

WordPress

The OpenLiteSpeed WordPress One-Click app is based on a standard WordPress image, but includes several great performance enhancements, including LiteSpeed's popular LSCache optimization plugin. This Wordpress + OpenLiteSpeed + LSCache image tends to be more than 300 times faster than a regular WordPress image!

OpenLiteSpeed WordPress One-Click automatically installs [OpenLiteSpeed](#), [LSCache](#), [WordPress](#) and any dependences. It also automates initial setup for components like Object Cache and PHP OPcache to reduce the time it takes to optimize a web server.

Quick Start

Step 1.

Use the "OpenLiteSpeed WordPress Marketplace Image" to create a [ECS](#) with any plan you want.

Step 2.

From a terminal on your local computer, connect to the server as root, like so:

```
ssh root@use_your_server_ip
```

Be sure to substitute the server's public IP address for `use_your_server_ip`.

Note

If you try to visit the server's IP address before you SSH to the server, you'll see a LiteSpeed landing page.

Step 3.

An interactive script that runs will first prompt you for your domain or subdomain.

You can press CTRL+C and continue to SSH. The prompt will open again the next time you log in, and will continue to do so until you finish the whole setup.

```
Please input a valid domain:  
Please verify it is correct. [y/N]
```

ⓘ Tip

Enter the root domain only, then the system will add both the root domain and the www domain for you..

You can also automatically apply Let's Encrypt SSL if your domain is pointed to this server already. Enter y and your email address to finish the process.

```
Do you wish to issue a Let's encrypt certificate for this domain? [y/N]  
Please enter your E-mail:  
Please verify it is correct: [y/N]
```

Once finished, you should see **Certificate has been successfully installed...**

```
Do you wish to force HTTPS rewrite rule for this domain? [y/N]
```

Once finished, force HTTPS rules will be applied

```
Do you wish to update the system which include the web server? [Y/n]
```

This script will automatically go away after your domain has been added.

Step 4.

Visit the Server's IP or Domain in your browser to finish the wordpress installation



English (United States)

Afrikaans

العربية

العربية المغربية

অসমীয়া

گۆنئی آذربایجان

Azərbaycan dili

Беларуская мова

Български

বাংলা

བོད་ཡིག

Bosanski

Català

Cebuano

Čeština

Cymraeg

Dansk

Deutsch (Schweiz, Du)

Deutsch (Schweiz)

Deutsch (Sie)

Deutsch

Continue

Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Don't worry, you can always change these settings later.

Site Title

Username
Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password
Strong
Important: You will need this password to log in. Please store it in a secure location.

Your Email
Double-check your email address before continuing.

Search Engine Visibility Discourage search engines from indexing this site
It is up to search engines to honor this request.

Your system is installed and ready to use!

Tip

OpenLiteSpeed and LSCache are a powerful combination for your WordPress site, right out of the box. In addition, LSCache offers a variety of optimization features that can contribute to a superior PageSpeed score for your site. These features are disabled by default, but we encourage you to explore and experiment! [Learn more about the LSCache plugin's settings.](#)

Components

The OpenLiteSpeed Cloud Image installs several packages and performs other actions on your system.

Package Installation

Component	Version
Linux	Ubuntu 18.04.1
OpenLiteSpeed	Latest from LiteSpeedtech Repo
MariaDB	Latest from APT
PHP	Latest from LiteSpeedtech Repo

Component	Version
phpMyAdmin	Latest from phpMyAdmin
LiteSpeed Cache	Latest from WordPress.org
memcached	Latest from APT
redis	Latest from APT
Certbot	Latest from Certbot's PPA
Postfix	Latest from APT

Other Actions

- Enables the UFW firewall to allow only SSH (port 22, rate limited), HTTP (port 80) and HTTPS (port 443) access.
- Sets the Unix Socket to Object Cache for better performance.
- Sets the MySQL root password, runs `mysql_secure_installation`, and creates a WordPress user with the necessary permissions.
- Sets up the `debian-sys-maint` user in MySQL so the system's init scripts for MySQL will work without requiring the MySQL root user password.
- Creates the initial WordPress configuration file to set up salt keys and allow the WordPress instance to connect to the database.
- Modifies some PHP settings to increase the maximum filesize and execution time.
- Enables the OpenLitespeed context to rewrite the `.htaccess` file so the WordPress permalink feature will work.
- Tunes OpenLiteSpeed Web Server for better connectivity

Item	Before	After
Max SSL Connections	5000	10000
lspg Max Connections	35	100
PHP_LSAPI_CHILDREN	35	100

How to Access the Installed Software

phpMyAdmin Access



Welcome to phpMyAdmin

Language
English

Log in

Username:

Password:

Go

Connect to phpMyAdmin at the following URL:

```
https://example.com/phpmyadmin
```

Get the MySQL root password:

```
sudo sed -n 1p .db_password
```

Get the MySQL WordPress user password:

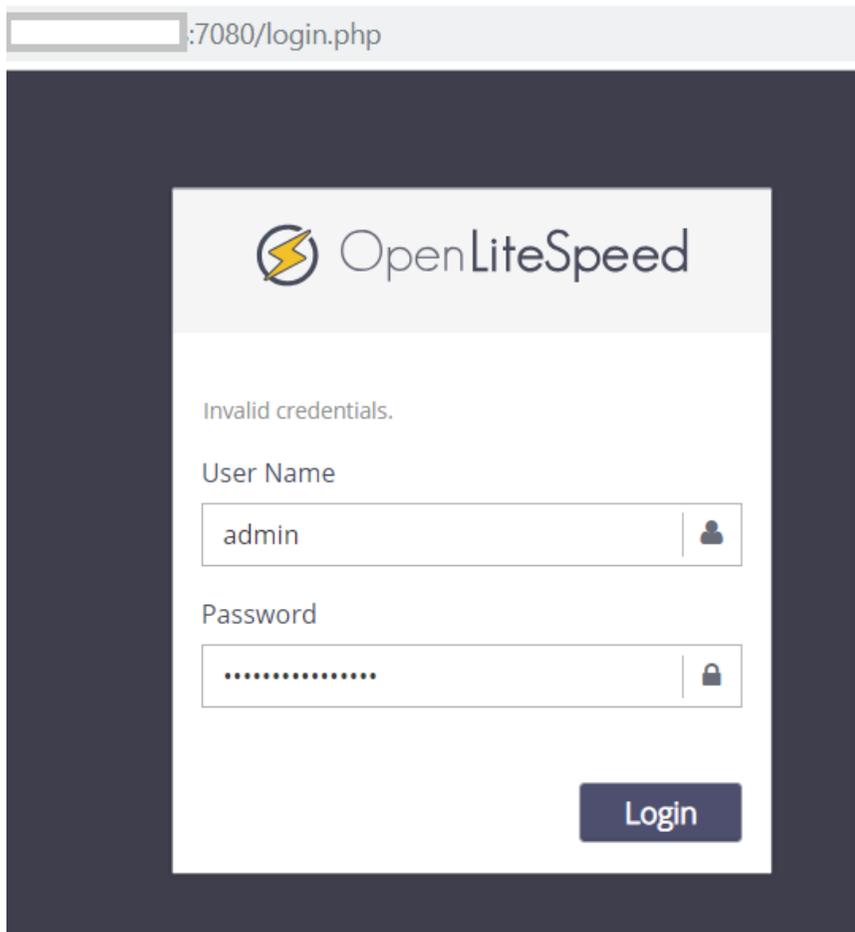
```
sudo sed -n 2p .db_password
```

Web Server Control Panel Access

Get the WebAdmin admin password:

```
cat .litespeed_password
```

Visit `https://use_your_droplet_ip:7080` to access WebAdmin in a browser.



By default, WebAdmin uses port 7080. To allow access to 7080 from your IP(e.g. 1.2.3.4):

```
ufw allow from 1.2.3.4 to any port 7080
```

You can also allow all IPs access to port 7080:

```
ufw allow 7080
```

We suggest turning this port off once you've finished setup:

```
ufw delete allow 7080
```

Optional Setup

Enable HTTPS

Setting up an SSL certificate enables HTTPS on the web server, which secures the traffic between the server and the clients connecting to it. Certbot is a free and automated way to set up SSL certificates on a server.

Step 1. Register Domain

To use Certbot, you'll need a registered domain name and DNS records:

- An A record from the domain (e.g., `example.com`) to the server's IP address
- An A record from the domain prefaced with `www` (e.g., `www.example.com`) to the server's IP address.

Step 2. Add Domain to Listener

Navigate to **OpenLiteSpeed Web Server WebAdmin > Listeners**, and add Your Domain to HTTP/HTTPS.



Virtual Host	Domains	Actions
Example	192.168.0.1, demo.example.com	 

Step 3. Certbot

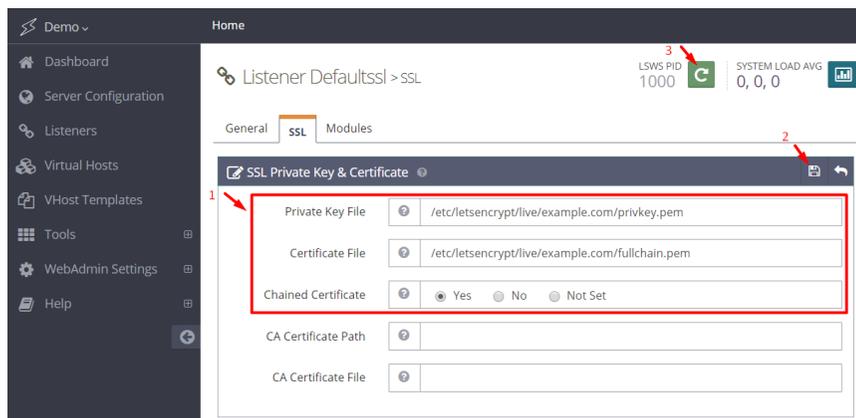
Once the DNS records are set up, you can generate the SSL certificate. Be sure to substitute the correct domain name in the following command:

```
certbot certonly --webroot -w /var/www/html/ -d example.com -d www.examp:
```

If certificate verification is a success, you should find your certificate files stored in

`/etc/letsencrypt/`

Step 4. Set SSL for HTTPS



Listener Defaultssl > ssl

General **SSL** Modules

SSL Private Key & Certificate

1 Private Key File

2 Certificate File

3 Chained Certificate Yes No Not Set

CA Certificate Path

CA Certificate File

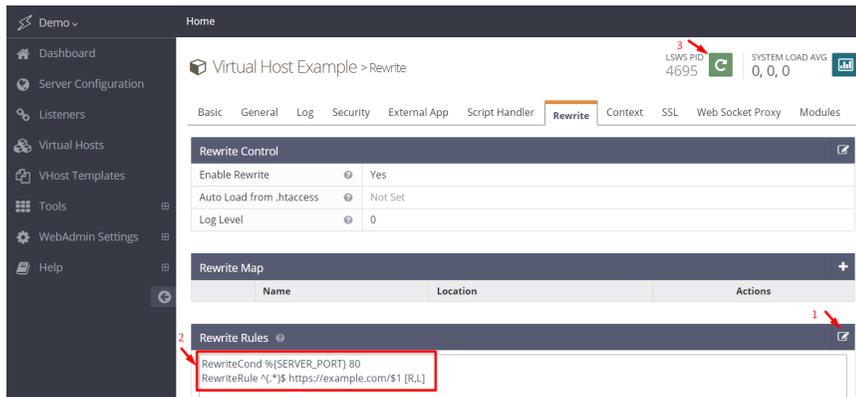
Navigate to **OpenLiteSpeed Web Server WebAdmin > Listeners > SSL**, and edit the following three items:

- **Private Key File** = `/etc/letsencrypt/live/example.com/privkey.pem`
- **Certificate File** = `/etc/letsencrypt/live/example.com/fullchain.pem`
- **Chained Certificate** = `Yes`

Save and perform a Graceful Restart.

Now your server should support TLS1.1, TLS 1.2, and TLS 1.3.

Step 5. Redirect HTTP to HTTPS



HTTPS traffic on port 443 is already allowed through the firewall. After you set up HTTPS, you can optionally rewrite all HTTP traffic to HTTPS.

Add the following rules to **OpenLiteSpeed Web Server WebAdmin > Virtual Hosts > Rewrite > Rewrite Rules**

```
RewriteCond %{SERVER_PORT} 80
RewriteRule ^(.*)$ https://example.com/$1 [R,L]
```

Method for Uploading Files

You can serve files from the web server by adding them to the web root using [SFTP](#) or other tools.

Methods for Migrating Wordpress

If you already have a WordPress site elsewhere, you can migrate it using one of the following methods.

Single-Site by [Duplicator Plugin](#)

1. Install and activate the Duplicator plugin on the WordPress site you're copying from.
2. Navigate to **Duplicator > Packages**, then click the **Create New** button.
3. Go through the wizard. When you see "Package Completed," click the **One-Click Download** link to download two files.
4. Move the two files (`installer.php` and a zip file) into the folder you'll want the WordPress site in.
5. Visit `installer.php` in a web browser and you should see a wizard screen.
6. Click **I have read and accept all terms & notices** and **Next**
7. You'll need to have a database ready. Enter the database name, user, and password.
8. Click the **Site Login** button and log in to your WordPress site using the same username and password as you have on the remote site.

Multi-Site by [Duplicator Plugin](#)

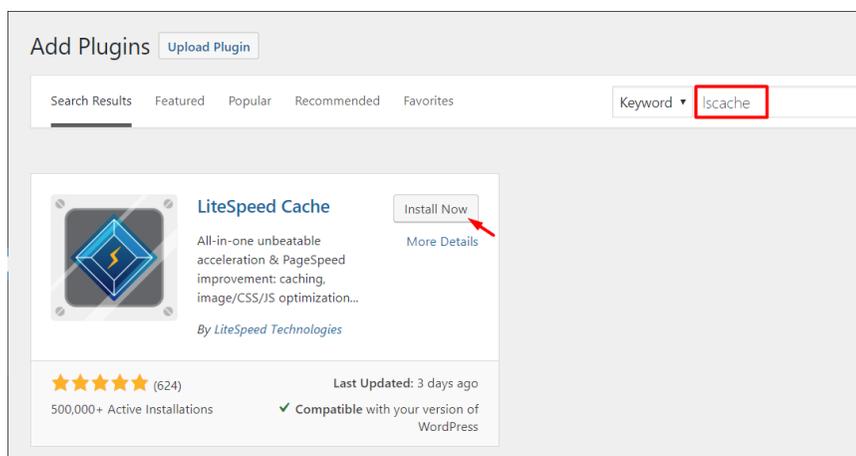
1. Install plugin.
2. Network activate plugin.
3. On site 1, perform the backup. That will capture the entire site into a package.
4. Restore the site in the new location just as in the Single Site procedure.

Manually by [WordPress](#)

1. [Back up WordPress](#)
2. [Back up the database](#)
3. [Move the directories](#)

Install LSCache After Migration

This step is only necessary if you have migrated a WordPress installation or it's a fresh wordpress installation.



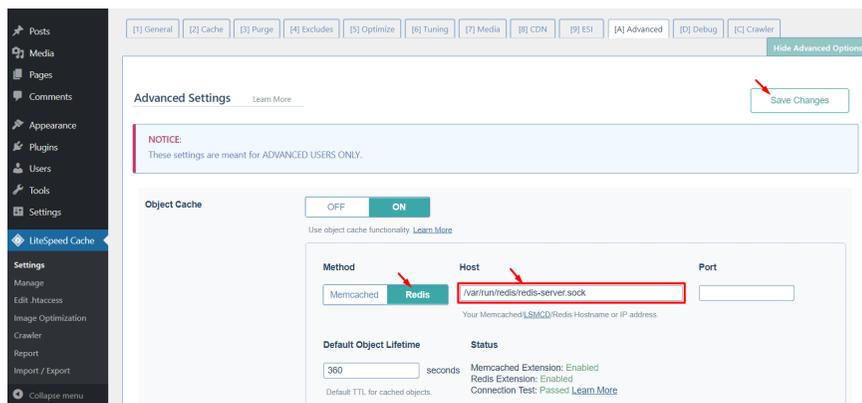
The screenshot shows the WordPress plugin directory search results for 'LiteSpeed Cache'. The search bar at the top right contains the keyword 'lscache'. The search results are filtered by 'Search Results'. The main result is for 'LiteSpeed Cache' by LiteSpeed Technologies. The plugin description reads: 'All-in-one unbeatable acceleration & PageSpeed improvement: caching, image/CSS/JS optimization...'. There is an 'Install Now' button with a red arrow pointing to it, and a 'More Details' link below it. The plugin has a 5-star rating (624 reviews) and over 500,000 active installations. It was last updated 3 days ago and is compatible with the current version of WordPress.

To benefit from high performance and a nice page score, don't forget to install the LSCache Plugin

Improve Your Page Score

- CSS/JS/HTML Optimization
- Image Optimize

Switch Object Cache Method



By default we have Memcached enabled. To switch to Redis is easy. Just copy the Redis socket path to **LSCache Plugin > Settings > Advanced > Object Cache** and save:

- Memcached: `/var/www/memcached.sock`
- Redis: `/var/run/redis/redis-server.sock`

Frequently Asked Questions

How do I Reset my Web Server WebAdmin Password?

If you forget your password, you may run the following command to reset it:

```
/usr/local/lsws/admin/misc/admpass.sh
```

It will ask for the WebAdmin username, which should be `admin`. Then, enter your new password.

How do I Create Additional Virtual Hosts?

- **Auto Setup via Script** This method will automatically set up Listener/VirtualHost/Force SSL/Let's Encrypt/WordPress.

Interactive mode

```
wget https://raw.githubusercontent.com/litespeedtech/ls-cloud-image/master/Setup/vhsetup.sh
chmod +x vhsetup.sh
bash vhsetup.sh
```

Or just run the script without downloading it:

```
/bin/bash <( curl -sk https://raw.githubusercontent.com/litespeedtech/ls-cloud-
image/master/Setup/vhsetup.sh )
```

CLI mode

```
wget https://raw.githubusercontent.com/litespeedtech/ls-cloud-image/master/Setup/vhsetup.sh
chmod +x vhsetup.sh
bash vhsetup.sh -d www.example.com -le admin@example.com -f -w
```

Or just run the script without downloading it:

```
/bin/bash <( curl -sk https://raw.githubusercontent.com/litespeedtech/ls-cloud-
image/master/Setup/vhsetup.sh ) -d www.example.com -le admin@example.com -f -w
```

- o Please be sure that your domain is already pointing to the server when using `-le` `YOUR_EMAIL`
- o Please be sure that your environment has php/sql service/sql root password when using `-w`
- **Manual Setup** By default, OpenLiteSpeed has an example virtual host already created. You can create more virtual hosts if you like. See [Create Virtual Hosts on OpenLiteSpeed](#).

How do I Verify if Cache is Working?

Visit your website using Chrome. Navigate to **Chrome menu > More tools > Developer tools > Network**, or simply use the shortcut **Ctrl+Shift+I** to bring it up. The test page may contain many requests, but you can just click your main domain to check the header. You might see `X-LiteSpeed-Cache: miss` or `X-LiteSpeed-Cache: hit`. Normally the first visit to a page is a `miss`, but subsequent visits should be a `hit`.

How Certbot's Auto Renew Script Works?

Image comes with cert auto renew by default in `/etc/cron.d/certbot`. This cron job would get triggered twice every day to renew certificate. Line `certbot -q renew` will check if certificate is getting expired in next 30 days or not. If it is getting expired then it will auto renew it quietly without generating output and auto restart web server by hook. If certificate is not getting expired then it will not perform any action. While renewing certificate it will use same information provided during certificate creation such as email address, domain name, web server root path etc.

How do I fix Object Cache test fail issue?

Sometimes system upgrade may cause config file being updated. So first thing you can do is to check user permission For Memcached:

```
vi /etc/memcached.conf
```

Make sure `-u www-data`

For Redis:

```
vi /lib/systemd/system/redis-server.service
```

Make sure `Group=www-data`

How Do I Set Up the PageSpeed Module?

You should not need to install the PageSpeed Module if the LiteSpeed Cache plugin for WordPress is already in use. Enabling both may degrade performance by 10% or more.

To install the module, please see [the OpenLiteSpeed PageSpeed Module knowledgebase article](#).

How do I Create Additional Databases?

▼ Method 1: Through phpMyAdmin

See [Installing WordPress Using phpMyAdmin](#)

▼ Method2 : Through SSH

Log into MySQL as root:

```
mysql -u root -p
```

Add a new database `wordpress2` and user `newuser` with password `password`:

```
create database wordpress2;  
grant all privileges on wordpress2.* to 'newuser'@'localhost' identified  
Flush priveleges;  
exit
```

How do I Install Postfix?

▼ For Ubuntu (non interactive mode)

```
DEBIAN_FRONTEND=noninteractive apt-get -y \  
-o Dpkg::Options::='--force-confdef' \  
-o Dpkg::Options::='--force-confold' install postfix
```

▼ For CentOS

```
yum -y install postfix
```

How do I Reconfigure Postfix?

Run the following command:

```
dpkg-reconfigure postfix
```

Configure the settings as follows:

- General type of mail configuration? `Internet Site`
- System mail name: `example.com` (not mail.example.com)
- Root and postmaster mail recipient: `ubuntu` (your user name)
- Other destinations to accept mail for: `<OK>` (to use default value)
- Force synchronous updates on mail queue? `No`
- Local networks: `127.0.0.0/8 [::ffff:127.0.0.0]/104 [::1]/128`

- Mailbox size limit:
- Local address extension character:
- Internet protocols to use:

Configure Postfix to Send Mail Using Gmail

How do I secure phpMyAdmin?

▼ Method 1. Change your phpMyAdmin URL

- Navigate to **WebAdmin > Virtual Hosts > Context**
- Change **URI** from to (for example)

▼ Method 2. Require a Password

- Log into SSH console and create a password file:

```
touch /usr/local/lsws/conf/PASS
chown lsadm:lsadm /usr/local/lsws/conf/PASS
```

- Navigate to **WebAdmin > Security**
- Set **Realm Name** = , and **User DB Location** =
- Click to create a user/password
- Navigate to **WebAdmin > Virtual Hosts > Context > phpmyadmin**
- Set **Realm** to

How do I Update phpMyAdmin?

The image comes with the latest phpMyAdmin version already, so you shouldn't need to update it. If you do need to update it, you can run the following commands:

```
cd /var/www/; mv phpmyadmin phpmyadmin.bak
wget https://www.phpmyadmin.net/downloads/phpMyAdmin-latest-all-language:
unzip phpMyAdmin-*.zip; rm -f phpMyAdmin-*.zip
mv phpMyAdmin-* phpmyadmin
cp phpmyadmin.bak/config.inc.php phpmyadmin
chown -R www-data:www-data phpmyadmin
```

How do I Change PHP Parameters?

Edit the following file to configure PHP parameters:

```
vi /usr/local/lsws/lsp73/etc/php/7.3/litespeed/php.ini
```

NOTE: We are using LSPHP 7.3 as example. If you are using a different version, please adjust the number in the URL accordingly. To increase the allowed file size, for example, you would make the following edits:

```
upload_max_filesize = 64M  
post_max_size = 64M
```

Other parameters in the file may also be changed, if needed.

How do I Fix a Too Many Open Files Issue?

The default system value is `1024`. To increase the value to e.g. `65535`, please append following content to the `/etc/security/limits.conf` file:

```
* soft nproc 65535  
* hard nproc 65535  
* soft nofile 65535  
* hard nofile 65535  
root soft nproc 65535  
root hard nproc 65535  
root soft nofile 65535  
root hard nofile 65535
```

Then, add the following to the `/etc/pam.d/common-session` file:

```
session required pam_limits.so
```

To verify, run the `ulimit -n` command. Output should read `65535`.

NOTE: `65535` is an example. Feel free to use a different value

How do I Set Up Virtual-Host-Specific PHP?

By default virtual hosts inherit the version of PHP that is set at the server level. You may wish to use a different PHP version for certain virtual hosts. Follow the steps below to set up virtual-host-level PHP. Here we will use the PHP version 7.4 as an example.

Install PHP 7.4 and commonly used PHP extensions:

```
apt-get install lsphp74 lsphp74-common lsphp74-curl lsphp74-imagick lsphp74-xml
```

Navigate to **WebAdmin console > Server Configuration > External App > Add > Type > LiteSpeed SAPI App** to set up a server-level external application. Set the following values:

- **Name:** `lsphp74`
- **Address:** `uds://tmp/lshhttpd/lsphp74.sock`
- **Max Connections:** `35`
- **Environment:** `LSAPI_AVOID_FORK=200M`
- **Initial Request Timeout (secs):** `60`
- **Retry Timeout (secs):** `0`
- **Command:** `/usr/local/lsws/lsphp72/bin/lspbp`
- **Instances:** `1`

Navigate to **WebAdmin console > Virtual Hosts > your vhost > Script Handler > Add** to add a virtual-host-level PHP handler. Set the following values:

- **Suffixes:** `php`
- **Handler Type:** `LiteSpeed SAPI`
- **Handler Name:** `[Server Level]:lsphp74`

OpenLiteSpeed come with `php detached mode` by default, so need to restart php with command

```
killall -9 lsphpnew
```

 to make settings take effect