# **Upgrade OpenEMR 2.8.3 Appliance To 3.0.1**

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#### LINK TO MANUAL IN PDF FORMAT

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Discussion Board: https://sourceforge.net/forum/?group\_id=60081

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## Introduction

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This is an extensive upgrade. I have decided to move away from Mandriva's OS to the Ubuntu server edition OS (8.04). The reason I did this is simply the maintenance Ubuntu provides. Ubuntu maintains this server release for four more years, while Mandriva seems to only maintain releases for about a year. Because of this, I think the move will be well worth it.

For users whom require a GUI desktop, the Ubuntu Server edition OS (8.04) does not come with a desktop, however it is easy to install one and is described in the user manual. The administration in the Ubuntu Server can be mostly done via Webmin, so the interface is still graphical.

There have also been marked changes to OpenEMR, most importantly FreeB, Sql-Ledger, and php-GACL are no longer required separate installations.

So this upgrade will consist of several steps. First we will upgrade to OpenEMR version 3.0.0 on the Mandriva OS. Then we will migrate the medical billing (sql-ledger) and access controls (php-gacl) into OpenEMR. Then we will migrate the updated version of OpenEMR into the new appliance (with Ubuntu server edition OS – 8.04).

# Please, back up all of your data, and use these instructions at your own risk.

## Step 1) Upgrade OpenEMR

Main TOC Link

- 1. Download openemr-3.0.1.tar.gz (version 3.0.1) from sourceforge at: <a href="http://sourceforge.net/project/showfiles.php?group\_id=60081">http://sourceforge.net/project/showfiles.php?group\_id=60081</a>
- 2. Enter below **bolded** instructions on command line as root user:

```
#log into root
su
#make backup directories
mkdir /backupopenemrandfreeb/2 8 3
#move old OpenEMR 2.8.2 to the backup directory
mv /var/www/html/openemr
   /backupopenemrandfreeb/2 8 3/openemr
#put the new OpenEMR 3.0.1 program in its place
cd /var/www/html
tar pxzvf /location/to/tar/openemr-3.0.1.tar.gz
mv openemr-3.0.1 /var/www/html/openemr
#secure OpenEMR
chown -Rf root:root openemr
#Restore the original directories
cp -fr
   /backupopenemrandfreeb/2 8 3/openemr/documents /
   var/www/html/openemr/
cp -fr /backupopenemrandfreeb/2 8 3/openemr/edi
   /var/www/html/openemr/
#Need to change some file/folder permissions
chown -R apache:apache
```

```
/var/www/html/openemr/interface/main/calendar/mod
   ules/PostCalendar/pntemplates/cache
chown -R apache:apache
   /var/www/html/openemr/interface/main/calendar/mod
   ules/PostCalendar/pntemplates/compiled
chown -R apache:apache /var/www/html/openemr/edi
chown -R apache:apache /var/www/html/openemr/era
chown -R apache:apache
   /var/www/html/openemr/documents
chown -R apache:apache /var/www/html/openemr/custom/
   letter templates
chown -R apache:apache
   /var/www/html/openemr/gacl/admin/templates c
chown -R apache:apache
   /var/www/html/openemr/library/freeb
#Now need to edit the new config files. There are seven files
   that need to be compared to your old config files:
   openemr/interface/globals.php,
   openemr/library/sqlconf.php, openemr/library/sql-
   ledger.inc, openemr/includes/config.php,
   openemr/library/acl.inc, openemr/gacl/gacl.ini.php, and
   openemr/qacl/qacl.class.php. The below instructions are
   specific for the openemr appliance(only the bolded files
   above require changing or copying). If you have made your
   own changes to the config files, then I'd recommend
   comparing them to ensure no other changes are needed.
   We will replace one file with the previous 2.8.3 config file
   and will edit four of the new 3.0.1 config files.
#replace new /var/www/html/openemr/library/sqlconf.php file
   with the old 2.8.3 file
cp -f
   /backupopenemrandfreeb/2 8 3/openemr/library/sqlco
   nf.php /var/www/html/openemr/library/sqlconf.php
#edit file /var/www/html/openemr/interface/globals.php:
mcedit /var/www/html/openemr/interface/globals.php
        #edit the following bolded variables:
        $webserver root = "/var/www/html/openemr";
        $sl dbname = 'openemr'; // sql-ledger database
            name
        $sl dbuser = 'sql-ledger'; // sql-ledger database login
        $sl dbpass = 'sql-ledger-password'; // sql-ledger
            database login password (click link for default
```

above password, which is the PostgreSQL

database password, and should be 'sqlledger')

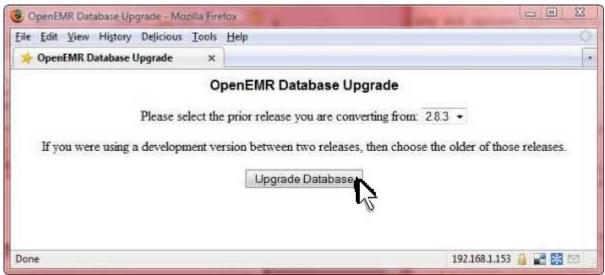
#### TEXT EDITOR SAVE AND EXIT

```
#edit file /var/www/html/openemr/includes/config.php:
mcedit /var/www/html/openemr/includes/config.php
        #edit the following bolded variables :
        $GLOBALS['oer config']['ws accounting']['enabled']
        $GLOBALS['oer config']['ws accounting']['username']
            = "openemr";
        $GLOBALS['oer config']['ws accounting']['password']
            = "openemrSqlLedgerpassword"; (click link for
            default above password, which is sql-ledger
            'openemr' user password, and should be
            "openemr")
TEXT EDITOR SAVE AND EXIT
#edit file /var/www/html/openemr/gacl/gacl.ini.php:
mcedit /var/www/html/openemr/gacl/gacl.ini.php
        #edit the following bolded variables :
        db host = "localhost"
        db user = "openemr"
        db password = "openemrMySQLpassword" (click
            link for default above password, which is mysgl
            'openemr' user password, and should be
            "openemr")
        db name = "openemr"
TEXT EDITOR SAVE AND EXIT
#edit file /var/www/html/openemr/gacl/gacl.class.php:
mcedit /var/www/html/openemr/gacl/gacl.class.php
        #edit the following bolded variables:
        var $ db host = 'localhost';
        var $ db user = 'openemr';
        var $ db password = 'openemrMySQLpassword';
            (click link for default above password, which is
            mysgl 'openemr' user password, and should be
            "openemr")
        var $ db name = 'openemr';
TEXT EDITOR SAVE AND EXIT
#Backup the mysql database into backup directory.
mkdir /backupopenemrandfreeb/2 8 3/mysgldatabase
mysqldump --opt --all-databases | gzip >
   /backupopenemrandfreeb/2 8 3/mysqldatabase/mysql
   backup.gz
```

# Step 2) Upgrade OpenEMR MySQL database

#### Main TOC Link

1. Run mysql upgrade script: <a href="http://localhost/openemr/sql upgrade.php">http://localhost/openemr/sql upgrade.php</a>



Select '2.8.3', then click 'Upgrade Database'.



This can take awhile. When 'Database upgrade finished' can be seen at bottom, then can close window.

## Step 3) Migrate php-GACL into OpenEMR

#### Main TOC Link

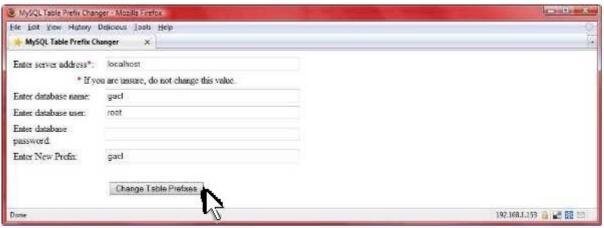
1. Enter below **bolded** instructions on command line as root user:

```
#log into root
su

#go to web directory and download the prefix script
cd /var/www/html/
wget http://bradymd.com/prefixMod.tar.gz
tar -xzvf prefixMod.tar.gz

#backup the gacl database before modifying it
mysqldump gacl > gaclBackup.sql
mv gaclBackup.sql
/backupopenemrandfreeb/2_8_3/mysqldatabase/
```

2. Run the downloaded modify database prefix script: <a href="http://localhost/prefixMod.php">http://localhost/prefixMod.php</a>



- 1) 'Enter server address:' -> 'localhost'.
- 2) 'Enter database name:' -> 'gacl'.
- 3) 'Enter database user:' -> 'root'.
- 4) 'Enter database password' -> put your root mysql password here (the default appliance does not have password here so left it blank).
- 5) 'Enter New Prefix' -> 'gacl'.
- 6) Click 'Change Table Prefixes'.



Should see this, then can close window.

3. Enter below **bolded** instructions on command line as root user:

#log into root

```
#delete the php table changer script
cd /var/www/html/
rm -f prefixMod.php
rm -f prefixMod.tar.gz

#place gacl database into file
mysqldump gacl > gacl.sql

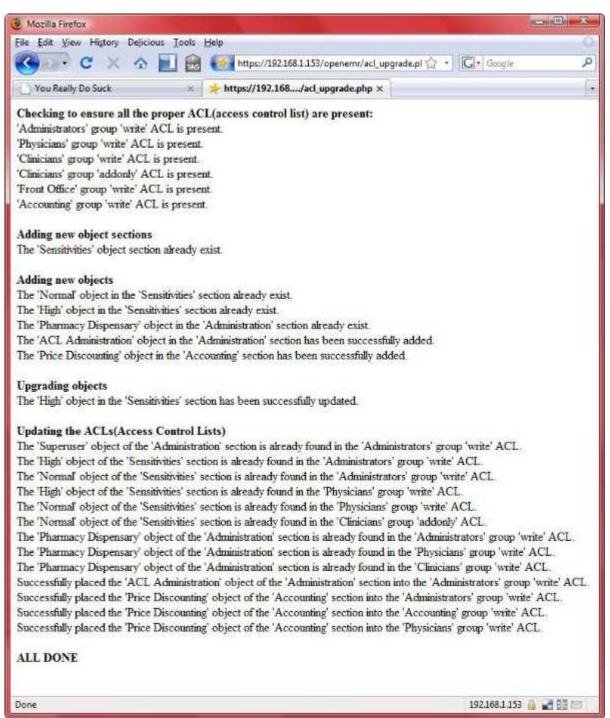
#migrate the gacl database into the openemr database
mysql openemr < gacl.sql

#remove and drop the old database
rm -f gacl.sql
mysqladmin drop gacl
-'y' to confirm</pre>
```

## **Step 4) Upgrade access controls**

Main TOC Link

1. Run access controls upgrade script: <a href="http://localhost/openemr/acl upgrade.php">http://localhost/openemr/acl upgrade.php</a>

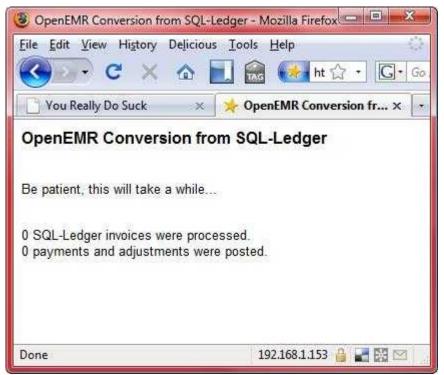


Should see this, then can close window.

## Step 5) Migrate Sql-Ledger into OpenEMR

Main TOC Link

1. Run Sql-Ledger migration script: <a href="http://localhost/openemr/sl">http://localhost/openemr/sl</a> convert.php



This can take awhile, can close when done. (note that zero records were processed in my example because I'm upgrading an empty openemr; if you have processed any billing then you will have records and it will take some time to finish).

2. Configure config file. Enter below **bolded** instructions on command line as root user:

```
#log into root
su

#edit file /var/www/html/openemr/includes/config.php:
mcedit /var/www/html/openemr/includes/config.php
    #edit the following bolded variables :
    $GLOBALS['oer_config']['ws_accounting']['enabled'] = 2;
TEXT EDITOR SAVE AND EXIT
```

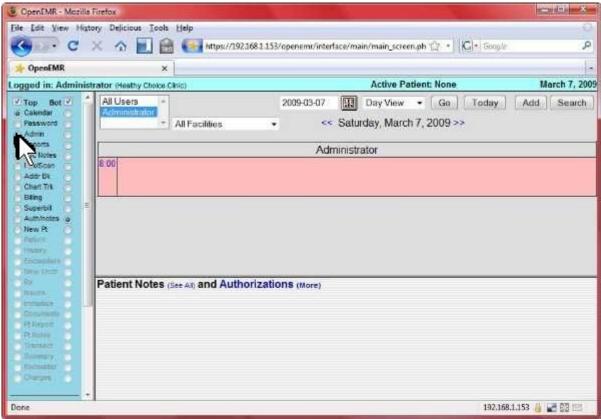
# Step 6) Migrate data out of the mandriva appliance

#### Main TOC Link

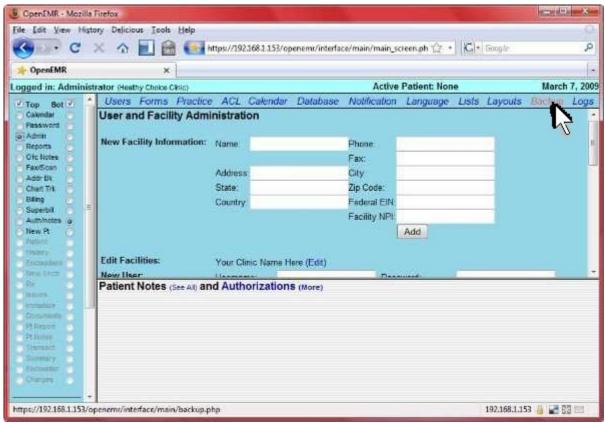
1. Get backup through openemr and save it outside your appliance. Open a browser outside your appliance and go into openemr: https://ApplianceIPaddress/openemr



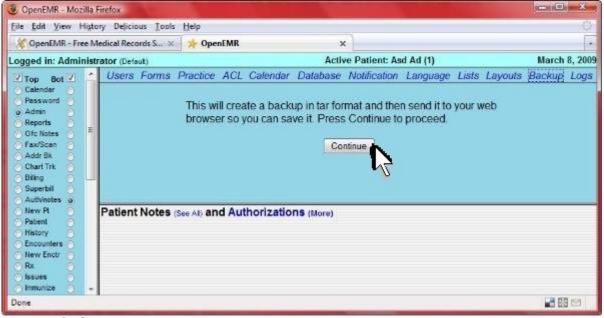
Login to openemr with 'admin' user.



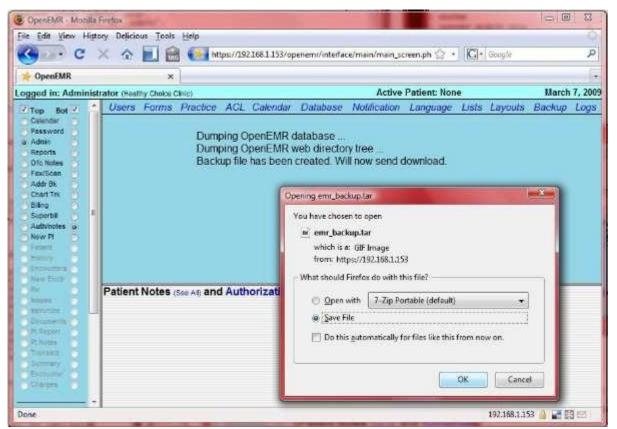
Click radio button to left of 'Admin'.



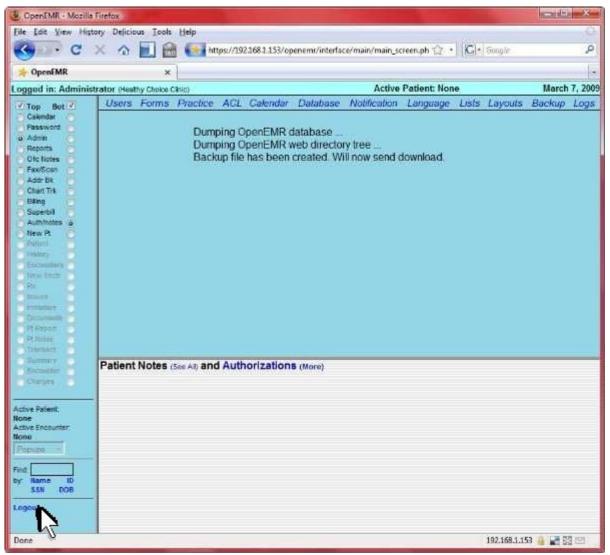
Click 'Backup'.



Click 'Continue'.



Toggle 'Save File', and click 'OK' to save on your computer (note you are not saving this on your appliance; you are saving it on your main computer).



You can now 'Logout', and close the window.

2. Shutdown your mandriva appliance for the last time!! (keep it around in case you left something on it). Enter below **bolded** instructions on command line as root user:

#log into root and then shutdown su shutdown -h now

## Step 7) Download the OpenEMR 3.0.1 Appliance

#### Main TOC Link

1. You can download Appliance via Direct Download or Torrent (file is 760 MB, which extracts to 2GB):

- 1. Direct Download from Sourceforge: <a href="http://sourceforge.net/project/showfiles.php?group\_id=167832">http://sourceforge.net/project/showfiles.php?group\_id=167832</a>
- 2. Torrent file link: <a href="http://www.bradymd.com/OpenEMR-3-0-1-appliance-1.torrent">http://www.bradymd.com/OpenEMR-3-0-1-appliance-1.torrent</a> (If you need a torrent software client, then try: <a href="http://azureus.sourceforge.net/">http://azureus.sourceforge.net/</a>)

## Step 8) Start the OpenEMR 3.0.1 Appliance

#### Main TOC Link

1. There are directions here for both Windows and Linux.

#### **Windows**

#### Main TOC Link

- 1. Unpackage the OpenEMR-3-0-1-appliance-1.zip file.
- 2. Run VMware Player (screenshot below).



- 3. Start up the OpenEMR Appliance by opening the OpenEMR-3-0-1-appliance-1.vmx file in the VMware Player.
- 4. If this is your first time starting the OpenEMR Appliance, then a window will pop up (see screenshot below). Select 'I copied it' and click the 'OK' button.



- 5. Several windows may also pop up explaining that certain drives or sound drivers are not gonna work. Just click 'ok' and continue.
- 6. Ubuntu will now boot up, just give it some time. After boot up you will see the following introduction screen:

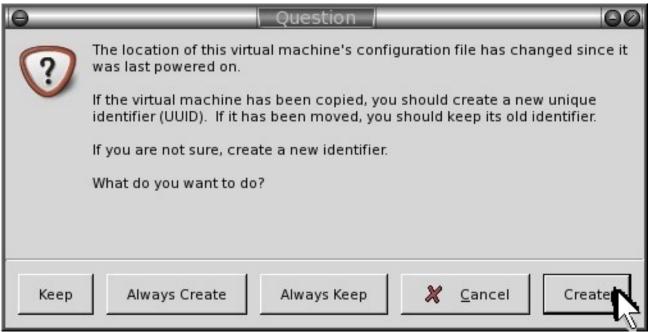


This is the introduction screen. Note that it automatically displays the IP address of your appliance, along with links to OpenEMR and Webmin. These links are customized for you depending on your IP address. The initial important user names and passwords are also displayed.

#### Linux

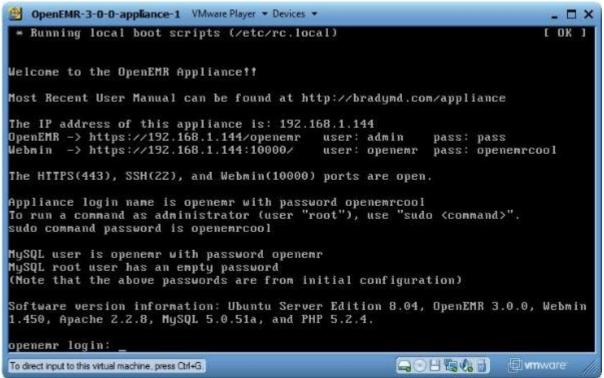
#### Main TOC Link

- 1. Unpackage the OpenEMR-3-0-1-appliance-1.zip file (use the 'unzip OpenEMR-3-0-1-appliance-1.zip' command).
- 2. Run VMware Player.
- 3. Start the OpenEMR appliance by opening the OpenEMR-3-0-1-appliance-1.vmx file in the VMware Player.
- 4. If this is your first time starting the OpenEMR Appliance, then the below window will pop up:



You will only see this window the first time you start the appliance. Click 'Create'.

- 5. Several windows may also pop up explaining that certain drives or sound drivers are not gonna work. Just click 'ok' and continue.
- 6. Ubuntu will now boot up, just give it some time. After boot up you will see the following introduction screen:



This is the introduction screen. Note that it automatically displays the IP address of your appliance, along with links to OpenEMR and Webmin. These links are customized for you depending on your IP address. The initial important user names and passwords are also displayed.

# Step 9) Configure OpenEMR 3.0.1 Appliance with your OpenEMR data

#### Main TOC Link

1. Upload backup file to your new appliance via webmin. Point a web browser outside your appliance to the Webmin link reported above in your appliance <u>introduction</u> screen.

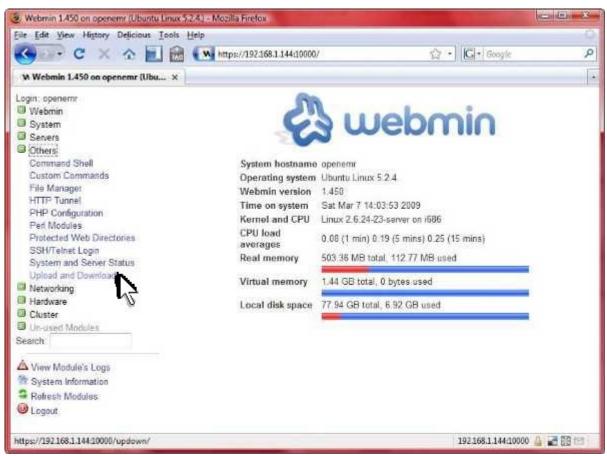
(If you are getting a certificate security error, then first follow the instructions in below appendix section 'Configuring client web browser for https' to configure your web browser.)



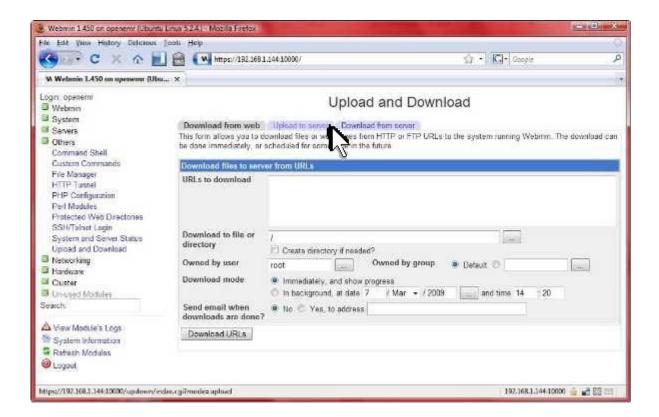
Login with Username -> 'openemr' and Password -> 'openemrcool'.



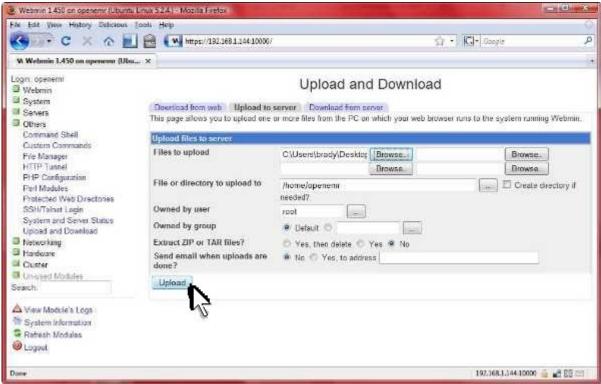
Click 'Others'.



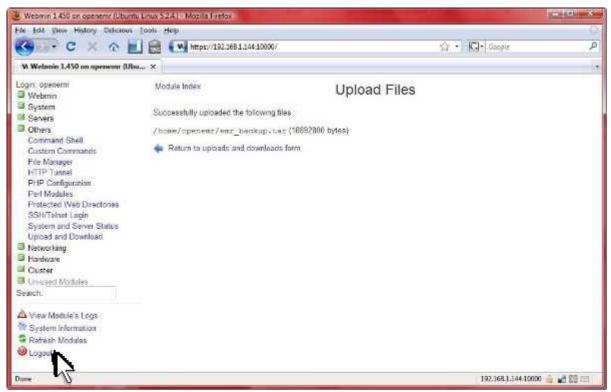
Click 'Upload and Download'.



## Click 'Upload to server' tab.



- 1) 'Files to upload' -> browse and select your openemr backup file
- 2) 'File or directory to upload to' -> '/home/openemr'
- 3) Click 'Upload'.



Ensure successful. Then can 'Logout'.

2. Restore your openemr data. Go into the Vmware console and log into appliance user: 'openemr' password: 'openemrcool'. Enter below **bolded** instructions on command line (if prompted to give password during the sudo command, then use 'openemrcool'):

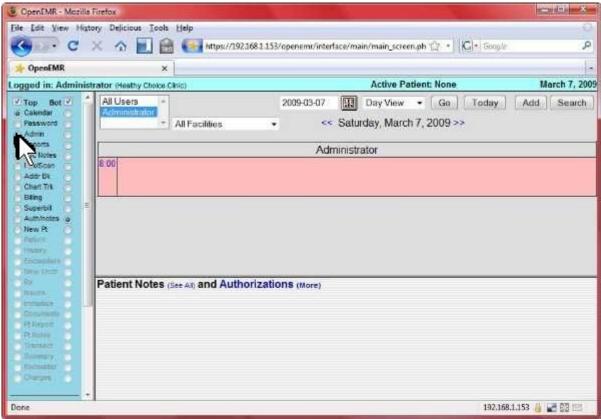
```
sudo chown -R www-data:www-data
  /var/www/openemr/custom/letter templates
sudo chown -R www-data:www-data
  /var/www/openemr/gacl/admin/templates c
sudo chown -R www-data:www-data
  /var/www/openemr/library/freeb
sudo chown -R www-data:www-data
  /var/www/openemr/interface/main/calendar/modules/PostC
  alendar/pntemplates/cache
sudo chown -R www-data:www-data
  /var/www/openemr/interface/main/calendar/modules/PostC
  alendar/pntemplates/compiled
#edit file /var/www/openemr/interface/globals.php:
sudo jed /var/www/openemr/interface/globals.php
            #edit the following bolded variables :
            $webserver root = "/var/www/openemr";
TEXT EDITOR SAVE AND EXIT
#Remove, then install-configure your openemr mysql database
cd /home/openemr
sudo gunzip openemr.sql.qz
sudo mysgladmin drop openemr
-'v' to confirm
sudo mysgladmin create openemr
sudo mysgl openemr < openemr.sgl
# If your MySQL openemr user password is NOT 'openemr'
# (which is the default) then type below statement with
# your password to replace openemrMysqlPassword.
# Otherwise, skip below statement.
sudo mysql -e "grant all privileges on openemr.* to
  openemr@localhost identified by 'openemrMysqlPassword';"
```

1. Finally, just need to add two forms in OpenEMR to get your appliance up to date. Point a web browser outside your appliance to the OpenEMR link reported above in your appliance <u>introduction</u> screen.

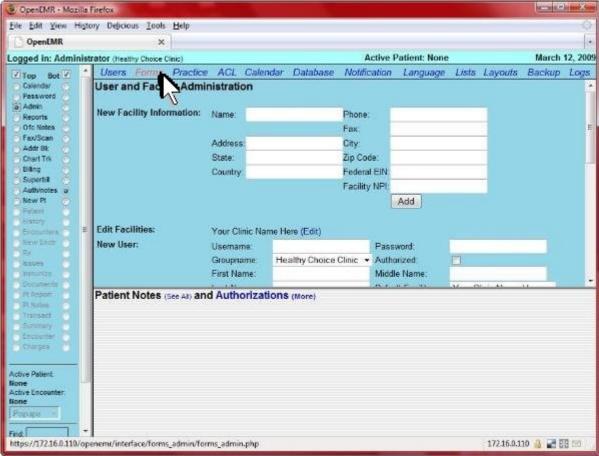
(If you are getting a certificate security error, then first follow the instructions in below appendix section 'Configuring client web browser for https' to configure your web browser.)



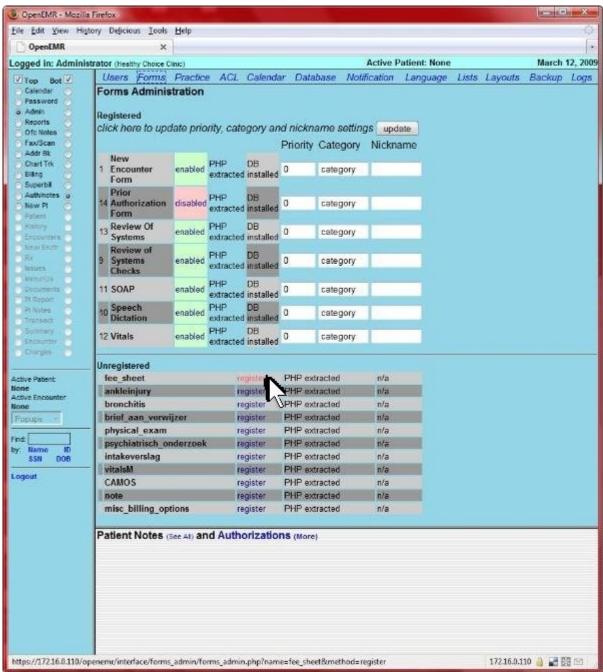
Login to openemr with 'admin' user.



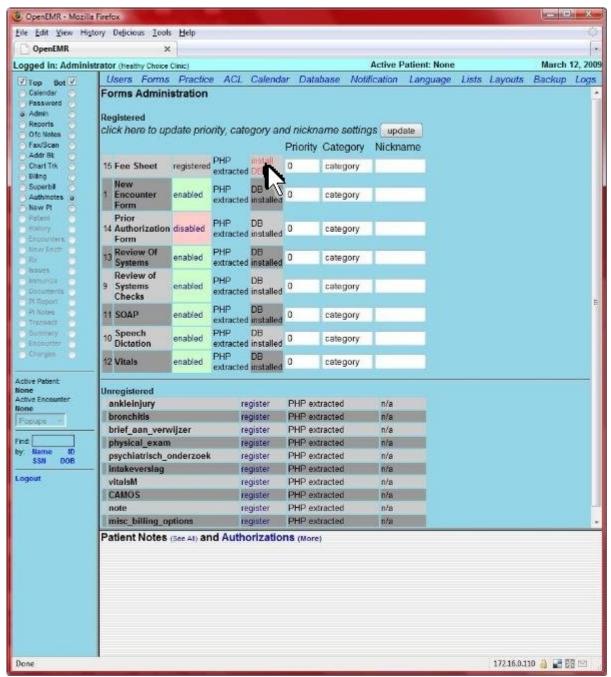
Click radio button to left of 'Admin'.



Click 'Forms'.



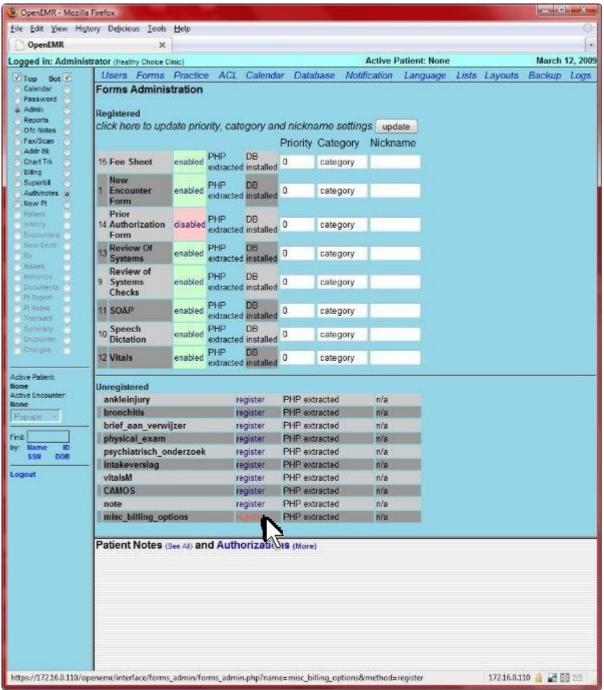
Click 'register' in the 'fee\_sheet' row.



Click 'install DB' in the 'Fee Sheet' row.



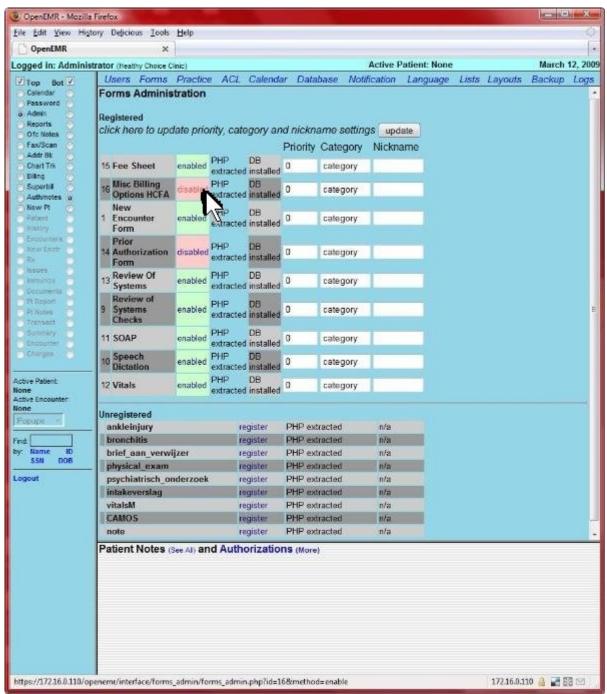
Click 'disabled' in the 'Fee Sheet' row.



Click 'register' in the 'misc\_billing\_options' row.



Click 'install DB' in the 'Misc Billing Options HFCA' row.



Click 'disabled' in the 'Misc Billing Options HFCA' row.



Click 'Logout'.

#### YOU ARE DONE

## **Appendix**

## A. Configuring client web browser for https

#### Main TOC Link

1. For security, this appliance forces users to use https (encrypted) over a web browser. Because we are using a homemade security certificate (real certificates cost money), most new web browsers will give a security error. This can easily be dealt with by following the browser instructions to create an exception. I have posted steps for both <u>Firefox</u> and <u>Internet Explorer</u>.

#### 2. Firefox:



Click 'Or you can add an exception...'.



Click the 'Add Exception...' button.



Click the 'Get Certificate' button. (DO NOT edit the 'Location:')



Click 'Confirm Security Exception'. Ensure 'Permanently store this exception' is checked, so you don't have to go through this every time. Also, DO NOT change 'Location:'.

## ALL DONE, go back and continue your previous instructions.

3. Internet Explorer:



Click 'Continue to this website'.

### ALL DONE, go back and continue your previous instructions.

## B. Author Email and License/Disclaimer

Main TOC Link

Author: Brady Miller

Email:<u>brady@sparmy.com</u>

www.bradymd.com

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