

Adding a Second Domain Controller (DC) to an Existing Domain using Windows 2012 Server

July 10, 2013

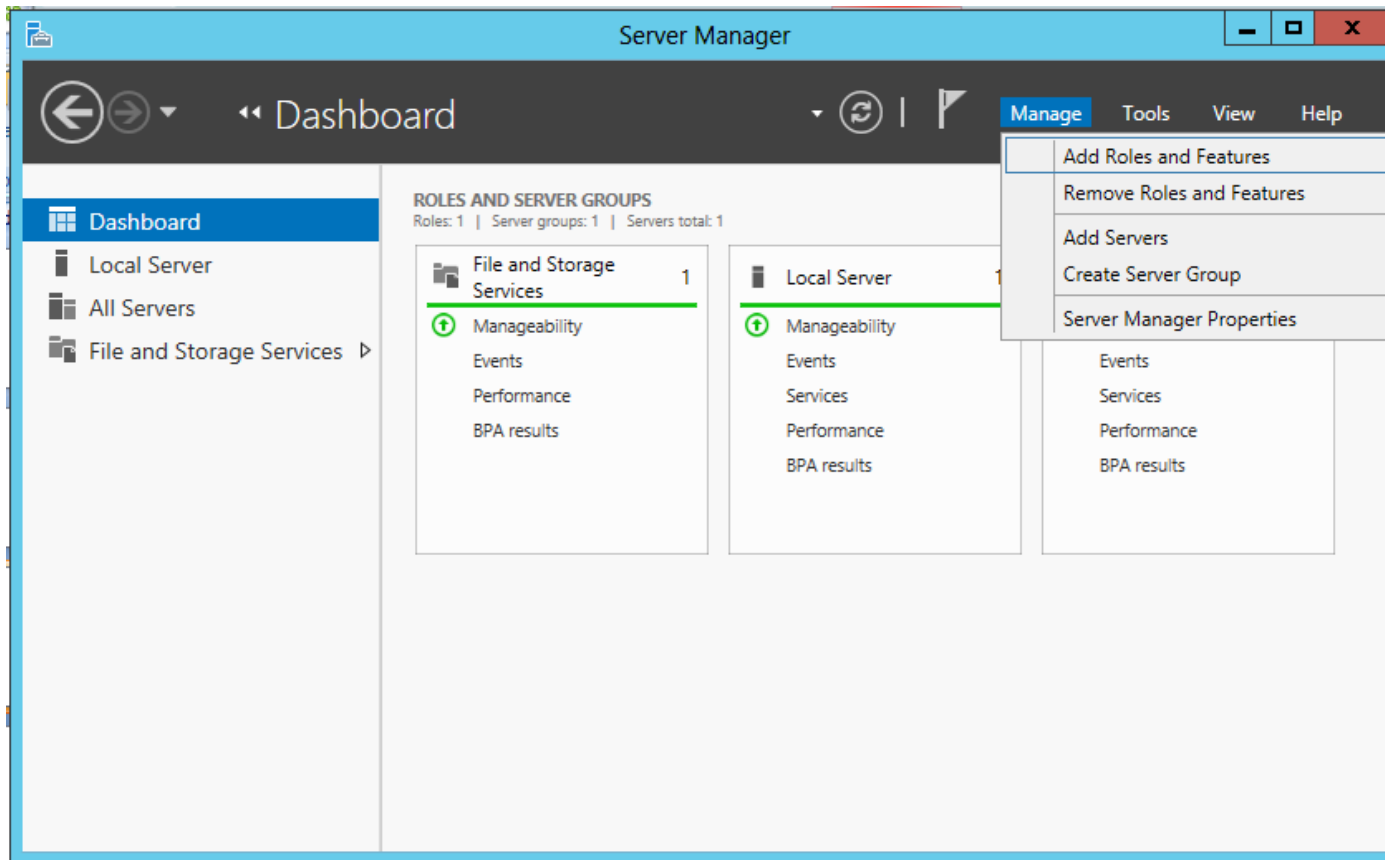
Creating a Secondary DC

Our next Domain Controller can backup the Primary DC. It will have the same Organizational Units, Groups and Users as the Primary Domain Controller.



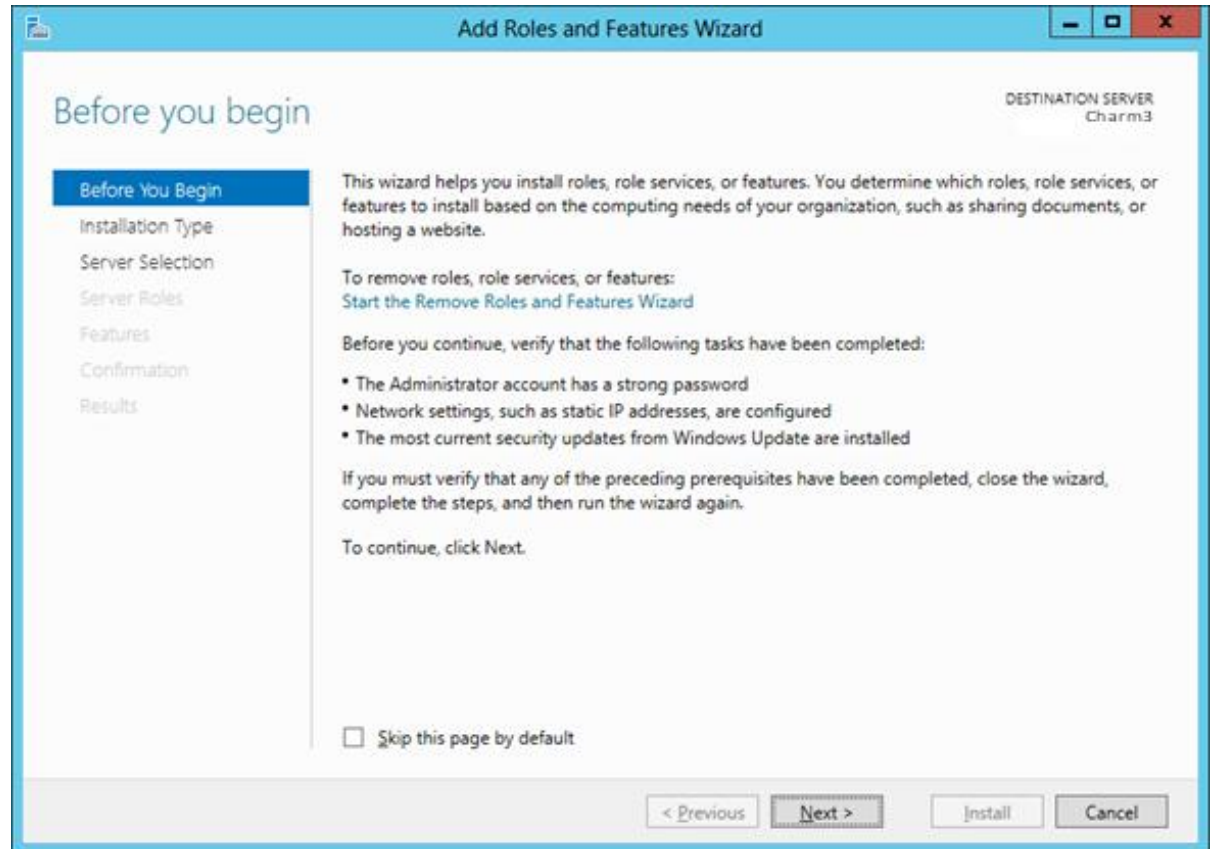
Setup Security Policies

To add a new role such as Active Directory Services on the Windows 2012 Standard Server, we select the Server Manager button from the Task Bar and select Manage from the Dashboard. From the list we choose Add Roles and Features.



Before You Begin

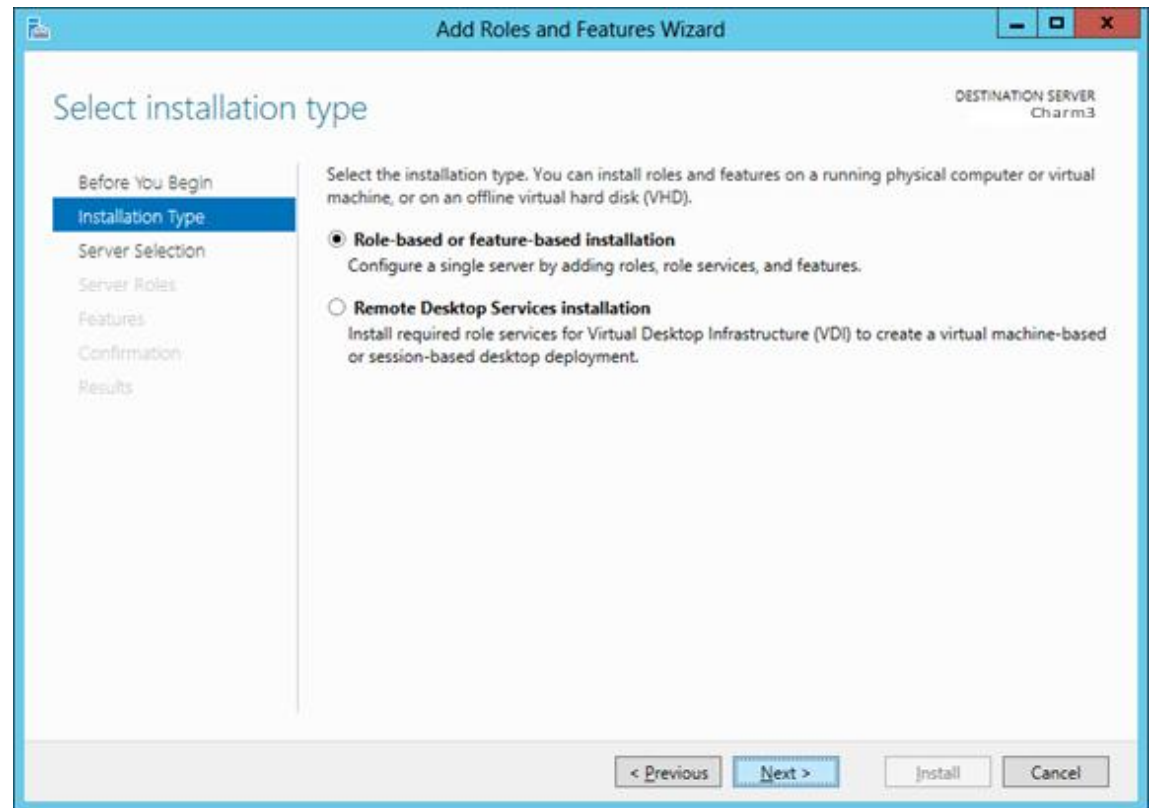
Before we add a role to the Windows 2012 Standard Server, we will want to have a smart password on our administrator account, to configure our network connections with a static IP address and we want to have the most current Service Packs and Windows Updates loaded. If this is done, then we can go ahead and press the Next command button.



Installation Type

Then we opt for the installation type which is either Role based or Remote Desktop Services Installation. For a stand alone server, we will choose the Role based option.

Press the Next button to continue.



Select Destination Server

Now we will select a server from the server pool. This can be a physical or virtual server. We opt to choose a server from the server pool and we highlight our server name from the list.

Press the Next button to advance.

The screenshot shows the 'Add Roles and Features Wizard' window. The title bar reads 'Add Roles and Features Wizard'. The main heading is 'Select destination server'. On the right side, there is a 'DESTINATION SERVER Charm' label. The left sidebar contains a list of steps: 'Before You Begin', 'Installation Type', 'Server Selection' (highlighted in blue), 'Server Roles', 'Features', 'Confirmation', and 'Results'. The main content area has the instruction 'Select a server or a virtual hard disk on which to install roles and features.' Below this are two radio buttons: 'Select a server from the server pool' (selected) and 'Select a virtual hard disk'. Under the 'Server Pool' section, there is a 'Filter:' input field. Below the filter is a table with the following data:

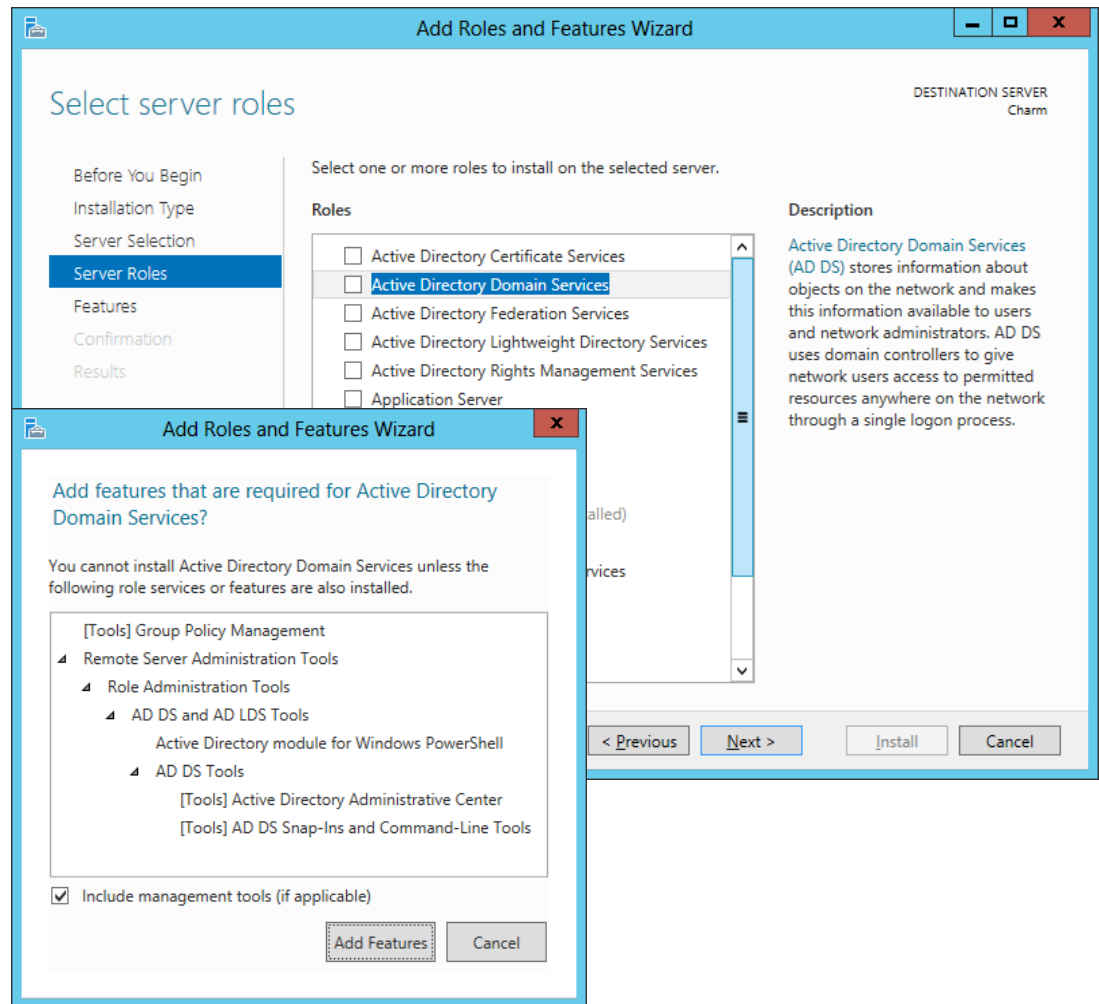
Name	IP Address	Operating System
Charm	192.168.10.230	Microsoft Windows Server 2012 Standard

Below the table, it says '1 Computer(s) found'. A note at the bottom states: '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.' At the bottom of the window, there are four buttons: '< Previous', 'Next >' (highlighted in blue), 'Install', and 'Cancel'.

Select Server Role

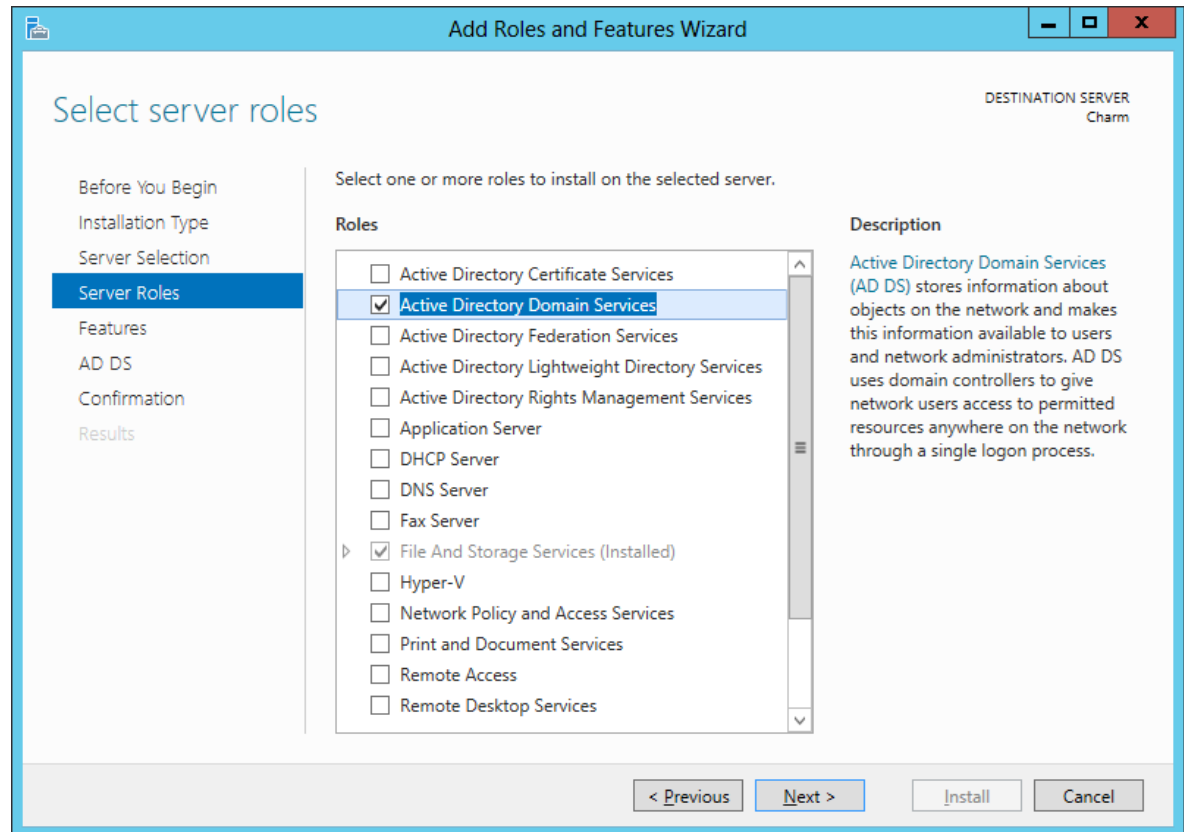
The Add Roles and Features Wizard window shows the multitude of functions a 2012 server can provide. We annotate the Active Directory Domain Services checkbox and press the Next button.

A smaller dialogue box will appear and we then press the Add Features button on that pop up window.



Confirm Installation Selections

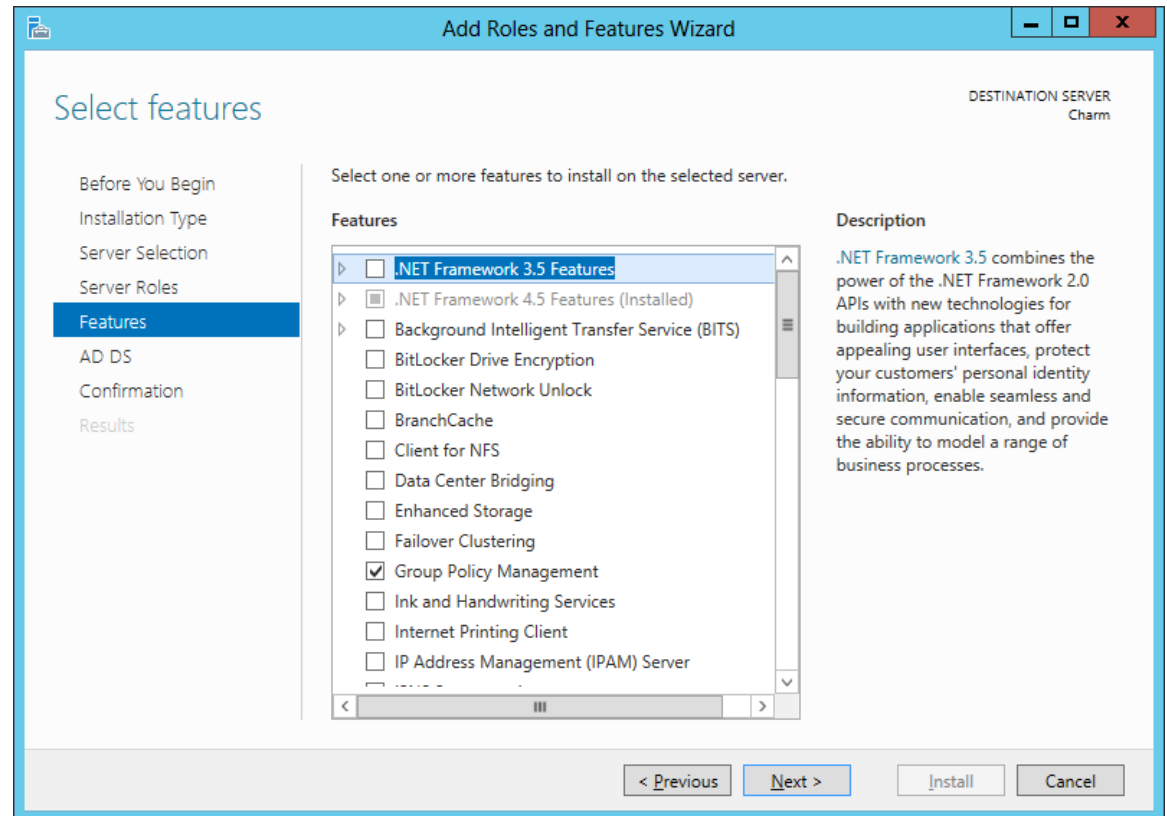
The Active Directory Domain Services role is now checked on the roles list and we push the Next button to continue.



Features Window

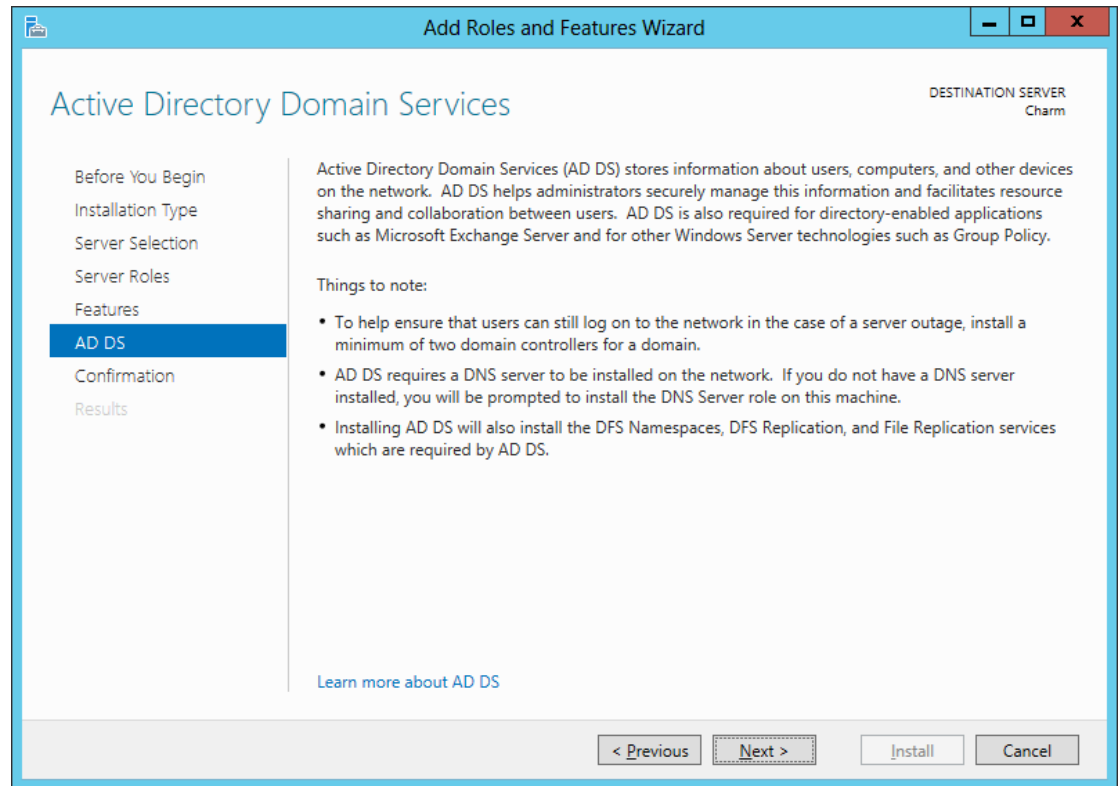
Next, the Features window comes up and we will not add any features at this time.

Press the Next button to go on.



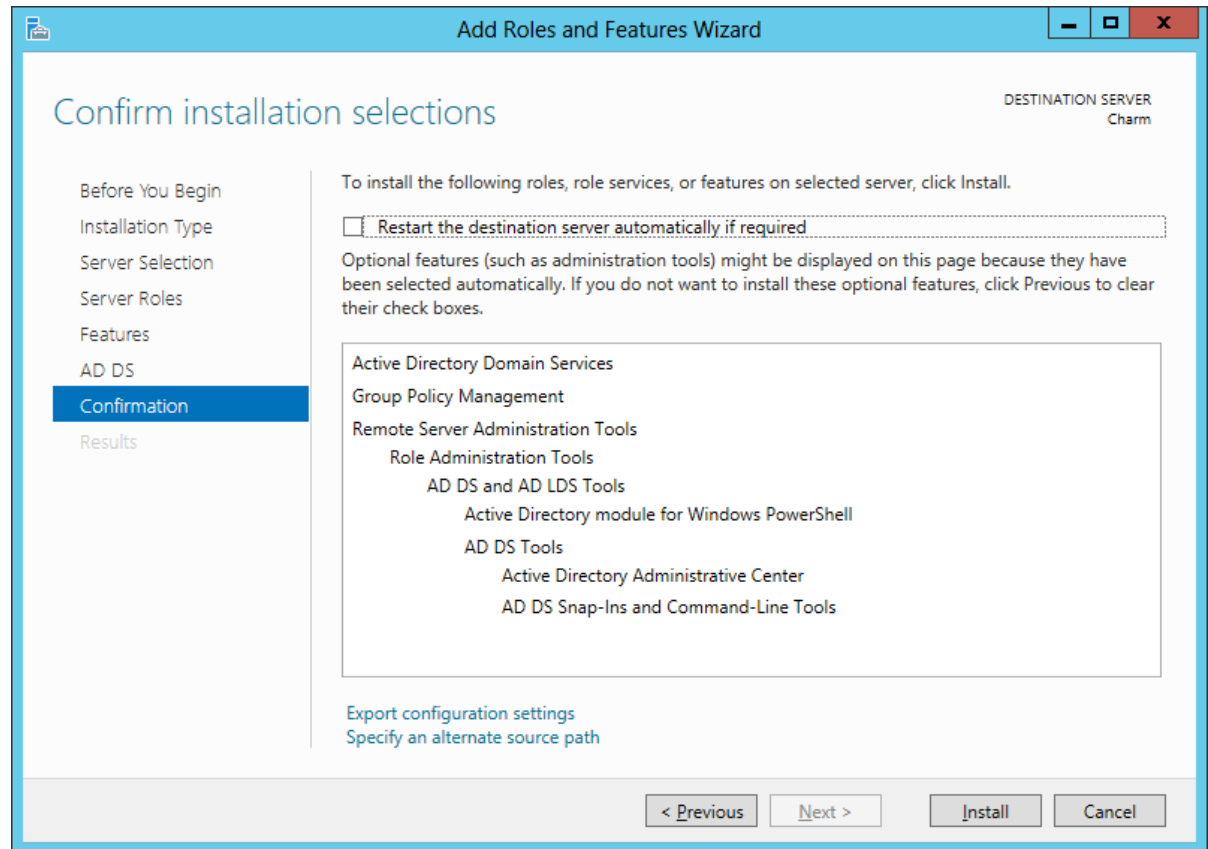
Active Directory Domain Services

The Active Directory Domain Services window will explain the DNS deployment and Active Directory. We press the Next button to continue.



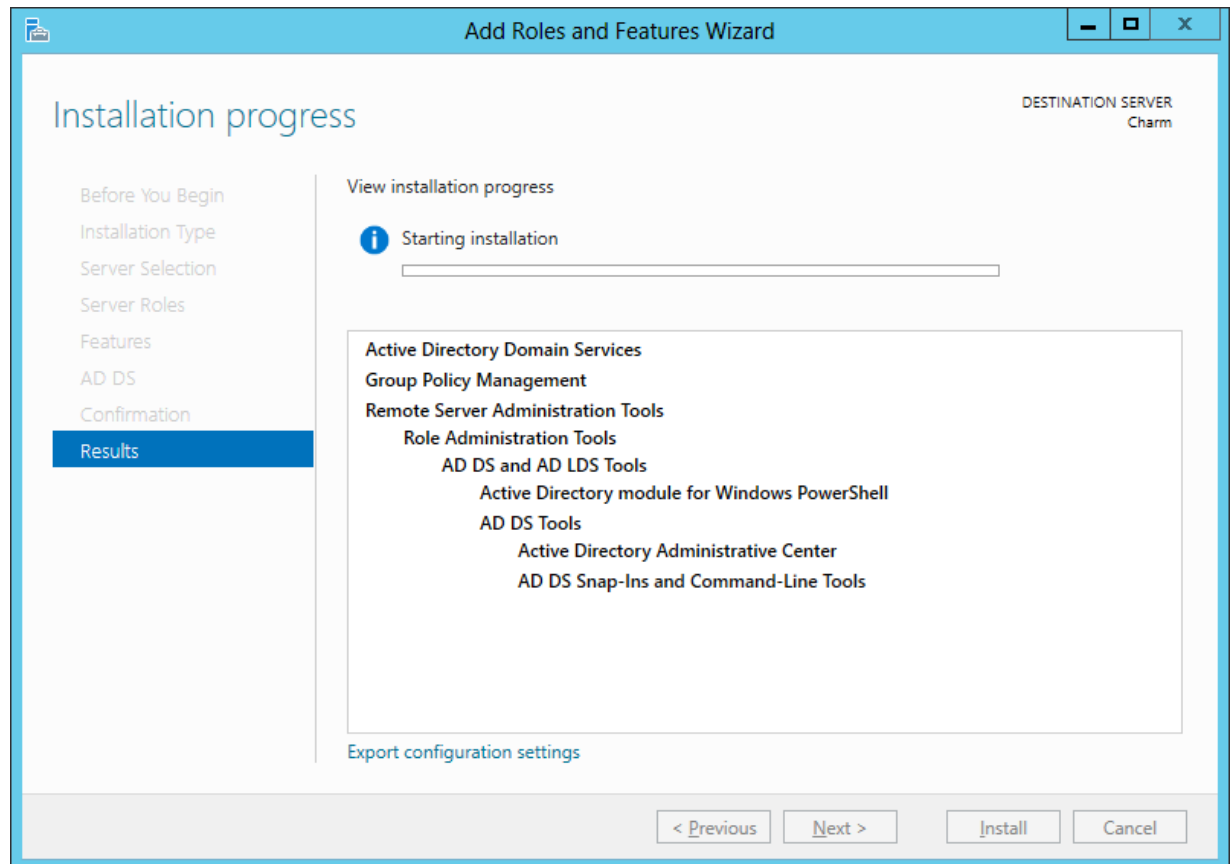
Confirm Installation Selections

We confirm that we want to set the machine up as a Active Directory Domain Services, so we pick the Install button to proceed.



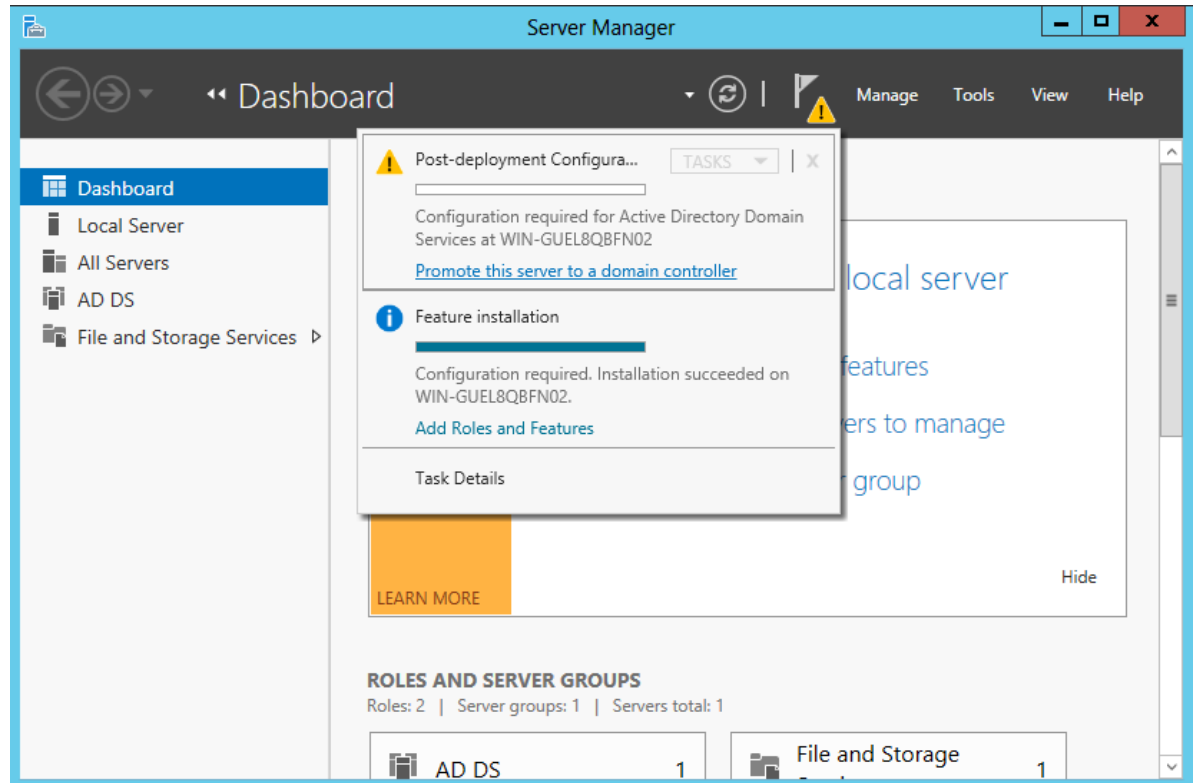
Installation Results

Finally, the server Active Directory Services role installation is completed. We can close the window.



View Server Manager

Active Directory Domain Services is installed but is not running. We still need to make our server a Domain Controller and set up our DNS server. Click on the yellow warning icon at the top of the Server Manager Dashboard and left click on the “Promote this server to a Domain Controller” hyperlink.

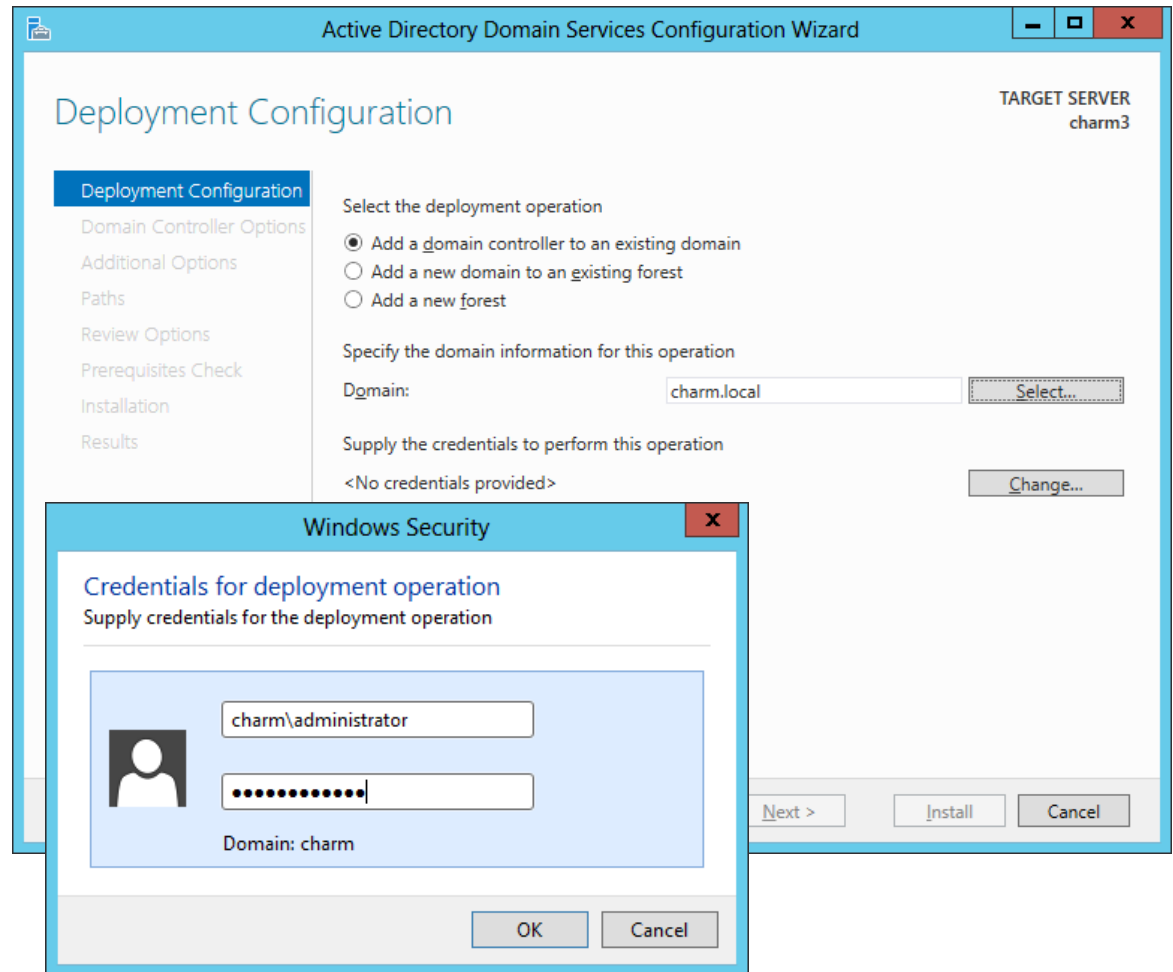


Deployment Configuration

For our second Domain Controller we will select add a domain controller to an existing domain.

We type our domain name in the Domain text box and we press the Select button. Then we type our credentials with the domain name slash the administrator and our password.

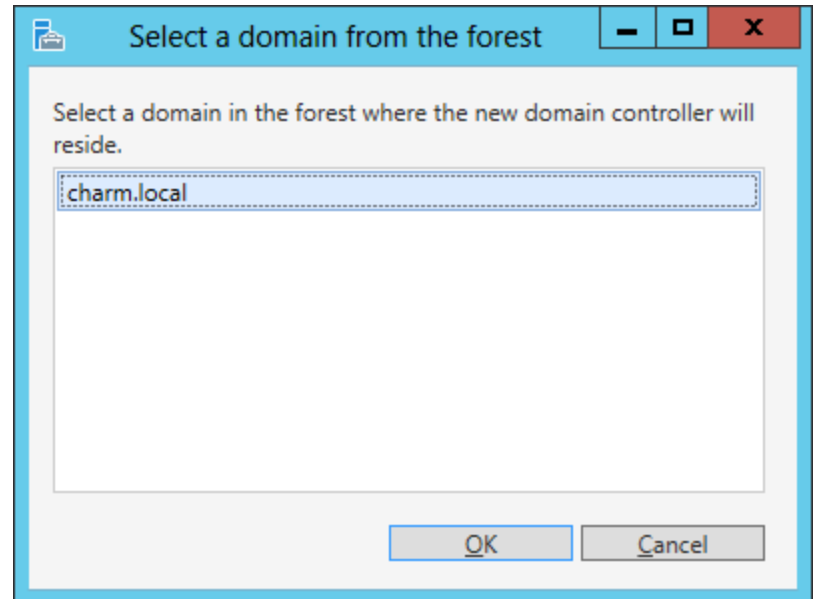
We press the OK button to continue.



Select the Domain from the Forest

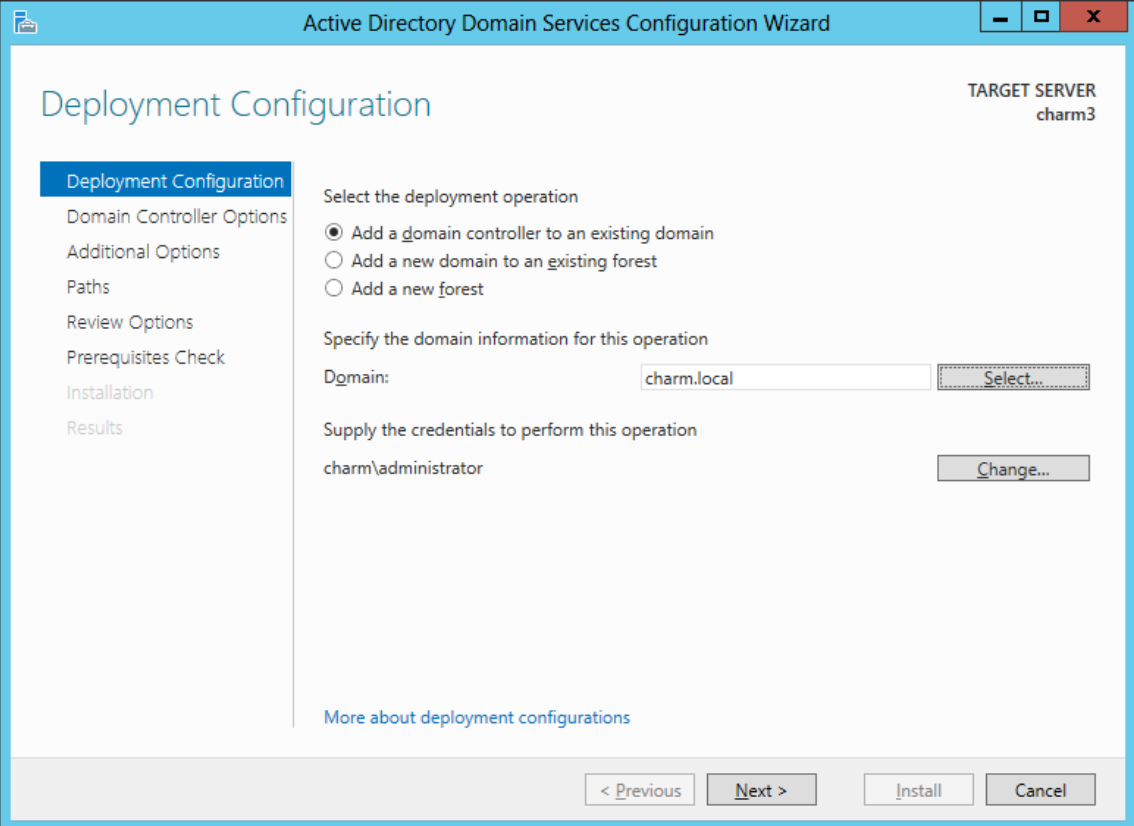
In the next window that appears, we will see the domain's FQDN appear.

Press the OK button to advance.



Completed Deployment Configuration

With the domain identified and our credentials loaded, we now can press the Next button to add our server as the next Domain Controller in the Active Directory tree.



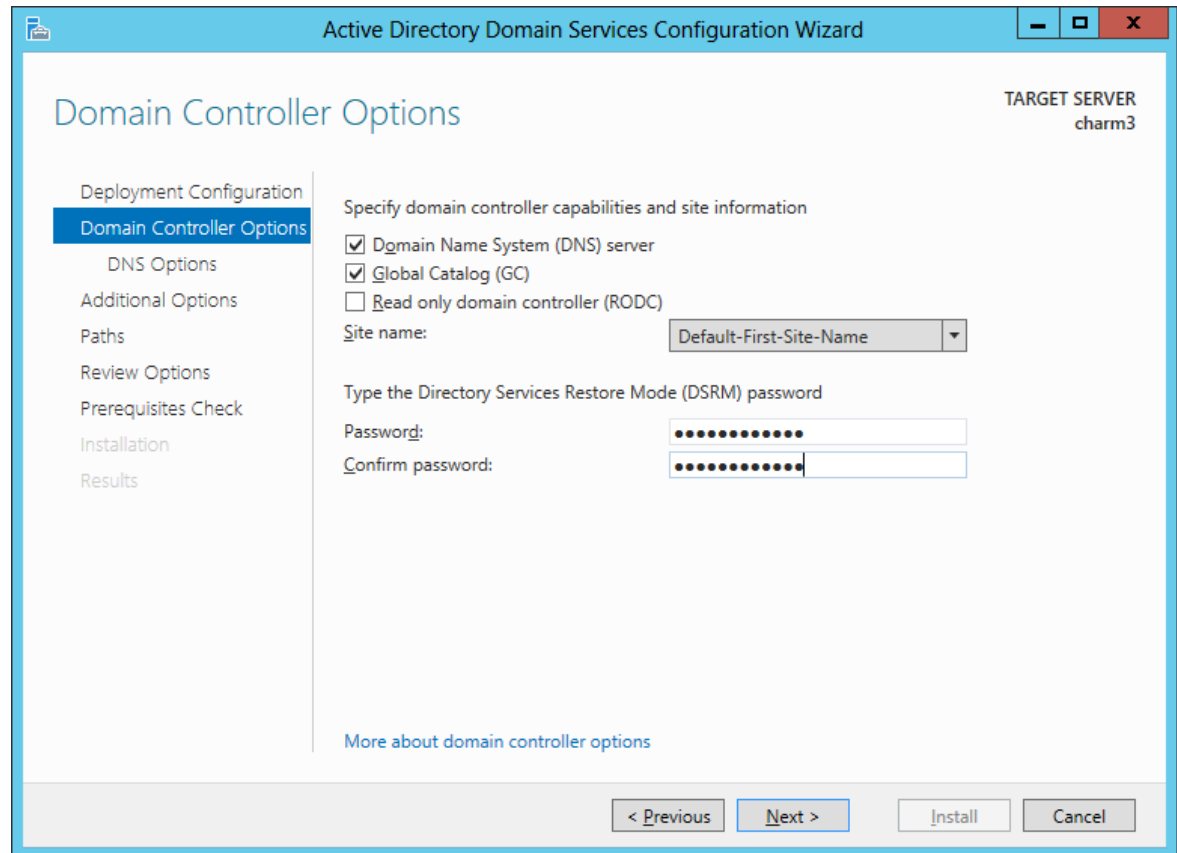
The screenshot shows the 'Active Directory Domain Services Configuration Wizard' window. The title bar includes the text 'Active Directory Domain Services Configuration Wizard' and standard window controls. The main window title is 'Deployment Configuration'. In the top right corner, it says 'TARGET SERVER charm3'. On the left side, there is a navigation pane with the following items: 'Deployment Configuration' (highlighted), 'Domain Controller Options', 'Additional Options', 'Paths', 'Review Options', 'Prerequisites Check', 'Installation', and 'Results'. The main content area is titled 'Select the deployment operation' and contains three radio button options: 'Add a domain controller to an existing domain' (selected), 'Add a new domain to an existing forest', and 'Add a new forest'. Below this, the section 'Specify the domain information for this operation' shows a 'Domain:' label followed by a text box containing 'charm.local' and a 'Select...' button. The section 'Supply the credentials to perform this operation' shows a text box containing 'charm\administrator' and a 'Change...' button. At the bottom of the window, there are four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'. A link 'More about deployment configurations' is located at the bottom of the main content area.

Domain Controller Options

The forest functional level for our next Domain Controller will be the same as Primary Domain Controller.

We will keep the Domain Name System (DNS) server and Global Catalog checkboxes annotated for our Domain Controller. Then we type our Directory Services Restore Mode password.

We pick Next to continue.



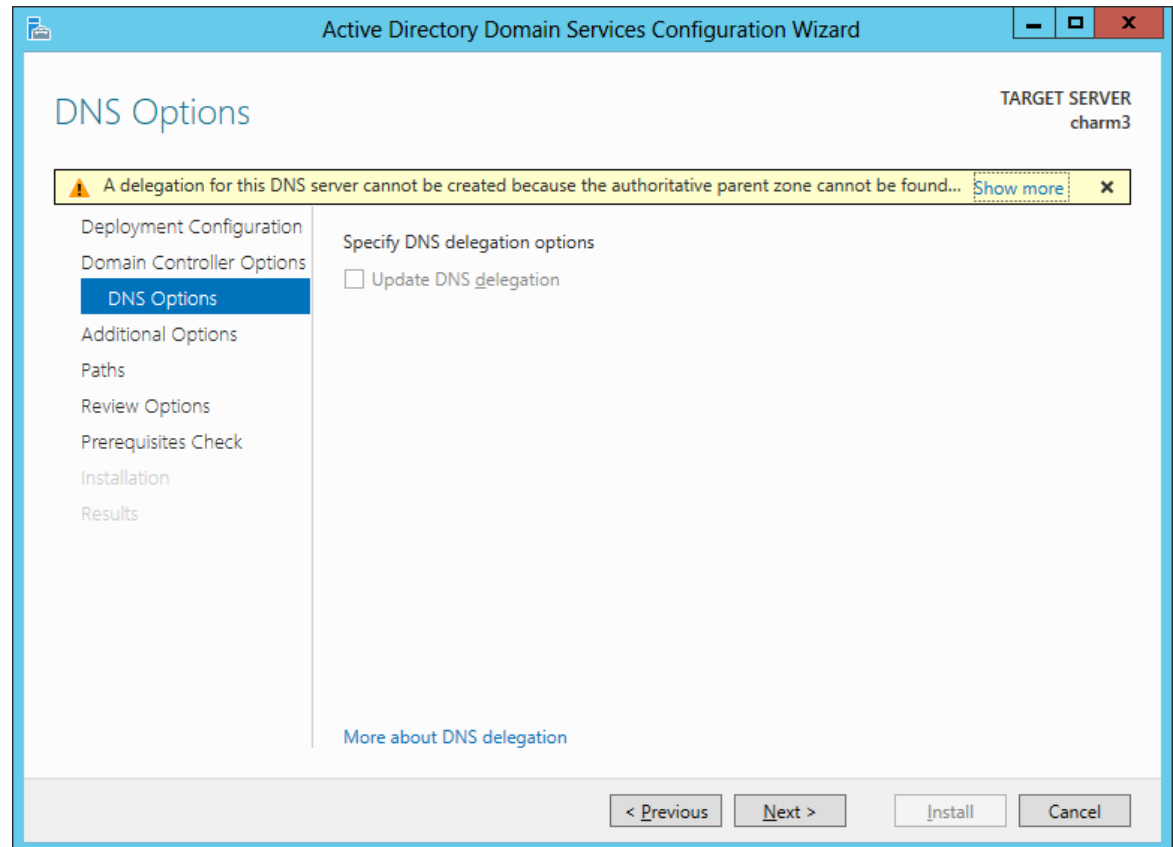
The screenshot shows the 'Active Directory Domain Services Configuration Wizard' window. The title bar includes the text 'Active Directory Domain Services Configuration Wizard' and standard window controls. The main content area is titled 'Domain Controller Options' and includes a 'TARGET SERVER charm3' label in the top right. On the left, a navigation pane lists steps: 'Deployment Configuration', 'Domain Controller Options' (highlighted), 'DNS Options', 'Additional Options', 'Paths', 'Review Options', 'Prerequisites Check', 'Installation', and 'Results'. The main area contains the following options:

- 'Specify domain controller capabilities and site information' section:
 - Domain Name System (DNS) server
 - Global Catalog (GC)
 - Read only domain controller (RODC)
 - 'Site name:' dropdown menu with 'Default-First-Site-Name' selected.
- 'Type the Directory Services Restore Mode (DSRM) password' section:
 - 'Password:' text box with masked characters.
 - 'Confirm password:' text box with masked characters.

At the bottom, there are four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'. A link for 'More about domain controller options' is located at the bottom of the main content area.

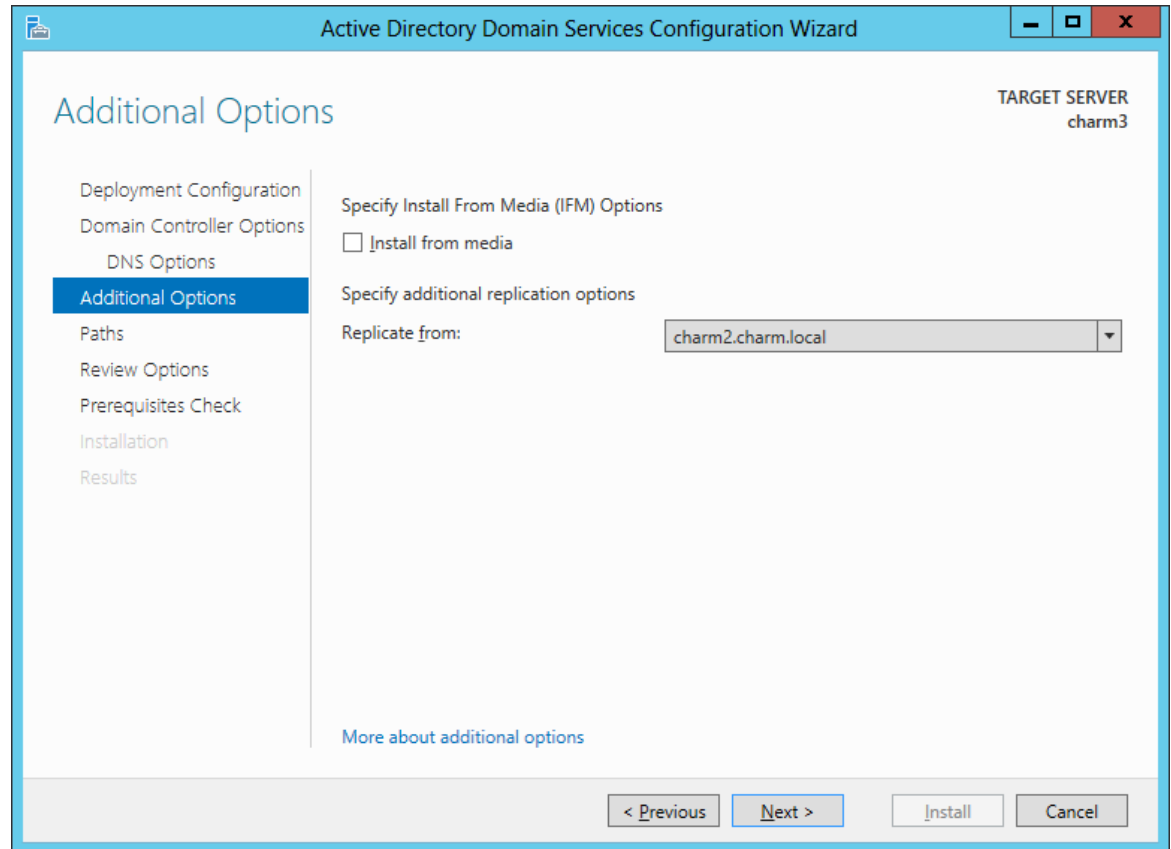
DNS Options

We already have the DNS server configured, so we will continue by pressing the Next button. The ISP delegation server might be a Linux computer and does not conform to the Windows infrastructure. We will choose yes to advance.



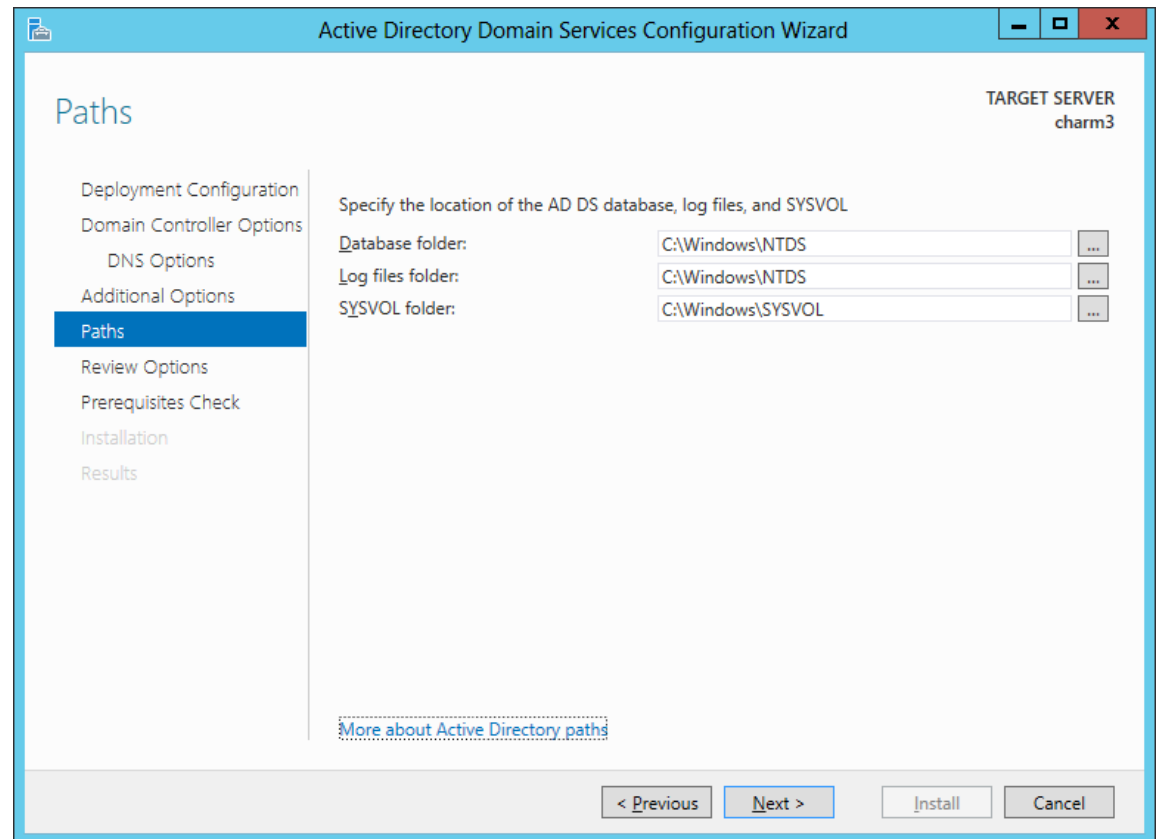
Additional Options

Our server will replicate from the Primary Domain Controller and we select it from the list box.



Database, Log and SYSVOL Folders

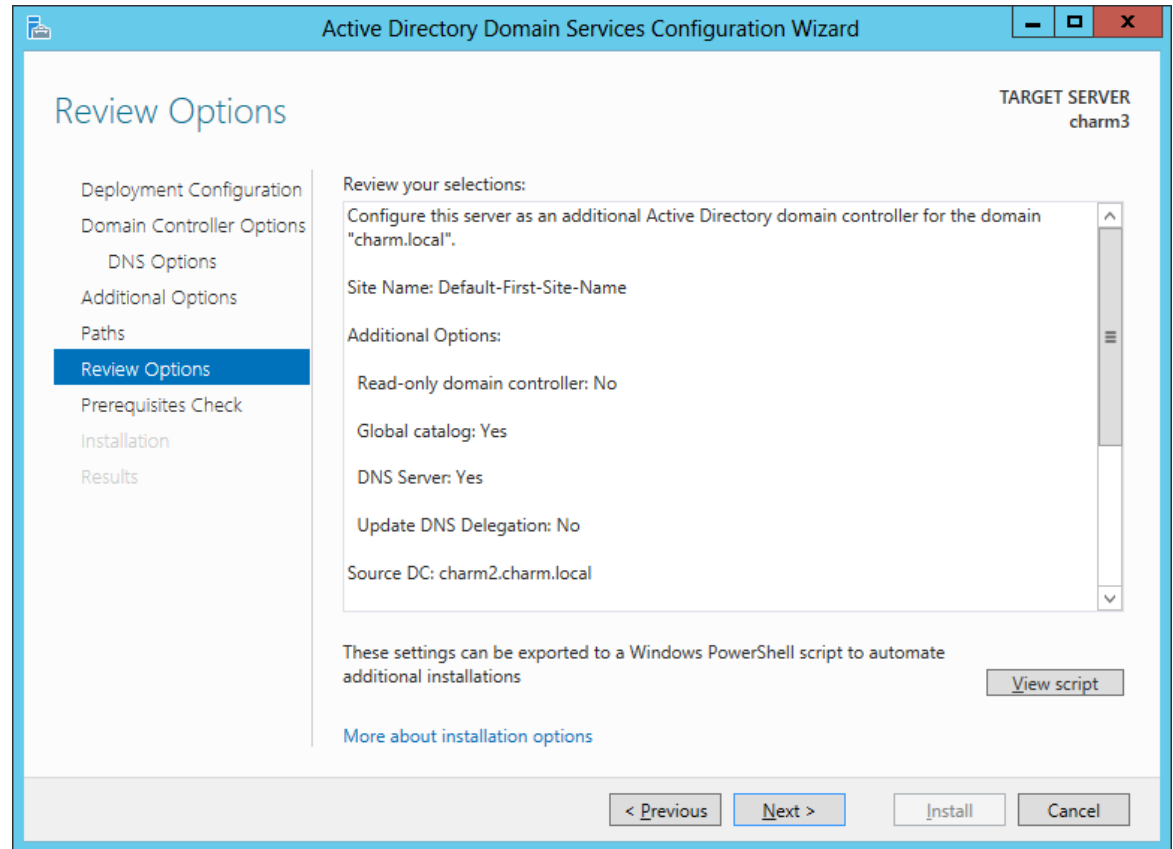
We typically choose the database and log folder defaults. However, we can direct the database and log files to another folder. The next folder location is for the shared system volume. We will maintain the default path and pick the Next button to advance.



Review Options

We now see a review of the selections we made with the Active Directory Domain Services Configuration Wizard. If we need to change anything we can go back to the particular window and make the change and advance back to this point.

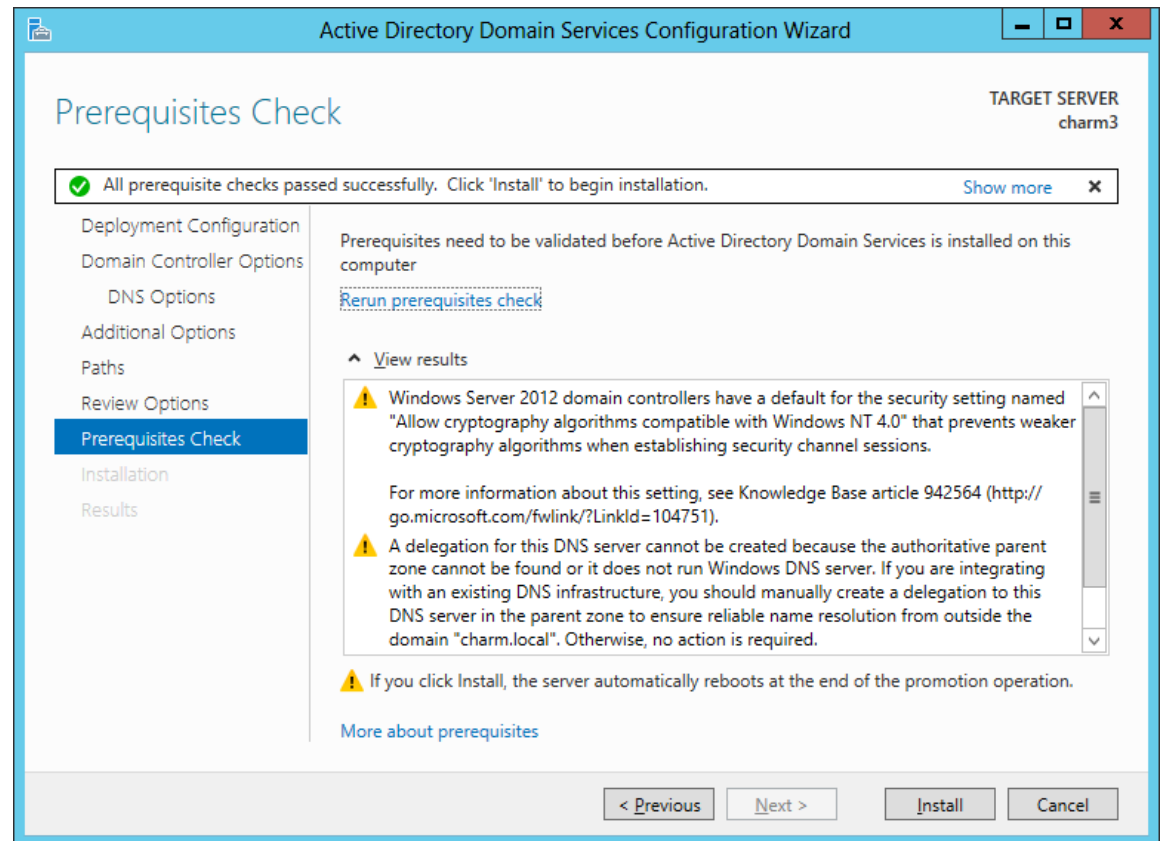
However, we agree with the summary and we press Next to continue.



Prerequisites Check

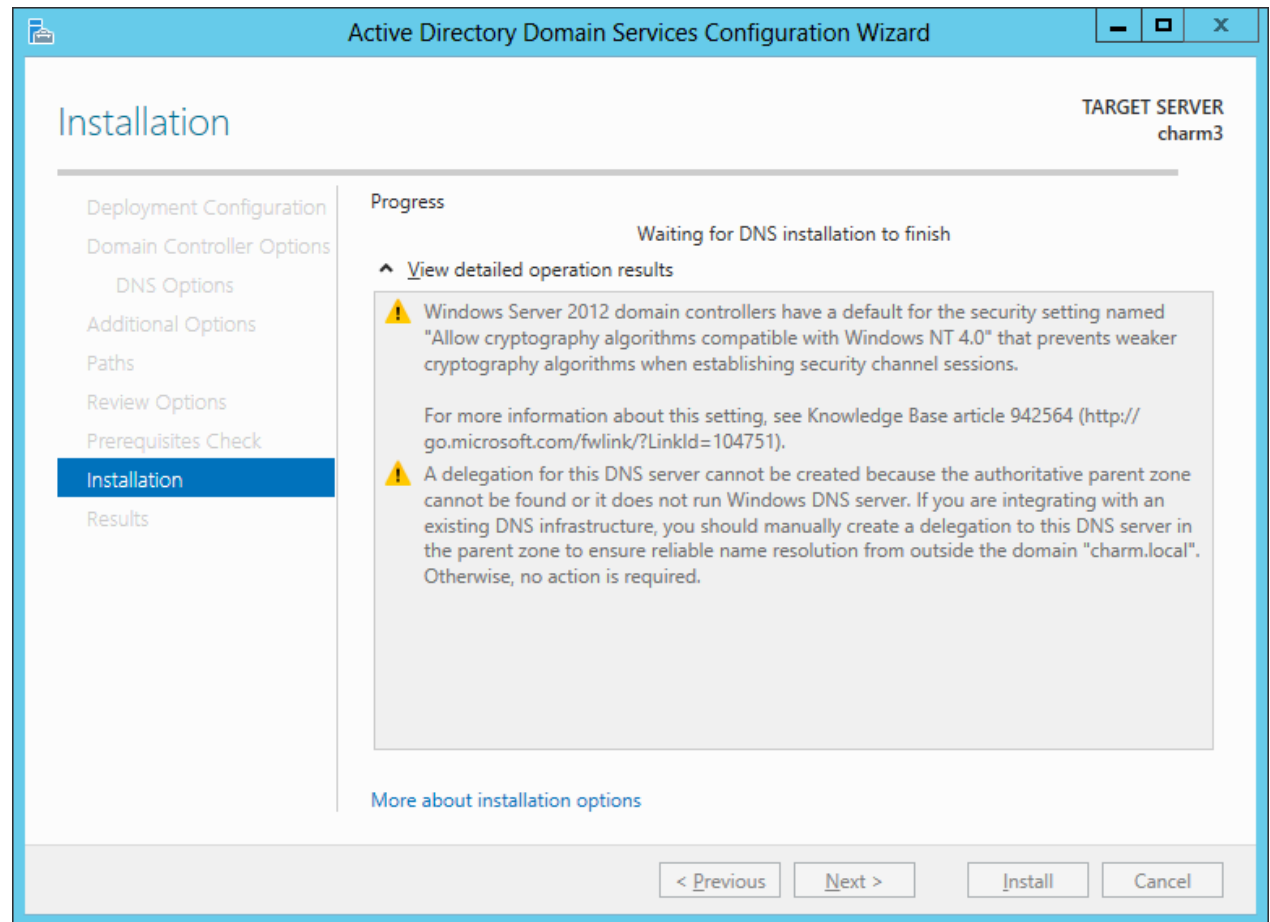
We will see some warnings during the prerequisites check such as DNS delegation. We will finish setting up the Domain Name Services after our server is a Domain Controller.

Press the Install button to continue.



Installation

The next window shows the installation in progress.



Results

After press the Close button, the server is restarted. The DNS server on our Secondary Domain Controller will match the Primary Domain Controller.

