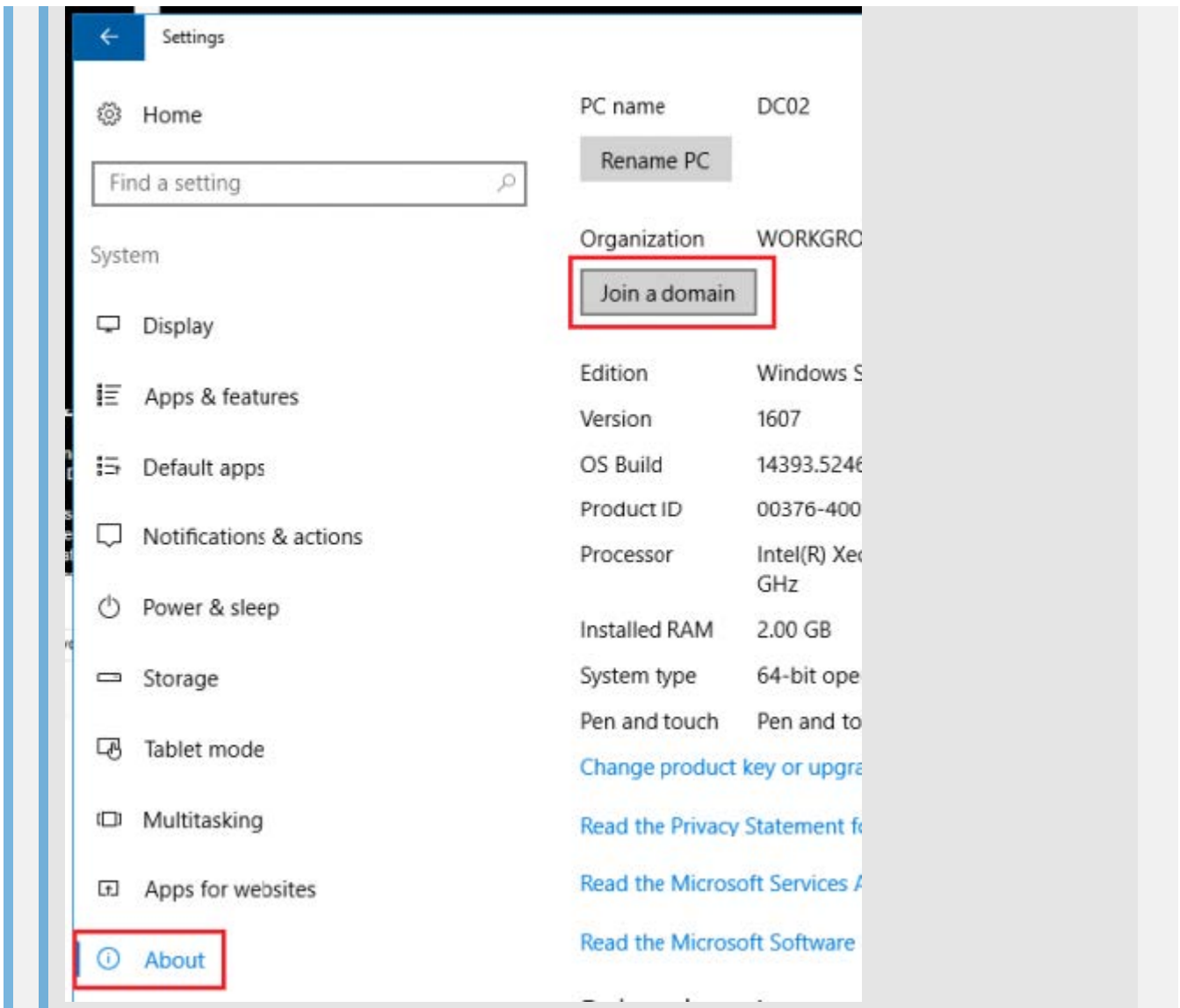
15. 全部默认下一步进行安装

Join Domain

1. 登陆EX01
2. 打开网卡设置, 双击打开, 选择Properties, 选择IPV4, 将DC01的IP地址填入DNS服务器, IP地址网关等填写本机默认

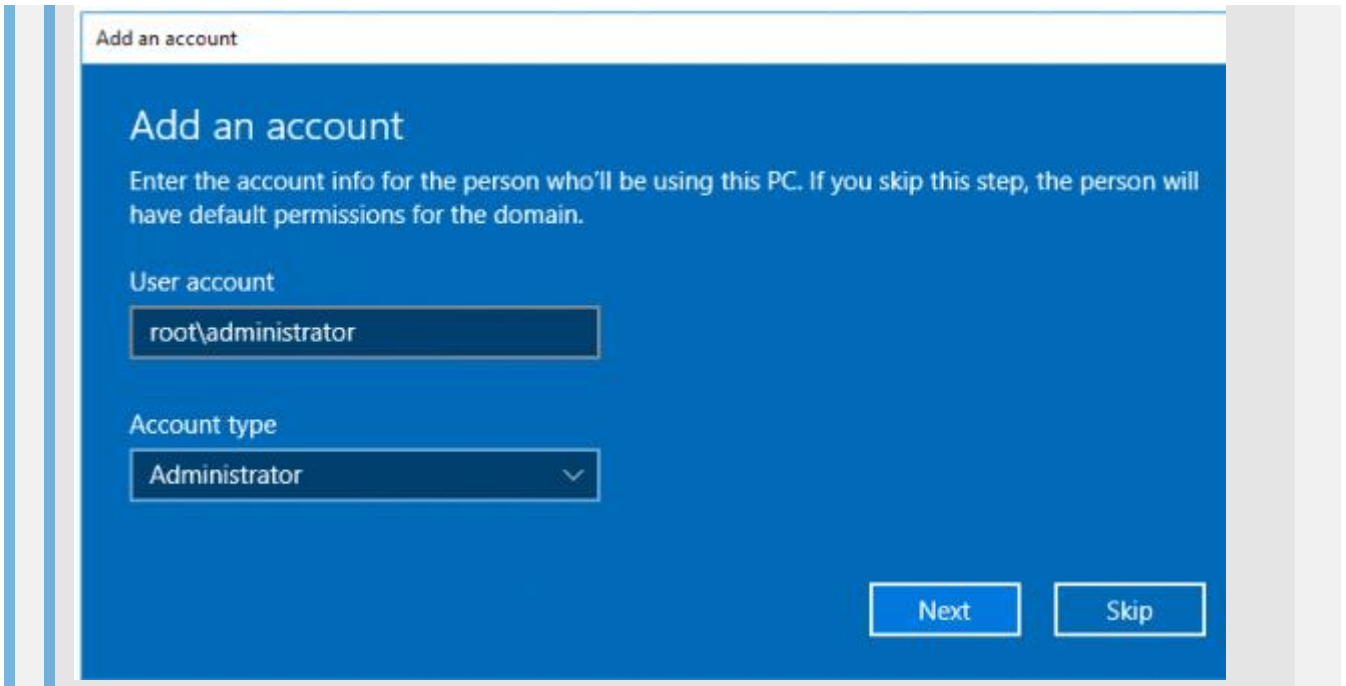


3. 打开设置，导航至System -> About -> Join a domain



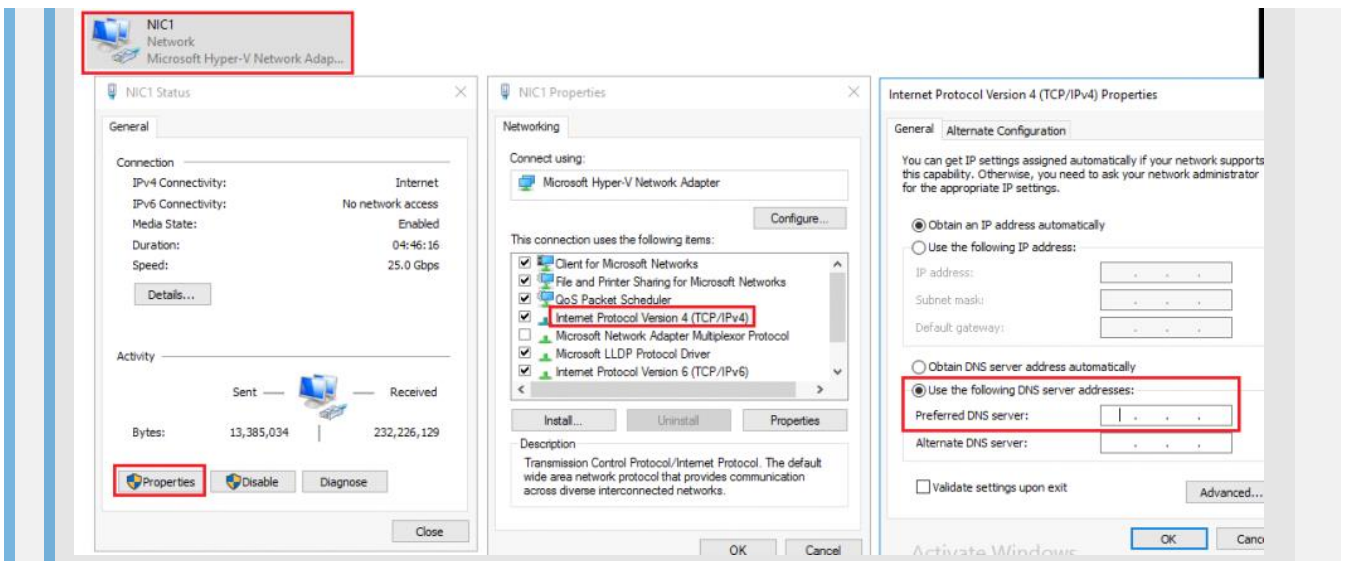
4. 输入父域域名并登陆父域管理员账号

5. 在本机上添加父域管理员账号并重启电脑完成加父域

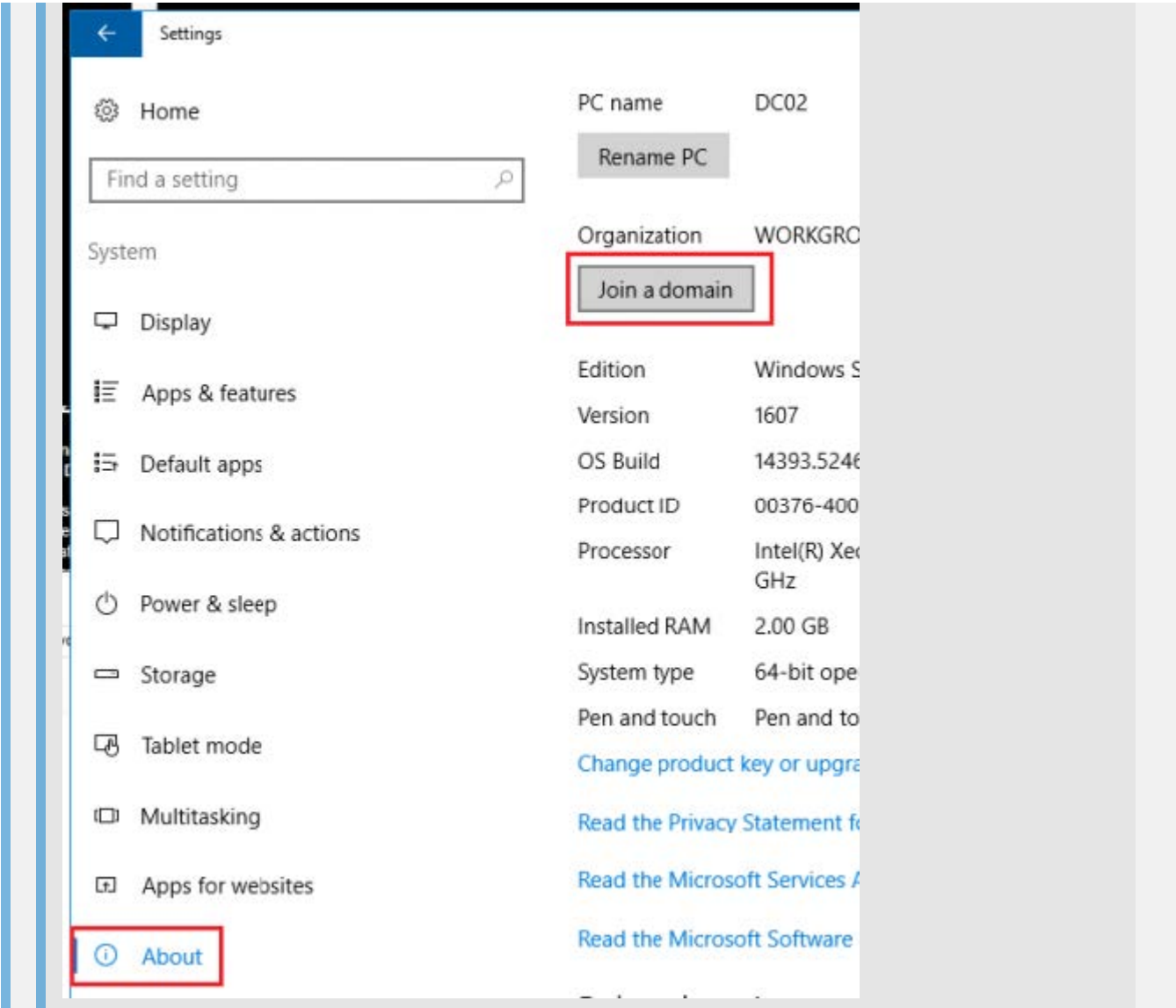


6. 登陆EX02

7. 打开网卡设置，双击打开，选择Properties，选择IPv4，将DC02的IP地址填入DNS服务器，IP地址网关等填写本机默认

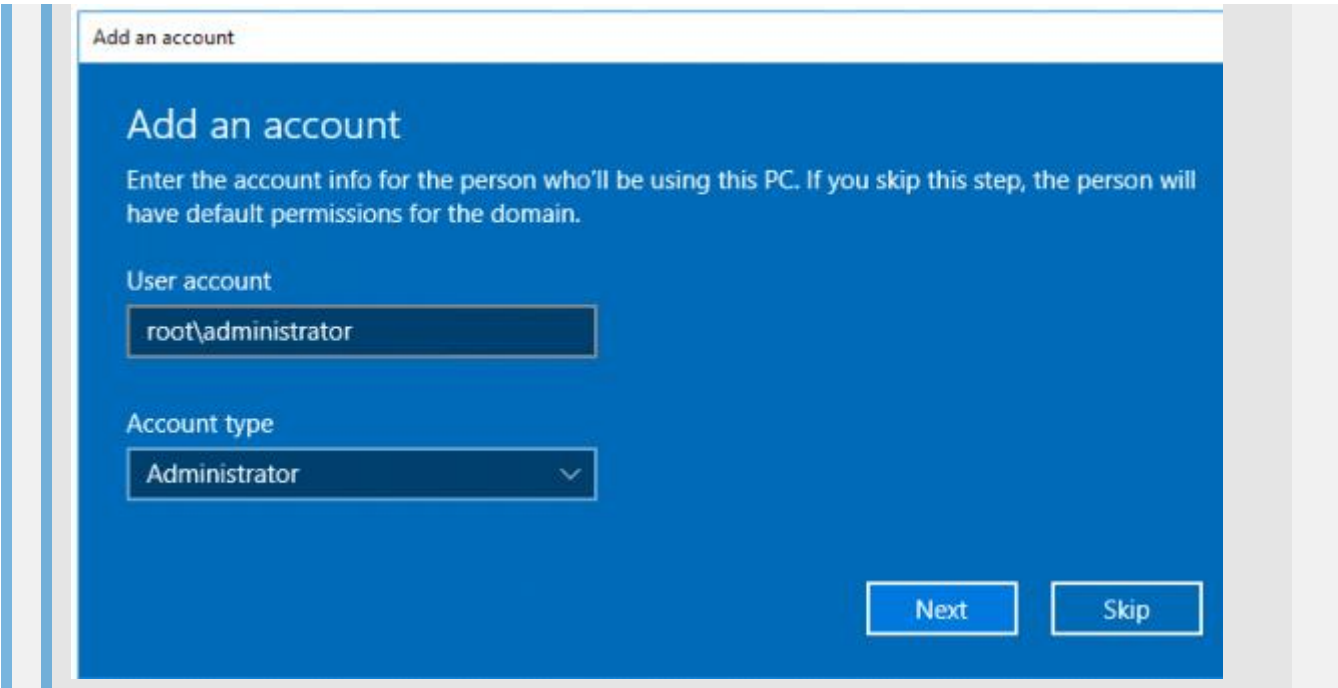


8. 打开设置，导航至System -> About -> Join a domain



9. 输入子域域名并登陆子域管理员账号

10. 在本机上添加子域管理员账号并重启电脑完成加子域



Prerequisites

1. 登陆全部服务器
2. 下载并安装NET4.8

```
https://download.visualstudio.microsoft.com/download/pr/014120d7-d689-4305-befd-3cb711108212/0fd66638cde16859462a6243a4629a50/ndp48-x86-x64-allos-enu.exe
```

3. 下载并安装VC++ 2013

```
https://aka.ms/highdpimfc2013x64enu
```

4. 下载并安装IIS URL Rewrite Module

```
https://www.iis.net/downloads/microsoft/url-rewrite
```

5. 下载并安装Microsoft Unified Communications Managed API 4.0, Core Runtime 64-bit

```
https://www.microsoft.com/download/details.aspx?id=34992
```

6. EX服务器使用PowerShell运行以下命令

```
Install-WindowsFeature NET-Framework-45-Features, Server-Media-Foundation, RPC-over-HTTP-proxy, RSAT-Clustering, RSAT-Clustering-CmdInterface, RSAT-Clustering-Mgmt, RSAT-Clustering-PowerShell, WAS-Process-Model, Web-Asp-Net45, Web-Basic-Auth, Web-Client-Auth, Web-Digest-Auth, Web-Dir-Browsing, Web-Dyn-Compression, Web-Http-Errors, Web-Http-Logging, Web-Http-Redirect, Web-Http-Tracing, Web-ISAPI-Ext, Web-ISAPI-Filter, Web-Lgcy-Mgmt-Console, Web-Metabase, Web-Mgmt-Console, Web-Mgmt-Service, Web-Net-Ext45, Web-Request-Monitor, Web-Server, Web-Stat-Compression, Web-Static-Content, Web-Windows-Auth, Web-WMI, Windows-Identity-Foundation, RSAT-ADDS
```

7. 在所有服务器上下载Exchange镜像，并用PowerShell挂载

```
Mount-DiskImage -ImagePath C:\ExchangeServer2016-x64-CU23.ISO
```

Installation

1. 在主DC上运行prepare ad

```
E:\Setup.exe /IAcceptExchangeServerLicenseTerms_DiagnosticDataON /PrepareAD /OrganizationName:"TestOrg"
```

2. 在主DC上运行prepare schema

```
E:\Setup.exe /IAcceptExchangeServerLicenseTerms_DiagnosticDataON /PrepareSchema
```

3. 在主DC上运行prepare 主domain

```
E:\Setup.exe /IAcceptExchangeServerLicenseTerms_DiagnosticDataON /PrepareDomain:root.com
```

4. 在主DC上打开ADUC，找到以下的组并将子域admin添加为成员，添加后需要重新logon生效

Enterprise Admins; Schema Admins; Organization Management

5. 在子DC上运行prepare 子domain

```
E:\Setup.exe /IAcceptExchangeServerLicenseTerms_DiagnosticDataON  
/PrepareDomain:child.root.com
```

6. 重启所有服务器
7. 打开父域的ADUC，找到Enterprise Admins; Organization Management; Schema Admins组，添加子域管理员为成员



The screenshot shows the 'Members' tab of the 'Enterprise Admins' group in the Active Directory Users and Groups console. The list of members includes:

Group Name	Member Name
Enterprise Admins	root.com/Users
Organization Management...	root.com/Microsoft Exchange Security Groups
Schema Admins	root.com/Users

8. 根据各自Ex服务器所属的域，指定对应DC进行安装

```
E:\Setup.exe /IAcceptExchangeServerLicenseTerms_DiagnosticDataON /mode:Install  
/role:Mailbox /DomainController:DCxx
```