

Build Domain Controller on Azure Tenant

Setup and Configure AD and DNS

In this section we will figure out how **MOBILITYDC** will be installed and configured with the following roles:

- Active Directory Federation Services
- DNS

Some Useful info for the VM and related components.

Cloud Service Name: **maqovcs1**

Virtual Net Name: **maqovvnetmobility**

Subnet Name: **Subnet-1**

Virtual Network Range: **10.1.1.0/24**

VM Static IP (DIP): **10.1.1.1**

Local Admin: **maqov**

Create Virtual machine "MobilityDC" on Azure

Add-AzureAccount

```
$family="windows Server 2012 R2 Datacenter"
$image=Get-AzureVMImage | where { $_.ImageFamily -eq $family } | sort PublishedDate -Descending
| select -ExpandProperty ImageName -First 1

$vmname="mobilityDC"
$vmsize="Medium"
$vm1=New-AzureVMConfig -Name $vmname -Instancesize $vmsize -ImageName $image

$cred=Get-Credential -Message "Type the name and password of the local administrator account."
$vm1 | Add-AzureProvisioningConfig -windows -AdminUsername $cred.GetNetworkCredential().Username
-PassWord $cred.GetNetworkCredential().Password

$vm1 | Set-AzureSubnet -SubnetNames "Subnet-1"

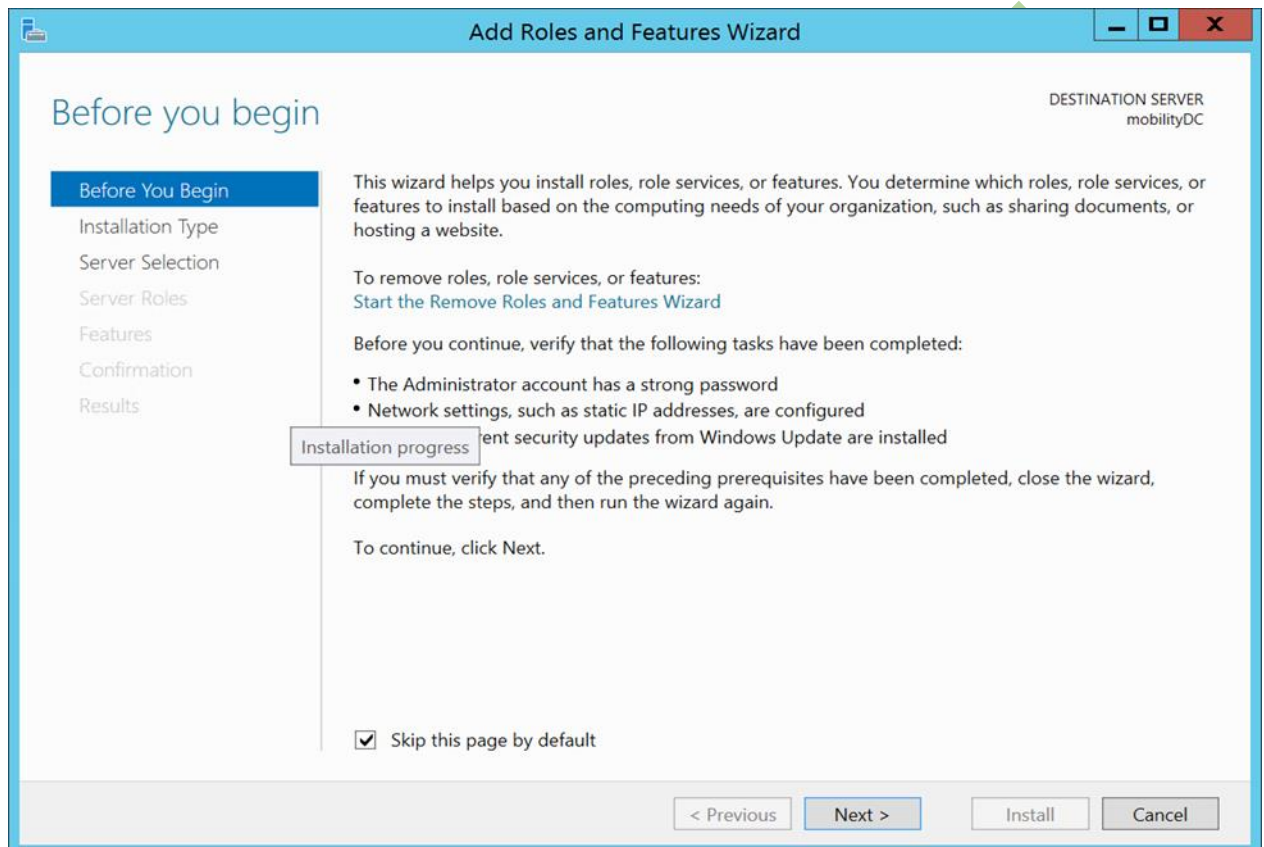
$vm1 | Set-AzureStaticVNetIP -IPAddress 10.1.1.1

$disksize=20
$disklabel="Mydiskone"
$lun=0
$hcaching="None"
$vm1 | Add-AzureDataDisk -CreateNew -DiskSizeInGB $disksize -DiskLabel $disklabel -LUN $lun -
HostCaching $hcaching

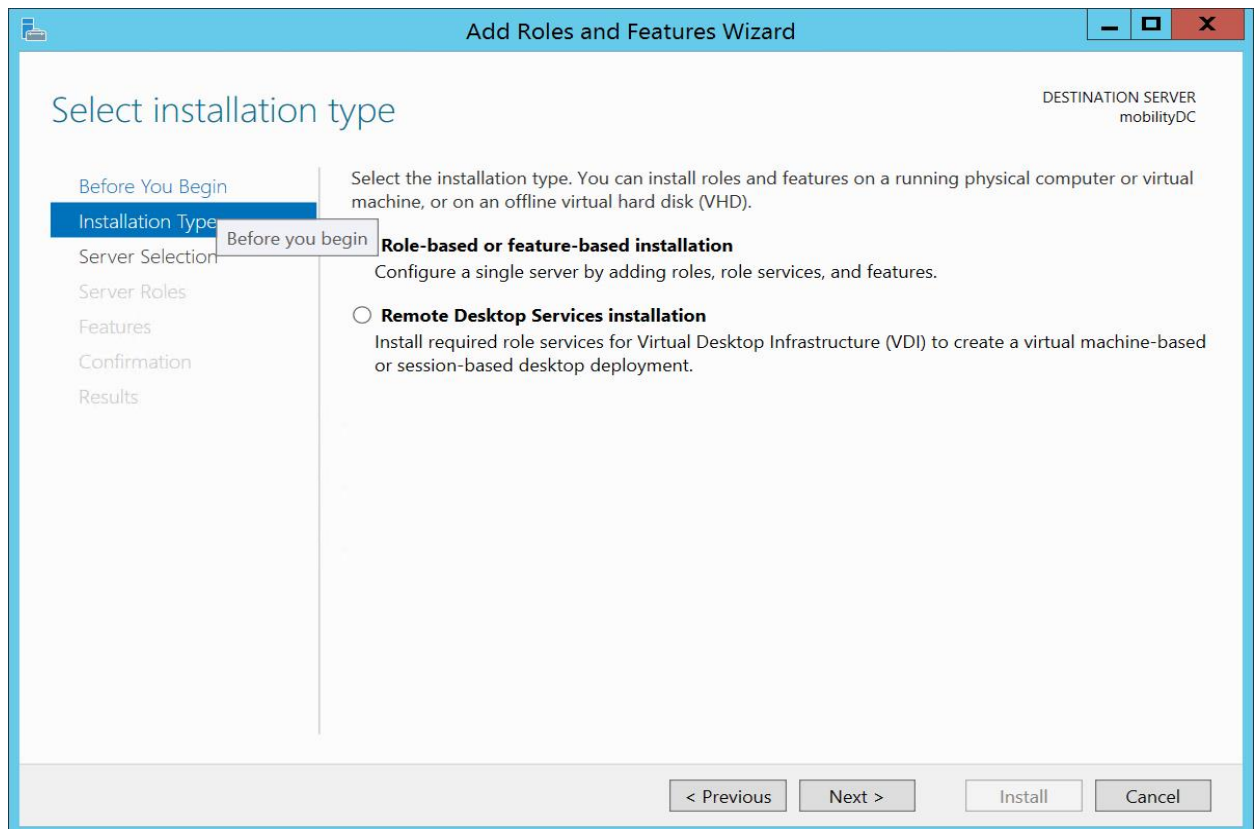
$svcname="maqovcs1"
$vnetname="maqovvnetmobility"
New-AzureVM -ServiceName $svcname -VMs $vm1 -VNetName $vnetname
```

MobilityDC: Configure Active Directory Domain Services

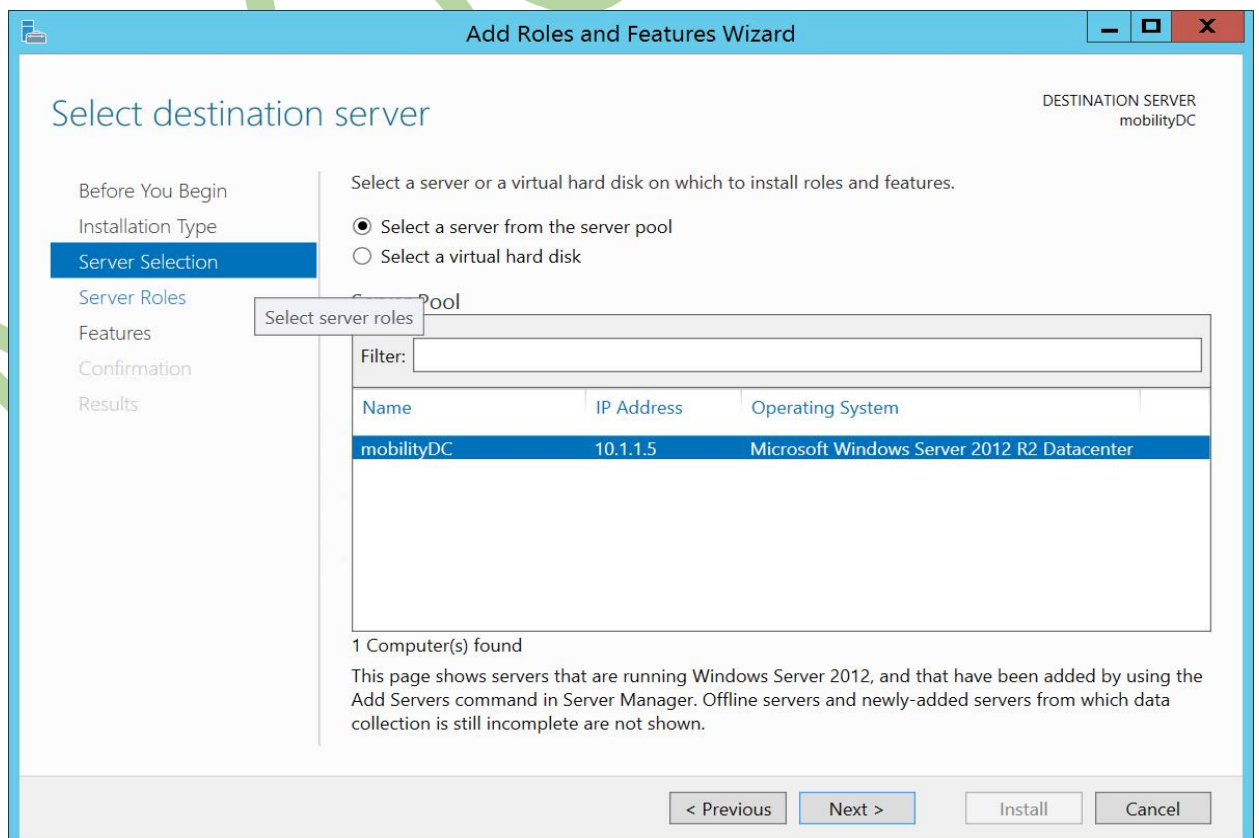
1. Select Virtual Machines
2. Select **MOBILITYDC** and click Connect at the bottom of the screen.
3. Logon to **MOBILITYDC** with **MAQOV** with the password *********
4. Open **Server Manager**
5. Under Manage in the top right of the screen click **Add Roles and Features**
6. In Before You Begin click **Next**



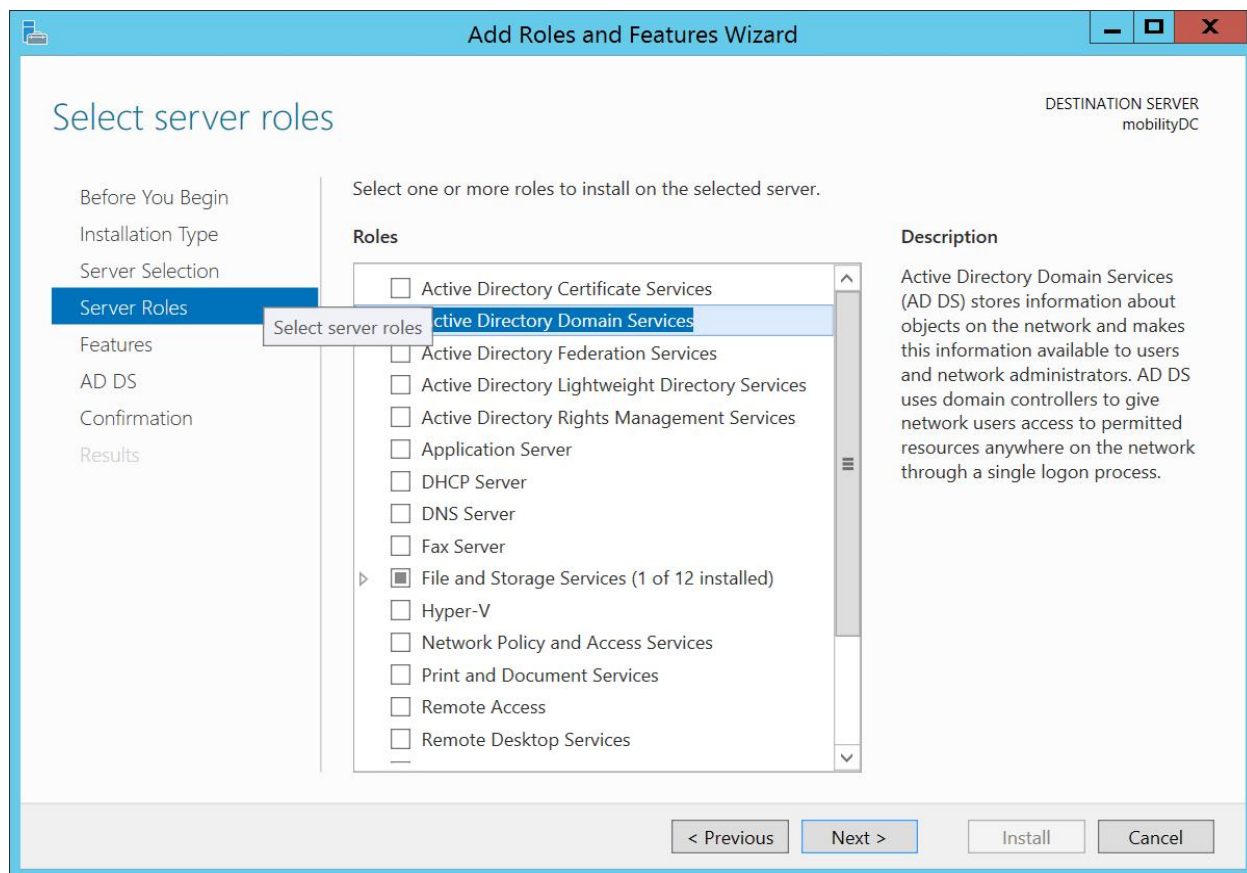
7. In Installation Type click Role-based or feature-based installation and click **Next**



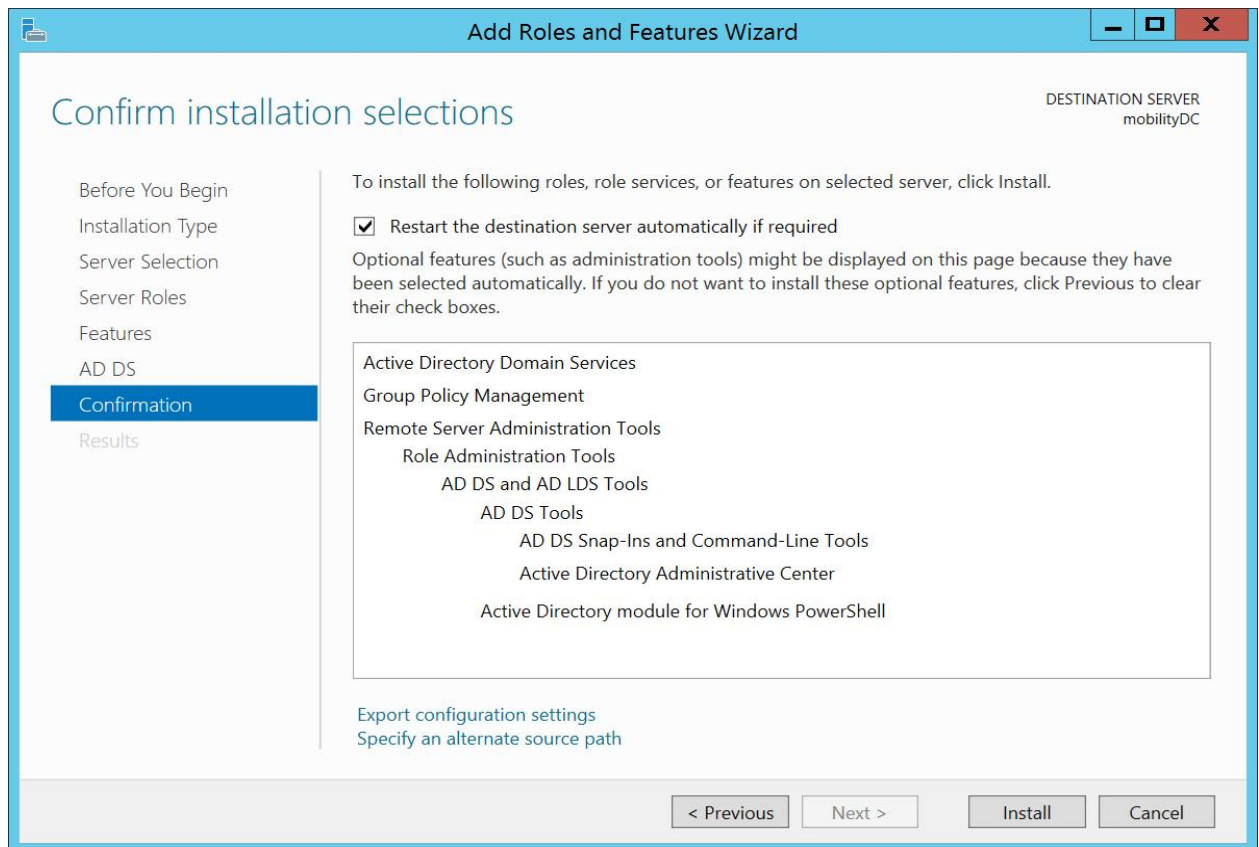
8. In Server Selection make sure **MOBILITYDC** is selected and click **Next**



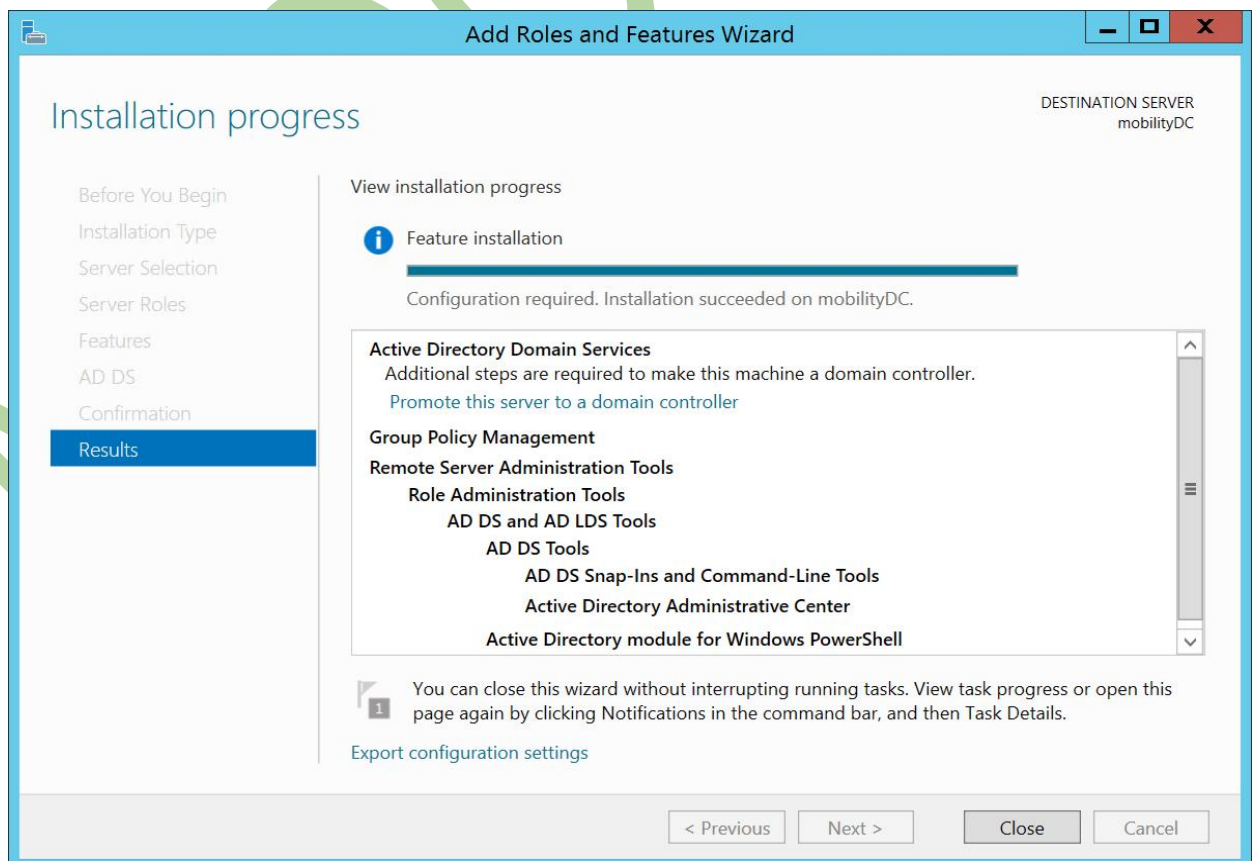
9. In Server Roles click **Active Directory Domain Services**



10. When the Add Roles and Features for Active Directory Domain Services Window appears click **Add Features** Select **Next**
11. In the **Active Directory Domain Services** window click **Next**
12. In the Confirmation windows click **Install**



13. Wait till the Feature installation has finished and click Promote this server to a domain controller in the wizard window.



14. **Promote to a domain controller**
15. In the **Deployment Configuration** step click Add new Forest and type "**maqov.org**" in the Root Domain name field. Select **Next**

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' window. The title bar includes standard Windows window controls. The main window has a blue header with the title 'Active Directory Domain Services Configuration Wizard'. Below the header, the window is divided into two main sections. On the left is a navigation pane with a list of steps: 'Deployment Configuration' (highlighted in blue), 'Domain Controller Options', 'Additional Options', 'Paths', 'Review Options', 'Prerequisites Check', 'Installation', and 'Results'. The main area on the right is titled 'Deployment Configuration' and contains the following content: 'Select the deployment operation' with three radio button options: 'Add a domain controller to an existing domain', 'Add a new domain to an existing forest', and 'Add a new forest' (which is selected). Below this is the section 'Specify the domain information for this operation' with a label 'Root domain name:' followed by a text input field containing 'maqov.org'. At the bottom of the main area is a link 'More about deployment configurations'. The bottom of the window features a grey bar with four buttons: '< Previous', 'Next >' (highlighted in blue), 'Install', and 'Cancel'. In the top right corner, there is a label 'TARGET SERVER' above 'mobilityDC'. A large, light green watermark 'MAQOV' is visible diagonally across the bottom half of the image.

Active Directory Domain Services Configuration Wizard

Deployment Configuration

TARGET SERVER
mobilityDC

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

16. In the **Domain Controller Options** step type the password ***** and confirm the password. Leave all other field as default and click **Next**.

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' window. The title bar includes standard Windows window controls. The main window has a blue header with the title 'Active Directory Domain Services Configuration Wizard'. On the right side of the header, it says 'TARGET SERVER mobilityDC'. The main content area is titled 'Domain Controller Options'. On the left, there is a navigation pane with the following items: 'Deployment Configuration', 'Domain Controller Options' (highlighted in blue), 'DNS Options', 'Additional Options', 'Paths', 'Review Options', 'Prerequisites Check', 'Installation', and 'Results'. The main content area contains the following sections: 'Select functional level of the new forest and root domain' with two dropdown menus for 'Forest functional level' and 'Domain functional level', both set to 'Windows Server 2012 R2'; 'Specify domain controller capabilities' with three checkboxes: 'Domain Name System (DNS) server' (checked), 'Global Catalog (GC)' (checked), and 'Read only domain controller (RODC)' (unchecked); and 'Type the Directory Services Restore Mode (DSRM) password' with two password fields labeled 'Password:' and 'Confirm password:', both containing ten dots. At the bottom of the main content area, there is a link that says 'More about domain controller options'. At the bottom of the window, there are four buttons: '< Previous', 'Next >' (highlighted in blue), 'Install', and 'Cancel'.

Active Directory Domain Services Configuration Wizard

TARGET SERVER
mobilityDC

Domain Controller Options

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 R2

Domain functional level: Windows Server 2012 R2

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

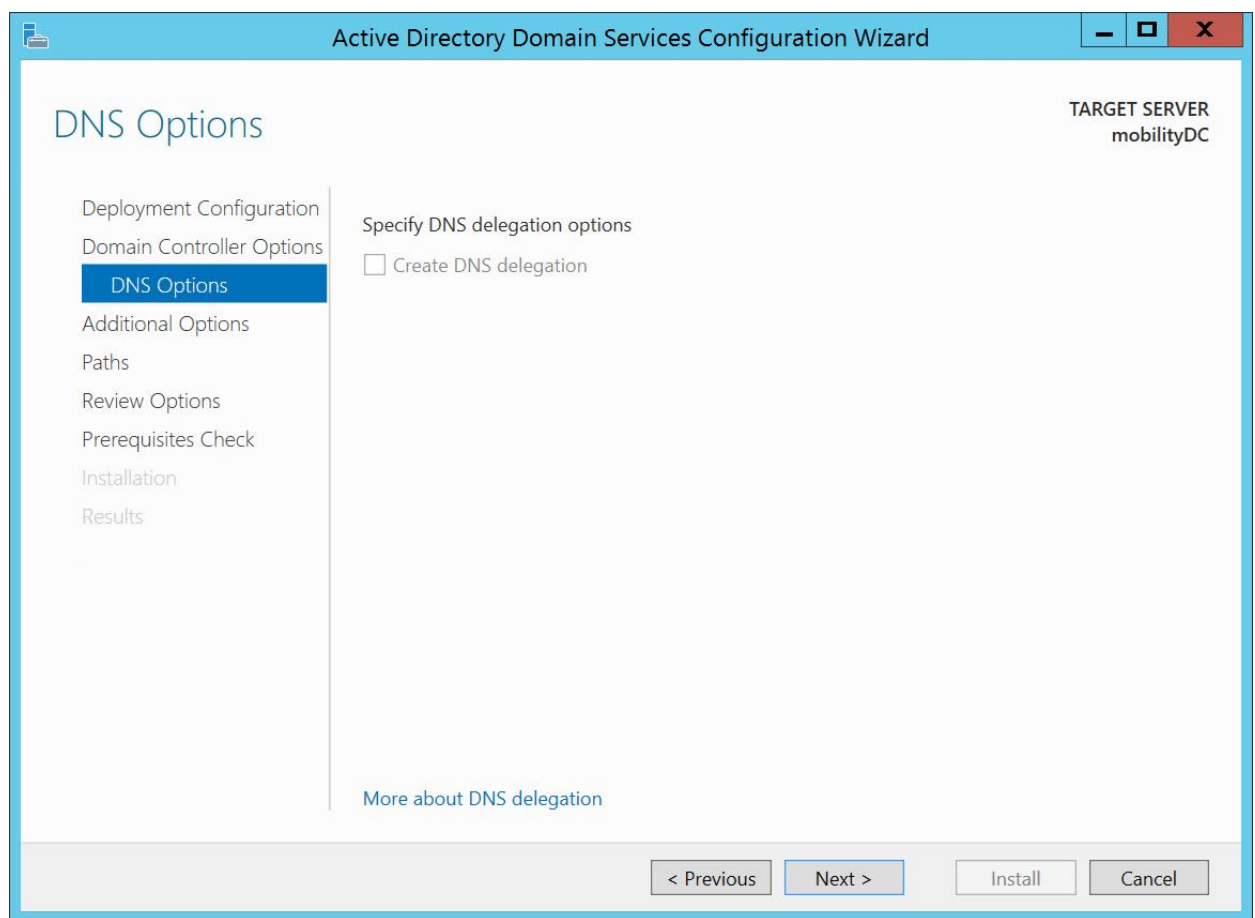
Password:

Confirm password:

[More about domain controller options](#)

< Previous Next > Install Cancel

17. In the **DNS Options** step notice the warning about the delegation for the DNS server. We will configure this later.



18. In the **Additional Options** step leave the default NetBIOS domain name **MAQOV** and click **Next**.

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' window. The title bar includes standard Windows window controls. The main window has a blue header with the title 'Active Directory Domain Services Configuration Wizard'. Below the header, the left sidebar contains a list of steps: 'Deployment Configuration', 'Domain Controller Options', 'DNS Options', 'Additional Options' (highlighted in blue), 'Paths', 'Review Options', 'Prerequisites Check', 'Installation', and 'Results'. The main content area is titled 'Additional Options' and contains the text 'Verify the NetBIOS name assigned to the domain and change it if necessary'. Below this, it says 'The NetBIOS domain name:' followed by a text box containing 'MAQOV'. At the bottom right of the main content area, there is a link that says 'More about additional options'. The bottom of the window features a navigation bar with four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'.

Active Directory Domain Services Configuration Wizard

Additional Options

TARGET SERVER
mobilityDC

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

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

The NetBIOS domain name:

[More about additional options](#)

< Previous Next > Install Cancel

19. In the Paths step leave the default paths and click **Next**.

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' window. The title bar includes standard Windows window controls. The main window has a blue header with the title. On the left is a navigation pane with the following items: 'Deployment Configuration', 'Domain Controller Options', 'DNS Options', 'Additional Options', 'Paths' (highlighted in blue), 'Review Options', 'Prerequisites Check', 'Installation', and 'Results'. The main area is titled 'Paths' and contains the instruction 'Specify the location of the AD DS database, log files, and SYSVOL'. Below this are three input fields: 'Database folder:' with the value 'C:\Windows\NTDS', 'Log files folder:' with the value 'C:\Windows\NTDS', and 'SYSVOL folder:' with the value 'C:\Windows\SYSVOL'. Each field has a browse button (three dots) to its right. At the bottom right of the main area, there is a link that says 'More about Active Directory paths'. The bottom of the window features a grey bar with four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'.

Active Directory Domain Services Configuration Wizard

TARGET SERVER
mobilityDC

Paths

Specify the location of the AD DS database, log files, and SYSVOL

Database folder: C:\Windows\NTDS

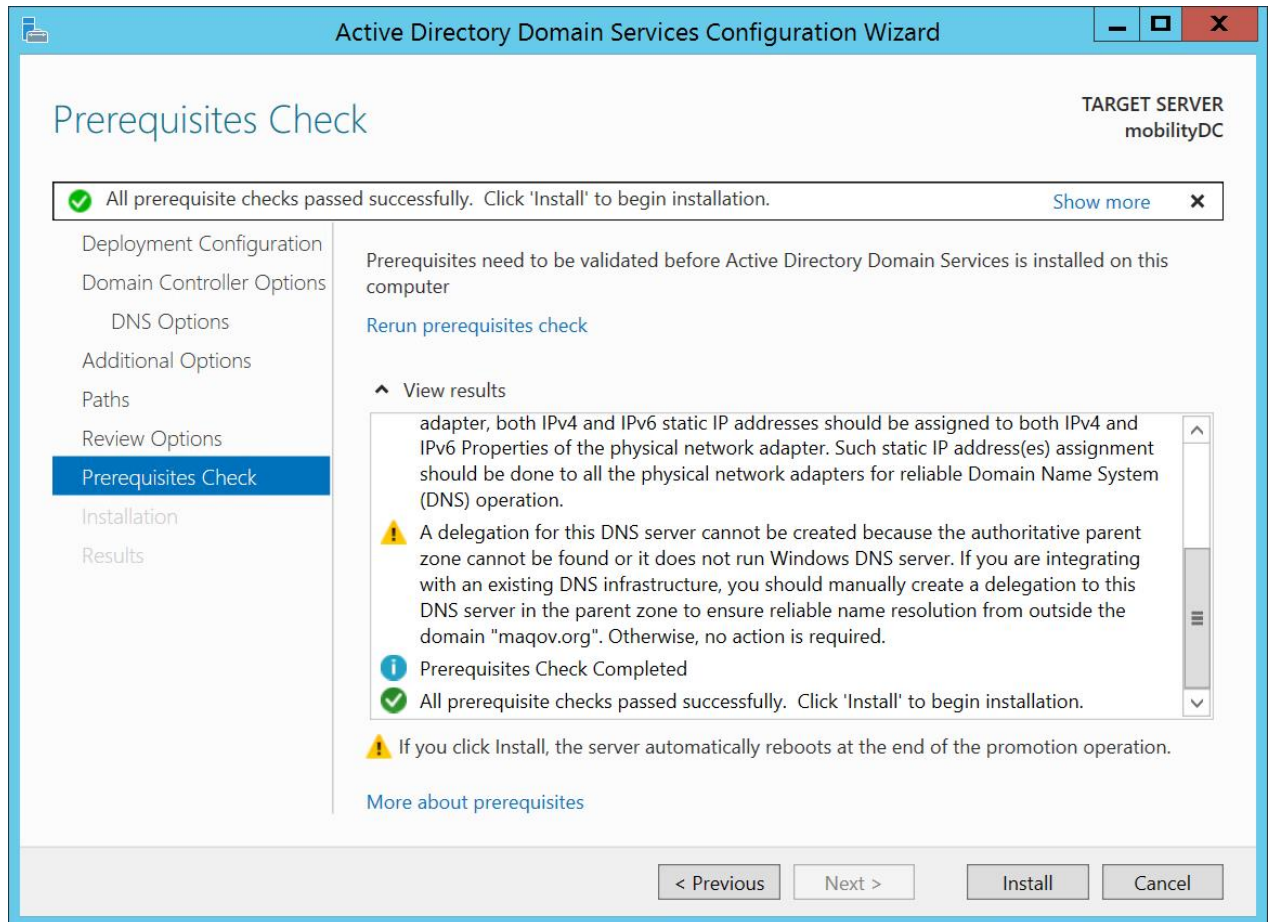
Log files folder: C:\Windows\NTDS

SYSVOL folder: C:\Windows\SYSVOL

[More about Active Directory paths](#)

< Previous Next > Install Cancel

20. In the Review Options field review the options and click **Next**.
After a successful Prerequisite check in the Installation step click **Install**.

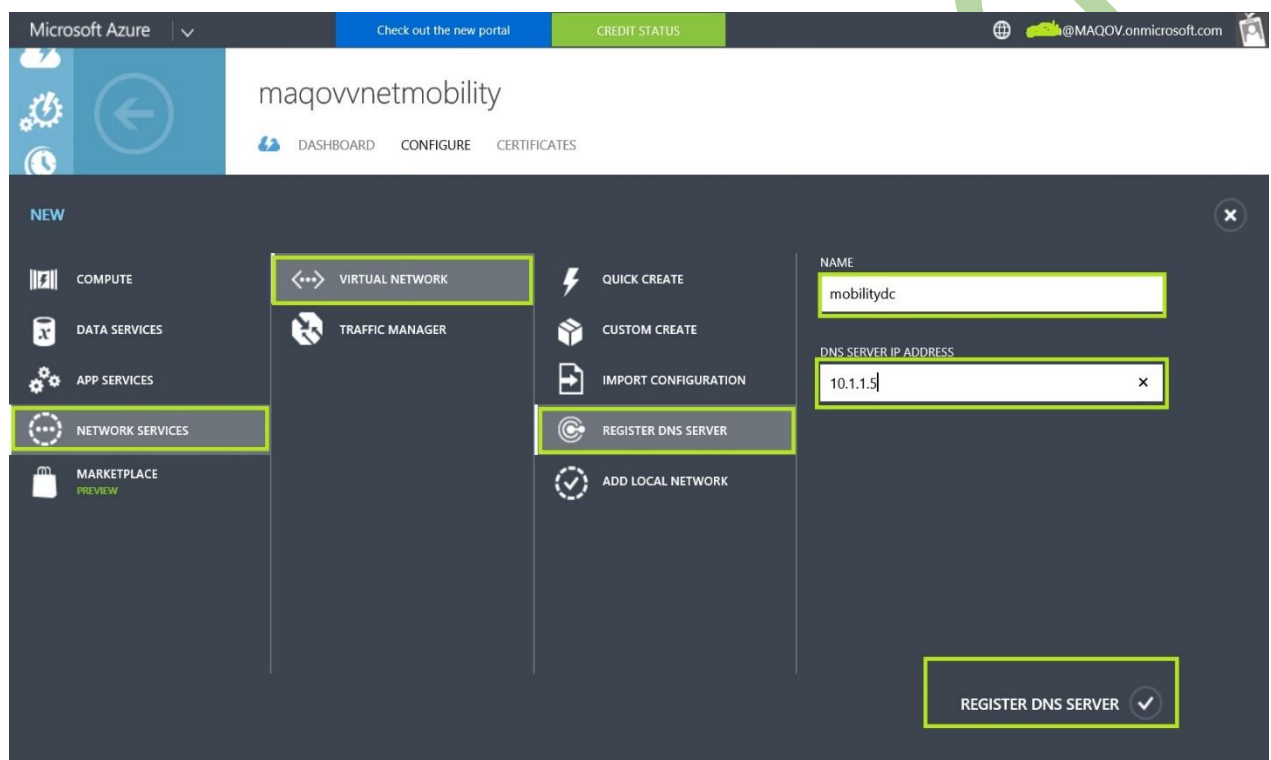


21. After the installation finishes the server will **reboot**.

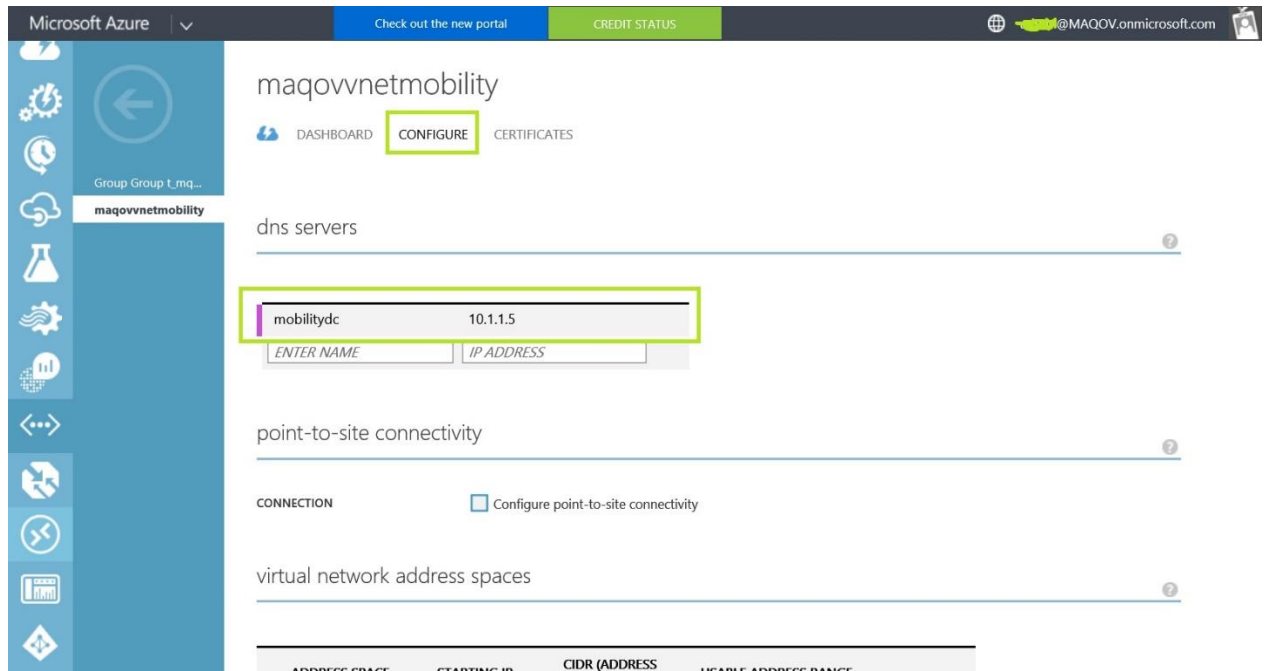
DNS - Configure MobilityDC as DNS for Virtual Network

This section will outline how to configure MobilityDC as the DNS server for the virtual network created in Azure.

1. Make sure you are logged on to the management portal of manage.windowsazure.com.
2. Select **Networks**
3. Select **DNS Servers**
4. Select **REGISTER DNS SERVER**.
5. Under name type **MobilityDC**
6. Under **IP address** type **10.1.1.5**
7. Click **register DNS Server**

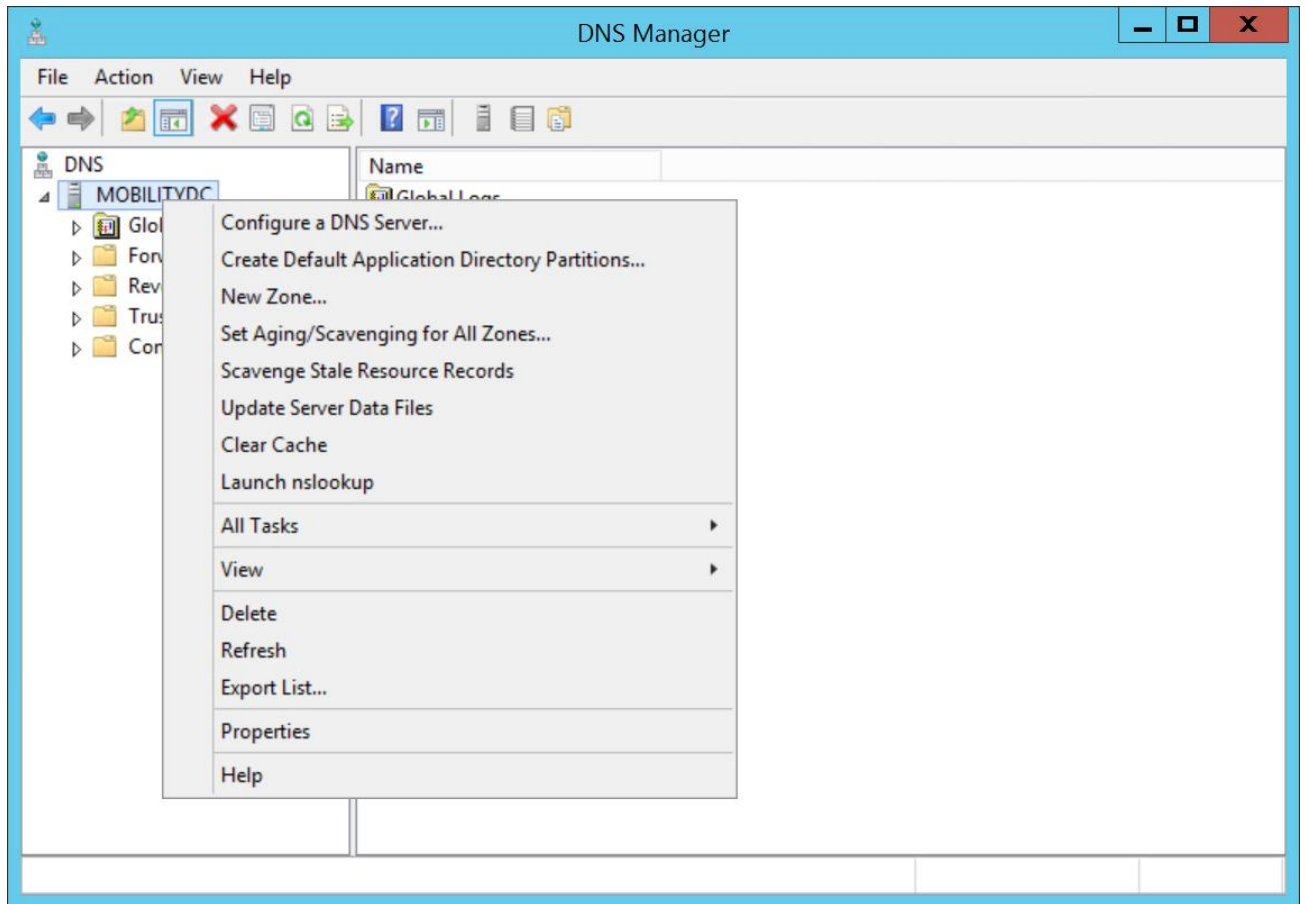


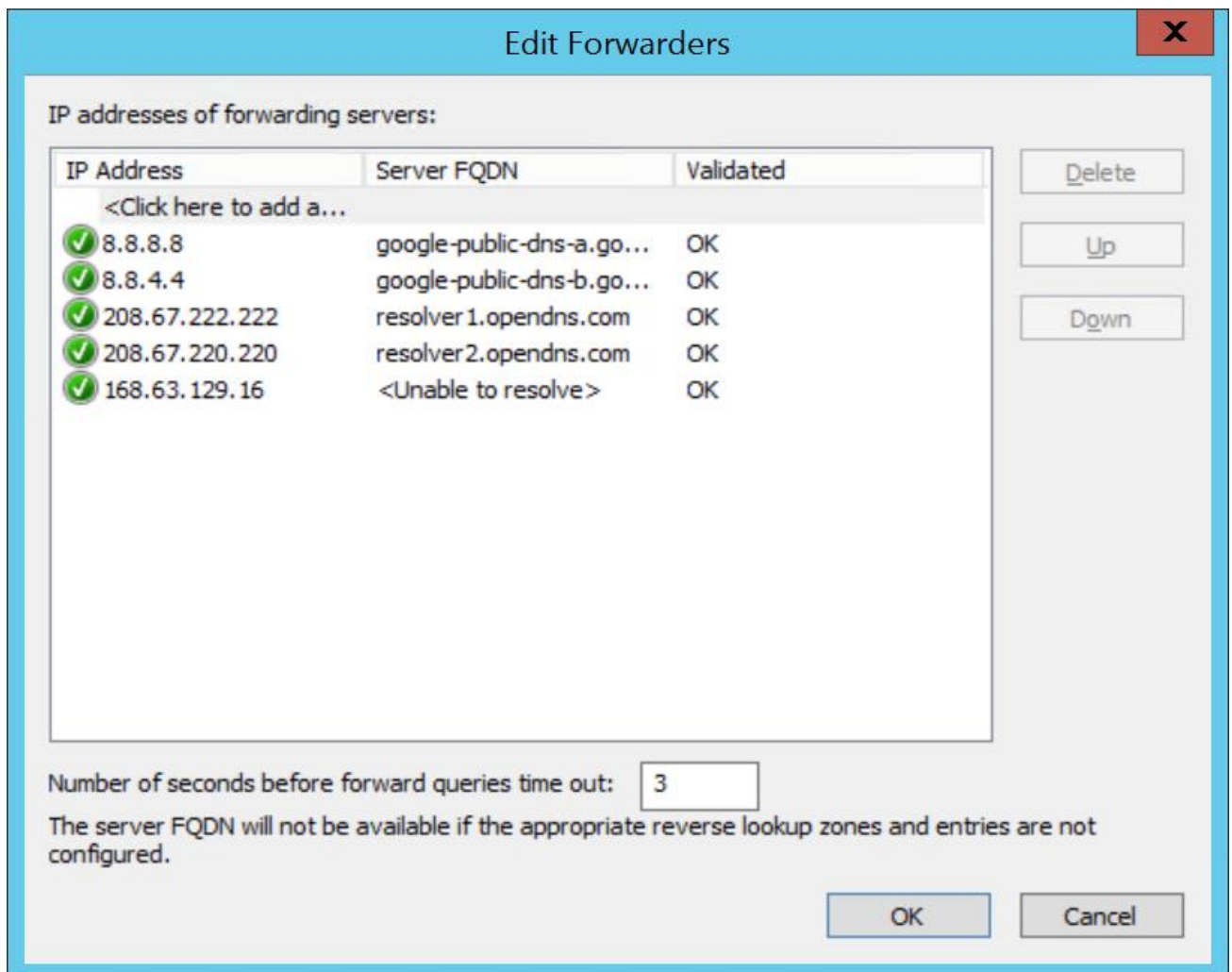
8. Select **VIRTUAL NETWORKS**
9. Select **Maqovvnetmobility**.
10. Select **Configure**
11. Under dns servers in the ENTER NAME select the name of the domain controller "**MobilityDC**" Azure will recognize the DNS server name and you can click it.
12. Select **SAVE**
13. Read the message and click **Yes**



DNS - Configure MobilityDC with DNS Forwarders

1. Select **Virtual Machines** .
2. Select "**MobilityDC**" and click **Connect** at the bottom of the screen.
3. Logon to **MobilityDC** with "**MAQOV**" with the password *********
4. Open **Server Manager**
5. Under **Tools** in the top right of the screen click **DNS**.
6. In DNS Manager select "**MAQOV.org**" and right click to select **Properties**.
7. Select the **Forwarders** tab.
8. Click **Edit**.



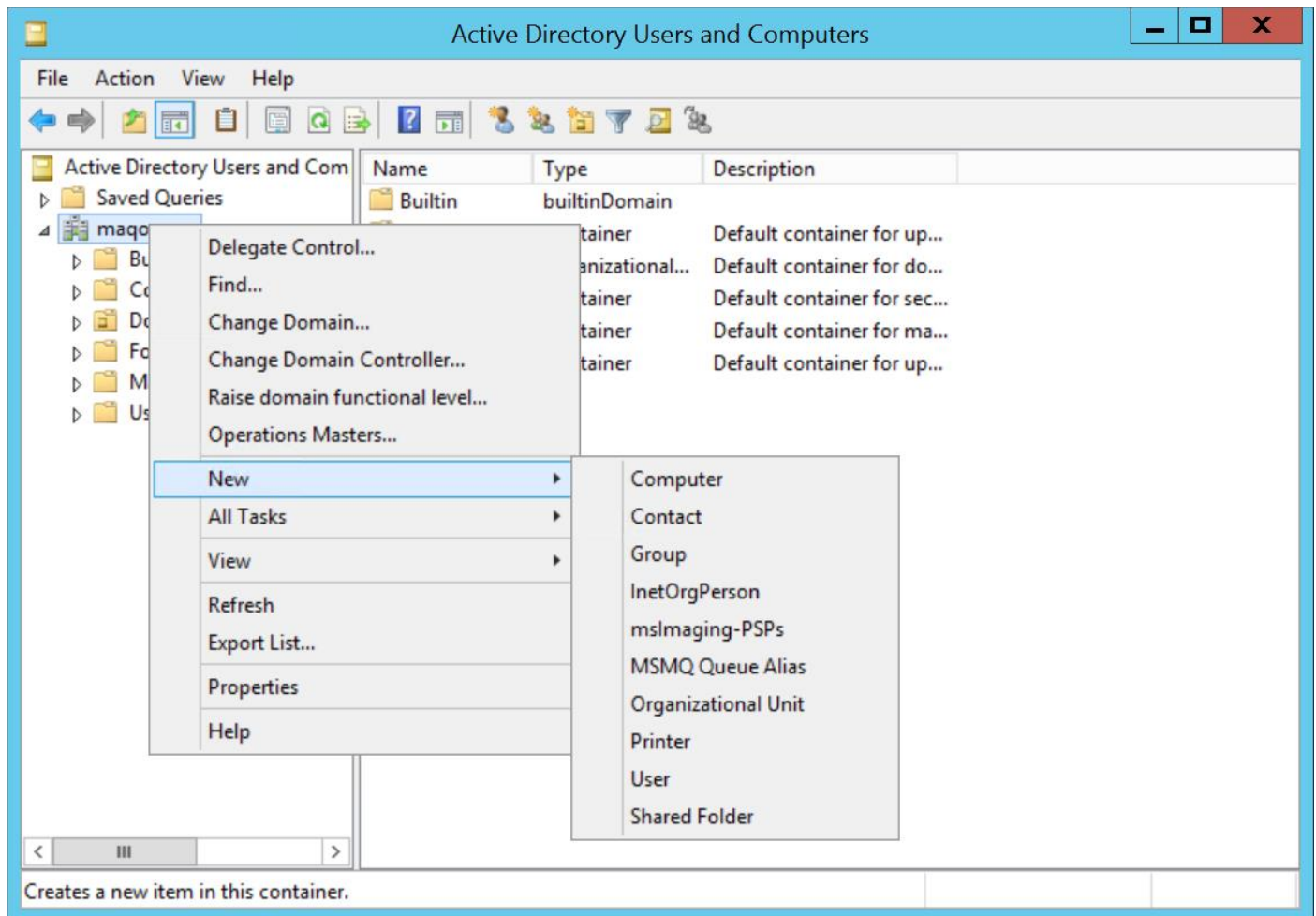


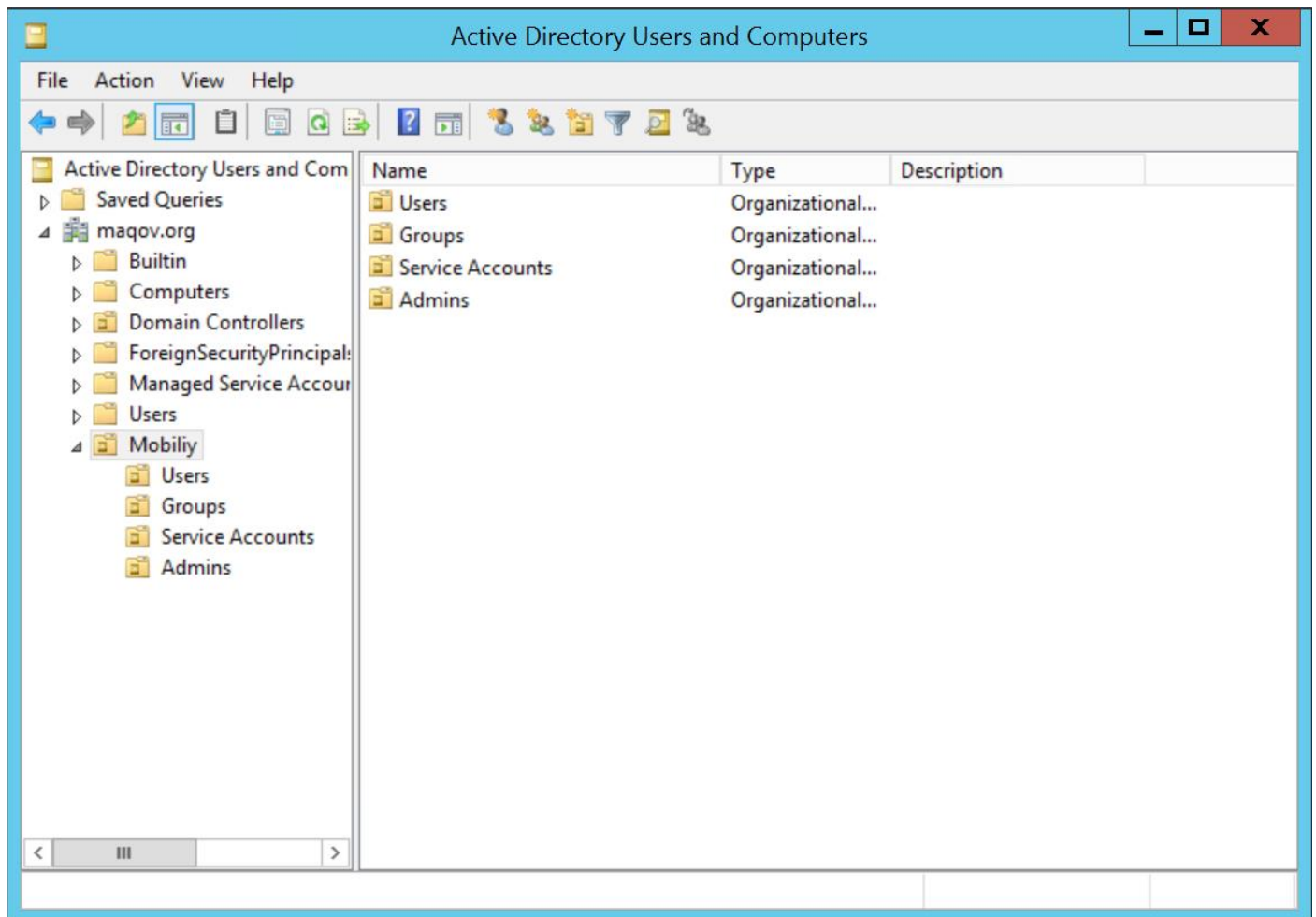
9. Enter the IP address(es) of public name servers. E.g. the 8.8.OpenDNS nameservers (208.67.222.222 (resolver1.opendns.com), 208.67.220.220 (resolver2.opendns.com) 8.8.4.4 (google public dns) , 8.8.8.8 (google public dns)
10. Click **OK**.
11. Click **OK**.

AD - MobilityDC: Create Organizational Unit Hierarchy

1. Open **Active Directory Users and Computers**
2. Expand the
3. Right click the domain name, select **New** and select **Organizational Unit** Type **Mobility** and click **OK**
4. Right click the **Mobility** Organizational Unit, select **New** and select **Organizational Unit** Type **Users** and click **OK**
5. Right click the **Mobility** Organizational Unit, select **New** and select **Organizational Unit** Type **Groups**
6. Right click the **Mobility** Organizational Unit, select **New** and select **Organizational Unit** Type **Service Accounts** and click **OK**

7. Right click the **Mobility** Organizational Unit, select **New** and select **Organizational Unit** Type **Admins** and click **OK**





AD - MobilityDC: Users and Groups

Create an Intune Admin Account

1. Open **Active Directory Users and Computers**
2. Right click in the OU created earlier and select **Create new user**. Use the following values for the new user:
 - a. First name: **Intune**
 - b. Last name: **Admin**
 - c. User logon name: **IntuneAdmin@maqov.org**
3. Click **next**
4. For the **Password**: use *********
5. Confirm the password.
6. Unselect **User must change password at the next logon**.
7. Select **Password never expires**.

8. Click **Next**.

Create standard test users.

1. Open **Active Directory Users and Computers**
2. Right click in the OU named **maqov\Users** and select **Create new user**. Use the following values for the new user:
 - a. First name: **Test**
 - b. Last name: **User1**
 - c. User logonname: **TestUser1@maqov.org**
3. Click **Next**
4. For the **Password:** use: *********
5. Confirm the password
6. Unselect **User must change password at the next logon**
7. Select **Password never expires**
8. Click **Next**

Create additional Test Users

Repeat step 1 – step 8 for a **TestUser2, TestUser3** and **TestUser4**.

Create Test Groups

1. Open **Active Directory Users and Computers**
2. Right click in the OU created earlier and select **new GROUP**
3. Name the Group **TestGroupUser** and click **OK**
4. Repeat the steps and create the following groups **TestGroupAdmins, Marketing**.