

LESSON 1.3

98-365 Windows Server Administration Fundamentals

# Understand Server Installation Options

## **Lesson Overview**

### Understand Windows Server® Installation Options

In this lesson, you will learn how to:

- Identify system requirements
- Identify server versions
- Plan for installation
- Identify installation options
- Differentiate between clean install and upgrade
- Automated installation options

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## **Anticipatory Set**

- What is an unattended installation and what is required to perform an unattended installation?

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# Windows Server 2008 R2 System Requirements






Component	Requirement
Processor	Minimum 1.4Ghz (x64 processor) Note: An Intel Itanium 2 processor is required for Windows® Server 2008 R2 for Itanium-Based Systems
Memory	Minimum: 512 MB RAM Maximum: 8 GB (Foundation) or 32 GB (Standard) or 2 TB (Enterprise, Datacenter, and Itanium-Based Systems)
Disk Space Requirements	Minimum: 32 GB or greater Note: Computers with more than 16 GB of RAM will require more disk space for paging, hibernation, and dump files
Display	Super VGA (800x600) or higher resolution monitor
Other	DVD Drive, Keyboard and Microsoft® Mouse(or compatible pointing device), Internet access (fees may apply)



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## Windows Server 2008 R2 editions

Server Version	
 Windows Server 2008 R2 Foundation	8 GB RAM, 1 x64 socket-No virtual image use rights
 Windows Web Server 2008 R2	32GB RAM, 4 x64 sockets-1 guest VM (No Remote Desktop Services Gateway)
 Windows Server 2008 R2 Standard	32GB RAM, 4 x64 sockets-Host + 1 Virtual Machine (VM)
 Windows Server 2008 R2 Enterprise	2TB RAM, 8 x64 sockets-Host + 4 VM
 Windows Server 2008 R2 Datacenter	2TB RAM, 64 x64 sockets-Unlimited

More information can be found at:

<http://www.microsoft.com/windowsserver2008/en/us/r2-editions-overview.aspx>

## Installation planning

- Do you upgrade or perform a clean installation?
  - Upgrade options to consider:
    - Roles/Features installed on legacy system will be installed during the upgrade
    - Clean installation does not install any roles or features during installation
- How should the drives be partitioned?
  - Review requirements, minimum system partition is 32GB.
- Can/should you perform an automated installation?
  - What would you need?
- Decide on naming conventions for server.
- Determine network configuration and security requirements.
- Apply any firmware or BIOS updates to hardware.

## Automated Installation Options

- Servers and/or workstations can be deployed with little administrative interaction.
- Windows Deployment Services (WDS): Server application used to rapidly deploy workstations by using installation files or a preconfigured image (Windows Image \*.WIM file).
- Requirements for WDS :
  - Active Directory
  - Dynamic Host Configuration Protocol (DHCP)
  - Pre-boot Execution (PXE) enabled network interface card (NIC)
  - NTFS formatted non-system drive
  - Functioning DNS



## Automated Installation Options (continued)

- Unattended installation: Installation is performed with little or no interaction by providing the installation files with an “answer” file. This answer file can contain answers for input required during an interactive installation.
  - Answer files are simple text files that can be created with a utility called Setupmgr.exe or by using the Windows Automated Installation Kit (WAIK) which is supported for post XP® operating systems.  
<http://www.microsoft.com/downloads/details.aspx?FamilyID=696dd665-9f76-4177-a811-39c26d3b3b34&displaylang=en>
- Windows System Image Manager
  - Included in WAIK.
  - Used to manage Windows Image files (\*.WIM).
    - ImageX.exe is an application used to create an image of an existing configured system.

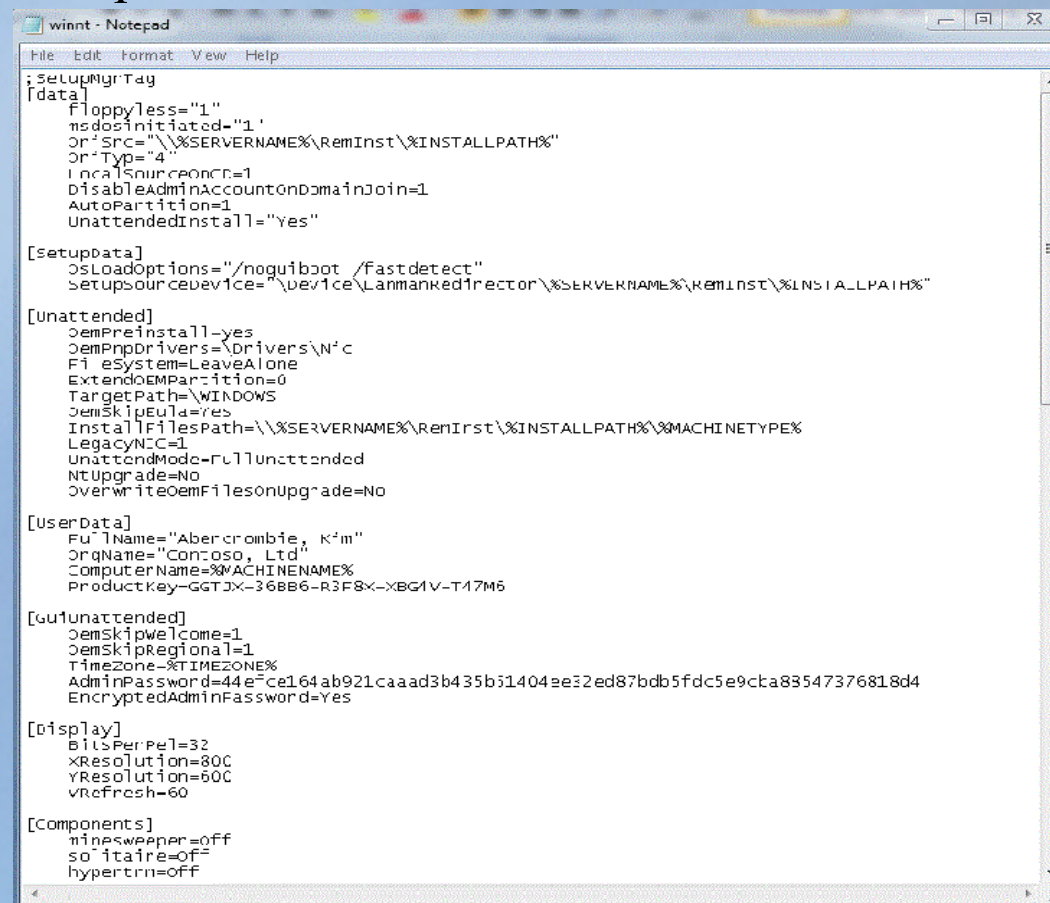


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# Automated Installation Options (continued)

Answer file example:



```
winnt - Notepad
File Edit Format View Help

;SetupMyTag
[data]
floppyless="1"
msdosinitiated="1"
src="//%SERVERNAME%\reminst\%INSTALLPATH%"
src-type="4"
localsourceonly=1
DisableAdminAccountOnDomainJoin=1
AutoPartition=1
UnattendedInstall="yes"

[SetupData]
osLoadOptions="/noguiboot /fastdetect"
setupSourceDevice="//device/LanmanKerberos/%SERVERNAME%\reminst\%INSTALLPATH%"

[Unattended]
oemPreinstall=yes
oemPnpDrivers=\Drivers\Nt
Filesystem=LeaveAlone
ExtendOemPartition=0
TargetPath=WINDOWS
oemSkipEula=yes
InstallFilesPath="//%SERVERNAME%\reminst\%INSTALLPATH%\%MACHINETYPE%
LegacyNtC=1
UnattendMode=FullUnattended
NTUpgrade=No
OverwriteOemFilesOnUpgrade=No

[UserData]
FullName="Abercrombie, K'm"
OrgName="Contoso, Ltd"
ComputerName=%MACHINE_NAME%
ProductKey=GGTJX-36BB6-R3F8X-XBG4V-T47M6

[GuiUnattended]
oemSkipWelcome=1
oemSkipRegional=1
TimeZone=%TIMEZONE%
AdminPassword=44e7ce164ab921caaad3b435b31404ee32ed87bdb5fdc5e9cka83547376818d4
EncryptedAdminPassword=yes

[Display]
BitsPerPel=32
XResolution=800
YResolution=600
VrRefresh=60

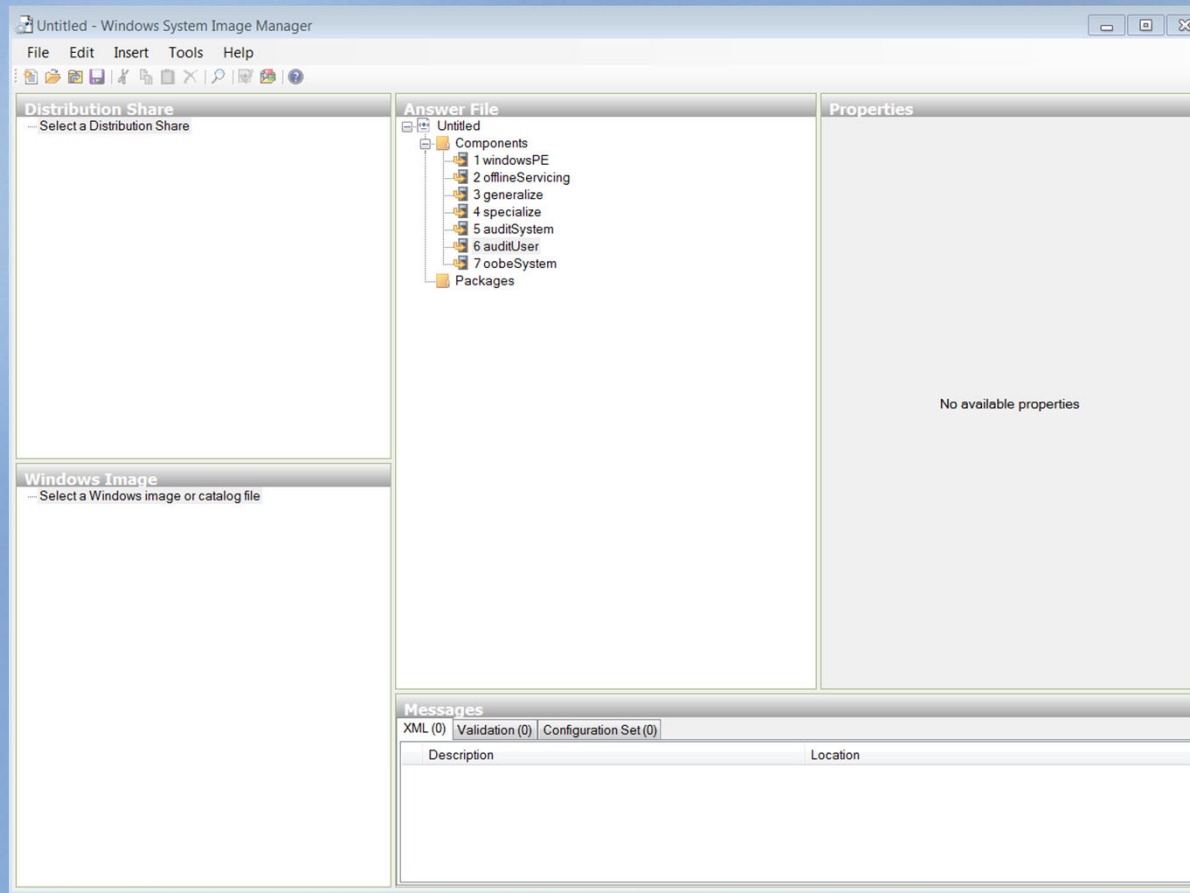
[Components]
mimeswapper=off
sofware=off
hypertrn=off
```

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# Automated Installation Options (continued)

## Windows System Image Manager:



## Lesson Review

- What are the essential differences between Windows Server 2008 R2 Web Edition and the other editions?
- What is required for Windows Deployment Services?
- What are the benefits of automated installations?