



CHAPTER 3

Cisco Show and Share Failover Configuration

Revised: March 2011,

This chapter describes how to configure failover on a Cisco Show and Share installation. It covers both new installations and adding failover to an existing installation.

This chapter contains the following topics:

- [Prerequisites, page 3-1](#)
- [Limitations and Restrictions, page 3-3](#)
- [Pre-Configuration Worksheet, page 3-4](#)
- [Configure Failover, page 3-6](#)
- [Back Up Your Cluster, page 3-16](#)

Prerequisites

Before you can configure failover, you must meet the following requirements:

- [Licensing Requirements, page 3-1](#)
- [Hardware Requirements, page 3-2](#)
- [Software Requirements, page 3-3](#)

Licensing Requirements

When licensing your failover cluster, you only need to install the feature, author, and failover licenses on the primary Cisco DMM appliance. The secondary pair of appliances only need the base licenses that come with the appliances. They will inherit the optional feature, device, and author licenses during the failover activation process.

Devices	Licenses Needed
Primary Cisco DMM and Cisco Show and Share Pair	<ul style="list-style-type: none"> • Base license • Failover license • (Optional) Feature licenses (Live Event Module, SNMP Notification Module, etc.) • (Optional) Author Licenses • (Optional) DMP Licenses
Secondary Cisco DMM and Cisco Show and Share Pair	Base license

You must have a failover license installed on your primary Cisco DMM appliance to activate the failover configuration. You can enter the failover settings without the license, but you cannot activate failover until the license is installed. See the following for information about installing licenses:

http://www.cisco.com/en/US/docs/video/digital_media_systems/5_x/5_2/dmm/user/guide/admin/licenses.html for information about installing licenses

Hardware Requirements

Failover configuration is supported on the following Cisco DMS hardware platforms:

- SNS-SVR-C210EN-K9
- SNS-SVR-C200WG-K9
- DMM-SVR-C210-K9

You cannot configure failover for the following DMS hardware platforms:

- MCS-7835-H3
- Wave-574

The primary and secondary appliances in a failover pair must be identical. [Table 3-1](#) shows the failover appliance part numbers that correspond to the primary appliances.

Table 3-1

Primary Appliance	Secondary Appliance
Cisco Digital Media Manager DMM-SVR-C210-K9	DMM-FA-C210-K9
Cisco Show and Share Enterprise SNS-SVR-C210EN-K9	SNS-FA-C210EN-K9
Cisco Show and Share Workgroup SNS-SVR-C200WG-K9	SNS-FA-C200WG-K9

Software Requirements

The appliances must be running Cisco DMS 5.2.3.

Configure NTP on all of the appliances before configuring failover.

Limitations and Restrictions

You cannot configure failover for only the Cisco Show and Share appliances; you must configure failover for both the Cisco DMM and the Cisco Show and Share appliances.

Pre-Configuration Worksheet

You will need the information in the following tables to complete the configuration. We recommend that you print out the tables and fill in the information before you begin.

- [Table 3-1 on page 3-4, DMM Failover Pre-Configuration Worksheet.](#)
- [Table 3-2 on page 3-5, Show and Share Failover Pre-Configuration Worksheet.](#)

Table 3-1 DMM Failover Pre-Configuration Worksheet

Item	Value	Notes
DMM		
Primary Appliance FQDN		For existing installations, this is the FQDN of the existing appliance. For new installations, this is the FQDN users will use to access the DMM. This FQDN becomes the virtual FQDN for the Cisco DMM failover cluster.
Primary Appliance IP Address		For existing installations, this is the IP Address of the existing appliance. For new installations, this is the IP address users will use to access the DMM. This IP address becomes the virtual IP address for the Cisco DMM failover cluster.
Primary Appliance Alternate, Dedicated FQDN		This is the FQDN that will be applied to the primary appliance after the original FQDN becomes the DMM virtual FQDN.
Primary Appliance Alternate, Dedicated IP Address		This is the IP address that will be applied to the primary appliance after the original IP address becomes the DMM virtual IP address.
Secondary Appliance Dedicated FQDN		The FQDN for the secondary appliance.
Secondary Appliance Dedicated IP Address		The IP address for the secondary appliance
(Optional) Primary Appliance Replication Interface IP Address		If using a switch between the primary and secondary DMM appliance replication interfaces, the IP address used by that interface on the primary appliance.
(Optional) Secondary Appliance Replication Interface IP Address		If using a switch between the primary and secondary DMM appliance replication interface, the IP address used by that interface on the secondary appliance.

Table 3-2 Show and Share Failover Pre-Configuration Worksheet.

Item	Value	Notes
Show and Share		
Primary Appliance FQDN		<p>For existing installations, this is the FQDN of the existing Show and Share appliance.</p> <p>For new installations, this is the FQDN users will use to access Cisco Show and Share.</p> <p>This FQDN becomes the virtual FQDN for the Cisco DMM failover cluster.</p>
Primary Appliance IP Address		<p>For existing installations, this is the IP Address of the existing appliance.</p> <p>For new installations, this is the IP Address users will use to access Cisco Show and Share.</p> <p>This IP address becomes the virtual IP address for the Cisco DMM failover cluster.</p>
Primary Appliance Alternate FQDN		This is the FQDN that will be applied to the primary appliance after the original FQDN becomes the Show and Share virtual FQDN.
Primary Appliance Alternate IP Address		This is the IP address that will be applied to the primary appliance after the original IP address becomes the Show and Share virtual IP address.
Secondary Appliance FQDN		The FQDN for the secondary appliance.
Secondary Appliance IP Address		The IP address for the secondary appliance
(Optional) Primary Appliance Replication Interface IP Address		If using a switch between the primary and secondary Cisco Show and Share appliance replication interface, the IP address used by that interface.
(Optional) Secondary Appliance Replication Interface IP Address		If using a switch between the primary and secondary Cisco Show and Share appliance replication interface, the IP address used by that interface on the secondary appliance.

Configure Failover

To configure failover for your DMS installation, perform the following procedures in the order presented:

1. [Set Up the Primary DMS Pair, page 3-6](#)
2. [Set up the Secondary DMS Pair, page 3-6](#)
3. [Connect the Primary and Secondary Appliance Replication Interfaces, page 3-7](#)
4. [Configure the Non-Master Appliances, page 3-8](#)
5. [Configure the Primary DMM \(Cluster Master\), page 3-10](#)
6. [Activate the Failover Cluster, page 3-13](#)
7. [Monitor Replication and Verify the Configuration, page 3-15](#)

Set Up the Primary DMS Pair

If you have an existing DMS pair, skip this step. The existing FQDNs and IP addresses will become the virtual FQDNs and IP address for the cluster. Users will not need to change their bookmarks.

Set up the primary DMS pair as you would a standalone system. See the [Quick Start Guide for Cisco Digital Media Suite 5.2.x](#) for information about setting up the system. When setting up the system, **use the primary FQDNs and IP addresses for the appliances. These are the FQDNs and IP addresses that you want users to access. They will become the virtual FQDNs and IP addresses during the failover configuration process.**

In a later step, you will replace the primary FQDNs and IP addresses used here with the alternate FQDNs and IP addresses.

Before you continue to the next step, make sure you:

- install the failover license on the DMM,
- install third party certificates on your appliances if you are using them, and
- enable NTP on the appliances.

Set up the Secondary DMS Pair

Set up the secondary DMS pair as you would a standalone system. See the [Quick Start Guide for Cisco Digital Media Suite 5.2.x](#) for information about setting up the system.

Use the secondary FQDNs and IP addresses for the secondary pair.

The application interfaces for the appliances must be on the same subnet as the primary DMM and Show and Share appliances.

You only need to have the base licenses installed on the secondary DMS pair.

Connect the Primary and Secondary Appliance Replication Interfaces

You have two options for connecting the primary and secondary appliance replication interfaces:

- Crossover cable directly connecting the appliances.
- Connecting the appliances through a switch.

If you are using a switch between the replication interfaces, the replication interfaces must be on a different subnet than the application interface.

GigabitEthernet 2 (shown by the arrows labeled “1”, below) is the replication interface. [Figure 3-1](#) shows the location of the replication interface on a Cisco DMM-SVR-C210-K9 and SNS-SVR-C210EN-K9 appliance. [Figure 3-2](#) shows the location of the replication interface on a Cisco SNS-SVR-C200WG-K9 appliance.

Figure 3-1 The replication interface on a DMM-SVR-C210-K9 and SNS-SVR-C210EN-K9 appliances

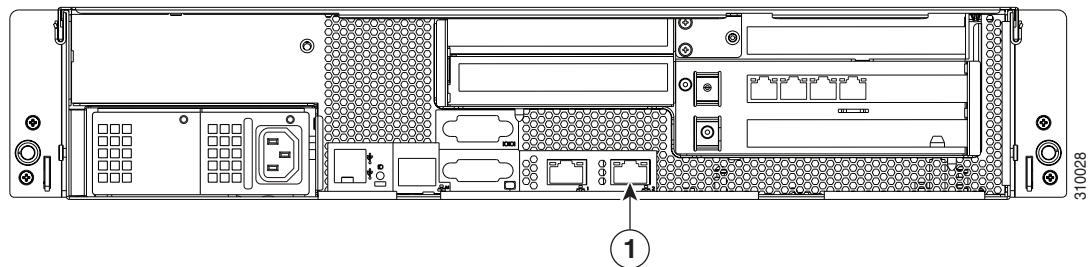
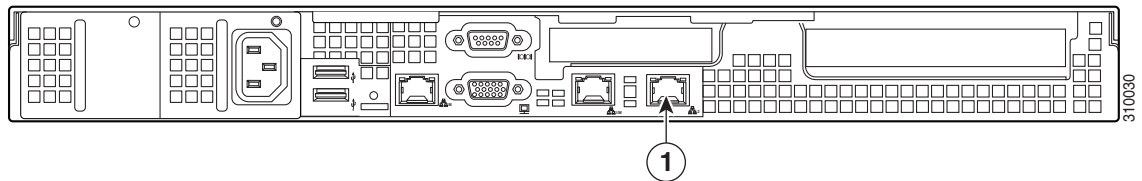


Figure 3-2 The replication interface on a SNS-SVR-C200WG-K9 appliance



Procedure

To connect the primary and secondary appliances, follow these steps:

-
- Step 1** Connect the Ethernet 2 interface on the primary DMM to the Ethernet 2 interface of the secondary DMM. You can use a crossover cable to connect them directly or connect them through a switch.
- Step 2** Connect the Ethernet 2 interface on the primary Show and Share appliance to the Ethernet 2 interface of the secondary Show and Share appliance. You can use a crossover cable to connect them directly or connect them through a switch.
-

Configure the Non-Master Appliances

The primary DMM appliance is the cluster master. Before you configure the cluster master, you must configure the non-master appliances to recognize the primary DMM appliance as the cluster master.

To configure the failover settings on the non-master devices, follow these steps:

- Step 1** Configure the primary Cisco Show and Share appliance:
- Using the **primary FQDN** to access the primary Cisco Show and Share interface, log into Cisco Show and Share using the superuser or an administrator account.
 - From the Global Navigation menu, choose **Administration**.
 - Click the **Failover** tab.
 - Enter the DMM **primary FQDN** in the Master FQDN field. DO NOT use the alternate FQDN.

- Click **Save**.
 - Exit Cisco Show and Share.
- Step 2** Configure the secondary Cisco Show and Share appliance:
- Using the **secondary FQDN** to access the secondary Cisco Show and Share interface, log into Cisco Show and Share using the superuser or an administrator account.
 - From the Global Navigation menu, choose **Administration**.
 - Click the **Failover** tab.
 - Enter the DMM **primary FQDN** in the Master FQDN field. DO NOT use the alternate FQDN.

- Click **Save**.
 - Exit Cisco Show and Share.
- Step 3** Configure the secondary DMM appliance:
- Using the **secondary FQDN** to access the secondary DMM interface, log into DMM using the superuser or an administrator account.

- b. From the home page, choose **Administration**.
- c. Click the **Failover** tab.

The Failover Configuration page appears.

Dashboard | **Failover** | Settings | Security | Users | Alerts

Failover Configuration | Failover Status

Failover Configuration

Digital Media Suite Cluster Settings

Name*:

Set as Master:

Master FQDN:

Digital Media Manager Failover Settings

Management Interface | Replication Interface

- d. Verify that **Master FQDN** is selected in the Digital Media Suite Cluster Settings area and enter the DMM **primary FQDN** in the Master FQDN field. DO NOT use the alternate FQDN.
- e. Click **Save**.
- f. Exit DMM.

Configure the Primary DMM (Cluster Master)

To configure the primary DMM, follow these steps:

- Step 1** Using the **primary FQDN** to access the primary DMM interface, log into DMM using the superuser or an administrator account.
- Step 2** From the home page, choose **Administration**.
- Step 3** Click the **Failover** tab.

The Failover Configuration page appears.

- Step 4** Set the primary DMM as the cluster master:
 - a. Choose **Set as Master** in the Digital Media Suite Cluster Settings
 - b. (Optional) Type a name for the cluster in the **Name** field. By default, the system assigns “DMS Cluster” as the cluster name.
- Step 5** Configure the DMM failover settings:



Note The original primary DMM FQDN is automatically entered into the Virtual FQDN field. You cannot change the Virtual FQDN.

- a. In the **Primary FQDN** field, replace the FQDN shown with the alternate primary FQDN.
- b. Enter the secondary FQDN into the Secondary FQDN field.
- c. Do one of the following to configure the DMM replication interface:
 - If using a crossover cable between the devices, verify that Crossover is selected.
 - If using a switch between the devices, select Switched and enter the following information:

Primary IP	The IP address of the replication interface (Ethernet 2) of the primary DMM.
Secondary IP	The IP address of the replication interface (Ethernet 2) of the secondary DMM.
Subnet Mask	The address subnet mask

Step 6 Configure the Cisco Show and Share failover settings:



Note The original Primary FQDN is automatically entered into the Virtual FQDN field. You cannot change the Virtual FQDN.

- a. In the **Primary FQDN** field, replace the primary FQDN shown with the alternate primary FQDN.
- b. Enter the secondary FQDN into the Secondary FQDN field.

- c. Do one of the following to configure the Cisco Show and Share appliance replication interface:



Note You must use the same type of replication interface (Crossover or Switched) as you are using for the DMM.

- If using a crossover cable between the devices, verify that Crossover is selected.
- If using a switch between the devices, select Switched and enter the following information:

Primary IP	The IP address of the replication interface (Ethernet 2) of the primary DMM.
Secondary IP	The IP address of the replication interface (Ethernet 2) of the secondary DMM.
Subnet Mask	The address subnet mask

Step 7 Click **Save**.

What to do next

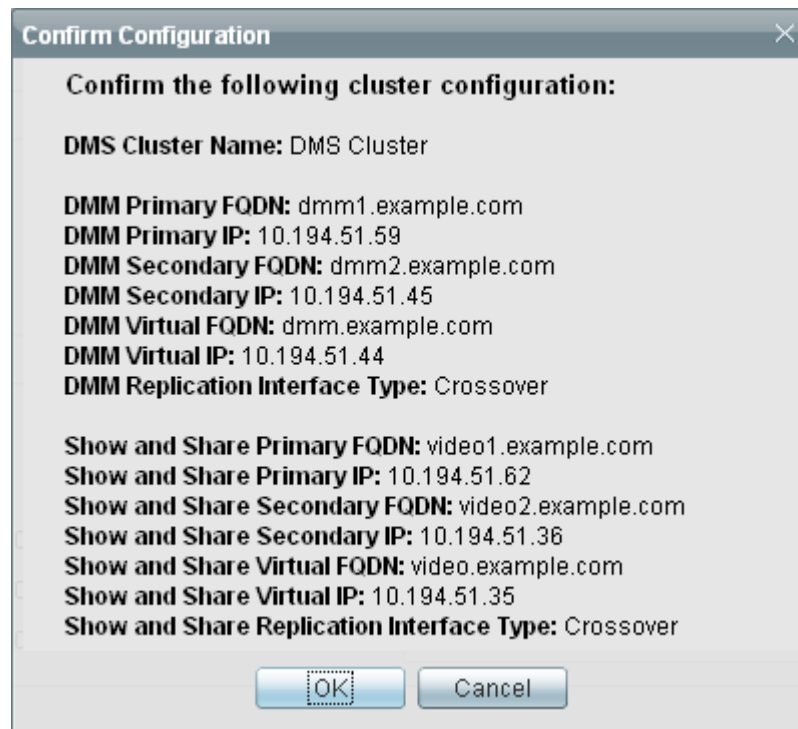
Next, see [Activate the Failover Cluster, page 3-13](#).

Activate the Failover Cluster

When you activate the DMM cluster, the primary DMM configures and activates the other appliances in the failover cluster. Activation can take up to 20 minutes. After activation, the primary appliances are replicated to the secondary appliances. Replication process can take up to 15 hours. However, the primary appliances are available during replication and users can view and upload files as normal.

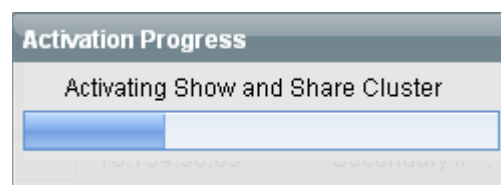
Step 1 Click **Activate**.

A dialog displays a summary of the failover cluster settings.



Step 2 Click **OK**.

The activation begins. A series of activation progress dialogs appear.



You cannot navigate away from this page by clicking in the interface while the activation is in progress. If you close the browser or use the browser navigation to move away from this page and then return, the Activate button appears to be enabled. However, if you attempt to activate again you will receive the message: **[FailoverConfig]: Another request already in progress.**

Activation can take up to 20 minutes. Once activation is complete, replication occurs. You can monitor replication progress on the Failover Status page. Replication can take up to 15 hours.

What to do next

Monitor the replication progress and verify your configuration. See [Monitor Replication and Verify the Configuration, page 3-15](#).

Monitor Replication and Verify the Configuration

Go to the Failover Status page (**Administration > Failover > Failover Status**).

While replication is in progress, the primary appliances will be in the Up/Active state and the secondary appliances in the Down state. This is normal. You will see status bars that show the percent complete of the replication.


Note

This page will not contain any information until activation is complete and replication has started.

Failover Status

Digital Media Manager Failover Status

Time of last event: 04/05/2011 12:19:11 PM PDT
Server Time: 04/05/2011 12:21:54 PM PDT

✓ **dmm1.example.com (Primary Server):** Up/Active
 ⚠ **dmm2.example.com (Secondary Server):** Down

dm2filesystem	<div style="background-color: #4f81bd; width: 75.8%; height: 15px;"></div>	75.8%
contentfilesystem	<div style="background-color: #4f81bd; width: 0.7%; height: 15px;"></div>	0.7%

Show and Share Failover Status

Time of last event: 04/05/2011 12:19:13 PM PDT
Server Time: 04/05/2011 12:21:54 PM PDT

✓ **video1.example.com(Primary Server):** Up/Active
 ⚠ **video2.example.com (Secondary Server):** Down

dm2filesystem	<div style="background-color: #4f81bd; width: 100%; height: 15px;"></div>	100%
contentfilesystem	<div style="background-color: #4f81bd; width: 2.2%; height: 15px;"></div>	2.2%

Once replication is complete, you should see the primary appliances in the Up/Active state and the secondary appliances in the Up/Standby state.

Failover Status

Digital Media Manager Failover Status

Time of last event: 04/06/2011 01:50:41 AM PDT
Server Time: 04/06/2011 11:15:16 AM PDT

✓ **dmm1.example.com (Primary Server):** Up/Active
 ✓ **dmm2.example.com (Secondary Server):** Up/Standby

dm2filesystem	100%
contentfilesystem	100%

Show and Share Failover Status

Time of last event: 04/06/2011 01:07:13 AM PDT
Server Time: 04/06/2011 11:15:16 AM PDT

✓ **video1.example.com (Primary Server):** Up/Active
 ✓ **video2.example.com (Secondary Server):** Up/Standby

dm2filesystem	100%
contentfilesystem	100%

If any of the systems still in the Down state when replication has completed, access the down systems using AAI and reboot the system. See the [Administration Guide for Cisco Digital Media Suite 5.2.x Appliances](#) on Cisco.com for information about using AAI.

Back Up Your Cluster

You cannot restore backups taken from a standalone Cisco DMS configuration on a failover configuration. You should immediately back up the active appliances when activation and replication is complete.

See the [Backup and Restore Appliance Configurations](#) chapter in *Administration Guide for Cisco Digital Media Suite 5.2.x Appliances*.