

Windows Server 2012 R2 Practical Guide

1) Installation of Windows Server 2012 and Assigning IP Address

Installation:

1. Boot from the Windows Server 2012 R2 ISO or DVD.
2. Select language, time, and keyboard preferences, then click Next.
3. Click Install Now.
4. Choose the edition (e.g., Windows Server 2012 R2 Standard (Server with a GUI)), click Next.
5. Accept the license terms.
6. Choose Custom: Install Windows only.
7. Select the target disk and click Next to begin installation.
8. Set an Administrator password after reboot.

Assigning Static IP:

1. Go to Control Panel > Network and Sharing Center > Change adapter settings.
2. Right-click Ethernet, select Properties.
3. Select Internet Protocol Version 4 (TCP/IPv4) > Properties.
4. Select Use the following IP address and assign:
 - IP address: 192.168.1.10 (example)
 - Subnet mask: 255.255.255.0
 - Default gateway: 192.168.1.1
 - Preferred DNS: 192.168.1.10 (if server will run DNS)

2) Installation of Active Directory in Windows Server 2012

1. Open Server Manager.
2. Click Add Roles and Features.
3. Select Role-based or feature-based installation.
4. Select the local server.
5. In the Roles section, check Active Directory Domain Services.
6. Add required features when prompted.
7. Click Next through the wizard and Install.
8. After installation, click Promote this server to a domain controller.
 - Select Add a new forest and enter root domain name (e.g., corp.local).
 - Set DSRM (Directory Services Restore Mode) password.
 - Complete wizard and restart server.

3) Configuring Member Server and Creating Password Policy

Configuring Member Server:

1. On another server, go to System Properties > Change Settings under Computer Name.
2. Click Change, select Domain, and enter the domain name (e.g., corp.local).

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3. Provide domain admin credentials to join.
4. Restart the server to become a Member Server.

Creating Password Policy:

1. On the Domain Controller, open Group Policy Management (gpmc.msc).
2. Edit the Default Domain Policy.
3. Navigate to:
Computer Configuration > Policies > Windows Settings > Security Settings > Account Policies > Password Policy.
4. Set:
 - Minimum password length
 - Password complexity requirements
 - Maximum/Minimum password age
5. Close and force update via gpupdate /force.

4) Creating Profiles and Configuring Home Folders

User Profile Configuration:

1. Open Active Directory Users and Computers.
2. Create a new user or open an existing one.
3. Under Profile tab:
 - Profile Path: \\server\profiles\%username%
 - Home Folder:
 - Select Connect, choose drive letter (e.g., H:)
 - Path: \\server\homefolders\%username%

Configure File Share on Server:

1. Create folders C:\Profiles and C:\HomeFolders.
2. Right-click folder > Properties > Sharing > Advanced Sharing.
3. Share the folder and set permissions (Full Control to domain users/admins).
4. Apply NTFS permissions as needed:
 - Creator Owner: Full control
 - Domain Admins: Full control

5) Configuring Child Domain and Additional Domain Controller

Child Domain:

1. On a new server, install Active Directory Domain Services role.
2. After install, click Promote this server.
3. Choose Add a new domain to an existing forest > Child Domain.
4. Enter parent domain credentials.
5. Set child domain name (e.g., branch.corp.local).

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6. Complete the wizard, restart.

Additional Domain Controller (ADC):

1. On another server, install AD DS role.
2. Click Promote this server.
3. Select Add a domain controller to an existing domain.
4. Provide domain credentials, select site, DNS, GC (as needed).
5. Complete the wizard and reboot.

6) Installation of IIS Web Server and Hosting a Website

Install IIS:

1. Open Server Manager > Add Roles and Features.
2. Choose Web Server (IIS) role.
3. Include default features and Web Server > Common HTTP Features.
4. Complete the wizard and install.

Host a Website:

1. Place your website files in a folder (e.g., C:\inetpub\wwwroot\mysite).
2. Open IIS Manager.
3. Right-click Sites > Add Website:
 - Site name: MySite
 - Physical path: C:\inetpub\wwwroot\mysite
 - Binding: Port 80, IP (or All Unassigned)
4. Click OK. Browse via <http://<server-ip>/>.

7) Installation and Configuration of IIS and FTP Server

Install FTP Server:

1. Go to Add Roles and Features.
2. Under Web Server (IIS) > FTP Server, select:
 - FTP Service
 - FTP Extensibility
3. Install.

Configure FTP Site:

1. Create a folder for FTP (e.g., C:\FTPShare).
2. Open IIS Manager > Sites > Add FTP Site.
 - Name: FTPSite
 - Path: C:\FTPShare
 - IP: Server IP, Port 21

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3. Authentication:

- Select Basic Authentication
- Allow specific users or groups (e.g., domain users)

4. Authorization:

- Specify read/write permissions

5. Configure Windows Firewall to allow FTP traffic (port 21).

6. Test FTP connection from a client using:

- ftp://<server-ip> or FileZilla.