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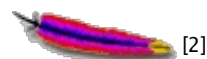
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FreeBSD Configure Apache PHP with mod_fastcgi Module

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Q. How do I configure and Install Apache web server with PHP5 and mod_fastcgi to get faster PHP access under FreeBSD server?

FreeBSD [1]

[2]

A.mod_fastcgi is a cgi-module for Apache web server.

FastCGI is a language independent, scalable, open extension to CGI that provides high performance without the limitations of server specific APIs.

Red Hat Linux / CentOS Linux specific mod_fastcgi tutorial is here [3].

FreeBSD Install Apache Web server

Install apache using FreeBSD ports collection:

```
# cd /usr/ports/www/apache22
# make install clean
# echo 'apache22_enable="YES"' >> /etc/rc.conf
```

FreeBSD Install PHP5

Make sure php-cgi binary exists and it is compiled with fastcgi support:

```
# /usr/local/bin/php-cgi -v
```

Output

```
PHP 5.2.6 with Suhosin-Patch 0.9.6.2 (cgi-fcgi) (built: Sep 10 2008 19:07:02)
Copyright (c) 1997-2008 The PHP Group
Zend Engine v2.2.0, Copyright (c) 1998-2008 Zend Technologies
    with XCache v1.2.2, Copyright (c) 2005-2007, by mOo
```

If you do not see word cgi-fcgi, recompile php with fastcgi support by visiting /usr/ports/lang/php5:

```
# cd /usr/ports/lang/php5
# make config
# make install clean
```
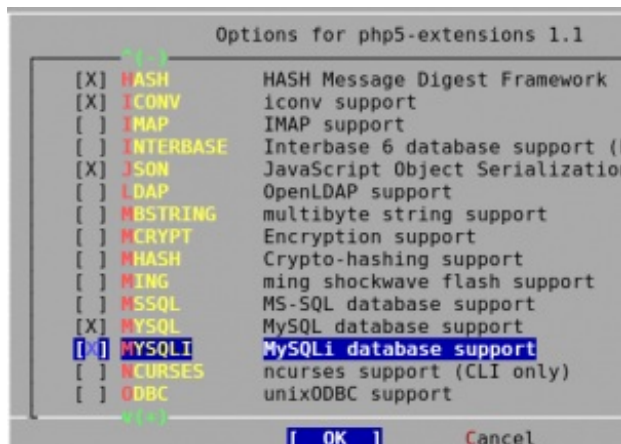

[4]

Fig.01 Enable FastCGI support by selecting FastCGI option

Make sure you install php-gd, php-mysql and other extensions, enter:

```
# cd /usr/ports/lang/php5-extensions/
# make install clean
```


[5]

Fig.02: Configure FreeBSD PHP5 extensions

Configure FreeBSD Apache mod_fastcgi

Install mod_fastcgi, enter:

```
# cd /usr/ports/www/mod_fastcgi
# make install clean
```

Open /usr/local/etc/apache22/httpd.conf file, enter:

```
# vi /usr/local/etc/apache22/httpd.conf
```

Make sure following line exists:

```
LoadModule fastcgi_module       libexec/apache22/mod_fastcgi.so
```

Create virtual hosting configurations

Your sample setup:

- Apache share IP address: **74.86.49.131**
- Domain name: **theos.in**
- DocumentRoot Directory: **/websites/home/theos.in/http**
- Log Directory: **/websites/home/theos.in/logs**
- PHP cgi-bin Directory: **/websites/home/theos.in/cgi-bin/**

Create directory structure as above:

```
# mkdir -p /websites/home/theos.in/{http,https,logs,cgi-bin,images,private,stats}
# chown -R theosftpuser:theosftpgroup /websites/home/theos.in/
```

Replace username, groupname and directories as per your setup.

Append following configuration directives to httpd.conf virtual hosting section:

```
<VirtualHost *:80>
        ServerAdmin webmaster@theos.in
        DocumentRoot "/websites/home/theos.in/http"
        ServerName theos.in
        ServerAlias www.theos.in
        ErrorLog "/websites/home/theos.in/logs/error.log"
        CustomLog "/websites/home/theos.in/logs/access.log" common
        ScriptAlias /cgi-bin/ "/websites/home/theos.in/cgi-bin/"
```

```
 <Directory "/websites/home/theos.in/http">
  Options -Indexes FollowSymLinks +ExecCGI
  AllowOverride AuthConfig FileInfo
  AddHandler php5-fastcgi .php
  Action php5-fastcgi /cgi-bin/php.cgi
  Order allow,deny
  Allow from all
 </Directory>

 <Directory "/websites/home/theos.in/cgi-bin">
  AllowOverride None
  Options None
  Order allow,deny
  Allow from all
 </Directory>

</VirtualHost>
```

Save and close the file.

Create php.cgi script

Create a [shell script](#) [6] as follows (/websites/home/theos.in/cgi-bin/php.cgi):

```
#!/bin/sh
# Shell Script To Run PHP5 using mod_fastcgi under Apache 2.x
# Tested under FreeBSD 6.x and 7.x
### Set PATH ###
PHP_CGI=/usr/local/bin/php-cgi
PHP_FCGI_CHILDREN=4
PHP_FCGI_MAX_REQUESTS=1000
### no editing below ###
export PHP_FCGI_CHILDREN
export PHP_FCGI_MAX_REQUESTS
exec $PHP_CGI
```

Copy above shell script to /websites/home/theos.in/cgi-bin/ as php.cgi. Set permissions:

```
# chmod +x /websites/home/theos.in/cgi-bin/php.cgi
```

Restart Apache

Type the following command to restart Apache:

```
# /usr/local/etc/rc.d/apache22 restart
```

Test your setup

Place following code at /websites/home/theos.in/http/test.php:

```
<?php
phpinfo [7] ();
?>
```

Optional: Open port 80 using FreeBSD PF firewall

Add following [PF firewall rule](#) [8] to /etc/pf.conf file:

```
pass in on $ext_if proto tcp from any to 74.86.49.131 port 80 flags S/SA synproxy state
```

Close and save the file. Reload pf firewall:

```
# /etc/rc.d/pf restart
```

Further configuration:

I also recommend installing xcache opcode php cacher [9] and MySQL database server [10] to host dynamic web sites.

Once installed you can upload open source scripts / software such as wordpress, phpBB and others at /websites/home/theos.in/http directory.

Further readings:

- Apache documentation
- man pages: ports, make, httpd.conf

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[1] Image: **http://www.cyberciti.biz/faq/category/freebsd/**

[2] Image: **http://www.cyberciti.biz/faq/category/apache/**

[3] tutorial is here: **http://www.cyberciti.biz/tips/rhel-centos-fedora-apache2-fastcgi-php-configuration.html**

[4] Image: **http://www.cyberciti.biz/faq/wp-content/uploads/2008/10/freebsd-php5-fastcgi.png**

[5] Image: **http://www.cyberciti.biz/faq/wp-content/uploads/2008/10/freebsd-php5-extensions.png**

[6] shell script: **http://bash.cyberciti.biz/web-server/apache-fastcgi-mod_fastcgi-php-script/**

[7] phpinfo: **http://www.php.net/phpinfo**

[8] PF firewall rule: **http://bash.cyberciti.biz/firewall/pf-firewall-script/**

[9] xcache opcode php cacher: **http://www.cyberciti.biz/faq/freebsd-install-php-xcache-opcode-cacher/**

[10] MySQL database server: **http://www.cyberciti.biz/howto/cookbook/2006/03/install-mysql-server-using-binary.php**