



# **Conflux Professional**

## **Technical Documentation**

**Installation Guide**

**CentOS 4, RHEL 4**

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## Recommended Hardware Setup

Conflux Professional typically requires a processor based on the Intel x86 or AMD64 architecture to run on. The optimal amount of hardware resources depends on the number of concurrent users actively using the software installation. In the table below are listed recommended<sup>1</sup> hardware configurations for specific numbers of concurrent users.

Concurrent users <sup>2</sup>	Processor	RAM	Disk setup	LAN connectivity
1 to 10	Opteron 148	512 MB	SATA, 2 drives RAID-1	100 Mb/s
11 to 25	Opteron 148	512 MB	SATA, 2 drives RAID-1	100 Mb/s
26 to 50	Opteron 170	1 GB	SATA, 4 drives RAID-10	100 Mb/s
51 to 100	Opteron 170	1 GB	SCSI/FC, 4 drives RAID-10/RAID-5 <sup>3</sup>	100 Mb/s
101 to 200	Dual Opteron 270	2 GB	SCSI/FC, 4+ drives RAID-10/RAID-5	1 Gb/s
Above 200	Dual Opteron 270	4 GB	SCSI/FC, 4+ drives RAID-10/RAID-5	1 Gb/s

Tested and supported processor platforms are:

- Intel Pentium III, Pentium 4, Xeon
- AMD Opteron, Athlon64, Athlon64 X2, Athlon

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<sup>1</sup> The configurations listed are the recommendations for optimal use. The minimum hardware requirements are significantly lower – Conflux can also operate on a PIII based server with 256 MB RAM.

<sup>2</sup> Concurrent users does not equal the number of users enabled on the system. In fact the actual number of users on the system can be significantly higher than the number of concurrent users.

<sup>3</sup> When using RAID-5, use quality hardware RAID controllers to avoid performance loss

# Software Requirements

## Operating System

Conflux Professional is designed to run on Linux (or \*NIX in general) and Windows platforms on an x86-compatible architecture. In general, all Unix-like operating systems that support Apache2, Python and PostgreSQL will most likely be suitable for running Conflux, but official support is only offered according to the table below.

Operating system	x86 architecture	x86-64 architecture
SUSE Linux <sup>4</sup>	Yes	Yes
Red Hat Linux <sup>5</sup>	Yes	No
Fedora Core <sup>6</sup>	Yes	Yes
Red Hat Enterprise Linux <sup>7</sup>	Yes	Yes
Debian	Yes	Untested
Ubuntu <sup>8</sup>	Yes	Untested
Gentoo	Yes	Untested
Mandriva <sup>9</sup>	Yes	Untested
FreeBSD	Yes	Untested
Solaris <sup>10</sup>	Yes	Untested

## Software Components

The following software components, which are not included in the Conflux Professional software package, are required for running Conflux Professional:

- Apache web server  
Version: 2.0.x  
Alternate source: <http://httpd.apache.org/>  
Notes: under Linux, FreeBSD and Solaris, Conflux requires the Apache2 server to run in "prefork" mode. Any other run modes (including "worker") are not supported.
- Python programming language  
Version: 2.3.x or 2.4.x  
Alternate source: <http://www.python.org/>
- Python Imaging Library  
Version: 1.1.4 or above  
Alternate source: <http://www.pythonware.com/products/pil/>
- mod\_python, the Apache2-Python integration module  
Version: 3.0 or later (3.2 recommended on Linux, FreeBSD and Solaris)  
Alternate source: <http://www.modpython.org/>
- mxDateTime extensions for Python  
Version: 2.0.4 or later  
Alternate source: <http://www.egenix.com/files/python/mxDateTime.html>
- PostgreSQL database engine  
Version: 7.3.x or above (8.0 or above recommended)  
Alternate source: <http://www.postgresql.org/>  
Notes: support for v7.3 will be removed in Conflux Professional v1.6.

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<sup>4</sup> Versions 9.0 to 10.0

<sup>5</sup> Version 9

<sup>6</sup> Versions 1 to 4 with **SELinux turned off**

<sup>7</sup> Versions 3 to 4 with **SELinux turned off**

<sup>8</sup> Version 5.10

<sup>9</sup> Version 2006

<sup>10</sup> Version 10

- psychopg Python database adapter for PostgreSQL  
Version: 1.1.16 or later (do not mistakenly confuse with psychopg2)  
Alternate source: <http://www.initd.org/software/initd/psychopg/>
- wwWare toolset (for indexing MS Word documents)  
Version: 1.0.3 or later  
Alternate source: <http://sourceforge.net/projects/wwware/>
- xpdf (for indexing Adobe PDF documents)  
Version: 2 or later  
Alternate source: <http://www.foolabs.com/xpdf/>

# Installation

## ***Basic requirements and notes***

This installation guide assumes that you are installing Conflux Professional on a clean, up-to-date installation of Centos 4 or RHEL 4. If your server is not a clean installation, certain packages that this guide requires you to install may already exist. Such a situation should not affect the installation or operation of the Conflux software. However, if you do run into difficulties with the installation procedure, please contact Inversion Software's support team for assistance.

The installation procedure will install Conflux as a non-SSL-enabled service. If you wish to configure Conflux to use the encrypted SSL communications, please contact your system administrator for the guidelines or help. Due to many possible variations of SSL-enabled server configurations we feel that offering general instructions in this document for this would not be efficient.

## ***Installing required base packages***

The following RPM packages are required for a successful installation of Conflux professional:

- postgresql
- postgresql-server
- httpd
- mod\_python
- PyXML
- xpdf
- mx
- postgresql-contrib

For compiling required components, please also install:

- gcc
- make
- postgresql-devel
- python-devel
- libjpeg-devel
- zlib-devel

Please note that installing these packages will install multiple dependency packages as well. This is the expected behavior and there is no need to be alarmed.

Command line for installing base packages:

```
yum install postgresql postgresql-server httpd mod_python PyXML xpdf mx \
postgresql-contrib
yum install gcc make postgresql-devel python-devel libjpeg-devel zlib-devel
```

## ***Installing Conflux Professional***

Step 1: Download, compile and install the psychopg database adapter

```
wget http://inited.org/pub/software/psychopg/psychopg-1.1.21.tar.gz
tar -zxf psychopg-1.1.21.tar.gz
cd psychopg-1.1.21
./configure --with-postgres-include=/usr/include/postgresql/server/
make
make install
cd ..
rm -rf psychopg*
```

Step 2: Download, compile and install the PIL image library

```
wget http://effbot.org/downloads/Imaging-1.1.5.tar.gz
tar -zxf Imaging-1.1.5.tar.gz
```

```
cd Imaging-1.1.5
python setup.py build
python setup.py install
cd ..
rm -rf Imaging*
```

Step 3: Download the latest Conflux Professional release from our website. For this document, we will use v1.4.3 as an example.

```
cd /tmp/
wget http://files.conflux.ee/pro/1.4.3/x86_py24/confluxpro_crm_1.4.3.tar.gz
```

Step 4: Unpack the software

```
tar -zxf confluxpro_crm_1.4.3.tar.gz
tar -zxf confluxpro_files.tar.gz
```

Step 5: Install the files

```
mv lib/conflux/ /var/lib/
mv www/html/conflux/ /var/www/html/
```

Step 6: Clean up the installation package temporary files

```
rm -rf lib/ www/ confluxpro_files.tar.gz confluxpro_crm_1.4.3.tar.gz
```

Step 7: Set up file permissions

```
chown root:root -R /var/www/html/conflux/ /var/lib/conflux/
chmod 755 -R /var/www/html/conflux/ /var/lib/conflux/
chown apache:apache -R /var/lib/conflux/DOCR00T/ \
/var/lib/conflux/BACKUP/ /var/lib/conflux/DOCBACKUP/ /var/lib/conflux/tmp/
```

Step 8: Load the database schema

```
/etc/init.d/postgresql start (if Postgresql has never been started before)

su postgres
createuser -U postgres --pwprompt --encrypted --no-adduser --no-createdb conflux
createdb -U postgres --owner=conflux --encoding=UNICODE confluxpro
psql confluxpro postgres < /var/lib/conflux/conflux_pro.init.sql
exit
```

Step 9: Configure PostgreSQL to allow password-authenticated access

```
nano /var/lib/pgsql/data/pg_hba.conf
```

Before the following row...

```
local all all ident sameuser
```

... insert the following as the first row:

```
local confluxpro conflux md5
```

Save the file and exit the editor (ctrl-x).

Restart the PostgreSQL server

```
/etc/init.d/postgresql restart
```

Step 10: Configure Conflux database connection parameters

```
cd /var/lib/conflux/lib/
nano _ConfUser.py
```

Change the DB\_PASS value to the password you used in step 6 to create the "conflux" user, then save the file and exit the editor (ctrl-x).

Step 11: Update the database schema to the latest version

```
python conflux_updater.py
```

Step 12: Configure the background daemon and services

```
chkconfig postgresql on
chkconfig httpd on
chmod +x /var/lib/conflux/daemon/confluxd
cp /var/lib/conflux/daemon/confluxd /etc/init.d/
chkconfig --add confluxd
/etc/init.d/confluxd start
```

Step 13: Configure the Apache web server. Create a new file called /etc/apache2/conf.d/conflux

```
nano /etc/httpd/conf.d/conflux.conf
```

and insert the following contents:

```
<Directory /var/www/html/conflux/>
  DirectoryIndex index.py
  PythonPath "sys.path+['/var/lib/conflux/lib/']"
  AddHandler python-program .py
  PythonHandler _Publisher
  PythonDebug Off
  DirectoryIndex index.py index.html
</Directory>
```

Save the file and exit the editor (ctrl-x).

Restart the Apache2 web server

```
/etc/init.d/httpd restart
```

**NB!** If your qualified host name is not valid (output of "hostname -f"), please set the ServerName variable in /etc/httpd/conf/httpd.conf or the hostname to the

correct value and restart the Apache2 web server. If this is not done, Conflux pages that redirect users to new pages after performing some action (for example adding a new folder) will work incorrectly and redirect the users to a non-valid URL.

### ***Testing the new installation***

You can now log into Conflux at **<http://yourserver.com/conflux/>**

Administrator username is **superuser**

Administrator default password is **conflux**

**NB!** To avoid any security risks please change the password immediately after you log in.



## Upgrading

To update Conflux Professional 1.3 or later, download the appropriate upgrade packages from the Conflux website and follow the instructions included. To get support on issues related to upgrading, please contact Inversion Software OÜ with your support contract number and the version info for the existing and new Conflux versions. If you do not have a support contract, do not be afraid to contact anyway, however in such cases we cannot guarantee optimum response times.