

CREATING A WORDPRESS MULTISITE NETWORK



SANTA CRUZ WORDPRESS MEETUP - JULY 2019

DISCLAIMER

1. Every project is unique.
2. There is an exception to every rule.
3. Plugins will do everything I say Multisite won't or shouldn't.
4. Advice given is based on what has worked for me in the past.



MULTISITE

TRANSFORMS
WORDPRESS
INTO

A COLLECTION OF
WORDPRESS WEBSITES

THAT SHARE A SINGLE
WORDPRESS INSTALLATION
THEMES, PLUGINS, & USERS.

A SINGLE INSTALL OF WORDPRESS BECOMES A NETWORK OF SITES.



WHO NEEDS A NETWORK OF WEBSITES

1. Magazine websites - each section could become a site on its own.
2. Organizations with a hierarchical setup.
 - **Business** websites - subsites for each location/branch.
 - **Government/NGO** websites - subsites for each department or region.
3. Network of blogs - a network of related blogs.
4. Educational websites - that allow students to create their own sites.
5. Sites that need to share some common resources.
6. Sites that need a high degree of independence within their own area of operation.
7. Sites that need Users to be registered for all subsites at once.

EXAMPLES OF MULTISITE NETWORKS

1. **NBC**
2. **WordPress.com**
3. **Best Buy**
 - Best Buy has an individual website for each and every one of its 1,000-plus stores.
4. **The New York Times**
 - Enables multisite for its writers, allowing them to manage individual columns.
5. **BBC**
6. **Wall Street Journal**
7. **Cirrohost.com**
 - an easy to use WordPress Platform for Small Businesses and Bloggers.
8. **Harvard Blogs**
 - a collection of student and teacher-generated blogs maintained by various multiple teams

ONE MASTER SITE → RULES MULTIPLE VIRTUAL CHILD SITES

1. Network Admin controls/rules everything on every site.
2. All sites share the same WordPress installation.
3. All sites share the same plugins and themes.
4. Child sites do not have their own directories on server.
5. Each site has a separate directories for media uploads.
6. Each site has separate tables in the database.
 - Master site = wp_
 - Site 1 = wp_01_
 - Site 2 = wp_02_
 - Site N = wp_nn_

MULTISITE SITES SHARE USERS

1. Users are registered for all sites.
2. User must be added to each site in order to view site.
3. Users login once to access all sites on the network
4. Username and login session persists across all sites.
5. Log out - ends user's session for all sites.

THINGS PEOPLE SAY ABOUT MULTISITE

- “I tried to use multisite to manage multiple sites and just got myself confused”
- “Multisite is amazing, why would anyone not use it?”
- “Multisite is hard”
- “We had a project that was running multisite and we converted it to a standard WordPress install”
- “I don’t use anything but Multisite”

THE PROS

1. Manage any number of individual sites from a single dashboard.
2. Individual sites admins have the freedom to manage their sites
 - subject to limitations.
3. Themes and plugins - install once - then activated across the entire network.
4. Themes and plugins updated only once.
5. Users can create their own blogs on your network and manage them.
6. Can be a private network - you can restrict access to users.
 - Restrict Content Pro -- BuddyPress
7. You can monetize the network by offering hosting service to others.
 - Ultimo

THE CONS

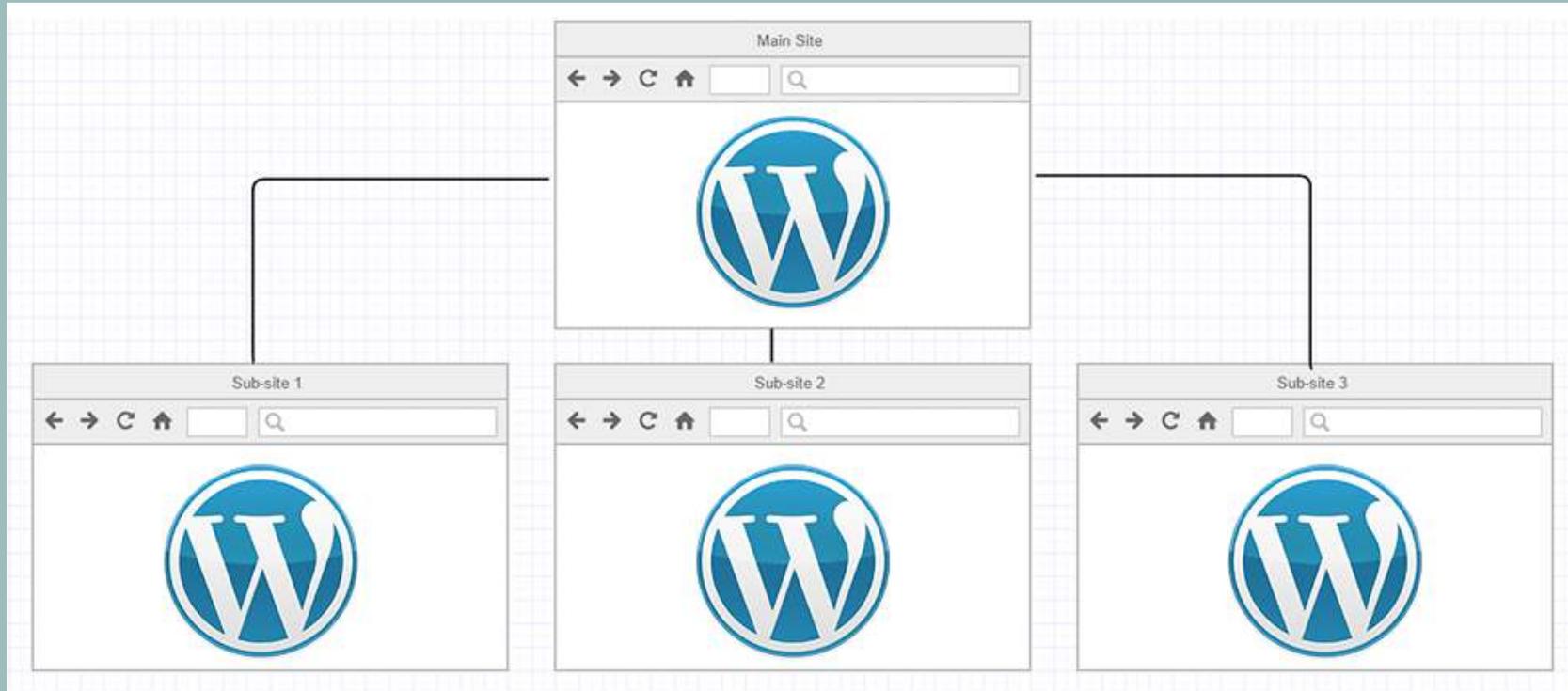
1. Some WordPress plugins are not compatible with multisite.
2. Individual sites cannot add or delete themes and plugins.
3. Hosting needs will increase for a multisite.
4. Hosting choices limited - Not all providers support multisite.
5. Possible issues with SSL for individual sites on shared hosting.
6. Possible issues with auto sub-domain creation on shared hosting.

SITE OR SERVER ISSUES MAY AFFECT ALL THE SITES

1. ALL SITES - share the same resources.
2. Traffic spikes on a single site - may affect the speed of all the other sites on the network.
3. Downtime, will affect all sites,
4. If one website goes down, the entire network goes down
5. If one website gets hacked, the entire network of sites is hacked

AN ALTERNATIVE TO MULTISITE

1. One of the best alternatives to Multisite is Custom Post Types (CPT).
2. Make 'subfolder' additions to your site and format them as you want.
3. Can achieve similar result with categories, tags and CPTs.
4. Can use a membership plugin to control who sees, and has access to, each CPT.



MULTISITE WHAT'S DIFFERENT

NETWORK CONFIGURATION

- 1. Network Admin Role → “The network master” → Rules All.**
- 2. Network Dashboard (menu) → Sites > Network Admin**
 - Network-wide settings.
 - Master settings for each site
 - Only network administrator can access.

WEB ADDRESS

Two options:

1. Subdomains

- **site1**.domain.com
- **site2**.domain.com
- **site3**.domain.com

2. Subdirectories

- domain.com/**site1**
- domain.com/**site2**
- domain.com/**site3**

MULTISITE HAS A NETWORK ADMINISTRATOR

1. Maintains and controls all sites. (configuration/rules/settings)
2. Ability to manage everything on every site
3. Access to every site- can add their user account to any site.
4. Adds sites to the network
5. Installs themes and plugins
6. Network admins have access to the plugins of every site.
7. Determines which will be activated and available for use.
8. Is the site admin for the top level site.

SITE ADMINISTRATOR

1. Multisite has an **site administrator** role for each site.
2. Individual sites are maintained by a Site admin.
3. But **powers are restricted**.
4. Site admins are given access to some tools, but cannot modify anything.

PERMALINKS

1. Requires Pretty Permalinks work on your single WP instance.
2. Requires the use of “Mod Rewrite” to format subsite URLs.
3. Requires editing `.htaccess` file.

```
RewriteBase /
RewriteRule ^index\.php$ - [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-(content|admin|includes).*) $2 [L]
RewriteRule ^([_0-9a-zA-Z-]+)/?(.*\.php)$ $2 [L]
RewriteRule . index.php [L]
```

THEMES

1. Installed in the network admin (menu).
2. Must be network enabled to be available to site admins.
3. Themes can be enabled on per site basis.
 - My Sites > Network Admin > Sites > Themes
4. “Network enabled” → Available for use on any site.
5. Themes are activated at the single site level.
6. Changes to one theme WILL affect all sites using it.

NETWORK DEACTIVATED THEME

1. After a theme has been activated in a single site
2. A theme may be network deactivated,
Without affecting the single site where it remains activated.
3. If the single site activates a different theme,
The deactivated theme will no longer be available to that site.

DEFAULT THEME

1. Default theme for all new sites → “Twenty Nineteen”
2. Set new default theme in wp-config.php
 - `define('WP_DEFAULT_THEME', '<theme-folder-name>');`
 - Example
 - `define('WP_DEFAULT_THEME', 'astra');`

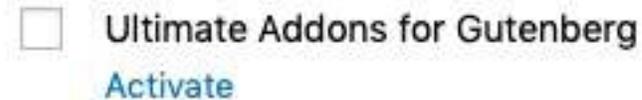
PLUGINS

1. Install on the network admin dashboard's plugin page

- Network Activate (network admin)



- Activate per site (wp-admin)



NETWORK PLUGINS - 'NETWORK ACTIVATED'

1. Plugins activated in the network admin dashboard .
2. Active in all sites.
3. Are stored in the plugins directory.
4. Indicated as “network active” in the dashboards of individual sites.
5. Some plugins only function in a multisite environment when network activated.
6. Site Admins - Can not deactivate or modify settings.

SINGLE-SITE ACTIVATED - 'NETWORK AVAILABLE'

1. Activated from within the plugins page of a single site
2. Activation is up to the site admin of each site
 - Plugins menu - for single site administrators must be enabled.
3. Some plugins work best when they are single-site activated
 - Data and settings - Stored in the single site's database tables
4. Some “network active” plugins must be also be individually licensed for each site. (Astra Pro plugin)

MU (MUST-USE) PLUGINS

1. Plugins to be used by all sites on the entire network.
2. Installed in the mu-plugins folder.
3. Can't be deactivated through the admin.
4. Not activated or deactivated - If they exist, they are used.
5. Are hidden entirely from individual sites.

PLUGIN LICENSE CONTROLS

1. Network controlled licensing

- Plugins that are network activated, active on all sites
- License key installed at network admin level
- only the network admin has access to license keys.
- A single license key - a single site install - but active on all sites.

2. Network available but not network activated

- Case by case determination
- License key installed at network admin level - one key for all sites - installed once.
- License key at the individual site level - installed one site at time - may require unlimited license.

3. Astra Pro plugin is an example

- license key must be entered at the individual site level
- each site requires the license key be activated on that site

MAIN SITE POSTS

- The first site, the top level site - will have an extra entry of **blog**
- <https://<domain name>/blog/POSTNAME>.
- In order to prevent collisions with subfolder installs.

PERMALINKS IN SUBFOLDER INSTALLS

1. Posts in the main site, the top level site - will have an extra entry of **blog**
 - In order to prevent collisions with subfolder installs.
 - <https://<domain name>/blog/POSTNAME>.
2. The blog prefix is not used for static pages
 - <https://domain.com/PAGENAME>
 - Static pages will be accessible directly under the base address
3. If a site has same slug as an existing static page
 - the static page will not be reachable anymore.
 - add names of static pages to the blacklist
 - so that no site with that name can be created.
4. If you create a static page in the main site
 - with the name of existing site on the network
 - the page's permalink will get a suffix
 - <https://domain.com/PAGENAME-2>

CONTENT SHARING BETWEEN SITES

1. Sites of a network are separate sites
2. Don't by default share content
3. Multisite is for managing multiple unrelated sites, like WordPress.com
4. Multisite is not for making a series of interconnected sites.
5. There are plugins to share content between sites.
 - i.e Network-posts-extended
 - <https://wordpress.org/plugins/network-posts-extended/>

CUSTOMIZER

1. Individual settings for each site.
2. Stored in the database tables for each individual site.

UPDATES TO THE CORE, THEME, AND PLUGINS

- Easier to implement -
- because network exists within a single instance of WP.

DATABASE TABLES

WordPress normal install:

1. wp_commentmeta
2. wp_comments
3. wp_links
4. wp_options
5. wp_postmeta
6. wp_posts
7. wp_termmeta
8. wp_terms
9. wp_term_relationships
10. wp_term_taxonomy
11. wp_usermeta
12. wp_users

Multisite adds:

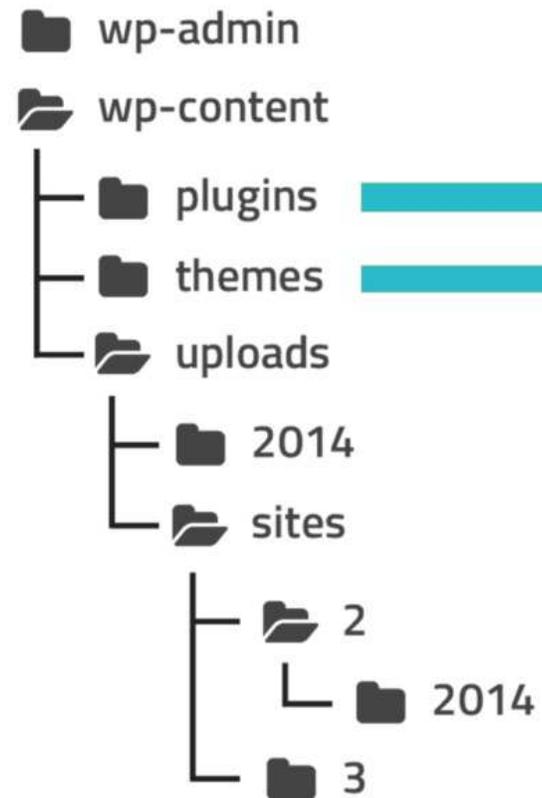
1. wp_blogs
2. wp_blog_versions
3. wp_registration_log
4. wp_signups
5. wp_site
6. wp_sitemeta

Each Site adds:

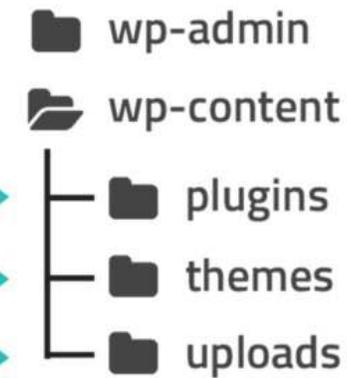
1. wp_2_options
2. wp_2_posts
3. wp_2_postmeta
4. wp_2_comments
5. wp_2_commentmeta
6. wp_2_terms
7. wp_2_term_taxonomy
8. wp_2_term_relationships

FILE STRUCTURE

Multisite Installation



Single Site Installation





GETTING STARTED WITH MULTISITE

HOSTING
KNOWLEDGE
ACCESS

HAVE A PLAN DEVELOP A STRATEGY

1. Hosting
2. Configuration of the network
3. Goals
4. Controls, Rules, Registration, Users, Access, Roles
5. Themes, plugins installed, site activated, network activated
6. Security
7. Optimization
8. Backup/Restoration strategy
9. Maintenance ongoing

TO CREATE A MULTISITE YOU

1. Must be an administrator and have access to your server's file system.
2. Must have server privileges to edit files and create a directory.
3. Must have knowledge of PHP, CSS, HTML
4. Should have knowledge of server management - for troubleshooting.
5. Must decide whether you want sub-domains or sub-folders sites.
 - Sub-domains: [https:// site1.multisite.com](https://site1.multisite.com), [https:// site2.multisite.com](https://site2.multisite.com)
 - Sub-folder: [https:// multisite.com/site1](https://multisite.com/site1), <https://multisite.com/site2>

HOSTING

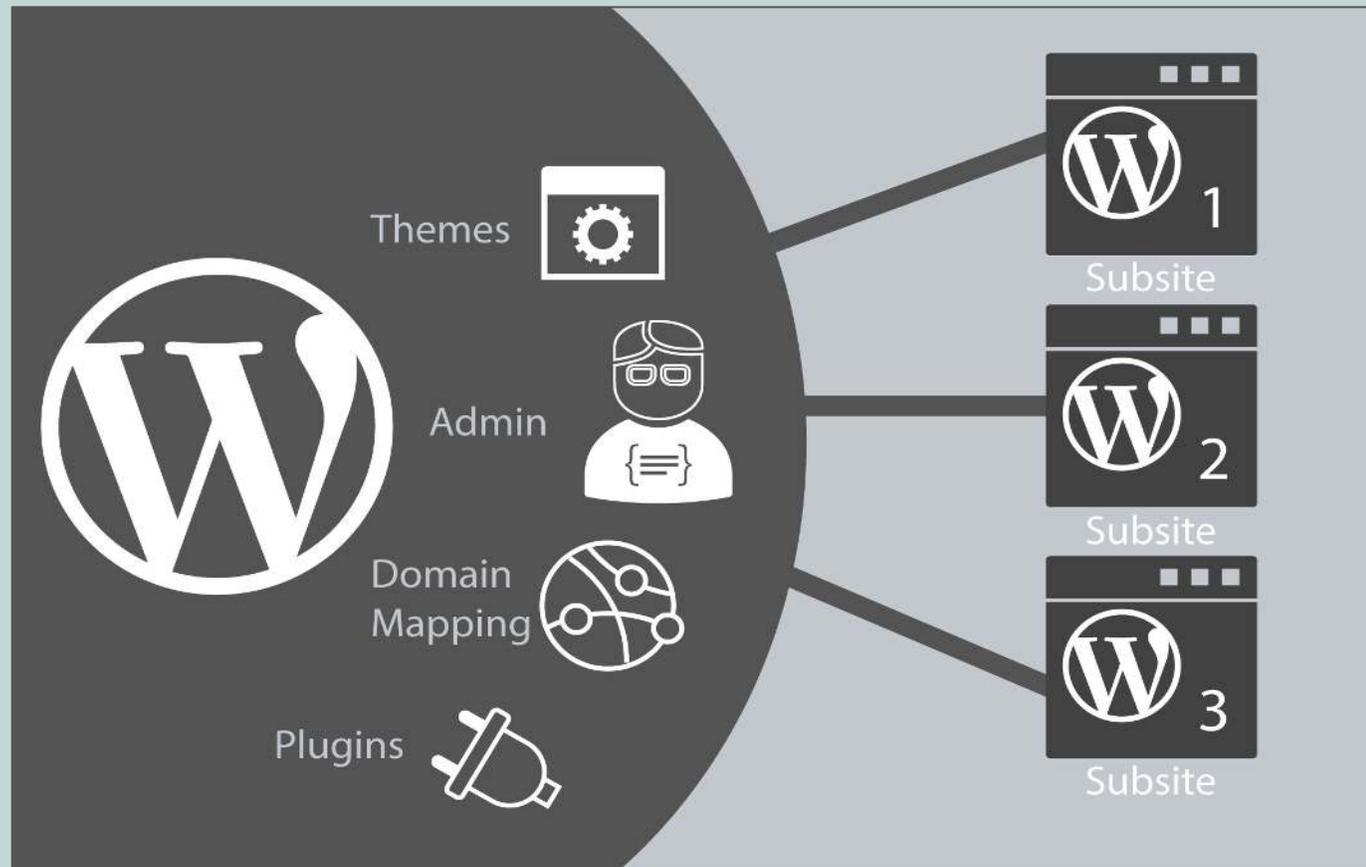
IS YOUR WEB SERVER CAPABLE?

1. Multisite requires more server resources.
2. Some hosts don't support WordPress Multisite.
3. Shared-hosting NOT recommended.
4. Uses more RAM memory & disk space (Disk I/O increases).
5. Beware of issues with SSL for individual on shared hosting.
6. Wildcard SSL certificate needed for sub-domain configuration.
7. Wildcard DNS needed for auto sub-domain configuration.
8. pHP → v7.2 (highly recommended).
9. Apache Virtual Hosts and Mod Rewrite activated.
 - .htaccess → Mod Rewrite rules - required.

If you'd hesitate to eat a shrimp dinner for the price you pay for monthly web hosting, **upgrade.**

IN SUMMARY BEFORE STARTING

1. **Planning:** Develop an operational strategy
2. **Hosting:** Determine if web server capable of hosting multisite.
3. **Knowledge:** Know how to edit `wp-config.php` and `.htaccess`
4. **Access:** Know how to get to your site files.



INSTALLING MULTISITE

THE INSTALL PROCESS

1. Before You Begin - Management Decisions.
2. Prepare Your WordPress - deactivate plugins, note links for redirect, etc.
3. Allow Multisite - edit config files.
4. Installing a Network - network setting.
5. Enabling the Network - edit config files.
6. Network Admin settings.
7. Administration - ready to add sites.

STEP 0: PLANNING

1. A network installation has special considerations.
2. Decide if you want to use subdomains or subfolders for your network's web addresses.
3. If site is an existing site - must use subdomain install.
4. Subdomain install break existing links - plan any 301 Redirects.
5. Educate yourself - read the literature/blogs, study the documentation, research other users experiences.
6. Consider how you want to manage themes and plugins .
7. Network activated vs site activated

EXISTING INSTALL - BACK UP YOUR SITE

[UpdraftPlus.Com](#) | [Premium](#) | [News](#) | [Twitter](#) | [Support](#) | [Newsletter sign-up](#) | [Lead developer's homepage](#) | [FAQs](#) | [More plugins](#) - Version: 1.14.3

Current Status

Existing Backups (6)

Settings

Advanced Tools

Premium / Extensions

Backup Now

Restore

Clone/Migrate

Next scheduled backups:

Now: Tue, February 13, 2018 15:4

Files and database: Tue, February 13, 2018 15:53

Last backup job run:

Fri, December 15, 2017 20:15

[Download log file](#)

Last log message:

Local files deleted: 5. Remote files deleted: 0 (Feb 13 15:50:16)

[Download most recently modified log file](#)

STEP 1: NEW INSTALL

1. Install WordPress to site
2. **Verify that Pretty Permalinks work on your single WP instance.**

STEP 2: DEACTIVATE ALL ACTIVE PLUGINS



The screenshot shows the WordPress 'Plugins' management interface. At the top, there are tabs for 'All (19)', 'Active (10)', 'Inactive (9)', 'Recently Active (2)', 'Must-Use (2)', and 'Drop-ins (1)'. A search bar for installed plugins is visible on the right. A bulk actions menu is open on the left, with 'Deactivate' highlighted. The main table lists three plugins: 'Anti-Spam', 'Auto Terms of Service and Privacy Policy', and 'Contact Form 7'. The 'Auto Terms of Service and Privacy Policy' plugin is checked for bulk actions.

	Description
<input checked="" type="checkbox"/> Anti-Spam Settings Deactivate	Used by millions, Akismet is quite possibly the best way in the world to protect your blog from spam . Your site is fully configured and being protected, even while you sleep. Version 4.0.2 By Automattic View details
<input checked="" type="checkbox"/> Auto Terms of Service and Privacy Policy Settings Opt Out Deactivate	Puts your own information into a version of Automattic's Terms of Service and Privacy Policy , both available under the Creative Commons Sharealike license, that have been modified to exclude specifics to Automattic (like mentions of "JetPack", "WordPress.com", and "VIP") and have more generic language that can apply to most any site or service provider, including single sites, subscription sites, blog networks, and others. Edit plugin's settings, then use one or more of the 3 available shortcodes: <code>[my_terms_of_service_and_privacy_policy]</code> , <code>[my_terms_of_service]</code> , and/or <code>[my_privacy_policy]</code> Version 1.8.2 By WPAutoTerms View details
<input type="checkbox"/> Contact Form 7 Activate Delete	Just another contact form plugin. Simple but flexible. Version 5.0 By Takayuki Miyoshi View details

STEP 3: ENABLE MULTISITE NETWORK ABILITY

1. Add this line of code to **wp-config.php**
2. `define('WP_ALLOW_MULTISITE', true);`
3. **WP_ALLOW_MULTISITE** → is a feature which enables the creation of a network of interconnected websites from a single WordPress installation.

STEP 3: ENABLE MULTISITE NETWORK ABILITY

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

- Add this line of code to **wp-config.php**
- Directly above the line,

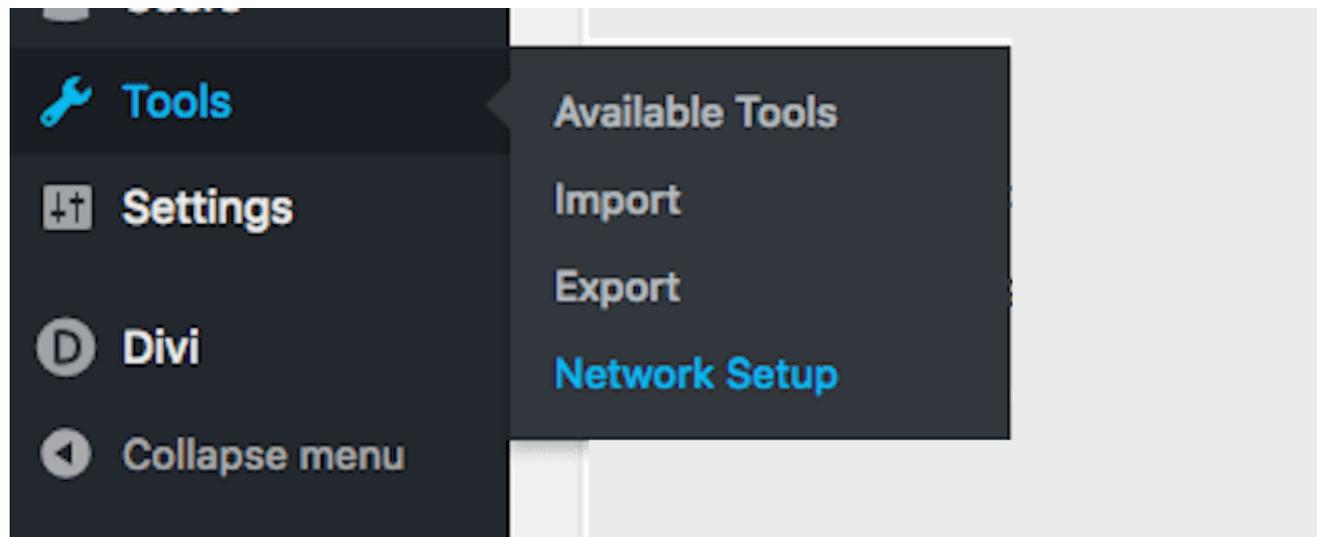
```
/*That's all, stop editing ! Happy blogging.*/
```

```
define( 'AUTOSAVE_INTERVAL', 300 );
define( 'WP_POST_REVISIONS', 5 );
define( 'EMPTY_TRASH_DAYS', 7 );
define( 'WP_CRON_LOCK_TIMEOUT', 120 );
/* Multisite */
define( 'WP_ALLOW_MULTISITE', true );
/* That's all, stop editing! Happy blogging. */

/** Absolute path to the WordPress directory. */
if ( !defined('ABSPATH') )
    define('ABSPATH', dirname(__FILE__) . '/');
```

STEP 4: NETWORK SETUP

1. Log in to your site to set up your network
2. Go to *Tools > Network Setup*. (Click It)



DEACTIVATE PLUGINS

1. If you have not deactivated plugins - you will see:
2. Warning: Please [deactivate your plugins](#) before enabling the Network feature.
3. Click on the link → and then Deactivate All plugins.
4. Return to TOOLS > NETWORK SETUP to continue the setup.

WELCOME TO THE NETWORK INSTALL

Create a Network of WordPress Sites

Welcome to the Network installation process!

Fill in the information below and you'll be on your way to creating a network of WordPress sites. We will create configuration files in the next step.

Note: Please make sure the Apache `mod_rewrite` module is installed as it will be used at the end of this installation.

If `mod_rewrite` is disabled, ask your administrator to enable that module, or look at the [Apache documentation](#) or [elsewhere](#) for help setting it up.

Addresses of Sites in your Network

Please choose whether you would like sites in your WordPress network to use sub-domains or sub-directories. **You cannot change this later.**

You will need a wildcard **DNS** record if you are going to use the virtual host (sub-domain) functionality.

- Sub-domains** like `site1.multi-meetup.mamp` and `site2.multi-meetup.mamp`
- Sub-directories** like `multi-meetup.mamp/site1` and `multi-meetup.mamp/site2`

FOR A NEW INSTALLATION OF WORDPRESS MULTISITE

1. Must choose: Choose subdomain or subdirectory
2. A **subdomain** looks like this:
 - <https://websiteA.yournetworkname.com>
3. A **subdirectory** looks like this:
 - <https://yournetworkname.com/websiteB/>

NETWORK DETAILS - NEW INSTALL

1. Verify Network Title and Network Admin email address
2. Click INSTALL

Network Details

Server Address The internet address of your network will be `multi-meetup.mamp` .

Network Title
What would you like to call your network?

Network Admin Email
Your email address.

FOR EXISTING INSTALLATION OF WORDPRESS MULTISITE

1. Sub-domain Installation is the only choice.
2. You will see the notice:
3. “Because your installation is not new, the sites in your WordPress network must use sub-domains. The main site in a sub-directory installation will need to use a modified permalink structure, potentially breaking existing links.”
4. A subdomain looks like this:
 - <https://websiteA.yournetworkname.com>

NETWORK DETAILS - EXISTING INSTALL

1. Enter Network Title and Network Admin email.
2. Click on **INSTALL**.

Create a Network of WordPress Sites Help ▾

Welcome to the Network installation process!

Fill in the information below and you'll be on your way to creating a network of WordPress sites. We will create configuration files in the next step.

Network Details

Sub-domain Installation Because your installation is not new, the sites in your WordPress network must use sub-domains. **The main site in a sub-directory installation will need to use a modified permalink structure, potentially breaking existing links.**

Server Address The internet address of your network will be .

Network Title
What would you like to call your network?

Network Admin Email
Your email address.

NOTE: SETTING UP SUB-DOMAINS

You will need a wildcard **DNS** record if you are going to use the virtual host (sub-domain) functionality.

Sub-domains like `site1.multi-meetup.mamp` and `site2.multi-meetup.mamp`

- Add a wildcard sub-domain/DNS record.
- Must have a wildcard SSL cert installed.

ADDING WILDCARD SUBDOMAIN

1. Create a subdomain with “*“ as the subdomain name.
2. This subdomain should point to the directory where WordPress is installed.
3. Log in to your cPanel
4. under the Domains section click on Subdomains.
5. Enter *
6. in the subdomain field.
7. Make sure that the document root field is pointing to the WP install directory.
8. Click the Add button to Create the subdomain.

WILDCARD SSL REQUIRED

1. Needed for dynamically creating sites with sub-domain architecture.
2. Checking SSL support was part of your Operational Strategy...of course it was!
3. InMotion VPS hosting - wildcard SSL certificate no default offering.
 - Can purchase 3rd party certificate and have installed.
4. A2Hosting - \$149
5. Siteground - \$90
6. 1&1 IONOS - \$70 (European hosting)

CAN I USE A SUB-SUB-FOLDER SETUP

1. You can not have sites in **sub-sub**-folders.
2. Wordpress multisite will not find them.
 - ~~domain.com/services/site1~~
 - ~~domain.com/services/site2~~
 - ~~domain.com/tools/site3z~~

STEP 5: ENABLE THE NETWORK

1. When you click on **INSTALL**.
2. Code will be generated for your wp-config.php file and your .htaccess file.
3. Add the specified lines to your wp-config.php file
4. Add the specified lines to your .htaccess file
5. After completing these steps, log in again using the link provided.
 - You might have to clear your browser's cache and cookies in order to log in.

ENABLE THE NETWORK

Create a Network of WordPress Sites

Help ▾

Enabling the Network

Complete the following steps to enable the features for creating a network of sites.

Caution: We recommend you back up your existing `wp-config.php` and `.htaccess` files.

1. Add the following to your `wp-config.php` file in `wp-content` above the line reading `/* That's all, stop editing! Happy blogging. */`:

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

2. Add the following to your `.htaccess` file in `wp-content` replacing other WordPress rules:

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

# add a trailing slash to /wp-admin
RewriteRule ^wp-admin$ wp-admin/ [R=301,L]

RewriteCond %{REQUEST_FILENAME} -f [OR]
RewriteCond %{REQUEST_FILENAME} -d
RewriteRule ^ - [L]
RewriteRule ^(wp-(content|admin|includes).*) $1 [L]
RewriteRule ^(\.\./*|.php)$ $1 [L]
RewriteRule . index.php [L]
```

Once you complete these steps, your network is enabled and configured. You will have to log in again. [Log In](#)

ADD TO WP-CONFIG.PHP

```
*/  
define('WP_DEBUG', false);  
  
define('WP_ALLOW_MULTISITE', true);  
  
define('MULTISITE', true);  
define('SUBDOMAIN_INSTALL', false);  
define('DOMAIN_CURRENT_SITE', 'oceanwp.mamp');  
define('PATH_CURRENT_SITE', '/');  
define('SITE_ID_CURRENT_SITE', 1);  
define('BLOG_ID_CURRENT_SITE', 1);  
  
/* That's all, stop editing! Happy blogging. */
```

REPLACE WORDPRESS RULES

```
# BEGIN WordPress
<IfModule mod_rewrite.c>
RewriteEngine On
RewriteBase /
RewriteRule ^index\.php$ - [L]
RewriteCond %{REQUEST_FILENAME} !-f
RewriteCond %{REQUEST_FILENAME} !-d
RewriteRule . /index.php [L]
</IfModule>

# END WordPress
```



```
# BEGIN WordPress
<IfModule mod_rewrite.c>
RewriteEngine On
RewriteBase /
RewriteRule ^index\.php$ - [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-(content|admin|includes).*) $2 [L]
RewriteRule ^([_0-9a-zA-Z-]+)/?(.*\.php)$ $2 [L]
RewriteRule . index.php [L]

</IfModule>

# END WordPress
```

FINISH THE SETUP

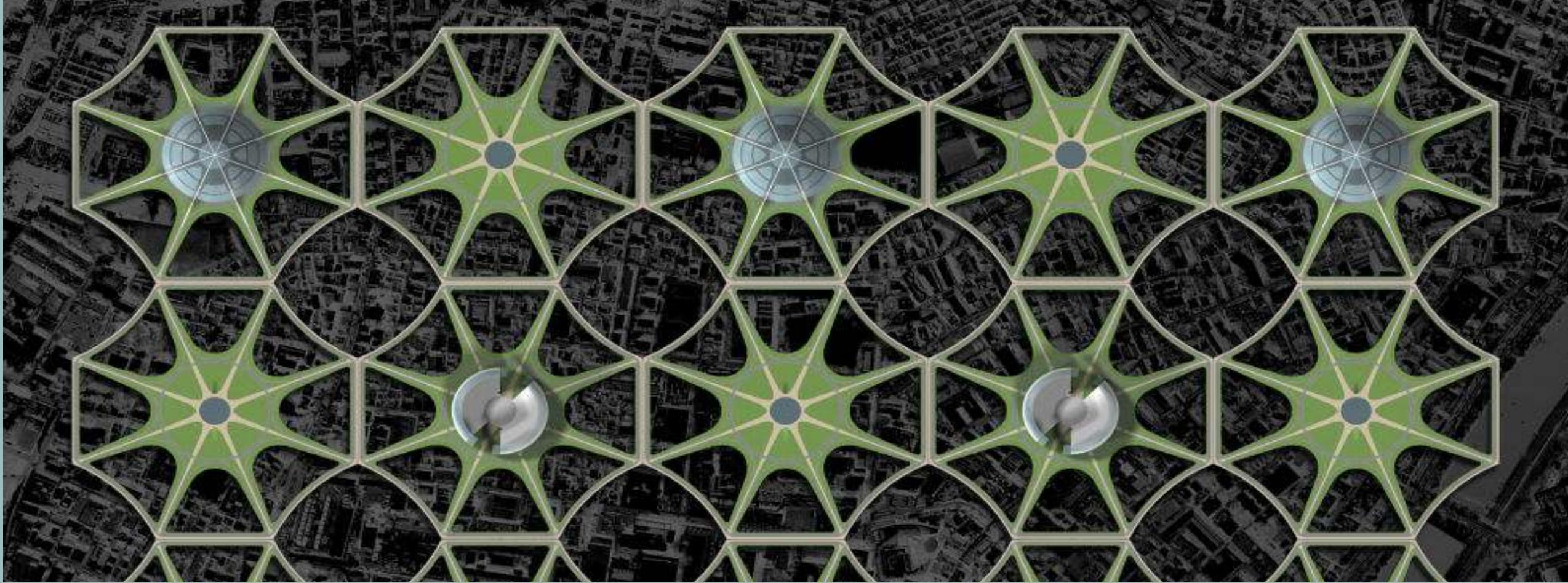
1. Once the file updates are completed and saved.
 - wp-config.wp
 - .htaccess
2. Click the **Log In** link on the “Enabling the Network” page

Once you complete these steps, your network is enabled and configured. You will have to log in again [Log In](#)

NICE WORK



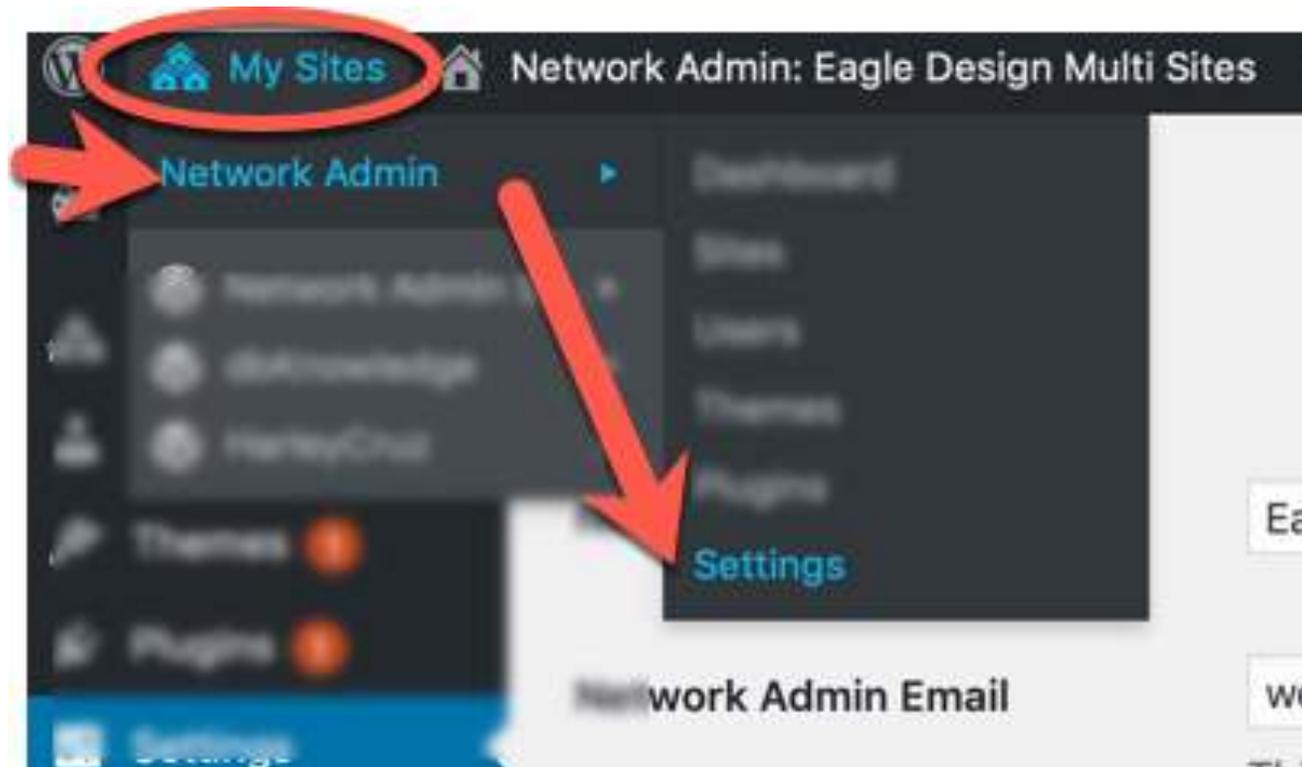
APPROVED BY CHUCK NORRIS



NETWORK ADMIN SETTINGS

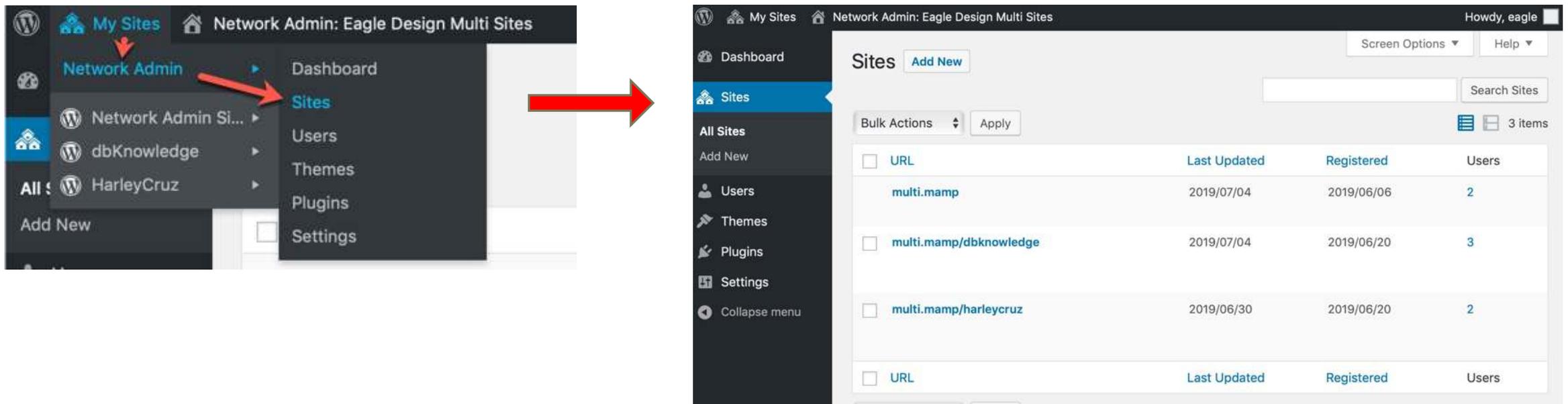
STEP 6: NETWORK ADMIN SETTINGS

1. At the top left of your WordPress toolbar, My Sites is now the second item.
2. Go to Settings to configure network options



MY SITES > NETWORK ADMIN > SITES

1. Click add new → Create New Site.
2. Fill in the details - site URL/address, title, email
3. View the list of all sites

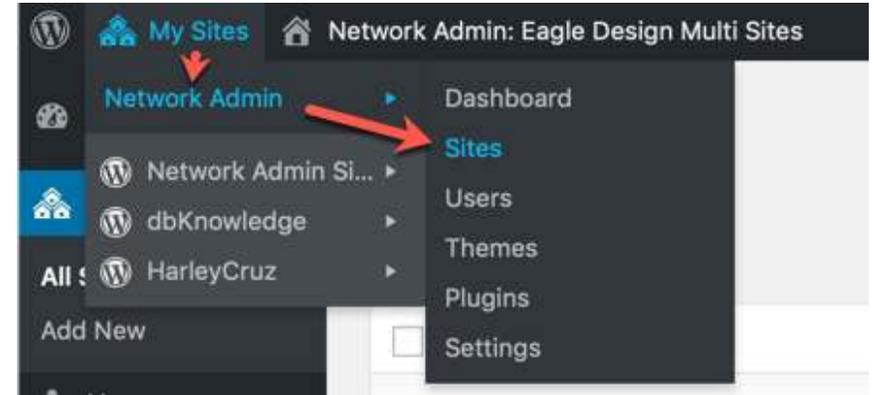


The image shows two screenshots of the WordPress Network Admin interface. The left screenshot shows the 'My Sites' menu with 'Network Admin' selected, and a sub-menu where 'Sites' is highlighted. A red arrow points from 'Sites' to the right screenshot. The right screenshot shows the 'Sites' page with an 'Add New' button and a table of existing sites.

<input type="checkbox"/>	URL	Last Updated	Registered	Users
<input type="checkbox"/>	multi.mamp	2019/07/04	2019/06/06	2
<input type="checkbox"/>	multi.mamp/dbknowledge	2019/07/04	2019/06/20	3
<input type="checkbox"/>	multi.mamp/harleycruz	2019/06/30	2019/06/20	2
<input type="checkbox"/>	URL	Last Updated	Registered	Users

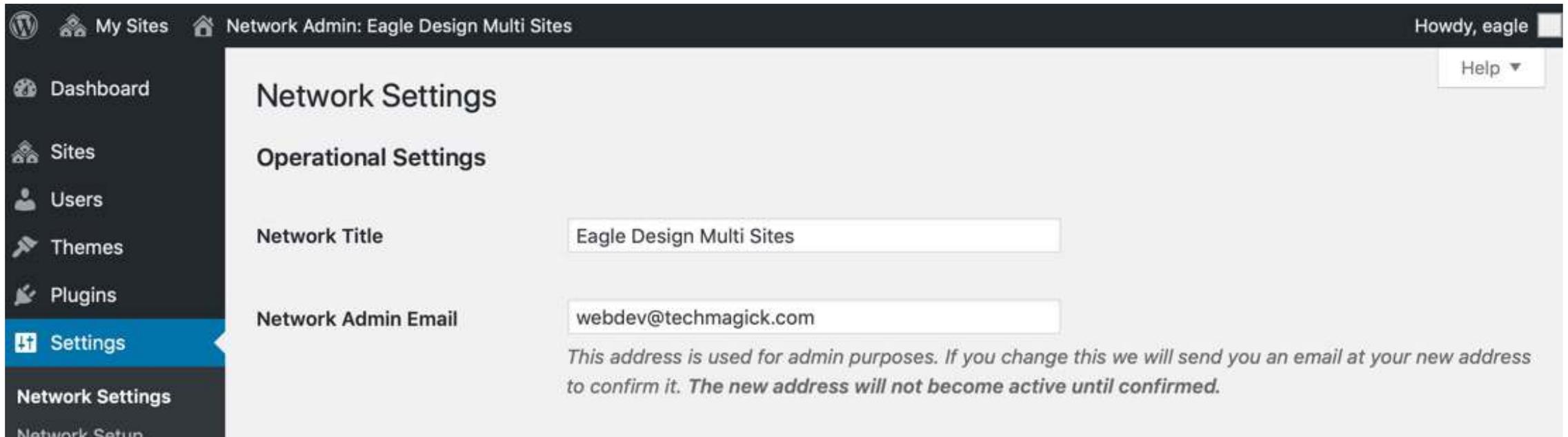
SITES ARE MANAGED FROM SITES SCREEN

1. Add
2. Delete
3. Deactivate
 - Becomes invisible to the visitors and the site admin
 - Site message → “[this site is no longer available.](#)”
4. Archive
 - Visible only to network admin
 - Site message → “[this site has been archived or suspended.](#)”



MY SITES > NETWORK ADMIN > SETTINGS > OPERATIONAL SETTINGS

1. Update the title/name of your network.
2. Update the “**Network Admin**” email.



The screenshot shows the WordPress Network Admin interface. The top navigation bar includes the WordPress logo, 'My Sites', and 'Network Admin: Eagle Design Multi Sites'. The user is logged in as 'Howdy, eagle'. The left sidebar contains a menu with 'Settings' highlighted. The main content area is titled 'Network Settings' and 'Operational Settings'. It features two input fields: 'Network Title' with the value 'Eagle Design Multi Sites' and 'Network Admin Email' with the value 'webdev@techmagick.com'. Below the email field is a warning message: 'This address is used for admin purposes. If you change this we will send you an email at your new address to confirm it. The new address will not become active until confirmed.'

MY SITES > NETWORK ADMIN > SETTINGS > REGISTRATION SETTINGS

1. Enable new registrations for your network
2. Allow your users to create their own sub-sites.
 - By default, registration is disabled.
3. Limit registrations to specific domains
 - Keep registrations to a certain organization or business, like a school or sports club.
4. Option to ban registrations (emails address) from certain domains.

Registration Settings

Allow new registrations

- Registration is disabled
- User accounts may be registered
- Logged in users may register new sites
- Both sites and user accounts can be registered

Registration notification

- Send the network admin an email notification every time someone registers a site or user account

Add New Users

- Allow site administrators to add new users to their site via the "Users → Add New" page

Banned Names

www web root admin main invite administrator files blog user

Users are not allowed to register these sites. Separate names by spaces.

Limited Email Registrations

If you want to limit site registrations to certain domains. One domain per line.

Banned Email Domains

If you want to ban domains from site registrations. One domain per line.

MY SITES > NETWORK ADMIN > SETTINGS > NEW SITE SETTINGS

1. Modify welcome emails to new users.
 - sent by WordPress when a user creates a new site.
2. Modify the default content added on new sites.
 - first post, page and/or comment.
3. Settings will affect all sites and users on your.

MY SITES > NETWORK ADMIN > SETTINGS > UPLOAD SETTINGS

1. Control user resource usage.
2. Control the total amount of space a sub-site can use for uploads.
3. The default is set at 100MB.
4. Specify upload types and the maximum file upload size.

Upload file types

jpg jpeg png gif mov avi mpg 3gp 3g2 midi mid pdf doc ppt odt pptx docx pps ppsx xls xlsx key mp3 ogg flac m4a wav mp4 m4v webm ogv flv

Allowed file types. Separate types by spaces.

1. Set the language for your network

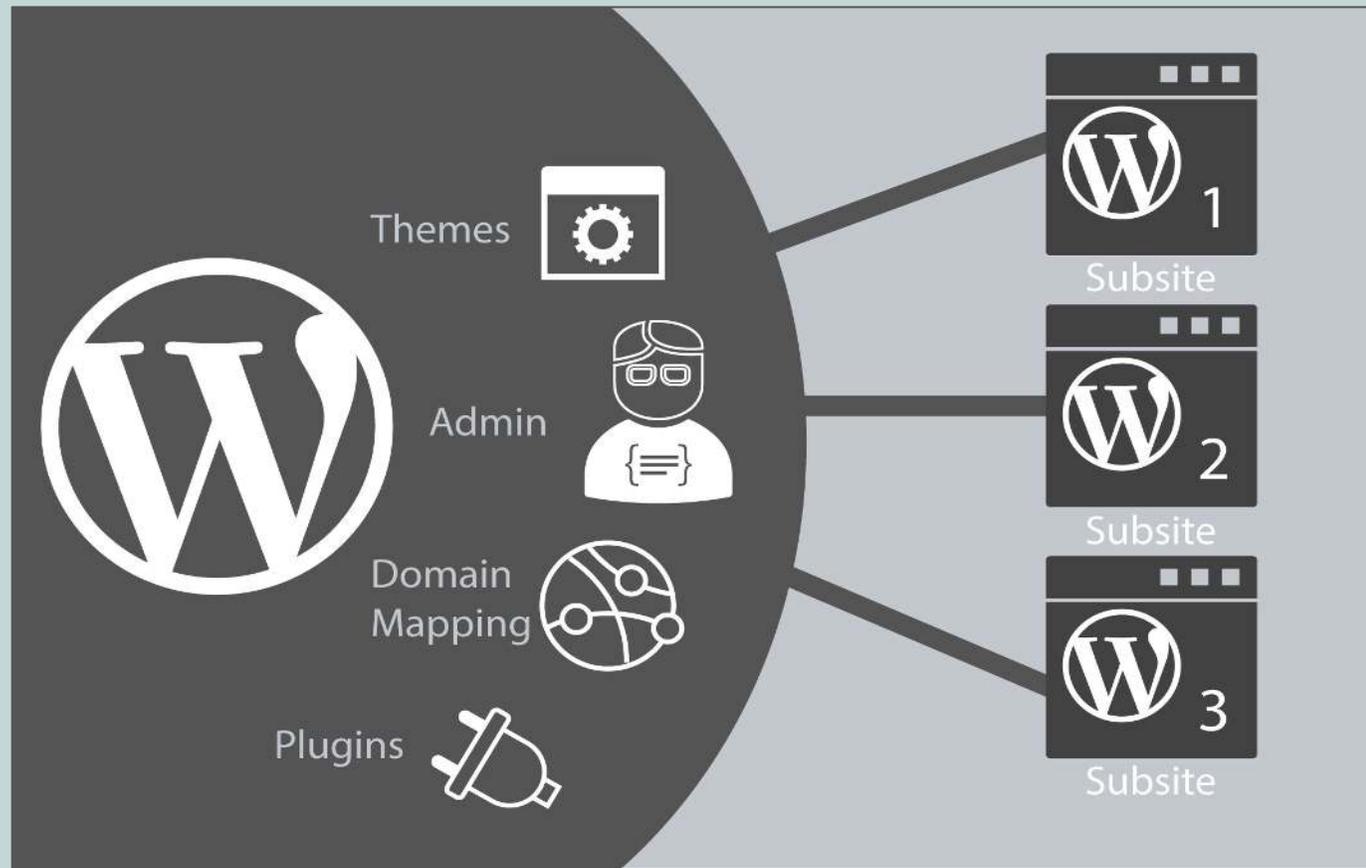
MY SITES > NETWORK ADMIN > SETTINGS > MENU SETTINGS

1. Enables administration menus for plugins.
 - Adds the plugins menu to sidebar for site admins.
2. Site admins will be able to activate or deactivate a plugin.
3. Site admins are not able to install new plugins.



ADDITIONAL INFORMATION

1. For more information, see: [Network Admin](#)
 - https://codex.wordpress.org/Network_Admin



CUSTOMIZING MULTISITE

COMPATIBLE BACKUP PLUGINS

1. Updraft Plus Premium

- Backup/restore control panel is placed in the network dashboard.
- Restore individual sites within the network (without having to restore all sites).
- Import (where possible) single site installs into the network.
 - best use case - content-only site.

2. Duplicator Pro Premium

- can backup & migrate a WordPress full Multisite.
- can install a subsite as a standalone site.

MEMBERSHIP

1. S2member Pro Version

- activated Network-wide
- each site with their own user base and membership offering.
- ability to share users across multiple sites is not officially supported

2. Restrict Content Pro

- Single site activation - individual membership levels, payments, memberships, etc
- Network activated - all sites see the same membership levels, memberships, payments, etc.
- Network activated - each site has its own membership levels - separate database tables for each site
 - `define('RCP_NETWORK_SEPARATE_SITES', true);`

3. BuddyPress

- allows members to start their own full-powered public or private WordPress blogs

FORUMS - BBPRESS

1. Natively runs only on the sites it's activated on
2. Domain root only
3. Sub-sites only
4. Multiple network installation

GRAVITY FORMS

1. `define('GF_LICENSE_KEY', 'YOUR-LICENSE-KEY-HERE');`
 - automatically pre-populate your Gravity Forms license key for those new multisite installations.

IMPROVED SEARCH INDEX

1. Relevanssi
2. Can search across subsites in the same multisite network.

OPTIMIZATION

1. W3 total cache
 - Network-activated
2. Swift performance
 - Network-activated and then
 - Activate on each sub-site.
3. WP-rocket
 - Can not be network-activated.
 - Must be activated on each sub-site.
 - Single license key valid for all the sub-sites
4. WP-optimize premium
 - Only “network admin” has access to optimization operations.
 - Post revisions, spam, drafts, tables, etc.

IMAGE OPTIMIZATION

1. ShortPixel

- activate the plugin in the network admin
- then activate it manually on each individual site
- Once you have done that, the Settings menu appears
- add the API key for each individual site.
- An alternative, edit wp-config.php
- add this line: `define('SHORTPIXEL_API_KEY', 'APIKEY')`
- where 'APIKEY' is the API Key received upon sign up.

2. Imagify

- <https://wordpress.org/plugins/imagify/>
- Lossless image optimization.

COMMENTS

1. “Disable Comments” plugin
 - <https://wordpress.org/plugins/disable-comments/>
2. Disables the commenting feature in WP.
3. Can be used to disable comments on the entire network.

ROLES AND USERS PERMISSIONS

1. User Role Editor
 - <https://wordpress.org/plugins/user-role-editor/>
2. Manage via Network Admin for multisite configuration.
3. One click Synchronization to the whole network.

CUSTOM DOMAIN TO MULTISITE SUBSITE DOMAIN MAPPING

1. Edit the subsite → My Sites > Network Admin > Sites and choose ‘edit’ the subsite.
2. Enter the new custom domain (e.g. example.com) in the Site Address (URL) field.
3. Don’t use the www, but insert the domain as <https://example.com> and click “save changes”.
4. Create an ‘A’ record pointing to the IP address of your multisite install in the DNS zone records.
 - create one for ‘example.com’
 - create one for ‘*.example.com’
5. References:
 - <https://wordpress.org/plugins/wordpress-mu-domain-mapping/>
 - <https://wordpress.org/support/topic/howto-domain-mapping-without-a-plugin-instructions/>
 - <https://wordpress.stackexchange.com/questions/251116/how-to-use-wordpress-multisite-with-different-domain-names>

TO CORRECT AN ISSUE WITH COOKIES

1. Cookies currently set for subsite.maindomain.com
2. To have your site hand out cookies for maindomain.com
3. Add this code to wp-config.php after all the multisite parts
 - `define('COOKIE_DOMAIN', $_SERVER['HTTP_HOST']);`
 - `define('ADMIN_COOKIE_PATH', SITECOOKIEPATH . 'wp-admin');`

ADDITIONAL COMPLEXITY OF A MULTISITE

1. READ THE CODEX
2. Contains additional things you need to know about advanced administration
3. The location and behavior of Multisite Network Administration can be confusing.
4. Read Multisite Network Administration for more information.
 - https://codex.wordpress.org/Multisite_Network_Administration

MULTISITE SECURITY



MAKE SECURITY A PRIORITY

1. If your site should be hacked, the whole network would be compromised.
2. The first and most important consideration is security.
3. Spend the time and resources to improve the installation security.

GUARD DOGS

- **Multisite compatible Security plugins.**
- 1. Wordfence (German shepherd) - watchful, lots of alerts - free.
 - [My go to security plugin](#) - requires careful configuration.
 - Wednesday 20th of March 2019 at 01:57:44 AM
 - The Wordfence Web Application Firewall has blocked **1183 attacks over the last 10 minutes.**
 - Did I mention the alerts...
- 2. iThemes Pro (Rottweiler) - added security - premium price.
 - [Definitely in my toolkit](#)
- 3. Cerber Security, Antispam & Malware Scan (Doberman)
 - aggressive - free & premium
 - [New to my toolkit](#) - trying it on a few sites.
 - Citadel mode - site lockdown - to block massive bot (botnet) attacks
 - Enable after **30** failed login attempts in last **15** minutes - for **60** minutes

LOGGING ACTIVITY

1. WP Security Audit Log

- <https://wordpress.org/plugins/wp-security-audit-log/>
- an activity log of everything that happens on your multisite network
- tracks user activity.

2. Stream

- <https://wordpress.org/plugins/stream/>
- Every logged-in user action is displayed in an activity stream
- organized by User, Role, Context, Action or IP address.

REDIRECTS

1. Safe Redirect Manager - friendly redirects.
 - <https://wordpress.org/plugins/safe-redirect-manager/>
2. Redirection
 - <https://de.wordpress.org/plugins/redirection/>
3. Setup 301 redirections in the WordPress backend. Capable to implement all regular expressions.

EMBEDS

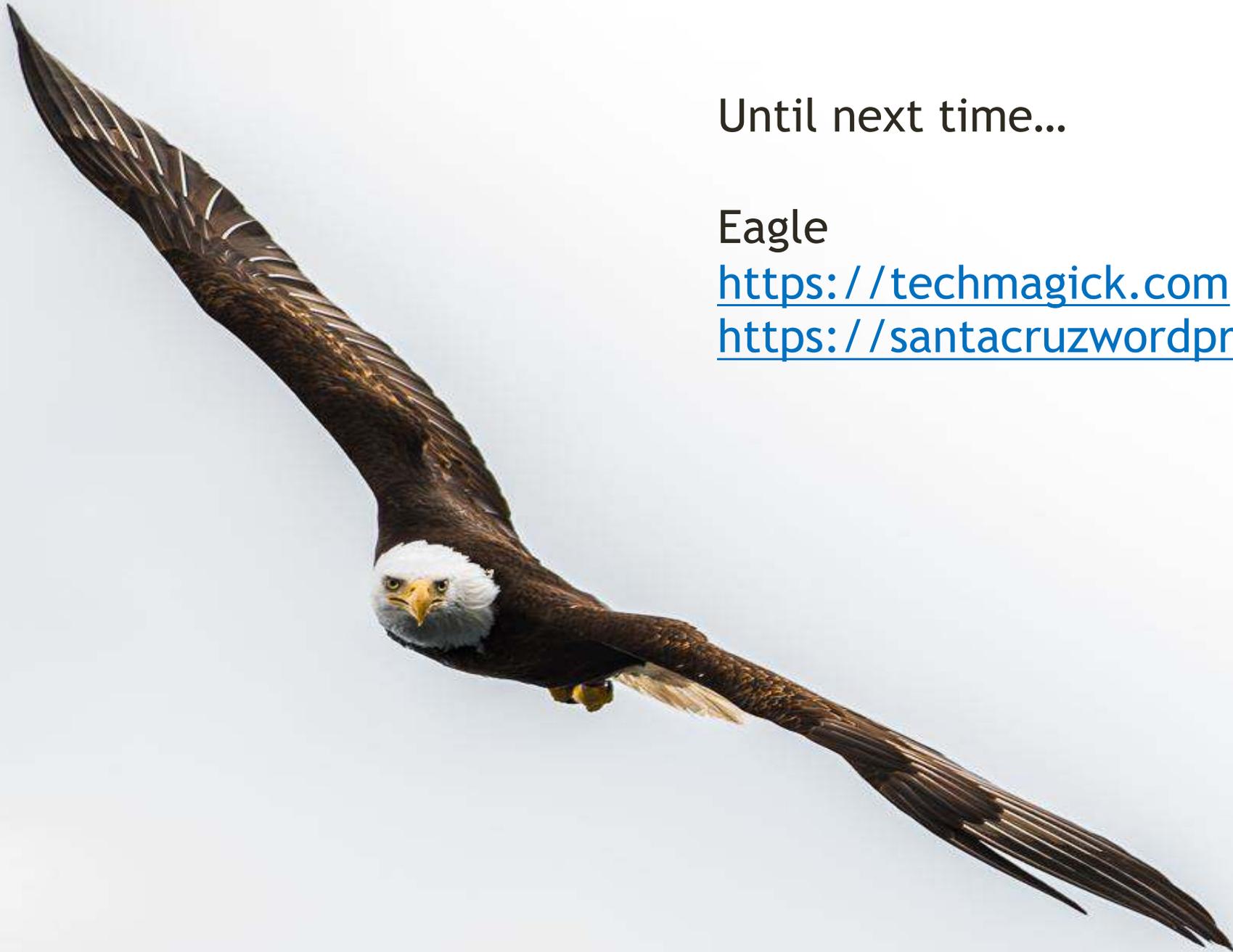
1. Multisite doesn't allow embeds for users other than super admins for security reasons
2. Embeds can allow for malicious code to be injected into your site
3. There's an internal whitelist built into wordpress that allows youtube and vimeo videos to be embedded.
4. You can read more about it in the wordpress codex:
 - <https://codex.wordpress.org/embeds>

EMBED JS INTO POSTS

1. Users Can Not Embed JS Into Posts
2. This is *not* a bug.
3. You don't want them to!
4. Only the Super Admin on a MultiSite install has the access to include iframes, javascript, and other non-oEmbed'd data into posts!
5. If you're running a MultiSite, you're the big dog, and you're responsible for limiting their actions to things that won't take down everyone because they don't understand what an insecure iframe hack is.
6. If you can't give them the access they need via shortcodes, then they need to host themselves, or you host them separately.
7. Protect everyone on your network, and don't give them unregulated access.

NETWORK ADMIN ROLE

1. **Exercise caution when considering granting “Network Admin” privileges.**
2. Has Administrator-level access to all sites.
3. Has the ability to add new sites and manage network-level settings.
4. Has access to all settings network-wide
5. Can add users as an Administrator to every subsite, without Network Admin access.



Until next time...

Eagle

<https://techmagick.com>

<https://santacruzwordpress.com/>