Virtual Hosting With PureFTPd And MySQL (Incl. Quota And Bandwidth Management) On Debian Lenny

The installation text below is a modified copy of
http://www.howtoforge.com/debian_etch_virtual_hosting_pureftpd_mysql_quota
written by falko.

1 - Preliminary Note
In this tutorial I use the hostname server1.example.com with the IP address 192.168.0.100. These settings might differ for you, so you have to replace them where appropriate.

2 - Install MySQL And phpMyAdmin
This can all be installed with one single command:

apt-get install mysql-server mysql-client libmysqlclient15-dev phpmyadmin apache2

Create a password for the MySQL user root when asked during the installation.

Then check with:

```
netstat -tap | grep mysql
```

on which addresses MySQL is listening. If the output looks like this:

```
tcp  0  0  localhost.localdo:mysql  *:*  LISTEN  2713/mysqld
```

which means MySQL is listening on localhost.localdomain only, then you're safe with the password you set before. But if the output looks like this:

```
tcp  0  0  *:mysql  *:*  LISTEN  2713/mysqld
```

you should set a MySQL password for your hostname, too, because otherwise anybody can access your database and modify data:

mysqladmin -h server1.example.com -u root password yourrootsqlpassword

3 - Install PureFTPd With MySQL Support
For Debian there is a pre-configured pure-ftpd-mysql package available. Install it like this:

apt-get install pure-ftpd-mysql

Then we create an ftp group (ftpgroup) and user (ftpuser) that all our virtual users will be mapped to. Replace the group- and userid 2001 with a number that is free on your system, these values should also be changed in the *MySQL.txt* BEFORE creating the database:

groupadd -g 2001 ftpgroup
useradd -u 2001 -s /bin/false -d /bin/null -c "pureftpd user" -g ftpgroup ftpuser

4 - Create The MySQL Database For PureFTPd
Now we create a database called pureftpd and a MySQL user named pureftpd which the PureFTPd daemon will use later on to connect to the pureftpd database:

```
### Start MySQL file ###

##############################################################################
# The creation of the database and tables can also be done with phpmyadmin
# which is already installed at: http://<IP_ADDRESS_OR_HOSTNAME>/phpmyadmin
#
# Use the MySQL.txt or the MySQL textfile below in phpmyadmin
##############################################################################

CREATE DATABASE pureftpd;
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP ON pureftpd.* TO
'pureftpd'@'localhost' IDENTIFIED BY '<YOUR_FTPD_PASSWORD>';
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP ON pureftpd.* TO
'pureftpd'@'localhost.localdomain' IDENTIFIED BY '<YOUR_FTPD_PASSWORD>';
FLUSH PRIVILEGES;

USE pureftpd;

CREATE TABLE IF NOT EXISTS `admin` (
  `id` int(4) NOT NULL auto_increment,
  `User` varchar(16) NOT NULL default '',
  `Password` varchar(64) NOT NULL default '',
  PRIMARY KEY  (`id`),
  UNIQUE KEY `id` (`id`)
) ENGINE=MyISAM  DEFAULT CHARSET=latin1 AUTO_INCREMENT=2 ;

INSERT INTO `admin` (`id`, `User`, `Password`) VALUES
(1, 'ftp-admin', '920f8b4d6a669997ba55079a5fe7fea5');

CREATE TABLE IF NOT EXISTS `ftpd` (
  `id` int(4) NOT NULL auto_increment,
  `User` varchar(16) NOT NULL default '',
  `status` enum('0','1') NOT NULL default '0',
  `Password` varchar(64) NOT NULL default '',
  `Uid` varchar(11) NOT NULL default '-1',
  `Gid` varchar(11) NOT NULL default '-1',
  `Dir` varchar(128) NOT NULL default '',
  `ULBandwidth` smallint(5) NOT NULL default '0',
  `DLBandwidth` smallint(5) NOT NULL default '0',
  `comment` tinytext NOT NULL,
  `ipaccess` varchar(15) NOT NULL default '*',
  `QuotaSize` smallint(5) NOT NULL default '0',
  `QuotaFiles` int(11) NOT NULL default '0',
  PRIMARY KEY  (`id`),
  UNIQUE KEY `id` (`id`)
) ENGINE=MyISAM  DEFAULT CHARSET=latin1 AUTO_INCREMENT=7 ;

##############################################################################
# Change the values Uid & Gid (2001) if neccessary in to values of your choice.
##############################################################################

INSERT INTO `ftpd` (`id`, `User`, `status`, `Password`, `Uid`, `Gid`, `Dir`, `ULBandwidth`,
`DLBandwidth`, `comment`, `ipaccess`, `QuotaSize`, `QuotaFiles`) VALUES
(6, 'exampleuser', '1', '5ebe2294ecd0e0f08eab7690d2a6ee69', '2001', '2001',
'/home/www.example.com', 100, 100, ' ', '*', 50, 0);

### END MySQL File ####
```

Edit /etc/pure-ftpd/db/mysql.conf. It should look like this:

cp /etc/pure-ftpd/db/mysql.conf /etc/pure-ftpd/db/mysql.conf_orig
cat /dev/null > /etc/pure-ftpd/db/mysql.conf
nano /etc/pure-ftpd/db/mysql.conf

```
MYSQLSocket      /var/run/mysqld/mysqld.sock
#MYSQLServer     localhost
#MYSQLPort       3306
MYSQLUser       pureftpd
MYSQLPassword   YOUR_FTPD_PASSWORD
MYSQLDatabase   pureftpd
#MYSQLCrypt md5, cleartext, crypt() or password() - md5 is VERY RECOMMENDABLE uppon cleartext
MYSQLCrypt      md5
MYSQLGetPW      SELECT Password FROM ftpd WHERE User="\L" AND status="1" AND (ipaccess =
"*" OR ipaccess LIKE "\R")
MYSQLGetUID     SELECT Uid FROM ftpd WHERE User="\L" AND status="1" AND (ipaccess = "*" OR
ipaccess LIKE "\R")
MYSQLGetGID     SELECT Gid FROM ftpd WHERE User="\L"AND status="1" AND (ipaccess = "*" OR
ipaccess LIKE "\R")
MYSQLGetDir     SELECT Dir FROM ftpd WHERE User="\L"AND status="1" AND (ipaccess = "*" OR
ipaccess LIKE "\R")
MySQLGetBandwidthUL SELECT ULBandwidth FROM ftpd WHERE User="\L"AND status="1" AND
(ipaccess = "*" OR ipaccess LIKE "\R")
MySQLGetBandwidthDL SELECT DLBandwidth FROM ftpd WHERE User="\L"AND status="1" AND
(ipaccess = "*" OR ipaccess LIKE "\R")
MySQLGetQTASZ   SELECT QuotaSize FROM ftpd WHERE User="\L"AND status="1" AND (ipaccess =
"*" OR ipaccess LIKE "\R")
MySQLGetQTAFS   SELECT QuotaFiles FROM ftpd WHERE User="\L"AND status="1" AND (ipaccess
= "*" OR ipaccess LIKE "\R")
```

Make sure that you replace the string YOUR_FTPD_PASSWORD with the real password for the MySQL user pureftpd in the line MYSQLPassword!
Please note that we use md5 as MYSQLCrypt method, which means we will store the users' passwords as an MD5 string in the database which is far more secure than using plain text passwords!

Then create the file /etc/pure-ftpd/conf/ChrootEveryone which simply contains the string yes:

echo "yes" > /etc/pure-ftpd/conf/ChrootEveryone

This will make PureFTPd chroot every virtual user in his home directory so he will not be able to browse directories and files outside his home directory.

Also create the file /etc/pure-ftpd/conf/CreateHomeDir which again simply contains the string yes:

echo "yes" > /etc/pure-ftpd/conf/CreateHomeDir

This will make PureFTPd create a user's home directory when the user logs in and the home directory does not exist yet.

Now we must configure PureFTPd as a standalone daemon (it is currently controlled by inetd). To do this, we open /etc/default/pure-ftpd-common and change the value of the parameter STANDALONE_OR_INETD to standalone:

nano /etc/default/pure-ftpd-common

```
# STANDALONE_OR_INETD
# valid values are "standalone" and "inetd".
# Any change here overrides the setting in debconf.
STANDALONE_OR_INETD=standalone
```

Next, we modify /etc/inetd.conf and comment out the ftp line:

nano /etc/inetd.conf

```
[...]
# ftp     stream  tcp     nowait  root    /usr/sbin/tcpd /usr/sbin/pure-ftpd-wrapper
[...]
```

Afterwards, we restart Inetd and PureFTPd:

/etc/init.d/openbsd-inetd restart
/etc/init.d/pure-ftpd-mysql restart

Now open your FTP client program on your work station (something like WS_FTP or SmartFTP if you are on a Windows system or gFTP on a Linux desktop) and try to connect. As hostname you use server1.example.com (or the IP address of the system), the username is exampleuser, and the password is secret.

If you are able to connect - congratulations! If not, something went wrong.

Now, if you run

ls -l /home

you should see that the directory /home/www.example.com (exampleuser's home directory) has been automatically created, and it is owned by ftpuser and ftpgroup (the user/group we created at the end of step two):

```
server1:/etc/default# ls -l /home
total 8
drwxr-xr-x 2 administrator administrator 4096 2007-04-23 14:25 administrator
drwxr-xr-x 2 ftpuser       ftpgroup      4096 2007-04-23 17:26 www.example.com
```