WP EBOOKS

Creating A WordPress Network

The Complete Guide to Setting Up WordPress Multisite

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by Andrea Rennick

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1 Introduction

An Introduction to Networks

Hello there intrepid reader. This here guide is to explain in plain English the multisite feature in WordPress 3.0 and above. This feature is used when you want to run multiple sites from one install of WordPress without having to actually create many separate installs on the same server.

It's also very similar to what runs WordPress.com, so if you have big dreams of becoming a free blog host, almost all the code you need to do so have been provided FREE. How cool is that? So this is what it was originally intended for – multiple separate blogs with a shared codebase and global users.

Where did this code come from? Well, before it landed in 3.0, this feature was a completely separate program called WordPress MU (http://mu.wordpress.org) and was developed by Donncha O Caoimh. Eventually, the decision was made to roll it in with core WordPress for easier maintenance, since it shared over 95% of the same codebase.

Running a network, especially if you are letting other users sign up, involves sometimes substantially more knowledge about servers that just being a customer on a shared host. If you have difficulty installing WordPress via something like Fantastico and have never done it manually, then running a network is probably not for you.

Oh yeah, the community refers to it as both multisite and running a network. The admin area references the Network terminology.

It is a step up from beginner level, and well into intermediate. If you're ready to learn & improve your skill set, read on.

2 Before You Begin

Before you Begin

Now, I know it would be really nice to dive right in and start copy/pasting commands everywhere, but the absolute first thing we need to do is get a little down & dirty with our server. Yes, the place where your website lives. You may even need to talk to the support team at your host and ask a few questions.

(It's okay, most of them have been asked about it already.)

> **Task #1**
> Decide on the format for the extra sites. There are two kinds built in, subdomains or subfolders (sometimes know as subdirectories, but it's the same thing).
>
> **Task #2**
> Ask your webhost if they support wildcard subdomains (if you want subdomains) and the multisite feature of WordPress.

If you want subdomains (secondsite.yourdomain.com), your webhost has to support something called wildcard subdomains. This is how they are created on the server. Actually, they aren't created at all; they are virtual. They don't exist on the server, just in the database. The wildcard command just lets every request for a subdomain fall through until it hits the WordPress database. WordPress looks it up and pulls the right information. It's a two-parter: Apache has to have the command (again, your webhost will know this part) and you have to add a wildcard subdomain record in the DNS area of your webhost.

Whether you use Plesk or Cpanel is irrelevant, as this is an Apache requirement that has to be done by the host. Some hosts are now setting it up by default, but you really should ask.

You also have to add a wildcard subdomain to your DNS records at your webhost,. In cpanel, just go to Subdomains, and add one with a value of * that points to the public_html older where your WordPress install is.

If your webhost doesn't support this, you'll have to pick subfolders. These are also virtual and will not live in a folder on the server somewhere. They get served up through the magic of mod_rewrite. If you've every used Wordpress with “pretty permalinks” that works on the same mod_rewrite access. This is all driven via the .htaccess file, which is a hidden file in the root of your installation. It lives in the same place as your wp-config.php file.

Also, you will be editing your wp-config.php and .htaccess files, so please make sure you have backup copies in case you ever want to revert back to a single site.

It's always a good practise to backup your database before you start.

Geek alert (non-geeks can skip):

If you're on a VPS or dedicated box and have access to Apache, you can enable it in the httpd.conf file like this:

```
ServerAlias yourdomain.com *.yourdomain.com
```

While you're in there, make sure mod_rewrite is enabled and has permission to read the .htaccess file in the home folder where you've installed WordPress.

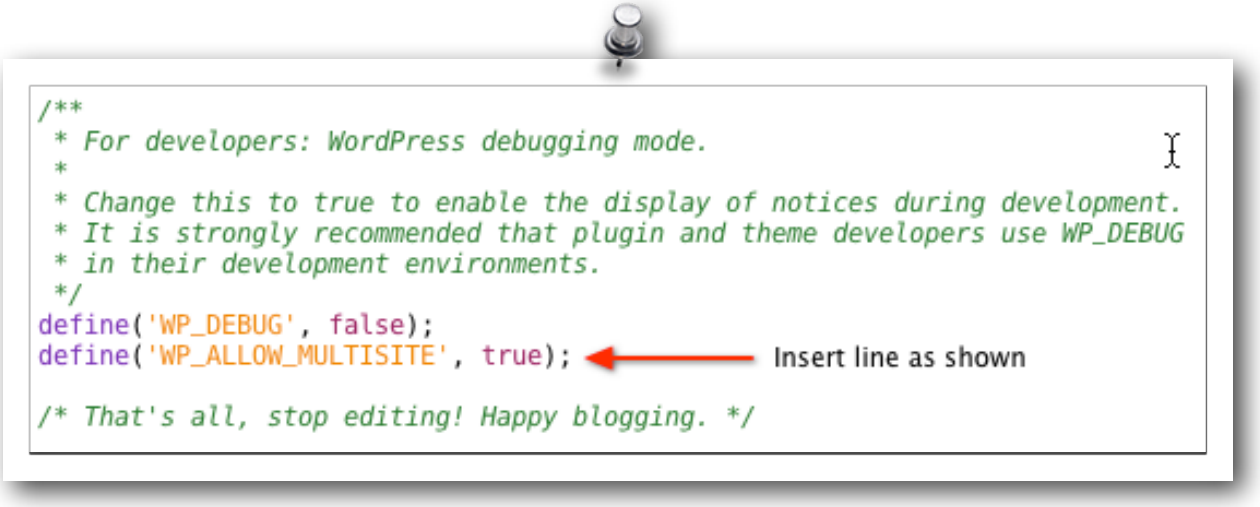
3 Create a Network

Create a Network

The menu item to set up the network is hidden by default, so we have to allow it to be shown. Open up your wp-config.php file right on the server, or download it, edit it and re-upload. You'll be adding this line:

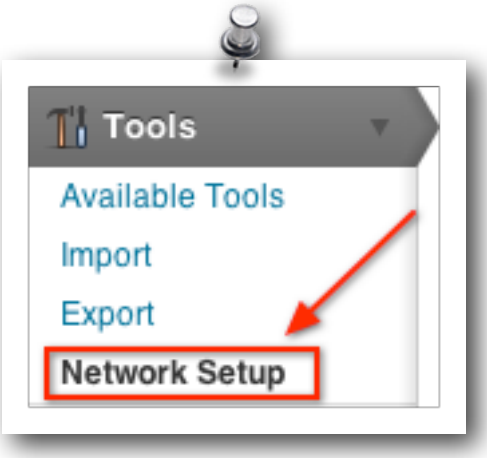
```
define('WP_ALLOW_MULTISITE', true);
```

Put this line somewhere in the middle of the wp-config.php file, not at the top or bottom. At the bottom is under the */* That's all stop editing */* area and anything new under there will not be read by WordPress.



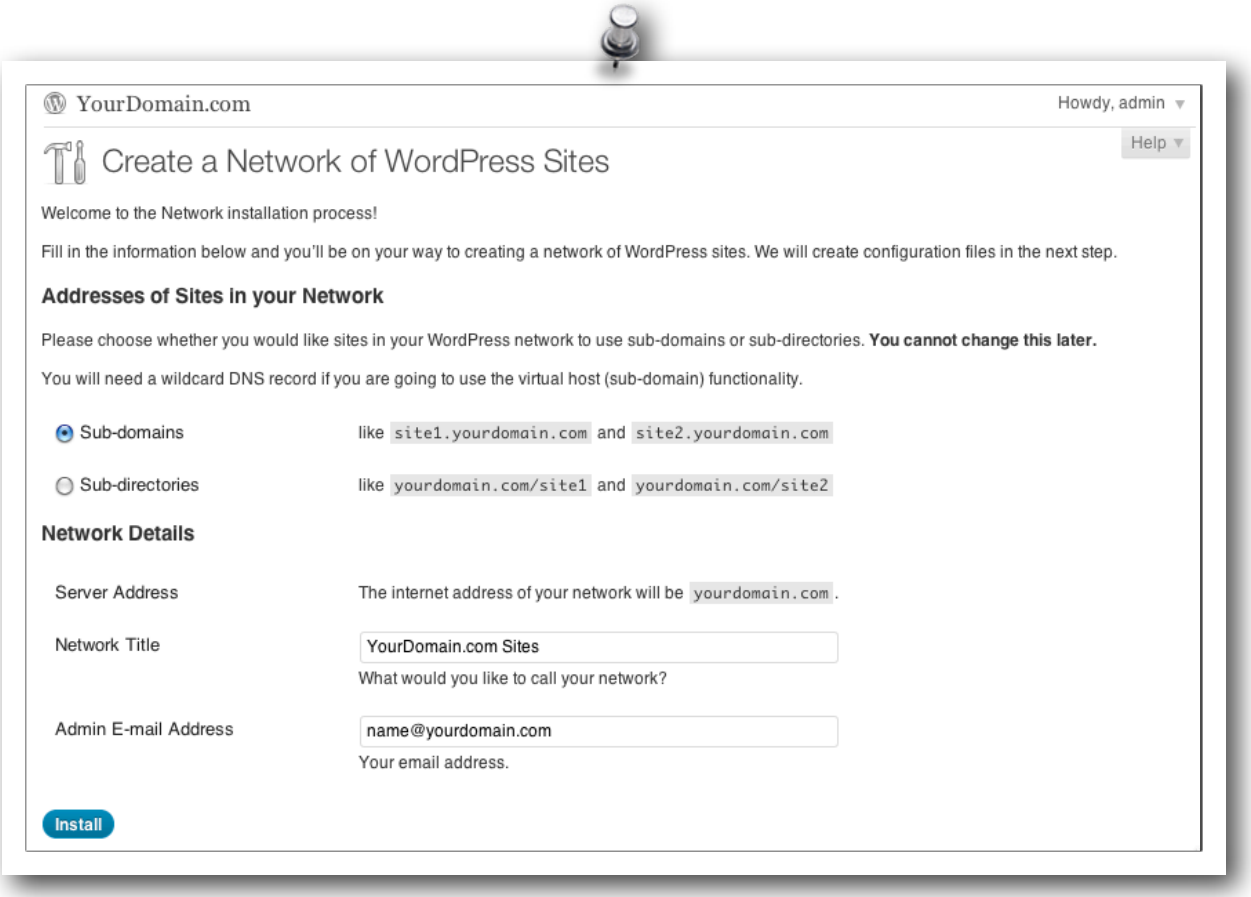
If you are copy-pasting from Windows, please make sure the quotes do not turn into curly quotes like “. You want these ones: ' Otherwise, the line will not be read and you won't see the Network menu item. This define statement's sole purpose is to show us the menu item. That's it.

Save the wp-config.php file, go to the admin area of WordPress and you'll see the Network menu item under Tools. Click it!



Welcome to the Network installation process!

If all goes well, you'll see the initial installation screen like the following:

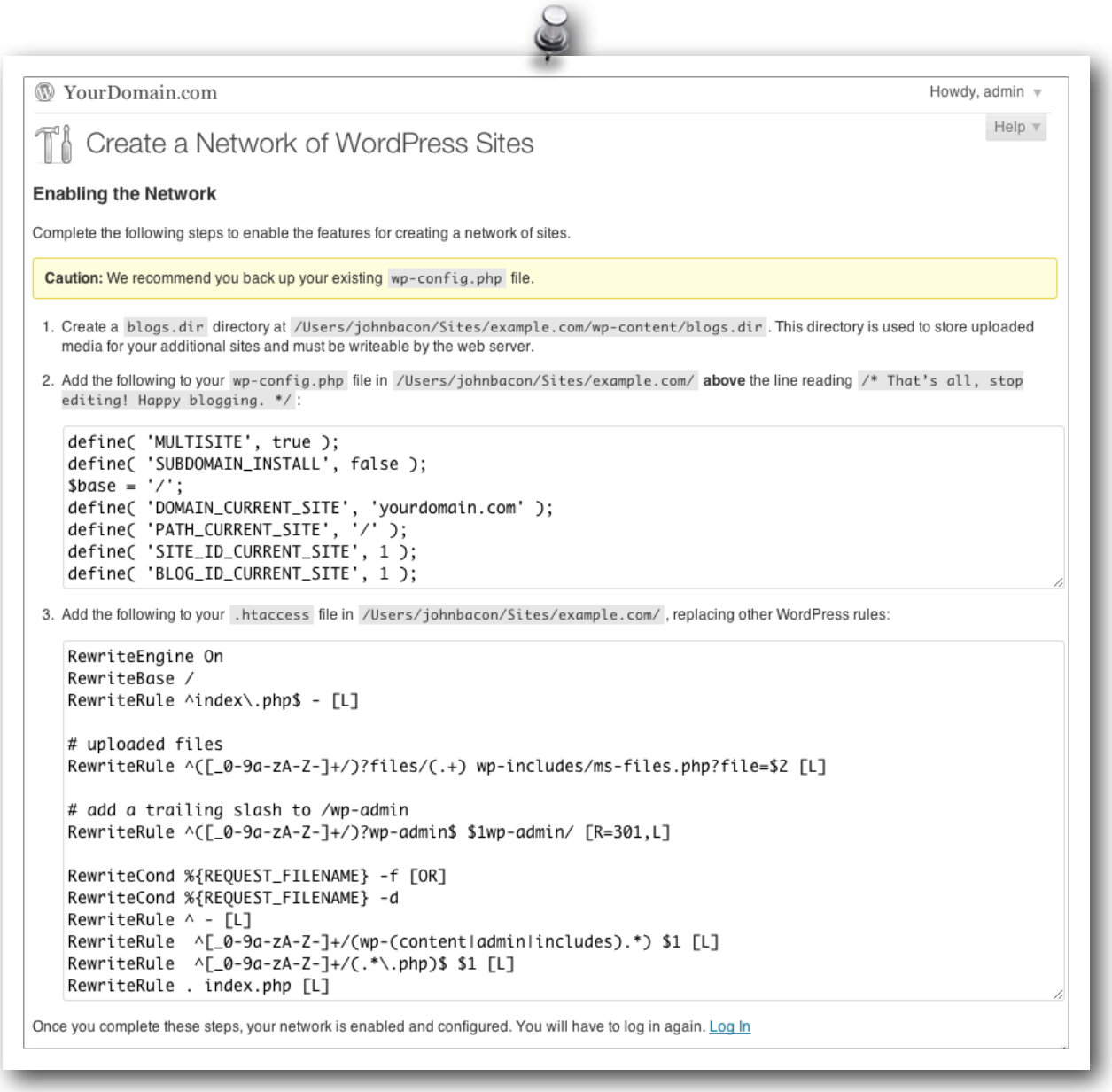


After you chose the format you want*, clicking the button will set up the extra network tables in the database. WordPress already has your database details.

The main single WordPress blog will now be the main site in the network.

(* if you didn't get to pick a format, see the “Sticky Bits” section)

The screen will refresh and you be presented with a second setup screen.



It's okay, it's the last one. There will be some code you will need to paste into your wp-config.php file. It will look something like the following:

```
define( 'MULTISITE', true );
define( 'SUBDOMAIN_INSTALL', true );
$base = '/';
//define( 'DOMAIN_CURRENT_SITE', 'example.com' );
//define( 'PATH_CURRENT_SITE', '/' );
//define( 'SITE_ID_CURRENT_SITE', 1 );
//define( 'BLOG_ID_CURRENT_SITE', 1 );
```

And it may be different depending on if it is a subdomain (TRUE!) or subfolder (false) install. Copy it, paste it in wp-config right under where you put the first define multisite we pasted in earlier..

There's some .htaccess rules we need to paste in a file as well. The .htaccess file is a **hidden** file. Just because you can't see it doesn't mean it's not there. ;) In your control panel or ftp program, make sure you have any options set to show hidden files. You may need to create a new file on the server and name it .htaccess. That's the actually name, the dot then the .htaccess part.

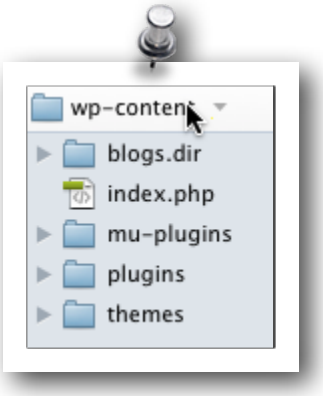
If you already have a .htaccess file, you need to **replace** any WordPress rewrite rules in there with these new ones.

```
RewriteEngine On
RewriteBase /
RewriteRule ^index\.php$ - [L]

# uploaded files
RewriteRule ^files/(.+) wp-includes/ms-files.php?file=$1 [L]

RewriteCond %{REQUEST_FILENAME} -f [OR]
RewriteCond %{REQUEST_FILENAME} -d
RewriteRule ^ - [L]
RewriteRule . index.php [L]
```

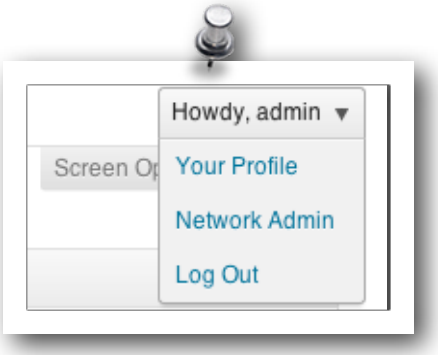
While you are in the file system of your site, you need to create two more directories under wp-content. **Create a folder** named **blogs.dir**. Yes, it has a dot in the middle, but it is still a folder, not a file. This folder will contain any uploaded media files from your different sites in the network. It will not contain the blogs themselves – they are virtual, remember? :)

Also **create a folder** called **mu-plugins** under wp-content. There are some multisite plugins that make use of this folder.

Your /wp-content/ folder will look like this:



The only thing left to do is to log in again using the link at the bottom of the screen. You can also refresh the screen, and it will force you to log in again anyway.



After doing so, you'll see a shiny new Network Admin link in the upper right Once the network is fully set up, the Tools -> Network menu item moves to network admin.

Congrats! You are all set up. Read on in case you have any issues, or need a quick overview.

Sticky Bits

When you have no choice of site format:

In some cases, being able to choose between subdomain and subfolder blogs is missing because of preselected criteria making one or the other unworkable.

If your original single WordPress site is older than 30 days, the subfolder option has been disabled. This is because currently that option puts a /blog/ in the permalink structure of the main site to prevent conflicts between pages on site 1 and other subsequent site names.

The subdomain format is disabled in the following cases:

- your install is on http://localhost/. (wildcard subdomains do not work on localhost)
- your site URL is an IP address
- your install is in a folder, like http://mysite.com/wordpress/

The network feature is entirely disabled if your install is in a subfolder and is served as if it appears to be coming from the root domain. This is because all blogs created in the network would have the folder name included as well. There is no workaround or fix for this because of the way blogs are created.

If you install in a folder and you want the folder name to be in the URL, that is fine. It will work.

4 Change Site Type

Change site type after installation

If you've installed in one format, and discovered you need or prefer the other format, there's no need to reinstall anything. You will have to delete any extra sites you created, as this change does not affect them.

Open up wp-config.php. Find this line:

```
define( 'SUBDOMAIN_INSTALL', true );
```

If you have a subdomain format, this is true. Changing it to false will make it a subfolder install, and vice versa.

Once you have changed that and saved, you need to go back to the tools -> Network menu and get the updated .htaccess rules. They are slightly different for subdomain installs and subfolder installs. I have mostly included these for reference. Please make sure you copy and paste the ones given to you from the Network menu.

Subdomain .htaccess rules

```
RewriteEngine On
RewriteBase /
RewriteRule ^index\.php$ - [L]

# uploaded files
RewriteRule ^files/(.+) wp-includes/ms-files.php?file=$1 [L]

RewriteCond %{REQUEST_FILENAME} -f [OR]
RewriteCond %{REQUEST_FILENAME} -d
RewriteRule ^ - [L]
RewriteRule . index.php [L]
```

Subfolder .htaccess rules.

```
RewriteEngine On
RewriteBase /
RewriteRule ^index\.php$ - [L]

# uploaded files
RewriteRule ^([_0-9a-zA-Z-]+/)?files/(.+) wp-includes/ms-files.php?file=$2 [L]

# add a trailing slash to /wp-admin
RewriteRule ^([_0-9a-zA-Z-]+/)?wp-admin$ $1wp-admin/ [R=301,L]

RewriteCond %{REQUEST_FILENAME} -f [OR]
RewriteCond %{REQUEST_FILENAME} -d
RewriteRule ^ - [L]
RewriteRule  ^([_0-9a-zA-Z-]+/)?(wp-(contentladminlincludes).*) $2 [L]
RewriteRule  ^([_0-9a-zA-Z-]+/)?(.*\.php)$ $2 [L]
RewriteRule . index.php [L]
```

5 Other Issues

Other Issues

Subfolder blogs has no theme or styles, cannot login to backend – in this case it really is an issue with mod_rewrite not reading the .htaccess file properly. You may need your webhost to add this line in their Apache httpd.conf file:

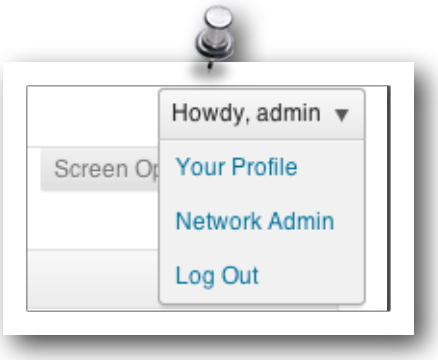
```
AllowOverride FileInfo Options
```

DB errors – if the main site works and additional sites show a database error, this usually means the extra tables were not created. Make sure the database user has ALL permissions on the database.

6 Network Admin

Network Admin

Now that you are a Super Admin of a Network, you have a whole new menu to explore. This area is called Network Admin and the link is visible in the upper right area of the dashboard.



While individual sites need to be managed from their own admin areas, some global options can be set for you network under the Network Admin -> Options menu.

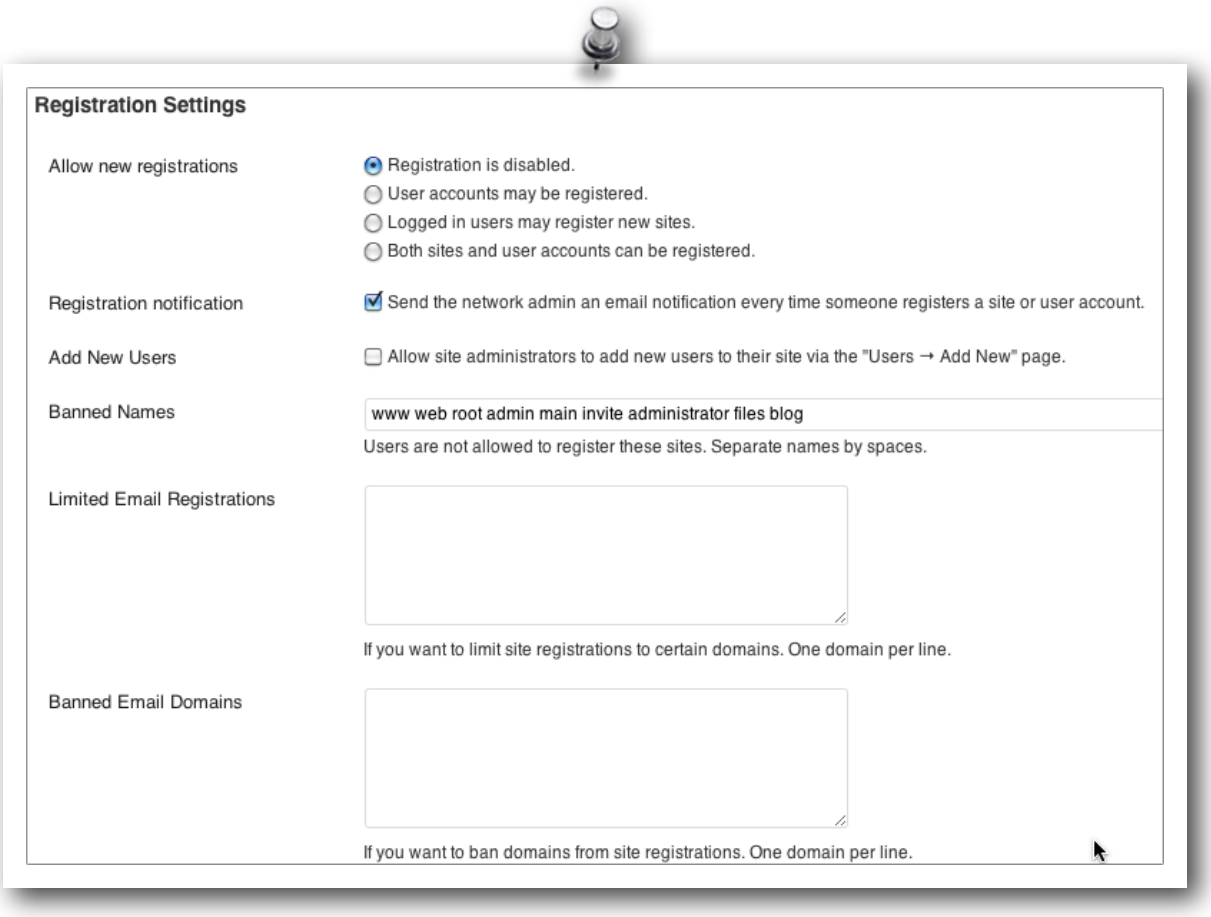
7 Sites & Users

Sites & Users

Okay, so now you have this new network of sites up and running WordPress and you want to add new users and sites. What now?

Users have always been added to the network on a global basis. By default, they are assigned to the main site and only have access to the dashboard on a subscriber level. This is so they have a profile area in the backend from which to manage their user details, like passwords and additional fields.

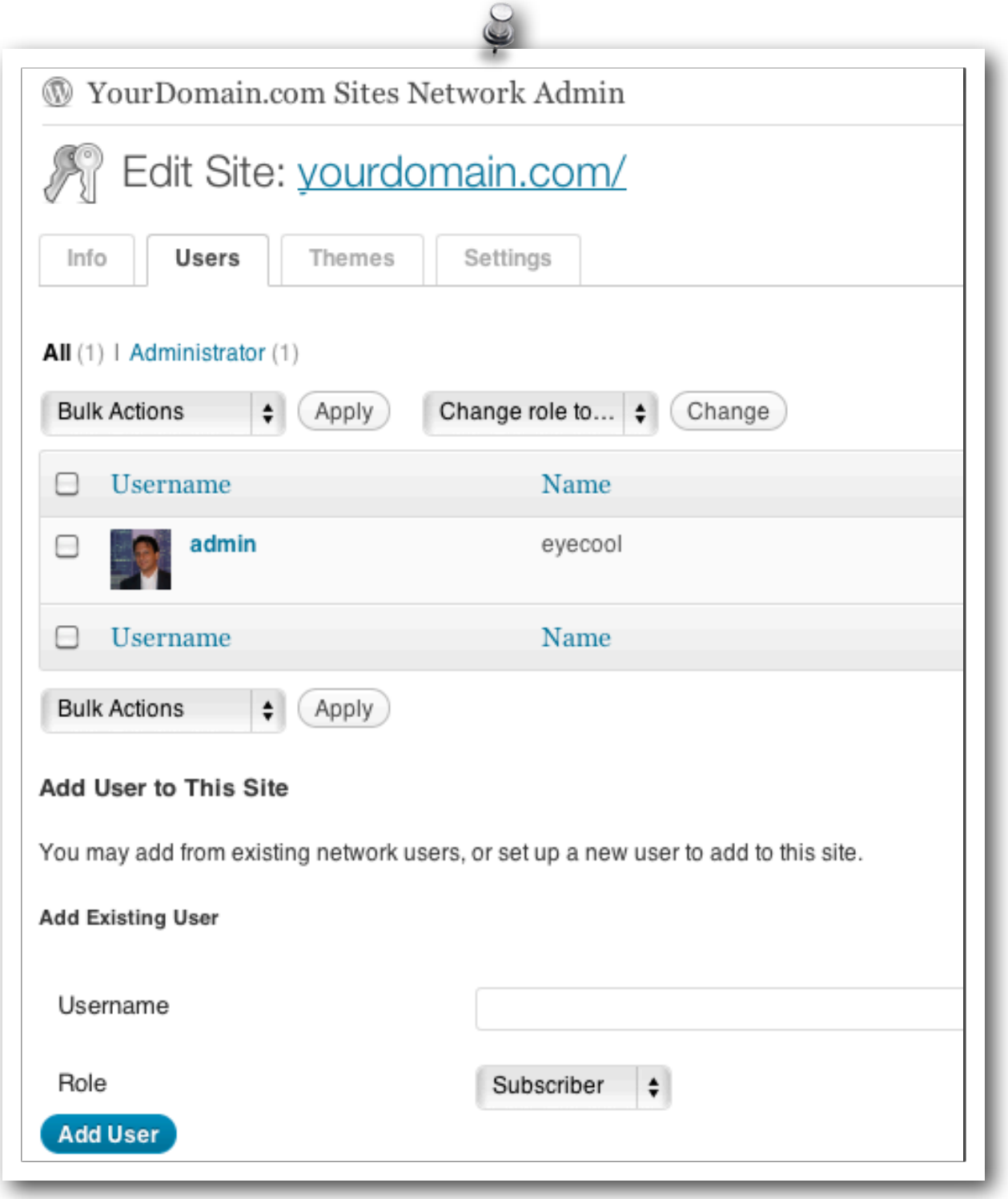
You can allow user signup only by visiting Network Admin -> Settings, and scrolling down to Registration Setting.



This will allows users to sign themselves up to the network as a whole. If you wish to let them then sign up as users to particular sites in the network, I have found the Add Users sidebar widget very helpful. You can download it from http://wordpress.org/extend/plugins/add-users-sidebar-widget

As a Super Admin, you can add users whenever you wish, by visiting Network Admin -> Users -> Add New.

You can also add users to particular blogs or sites, by editing the information about that site. Just visit Network Admin -> Sites and edit the site you want to add users to. Click on the Users tab to access the screen.

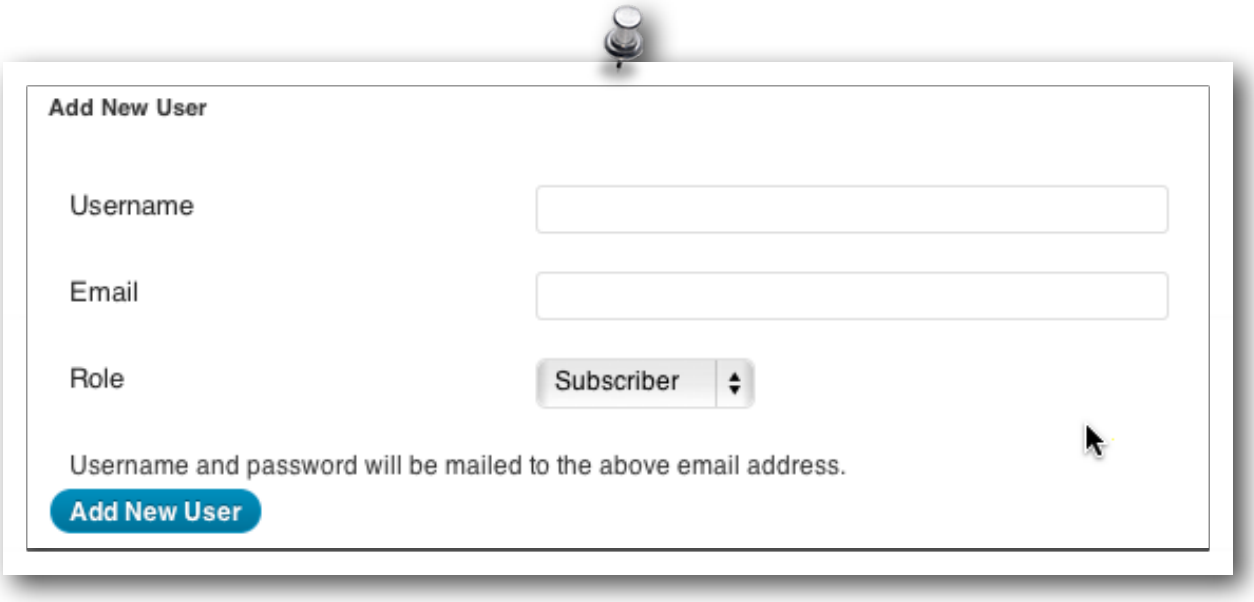


Administrators can add users to their site, as long as the Super Admin has enabled the option to do so. This option is under Network Admin -> Options under the registration settings.

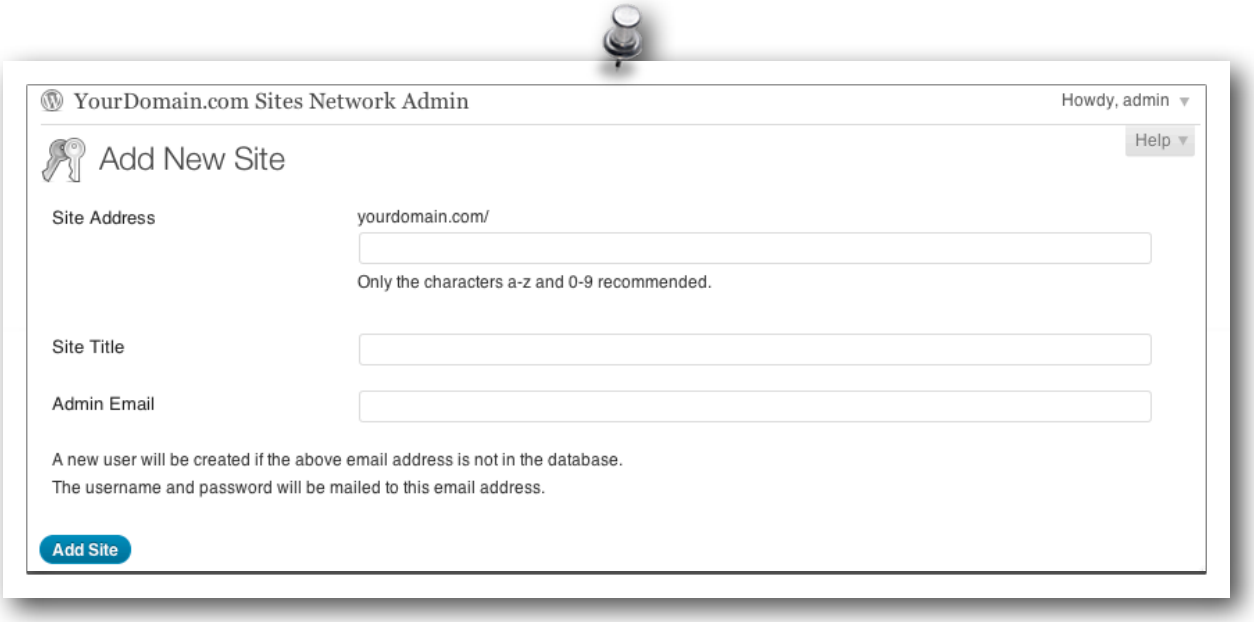
After this is enabled, administrators can add new users from the Users -> Add New menu item.

If the user does not exist, they will be added to the network first, and then assigned as a user to this site.

Some people have asked - "But what if the admin of that site doesn't know the user's email address?" This can be address by the admin of that site asking people to leave a comment to be added, thus receiving the email address.



As a Super Admin, you can add a new site in an instant, as shown in this screenshots from, the Network Admin -> Sites menu.



Users can add new sites, if you have allowed it, by visiting http://yourdomain.com/wp-signup.php.

8 Have Fun!

Have Fun!

Thanks so much for reading! If you're a network superstar now, you may be interested in a few plugins and ebooks we have available at http://wpebooks.com. Sign up to the news feed to hear about new releases, both free and paid.

You can also find more how-tos at http://wpmututorials.com, and you can follow me on twitter at http://twitter.com/andrea_r.

Free help is always available from the volunteers at http://wordpress.org/support/forum/multisite. You'll see me there too! :D

9 Disable Network

Disabling the Network

Running multiple sites like this may not be for everyone. You may have decided to switch back. It's pretty easy, so here's how.

Delete any extra sites you may have created. Move the content and users to the main blog or wherever you desire.
Remove the lines we added in the wp-config.php file.
Restore the .htaccess file to the default. One the multisite lines are gone from the config file, you can usually restore these by resaving the permalinks.

Drop these global tables in the database:

- wp_blogs
- wp_blog_versions
- wp_registration_log
- wp_signups
- wp_site
- wp_sitemeta