



End User Setup and Handling

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End User Setup and Handling on IM and Presence Service

You can setup the authorization policy for IM and Presence Service end users, perform bulk user contact list imports and exports, as well as manage duplicate and invalid end user instances.

For information about assigning users to IM and Presence Service nodes and to set up end users for IM and Presence Service, see the following guides:

- *Cisco Unified Communications Manager Administration Guide*
- *Cisco Unified Communications Manager Bulk Administration Guide*
- *Installing Cisco Unified Communications Manager*

Authorization Policy Setup On IM and Presence Service

Automatic Authorization On IM and Presence Service

IM and Presence Service authorizes all presence subscription requests that it receives from SIP-based clients in the local enterprise. A local user running a SIP-based client automatically receives the availability status for contacts in the local enterprise, without being prompted to authorize these subscriptions on the client. IM and Presence Service only prompts the user to authorize the subscription of a contact in the local enterprise if the contact is on the blocked list for the user. This is the default authorization behavior for SIP-based clients on IM and Presence Service, and you cannot configure this behavior.

In the XMPP network, it is standard behavior for the node to send all presence subscriptions to the client, and the client prompts the user to authorize or reject the subscription. To allow enterprises to deploy IM and Presence Service with a mix of SIP-based and XMPP-based clients (to align the authorization policy for both client types), Cisco provides the following automatic authorization setting on IM and Presence Service:

- When you turn on automatic authorization, IM and Presence Service automatically authorizes all presence subscription requests it receives from both XMPP-based clients and SIP-based in the local enterprise. This is the default setting on IM and Presence Service.
- When you turn off automatic authorization, IM and Presence Service only supports XMPP-based clients. For XMPP-based clients, IM and Presence Service sends all presence subscriptions to the client, and the client prompts the user to authorize or reject the presence subscription. SIP-based clients will not operate correctly on IM and Presence when you turn off automatic authorization.



Caution

If you turn off automatic authorization, SIP-based clients are not supported. Only XMPP-based clients are supported when you turn off automatic authorization.

User Policy and Automatic Authorization

In addition to reading the automatic authorization policy, IM and Presence Service reads the policy settings for the user to determine how to handle presence subscription requests. Users configure the policy settings from the Cisco Jabber client. A user policy contains the following configuration options:

- Blocked list - a list of local and external (federated) users that will always see the availability status of the user as unavailable regardless of the true status of the user. The user can also block a whole federated domain.
- Allowed list - a list of local and external users that the user has approved to see their availability. The user can also allow a whole external (federated) domain.
- Default policy - the default policy settings for the user. The user can set the policy to block all users, or allow all users.

Note that if you turn off automatic authorization, IM and Presence Service automatically authorizes subscription requests a user that is on the contact list of another user. This applies to users in the same domain, and users in different domains (federated users). For example:

- UserA wishes to subscribe the view the availability status of UserB. Automatic authorization is off on IM and Presence Service, and UserB is not in the Allowed or Blocked list for the UserA.
- IM and Presence Service sends the presence subscription request to the client application of UserB, and the client application prompts userB to accept or reject the subscription.
- UserB accepts the presence subscription request, and UserB is added to the contact list of UserA.
- UserA is then automatically added to the contact list for UserB without being prompted to authorize the presence subscription.

IM and Presence Service will automatically add UserA to the contact list of UserB even if the policy for UserB (i) blocks the external domain, or (ii) the default policy for the user is block all, or (iii) “ask me” is chosen.

If you deploy interdomain federation between a local IM and Presence Service enterprise and a supported external enterprise, IM and Presence Service does not apply the automatic authorization setting to presence subscription requests received from external contacts, unless the user has applied a policy on that external contact or domain. On receipt of a presence subscription request from an external contact, IM and Presence Service will only send the subscription request to the client application if the user chooses “ask me” to be prompted to set their own Allow/Block policy for external contacts, and if the external contact or domain is not in either the Allowed or Blocked list for the user. The client application prompts the user to authorize or reject the subscription.



Note IM and Presence Service uses common user policies for both availability and instant messages.

Related Topics

http://www.cisco.com/en/US/products/ps6837/products_user_guide_list.html
IM and Presence Service Configuration Guides

Configure Authorization Policy on IM and Presence Service

You can turn on automatic authorization so that IM and Presence Service automatically authorizes all presence subscription requests it receives from both XMPP-based clients and SIP-based in the local enterprise. If you turn off automatic authorization, IM and Presence Service only supports XMPP-based clients and sends all presence subscriptions to the client where the user is prompted to authorize or reject the presence subscription.



Tip See the Online Help topic in the Cisco Unified CM IM and Presence Administration interface for a definition of all the parameters on this window.

Procedure

- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Presence > Settings**.
- Step 2** Configure the authorization policy. Perform one of the following actions:
- To turn on automatic authorization, check **Allow users to view the availability of other users without being prompted for approval**.
 - To turn off automatic authorization, uncheck **Allow users to view the availability of other users without being prompted for approval**.
- Step 3** Click **Save**.
- Step 4** Restart the Cisco XCP Router service.
-

What to do next

Proceed to configure the SIP publish trunk on IM and Presence Service.

Related Topics

[Restart Cisco XCP Router Service](#)

IM Setup On IM and Presence Service

Bulk Rename User Contact IDs

The IM and Presence Service Bulk Assignment Tool allows you to rename the contact ID (JID) in user contact lists from one format to another. For example, you can rename a user's contact ID from `firstname.lastname@domain.com` to `userid@domain.com` and the Bulk Administration Tool will update each user's contact list with the new contact ID.



Caution

Bulk rename of contact IDs is used in the migration of users from a Microsoft server (for example Lync) to IM and Presence Service. See the *Partitioned Intradomain Federation Guide* on Cisco.com for detailed instructions of how this tool should be used as part of the user migration process. Using this tool in any other circumstances is not supported.

Before you can run this job, you must upload a file containing a list of contact IDs and the corresponding new format of each of those contact IDs. The file must be a CSV file with the following format:

```
<Contact ID>, <New Contact ID>
```

where **<Contact ID>** is the existing contact ID and **<New Contact ID>** is the new format of the contact ID.

From Release 10.0 the **<Contact ID>** is the user's IM address as it appears on the **Presence Topology User Assignment window**.

The following is a sample CSV file with one entry:

```
Contact ID, New Contact ID
john.smith@example.com, jsmith@example.com
```

Complete the following procedure to upload the CSV file and rename the contact IDs for a list of users.

Procedure

-
- Step 1** Upload the CSV file with the list of contact IDs that you want to rename in all contact lists. Do the following:
- On the IM and Presence database publisher node, choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Upload/Download Files**.
 - Click **Add New**.
 - Click **Browse** to locate and choose the CSV file.
 - Choose **Contacts** as the Target.
 - Choose **Rename Contacts – Custom File** as the Transaction Type.
 - Click **Save** to upload the file.
- Step 2** On the publisher node, choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Contact List > Rename Contacts**.
- Step 3** In the **File Name** field, choose the file that you uploaded.
- Step 4** Choose one of the following actions:
- Click **Run Immediately** to execute the Bulk Administration job immediately.

- Click **Run Later** to schedule a time to execute the Bulk Administration job. For more information about scheduling jobs in the Bulk Administration Tool, see the Online Help in Cisco Unified CM IM and Presence Administration.

Step 5 Click **Submit**. If you chose to run the job immediately, the job runs after you click Submit.

Bulk Export User Contact Lists

The IM and Presence Service Bulk Administration Tool (BAT) allows you to export the contact lists of users who belong to a particular node or presence redundancy group to a CSV data file. You can then use BAT to import the user contact lists to another node or presence redundancy group in a different cluster. The BAT user contact list export and import features facilitate the moving of users between clusters. See topics related to bulk imports of user contact lists for more information.

From IM and Presence Service Release 11.5(0), you can also export non-presence contact lists. For further information, see [Bulk Export Non-Presence Contact Lists, on page 6](#)



Note Users on contact lists who do not have an IM address, will not be exported.

BAT allows you to find and choose the users whose contact lists you want to export. The user contact lists are exported to a CSV file with the following format:

```
<User ID>,<User Domain>,<Contact ID>,<Contact Domain>,<Nickname>,<Group Name>
```

The following table describes the parameters in the export file.

Parameter	Description
User ID	The user ID of the IM and Presence Service user. Note This value is the user portion of the user's IM address.
User Domain	The Presence domain of the IM and Presence Service user. Note This value is the domain portion of the user's IM address. Example 1: bjones@example.com—bjones is the user ID and example.com is the user domain. Example 2: bjones@usa@example.com—bjones@usa is the user ID and example.com is the user domain.
Contact ID	The user ID of the contact list entry.
Contact Domain	The Presence domain of the contact list entry.
Nickname	The nickname of the contact list entry. If the user has not specified a nickname for a contact, the Nickname parameter will be blank.

Parameter	Description
Group Name	The name of the group to which the contact list entry is to be added. If a user's contacts are not sorted into groups, the default group name will be specified in the Group Name field.

The following is a sample CSV file entry:

```
userA,example.com,userB,example.com,buddyB,General
```

Complete the following procedure to export user contact lists with BAT and download the export file.

Procedure

-
- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Contact List > Export**.
- Step 2** Use the selection criteria to find the users whose contact lists you want to export. See the Online Help topic in the Cisco Unified CM IM and Presence Administration interface for more information about finding and selecting users.
- Step 3** Click **Next**.
- Step 4** In the **File Name** field, enter a name for the CSV file.
- Step 5** Choose one of the following:
- Click **Run Immediately** to execute the Bulk Administration job immediately.
 - Click **Run Later** to schedule a time to execute the Bulk Administration job. For more information about scheduling jobs in BAT, see the Online Help in Cisco Unified CM IM and Presence Administration.
- Step 6** Click **Submit**. If you chose to run the job immediately, the job runs after you click Submit.
- Step 7** To download the export file after the job has run, choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Upload/Download Files**.
- Step 8** Find and choose the export file that you want to download.
- Step 9** Click **Download Selected**.
-

Bulk Export Non-Presence Contact Lists

With the BAT, you can also export all local cluster user's non-presence contact lists to a CSV data file. Non-presence contacts are contacts who do not have a IM address and can only be exported using this procedure.

The non-presence user contact lists are exported to a CSV file with the following format:

```
<User JID>,<Contact JID>,<Group Name>,<Content Type>,<Version>,<Info>
```

The following table describes the parameters in the export file:

Parameter	Description
User JID	The User JID. This is the IM address of the user.

Parameter	Description
Contact JID	The User JID of the contact list entry, if available, otherwise it is the UUID.
Group Name	The name of the group to which the contact list entry is to be added.
Content Type	The text mime type and subtype used in the info field.
Version	The content type used in the info field.
Info	The contact information of the contact list entry in vCard format.

The following is a sample CSV file entry:

```
user2@cisco.com,ce463d44-02c3-4975-a37f-d4553e3f17e1,group01,text/directory,3,BEGIN:VCARD
ADR;TYPE=WORK:ADR\;WORK:\;\;123 Dublin rd\,\;Oranmore\;Galway\;\;Ireland
EMAIL;TYPE=X-CUSTOM1;X_LABEL=Custom:testuser01@test.com N:test;user;;; NICKNAME:pizzaguy01
ORG:ABC TEL;TYPE=WORK,VOICE:5323534535 TITLE:QA VERSION:3.0 END:VCARD
```

Procedure

-
- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Contact > Export Non-presence Contact List**.
- Step 2** In the **File Name** field, enter a name for the CSV file.
- Step 3** Choose one of the following:
- Click **Run Immediately** to execute the Bulk Administration Job immediately.
 - Click **Run Later** to schedule a time to execute the Bulk Administration job. For more information about scheduling jobs in BAT, see the Online Help in Cisco Unified CM IM and Presence Administration.
- Step 4** Click **Submit**. If you chose to run the job immediately, the job runs after you click Submit.
- Step 5** To download the export file after the job has run, choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Upload/Download Files**.
- Step 6** Find and choose the export file that you want to download.
- Step 7** Click **Download Selected**.
-

Bulk Import Of User Contact Lists

You can use the IM and Presence Service Bulk Assignment Tool (BAT) to import user contact lists into IM and Presence Service. With this tool, you can prepopulate contact lists for new IM and Presence Service client users or add to existing contact lists. To import user contact lists, you must provide BAT with an input file that contains the user contact lists.

The input file must be a CSV file in the following format:

```
<User ID>,<User Domain>,<Contact ID>,<Contact Domain>,<Nickname>,<Group Name>
```

The following is a sample CSV file entry:

```
userA,example.com,userB,example.com,buddyB,General
```

The following table describes the parameters in the input file.

Table 1: Description of Input File Parameters

Parameter	Description
User ID	<p>This is a mandatory parameter.</p> <p>The user ID of the IM and Presence Service user. It can have a maximum 132 characters.</p> <p>Note This value is the user portion of the user's IM address.</p>
User Domain	<p>This is a mandatory parameter.</p> <p>The Presence domain of the IM and Presence Service user. It can have a maximum of 128 characters.</p> <p>Note This value is the domain portion of the user's IM address.</p> <p>Example 1: bjones@example.com—bjones is the user ID and example.com is the user domain.</p> <p>Example 2: bjones@usa@example.com—bjones@usa is the user ID and example.com is the user domain.</p>
Contact ID	<p>This is a mandatory parameter.</p> <p>The user ID of the contact list entry. It can have a maximum of 132 characters.</p>
Contact Domain	<p>This is a mandatory parameter.</p> <p>The Presence domain of the contact list entry. The following restrictions apply to the format of the domain name:</p> <ul style="list-style-type: none"> • Length must be less than or equal to 128 characters • Contains only numbers, upper- and lowercase letters, and hyphens (-) • Must not start or end with hyphen (-) • Length of label must be less than or equal to 63 characters • Top-level domain must be characters only and have at least two characters

Parameter	Description
Nickname	The nickname of the contact list entry. It can have a maximum of 255 characters.
Group Name	This is a mandatory parameter. The name of the group to which the contact list entry is to be added. It can have a maximum of 255 characters.



Note If you are moving users to another node or presence redundancy group in a different cluster, you can use BAT to generate the CSV file for chosen users. See topics related to bulk exports of user contact lists for more information.

Complete the following steps to import user contact lists into IM and Presence Service:

- Check the maximum contact list size.
- Upload the input file using BAT.
- Create a new bulk administration job.
- Check the results of the bulk administration job.

Before You Begin

Before you import the user contact lists, you must complete the following:

1. Provision the users on Cisco Unified Communications Manager.
2. Ensure that the users are licensed on Cisco Unified Communications Manager for the IM and Presence Service.



Note The default contact list import rate is based on the virtual machine deployment hardware type. You can change the contact list import rate by choosing **Cisco Unified CM IM and Presence Administration > System > Service Parameters > Cisco Bulk Provisioning Service**. However, if you increase the default import rate, this will result in higher CPU and memory usage on IM and Presence Service.

Check Maximum Contact List Size

Before you import contact lists to IM and Presence Service, check the Maximum Contact List Size and Maximum Watchers settings. The system default value is 200 for Maximum Contact List Size and 200 for Maximum Watchers.

Cisco recommends that you set the Maximum Contact List Size and Maximum Watchers settings to Unlimited while importing user contact lists to IM and Presence Service. This ensures that each migrated user contact list is fully imported. After all users have migrated, you can reset the Maximum Contact List Size and Maximum Watchers settings to the preferred values.



Note It is possible to exceed the maximum contact list size without losing data when importing contact lists using BAT; however, Cisco recommends temporarily increasing the Maximum Contact List Size setting or setting the value to Unlimited for the import. You can reset the maximum value after the import is complete.

You only need to check the maximum contact list size on those clusters that contain users for whom you wish to import contacts. When you change Presence settings, the changes are applied to all nodes in the cluster; therefore you only need to change these settings on the IM and Presence database publisher node within the cluster.

What To Do Next

Upload the input file using BAT.

Related Topics

[Configure Maximum Contact List Size Per User](#)

[Configure Maximum Number of Watchers Per User](#)

Upload Input File Using BAT

The following procedure describes how to upload the CSV file using BAT.

Procedure

- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Upload/Download Files**.
 - Step 2** Click **Add New**.
 - Step 3** Click **Browse** to locate and choose the CSV file.
 - Step 4** Choose **Contact Lists** as the Target.
 - Step 5** Choose **Import Users' Contacts – Custom File** as the Transaction Type.
 - Step 6** Click **Save** to upload the file.
-

What to do next

Create a new bulk administration job.

Create New Bulk Administration Job

The following procedure describes how to create a new bulk administration job in Cisco Unified CM IM and Presence Administration.

Procedure

- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Contact List > Update**.
- Step 2** From the File Name drop-down list, choose the file to import.
- Step 3** In the Job Description field, enter a description for this Bulk Administration job.
- Step 4** Choose one of the following:
- Click **Run Immediately** to execute the Bulk Administration job immediately.
 - Click **Run Later** to schedule a time to execute the Bulk Administration job. For more information about scheduling jobs in BAT, see the Online Help in Cisco Unified CM IM and Presence Administration.
- Step 5** Click **Submit**. If you chose to run the job immediately, the job runs after you click Submit.
-

What to do next

Check the results of the bulk administration job.

Check Results of Bulk Administration Job

When the Bulk Administration job is complete, the IM and Presence Service BAT tool writes the results of the contact list import job to a log file. The log file contains the following information:

- The number of contacts that were successfully imported.
- The number of internal server errors that were encountered while trying to import the contacts.
- The number of contacts that were not imported (ignored). The log file lists a reason for each ignored contact at the end of the log file. The following are the reasons for not importing a contact:
 - Invalid format - invalid row format, for example, a required field is missing or empty
 - Invalid contact domain - the contact domain is in an invalid format. See topics related to bulk import of user contact lists for the valid format of the contact domain
 - Cannot add self as a contact - you cannot import a contact for a user if the contact is the user
 - User's contact list is over limit - the user has reached the maximum contact list size and no more contacts can be imported for that user
 - User is not assigned to local node - the user is not assigned to the local node
- The number of contacts in the CSV file that were unprocessed due to an error that caused the BAT job to finish early. This error rarely occurs.

Complete the following procedure to access this log file.

Procedure

Procedure

-
- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Job Scheduler**.
- Step 2** Click **Find** and choose the job ID of the contact list import job.
- Step 3** Click the **Log File Name** link to open the log.
-

Bulk Import of User Non-Presence Contact Lists

You can use the IM and Presence Service Bulk Assignment Tool (BAT) to import user non-presence contact lists into IM and Presence Service. With this tool, you can prepopulate contact lists for new IM and Presence Service client users or add to existing non-presence contact lists. To import user non-presence contact lists, you must provide BAT with an input file that contains the user contact lists.

The input file must be a CSV file in the following format:

```
<User JID>,<Contact JID>,<Group Name>,<Content Type>,<Version>,<Info>
```

The following is a sample CSV file entry:

```
user2@cisco.com,ce463d44-02c3-4975-a37f-d4553e3f17e1,group01,text/directory,3,BEGIN:VCARD
ADR;TYPE=WORK:ADR\;WORK:\;\;123 Dublin rd\,\;Oranmore\;Galway\;\;Ireland
EMAIL;TYPE=X-CUSTOM1;X LABEL=Custom:testuser01@test.com N:test;user;;; NICKNAME:pizzaguy01
ORG:ABC TEL;TYPE=WORK,VOICE:5323534535 TITLE:QA VERSION:3.0 END:VCARD
```



Caution

We recommend that you do not manually modify the CSV file, due to the size of the file itself and the risk of corrupting the vCard information.

The following table describes the parameters in the input file for non-presence contacts:

Table 2: Description of Input File Parameters for Non-Presence Contact Lists

Parameter	Description
User JID	The User JID. This is the IM address of the user.
Contact JID	The User JID of the contact list entry, if available, otherwise it is the UUID.
Group Name	The name of the group to which the contact list entry is to be added.
Content Type	The text mime type and subtype used in the info field.
Version	The content type used in the info field.
Info	The contact information of the contact list entry in vCard format.



Note If you are moving users to another node or presence redundancy group in a different cluster, you can use BAT to generate the CSV file for chosen users. See topics related to bulk exports of user contact lists for more information.

Complete the following steps to import user contacts lists into IM and Presence Service:

- Upload the non-presence contacts list input file using BAT. See [Upload Non-Presence Contacts Input File using BAT, on page 13](#)
- Create a new bulk administration job for non-presence contact lists. See [Create New Bulk Administration Job for Non-presence Contact Lists, on page 13](#)
- Check the results of the bulk administration job. See [Check Results of Bulk Administration Job, on page 11](#)

Upload Non-Presence Contacts Input File using BAT

The following procedure describes how to upload the CSV file using BAT for Non-Presence Contacts.

Procedure

- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Upload/Download Files**.
- Step 2** Click **Add New**.
- Step 3** Click **Browse** to locate and choose the CSV file.
- Step 4** Choose **Non-presence Contact Lists** as the Target.
- Step 5** Choose **Import Users' Non Presence Contacts** as the Transaction Type.
- Step 6** Click **Save** to upload the file.

Create New Bulk Administration Job for Non-presence Contact Lists

The following procedure describes how to create a new bulk administration job in Cisco Unified CM IM and Presence Administration.

Procedure

- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Bulk Administration > Contact Non-presence List > Import Non-presence Contact List**.
- Step 2** From the **File Name** drop-down list, choose the file to import.
- Step 3** In the Job Description field, enter a description for this Bulk Administration job.
- Step 4** Choose one of the following:
 - Click **Run Immediately** to execute the Bulk Administration job immediately.

- Click **Run Later** to schedule a time to execute the Bulk Administration job. For more information about scheduling jobs in BAT, see the Online Help in Cisco Unified CM IM and Presence Administration.

Step 5 Click **Submit**. If you chose to run the job immediately, the job runs after you click Submit.

Duplicate User ID and Directory URI Management

The Cisco IM and Presence Data Monitor service checks for duplicate user IDs and empty or duplicate directory URIs across all IM and Presence Service intercluster nodes. If any errors are detected, IM and Presence Service raises an alarm in the software. Cisco recommends that you take immediate action to remedy these errors to avoid communications disruptions for these users.

You can monitor the status of duplicate user IDs and directory URI checks from the System Troubleshooter using Cisco Unified CM IM and Presence Administration GUI. You can also set the time interval for user ID and directory URI checks using the GUI.

To gather specific information about which users caused these alarms, use the Command Line Interface. Use the Real-Time Monitoring Tool to monitor system alarms and alerts.

For more information about using the command line interface to validate user IDs or directory URIs, see the *Command Line Interface Guide for Cisco Unified Communications Solutions*. For information about using the Real-Time Monitoring Tool, see the *Cisco Unified Real-Time Monitoring Tool Administration Guide*.

User ID and Directory URI Monitoring

The Cisco IM and Presence Data Monitor service checks the Active directory entries for duplicate user IDs and empty or duplicate directory URIs for all IM and Presence Service intercluster nodes. Duplicate user IDs or directory URIs are not possible within a cluster; however, it is possible to unintentionally assign the same user ID or directory URI value to users on different clusters in an intercluster deployment.

You can use the System Troubleshooter in Cisco Unified CM IM and Presence Administration GUI to monitor the status of duplicate user IDs and directory URI checks. The time interval for these user ID and directory URI checks are set using Cisco Unified CM IM and Presence Administration GUI. The valid range is from 5 minutes to 1440 minutes (12 hours). The default is 30 minutes.

If errors are detected, IM and Presence Service raises an alarm in the software.

DuplicateDirectoryURI

This alert indicates that there are multiple users within the intercluster deployment that are assigned the same directory URI value when the Directory URI IM Address scheme is configured.

DuplicateDirectoryURIWarning

This warning indicates that there are multiple users within the intercluster deployment that are assigned the same directory URI value when the *userID@Default_Domain* IM Address scheme is configured.

DuplicateUserid

This alert indicates there are duplicate user IDs assigned to one or more users on different clusters within the intercluster deployment.

InvalidDirectoryURI

This alert indicates that one or more users within the intercluster deployment are assigned an empty or invalid directory URI value when the Directory URI IM Address scheme is configured.

InvalidDirectoryURIWarning

This warning indicates that one or more users within the intercluster deployment are assigned an empty or invalid directory URI value when the *userID@Default_Domain* IM Address scheme is configured.

To gather specific information about which users have these alarm conditions, use the Command Line Interface for a complete listing. System alarms do not provide details about the affected users and the System Troubleshooter displays details for only up to 10 users. Use the Command Line Interface and validate users to gather information about which users caused an alarm. For more information, see the *Command Line Interface Guide for Cisco Unified Communications Solutions*.

**Caution**

Take the appropriate action to fix duplicate user IDs and duplicate or invalid Directory URIs to avoid communications disruptions for the affected users. To modify user contact information, see the *Cisco Unified Communications Manager Administration Guide*.

User ID and Directory URI Error Conditions

The following table describes user ID and directory URI error conditions that can occur when a system check for duplicate user IDs and duplicate or invalid directory URIs is performed on an intercluster deployment. The alarms that are raised are listed, as well as suggested actions to take to correct the error.

Table 3: User ID and Directory URI Error Conditions

Error Condition	Description	Suggested Action
Duplicate user IDs	<p>Duplicate user IDs are assigned to one or more users on different clusters within the intercluster deployment. The affected users may be homed on an intercluster peer.</p> <p>Related alarms:</p> <p>DuplicateUserid</p>	<p>If the DuplicateUserid alert is raised, take immediate action to correct the issue. Each user within the intercluster deployment must have a unique user ID.</p>
Duplicate directory URIs	<p>Multiple users within the intercluster deployment are assigned the same directory URI value. The affected users may be homed on an intercluster peer.</p> <p>Related alarms:</p> <ul style="list-style-type: none"> • DuplicateUserid • DuplicateDirectoryURIWarning 	<p>If your system is configured to use the Directory URI IM address scheme and the DuplicateDirectoryURI alert is raised, take immediate action to correct the issue. Each user must be assigned a unique directory URI.</p> <p>If your system is configured to use the <i>userID@Default_Domain</i> IM address scheme and duplicate directory URIs are detected, the DuplicateDirectoryURIWarning warning is raised and no immediate action is required; however, Cisco recommends that you resolve the issue.</p>

Error Condition	Description	Suggested Action
Invalid directory URIs	<p>One or more users within the deployment are assigned an invalid or empty directory URI value. A URI that is not in the user@domain format is an invalid Directory URI. The affected users may be homed on an intercluster peer.</p> <p>Related alarms:</p> <ul style="list-style-type: none"> InvalidDirectoryURI InvalidDirectoryURIWarning 	<p>If your system is configured to use the Directory URI IM address scheme and the following alert is raised, take immediate action to correct the issue:InvalidDirectoryURI.</p> <p>If your system is configured to use the <i>userID@Default_Domain</i> IM address scheme and invalid directory URIs are detected, the InvalidDirectoryURIWarning warning is raised and no immediate action is required; however, Cisco recommends that you resolve the issue.</p>

User ID and Directory URI Validation and Modification

Cisco recommends that you perform a check for duplicate user information rather than wait for alarms to be raised in the system, especially after adding new users or when migrating contact lists.

You can use the System Troubleshooter in the Cisco Unified CM IM and Presence Administration GUI to view a summary of user ID and Directory URI errors. For a more detailed and comprehensive report, use the CLI command to validate IM and Presence Service users.

If any users are identified as having duplicate or invalid information, you can modify the user records in Cisco Unified Communications Manager using the **End User Configuration** window, (**User Management > EndUser**). Ensure that all users have a valid user ID or Directory URI value as necessary. For more information, see the *Cisco Unified Communications Manager Administration Guide*.

User ID and Directory URI CLI Validation Examples

The CLI command to validate IM and Presence Service users to identify users that have duplicate user IDs and duplicate or invalid Directory URIs is **utils users validate { all | userid | uri }**.

The Directory URI must be unique for each user. You cannot use the same Directory URI for multiple users, irrespective of it being case-sensitive. For example, you cannot have two different Directory URI such as aaa@bbb.ccc and AAA@BBB.CCC, though they are case-sensitive.

For more information about using the CLI and command descriptions, see the *Command Line Interface Guide for Cisco Unified Communications Solutions*.

CLI Example Output Showing User ID Errors

```
Users with Duplicate User IDs
```

```
-----
User ID: user3
Node Name
cucm-imp-1
cucm-imp-2
```


CLI Example Output Showing Directory URI Errors

```

Users with No Directory URI Configured
-----
Node Name: cucm-imp-2
User ID
user4

Users with Invalid Directory URI Configured
-----
Node Name: cucm-imp-2
User ID   Directory URI
user1    asdf@ASDF@asdf@ADSF@cisco

Users with Duplicate Directory URIs
-----
Directory URI: user1@cisco.com
Node Name   User ID
cucm-imp-1 user4
cucm-imp-2 user3

```

Set User Check Interval

Use Cisco Unified CM IM and Presence Administration to set the time interval for the Cisco IM and Presence Data Monitor service to check all nodes and clusters in your deployment for duplicate user IDs and directory URIs.

Enter the time interval in minutes using integers. The valid range is from 5 to 1440. The default is 30 minutes.

Procedure

-
- Step 1** Choose **Cisco Unified CM IM and Presence Administration > System > Service Parameters**.
 - Step 2** Choose **Cisco IM and Presence Data Monitor** in the **Service** field.
 - Step 3** Enter an integer from 5 through 1440 as the **User Check Interval** and click **Save**.
-

Validate User IDs and Directory URIs Using System Troubleshooter

Use the System Troubleshooter in the Cisco Unified CM IM and Presence Administration GUI to view the status of the system checks which identify duplicate user IDs and duplicate or invalid directory URIs across all nodes and clusters in the deployment.

For a more detailed and comprehensive report, use the CLI command to validate IM and Presence Service users. For more information about using the CLI and command details, see the *Command Line Interface Guide for Cisco Unified Communications Solutions*.

Procedure

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- Step 1** Choose **Cisco Unified CM IM and Presence Administration > Diagnostics > System Troubleshooter**.
 - Step 2** Monitor the status of user IDs and Directory URIs in the **User Troubleshooter** area.
The **Problem** column is populated if the system check detects any issues.

- Verify all users have a unique User ID configured.
- Verify all users have a Directory URI configured.
- Verify all users have a unique Directory URI configured.
- Verify all users have a valid Directory URI configured.
- Verify all users have a unique Mail ID configured.

Note Duplicate mail IDs impact both Email Address for Federation and Exchange Calendar integration features.

If duplicate or invalid user information is detected, perform the recommended solution. To troubleshoot UserID and directory URI errors, see topics related to troubleshooting.



Tip Clicking the **fix** link in the **Solution** column redirects you to the **End User Configuration** window in Cisco Unified Communications Manager Administration where you can locate and reconfigure user profiles. For detailed user validation information, use the CLI command to validate users.



Note The user ID and directory URI fields in the user profile may be mapped to the LDAP Directory. In that case, apply the fix in the LDAP Directory server.

Related Topics

[Received Duplicate UserID Error](#)

[Received Duplicate or Invalid Directory URI Error](#)