

**MasterScope Application Navigator
Manager, Agent (Windows version)
Cluster Setup Guide
(MSFC Edition)**

August, 2014

Revision History

Revision No.	Date Shipped	Description
1st edition	6.2009	Newly released for Ver3.0.2
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Chapter 1 Preface

This document describes the procedure for using Microsoft Failover Cluster (hereinafter, "MSFC") to set up a cluster configuration (a duplex configuration) with two nodes. MSFC is a Microsoft product that can be used to switch running processes between nodes in a duplex system.

In this document, a host system included in a cluster is referred to as a node.

1.1 Supplementary Information

Incorrectly upgrading the OS on a cluster server may cause failovers unexpectedly. In the worst case, this may damage the system.

1.2 Scope

This document is intended for Microsoft Failover Cluster (MSFC) for Windows Server 2008.

Chapter 2 Set up Procedure

This chapter describes the procedure for setting up the MasterScope Application Navigator (hereinafter, “Application Navigator” or “AppNavi”) cluster environment.

2.1 Setting up MSFC

Before starting to set up MSFC, complete the installation of MSFC and the setup of the cluster environment.

2.2 Setting up Application Navigator

This section describes how to install Application Navigator Manager/Agent on a Windows computer to be used as the active or standby node

For information on the installation method, refer to “MasterScope Media Release Notes” and “Logical Agent Installation Guide.”

Notes:

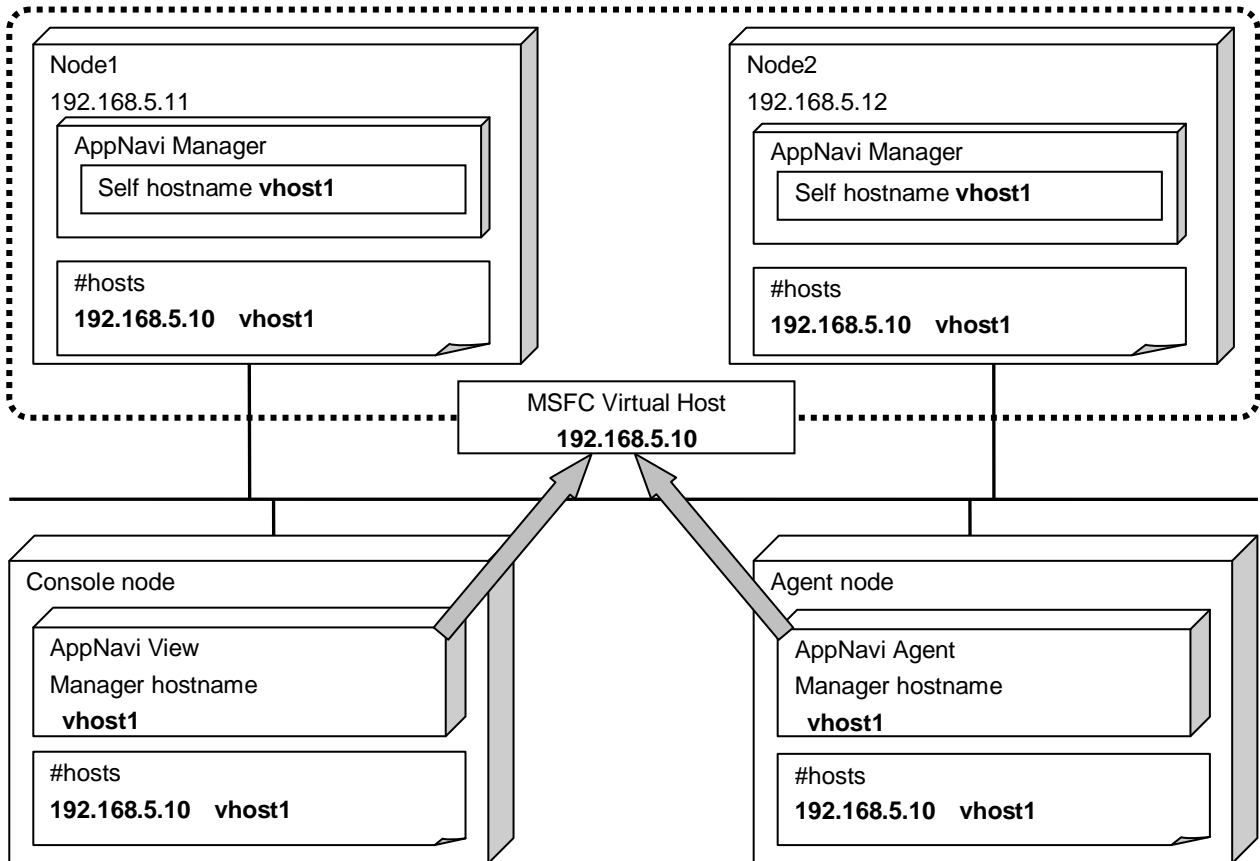
- * Install on the active system first, and then on the standby system.
- * When installing the Manager/Agent to the active node, the shared disk must be accessible. The shared disk does not have to be accessible from the standby node.
- * Use the same drive name and same folder name for the installation location for the Application Navigator on the active node and on the standby node.
- * The virtual hostname and the shared disk must be reread where appropriate to your environment.

2.2.1 Installing the Manager

This explanation also assumes the following for the shared resources for cluster:

- Virtual hostname: vhost1
- Shared disk: G drive

The following shows the overview of the Manager in a duplex configuration:

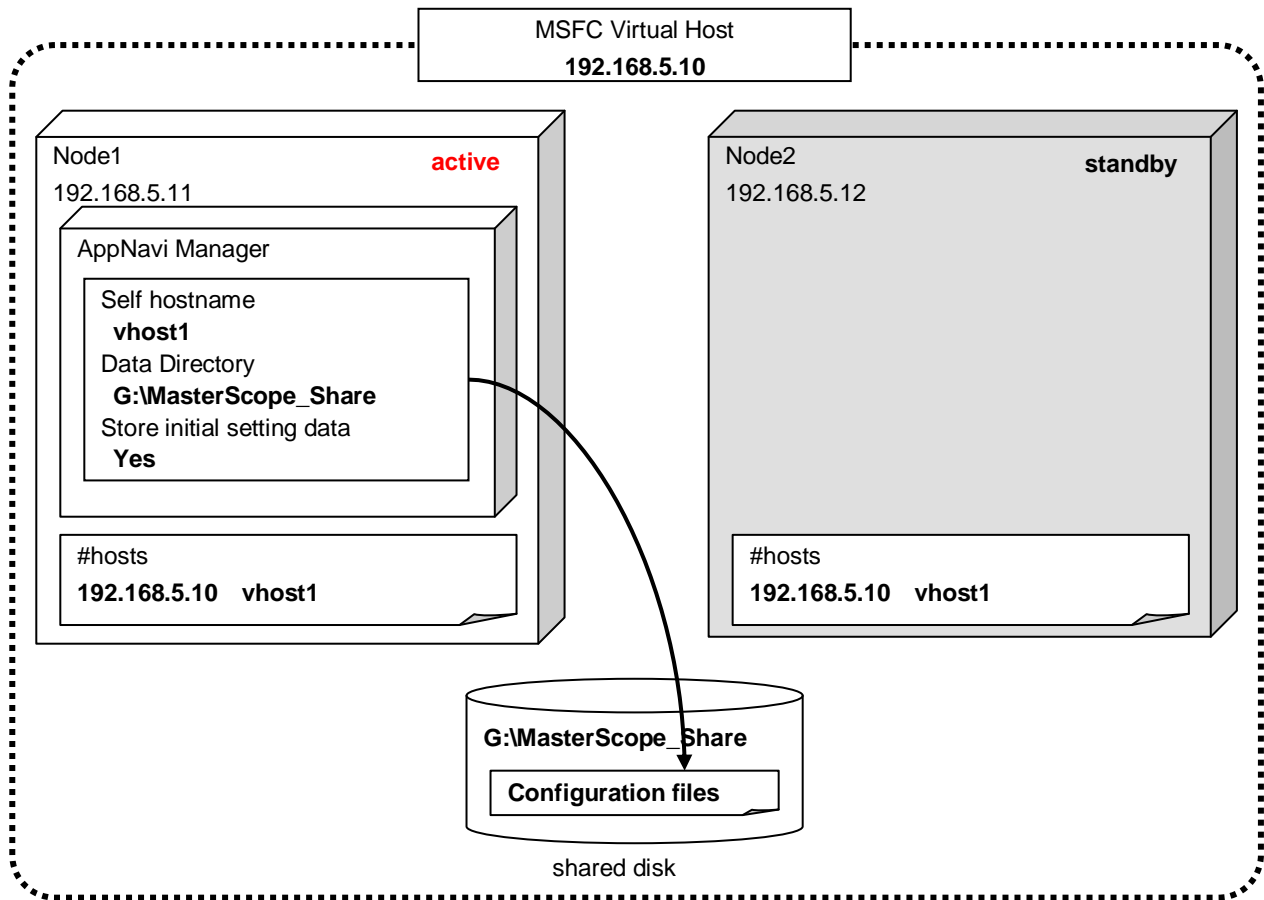


The agent and console must be set up so that they may be connected to the virtual host.

The following describes the procedure for installing the Application Navigator Manager feature:

First, install the Application Navigator Manager on the active node.

The following shows the overview of installing the Application Navigator Manager on the active node:



Specify the setting items as follows in the installation setting window for Application Navigator Manager on the active node.

- Specify appropriate values for [Install directory path], [Agent port], and [Viewer port]. For details about the setting values, refer to “MasterScope Media Release Memo.”
- Specify a desired virtual hostname for [Self hostname] and any folder on the shared disk for [Data directory].
- Specify “Yes” for [Change Data Directory] and for [Store initial setting data].

The following table lists an example of setting these values:

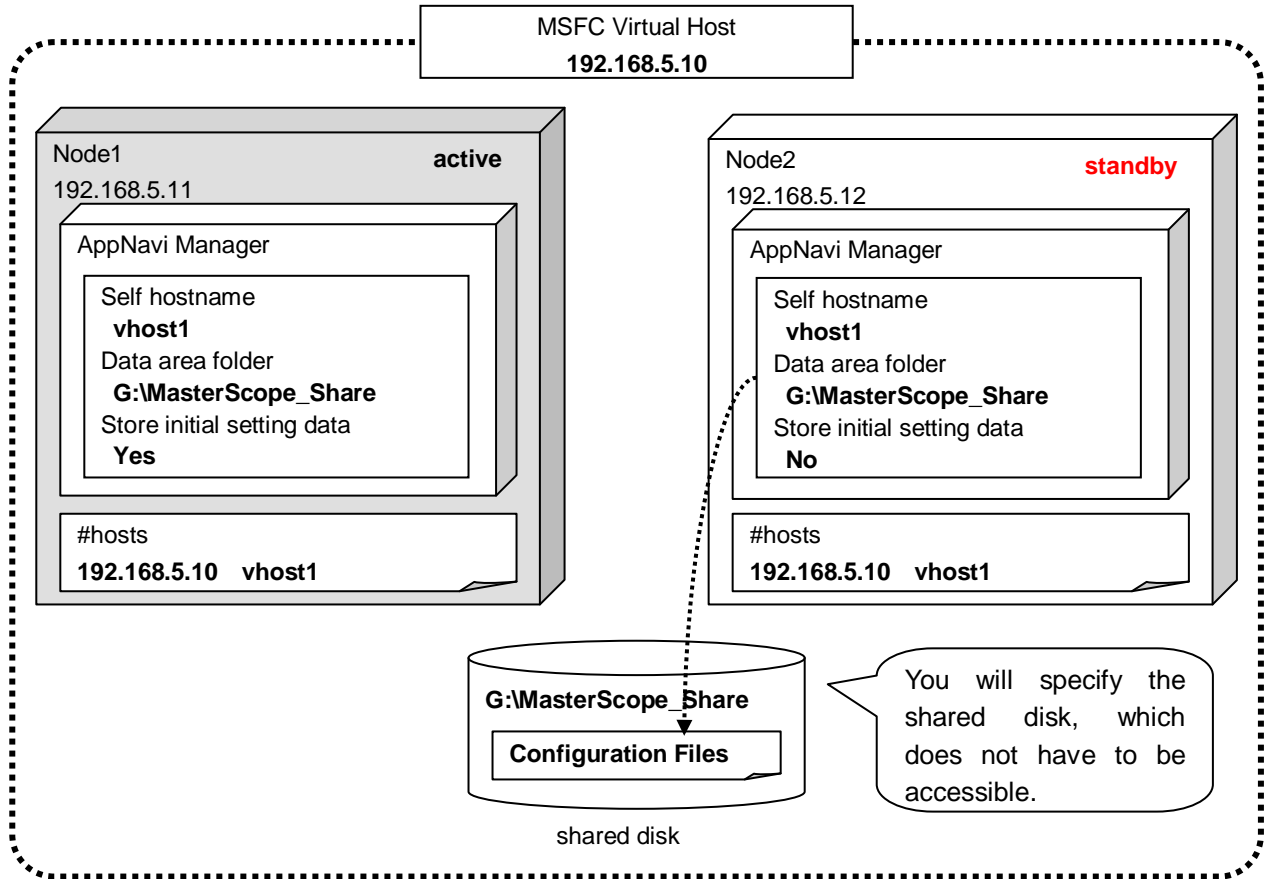
Item name	Value	Remarks
Install directory path	C:\Program Files(x86)\NEC\UMF\Operations	Path (any) to a local disk
Self hostname	vhost1	Virtual hostname
Agent port	12520	(Any)
Viewer port	12521	(Any)
Change Data Directory	Yes	(Fixed)
Data Directory	G:\MasterScope_Share	Path (any) to the shared disk
Store initial setting data	Yes	(Fixed)

“\Manager\sg” will automatically be added to the folder in the data area and the setting information that must be shared will be stored there.

When the installation process completes, ensure that “\Manager\sg” has been created in the data area folder.

Next, install the Application Navigator Manager on the standby node.

The following shows the overview of installing the Application Navigator Manager on the standby node:



Specify the setting items as follows in the Installation Settings window for Application Navigator Manager on the standby node.

- Specify the same values as the active node, except for the [Store initial setting data] item.
- Specify [No(only for cluster standby)] for [Store initial setting data].

The following table lists an example of setting these values:

Item name	Value	Remarks
Install directory path	C:\Program Files(x86)\NEC\UMF\Operations	Path (any) to a local disk
Self hostname	vhost1	Virtual hostname
Agent port	12520	(Any)
Viewer port	12521	(Any)
Change Data Directory	Yes	(Fixed)
Data Directory	G:\MasterScope_Share	Path (any) to the shared disk
Store initial setting data	NO (only for cluster standby)	(Fixed)

When the installation process completes, change the startup type of the service both in the active node and in the standby node.

Click [Start] - [Administrative Tools] - [Services], stop the following service, and then change the [Startup type] in the properties from [Automatic] to [Manual].

MasterScope UMF Operations Manager_*N*

N stands for a Service number. For details, refer to “MasterScope Media Release Notes.”

In this example, the service name is “MasterScope UMF Operations Manager_1.”

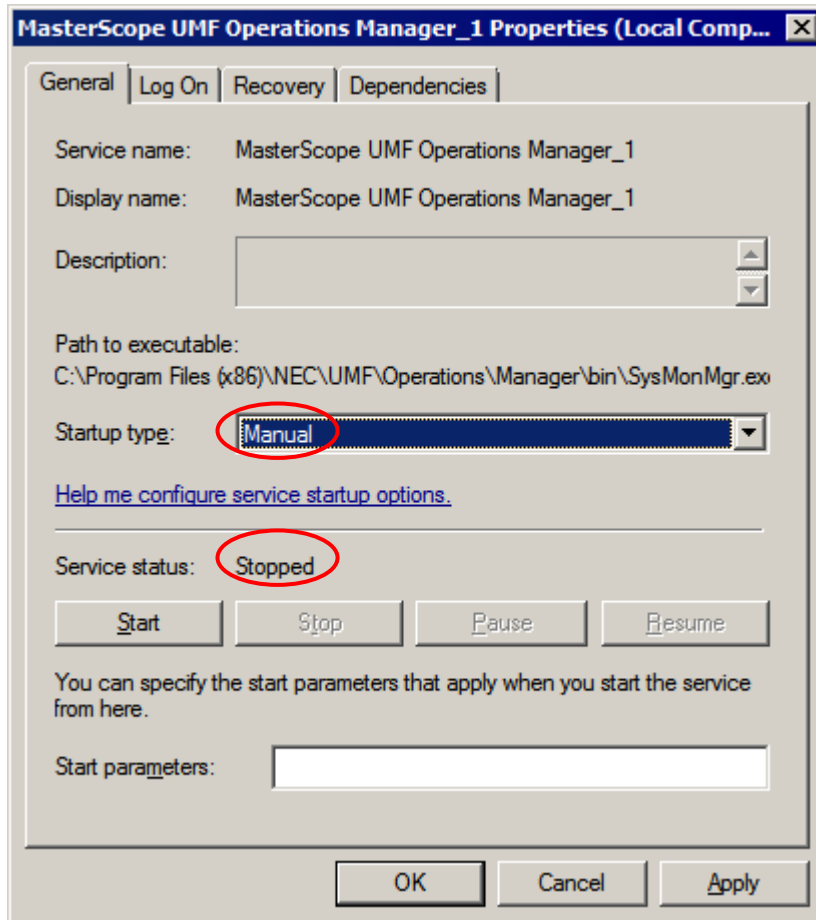


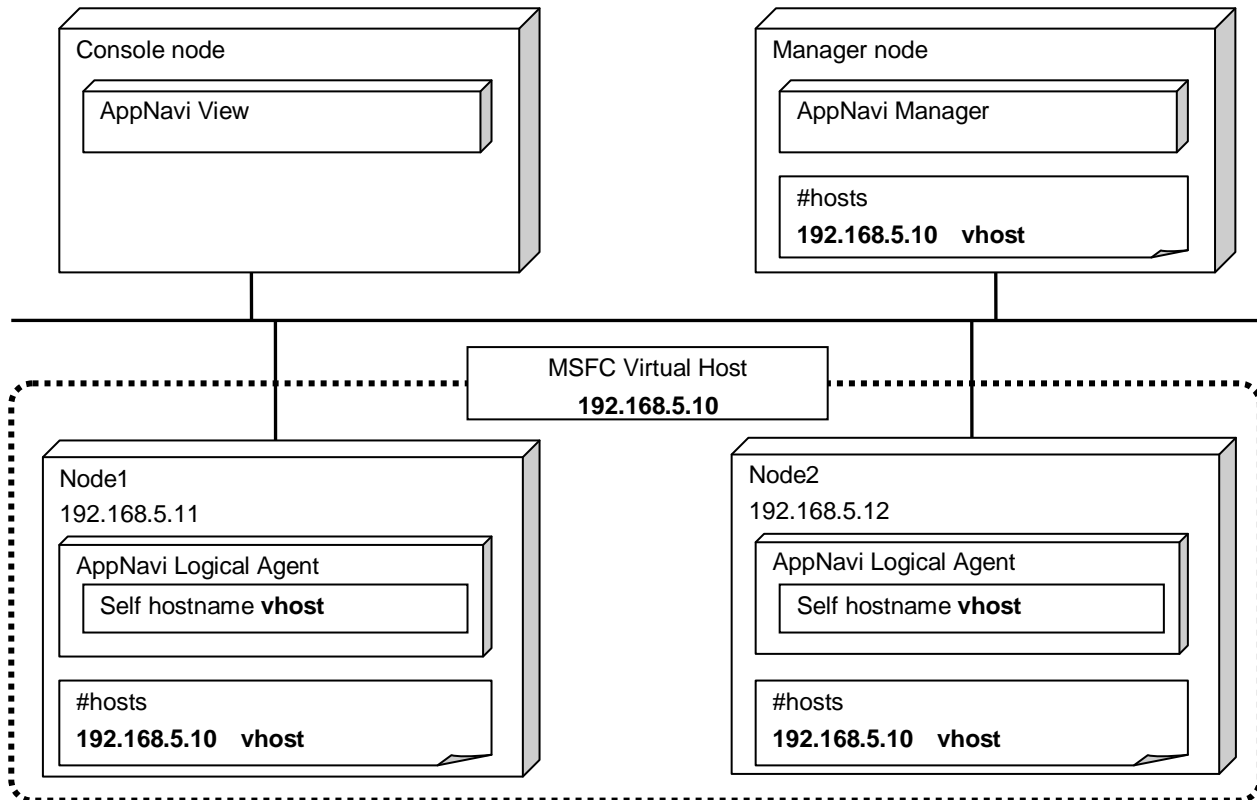
Figure 2-1: Service Properties

2.2.2 Installing the Agent

This explanation also assumes the following for the shared resources for cluster:

- Virtual hostname: vhost
- Shared disk: X drive

The following shows the overview of the Agent in a duplex configuration:

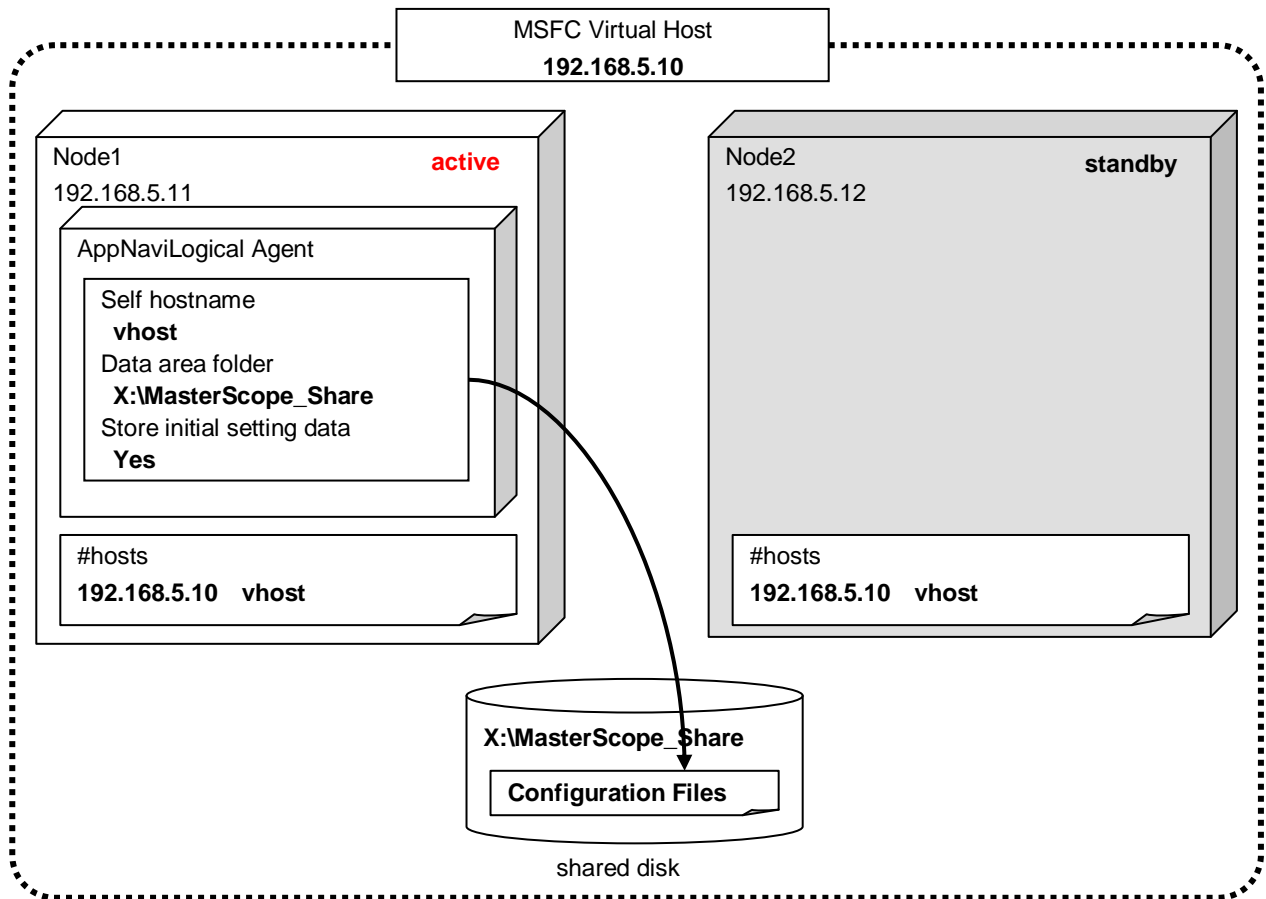


In an Agent duplicate configuration, you need to install not a normal Agent but a logical system agent (Logical Agent).

The following describes the procedure for installing the Application Navigator Agent feature:

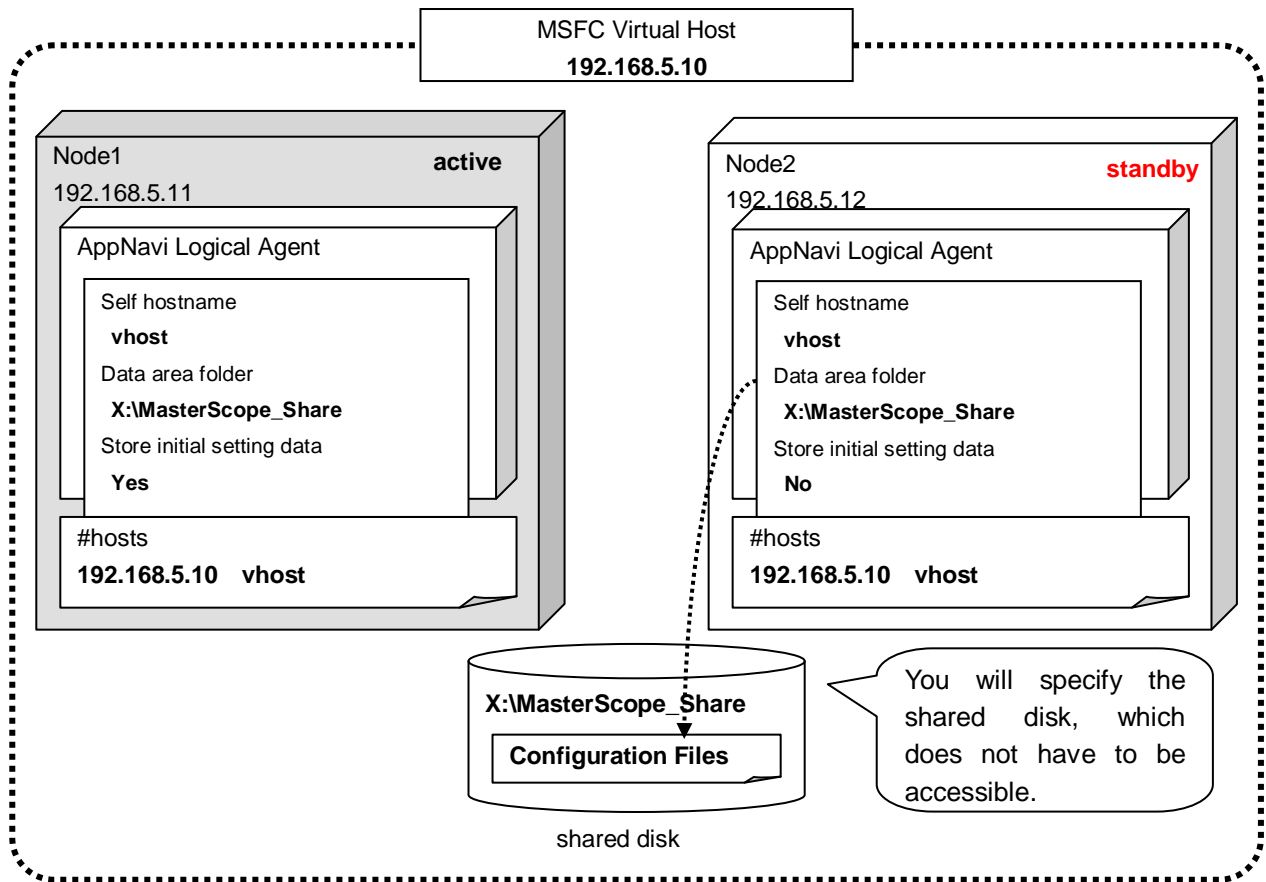
First, start the cluster from the active node, and then install the Application Navigator logical system agent on the node.

The following shows the overview of an Application Navigator logical system agent installation on the active node:



Next, switch the connected nodes and start the cluster from the standby node. Install the Application Navigator logical system agent on the standby node.

The following shows the overview of an Application Navigator logical system agent installation on the standby node:



For details about the installation procedure, refer to "Logical Agent Installation Guide."

2.3 Setting up the Application Navigator Service Monitored Resource

To monitor a failure in the Application Navigator service, add a desired service monitored resource with MSFC.

Click [Start] - [Administrative Tools] - [Failover Cluster Management] and create resources by one of the following methods

- Creating resource by creating new service
Refer to “2.3.1 Creating Resource by Creating New Service”. Normally use this method to perform setup.
- Creating resource from high availability wizard
Refer to “2.3.2 Creating Resource by High Availability Wizard”. Other than the floating IP address of the cluster, there is also a need to prepare a separate floating IP address.

2.3.1 Creating Resource by Creating New Service

(1) Creating resource

Right-click [Services and Applications] in the tree on the left pane, select [More actions]-[Create Empty Service or Application] from the displayed pop-up menu.

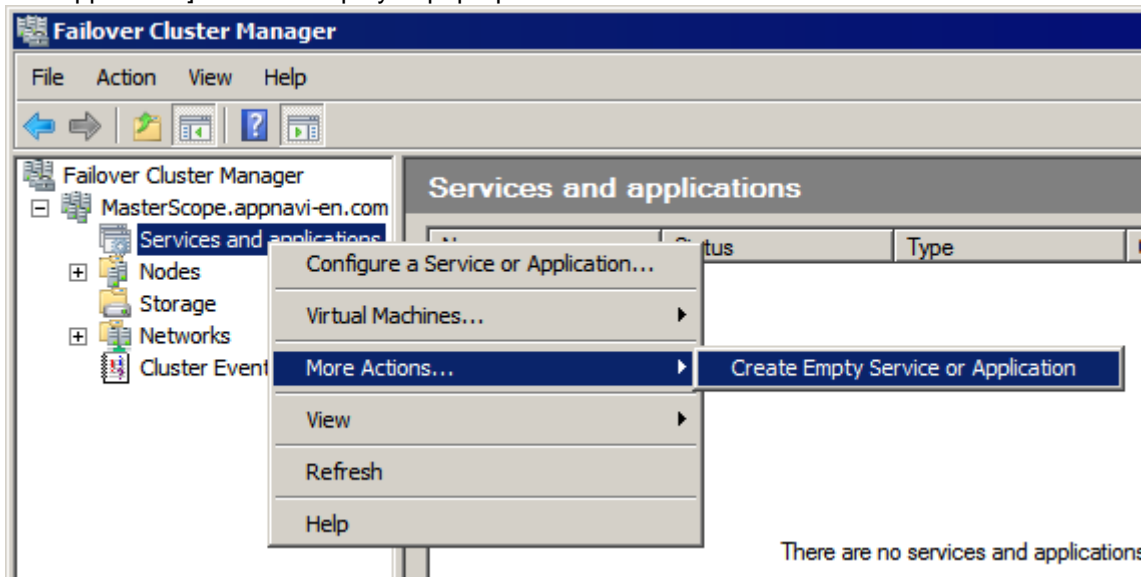


Figure 2-2: Service and Application Configuration

The “New service or application” node will be created. Right-click this node and change the name at “Rename”. Change the name to “MasterScope Service” here.

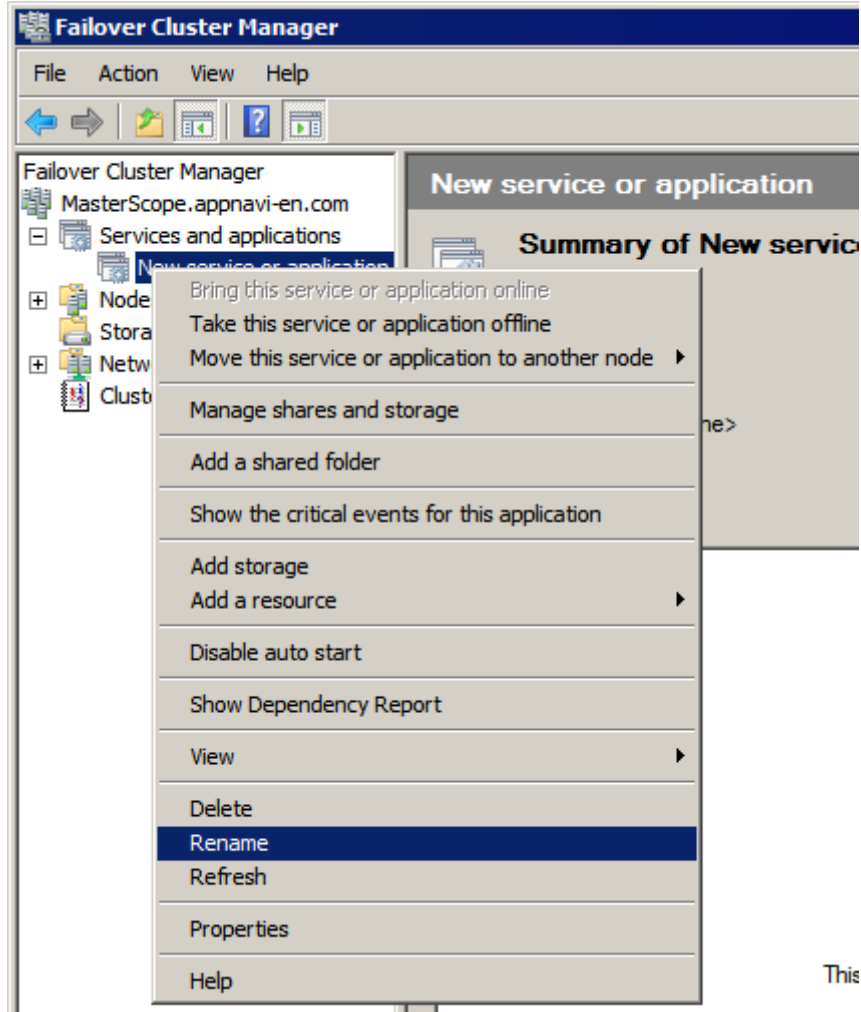


Figure 2-3: Rename

Right-click the “MasterScope Service” node and select [Add storage].

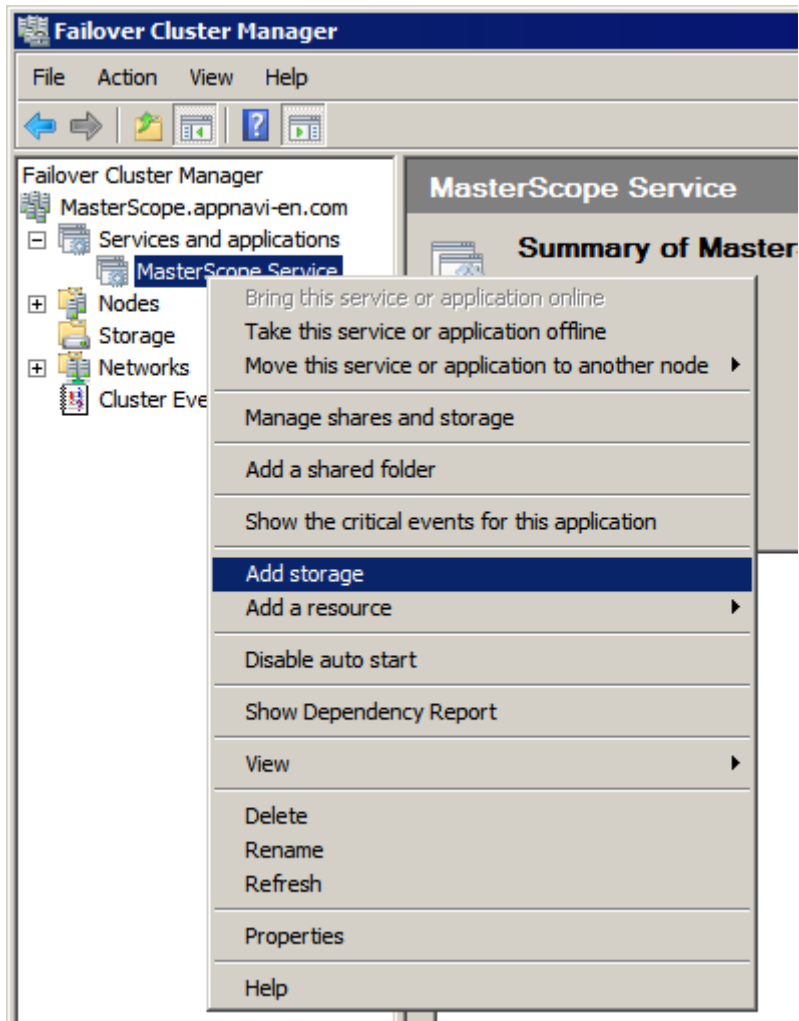


Figure 2-4: Add storage

At the [Add Storage] window, check the disk checkbox, and click the [OK] button.

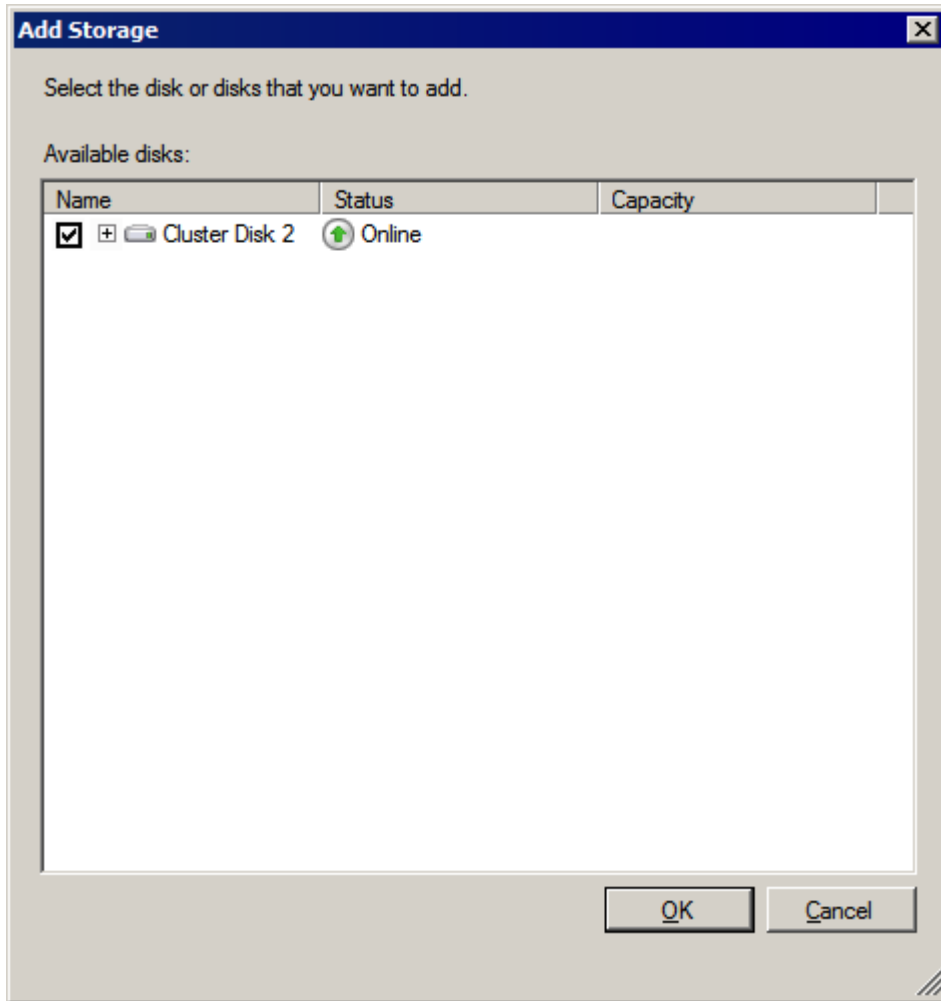


Figure 2-5: Add Storage

Right-click the “MasterScope Service” node and select [Add a resource]-[4- Generic Service].

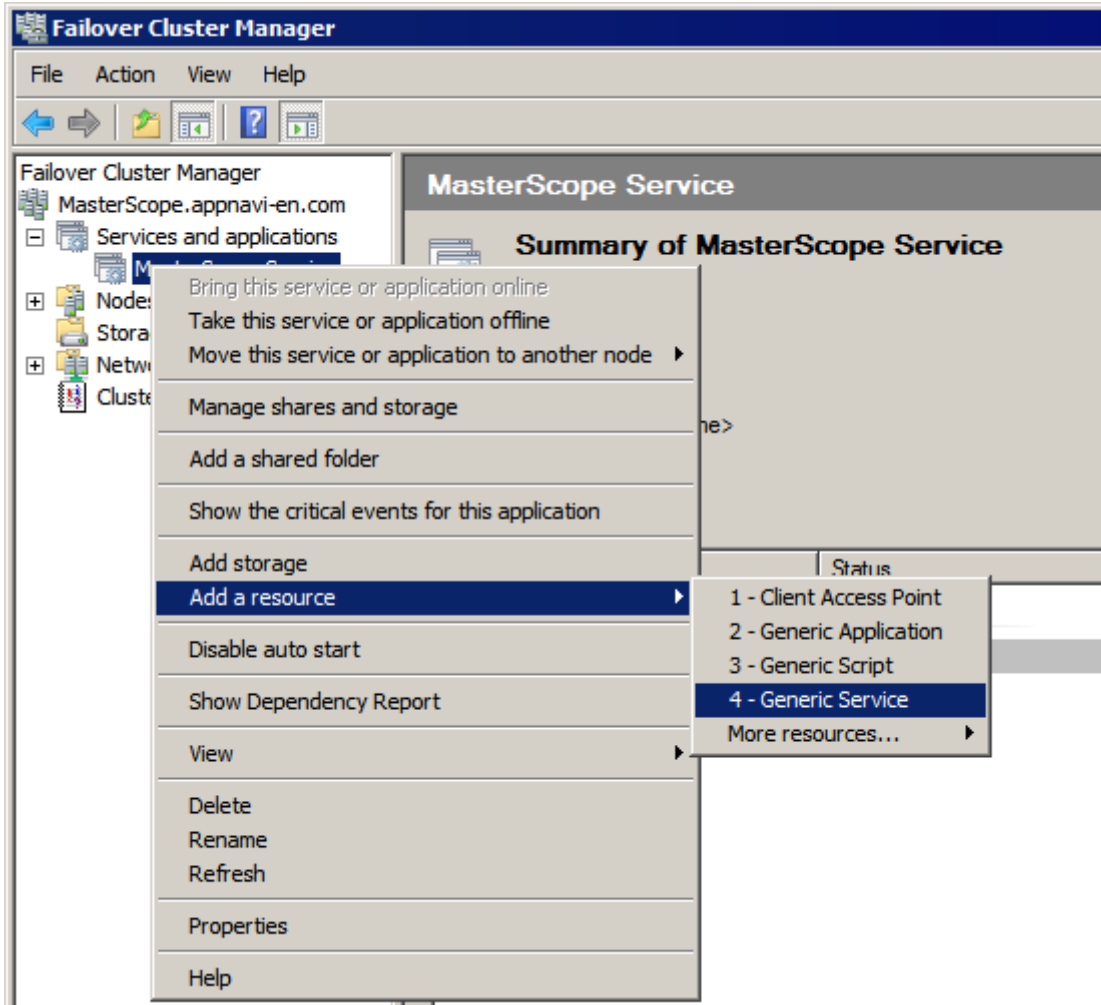


Figure 2-6: Addition a resource

The [Select Service] window is displayed. Specify “MasterScope UMF Operations Manager_1” or “MasterScope UMF Operations Logical Agent_1” (N stands for a Service number. For information on Service number, refer to appropriate “MasterScope Media release memo”.) and click [Next]. In this example, “MasterScope UMF Operations Manager_1” is specified.

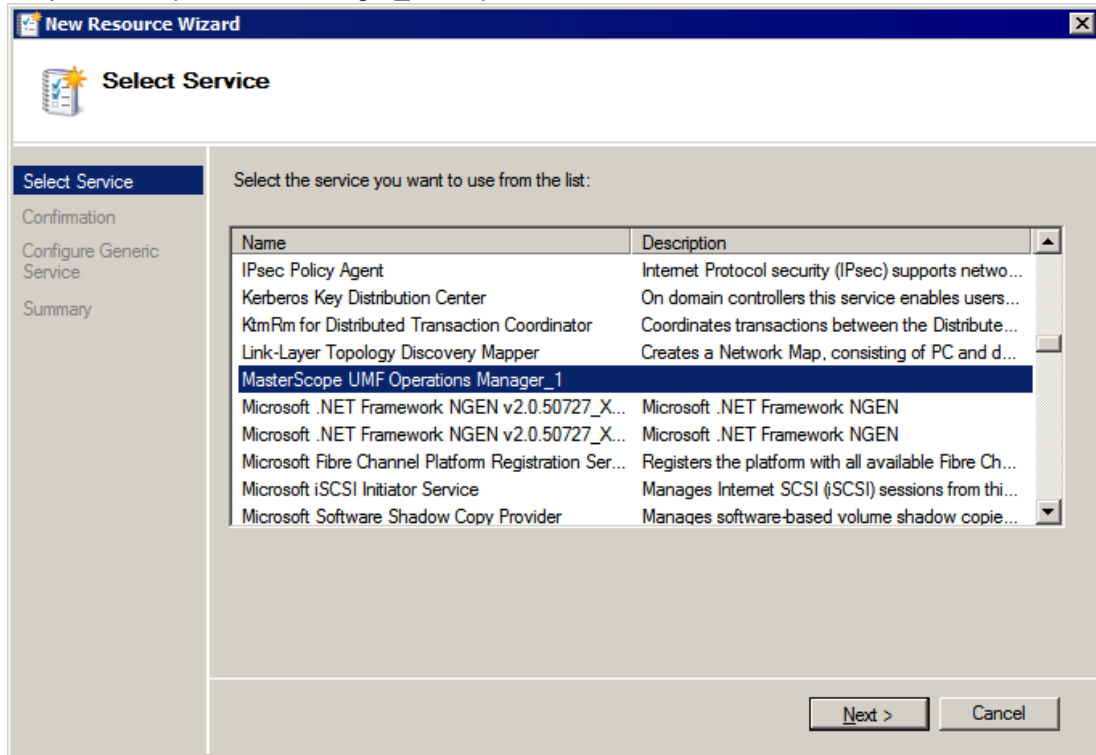


Figure 2-7: Service Selection

Click the [Next] button in the confirmation window.

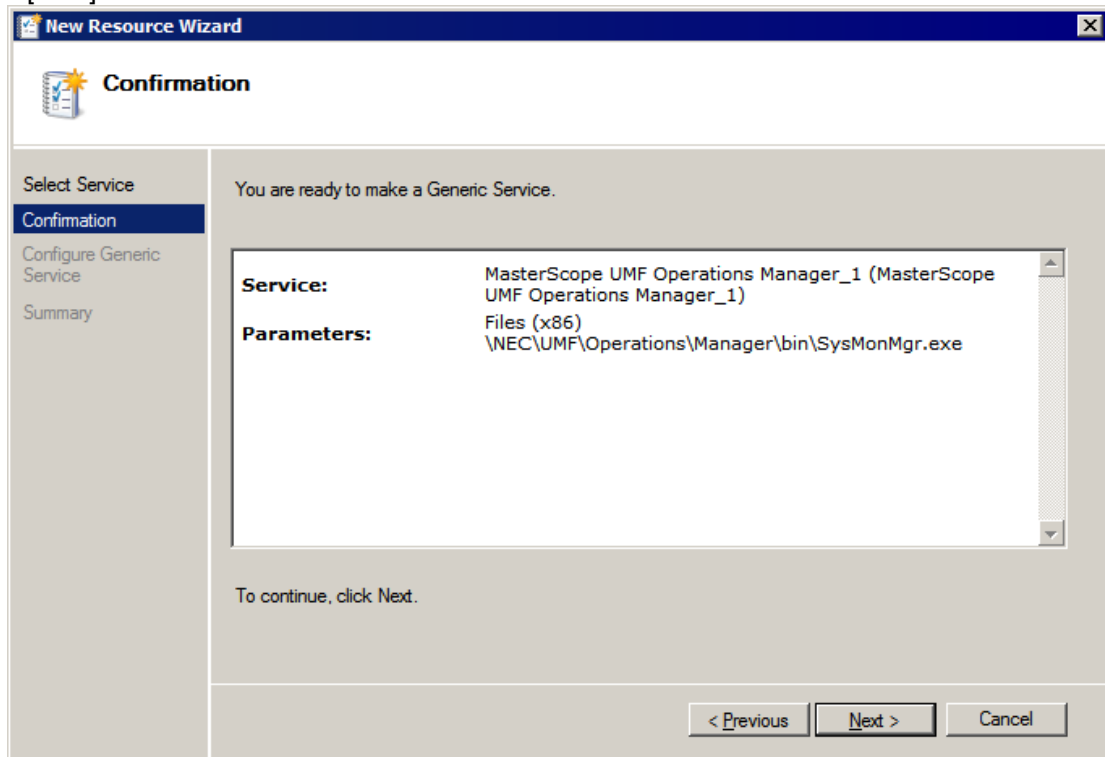


Figure 2-8: Confirmation

Click the [Finish] button in the Summary window.

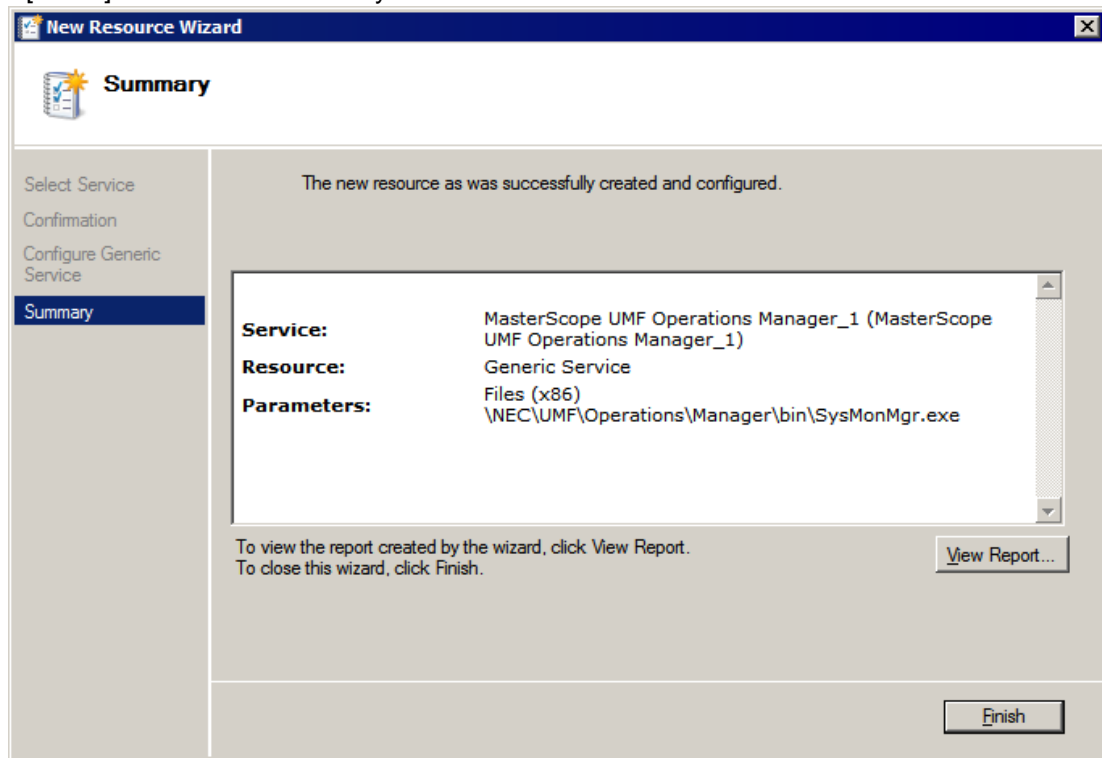


Figure 2-9: Summary

(2) Starting a resource

If the service is not automatically started, start it by performing the following procedure:

1. In the [Failover Cluster Manager] window, right-click the icon for the resource created (MasterScope Service in this example).
2. Select [Bring this service or application online] from the displayed pop-up menu to start the service.

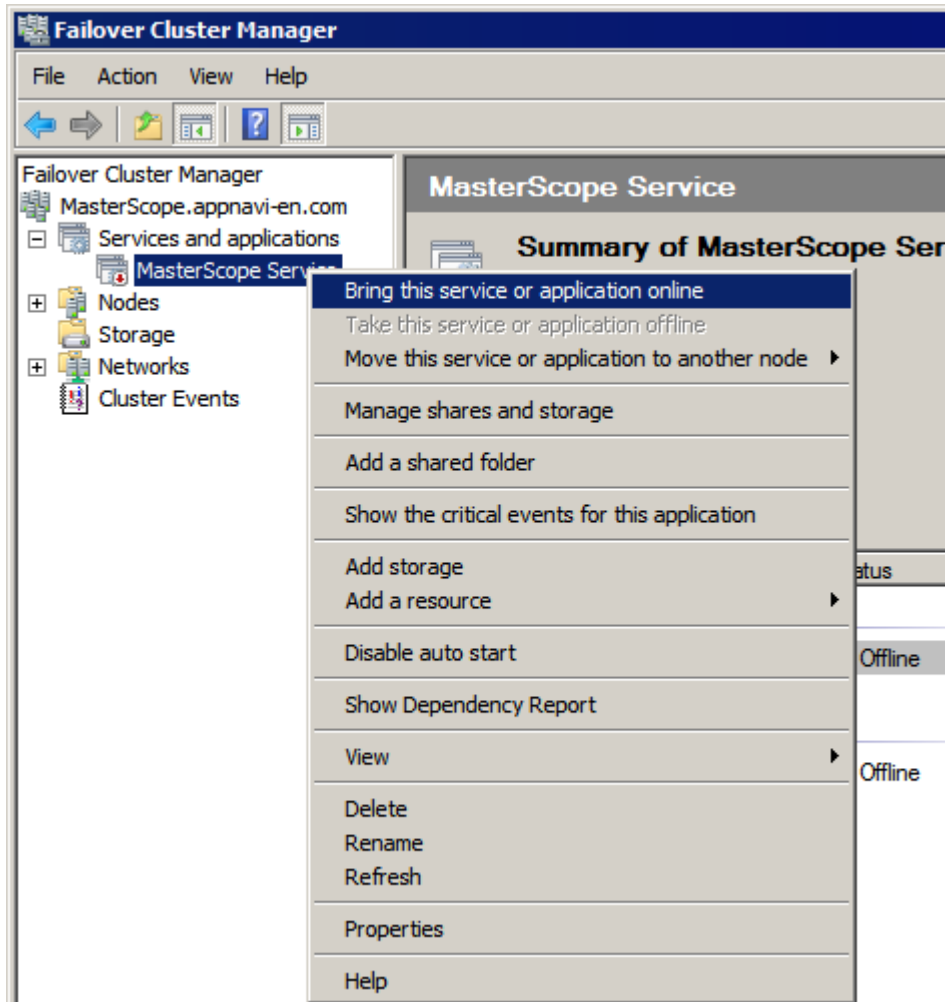


Figure 2-10: Bring a Resource Online

If the service has been started on the standby node, start it on the active node by performing the following procedure:

1. In the [Failover Cluster Manager] window, right-click the icon for the resource (MasterScope Service in this example).
2. Select the active node to move the generic service to from the menu displayed under [Move this service or application to another node].

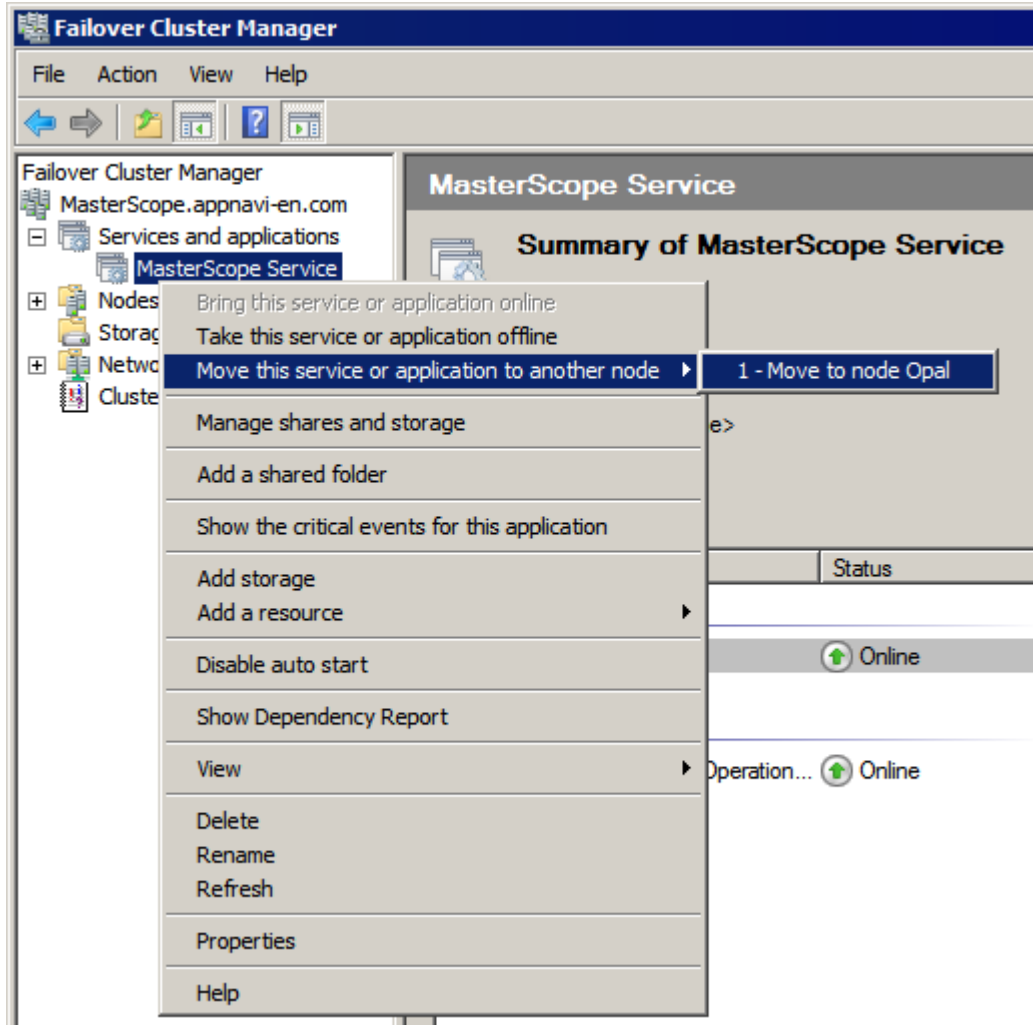


Figure 2-11: Moving a Resource

This completes the setup on MSFC.

2.3.2 Creating Resource by High Availability Wizard

(1) Creating resource

When creating a resource using the high availability wizard, the floating IP address needs to be set. A separate IP address from the cluster IP address is required.

Note that this procedure assumes the shared disk described in “2.2 Setting up Application Navigator” to be the shared disk for the shared resources in MSFC, and the following to be the floating IP address

Shared disk: G drive
IP address: 192.168.2.32

Notes:

* The shared disk and IP addresses must be reread as appropriate to your environment.

Right-click [Services and Applications] in the tree on the left pane, and select [Configure a Service or Application] from the displayed pop-up menu.

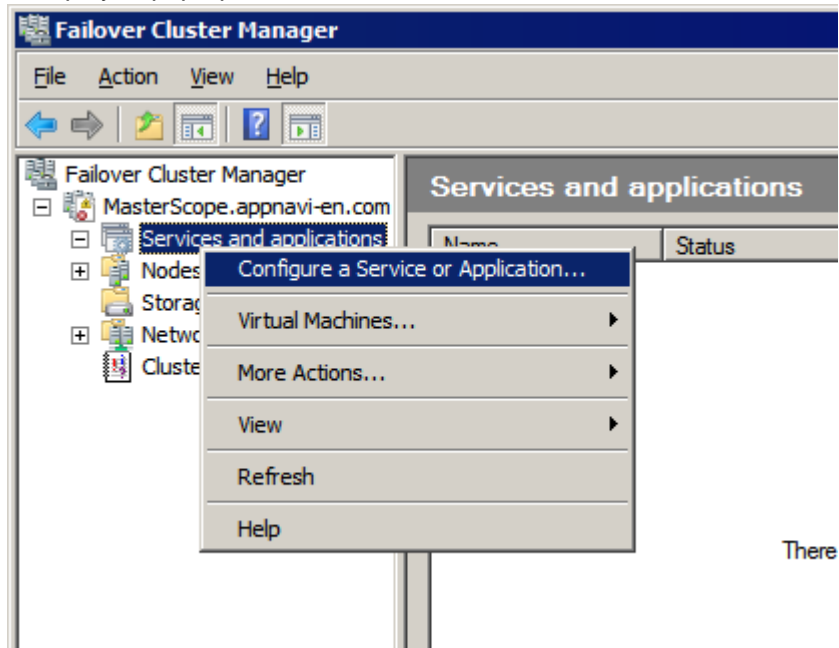


Figure 2-12: Creating Resource

A wizard window appears for configuring a service or application. Click [Next].

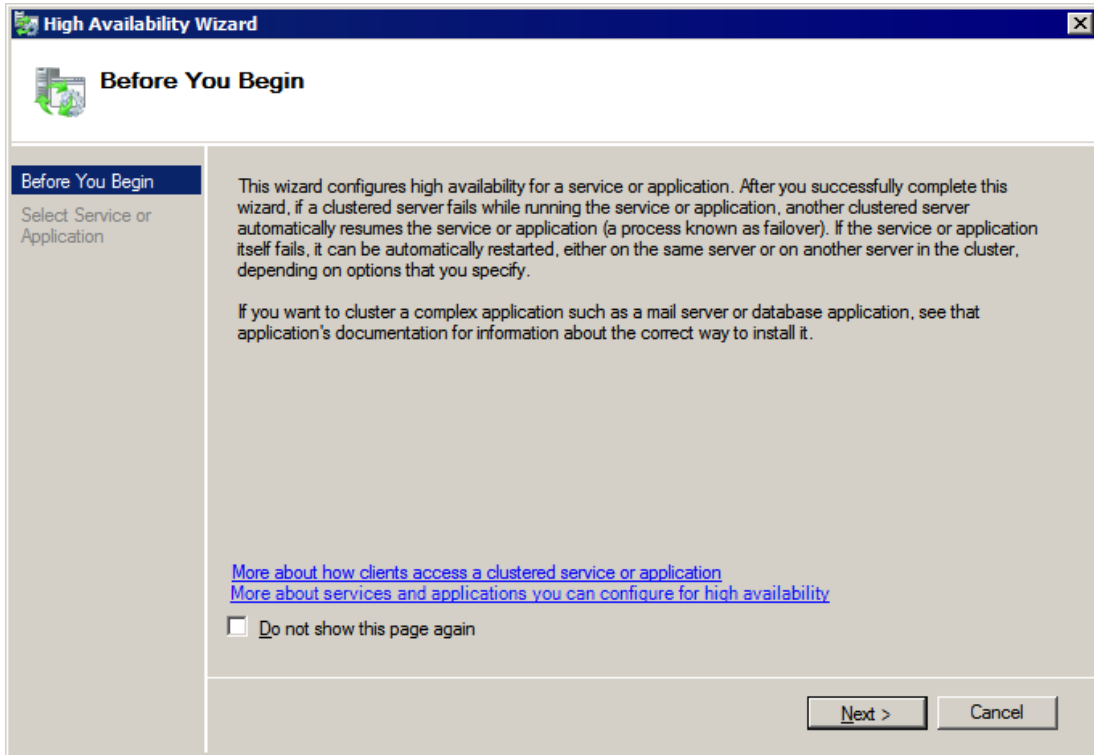


Figure 2-13: High Availability Wizard

The [Select Service or Application] window is displayed. Select [Generic service] and click [Next].

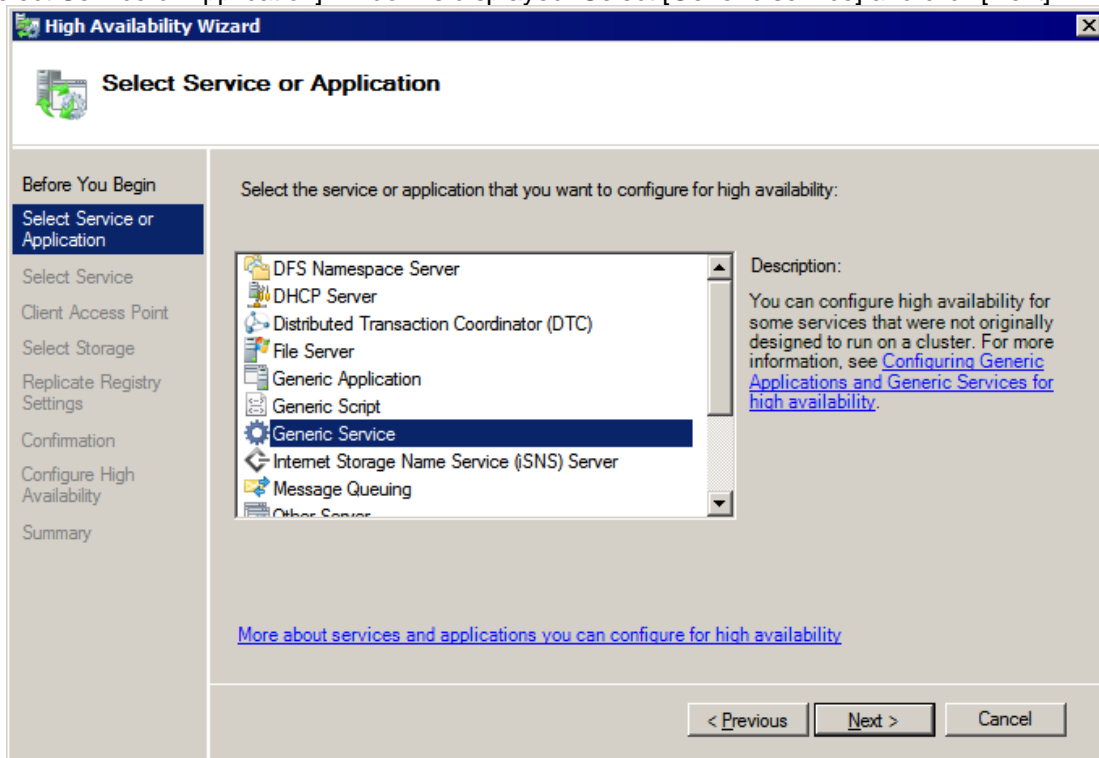


Figure 2-14: Service or Application Selection

The [Select Service] window is displayed. Specify "MasterScope UMF Operations Manager_1" or "MasterScope UMF Operations Logical Agent_1" (N stands for a Service number. For information on Service number, refer to appropriate "MasterScope Media release memo".) and click [Next]. In this example, "MasterScope UMF Operations Manager_1" is specified.

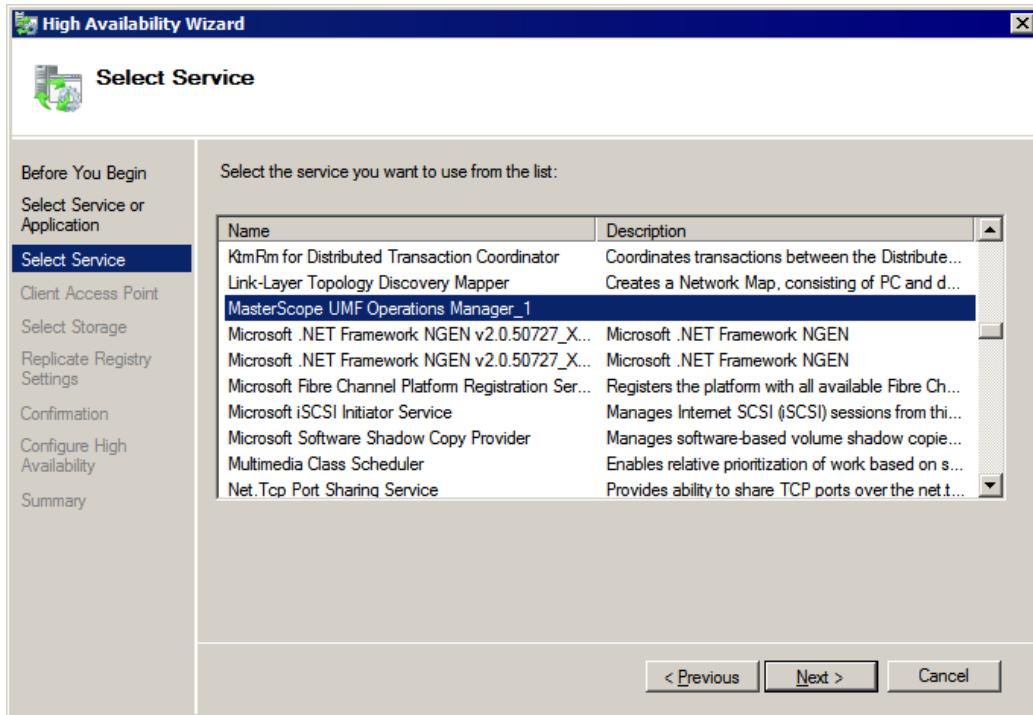


Figure 2-15: Select Service

The [Client Access Point] window is displayed. Specify a desired network name (MasterScope_Sv in this example) for the name to be used by the client and a desired floating IP address (192.168.2.32 in this example) as the IP address, and click [Next].

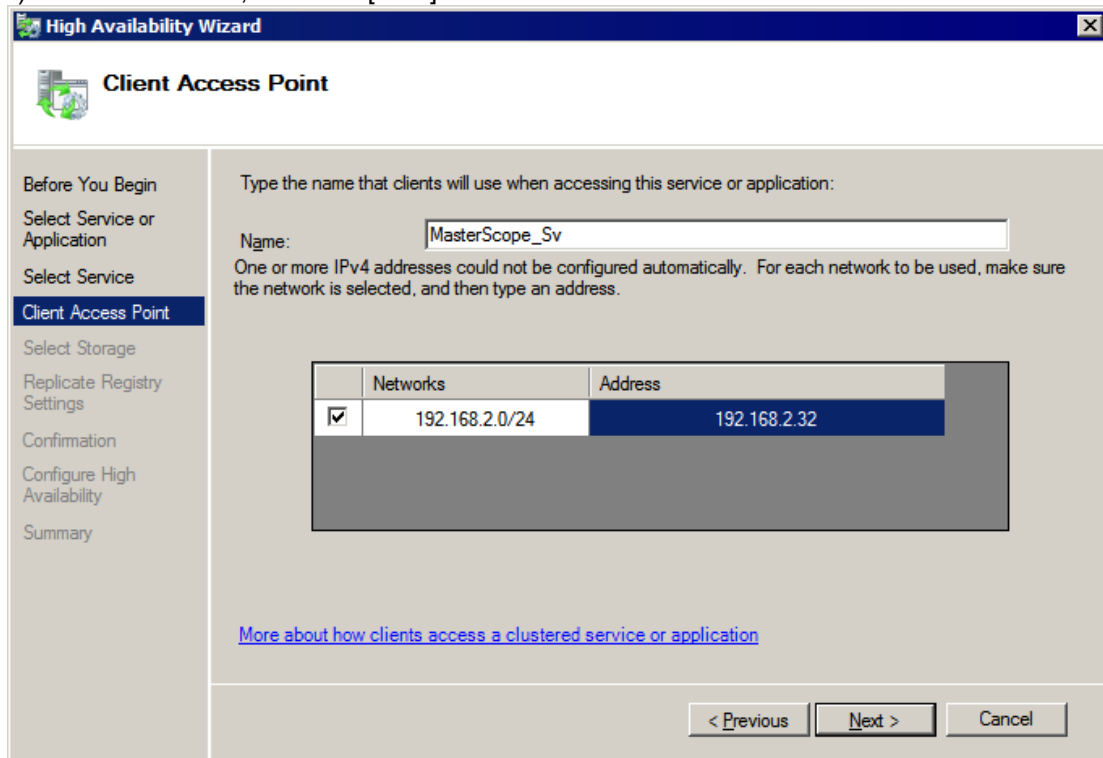


Figure 2-16: Client Access Point

The [Select Storage] window is displayed. Check the check box for the cluster disk that includes the shared disk ("G drive" in this example) specified in "2.2 Setting up Application Navigator" and click [Next].

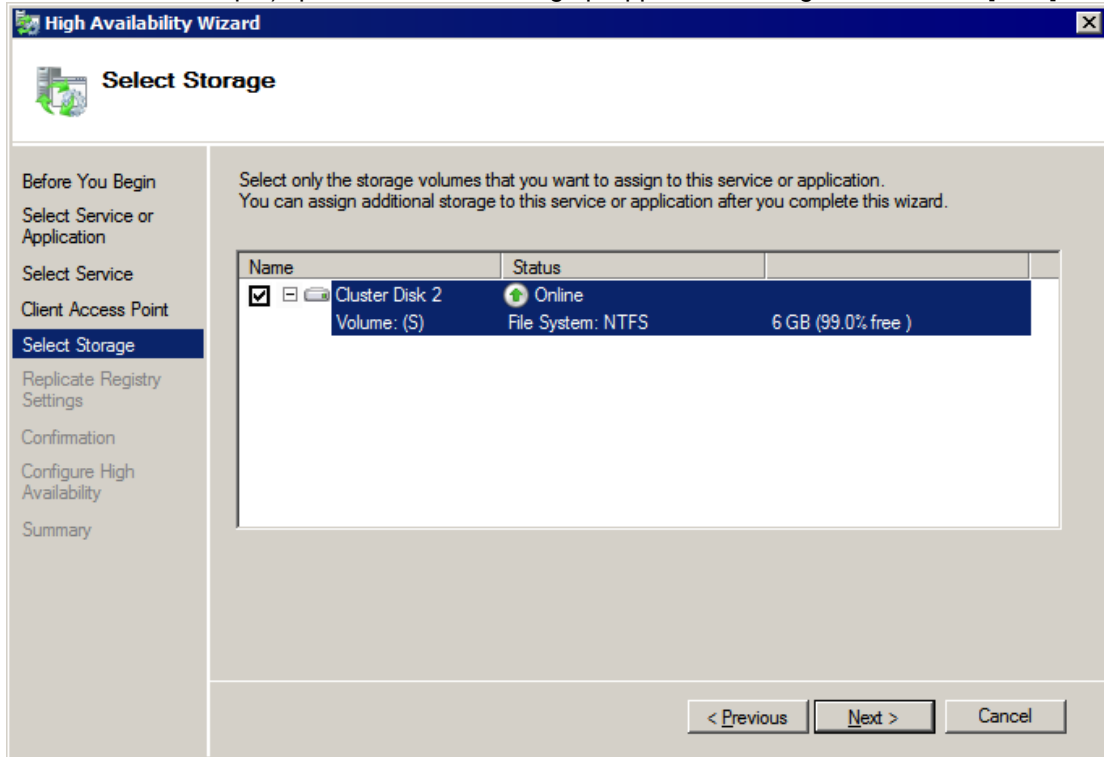


Figure 2-17: Storage Selection

The [Replicate Registry Settings] window is displayed. Click [Next] without setting anything in this window.

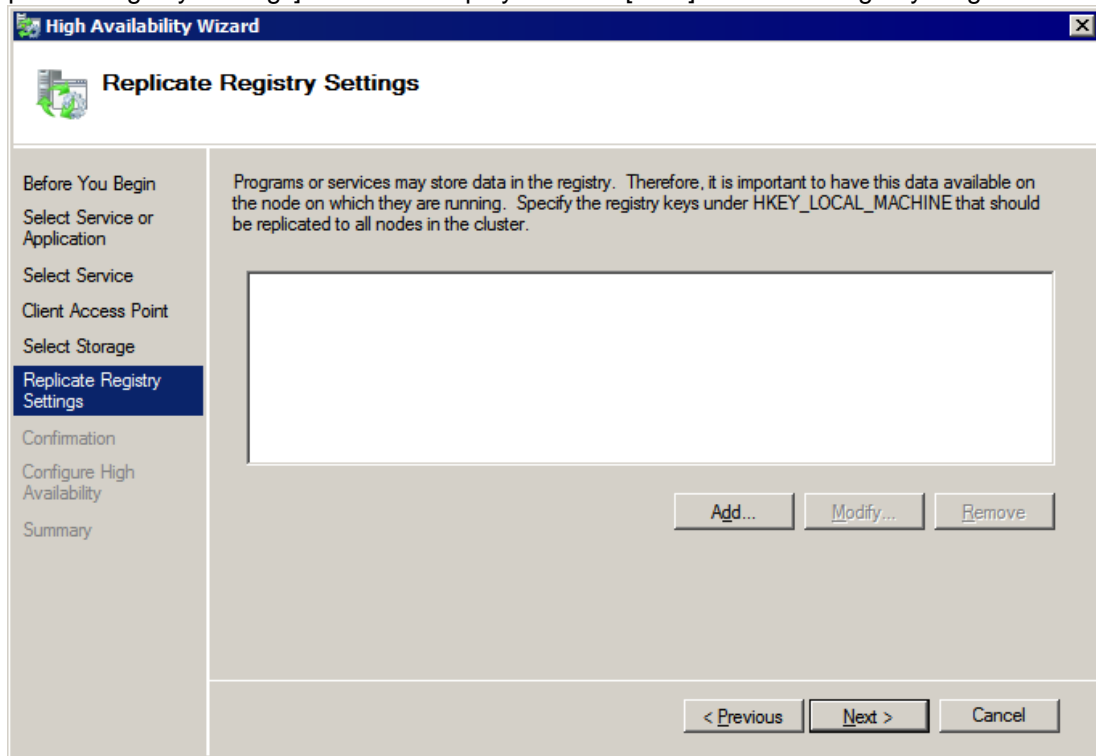


Figure 2-18: Registry Settings Replication

The confirmation window for general service configuration is displayed. Confirm the settings and click [Next].

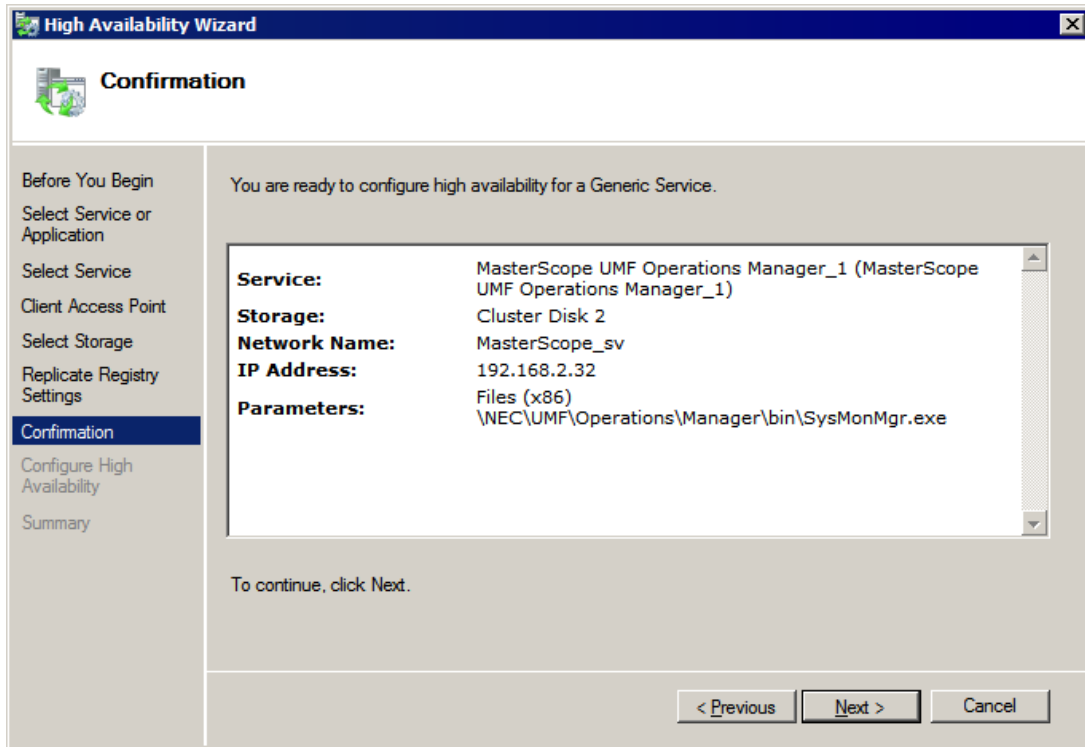


Figure 2-19: Configured General Service Confirmation

When the [Summary] window appears, click the [Finish] button.

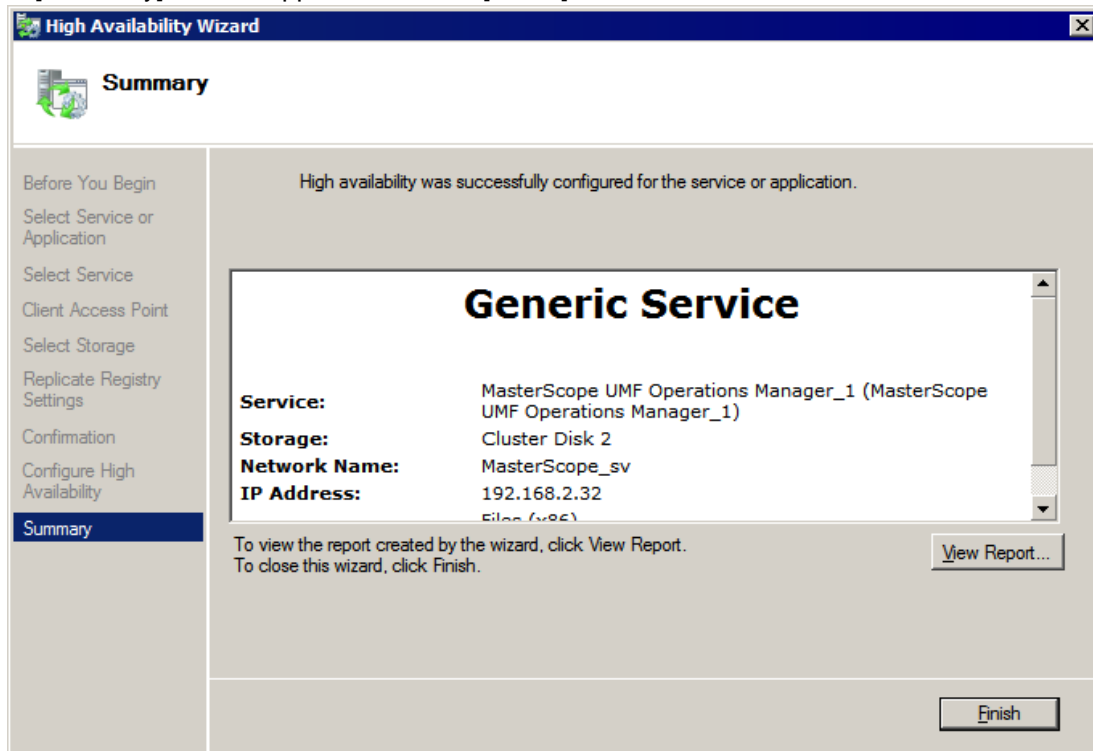


Figure 2-20: Completion of Resource Creation

When the resource has been created, confirm that the generic service resource has been created under [Services and Applications] in the [Failover Cluster Manager] window.

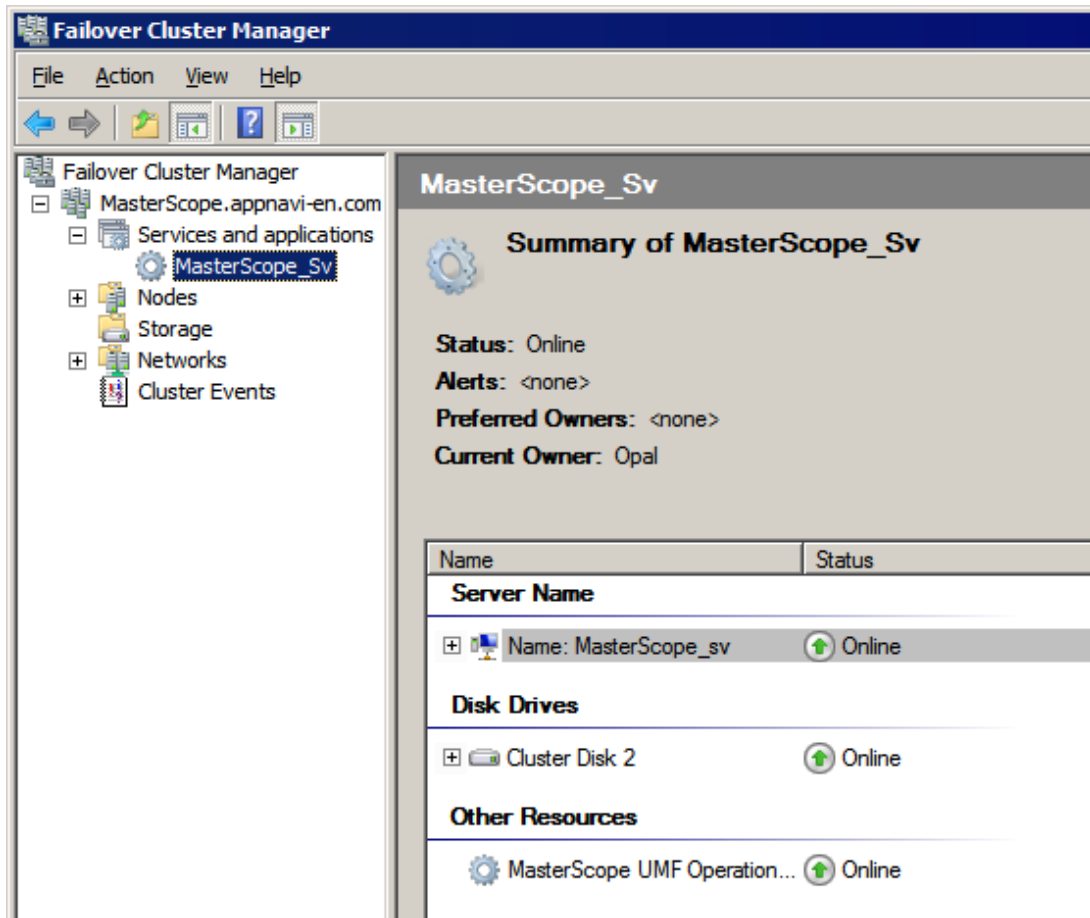


Figure 2-21: Failover Cluster Manager Window (after Resource has been created)

(2) Starting resource

If the generic service is not automatically started, start it by performing the following procedure:

1. In the [Failover Cluster Manager] window, right-click the icon for the resource (MasterScope Sv in this example) created.
2. Select [Bring this service or application online] from the displayed pop-up menu to start the generic service.

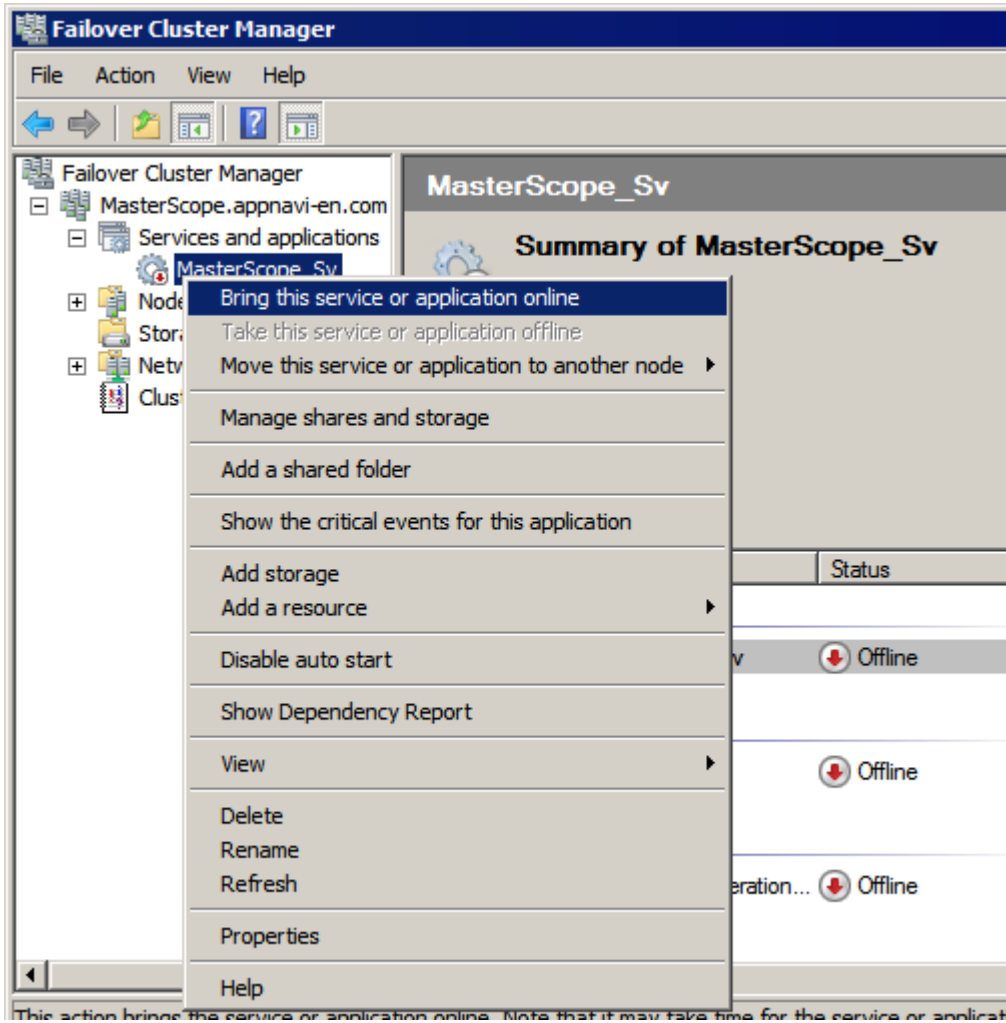


Figure 2-22: Placing a Resource Online

If the generic service has been started on the standby node, start it on the active node by performing the following procedure:

1. In the [Failover Cluster Manager] window, right-click the icon for the resource created (MasterScope Sv in this example).
2. Select the active node to move the generic sservice to from the menu dispalyed under [Move this service or application to another node].

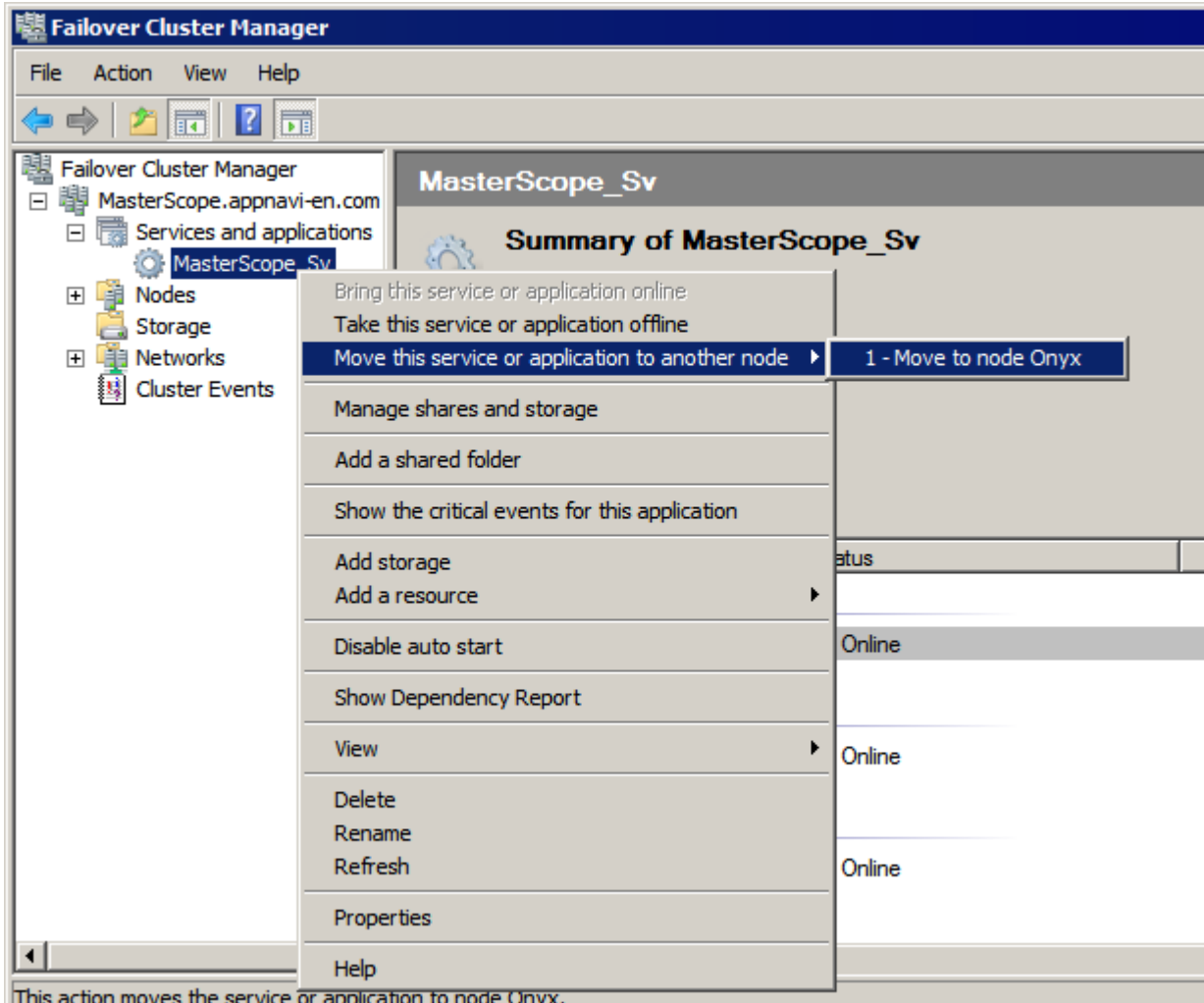


Figure 2-23: Moving a Resource

This completes the setup on MSFC.

Chapter 3 Uninstalling Application Navigator

3.1 Removing the MSFC Resource Settings

Remove the resource created in “0 Setting up the Application Navigator Service Monitored Resource.”
When removing a resource, be sure to select [Take this service or application offline] in the [Failover Cluster Manager] window to stop the target resource (generic service),

3.2 Uninstalling Application Navigator

Uninstall Application Navigator by following the procedures described in the Application Navigator Release Memo.

3.3 Removing Files

After uninstalling Application Navigator, the files and directories will remain on the shared disk. Manually remove the directories under the shared disk specified in the installation process

Chapter 4 Other Notes

4.1 Registering Licenses

The licenses in the cluster environment must be registered on both the active node and standby node.

4.2 Version Upgrade

When upgrading a version, SysMonAgt.ini is overwritten by file of an installation media. If upgrading version from Ver3.0.2 or earlier, and you have modified SysMonAgt.ini to set up the cluster environment, please modify it again after an upgrade. Before upgrading a version, stop the agent.