

Installing Lighttpd With PHP5 And MySQL Support On Debian Etch

By Falko Timme

Published: 2007-08-09 18:06

Installing Lighttpd With PHP5 And MySQL Support On Debian Etch

Version 1.0

Author: Falko Timme <ft [at] falkotimme [dot] com>

Last edited 08/07/2007

Lighttpd is a secure, fast, standards-compliant web server designed for speed-critical environments. This tutorial shows how you can install Lighttpd on a Debian Etch server with PHP5 support (through FastCGI) and MySQL support.

I do not issue any guarantee that this will work for you!

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 Installing MySQL 5.0

First we install MySQL 5.0 like this:

```
apt-get install mysql-server mysql-client
```

Create a password for the MySQL user *root* (replace *yourrootsqlpassword* with the password you want to use):

```
mysqladmin -u root password yourrootsqlpassword
```

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/mysql
```

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/mysql
```

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

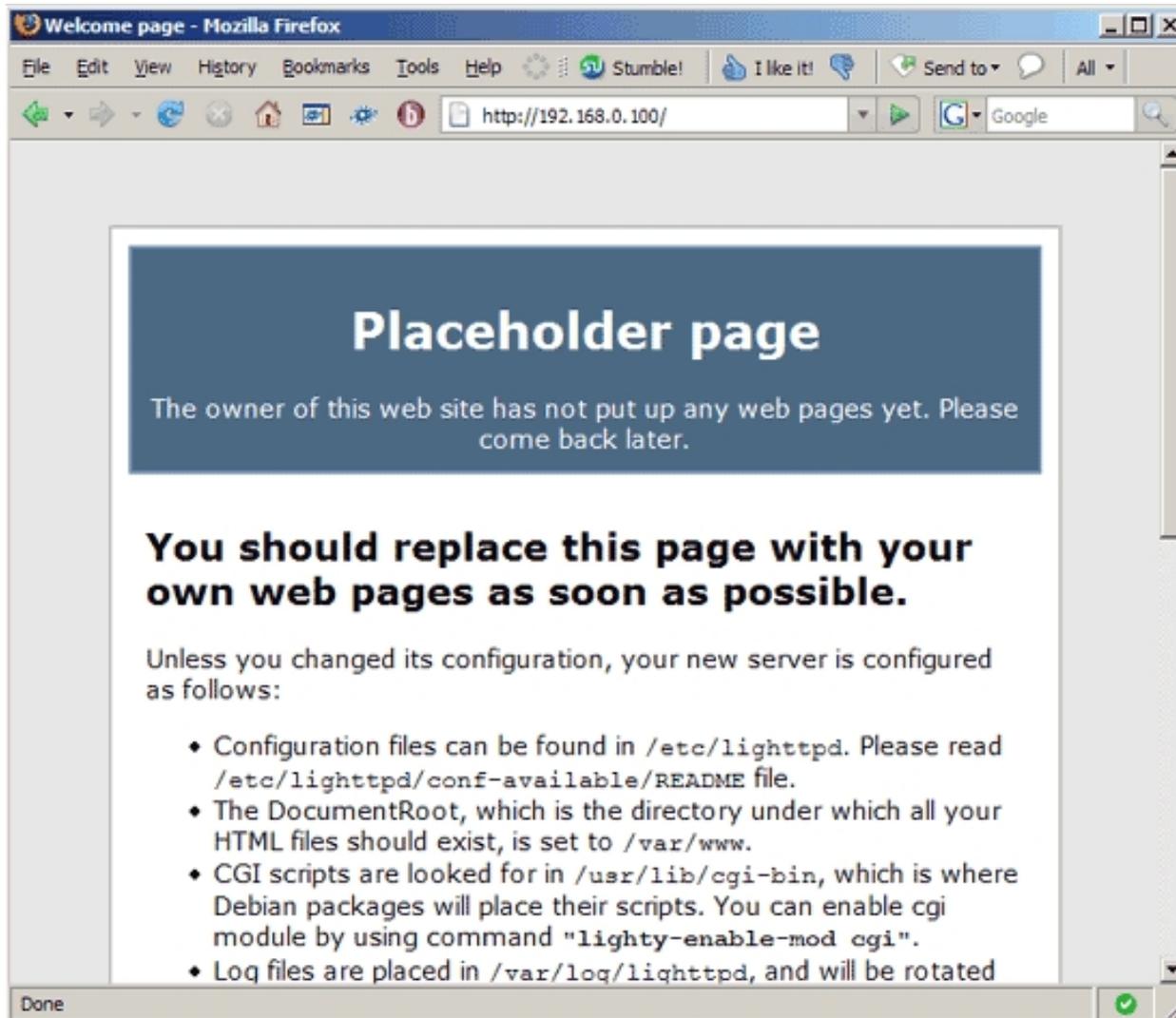
```
mysqladmin -h server1.example.com -u root password yourrootsqlpassword
```

3 Installing Lighttpd

Lighttpd is available as a Debian package, therefore we can install it like this:

```
apt-get install lighttpd
```

Now direct your browser to <http://192.168.0.100>, and you should see the Lighttpd placeholder page:



Lighttpd's default document root is `/var/www` on Debian, and the configuration file is `/etc/lighttpd/lighttpd.conf`.

4 Installing PHP5

We can make PHP5 work in Lighttpd through FastCGI. Fortunately, Debian provides a FastCGI-enabled PHP5 package which we install like this:

```
apt-get install php5-cgi
```

5 Configuring Lighttpd And PHP5

To enable PHP5 in Lighttpd, we must modify two files, `/etc/php5/cgi/php.ini` and `/etc/lighttpd/lighttpd.conf`. First we open `/etc/php5/cgi/php.ini` and add the line `cgi.fix_pathinfo = 1` right at the end of the file:

```
vi /etc/php5/cgi/php.ini
```

```
[...]  
cgi.fix_pathinfo = 1
```

Then we open `/etc/lighttpd/lighttpd.conf` and add `"mod_fastcgi"`, to the `server.modules` stanza:

```
vi /etc/lighttpd/lighttpd.conf
```

```
[...]  
server.modules      = (  
    "mod_access",  
    "mod_alias",  
    "mod_accesslog",  
    "mod_fastcgi",  
#    "mod_rewrite",  
#    "mod_redirect",  
#    "mod_status",
```

```
# "mod_evhost",
# "mod_compress",
# "mod_usertrack",
# "mod_rrdtool",
# "mod_webdav",
# "mod_expire",
# "mod_flv_streaming",
# "mod_evasive"
)
[...]
```

and then right at the end of the file, we add the following stanza:

```
[...]
fastcgi.server = ( ".php" => ((
    "bin-path" => "/usr/bin/php5-cgi",
    "socket" => "/tmp/php.socket"
)))
```

Then we restart Lighttpd:

```
/etc/init.d/lighttpd restart
```

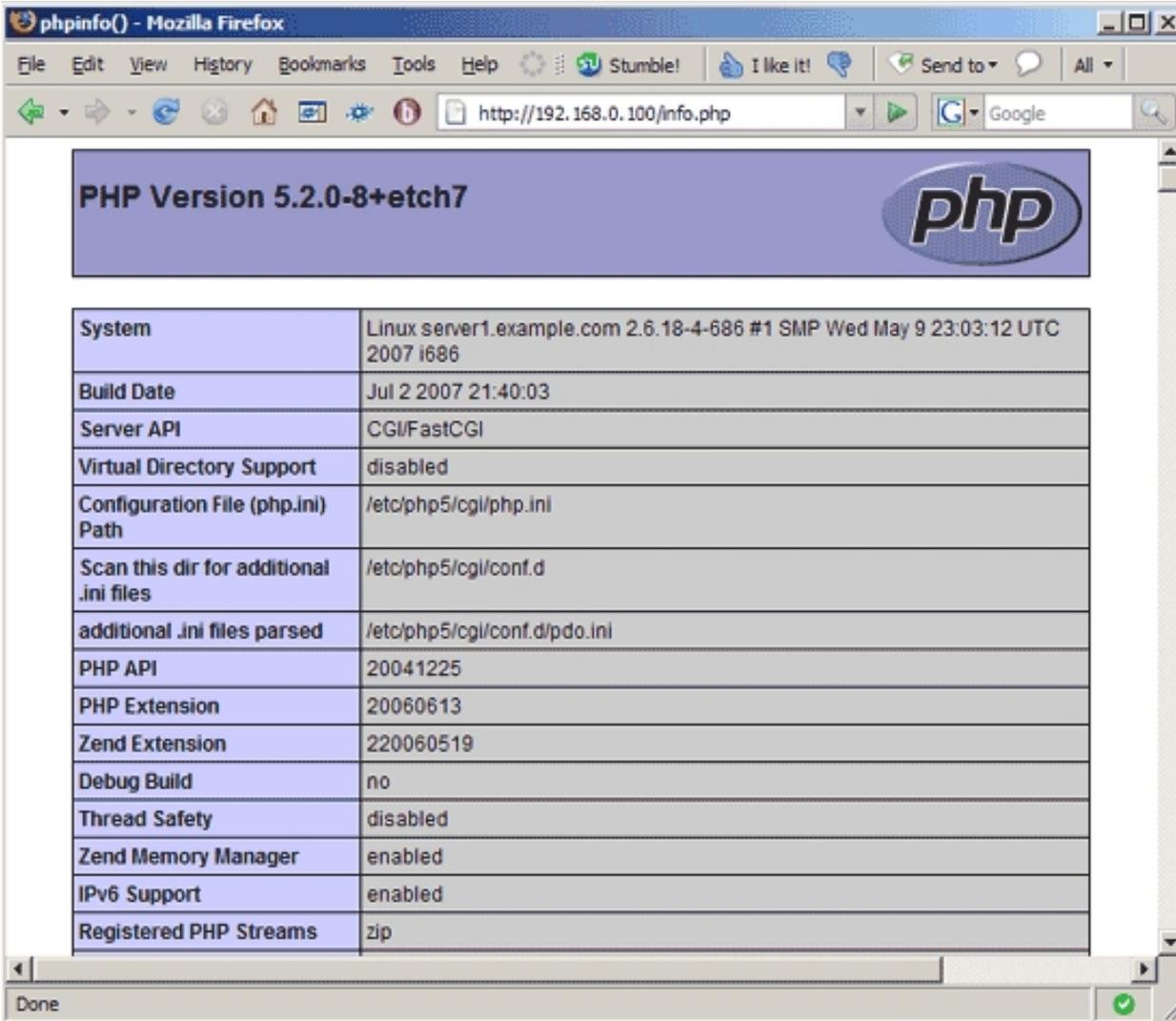
6 Testing PHP5 / Getting Details About Your PHP5 Installation

The document root of the default web site is `/var/www`. We will now create a small PHP file (`info.php`) in that directory and call it in a browser. The file will display lots of useful details about our PHP installation, such as the installed PHP version.

```
vi /var/www/info.php
```

```
<?php
phpinfo();
?>
```

Now we call that file in a browser (e.g. <http://192.168.0.100/info.php>):



PHP Version 5.2.0-8+etch7

System	Linux server1.example.com 2.6.18-4-686 #1 SMP Wed May 9 23:03:12 UTC 2007 i686
Build Date	Jul 2 2007 21:40:03
Server API	CGI/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php5/cgi/php.ini
Scan this dir for additional .ini files	/etc/php5/cgi/conf.d
additional .ini files parsed	/etc/php5/cgi/conf.d/pdo.ini
PHP API	20041225
PHP Extension	20060613
Zend Extension	220060519
Debug Build	no
Thread Safety	disabled
Zend Memory Manager	enabled
IPv6 Support	enabled
Registered PHP Streams	zip

As you see, PHP5 is working, and it's working through FastCGI, as shown in the *Server API* line. If you scroll further down, you will see all modules that are already enabled in PHP5. MySQL is not listed there which means we don't have MySQL support in PHP5 yet.

7 Getting MySQL Support In PHP5

To get MySQL support in PHP, we can install the `php5-mysql` package. It's a good idea to install some other PHP5 modules as well as you might need them for your applications. You can search for available PHP5 modules like this:

```
apt-cache search php5
```

Pick the ones you need and install them like this:

```
apt-get install php5-mysql php5-curl php5-gd php5-idn php-pear php5-imagick php5-imap php5-mcrypt php5-memcache php5-mhash php5-ming php5-ps  
php5-pspell php5-recode php5-snmp php5-sqlite php5-tidy php5-xmlrpc php5-xsl php5-json
```

You might see a question like this one:

```
Continue installing libc-client without Maildir support? <-- Yes
```

Now restart Lighttpd:

```
/etc/init.d/lighttpd restart
```

(If you've installed the module `php5-json` and get warnings like this one:

```
PHP Warning: Module 'json' already loaded in Unknown on line 0
```

it means that the module got loaded twice. Open `/etc/php5/cgi/php.ini`, scroll down to the end and comment out the line `extension=json.so`:

```
vi /etc/php5/cgi/php.ini
```

```
[...]  
;extension=json.so  
[...]
```

Then restart Lighttpd again:

```
/etc/init.d/lighttpd restart
```

The warnings should now be gone.)

Now reload `http://192.168.0.100/info.php` in your browser and scroll down to the modules section again. You should now find lots of new modules there, including the MySQL module:

The screenshot shows a Mozilla Firefox browser window displaying the output of a `phpinfo()` script. The page title is "mysql". The browser's address bar shows `http://192.168.0.100/info.php`. The output is divided into two tables.

MySQL Support	enabled
Active Persistent Links	0
Active Links	0
Client API version	5.0.32
MYSQL_MODULE_TYPE	external
MYSQL_SOCKET	/var/run/mysqld/mysqld.sock
MYSQL_INCLUDE	-I/usr/include/mysql
MYSQL_LIBS	-L/usr/lib -lmysqlclient

Directive	Local Value	Master Value
mysql.allow_persistent	On	On
mysql.connect_timeout	60	60
mysql.default_host	no value	no value
mysql.default_password	no value	no value
mysql.default_port	no value	no value
mysql.default_socket	no value	no value
mysql.default_user	no value	no value
mysql.max_links	Unlimited	Unlimited
mysql.max_persistent	Unlimited	Unlimited

The browser's status bar at the bottom shows "Done" with a green checkmark icon.

8 Links

- Lighttpd: <http://www.lighttpd.net>

- PHP: <http://www.php.net>
- MySQL: <http://www.mysql.com>
- Debian: <http://www.debian.org>