

LAB 3.1. CÀI ĐẶT WINDOWS 7 TỰ ĐỘNG QUA MẠNG

I. GIỚI THIỆU

Bài lab thực hiện các bước chuẩn bị và tiến hành cài đặt tự động Windows 7 trên hàng loạt máy mục tiêu.

Để thực hiện bài lab, cần có 03 máy cùng nối vào 01 switch:

- 01 máy Windows Server 2008 R2 đã nâng cấp domain controller
- 01 máy Windows 7
- 01 máy mục tiêu chưa cài đặt hệ điều hành.
- Cấu hình IP của Windows Server 2008 R2:
 - Ip Address: 192.168.1.254
 - Subnet Mask: 255.255.255.0
 - Preferred DNS: 192.168.1.254

Các bước thực hiện:

A. CHUẨN BỊ: Thực hiện trên máy Windows 7

1. Cài đặt Windows Automatic Installation Kit (Windows AIK).
2. Dùng Windows AIK tạo unattended setup answer file.
3. Tạo đĩa DVD cài đặt tự động.

B. CẤU HÌNH WINDOWS DEPLOYMENT SERVICES SERVER: Thực hiện trên DC

1. Cài đặt & cấu hình DHCP server
2. Cài đặt Windows Deployment Services server
3. Cấu hình Windows Deployment Services server
4. Cấu hình các image
5. Bổ sung cấu hình install image & cấu hình server

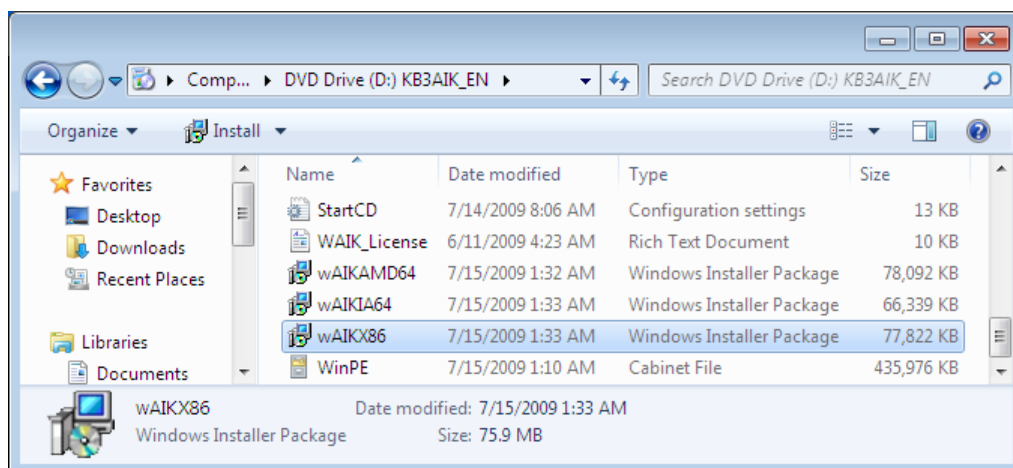
C. CÀI ĐẶT TỰ ĐỘNG QUA MẠNG: Thực hiện tại PC mục tiêu

II. THỰC HIỆN

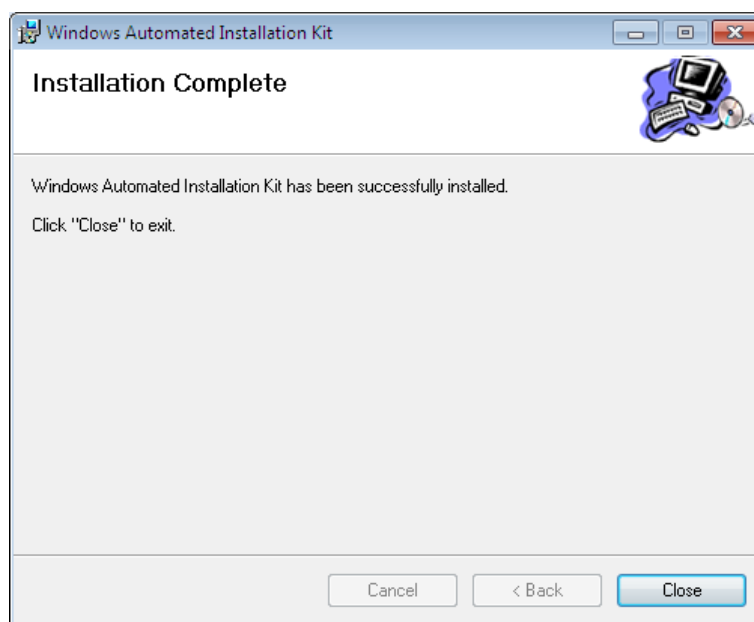
A. CHUẨN BỊ: Thực hiện trên PC11

1. Cài đặt Windows Automatic Installation Kit (Windows AIK)

- Kích hoạt tập tin wAIKx86.msi từ đĩa DVD Windows AIK



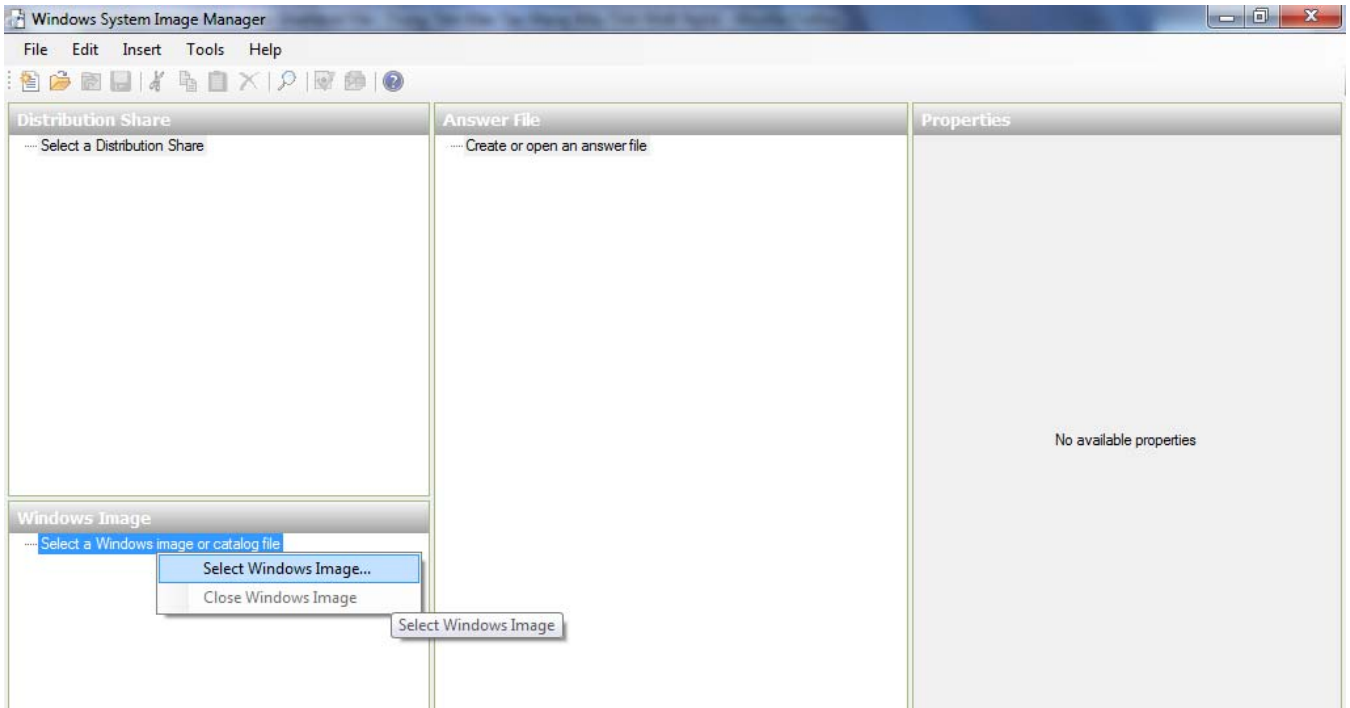
- Giữ nguyên các phương thức cài đặt mặc định. → Hoàn tất → Close



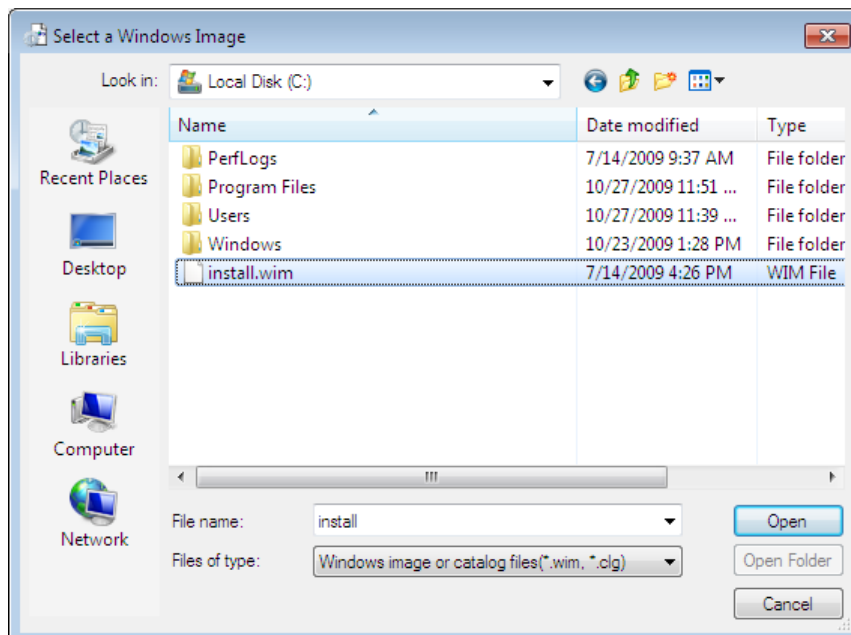
- Nạp đĩa DVD source Windows & Copy tập tin **INSTALL.WIM** từ thư mục **Sources** của DVD vào **C:**

2. Dùng Windows AIK tạo answer file

- Start → All Programs → Microsoft Windows AIK → Windows System Image Manager
- Click phải Select a Windows image... → Select Windows Image...

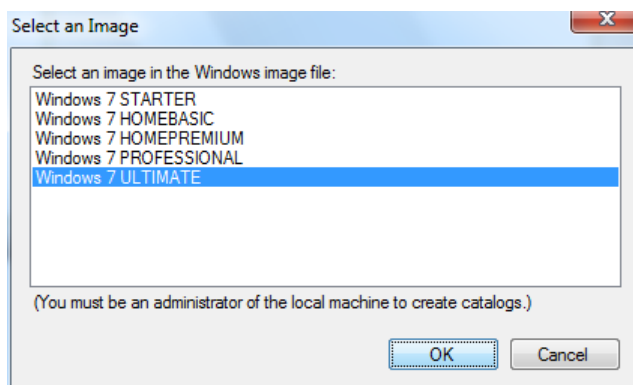


- Chọn tập tin **Install.wim** trên C: → Open

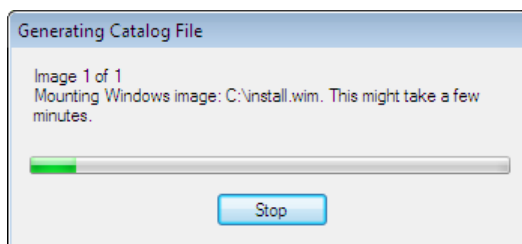
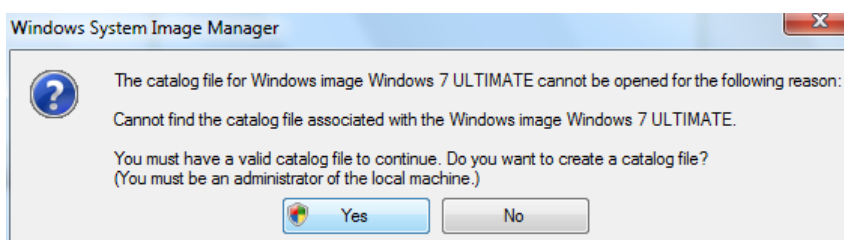


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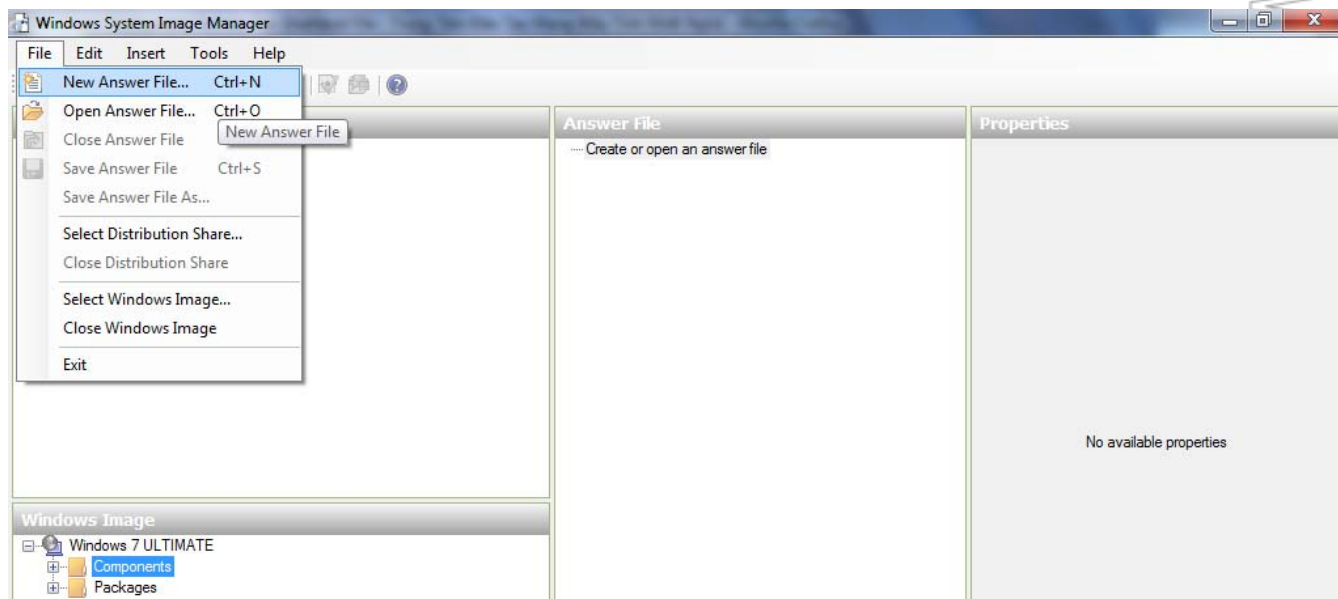
- Chọn Windows 7 ULTIMATE → OK



- Yes

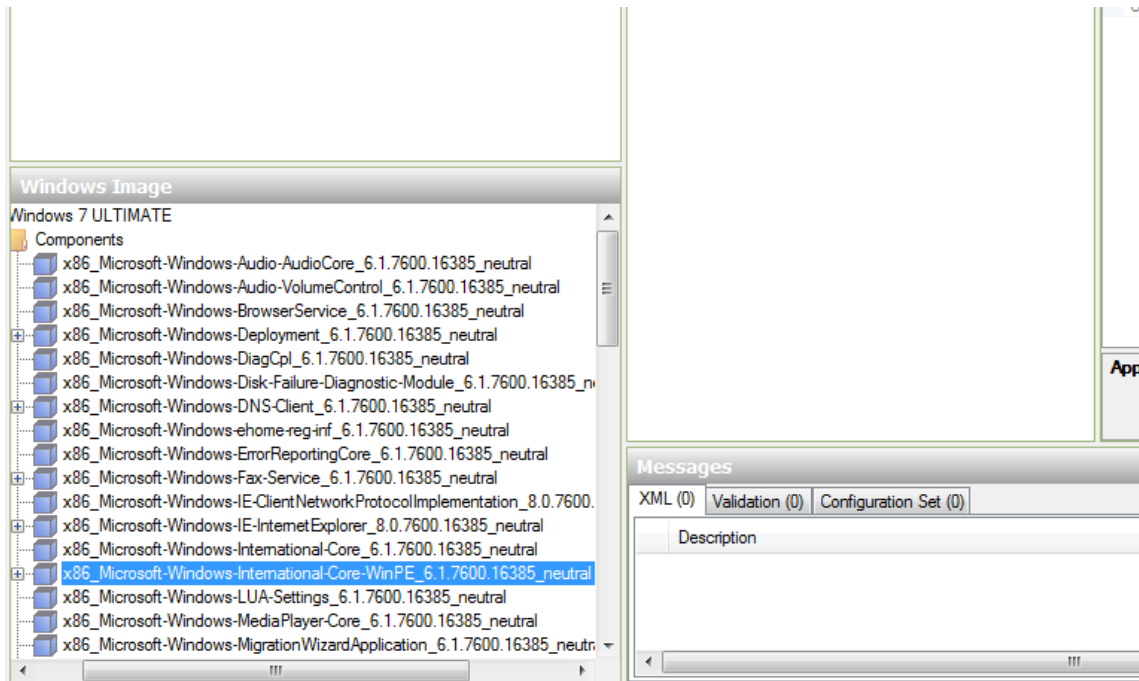


- Menu File → New Answer File...

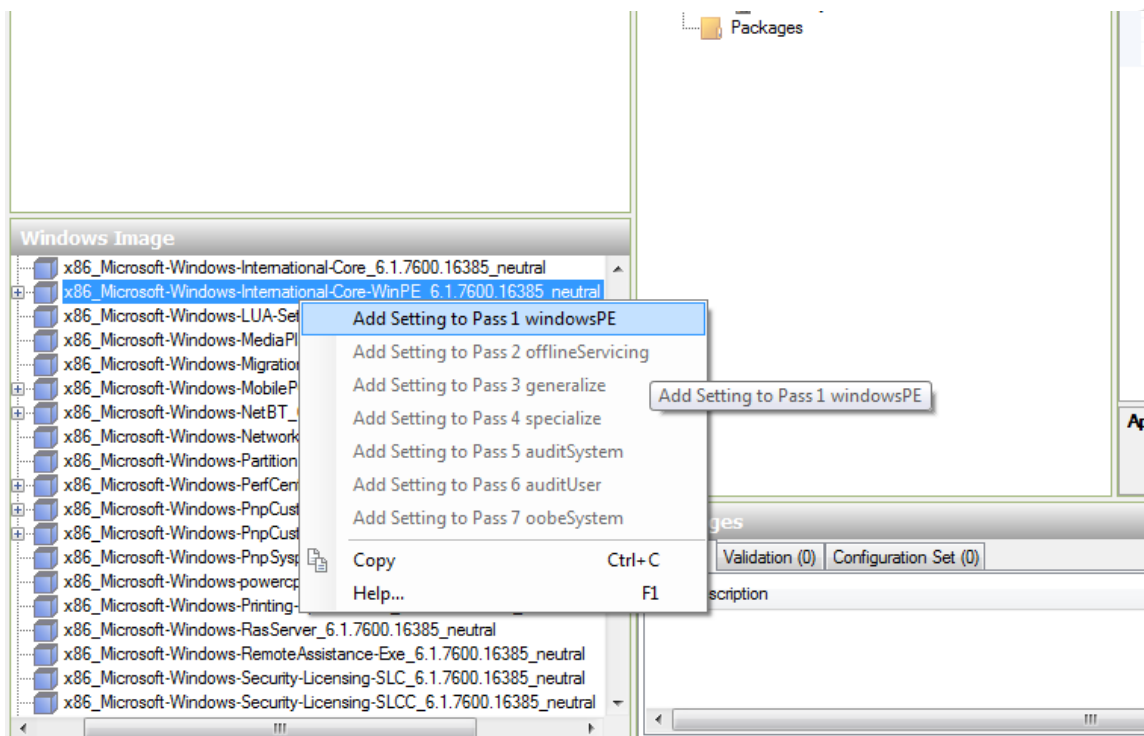


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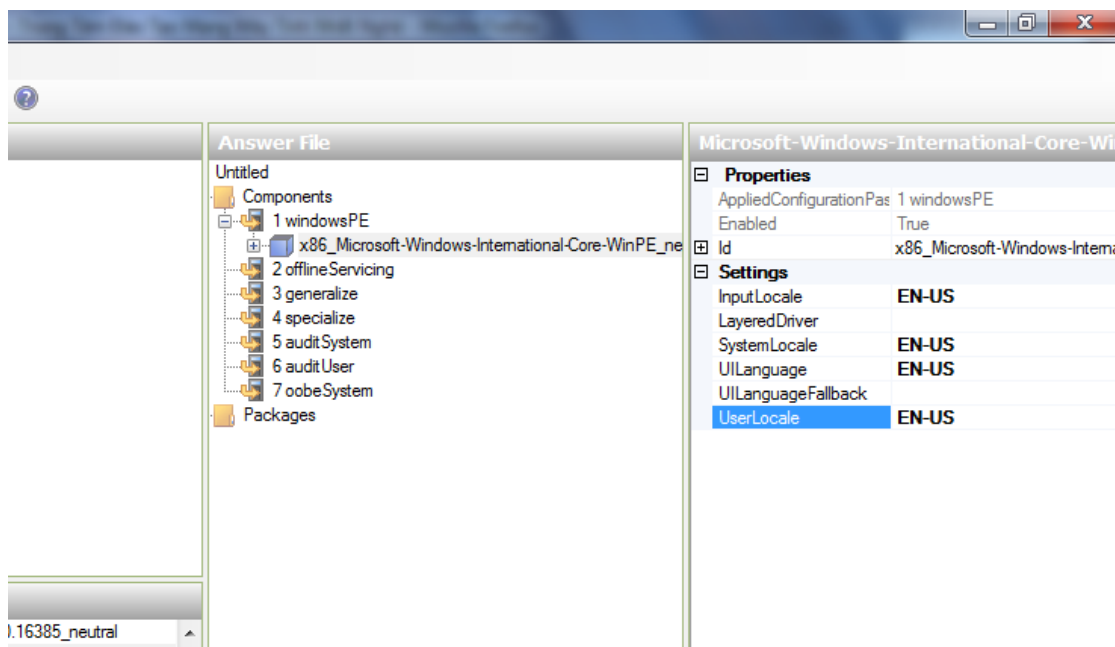
- Windows 7 ULTIMATE → Components
- x86_Microsoft-Windows-International-Core-WinPE_6.1...



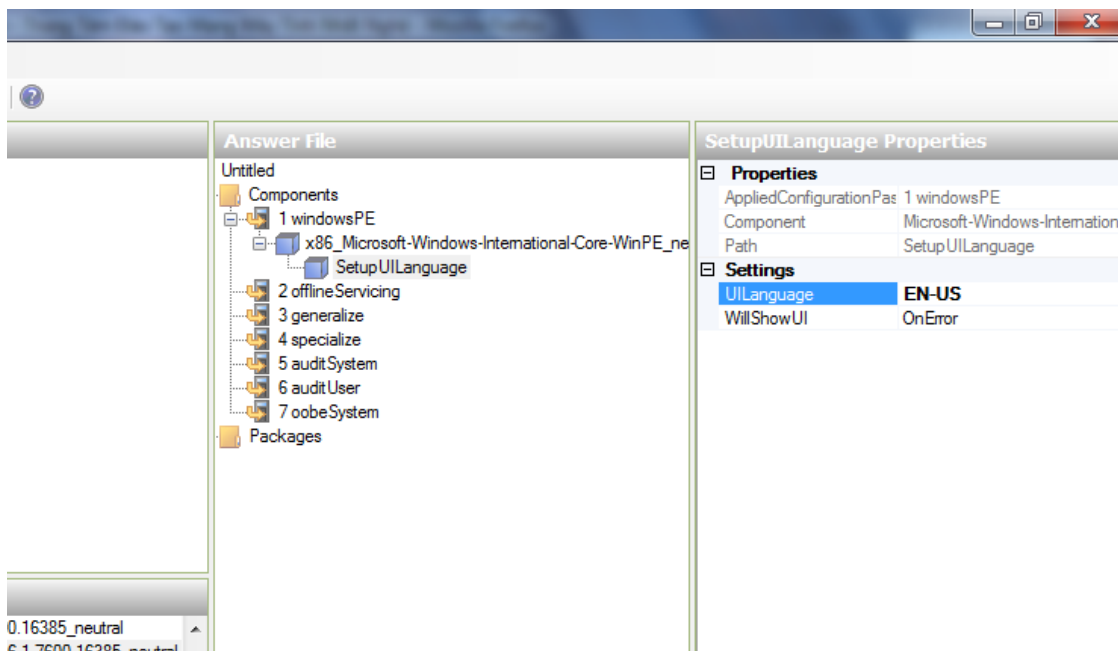
- Click phải → Add Setting to Pass 1 windowsPE



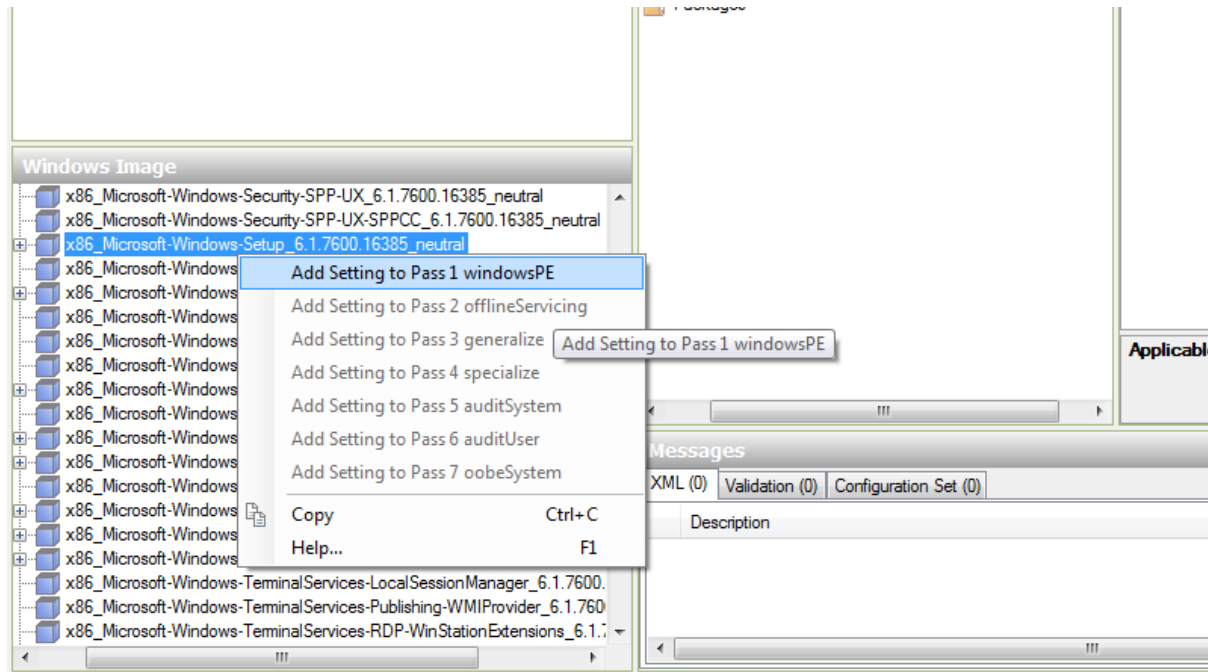
- Chọn tham số **InputLocale** → Nhập EN-US
- Tương tự, chọn các tham số **SystemLocale**, **UILanguage** và **UserLocale** → nhập chuỗi EN-US



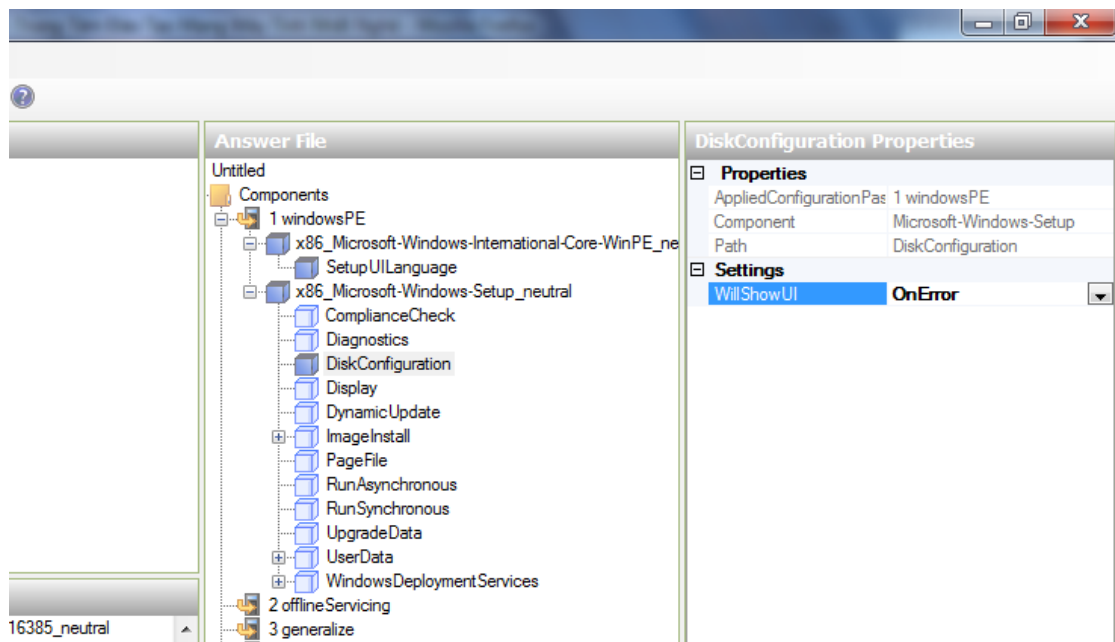
- Chọn tham số **UILanguage** → nhập chuỗi EN-US



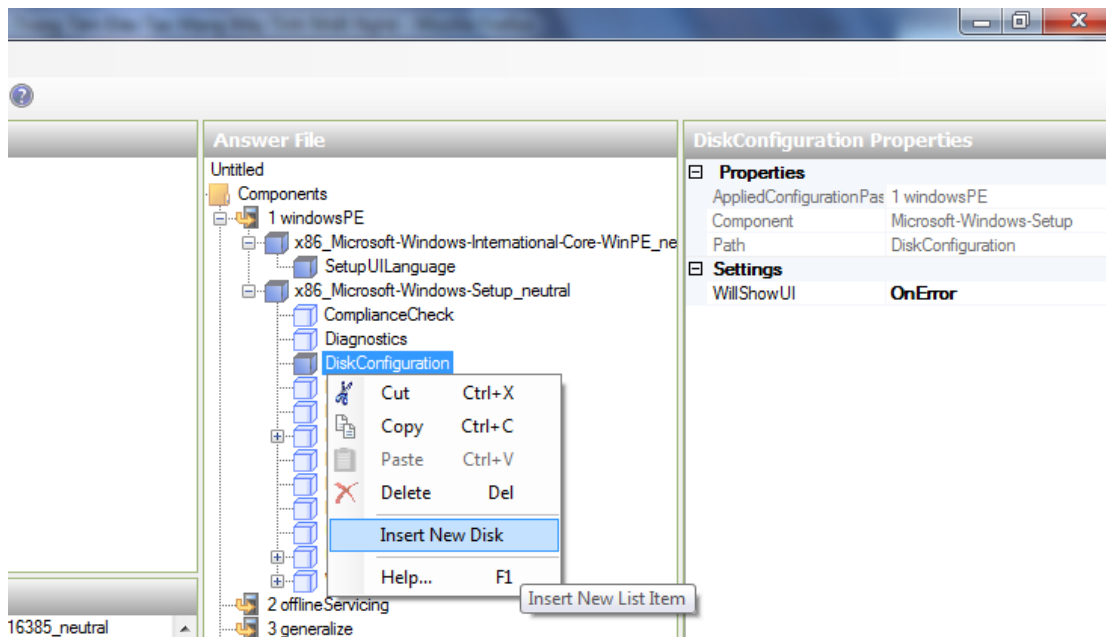
- Windows 7 ULTIMATE → Components → x86_Microsoft-Windows-Setup_6.1.7600...
- Click phải → Add Setting to Pass 1 windowsPE



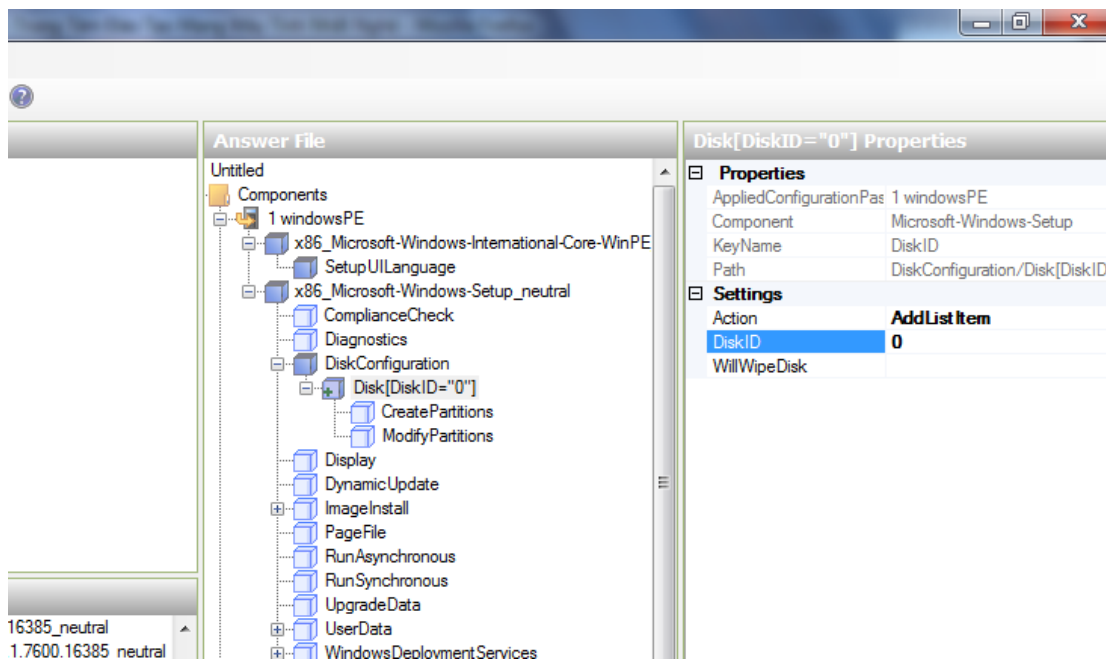
- Chọn tham số WillShowUI → Chọn giá trị OnError



- Click phải DiskConfiguration → Insert New Disk

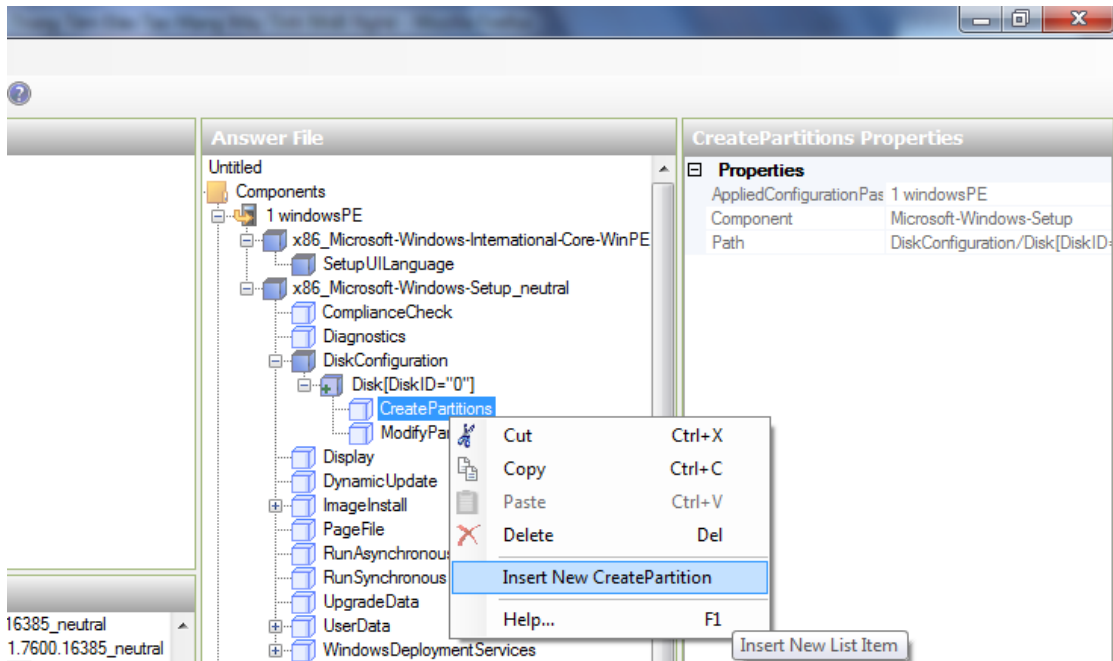


- Chọn tham số Disk ID → Nhập giá trị 0

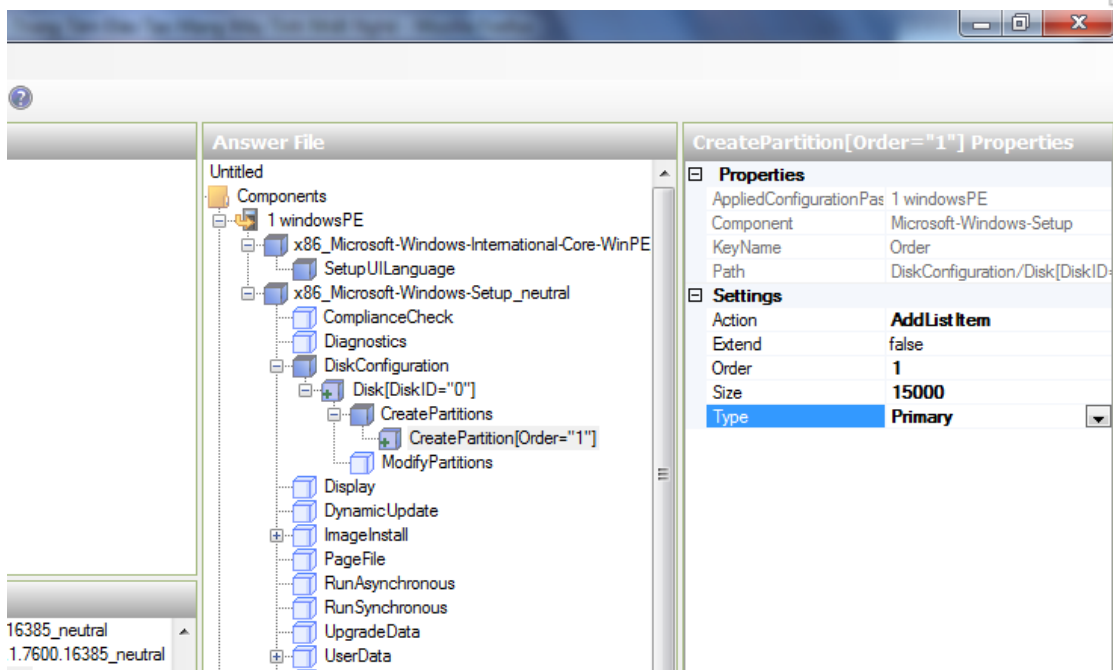


http://www.NhatNghe.com/forum

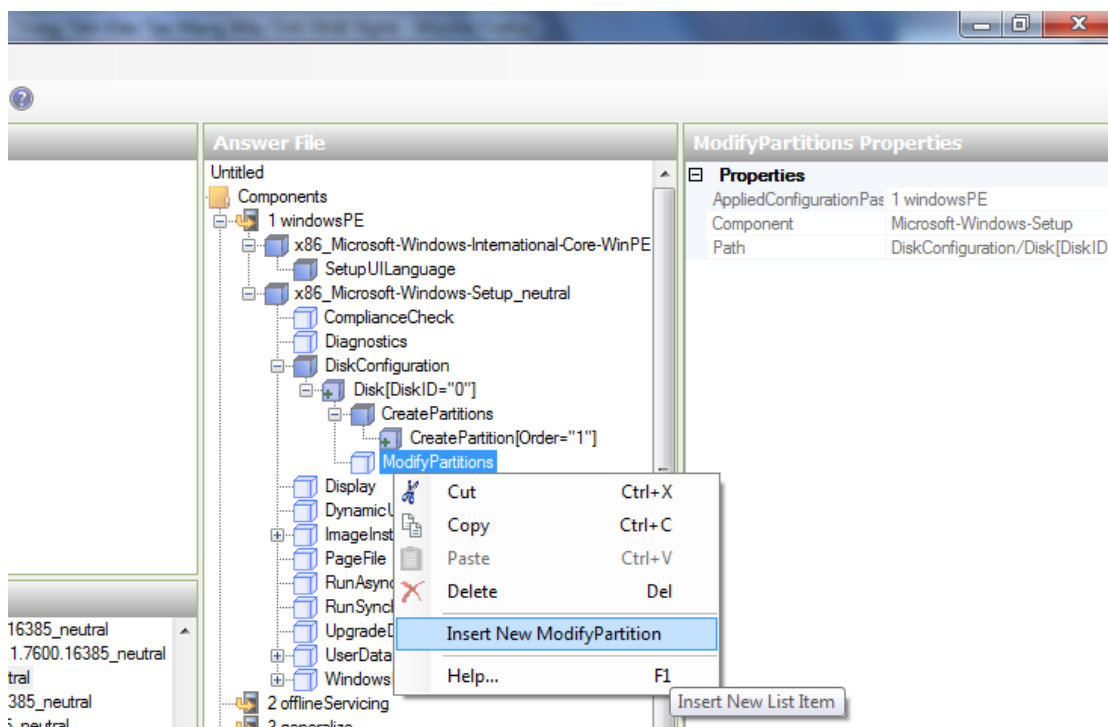
- Click phải CreatePartitions → Insert New CreatePartition



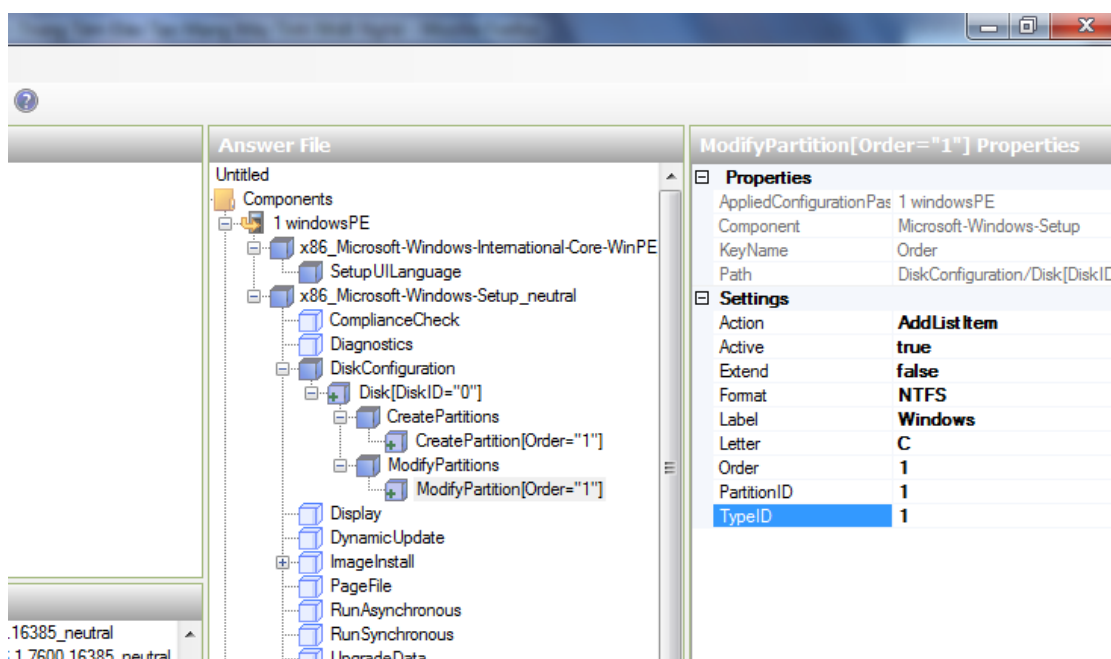
- Chọn tham số **Order** → Nhập giá trị **1**
- Chọn tham số **Size** → Nhập giá trị **15000**
- Chọn tham số **Type** → Chọn **Primary**



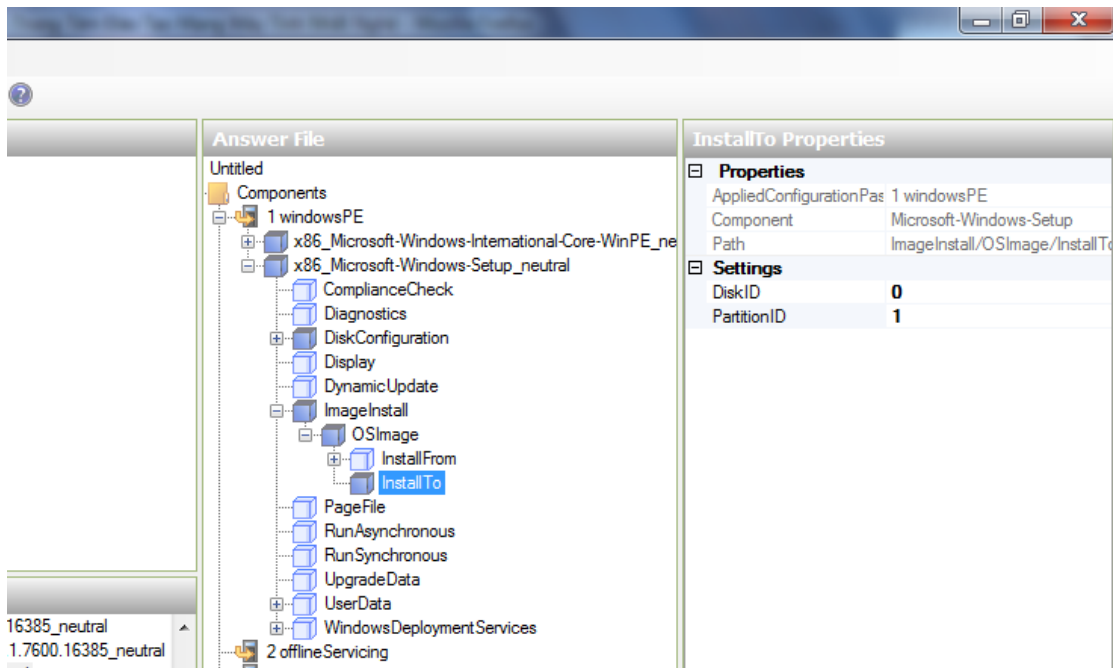
- Click phải ModifyPartitions → Insert New ModifyPartition



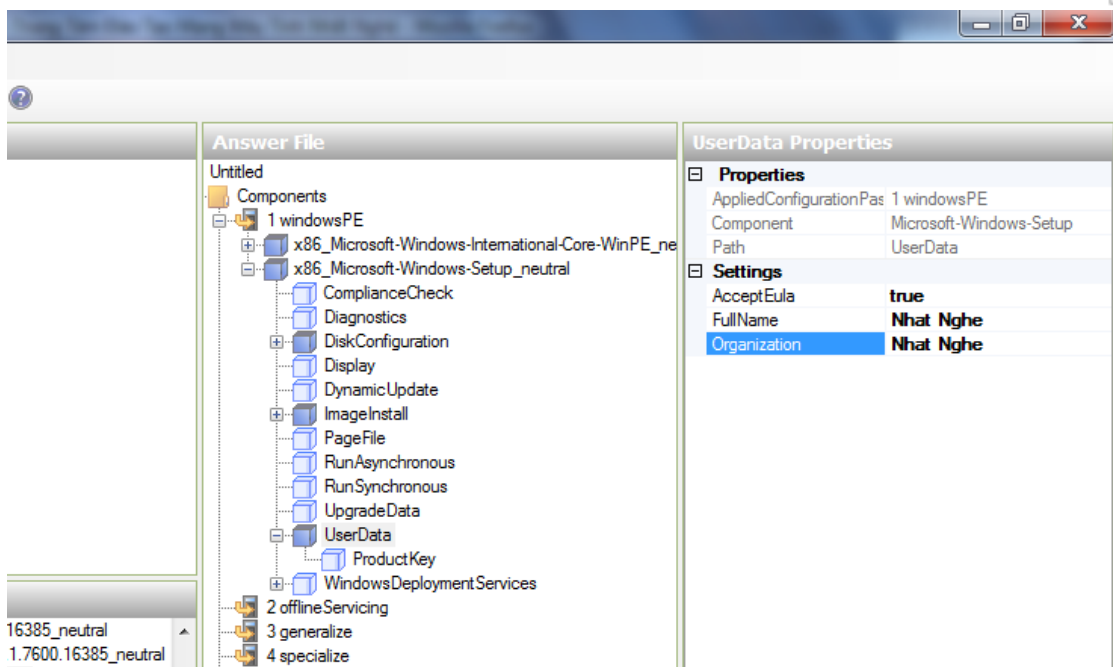
- Chọn tham số **Active** → Chọn **true**
- Chọn tham số **Extend** → Chọn **false**
- Chọn tham số **Format** → Chọn **NTFS**
- Chọn tham số **Label** → Nhập giá trị **Windows**
- Chọn tham số **Letter** → Chọn **C**
- Chọn tham số **Order** → Nhập giá trị **1**
- Chọn tham số **PartitionID** → Nhập giá trị **1**
- Chọn tham số **TypeID** → Nhập giá trị **1**



- Chọn tham số **DiskID** → Nhập giá trị **0**
- Chọn tham số **PartitionID** → Nhập giá trị **1**

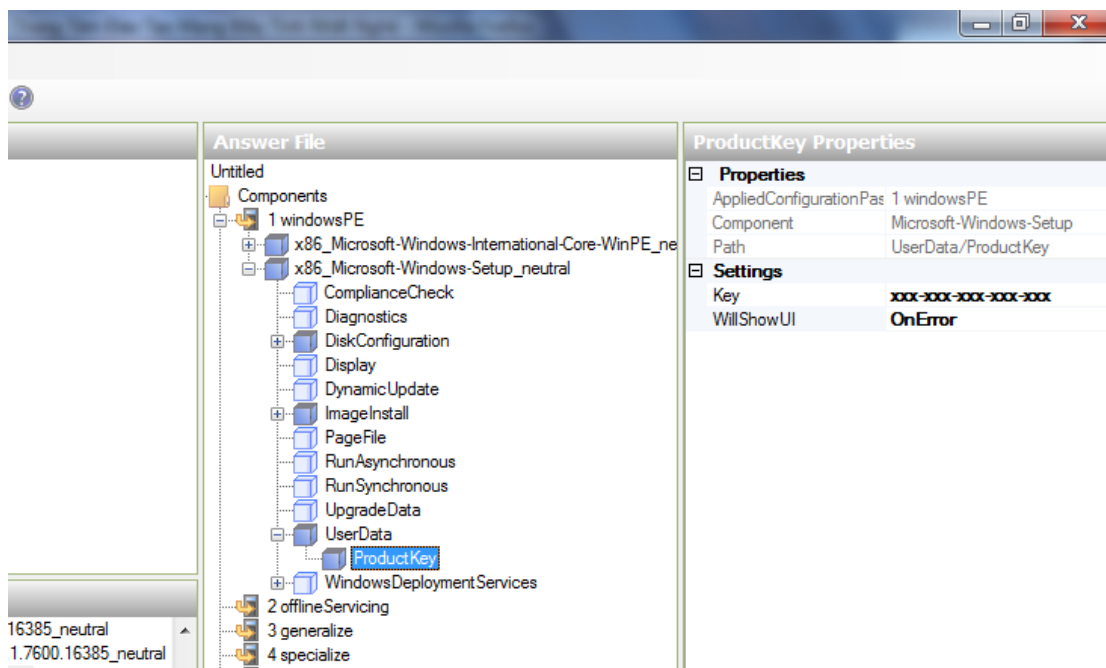


- Chọn tham số **AcceptEula** → Chọn **true**
- Chọn tham số **FullName** → Nhập giá trị **Nhat Nghe**
- Chọn tham số **Organization** → Nhập giá trị **Nhat Nghe**

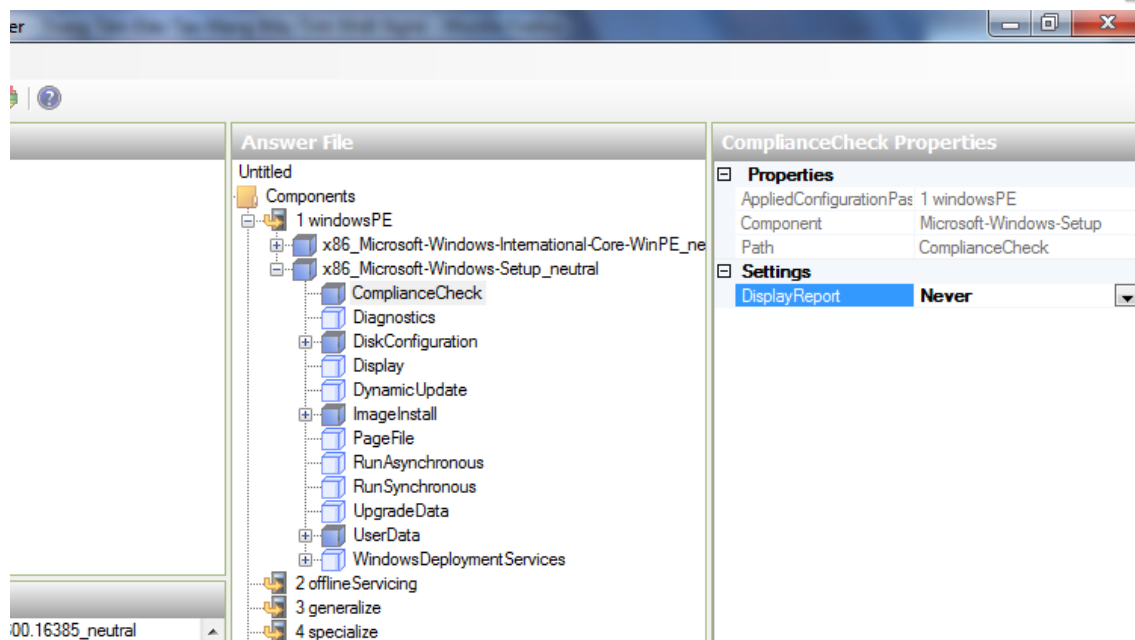


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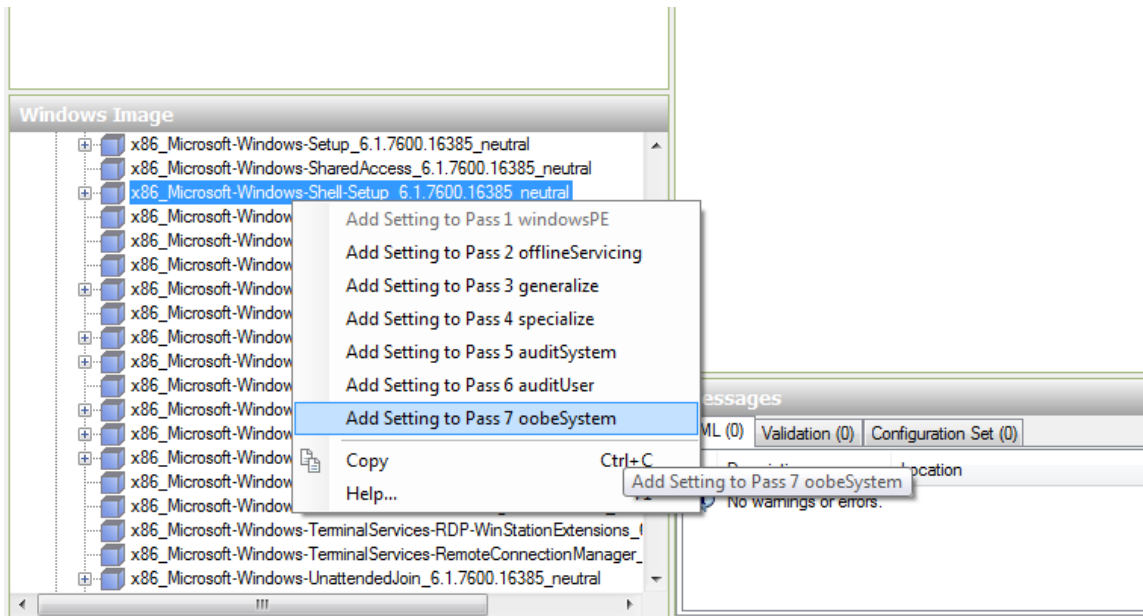
- Chọn tham số **Key** → Nhập giá trị **xxx-xxx-xxx-xxx-xxx**
- Chọn tham số **WillShowUI** → Chọn **OnError**



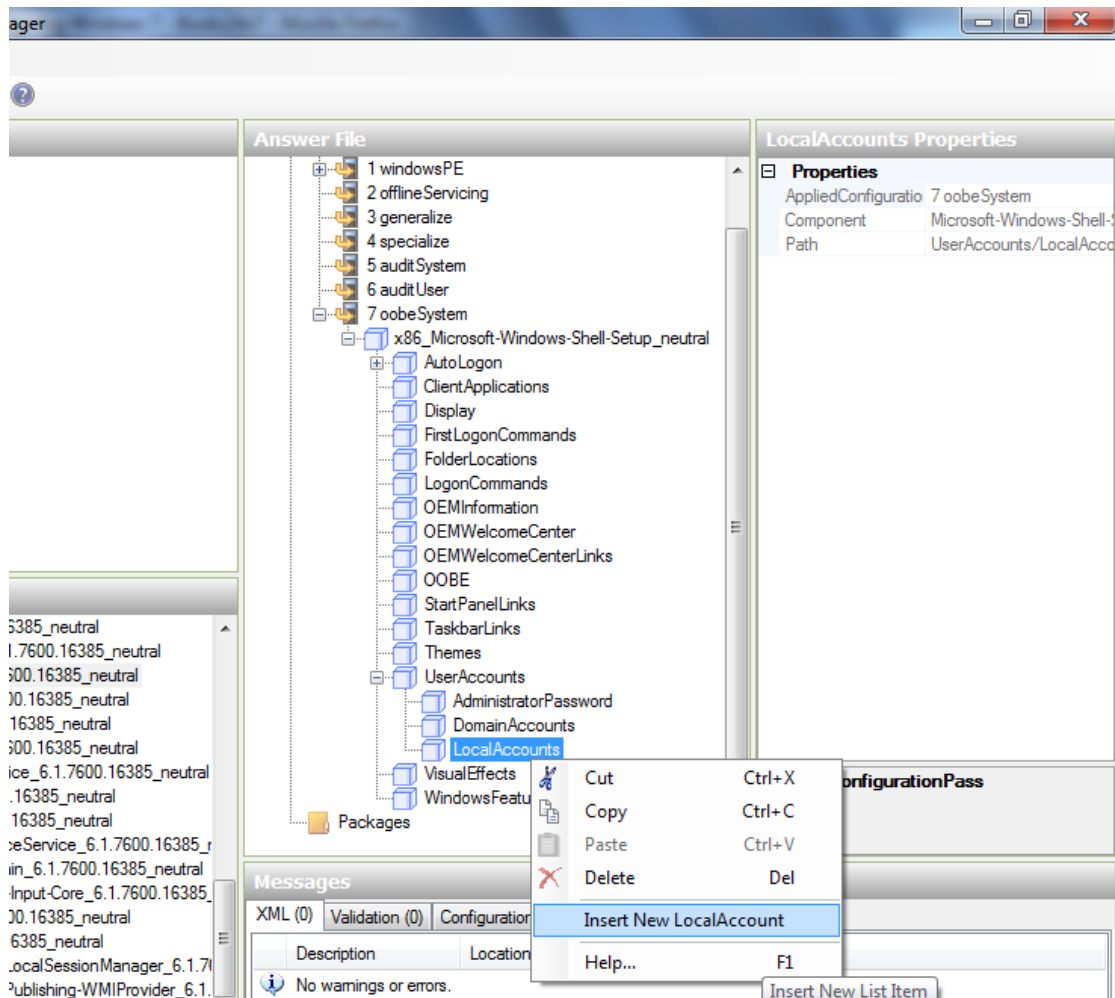
- Chọn tham số **DisplayReport** → Chọn **Never**



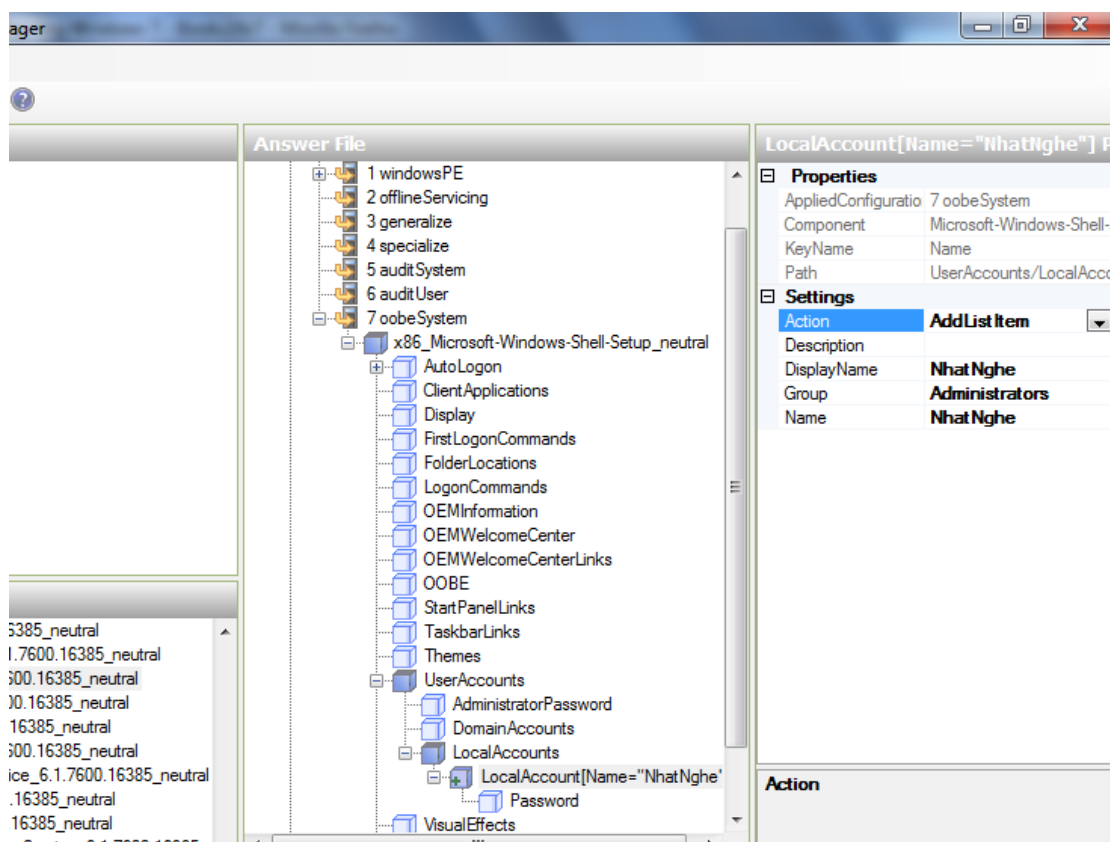
- Windows 7 ULTIMATE → Components → x86_Microsoft-Windows-Shell-Setup _6.1.7600... → Click phải → Add Setting to Pass 7 oobeSystem



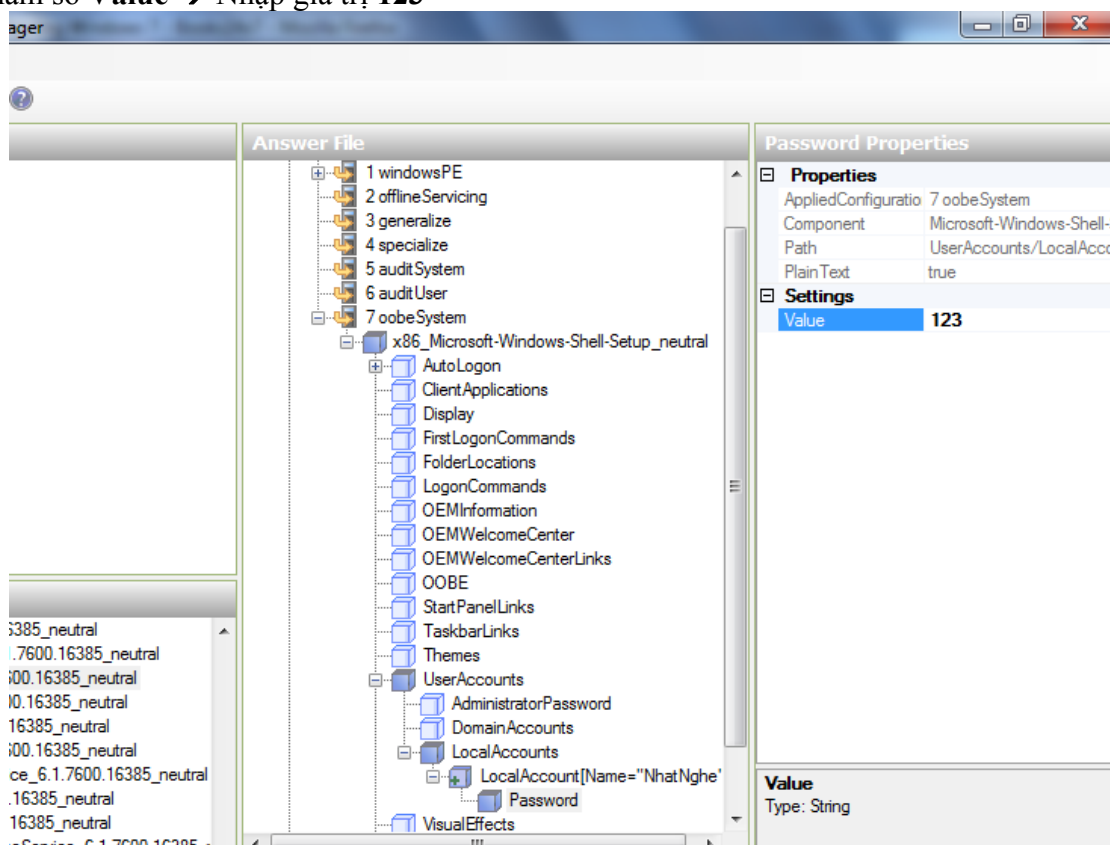
- Click phải LocalAccounts → Insert New LocalAccounts



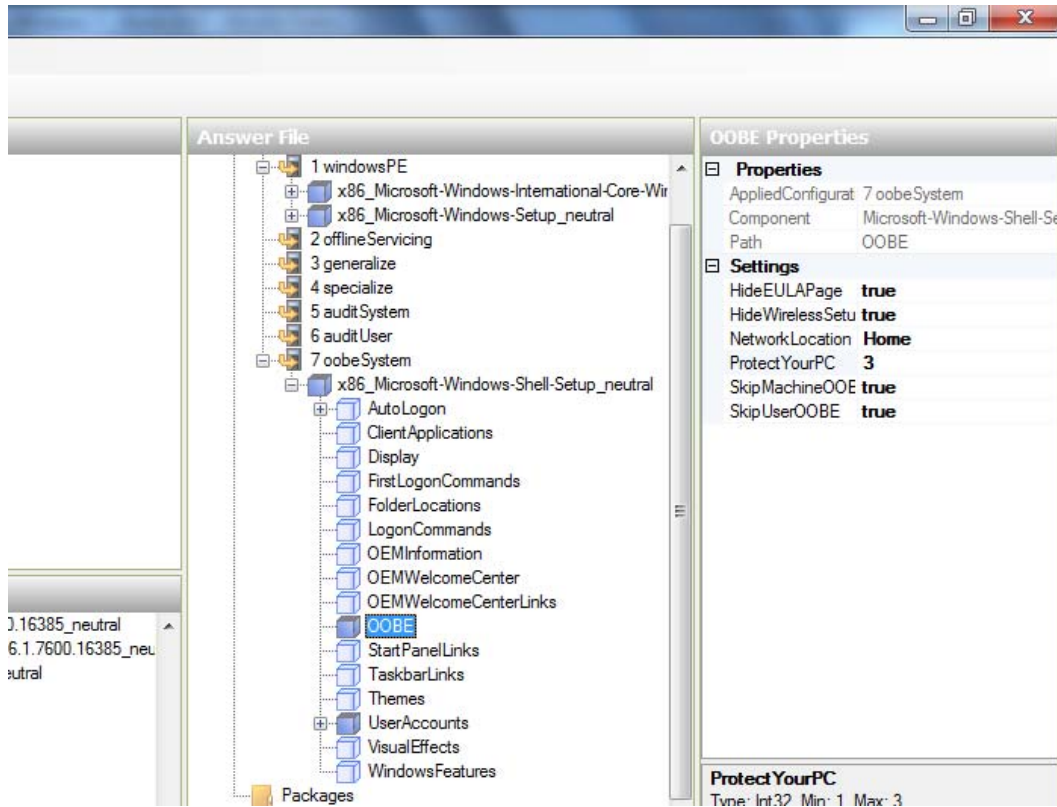
- Chọn tham số **DisplayName** → Nhập giá trị **NhatNghe**
- Chọn tham số **Group** → Nhập giá trị **Administrators**
- Chọn tham số **Name** → Nhập giá trị **NhatNghe**



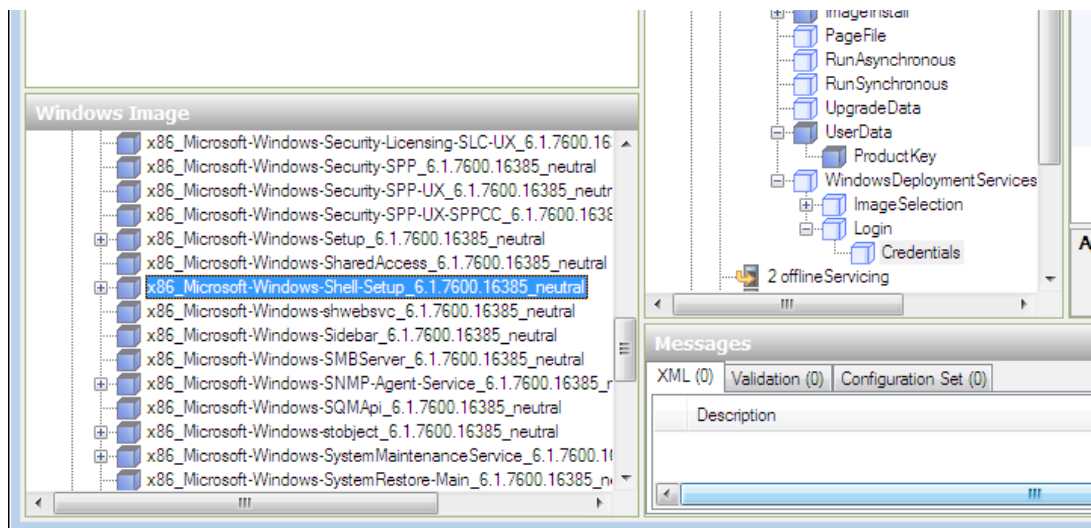
- Chọn tham số **Value** → Nhập giá trị **123**



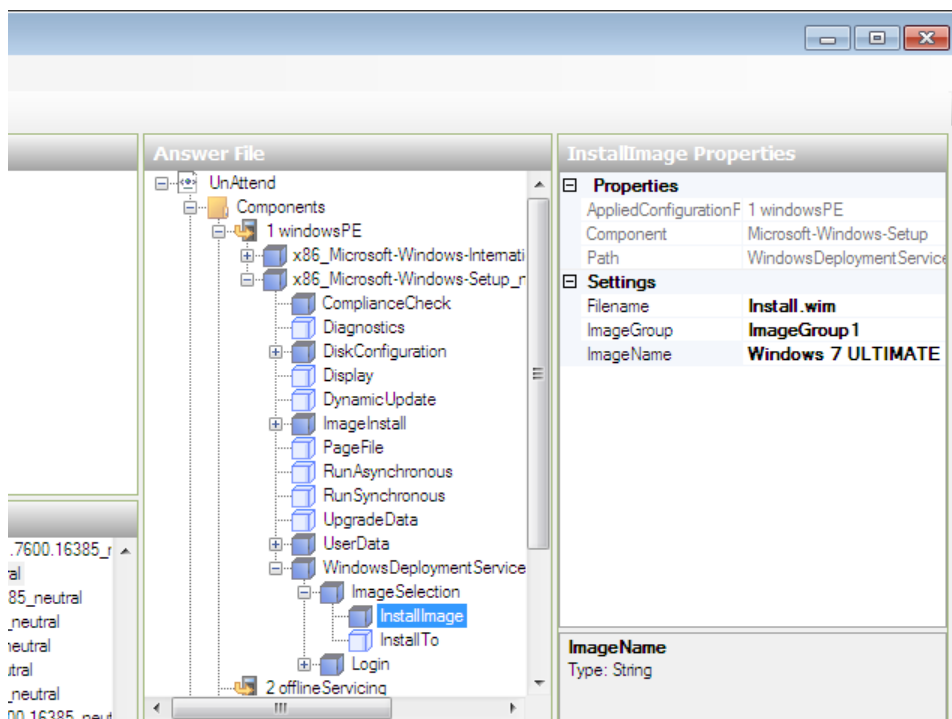
- Chọn tham số **HideEULAPage** → Chọn **true**
- Chọn tham số **HideWirelessSetup** → Chọn **true**
- Chọn tham số **NetworkLocation** → Chọn **Home**
- Chọn tham số **ProtectYourPC** → Nhập giá trị **3**
- Chọn tham số **SkipMachineOOBE** → Chọn **true**
- Chọn tham số **SkipUserOOBE** → Chọn **true**



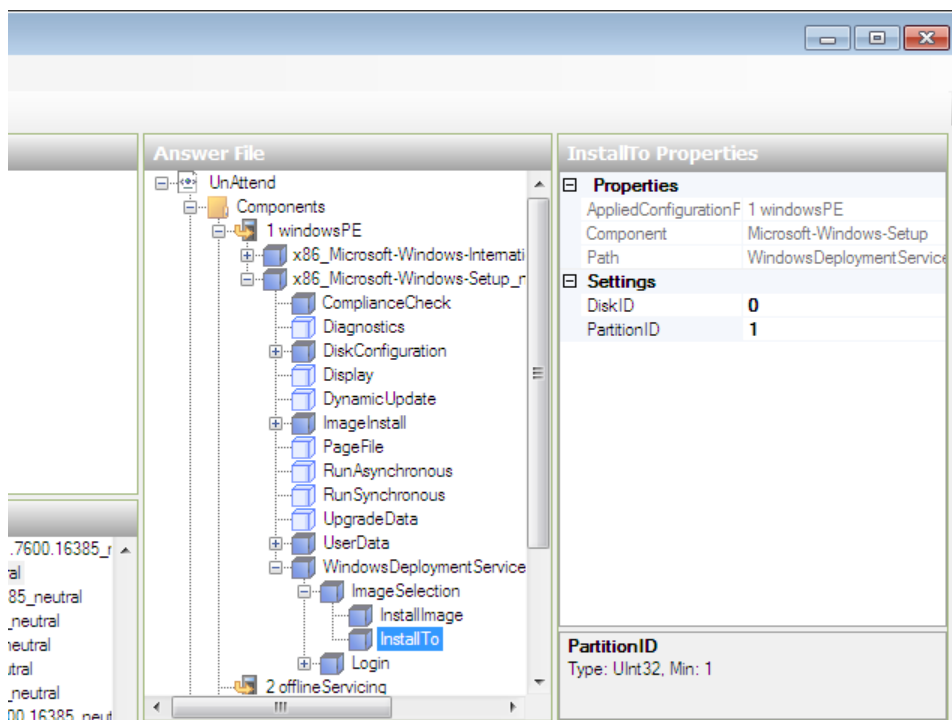
- - Windows 7 ULTIMATE → Components → chọn **x86_Microsoft-Windows-Shell-Setup_6.1.7600...**



- Chọn tham số **Filename** → Nhập chuỗi **Install.wim**
- Chọn tham số **ImageGroup** → Nhập chuỗi **ImageGroup1**
- Chọn tham số **ImageName** → Nhập chuỗi **Windows 7 ULTIMATE**

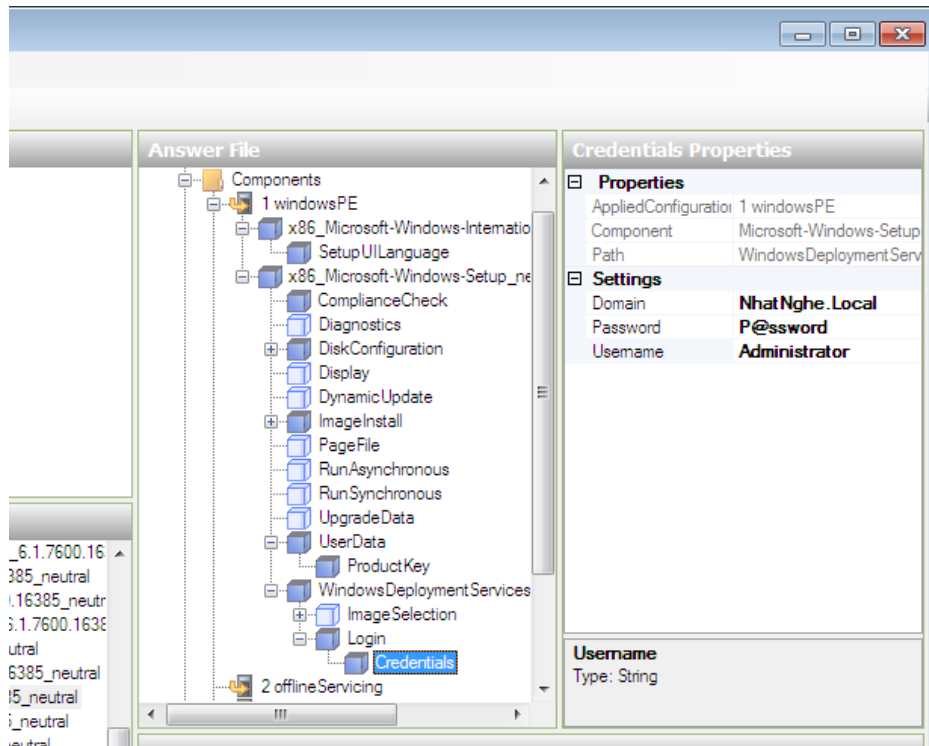


- Chọn tham số **DiskID** → Nhập giá trị **0**
- Chọn tham số **PartitionID** → Nhập giá trị **1**

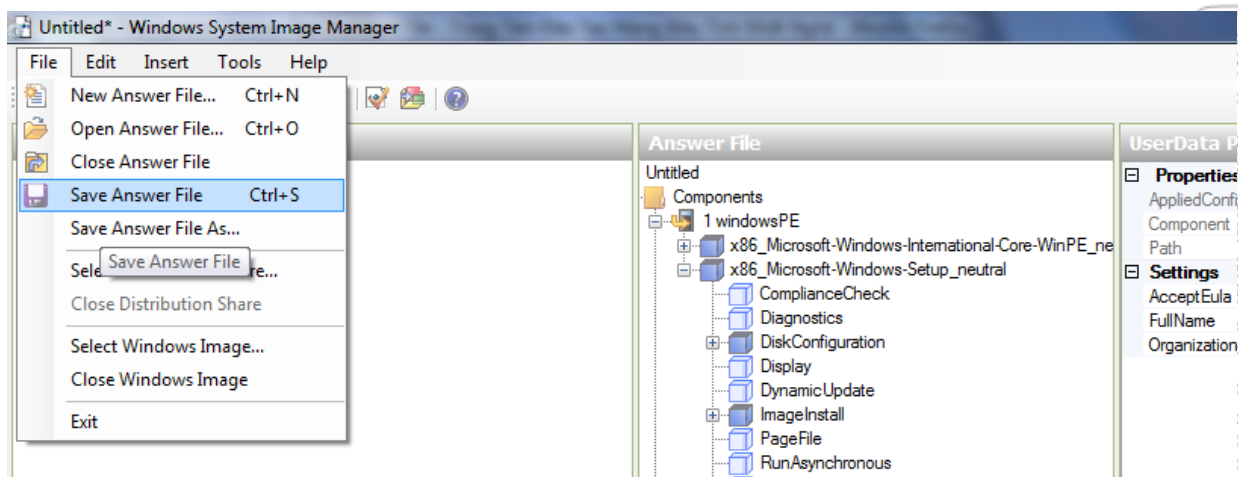


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- Chọn tham số **Domain** → Nhập chuỗi **NhatNghe.Local**
- Chọn tham số **Password** → Nhập chuỗi **P@ssword**
- Chọn tham số **Username** → Nhập chuỗi **Administrator**



- Menu File → Save Answer File

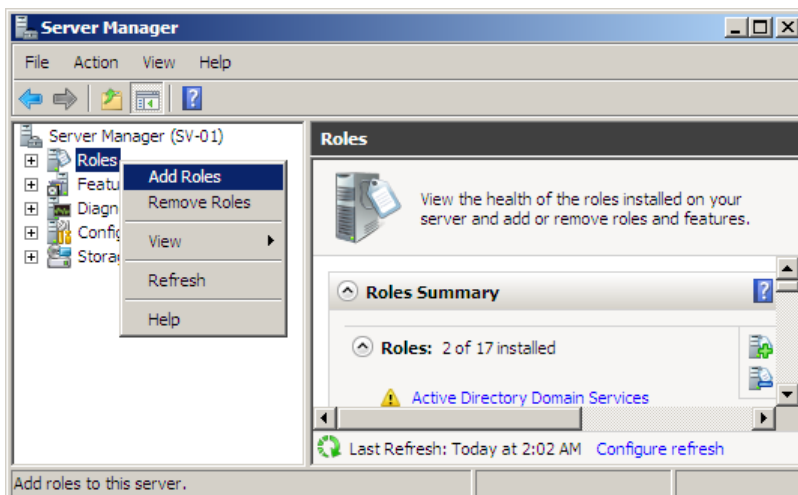


- Lưu tập tin lên đĩa C:\ **Unattend.XML**

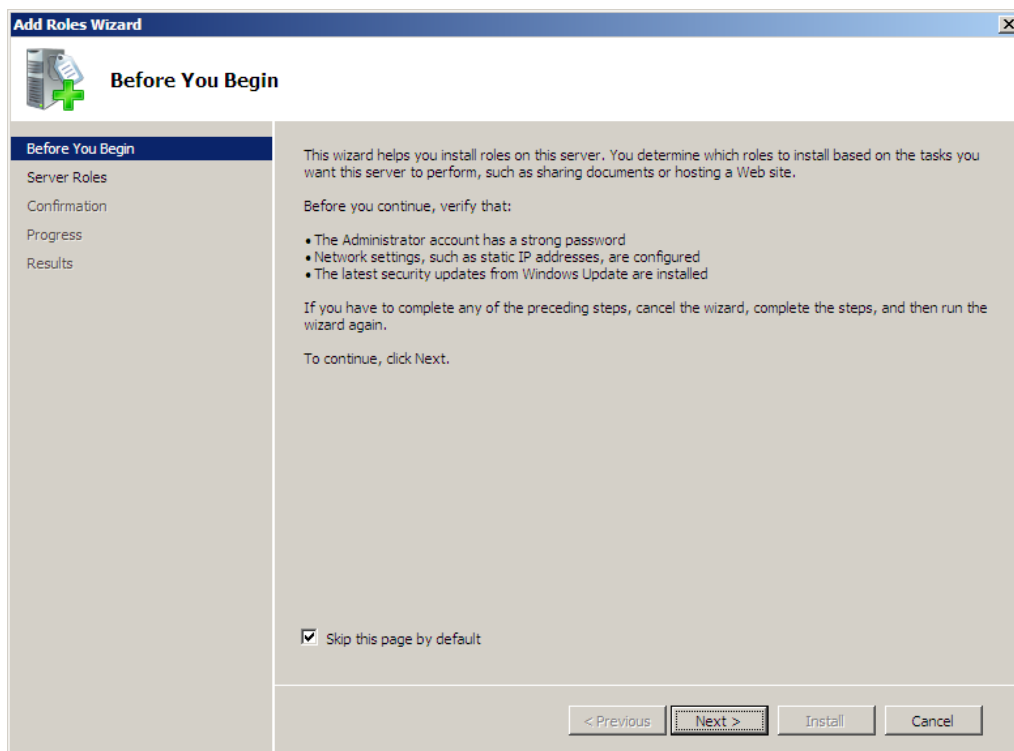
B. CẤU HÌNH WINDOWS DEPLOYMENT SERVICES SERVER: Thực hiện trên DC

1. Cài đặt & cấu hình DHCP server

- Start → Administrative Tools → Server Manager
- Click phải Roles → Add Role

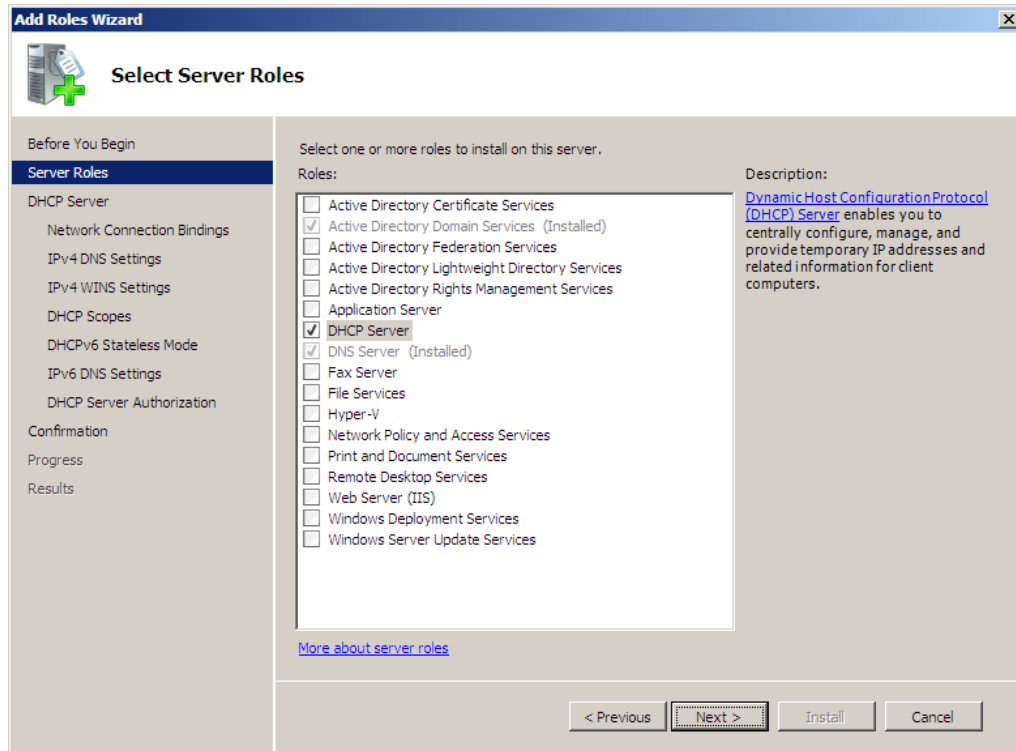


- Next

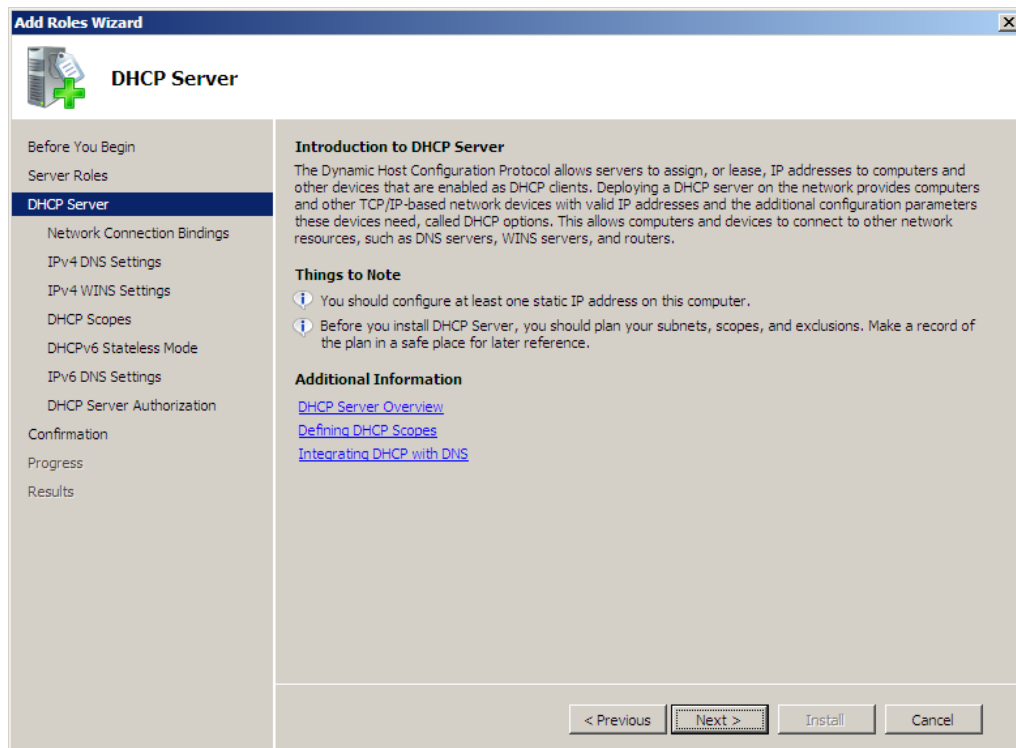


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- Chọn DHCP Server → Next

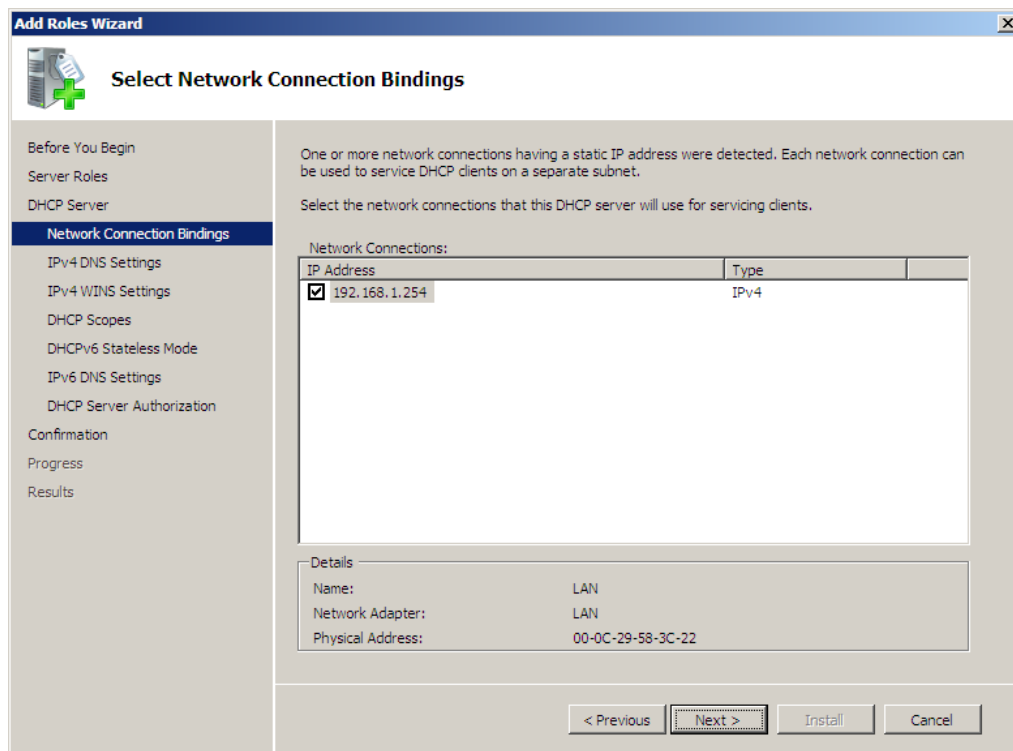


- Next

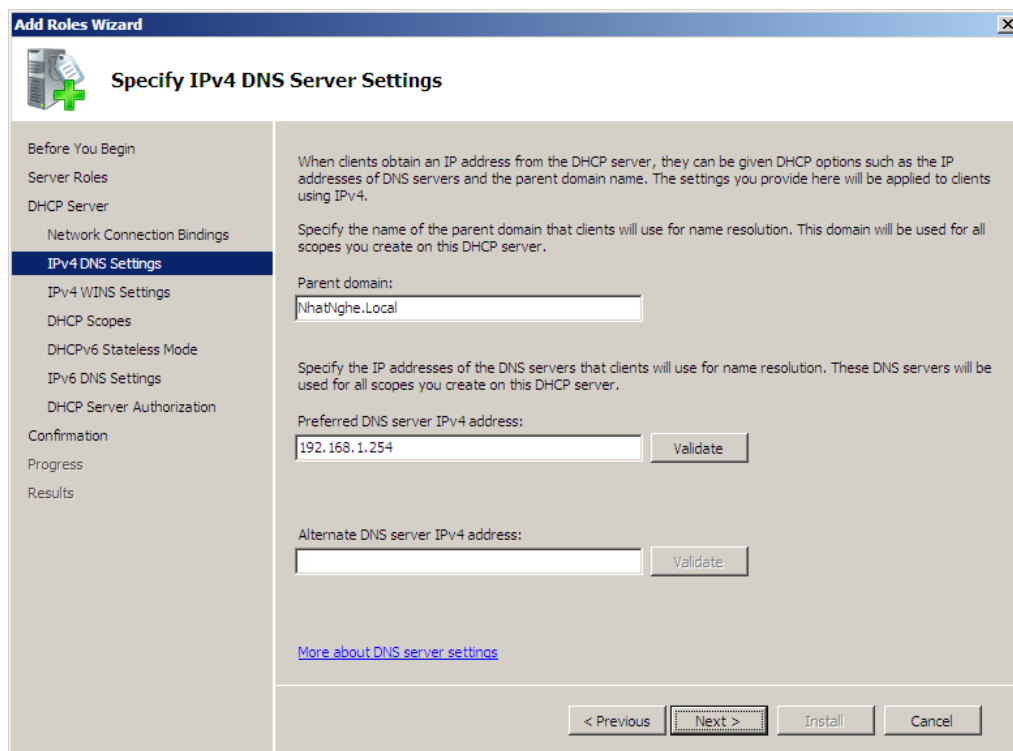


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- Next



- Bảo đảm giá trị Parent domain: **NhatNghe.Local** và Preferred DNS server...: **192.168.1.254** → Next



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- Next

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
 DHCP Server Authorization
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

WINS is required for applications on this network

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

- Add

Add Roles Wizard

Add or Edit DHCP Scopes

Before You Begin
Server Roles
DHCP Server
 Network Connection Bindings
 IPv4 DNS Settings
 IPv4 WINS Settings
 DHCP Scopes
 DHCPv6 Stateless Mode
 IPv6 DNS Settings
 DHCP Server Authorization
Confirmation
Progress
Results

A scope is the range of possible IP addresses for a network. The DHCP server cannot distribute IP addresses to clients until a scope is created.

Scopes:

Name	IP address range	

Add...
Edit...
Delete

Properties
Add or select a scope to view its properties.

[More about adding scopes](#)

< Previous Next > Install Cancel

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- Nhập các giá trị như hình minh họa → OK

Add Scope

A scope is a range of possible IP addresses for a network. The DHCP server cannot distribute IP addresses to clients until a scope is created.

Configuration settings for DHCP Server

Scope name: Win7 Client

Starting IP address: 192.168.1.11

Ending IP address: 192.168.1.200

Subnet type: Wired (lease duration will be 8 days)

Activate this scope

Configuration settings that propagate to DHCP client

Subnet mask: 255.255.255.0

Default gateway (optional):

OK Cancel

- Next

Add Roles Wizard

Add or Edit DHCP Scopes

Before You Begin

Server Roles

DHCP Server

Network Connection Bindings

IPv4 DNS Settings

IPv4 WINS Settings

DHCP Scopes

DHCPv6 Stateless Mode

IPv6 DNS Settings

DHCP Server Authorization

Confirmation

Progress

Results

A scope is the range of possible IP addresses for a network. The DHCP server cannot distribute IP addresses to clients until a scope is created.

Scopes:

Name	IP address range	
Win7 Client	192.168.1.11 - 192.168.1.200	Add... Edit... Delete

Properties

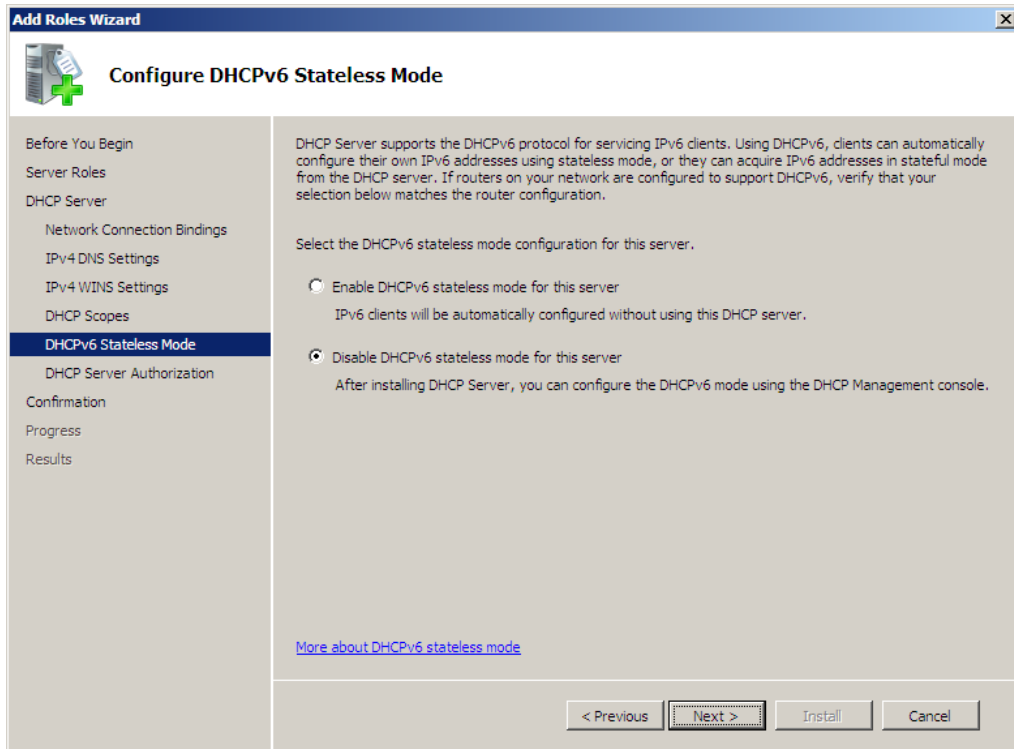
Add or select a scope to view its properties.

[More about adding scopes](#)

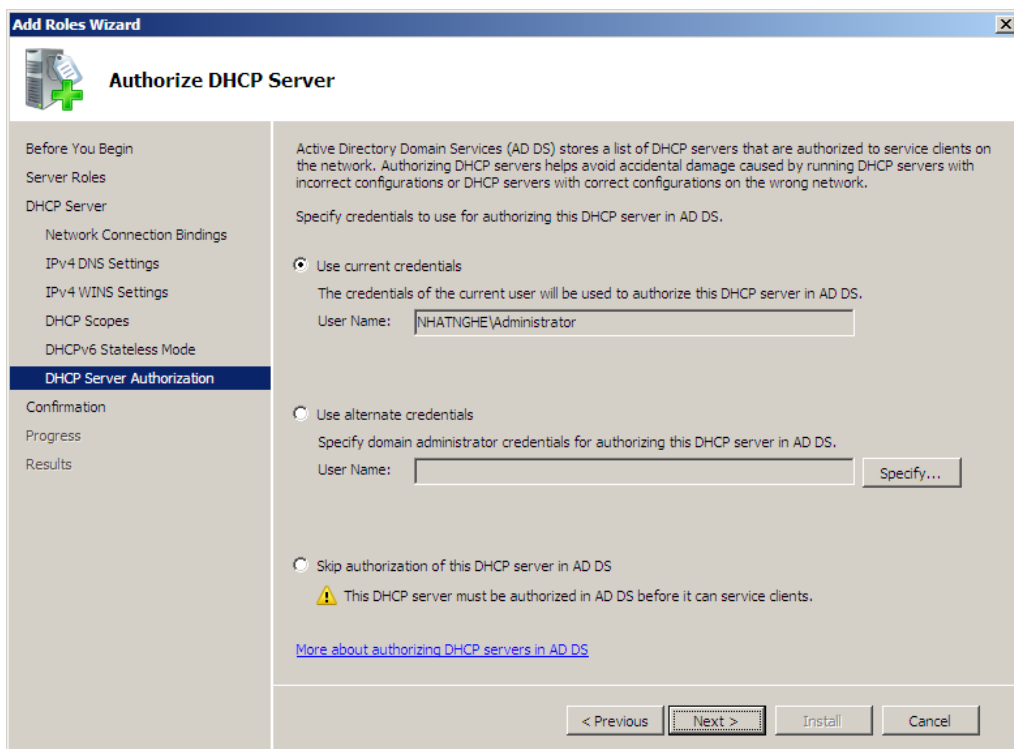
< Previous Next > Install Cancel

<http://www.NhatNghe.com/forum>

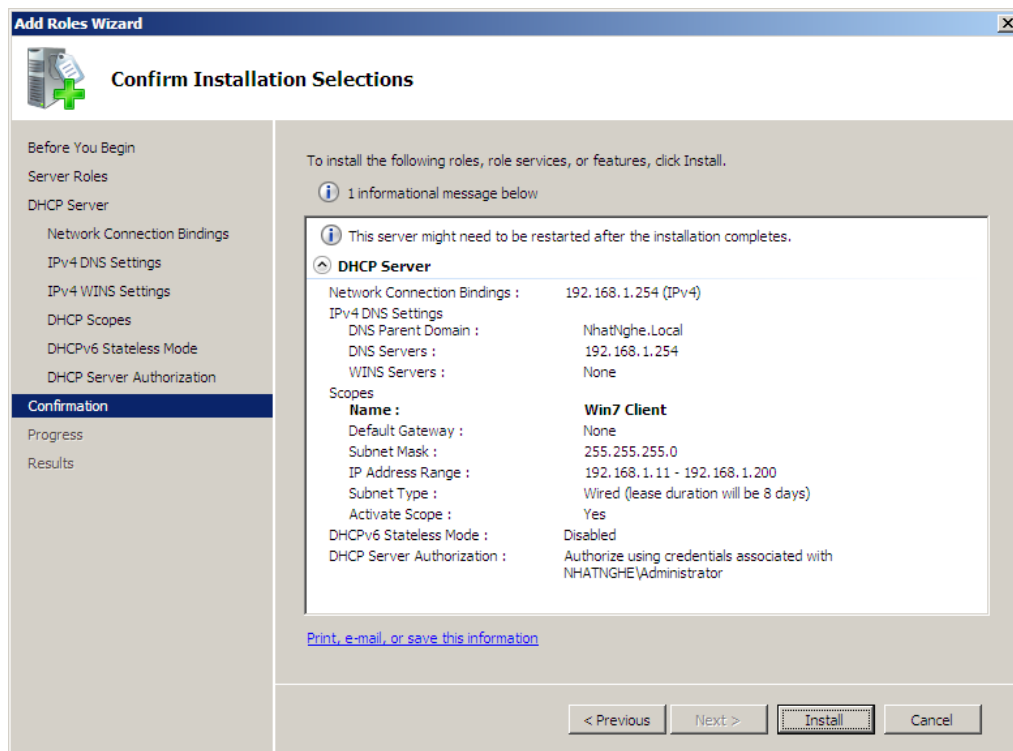
- Chọn Disable DHCPv6 stateless mode for this server → Next



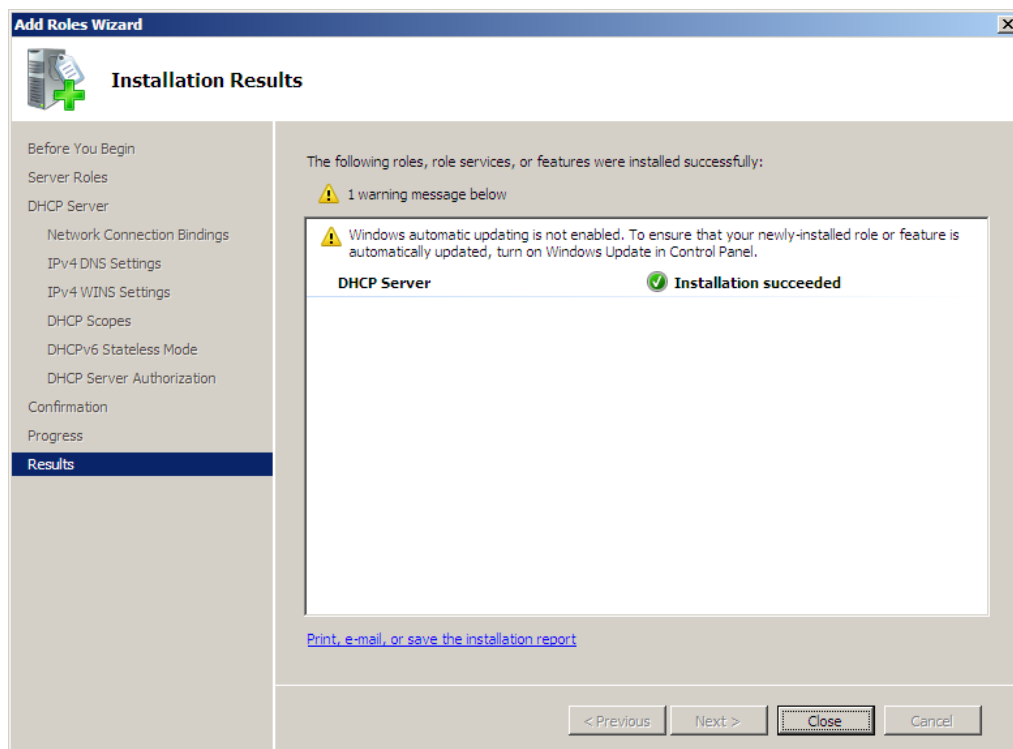
- Next



- Install



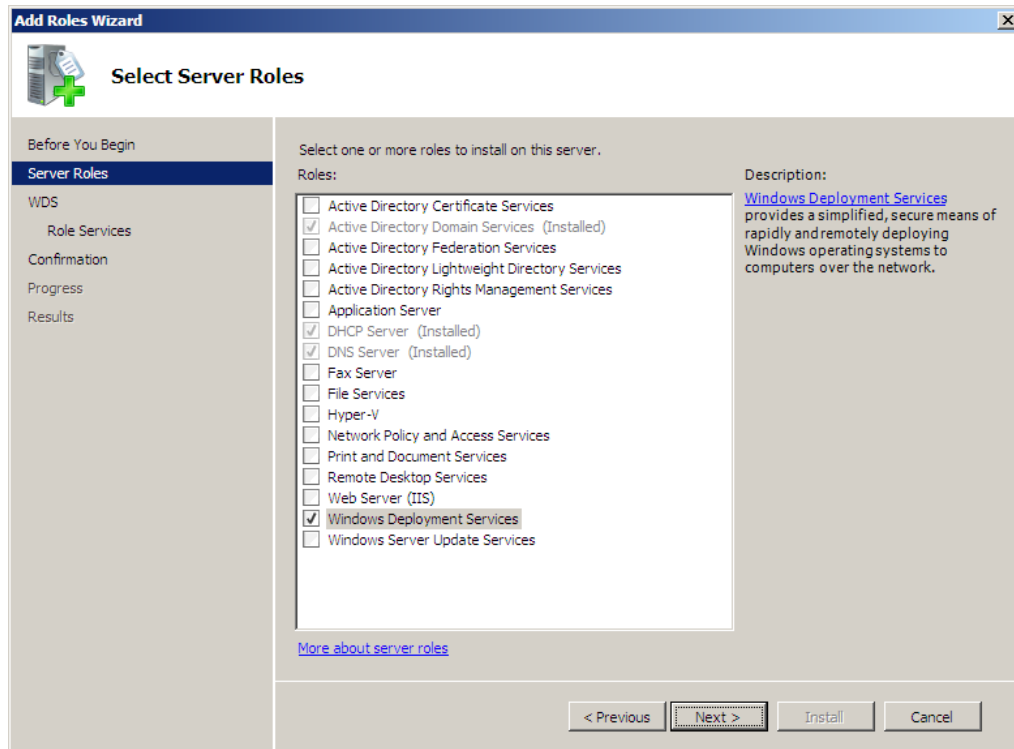
- Hoàn tất → Close



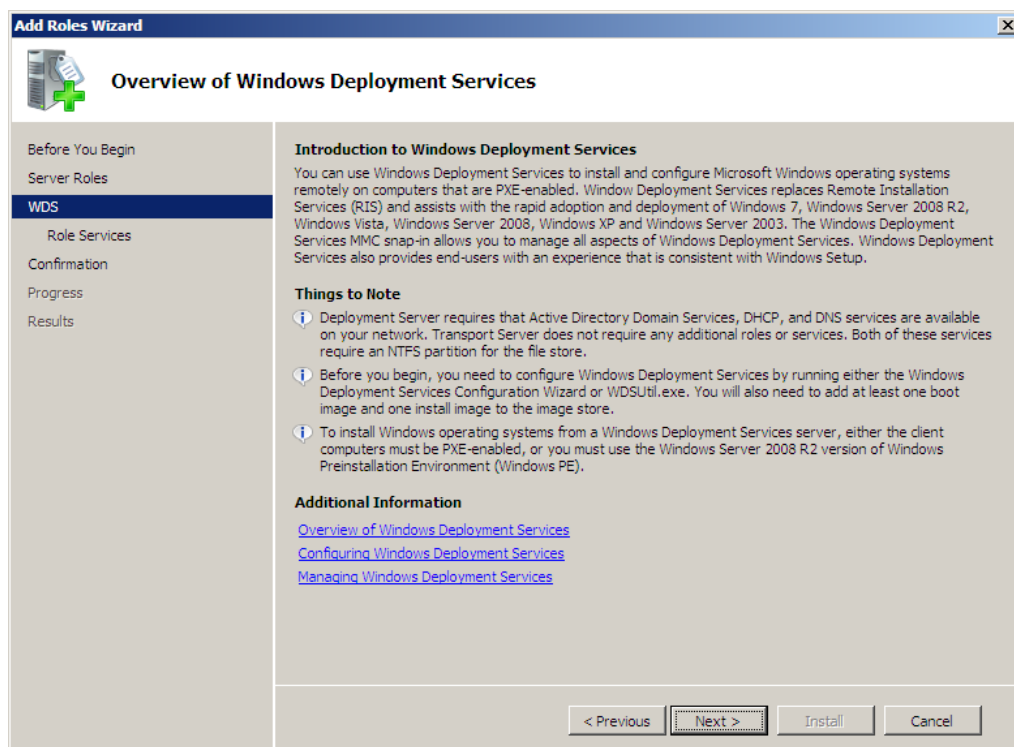
<http://www.NhatNghe.com/forum>

2. Cài đặt Windows Deployment Services server

- Server Manager → Click phải Roles → Add Role
- Chọn Windows Deployment Services → Next

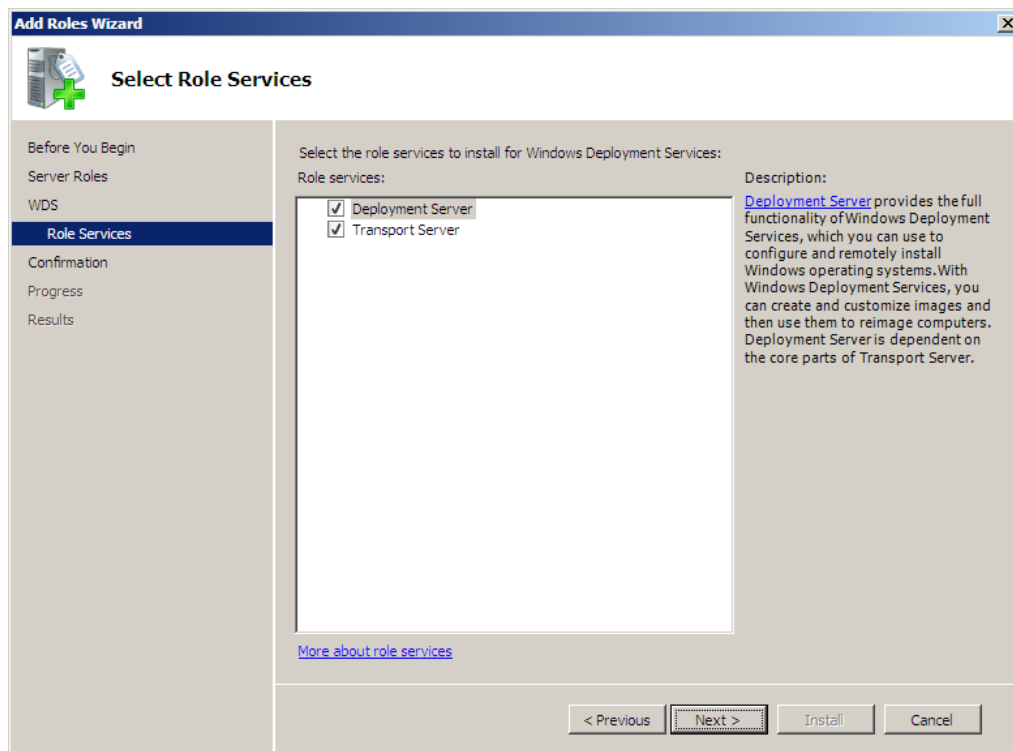


- Next

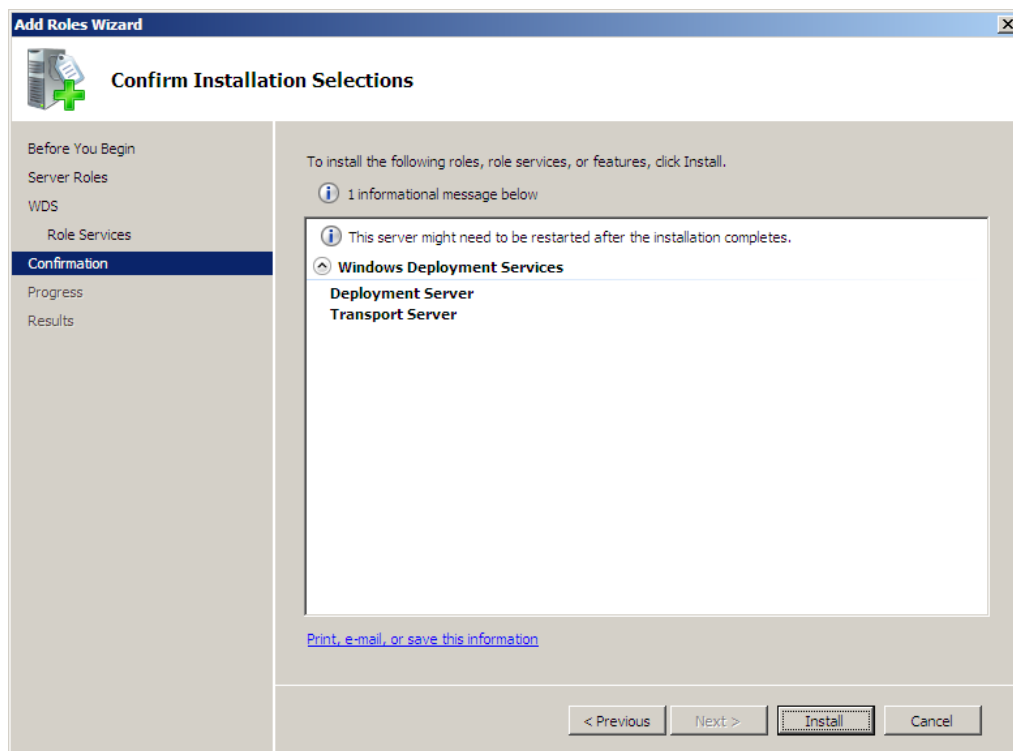


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- Next

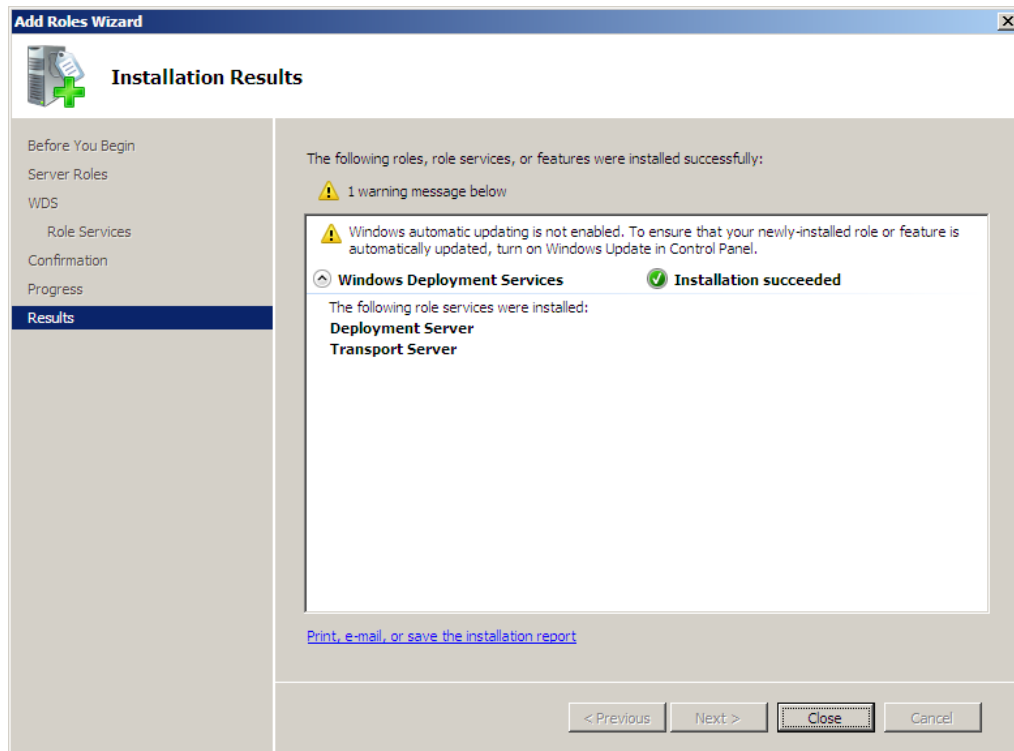


- Install



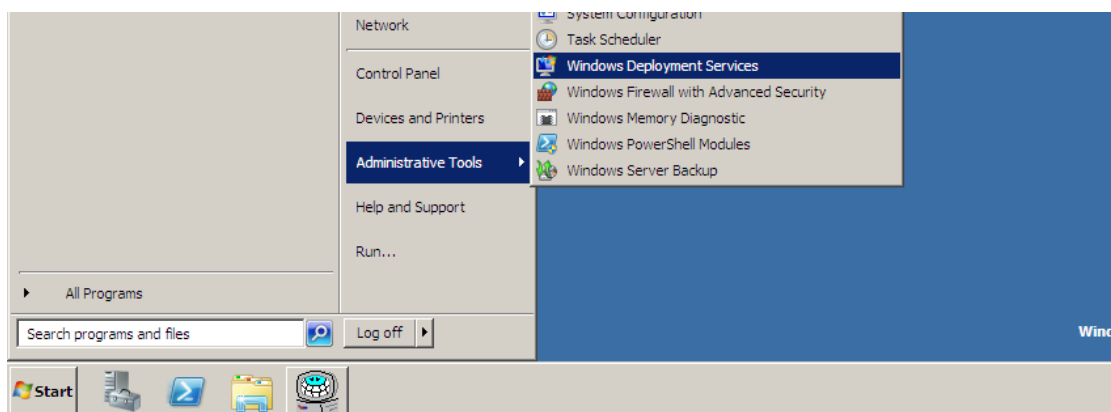
<http://www.NhatNghe.com/forum>

- Hoàn tất → Close

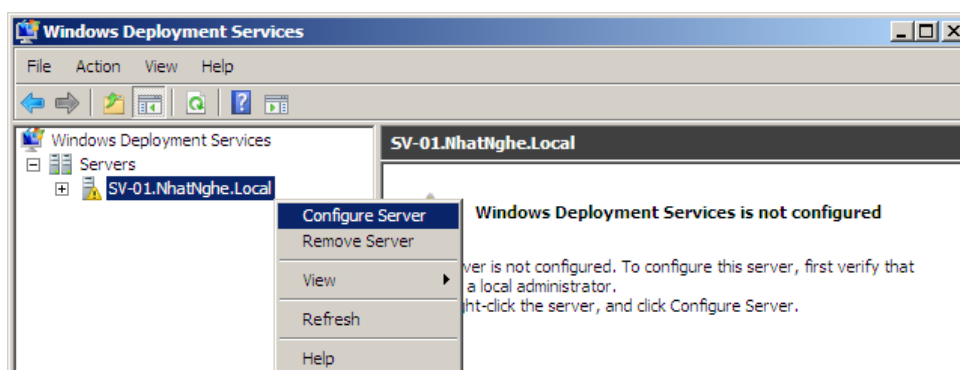


3. Cấu hình Windows Deployment Services server

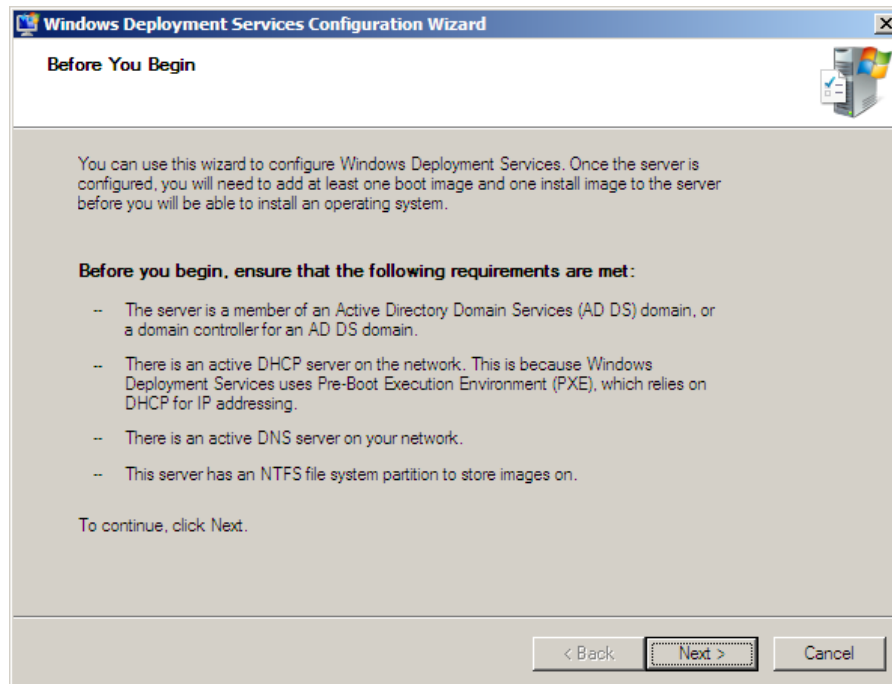
- Start → Administrative Tools → Windows Deployment Services



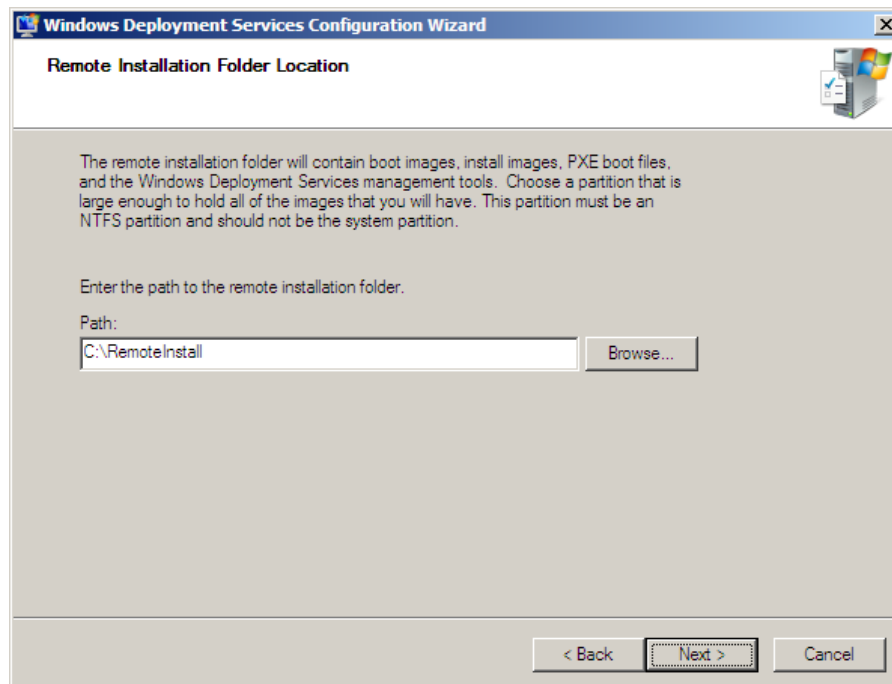
- Click phải FQDN của server → Configure Server



- Next

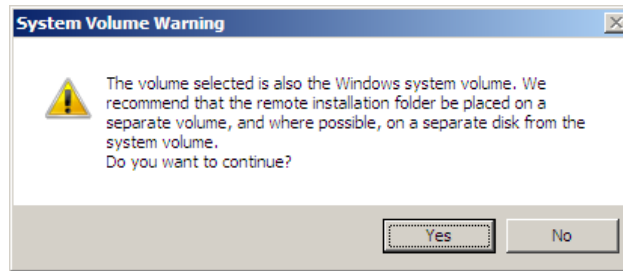


- Next

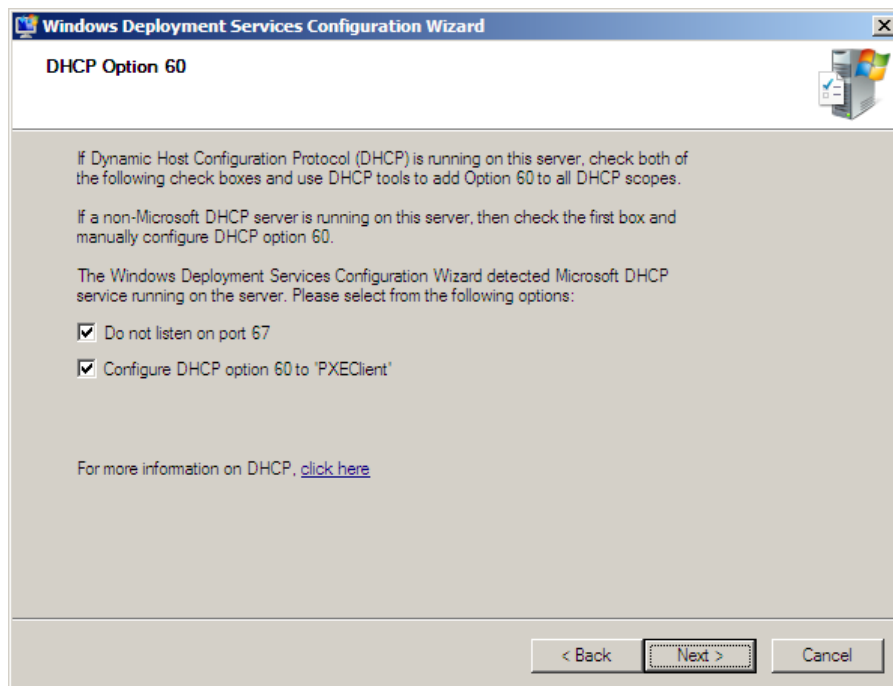


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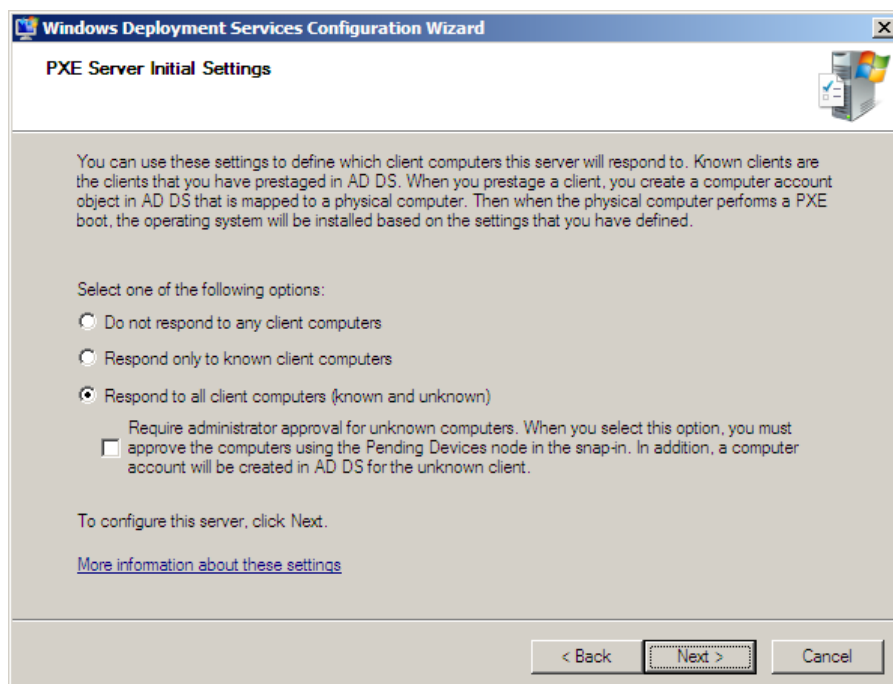
- Yes



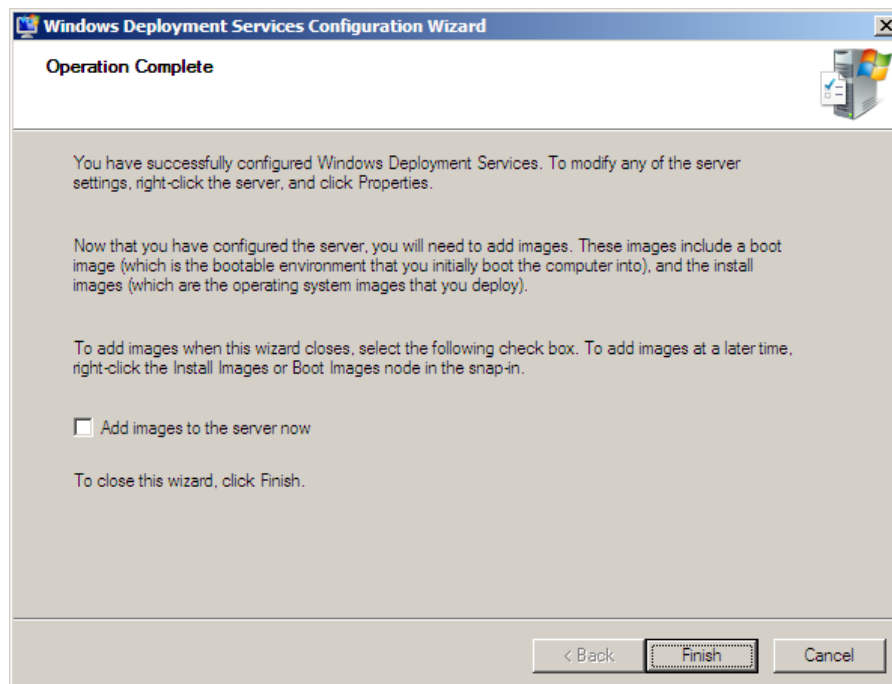
- Chọn **Do not listen on port 67** và **Configure DHCP option 60 to "PXEClient"** → Next



- Chọn **Respond to all client computers (known and unknown)** → Next



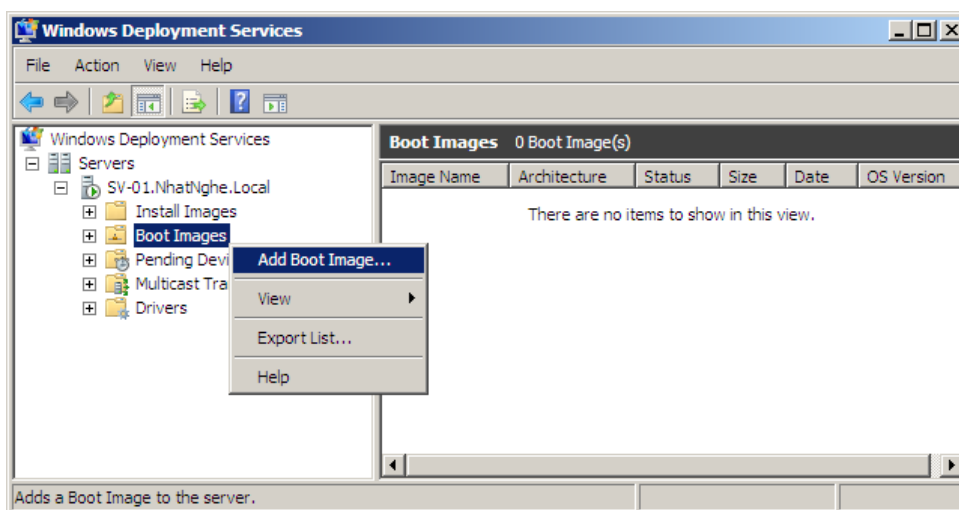
- Bỏ chọn **Add images to the server now** → Finish



4. Cấu hình các image

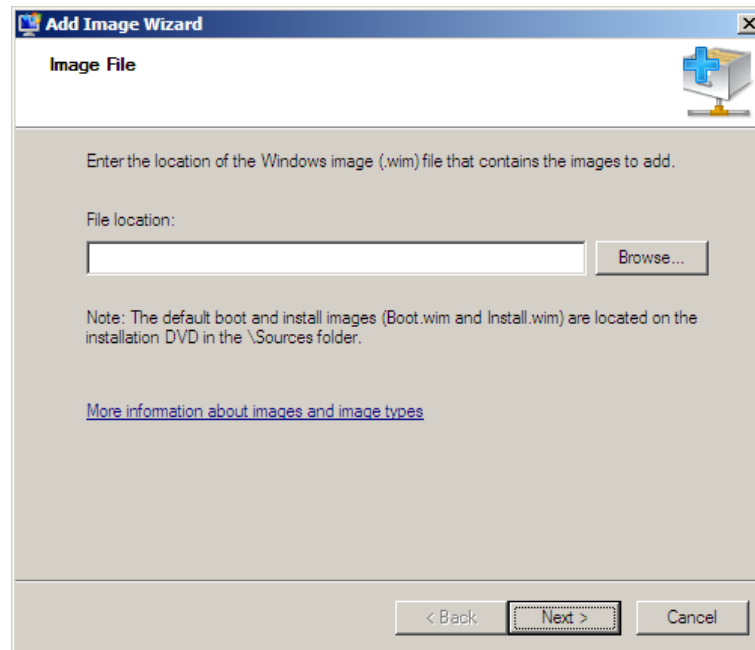
- Nạp đĩa DVD source Windows 7

- Console Windows Deployment Services → Click phải Boot Images → Add Boot Image...

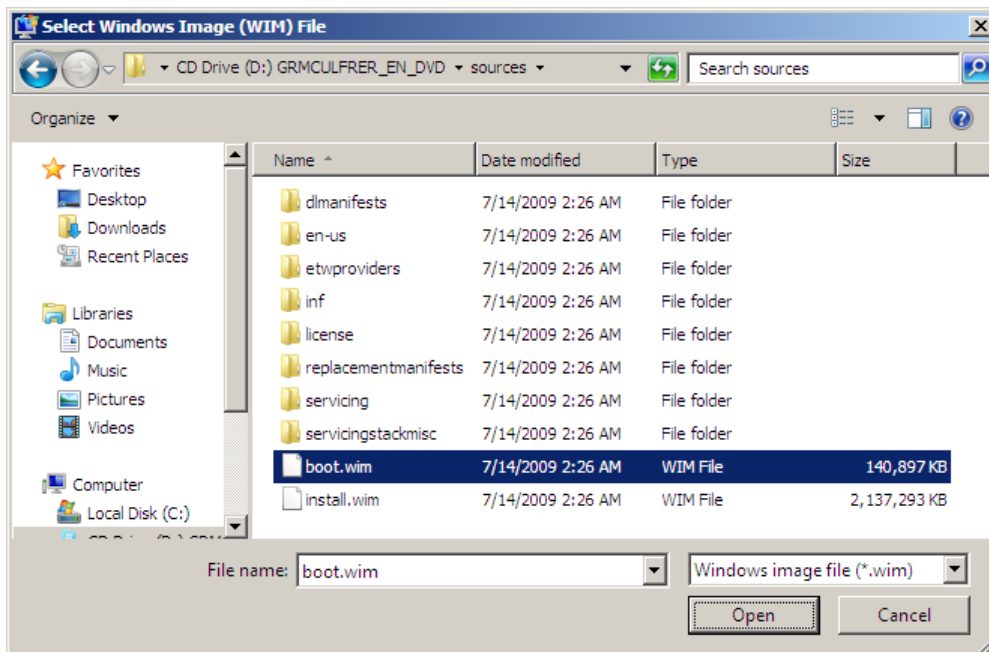


<http://www.NhatNghe.com/forum>

- Browse

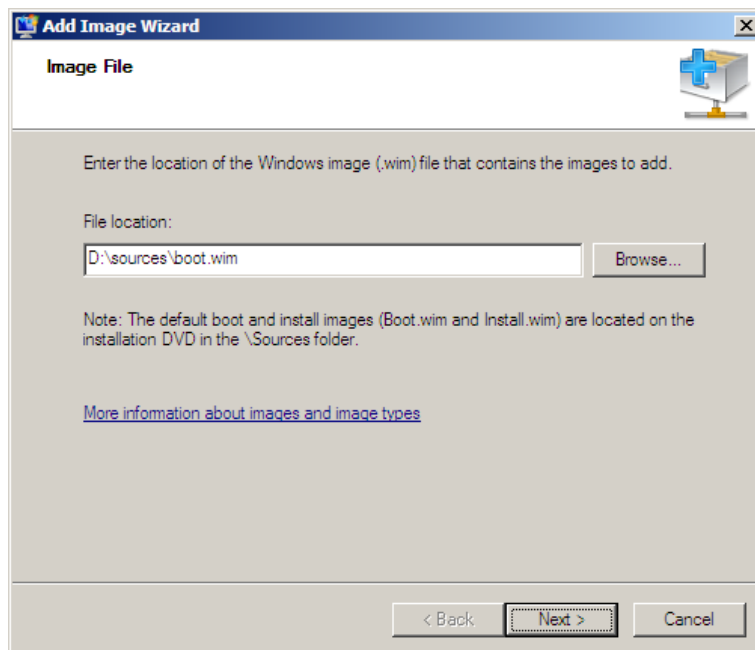


- Browse đến thư mục DVD source source Windows 7 \ Sources → chọn tập tin **boot.wim** → Open

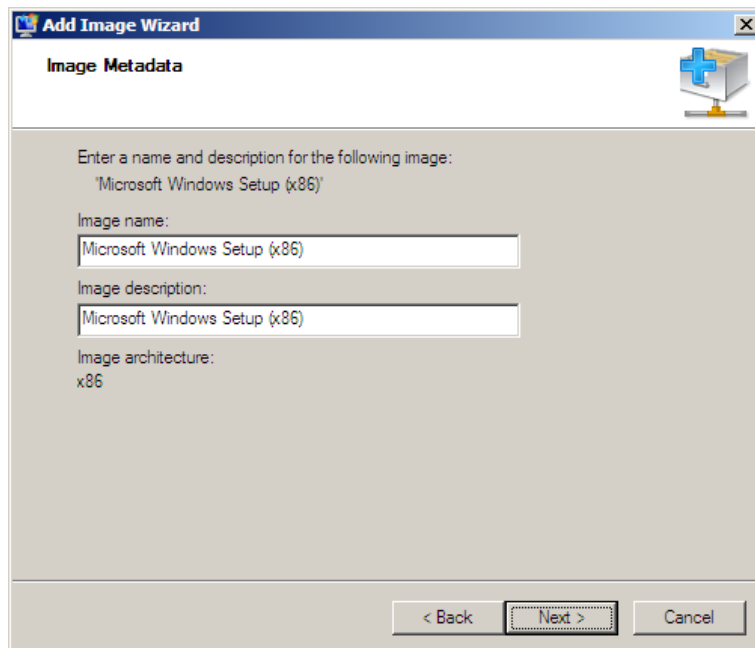


<http://www.NhatNghe.com/forum>

- Next

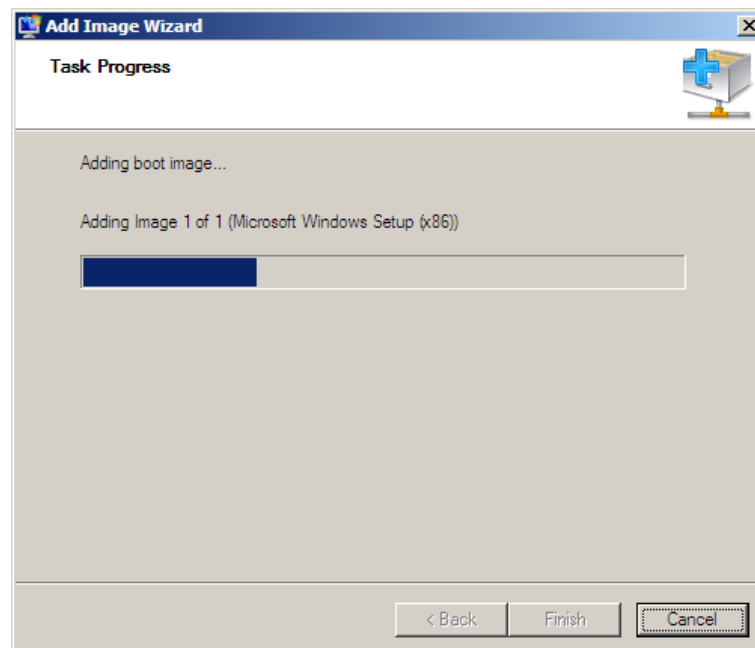
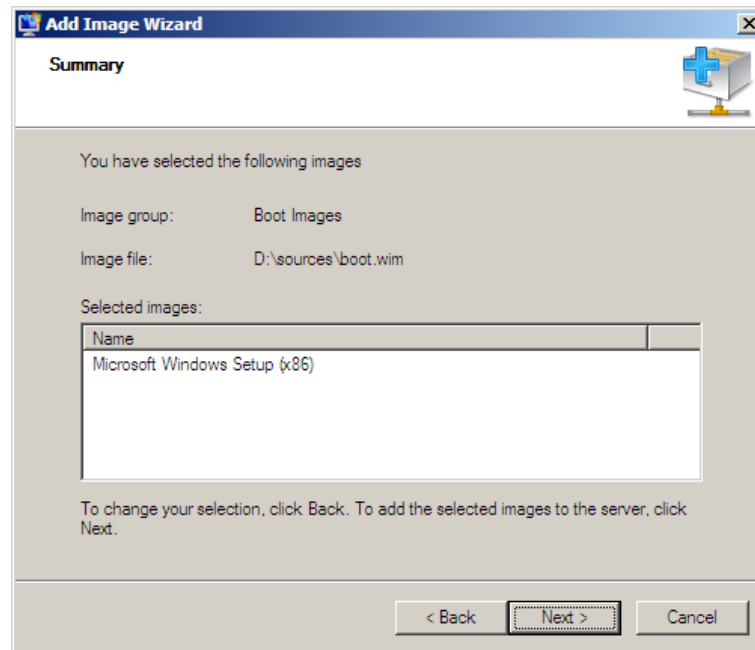


- Next



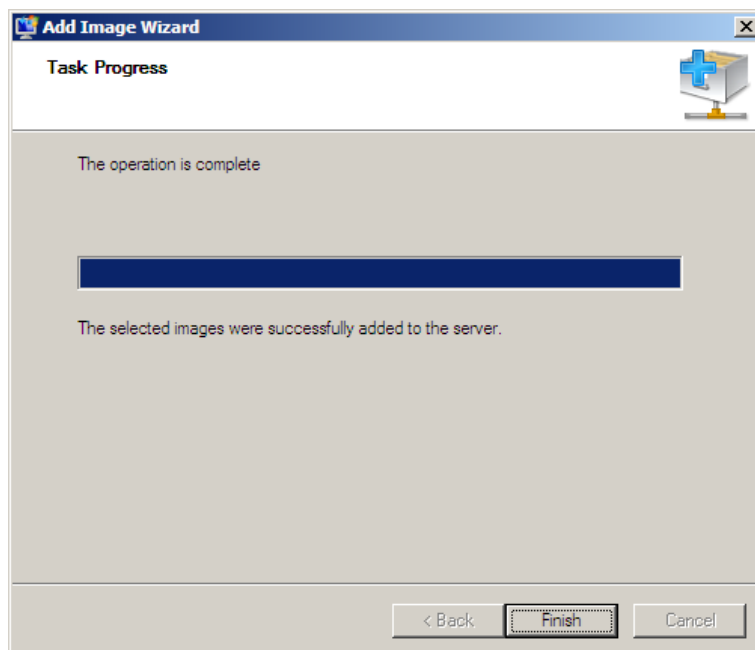
<http://www.NhatNghe.com/forum>

- Next

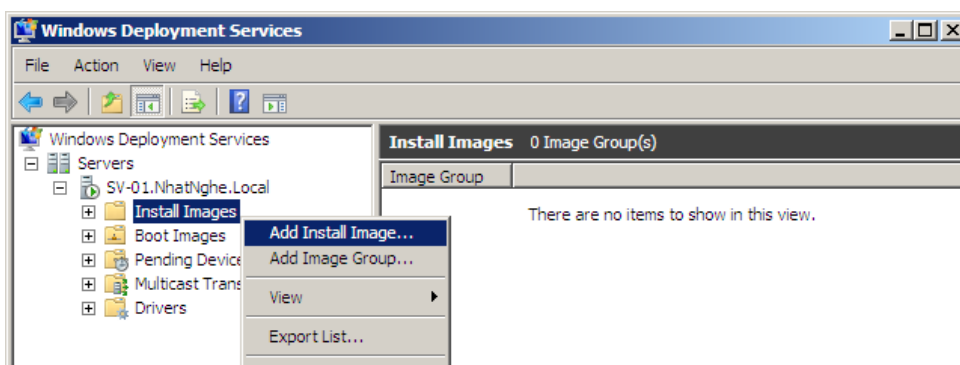


<http://www.NhatNghe.com/forum>

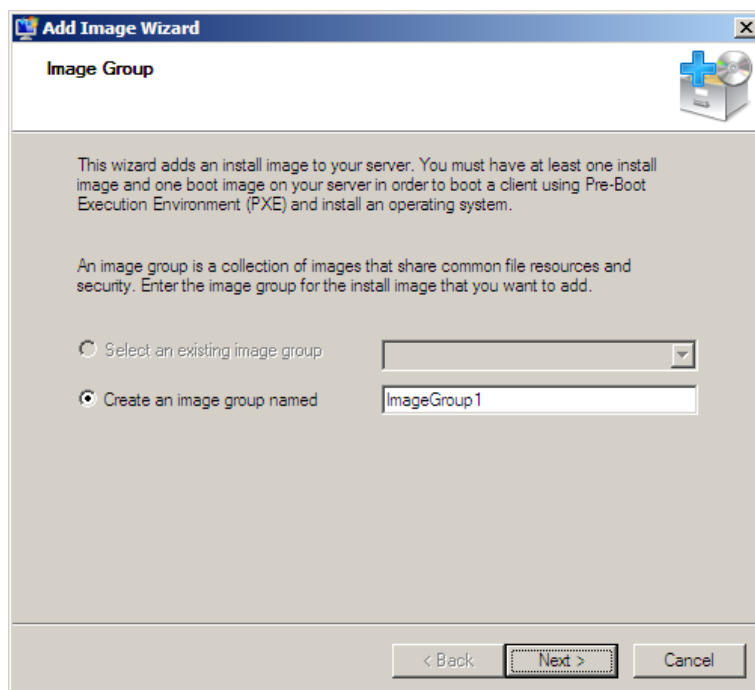
- Finish



- Console Windows Deployment Services → Click phải Install Images → Add Install Image...

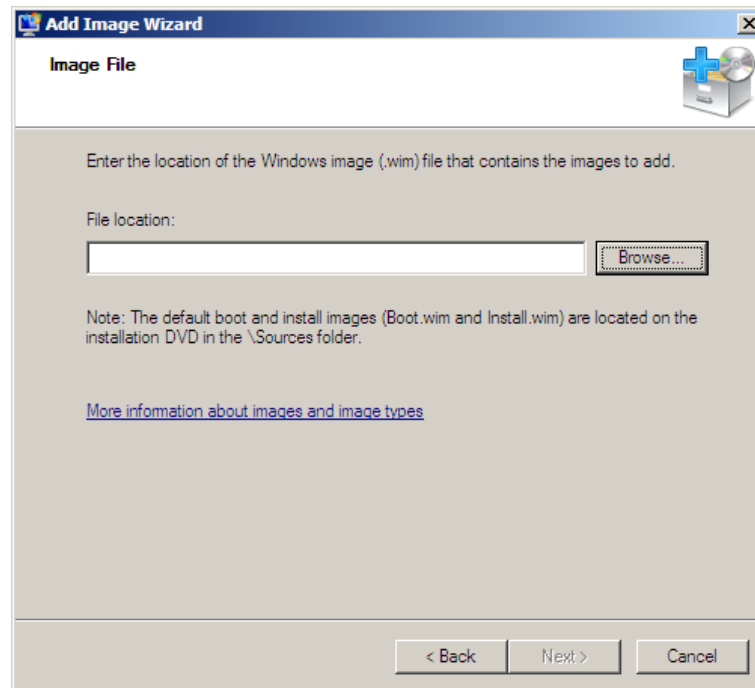


- Bảo đảm Image group name là ImageGroup1 → Next

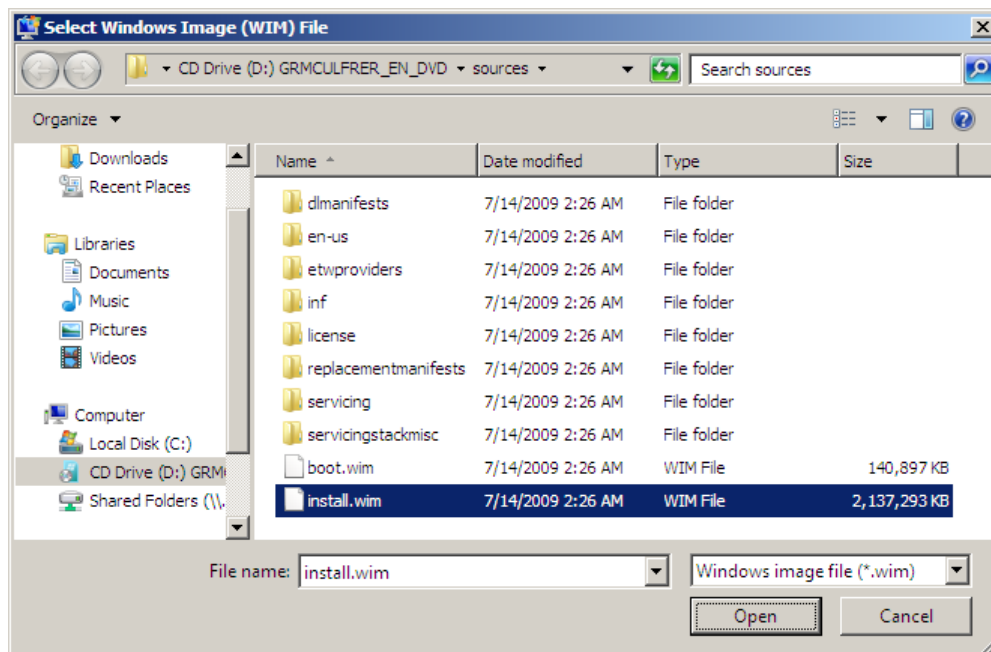


<http://www.NhatNghe.com/forum>

- Browse

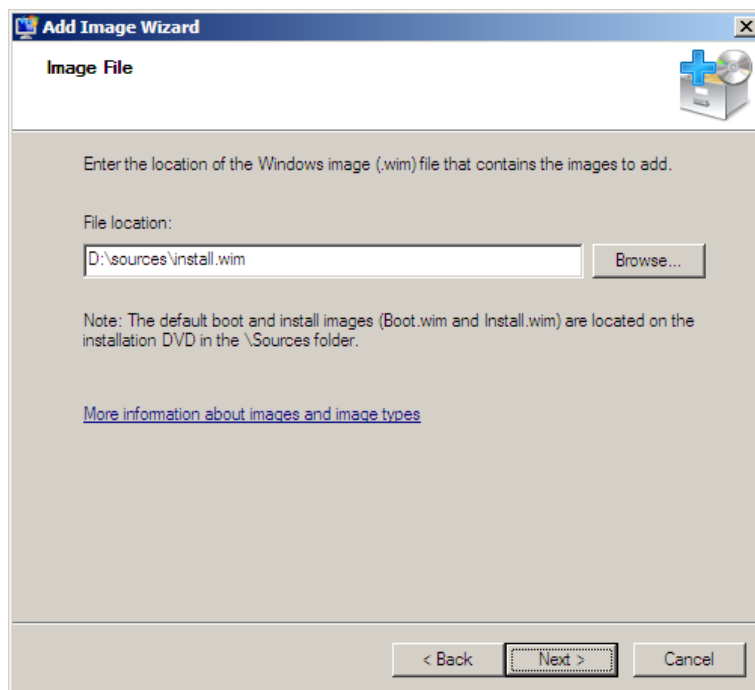


- Browse đến thư mục DVD source source Windows 7 \ Sources → chọn tập tin **install.wim** → Open

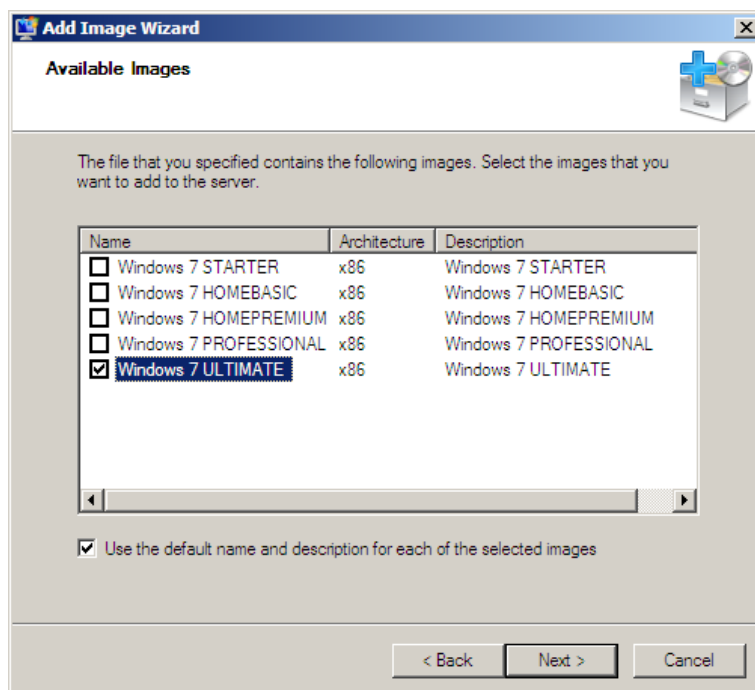


<http://www.NhatNghe.com/forum>

- Next

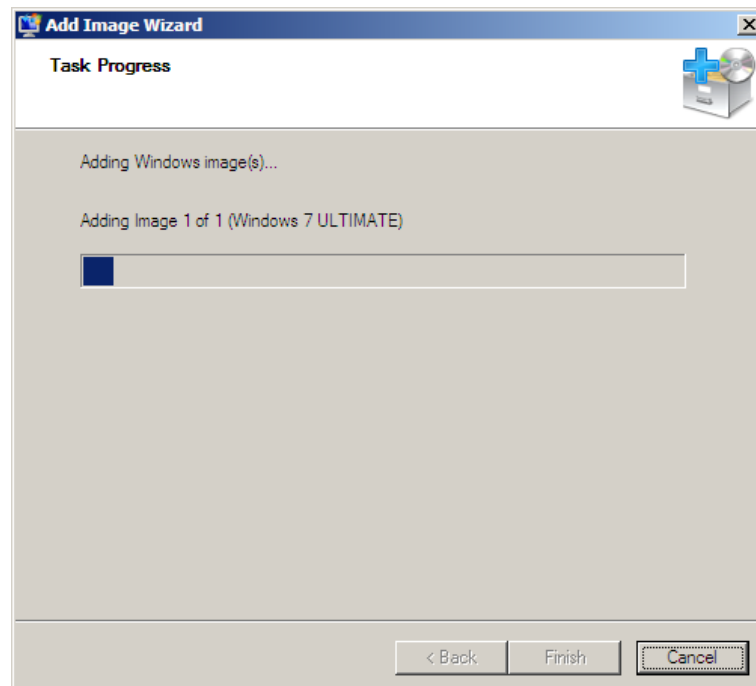
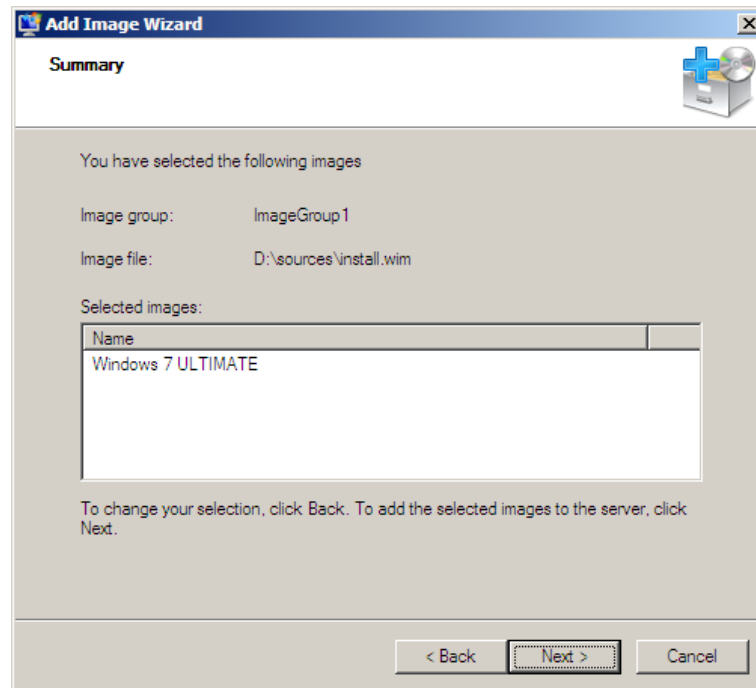


- Chỉ giữ lại dấu chọn **Windows 7 ULTIMATE**
- Bảo đảm có dấu chọn “Use the default name...” → Next



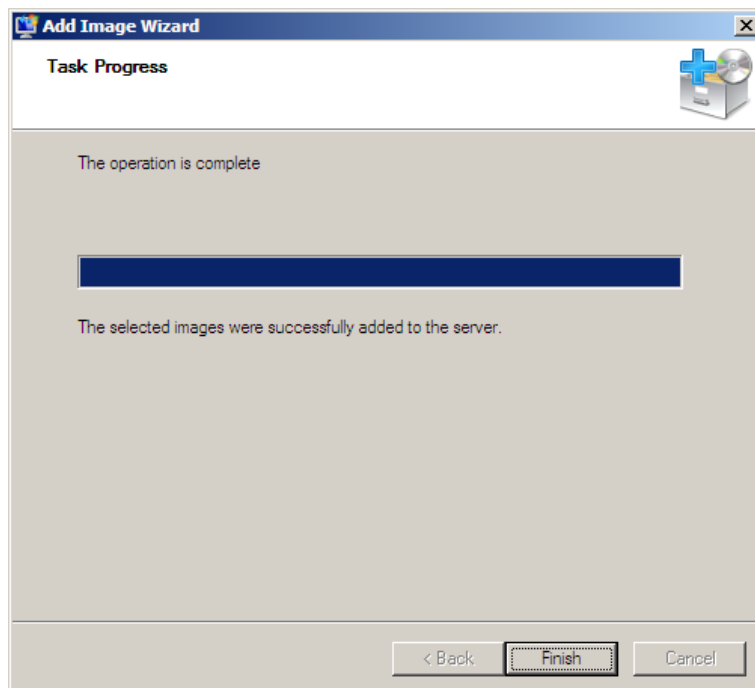
<http://www.NhatNghe.com/forum>

- Next



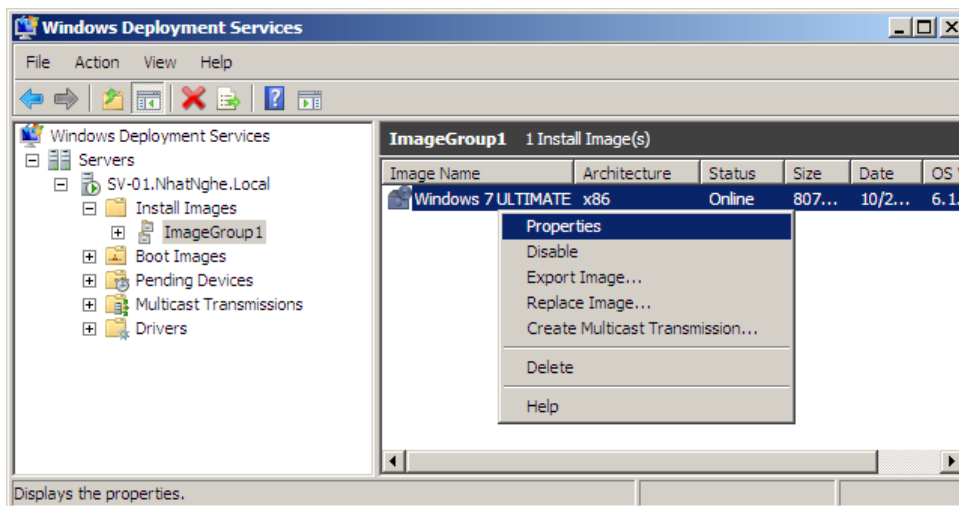
<http://www.NhatNghe.com/forum>

- Finish



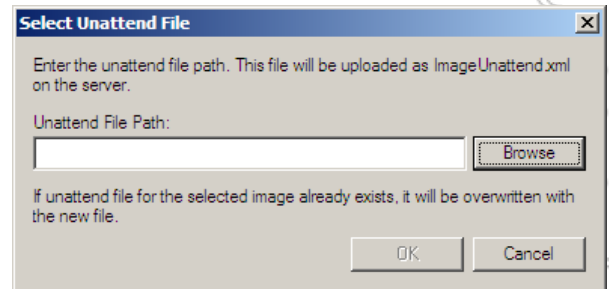
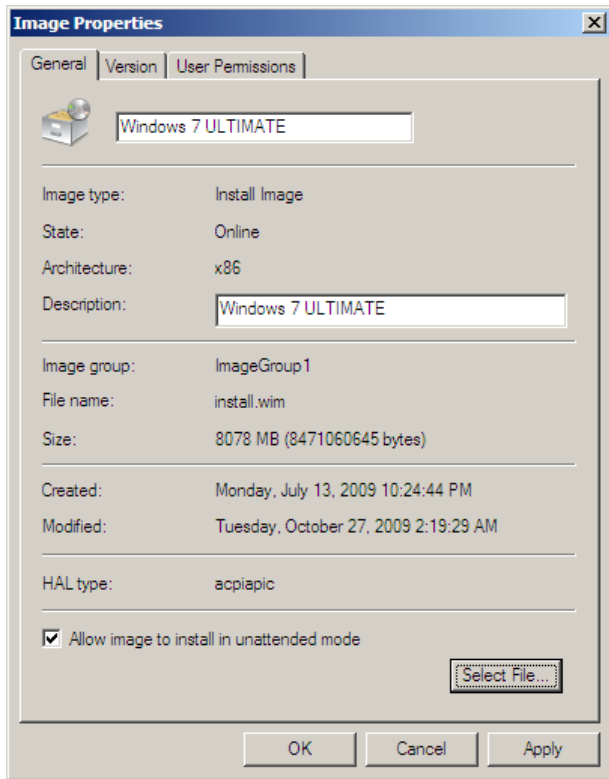
5. Bổ sung cấu hình install image & cấu hình server

- Copy tập tin **UnAttend.XML** từ PC Windows 7 vào **C:\RemoteInstall\WDSClientUnattend**
- Console Windows Deployment Services → Click phải image **Windows 7 ULTIMATE** → Properties

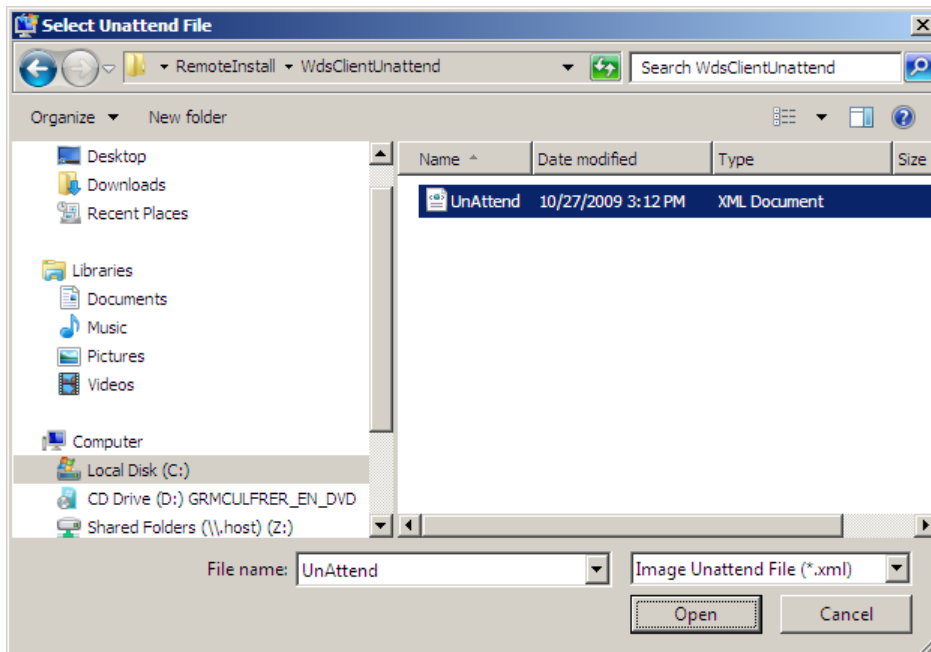


<http://www.NhatNghe.com/forum>

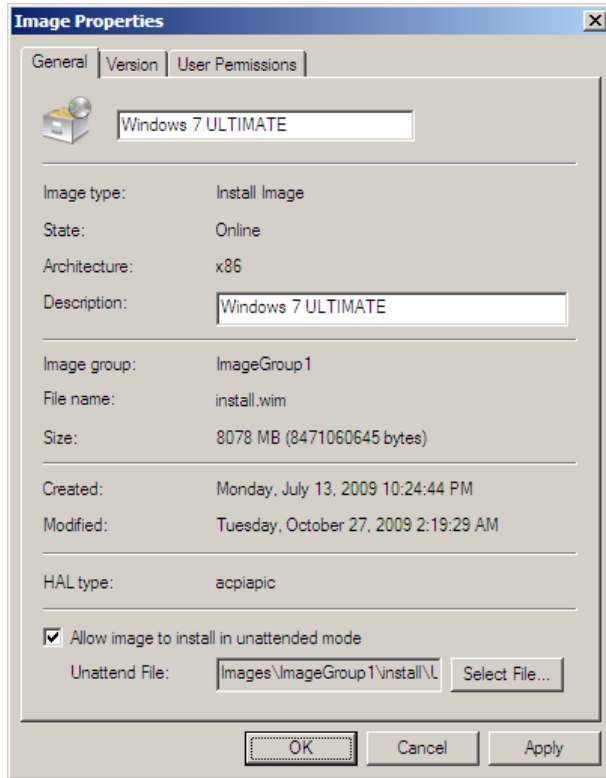
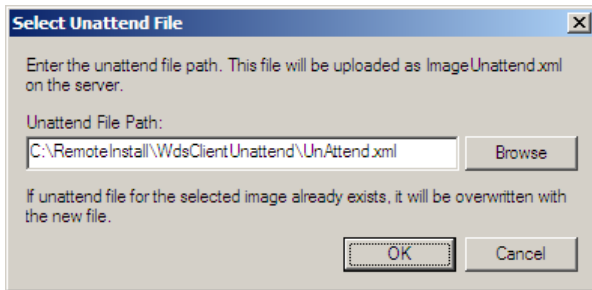
- Tab General → Đánh dấu chọn “Allow image to install in unattended mode” → Select File...
- Browse



- Browse đến C:\RemoteInstall\WDSClientUnaatend → chọn tập tin UnAttend.XML → Open

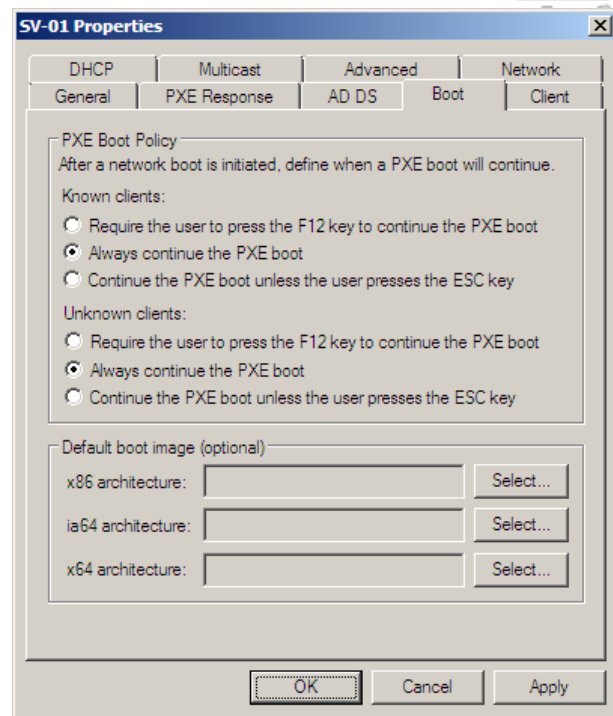
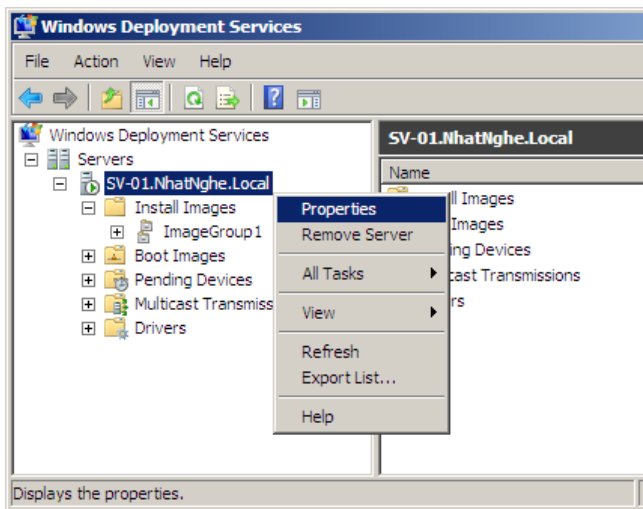


- OK 2 lần

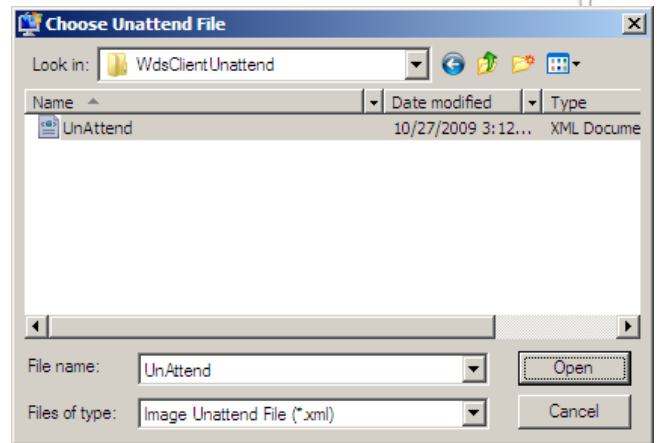
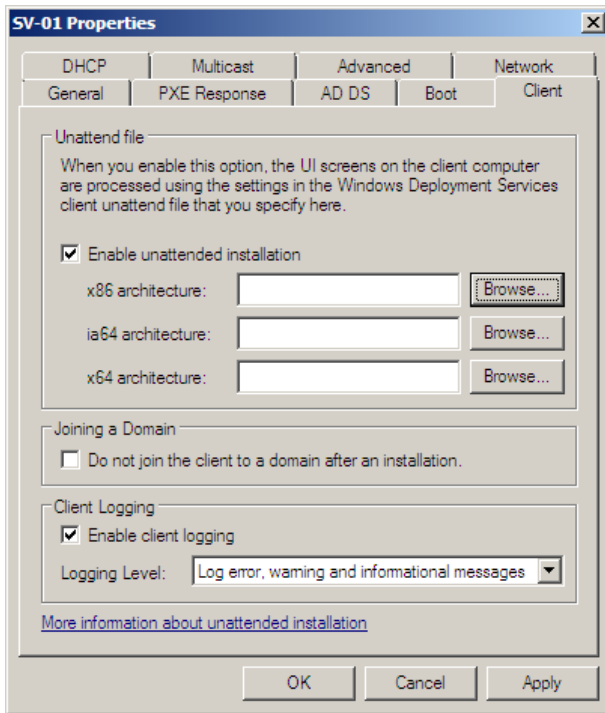


- Click phải FQDN của server → Properties

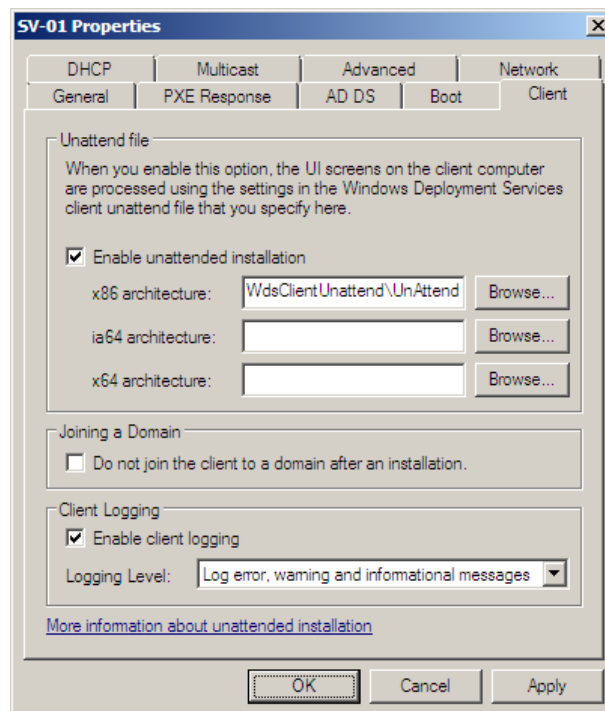
- Tab Boot → đánh dấu chọn 2 mục **Always continue the PXE boot** (Known clients & Unknown clients)



- Đánh dấu chọn **Enable unattended installation** → khung **x86 architecture** → Browse
- Browse đến **C:\RemoteInstall\WDSClientUnattend** → chọn tập tin **UnAttend.XML** → Open



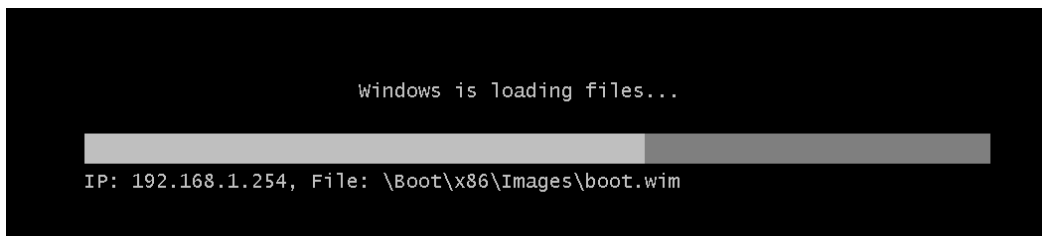
- OK



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C. CÀI ĐẶT TỰ ĐỘNG QUA MẠNG: Thực hiện tại PC cần cài đặt

- Cấu hình BIOS của PC cần cài đặt: boot từ card mạng
- → Boot → Quá trình cài đặt tự động diễn ra đến khi hoàn tất.



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