



Deleting Messaging Server, Calendar Server, and Communications Express Users

Sun Java™ Enterprise System Technical Note



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Deleting Messaging Server, Calendar Server, and Communications Express Users

This technical note describes the process of deleting and permanently removing users and their communications data (email, calendar entries, and address books) from Sun Java™ System Messaging Server, Sun Java System Calendar Server, and Sun Java System Communications Express deployments.

The component products affected by this technical note are:

- Sun Java System Calendar Server
- Sun Java System Communications Express
- Sun Java System Directory Server
- Sun Java System Messaging Server

This technical note contain the following sections:

- [“Technical Note Revision History”](#) on page 3
- [“Deleting Messaging Server, Calendar Server, and Communications Express User Data”](#) on page 4
- [“Documentation, Support, and Training”](#) on page 24

Technical Note Revision History

Version	Date	Description of Changes
1	May 2006	Initial release of this technical note.

Deleting Messaging Server, Calendar Server, and Communications Express User Data

To completely remove Messaging Server, Calendar Server, and Communications Express user data from the LDAP directory, the steps involve:

1. Marking the user entry for deletion
2. Removing the user's resources (mailbox and calendar)
3. Purging the user entry from LDAP
4. Removing the user from groups (mailing lists)

In addition, if the user used a personal address book within Communications Express, you need to delete those entries from LDAP.

Methods for Removing Users

You should use one of these methods to remove users:

- Sun Java System Communications Services Delegated Administrator command-line tools
- LDAP tools provided by Sun Java System Directory Server
- Calendar Server utilities (for removing users of Calendar Server in non-hosted domain mode)

The procedures in this technical note describe how to use these different approaches. Each approach uses a different tool set.

Which Method Should You Use?

The method you choose depends on the Communications Services products and versions you have installed.

Removing Users (Task Map)

The following table provides links directing you to the method (task) appropriate for your installation.

TABLE 1 Removing Users (Task Map)

Task Instructions	Description	Tools Recommended for This Task
“To Delete Messaging Server and Calendar Server Users with Delegated Administrator Command-Line Tools” on page 7	<p>If you have installed Communications Services Delegated Administrator to provision users in the LDAP directory for Messaging Server, Calendar Server, and/or Communications Express, use this task.</p> <p>This method is the simplest. If you have installed Delegated Administrator, we recommend that you use it to remove users.</p>	<p>Sun Java System Communications Services Delegated Administrator command-line tools</p> <p>(If the user has personal address book data created through Communications Express, LDAP tools are also needed.)</p>
“To Delete Messaging Server and Calendar Server Users with LDAP Tools” on page 9	<p>If you have not installed Delegated Administrator and you provision users for Messaging Server, Calendar Server, and/or Communications Express with direct LDAP tools, use this task.</p>	<p>LDAP tools provided by Sun Java System Directory Server</p>
“To Delete Users of Calendar Server in Non-Hosted Domain Mode and Messaging Server” on page 14	<p>If you are running Calendar Server in non-hosted domain mode, and you are also running Messaging Server (where both Messaging Server and Calendar Server users are provisioned in the same directory), use this task.</p>	<p>Calendar Server utilities for users of Calendar Server in non-hosted domain mode and</p> <p>LDAP tools provided by Sun Java System Directory Server</p>
“To Delete Users of Stand-Alone Calendar Server in Non-Hosted Domain Mode” on page 19	<p>If you are running stand-alone Calendar Server in non-hosted domain mode (where no other Communications Services products are provisioned in the same directory), use this task.</p>	<p>Calendar Server utilities for users of Calendar Server in non-hosted domain mode</p>

TABLE 1 Removing Users (Task Map) *(Continued)*

Task Instructions	Description	Tools Recommended for This Task
“To Delete Messaging Server and Calendar Server Users with LDAP Tools” on page 9	<p>iPlanet Messaging Server 5.x</p> <p>If you are running iPlanet Messaging Server 5.x, use the direct LDAP tools to remove users, use this task.</p> <p>Even if you use iPlanet Delegated Administrator to provision users for Messaging Server 5.x, we recommend that you use direct LDAP tools remove users. In this situation, the direct LDAP tools are the surest way to clean up the LDAP directory.</p> <p>(iPlanet Delegated Administrator, used with Messaging Server 5.x, is not the same as Communications Services Delegated Administrator, which was introduced for use with Java Enterprise System releases of Messaging Server and Calendar Server.)</p>	LDAP tools provided by Sun Java System Directory Server

Preventing Unwanted User Purges

Permanently removing a user from the LDAP directory should always be the final step in a carefully planned procedure. Once you purge a user, it can be hard to retrieve the user information from back-up data, if that should become necessary.

Therefore, each procedure described here includes a first step that disables the user. After a user is disabled, that user cannot access the applications (the mailbox or calendar), but the user entry itself remains in the directory.

A later step permanently removes the user from the directory.

You can choose to run the purge step immediately after the disable step, or you can allow a period of time to pass between these steps to ensure that no user is accidentally purged.

Delegated Administrator provides a built-in grace period, which you can reset with a simple command-line option. This is one of the advantages of using Delegated Administrator.

If you use direct LDAP tools to remove the user, you can set an administrator-managed grace period as a best practice.

▼ To Delete Messaging Server and Calendar Server Users with Delegated Administrator Command-Line Tools

Note – The Delegated Administrator `commadmin domain purge` command shown in these steps must be run by the Top-Level Administrator. (The `commadmin user delete` command can be run by a Top-Level Administrator or an Organization Administrator.)

Before You Begin In the Access Manager Administration Console, be sure that the **Compliance User Deletion** option is selected. It is selected by default when you configure Delegated Administrator.

The **Compliance User Deletion** option ensures that the user’s LDAP entry is marked for deletion when you run the `commadmin user delete` command in Step 1, below. If this option is not selected, the `commadmin user delete` command will not operate properly.

1 Use the `commadmin` command to mark the messaging and calendar user for deletion.

This step changes the user’s status to “deleted” in the LDAP directory by changing the value of the user’s `inetUserStatus` attribute to `deleted`.

```
commadmin user delete -D admin user -n admin domain -w password -d domain -l user
```

<code>-D <i>admin user</i></code>	Specifies the user ID of the Top-Level Administrator (the user with permission to execute this command)
<code>-n <i>admin domain</i></code>	Specifies the domain of the Top-Level Administrator
<code>-w <i>password</i></code>	Specifies the password of the Top-Level Administrator
<code>-d <i>domain</i></code>	Specifies the domain of the user to be deleted
<code>-l <i>user</i></code>	Specifies the user ID of the user to be deleted

Example:

```
commadmin user delete -D admin -n siroe.com -w &!2x%!a5 -d sesta.com -l jsmith
```

2 Use the appropriate command to remove mail and calendar resources from the user.

A resource can be a mailbox or a calendar.

For mail services, you use the `msuserpurge` command. `msuserpurge` finds all user entries where `inetUserStatus` or `mailUserStatus` is set to `deleted` and purges those user mailboxes from the message store. All resources associated with those users are also removed. `msuserpurge` then marks the `mailUserStatus` attribute in the affected user entries as “removed.”

```
msuserpurge -d domain
```

<code>-d <i>domain</i></code>	Specifies the domain of the user marked for deletion
-------------------------------	--

For calendar services, you use the `csclean` command. `csclean` finds all user entries where `inetUserStatus` or `icsStatus` is set to deleted and removes all calendars belonging to the deleted users. It then marks the `icsStatus` attribute in the affected user entries as “removed.”

```
csclean clean domain
```

`clean` Mandatory argument for running the `csclean` command

`domain` Specifies the domain of the user marked for deletion

Example:

```
msuserpurge -d sesta.com  
csclean clean sesta.com
```

3 Permanently remove the user entry from the directory by running the `commadmin domain purge` command.

The `commadmin domain purge` command permanently removes all user entries that have been marked as deleted. This command also removes the user from all groups (mail lists) in which the user is a member or owner.

```
commadmin domain purge -D admin user -n admin domain -w password -d domain -g grace
```

`-D admin user` Specifies the user ID of the Top-Level Administrator (the user with permission to execute this command)

`-n admin domain` Specifies the domain of the Top-Level Administrator

`-w password` Specifies the password of the Top-Level Administrator

`-d domain` Specifies the domain of the user to be deleted

`-g grace` Specifies the grace period, in days, before the user is purged. Only users marked for deletion longer than the specified grace period are removed. The default value is 5 days. A 0 indicates purge immediately.

Example:

```
commadmin domain purge -D admin -n siroe.com -w &!2x%!a5 -d sesta.com -g 2
```

In the preceding example, only user entries marked for deletion longer than 2 days ago are removed. If you run `commadmin user delete` and `commadmin domain purge` on the same day, you would have to set the grace period to 0 to permanently remove those users.

4 If the user created an address book in Communications Express, use LDAP tools to find and remove the personal address-book related LDAP entries.

The LDAP data for a user’s personal address book is stored in a base entry and several subordinate entries. For a sample listing, see [“User Data Stored in the Directory by Communications Express” on page 22.](#)

The following steps summarize how to find and remove these entries. You might want to write your own script to automate these steps.

a. Use the `ldapsearch` command to find the user's address-book base entry and all its descendants.

The base entry is `piPStoreOwner=user`, where *user* specifies the user ID to be deleted.

Example:

```
ldapsearch -b "piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
-s sub "objectclass=*" dn
```

This example finds the personal address book DNs for a user named `jsmith` in the `sesta.com` domain.

b. Use the `ldapdelete` command to remove each subordinate entry.

Example:

```
ldapdelete -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
"piEntryID=e10976f864e00m,piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
```

You might prefer not to run `ldapdelete` for each subordinate entry. Instead, you can create a response file based on the LDIF output generated from the preceding `ldapsearch` command. The response file can be used with `ldapdelete` to iteratively delete the multiple entries.

c. Use the `ldapdelete` command to remove the user's address-book base entry.

Example:

```
ldapdelete -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
"piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
```

When you complete these steps, all user-related data maintained by Communications Express is removed.

▼ To Delete Messaging Server and Calendar Server Users with LDAP Tools

Before You Begin You should be familiar with the syntax and operation of the LDAP tools such as `ldapmodify`.

1 Verify the user entry you want to delete.

The following ldif file shows an example of a user entry before you begin the deletion. Note that the `inetUserStatus` attribute is active:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix
icsFirstDay: 2
uid: jsmith
iplanet-am-modifiable-by: cn=Top-level Admin Role,o=root_suffix
icsTimezone: America/Denver
givenName: John
```

```
mail: jsmith@sesta.com
mailUserStatus: active
sn: Smith
cn: John Smith
mailDeliveryOption: mailbox
icsStatus: Active
icsCalendar: jsmith@sesta.com
mailHost: mail.siroe.com
objectClass: userpresenceprofile
objectClass: icscalendaruser
objectClass: top
objectClass: iplanet-am-managed-person
objectClass: iplanet-am-user-service
objectClass: inetadmin
objectClass: organizationalperson
objectClass: person
objectClass: inetuser
objectClass: inetlocalmailrecipient
objectClass: iplanetpreferences
objectClass: ipuser
objectClass: inetorgperson
objectClass: inetsubscriber
objectClass: inetmailuser
inetUserStatus: Active
userPassword: {SSHA}uSRLlYBjzFxu4f2nWtXU4XoVdExKSLcSRhYbFw==
iplanet-am-user-login-status: Active
```

2 Use the `ldapmodify` command to mark the messaging and calendar user for deletion.

This step changes the user's status to "deleted" in the LDAP directory by changing the value of the user's `inetUserStatus` attribute to `deleted`.

Example:

a. Create the following ldif file, named `markUserDeleted.ldif`:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix
changetype: modify
replace: inetuserstatus
inetuserstatus: deleted
```

b. Run the `ldapmodify` command:

```
ldapmodify -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
-f markUserDeleted.ldif
```

The user entry now looks like this:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix
icsFirstDay: 2
```

```

uid: jsmith
iplanet-am-modifiable-by: cn=Top-level Admin Role,o=root_suffix
icsTimezone: America/Denver
givenName: John
mail: jsmith@sesta.com
mailUserStatus: active
sn: Smith
cn: John Smith
mailDeliveryOption: mailbox
icsStatus: Active
icsCalendar: jsmith@sesta.com
mailHost: mail.siroe.com
objectClass: userpresenceprofile
objectClass: icscalendaryuser
objectClass: top
objectClass: iplanet-am-managed-person
objectClass: iplanet-am-user-service
objectClass: inetadmin
objectClass: organizationalperson
objectClass: person
objectClass: inetuser
objectClass: inetlocalmailrecipient
objectClass: iplanetpreferences
objectClass: ipuser
objectClass: inetorgperson
objectClass: inetsubscriber
objectClass: inetmailuser
userPassword: {SSHA}uSRLlYBjzFxu4f2nWtXU4XoVdExKSLcSRhYbFw==
inetUserStatus: deleted
iplanet-am-user-login-status: Active

```

3 Use the appropriate command to remove mail and calendar resources from the user.

A resource can be a mailbox or a calendar.

For mail services, you use the `msuserpurge` command. `msuserpurge` finds all user entries where `inetUserStatus` or `mailUserStatus` is set to `deleted` and purges those user mailboxes from the message store. All resources associated with those users are also removed. `msuserpurge` then marks the `mailUserStatus` attribute in the affected user entries as “removed.”

```
msuserpurge -d domain
```

`-d domain` Specifies the domain of the user marked for deletion

For calendar services, you use the `csclean` command. `csclean` finds all user entries where `inetUserStatus` or `icsStatus` is set to `deleted` and removes all calendars belonging to the deleted users. It then marks the `icsStatus` attribute in the affected user entries as “removed.”

```
csclean clean domain
```

`clean` Mandatory argument for running the `csclean` command
`domain` Specifies the domain of the user marked for deletion

Example:

```
msuserpurge -d sesta.com  
csclean clean sesta.com
```

The user entry now looks like this:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix  
icsFirstDay: 2  
uid: jsmith  
iplanet-am-modifiable-by: cn=Top-level Admin Role,o=root_suffix  
icsTimezone: America/Denver  
givenName: John  
mail: jsmith@sesta.com  
sn: Smith  
cn: John Smith  
mailDeliveryOption: mailbox  
icsCalendar: jsmith@sesta.com  
mailHost: mail.siroe.com  
objectClass: userpresenceprofile  
objectClass: icscalendaruser  
objectClass: top  
objectClass: iplanet-am-managed-person  
objectClass: iplanet-am-user-service  
objectClass: inetadmin  
objectClass: organizationalperson  
objectClass: person  
objectClass: inetuser  
objectClass: inetlocalmailrecipient  
objectClass: iplanetpreferences  
objectClass: ipuser  
objectClass: inetorgperson  
objectClass: inetsubscriber  
objectClass: inetmailuser  
userPassword: {SSHA}uSRLLYBjzFxu4f2nWtXU4XoVdExKSLcSRhYbFw==  
inetUserStatus: deleted  
icsStatus: removed  
mailUserStatus: removed  
iplanet-am-user-login-status: Active
```

4 Permanently remove the user entry from the directory.

Example:

a. Create the following ldif file, named `deleteUser.ldif`:

```
uid=jsmith,ou=People,o=sesta.com,o=root_suffix
```

b. Run the `ldapdelete` command:

```
ldapdelete -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5  
-f deleteUser.ldif
```

The user entry is removed from the directory.

5 Delete the user from all groups (mail lists) in which the user is a member or owner.

Use the `ldapsearch` command to search the directory for all groups. If, in your directory, all groups are located under `ou=Groups` under a single domain, you can restrict the search to the `ou=Groups` subtree.

In each group, search on the following attributes:

```
owner  
uniqueMember
```

Delete each instance where the value is:

```
uniqueMember:uid=jsmith,ou=People,o=sesta.com,o=root_suffix
```

In each instance where the value is:

```
owner:cn=John Smith,ou=People,o=sesta.com,o=root_suffix
```

change the owner to another user.

Note – Once a user is no longer specifically named as a group member or owner, the user will no longer appear in any groups, including dynamic group memberships and any nested groups.

6 If the user created an address book in Communications Express, use LDAP tools to find and remove the personal address-book related LDAP entries.

The LDAP data for a user's personal address book is stored in a base entry and several subordinate entries. For a sample listing, see [“User Data Stored in the Directory by Communications Express” on page 22](#).

The following steps summarize how to find and remove these entries. You might want to write your own script to automate these steps.

a. Use the `ldapsearch` command to find the user's address-book base entry and all its descendants.

The base entry is `piPStoreOwner=user`, where *user* specifies the user ID to be deleted.

Example:

```
ldapsearch -b "piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
-s sub "objectclass=*" dn
```

This example finds the personal address book DNs for a user named `jsmith` in the `sesta.com` domain.

b. Use the `ldapdelete` command to remove each subordinate entry.**Example:**

```
ldapdelete -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
"piEntryID=e10976f864e00m,piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
```

You might prefer not to run `ldapdelete` for each subordinate entry. Instead, you can create a response file based on the LDIF output generated from the preceding `ldapsearch` command. The response file can be used with `ldapdelete` to iteratively delete the multiple entries.

c. Use the `ldapdelete` command to remove the user's address-book base entry.**Example:**

```
ldapdelete -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
"piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
```

When you complete these steps, all user-related data maintained by Communications Express is removed.

▼ To Delete Users of Calendar Server in Non-Hosted Domain Mode and Messaging Server

Use this procedure if you are running Calendar Server without hosted domains, and you are also running Messaging Server (where both Messaging Server and Calendar Server users are provisioned in the same directory).

Before You Begin You should be familiar with the syntax and operation of the LDAP tools such as `ldapmodify`.

1 Verify the user entry you want to delete.

The following ldif file shows an example of a user entry before you begin the deletion. Note that the `inetUserStatus` attribute is active:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix
icsFirstDay: 2
uid: jsmith
iplanet-am-modifiable-by: cn=Top-level Admin Role,o=root_suffix
icsTimezone: America/Denver
givenName: John
mail: jsmith@sesta.com
```

```
mailUserStatus: active
sn: Smith
cn: John Smith
mailDeliveryOption: mailbox
icsStatus: Active
icsCalendar: jsmith@sesta.com
mailHost: mail.siroe.com
objectClass: userpresenceprofile
objectClass: icscalendaruser
objectClass: top
objectClass: iplanet-am-managed-person
objectClass: iplanet-am-user-service
objectClass: inetadmin
objectClass: organizationalperson
objectClass: person
objectClass: inetuser
objectClass: inetlocalmailrecipient
objectClass: iplanetpreferences
objectClass: ipuser
objectClass: inetorgperson
objectClass: inetsubscriber
objectClass: inetmailuser
inetUserStatus: Active
userPassword: {SSHA}uSRLlYBjzFxu4f2nWtXU4XoVdExKSLcSRhYbFw==
iplanet-am-user-login-status: Active
```

2 Use the `csuser disable` command to prevent the user from accessing the calendar.

```
csuser disable userid
```

This command adds the following attribute and value to the user entry:

```
icsAllowedServiceAccess: http
```

This step disables a user from being able to log in to Calendar Server.

Example:

```
csuser disable jsmith
```

where `jsmith` is the user ID of the user.

3 Use the `ldapmodify` command to mark the messaging user for deletion.

This step changes the user's status to "deleted" in the LDAP directory by changing the value of the user's `inetUserStatus` attribute to `deleted`.

Example:

a. Create the following ldif file, named markUserDeleted.ldif:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix
changetype: modify
replace: inetuserstatus
inetuserstatus: deleted
```

b. Run the ldapmodify command:

```
ldapmodify -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
-f markUserDeleted.ldif
```

The user entry now looks like this:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix
icsFirstDay: 2
uid: jsmith
iplanet-am-modifiable-by: cn=Top-level Admin Role,o=root_suffix
icsTimezone: America/Denver
givenName: John
mail: jsmith@sesta.com
mailUserStatus: active
sn: Smith
cn: John Smith
mailDeliveryOption: mailbox
icsStatus: Active
icsCalendar: jsmith@sesta.com
mailHost: mail.siroe.com
objectClass: userpresenceprofile
objectClass: icscalendaryuser
objectClass: top
objectClass: iplanet-am-managed-person
objectClass: iplanet-am-user-service
objectClass: inetadmin
objectClass: organizationalperson
objectClass: person
objectClass: inetuser
objectClass: inetlocalmailrecipient
objectClass: iplanetpreferences
objectClass: ipuser
objectClass: inetorgperson
objectClass: inetsubscriber
objectClass: inetmailuser
userPassword: {SSHA}uSRLlYBjzFxu4f2nWtXU4XoVdExKSLcSRhYbFw==
inetUserStatus: deleted
icsAllowedServiceAccess: http
iplanet-am-user-login-status: Active
```


4 Use the `msuserpurge` command to remove the mailbox from the user.

The `msuserpurge` command finds all user entries where `inetUserStatus` or `mailUserStatus` is set to deleted and purges those user mailboxes from the message store. All resources associated with those users are also removed. `msuserpurge` then marks the `mailUserStatus` attribute in the affected user entries as “removed.”

```
msuserpurge -d domain
```

`-d domain` Specifies the domain of the user marked for deletion

Example:

```
msuserpurge -d sesta.com
```

The user entry now looks like this:

```
dn: uid=jsmith,ou=People,o=sesta.com,o=root_suffix
icsFirstDay: 2
uid: jsmith
iplanet-am-modifiable-by: cn=Top-level Admin Role,o=root_suffix
icsTimezone: America/Denver
givenName: John
mail: jsmith@sesta.com
sn: Smith
cn: John Smith
mailDeliveryOption: mailbox
icsCalendar: jsmith@sesta.com
mailHost: mail.siroe.com
objectClass: userpresenceprofile
objectClass: icscalendaruser
objectClass: top
objectClass: iplanet-am-managed-person
objectClass: iplanet-am-user-service
objectClass: inetadmin
objectClass: organizationalperson
objectClass: person
objectClass: inetuser
objectClass: inetlocalmailrecipient
objectClass: iplanetpreferences
objectClass: ipuser
objectClass: inetorgperson
objectClass: inetsubscriber
objectClass: inetmailuser
userPassword: {SSHA}uSRLlYBjzFxu4f2nWtXU4XoVdExKSLcSRhYbFw==
inetUserStatus: deleted
icsStatus: removed
mailUserStatus: removed
icsAllowedServiceAccess: http
iplanet-am-user-login-status: Active
```

5 Use the `csuser delete` command to permanently remove the user entry from the LDAP directory and remove the user's default calendar from the calendar database.

This command also deletes all secondary calendars owned by the user.

Before you run this command, be sure that the user has not been provisioned for any applications in addition to Messaging Server, Calendar Server, and Communications Express. This step permanently removes the entire user entry from the directory, including all attributes that support applications to which the user has had access.

```
csuser delete userid
```

`userid` Specifies the user ID of the user being deleted.

Example:

```
csuser delete jsmith
```

6 Delete the user from all groups (mail lists) in which the user is a member or owner.

Use the `ldapsearch` command to search the directory for all groups. If, in your directory, all groups are located under `ou=Groups` under a single domain, you can restrict the search to the `ou=Groups` subtree.

In each group, search on the following attributes:

```
owner
uniqueMember
```

Delete each instance where the value is:

```
uniqueMember:uid=jsmith,ou=People,o=sesta.com,o=root_suffix
```

In each instance where the value is:

```
owner:cn=John Smith,ou=People,o=sesta.com,o=root_suffix
```

change the owner to another user.

Note – Once a user is no longer specifically named as a group member or owner, the user will no longer appear in any groups, including dynamic group memberships and any nested groups.

7 If the user created an address book in Communications Express, use LDAP tools to find and remove the personal address-book related LDAP entries.

The LDAP data for a user's personal address book is stored in a base entry and several subordinate entries. For a sample listing, see [“User Data Stored in the Directory by Communications Express” on page 22.](#)

The following steps summarize how to find and remove these entries. You might want to write your own script to automate these steps.

- a. **Use the `ldapsearch` command to find the user's address-book base entry and all its descendants.**

The base entry is `piPStoreOwner=user`, where *user* specifies the user ID to be deleted.

Example:

```
ldapsearch -b "piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
-s sub "objectclass=*" dn
```

This example finds the personal address book DNs for a user named `jsmith` in the `sesta.com` domain.

- b. **Use the `ldapdelete` command to remove each subordinate entry.**

Example:

```
ldapdelete -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
"piEntryID=e10976f864e00m,piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
```

You might prefer not to run `ldapdelete` for each subordinate entry. Instead, you can create a response file based on the LDIF output generated from the preceding `ldapsearch` command. The response file can be used with `ldapdelete` to iteratively delete the multiple entries.

- c. **Use the `ldapdelete` command to remove the user's address-book base entry.**

Example:

```
ldapdelete -D "uid=admin,ou=People,o=siroe.com,o=root_suffix" -w &!2x%!a5
"piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb"
```

When you complete these steps, all user-related data maintained by Communications Express is removed.

▼ To Delete Users of Stand-Alone Calendar Server in Non-Hosted Domain Mode

Use this procedure if you are running Calendar Server without hosted domains, and no other Communications Services products are provisioned in the same directory.

- 1 **Use the `csuser disable` command to prevent the user from accessing the calendar.**

```
csuser disable userid
```

This command adds the following attribute and value to the user entry:

```
icsAllowedServiceAccess: http
```

This step disables a user from being able to log in to Calendar Server.

Example:

```
csuser disable jsmith
```

where `jsmith` is the user ID of the user.

2 Use the `csuser delete` command to permanently remove the user entry from the LDAP directory and remove the user's default calendar from the calendar database.

This command also deletes all secondary calendars owned by the user.

Before you run this command, be sure that the user has not been provisioned for any applications other than Calendar Server. This step permanently removes the entire user entry from the directory, including all attributes that support applications to which the user has had access.

```
csuser delete userid
```

`userid` Specifies the user ID of the user being deleted.

Example:

```
csuser delete jsmith
```

Notes on Using Delegated Administrator

Deleting Multiple Users

To mark multiple users for deletion, create an input file containing the users and run `commadmin user delete` with the `-i` option. For example:

```
commadmin user delete -D admin -n siroe.com -w &!2x%!a5 -d sesta.com -i deletedusers
```

where `deletedusers` is the input file listing the user entries marked for deletion. The following example shows the format of an input file:

```
l jsmith
```

```
l pdoe
```

```
l klee
```

where `l` is the required option that identifies user IDs, and `jsmith`, `pdoe`, and so on are the user IDs of the users to be deleted.

Deleting Mail and Calendar Services

You can delete the mail and/or calendar service only, without removing the user entry from the directory, by running `commadmin user delete` with either the `-S mail` or `-S cal` option.

Using the Delegated Administrator Console to Delete Users

You can also use the Delegated Administrator console to mark users for deletion:

1. In the console, navigate to the specified organization.
2. Click the Users tab (if it is not already displayed), select the users to be deleted, and click **Delete**.

The deleted users are removed from the console, and the users are marked for deletion in the LDAP directory.

However, you cannot use the console to remove a user entry from the directory. You must use the `commadmin domain purge` command to permanently remove the user entry.

Actions Performed by the Domain Purge Command

The `commadmin domain purge` command finds all user entries in the specified domain(s) where `inetUserStatus` is set to deleted. The utility then takes the following actions:

- If a user's mail and calendar services have been removed (that is, if the `mailUserStatus` and `icsStatus` attributes are set to removed), `commadmin domain purge` permanently removes the user entry from the directory.
- If either `mailUserStatus` or `icsStatus` for a user is *not* set to removed (for example, if one attribute is still set to deleted), `commadmin domain purge` does not purge the user entry.
- If one service attribute is set to removed but the other is not, `commadmin domain purge` purges the removed service, including all that service's attributes, from the user entry. It leaves the other service's attributes intact, and it leaves the user entry in the directory.

These actions prevent a mailbox or calendar from being orphaned. The user's mailbox and calendar must be removed before `commadmin domain purge` will remove the user entry from the directory.

Notes on Using Messaging Server Utilities

1. You can schedule the `msuserpurge` command for execution with the `configutil` parameter `local.sched.userpurge`. For example:

```
configutil -o local.schedule.userpurge -v "30 2 * * 0 /opt/SUNWmsgsr/lib/msuserpurge -g 20"
```

In the preceding example, `msuserpurge` will run on Sundays at 2:30 a.m. It will remove the mailbox of every user entry marked for deletion longer than 20 days.

For information on scheduling `msuserpurge` and other tasks, see “To Schedule Automatic Tasks” in the chapter, “Configuring General Messaging Capabilities” in the *Sun Java System Messaging Server Administration Guide*.

2. The `mboxutil -d` command deletes a user from the message store. However, if you follow the above procedure using the Delegated Administrator utility, you do not have to use the `mboxutil -d` command to delete the user's mailbox. The `msuserpurge` command will have already done so. If you are running Messaging Server 5.x, use the `mboxutil -d` command to delete a user's mailbox. The `msuserpurge` command is only available with Sun Java System Messaging Server 6.
3. The user running the `msuserpurge` and `csclean` utilities must have sufficient access to the directory to modify the LDAP entry of the user being deleted—specifically, to set the status of attributes such as `mailUserStatus`, `icsStatus`, and `inetUserStatus`.

User Data Stored in the Directory by Communications Express

Communications Express stores address-book data in LDAP entries under the `dn o=PiServerDb`. The following example shows the directory structure in which the address book entries for `jsmith` and other users is located:

```
o=PiServerDb
  o=sesta.com
    o=piPStoreOwner=jsmith
    o=piPStoreOwner=pdoe
    o=piPStoreOwner=klee
```

The following sample `ldif` file shows the LDAP entries that store address-book data for the user `jsmith` under the `o=piPStoreOwner` entry. The example includes entries for the user's personal address book, corporate directory, and personal store:

```
dn: piPStoreOwner=jsmith,o=sesta.com,o=PiServerDb
piDefaultAB: e10976f864e00
lastPurgeDate: 20060217T074523Z
piPStoreOwner: jsmith
objectClass: piPStoreRoot
objectClass: top

dn: piEntryID=e10976f864e00,piPStoreOwner=jsmith,o=sesta.com, o=PiServerDb
displayName: Personal Address Book
objectClass: PITYPEBOOK
objectClass: piLocalBook
objectClass: top
piEntryID: e10976f864e00
multiLineDescription: This is your Business Address Book
piBookType: abook

dn: piEntryID=e10976f865771,piPStoreOwner=jsmith,o=sesta.com, o=PiServerDb
displayName: Corporate Directory
```

```
objectClass: PITYPEBOOK
objectClass: piRemoteBook
objectClass: top
piEntryID: e10976f865771
multiLineDescription: This is your Corporate Directory
piRemotePiURL: ldap://corpdirectory
piBookType: abook
```

```
dn: piEntryID=e10976f8659f2,piPStoreOwner=jsmith,o=sesta.com, o=PiServerDb
displayName: iPlanet Applications
objectClass: PITYPEBOOK
objectClass: top
piEntryID: e10976f8659f2
piBookType: pbook
```

```
dn: piEntryID=e10976f865bd3,piPStoreOwner=jsmith,o=sesta.com, o=PiServerDb
displayName: iPlanet Personal Store
objectClass: PITYPEPROFILE
objectClass: piEntry
objectClass: top
piEntryID: e10976f865bd3
memberOfPIBook: e10976f8659f2
```

```
dn: piEntryID=e10976f8665f4,piPStoreOwner=jsmith,o=sesta.com, o=PiServerDb
displayName: iPlanet Applications
objectClass: PITYPEPROFILE
objectClass: piEntry
objectClass: top
piEntryID: e10976f8665f4
memberOfPIBook: e10976f8659f2
```

Further Readings

Refer to the following documentation for more information.

- The “Managing Mail Users, Mailing Lists and Domains” section in the *Sun Java System Messaging Server 6 2005Q4 Administration Guide*:
<http://docs.sun.com/app/docs/doc//819-2650/6n4u4dtna?a=view>
- The “commadmin user delete” section in the *Sun Java System Communications Services 6 2005Q4 Delegated Administrator Guide*:
<http://docs.sun.com/app/docs/doc//819-2658/6n4uc226h?a=view>
- The “commadmin domain purge” section in the *Sun Java System Communications Services 6 2005Q4 Delegated Administrator Guide*:
<http://docs.sun.com/app/docs/doc//819-2658/6n4uc226h?a=view>

- The “msuserpurge” section in the *Sun Java System Messaging Server 6 2005Q4 Administration Reference*: <http://docs.sun.com/app/docs/doc/819-2651/6n4u5ce7b?a=view>
- The “csclean” section in the *Sun Java System 6 2005Q4 Calendar Server Administration Guide*: <http://docs.sun.com/app/docs/doc/819-2433/6n4nlfjve?a=view>
- The “ldapmodify” section in the *Sun Java System Directory Server 5.2 2005Q1 Man Page Reference*: <http://docs.sun.com/app/docs/doc/817-7620/6mmu6mn8q?a=view>
- The “ldapdelete” section in the *Sun Java System Directory Server 5.2 2005Q1 Man Page Reference*: <http://docs.sun.com/app/docs/doc/817-7620/6mmu6mn8p?a=view>
- The section, “To Schedule Automatic Tasks” (such as msuserpurge) in the *Sun Java System Messaging Server 6 2005Q4 Administration Guide*: <http://docs.sun.com/app/docs/doc/819-2650/6n4u4dtnj?a=view>

Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- Documentation (<http://www.sun.com/documentation/>)
- Support (<http://www.sun.com/support/>)
- Training (<http://www.sun.com/training/>)

Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

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