

ITSA1001: Server Administration Fundamentals

WEEK 6 PRACTICAL: INSTALL WINDOWS SERVER 2012 DOMAIN CONTROLLER

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Practical task outline

- Install Windows Server 2012 DC role
- Promote Windows Server 2012 to DC
- Install Windows XP/7 client
- Join Windows client to AD domain

(you can watch provided video tutorial
for additional information)

Check Current Server Roles

The screenshot displays the Windows Server Manager interface. The top navigation bar includes 'Manage', 'Tools', 'View', and 'Help'. A dropdown menu is open under 'Manage', with an arrow pointing to 'Remove Roles and Features'. The main dashboard area shows a 'WELCOME TO SERVER MANAGER' section with a 'QUICK START' guide and a 'ROLES AND SERVER GROUPS' section. The 'ROLES AND SERVER GROUPS' section lists six roles: AD DS, DHCP, DNS, File and Storage Services, Local Server, and All Servers. Each role card shows a list of sub-features and a timestamp of 4/21/2016 4:45 AM.

Server Manager Dashboard

WELCOME TO SERVER MANAGER

1 Configure this local server

2 Add roles and features

3 Add other servers to manage

4 Create a server group

ROLES AND SERVER GROUPS

Roles: 4 | Server groups: 1 | Servers total: 1

Role	Count	Sub-features	Timestamp
AD DS	1	Manageability, Events, Services, Performance, BPA results	4/21/2016 4:45 AM
DHCP	1	Manageability, Events, Services, Performance, BPA results	4/21/2016 4:45 AM
DNS	1	Manageability, Events, Services, Performance, BPA results	4/21/2016 4:45 AM
File and Storage Services	1	Manageability, Events, Services, Performance, BPA results	4/21/2016 4:45 AM
Local Server	1	Manageability, Events, Services, Performance, BPA results	4/21/2016 4:45 AM
All Servers	1	Manageability, Events, Services, Performance, BPA results	4/21/2016 4:45 AM

Check Current Server Roles

The screenshot displays the Windows Server Manager interface. A 'Remove Roles and Features Wizard' dialog box is open, showing the 'Before you begin' step. The wizard is titled 'Remove Roles and Features Wizard' and is running on a destination server named 'WIN-1234.jit.edu.au'. The 'Before you begin' section includes a list of tasks to complete before removing roles, such as deciding if you want to save or delete role data, migrating role settings and data to another server, scheduling downtime for affected services, and notifying users of potential service interruptions. The wizard also includes a 'Skip this page by default' checkbox and navigation buttons for '< Previous', 'Next >', 'Remove', and 'Cancel'.

The background shows the Server Manager console with a tree view of server roles and features. The tree view includes 'File and Storage Services', 'Local Server', and 'All Servers'. The 'Local Server' and 'All Servers' nodes are highlighted in red, indicating they are selected. The 'Local Server' node shows a list of roles and features: 'Manageability', 'Events', 'Services', 'Performance', and 'BPA results'. The 'All Servers' node shows a list of roles and features: 'Manageability', 'Events', 'Services', 'Performance', and 'BPA results'. The 'Local Server' and 'All Servers' nodes are both dated 4/21/2016 4:45 AM.

Check Current Server Roles

The screenshot displays the Server Manager console with the 'Remove Roles and Features Wizard' open. The wizard is at the 'Server Selection' step, where the user is prompted to select a destination server. The 'Server Selection' step is highlighted in the wizard's navigation pane. The 'Server Selection' step is selected, and the 'Server Pool' section is visible. The wizard shows a table of servers in the pool, with the following columns: Name, IP Address, and Operating System. The table contains one entry: WIN-1234.vit.edu.au, 192.168.123.1, Microsoft Windows Server 2012 R2 Standard. The wizard also shows a 'Before You Begin' section with a 'Server Selection' step selected. The wizard has buttons for '< Previous', 'Next >', 'Remove', and 'Cancel'. The background shows the Server Manager interface with various server roles and services listed. The 'File and Storage Services' role is highlighted, and the 'Local Server' and 'All Servers' views are visible. The 'Local Server' view shows the following roles and services: Manageability, Events, Services, Performance, and BPA results. The 'All Servers' view shows the same roles and services. The system tray at the bottom right shows the date and time: 2:09 AM, 4/22/2016.

Server Manager

Remove Roles and Features Wizard

Select destination server

DESTINATION SERVER
WIN-1234.vit.edu.au

Before You Begin

Server Selection

Server Roles

Features

Confirmation

Results

Select a server or a virtual hard disk from which to remove roles and features.

Select a server from the server pool
 Select a virtual hard disk

Server Pool

Filter:

Name	IP Address	Operating System
WIN-1234.vit.edu.au	192.168.123.1	Microsoft Windows Server 2012 R2 Standard

1 Computer(s) found
This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

< Previous Next > Remove Cancel

File and Storage Services 1

Manageability

Events

Services

Performance

BPA results

Local Server 1

Manageability

2 Events

3 Services

Performance

BPA results

4/21/2016 4:45 AM

All Servers 1

Manageability

2 Events

3 Services

Performance

BPA results

4/21/2016 4:45 AM

2:09 AM
4/22/2016

Check Current Server Roles

Remove Roles and Features Wizard

Remove server roles

DESTINATION SERVER
WIN-1234.jit.edu.au

Before You Begin
Server Selection
Server Roles
Features
Confirmation
Results

To remove one or more installed roles from the selected server, clear their check boxes.

Roles	Description
<input type="checkbox"/> Active Directory Certificate Services (Not installed)	Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.
<input checked="" type="checkbox"/> Active Directory Domain Services	
<input type="checkbox"/> Active Directory Federation Services (Not installed)	
<input type="checkbox"/> Active Directory Lightweight Directory Services (Not installed)	
<input type="checkbox"/> Active Directory Rights Management Services (Not installed)	
<input type="checkbox"/> Application Server (Not installed)	
<input checked="" type="checkbox"/> DHCP Server	
<input checked="" type="checkbox"/> DNS Server	
<input type="checkbox"/> Fax Server (Not installed)	
<input checked="" type="checkbox"/> File and Storage Services	
<input type="checkbox"/> Hyper-V (Not installed)	
<input type="checkbox"/> Network Policy and Access Services (Not installed)	
<input type="checkbox"/> Print and Document Services (Not installed)	
<input type="checkbox"/> Remote Access (Not installed)	

Un-tick DNS Server role to allow automatic DNS configuration

File and Storage Services 1
Manageability
Events
Services
Performance
BPA results

Local Server 1
Manageability
2 Events
3 Services
Performance
BPA results
4/21/2016 4:45 AM

All Servers 1
Manageability
2 Events
3 Services
Performance
BPA results
4/21/2016 4:45 AM

Add Active Directory Roles

The screenshot displays the Windows Server Manager interface. The main area shows a 'WELCOME TO SERVER MANAGER' section with a 'QUICK START' list of tasks:

- 1 Configure this local server
- 2 Add roles and features
- 3 Add other servers to manage
- 4 Create a server group

An arrow points to the second step, 'Add roles and features'. Below this, the 'ROLES AND SERVER GROUPS' section shows a summary of installed roles and server groups:

Role/Server Group	Count
DHCP	1
DNS	1
File and Storage Services	1
Local Server	1
All Servers	1

Each role/server group card lists sub-components: Manageability, Events, Services, Performance, and BPA results. The 'Local Server' and 'All Servers' cards also show a red '1' next to 'Events'.

Add Active Directory Roles

The screenshot displays the Windows Server Manager interface. In the foreground, the 'Add Roles and Features Wizard' is open, showing the 'Before you begin' step. The wizard provides instructions on how to remove roles and lists prerequisites that must be met before proceeding. A black arrow points to the 'Next >' button at the bottom of the wizard. The background shows the Server Manager console with a tree view on the left and server details for 'Local Server' and 'All Servers' on the right. The system tray at the bottom shows the date and time as 4/21/2016 2:21 AM.

Add Active Directory Roles

The screenshot displays the Windows Server 2012 Server Manager interface. A dialog box titled "Add Roles and Features Wizard" is open, showing the "Select installation type" step. The wizard is configured for a destination server named "WIN-1234". The "Role-based or feature-based installation" option is selected, with the description: "Configure a single server by adding roles, role services, and features." The "Remote Desktop Services installation" option is unselected, with the description: "Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment." The wizard has a "Next >" button highlighted with a black arrow. The background shows the Server Manager console with a list of servers, including "Local Server" and "All Servers", each with a "1" in a red box indicating a warning or error. The taskbar at the bottom shows the system clock as 2:21 AM on 4/21/2016.

Add Active Directory Roles

The screenshot shows the 'Add Roles and Features Wizard' in the Server Manager console. The wizard is titled 'Add Roles and Features Wizard' and is currently at the 'Server Selection' step. The 'Destination Server' is identified as 'WIN-1234'. The 'Server Selection' step includes a 'Filter:' field and a table of servers. The table has three columns: 'Name', 'IP Address', and 'Operating System'. The table contains one entry: 'WIN-1234', '192.168.123.1', and 'Microsoft Windows Server 2012 R2 Standard'. Below the table, it states '1 Computer(s) found' and provides a note: 'This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.' The 'Next >' button is highlighted with a black arrow.

Name	IP Address	Operating System
WIN-1234	192.168.123.1	Microsoft Windows Server 2012 R2 Standard

1 Computer(s) found
This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

< Previous **Next >** Install Cancel

Add Active Directory Roles

The screenshot displays the Windows Server Manager interface. A window titled "Add Roles and Features Wizard" is open, showing the "Select server roles" step. The wizard is for a destination server named "WIN-1234". The "Server Roles" section is selected in the left-hand navigation pane. The main area shows a list of roles with checkboxes. Two roles are checked: "DHCP Server (Installed)" and "DNS Server (Installed)". A description for "Active Directory Certificate Services (AD CS)" is visible on the right. The wizard has "Previous", "Next", "Install", and "Cancel" buttons at the bottom. In the background, the Server Manager dashboard shows a "Local Server" tile with a red status bar and a "1" icon, and an "All Servers" tile with a green status bar and a "1" icon. The taskbar at the bottom shows the time as 2:22 AM on 4/21/2016.

Promote Server to Domain Controller

Server Manager - AD DS

SERVICES
All services | 13 total

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	Windows Time	W32Time	Stopped	Manual (Triggered)
WIN-1234	Active Directory Web Services	ADWS	Stopped	Disabled
WIN-1234	Active Directory Domain Services	NTDS	Stopped	Disabled
WIN-1234	Netlogon	Netlogon	Stopped	Manual
WIN-1234	Distributed Link Tracking Client	TrkWks	Running	Automatic
WIN-1234	Intrinsite Messaging	IsmServ	Stopped	Disabled
WIN-1234	DFS Namespace	Dfs	Running	Automatic

EVENTS
All events | 12 total

Server Name	ID	Severity	Source	Log	Date and Time
WIN-1234	1202	Error	DFSR	DFS Replication	4/21/2016 2:48:28 AM
WIN-1234	408	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	408	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	414	Warning	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	407	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	404	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	1202	Error	DFSR	DFS Replication	4/21/2016 2:24:32 AM

SERVICES
All servers | 1 total

Server Name	IPv4 Address	Manageability	Last Update	Windows Activation	
WIN-1234	192.168.123.1	Online	Performance counters not started	4/21/2016 2:58:38 AM	Not activated

Promote Server to Domain Controller

The screenshot shows the Server Manager console for an AD DS server. A task titled 'Promote this server to a domain controller' is highlighted in blue. A black arrow points to the task name. Below the task list, a notification states: 'Additional steps are required to make this machine a domain controller.' The console also displays a list of error and warning messages for various services and a list of running services.

Status	Task Name	Stage	Message	Action	Notifications
Warning	Post-deployment Configuration	Not Sta...	Configuration required for Active Directory Do...	Promote this server to a domain...	1

Status	Notification	Time Stamp
Information	Additional steps are required to make this machine a domain controller.	4/21/2016 2:48:40 AM

Server Name	Display Name	Service Name	Status	Start Type	
WIN-1234	408	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	408	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	414	Warning	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	407	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	404	Error	Microsoft-Windows-DNS-Server-Service	DNS Server	4/21/2016 2:48:21 AM
WIN-1234	1202	Error	DFSR	DFS Replication	4/21/2016 2:24:32 AM

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	Windows Time	W32Time	Stopped	Manual (Triggered)
WIN-1234	Active Directory Web Services	ADWS	Stopped	Disabled
WIN-1234	Active Directory Domain Services	NTDS	Stopped	Disabled
WIN-1234	Netlogon	Netlogon	Stopped	Manual
WIN-1234	Distributed Link Tracking Client	TrkWks	Running	Automatic
WIN-1234	Intersite Messaging	IsmServ	Stopped	Disabled
WIN-1234	DFS Namespace	Dfs	Running	Automatic

Promote Server to Domain Controller

Server 2012 [Running] - Oracle VM VirtualBox

Machine View Devices Help

Server Manager

Active Directory Domain Services Configuration Wizard

Deployment Configuration

TARGET SERVER
WIN-1234.VIT.edu.au

Deployment Configuration

Domain Controller Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

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

Root domain name:

More about deployment configurations

< Previous Next > Install Cancel

File and Storage Services 1

Local Server 1

All Servers 1

4:34 AM 4/21/2016

Promote Server to Domain Controller

Active Directory Domain Services Configuration Wizard

Domain Controller Options

TARGET SERVER
WIN-1234.VIT.edu.au

Deployment Configuration

Domain Controller Options

DNS Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

Select functional level of the new forest and root domain

Forest functional level: Windows Server 2008

Domain functional level: Windows Server 2008

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:

More about domain controller options

< Previous Next > Install Cancel

File and Storage Services

Local Server

All Servers

4/21/2016 4:32 AM

4:37 AM 4/21/2016

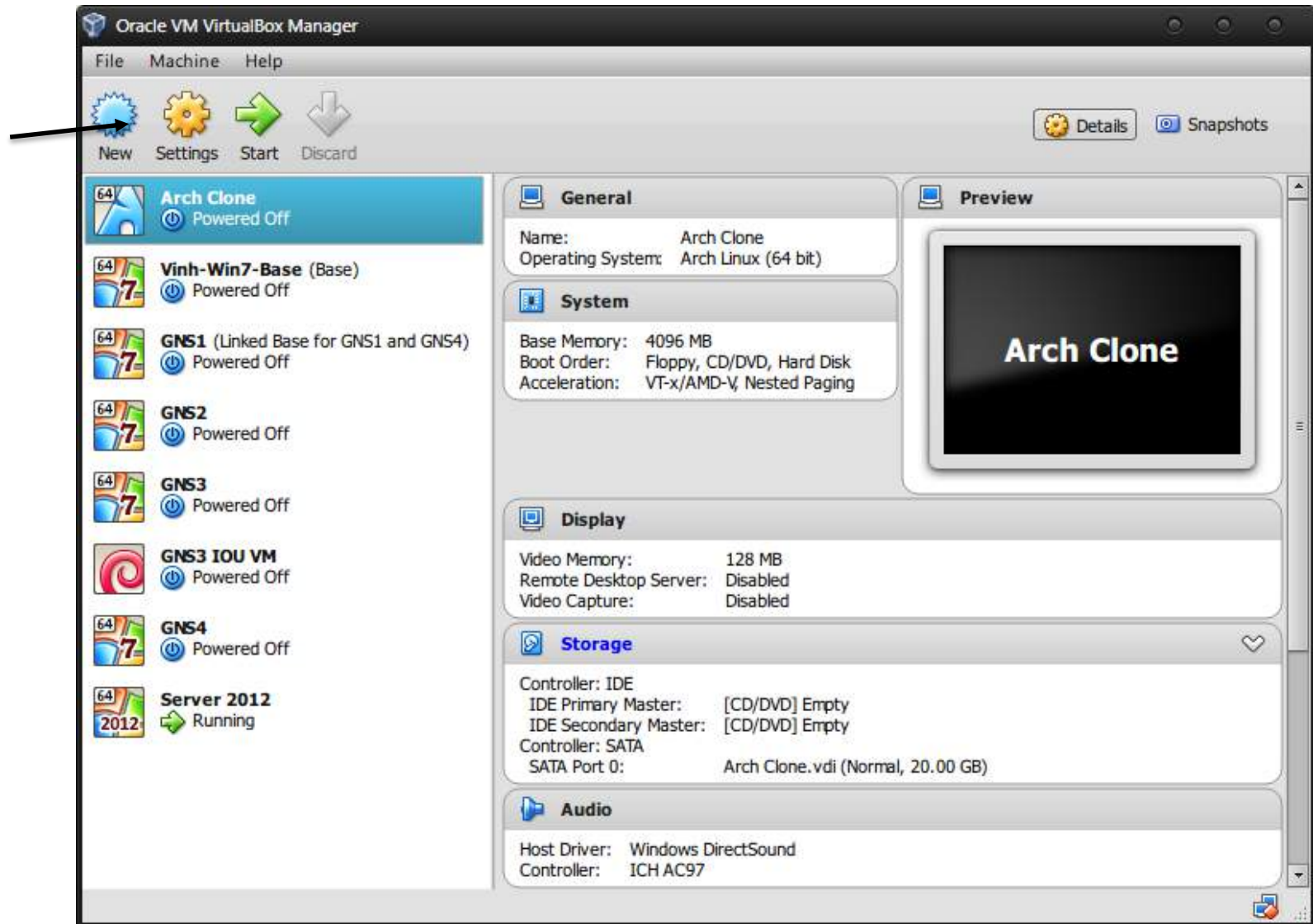
Promote Server to Domain Controller

The screenshot displays the 'Active Directory Domain Services Configuration Wizard' in the 'Prerequisites Check' step. The wizard window shows a green checkmark and the message: 'All prerequisite checks passed successfully. Click 'Install' to begin installation.' Below this, there are sections for 'Prerequisites need to be validated before Active Directory Domain Services is installed on this computer' and 'View results'. The 'View results' section contains a warning icon and text: 'A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found or it does not run Windows DNS server. If you are integrating with an existing DNS infrastructure, you should manually create a delegation to this DNS server in the parent zone to ensure reliable name resolution from outside the domain "VIT.edu.au". Otherwise, no action is required.' Below this is a blue information icon and the text: 'Prerequisites Check Completed' and 'All prerequisite checks passed successfully. Click 'Install' to begin installation.' At the bottom of the wizard, the 'Install' button is highlighted with a red arrow. The background shows the Server Manager console with a list of services.

Server Name	Display Name	Service Name	Status	Start Type
WIN-1234	Windows Time	W32Time	Stopped	Manual (Triggered)
WIN-1234	Active Directory Web Services	ADWS	Stopped	Disabled
WIN-1234	Active Directory Domain Services	NTDS	Stopped	Disabled
WIN-1234	Netlogon	Netlogon	Stopped	Manual
WIN-1234	Distributed Link Tracking Client	TrkWks	Running	Automatic
WIN-1234	Intrinsite Messaging	IsmServ	Stopped	Disabled
WIN-1234	DFS Namespace	Dfs	Running	Automatic

While it install the Active Directory Domain Controller, proceed with setting up the client. **DON'T CLOSE THE SERVER 2012 WINDOW**

Active Directory – Client installation

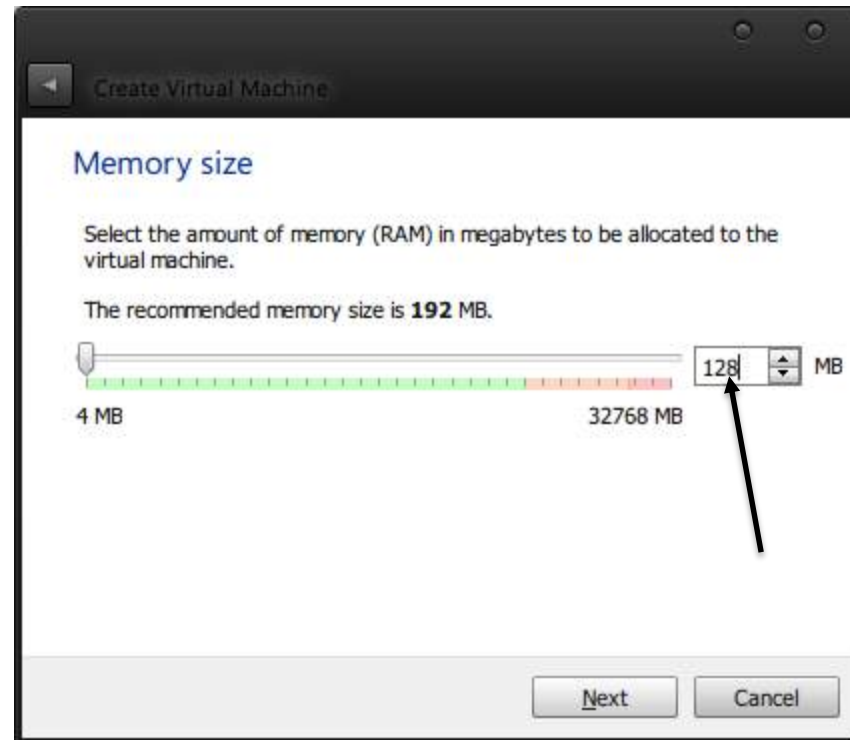


Active Directory – Client Installation

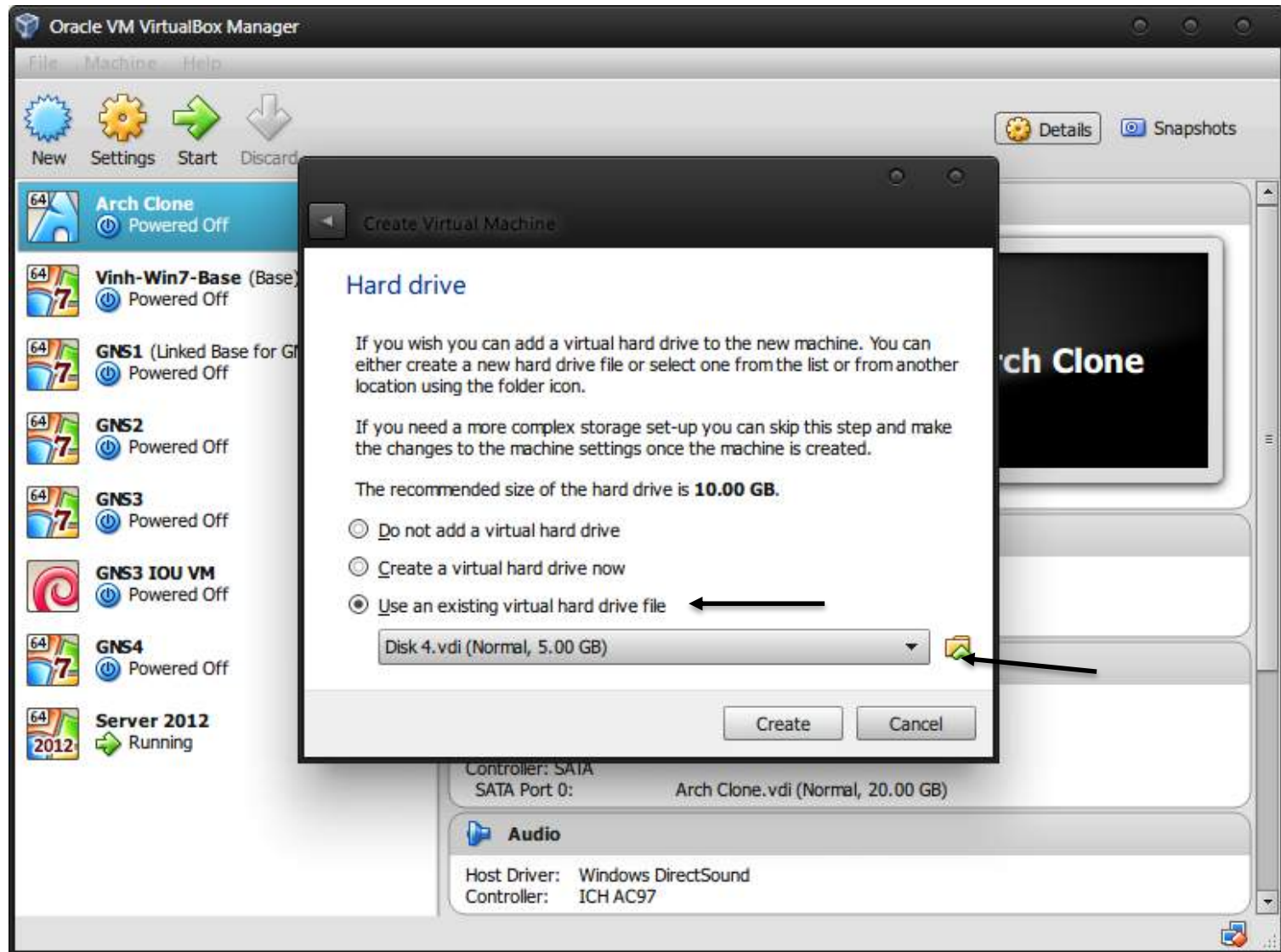


Make sure the
Version is set to XP
(32-bit).

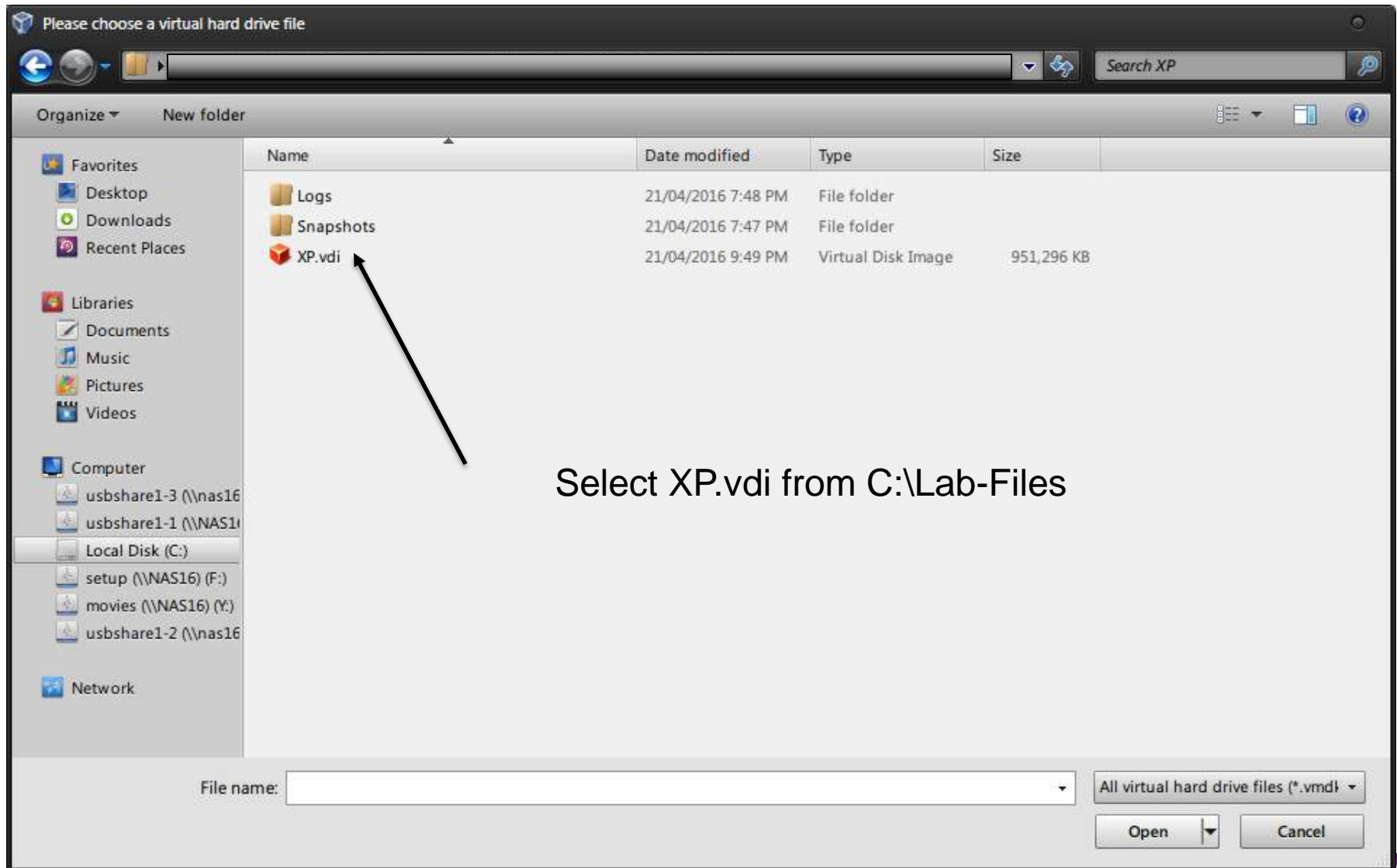
Active Directory – Client Installation



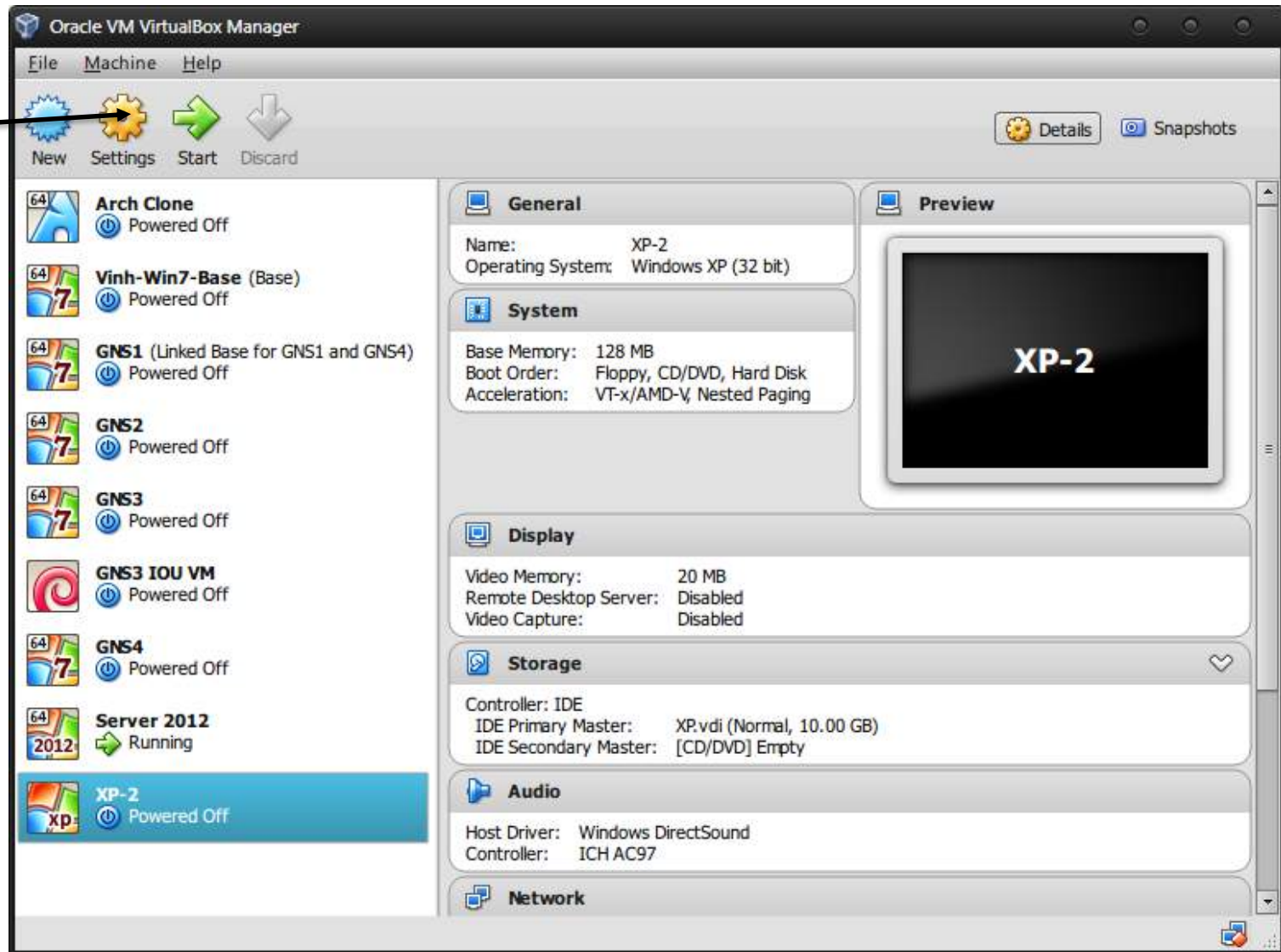
Active Directory – Client Installation



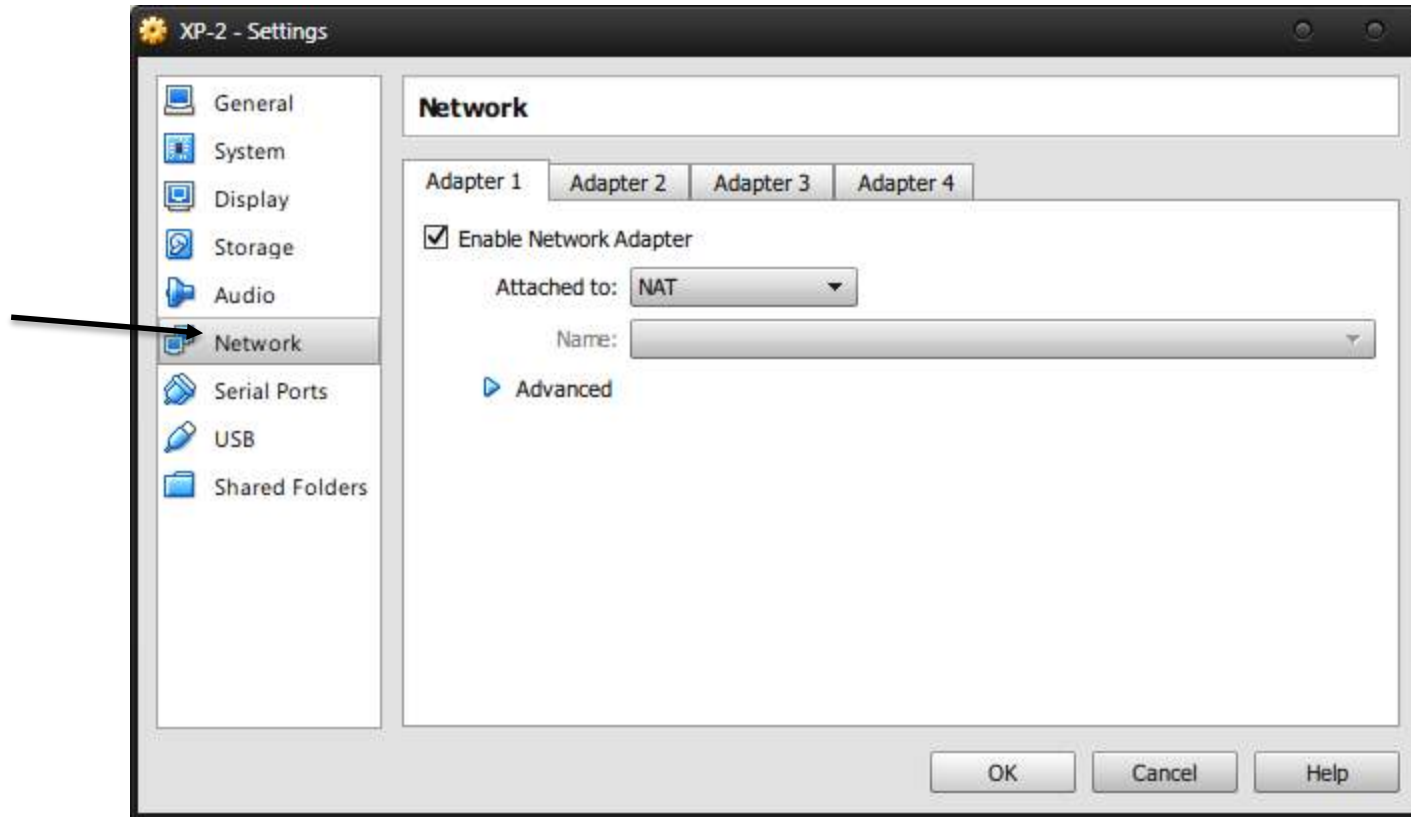
Active Directory – Client Installation



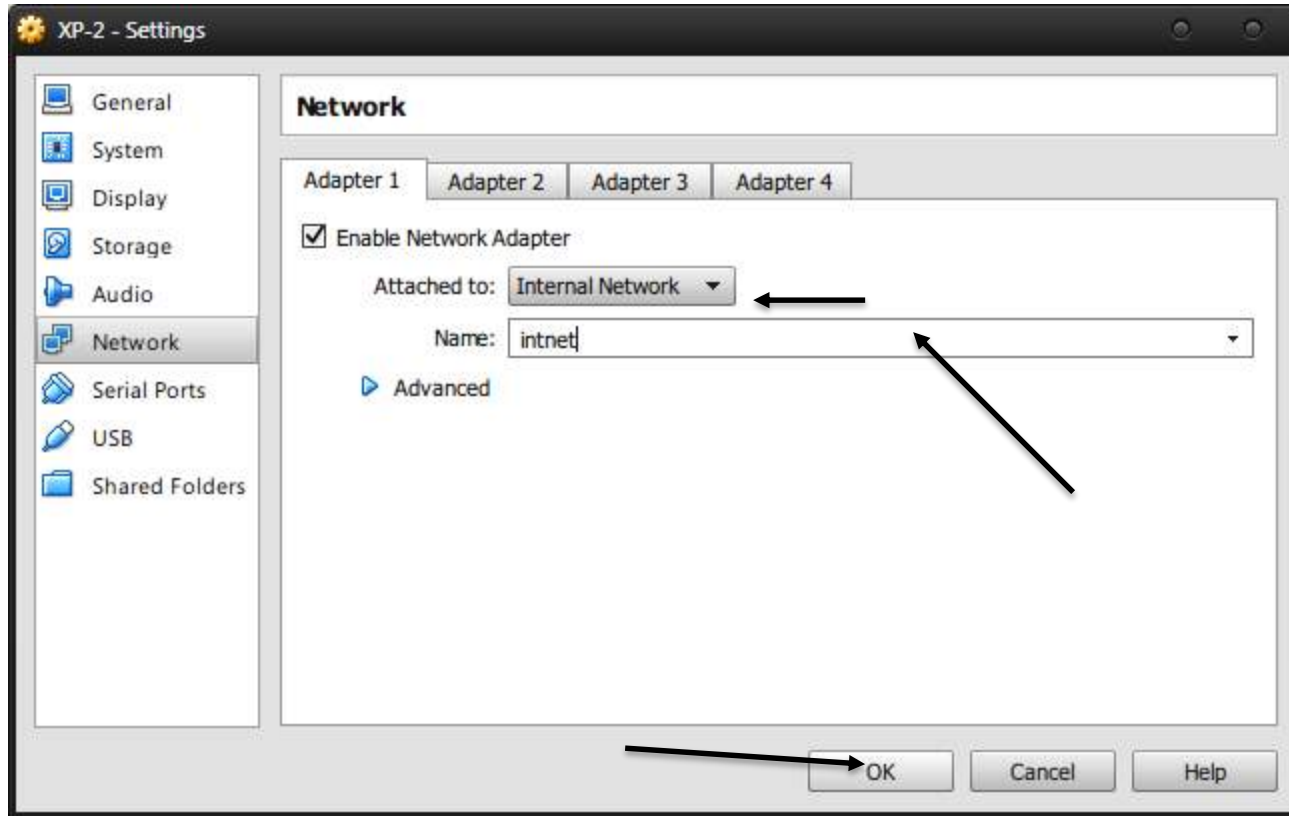
Active Directory – Client Installation



Active Directory – Client Installation



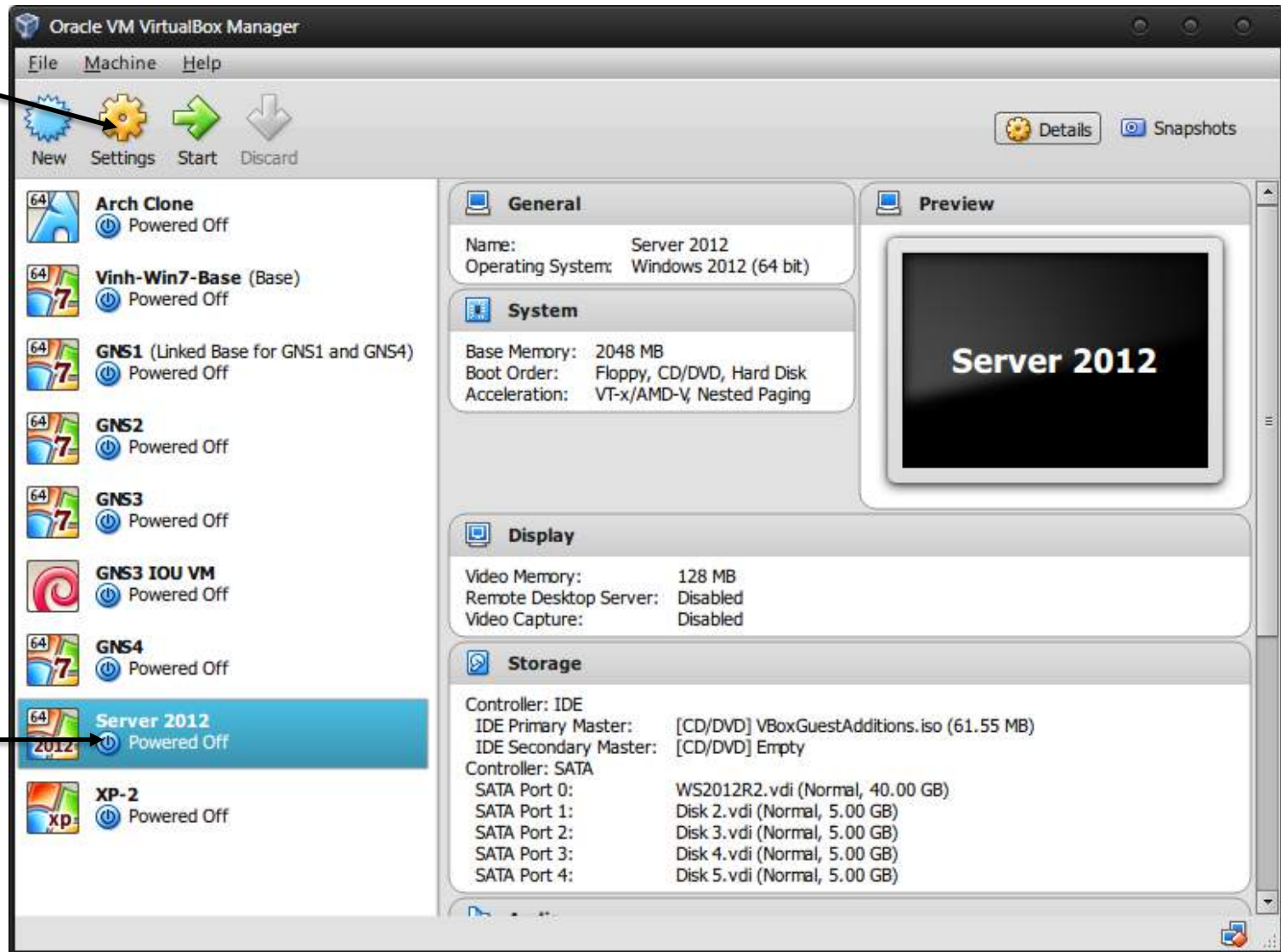
Active Directory – Client Installation



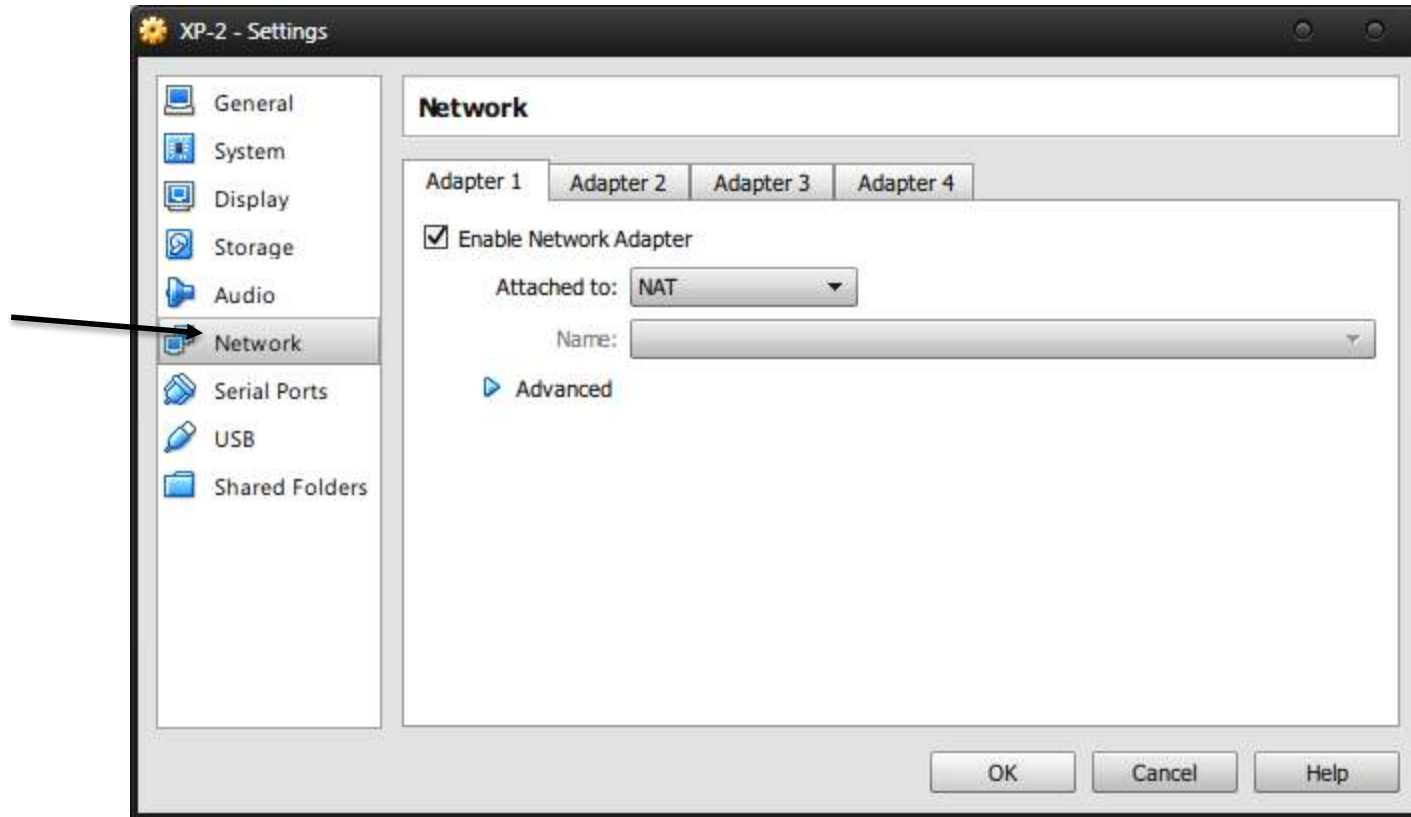
Active Directory – Client Installation

- Go back and check if the installation and promotion of your Server to Domain Controller is finished. If it is, shut it down.

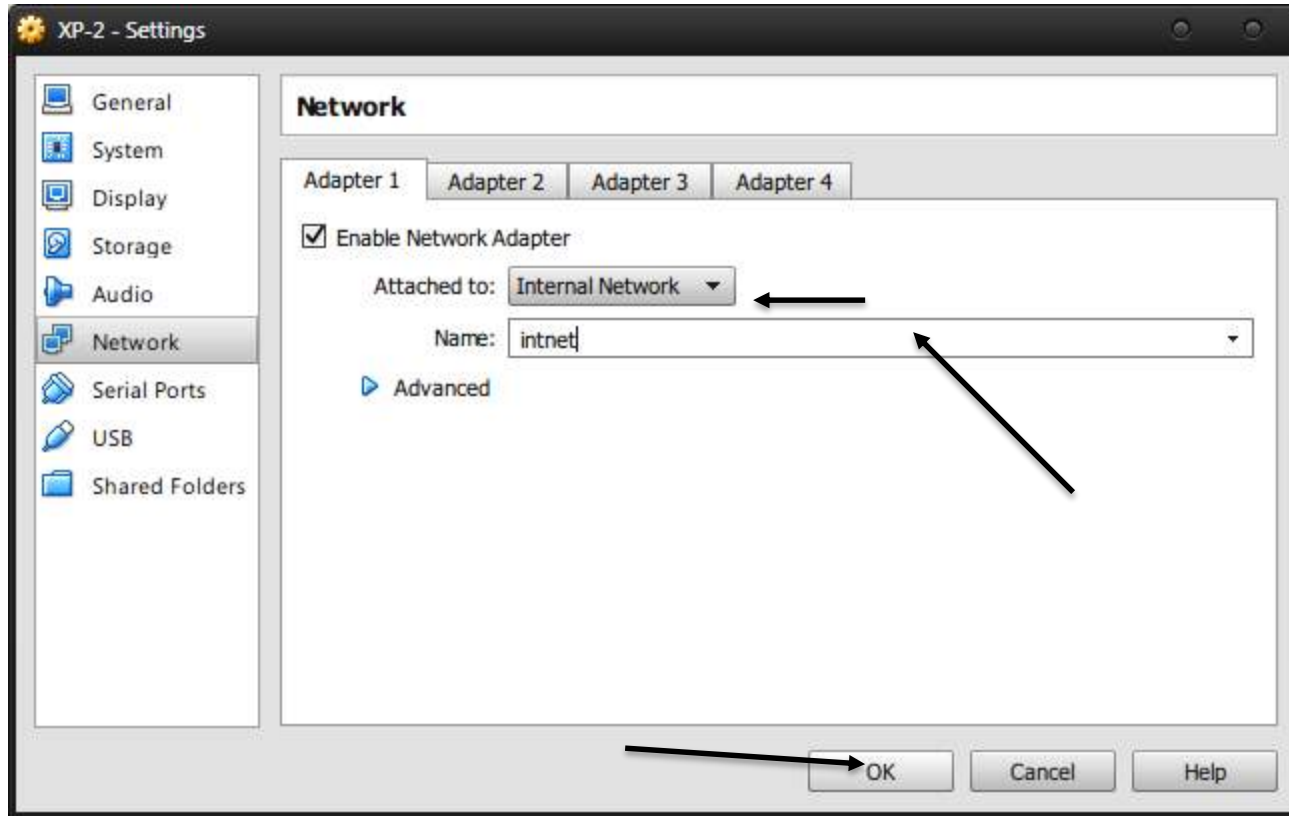
Active Directory – Client Installation



Active Directory – Client Installation



Active Directory – Client Installation



Active Directory – Client Installation

- Start both the Server and Client boxes
- Join client to AD domain

Active Directory – Client Installation



Active Directory – Client Installation



Active Directory – Client Installation



Active Directory – Client Installation



Your assignment task for this week

- Record date, time
- Record all configuration updates you have made to the server during this practical tasks. Add screen shots to highlight the changes.
 - The screenshot should show your name/student ID
- Report any errors/warnings from the event viewer
- Record the server status at the time you have done everything e.g. running normally or any observable issues.