FAMP

```
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│                                             │
│        Welcome to FreeBSD!                  │
│                                             │
│                                             │
│   1. Boot FreeBSD [default]                 │
│   2. Boot FreeBSD with ACPI disabled        │
│   3. Boot FreeBSD in Safe Mode              │
│   4. Boot FreeBSD in single user mode       │
│   5. Boot FreeBSD with verbose logging      │
│   6. Escape to loader prompt                │
│   7. Reboot                                 │
│                                             │
│                                             │
│                                             │
│   Select option, [Enter] for default        │
│   or [Space] to pause timer  8              │
│                                             │
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```

DaloRADIUS + FreeRADIUS + MySQL Server + Apache

Apache2.4, MySQL 5.7, PHP 8.0 on FreeBSD 12.3, 13.0 and 13.1 (FAMP + Freeradius + daloradius)

June 15, 2022 femtopc.com

Synopsys: Most Web content is driven by an Apache Web Server with PHP language and MySQL database server. This document is a supplement to FemtoPC's "FAMP" installation script file for FreeBSD 12.3, 13.0 and 13.1. FAMP server will combine with FreeRadius and Daloradius (github project) to provide a web based frontend for RADIUS.

https://www.femtopc.com/shell_scripts/FAMP/Daloradius/

Requirements:

1. FreeBSD server, on discrete hardware or running in a virtual machine.

2. Script designed for server with clean FreeBSD install, no other software installed.

3. Disk requirement: After installation, only 3.1GB are used, including the vanilla FreeBSD installation.

4. Must be run with 'root' access, or as a user that su to root.

5. Server must have Internet access.

6. Script file must run in /root directory.

7. Depending on Internet speed and server processing power, installation is complete in under 15 minutes.

Step-by-step:

1. Login to FreeBSD server as root, or su to root.

2. Fetch the FAMP package

```
fetch https://www.femtopc.com/shell_scripts/FAMP/Daloradius/install.gz
```

3. Unzip the download

```
Tar -xvf install.gz
```

4. Run the shell program and answer when prompted.

```
./daloradius.sh
```

5. Script will check to make sure you are running as root, in the /root directory and have Internet access. It will then check for any Apache, MySQL and PHP packages and exit if found. The install versions of MySQL5.7 and PHP8.0 for Daloradius. After packages are installed, the configuration will be automatically done. The php.ini will use the 'production' source before the file is modified. A password will be requested for MySQL root user. Please make it secure. View the logfile.log to troubleshoot any errors.

Here is a breakdown of the commands that are run in the script.

install Apache2.4

pkg install -y apache24

install MySQL57-Server

pkg install -y mysql57-server

install PHP80

pkg install -y php80

install PHP80-extensions

pkg install -y php80-extensions

install extra extensions for FreeRadius and Daloradius

pkg install -y php80-curl

pkg install -y php80-gd

pkg install -y php80-mysqli

pkg install -y php80-pdo_mysql

pkg install -y php80-pear

install Apache mod_php80

pkg install -y mod_php80

These are what the configuration routines do

modify the /usr/local/etc/apache24/httpd.conf file

make a backup and then edit

cd /usr/local/etc/apache24

cp httpd.conf httpd.conf.original

ee httpd.conf

set the ServerAdmin, in the script it is set to root. You may also set a webmaster email here.

set the ServerName to the IP address of server. A domain name could be set here if available.

set the second time AllowOverride None, where None is capital "N" to All. This will allow .htaccess files to work.

set DirectoryIndex from just index.html to index.php index.htm index.html to capture PHP files

setup Apache to run PHP by creating an Includes/php.conf file

cd Includes

echo "<FilesMatch \"\\.php$\">" > php.conf

echo "SetHandler application/x-httpd-php" >> php.conf

echo "</FilesMatch>" >> php.conf

echo "<FilesMatch \"\\.phps$\">" >> php.conf

echo "SetHandler application/x-httpd-php-source" >> php.conf

echo "</FilesMatch>" >> php.conf

return to our root directory

cd /root

Make Apache start automatically when FreeBSD boots

sysrc apache24_enable="yes"

Startup the Apache Server

service apache24 start

```
# Setup to run MySQL server

# Make Server start automatically when FreeBSD boots.

sysrc mysql_enable="yes"

# start the mysql server for the first time

service mysql-server start

# MySQL57 has a password stored in .mysql_secret

# Set your password, it must be in single quotes

/usr/local/bin/mysqladmin -u root password 'your password'

# Now configure PHP

cd /usr/local/etc

cp php.ini-production php.ini

# edit the php.ini file

ee php.ini

# find where memory_limit = 128M and increase to 1024M

# find where post_max_size = 8M and set to 32M (or set your limit here)

# find where upload_max_filesize = 2M and set to 1G (or your limit here)

# find where max_file_uploads = 20 and increase to 80

# find ;date.timezone and uncomment (delete ;) and enter timezone (IMPORTANT!!)

# hint: find your server's setting by doing "cat /var/db/zoneinfo"

# lastly, add: option include_path = ".:/usr/local/share/pear"

# after changes to php.ini, Apache must be restarted

service apache24 restart

# at this point we have a working FAMP server

cd /root
```

```
# install pear

pear channel-update pear.php.net

pear install DB

pear install -a Mail

pear install -a Mail_Mime

# Install FreeRADIUS3"

pkg install -y freeradius-mysql

sysrc radiusd_enable="YES"

# Setup radius database

cd /usr/local/etc/raddb/mods-config/sql/main/mysql

mysql -u root -p

create database radius character set utf8 collate utf8_bin;

use radius;

source schema.sql;

source setup.sql;

quit

cd /usr/local/etc/raddb/mods-enabled

ln -s ../mods-available/sql sql

cd /usr/local/etc/raddb/sites-available

ee default

# change -sql to sql, under 'session' add sql, comment out sqlippool (twice)

cd /usr/local/etc/raddb/mods-available

ee sql

#change dialect 'sqlite' to 'mysql', then uncomment and modify:

server = localhost

port 3306

login = "root"

password = "password" ← your mysql root password

# uncomment read_clients = yes
```

```
# install daloradius

fetch https://github.com/lirantal/daloradius/archive/master.zip

pkg install -y unzip

unzip master.zip

mv daloradius-master /usr/local/www/apache24/data/daloradius

cd /usr/local/www/apache24/data/daloradius/contrib/db

mysql -u root -p radius < mysql-daloradius.sql

# enter mysql root password

cd /usr/local/www/apache24/data/daloradius/library

cp daloradius.conf.php.sample daloradius.conf.php

ee daloradius.conf.php

# change ver 2 to 3, enter mysql root password

# change /tmp/daloradius.log to /var/log/daloradius.log

chown www:wheel daloradius.conf.php

cd /var/log

touch daloradius.log

chown www:wheel daloradius.log

chmod 644 radius.log

cd /usr/local/www/apache24/data/daloradius/library
```

```
# modify system info for FreeBSD (the default works with Linux)

mv exten-server_info.php exent-server_info.php.original

vi exten-server_info.php


# Paste the following into the empty file

<?php
/*
 **********************************************************************
 * Description:
 *   this script modified for FreeBSD <webmaster@femtopc.com>
 *
 **********************************************************************
 */
        include_once('include/management/pages_common.php');

// Display uptime system
function uptime() {
echo shell_exec("uptime | awk -F',' '{print $1}'");
}

// Display hostname system wo domain
function get_hostname() {
echo shell_exec("/bin/hostname -s");
}

// Display currenty date/time
function get_datetime() {
        if ($today = date("F j, Y, g:i a")) {
                $result = $today;
        } else {
                $result = "(none)";
        }
        return $result;
}

// Get System Load Average
function get_system_load() {
echo shell_exec("uptime | awk -F'load averages:' '{print $2}'");
}

// Get Memory Stats
function get_active_mem() {
echo shell_exec("top -d 1 | grep Mem: | awk -F' ' '{print $2}'");
}
function get_inactive_mem() {
echo shell_exec("top -d 1 | grep Mem: | awk -F' ' '{print $4}'");
}
function get_wired_mem() {
echo shell_exec("top -d 1 | grep Mem: | awk -F' ' '{print $6}'");
}
function get_free_mem() {
echo shell_exec("top -d 1 | grep Mem: | awk -F' ' '{print $8}'");
}

//Get Disk Space
function get_hdd_size() {
echo shell_exec("df -h|grep default | awk -F' ' '{print $2}'");
}
```

```php
function get_hdd_used() {
echo shell_exec("df -h|grep default | awk -F' ' '{print $3}'");
}
function get_hdd_free() {
echo shell_exec("df -h|grep default | awk -F' ' '{print $4}'");
}

// Get all network names devices except localhost
function get_interface_list() {
echo shell_exec("ifconfig -a -u -G lo");
}

// Get ip address
function get_ip_addr() {
echo shell_exec("ifconfig | grep -Eo 'inet (addr:)?([0-9]*\.){3}[0-9]*' | grep -Eo '([0-9]*\.){3}[0-9]*' | grep -v
'127.0.0.1'");
}
?>
```

```php
<?php  echo "<h3>General Information</h3>"; ?>
```

```html
<table class='summarySection'>
  <tr>
   <td class='summaryKey'> Uptime </td>
   <td class='summaryValue'><span class='sleft'><?php echo uptime(); ?></span> </td>
  </tr>
  <tr>
   <td class='summaryKey'> System Load </td>
   <td class='summaryValue'><span class='sleft'>load averages: <?php echo get_system_load(); ?> (1,
5, 15 minutes)</span> </td>
  </tr>
  <tr>
   <td class='summaryKey'> Hostname </td>
   <td class='summaryValue'><span class='sleft'><?php echo get_hostname(); ?></span> </td>
  </tr>
  <tr>
   <td class='summaryKey'> Current Date </td>
   <td class='summaryValue'><span class='sleft'><?php echo get_datetime(); ?></span> </td>
  </tr>
</table>
```

```php
<?php  echo "<h3>Memory Information</h3>"; ?>
```

```html
<table class='summarySection'>
  <tr>
   <td class='summaryKey'> Mem. Active </td>
   <td class='summaryValue'><span class='sleft'><?php echo get_active_mem(); ?> </span> </td>
  </tr>
  <tr>
   <td class='summaryKey'> Mem. Inactive </td>
   <td class='summaryValue'><span class='sleft'><?php echo get_inactive_mem(); ?></span> </td>
  </tr>
  <tr>
   <td class='summaryKey'> Mem. Wired </td>
   <td class='summaryValue'><span class='sleft'><?php echo get_wired_mem(); ?></span> </td>
  </tr>
   <tr>
   <td class='summaryKey'> Mem. Free </td>
   <td class='summaryValue'><span class='sleft'><?php echo get_free_mem(); ?></span> </td>
  </tr>
</table>
```

```php
<?php  echo "<h3>Harddrive Information</h3>"; ?>
```

```html
<table class='summarySection'>
  <tr>
    <td class='summaryKey'> Total Drive Size </td>
    <td class='summaryValue'><span class='sleft'><?php echo get_hdd_size(); ?></span> </td>
  </tr>
  <tr>
    <td class='summaryKey'> Used Drive Space </td>
    <td class='summaryValue'><span class='sleft'><?php echo get_hdd_used(); ?></span> </td>
  </tr>
  <tr>
    <td class='summaryKey'> Free Drive Space </td>
    <td class='summaryValue'><span class='sleft'><?php echo get_hdd_free(); ?></span> </td>
  </tr>
</table>

<?php  echo "<h3>Network Interfaces</h3>"; ?>

<table class='summarySection'>
  <tr>
    <td class='summaryKey'> Interfaces </td>
    <td class='summaryValue'><span class='sleft'><?php echo get_interface_list(); ?></span></td>
  </tr>
  <tr>
    <td class='summaryKey'> IP Address </td>
    <td class='summaryValue'><span class='sleft'><?php echo get_ip_addr(); ?></span></td>
  </tr>
</table>


# make sure all services are running

service apache24 start

service mysql-server start

service radiusd start


# This completes the server install and setup. View the login web page at:

http://your_server_ip_address/daloradius

username/password = administrator/radius

<end>
```