

Installing WordPress MU

For Beginners

Version 2.7beta - December 2008

by

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<http://wpmututorials.com>

Before we begin, make sure you have the latest download file from <http://mu.wordpress.org/download/>.

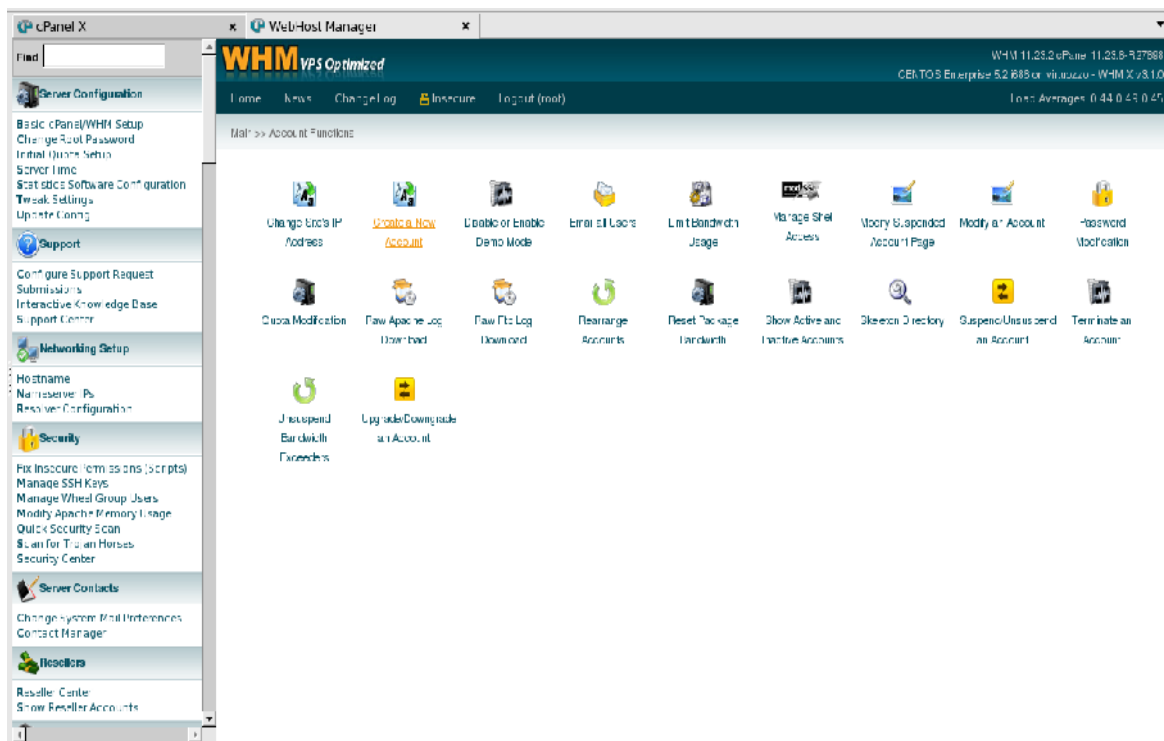
There is an installation guide for WPMU in the form of a README.txt included in the download, but it can be confusing for some, or just too brief and unspecific for others. The most important thing to note is that the install process is different from single user WordPress. Do not touch the wp-config-sample.php file. Do not make your own. Read on...

For example purposes, I'm going to walk you through an installation at the host I use, Futurehosting.biz, with cPanel. If you would like an account, you can [sign up here](#). Yes, that is an affiliate link. Yes, I really do recommend them, even before they had an affiliate program.

Set up the web account

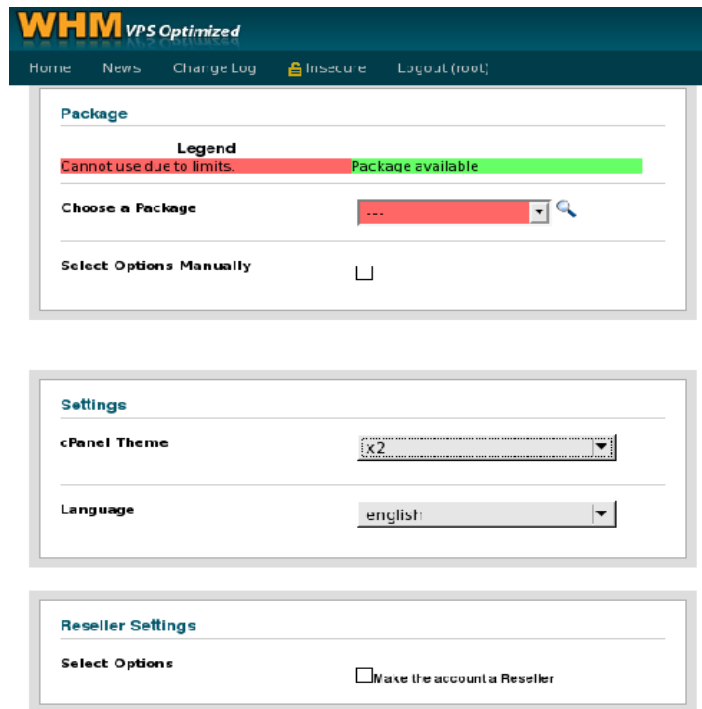
When your account is first created here, they do almost all the work for you. All you will need to do is create the initial web account for your domain. If you haven't pointed your nameservers to theirs, or the domain hasn't resolved, you can log in to WHM by going to <http://your.ip.address:2086>. Your username for this will be root with your root password you gave on signup.

You may or may not be welcomed with a screen saying to do the default WHM setup. If so, it's pretty easy. Just follow instructions and choose default settings. They can be changed at a later date. The last time I went through this on a new client account, it was all done.



Now we're into WHM. To set up a new web account, yes even for our new default one, click on the Account Functions menu item. Within that menu, click on "Create New Account". Fill in details for

your domain, choosing the account name and password. Do NOT make it that same as your root password. This will be your cPanel login as well as your ftp credentials.



Further down this page are some more options. There's no hosting packages listed because we haven't made any, but that's okay. Pick the cpanel theme you like, and you also do NOT have to make it a reseller account. There's just no need on your own VPS.

Under that, I usually tell it to go find the domain's listed nameservers, which hopefully have already been pointed to our host. Either way, I usually pick the option to use the domain's listed nameservers in case I need to change it. Click the button to create.

If all has gone well, and the domain has resolved, at this point you should see an empty folder structure when you go to your new domain.

Add wildcard subdomain records

You only need to do this step if you want your blogs to be created as username.yourdomain.com. The easiest, fastest, simplest way is to email support or file a support ticket. They will do it for you no problem, and it is not cheating. :) File a support ticket, listing your domain and IP address and ask, "Can you enable wildcard subdomains for mydomain.com?"

Do this now, and by the time you are done the rest, it will be enabled for you.

If you do have to do it manually, you will need to visit three places:

- in WHM, under DNS functions, go to Edit DNS Zones. Pick your domain, and add a new A record like this:

WHM VPS Optimized
 WHM 11.23.2 cPanel 11.23.6-R2766
 CENTOS Enterprise 5.2 696 on virtaocco - WHM X v3.1
 Home News Change Log Insecure Logout (root) Load Averages: 1.04 0.83 0.6

Main >> DNS Functions >> Edit DNS Zone

Edit DNS Zone

Editing zone homeschoolblogsites.com

cPanel first: 11.23.6-RELEASE_27698 latest: 11.23.6-KIGHTLY_27537 cpanel::ZoneFile::VERSION: 1.2 active: 1228324661
 ; Zone file for homeschoolblogsites.com
 \$TTL 14400

homeschoolblogsites.com.	86400	IN	SOA	ns48.domaincontrol.com.	silyandrea.gmail.com.
	2008111905				Serial Number
	86400				Refresh
	7200				Retry
	3600000				Expire
	86400				Minimum TTL

)

homeschoolblogsites.com.	86400	IN	NS	ns48.domaincontrol.com.
homeschoolblogsites.com.	86400	IN	NS	ns47.domaincontrol.com.
homeschoolblogsites.com.	14400	IN	A	72.44.82.59
localhost	14400	IN	A	127.0.0.1
homeschoolblogsites.com.	14400	IN	MX	0 homeschoolblogsites.com.
mail	14400	IN	CNAME	homeschoolblogsites.com.
www	14400	IN	CNAME	homeschoolblogsites.com.
ftp	14400	IN	A	72.44.82.59
+	400	IN	A	72.44.82.59

Add New Entries Below this Line

	14400	IN	Select	
	14400	IN	Select	

See the line where I filled in a * and my IP address? Do that.

- your account management page at FutureHosting, under DomainManagement. Click the domain name, wait for the page to reload, then click the edit button.

System > Domain Management > All My Domains >
 homeschoolblogsites.com
 Request Support Refresh Help
 This screen ID: 01.04.19.10.05

General Information **DNS Zone**

The most general information about the domain you have selected is shown on this screen. To adjust the advanced domain settings, click the **DNS Zone** tab. The buttons at the bottom of the screen serve for the following:

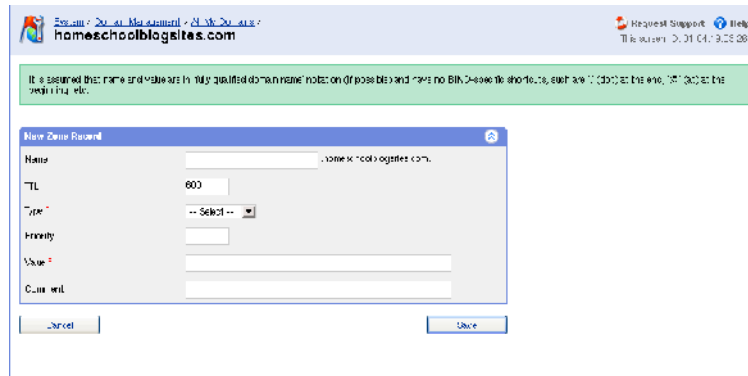
- Register - if the domain is still in the Unregistered state, clicking its button re-sends the domain registration request.
- Transfer - If this domain is registered somewhere outside our DNS, you can transfer the domain to our name servers using this button. Such a transfer will provide the automated domain registration renewal and you will pay the renewal order from your Control Panel.
- Disable (Enable) DNS Hosting - this button serves for removing or restoring a zone file from/at our name servers. A disabled zone stays in database and can be enabled, i.e. restored on our name servers at any moment. Important: If a zone is kept on a remote name server that does not belong to our NS, this zone MUST be disabled here.
- Delete - this button unregisters the domain and removes the zone file from our DNS.

Domain Properties	
Domain	homeschoolblogsites.com
Account	Ron Rennick
Action	DNS Hosting
Status	Registered
DNS Hosting	✓
Used by subscripts	#3566 new homeschoolblogsites.net

Loading... Please wait until this screen is completely loaded.

Register Transfer Delete Edit

Click on the DNS Zone tab to get to the records themselves. Add a new record, and fill it out as follows:



Put a * in the name field. Select the type as A, and under value put your IP address.

Also via ssh, edit the httpd.conf file. Open up a terminal and type this in:

```
> ssh root@yourdomain.com
```

You'll be prompted for your root password to the server.

Then find the httpd.conf file, which on this server is here:

```
> cd /etc/httpd/conf
```

Now we have to edit the file, so type in:

```
> vi httpd.conf
```

The file contents will show on the screen, and you'll have to page down quite a bit to near the end to find the information for your web account. It should look like this:

```
<VirtualHost 72.44.82.60:80>
    ServerName homeschoolblogsites.com
    ServerAlias www.homeschoolblogsites.com *.homeschoolblogsites.com
</VirtualHost>
```

It will have more lines in there, but these are the relevant ones. Add the information in red, substituting your domain name. Press the I button to be able to edit. You'll see the word "INSERT" show up in the terminal window. Move around with the arrow buttons. When you have the line added, press the Esc button to get out of edit mode. Type in

```
:wq
```

This writes our changes to the file and quits the file editor. Restart Apache and quit the terminal.

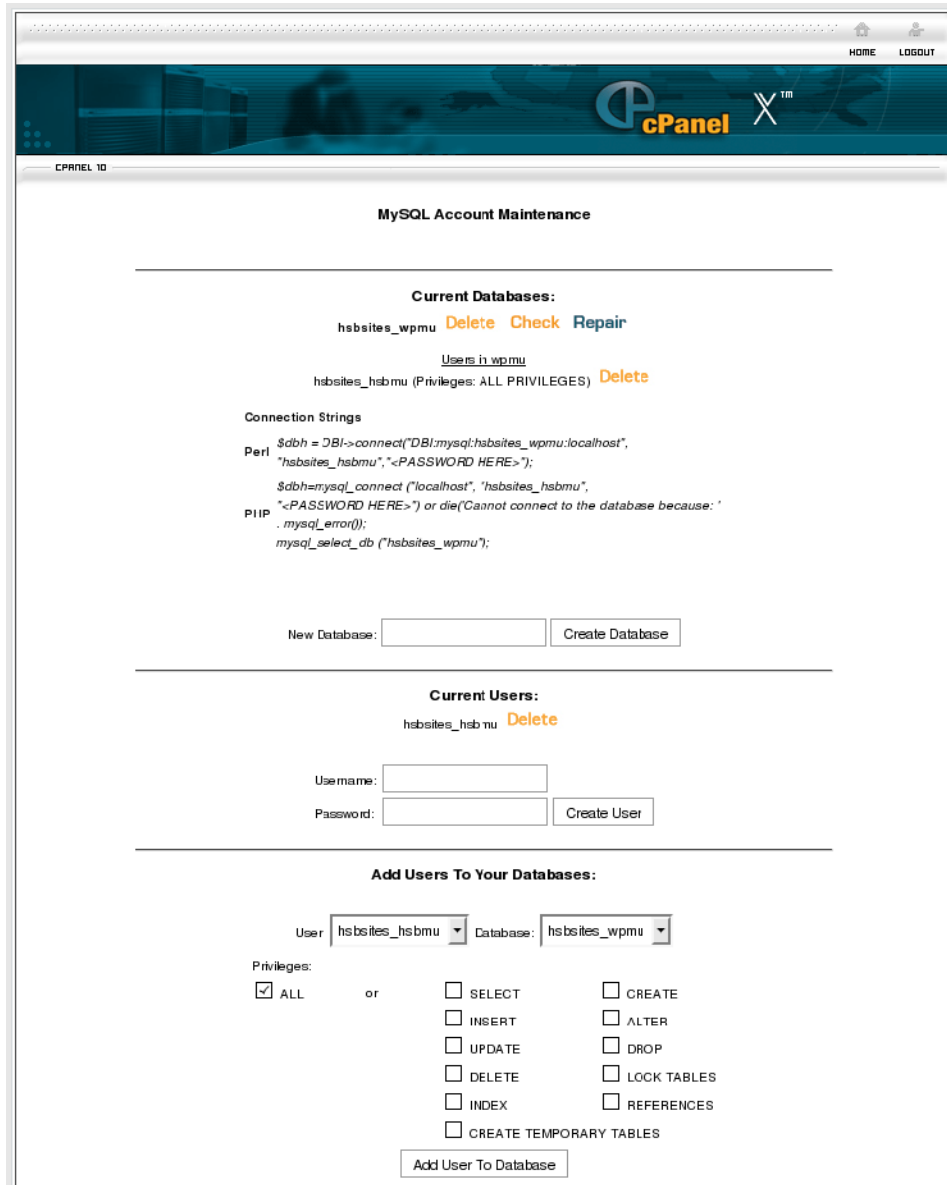
What the wildcard subdomain does is tell Apache that ANY subdomain request for your domain will be passed though to the main domain, where in our case it will be handled by WPMU.

Note: if you want a subfolder install, with blogs in the forms of yourdomain.com/username/ , you can skip this step.

Create the Database

Login via cPanel and click the MySQL icon to create a database. Also create a database user and different password, and most importantly add the user to the database. Write down your database and db user information. We'll need it in a couple steps and you might not remember. Remember that cPanel adds the web account name to the beginning of both the database name AND the database username.

So you will have something like this:



The screenshot shows the cPanel MySQL Account Maintenance interface. At the top, there's a navigation bar with 'HOME' and 'LOGOUT' links. The main heading is 'MySQL Account Maintenance'. Below this, there are three main sections: 'Current Databases', 'Current Users', and 'Add Users To Your Databases'.

Current Databases:

- hsbsites_wpmu [Delete](#) [Check](#) [Repair](#)
- [Users in wpmu](#)
- hsbsites_hsbmu (Privileges: ALL PRIVILEGES) [Delete](#)

Connection Strings

```
$dbh = DBI->connect("DBI:mysql:hsbsites_wpmu:localhost",  
Perl "hsbsites_hsbmu", "<PASSWORD HERE>");  
$dbh=mysql_connect ("localhost", "hsbsites_hsbmu",  
PIIP "<PASSWORD HERE>") or die("Cannot connect to the database because: "  
.mysql_error());  
mysql_select_db ("hsbsites_wpmu");
```

New Database:

Current Users:

- hsbsites_hsbmu [Delete](#)

Username:

Password:

Add Users To Your Databases:

User: Database:

Privileges:

ALL or SELECT CREATE

INSERT ALTER

UPDATE DROP

DELETE LOCK TABLES

INDEX REFERENCES

CREATE TEMPORARY TABLES

Get the WPMU archive

Go to <http://mu.wordpress.org/download/> and save the latest stable copy of WPMU to your computer somewhere if you haven't already.

Now, here's a handy tip that cuts down on installation time, especially if you have a slow connection or generally dread uploading a large amount of files via ftp.

Since we still have cPanel open from the step above, open up the file manager. We're going to upload the zip of WPMU to the same level as public_html. That's right, we're not putting it in public_html yet. Why? Because inside the archive all the WPMU files are in their own subfolder, and if we put the archive in the web root and then unpack it, our install will be in a subfolder off our domain, and right now we don't want that. I'm going to show you how to overcome this easily.

Here's a screenshot of where I mean:



Note how on the left I have clicked on the archive filename to bring up the menu on the right. See how it gives up the option to extract? Click it. (Ignore the fact I am playing with a version from trunk and pretend it's called latest.zip.)

Now we have all the usual folders, plus a new one with our WPMU files in it. Here's the fun part.

Click on the public_html folder. Rename it to public_old.

Click on the WPMU folder. Rename it to public_html.

Now our WPMU files are in our new web root directory. You can double-check this by surfing to your domain. You should now see the WPMU install screen with some warnings. We'll take care of these in the next step.

WordPress μ

Installing WordPress μ

Welcome to WordPress μ . I will help you install this software by asking you a few questions and asking that you change the permissions on a few directories so I can create configuration files and make a directory to store all your uploaded files.

If you have installed the single-blog version of WordPress before, please note that the WordPress μ installer is different and trying to create the configuration file `wp-config.php` yourself may result in a broken site. It's much easier to use this installer to get the job done.

What do I need?

- Access to your server to change directory permissions. This can be done through ssh or ftp for example
- A valid email where your password and administrative emails will be sent.
- An empty MySQL database. Tables are prefixed with `wp_` which may conflict with an existing WordPress install.
- Wildcard dns records if you're going to use the virtual host functionality. Check the [README](#) for further details.

Warning!

**One or more of the directories must be made writeable by the webserver. You will be reminded to reset the permissions at the end of the install.
Please `chmod 777 "directory-name"` or `chown` that directory to the user the web server runs as (usually `nobody`, `apache`, or `www-data`)
Refresh this page when you're done!**

Quick fix:

```
chmod 777 /home/account /public_html /home/account /public_html/wp-content/
```

Warning! `.htaccess` already exists.

**A file with the name `.htaccess` already exists in this directory and I cannot write to it. Please ftp to the server and delete this file from this directory!
Offending file: `/home/ /public_html/.htaccess`**

[WordPress \$\mu\$ | Support Forums](#)

FTP work

Now is the time to exit cpanel and start up your ftp client. I use FireFTP, an extension for FireFox, so all I have to do is close one tab and open another. Use whatever you're familiar with.

The first thing we have to take care of is deleting the `.htaccess` file that is put there by cPanel. If you can't see it, there's usually an option in your ftp client called "show hidden files". If you go back into cpanel at any time, this file will recreate itself, so make sure you are completely out.

Change permissions on the `public_html` folder and the `wp-content` folder. Just for the install process, the quickest thing to do is change them to `777`, and in maybe 5 minutes, we'll be changing them back. In FireFTP, all I have to do is right-click on the folder names and I get an option to change permissions.

Now we can really install

In another tab, go back to your website, refresh if necessary. Our initial install screen should now show up with some options we need to fill in.

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Blog Addresses

Please choose whether you would like blogs for the WordPress μ install to use sub-domains or sub-directories. You can not change this later. We recommend sub-domains.

- Sub-domains (like `blog1.example.com`)
- Sub-directories (like `example.com/blog1`)

Database

Below you should enter your database connection details. If you're not sure about these, contact your host.

Database Name	<input type="text"/>
User Name	<input type="text"/>
Password	<input type="password"/>
Database Host	<input type="text" value="localhost"/>

Server Address

Server Address	<input type="text" value="yourdomain.com"/>
----------------	---

What is the internet address of your site? You should enter the shortest address possible. For example, use `example.com` instead of `www.example.com` but if you are going to use an address like `blogs.example.com` then enter that unaltered in the box below.

Site Details

Site Title	<input type="text" value="yourdomain .com Blogs"/>
------------	--

What would you like to call your site?

Email	<input type="text" value="aworkingemail@someplaceelse.com"/>
-------	--

Your email address

[WordPress \$\mu\$ | Support Forums](#)

Outlined in red in the picture above is our options for subdomain or subfolders. Since we set up wildcard subdomains in a previous step, that's what we're installing. It's even chosen for us by default, as this is the most common.

Right under that we fill in our database, database user, and password. Remember, they are in the format

of webaccountname_dbname and webaccountname_dbuser. Database host in our case is indeed localhost.

Servername = put in your domain name, WITHOUT the www and without the http://. The site title is filled in for us, and you can change that now, but you also have the option of changing this later from the backend of the main blog.

Put in a working email address in the next field. This will be inserted in the database, as well as sending you the initial password. By all means, you can stop here and go back to cPanel and create a special email account if you like. Just make sure it works and you can receive mail.

Double-check to make sure all values are correct and click the button. If all has gone well, the install screen will show you it has, as well as give you the admin username (it's admin in all cases) as well as a randomly generated password and the login link.

If it has not, see below.

Copy the password and click the login button. You'll come to the login screen, so log in as admin and paste in that password. Immediately when you are in the backend, go to the links on the upper right of the screen. Click where it says "howdy, admin" because we're going to change your password to something you can remember.

Scroll down and give yourself a new password that you can remember. Make sure it is NOT THE SAME as any you have used previously.

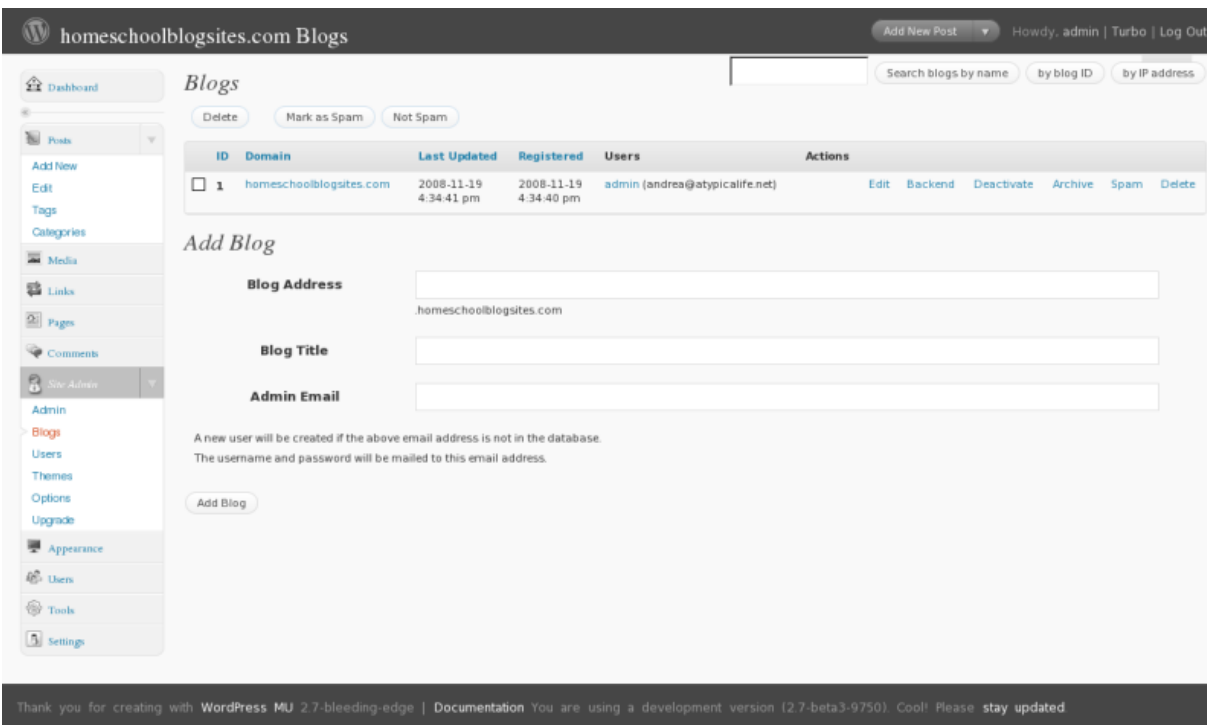
Now is also a good time to go back in ftp mode and change our folder permissions back to 755 on /public_html/ as well as /public_html/wp-content/.

Done that? Good. Let's explore and test our install.

Create a test blog

The biggest difference from single-user WordPress that you will notice right away is the Site Admin option. Take some time to go through each menu item and read the contents over carefully.

For right now, we are going to create a test blog. Go to Site Admin -> Blogs.



See where it says “Add A Blog”? This is how we manually add a blog from the backend. Pretty easy!

Also, in the list of blogs on the system, if we click on the name of the blog (in blue, left column) we will get to the front end of that blog. Do that now on the test blog you created. Since we've enabled our wildcard subdomains, it should show up just perfect.

As a Site Admin, you also have access to the backend of every blog on the system. This is very handy for troubleshooting and helping your users.

If you go to the main page of your site, which is the main blog, you will see the default Kubrick theme with a special front page just for WPMU. It also has a link to the standard signup page. It's the same on every install – yourdomain.com/wp-signup.php. This is where people will go to sign up.

By default this is disabled, so go back to the Site Admin area, go to the Options sub-menu, and click the radio button to enable both blog and user registrations.

You are now open for business.

Well, technically you can open up registrations now, but you will want to customize your install according to your plans, before you let in the general public (if that's what you intend).

Troubleshooting Installation Issues

If you have had no issues installing, and all your testing has worked out fine, skip this part. Take a walk outside, get up off your chair, celebrate. Otherwise, take a break and come back rested and clear headed, with a cup of beverage at hand- preferably caffeinated.

My installation failed/I made a typo, I need to re-install.

Although there are some places that say you can edit the htaccess by hand and pick up the installation process, the logic in the programming utterly fails at this. Better to do the following:

- delete the .htaccess file
- delete wp-config.php if one was created
- drop the tables in the database

You should be able to visit yourdomain.com again and see the install screen come up. Run through the process and this time make absolutely sure you have all the correct information.

No WPMU site defined on this host

This is one of the more maddening errors to get. What trips this into occurring is enough information, like a config file, to convince WPMU there is a working install present, but not enough information in the database.

First check the database. Are all the tables there? If so, do they have the correct information? You may have to re-install.

In some cases, you may get this message even before you have installed WPMU. This is because Wordpress is installed elsewhere on your server. There's some code in there from regular Wordpress that will travel up a directory, and if it finds a config file, tries to use it. You can disable your other config file for the few minutes the install will take, or you can edit WPMU to ignore it.

Go to wp-blog-header.php in the root folder, and look for line 9:

```
if ( !file_exists( dirname(__FILE__) . '/wp-config.php') && !file_exists( dirname(
dirname(__FILE__) ) . '/wp-config.php')) {
```

Change it to:

```
if ( !file_exists( dirname(__FILE__) . '/wp-config.php') /*&& !file_exists( dirname(
dirname(__FILE__) ) . '/wp-config.php')*/) {
```

Error connecting to the database

If it's a first-time install and you get this immediately, it means you have typed in the wrong database information. Any of the following can be the cause:

the db name is wrong

the db user or password is wrong

the user has no permissions on the database

the database is somewhere other than localhost

That last one is common on hosts like Dreamhost or MediaTemple. This means you'll have to delete the .htaccess file and wp-config.php and install again. Remember on many hosts, the db & user has the web account name in front, like webaccount_database.

Can't find sub-blogs in a subdomain install

Are you sure the wildcards have been enabled? Did you do **all** the steps? You can check to see if this is working two ways:

Type in a blog you know does not exist. Do you redirect back to the main page? Then it's setup. WPMU now redirect non-existent blogs back to the main page. It used to redirect back to the signup page. You can configure this behavior.

Try to ping the server. You can do this via a ssh terminal. Fire one up, and type in

```
> ping test.yourwpmuinstall.com
```

If it says "unknown host", then the wildcard subdomains have not been set up right.

If it is fine, you'll see something like this:

```
> ping blargh.homeschoolblogsites.com
```

```
PING homeschoolblogsites.com (72.44.82.59) 56(84) bytes of data.
```

```
64 bytes from homeschoolblogsites.com (72.44.82.59): icmp_seq=1 ttl=42 time=1431 ms
```

```
64 bytes from homeschoolblogsites.com (72.44.82.59): icmp_seq=2 ttl=42 time=1277 ms
```

Permalinks do not work or Can't find sub-blogs in sub-folder install

If everything looks like it installed okay, but when you start clicking on links and you get 404's or server errors, you need to do a little Apache configuration. Even if you have mod_rewrite enabled, and the htaccess file is there, on some setups the web account is set to not let these settings through. You'll need to go to terminal mode and edit the httpd.conf file. See back on page 5, and while you're in there, look for the <Directory> directive of your virtual host, find this line - "AllowOverride None" and change it to "AllowOverride FileInfo Options". With no quotes. :)

And lastly...

I hope you enjoyed this ebook and found it helpful. I also write about WordPressMU at my blog <http://wpmututorials.com>. Don't forget to stay subscribed to the RSS feed for how-to's for MU.

I'm working a second ebook, which will have even more information. In fact, this free ebook is just the chapter on installation!

The Beginner's Guide to WPMU will cover pretty much everything you need to know about setting up your own WPMU-based site. I've set up and worked on over a hundred installs, for dozens of clients, on a variety of servers. Each one of those sites were different from the next. I learned a TON of tips and tricks on getting the most out of your setup. You may even have seen my name in the wpmu support forums. I'm andrea_r there – and yeah, I answered a LOT of threads. But I have even more information I couldn't begin to cover in the forum, or even on my website. And *The Beginner's Guide to WPMU* contains a **lot** of information I don't mention in public.

If you would like to be notified when *The Beginner's Guide to WPMU* is available, stay tuned to the RSS feed of <http://wpmututorials.com>. You can also follow me on Twitter - http://twitter.com/andrea_r. I'm hoping to have it available in the new year.

Happy Coding!

Andrea