



APPENDIX **A**

Using the Cisco Unity Connection Bulk Administration Tool

The Cisco Unity Connection Bulk Administration Tool (BAT) allows you to create, update, and delete multiple user accounts or system contacts by importing information contained in a comma separated value (CSV) file. In addition, it allows you to export information about users or system contacts from Cisco Unity Connection to a CSV file.

CSV is a common text file format for moving data from one data store to another. For example, importing from a CSV file can be useful for transferring information from a corporate directory to Cisco Unity Connection. Transferring the information allows users with voice mailboxes to add corporate directory users who are not Connection users to their address books and to then create call-routing rules based on calls from such contacts.

See the following sections for detailed information and instructions on using BAT:

- [Creating User Accounts, page A-1](#)
- [Creating System Contacts, page A-2](#)
- [Updating User Accounts, page A-3](#)
- [Updating System Contacts, page A-3](#)
- [Deleting User Accounts, page A-4](#)
- [Deleting System Contacts, page A-4](#)
- [Exporting Users to a CSV File, page A-5](#)
- [Exporting System Contacts to a CSV File, page A-5](#)
- [Constructing the Input CSV Files, page A-5](#)
- [Correcting Errors by Using the Failed Objects File, page A-22](#)

Creating User Accounts

BAT allows you to create Cisco Unity Connection user accounts (with or without voice mailboxes) from a CSV file. See the [“Constructing the Input CSV Files” section on page A-5](#) as you create the CSV file.

**Note**

Before you use BAT to add voice mail users to the system, confirm that the required Cisco Unity Connection licenses are available for the new user accounts. You can view the number of licenses purchased, and the number that are used and unused on your system, from Cisco Unity Connection Administration. If you need additional licenses, contact your reseller.

To Create User Accounts

Step 1 In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.

Step 2 In the Select Operation section, click **Create**.

Step 3 In the Select Object Type section, click the applicable option:

- Click **Users** to create users without voice mailboxes.
- Click **Users With Voice Mailboxes** to create accounts with mailboxes.

Step 4 In the Override CSV Fields section, click the applicable option.

Step 5 In the Select File section, in the CSV File field, enter the full path.

Step 6 In the Failed Objects Filename field, enter the full path to the failed objects report file.

Step 7 Click **Submit**.

BAT begins creating user accounts and displays the summary page when the operation has completed.

If the operation results in any failures, you can immediately inspect the failed objects report file by clicking [Download the Failed Objects File](#). For information about correcting errors, see the [“Correcting Errors by Using the Failed Objects File”](#) section on page A-22.

Creating System Contacts

BAT allows you to create Cisco Unity Connection system contacts from a CSV file. See the [“Constructing the Input CSV Files”](#) section on page A-5 as you create the CSV file.

To Create System Contacts

Step 1 In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.

Step 2 In the Select Operation section, click **Create**.

Step 3 In the Select Object Type section, click **System Contacts**.

Step 4 In the Select File section, in the CSV File field, enter the full path to the CSV input file.

Step 5 In the Failed Objects Filename field, enter the full path to the failed objects report file.

Step 6 Click **Submit**.

BAT begins creating contacts and displays the summary page when the operation has completed.

If the operation results in any failures, you can immediately inspect the failed objects report file by clicking [Download the Failed Objects File](#). For information about correcting errors, see the [“Correcting Errors by Using the Failed Objects File”](#) section on page A-22.

Updating User Accounts

BAT allows you to update Cisco Unity Connection user accounts (with or without voice mailboxes) with information from a CSV file. See the [“Constructing the Input CSV Files”](#) section on page A-5 as you create the CSV file.

To Update User Accounts

- Step 1** In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.
- Step 2** In the Select Operation section, click **Update**.
- Step 3** In the Select Object Type section, click the applicable option:
 - Click **Users** to update users without voice mailboxes.
 - Click **Users With Voice Mailboxes** to update accounts with mailboxes.
- Step 4** In the Select File section, in the CSV File field, enter the full path to the CSV input file.
- Step 5** In the Failed Objects Filename field, enter the full path to the failed objects report file.
- Step 6** Click **Submit**.

BAT begins updating user accounts and displays the summary page when the operation has completed.

If the operation results in any failures, you can immediately inspect the failed objects report file by clicking Download the Failed Objects File. For information about correcting errors, see the [“Correcting Errors by Using the Failed Objects File”](#) section on page A-22.

Updating System Contacts

BAT allows you to update Cisco Unity Connection system contacts with information from a CSV file. See the [“Constructing the Input CSV Files”](#) section on page A-5 as you create the CSV file.

To Update System Contacts

- Step 1** In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.
- Step 2** In the Select Operation section, click **Update**.
- Step 3** Click **System Contacts**.
- Step 4** In the Select File section, in the CSV File field, enter the full path to the CSV input file.
- Step 5** In the Failed Objects Filename field, enter the full path to the failed objects report file.
- Step 6** Click **Submit**.

BAT begins updating contacts and displays the summary page when the operation has completed.

If the operation results in any failures, you can immediately inspect the failed objects report file by clicking Download the Failed Objects File. For information about correcting errors, see the [“Correcting Errors by Using the Failed Objects File”](#) section on page A-22.

Deleting User Accounts

BAT allows you to delete Cisco Unity Connection user accounts (with or without voice mailboxes) that are listed in a CSV file. See the [“Constructing the Input CSV Files”](#) section on page A-5 as you create the CSV file.

To Delete User Accounts

- Step 1** In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.
- Step 2** In the Select Operation section, click **Delete**.
- Step 3** In the Select Object Type section, click the applicable option:
- Click **Users** to delete users without voice mailboxes.
 - Click **Users With Voice Mailboxes** to delete accounts with mailboxes.
- Step 4** In the Select File section, in the CSV File field, enter the full path to the CSV input file.
- Step 5** In the Failed Objects Filename field, enter the full path to the failed objects report file.
- Step 6** Click **Submit**.

BAT begins deleting user accounts and displays the summary page when the operation has completed.

If the operation results in any failures, you can immediately inspect the failed objects report file by clicking Download the Failed Objects File. For information about correcting errors, see the [“Correcting Errors by Using the Failed Objects File”](#) section on page A-22.

Deleting System Contacts

BAT allows you to delete Cisco Unity Connection system contacts listed in a CSV file. See the [“Constructing the Input CSV Files”](#) section on page A-5 as you create the CSV file.

To Delete System Contacts

- Step 1** In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.
- Step 2** In the Select Operation section, click **Delete**.
- Step 3** In the Select Object Type section, click **System Contacts**.
- Step 4** In the Select File section, in the CSV File field, enter the full path to the CSV input file.
- Step 5** In the Failed Objects Filename field, enter the full path to the failed objects report file.
- Step 6** Click **Submit**.

BAT begins deleting contacts and displays the summary page when the operation has completed.

If the operation results in any failures, you can immediately inspect the failed objects report file by clicking Download the Failed Objects File. For information about correcting errors, see the [“Correcting Errors by Using the Failed Objects File”](#) section on page A-22.

Exporting Users to a CSV File

BAT allows you to export information about all users (with or without voice mailboxes) from Cisco Unity Connection to a CSV file.

To Export Users to a CSV File

Step 1 In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.

Step 2 In the Select Operation section, click **Export**.

Step 3 In the Select Object Type section, click the applicable option:

- Click **Users** to update users without voice mailboxes.
- Click **Users With Voice Mailboxes** to update accounts with mailboxes.

Step 4 In the Select File section, in the CSV File field, enter the full path to the CSV input file.

Step 5 Click **Submit**.

The Summary page displays the results when the operation has completed. To view the export CSV file, click **View Export Objects File**.

Exporting System Contacts to a CSV File

BAT allows you to export information about system contacts from Cisco Unity Connection to a CSV file.

To Export System Contacts to a CSV File

Step 1 In Cisco Unity Connection Administration, expand **Tools**, then click **Bulk Administration Tool**.

Step 2 In the Select Operation section, click **Export**.

Step 3 In the Select Object Type section, click **System Contacts**.

Step 4 In the Output File field, enter the full path to the applicable file.

Step 5 Click **Submit**.

The Summary page displays the results when the operation has completed. To view the export CSV file, click **View Export Objects File**.

Constructing the Input CSV Files

To quickly construct an input CSV file, you can use BAT to export the applicable type of user or contact, and use the resulting output CSV file as a template.

The following example shows a CSV file for creating voice mail users. To construct the file, voice mail users were exported to a CSV file. Then, unwanted columns and data were removed from the file. Finally, the TemplateAlias column and the applicable data were added. (Note that the data for DisplayName—an optional field—is missing for several users.)

Example CVS Input File for Creating Voice Mail Users

```
Alias,DisplayName,FirstName,LastName,TemplateAlias,Extension,ListInDirectory
iwinkler,"Winkler, Ian",Ian,Winkler,VoiceMailUserTemplate,5321,1
jsmith,,John,Smith,VoiceMailUserTemplate,5126,1
cjones,"Jones, Cris",Cris,Jones,VoiceMailUserTemplate,5249,1
dalbert,,Dan,Albert,VoiceMailUserTemplate,5299,1
jlee,"Lee, Jane",Jane,Lee,VoiceMailUserTemplate,5324,1
jthompson,"Thompson, Jim",Jim,Thompson,VoiceMailUserTemplate,5029,1
swong,"Wong, Sara",Sara,Wong,VoiceMailUserTemplate,5260,1
rhunter,"Hunter, Russ",Russ,Hunter,VoiceMailUserTemplate,5229,1
cashmore,,Carol,Ashmore,VoiceMailUserTemplate,5403,1
lcarson,"Carson, Lauren",Lauren,Carson,VoiceMailUserTemplate,5999,1
```

Whether you modify an output CSV file or create a CSV file from scratch, use the following guidelines, along with the tables in the [“Required and Optional CSV Fields” section on page A-6](#) to construct a valid input CSV file for use with the BAT:

- The first row in your CSV file must contain column headings that identify the type of data in each column; information in the subsequent rows must contain the data that you want to import.
- Ensure that commas separate the data in each row in your CSV file, including the column headings in the first row. Do not use a tab, spaces, or a semicolon to separate values in the file.
- Although the data must be arranged in the same order as the column heading, the order in which you arrange the columns is unimportant.
- If the CSV file includes a column that you want BAT to ignore, use the column heading “Junk.”
- If any data includes a space, quotes, or commas, contain it within quotes.

We recommend that your data not include double-quotes because it can cause problems with interactions with external servers. If the data does include double-quotes, place an additional double-quote next to each double-quote. For example, if the data is My “Spare Phone”, the entry must be My ““Spare Phone””.

- Column headings are not case sensitive, but they must be spelled as indicated in the tables in the [“Required and Optional CSV Fields” section on page A-6](#). Columns that are designated not applicable (N/A) for an operation will be ignored.
- For creating user accounts, most optional fields that are listed in the CSV field tables correspond to settings defined in a user template. For example, for voice mail users, the default template includes class of service (COS), call transfer, and message notification settings. When data for a particular user setting is not included in the CSV file, BAT uses settings in the user template that you specify in the required field TemplateAlias. For this reason, you should review the settings in the user template that you will use to create the accounts before adding any of the optional column headers to your CSV file. If a value for an optional field is not included in the CSV file, and if the template does not specify a default value, then the value for the field is not set.
- To explicitly set the value of a field to empty (or to null, if allowed), use the expression `%null%` for the value in the CSV file.
- We recommend that you do not include more than 5,000 records in an input CSV file.

Required and Optional CSV Fields

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The tables in this section list the required and optional fields, as applicable, to include in input CSV files. The fields are listed in alphabetical order, except for the required fields, which are listed first.

Use the applicable table, depending on the type of object:

- Users Without Voice Mailboxes—[Table A-1](#)
- Users With Voice Mailboxes—[Table A-2](#)
- System Contacts—[Table A-3](#)

Table A-1 Required and Optional CSV Fields for Users Without Voice Mailboxes

Column Heading	Creating	Updating	Deleting	Description
Alias	Required	Required	Required	The unique text name for the user account. Any combination of ASCII or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.
TemplateAlias	Required	N/A	N/A	The unique text name for the user template to apply to the account during creation.
Address	Optional	Optional	N/A	The physical address such as a house number and street name where the user is located, or with which the user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 128 characters.
AltFirstName	Optional	Optional	N/A	An alternate spelling of the user first name in an internationally recognizable format (i.e., ASCII only characters). The value is used by the telephone interface to search for users and to address messages. Any combination of ASCII alphanumeric characters, up to maximum of 64 characters.
AltLastName	Optional	Optional	N/A	An alternate spelling of the user last name in an internationally recognizable format (i.e., ASCII only characters). The value is used by the telephone interface to search for users and to address messages. Any combination of ASCII alphanumeric characters, up to maximum of 64 characters.
BillingId	Optional	Optional	N/A	Organization-specific information about the user, such as accounting information, department names, or project codes. The information can be included in user reports. Any combination of ASCII or Unicode characters, up to a maximum of 32 digits.
Building	Optional	Optional	N/A	The name of the building where the user is based. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
City	Optional	Optional	N/A	The name of a locality, such as a city, county or other geographic region where the user is located, or with which the user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.

Table A-1 Required and Optional CSV Fields for Users Without Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
Country	Optional	Optional	N/A	The 2-letter ISO 3166-1 country code where the user is located, or with which the user is associated. Two ASCII lower or upper case alpha characters.
Department	Optional	Optional	N/A	The name or number for the department or subdivision of an organization to which the user belongs. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
DirectoryId	Optional	Optional	N/A	The unique identifier for the user in the corporate or organization directory (for example, in Active Directory, if Active Directory is used). Any combination of ASCII alphanumeric characters, up to a maximum of 256 characters.
DisplayName	Optional	Optional	N/A	The user name that appears on the administration and user interfaces. If no value is provided, the value is set to the Alias. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
EmailAddress	Optional	Optional	N/A	The primary e-mail address of the user. Note that the field is only for directory information purposes. Cisco Unity Connection does not use the address to deliver incoming messages. Any combination of ASCII alphanumeric characters, and the special characters hyphen, underscore, period and at sign (“@”), up to a maximum of 320 characters.
EmployeeId	Optional	Optional	N/A	The numeric or alphanumeric identifier assigned to a user, typically based on order of hire or association with an organization. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
EnhancedSecurityAlias	Optional	Optional	N/A	The unique text name used to identify and authenticate the user with an RSA SecurID security system. Any combination of ASCII or Unicode characters, up to a maximum of 50 characters.
FirstName	Optional	Optional	N/A	The user first name. Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.
Initials	Optional	Optional	N/A	The initials of part or all of the user name. Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 6 characters.

Table A-1 Required and Optional CSV Fields for Users Without Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
Language	Optional	Optional	N/A	The preferred language of the user. Use the Windows language code, such as 1033 for U.S. English.
LastName	Optional	Optional	N/A	The user last name. Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.
Manager	Optional	Optional	N/A	The name of the person who is the manager or supervisor of the user. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
PostalCode	Optional	Optional	N/A	For users located in the United States, the zip code where the user is located, or with which the user is associated. For users located in Canada, Mexico, and other countries, the postal code where the user is located, or with which the user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 40 characters.
State	Optional	Optional	N/A	The full name of the state or province where the user is located, or with which the user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
TimeZone	Optional	Optional	N/A	The time zone with which the user account is associated.
Title	Optional	Optional	N/A	The position or function of the user within the organization, for example "Vice President." Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes

Column Heading	Creating	Updating	Deleting	Description
Alias	Required	Required	Required	The unique text name for the user account. Any combination of ASCII or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.
Extension	Required	Optional	N/A	The number that callers dial to reach the user. The value must be unique among users on the Virtual Messaging System. Any combination of ASCII alphanumeric characters, from 3 to 40 characters long.
TemplateAlias	Required	N/A	N/A	The unique text name for the user template to apply to the account during creation.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
Active_HomePhone	Optional	Optional	N/A	Whether the user home phone device is enabled: <ul style="list-style-type: none"> 0—disabled 1—enabled
Active_MobilePhone	Optional	Optional	N/A	Whether the user cell phone device is enabled: <ul style="list-style-type: none"> 0—disabled 1—enabled
Active_Pager	Optional	Optional	N/A	Whether the user pager device is enabled: <ul style="list-style-type: none"> 0—disabled 1—enabled
Active_TextPager1	Optional	Optional	N/A	Whether the user text pager device is enabled: <ul style="list-style-type: none"> 0—disabled 1—enabled
Active_WorkPhone	Optional	Optional	N/A	Whether the user work phone device is enabled: <ul style="list-style-type: none"> 0—disabled 1—enabled
Address	Optional	Optional	N/A	The physical address, such as a house number and street name where the user is located, or with which the user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 128 characters.
AfterDialDigits_Pager	Optional	Optional	N/A	Digits to send to the pager. This is referred to in Connection Administration as “Extra Digits.” For numeric pagers, the field holds numeric text to send to the pager; for text pagers, the field is blank. The maximum length is 32 digits.
AltFirstName	Optional	Optional	N/A	An alternate spelling of the user first name in an internationally recognizable format (ASCII characters). The value is used by the phone interface to search for users and to address messages. Any combination of ASCII alphanumeric characters, up to maximum of 64 characters.
AltLastName	Optional	Optional	N/A	An alternate spelling of the user last name in an internationally recognizable format (ASCII characters). The value is used by the phone interface to search for users and to address messages. Any combination of ASCII alphanumeric characters, up to maximum of 64 characters.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
BillingId	Optional	Optional	N/A	Organization-specific information about the user, such as accounting information, department names, or project codes. The information can be included in user reports. Any combination of digits from 0 through 9, up to a maximum of 32 digits.
Building	Optional	Optional	N/A	The name of the building where the user is based. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
CcmId	Optional	Optional	N/A	The Cisco Unified Communications Manager user ID that is associated with the user. Any combination of characters except for non-printing ASCII characters, up to a maximum of 128 characters.
City	Optional	Optional	N/A	The name of a locality, such as a city, county or other geographic region where the user is located, or with which the user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
ClientMatterCode	Optional	Optional	N/A	The required Client Matter Code (CMC) to transmit to Cisco Unified Communications Manager (CM), if applicable, when the user makes an outbound call. CMCs are typically used to enable the system to track calls for account or billing purposes. The value is used only if the system is using Cisco Unified CM and if the version of Cisco Unified CM is 4.1 or later. Whether the CMC is transmitted depends on the setting for outbound calls. The user CMC is used only if the outbound call does not have its own CMC. The code length can be from 1 through 40 characters.
COSDisplayName	Optional	Optional	N/A	The unique text name that is displayed on the user interfaces for the class of service (COS) with which the user account is associated. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
Country	Optional	Optional	N/A	The 2-letter ISO 3166-1 country code where the user is located, or with which the user is associated. Two ASCII lower or upper case alpha characters.
Department	Optional	Optional	N/A	The name or number for the department or subdivision of an organization to which the user belongs. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
DirectoryId	Optional	Optional	N/A	The unique identifier for the user in the corporate or organization directory (for example, in Active Directory, if Active Directory is used). Any combination of ASCII alphanumeric characters, up to a maximum of 256 characters.
DisplayName	Optional	Optional	N/A	The user name that appears on the administration and user interfaces. If no value is provided, the value is set to the Alias. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
DisplayName_HomePhone	Optional	Optional	N/A	The text name for the user home phone displayed on the Cisco Unity Connection interface(s). Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
DisplayName_MobilePhone	Optional	Optional	N/A	The text name for the user cell phone displayed on the Cisco Unity Connection interface(s). Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
DisplayName_Pager	Optional	Optional	N/A	The text name for the user pager displayed on the Cisco Unity Connection interface(s). Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
DisplayName_TextPager1	Optional	Optional	N/A	The text name for the user text pager displayed on the Cisco Unity Connection interface(s). Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
DisplayName_WorkPhone	Optional	Optional	N/A	The text name for the user work phone displayed on the Cisco Unity Connection interface(s). Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
EmailAddress	Optional	Optional	N/A	The primary e-mail address of the user. Note that the field is used only for directory information purposes. Cisco Unity Connection does not use the address to deliver incoming messages. Any combination of ASCII alphanumeric characters, and hyphens, underscores, periods and at signs (“@”), up to a maximum of 320 characters.
EmployeeId	Optional	Optional	N/A	The numeric or alphanumeric identifier assigned to a user, typically based on order of hire or association with an organization. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
EnhancedSecurityAlias	Optional	Optional	N/A	The unique text name used to identify and authenticate the user with an RSA SecurID security system. Any combination of ASCII or Unicode characters, up to a maximum of 50 characters.
Extension_Alt1	Optional	Optional	N/A	The first alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt2	Optional	Optional	N/A	The second alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt3	Optional	Optional	N/A	The third alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt4	Optional	Optional	N/A	The fourth alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt5	Optional	Optional	N/A	The fifth alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt6	Optional	Optional	N/A	The sixth alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt7	Optional	Optional	N/A	The seventh alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt8	Optional	Optional	N/A	The eighth alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
Extension_Alt9	Optional	Optional	N/A	The ninth alternate extension for the user. Any combination of ASCII alphanumeric characters, from 1 to 40 characters long.
FirstName	Optional	Optional	N/A	The user first name. Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
ForcedAuthoizationCode	Optional	Optional	N/A	<p>The required forced-authorization code (FACs) to transmit to Cisco Unified Communications Manager (CM), if applicable, when the user makes an outbound call.</p> <p>Your organization may use FACs to prevent toll fraud. For example, users may have to provide FACs to place long-distance calls.</p> <p>The value is used only if the system is using Cisco Unified CM and if the version of Cisco Unified CM is 4.1 or later.</p> <p>The code length can be from 1 to 40 characters.</p>
ImapService_AccountLogin	Optional	Optional	N/A	<p>The Active Directory user logon name that is associated with the Exchange mailbox that you want this Cisco Unity Connection user to be able to access. (The Active Directory logon name of the user should be in the format LogonName.)</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 256 characters.</p> <p>To add the IMAP service for a user, include values for both the ImapService_RemoteServerDisplayName and ImapService_AccountLogin fields in the CSV input file.</p> <p>To remove the IMAP service for a user, set at least one of either the ImapService_RemoteServerDisplayName or ImapService_AccountLogin fields to %null% in the CSV input file.</p>
ImapService_AccountPassword	Optional	Optional	N/A	<p>The user password that is associated with the Exchange mailbox that you want this Cisco Unity Connection user to be able to access.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 256 characters.</p> <p>To add the IMAP service for a user, include values for the ImapService_RemoteServerDisplayName and ImapService_AccountLogin fields in the CSV input file.</p> <p>To remove the IMAP service for a user, set at least one of either the ImapService_RemoteServerDisplayName or ImapService_AccountLogin fields to %null% in the CSV input file.</p>

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
ImapService_RemoteServerDisplay playName	Optional	Optional	N/A	<p>The Cisco Unity Connection IMAP service that corresponds with the Exchange server that contains the Exchange mailbox for this Cisco Unity Connection user.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.</p> <p>To add the IMAP service for a user, include values for both the ImapService_RemoteServerDisplayName and ImapService_AccountLogin fields in the CSV input file.</p> <p>To remove the IMAP service for a user, set at least one of either the ImapService_RemoteServerDisplayName or ImapService_AccountLogin fields to %null% in the CSV input file.</p>
Initials	Optional	Optional	N/A	<p>The initials of part or all of the user name.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 6 characters.</p>
Language	Optional	Optional	N/A	<p>The preferred language of the user.</p> <p>Use the Windows language code, such as 1033 for U.S. English.</p>
LastName	Optional	Optional	N/A	<p>The user last name.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.</p>
ListInDirectory	Optional	Optional	N/A	<p>Determines whether the user is included in the phone directory for outside callers:</p> <ul style="list-style-type: none"> • 0—Not included in the directory • 1—Included in the directory
Manager	Optional	Optional	N/A	<p>The name of the manager or supervisor of the user.</p> <p>Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.</p>
MailName	Optional	N/A	N/A	<p>Name used to construct part of SMTP address before the @ sign.</p> <p>A name is needed for unicode aliases that cannot be converted into a valid SMTP addresses.</p>
MaxMsgLen	Optional	Optional	N/A	<p>The maximum duration (in seconds) for recording a message from an outside (unidentified) caller.</p> <p>The length specified can be from 1 through 1,200 seconds.</p>

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
MediaSwitchDisplayName	Optional	Optional	N/A	The text name displayed on the system administration interface of the phone system used for Telephone Record and Playback (TRAP) sessions and to turn message waiting indicators on and off. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
MWIExtension	Optional	Optional	N/A	The phone number (extension) of the default message waiting indicator (MWI) to light when callers leave messages for the user. If no value is provided, Cisco Unity Connection uses the number of the primary extension.
PhoneNumber_HomePhone	Optional	Optional	N/A	The user home phone number. Any combination of the digits 0–9, T, t, commas, hashes (#), and asterisks (*), up to a maximum of 38 characters.
PhoneNumber_MobilePhone	Optional	Optional	N/A	The user cell phone number. Any combination of the digits 0–9, T, t, commas, hashes (#), and asterisks (*), up to a maximum of 38 characters.
PhoneNumber_Pager	Optional	Optional	N/A	The user pager number. Any combination of the digits 0–9, T, t, commas, hashes (#), and asterisks (*), up to a maximum of 38 characters.
PhoneNumber_TextPager1	Optional	Optional	N/A	The user text pager number. Any combination of ASCII only alphanumeric characters, hyphens, underscores, periods, at signs (“@”), commas and hashes (#), up to a maximum of 40 characters.
PhoneNumber_WorkPhone	Optional	Optional	N/A	The user work phone number. Any combination of the digits 0–9, T, t, commas, hashes (#), and asterisks (*), up to a maximum of 38 characters.
PostalCode	Optional	Optional	N/A	For users located in the United States, the zip code where the user is located, or with which a user is associated. For users located in Canada, Mexico, and other countries, the postal code where the user is located, or with which a user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 40 characters.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
RnaAction	Optional	Optional	N/A	Determines whether Cisco Unity Connection transfers the call to the applicable greeting or releases the call to the phone system when a call is unanswered (“ring-no-answer”): <ul style="list-style-type: none"> 0—Release the call to the phone system. 1—After the number of rings specified in the TransferRings field, transfer the call to the appropriate greeting.
SmtAddress_TextPager1	Optional	Optional	N/A	SMTP address for the user. This address identifies the user in an SMTP-enabled client such as Outlook Express. If you do not provide one, Connection uses the alias to form the address. Note that the SMTP address cannot include non-ASCII characters. Therefore, if the alias contains non-ASCII characters, you must provide an acceptable SMTP address.
State	Optional	Optional	N/A	The full name of the state or province where the user is located, or with which a user is associated. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
TimeZone	Optional	Optional	N/A	The time zone with which the user account is associated.
Title	Optional	Optional	N/A	The position or function of the user within the organization, for example “Vice President.” Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
TransferAction	Optional	Optional	N/A	Determines whether Cisco Unity Connection transfers the incoming calls for the user to the call handler greeting or to the extension specified in TransferExtension: <ul style="list-style-type: none"> 0—Transfer to the call handler greeting. 1—Transfer to TransferExtension.
TransferExtension	Optional	Optional	N/A	The phone number that Cisco Unity Connection transfers calls to if TransferAction is set to 1.
TransferRings	Optional	Optional	N/A	Determines the number of times the user extension rings before Cisco Unity Connection considers the call unanswered (“ring-no-answer”) and plays the applicable greeting. An integer value from 2 through 100.

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
TransferType	Optional	Optional	N/A	<p>Determines the way in which Cisco Unity Connection will transfer calls from the automated attendant or a directory handler to the user phone for the standard (default) transfer rule:</p> <ul style="list-style-type: none"> • 0—supervised • 1—unsupervised (also called a “Release to Switch” transfer)
WebDavService_AccountLogin	Optional	Optional	N/A	<p>To enable access to Exchange messages by using Text to Speech, the Exchange alias (often the same as the Active Directory user logon name) for the Exchange mailbox that you want this Cisco Unity Connection user to be able to access.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 256 characters.</p> <p>To add the WebDav service for a user, include the values for the WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, and WebDavService_ServerUrlSuffix fields in the CSV input file.</p> <p>To remove the WebDav service for a user, set at least one of the fields WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, or WebDavService_ServerUrlSuffix to %null% in the CSV input file.</p>
WebDavService_AccountPassword	Optional	Optional	N/A	<p>The user password that is associated with the Exchange mailbox that you want this Cisco Unity Connection user to be able to access.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 256 characters.</p> <p>To add the WebDav service for a user, include the values for the WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, and WebDavService_ServerUrlSuffix fields in the CSV input file.</p> <p>To remove the WebDav service for a user, set at least one of the fields WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, or WebDavService_ServerUrlSuffix to %null% in the CSV input file.</p>

Table A-2 Required and Optional CSV Fields for Users With Voice Mailboxes (continued)

Column Heading	Creating	Updating	Deleting	Description
WebDavService_RemoteServerDisplayName	Optional	Optional	N/A	<p>The Cisco Unity Connection WebDav service that corresponds with the Exchange server that contains the Exchange mailbox for this Cisco Unity Connection user.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.</p> <p>To add the WebDav service for a user, include the values for the WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, and WebDavService_ServerUrlSuffix fields in the CSV input file.</p> <p>To remove the WebDav service for a user, set at least one of the fields WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, or WebDavService_ServerUrlSuffix to %null% in the CSV input file.</p>
WebDavService_ServerUrlSuffix	Optional	Optional	N/A	<p>The Exchange e-mail alias for this user. Do not include https://<Servername>/exchange in the field. Enter only the alias for this user.</p> <p>When you add a new Cisco Unity Connection external service, you specify the base URL to the Exchange server, https://<Exchange server>/Exchange/ where <Exchange server> is the fully qualified domain name or the IP address of the Exchange server. When Connection accesses the Exchange mailbox for a Connection user, it combines the base URL with the URL suffix. The combination must produce the correct URL for accessing the Exchange mailbox for this user.</p> <p>Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 256 characters.</p> <p>To add the WebDav service for a user, include the values for the WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, and WebDavService_ServerUrlSuffix fields in the CSV input file.</p> <p>To remove the WebDav service for a user, set at least one of the fields WebDavService_AccountLogin, WebDavService_RemoteServerDisplayName, or WebDavService_ServerUrlSuffix to %null% in the CSV input file.</p>

Table A-3 Required and Optional CSV Fields for System Contacts

Column Heading	Creating	Updating	Deleting	Description
Alias	Required	Required	Required	The unique text name for the contact. Any combination of ASCII or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.
Extension	Required	Optional	N/A	The number that callers dial to reach the contact. The value must be unique among users on the Virtual Messaging System. Any combination of ASCII alphanumeric characters, up to a maximum of 40 characters.
AltFirstName	Optional	Optional	N/A	An alternate spelling of the contact first name in an internationally recognizable format (ASCII characters). The value is used by the phone interface to search for users and to address messages. Any combination of ASCII alphanumeric characters, up to maximum of 64 characters.
AltLastName	Optional	Optional	N/A	An alternate spelling of the contact last name in an internationally recognizable format (ASCII characters). The value is used by the phone interface to search for users and to address messages. Any combination of ASCII alphanumeric characters, up to maximum of 64 characters.
DirectoryId	Optional	Optional	N/A	The unique identifier for the contact in the corporate or organization directory (for example, in Active Directory, if Active Directory is used). Any combination of ASCII alphanumeric characters, up to a maximum of 256 characters.
DisplayName	Optional	Optional	N/A	The contact name that appears on the administration and user interfaces. If no value is provided, the value is set to the Alias. Any combination of ASCII or Unicode characters, up to a maximum of 64 characters.
Extension_Alt1	Optional	Optional	N/A	The first alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
Extension_Alt2	Optional	Optional	N/A	The second alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
Extension_Alt3	Optional	Optional	N/A	The third alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.

Table A-3 Required and Optional CSV Fields for System Contacts (continued)

Column Heading	Creating	Updating	Deleting	Description
Extension_Alt4	Optional	Optional	N/A	The fourth alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
Extension_Alt5	Optional	Optional	N/A	The fifth alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
Extension_Alt6	Optional	Optional	N/A	The sixth alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
Extension_Alt7	Optional	Optional	N/A	The seventh alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
Extension_Alt8	Optional	Optional	N/A	The eighth alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
Extension_Alt9	Optional	Optional	N/A	The ninth alternate extension for the contact. Any combination of ASCII alphanumeric characters, from 1 to 255 characters long.
FirstName	Optional	Optional	N/A	The contact first name. Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.
LastName	Optional	Optional	N/A	The contact last name. Any combination of ANSI or Unicode alphanumeric characters, periods, commas, spaces, and the special characters ` , ~ , ! , @ , # , \$, % , ^ , & , - , _ , ' , up to a maximum of 64 characters.
ListInDirectory	Optional	Optional	N/A	Determines whether the contact is included in the phone directory for outside callers: <ul style="list-style-type: none"> • 0—Not included in the directory • 1—Included in the directory
RemoteMailAddress	Optional	Optional	N/A	The mail address for the contact on the remote system. The maximum length is 256 characters.

Table A-3 Required and Optional CSV Fields for System Contacts (continued)

Column Heading	Creating	Updating	Deleting	Description
TransferRings	Optional	Optional	N/A	Determines the number of times the extension of the contact rings before Cisco Unity Connection considers the call unanswered (“ring-no-answer”) and plays the applicable greeting. An integer value from 2 through 100.
TransferType	Optional	Optional	N/A	Determines the way in which Cisco Unity Connection will transfer calls from the automated attendant or a directory handler to the contact phone for the standard (default) transfer rule: <ul style="list-style-type: none"> • 0—supervised • 1—unsupervised (also called a “Release to Switch” transfer)

Correcting Errors by Using the Failed Objects File

Revised January, 2008

When you run BAT, it copies each record that it cannot process to a failed objects report file, along with the reason that the record was not processed correctly. For example, in the following CSV file, the first record includes an invalid entry for the Country field, and the second record specifies a template that is not a voice mail user template:

```
Alias, City, PostalCode, State, Country, TemplateAlias
Jsmith, Beverly Hills, 90210, Ca., United States, VoiceMailUserTemplate
BRobertson, Seattle, 98121, WA, US, AdminUserTemplate
```

Using this file to create users with voice mailboxes produces the following failed objects file:

```
FailureReason, alias, city, postalcode, state, country, templatealias
United States is invalid for column Country|, Jsmith, Beverly Hills, 90210, Ca., United States, VoiceMailUserTemplate
Object not found or is not a template: Parameter = [@TemplateObjectId], Table = [vw_SubscriberTemplate], Column = [Alias,ObjectId]|, BRobertson, Seattle, 98121, WA, US, AdminUserTemplate
```

The FailureReason column—which provides information about the invalid data—is added before the first column.

To correct errors, do the following procedure to modify the failed objects file, rename it, and use it as the input file when you re-run BAT.

Note that depending on the type of problem with the data in the CSV file, BAT may report multiple errors or only the first error encountered for each problem record. Therefore, after you correct errors, BAT may detect additional errors in the same record when the data is processed again. Thus, you may need to repeat the correction process—running the tool and correcting an error—several times to find and correct all errors.

To Correct Errors by Using the Failed Objects File

- Step 1** If the Bulk Administration Tool operation results in any failures, you can immediately inspect the failed objects report file by clicking **Download the Failed Objects File**.

- Step 2** Open the file and correct all problems with the data, as indicated by the information in the FailureReason column for each record.
- Step 3** Remove the FailureReason column or change the heading to “junk.”
- Step 4** When you have finished modifying the data, save the file as a CSV file with a new name.
- Step 5** Run BAT again with the CSV file that you saved in [Step 4](#) as the input file.
- Note that each time that you run BAT, the failed objects file is overwritten (unless you specify a new name for the file each time you run the tool).
- Step 6** Repeat this procedure until all records are processed without error.
-

**Note**

If you have navigated away from the Bulk Administration Tool page, you can go back and click the Display Last Operation button to bring up a download link for the output file from the previous operation. If you need a failed objects file from more than one previous operation, you can use the Command Line Interface (CLI) command “file view activelog cuc/<filename>” to view failed object files. For more information on using CLI commands, see the *Cisco Unified Communications Operating System Administration Guide for Cisco Unity Connection*, available at http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html.
