Installation Guide

iPlanet Calendar Server 5.0

Contents

Preface

This manual describes how to install iPlanet Calendar Server (iCS) version 5.0 and its accompanying software components. For the most recent information about known problems with this release, please see the iPlanet Calendar Server release notes listed online at:

`http://docs.iplanet.com/docs/manuals/calendar.html`

Who Should Read This Manual

You should read this manual if you are responsible for installing and deploying iCS 5.0 at your site. If you already have installed iPlanet Calendar Server version 2.x on your system, you can install version 5.0 which can either co-exist on the same system or you can migrate the 2.x calendar data and user information to version 5.0. If you have already installed iPlanet Calendar Server version 5.0 on this system, you can either upgrade the previous installation or you can choose to remove it and install a totally new installation.

Conventions Used in This Manual

`Monospaced font` — This typeface is used for any text that appears on the computer screen or text that you should type. It is also used for filenames, distinguished names, functions, and examples.

`Italicized Monospaced font` — This typeface represents text that you enter using information that is unique to your installation. It is used for server directory paths and names as well as account IDs. For example, throughout this document you will see directory path references in the form:

`server-root/cal/bin`

In these situations, `server-root` represents the directory location in which you installed the server. For example:

- The default installation on Solaris uses the path: `/opt/SUNWics5/` as the *server-root* for the software files. Therefore, if you choose the default installation directory, *server-root*/`cal` represents:

  `/opt/SUNWics5/cal`

- On Unix systems other than Solaris, the default installation location is: `/opt/iPlanet/CalendarServer5/`, in which case *server-root*/`cal` represents:

  `/opt/iPlanet/CalendarServer5/cal`

- On Windows NT, the default installation location is: `c:\Program Files\iPlanet\CalendarServer5\`, in which case *server-root*/`cal` represents:

  `c:\Program Files\iPlanet\CalendarServer5\cal`

| **NOTE** | In this guide, the conventions for a Solaris installation are used. If you are running iPlanet Calendar Server on a Unix operating system other than Solaris or on Windows NT, you should assume the file path equivalents of your operating system whenever Solaris file paths are shown. |

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Preparing for Installation

This chapter contains the following sections to help you prepare for installation of iPlanet Calendar Server 5.0:

- Installation Overview
- System Requirements
- Installation Privileges
- Gathering Your Installation Information
- Installing and Configuring an LDAP Server
- Important Considerations

NOTE	For the most recent information about known problems with this release, please see the iPlanet Calendar Server release notes online listed at the following site:
	`http://docs.iplanet.com/docs/manuals/calendar.html`

Installation Overview

There are three basic steps involved in installing iCS:

1. Gathering Your Installation Information.

2. Installing and Configuring an LDAP Server.

3. Installing iPlanet Calendar Server. See Installing iPlanet Calendar Server on Unix or Installing iPlanet Calendar Server on Windows NT.

On Unix:

- The installation program uses an X-Windows graphical user interface. It is recommended that you install iCS using a local terminal window.

- If you cannot use X-Windows remotely or if your machine does not have X-Windows installed, you must use the command line installation. The command line installation follows the same process as the graphical installation. The difference between the graphical and command line interfaces is in how you invoke the installation setup script.

- If you must run the installation program from a remote terminal, be sure to set your DISPLAY environment variable properly on the remote machine and be sure to allow X-Windows connections from the machine to appear on your terminal (for example, using the utility `xhost +`).

System Requirements

Before you install iPlanet Calendar Server, you must ensure you have met the minimum hardware and operating system requirements. For the latest information on the supported platforms and software and hardware requirements, see the iPlanet Calendar Server 5.0 release notes listed at:

`http://docs.iplanet.com/docs/manuals/calendar.html`

Installation Privileges

It is recommended that you install iPlanet Calendar Server logged in as root (Unix) or administrator (Windows NT). Superuser privileges (root or administrator) are required for iPlanet Calendar Server 5.0 installations.

Gathering Your Installation Information

Before beginning the installation process, it is helpful to gather the installation and configuration information you will need. The information will differ according to the type of installation you select. The two installation types are:

Typical Installation. This is the simplest type of installation. Most options are automatically configured with default values, but some require that you choose and enter the value you wish to use. This type of installation is recommended for most administrators or for any installation that does not require a custom configuration. For checklist information on completing this type of installation, see Typical Installation Checklist.

Custom Installation. This is a more complex installation than the typical installation. You must choose and enter all configuration values. This type of installation is recommended for advanced administrators only. For checklist information on completing this type of installation, see the Custom Installation Checklist.

Typical Installation Checklist

You need the following information to complete the installation procedure for a Typical Installation.

Component Selection

Choose one or more of the following:

- Calendar Server

- Calendar Server API (CSAPI)

Installation Directory

Determine the name and path of the directory in which you want the server to be installed. For example, `/opt`. If the installation is for a large deployment, ensure that it is installed on a machine with a storage device large enough to handle the load, such as a high capacity hard drive with adequate free space, or a Redundant Array of Inexpensive Disks (RAID).

Service Ports

The service port is the TCP port number that you want iPlanet Calendar Server to use to provide web (HTTP) access to users (default is 80). It is highly recommended that you choose the Web port number suggested by the installation program because 80 is the default port number used by all Web browsers. If you specify a port number other than 80, calendar users will need to explicitly include this port number in the URL they enter to access their calendars on this Calendar Server. If port 80 is already in use, it is recommended that you free port 80 on the other service before you install iPlanet Calendar Server.

Server User and Group Account (Unix only)

These accounts are the Unix user and group identity under which server will run. It is recommended to use the defaults `icsuser` and `icsgroup`. These accounts will be created automatically by the installation program if they do not already exist.

Calendar Server Identity (Windows NT only)

This is the identity iPlanet Calendar Server will run as. The installation program assumes this identity is the user (and password) that is currently logged in to the system and it cannot be changed while you run the installation program. This user must have full administration rights to this system. Therefore, before you start the installation program, be sure to log in as the user that you want iPlanet Calendar Server to run as and ensure that this user has full administration rights to the system on which you are installing iPlanet Calendar Server.

Calendar Server Administrator

This is the LDAP user account that can manage your iPlanet Calendar Server. This user account must be a userid that already exists in your user authentication LDAP directory. This user must also exist in the directory server used to store user preferences if they are stored on another directory server. This user account will be used by the administration utilities to authenticate to the Calendar Server for commands to perform actions such as stopping the server or listing all the logged-in users.

Email and Email Alarms Address

Identify the following:

- Calendar Server Administrator email address. This address uses the syntax: `userid@hostname.domainname`. For example, `calmaster@siroe.com`.

- SMTP server host name. This is the fully qualified host name of the SMTP server that the iPlanet Calendar Server will use to send email messages. For example:

  `calhome.siroe.com`

  where `calhome` is the machine's host name and `siroe.com` is the DNS domain name on which the SMTP server is running.

LDAP Server Information

Identify the following LDAP server information for user authentication and preferences:

- Host: The host name of the machine where the LDAP server is installed. The default is the host name of the machine on which you are running the installation program.

- Port: The service port for the LDAP server. The default is 389.

- Base DN: The Base DN (distinguished name) is the entry in your LDAP directory used as the starting point from which searches will occur. For example, if you specify a base DN of `ou=people, o=siroe.com`, all LDAP search operations executed by iPlanet Calendar Server will examine only the `ou=people` subtree in the `o=siroe.com` directory tree.

- Administrator Bind DN: The DN of the account that has privileges to manage the attributes of any calendar user in the LDAP directory that stores user preferences. The default is:

  `uid=admin,ou=Administrators,ou=TopologyManagement,o=NetscapeRoot`

  The default bind DN will work with any 4.x version of the Netscape/iPlanet LDAP directory. On a Netscape/iPlanet Directory Server 4.x server, you can verify that this DN exists by using the directory server `ldapsearch` utility, for example:

  `./ldapsearch -b o=NetscapeRoot uid=admin`

- Administrator Password: The password for the user account of the Administrator Bind DN described above.

- Directory Manager (also known as "Unrestricted User") of the Directory Server that stores user and group information. This is the username and password of the person who can make changes in the Netscape Directory Server schema. This user has overall administrator privileges on the Directory Server and all servers that make use of the Directory Server, such as the Administration Server, and has full administration access to all entries in the Directory Server. The Directory Manager's distinguished name (DN) was supplied when the directory server was installed. The default DN is `cn=Directory Manager`. This information is needed because iPlanet Calendar Server 5.0 requires specific updates to the LDAP schema.

Custom Installation Checklist

In addition to the information in the Typical Checklist, you will need the following information to complete the Custom Installation procedure:

System Resources

Select the desired values for the following system resource allocations to run iPlanet Calendar Server:

*   Maximum sessions (default is 5000)

*   Maximum threads (default is 1000)

*   Number of server processes (default is 1)

Calendar Database Directory

Specify the directory to place the server database.

*   On Solaris, the default is:

    `/var/opt/SUNWics5/csdb`

*   On Unix systems other than Solaris, the default is:

    `/var/opt/iPlanet/CalendarServer5/csdb`

*   On Windows NT, the default is:

    `c:\Program Files\iPlanet\CalendarServer5\var\csdb`

    Note that on Windows NT, this directory must be located on an NTFS formatted drive and not on a FAT file system.

Installing and Configuring an LDAP Server

iPlanet Calendar Server 5.0 stores and manages calendars, calendar properties, access control information, events, todos, and alarms. It does not, however, manage storage for user information. iPlanet Calendar Server requires a directory service perform operations such as user authentication and storage and retrieval of user preferences. The default installation supports users defined and maintained in an LDAP directory, such as iPlanet Netscape Directory Server, and the installation package includes iPlanet Netscape Directory Server 4.12.

If your users are already stored in an LDAP directory, the simplest solution for deploying iPlanet Calendar Server is to upgrade your directory server to Netscape Directory Server 4.12 (or later) which supports the schema extensions that enable users to access iPlanet Calendar Server data. Otherwise, you can modify your directory schema manually to allow your users to access to iPlanet Calendar Server data.

For information on how to install and configure iPlanet Netscape Directory Server, go to:

```
http://docs.iplanet.com/docs/manuals/directory.html
```

Updating the LDAP Schema

The LDAP schema extensions used by iPlanet Calendar Server 5.0 are defined in the following files:

- `um50-common-schema.conf` which defines the LDAP attributes and object classes shared by iPlanet products.

- `ics50-schema.conf` which defines the LDAP attributes and object classes used by iPlanet Calendar Server 5.0.

If you are using Netscape Directory Server 4.12 or later, the installation program will attempt to automatically update your directory schema to work with iPlanet Calendar Server 5.0. You can also manually update the directory schema as follows:

1. Install iPlanet Calendar Server 5.0 and save the LDAP schema files locally when given this option during the installation process.

2. Copy the LDAP schema files (`um50-common-schema.conf` and `ics50-schema.conf`) from the location in which you saved them to the machine on which your Directory Server is running into the directory *server-root*/slapd-*hostname*/config directory (for example, /usr/Netscape/Server4/slapd-*hostname*/config).

   Note: You can download the most up to date iPlanet Calendar Server 5.0 schema files at:

   ```
   http://www.iplanet.com/products/infrastructure/messaging/ics/index.html
   ```

3. Stop the iPlanet Calendar Server if it is running.

4. Stop the Directory Server if it is running.

5. Edit the `ns-schema.conf` file (in the same directory in which you copied the `um50-common-schema.conf` and `ics50-schema.conf` files) and, at end of the file, if they are not already present, add the lines to include these files. For example:

   On Unix:

```
include /netscape/server4/slapd-myhost/config/um50-common-schema.conf
```

```
include /netscape/server4/slapd-myhost/config/ics50-schema.conf
```

On Windows NT:

```
include "C:/Netscape/Server4/slapd-myhost/config/um50-common-schema.conf"
include "C:/Netscape/Server4/slapd-myhost/config/ics50-schema.conf"
```

Note: Be sure to add the lines in the order shown above so that `um50-common-schema.conf` is included before `ics50-schema.conf`.

6. Start the Directory Server.

7. Start the iPlanet Calendar Server.

Important Considerations

Note the following considerations before installing iPlanet Calendar Server:

- On Unix systems, the installation program uses the command `/usr/bin/domainname` to identify the associated DNS domain name of your system. To verify that this setting is correct, at the command prompt, type:

  ```
  domainname
  ```

  The above command should return the DNS domain name of your system correctly. If this is not the case, set the domain name by typing:

  ```
  domainname <your system domain name>
  ```

  If the installation program cannot determine the DNS domain name as described above, it will attempt to read this value in the `etc\resolv.conf` file, if available.

- Some Unix Systems have been encountered where the value returned by `hostname` could not be used in the IP addresses associated with that system. For example, the machine name is `x.example.com`, but TCP/IP applications must use `y.example.com` to connect to it. It is believed that this is a badly configured machine. If you install iPlanet Calendar Server on such a machine, entries in the `ics.conf` file may have incorrect values. Ideally, the machine should be reconfigured. If you cannot change the configuration of the machine, you will have to edit the `ics.conf` file explicitly using a text editor to correct the host name values. Additionally, there are several properties with property names containing the strings `"host"` and `"hostname"` that have null values. A null value signals the server to use the value returned by `gethostname(3C)`. You will have to manually add the host name recognized by the TCP/IP subsystem as a value for these properties.

Installing iPlanet Calendar Server on Unix

This chapter describes the steps to follow to install iPlanet Calendar Server (iCS) on a Unix platform. You can run the setup program by either:

- Using the Graphical Interface Installation on Unix

- Using the Command Line Installation on Unix

Using the Graphical Interface Installation on Unix

The following steps describe how to use the graphical user interface installation program to install iPlanet Calendar Server.

1. Login as `root`. You must have superuser privileges (that is, be logged in as `root`) to run the installation program. If you are not able to login as root, you must set the access permissions on the system to full administration rights for the currently logged in user (for example, type: `xhost +`) to be able to run the installation program graphical interface.

2. Create a directory (such as `/tmp/ics5`) on the machine that will host the iPlanet Calendar Server and download (or copy) the iPlanet Calendar Server archive file to that directory. Make sure that the directory you use has adequate disk space to store the extracted files.

3. Change to the directory where you copied the archive file and, to extract the contents, type:

```
gunzip -c archive.tar.gz | /usr/bin/tar xvf -
```

where `archive` identifies the name of the platform archive file you downloaded or copied.

Note: You must use `/usr/bin/tar`. This program should be the tar utility that is distributed with your operating system and not a third party tar utility, such as gnu.

4. In the installation directory in which you untarred the iPlanet Calendar Server archive file, type: `./setup`

5. The installation program displays a Welcome Message. Click Next to continue.

6. Read the license agreement and click Yes (Accept License) to accept it and continue. (If you click NO, the installation program will end without installing iPlanet Calendar Server.)

7. On most systems, the installation program will automatically detect the host name and DNS domain name of the system on which you are installing the server and you can proceed to the next step.

If the installation program cannot detect the host name or DNS domain name, it will display the "Unable to make network connection" screen. Please be sure that the host name and DNS domain name specified are correct, then click Next to continue the installation. The installation program will then try to establish a network connection using these values.

Note: The Host Name or Domain Name fields will be blank if the installation program is unable to detect these values. In this case, you must enter a valid host name or DNS domain name, or both.

If a network connection cannot be made using the new values, you will be asked again to supply a valid host name and DNS domain name. At this point you can:

❍ Click Accept if you want to continue with the installation anyway using these values. If you accept these values, you will not be able to run the server until you supply a valid host name and DNS domain name. In this case, you can edit the `ics.conf` file after you complete the installation and supply a valid host name and DNS domain name. The `ics.conf` file is located in the `server-root`/cal/bin/config directory (for example, `/opt/SUNWics5/cal/bin/config`).

    ❍   Click Choose New to enter another host name or DNS domain name, or both.

8. Select the type of installation you wish to use: Typical or Custom. The same software is installed with each type of installation. The only difference between the types of installation is the number of choices you have to make during the installation process. Typical Installation is recommended for most users. Custom Installation requires you to specify all available configuration options and is recommended only for advanced users or for installations that require customized configuration options not provided in the Typical Installation. When you have finished making your selections, click Next to continue.

    Note: If you choose Typical Installation, the installation program will skip some of the following questions because they are configured for you. Questions that apply only to a Custom Installation are indicated as such in this guide and you can proceed to the next step.

9. Select the software components that you want to install (default is all):

    ❍   iPlanet Calendar Server Product - the software used to run the server.

    ❍   iPlanet Calendar Server API (CSAPI) - an application programming interface that enables third party application developers to add functionality to iCS or change how the server performs certain operations.

    When you have finished making your selections, click Next to continue.

10. This step applies only if you have a previous version of iPlanet Calendar Server, version 5.0 installed on this system. The installation program will automatically detect an existing version 5.0 installation and will display a window that lets you choose to either:

    ❍   upgrade

    ❍   remove and reinstall the selected components

    Upgrade: To upgrade your installation of iPlanet Calendar Server, version 5.0, leave the box next to Remove and Reinstall Existing Components unchecked (this is the default) and click Next. The installation program then displays a window reminding you to back up your existing database and configuration information before you continue. Click Continue if you are sure you want to proceed. (Otherwise, click Cancel to return to the previous window.) If you click Continue, the installation program will stop all Calendar Server services running on this system. (If the installation program is unable to verify that all Calendar Server services on this system are stopped, a warning message displays and you should use your operating system administration tools to ensure that all Calendar Server services on this systems are stopped before you

proceed with the upgrade.) Next, the installation program displays the Ready to Install window. To complete the installation, click Install Now. The installation program will then upgrade all installed components and will preserve all existing database and configuration information, such as users' calendar data.

After the upgrade finishes successfully, the installation process is now complete and a summary window displays. Click Details if you want to review summary information about the installation. When you are finished, click Dismiss to close the Summary information window, then click Exit to end the installation program.

Remove and reinstall: To remove and reinstall iPlanet Calendar Server, version 5.0, click the box next to Remove and Reinstall Existing Components, then click Next. This action tells the installation program to completely remove the existing installation of iPlanet Calendar Server, version 5.0 and reinstall it from scratch.

If you choose to remove and reinstall iPlanet Calendar Server, a window displays asking you to confirm that you want to continue. Click Continue (remove/reinstall) if you are sure you want to proceed. (Otherwise, click Cancel to return to the previous window.) If you click Continue (remove/reinstall), the installation program will stop all Calendar Server services running on this system. (If the installation program is unable to verify that all Calendar Server services on this system are stopped, a warning message displays and you should use your operating system administration tools to ensure that all Calendar Server services on this systems are stopped before you proceed.)

It is highly recommended that you backup any existing database information before you remove and reinstall iPlanet Calendar Server. Once the actual installation process is started, it cannot be undone.

11. If the installation program detects that iPlanet Calendar Server version 2.x is installed on this system, a window displays stating that version 5.0 will be installed and the two versions will co-exist on this system. For more details on how to migrate data from version 2.x, see Chapter 4, "Migrating iPlanet Calendar Server Data."

    Click Next to continue with the installation.

12. Specify the directory where you want to install the iPlanet Calendar Server software. The default is `/opt`.

If you want to select another directory, type it in or click Browse, then select a directory and click OK. When you have made your selection, click Next to continue.

If the directory you selected does not exist, a message box displays and you can either:

○ Click Create Directory to create the directory and install iPlanet Calendar Server in the specified directory and continue the installation.

○ Click Choose New to return to the Select Install Directory window where you can select another installation directory.

13. Specify the Web Port number that you want iPlanet Calendar Server to listen on. (Default is 80.) The Web Port number is used by iPlanet Calendar Server to provide Web (HTTP) access to users. It is highly recommended that you choose the default Web port number suggested by the installation program because it is the default port number used by all Web browsers. If you specify a Web port other than 80, calendar users will need to explicitly include this port number in the URL they enter to access their calendars on this Calendar Server.

When you have finished making your selection, click Next to continue.

The installation program will warn you if the port number you selected is already being used by another service on this system. If this is acceptable at this point, click Accept. Otherwise, click Choose New and enter another Web port number.

Note: If port 80 is already in use, you can click Accept to specify that iPlanet Calendar Server listens on port 80 and then free port 80 on the other service. In this case, it is highly recommended that you free port 80 on the other service before you continue with the installation.

14. Enter the Unix user and group identity that the iPlanet Calendar Server will run as. It is recommended that you use the default accounts `icsuser` and `icsgroup`. These accounts will be created automatically by the installation program if they do not already exist.

Note: Do not specify `root` for either the user or the group account.

When you have finished making your selections, click Next to continue.

15. Supply the following email and email alarm information:

Calendar Administrator email address. Enter the full email address (userID and DNS domain name) of the person to whom you want iPlanet Calendar Server to send messages in case of server problems. For example:

`calmaster@siroe.com`

SMTP Server Host Name. Enter the host name of the machine running the SMTP server that iPlanet Calendar Server is to use to send messages.

Enable email alarms. By default, email alarms for the iPlanet Calendar Server are enabled. If you do not want iPlanet Calendar Server to send email alarms, uncheck this checkbox.

When you have finished making your selections, click Next to continue.

Note: If the iPlanet Calendar Server cannot connect to the SMTP server you entered, a message box will display stating that the iPlanet Calendar Server will not run if an SMTP server is not available. If this is acceptable at this point, click Accept. Otherwise, click Choose New and enter the host name of another SMTP server.

16. Specify the directory in which to store the iPlanet Calendar Server database files. The default is:

```
/var/opt/SUNWics5/csdb
```

If you want to select another directory, type it in or click Browse to select a directory and click OK.

When you have finished making your selections, click Next to continue.

Note: If the directory you selected does not exist, a message box displays and you can either:

❍ Click Create Directory to install iPlanet Calendar Server database files in the specified directory and continue the installation.

❍ Click Choose New to return to the Select Install Directory window where you can select another directory.

17. Specify the directory in which to store the iPlanet Calendar Server temporary files (Custom installation only). The default is:

```
/var/opt/SUNWics5/tmp
```

If you want to select another directory, type it in or click Browse to select a directory and click OK.

When you have finished making your selections, click Next to continue.

Note: If the directory you selected does not exist, a message box displays and you can either:

❍ Click Create Directory to install iPlanet Calendar Server temporary files in the specified directory and continue the installation.

    ❍   Click Choose New to return to the Select Install Directory window where you can select another directory.

18. Enter the following LDAP server information for user authentication (this step applies only if you chose Custom Installation — if you chose Typical Installation, proceed to the next step.)

    ❍   **Host.** Host name of the machine on which the LDAP Server is running.

    ❍   **Port.** Port number that the LDAP server listens to. The default is 389.

    ❍   **Base DN**. Base DN (distinguished name) is the entry in your LDAP directory used as the starting point from which searches will occur. For example, if you specify a base DN of `ou=people`, `o=siroe.com`, LDAP search operations executed by iPlanet Calendar Server will examine only the `ou=people` subtree in the `o=siroe.com` directory tree.

    ❍   **Administrator Bind DN**. The DN of the account that will be used to bind to the LDAP directory to search for a calendar user's DN during authentication. The default is to bind anonymously.

        Note: If your directory server does not allow anonymous bind authentication or does not allow anonymous search, you must enter a valid DN that has these access rights.

    ❍   **Administrator Password.** The password for the user account of the Administrator Bind DN described above. No password is required for the default user `<anonymous>`.

When you have finished making your selections, click Next to continue.

Note: If the installation program cannot verify the LDAP credentials you specified, a message box displays and you can either:

    ❍   Click Accept to install iPlanet Calendar Server anyway if this is acceptable at this point.

    ❍   Click Choose New to return to the LDAP user authentication window where you can enter different directory server information.

19. Enter the following LDAP server information (in a Typical Installation these settings apply to where user authentication information and user preferences are stored; in a Custom Installation these settings apply only to where user preferences are stored):

    ❍   **Host.** Host name of the machine on which the LDAP Server is running.

    ❍   **Port.** Port number that the LDAP server listens to. The default is 389.

❍ **Base DN**. Base DN (distinguished name) is the entry in your LDAP directory used as the starting point from which searches will occur. For example, if you specify a base DN of `ou=people, o=siroe.com`, the LDAP search operations executed by iPlanet Calendar Server will examine only the `ou=people` subtree in the `o=siroe.com` directory tree. The installation program does not attempt to verify your entry.

❍ **Administrator Bind DN**. The DN of the account that has privileges to manage the attributes of any calendar user in the LDAP directory that stores user preferences. The installation program does not attempt to verify your entry. The default is:

```
uid=admin,ou=Administrators,ou=TopologyManagement,o=NetscapeRoot
```

The default bind DN will work with any 4.x version of the Netscape/iPlanet LDAP directory. You can verify that this DN exists by using the directory server `ldapsearch` utility, for example:

```
./ldapsearch -b o=NetscapeRoot uid=admin
```

❍ **Administrator Password.** The password for the user account of the Administrator Bind DN described above. The installation program does not attempt to verify your entry.

When you have finished making your selections, click Next to continue.

Note: If the installation program cannot bind to the LDAP server specified or if it cannot find the LDAP schema for iPlanet Calendar Server, a message box will display stating that iPlanet Calendar Server will not run if an LDAP server is not available. If this is acceptable at this point, click Accept. Otherwise, click Choose New and re-enter the LDAP configuration parameters.

20. iPlanet Calendar Server 5.0 requires specific schema updates if you are using an LDAP directory server to store user and group information. If you are using Netscape Directory Server 4.12 (or later), you can choose to have the installation program automatically update the LDAP schema.

To automatically update the LDAP schema, supply the user ID and password of the Directory Manager (this is the user with the rights to update the schema also known as "Unrestricted User"). This is the username and associated password that can make changes in the Netscape Directory Server schema. The default DN is `cn=Directory Manager`. The installation program will then attempt to automatically update the LDAP schema of the directory server you specify.

Choose Next to continue and the installation program asks you to confirm that you want to update the LDAP schema. Click Continue if you update the LDAP schema at this time. Otherwise click Cancel to return to the previous window.

The installation program will warn you if it cannot update the LDAP schema automatically because it:

○ did not detect Netscape Directory Server 4.12 or later.

○ detected an earlier version of the iPlanet Calendar Server 5.0 schema extension on the specified Directory Server. In this case, you can manually remove the `um50-common-schema.conf` and `ics50-schema.conf` files on your Directory Server (located in the *server-root*/`slapd-`*hostname*/`config` directory) and run the installation program again.

You may choose., however, to update the LDAP schema manually. For more information, see "Updating the LDAP Schema," on page 13.

If you do not specify a Directory Manager and password, if you click Next, the installation program warns iPlanet Calendar Server 5.0 will not run properly if you do not update the LDAP schema. If this is acceptable at this point, click Accept. Otherwise, click Choose New to re-enter the requested information.

21. Choose if you want to save the LDAP schema extension files to disk.

If you want to save the schema files locally (in the event that you want to update the LDAP schema manually), accept the suggested location (`/tmp`) or, to select a another directory, type it in or click Browse and make your selection, then click Next.

If you do not specify a directory and click Next, the installation program warns you that copies of the schema files will not be saved locally. If this is acceptable, click Accept. Otherwise, click Choose New to select a directory in which to save the schema files as described above.

For more information on updating the LDAP schema, see "Installing and Configuring an LDAP Server," on page 12.

22. Specify the iPlanet Calendar Server Administrator. This is the user account that has privileges to use the iPlanet Calendar Server administration utilities: `csstop` to stop the server, `cstats` to display server statistics, and `cstool` to list all logged-in users. The default is `calmaster`.

The user ID you specify must be a valid user that exists in your LDAP server. For example, if you accept the default `calmaster`, then the user `calmaster` must exist in the LDAP directory that is accessed for user authentication. If you are using one directory server for user authentication and another directory server to store user preferences, the user you specify here must exist on both of these LDAP directory servers.

When you have finished making your selections, click Next to continue.

Note: If the installation program cannot verify that the user you specified is a valid user, a message box displays and you can either:

❍   Click Accept to install iPlanet Calendar Server anyway if this is acceptable at this point.

❍   Click Choose New to return Calendar Server Administration window where you can enter different user.

23. Select the desired values for the following system resource allocations to run iPlanet Calendar Server (Custom Installation only.):

Maximum sessions (default is 5000)

Maximum threads (default is 1000)

Number of server processes (default is the number of CPUs on the machine on which you are installing iPlanet Calendar Server)

24. Select the options for automatically starting iPlanet Calendar Server. You can choose to start the server after successful installation and, optionally, to start the server automatically at system startup. If you do not wish to start the server after the installation or upon server startup, uncheck the applicable box or boxes. When you have finished making your selections, click Next to continue.

25. The installation program verifies if there is adequate disk space and then displays the Ready to Install window. To complete the installation, click Install Now.

26. When the installation process completes, a summary window displays. Click Details if you want to review summary information about the installation. When you are finished, Click Dismiss to close the Summary information window, then click Exit to end the installation program.

Using the Command Line Installation on Unix

iPlanet Calendar Server provides you the option of running the installation script without using the graphical interface. To run the command line installation program, use the following steps:

1. Login as `root` or type `su` to become `root`. You must have superuser privileges (that is, be logged in as `root`) to run the installation program.

2. Create a directory (such as `/tmp/ics5`) on the machine that will host the iPlanet Calendar Server and download (or copy) the iPlanet Calendar Server archive file to that directory. Make sure that the download directory has adequate disk space to store the extracted files.

3. Change to the directory in which you placed the archive file and to extract the contents, type:

```
gunzip -c archive.tar.gz | /usr/bin/tar xvf -
```

where *archive* identifies the name of the platform archive file you downloaded or copied.

NOTE	You must use **/usr/bin/tar**. This program should be the tar utility that is distributed with your operating system and not a third party tar utility, such as gnu.

4. In the installation directory in which you untarred the iPlanet Calendar Server archive file, type: `./setup -nodisplay`

The installation program will run in the current window and ask the same configuration questions as described above in steps 5-24 in Using the Graphical Interface Installation on Unix.

Uninstalling the Calendar Server on Unix

To uninstall iPlanet Calendar Server, use the following steps:

1. Change to the installation *server-root*/cal directory (such as /opt/SUNWics5/cal).

2. At the command line, type: ./uninst

    (If you want to run the uninstall program as a command line script, type: ./uninst -nodisplay).

3. The program displays instructions on how to disable client access control. Press Enter to continue.

4. The uninstall window appears (graphical interface only). Click Next to continue.

5. Choose either a Full or a Partial uninstall. The Full uninstall removes both components (iPlanet Calendar Server and iPlanet Calendar Server API). The Partial uninstall lets you choose to uninstall either or both of these components.

6. Click Uninstall Now (or press Enter if you are using the command line interface) to proceed with the uninstallation.

Installing iPlanet Calendar Server on Windows NT

This chapter describes the steps to follow to install iPlanet Calendar Server (iCS) on Windows NT. You can run the setup program by either:

- Using the Graphical Interface Installation on Windows NT

- Using the Command Line Installation on Windows NT

Using the Graphical Interface Installation on Windows NT

The following steps describe how to use the graphical user interface installation program to install iPlanet Calendar Server.

1. Login as Administrator. You must have superuser privileges (that is, be logged in with full administration rights to the system) to run the installation program.

2. Create a directory (such as `c:\temp\ics5`) on the machine that will host the iPlanet Calendar Server and download or copy the self-extracting archive file (such as `ics5_0-export-en.x86-windows-nt4.0.exe`) to that directory. Ensure that the download directory has adequate disk space to store the extracted files.

    Note: If the archive file is compressed (such as in zip format), you will first need to uncompress it.

3. In the directory where you placed the archive file, double-click the self-extracting iPlanet Calendar Server archive file.

4. A message box displays and asks if you want to install iPlanet Calendar Server. Click Yes to continue.

5. The installation program performs the self extraction process and then displays a Welcome Message. Click Next to continue.

6. The license agreement displays. Read the license agreement and click Yes (Accept License) to accept it and continue. (If you click NO, the installation program will end without installing iPlanet Calendar Server.)

7. On most systems, the installation program will automatically detect the host name and domain name of the system on which you are installing the server and you can skip this step.

If the installation program cannot detect the host name or domain name, it will display the "Unable to make network connection" screen. If this occurs, please be sure that the host name and domain name specified are correct, then click Next to continue the installation. The installation program will then try to establish a network connection using these values.

Note: If the Host Name or Domain Name field is blank, it is because the installation program was unable to detect its value. In this case, you must enter a valid host name or domain name, or both.

If a network connection cannot be made using the new values, you will be asked again to supply a valid host name and domain name. At this point you can:

❍ Click Accept if you want to continue with the installation anyway using these values. If you accept these values, you will not be able to run the server until you supply a valid host name and domain name. In this case, you can edit the `ics.conf` file after you complete the installation and supply a valid host name and domain name. The `ics.conf` file is located in the *server-root*`/cal/bin/config` directory (for example, c:`/Program Files/iPlanet/CalendarServer5/cal/bin/config`).

❍ Click Choose New to enter another host name or domain name, or both.

8. Select the type of installation you wish to use: Typical or Custom. The same software is installed with each type of installation. The only difference between the types of installation is the number of choices you have to make during the installation process. Typical Installation is recommended for most users.

Custom Installation requires you to specify all available configuration options and is recommended only for advanced users or for installations that require customized configuration options not provided in the Typical Installation. When you have finished making your selection, click Next to continue.

Note: If you choose Typical Installation, the installation program will skip some of the following questions because they are configured for you. Questions that apply only to a Custom Installation are indicated as such in this document and you can proceed to the next step.

9. Select the software components that you want to install (default is both):

   ○ Calendar Server - the software used to run the server.

   ○ Calendar Server API - an application programming interface that enables third party application developers to add functionality to iPlanet Calendar Server or change how the server performs certain operations.

   When you have finished making your selections, click Next to continue.

10. This step applies only if you have a previous version of iPlanet Calendar Server, version 5.0 installed on this system. The installation program will automatically detects an existing version 5.0 installation and will display a window that lets you choose to either:

    ○ upgrade

    ○ remove and reinstall the selected components.

    Upgrade: To upgrade your installation of iPlanet Calendar Server, version 5.0, leave the box next to Remove and Reinstall Existing Components unchecked (this is the default) and click Next. The installation program then displays a window reminding you to back up your existing database and configuration information before you continue. Click Continue if you are sure you want to proceed. (Otherwise, click Cancel to return to the previous window.) If you click Continue, the installation program will stop all Calendar Server services running on this system. (If the installation program is unable to verify that all Calendar Server services on this system are stopped, a warning message displays and you should use your operating system administration tools to ensure that all Calendar Server services on this systems are stopped before you proceed with the upgrade.) Next, the installation program displays the Ready

to Install window. To complete the installation, click Install Now. The installation program will then upgrade all installed components and will preserve all existing database and configuration information, such as users' calendar data.

After the upgrade finishes successfully, the installation process is now complete and a summary window displays. Click Details if you want to review summary information about the installation. When you are finished, click Dismiss to close the Summary information window, then click Exit to end the installation program.

Remove and reinstall: To remove and reinstall iPlanet Calendar Server, version 5.0, click the box next to Remove and Reinstall Existing Components, then click Next. This action tells the installation program to completely remove the existing installation of iPlanet Calendar Server, version 5.0 and reinstall it from scratch.

If you choose to remove and reinstall iPlanet Calendar Server, a window displays asking you to confirm that you want to continue. Click Continue (remove/reinstall) if you are sure you want to proceed. (Otherwise, click Cancel to return to the previous window.) If you click Continue (remove/reinstall), the installation program will stop all Calendar Server services running on this system. (If the installation program is unable to verify that all Calendar Server services on this system are stopped, a warning message displays and you should use your operating system administration tools to ensure that all Calendar Server services on this systems are stopped before you proceed.)

It is highly recommended that you backup any existing database information before you remove and reinstall iPlanet Calendar Server. Once the actual installation process is started, it cannot be undone.

11. If the installation program detects that iPlanet Calendar Server version 2.x is installed on this system, a window displays stating that version 5.0 will be installed and the two versions will co-exist on this system. For more details on how to migrate data from version 2.x, see Chapter 4, "Migrating iPlanet Calendar Server Data."

Click Next to continue with the installation.

12. Specify the directory where you want to install the iPlanet Calendar Server software. The default is `c:\Program Files\iPlanet`

If you want to select another directory, type it in or click Browse to select one and click OK.

When you have finished making your selection, click Next to continue.

If the directory you selected does not exist, a message box displays and you can either:

❍ Click Create Directory to install iPlanet Calendar Server in the specified directory and continue the installation.

❍ Click Choose New to return to the Select Install Directory window where you can select another installation directory.

13. Specify the Web Port number that you want iPlanet Calendar Server to listen on. (Default is 80.) The Web Port number is used by iPlanet Calendar Server to provide Web (HTTP) access to users. It is highly recommended that you choose the default Web port number suggested by the installation program because it is the default port number used by all Web browsers. If you specify a Web port other than 80, calendar users will need to explicitly include this port number in the URL they enter to access their calendars on this Calendar Server.

When you have finished making your selection, click Next to continue.

The installation program will warn you if the port number you selected is already being used by another service on this system. If this is acceptable at this point, click Accept. Otherwise, click Choose New and enter another Web port number.

Note: If port 80 is already in use, you can click Accept to specify that iPlanet Calendar Server listens on port 80 and then free port 80 on the other service. In this case, it is highly recommended that you free port 80 on the other service before you continue with the installation.

14. Enter and confirm the password of the user that iPlanet Calendar Server will run as. The installation program assumes this identity is the user and password that is currently logged in to the system and it cannot be changed while you run the installation program. This user must have full administration rights to this system.

When you have finished making your selections, click Next to continue.

Note: The installation program will warn you if it cannot verify that this identity has the account privileges required to manage the Calendar Server services on this system. If this is acceptable at this point, click Accept. Otherwise, click Choose New and supply another password.

15. Supply the following email and email alarm information:

Calendar Administrator email address. Enter the full email address (userID and domain name) of the person to whom you want iPlanet Calendar Server to send messages in case of server problems. For example: `calmaster@siroe.com`

SMTP Server Host Name. Enter the host name of the machine running the SMTP server that iPlanet Calendar Server is to use to send messages.

Enable email alarms. By default, email alarms for the iPlanet Calendar Server are enabled. If you do not want iPlanet Calendar Server to send email alarms, uncheck this checkbox.

When you have finished making your selections, click Next to continue.

Note: If the installation program cannot connect to the SMTP server you entered, a message box will display stating that iPlanet Calendar Server will not run successfully if an SMTP server is not available. If this is acceptable at this point, click Accept. Otherwise, click Choose New and enter the host name of another SMTP server.

16. Specify the directory in which to store the iPlanet Calendar Server database. The default is:

```
c:\Program Files\iPlanet\CalendarServer5\var\csdb
```

If you want to select another directory, type it in or click Browse to select a directory, then click OK.

When you have made your selection, click Next to continue.

If the directory you selected does not exist, a message box displays and you can either:

❍ Click Create Directory to install the iPlanet Calendar Server database files in the specified directory and continue the installation.

○ Click Choose New to return to the Select Install Directory window where you can select another directory.

Note: The installation program displays a warning message if you selected a directory located on a drive partition that is not formatted as NTFS (NT File System). It is recommended that, for improved performance, you choose an NTFS-formatted drive in which to install iPlanet Calendar Server database files.

17. Specify the directory in which to store the iPlanet Calendar Server temporary files (Custom installation only). The default is:

```
c:\Program Files\iPlanet\CalendarServer5\var\tmp
```

If you want to select another directory, type it in or click Browse to select a directory and click OK.

When you have finished making your selections, click Next to continue.

If the directory you selected does not exist, a message box displays and you can either:

○ Click Create Directory to install iPlanet Calendar Server temporary files in the specified directory and continue the installation.

○ Click Choose New to return to the Select Install Directory window where you can select another directory.

18. Enter the following LDAP server information for user authentication (Custom Installation only — if you chose Typical Installation, proceed to the next step.)

○ **Host.** Host name of the machine on which the LDAP Server is running.

○ **Port.** Port number that the LDAP server listens to. The default is 389.

○ **Base DN**. Base DN (distinguished name) is the entry in your LDAP directory used as the starting point from which searches will occur. For example, if you specify a base DN of ou=people, o=siroe.com, LDAP search operations executed by iPlanet Calendar Server will examine only the ou=people subtree in the o=siroe.com directory tree.

○ **Administrator Bind DN**. The DN of the account that will be used to bind to the LDAP directory to search for a calendar user's DN during authentication. The default is to bind anonymously.

Note: If your directory server does not allow anonymous bind authentication or does not allow anonymous search, you must enter a valid DN that has these access rights.

❍ **Administrator Password.** The password for the user account of the Administrator Bind DN described above. No password is required for the default user `<anonymous>`.

When you have finished making your selections, click Next to continue.

Note: If the installation program cannot verify the LDAP credentials you specified, a message box displays and you can either:

❍ Click Accept to install iPlanet Calendar Server anyway if this is acceptable at this point.

❍ Click Choose New to return to the LDAP user authentication window where you can enter different directory server information.

19. Enter the following LDAP server information.(in a Typical Installation these settings apply to where user authentication information and user preferences are stored; in a Custom Installation these settings apply only to where user preferences are stored):

❍ **Host.** Host name of the machine on which the LDAP Server is running.

❍ **Port.** Port number that the LDAP server listens to. The default is 389.

❍ **Base DN**. Base DN (distinguished name) is the entry in your LDAP directory used as the starting point from which searches will occur. For example, if you specify a base DN of `ou=people, o=siroe.com`, LDAP search operations executed by iPlanet Calendar Server will examine only the `ou=people` subtree in the `o=siroe.com` directory tree. The installation program does not attempt to verify your entry.

When you have finished making your selections, click Next to continue.

Note: If the installation program cannot bind to the LDAP server specified or if it cannot find the LDAP schema for iPlanet Calendar Server, a message box will display stating that iPlanet Calendar Server will not run if an LDAP server is not available. If this is acceptable at this point, click Accept. Otherwise, click Choose New and re-enter the LDAP configuration parameters.

20. iPlanet Calendar Server 5.0 requires specific schema updates if you are using an LDAP directory server to store user and group information. If you are using Netscape Directory Server 4.12 (or later), you can choose to have the installation program automatically update the LDAP schema.

To automatically update the LDAP schema, supply the user ID and password of the Directory Manager (this is the user with the rights to update the schema also known as "Unrestricted User"). This is the username and associated password that can make changes in the Netscape Directory Server schema. The default DN is `cn=Directory Manager`. The installation program will then attempt to automatically update the LDAP schema of the directory server you specify.

Choose Next to continue and the installation program asks you to confirm that you want to update the LDAP schema. Click Continue if you update the LDAP schema at this time. Otherwise click Cancel to return to the previous window.

The installation program will warn you if it cannot update the LDAP schema automatically because it:

- did not detect Netscape Directory Server 4.12 or later.

- detected an earlier version of the iPlanet Calendar Server 5.0 schema extension on the specified Directory Server. In this case, you can manually remove the `um50-common-schema.conf` and `ics50-schema.conf` files on your Directory Server (located in the `server-root`/`slapd-`*hostname*`/config` directory) and run the installation program again.

You may choose., however, to update the LDAP schema manually. For more information, see "Updating the LDAP Schema," on page 13.

If you do not specify a Directory Manager and password, if you click Next, the installation program warns iPlanet Calendar Server 5.0 will not run properly if you do not update the LDAP schema. If this is acceptable at this point, click Accept. Otherwise, click Choose New to re-enter the requested information.

21. Choose if you want to save the LDAP schema extension files to disk.

If you want to save the schema files locally (in the event that you want to update the LDAP schema manually), accept the suggested location (`/tmp`) or, to select a another directory, type it in or click Browse and make your selection, then click Next.

If you do not specify a directory and click Next, the installation program warns you that copies of the schema files will not be saved locally. If this is acceptable, click Accept. Otherwise, click Choose New to select a directory in which to save the schema files as described above.

For more information on updating the LDAP schema, see "Installing and Configuring an LDAP Server," on page 12.

22. Specify the iPlanet Calendar Server Administrator. This is the user account that has privileges to use the iPlanet Calendar Server administration utilities: `csstop` to stop the server, `cstats` to display server statistics, and `cstool` to list all logged-in users. The default is `calmaster`.

The user ID you specify must be a valid user that exists in your LDAP server. For example, if you accept the default `calmaster`, then the user `calmaster` must exist in the LDAP directory that is accessed for user authentication. If you are using one directory server for user authentication and another directory server to store user preferences, the user you specify here must exist on both of these LDAP directory servers.

When you have finished making your selection, click Next to continue.

Note: If the installation program cannot verify that the user you specified is a valid user, a message box displays and you can either:

❍   Click Accept to install iPlanet Calendar Server anyway if this is acceptable at this point.

❍   Click Choose New to return Calendar Server Administration window where you can enter different user.

23. Select the desired values for the following system resource allocations to run iPlanet Calendar Server (Custom Installation only):

❍   Maximum sessions (default is 5000)

❍   Maximum threads (default is 250)

❍   Number of server processes (default is the number of CPUs on the machine on which you are installing iPlanet Calendar Server)

24. Select the options for automatically starting iPlanet Calendar Server. You can choose to start the server after successful installation and, optionally, to start the server automatically at system startup. If you do not wish to start the server after the installation or upon server startup, uncheck the applicable box or boxes. When you have finished making your selections, click Next to continue.

25. The installation program verifies if there is adequate disk space and then displays the Ready to Install window. To complete the installation, click Install Now.

26. When the installation process completes, a summary window displays. Click Details if you want to review summary information about the installation. When you are finished, click Dismiss to close the Summary information window, then click Exit to end the installation program.

Using the Command Line Installation on Windows NT

iPlanet Calendar Server provides you the option of running the installation script without using the graphical interface. To run the command line installation program, use the following steps:

1. Login as Administrator. You must have superuser privileges (that is, be logged in with full administration rights to the system) to run the installation program.

2. Create a directory (such as `c:\temp\ics5`) on the machine that will host the iPlanet Calendar Server and download (or copy) the iPlanet Calendar Server archive file to that directory. Make sure that the download directory has adequate disk space to store the extracted files.

3. Open a command prompt and change to the directory in which you placed the iPlanet Calendar Server archive file. For example:

```
cd \temp\ics5
```

4. Type the name of the iPlanet Calendar Server archive file followed by the argument `-nodisplay`. For example:

```
ics5.0-export-en.x86-windows-nt4.0 -nodisplay
```

5. After the installation program extracts the compressed installation files, read the instructions and then press Enter to continue.

The installation program then asks the same configuration questions as described above in Using the Graphical Interface Installation on Windows NT.

Uninstalling the Calendar Server on Windows NT

To uninstall iPlanet Calendar Server, use the following steps:

1. From the Start menu, choose Settings and then Control Panel.

2. Choose Add Remove Programs.

3. From the list of products, select iPlanet Calendar Server and click Add/Remove.

4. Click Yes if you want to uninstall the product at this time.

5. Choose either a Full or a Partial uninstall. The Full uninstall removes both components (Calendar Server and Calendar Server API). The Partial uninstall lets you choose to uninstall either or both of these components.

6. Click Uninstall Now to proceed with the uninstallation.

Migrating iPlanet Calendar Server Data

This chapter describes the how to migrate calendar data from an existing iPlanet Calendar Server version 2.x installation to version 5.0 using the tool `ics2migrate.exe`. The `ics2migrate` tool is located in the *server-root*`\cal\bin` directory.

NOTE	The data migration process from iPlanet Calendar Server version 2.x to 5.0 is a one-way data transformation. That is, data can be migrated from version 2.x to version 5.0, but version 5.0 data cannot be migrated to version 2.x.

To migrate calendar data from iPlanet Calendar Server version 2.x to version 5.0, use the following steps:

1. Install iPlanet Calendar Server 5.0.

2. To ensure data integrity, it is highly recommended that you stop all iPlanet Calendar Server services. For more information, see "Starting and Stopping the Server" in the *iPlanet Calendar Server Administration Guide*.

3. Locate the file iPlanet Calendar Server 2.x version of the `caldb.conf`. The default location of this file depends on the platform you are using:

   ❍ On Solaris, it is located in the `/var/opt/SUNWicsrv/csdb` directory.

   ❍ On Unix systems other than Solaris, it is located in the `opt/iplanet/var/SUNWicsrv/csdb` directory.

   ❍ On Windows NT, it is located in the *server-root*`\var\csdb` directory (for example, `c:\Program Files\iPlanet\CalendarServer\var\csdb`).

4. Change the first line in the caldb.conf file as follows:

from: caldb.version "1.0.0 [BerkeleyDB]"

to: caldb.version= "1.0.0 [BerkeleyDB]"

5. On the machine where you installed iPlanet Calendar Server 5.0, on the command line, change to the *server-root*\cal\bin directory and enter:

ics2migrate

Running ics2migrate

The data migration tool provides two processes:

- migrating the calendar database

- migrating LDAP user preference information

Syntax:

```
ics2migrate [-q] [-s def|none] [-f def|none] [-l min|max] source target
ics2migrate [-q] [-m db] [-s def|none] [-f def|none] [-l min|max] source target
ics2migrate [-q] [-m ldap]
```
Table 4-1 describes the ics2migrate tool options.

Table 4-1   ics2migrate Options

Option	Specifies
-q	quiet mode which displays no information on the console if the operation is successful or displays only errors if the operation fails.
-m db	to migrate the calendar database only
	Note: To migrate both the calendar database and user preferences, do not specify the -m option.
	Note: Users designated as other owners in iPlanet Calendar Server 2.x are migrated to version 5.0 with same access permissions (read and right) that they had in version 2.x, but are not migrated as owners. This migration strategy is used because in version 5.0, owners (other than the primary owner) of a calendar have increased access permissions that were not available in version 2.x. For more information, see "Access Control" in Chapter 3 of the *iPlanet Calendar Server Administration Guide*.

Table 4-1 ics2migrate Options *(Continued)*

Option	Specifies
-m ldap	to migrate LDAP user preferences only. **Note**: To migrate both the calendar database and user preferences, do not specify the -m option.
-s def	to grant scheduling access to users' default calendars only. **Note**: To grant scheduling access to all calendars, do not specify the -s option. For more information, see "Access Control" in Chapter 3 of the *iPlanet Calendar Server Administration Guide.*
-s none	to deny scheduling access to all calendars.
-f def	to grant free/busy access to users' default calendars only. **Note**: To grant free/busy access to all calendars, do not specify the -f option. For more information, see "Access Control" in Chapter 3 of the *iPlanet Calendar Server Administration Guide.*
-f none	to deny free/busy access to all calendars.
-l min	to save the minimal amount of data migration statistics to a log file called ics2migrate.log located in the *server-root*\cal\bin directory. The minimal statistics include the calendar ID, the primary owner, and the number of events and todos found for each calendar. (When this option is specified, migration statistics do not display on the console.)
-l max	to save the maximum amount of data migration statistics to a log file called ics2migrate.log located in the *server-root*\cal\bin directory. The maximum statistics include the minimal statistics plus the number of attendees of each event and todo, and the number of alarms of each event and todo. (When this option is specified, migration statistics do not display on the console.)
source	the directory location in which the iPlanet Calendar Server 2.x database files are stored. This option is required when database migration is performed, for example, when either: • the -m option is not specified. • the -m db option is specified.

Table 4-1 ics2migrate Options *(Continued)*

Option	Specifies
target	the directory location in which iPlanet Calendar Server 5.0 database files will be created. This option is required when database migration is performed, for example, when either: • the `-m` option is not specified. • the `-m db` option is specified.

Examples:

The following example migrates both the LDAP user information and the calendar database — migrating the iPlanet Calendar Server version 2.x database stored in the directory `/var/opt/SUNWicsrv/2x_db` and creating a 5.0 database in the directory `/var/opt/SUNWics5/50_db`, plus it grants scheduling and free/busy access to all calendars and outputs minimal migration statistics in a log file called `ics2migrate.log` located in the *server-root*`\cal\bin` directory:

```
ics2migrate /var/opt/SUNWicsrv/2x_db /var/opt/SUNWics5/50_db -l min
```

The following example performs the same operation as the previous example, except that it operates in quiet mode (migration statistics are not displayed in the console) and no log file is generated:

```
ics2migrate -q /var/opt/SUNWicsrv/2x_db /var/opt/SUNWics5/50_db
```

The following example migrates only the 2.x calendar database stored in the directory `2x_db` (relative to the current directory) and creates a 5.0 database in the directory `/var/opt/SUNWics5/50_db`:

```
ics2migrate -m db 2x_db /var/opt/SUNWics5/50_db
```

The following example migrates only the 2.x LDAP user information to version 5.0 format:

```
ics2migrate -m ldap
```

The following example migrates both the LDAP user information and the calendar database — migrating the iPlanet Calendar Server version 2.x database stored in the directory `2x_db` (relative to the current directory) and creating a 5.0 database in the directory `/var/opt/SUNWics5/50_db`, plus it outputs maximum migration statistics in a log file called `ics2migrate.log` located in the *server-root*`\cal\bin` directory:

```
ics2migrate -l max 2x_db /var/opt/SUNWics5/50_db
```

The following example migrates both LDAP and calendar database information in the specified directories, plus it grants scheduling access only to each user's default calendar and denies free/busy access to all calendars on the server, and it does not output statistical information to a log file:

```
ics2migrate -s def -f none 2x_db 50_db
```

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