



Maintaining Cisco Unity Failover

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Customizing Failover and Failback for the Cisco Unity System

You can customize the settings for failover and failback that the failover configuration wizard gives the primary and secondary servers. (For example, you might want to increase the frequency of file replication.)

When you customize failover and failback, you can specify:

- The frequency with which the primary and secondary servers ping one another, and the number of missed pings before the secondary server starts taking calls. The default setting is to ping every second and to wait 30 pings before failing over.

**Note**

If the primary server does not receive pings from the secondary server, the primary server does not initiate failover to the secondary server. Likewise, if the secondary server is active, and it does not receive pings from the primary server, the secondary server does not initiate failback.

- The frequency of file replication. The default setting is to replicate changed files every 10 minutes.
- Whether the secondary server initiates failback to the primary server during a certain time range each day. The default setting is to initiate failback between 3 a.m. and 6 a.m. each day.
- Whether failover is initiated when a call is answered by a port on the secondary server. The default setting is to enable failover initiation.

You customize failover and failback on only one server. Changes to failover configuration are replicated to the other server.

To customize failover and failback

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- Step 1** On either server (unless otherwise noted), on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Configure**.

Step 3 In the Failover Configuration dialog box, change the applicable values:

Table 2-1 Failover Configuration Settings

| Field | Value |
|--|--|
| Ping Interval (ms) | <p>Specify the amount of time that elapses between pings. The default setting is 1000 milliseconds (1 second).</p> <p>Increasing the interval between pings decreases network traffic. However, it also increases the amount of time before the secondary server begins answering calls if the primary server fails.</p> |
| Missed Pings Before Failover | <p>Specify the number of pings from the primary server that the secondary server must miss before it becomes the active server. The default is 30.</p> <p>Decreasing the number of missed pings before failover may cause a network glitch or abnormally high traffic on the network to trigger an unnecessary failover. Increasing the number increases the amount of time before the secondary server begins answering calls if the primary server fails.</p> <p>Note that failover can also be initiated under other circumstances. Some errors are detected immediately (for example, if the Cisco Unity service—AvCsMgr.exe—stops running), and failover is initiated when the error is detected.</p> |
| File Replication Interval (In Minutes) | <p>Specify the amount of time that elapses before the active server replicates changed files to the inactive server. The default is 10 minutes.</p> <p>Increasing the file replication interval causes the active server to replicate files to the inactive server less often, which decreases network traffic. However, if failover occurs, file replication must complete before the secondary server can begin taking calls. A shorter replication interval means failover is faster because most files, if not all, will already be up to date on the inactive server.</p> |

Table 2-1 Failover Configuration Settings (continued)

| Field | Value |
|--|---|
| Failback Type | <ul style="list-style-type: none"> • If you want to schedule when the secondary server initiates failback to the primary server, click Scheduled, and enter settings for the Scheduled Failback Start and Scheduled Failback End field. (You can manually initiate failback before the scheduled time in the Failover Monitor.) • If you do not want to schedule the secondary server to initiate failback to the primary server, click Manual. The secondary server fails back only when you manually initiate failback by using the Failover Monitor. |
| Scheduled Failback Start and Scheduled Failback End | If you chose Scheduled for the Failback Type field, enter the range of time in which the secondary server initiates failback. The default is 3 a.m. to 6 a.m. |
| Force Failover If Call Arrives on Inactive Secondary <i>(Set the field only on the secondary server. The setting does not replicate between servers.)</i> | <ul style="list-style-type: none"> • Check the check box to enable failover initiation when a call is not answered by a voice messaging port on the primary server, is forwarded to the secondary server, and then is answered by a port on the secondary server. The default is to enable failover initiation. • Uncheck the check box to disable failover initiation when a call is answered by a port on the secondary server. |

Step 4 Click **OK** to close the Failover Configuration dialog box.

Step 5 Close the Failover Monitor.

Determining Which Server Is Active

You can determine which server is active by viewing information in the Failover Monitor on either server. In the Services section, Local Status indicates the status of the current server, and Remote Status indicates the status of the other server.

[Table 2-2](#) lists the values and their meanings.

Table 2-2 Meanings of Local Status and Remote Status Values

| Value for Local Status or Remote Status | Meaning |
|---|---|
| Running; Active | The specified server is the active server. |
| Running; Inactive | The specified server is the inactive server. |
| Not running; Active | No server is currently active because a required service is not running. However, the specified server will be the active server when you restart Cisco Unity. |
| Not running; Inactive | The specified server is the inactive server. However, if the active server fails, the specified server will not start taking calls because a required service is not running. If you restart the server, the specified server will become the active server as long as you have not disabled automatic failover and failback, and the other server is not running. |
| Running Not running; Unknown | The Node Manager service (AvCsNodeMgr.exe) is starting on the specified server. |
| Other | Failover or failback is occurring. |

Manually Failing Over or Failing Back

You can manually fail over from the primary to the secondary server so that the secondary server takes calls while you perform maintenance on the primary server. When you want the primary server to start taking calls again, you fail back from the secondary to the primary server.

**Note**

The failover feature cannot be used for continuing Cisco Unity service (voice messaging) on one server while upgrading the Cisco Unity software on the other server. Both primary and secondary servers must be out of service while the Cisco Unity software is upgraded. The secondary server cannot handle voice messaging while the primary server is being upgraded.

When you manually initiate failover or failback through the Failover Monitor, the interaction of the primary and secondary servers is the same as for automatic failover and failback. However, we recommend that you confirm that any changes to the SQL Server database (UnityDb) on the active server have been replicated to the inactive server before proceeding. Otherwise, data may be lost.

To confirm that changes to UnityDb have been replicated to the inactive server

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- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manger**.
 - Step 2** In the left pane of the Console Root window, navigate to the name of the primary server. Typically, this name is two levels under the Microsoft SQL Servers node.
 - Step 3** Navigate to the **Replication Monitor > Agents** node.
 - Step 4** Check for errors in the **Snapshot Agent, Log Reader Agent, Distribution Agent, and Queue Reader Agent**. Ignore errors that do not apply to the time period when UnityDb changed.

Replication is complete when both primary and secondary servers are running, the agents are not active, and the status of the agents is Idle or Succeeded. Any other status for any agent indicates that replication is not complete.

To manually fail over to the secondary server

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- Step 1** On the primary Cisco Unity server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
 - Step 2** Click **Failover**.

Step 3 Click **OK** to confirm that you want to fail over to the secondary server.

To manually fail back to the primary server

Step 1 On the secondary Cisco Unity server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.

Step 2 Click **Failback**.

Step 3 Click **OK** to confirm that you want to fail back to the primary server.

Disabling Automatic Failover and Failback

This section contains procedures for disabling automatic failover and failback, and for manually failing over and failing back while the automatic functions are disabled.

When automatic failover and failback are disabled:

- File replication also is disabled. (SQL replication is not affected).
- You must manually fail over and fail back by using the Failover Monitor.
- If you restart the primary and secondary servers while automatic failover and failback are disabled, both servers start as inactive, so Cisco Unity is not able to take calls.

Disable automatic failover and failback only during troubleshooting.



Caution

When you disable automatic failover and failback, the primary server never fails over to the secondary server even if the primary server stops taking calls. In addition, the secondary server never fails back to the primary server even if you have specified a schedule for automatic failback.

To disable automatic failover and failback

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Advanced**.
- Step 3** Check the **Disable Automatic Failover and Failback** check box.

**Note**

To re-enable automatic failover and failback, uncheck the **Disable Automatic Failover and Failback** check box.

To manually fail over to the secondary server while automatic failover and failback are disabled

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Force Inactive**.
- Step 3** Click **OK** to confirm.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 5** Click **Force Active**.
- Step 6** Click **OK** to confirm.
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To manually fail back to the primary server while automatic failover and failback are disabled

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Force Inactive**.
- Step 3** Click **OK** to confirm.

- Step 4** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
 - Step 5** Click **Force Active**.
 - Step 6** Click **OK** to confirm.
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Disabling Failover Initiation When Calls Are Unanswered on the Primary Server

By default, failover is initiated when a call is not answered by a voice messaging port on the primary server, is forwarded to the secondary server, and then is answered by a port on the secondary server.

Do the following procedure if you want to disable the initiation of failover when calls are unanswered on the primary server.

To disable failover initiation when calls are unanswered on the primary server

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
 - Step 2** Click **Configure**.
 - Step 3** Uncheck the **Force Failover If Call Arrives on Inactive Secondary** check box.
 - Step 4** Click **OK**.
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Data That Is Not Automatically Replicated Between Servers

On a failover system, most changes that you make to Cisco Unity data are replicated from the active server to the inactive server, regardless of which server is active. However, not all changes to Cisco Unity data are replicated. Some

changes must be manually entered on both servers, and some changes require that you restart the Cisco Unity service on the inactive server for the changes to take effect.

You must manually enter the following settings on both servers:

- Settings on pages in the System section of the Cisco Unity Administrator, except schedules and holidays.
- AMIS restriction table settings, which are stored in the registry. You must also restart the Cisco Unity service on the inactive server for these changes to take effect.

For more information on AMIS restriction table settings, refer to *Networking in Cisco Unity*, which is available on Cisco.com at

http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/net/index.htm.

- Manual changes to the registry. You must also restart the Cisco Unity service on the inactive server for these changes to take effect.
- Changes to phone system configuration files. You must also restart the Cisco Unity service on the inactive server for these changes to take effect.

Changing the IP Address on the Primary or Secondary Server

To change the IP address on the primary or secondary server

- Step 1** Change the IP address. Refer to Windows online Help.
- Step 2** On the server whose IP address did not change, in Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is C:\CommServer), and double-click **FailoverConfig.exe**.
- Step 3** Click **Next**.

- Step 4** Do one of the following:
- Click **Browse**, click the name of the server whose address changed, and click **OK**. The new IP address is filled in automatically.
 - Enter the name of the server whose address changed, and click **Find**. The new IP address is filled in automatically.
- Step 5** Click **Next**.
- Step 6** If you do not want to change the account that owns the Node Manager service, skip to [Step 7](#).
- If you want to change the account that owns the Node Manager service, click **Browse**, and double-click the name of the same account that owns the Node Manager service on the other server.
- Step 7** Enter the password for the account.
- Step 8** Click **Next**.
- Step 9** Click **Configure**. The Configure Cisco Unity Failover wizard verifies settings and then configures failover on the other server.
- If the wizard fails to complete successfully, an error message appears. Exit the wizard, fix the problem, and rerun the wizard.
- Step 10** Click **Finish**.
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■ Changing the IP Address on the Primary or Secondary Server