

# WordPress & Nginx: The Ultimate Guide for Server Administrators

Copyright © 2012 7 Media Web Solutions, LLC

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written permission of the publisher, except in the case of brief quotations embedded in critical articles or reviews.

First edition published: July 2012

Published by 7 Media Web Solutions, LLC  
123 Montgomery Street, #1  
Cambridge, MA 02140

[www.7mediaws.org](http://www.7mediaws.org)

Chapter 1.....	4
<b>Introduction.....</b>	<b>4</b>
<b>What is WordPress?.....</b>	<b>6</b>
<b>What is Nginx?.....</b>	<b>6</b>
Chapter 2.....	7
<b>Installing Nginx, MySQL &amp; PHP.....</b>	<b>7</b>
Chapter 3.....	15
<b>Setting Up a Virtual Host.....</b>	<b>15</b>
<b>Installing WordPress.....</b>	<b>23</b>
Chapter 4.....	27
<b>Blocking Annoying IP Addresses.....</b>	<b>27</b>
<b>Installing phpMyAdmin.....</b>	<b>28</b>
Appendix.....	32
<b>Downloads.....</b>	<b>32</b>
<b>For Further Understanding.....</b>	<b>32</b>
<b>About the Author.....</b>	<b>34</b>

## Chapter 1

# Introduction

When I started as a webmaster more than 7 years ago, it was something new and exciting. However, I began to branch out and realized that shared hosting environments were too restricted for what I was trying to accomplish. Besides that I was becoming bored as a webmaster, and I wanted to learn more. Well, so I thought.

Obviously the next step was to rent my own dedicated server and start hosting all of my clients's websites on it. Nevertheless, I still crippled myself. My new dedicated server was a LAMP install, but I also installed a control panel. The control panel was doing all the work, and I had no idea of the directory structure nor the file system of the server.

Again, I was doing myself and my clients a disservice because I was not getting my hands dirty and instead was relying too heavily on a control panel as if a control panel is all you need to run a server. It still takes human intervention to make it hum and purr like it should. So, by the time I decided to get serious, I heard about Nginx. I thought to myself, "awesome". The WordPress sites on the server were sluggish (probably due more to me not being a good administrator) so I thought that if I started using Nginx, everything will begin to work itself out.

Voila, it did but only for a time. I was still being my lazy self and was not being the server administrator my clients needed. I started adding more and more WordPress accounts and then it seemed as Nginx wasnt as

responsive as I was lead to believe. I then began to realize that the fault was mine and not Nginx nor the server. So, I started to make a step in the right direction.

Most of what I knew about Nginx was what I was reading online. The more I read the more confusing it became for me to discern what was the correct setup for me. So, I decided to buy the book Nginx HTTP Server by Clément Nedelcu. It became my Bible for Nginx. As I read through the book, I began to understand more of the concepts, how they work, and what affects what. I was no longer blindly getting by, but I was learning how to tune a server and really make it hum.

Not only was I learning about Nginx by reading the book, I also decided to read shell programming books, and other Linux related books, magazines, and articles. So, I went from knowing very little to knowing more of what it means to be a server administrator.

Therefore, this book is my learning pains that I want to pass on to others. Even though I have a better understanding of Apache, I still recommend Nginx because Apache has a few headaches of its own.

At the end of this book, you will find a link where you can download all the code that was mentioned for your convenience. If you come across something you don't understand or need further help, then you can check out the help desk @ <http://helpdesk.7mediaws.org/>.

The Help Desk is a place where you can ask questions and seek further help with regards to anything WordPress, Nginx, PHP, or MySQL related.

# What is WordPress?

WordPress is the most popular blog and CMS software written in PHP. It powers millions of websites and the number continues to grow due to the fact that it is user friendly and takes seconds to install. Over the years, WordPress has been used in more creative ways besides blogging and company websites thanks to the many themes and plugins that are released on a daily basis.

WordPress has and can be turned into a standalone forum, contact manager, knowledgebase, job site, help desk, social network, and more. The possibilities with WordPress are endless. Moreover, WordPress has a multisite feature that allows you to offer a blogging network just like WordPress.com.

# What is Nginx?

Nginx (pronounced “Engine-X”) is a lightweight web server or reverse proxy server. It is gaining in popularity due to its high-performance and low memory usage. Nginx is even being used on the biggest and popular WordPress powered site: Wordpress.com. Now that should tell you something.

## Chapter 2

# Installing Nginx, MySQL & PHP

The alternative to a LAMP (Linux, Apache, MySQL, PHP) install is a LEMP (Linux, Nginx, MySQL, PHP) install. I am skipping the Linux installation since everyone has their favorite or go to distro. There are plenty of resources online that can show you how to install CentOS, Ubuntu, Fedora, Red Hat, etc. The information in this book can be adapted for any VPS or dedicated server. I myself am a big fan of Ubuntu, everything in this book is based on it. Also, here are my server specs, so that you can have a plumline when setting up your server: Intel E7500, 2 Cores, 2.93GHz, 8GB Ram, Raid 1, 100Mbps, 20TB Bandwidth, Ubuntu 10.04.

Most distros now a days come pre-packaged with Nginx, but I like to install it from source because I want better control over it, and it helps me better understand Nginx's setup and file system.

During the installation and setup, make sure you are logged in as root. Run the following command and enter the root password:

```
sudo -i
```

Now you need to install a few dependencies. These may vary depending on your version of Ubuntu or your flavor of Linux distro:

```
aptitude install libc6 libpcre3 libpcre3-dev libpcrecpp0 libssl0.9.8 libssl-dev zlib1g zlib1g-dev lsb-base
```

Next, you should be able to install Nginx without issues:

```
cd /usr/local/src/  
wget http://nginx.org/download/nginx-1.2.1.tar.gz  
tar xzfv nginx-1.2.1.tar.gz  
cd nginx-1.2.1  
./configure  
make && make install
```

By default, Nginx will be installed in `/usr/local/nginx`.

Now you need to edit your `nginx.conf` file, but first you should make a backup copy of it just in case:

```
cp /usr/local/nginx/conf/nginx.conf /usr/local/nginx/conf/  
nginx.conf.default
```