

FirstClass 7.1 for Mac OS X Administrator's Guide

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Technical support

Telephone technical support is available to registered administrators at the following numbers:

Toll free in North America: 1-800-346-9108

Toronto: 905-762-6060

International: +353-61-725-250

Online support questions may be directed to support@firstclass.com.

Introduction

Continuing our strong multi-platform commitment, we now provide FirstClass for UNIX. FirstClass 7.1 for Mac OS X is our first FirstClass system for UNIX. It offers all the same benefits and dependability of FirstClass on Windows and classic Mac OS environments.

About this book

This book is a supplement to the standard FirstClass administrator's guides and documentation set. Because FirstClass works seamlessly across platforms, most of the information you will need in order to use FirstClass on a Mac OS X environment is available in those standard documents.

Although using FirstClass on Mac OS X is very much like using FirstClass on any other platform, there are some differences in the way FirstClass is installed and configured on the Mac OS X platform, and the way a migration is handled. This book provides extra information specific to installing and configuring FirstClass in the Mac OS X environment.

This book tells you how to:

- install FirstClass on Mac OS X

This section provides requirements and instructions for installing the various FirstClass components.

- start your server and log in

This section explains how to start and log into your FirstClass system and what you will see on the administrator's Desktop.

- configure your system on Mac OS X

About this book

This section explains what the FirstClass installer configures on your system and what you need to check and configure after installation.

- migrate FirstClass from Mac OS 9 to Mac OS X

For those already using FirstClass on Mac OS 9, this section explains how to migrate a 7.1 FirstClass post office from the classic Mac OS environment to the Mac OS X environment.

- administrate FirstClass on Mac OS X.

This section provides some Mac OS X-specific information helpful for the day-to-day operation of your FirstClass system.

There is also an appendix that describes file locations in Mac OS X.

Who should read this book

This book is intended for FirstClass administrators responsible for setting up and maintaining a FirstClass system on Mac OS X, whether new to FirstClass or migrating an existing FirstClass system to the Mac OS X environment.

What you should already know

You should be familiar with the capabilities and terminology of your:

- FirstClass software (server, client, Internet Services, Voice Services [if applicable], and additional components)
- Mac OS X operating system.

Documentation conventions

The following conventions are used in this guide:

- menu items

Each level of menu items is separated by >. For example, the Clear item under the Edit menu is shown as Edit > Clear.

- variables

Text in *italics* represents variables for which you must type your own value.

- script syntax.

Script syntax text is formatted like `this` to distinguish it from other text.

More information

For more conceptual information and details about FirstClass in general, *FirstClass Administrator's Guide* and *Internet Services Administrator's Guide* in our online help explain the procedures involved in planning, creating and maintaining a FirstClass server environment. These guides also provide a walkthrough of a simple system for an example company that administrators new to FirstClass will find very useful.

More information

Installing FirstClass

You can install the FirstClass server and Internet Services on separate machines, or together on a single computer with either a single processor or multiple processors. The minimum requirements for each scenario are listed below, but the actual performance of your system will vary depending on how powerful your hardware is and how busy your system gets.

If you install the FirstClass server and Internet Services on two dissimilar machines, we generally suggest using the machine with the more powerful processor to run Internet Services, though that depends to a large extent on the primary use to which your system will be put. If, for example, your system will be used primarily as a web server, you will want Internet Services on the more powerful machine. If, on the other hand, your server will be under a heavy load of FirstClass users, then you will want the server to be on the machine with the better disk system.

System requirements for FirstClass server and Internet Services

FirstClass server and Internet Services together

- Mac OS X, 10.2.3 or higher
- 128 MB memory recommended, plus 250 KB for each concurrent session
- additional memory required if you are mirroring volumes (see “FirstClass server only” below)
- minimum 100 MB free disk space, plus additional storage for mail and user data and temporary space required by the installer

Installing the FirstClass server and Internet Services

- FirstClass server only**
- Mac OS X, 10.2.3 or higher
 - 128 MB memory recommended, plus 250 KB for each concurrent session
 - additional memory required if you are mirroring volumes (amount of additional memory depends on the activity level and the number of users simultaneously making changes while synchronizing the mirror)
 - minimum 90 MB free disk space, plus additional storage for mail and user data
- Internet Services only**
- Mac OS X, 10.2.3 or higher
 - 64 MB memory recommended (and the more memory the better)
 - 10 MB free disk space

Installing the FirstClass server and Internet Services

Before installing FirstClass

Before you can install FirstClass you must create a user named “fcadmin” and log into the operating system as this user. Create the fcadmin user as follows:

1. Choose Apple menu > System Preferences > Accounts.
2. Click New User to open the New User form.
3. Type a long name and short name for the user.

The long name you choose doesn’t matter, but we recommend (and this documentation will assume) the long name FirstClass Administrator.

The short name must be fcadmin.

Caution If you don’t give the user exactly this short name, you won’t be able to install FirstClass.

4. Type a password for the user.

You will be asked for this password to install FirstClass and to perform other administrative duties.

5. Select “Allow user to administer this computer”.

Caution If you don’t do this you won’t have administrative level permissions and won’t be able to install FirstClass.

6. Log out of the current user account and log back in as fadmin.

Installing FirstClass

During the installation you will be asked whether you want to install the FirstClass server and whether you want to install Internet Services. To install both on the same machine, accept the default [yes] in both cases. To install the FirstClass server and Internet Services on separate machines, repeat the installation process on both machines, selecting only the component you want to install on each machine.

The installer will attempt to determine appropriate default settings for the System Profile and Internet configuration forms to allow the FirstClass server and Internet Services to “just work”. The installer will ask you to confirm these defaults during the installation. After installation, you should review these forms and verify that they do not need to be changed.

The installer will also ask you whether you want the server and Internet Services to autostart on a machine restart. By default, these programs will be running in the background after a reboot even if no user is logged into Mac OS X yet.

Note You can also disable the server or Internet Services autostarts manually after installation by removing the FirstClass Server and/or FirstClass Internet Services folders from StartupItems in the /Library folder.

Install FirstClass as follows:

1. *If you received the installer as a .dmg file*
Double-click the .dmg file to expand it.

If you are installing from a CD
Skip to Step 2.

System requirements for FirstClass client on Mac OS X

2. Double-click “Install FirstClass Server.command” to start the installer script.
3. Respond to the prompts. In many cases, you need only hit <Enter> to confirm the default responses.
4. Restart the Mac OS X machine at the end of the installation process, if you chose to autostart either the server, or Internet Services, or manually start the server and Internet Services from the Desktop icons created by the installer.

Note If existing HTTP or FTP services are enabled on the Internet Services machine, Internet Services will fail to open the reserved IP ports. To disable the conflicting services, choose Apple menu > System Preferences > Sharing and clear these services.

Licensing FirstClass

After you install the FirstClass server, you can add optional licenses, such as user licenses. To do this, use the FirstClass Tools application. This application is described in *FirstClass Tools Reference* in our online help.

Note The FirstClass Tools application on Mac OS X does not accept license diskettes. Only license files can be used in the Mac OS X environment.

Tip We suggest that you license your server before configuring FirstClass. To configure FirstClass, you must log in as the administrator, and the first time you do this, you will be asked for licensing information in order to register.

System requirements for FirstClass client on Mac OS X

- Mac OS X, 10.1 or higher
- minimum 64 MB available RAM
- minimum 6 MB free disk space

Installing the FirstClass client

To install the FirstClass client software, insert the FirstClass installation CD or download the installer from our web site and follow the instructions.

When you install or upgrade to FirstClass 7, a ClientDownloads folder will be created within the Internet Services > WWW folder. Inside this folder are links to the client installers and the readme documents.

If you have a company home page created, the home page document in the WWW folder inside the Internet Services folder can also be used by users to link to the downloads page on our web site and download the client.

Once the client is installed, for the initial login, users should click the login link on the home page to log in. An X-FC tag will update the home.fc settings file with the Domain name from the System Profile. Once the domain name is added to the home.fc settings file, users will be able to connect to your server without further configuration. Users do not need to know the server IP address to connect.

For more information about the FirstClass client, see our online help or *A Business Professional's Guide to FirstClass*.

The FirstClass Server folder

The FirstClass server and Internet Services files are stored in a FirstClass Server folder within the /Library folder. Before logging into your FirstClass system and beginning to use it, you may want to familiarize yourself with the contents of the FirstClass Server folder. Instructions for accessing and using these files follow in the remaining chapters of this guide.

The FirstClass Server folder contains the server and FirstClass Tools applications, as well as supporting files. If you installed Internet Services on the same machine as the FirstClass server, the Internet Services files will also be in the folder. Otherwise, they will be in the corresponding FirstClass Server folder on the Internet Services machine.

The FirstClass Server folder

This folder contains the following folders and files:

- fcsd
The FirstClass core server executable.
- fcsd.rez
The FirstClass server resources.
- fctools
The FirstClass Tools application. You use FirstClass Tools to license and configure your server, and to configure sessions. For more information about FirstClass Tools, see *FirstClass Tools Reference* in our online help.
- FirstClass Server Start.command/FirstClass Server Stop.command
Commands that activate control scripts to start and stop the FirstClass server.
- .log/.old files
Log files that are generated every time you start the server or Internet Services. The .log files contain detailed log entries from the latest run, and the .old files contain the output of the previous run. Because these files recycle every time you start the server, you lose the information after two restarts. Similar information is stored permanently, though, in the server logs under /Library/FirstClass Server/Volumes/Master/fcpo/logfiles.

Note If you have had previous experience with FirstClass on a Windows or classic Mac OS, you will be used to seeing the information that is recorded in these log files in the server console of FirstClass.
- Status of FirstClass Services.command
A command file that activates a control script that provides you with the status of the FirstClass server and Internet Services.
- Volumes.
A folder in which you can define an explicit list of logical FirstClass volumes accessible to the server. These need not

correspond directly to physical drives, but could also be folders or symbolic links to any location visible in the Mac OS X file system hierarchy. For this reason, they are referred to as logical volumes. For more information about FirstClass logical volumes and their uses, see Using FirstClass volumes in the Administrating FirstClass chapter of this guide.

- **fcfixvol**

A utility you use to properly set the initial permissions on the files and folders in a FirstClass post office after you copy the post office from one volume to another or restore from a backup. For the purpose of migration, this includes another utility (`fclower.pl`) that converts all post office file names to lowercase for use in the Mac OS X file system.

Internet Services folders and files

The following folders and files are also in the FirstClass Server folder if you installed Internet Services on this machine:

- **fcisd**

The FirstClass Internet Services executable.

- **fcisd.rez**

The Internet Services resources.

- **fc**

A folder containing FCP network protocol definition files. FCP is the protocol used to communicate between the FirstClass client or services modules and the FirstClass server.

- **config**

A folder containing configuration files for Internet Services.

- **inetsvcs.fc**

The settings file for Internet Services. This is preconfigured for 127.0.0.1 by default for systems with the FirstClass server and Internet Services on a single machine. If the FirstClass server and Internet Services are on two separate machines, this must be updated with the server's IP address or name. See Configuring the `inetsvcs.fc` file for more information.

- **Internet Services Start.command/Internet Services Stop.command.**

The FirstClass Server folder

Commands that activate control scripts to start and stop Internet Services.

Starting your server and logging in

In order to do any system administration, whether from the server level or from the client, the server must be running. You will perform most administrative functions when you are logged into the client as the administrator.

Starting your server

By default, the Mac OS X installer configures the server and Internet Services to autostart on system restart. These programs will be running in the background after a reboot even if no user is logged into Mac OS X yet. You can also start the server manually.

The FirstClass server application resides in the /Library folder in a FirstClass folder. It is called fcscd (FirstClass server daemon). You can start fcscd directly but we suggest you use the FirstClass Server Start alias on the Mac OS X desktop. There are aliases on the desktop for all of the following commands:

- FirstClass Server Start
- FirstClass Server Stop
- FirstClass Tools
- Internet Services Start
- Internet Services Stop
- Status of FirstClass Services.

You can also start, stop and check the execution status of the server and Internet Services manually with the provided shell scripts as follows:

1. Choose Go > Applications.

Logging in as the FirstClass administrator

2. Double-click the Terminal application in the Utilities folder.
3. Type one of the commands below and press Enter.

If prompted for a password, enter the fcadmin user's password.

Possible commands:

- `fcscctl start` starts the server
- `fcscctl stop` stops the server
- `fcscctl status` checks server status
- `fcisctl start` starts Internet Services
- `fcisctl stop` stops Internet Services
- `fcisctl status` checks Internet Services status.

Note Only the root user or machine administrators can start or stop the server or Internet Services. No matter who launches these programs, they will start up under the root user and admin group and will then fall back to the real context of the user who launched them, switching back to root-equivalent access only while opening reserved IP ports. Currently, only one user, fcadmin, is supported, so manually start the server and Internet Services only from that account.

Logging in as the FirstClass administrator

The FirstClass installation application adds a special user account for the FirstClass administrator:

- the user ID is admin
- the password is admin
- the name is Administrator.

Note To preserve the security of your FirstClass system, you should change the password for the administrator account the first time you log in by choosing Collaborate > Change Password. Keep the new password confidential. We recommend that

Starting your server and logging in

you not save the administrator's password in your settings file.

Warning You can change the name, password, and user ID associated with the administrator account, but never delete this account. If you do, you won't be able to log in as the administrator, and you will have to reinstall your server.

While you can log into the administrator account using a web browser, you must use a FirstClass client to perform all administrative tasks.

Registering your server and licenses

When you log in as administrator for the first time, the FCS Registration form will open.

You must complete and send this form to get access to online software and documentation updates and be allowed to post support questions to our customer conferences. Some of the fields will already be filled in for you. A copy of this form will be left on the administrator's Desktop for your reference.

After your registration has been received, you will be sent information about accessing our own server and given access to customer conferences.

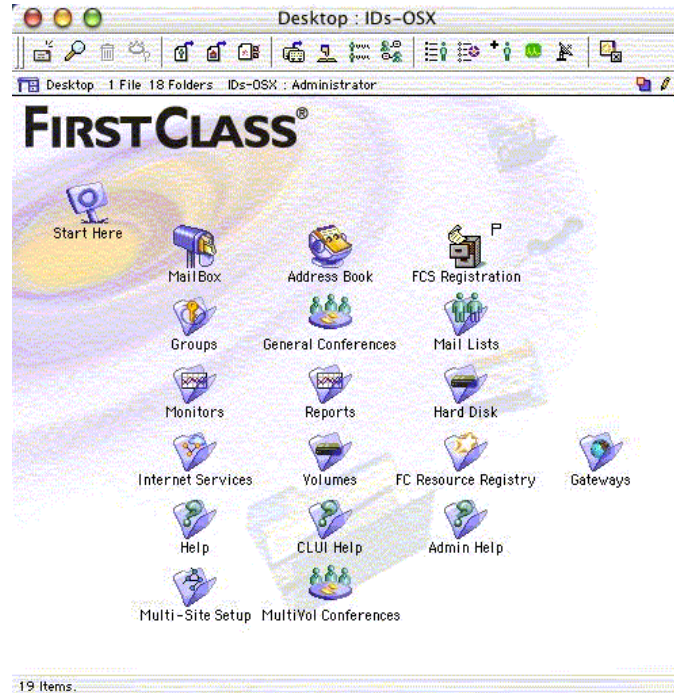
The administrator's Desktop

In addition to the standard objects that all users see, the administrator's Desktop contains its own set of standard objects.

Your administrator's Desktop (Business Edition) looks like this:

The administrator's Desktop

The administrator's Desktop



Do not delete or rename any objects on the administrator's Desktop. If you do, you might not be able to perform necessary administrative tasks. These objects are protected from deletion by default.

Warning If you delete one of the standard user icons from your administrator's Desktop, that object and all its contents will be deleted and it may be impossible to restore the administrator's link. You can recover it, by choosing View > Show Deleted Items and using the undelete feature, only until trash collection runs.

Desktop objects

- Start Here folder

A folder containing important information about setting up and configuring your FirstClass system.

- Mailbox

The administrator's Mailbox where system messages are automatically sent. We suggest you create a personal user account for non-administrative duties and personal email. This will also keep your personal information out of the administrator's address book and calendar.

- Address Book

The address book for the administrator's account, for use in sending messages in your official capacity as administrator.

- FCS Registration form

The online registration form you must complete and send to get access to product and documentation updates and support conferences.

- Calendar

The calendar for the administrator's account, if required.

Note This object is not automatically created. Choose File > Open > Calendar to add this calendar to the administrator's Desktop.

- Groups

A folder containing all the user and conference groups defined on your server.

- General Conferences

A folder in which you can add conferences to allow users to collaborate effectively. These conferences are only visible to users when you subscribe the users to a conference, add a conference to a user group's Model Desktop, or put a link to a conference in a public place.

- Mail Lists

A folder containing all the public mail lists on your server.

- Monitors

A folder containing the Server Monitor, Session Monitor and Internet Monitor.

- Reports

The administrator's Desktop

A folder containing Statistics and Log Files folders, and the Statistics Control form. For more information about the statistics and log files contained in these folders, see the *FirstClass Administrator's Guide* and our online help.

- Hard Disk

An external folder that gives you access to the files on the Firstclass volume containing the primary post office.

- Internet Services

A folder in which you configure your Internet connections and services.

- Volumes

Folders containing the root volume and logical FirstClass Server volumes. For more information about logical FirstClass volumes, see Using FirstClass volumes in the Administrating FirstClass chapter of this guide.

- FC Resource Registry

A folder which allows you to store resources such as forms, icons and sounds on the server for all your users to access.

- Gateways

A folder containing the gateways defined on your server.

- Help

A folder containing our online help. You can add your own folder of help information to this folder if your users require additional online help material for your system setup.

The administrator's help (Admin Help) is only accessible from the administrator's Desktop, and by users in the Sub Admin and Webmasters groups. This help is also available from the Help menu.

- CLUI Help

A folder containing the Command Line User Interface (CLUI) online help.

- Multi-Site Setup

A folder containing forms used in setting up networks consisting of two or more servers, using the Directory synchronization feature.

- **MultiVol Conferences**

Folders containing lists of all the full-use secondary volumes. This is useful for creating content that is physically located on a different volume.

The client's Control menu

The Control menu on the administrator's Desktop provides you with menu options for some of the most common server and Internet Services control tasks. These tasks are described further in *FirstClass Administrator's Guide* and our online help. Choose Admin > Control to access this menu. The following information describes these menu items and their functions:

Trash Collection	Causes immediate trash collection.
Fast Shutdown	Forces off all users and shuts down the server immediately. Other than the abrupt disconnect logged-in users will see, this should be considered safe at all times.
Polite Shutdown	Sends a message to users warning them and waits for them to log off before shutting down the server.
Restart	Not available on OS X.
Logoff All Users	Disconnects all users without shutting down.
Logoff Selected Users	Disconnects selected users without shutting down.
Reset Server	Not used on the OS X server.
Modems	
Pause Mirroring	Pauses server mirroring immediately.
Continue Mirroring	Resumes paused server mirroring.

The administrator's Desktop

Configuring your system on Mac OS X

The FirstClass Mac OS X installer auto configures as much as possible, so that the FirstClass server and Internet Services just work immediately after running the installer. To do this, the installer tries to determine appropriate default settings for your System Profile and Internet configuration forms and asks you to confirm or alter those defaults during installation. In order to complete the configuration of your system, you should review those default values and adjust them for your individual situation as required.

Configuring the System Profile

To configure your system you must complete the System Profile form. For a complete explanation of all fields on this form, see our online help.

Note You must log in as the FirstClass administrator using the FirstClass client in order to configure your system.

To access the System Profile, select Admin > System Profile from the administrator's Desktop. The default settings provided on this form are meant to meet the needs of the majority of users.

System Profile Server tab

This tab contains basic system information.

Complete this form as follows:

Network name This is not used on the OS X server.

Configuring the System Profile

Site name	This identifies you to any FirstClass servers you may establish gateways with and you see it on the client's windows and on the server monitor's summary tab. The installer will attempt to determine an appropriate value for this field, based on the machine's node name, but you should check this value after the installation and change it to something more suitable if required. For more information about gateways, see <i>FirstClass Administrator's Guide</i> .
Domain name	This is your registered domain name and defaults to the domain name known to the operating system at installation time. If there is no domain name configured, the FirstClass server installer will use the IP address of the computer you have your FirstClass server installed on. As with the site name, the installer will attempt to determine an appropriate value for this field, but you should check this value after the installation and change it to something more suitable if required.
Server priority	This sets the priority of server operations on the machine. You should always leave this set to the default value of Medium.
Minimum free disk space	This sets the minimum level of available disk space. When the available disk space on a FirstClass volume falls below this level, that volume will go into "write protect mode", and basic tasks, like creating new messages, will not be allowed by the server. The default value, 1000 KB, is low enough that it won't often be reached, but high enough to allow some maneuvering room on the volume. Your optimal setting will depend on your hardware configuration.

Disable all logins This allows you to perform administrative functions while no users are logged in (for example, major changes to user groups, permissions, or directories). You must remember to clear this or restart the server when you have finished. Because most administrative functions can be performed with users logged in, you won't likely be using this feature frequently.

For now, then, leave this unchecked.

Time zone This is the local time zone of your FirstClass server. This field is not filled in by the installer. You must complete it manually. This should be the same as the time zone selected in the Mac OS X System Preferences > Date & Time > Time Zone.

System Profile Timers tab

On this tab, you set rules about deletion and disconnecting users.

Complete this form as follows:

Private mail expiry This sets the length of time before private mail expires from users' mailboxes. The default 60 day value is intended to be long enough that valuable mail won't be quickly lost and short enough that mailboxes won't be overloaded. Your setting should reflect the usefulness of old mail on your system and the amount of disk space you have available. You can set mail expiry also for individual users or user groups, and you can allow users to change the expiry period of individual messages. See *FirstClass Administrator's Guide*.

Configuring the System Profile

Conference item expiry	This sets the default time an item will stay in a conference before expiring. The default value is 120 days. This number should reflect the importance of old mail in conferences and the amount of disk space you have available. The expiry period can be overridden for individual conferences and conference groups. See <i>FirstClass Administrator's Guide</i> for more information.
Trash collection time	This sets the time that trash collection will take place. The default trash collection time is set as 3:00 AM, because people aren't normally working at that time. Although the server continues to function during trash collection, it's best to schedule it when use is minimal.
Last collection	This is the date and time of the most recent trash collection.
Logoff warning interval	This sets the time between a logoff warning and the actual logoff. The default is set as 30 seconds. The server issues warning messages when a user's time limit is about to expire, or if a user is inactive. For more information, see our online help.
Modem login timeout	This is not used on OS X.

System Profile Usage Limits tab

On this tab, you enter settings that will affect users in their day-to-day system use.

Complete this form as follows:

Daily connection limit	This sets the maximum daily connection time for each user. The default is set for the maximum 1440 minutes so that employees have continual access. You can limit specific users' access elsewhere. See <i>FirstClass Administrator's Guide</i> for more information.
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- Inactivity limit before logoff** This sets the maximum time per session that a user can be inactive before being logged off. The default is set at 5 minutes.
- Inactivity limit before deletion** This sets the maximum time a user's account can be inactive (not connected to a server) before being deleted. The default value for this is "No Limit" to support scenarios such as customers who might only log in a few times a year and employees who take extended leave.
- FirstClass Notifier limit** This sets the maximum number of users who can enable FirstClass Notifier. The default value is 50 but you might want to increase it if you have a large number of machines configured to receive notifications. There is only a very small memory cost to increasing this. For more information, see our online help.
- Login limit per user** This sets the maximum number of sessions a user can have open at once using the same user ID. The default is "No Limit". FirstClass supports multiple logins to the same account.

System Profile Users tab On this tab, you make decisions about how users can access the system and where their data is stored.

Complete this form as follows:

- Create users and conferences on volume** This identifies the FirstClass volume on which you want to add new users and conferences. The default is Master.

Configuring the System Profile

Require unique user names	<p>This prevents the creation of user accounts and conferences with duplicate names and is recommended because duplicate user names can create confusion and will make it difficult to use automatically-generated Internet alias options. For more information, see <i>FirstClass Internet Services Administrator's Guide</i>.</p> <p>If you are using organizational units and want to permit multiple users with the same name (as long as they are in separate organizational units), clear this check box. For information about organizational units, see <i>FirstClass Administrator's Guide</i></p>
Remote autoregistration	<p>This allows users who connect using remote sessions to register when they log in. The default is not to allow this because it makes it possible for anyone who can connect to your system to create their own account and possibly annoy other users.</p>
Network autoregistration	<p>This allows users who connect over a LAN to register when they log in. As with remote registration, the default is not to allow this because it takes away your control over who is registered.</p>
Autoregister notification	<p>This notifies the administrator when a user auto registers. This has no effect if you do not allow auto registration.</p>
Guest access	<p>This allows people to log in as guest users. It is cleared by default, but you might want to select it to allow unregistered users to log in and request an account, giving you more control over registrations.</p>

- Guest user ID** This can be any valid ID. We suggest Guest because it is descriptive and easy to remember. You can create a special Desktop for this user ID, with the information you feel guest users need.
- Command line access** This allows users to access the server using a network tool such as telnet. This is an advanced feature and it is not enabled by default.

System Profile Other Defaults tab

On this tab, you make decisions about security and disk space.

Complete this form as follows:

- Secure all Desktops** This prevents the administrator and sub administrators from viewing other users' Desktops. It is not enabled by default.
- Allow blank password field** This lets users leave password fields blank and is not selected by default because this is a security risk.
- Suppress conference history** This prevents the collection of some history information for conference and calendar items and is not enabled by default because History is a valuable feature and the disk space impact is minimal.
- Suppress conference receipt notification** This turns off receipt notification for messages sent to conferences and is not selected by default because, again, this is a valuable feature and the disk space impact is minimal.

Configuring the Basic Internet Setup form

As it does with the server, the FirstClass installer for OS X will auto-configure Internet Services as much as possible for you, so that it just works, but you need to review the default values provided by the installer and adjust them and/or add to them for your individual situation as required.

Configuring the Basic Internet Setup form

You should review the Basic Internet Setup form to select the various Internet protocols on your system. For a complete explanation of all fields on this form, see our online help.

The Basic Internet Setup form is in the Internet Services folder on the administrator's Desktop.

General tab

This tab contains general information about the Internet Services system setup.

Complete this form as follows:

Primary domain name	This is the domain name your server uses for outgoing mail. The installer will attempt to auto-configure this field for you. If no domain name is defined, the IP address assigned to the machine's primary network adapter will be used for most of the fields requiring a domain name. You should, therefore, check this field after installation and change this if required.
Primary DNS	This is the IP address of your DNS server. If you use your ISP's DNS, you'll need to get this IP address from them. If you have more than one DNS machine available, you will need to add those addresses on the Advanced DNS form.
Postmaster name	This is the name of the user responsible for Internet Services. The default set by the installer is "administrator".
Start Internet Services automatically	This is not supported by FirstClass on OS X. See Installing FirstClass for details of how to do this on OS X.

Connection tab

Use this tab to set up the Internet connection.

Complete this form as follows:

Internet connection	This details the type of Internet connection you have, either continuous or intermittent/dialup. Select Continuous if you have a full-time connection to the Internet.
----------------------------	--

For intermittent or dialup connections This is used only if you have intermittent or dialup connection to the Internet. Click Routing to enable "Route through one server". Click Schedule to view or update scheduling for this connection.

Mail tab

On this tab you set basic Internet mail protocols. You only have to do this if you want your users to receive Internet E-mail.

Complete this form as follows:

Enable SMTP This enables SMTP mail and is enabled by default by the installer.

SMTP server domain name This is the name or IP address of the computer that Internet Services is installed on. This is auto-configured by the installer and is required if SMTP is enabled.

Enable POP3 This enables your users to log in and retrieve their E-mail using a POP3 mail client, like Eudora, and is enabled by default by the installer.

Enable IMAP4 This enables your users to log in using an IMAP4 client, like Outlook Express, and retrieve their E-mail and is enabled by default by the installer.

Max outgoing mail This sets the maximum number of simultaneous outgoing messages and is set by the installer to a default of 5. This number is large enough to maintain significant mail flow but not so large as to cause memory problems.

Mail server This field only needs to be filled in if all your users are going to be retrieving POP3 mail from the same mail server. The installer leaves this blank by default.

Advanced This allows you to view or update advanced mail settings. Normally, you will not have to change these settings.

News tab

On this tab you set up the news protocol. You only have to do this if you want users to receive news groups.

Configuring the Basic Internet Setup form

Complete this form as follows:

Enable NNTP	This enables NNTP and is selected by the installer by default.
NNTP server domain name	This identifies the news server domain name. The installer auto-configures this field and you should check this and change it if required.
NNTP feed server	This is the name of the server that provides your news feed. This field is left blank by the installer. If you don't maintain your own news server, you will need to arrange with your ISP which news groups they send to you.
Advanced	This allows you to view or update advanced news settings. Normally, you will not have to change these settings.

Web & FTP tab

On this tab you set up the HTTP protocol (allowing people to access your web site with their web browsers) and the FTP protocol (allowing people to download files from your web site).

Complete this form as follows:

Enable HTTP	This allows people to access your web site with their web browsers and is enabled by the installer by default.
HTTP server domain name	This identifies the HTTP server domain name. The installer auto-configures this field and you should check this and change it if required.
Enable FTP	This allows people to download files from your web site and is enabled by the installer by default.
FTP server domain name	This identifies the FTP server domain name. The installer auto-configures this field and you should check this and change it if required.
Multiple Sites	This allows you to set up multiple web sites on this server, or multiple languages on a web site.

Advanced This allows you to view or update advanced web and FTP settings. Normally, you will not have to change these settings.

Directory tab

On this tab you enable Directory filtering to control the exposure of users' E-mail addresses through Finger or LDAP clients.

Complete this form as follows:

Enable Finger This provides Finger clients with access to the FirstClass directory and is enabled by the installer by default.

Enable LDAP This provides LDAP clients with access to the FirstClass directory and is enabled by the installer by default.

Advanced This allows you to view or update advanced Directory settings. Configure automatic aliases and inbound mail addressing on this form.

UCE/Spam tab

On this tab you control the problem of SPAM, or unsolicited commercial E-mail (UCE), by controlling which messages your site relays and accepts, and how it handles messages it accepts.

Complete this form as follows:

Relaying This allows you to disable all relaying, including SMTP AUTH and trusted IPs and is selected by the installer by default. You can also allow all authenticated users to relay or can select users with certain features to relay.

Handling junk mail This section gives you options for handling junk mail entering your system and is left blank by the installer by default.

Refusing connections This gives you the option of rejecting connections from any IP address listed in Filters and is selected by the installer by default.

Service tab

On this tab you specify additional Internet Services settings.

Configuring the Internet gateway form

Complete this form as follows:

Service account	This is the name of your Service account and is auto-configured by the installer as “Internet”.
Internet Services priority	This sets the priority of Internet Services operations on this machine and is auto-configured by the installer.
Internet sessions	This sets the maximum number of incoming Internet protocol connections that Internet Services will accept. The installer sets a default value of 10. Many sites will need to increase this significantly. A value of roughly two-thirds of the server’s network sessions is reasonable. The server’s network sessions are configured using FirstClass Tools. See <i>FirstClass Tools Reference</i> in our online help for more information.
Configure	This allows you to view or update the settings for the Internet account.

Configuring the Internet gateway form

Most administrators will not need to configure the Internet gateway form. You only need to configure this form if your site will use gateways. The Internet gateway form is in the Gateways folder on the administrator’s Desktop.

Main tab

On this tab you enter general information about your account and Directory synchronization. In order for the gateway to connect to the server, the name entered in “Service name” must match the gateway name entered in “Service name” on the Service tab of the Basic Internet Setup form. See our online help for more information.

Note In a clustered Internet Services environment, you will have multiple instances of this form each with a different configuration as per your service. See our online help for more information.

Directory information button

Use this button to set the Internet Services gateway password for Directory services to work properly. By default, the password is blank. For security reasons, we recommend you enter a password immediately.

Note The password you set on the Internet gateway form must be the same as the one set in the `inetsvcs.fc` settings file. See our online help for more information.

Scheduling tab

Use this tab to configure the Internet Services connection schedule.

The Time A and Time B tabs control incoming E-mail (POP3), news (NNTP), and dial-up connectivity. The Demand tab controls when the service will connect based on the number of incoming E-mail queued or when the user logs in (depending on what you choose). For more information, see *Internet Services Administrator's Guide* and our online help.

Directory tab

Use this tab to list groups you want to be allowed to use this service. Leaving this field blank makes the service unrestricted.

Configuring the `inetsvcs.fc` file

Internet Services and FirstClass server on same machine

If Internet Services is installed on the same machine as the FirstClass server, you can connect with either the local machine IP address of 127.0.0.1 (default), or with the specific domain name or IP address for that machine. If this is your configuration, you don't need to modify the settings.

Internet Services and FirstClass server on separate machines

If Internet Services is installed on a different machine than the FirstClass server, you must enter the domain name or IP address of your server machine. This tells Internet Services where the FirstClass server is, enabling communication between the machines.

Configure the `inetsvcs.fc` file as follows:

Configuring the inetsvcs.fc file

1. Copy /Library/FirstClass Server/inetsvcs.fc to the user's Library/FirstClass/Settings folder.
2. Open the FirstClass client login form.
3. Click Browse and browse to the inetsvcs.fc file.
4. Click Open to bring that information into the Login form.
5. If necessary, click Setup and configure the file to connect to the FirstClass server.

Note The password used must match the gateway password.

The file selection must match the file name available in /Library/FirstClass Server/FCP.

6. Copy the configured inetsvcs.fc file and replace in /Library/FirstClass Server/.

Migrating FirstClass from Mac OS 9 to Mac OS X

The process of migrating from FirstClass on Mac OS 9 to FirstClass on Mac OS X involves migrating an existing FirstClass 7.1 post office on Mac OS 9 to an existing FirstClass 7.1 system on Mac OS X.

Preparing to migrate the FirstClass post office

Before you begin this process, therefore, you must complete upgrades and preparations on your Mac OS 9 system.

To prepare your FirstClass system on Mac OS 9, you must:

- upgrade your existing FirstClass system on Mac OS 9 to FirstClass version 7.1
For upgrade instructions, see *FirstClass 7.1 Upgrade ReadMe*.
- run a trash collection and ensure that there are no significant trash collection issues
- use the FirstClass Tools application to run the volume diagnostics and save the report as a text file
This will provide volume, license and configuration information for future use as needed.
- back up the post office.

Migrating the FirstClass post office

The actual migration of the existing FirstClass post office from Mac OS 9 to Mac OS X involves putting the post office content in the correct location for the Mac OS X system, and then

Migrating the FirstClass post office

converting the file names, permissions and ownership so that the Mac OS X system can recognize the post office.

Mac OS X post office locations

Under Mac OS 8 and 9, the primary post office is located under “FirstClass Post Office”, in the root folder of the primary volume. Under OS X, the primary post office must be located in an fcpo folder, under /Library/FirstClass Server/Volumes/Master. The FirstClass server identifies the primary volume by name.

Any secondary FirstClass post office volumes on Mac OS X must also be located in the /Library/FirstClass Server/Volumes folder. Secondary volume folders can have any name, each with their own fcpo subfolders or other folders as required, and can be browsed from the FirstClass administrator’s Desktop Volumes list. To define a new FirstClass folder there, you can create an empty folder and give it an arbitrary name.

Migrate the FirstClass post office as follows:

- 1.** *If you have not already done so,*
Install and configure the OS X version of FirstClass 7.1 on your Mac OS X system.

For instructions, see the Installing FirstClass and Configuring your system on Mac OS X chapters of this guide.
- 2.** Double-click the Status of FirstClass Services icon on the Finder Desktop to ensure that the FirstClass server is not running. If necessary, use the other icons to stop the server and/or Internet Services before proceeding.
- 3.** Delete the default fcpo post office folder under /Library/FirstClass Server/Volumes/Master/fcpo.

Note You can rename the default post office, but we recommend you delete it. As a default post office, it can easily be recreated if necessary by running the server installer again.
- 4.** Copy the master “FirstClass Post Office” from Mac OS 9 to Mac OS X as /Library/FirstClass Server/Volumes/Master/fcpo.

5. *If you have secondary volumes,*
Migrate the secondary volumes as follows:
- a) For each existing secondary fcpo volume, create a folder on Mac OS X, under
/Library/FirstClass Server/Volumes

Example:

/Library/FirstClass Server/Volumes/Volume 2

- b) Copy the secondary post office folder trees to these folders.

Note: You can create new (empty) volumes for FirstClass by creating new folders under “/Library/FirstClass Server/Volumes”, or by linking other existing folders or volumes there.

Converting file names, permissions, and ownership

Once the FirstClass post office files are physically in place, you must ensure the file permissions and ownership are set correctly, and convert file names to lowercase, by running the fcfixvol command from a Terminal shell window:

1. Enter the following at fcaadmin%:
`cd "/Library/FirstClass Server"`
2. Enter the following at the next prompt:
`./fcfixvol -c all all`

If prompted for a password, enter the password for the user fcaadmin.

The process may take several minutes depending on the number and size of the post office volumes. The terminal window will display the name of each post office it has recognized and tell you when it has finished setting the permissions and ownership on each.

Checking the migrated FirstClass post office

After the migration process is complete, check to ensure the migration was successful as follows:

1. Start the FirstClass server and Internet Services.

Checking the migrated FirstClass post office

2. Check the status using the Status of FirstClass Services alias on the Mac OS X desktop.
3. Open `/Library/FirstClass Server/fcsd.log` (the equivalent of the “console to log” file on Mac OS 9), and review any issues recorded.
4. Log into the FirstClass Mac OS X server through the client as administrator.
5. Choose File > Open on the administrator’s Desktop and open and check each of the objects in this menu to ensure the contents are as expected.
6. *If mirroring*
Ensure mirroring is progressing.

Note Once the mirror is synchronized, you should set up or practice your backup and restore strategies. On Mac OS X, the `fcfixvol` utility must be used every time you restore from backup or copy from another volume. For more information, see Setting post office file permissions and ownership using `fcfixvol` in the Administrating FirstClass chapter of this guide.

Adminstrating FirstClass

Once your FirstClass system is installed and configured, there is very little difference between running that system on Mac OS X and running it on any other platform. That's the nature, and the beauty, of FirstClass. You will find most of the information you will need to administrate your system on an ongoing basis in the online help system. This chapter details some notable exceptions to that rule, providing you with details about what is different about administrating FirstClass in a Mac OS X environment.

Using FirstClass volumes

The FirstClass server for Mac OS X introduces a new concept of logical FirstClass volumes. The Mac OS X operating system mounts volumes under a /Volumes path. The FirstClass server could use this list directly, however that would remove the flexibility of allowing you to control what volumes are visible to FirstClass administrators who have access to the Volumes list. This is important not only for security reasons, but also for performance reasons. It is important for you to be able to insert CDs and DVDs or mount network volumes without having these appear automatically to the FirstClass server.

The FirstClass Volumes list

The FirstClass server therefore allows you to define an explicit list of volumes accessible to the server. These need not correspond directly to physical drives, but could also be folders or symbolic links to any location visible in the Mac OS X file system hierarchy. For this reason, they are referred to as logical volumes.

Note Although logical FirstClass volumes can be symbolic links to any location, the fcpo (FirstClass post office) folder in each volume and the files contained

Setting post office file permissions and ownership using `fcfixvol`

within that folder must be normal folders and files rather than symbolic links.

Logical FirstClass volumes are stored within the FirstClass Server folder under `/Library`, in a subfolder called `Volumes`. Any folder (or symbolic link to a folder) in this `Volumes` folder is considered to be a logical FirstClass volume, and will show up in the FirstClass Volumes list on the administrator's Desktop. An additional entry corresponding to the root of the Mac OS X file system will automatically appear in the FirstClass Volumes list.

Uses of logical volumes

In addition to being able to refer to multiple specific physical drives from FirstClass, logical FirstClass volumes can be used to partition users and/or conferences into logical groups, such as a separate logical volume for Internet news groups, that can later be split into separate physical devices. To do this physical split at a later date, you would move the files to the desired location and replace the FirstClass folder with a link to the other location in the file system.

Logical volumes also allow multiple former Mac OS server volumes to be merged onto one or more physical drives. To do this, put the post offices in separate folders under the `Volumes` folder.

And finally, they also leverage one of the greatest strengths of UNIX-based systems, the logical union of different objects under the single umbrella known as the root file system. Defining a FirstClass volume as either a folder in the file system or a link to an arbitrary location in the root file system allows for maximum flexibility.

Setting post office file permissions and ownership using `fcfixvol`

Any time you copy a post office from one volume to another or restore from a backup, you must afterward use the `fcfixvol` utility to set the permissions on the files and folders in the post office.

Use `fcfixvol` as follows:

1. Choose Go > Applications.
2. Double-click the Terminal application in the Utilities folder.
3. Enter the following at fadmin%:
`cd "/Library/FirstClass Server"`
4. Enter the following at the next prompt:
`./fcfixvol <volume > <fcpo>`

Note To apply to all volumes, or all post offices on a volume, substitute “all” for either parameter. For example, to apply this command to all post offices on all volumes, use:

```
./fcfixvol all all
```

Other examples:

```
./fcfixvol Master all
```

```
./fcfixvol Master fcpo8001
```

Running `fcfixvol` with a missing argument displays all possible values for that argument on that FirstClass system.

The process may take several minutes depending on the number and size of the post office volumes. The terminal will display the name of each post office it has recognized and tell you when it has finished setting the permissions and ownership on each.

Collecting activity statistics

FirstClass lets you collect daily server and Internet statistics on selected user activities. This can help you see how users are using their FirstClass environment and may also help when troubleshooting an ongoing system problem.

Information about the types of statistics you can track, how to specify which statistics you want to track and how to view user statistics files is available in our online help.

Collecting activity statistics

For FirstClass on Mac OS X, the statistics folder path you set when completing the Statistics Control form must be an fadmin/admin writable directory. The recommended path is /Library/FirstClass Server/Stats.

After creating such a folder, configure this path in the server as follows:

- 1.** Open the Reports folder on the administrator's Desktop.
- 2.** Double-click the Statistics Control form.
- 3.** Type /Library/FirstClass Server/Stats in the Statistics folder path.

Appendix - FirstClass File Locations on Mac OS X

It is recommended that you review and understand the ownership, nature, and location of the FirstClass files and folders (directories) on Mac OS X. While familiarizing yourself with the FirstClass server for OS X, you may find it convenient to print this information and post it next to the server computer for reference.

fcadmin is the OS X user who executes and manages the FirstClass server, Internet Services and FirstClass Tools. The fcadmin user belongs to the OS X admin group and owns all of the files.

The FirstClass server (named fcsd) runs as a full-fledged UNIX daemon (service), while Internet Services (fcisd) executes in the background as an application. Both are launched in the background automatically at operating system startup time, if you selected that option during installation, and neither requires a user login.

Several root directories (those that start with “/”) are hidden from the Finder. You must use the Finder’s Go > Go to menu command, or Command+Shift+G, or the Terminal utility, to see folders such as /usr and /Volumes.

Locations:

- `/Library/FirstClass Server/`
all executable-related files for both fcsd and fcisd
- `/Library/FirstClass Server/fcfixvol`
a FirstClass fcpo utility to set file permissions and ownership and to convert file names to lowercase. May be executed at any time.

- `/Library/FirstClass Server/fcisd.log`
`/Library/FirstClass Server/fcisd.old`
current and prior Internet Services logs since launch, if IS installed on the computer
- `/Library/FirstClass Server/fcp`
the fcp files that inetsvcs.fc uses to establish a connection to the server
- `/Library/FirstClass Server/fcsd.log`
`/Library/FirstClass Server/fcsd.old`
current and prior server logs since launch. Equivalent to legacy console to log.
- `/Library/FirstClass Server/inetsvcs.fc`
Internet Services settings file, if IS installed on the computer
- `/Library/FirstClass Server/Volumes/Master/fcpo`
the master logical volume
- `/Library/FirstClass Server/Volumes/.../fcpo`
a secondary logical volume if present
- `/Library/FirstClass Server/Volumes/.../fcpo8001`
the mirror logical volume if present

Any or all entries under `/Library/FirstClass Server/Volumes/` may be links to other directories or volumes, but the actual fcpo folders, and the folders underneath fcpo, cannot be symbolic links.

Note Ensure fcfixvol utility is run at least once on all logical FirstClass volumes before the server is launched.

- `/Library/StartupItems/FirstClass Internet Services`
installed if IS auto launch selected during installation. This folder can be deleted to stop Internet Services from being auto-started at system startup time.
- `/Library/StartupItems/FirstClass Server`
installed if server auto launch selected during installation.

This folder can be deleted to stop the core server from being auto started at system startup time.

- `Library/FirstClass Server/Stats`

If desired, you must manually create this folder, as described in Collecting activity statistics in the Administrating FirstClass chapter of this guide. The above is the recommended path for this folder. It is not created by default.

- `/usr/sbin/fcctl`
`/usr/sbin/fcisctl`

the server and Internet Services control scripts used from a Terminal shell, by the desktop icons, and by the StartupItems scripts. These are not normally visible from the Finder desktop. Choose Go > Go to Folder (Command+Shift+G) and enter `/usr/sbin` to see these files.

Note: This folder also includes many OS X system files that should not be modified or deleted.

- `/Volumes`
lists all available OS X desktop-mounted volumes. Do not confuse `/Volumes` with `/Library/FirstClass Server/Volumes`.

