

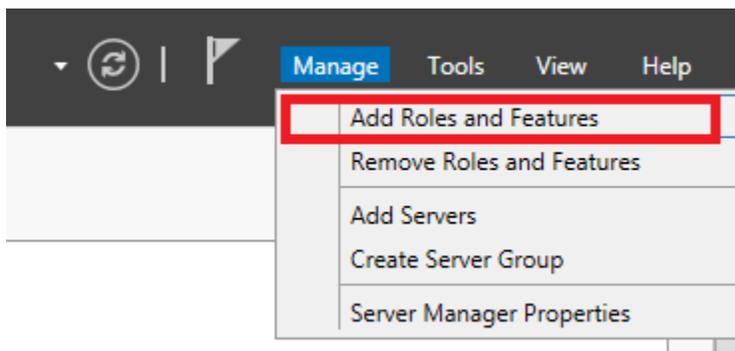
Active Directory Installation on Windows Server 2012

What really active directory is..? Active Directory Domain Services (AD DS) is an extensible and scalable directory service you can use to efficiently manage network resources. As an administrator, you need to be deeply familiar with how Active Directory technology works. Active Directory uses Domain Name System (DNS). DNS is a standard Internet service that organizes groups of computers into domains. DNS domains are organized into a hierarchical structure. The DNS domain hierarchy is defined on an Internet-wide basis, and the different levels within the hierarchy identify computers, organizational domains, and top-level domains. DNS is also used to map host names to numeric TCP/IP addresses. Through DNS, an Active Directory domain hierarchy can also be defined on an Internet-wide basis, or the domain hierarchy can be separate from the Internet and private.

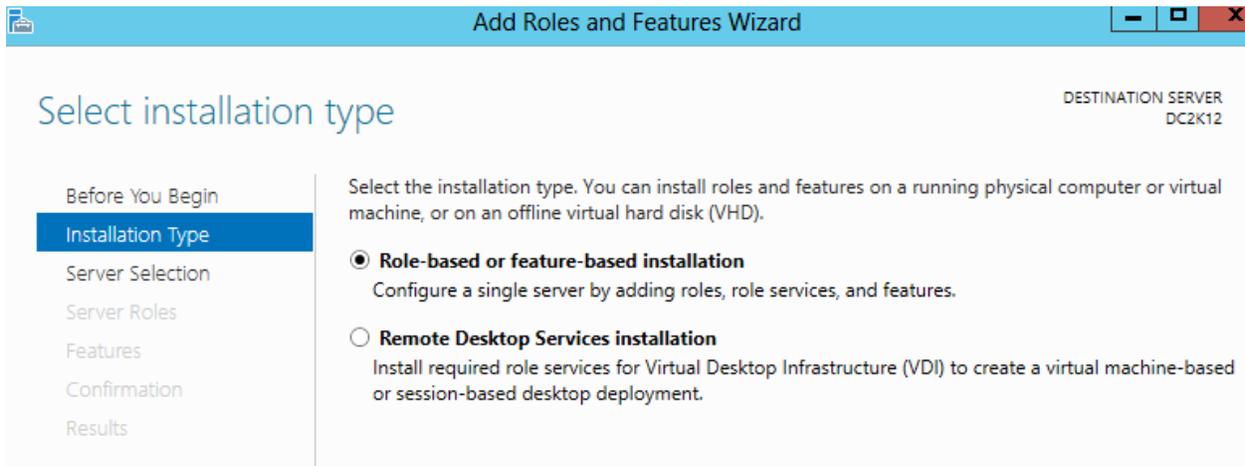
With Windows Server 2012, you install Active Directory in a **two-part process**. First you start the process in Server Manager by tapping or clicking Manage and then Add Roles And Features. This runs the Add Roles And Features Wizard, which you use to specify that you want to add the AD DS role to the server. This installs binaries needed for the role, and the progress of this process is shown on the Installation Progress page. Binaries needed to install roles and features are referred to as **payloads**. With Windows Server 2012, not only can you uninstall a role or feature, but you also can uninstall and remove the payload for that feature or role using the `-Remove` parameter of the **Uninstall-WindowsFeature** cmdlet. You can restore a removed payload using the **Install-WindowsFeature** cmdlet. By default, payloads are restored via Windows Update. Use the `-Source` parameter to restore a payload from a WIM mount point.

Ok lets begin the first part process of Active Directory Installation on Windows Server 2012. To do this we need to add ADDS role to server 2012 as below:

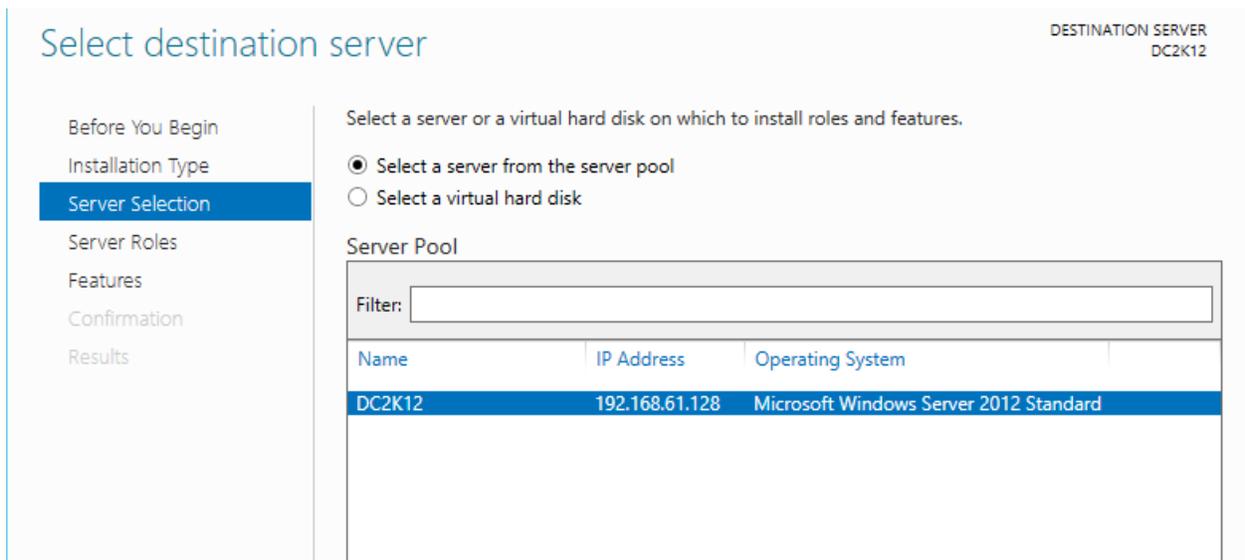
- Click **Manage** and then Add **Roles And features** in Server Manager



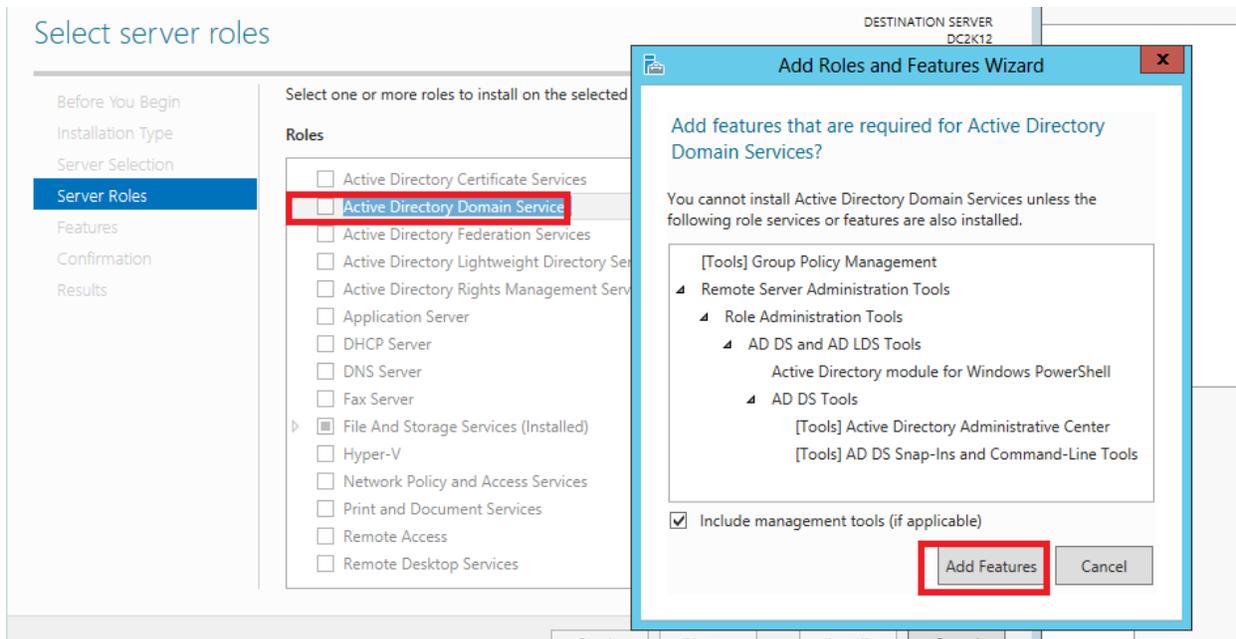
- This run the Add Roles and features wizard. Click next.
- Select **Role-based or feature-based installation**. Click next.



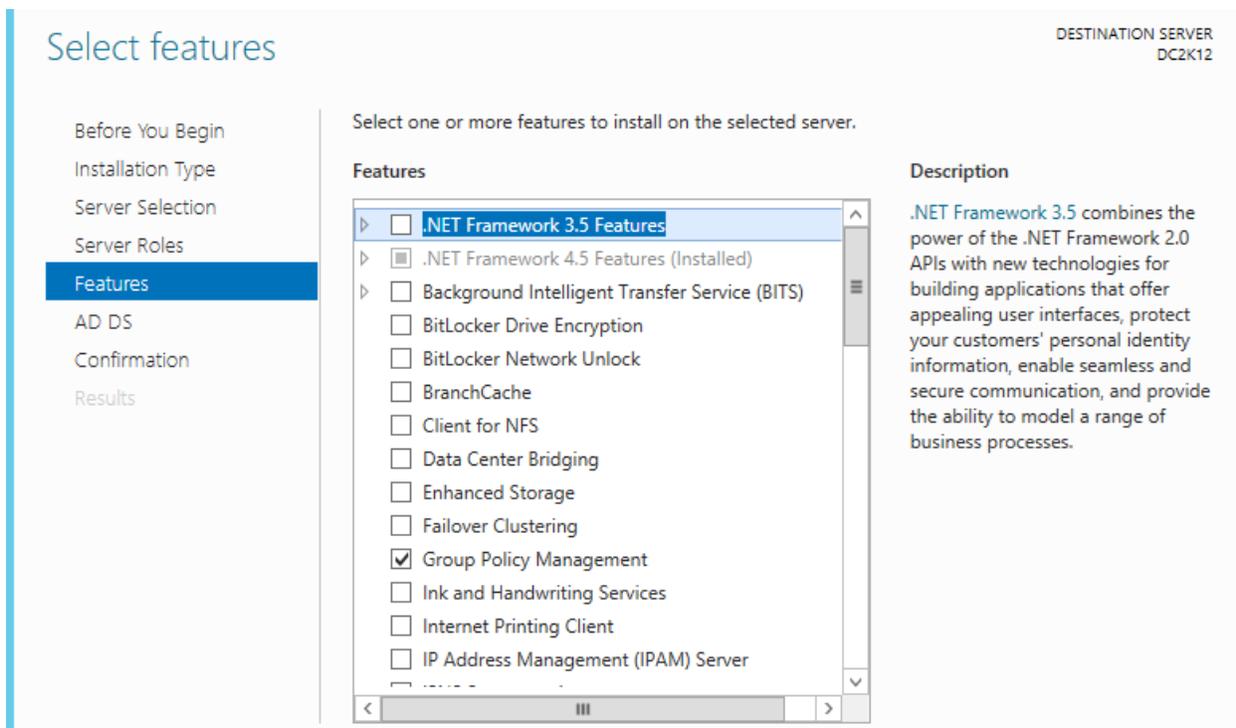
- If you have multiple servers in available pool, select the server which you want to promote as a Active Directory Server. In this lab I have a single server name *DC2k12*, so I select this server



- On *Select Server roles* page, click **Active Directory Domain Services** and it prompt feature window that are required for Active Directory Domain Services. Click **Add features**.



- Make sure **Group Policy Management Console** and **remote server administration tool** is selected. Click next.



- Click next and click **Install** to add the roles to this local server. View the Installation progress and wait till it complete.

Installation progress

DESTINATION SERVER
DC2K12

Before You Begin
Installation Type
Server Selection
Server Roles
Features
AD DS
Confirmation
Results

View installation progress

i Feature installation

Installation started on DC2K12

Active Directory Domain Services
Group Policy Management
Remote Server Administration Tools
Role Administration Tools
AD DS and AD LDS Tools
Active Directory module for Windows PowerShell
AD DS Tools
Active Directory Administrative Center
AD DS Snap-Ins and Command-Line Tools

i You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

[Export configuration settings](#)

< Previous Next > Close Cancel

Ok so once it complete we have to start our second part process on the same wizard page to install Active Directory on server. When the installation completes, you start the Active Directory Domain Services Configuration Wizard by tapping or clicking the **Promote This Server To A Domain Controller** link on the Installation Progress page and then use this wizard to configure the role.

Installation progress

DESTINATION SERVER
DC2K12

Before You Begin
Installation Type
Server Selection
Server Roles
Features
AD DS
Confirmation
Results

View installation progress

i Feature installation

Configuration required. Installation succeeded on DC2K12.

Active Directory Domain Services

Additional steps are required to make this machine a domain controller.

Promote this server to a domain controller

Group Policy Management

Remote Server Administration Tools

Role Administration Tools

AD DS and AD LDS Tools

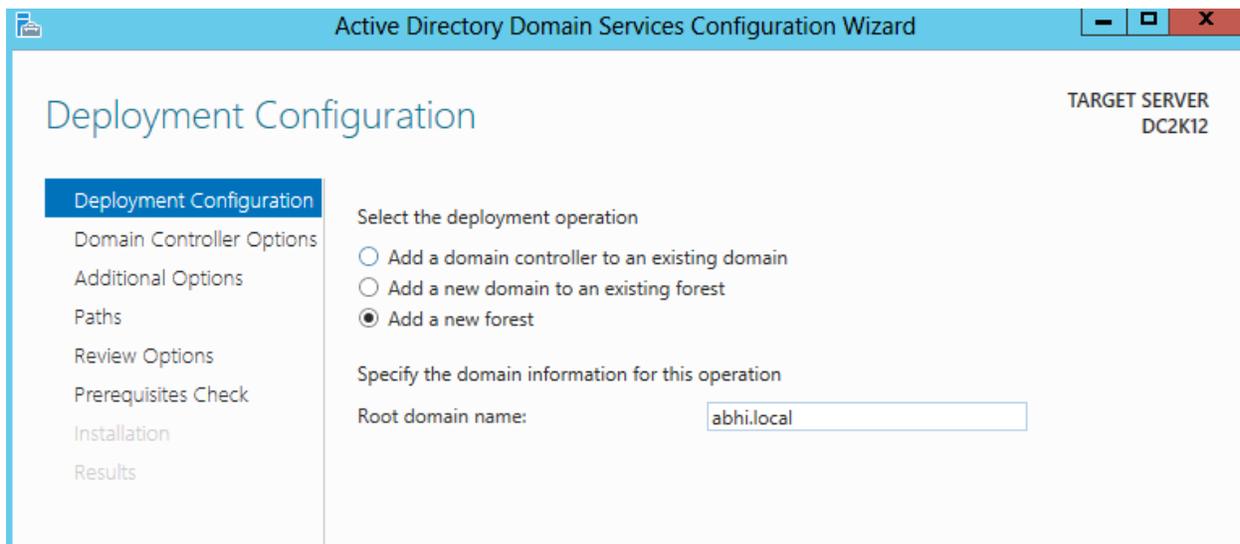
Active Directory module for Windows PowerShell

AD DS Tools

Active Directory Administrative Center

AD DS Snap-Ins and Command-Line Tools

- On *Deployment Configuration* page, select **Add a new forest**, since we are going to install first Active Directory server in this lab. If we have already a domain in our network and we are prompting windows 2012 server as active directory server we have to choose other two option depend on our need.



- On *Domain Controller Options* page, Select **Forest Functional level** and **Domain Functional level** which suite to your environment. With Server 2012 Active Directory we have a new Forest and Domain Functional level which is Windows Server 2012. And since this is going to be first

Domain controller in this lab network it automatically checked the Global Catalog option and it ready to advertise itself as a GC.

Domain Controller Options

TARGET SERVER
DC2K12

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 2012

Domain functional level: Windows Server 2012

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:

- Verify the **NetBIOS** name assigned to the domain and click next.

Active Directory Domain Services Configuration Wizard

TARGET SERVER
DC2K12

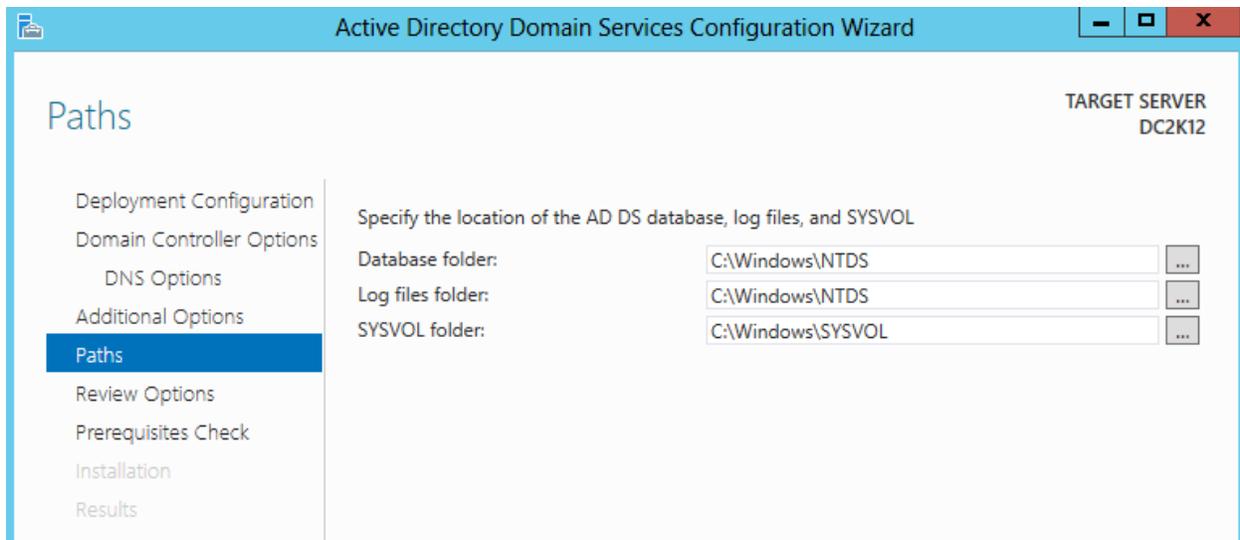
Additional Options

Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
Review Options
Prerequisites Check
Installation

Verify the NetBIOS name assigned to the domain and change it if necessary

The NetBIOS domain name: ABHI

- Enter the location of the **Database, Log Files and SYSVOL** folder and click next.



- If you want to view Windows Powershell script to automate installation click *View Scripts* on *Review Options* page and click next. Script for this lab network shown below:

```
File Edit Format View Help
#
# Windows PowerShell script for AD DS Deployment
#

Import-Module ADDSDeployment
Install-ADDSForest `
-CreateDnsDelegation:$false `
-DatabasePath "C:\Windows\NTDS" `
-DomainMode "Win2012" `
-DomainName "abhi.local" `
-DomainNetbiosName "ABHI" `
-ForestMode "Win2012" `
-InstallDns:$true `
-LogPath "C:\Windows\NTDS" `
-NoRebootOnCompletion:$false `
-SysvolPath "C:\Windows\SYSVOL" `
-Force:$true
```

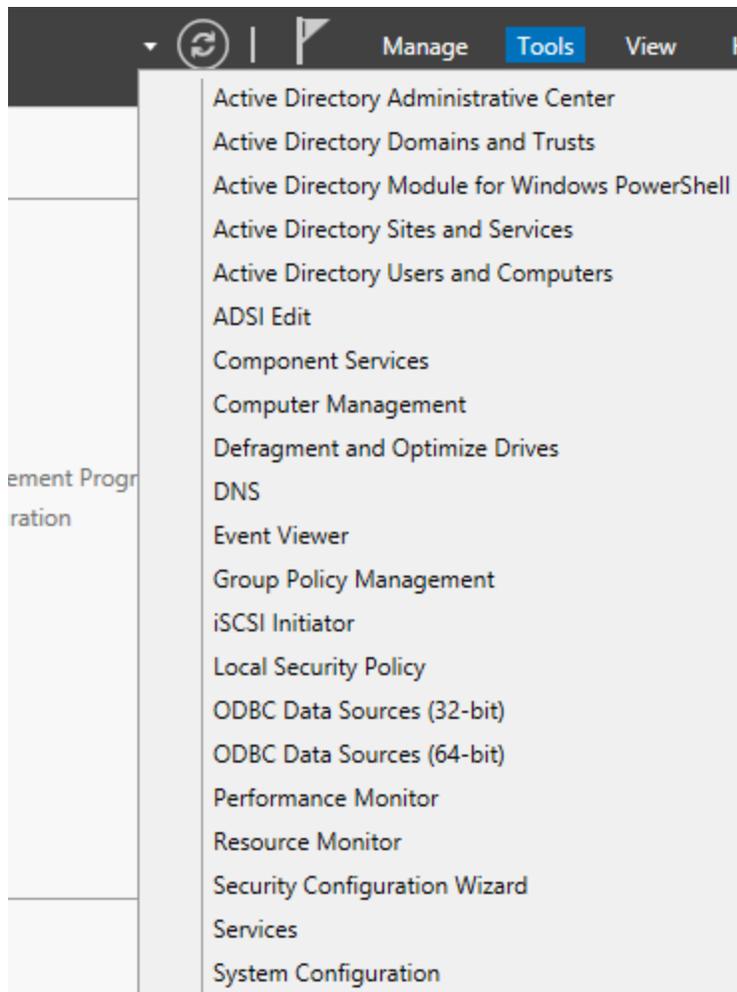
- Make sure all prerequisites Checks passed successfully. If its Green then click **Install** to begin installation.

- View the installation progress and once it complete server will automatically reboot. Once server rebooted successfully login the server with domain account.

Open Server Manager Dashboard and select Local Server to view the details:

| PROPERTIES for DC2K12 | | TASKS | |
|--------------------------|--|---|---|
| Computer name | DC2K12 | Last installed updates | Never |
| Domain | ahh.local | Windows Update | Not configured |
| | | Last checked for updates | Never |
| Windows Firewall | Public: On | Windows Error Reporting | Off |
| Remote management | Enabled | Customer Experience Improvement Program | Not participating |
| Remote Desktop | Disabled | Enhanced Security Configuration | On |
| NIC Teaming | Disabled | Time zone | (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi |
| Internet | 182.168.1.1 | Product ID | Not activated |
| Operating system version | Microsoft Windows Server 2012 Standard | Processor | Intel(R) Core(TM) i3-2100 CPU @ 3.10GHz |

- On the server manager page click tools to view the tools available for Active Directory on this server.



- Open Command prompt window, and run following command to view the FSMO role status:

Netdom query fsmo

```
Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\PriyaAbhi>netdom query fsmo
Schema master           DC2K12.abhi.local
Domain naming master   DC2K12.abhi.local
PDC                    DC2K12.abhi.local
RID pool manager       DC2K12.abhi.local
Infrastructure master   DC2K12.abhi.local
The command completed successfully.
```

So we have now learned how to install Active Directory on Windows Server 2012 from the Active Directory Domain Services Configuration Wizard by tapping or clicking the Promote This Server To A Domain Controller link on the Installation Progress page.

This wizard replaces **Dcpromo.exe**, which was used previously for promoting domain controllers. The wizard also will run **Adprep.exe** to prepare schema as appropriate. If you do not run *Adprep.exe* separately beforehand and you are installing the first domain controller that runs Windows Server 2012 in an existing domain or forest, the wizard will prompt you to supply credentials to run Adprep commands. To prepare a forest, you need to provide credentials for a member of the Enterprise Admins group, the Schema Admins group, and the Domain Admins group in the domain that hosts the schema master. To prepare a domain, you need to provide credentials for a member of the Domain Admins group.