



## Migrate Users

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### Migrate Users Overview

This section describes how to migrate users between IM and Presence Service clusters.

### Migrate Users Prerequisites

- Run full backups of both the current and destination cluster. For details, see [Backup the System](#).
- Ensure that the users to be migrated are licensed for the IM and Presence Service or Cisco Jabber on their current home cluster only. If these users are licensed on any cluster other than the premigration cluster, they must be fully unlicensed before proceeding with the migration tasks.

### Migrate Users Task Flow

Complete these tasks to migrate IM and Presence users to a new cluster.

#### Procedure

	Command or Action	Purpose
Step 1	<a href="#">Remove Stale Entries, on page 2</a>	Before migrating users, remove all stale rosters, group entries and non-presence contract records.
Step 2	<a href="#">Start Essential Services for Migration, on page 4</a>	Before migrating, confirm the following services are running: <ul style="list-style-type: none"><li>• Cisco AXL Web Service</li><li>• Cisco Sync Agent</li><li>• Cisco Intercluster Sync Agent</li></ul>

	Command or Action	Purpose
<b>Step 3</b>	<a href="#">Check for Intercluster Sync Errors, on page 4</a>	Run the System Troubleshooter and confirm that there are no intercluster sync issues.
<b>Step 4</b>	<a href="#">Configure Standard Presence for Migration, on page 3</a>	Before migrating users, configure these standard Presence settings.
<b>Step 5</b>	<a href="#">Export User Contact Lists, on page 5</a>	Complete this procedure to export the contact lists of the migrating users from their current cluster.
<b>Step 6</b>	Complete one of these mini-task flows to move users to the new cluster: <ul style="list-style-type: none"> <li>• <a href="#">Migrate Users via LDAP, on page 5</a></li> <li>• <a href="#">Move Users to New Cluster Manually, on page 7</a></li> <li>• <a href="#">Migrate Users via Bulk Administration, on page 9</a></li> </ul>	Move users to the new cluster. You can use LDAP to provision users in the new cluster, move users manually, or use Bulk Administration to migrate users to the new cluster.
<b>Step 7</b>	<a href="#">Import Contact Lists on Home Cluster, on page 13</a>	After you have migrated users to the new cluster, import the contact lists to restore contact data for the migrated users.
<b>Step 8</b>	<a href="#">Update Users in Old Cluster, on page 14</a>	You may not want to remove users from the old cluster until after you confirm that everything is working fine in the new cluster. Use this procedure to use Bulk Administration's Update Users feature to remove IM and Presence functionality from the old cluster.

## Remove Stale Entries

Before migrating users, remove stale rosters, group entries and non-presence contact records. This is to be done on the publisher IM&P node from which the users had presence disabled.



**Note** Repeat these steps as necessary in batches of 2000. If it is too time consuming to remove a large amount of stale entries via CLI, open a TAC case to leverage the stale roster script at the end of this section that requires root access.

### Procedure

- Step 1** Start the CLI session. For details on how to start a CLI session, refer to the "Start CLI session" section of the *Command Line Interface Reference Guide for Cisco Unified Communications Solutions*.
- Step 2** Check and remove stale roster entries. To do this, run the following queries:
- Check for stale roster entries:

```
run sql select count(*) from rosters where user_id in (select xcp_user_id from enduser where primarynodeid is NULL)
```

- b) Remove stale roster entries:

```
run sql delete from rosters where pkid in (select * from (select first 2000 pkid from rosters where user_id in (select xcp_user_id from enduser where primarynodeid is NULL)))
```

- Step 3** Check and remove stale group records. To do this, run the following queries:

- a) Check for stale group records:

```
run sql select count(*) from groups where user_id in (select xcp_user_id from enduser where primarynodeid is NULL)
```

- b) Remove stale group records:

```
run sql delete from groups where pkid in (select * from (select first 2000 pkid from groups where user_id in (select xcp_user_id from enduser where primarynodeid is NULL)))
```

- Step 4** Check and remove stale non-contact records (in order). To do this, run the following queries:

- a) Check for stale non-contact records (in order):

```
run sql select count(*) from nonpresencecontacts where fkenduser in (select pkid from enduser where primarynodeid is null)
```

- b) Remove stale non-contact records (in order):

```
run sql delete from nonpresencecontacts where pkid in (select * from (select first 2000 pkid from nonpresencecontacts where fkenduser in (select pkid from enduser where primarynodeid is null)))
```

- c) Use this query if you have root access:

```
run sql delete from epascontactaddinfo where pkid in (select * from (select first 2000 pkid from epascontactaddinfo where pkid not in (select fkepascontactaddinfo from nonpresencecontacts)))
```

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## Configure Standard Presence for Migration

Before migrating users, configure these Presence settings.

### Procedure

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- Step 1** From Cisco Unified CM IM and Presence Administration, choose **Presence > Settings > Standard Configuration**.
- Step 2** Check the **Allow users to view the availability of other users without being prompted for approval** check box.
- Step 3** For the **Maximum Contact List Size (per user)** setting, check the **No Limit** check box.
- Step 4** For the **Maximum Watchers (per user)** setting, check the **No Limit** check box.
- Step 5** Click **Save**.
-

**What to do next**

[Check for Intercluster Sync Errors, on page 4](#)

## Check for Intercluster Sync Errors

Before migrating, confirm that there are no intercluster sync errors.

**Procedure**

- 
- Step 1** From Cisco Unified CM IM and Presence Administration, choose **Diagnostics > System Troubleshooter**.
- Step 2** Confirm that there are no intercluster sync errors. If there are errors, fix them before proceeding.
- 

**What to do next**

[Start Essential Services for Migration, on page 4](#)

## Start Essential Services for Migration

In Cisco Unified IM and Presence Serviceability, confirm that the following essential services for the migration are running:

- Cisco AXL Web Service
- Cisco Sync Agent
- Cisco Intercluster Sync Agent

**Procedure**

- 
- Step 1** From Cisco Unified IM and Presence Serviceability, choose **Tools > Control Center - Feature Services**.
- Step 2** From the **Server** drop-down select your IM and Presence node and click **Go**.
- Step 3** Under **Database and Admin Services**, confirm that the **Cisco AXL Web Service** is Started. If the service is not running (the default setting is not running), select the service and click **Start**.
- Step 4** Choose **Tools > Control Center - Network Services**.
- Step 5** From the **Server** drop-down select your IM and Presence node and click **Go**.
- Step 6** Under **IM and Presence Services**, confirm that both the **Cisco Sync Agent** and **Cisco Intercluster Sync Agent** services are running. If they are not running, **Start** them.
- 

**What to do next**

[Export User Contact Lists, on page 5](#)

## Export User Contact Lists

Complete this procedure to export the contact lists of the migrating users from their current cluster.

### Procedure

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- Step 1** Export the contact lists of the migrating users from the current home cluster.
- In **Cisco Unified CM IM and Presence Administration**, choose **Bulk Administration > Contact List > Export**.
  - Choose **All unassigned users in the cluster** and click **Find**.
  - Review the results and use the **AND/OR** filter to filter the search results as required.
  - When the list is complete, click **Next**.
  - Choose a filename for the exported contact list data.
  - Optionally update the Job Description.
  - Click **Run Now** or schedule the job to run later.
- Step 2** Monitor the status of the contact list export job.
- In **Cisco Unified CM IM and Presence Administration**, choose **Bulk Administration > Job Scheduler**.
  - Click **Find** to list all BAT jobs.
  - Find your contact list export job and when it is reported as completed, choose the job.
  - Choose the CSV File Name link to view the contents of the contact list export file. A time stamp is appended to the filename.
  - From the **Job Results** section, choose the log file to see a summary of what was uploaded. The log file includes the start and end time and result summary for the job.
- Step 3** Download the contact list export file and store it for use later when the user migration is complete.
- In **Cisco Unified CM IM and Presence Administration**, choose **Bulk Administration > Upload/Download Files**.
  - Click **Find**.
  - Choose the contact list export file and click **Download Selected**.
  - Save the CSV file locally for upload later in the procedure.
- 

### What to do next

Go to one of the following task flows to assign users in the new cluster:

- [Migrate Users via LDAP, on page 5](#)
- [Move Users to New Cluster Manually, on page 7](#)

## Migrate Users via LDAP

Complete these tasks if your users are synced with an LDAP Directory and you want to migrate to a new cluster.



**Note** You must add your LDAP Directory configuration into the new cluster. This includes any service profiles, user profiles, and feature group templates. Make sure that your feature group template configuration has the **Enable Users for Unified CM IM and Presence** check box checked.

#### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<a href="#">Update External LDAP Directory, on page 6</a>	You may need to update your external LDAP directory if your deployment uses a separate LDAP structure for each cluster and where users are synchronized only to their home cluster.
<b>Step 2</b>	<a href="#">Configure LDAP in New Cluster, on page 7</a>	If LDAP is enabled on Cisco Unified Communications Manager, import users to your new cluster by synchronizing your new cluster with the updated LDAP directory.

#### What to do next

[Import Contact Lists on Home Cluster, on page 13](#)

## Update External LDAP Directory

You may need to update your external LDAP directory if your deployment uses a separate LDAP structure for each cluster and where users are synchronized only to their home cluster.



**Note** You do not need to move the users if the deployment uses a flat LDAP structure, that is, all users are synchronized to all Cisco Unified Communications Manager and IM and Presence Service clusters where users are licensed to only one cluster.



**Note** Depending on how you have your LDAP Directory sync configured in the old and new cluster, moving your users within the external LDAP Directory may automatically migrate those users to the new IM and Presence Service cluster when the next sync occurs.

#### Procedure

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- Step 1** Update users in your external LDAP directory.
- Step 2** After you move the users, delete the LDAP entries from the old LDAP cluster.
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**What to do next**

[Configure LDAP in New Cluster, on page 7](#)

**Configure LDAP in New Cluster****Before you begin**

Provision the LDAP directory in your new cluster. If your LDAP directory sync includes universal line and device templates, and feature group templates, you must configure these templates in your new cluster. Make sure that your feature group template has the following options checked:

- Home Cluster
- Enable Users for Unified CM IM and Presence

For details on how to configure an LDAP directory sync, refer to the "Configure End Users" section of the *System Configuration Guide for Cisco Unified Communications Manager*.

**Procedure**

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- Step 1** From Cisco Unified CM Administration, choose **System > LDAP > LDAP Directory**.
- Step 2** Click **Find** and select the LDAP Directory that you've configured
- Step 3** Click **Perform Full Sync Now**.
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**What to do next**

[Import Contact Lists on Home Cluster, on page 13](#)

**Move Users to New Cluster Manually**

Complete these tasks to move a user to the new cluster manually.




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**Note** If you have a large number of users, you may want to use the Bulk Administration Tool in Cisco Unified Communications Manager to update a large number of users via a csv file. For details, see the *Bulk Administration Guide for Cisco Unified Communications Manager*.

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**Procedure**

	Command or Action	Purpose
<b>Step 1</b>	<a href="#">Disable IM and Presence For User Manually, on page 8</a>	Disable a migrating user for IM and Presence Service and Cisco Jabber on their current home cluster.
<b>Step 2</b>	<a href="#">Import Users Manually, on page 8</a>	If LDAP synchronization is not configured in the new cluster, provision users manually to

	Command or Action	Purpose
		your new Cisco Unified Communications Manager cluster.
<b>Step 3</b>	<a href="#">Enable Users for IM and Presence Service on New Cluster, on page 9</a>	When the users have been synchronized, or manually provisioned, on the new home cluster, you must enable the users for IM and Presence Service and Cisco Jabber.

**What to do next**

[Import Contact Lists on Home Cluster, on page 13](#)

**Disable IM and Presence For User Manually**

The following procedure describes how to disable a migrating user for IM and Presence Service and Cisco Jabber on their current home cluster.



**Note** If you are migrating a large number of users at once, you may want to use the Bulk Administration Tool in Cisco Unified Communications Manager. For details, see the *Bulk Administration Guide for Cisco Unified Communications Manager*.

**Before you begin**

[Export User Contact Lists, on page 5](#)

**Procedure**

- 
- Step 1** In **Cisco Unified CM Administration**, choose **> User Management > End User**.
  - Step 2** Use the filters to find the user that you want to disable for IM and Presence Service.
  - Step 3** In the **End User Configuration** screen, uncheck **Enable User for Unified CM IM and Presence**.
  - Step 4** Click **Save**.
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**What to do next**

[Import Users Manually, on page 8](#)

**Import Users Manually**

If LDAP synchronization is not configured in the new cluster, import users manually to your new Cisco Unified Communications Manager cluster.

For details, see [Configure User Settings](#).



**What to do next**

[Enable Users for IM and Presence Service on New Cluster, on page 9](#)

## Enable Users for IM and Presence Service on New Cluster

When the users have been synchronized, or manually provisioned, on the new home cluster, you must enable the users for IM and Presence Service and Cisco Jabber.

**Procedure**

- 
- Step 1** In **Cisco Unified CM Administration**, choose **User Management > End User**.
  - Step 2** Use the filters to find the user that you want to enable for IM and Presence Service.
  - Step 3** In the **End User Configuration** screen, check **Enable User for Unified CM IM and Presence**.
  - Step 4** Click **Save**.
  - Step 5** Provision the users on Cisco Unified Communications Manager for Phone and CSF. See the *Administration Guide for Cisco Unified Communications Manager* for more information.
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**What to do next**

[Import Contact Lists on Home Cluster, on page 13](#)

## Migrate Users via Bulk Administration

Move the users to a new cluster via the Bulk Administration Tool (for example, migrating from cluster 1 to cluster 2).

**Before you begin**

The **Cisco Bulk Provisioning Service** must be running in both clusters.



- 
- Note** If the number of users to be moved from source to destination in IM and Presence cluster are less than 100 then, do not start or stop Cisco Intercluster Sync Agent service.
- If you are moving 100 to 1,000 users from any source / destination cluster perform the below steps by stopping Intercluster Sync Agent service on both source and destination clusters.
- If the number of users to be moved are more than 1000, For example, if we have to move 16K users then first move 8K users by following below steps and stop the Intercluster Sync Agent service while moving users in chunks of 1K users. Later move the next 8K in a balanced and serial sequence in chunks of 1K users.
- 

**On the IM and Presence cluster where the users are being moved from source:**

**Step 1** On the associated subscriber node of the IM and Presence publisher's Presence Redundancy Group (PRG) pair stop Intercluster Sync Agent service.

**Step 2** On the publisher node of the publisher IM and Presence Presence Redundancy Group pair stop Intercluster Sync Agent service.

**On the IM and Presence cluster where the users are being moved from destination:**

**Step 3** On the secondary node of the publisher Presence Redundancy Group pair stop Intercluster Sync Agent service.

**Step 4** On the publisher node of the publisher Presence Redundancy Group pair stop Intercluster Sync Agent service.



**Note** No other cluster nodes require Intercluster Sync Agent service to be stopped.

**Step 5** Perform the steps mentioned in Migrate Users via Bulk Administration.

**Step 6** Start the Intercluster Sync Agent service on the IM and Presence publisher and subscriber nodes on both destination and source clusters.

**Step 7** It can take up to 30 minutes for all other clusters to complete their sync with the destination cluster.

**Procedure**

	Command or Action	Purpose
<b>Step 1</b>	<a href="#">Export Users to CSV File, on page 10</a>	In the original cluster (cluster 1) export the migrating users to a CSV file.
<b>Step 2</b>	<a href="#">Download CSV Export File, on page 11</a>	Download the CSV export file.
<b>Step 3</b>	<a href="#">Upload CSV Export File to New Cluster, on page 11</a>	Upload the CSV file to the destination cluster (cluster 2).
<b>Step 4</b>	<a href="#">Configure User Template, on page 12</a>	In the destination cluster, configure a User Template with the user settings.
<b>Step 5</b>	<a href="#">Import Users to New Cluster, on page 12</a>	Use the Insert Users menu in Bulk Administration to import users from the CSV file.
<b>Step 6</b>	<a href="#">Verify User Migration via Bulk Administration, on page 13</a>	Verify the user migration via bulk administration.

**Export Users to CSV File**

In the original cluster, use the Bulk Administration Tool to export the users whom you want to migrate to a CSV file.

Note: After the job runs, you can go to the Job Scheduler to check the status of the job and confirm that the file was created. If you selected Run Later, you can use the Job Scheduler to set the time for the job to run.

**Procedure**

**Step 1** From Cisco Unified CM Administration, choose **Bulk Administration > Users > Export Users**.

**Step 2** Use the **Filter** tools to search for and select the users whom you want to migrate and click **Find**.

- Step 3** Click **Next**.
  - Step 4** Enter a **File Name** for the file.  
The tool appends the `.txt` extension to the end of your file. For example, `<csvfilename>.txt`.
  - Step 5** From the **File Format** drop-down, select the format of the export file.
  - Step 6** To run the job right away, select **Run Immediately** and click **Submit**.
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#### What to do next

After the job runs, you can go to the **Job Scheduler** to check the status of the job and confirm that the file was created. If you selected **Run Later**, you can use the Job Scheduler to set the time for the job to run.

Once you have confirmed that the file was created, [Download CSV Export File, on page 11](#).

## Download CSV Export File

Once you have confirmed that the export file was created, download the file.

#### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Bulk Administration > Upload/Download Files**.
  - Step 2** Click **Find**.
  - Step 3** Select the file that was created and click **Download Selected**.
  - Step 4** Download the file.
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#### What to do next

[Upload CSV Export File to New Cluster, on page 11](#)

## Upload CSV Export File to New Cluster

In the destination cluster (cluster 2), upload the csv file that you exported from cluster 1.

#### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Bulk Administration > Upload/Download Files**.
  - Step 2** Click **Add New**.
  - Step 3** Click **Choose File**. Browse and select the export file from the other system.
  - Step 4** From the **Target** drop-down, select the Bulk Administration menu that you want to use to import the file contents. For example, **Users** or **Phones and Users**.
  - Step 5** From the **Transaction Type** drop-down, select the submenu that you want to use to import the file contents. For example, **Insert Users** or **Insert Phones/Users**.
  - Step 6** Click **Save**
-

**What to do next**

[Configure User Template, on page 12](#)

## Configure User Template

In the destination cluster, configure a user template with the settings that you want to apply to imported users.

**Procedure**

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- Step 1** From Cisco Unified CM Administration choose **Bulk Administration > Users > User Templates**.
- Step 2** Do either of the following:
- Click **Find** and select an existing template.
  - Click **Add New** to create a new template.
- Step 3** Configure the user settings that you want to apply to your imported users. For example, make sure that the following fields are checked
- **Home Cluster**
  - **Enable User for Unified CM IM and Presence**
- Step 4** If you want users to be enabled for calendar integration with Microsoft Outlook, check the **Include meeting information in Presence check box**.
- Step 5** Configure any remaining fields.
- Step 6** Click **Save**.
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**What to do next**

[Import Users to New Cluster, on page 12](#)

## Import Users to New Cluster

Use Bulk Administration's Insert Users menu to import the exported users into the new Cluster.

**Procedure**

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- Step 1** From Cisco Unified CM Administration, choose **Bulk Administration > Users > Insert Users**.
- Step 2** From **File Name**, select the file that was exported from the other system.
- Step 3** From the **User Template Name**, select the user template that you just created.
- Step 4** Check the **File created with Export Users** check box.
- Step 5** Check **Run Immediately** and click **Submit**.
- 

**What to do next**

[Import Contact Lists on Home Cluster, on page 13](#)

## Verify User Migration via Bulk Administration

After migrating users via Bulk Administration and starting Cisco Intercluster Sync Agent Services on the source and destination clusters, it is necessary to verify that other clusters than source and destination clusters received notifications that user move has been occurred.

It can take up to 30 minutes for all other clusters to complete their sync with the destination cluster. While you wait, you can open a terminal session to sample (5) IMP publishers in parallel that are not part of the change (source or destination) to monitor the CiscoSyslogs.

### Procedure

---

- Step 1** Run the below command to observe if the sample IMP publisher node has already completed its sync after migrating users via Bulk Administration and starting Cisco Intercluster Sync Agent Services on the source and destination clusters. Notify the timestamp for this moment. In the following example syntax, the destination cluster name is dst-name. Replace this with your destination cluster name.

```
admin:file search activelog syslog/CiscoSyslog ".*InterClusterSyncAgentStatus:.*dst-name.*"
```

- Step 2** If the time stamp in the ICSA status is not more recent than the timestamp recorded, then use the following command for up to 30 minutes for a successful sync:

```
admin:file tail activelog syslog/CiscoSyslog regexp
"*.InterClusterSyncAgentStatus:.*dst-name.*"
```

If you see an ICSA failed sync status alarm on the selected sample cluster/node, wait for 5-10 minutes for a successful sync status alarm. ICSA will retry every 5 minutes. If you do not have a successful sync alarm or have consistent sync failures, please open a TAC case.

At this point you have verified the 5 remote sample clusters if the current time is 30 minutes later than timestamp recorded after migrating users via Bulk Administration and starting Cisco Intercluster Sync Agent Services on source and destination clusters. You can now proceed to the next move process or if there no other moves, you are finished.

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## Import Contact Lists on Home Cluster

After you have migrated users to the new cluster, import the contact lists to restore contact data for the migrated users.

### Procedure

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- Step 1** Upload the previously exported contact list CSV file.
- In **Cisco Unified CM IM and Presence Administration**, choose **Bulk Administration > Upload/Download Files**.
  - Click **Add New**.
  - Click **Browse** to locate and choose the contact list CSV file.
  - Choose **Contact Lists** as the Target.
  - Choose **Import Users' Contacts - Custom File** as the Transaction Type.
  - Optionally check **Overwrite File if it exists**.

- g) Click **Save** to upload the file.
- h) Click **Save** to upload the file.

**Step 2** Run the import contact list job.

- a) In **Cisco Unified CM IM and Presence Administration**, choose **Bulk Administration > Contact List > Update**.
- b) Choose the CSV file you uploaded in Step 1.
- c) Optionally update the Job Description.
- d) To run the job now, click **Run Immediately**. Click **Run Later** to schedule the update for a later time.
- e) Click **Submit**.

**Step 3** Monitor the contact list import status

- a) In **Cisco Unified CM IM and Presence Administration**, choose **Bulk Administration > Contact List > Job Scheduler**.
- b) Click **Find** to list all BAT jobs.
- c) Choose the job ID of the contact list import job when its status is reported as complete.
- d) To view the contents of the contact list file, choose the file listed at **CSV File Name**.
- e) Click the **Log File Name** link to open the log.

The begin time and end time of the job is listed and a result summary is also displayed.

## Update Users in Old Cluster

You may not want to remove users from the old cluster until after you confirm that everything is working fine in the new cluster. Use this procedure to use Bulk Administration's Update Users feature to remove IM and Presence functionality from the old cluster.

### Procedure

**Step 1** From Cisco Unified CM Administration, choose **Bulk Administration > Users > Update Users > Query**.

**Step 2** Use the Filter tools to search for the migrating users. For example, you can search for all users whom meet this condition: **Has IM and Presence Enabled**.

**Step 3** Click **Next**

**Step 4** For each of the following two fields, check the far left box and leave the adjacent box on the right unchecked. The left box indicates that you want to update the field and the right box indicates the new setting: unchecked.

- **Home Cluster**
- **Enable User for Unified CM IM and Presence**

**Step 5** Under **Job Information**, select **Run Immediately**.

**Step 6** Click **Submit**.

**What to do next**

Once you are confident that the migration worked, and that all users are configured properly in the new cluster, you can delete migrated users in the old cluster.

