

FirstClass Web Services Install Guide

12.1.0.037

Product Released: 2015-09-30

Install Guide Revised: 2015-09-30

Contents

1	Component Information:	3
2	Install Instructions	3
2.1	Windows Install Instructions:	4
2.1.1	Installation Prerequisites (one-time requirements):	4
2.1.2	Installation Instructions	5
2.1.3	Starting & connecting to FirstClass Web Services:	8
2.1.4	Connecting to your FCWS server.	9
2.2.1	OS X Installation	9
2.2.2	Installation Prerequisites (one-time requirements):	9
2.2.3	Installation Instructions	10
2.2.4	Starting & connecting to FirstClass Web Services	13
2.3.1	Linux Installation	13
2.3.2	Installation Prerequisites (one-time requirements):	14
2.3.3	Installation Instructions	14
2.3.4	Starting & connecting to FirstClass Web Services	18
3	Contact Information	19

1 Component Information:

- FirstClass Web Services1210037N.msi (Windows - FirstClass Web Services MSI installer)
- fcws_12.1.0.037N-osx-py2.7.dmg (OS X - Disk image of the FirstClass Web Services installer)
- fcws-12.1.0.037N-linux-py2.6.tgz (Linux - Tar archive of the FirstClass Web Services installer)

Required Python packages which are included with and will be installed if necessary by the above mentioned installers:

Package	Distribution Source	Reason for inclusion
CherryPy-3.2.4.tar.gz	http://www.cherrypy.org/	A WSGI compliant web server included as a requirement for non Apache based web server installs.
Mako-0.7.3.tar.gz	http://www.makotemplates.org/	Directly required by the FCWS product.
MarkupSafe-0.15.tar.gz	https://pypi.python.org/pypi/MarkupSafe	A package required by the Mako package above.
WebOb-1.4.tar.gz	http://webob.org/	Directly required by the FCWS product.
setuptools-0.6c11.tar.gz	https://pypi.python.org/pypi/setuptools	An installer packaging tool, which simplifies and adds flexibility to installing python based packages.
lxml-3.2.3.tar.gz	https://pypi.python.org/pypi/lxml/3.2.3	Powerful and Pythonic XML processing library combining libxml2/libxslt with the ElementTree API.

2 Install Instructions

The following section contains information regarding the installation of FirstClass Web Services 12.1 build 12.1.0.037

2.1 Windows Install Instructions:

Installation Overview

The attached FirstClass Web Services1210037N.msi ' file is for installing/updating the FirstClass Web Services on Windows.

2.1.1 Installation Prerequisites (one-time requirements):

On Windows systems, FCWS requires Python 2.7.x but NOT version 3.x. If you have Python 3 installed, you will either have to remove it, or change the path for python execution to point to the 2.7 executable after installation.

The below instructions assume that the install is on your C:\ drive, please adjust accordingly.

- Download and install the [python-2.7.8.amd64.msi installer](#).

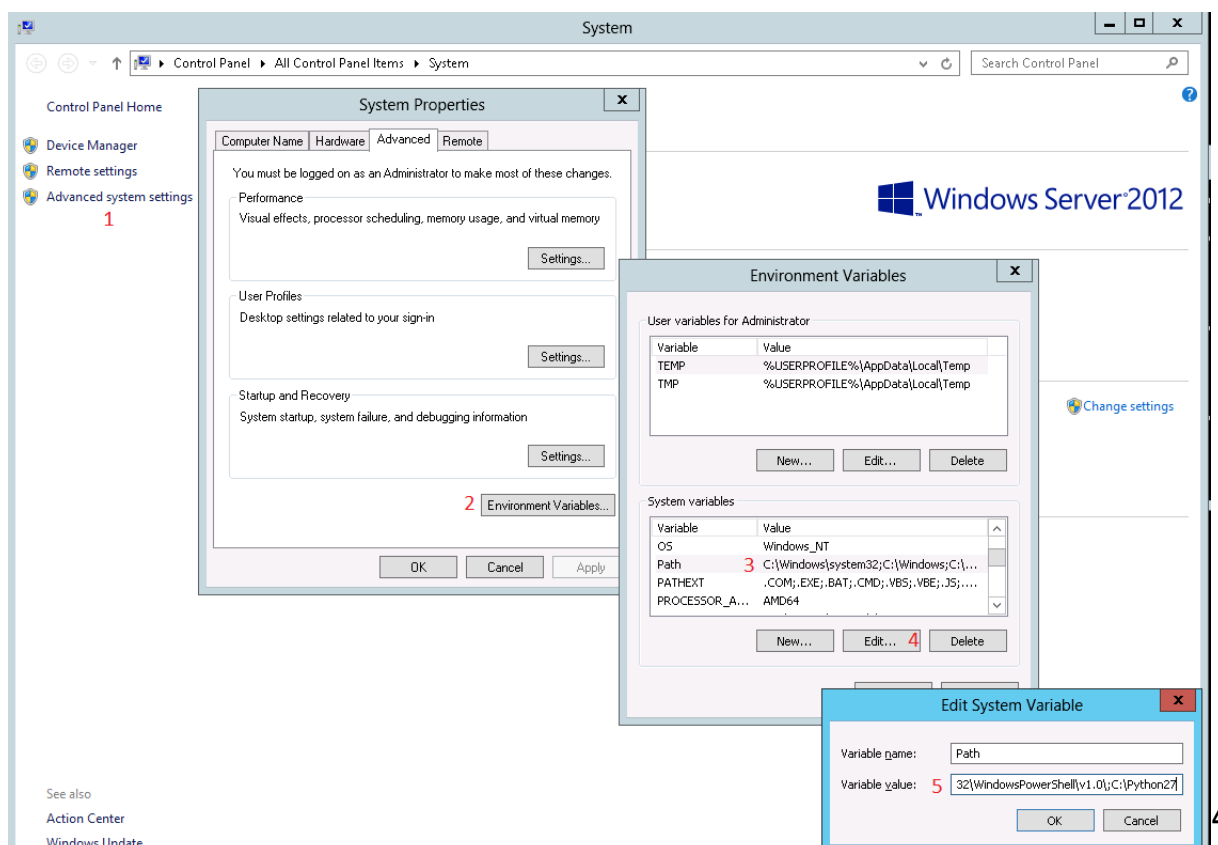
For simplicity sake, run the installer and accept all defaults. This will create a Python27 folder at the root level of your C:\drive.

- Add C:\Python27 to your path environment variable

For Windows 2008/2012:

Add C:\Python27 to your path environment variable

Add C:\Python27 as an additional path to your System Path environment variable.



Above is showing how on a Windows 2008/2012 server to change the system path variable.

Right click on "My Computer" and choose **Properties**

1. Click on **Advanced system setting**
2. Click on **Environment Variables**
3. Click on **Path** in the **System Variables** section
4. Click on Edit
5. Add ;C:\Python27 in the Variable Value field and click on OK
 - Restart your computer and test by executing Python

You need to restart your computer to make sure that the path is recognized.

You can test this by typing the following in a cmd window:

```
python -V
```

If it is present it should return the installed version such as:


```
python 2.7.8
```

2.1.2 [Installation Instructions](#)

- Download and run the attached "FirstClass Web Services1210031.msi" installer
- This will install the necessary files and start the Python based installer script in a command prompt window. Please wait for the python install script to complete.
- **Note:** If upgrading, you can choose to use the default install location or change it to install into the same location you have already installed it.
 - You will now be presented with a LXML installer. Complete all dialog windows with default options
 - After the installer script has completed, you should have the following structure, and will be able to start the FirstClass Web Services server by double clicking the startfcws.bat

Contents:

- Program Files\FirstClass Web Services\fcws-12.1.0.031N-win package directory.
- "startfcws.bat" is a preconfigured startup script for starting the FirstClass Web Services. This script can be customized and does not get overwritten by upgrades.
- "PkgArchives" is used to archive the previously installed package so that any customized config does not get lost. The following user configuration is copied from the archived package during the install;
- User added icons in the fcws/images/icons folder.
- fcws.cfg
- Any *.pem files in the root of the fcws folder.
- Any user added html files in the fcws/localized/<lang>/user/html' folders.


 **NOTE:** If this is a new install you will need to configure the following items:


1. The 'fcws.cfg' file located in the "C:\Program Files\FirstClass Web Services\fcws" folder.

This file is used to configure which FirstClass servers your instance of Web Services can connect to and on which FCP port.

FCSPort - The FCP port over which FCWS will connect to your FirstClass Server

ValidFCServers - A ';' delimited list of <Server Label>,<Server Address> pairs. The label will be displayed to the user at the login screen in a drop down list only if more than one server option exists. Example: testServer,192.168.1.54;FirstClass,fc.mydomain.com

 **NOTE 1:** If there is only one entry in the list, the drop down list on the login screen will be suppressed

 **NOTE 2:** If administrators wish to make their system content available via the new API, one of the entries in the list must be **default**. For Example:

ValidFCServers=default,fc.mydomain.com;testServer,192.168.1.54 or simply
ValidFCServers=default,fc.mydomain.com if single server

WebSocketEnabled - This option should currently be set to 1 if running the CherryPy web server, and 0 if running an Apache web server.

LoggingLevel - Current values are: DEBUG,INFO,WARN,ERROR,CRITICAL,FATAL

fcws.cfg sample:

```
FCSPort=510
ValidFCServers=default,fc.mydomain.com
WebSocketEnabled=1
```

2. The 'startfcws.bat' file located in the "C:\Program Files\FirstClass Web Services" folder.

This file is currently in place to start the installed web server with the proper configuration.

With the default installed file it should start a web server on port 80. If you then add SSL certificates as mentioned below, then it will start a HTTPS server on port 443.

Currently with this initial release it is configured for starting the CherryPy server via passing parameters to the cherry.pyc file in the fcws folder.

By default it only tries to start a HTTPS server on port 443 unless no SSL certificate files are found in which case it falls back to starting a HTTP server on port 80.

You can specify it starts a HTTP server in addition to the HTTPS server by adding the '-e' as an arg.

The startup parameters currently supported are as follows:

Usage: cherry.pyc [options]

Options:

-h, --help show this help message and exit

-H HOST, --host=HOST

 Specify the host name for the CherryPy Server. 0.0.0.0 will serve on all interfaces.
(default: 0.0.0.0)

-f FCS_PORT, --fcserverport=FCS_PORT

 Specify the FCP port number used to connect to the FirstClass Server. (default: 510)

-s SSL_PORT, --sslport=SSL_PORT

 Specify the SSL / HTTPS port number. (default: 443)

-k SSL_PRIVATE_KEY, --key=SSL_PRIVATE_KEY

 Specify the SSL key file name or path. (default: key.pem)

-c SSL_CERTIFICATE, --cert=SSL_CERTIFICATE

Specify the SSL cert file name or path. (default: cert.pem)

`-i SSL_CERTIFICATE_CHAIN, --intermediate=SSL_CERTIFICATE_CHAIN`

Specify the SSL intermediate certificate file name or
path. (default: none)

`-t SSL_THREAD_POOL, --sslthreads=SSL_THREAD_POOL`

Specify the number of threads for the SSL CherryPy Server. (default: 500)

`-e, --enablehttp`

Enable the HTTP server. (default: False)

`-p PORT, --httpport=PORT`

Specify the HTTP port number. (default: 80)

`--httpthreads=HTTP_THREAD_POOL`

Specify the number of threads for the HTTP CherryPy Server. (default: 100)

(ie.) Modifying the startup line in the 'startfcws.bat' file to either of the following would cause the web server to start up both a HTTPS server on port 8443 and a HTTP server on port 8000.

Examples:

```
C:\python27\python.exe "C:\Program Files\FirstClass Web Services\fcws\cherry.pyc" -H 192.168.1.111 -s 8443 -ep 8000
```

```
C:\python27\python.exe "C:\Program Files\FirstClass Web Services\fcws\cherry.pyc" --host=192.168.1.111 --sslport=8443 --enablehttp --httpport=8000
```

Note: On pre Windows 2008 server installations, the path above to the cherry.pyc file is expanded to the actual path through the Python site packages.

2.1.3 Starting & connecting to FirstClass Web Services:

For starting FirstClass Web Services, you can double click the 'startfcws.bat' file located in the "C:\Program Files\FirstClass Web Services" folder.

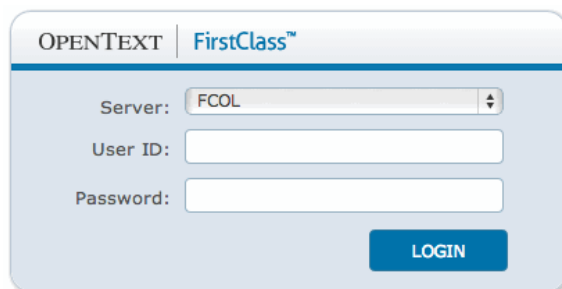
Pressing CTRL+C will stop the FirstClass Web Services.

2.1.4 Connecting to your FCWS server.

Open a web browser and type in the URL which points to the machine on which you installed FirstClass Web Services

Example: `http://www.mydomain.com` or if you configured it to start on an alternate port;
`http://www.mydomain.com:8080`

If all has gone well, you should be presented with a log on screen such as:

The image shows a web browser window with the OpenText FirstClass logo at the top. Below the logo, there is a login form with three input fields: 'Server:' with a dropdown menu showing 'FCOL', 'User ID:', and 'Password:'. A blue 'LOGIN' button is located at the bottom right of the form.

2.2.1 OS X Installation

Installation Overview

The attached `fcws-12.1.0.037N-osx-py2.7.dmg` files are for installing/updating the FirstClass Web Services on OS X.

2.2.2 Installation Prerequisites (one-time requirements):

- Python 2.7 is required.
- You can test which version is currently running as default by typing the following in a terminal window:

```
sudo python -V
```

If it is present it should return the installed version such as:

```
Python 2.7.5
```

If your version is reported as 2.6 you will need to change the default version of Python by running the following command:

```
sudo defaults write com.apple.versioner.python Version 2.7
```

- The FirstClass Web Services installer must be run as a user with a userid of 'fcadmin' (and any full name, but "FirstClass Administrator" is recommended). This user must be a member of the 'admin' group.

2.2.3 Installation Instructions

- Download the attached disk image fcws-12.1.0.037N-osx-py2.7.dmg and extract it on your Web Services machine.
- Once the image is mounted (fcws-12.1.0.037N-osx-py2.7.dmg), execute the "installer.command" by double clicking it.
- Once the installation is complete you can eject the mounted image.

After having run the installer script, you should have the following structure:

A "FirstClass Web Services" folder is created at "/Library/FirstClass Web Services".

Contents:

- Library/FirstClass Web Services/fcws-12.1.0.037N-OSX/ package directory.
- "startfcws.command" is a preconfigured startup script for starting the FirstClass Web Services. This script can be customized and does not get overwrote by upgrades. This script is also called by the 'fcwsctl' control script.
- "PkgArchives" is used to archive the previously installed package so that any customized config does not get lost. The following user configuration is copied from the archived package during the install;
- User added icons in the fcws/images/icons folder.
- fcws.cfg
- Any *.pem files in the root of the fcws folder.
- Any user added html files in the fcws/localized/<lang>/user/html' folders.

NOTE: If this is a new install you will need to configure the following items.

1. The 'fcws.cfg' file located in the "/Library/FirstClass Web Services/fcws" folder.

This file is used to configure which FirstClass servers your instance of Web Services can connect to and on which FCP port.

FCSPort - The FCP port over which FCWS will connect to your FirstClass Server

ValidFCServers - A ';' delimited list of <Server Label>,<Server Address> pairs. The label will be displayed to the user at the login screen in a drop down list only if more than one server option exists.
Example: testServer,192.168.1.54;FirstClass,fc.mydomain.com

NOTE 1: If there is only one entry in the list, the drop down list on the login screen will be suppressed

NOTE 2: If administrators wish to make their system content available via the new API, one of the entries in the list must be **default**. For Example:

ValidFCServers=default,fc.mydomain.com;testServer,192.168.1.54 or simply
ValidFCServers=default,fc.mydomain.com if single server

WebSocketEnabled - This option should currently be set to 1 if running the CherryPy web server, and 0 if running an Apache web server.

LoggingLevel - Current values are: DEBUG,INFO,WARN,ERROR,CRITICAL,FATAL

fcws.cfg sample:

FCSPort=510

ValidFCServers=default,fc.mydomain.com

WebSocketEnabled=1

2. The 'startfcws.command' file located in the "/Library/FirstClass Web Services" folder.

This file is currently in place to start the installed web server with the proper configuration.

With the default installed file it should start a web server on port 80. If you then add SSL certificates as mentioned below, then it will start a HTTPS server on port 443.

Currently with this initial release it is configured for starting the CherryPy server via passing parameters to the cherry.pyc file in the fcws folder.

By default it only tries to start a HTTPS server on port 443 unless no SSL certificate files are found in which case it falls back to starting a HTTP server on port 80.

You can specify it starts a HTTP server in addition to the HTTPS server by adding the '-e' as an arg.

The startup parameters currently supported are as follows:

Usage: cherry.pyc [options]

Options:

-h, --help

Shows this help message and exit

-H HOST, --host=HOST

Specify the host name for the CherryPy Server. 0.0.0.0 will serve on all interfaces. (default: 0.0.0.0)

-f FCS_PORT, --fcserverport=FCS_PORT

Specify the FCP port number used to connect to the FirstClass Server. (default: 510)

-s SSL_PORT, --sslport=SSL_PORT

Specify the SSL / HTTPS port number. (default: 443)

-k SSL_PRIVATE_KEY, --key=SSL_PRIVATE_KEY

Specify the SSL key file name or path. (default: key.pem)

-c SSL_CERTIFICATE, --cert=SSL_CERTIFICATE

Specify the SSL cert file name or path. (default: cert.pem)

-i SSL_CERTIFICATE_CHAIN, --intermediate=SSL_CERTIFICATE_CHAIN

Specify the SSL intermediate certificate file name or path. (default: none)

-t SSL_THREAD_POOL, --sslthreads=SSL_THREAD_POOL

Specify the number of threads for the SSL CherryPy Server. (default: 500)

-e, --enablehttp

Enable the HTTP server. (default: False)

-p PORT, --httpport=PORT

Specify the HTTP port number. (default: 80)

--httpthreads=HTTP_THREAD_POOL

Specify the number of threads for the HTTP CherryPy Server. (default: 100)

(ie.) Modifying the startup line in the 'startfcws.command' file to either of the following would cause the web server to start up both a HTTPS server on port 8443 and a HTTP server on port 8000

Example:

```
/usr/bin/python2.7 "/opt/FirstClass Web Services/fcws/cherry.pyc" -H 192.168.1.111 -s 8443 -ep 8000
```

```
/usr/bin/python2.7 "/opt/FirstClass Web Services/fcws/cherry.pyc" --host=192.168.1.111 --  
sslport=8443 --enablehttp --httpport=8000
```

2.2.4 [Starting & connecting to FirstClass Web Services](#)

For starting and stopping FirstClass Web Services, you will find a 'fcwsctl' control script under /usr/sbin.

For example, you can start the FirstClass Web Services with '/usr/sbin/fcwsctl start', and stop the FirstClass Web Services with '/usr/sbin/fcwsctl stop'.

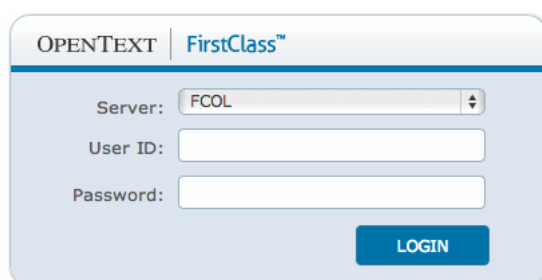
Check status with '/usr/sbin/fcwsctl status'.

Connecting to your FCWS server.

Open a web browser and type in the URL which points to the machine on which you installed FirstClass Web Services

Example: <http://www.mydomain.com> or if you configured it to start on an alternate port;
<http://www.mydomain.com:8080>

If all has gone well, you should be presented with a log on screen such as:

A screenshot of the FirstClass login interface. At the top, there is a header with 'OPENTEXT' and 'FirstClass™'. Below this, there are three input fields: 'Server:' with a dropdown menu showing 'FCOL', 'User ID:', and 'Password:'. A blue 'LOGIN' button is positioned at the bottom right of the form.

2.3.1 [Linux Installation](#)

Installation Overview

The attached fcws_12.1.0.037N-linux-py2.6.tgz file is for installing/updating the FirstClass Web Services on Linux.

- **Note** that the majority of our testing for this product thus far has centered on the Cent OS 6.3 Linux distribution, but it should run on other distributions as well if all the requirements are met.

2.3.2 [Installation Prerequisites \(one-time requirements\):](#)

- The FirstClass Web Services installer must be run as a user with a userid of 'fcadmin' (and any full name, but "FirstClass Administrator" is recommended). This user must be a member of the 'adm' group.
- After creating this user and adding it to the 'adm' group, log out and back in as 'fcadmin'. Create this group first, if it does not already exist.
- Python 2.6 is required. On Linux this will in most cases be already present even if it is not the default Python version.
- You can test this by typing the following in a terminal window:

```
python2.6 -V
```

- If it is present it should return the installed version such as:

```
Python 2.6.7
```

2.3.3 [Installation Instructions](#)

Ensure the 'fcadmin' account has been created as per the instructions above, that the account is a member of the 'adm' group, and that you have logged out and back in as 'fcadmin'. This is required to ensure that the 'adm' group change is applied.

- Download the attached (fcws_12.1.0.037N-linux-py2.6.tgz) tar file.
- Start a shell Terminal window, and "cd" to your download location.
- Extract the files in the installer tar file, using this command:


```
tar xzf fcws_12.1.0.037N-linux-py2.6.tgz
```

- "cd" into installer package directory as in the below example.

```
cd fcws_12.1.0.037N-linux-py2.6
```

- Start the installer, and answer the prompts as asked:

`./installer`

 **Note:** If your fcadmin account does not have sudoer privileges you will be asked to re-run the installer after first becoming "root" by executing the "su" command.

- Once the installation is complete you can delete the temporary package directory and downloaded tar file.

After having run the installer script, you should have the following structure:

- A "FirstClass Web Services" folder is created at `"/opt/FirstClass Web Services"`.

Contents:

- `opt/FirstClass Web Services/fcws-12.1.0.037N-linux/` package directory.
- `"startfcws.command"` is a preconfigured startup script for starting the FirstClass Web Services. This script can be customized and does not get overwrote by upgrades. This script is also called by the `'fcwsctl'` control script.
- `"PkgArchives"` is used to archive the previously installed package so that any customized config does not get lost. The following user configuration is copied from the archived package during the install;
- User added icons in the `fcws/images/icons` folder.
- `fcws.cfg`
- Any `*.pem` files in the root of the `fcws` folder.
- Any user added html files in the `fcws/localized/<lang>/user/html'` folders.
 - **NOTE:** If this is a new install you will need to configure the following items:

1. The `'fcws.cfg'` file located in the `"/opt/FirstClass Web Services/fcws"` folder.

This file is used to configure which FirstClass servers your instance of Web Services can connect to and on which FCP port.

FCSPort - The FCP port over which FCWS will connect to your FirstClass Server

ValidFCServers - A ';' delimited list of <Server Label>,<Server Address> pairs. The label will be displayed to the user at the login screen in a drop down list only if more than one server option exists. Example: testServer,192.168.1.54;FirstClass,fc.mydomain.com

- **NOTE 1:** If there is only one entry in the list, the drop down list on the login screen will be suppressed
- **NOTE 2:** If administrators wish to make their system content available via the new API, one of the entries in the list must be **default**. For Example:

ValidFCServers=default,fc.mydomain.com;testServer,192.168.1.54 or simply
ValidFCServers=default,fc.mydomain.com if single server

WebSocketEnabled - This option should currently be set to 1 if running the CherryPy web server, and 0 if running an Apache web server.

LoggingLevel - Current values are: DEBUG,INFO,WARN,ERROR,CRITICAL,FATAL

fcws.cfg sample:

```
FCSPort=510
ValidFCServers=default,fc.mydomain.com
WebSocketEnabled=1
```

2. The 'startfcws.sh' file located in the "/opt/FirstClass Web Services" folder.

This file is currently in place to start the installed web server with the proper configuration.

With the default installed file it should start a web server on port 80. If you then add SSL certificates as mentioned below, then it will start a HTTPS server on port 443.

Currently with this initial release it is configured for starting the CherryPy server via passing parameters to the cherry.pyc file in the fcws folder.

By default it only tries to start a HTTPS server on port 443 unless no SSL certificate files are found in which case it falls back to starting a HTTP server on port 80.

You can specify it starts a HTTP server in addition to the HTTPS server by adding the '-e' as an arg.

The startup parameters currently supported are as follows:

Usage: cherry.pyc [options]

Options:

-h, --help

show this help message and exit

-H HOST, --host=HOST

Specify the host name for the CherryPy Server. 0.0.0.0 will serve on all interfaces. (default: 0.0.0.0)

-f FCS_PORT, --fcserverport=FCS_PORT

Specify the FCP port number used to connect to the FirstClass Server. (default: 510)

-s SSL_PORT, --sslport=SSL_PORT

Specify the SSL / HTTPS port number. (default: 443)

-k SSL_PRIVATE_KEY, --key=SSL_PRIVATE_KEY

Specify the SSL key file name or path. (default: key.pem)

-c SSL_CERTIFICATE, --cert=SSL_CERTIFICATE

Specify the SSL cert file name or path. (default: cert.pem)

-i SSL_CERTIFICATE_CHAIN, --intermediate=SSL_CERTIFICATE_CHAIN

Specify the SSL intermediate certificate file name or path. (default: none)

-t SSL_THREAD_POOL, --sslthreads=SSL_THREAD_POOL

Specify the number of threads for the SSL CherryPy Server. (default: 500)

e, --enablehttp

Enable the HTTP server. (default: False)

p PORT, --httpport=PORT

Specify the HTTP port number. (default: 80)

--httpthreads=HTTP_THREAD_POOL

Specify the number of threads for the HTTP CherryPy Server. (default: 100)

(ie.) Modifying the startup line in the 'startfcws.sh' file to either of the following would cause the web server to start up both a HTTPS server on port 8443 and a HTTP server on port 8000

Examples:

```
/usr/bin/python2.6 "/opt/FirstClass Web Services/fcws/cherry.pyc" -H 192.168.1.111 -s 8443 -ep 8000
```

```
/usr/bin/python2.6 "/opt/FirstClass Web Services/fcws/cherry.pyc" --host=192.168.1.111 --  
sslport=8443 --enablehttp --httpport=8000
```

[2.3.4 Starting & connecting to FirstClass Web Services](#)

For starting and stopping FirstClass Web Services, you will find a 'fcwsctl' control script under /usr/sbin.

For example, you can start the FirstClass Web Services with '/usr/sbin/fcwsctl start', and stop the FirstClass Web Services with '/usr/sbin/fcwsctl stop'.

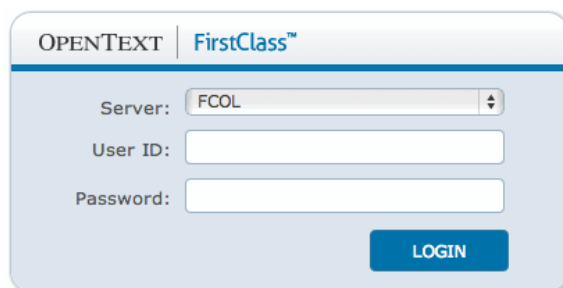
Check status with '/usr/sbin/fcwsctl status'.

Connecting to your FCWS server.

Open a web browser and type in the URL which points to the machine on which you installed FirstClass Web Services

Example: <http://www.mydomain.com> or if you configured it to start on an alternate port;
<http://www.mydomain.com:8080>

If all has gone well, you should be presented with a log on screen such as:

The image shows a web browser window displaying the FirstClass login interface. The window has a title bar with 'OPENTEXT' and 'FirstClass™'. The main content area has a light blue background. At the top, there is a header with 'OPENTEXT' and 'FirstClass™'. Below this, there are three input fields: 'Server:' with a dropdown menu showing 'FCOL', 'User ID:' with a text box, and 'Password:' with a text box. At the bottom right, there is a blue button labeled 'LOGIN'.

3 Contact Information

OpenText Corporation
275 Frank Tompa Drive
Waterloo, Ontario
Canada, N2L 0A1

Email: support@opentext.com

Knowledge Center: <https://knowledge.opentext.com>

For more information, visit www.opentext.com