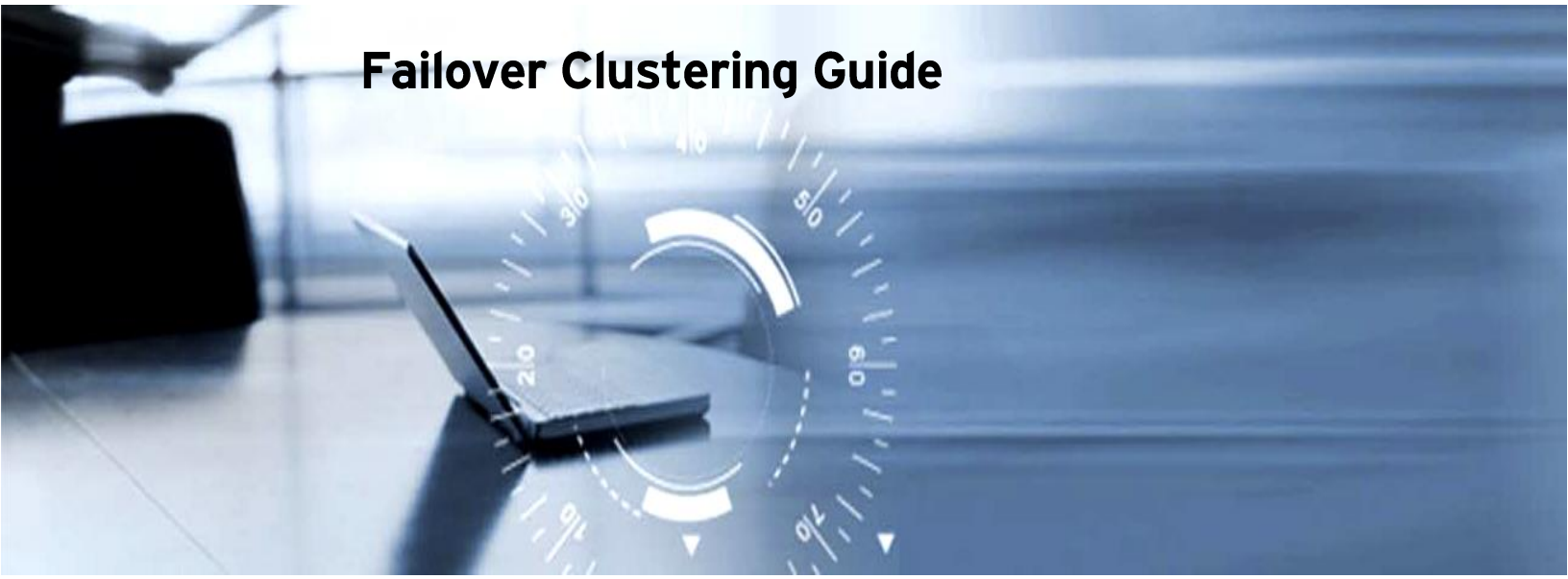
Public

Trend Micro™ OfficeScan (OSCE) 11.0 and XG with Windows 2016

Failover Clustering Guide



Anti-Spyware Anti-Spam Antivirus Anti-Phishing Content & URL Filtering

Released: 28 November 2017

Contents

Chapter 1: Preface

1.1 > Audience

The audience for this document are system administrators who are responsible for the setup and maintenance of Windows servers and OfficeScan servers. Readers should have a working knowledge of Windows Failover Clustering and the OfficeScan server.

1.2 > Purpose

This document provides the information and guidelines for OfficeScan 11.0/XG server installation on Windows 2016 Failover Clustering. This document uses OfficeScan XG to demonstrate.

Chapter 2: Installing OfficeScan on Windows Server 2016 Failover Clustering

NOTE The OfficeScan server only supports Active/Passive clusters.

The following process must be followed on each node.

To install OfficeScan XG on Windows Server 2016 Failover Clustering:

1. Execute the OfficeScan XG installer on Node 1, then click **Next**.

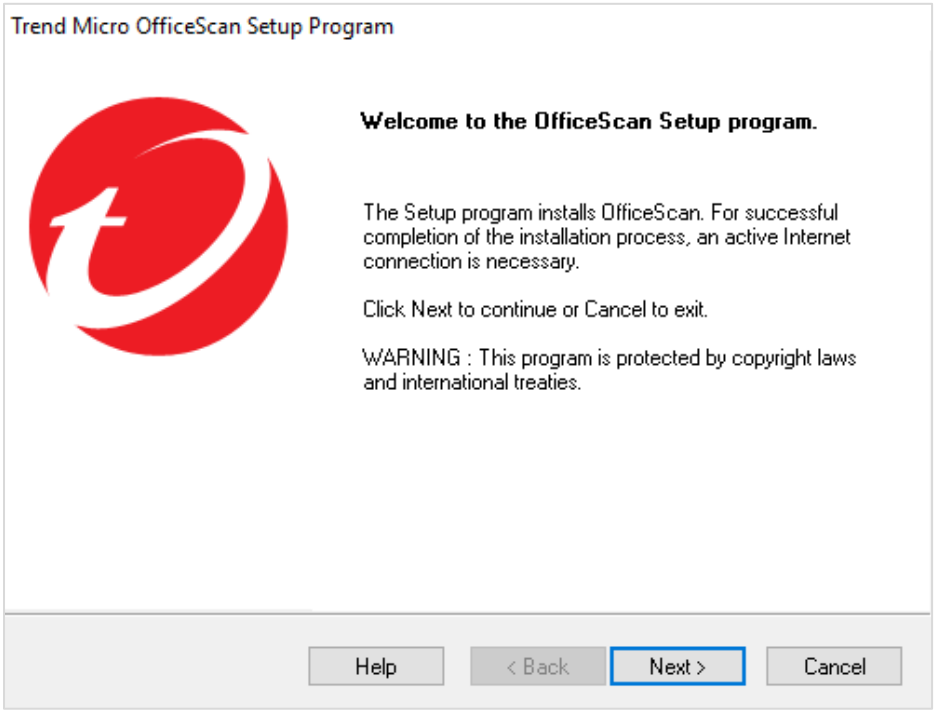


Figure 1. OfficeScan Setup Program

2. Read the license agreement carefully and accept the license agreement terms to proceed with installation, then lick **Next**.

Figure 2. License Agreement

3. Run the setup and install the OfficeScan server on the current endpoint, then click **Next**.

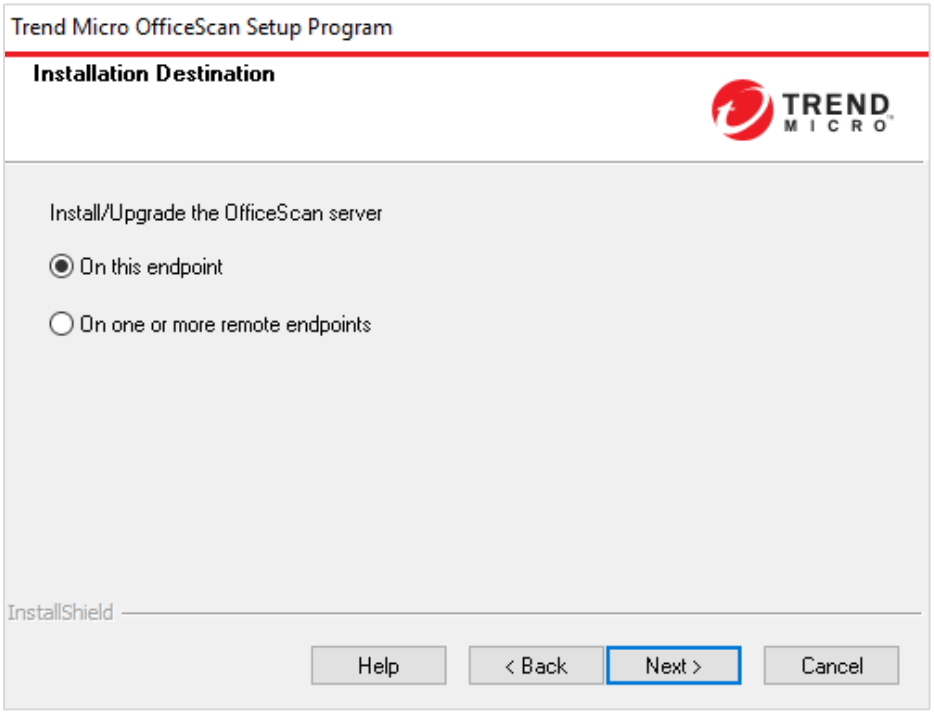


Figure 3. Installation Destination

4. Choose whether to scan or not to scan the target endpoint, then click **Next**.

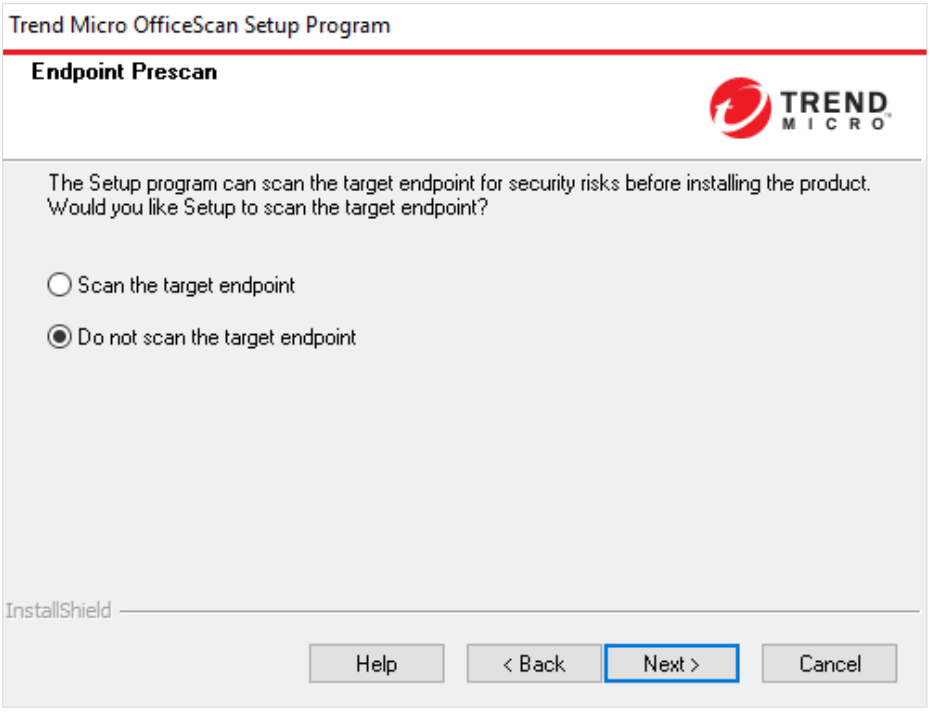


Figure 4. Endpoint Prescan

5. Click the Browse button and select the Cluster Storage disk as the installation path, then click **Next**.

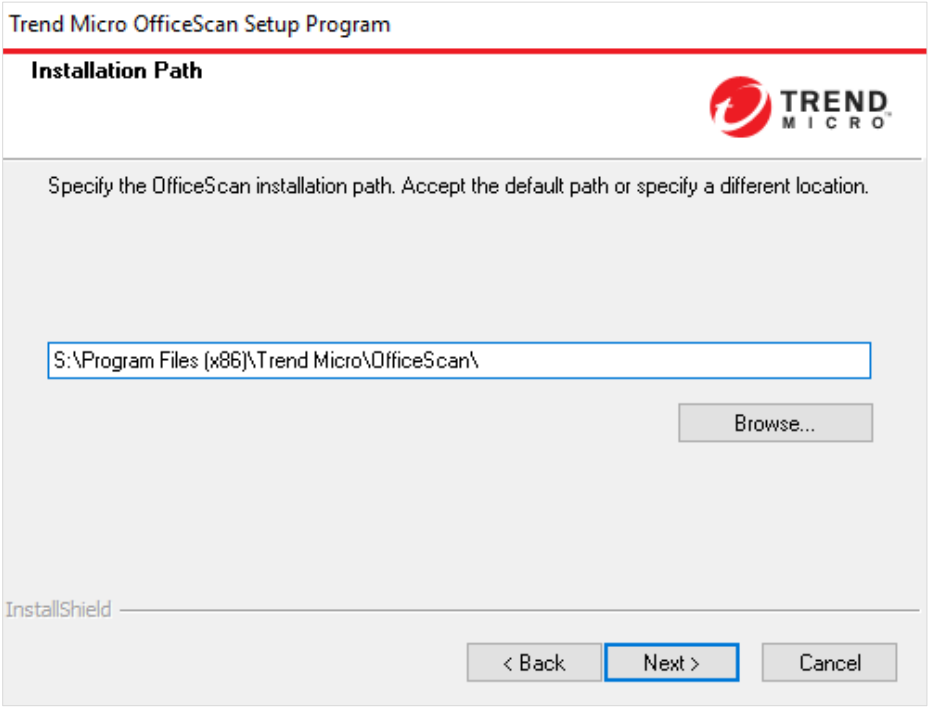


Figure 5. Installation Path

6. You can enable proxy settings on this page and click **Next**.

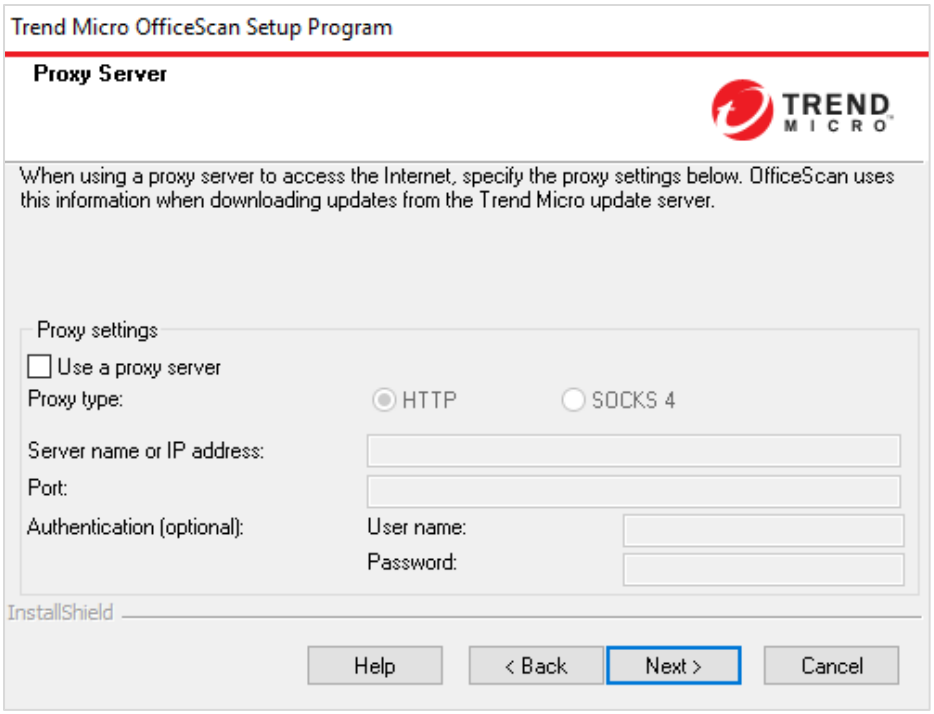


Figure 6. Proxy Server

7. Choose IIS web server and click **Next**.

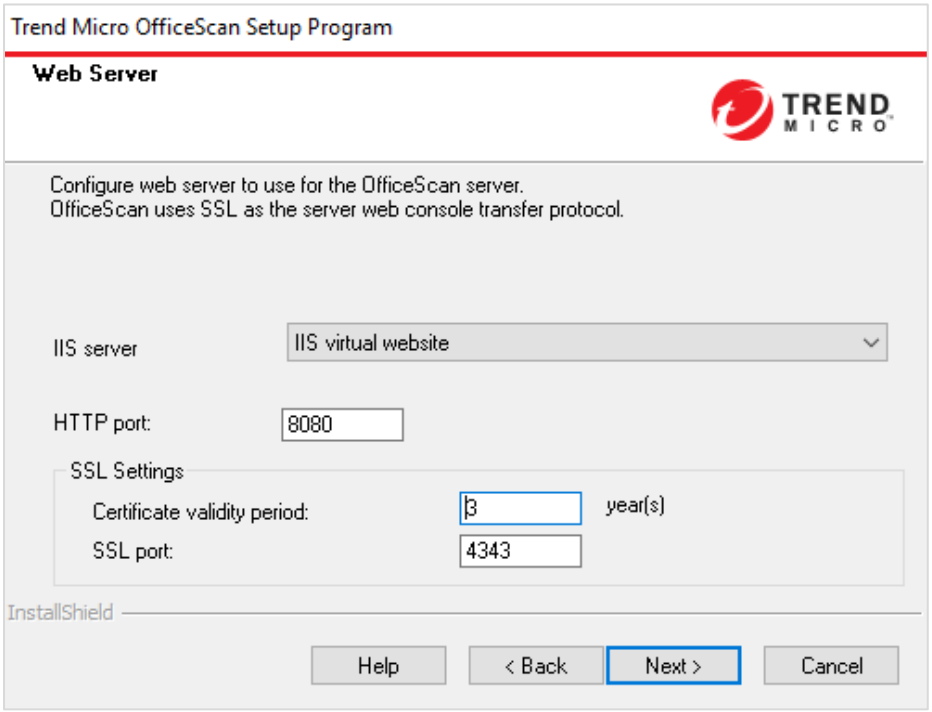


Figure 7. Web Server

8. Enter a name or IP address that agents use to access the OfficeScan server. Please select arbitrary one and click **Next**.. It still has to be reconfigured in later procedure.

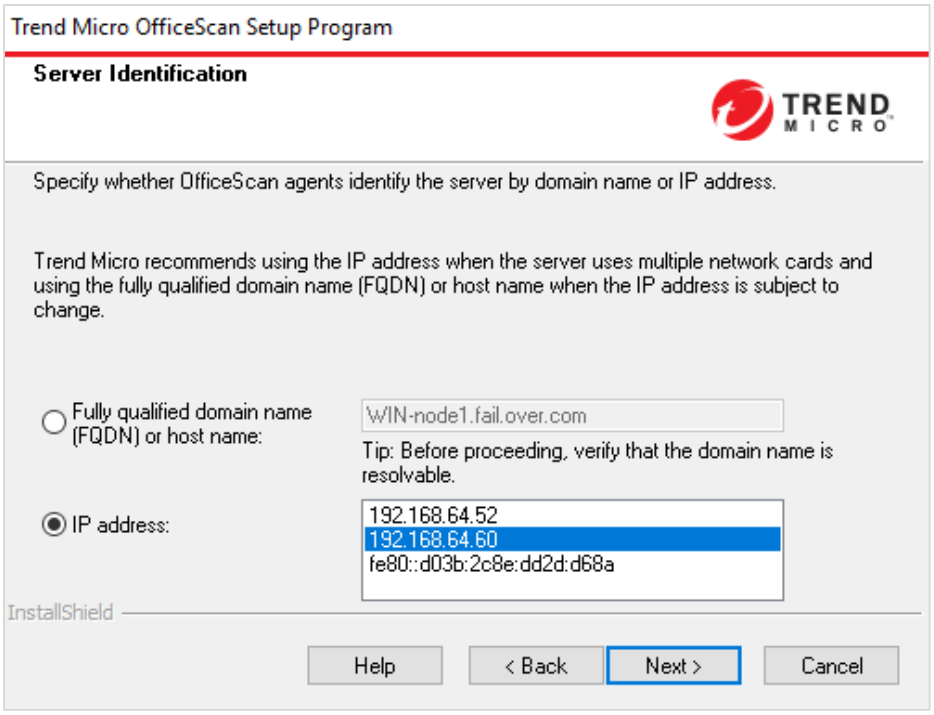


Figure 8. Server Identification

NOTE Do not use the host name for the server-agent connection.

9. Click **Next** again.

10. Enter the OfficeScan activation code (AC) and click **Next**.

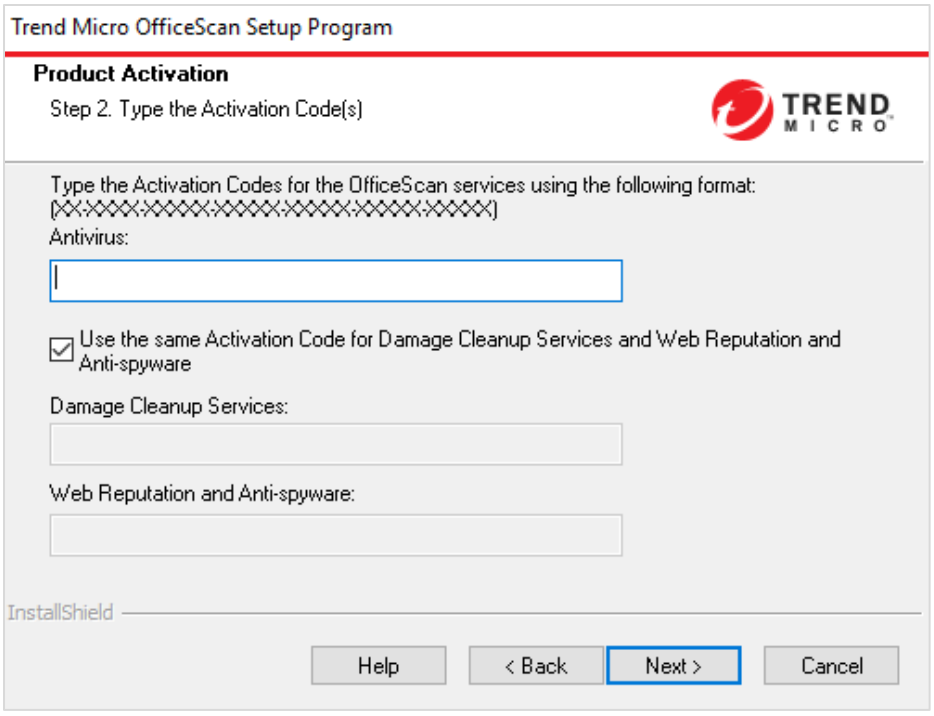


Figure 9. Product Activation

11. Click **Next**.

12. Choose whether to install Integrated Smart Scan Protection Server or not and click **Next**.

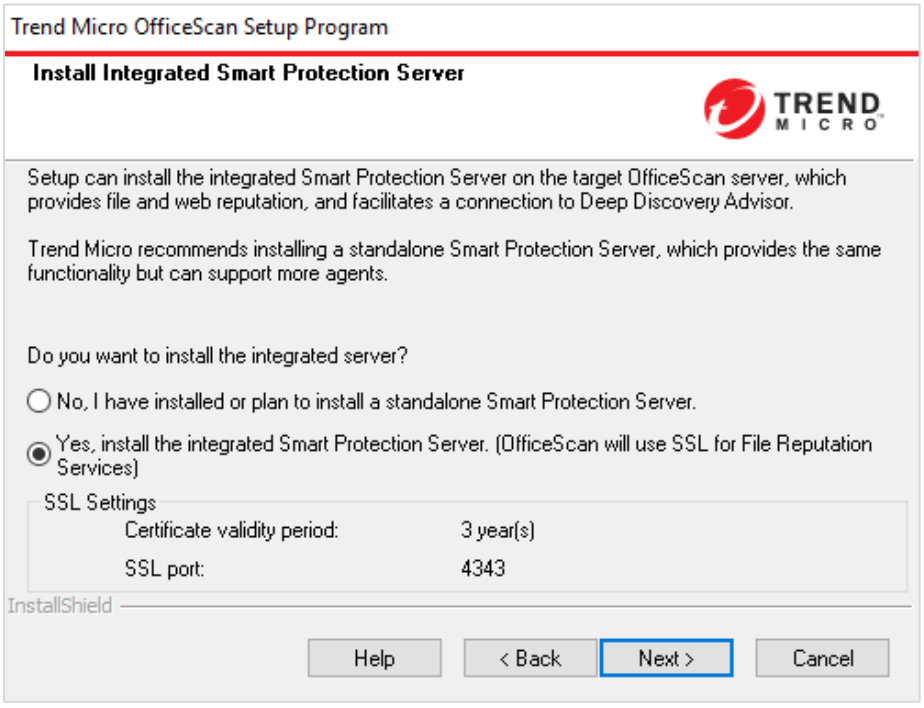


Figure 10. Install Integrated Smart Protection Server

13. Choose whether to install the OfficeScan agent on the target endpoint and click **Next**.

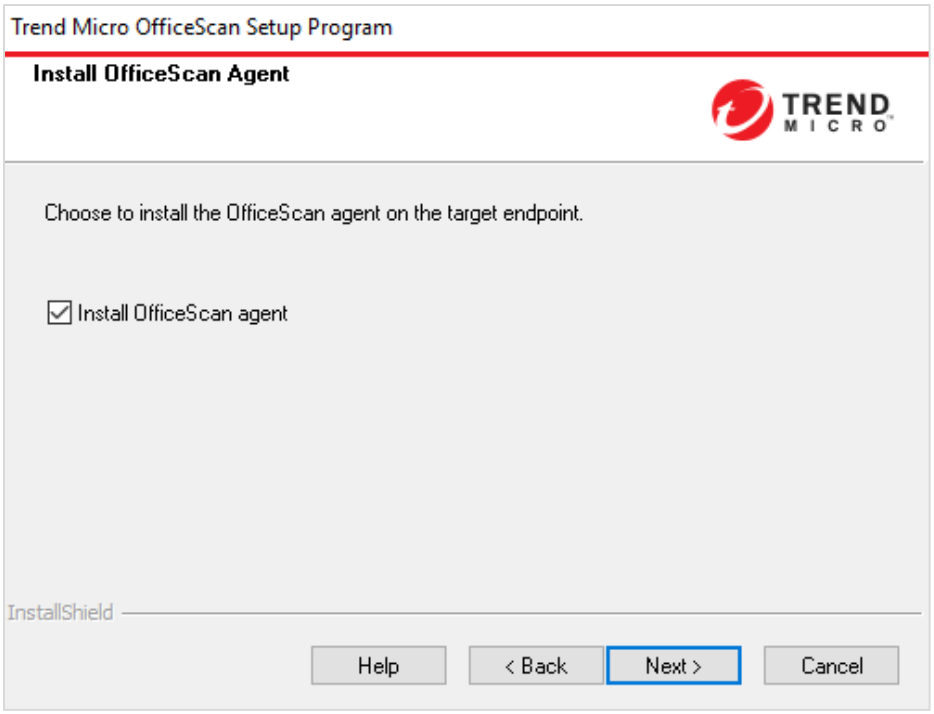


Figure 11. Install OfficeScan Agent

NOTE If you are running OfficeScan agent on a cluster, make sure that you exclude these locations from virus scanning:

- Q:\ (Quorum drive)
- C:\Windows\Cluster

14. Click **Next** again.

15. Choose whether to enable TrendMicro Smart Feedback or not and click **Next.**

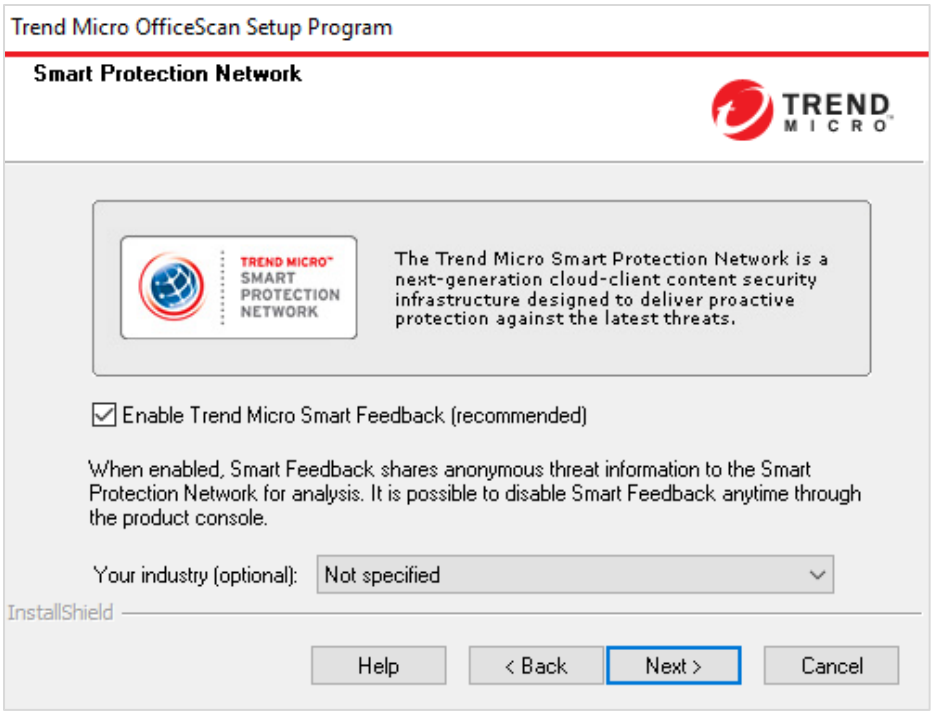


Figure 12. Smart Protection Network

16. Enter the OfficeScan web console password as well as agents' unload and uninstall password and click **Next**.

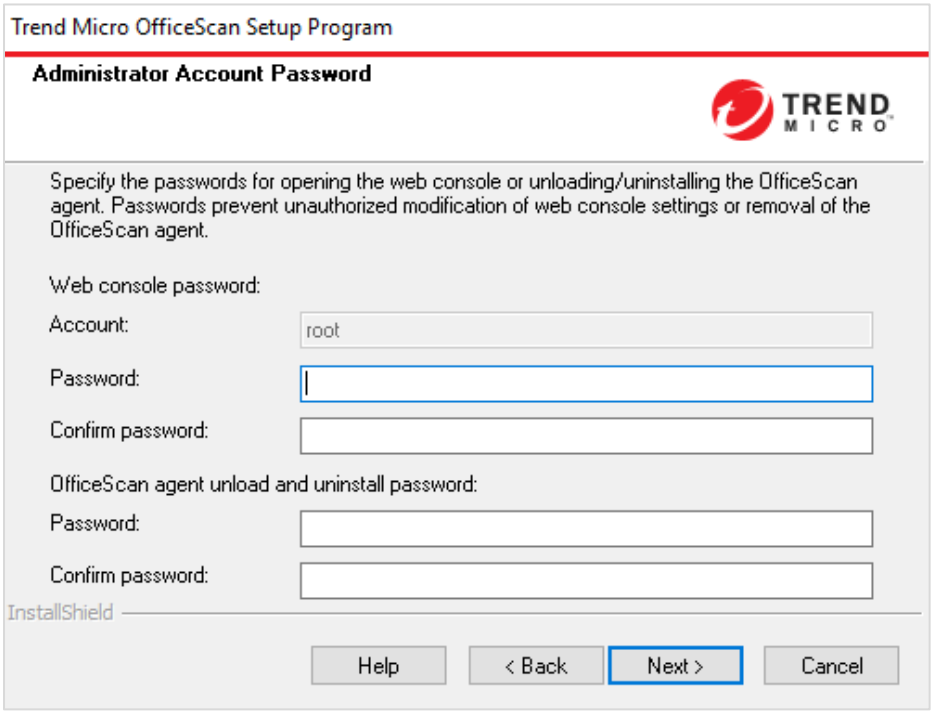


Figure 13. Administrator Account Password

17. Please input arbitrary port number. The port number will be replaced by last installed node. Click **Next**.

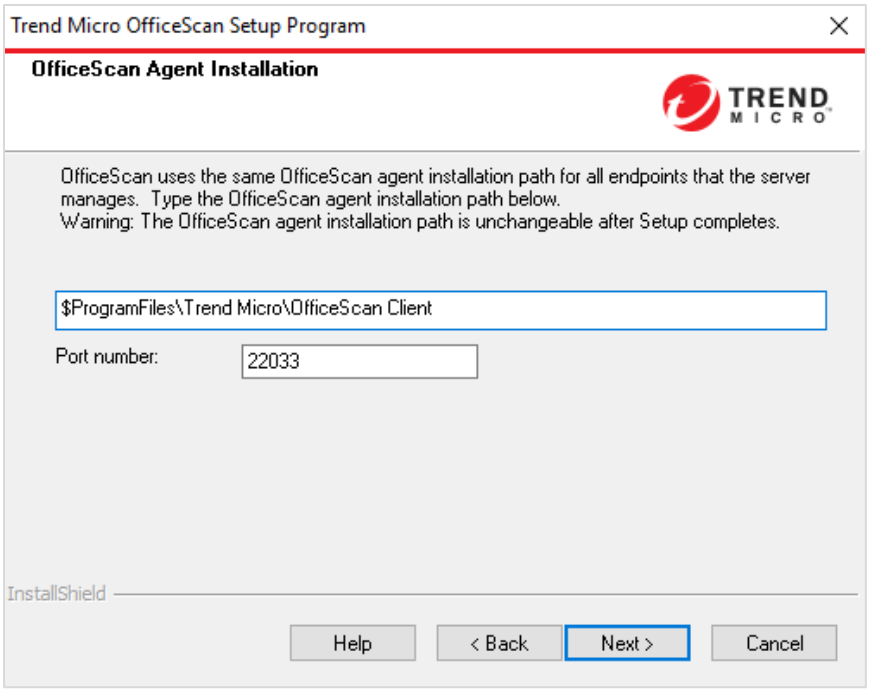


Figure 14. OfficeScan Agent Installation

18. Click **Next**.

19. Choose whether to enable assessment mode or not and click **Next**.

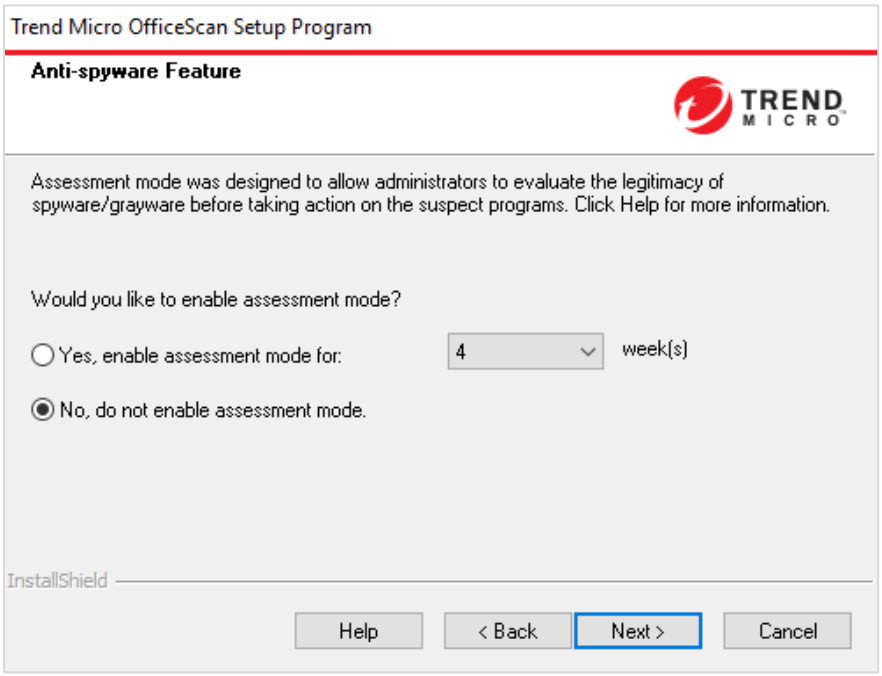


Figure 15. Anti-spyware Feature

20. Click **Next**.

21. Generate a new authentication certificate and enter the password, then click **Next**.

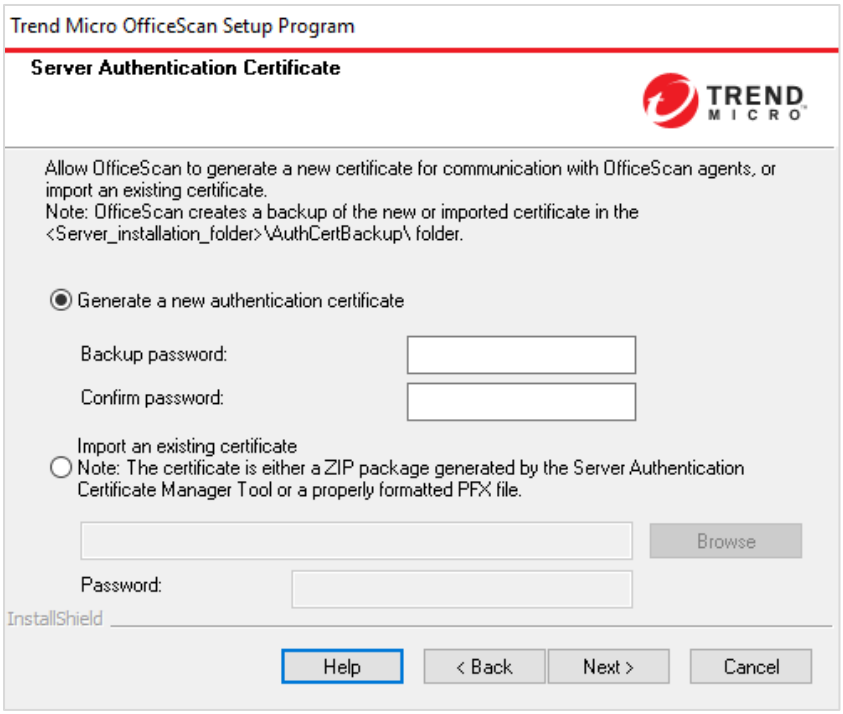


Figure 16. Server Authentication Certificate

22. Make sure that the shortcut folder name should be the same on each node, then click **Next**.

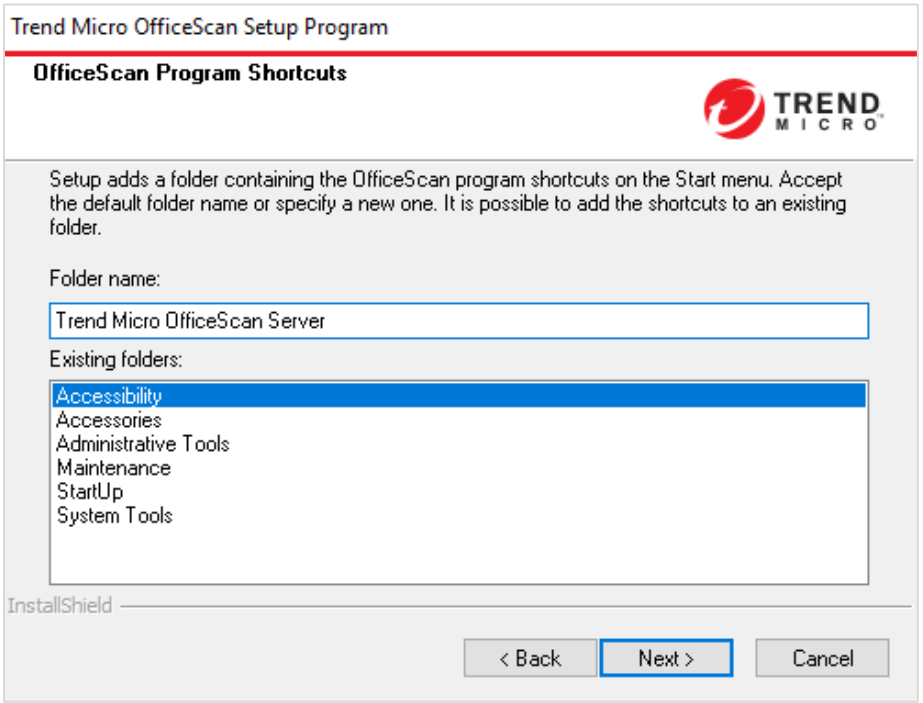


Figure 17. OffieScan Program Shortcuts

23. Click **Install**.
24. After the installation process, stop following OfficeScan services:
    - OfficeScan Master Service
    - OfficeScan Active Directory Integration Service
    - OfficeScan Log Receiver Service
    - OfficeScan Plug-in Manager
    - Trend Micro Local Web Classification Service
    - Trend Micro Smart Scan Server
25. Change the cluster storage owner to Node 2.
26. Delete the following OfficeScan installation folder: Cluster storage disk\Trend Micro\OfficeScan\PCCSRV.
27. Repeat steps 1 to 20 on Node 2.
28. On the Server Authentication Certificate screen, browse and import the existing certificate in cluster storage disk \Trend Micro\OfficeScan\AuthCertBAckup, then enter the password that you set on Node 1. Afterwards, click **Next**.

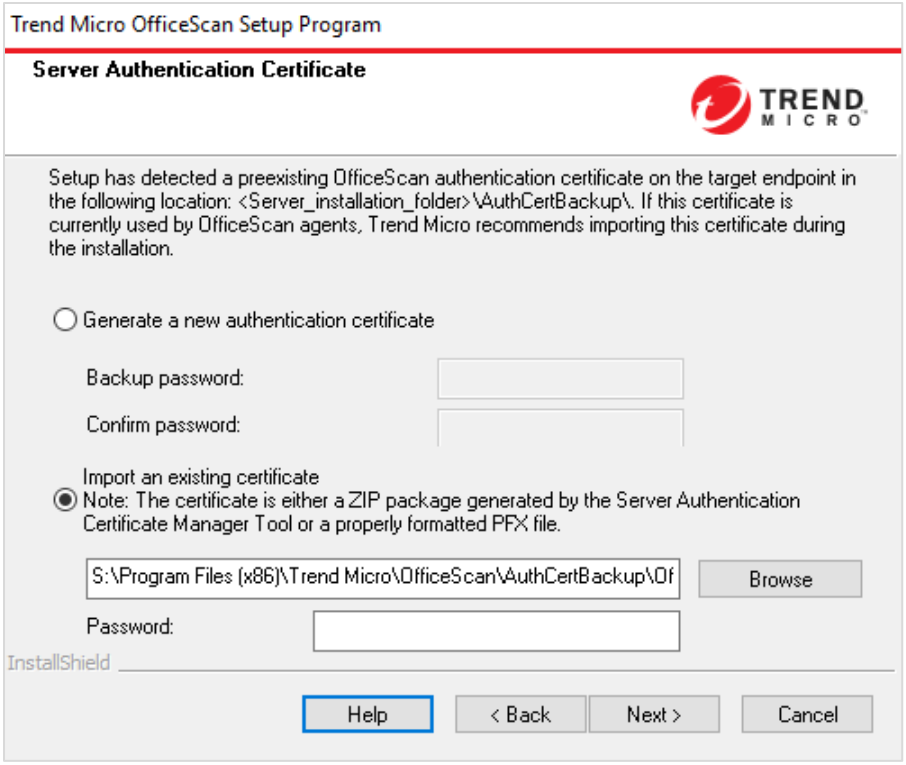


Figure 18. Server Authentication Certificate

29. Click **Next** and process the OfficeScan installation on Node 2.

Chapter 3: Authenticating the IIS server

This process must be followed on each node. To configure the IIS settings:

1. Start Internet Information Services (IIS) Manager from the **Start** > **Windows Administrative Tools** > **Internet Information Services (IIS) Manager**.

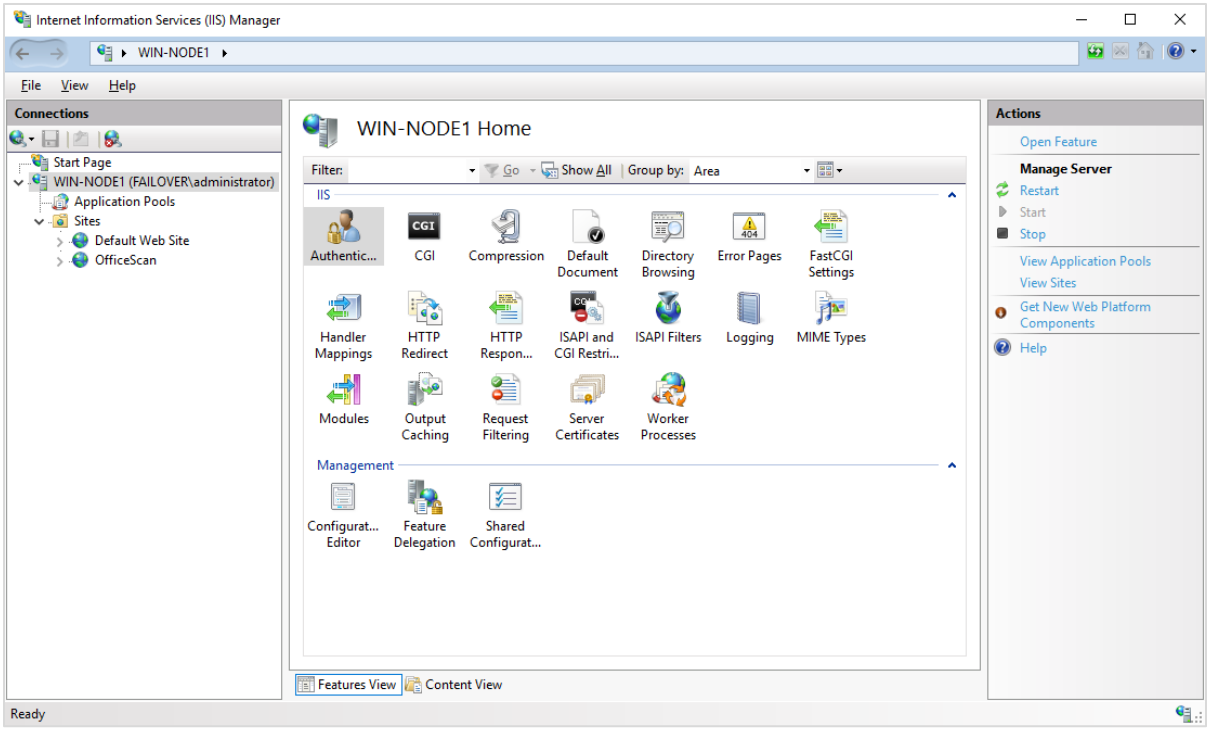


Figure 19. Internet Information Services (IIS) Management

2. In the Connections panel, click **Node 1 IIS Server**.
3. In the Central panel, click **Authentication**.

4. Click **Anonymous Authentication** and then click **Edit** in the right panel.

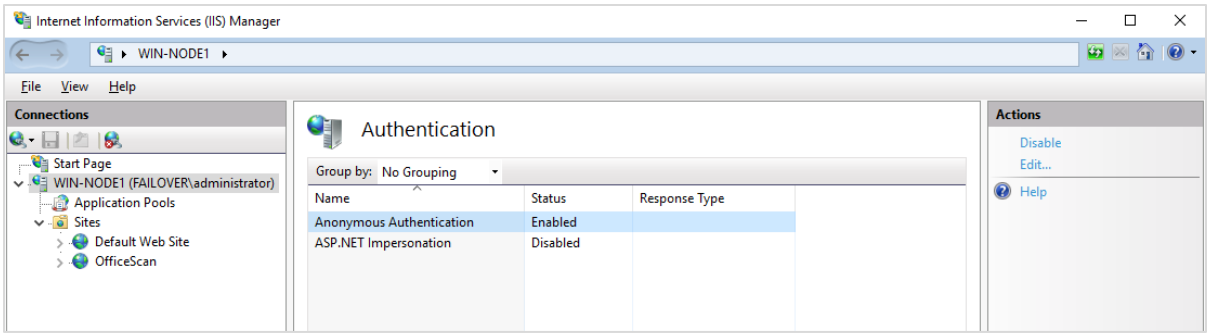


Figure 20. Anonymous Authentication

5. After the Edit Anonymous Authentication Credentials window pops up, click **Set** for Specific user.

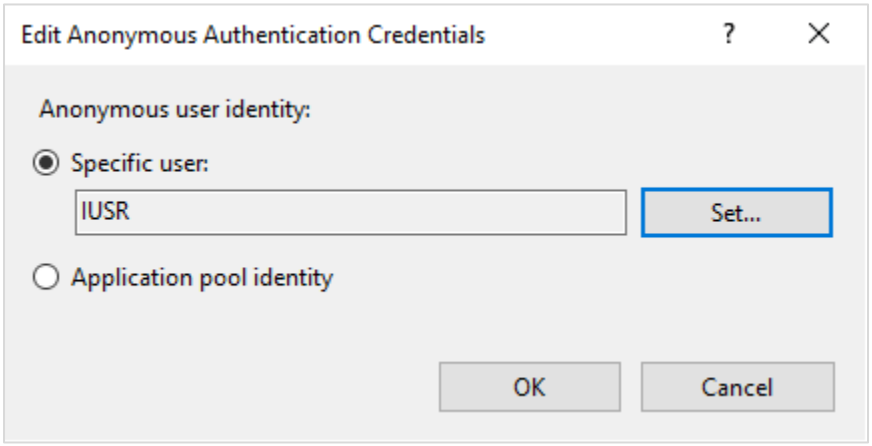


Figure 21. Edit Anonymous Authentication Credentials

6. Enter the domain account and password.

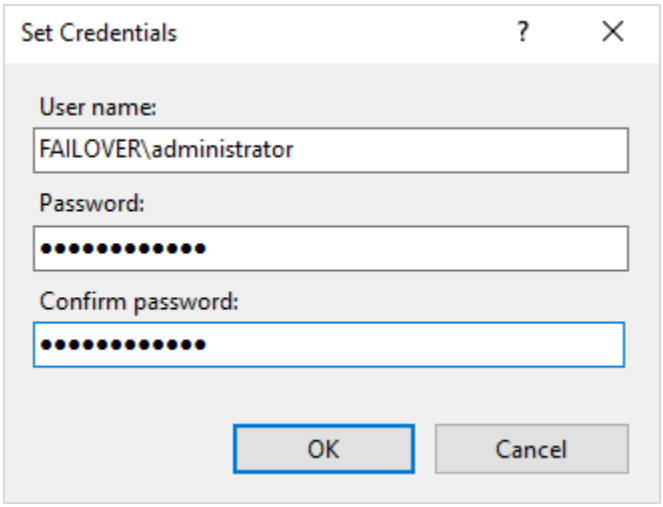


Figure 22. Set Credential

7. Click **Ok**.

Chapter 4: Configuring OfficeScan service startup type

The following process must be followed on each node to configure the service startup type:

1. Start Services management from the **Start** > **Windows Administrative Tools** > **Services**.

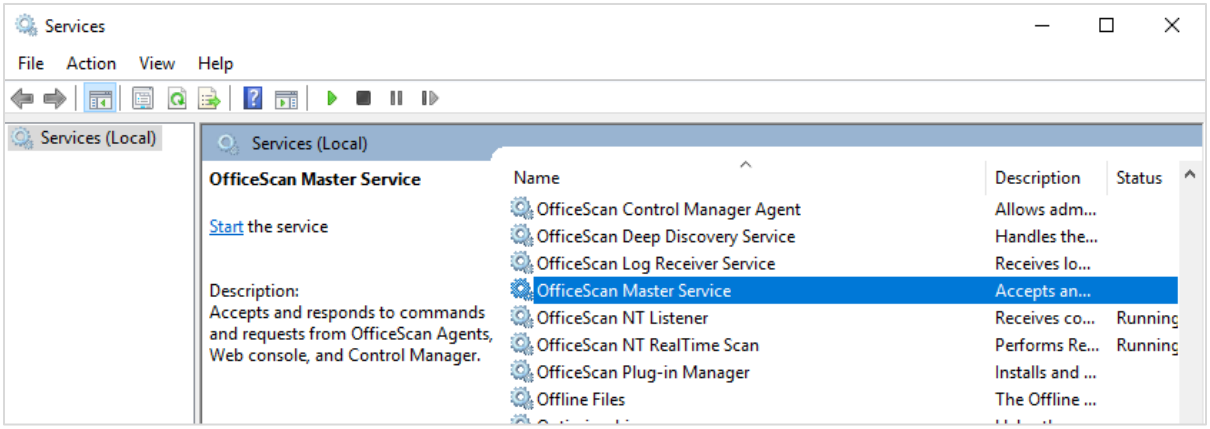


Figure 23. Services

2. Right-click on OfficeScan Master Service.
3. Click **Properties**.

4. Change Startup type to "Manual".

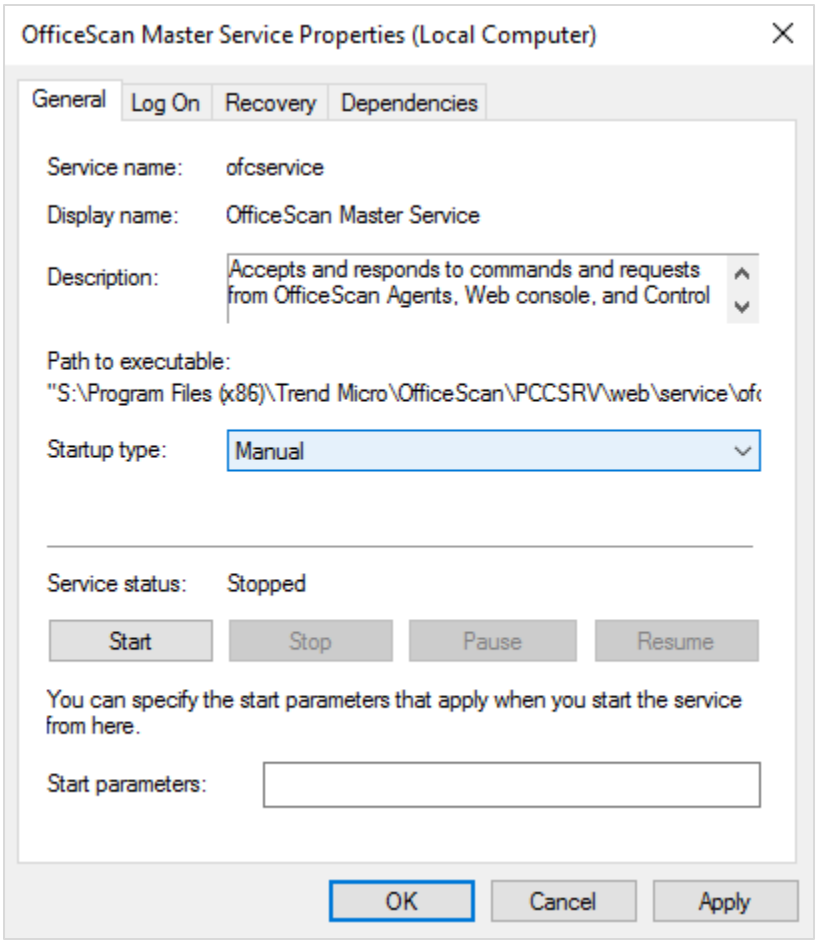


Figure 24. OfficeScan Master Service Properties

5. Click **Apply**, and then click **OK**.

Chapter 5: Creating cluster generic script

This process must be followed on each node. To create a generic script, save the generic script in Appendix I to Clusweb7.vbs and copy it to C:\Windows\System32\inetsrv.

NOTE The site name and AppPool name in generic script should be the same with OfficeScan

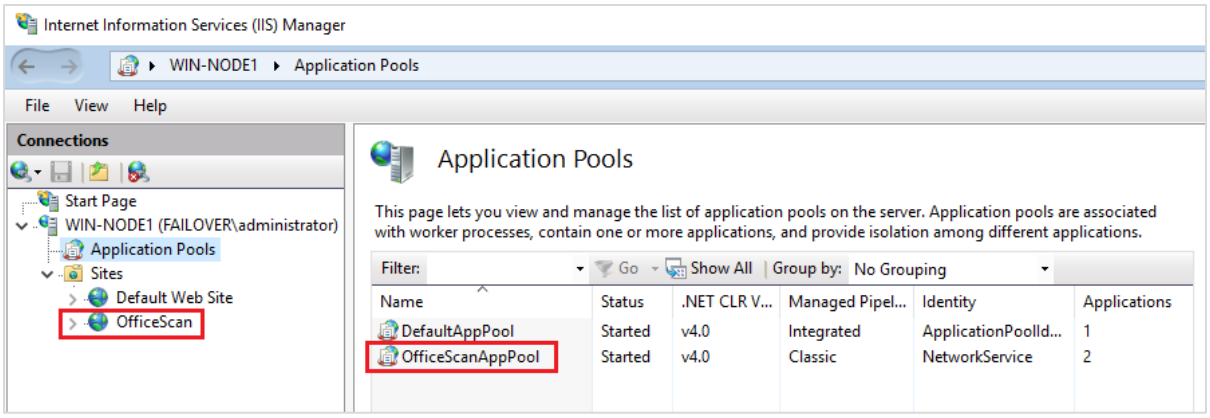


Figure 25. OfficeScan AppPool

Chapter 6: Creating a high availability cluster generic script

To create a high availability cluster generic script:

1. Start Failover Cluster Manager from the **Start** > **Windows Administrative Tools** > **Failover Cluster Manager**.

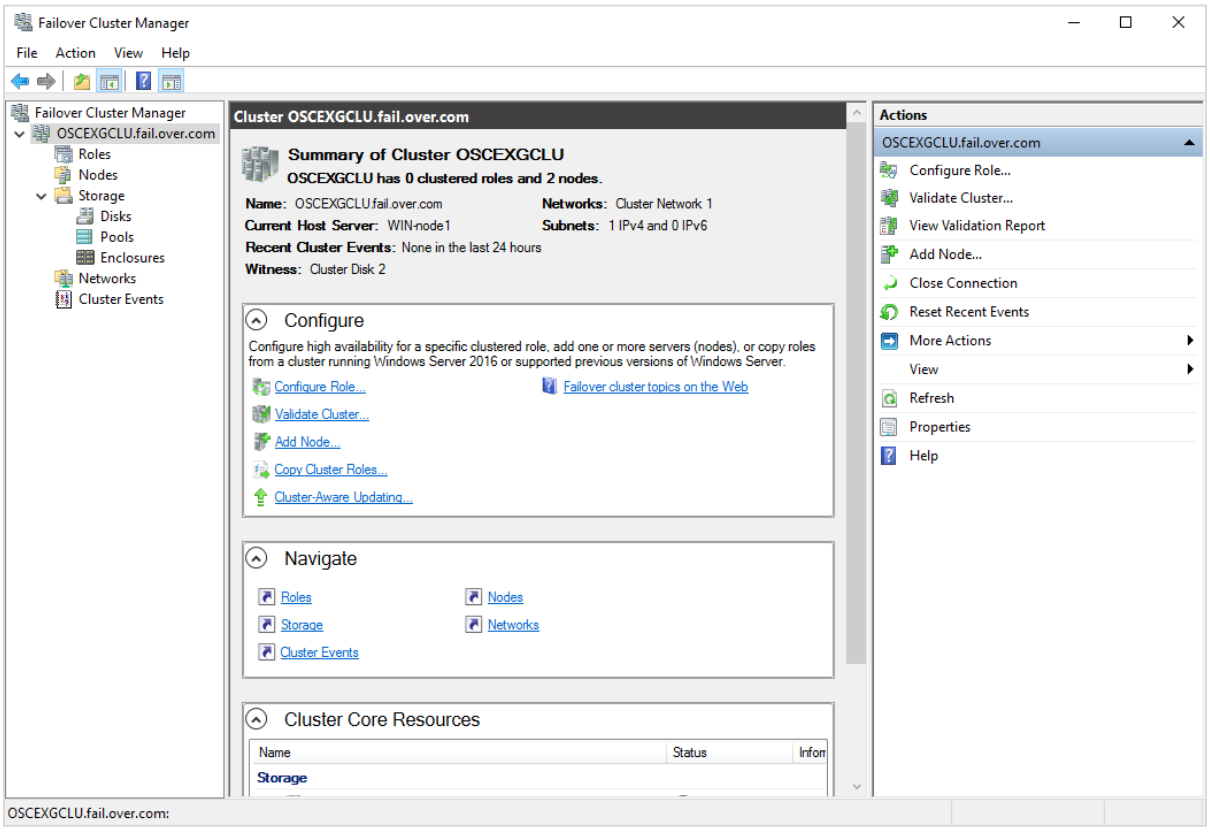


Figure 26. Failover Cluster Manager

2. From Failover Cluster Manager, right-click the cluster name and choose Configure Role.

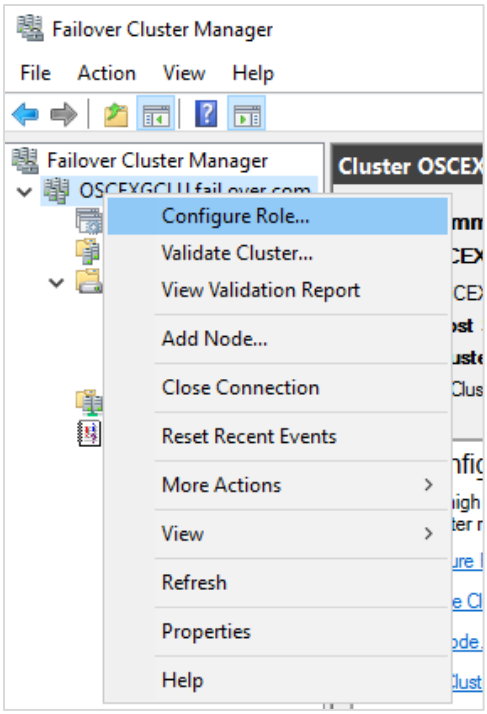


Figure 27. Configure Role

3. Click **Next** in the Before You Begin dialog screen of the High Availability Wizard.

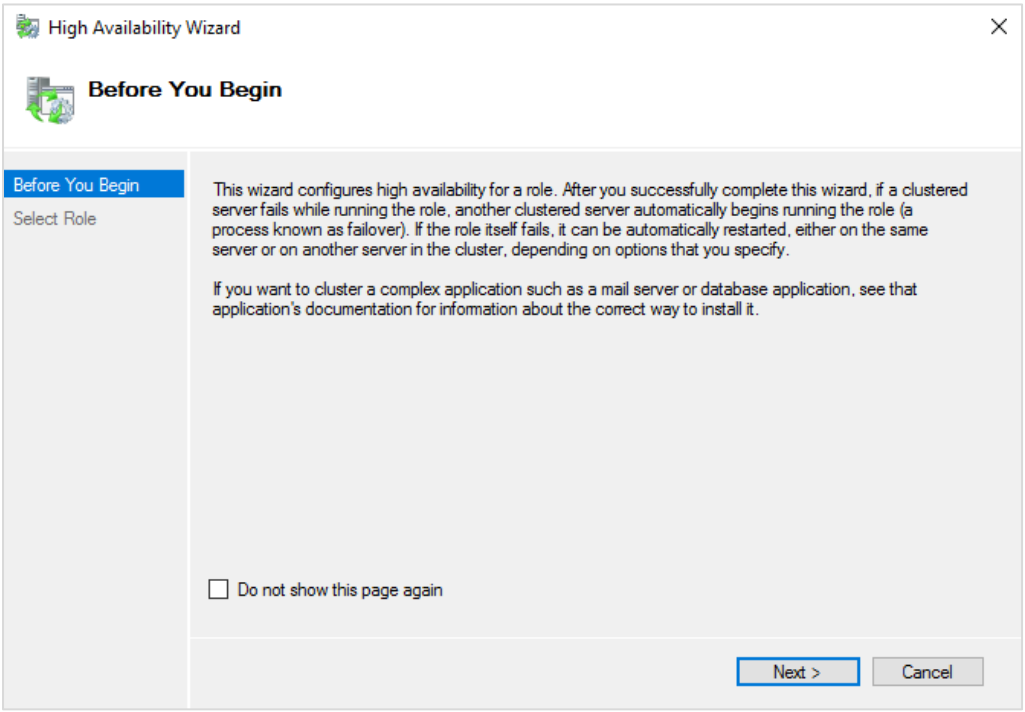


Figure 28. High Availability Wizard screen

4. Select Generic Script from the list of available roles and click **Next**.

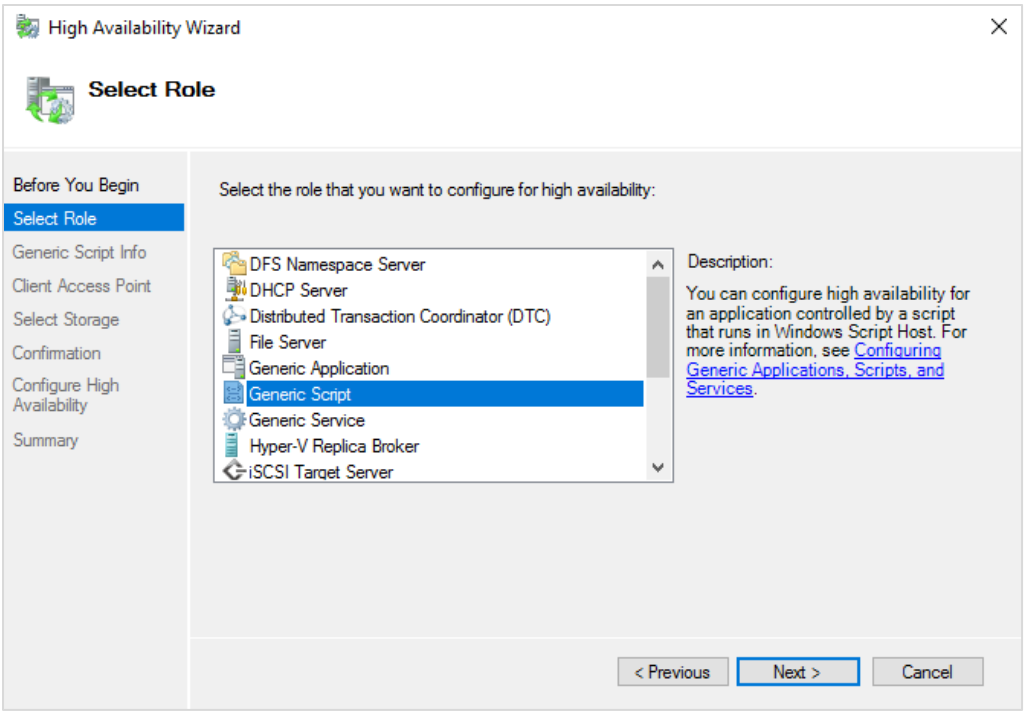


Figure 29. Select Role

5. Enter the generic script path and click **Next**.

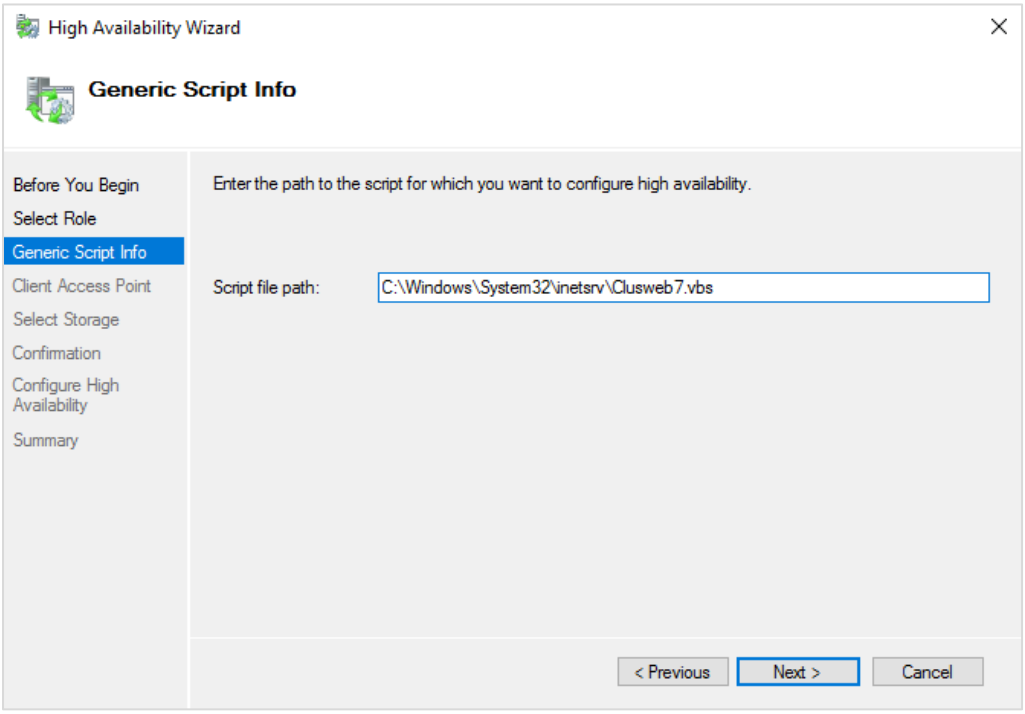


Figure 30. Generic Script Info

6. Enter the name that clients will use to access the cluster role. Enter a unique IP address, and then click **Next**. It will become OfficeScan server IP.

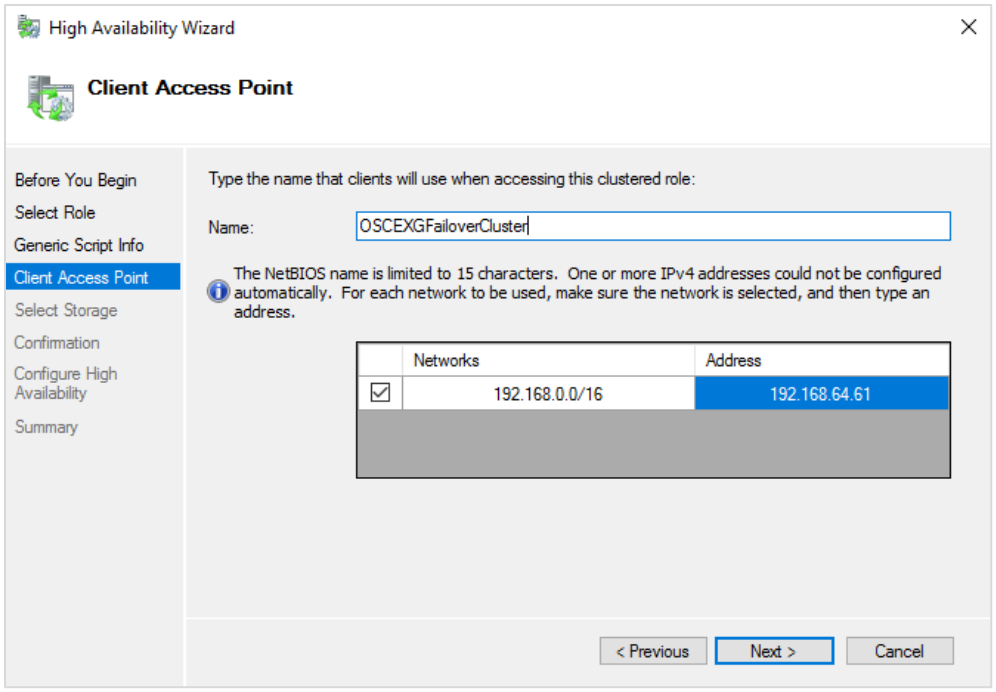


Figure 31. Client Access Point

7. Assign a storage volume to the clustered role and click **Next**.

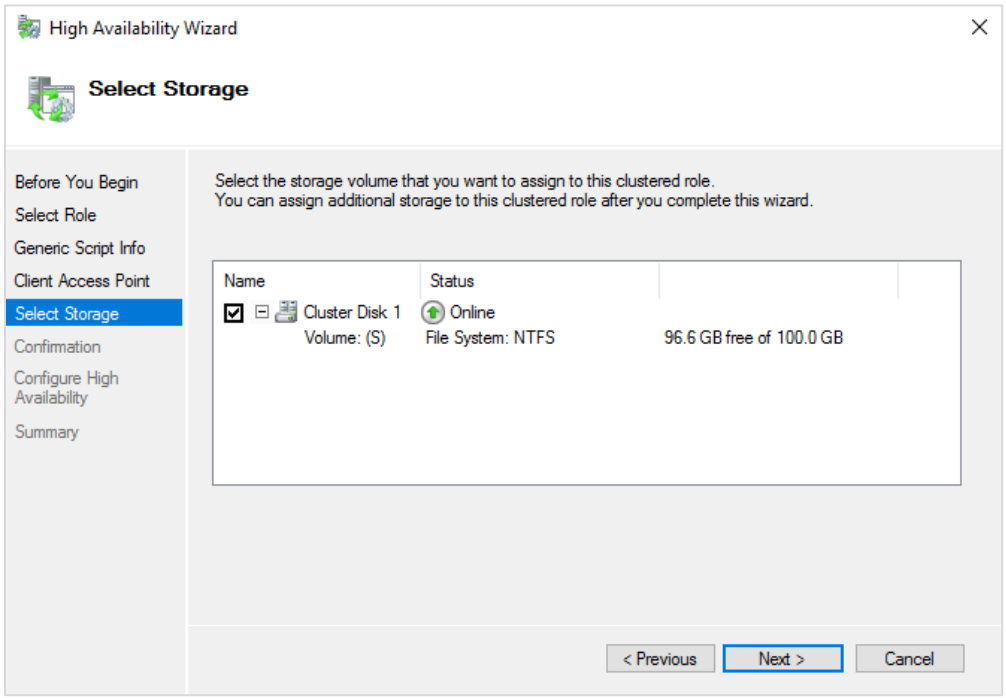


Figure 32. Select Storage

8. Confirm the settings and click **Next**.

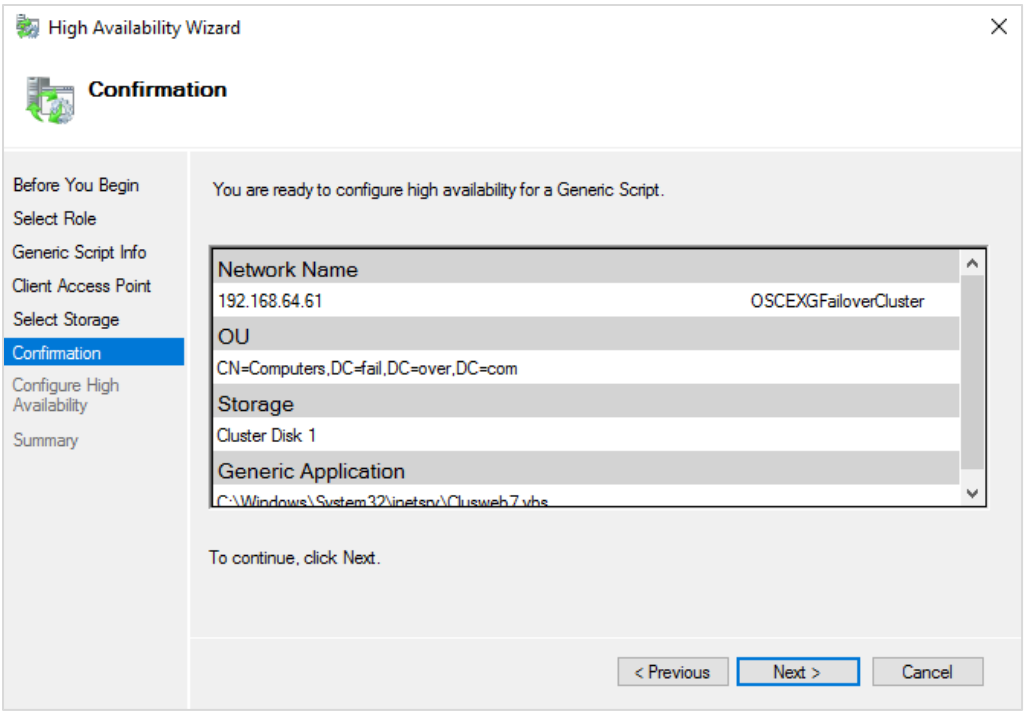


Figure 33. Confirm Settings

9. Click **Finish** on the Summary screen.

Chapter 7: Configuring OfficeScan service roles

To configure OfficeScan service roles:

1. From the Failover Cluster Manager, click **Roles**.
2. In the Central panel, right-click the role name and choose **Add Resource** > **Generic Service**.

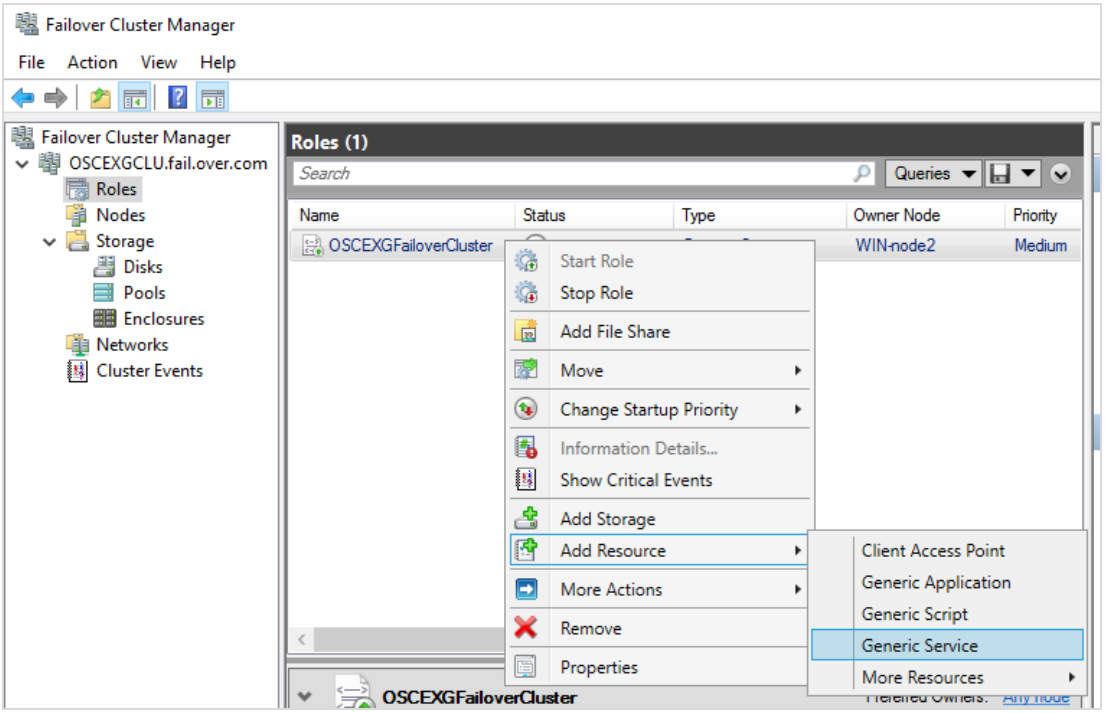


Figure 34. Add Resource

3. Select OfficeScan Master Service and click **Next**.

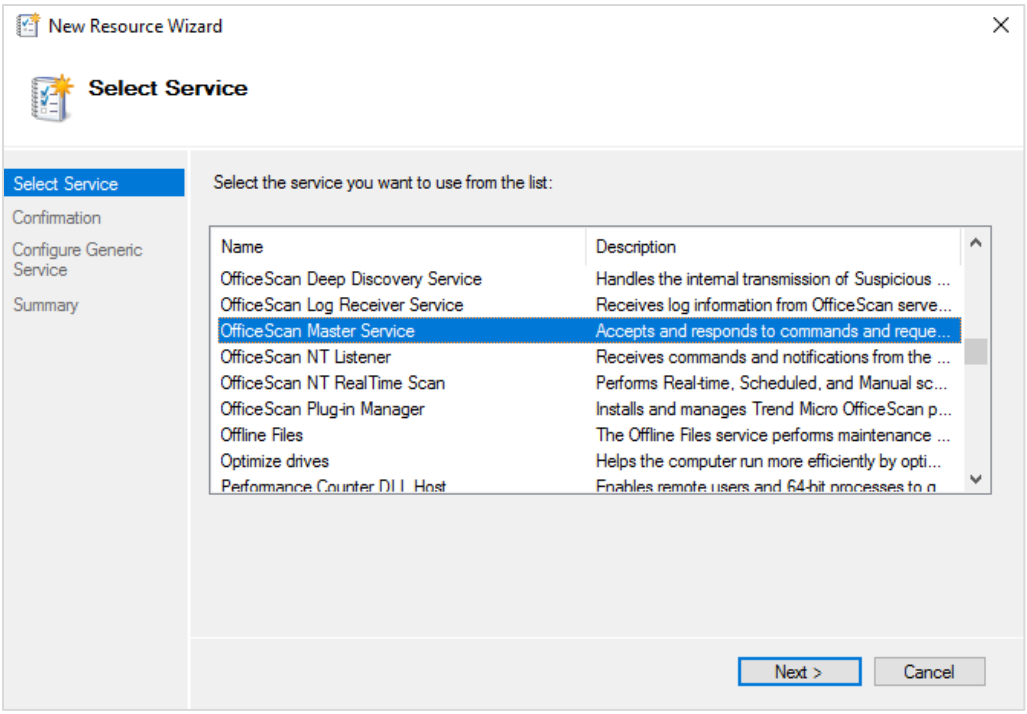


Figure 35. Select Service

4. Confirm the information and click **Next**.

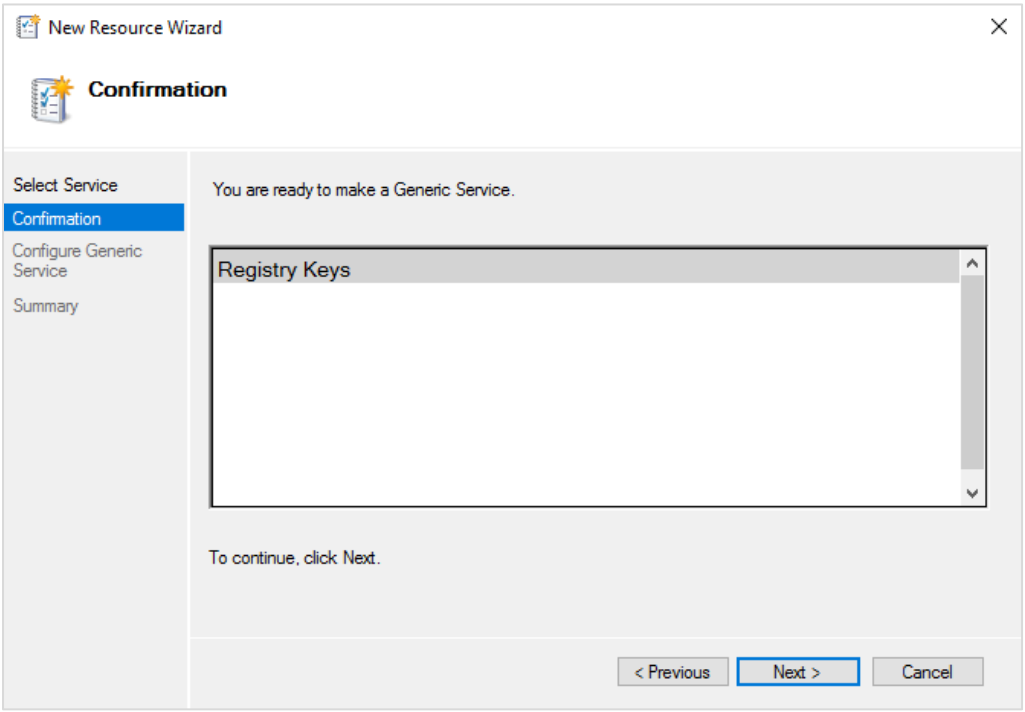


Figure 36. Confirmation

5. Click **Finish** on the Summary screen.

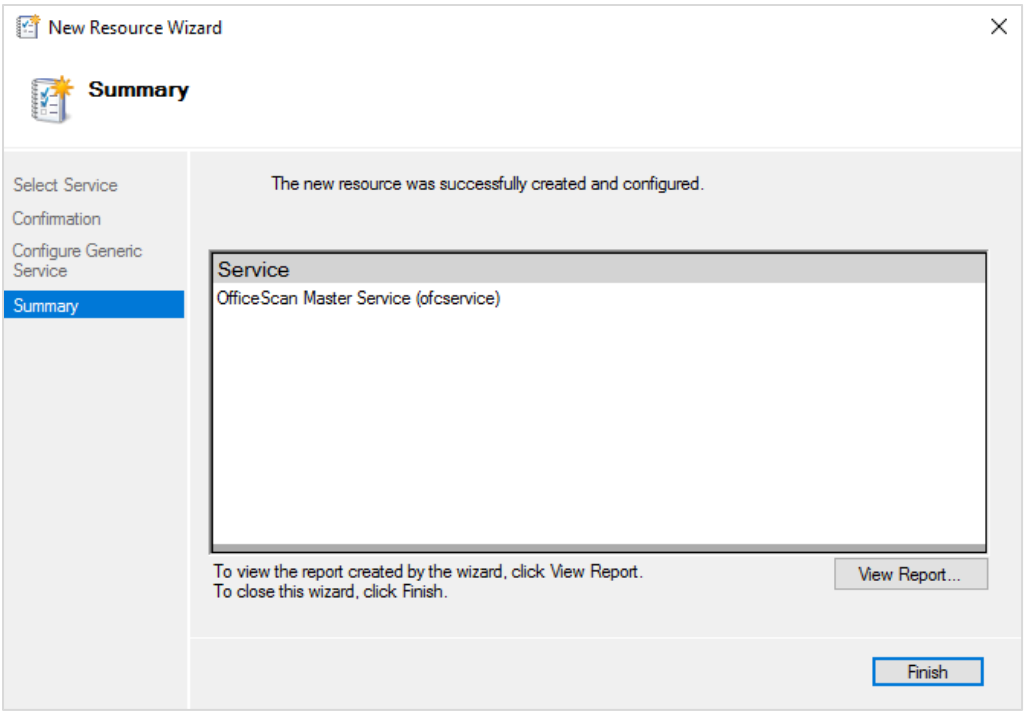


Figure 37. Summary

6. Repeat Steps 1 to 5 and add the following OfficeScan services:

   - OfficeScan Active Directory Integration Service
   - OfficeScan Log Receiver Service
   - OfficeScan Plug-in Manager

7. Once the service role configuration has completed, the roles will be visible in the Failover Cluster Manager.

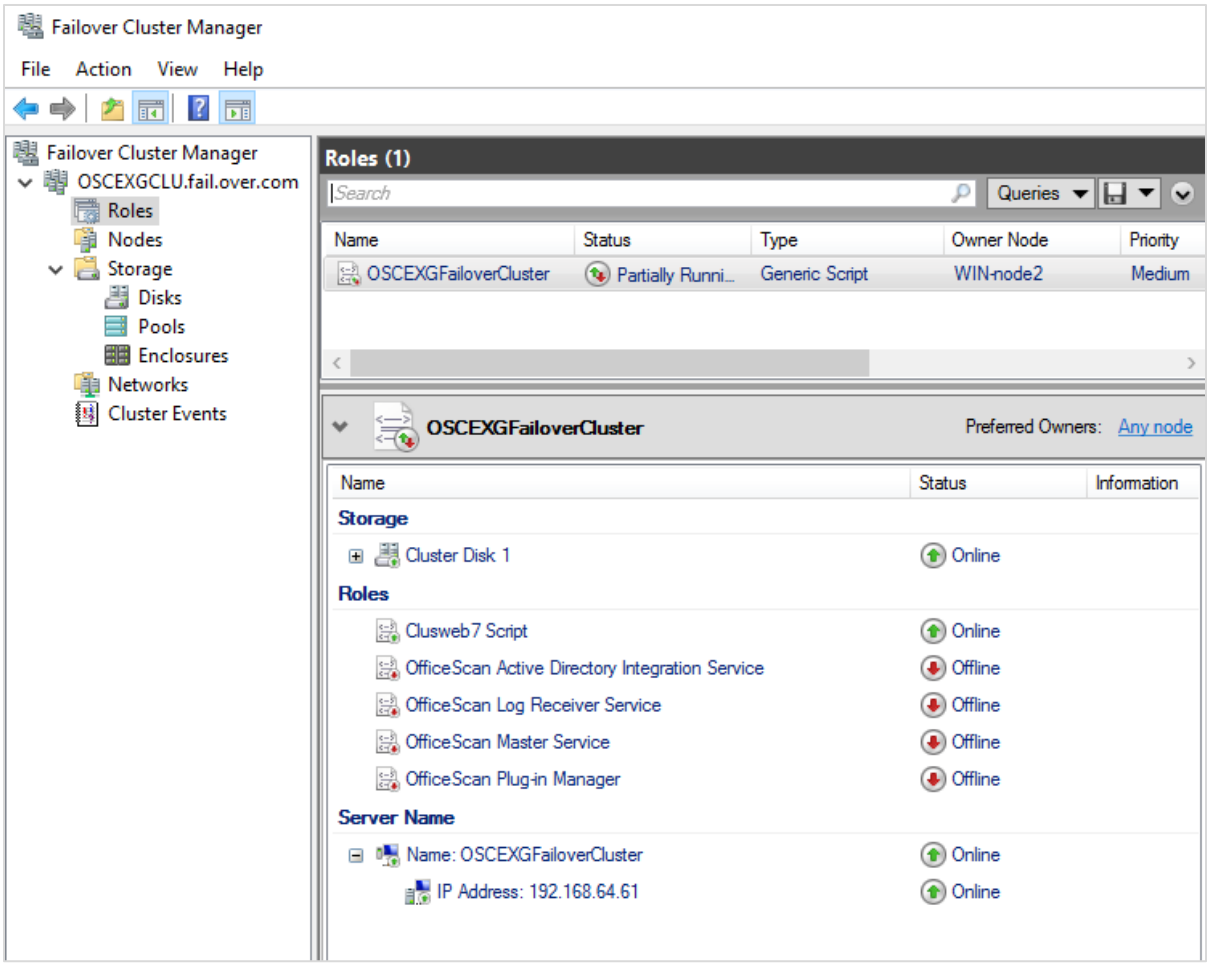


Figure 38. Failover Cluster Roles

7.1 > Configuring service role dependencies

To configure service role dependencies:

1. Right-click on the OfficeScan Active Directory Integration Service role and choose Properties.

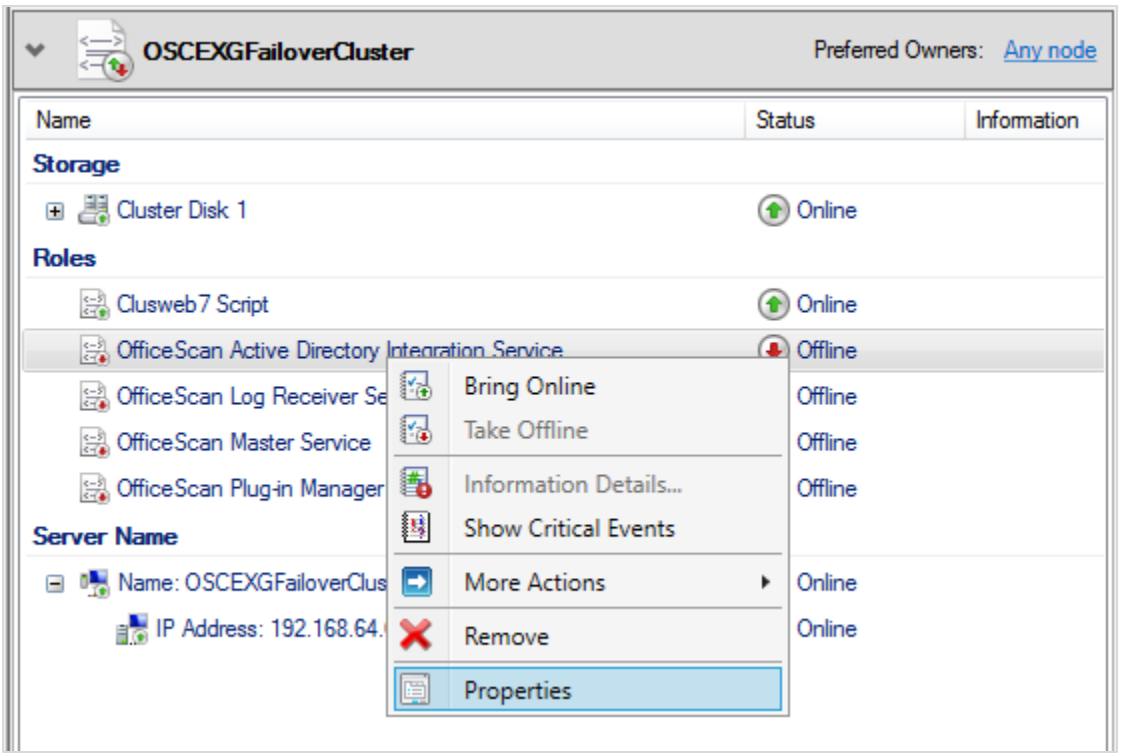


Figure 39. Properties

2. Go to the Dependencies tab.

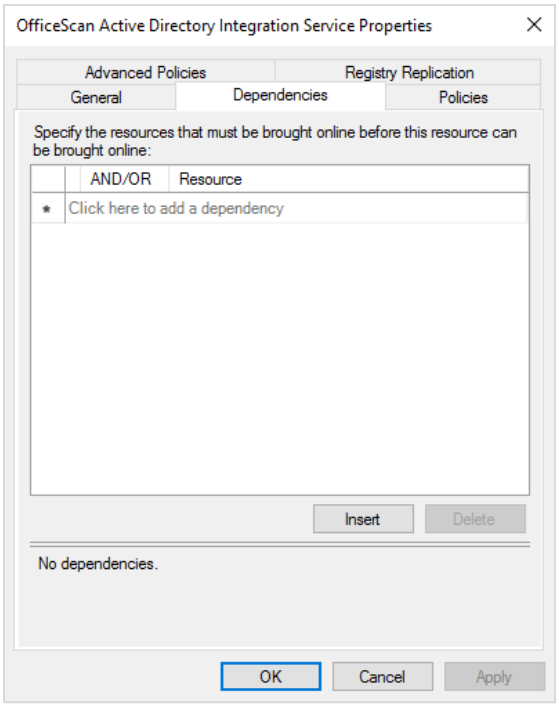


Figure 40. Dependencies

3. Click **Insert**.

4. In the Resource column, choose OfficeScan Master Service from the dropdown list.

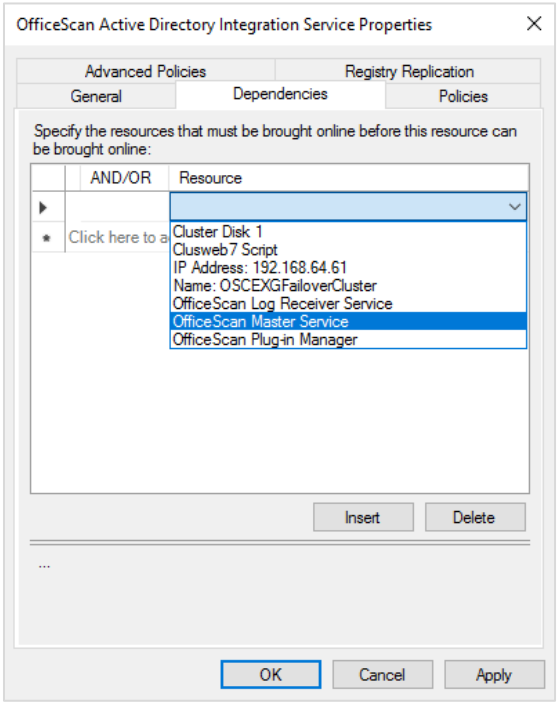


Figure 41. Resource

5. Repeat Steps 1 to 4 for following OfficeScan service roles:
   - OfficeScan log Receiver Service
   - OfficeScan Plug-in Service
6. Right-click on the OfficeScan Master Service role and choose Properties.
7. Go to the Dependencies tab.
8. Click **Insert** and insert two columns.
9. In the Resource column, choose Cluster Storage from the first dropdown list.
10. Choose the cluster name from the second dropdown list.

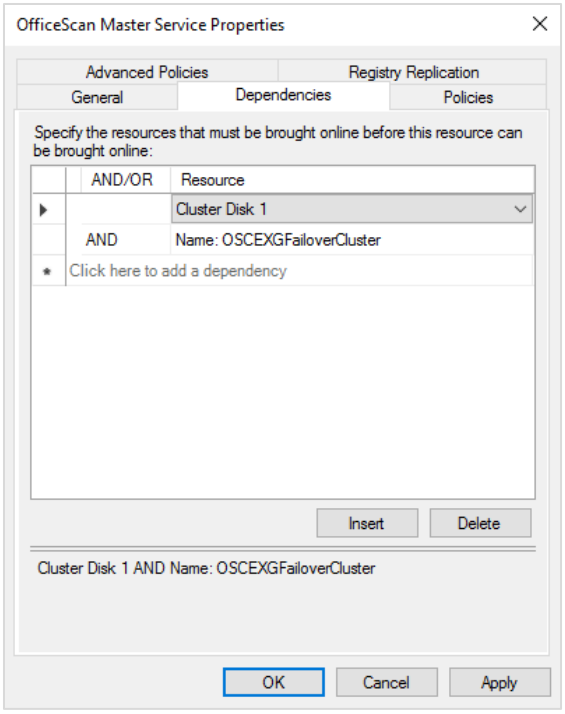


Figure 42. OfficeScan Master Service Dependencies

7.2 > OfficeScan server registry replication in cluster

To replicate the OfficeScan server registry:

1. Start Windows PowerShell from the **Start** > **Windows Administrative Tools** > **Windows PowerShell**.

2. Enter following registry replication commands:

   - Add-ClusterCheckpoint -Cluster <Cluster Name> -RegistryCheckpoint "SOFTWARE\Wow6432Node\TrendMicro\Database Backup" -ResourceName "OfficeScan Master Service"
   - Add-ClusterCheckpoint -Cluster <Cluster Name> -RegistryCheckpoint "SOFTWARE\Wow6432Node\TrendMicro\OfficeScan" -ResourceName "OfficeScan Master Service"
   - Add-ClusterCheckpoint -Cluster <Cluster Name> -RegistryCheckpoint "SOFTWARE\Wow6432Node\TrendMicro\Solar" -ResourceName "OfficeScan Master Service"

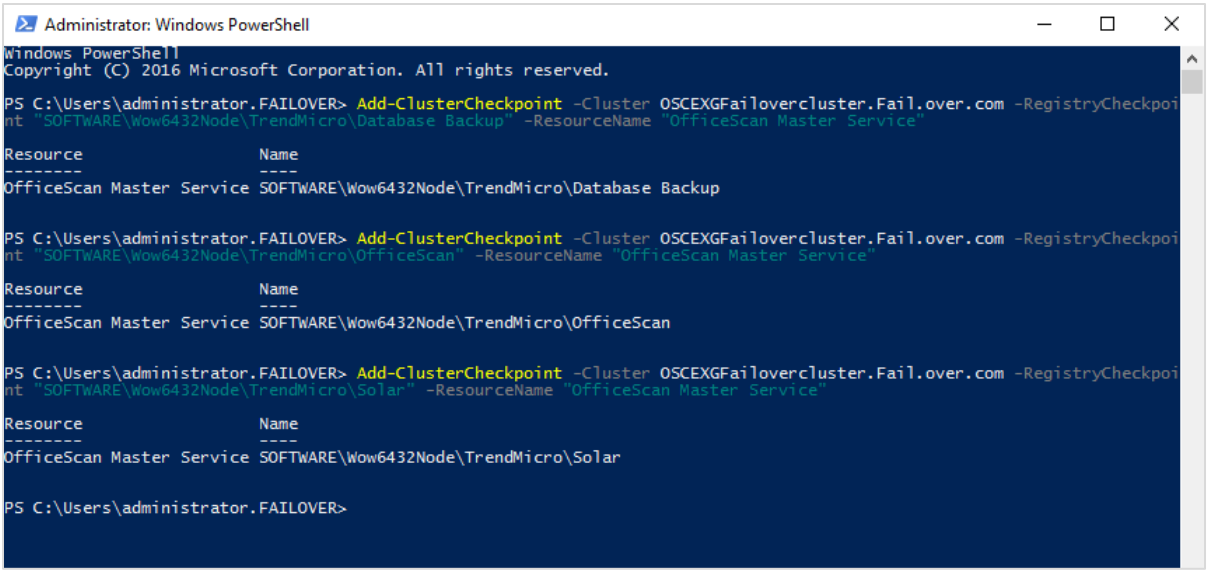


Figure 43. Windows PowerShell

7.3 > Configure OfficeScan server IP

The OfficeScan server IP should be the IP setting up from Chapter 6. To configure OfficeScan IP, please follow procedure below:

1. Open the ofcscan.ini under <Server installation folder>\PCCSRV\ using text editor and modify the values of the following lines:

   [INI_SERVER_SECTION]
   MasterDirectory=\\%Cluster IP%
   Master_DomainName=%Cluster IP%

   [Scan Now Configuration]
   MoveDir =HTTP://%Cluster IP%
   CleanFailedMoveDir =HTTP:// %Cluster IP%

   [Real Time Scan Configuration]
   MoveDir =HTTP://%Cluster IP%
   CleanFailedMoveDir =HTTP:// %Cluster IP%

   [Manual Scan Configuration]
   MoveDir =HTTP://%Cluster IP%
   CleanFailedMoveDir =HTTP://%Cluster IP%

   [Prescheduled Scan Configuration]
   MoveDir =HTTP://%Cluster IP%
   CleanFailedMoveDir =HTTP://%Cluster IP%

2. Open the OfUninst.ini under <Server installation folder>\PCCSRV\ using text editor and modify the values of the following lines:

   [INI_SERVER_UNINST]
   InstallServer=\\%Cluster IP%
   MasterDirectory=\\%Cluster IP%\ofcscan
   InstallWorkStation=%Cluster IP%

3. Open the ofcserver.ini under <Server installation folder>\PCCSRV\private\ using text editor and modify the values of the following lines:

   [PRODUCT_INFO]
   OSCE_URL=https://%Cluster IP%:4343/officescan/default.htm

   [TMCSS]
   WSS_URL=https://%Cluster IP%:4343/tmcss/
   WSS_HTTP_URL=http://%Cluster IP%:8080/tmcss/

   [LWCS]
   LWCS_HTTP_URL=http://%Cluster IP%:8080/

4. Open the apricot_config.xml under <Server installation folder>\PCCSRV\SRS\ using text editor and modify the values of the following lines:

   <cert_cn>%Cluster IP%</cert_cn>

7.4 > Bring OfficeScan service roles online

To bring OfficeScan service roles online:

1. Right-click on the OfficeScan Master Service role and choose Bring Online.
2. Right-click on the OfficeScan Active Directory Integration Service role and choose Bring Online.
3. Right-click on the OfficeScan Log Receiver Service role and choose Bring Online.
4. Right-click on the OfficeScan Plug-in Manager role and choose Bring Online.

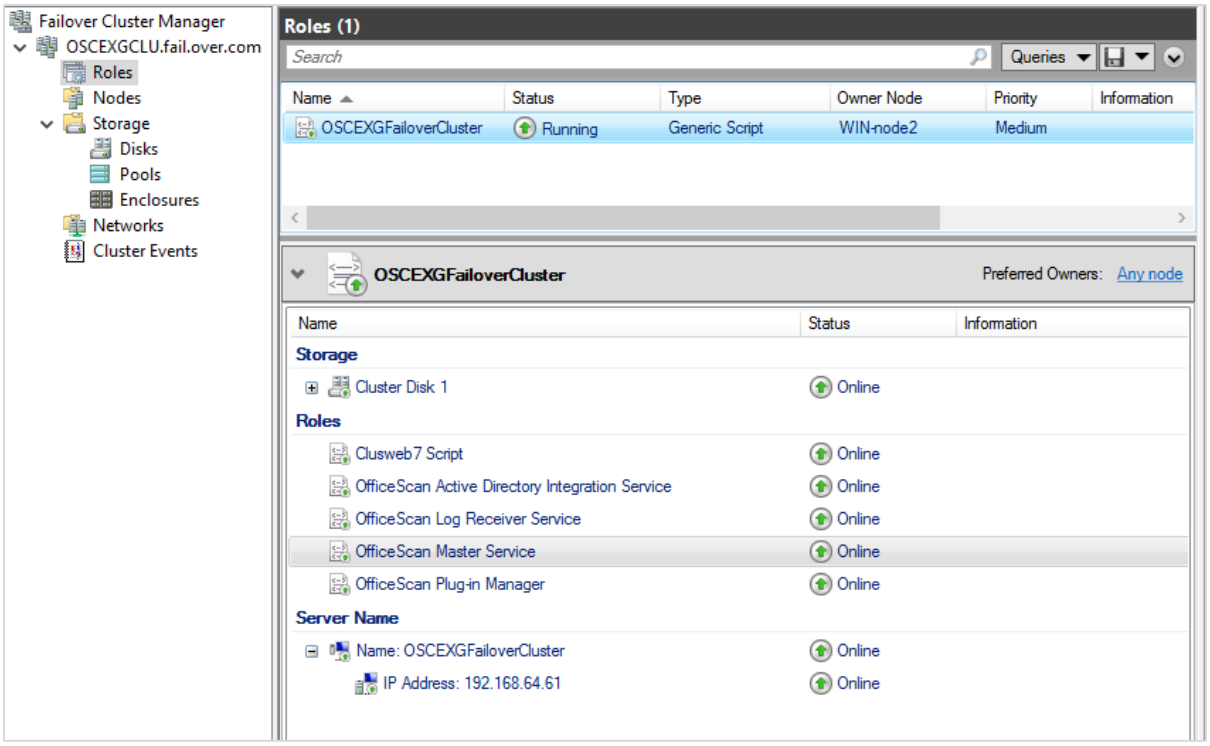


Figure 44. Roles

Chapter 8: Provisioning a shared folder

To provision a shared folder for the OfficeScan cluster role:

1. Navigate to OfficeScan installation folder
2. Right-click on the PCCSRV folder and choose Properties.
3. Go to the Sharing tab and click **Advanced Sharing**.
4. Enable **Share this folder**.
5. Input "ofcscan" as the Share name.

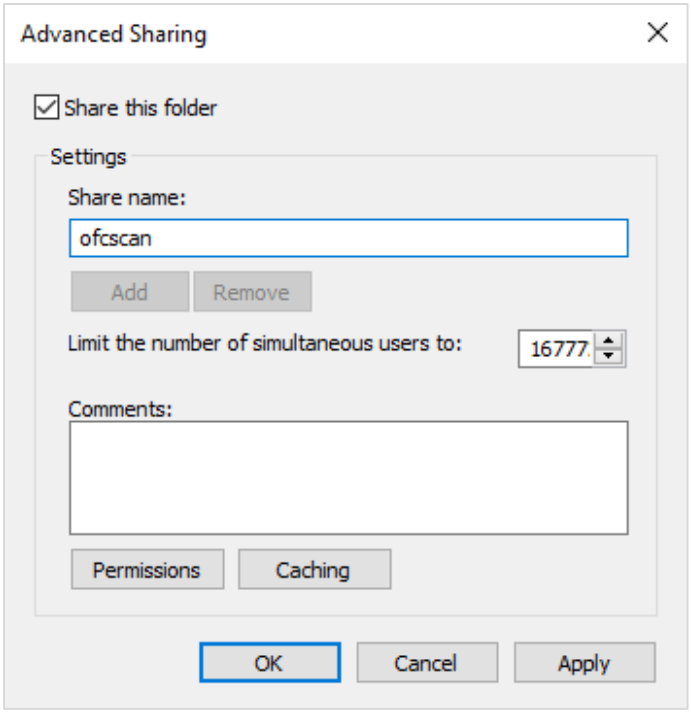


Figure 45. New Share

6. Click **Permissions**.

7. Set the permissions for everyone to "Read".

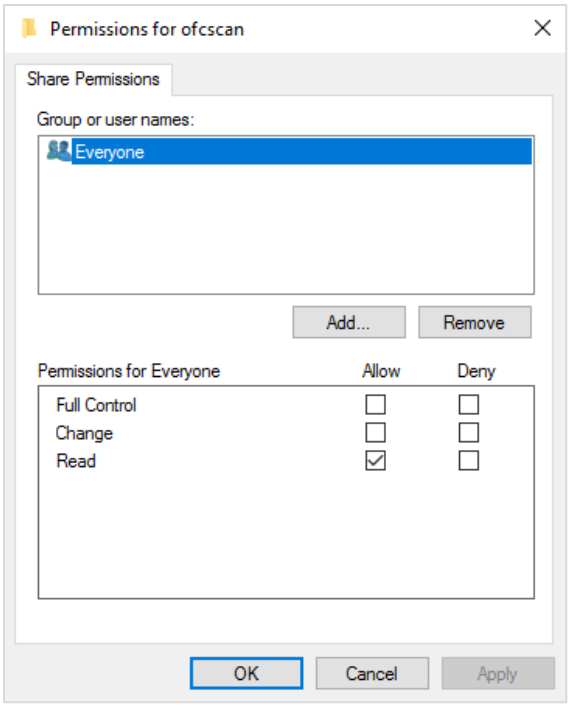


Figure 46. Everyone Share Permissions

8. Click **Add** and add a domain administrator account.

9. Set the permissions for administrator to "Full Control".

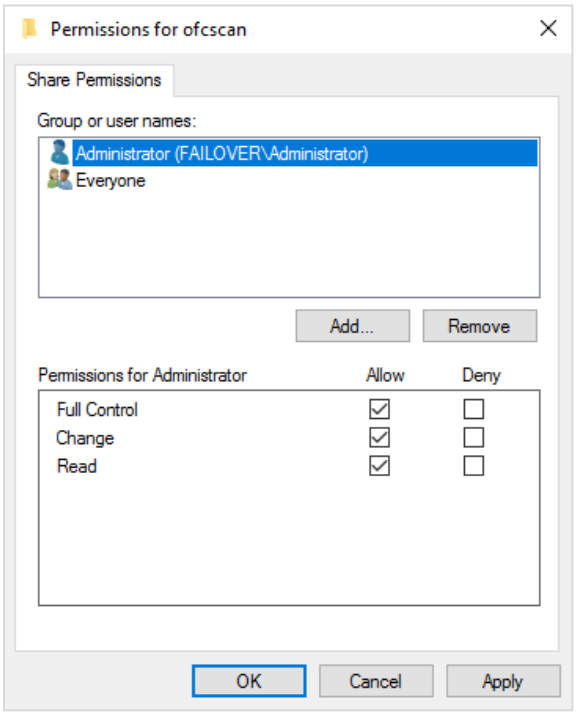


Figure 47. Administrator Share Permissions

10. Click **Apply** and share the folder.
11. From the Failover Cluster Manager, click **Roles**.
12. Go to the Shares tab.
13. Right-click on the ofcscan share folder and select Properties.

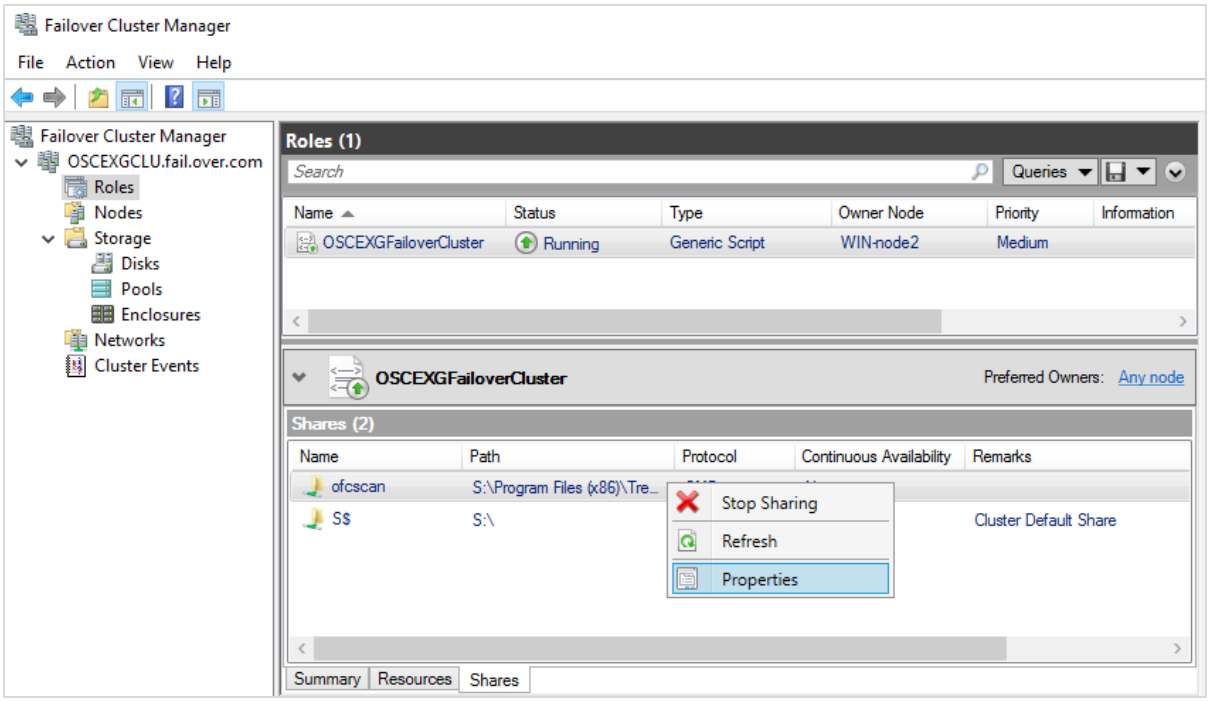


Figure 48. Share Folder

14. In the left panel, click **Settings**.

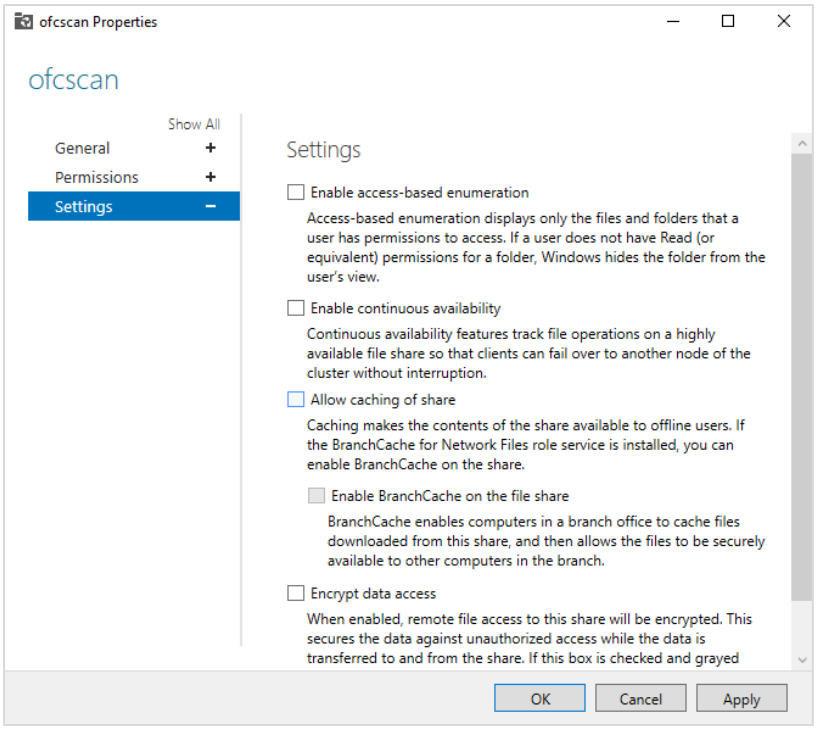


Figure 49. Share Folder Settings

15. Disable the "Allow caching of share" option.

NOTE If an error message show "The specified object cannot be updated either because the server is not available", please wait for a while until the service up.

16. Click **Apply** and **OK**.

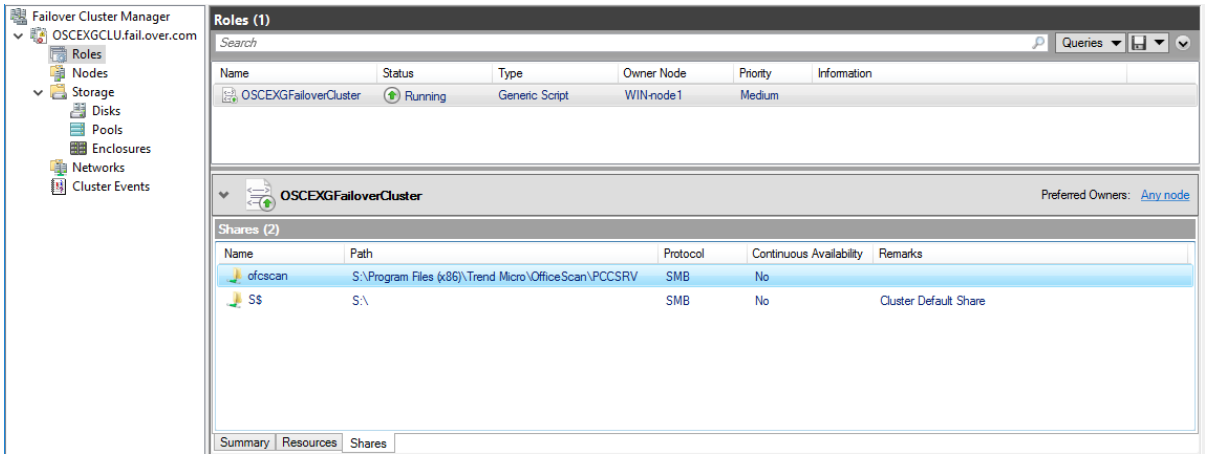


Figure 50. Roles

Chapter 9: Configuring OfficeScan agent for cluster node

In the cluster environment, there will be multiple NICs in each node. There will be a primary cluster NIC for the application communication.

The OfficeScan agent is designed to acquire the IP address from the primary NIC for registration to the OfficeScan server. When the node is inactive, the primary IP address will be a private address. In this scenario, the OfficeScan server will lose the communication with the agents and the client will go offline.

To configure the OfficeScan agent for cluster node:

1. On the OfficeScan server, navigate to the installation path.
2. Open and edit ofcscan.ini.
3. Under the [Global Setting] section, add the following keys and assign a valid IP address for the Officescan server:

   IPTemplateDeployEnable=1

   IPTemplateDeploy=<assign_a_valid_IP_address_range_used_to_connect_to_the_officescan_server>

   For example:

   [Global Setting]

   IPTemplateDeployEnable=1

   IPTemplateDeploy0=10.200.10.x

   NOTE If some of your agents have two or more network cards, set the range to the ones you will be using to connect.

   IPTemplateDeploy1=10.210.x.x

   NOTE It's the same for a different range on a different agent.

   IPTemplateDeploy2=10.211.10.*

   IPTemplateDeploy3=10.211.30.*

IPTemplateDeploy4=172.18.x.x

IPTemplateDeploy5=172.17.x.x

IPTemplateDeploy6=172.16.x.x

IPTemplateDeploy7=192.168.50.*

IPTemplateDeploy8=192.168.30.*

IPTemplateDeploy9=192.168.10.*

NOTE The x and * symbols are interchangeable. This will deploy the settings on the officescan.ini file to agents within the range defined by those symbols.

4. Save and close the file.
5. Log on to the OfficeScan server management console.
6. Go to **Agents** > **Global Agent Settings** and click **Save** to deploy the settings to the agents.

   The OfficeScan agent program will automatically install the following registry keys:

   Key: HKLM\SOFTWARE\Wow6432Node\TrendMicro\PC-cillinNTCorp\CurrentVersion

   Name: IPTemplateDeployEnable

   Type: REG_DWORD

   Data: 1

   Key: HKLM\SOFTWARE\Wow6432Node\TrendMicro\PC-cillinNTCorp\CurrentVersion

   Name: IPTemplateDeploy0 to IPTemplateDeploy9

   Type: REG_SZ

   Data: the assigned IP address

Appendix I: Clustweb7.vbs

```
'<begin script sample>


'This script provides high availability for IIS websites
'By default, it monitors the "Default Web Site" and "DefaultAppPool"
'To monitor another web site, change the SITE_NAME below
'To monitor another application pool, change the APP_POOL_NAME below
'More thorough and application-specific health monitoring logic can be
added to the script if needed

Option Explicit

DIM SITE_NAME
DIM APP_POOL_NAME
Dim START WEB SITE
Dim START_APP_POOL
Dim SITES_SECTION_NAME
Dim APPLICATION_POOLS_SECTION_NAME
Dim CONFIG_APPHOST_ROOT


'Note:
'Replace this with the site and application pool you want to configure
high availability for
'Make sure that the same web site and application pool in the script
exist on all cluster nodes. Note that the names are case-sensitive.
SITE_NAME = "OfficeScan"
APP_POOL_NAME = "OfficeScanAppPool"

START_WEB_SITE = 0
START_APP_POOL = 0
SITES_SECTION_NAME = "system.applicationHost/sites"
APPLICATION_POOLS_SECTION_NAME =
"system.applicationHost/applicationPools"
CONFIG_APPHOST_ROOT = "MACHINE/WEBROOT/APPHOST"

'Helper script functions


'Find the index of the website on this node
Function FindSiteIndex(collection, siteName)

    Dim i

    FindSiteIndex = -1

    For i = 0 To (CInt(collection.Count) - 1)
```

```
        If collection.Item(i).GetPropertyByName("name").Value = siteName
Then
            FindSiteIndex = i
            Exit For
        End If
    Next

End Function


'Find the index of the application pool on this node
Function FindAppPoolIndex(collection, appPoolName)

    Dim i

    FindAppPoolIndex = -1

    For i = 0 To (CInt(collection.Count) - 1)
        If collection.Item(i).GetPropertyByName("name").Value =
appPoolName Then
            FindAppPoolIndex = i
            Exit For
        End If
    Next

End Function

'Get the state of the website
Function GetWebSiteState(adminManager, siteName)

    Dim sitesSection, sitesSectionCollection, siteSection, index,
siteMethods, startMethod, executeMethod
    Set sitesSection = adminManager.GetAdminSection(SITES_SECTION_NAME,
CONFIG_APPHOST_ROOT)
    Set sitesSectionCollection = sitesSection.Collection

    index = FindSiteIndex(sitesSectionCollection, siteName)
    If index = -1 Then
        GetWebSiteState = -1
    End If

    Set siteSection = sitesSectionCollection(index)

    GetWebSiteState = siteSection.GetPropertyByName("state").Value

End Function

'Get the state of the ApplicationPool
Function GetAppPoolState(adminManager, appPool)

    Dim configSection, index, appPoolState

    set configSection =
adminManager.GetAdminSection(APPLICATION_POOLS_SECTION_NAME,
CONFIG_APPHOST_ROOT)
    index = FindAppPoolIndex(configSection.Collection, appPool)
```

```
    If index = -1 Then
        GetAppPoolState = -1
    End If

    GetAppPoolState =
configSection.Collection.Item(index).GetPropertyByName("state").Value
End Function


'Start the w3svc service on this node
Function StartW3SVC()

    Dim objWmiProvider
    Dim objService
    Dim strServiceState

    'Check to see if the service is running
    set objWmiProvider = GetObject("winmgmts:/root/cimv2")
    set objService = objWmiProvider.get("win32_service='w3svc'")
    strServiceState = objService.state

    If ucase(strServiceState) = "RUNNING" Then
        StartW3SVC = True
    Else
        'If the service is not running, try to start it
        response = objService.StartService()

        'response = 0  or 10 indicates that the request to start was
accepted
        If ( response <> 0 ) and ( response <> 10 ) Then
            StartW3SVC = False
        Else
            StartW3SVC = True
        End If
    End If

End Function


'Start the application pool for the website
Function StartAppPool()

    Dim ahwriter, appPoolsSection, appPoolsCollection, index, appPool,
appPoolMethods, startMethod, callStartMethod
    Set ahwriter =
CreateObject("Microsoft.ApplicationHost.WritableAdminManager")

    Set appPoolsSection =
ahwriter.GetAdminSection(APPLICATION_POOLS_SECTION_NAME,
CONFIG_APPHOST_ROOT)
    Set appPoolsCollection = appPoolsSection.Collection

    index = FindAppPoolIndex(appPoolsCollection, APP_POOL_NAME)
    Set appPool = appPoolsCollection.Item(index)

    'See if it is already started
    If appPool.GetPropertyByName("state").Value = 1 Then
```

```
        StartAppPool = True
        Exit Function
    End If

    'Try To start the application pool
    Set appPoolMethods = appPool.Methods
    Set startMethod = appPoolMethods.Item(START_APP_POOL)
    Set callStartMethod = startMethod.CreateInstance()
    callStartMethod.Execute()

    'If started return true, otherwise return false
    If appPool.GetPropertyByName("state").Value = 1 Then
        StartAppPool = True
    Else
        StartAppPool = False
    End If

End Function


'Start the website
Function StartWebSite()

    Dim ahwriter, sitesSection, sitesSectionCollection, siteSection,
index, siteMethods, startMethod, executeMethod
    Set ahwriter =
CreateObject("Microsoft.ApplicationHost.WritableAdminManager")
    Set sitesSection = ahwriter.GetAdminSection(SITES_SECTION_NAME,
CONFIG_APPHOST_ROOT)
    Set sitesSectionCollection = sitesSection.Collection

    index = FindSiteIndex(sitesSectionCollection, SITE_NAME)
    Set siteSection = sitesSectionCollection(index)

    if siteSection.GetPropertyByName("state").Value = 1 Then
        'Site is already started
        StartWebSite = True
        Exit Function
    End If

    'Try to start site
    Set siteMethods = siteSection.Methods
    Set startMethod = siteMethods.Item(START_WEB_SITE)
    Set executeMethod = startMethod.CreateInstance()
    executeMethod.Execute()

    'Check to see if the site started, if not return false
    If siteSection.GetPropertyByName("state").Value = 1 Then
        StartWebSite = True
    Else
        StartWebSite = False
    End If

End Function
```

```
'Cluster resource entry points. More details here:
'http://msdn.microsoft.com/en-us/library/aa372846(VS.85).aspx

'Cluster resource Online entry point
'Make sure the website and the application pool are started
Function Online( )

    Dim bOnline
    'Make sure w3svc is started
    bOnline = StartW3SVC()

    If bOnline <> True Then
        Resource.LogInformation "The resource failed to come online
because w3svc could not be started."
        Online = False
        Exit Function
    End If


    'Make sure the application pool is started
    bOnline = StartAppPool()
    If bOnline <> True Then
        Resource.LogInformation "The resource failed to come online
because the application pool could not be started."
        Online = False
        Exit Function
    End If


    'Make sure the website is started
    bOnline = StartWebSite()
    If bOnline <> True Then
        Resource.LogInformation "The resource failed to come online
because the web site could not be started."
        Online = False
        Exit Function
    End If

    Online = true

End Function


'Cluster resource offline entry point
'On offline, do nothing.
Function Offline( )

    Offline = true

End Function


'Cluster resource LooksAlive entry point
'Check for the health of the website and the application pool
Function LooksAlive( )
```

```
    Dim adminManager, appPoolState, configSection, i, appPoolName,
appPool, index

    i = 0
    Set adminManager  =
CreateObject("Microsoft.ApplicationHost.AdminManager")
    appPoolState = -1

    'Get the state of the website
    if GetWebSiteState(adminManager, SITE_NAME) <> 1 Then
        Resource.LogInformation "The resource failed because the " &
SITE_NAME & " web site is not started."
        LooksAlive = false
        Exit Function
    End If


    'Get the state of the Application Pool
     if GetAppPoolState(adminManager, APP_POOL_NAME) <> 1 Then
         Resource.LogInformation "The resource failed because Application
Pool " & APP_POOL_NAME & " is not started."
         LooksAlive = false
     Exit Function
     end if

     '  Web site and Application Pool state are valid return true
     LooksAlive = true
End Function


'Cluster resource IsAlive entry point
'Do the same health checks as LooksAlive
'If a more thorough than what we do in LooksAlive is required, this
should be performed here
Function IsAlive()

    IsAlive = LooksAlive

End Function


'Cluster resource Open entry point
Function Open()

    Open = true

End Function


'Cluster resource Close entry point
Function Close()

    Close = true

End Function
```

```
'Cluster resource Terminate entry point
Function Terminate()

    Terminate = true

End Function

'<end script sample>
```