Install Lets Encrypt for Bitnami WordPress Multisite Hosted on AWS EC2

This is essentially a walkthrough of the video tutorial on Bitnami.
https://docs.bitnami.com/aws/how-to/understand-bncert/

1. ssh into the AWS EC2 Instance with the keyfile and ip address
   a. Ex: ssh -i locationOfKeyFile.pem bitnami@ipaddress
      i. `ssh -i oceanitMultisite.pem bitnami@34.215.127.175`
2. Locate and run the bncert-tool provided by Bitnami to install SSL
   a. After getting into the server, run `sudo /opt/bitnami/bncert-tool`

```
[bitnami@ip-172-31-21-224:/opt/bitnami$ sudo ./bncert-tool
----------------------------------------------------------------------
Welcome to the Bitnami HTTPS Configuration tool.

----------------------------------------------------------------------
Domains

Please provide a valid space-separated list of domains for which you wish to
configure your web server.

The web server name will be configured as the first provided domain name.

If you provide a non-www domain (e.g. example.com) but not its www subdomain
(e.g. www.example.com), it will be added automatically, and viceversa.

Domain list []:
```

   b. You will be asked to provide the domains you would like to provide an SSL cert
      to. Since adding non-www domains will automatically add its www subdomain,
      we would like to prepend "www." to all domains we want to add except for the
      subdomains such as dragxsurfaces.oceanitlabs.com.
      i. We do this because prepending querying
         www.dragxsurfaces.oceanitlabs.com results in "This site can't be
         reached."
      ii. If we did not do this, bitnami would automatically add the www
          counterparts to all domains listed, and I wasn't sure how to get rid of them
          haha...
   c. Below are the domains currently covered by the SSL. Copy them, adding any
      other domains you would like to be covered. Each domain must redirect to the
      same IP address.
      i. aeropeltechnology.com aeropeltechnology.oceanitlabs.com
         anthronoetic.com anthronoetic.oceanitlabs.com blastninja.com
         blastninja.oceanitlabs.com dragxsurfaces.com
         dragxsurfaces.oceanitlabs.com everpeltech.com
         everpeltech.oceanitlabs.com foulx.com foulx.oceanitlabs.com
         heatxcoatings.com heatxcoatings.oceanitlabs.com heatxsurfaces.com
         heatxsurfaces.oceanitlabs.com ioview.ai ioview.oceanitlabs.com
         myibeach.com myibeach.oceanitlabs.com oceanitlabs.com
         oceanitventures.com oceanitventures.oceanitlabs.com

scintechnology.com scintechnology.oceanitlabs.com supercoolvest.com supercoolvest.oceanitlabs.com

    d. Disable/revoke existing certificates, so we can install the new set of domains: Y

```
A certificate was found at /opt/bitnami/letsencrypt/certificates/www.oceanitlabs.com.crt
It is registered for a different set of domains: aeropeltechnology.com aeropeltechnology.oceanitlabs.com anthronoetic.com anthronoetic.oceanitlabs.com
 blastninja.com blastninja.oceanitlabs.com dragxsurfaces.com dragxsurfaces.oceanitlabs.com everpeltech.com everpeltech.oceanitlabs.com foulx.com foulx
.oceanitlabs.com heatxcoatings.com heatxcoatings.oceanitlabs.com heatxsurfaces.com heatxsurfaces.oceanitlabs.com ioview.ai ioview.oceanitlabs.com ocea
nitlabs.com oceanitventures.com oceanitventures.oceanitlabs.com scintechnology.com scintechnology.oceanitlabs.com supercoolvest.com supercoolvest.oceanitlabs.com www.aero
peltechnology.com www.anthronoetic.com www.blastninja.com www.dragxsurfaces.com www.everpeltech.com www.foulx.com www.heatxcoatings.com www.heatxsurfa
ces.com www.ioview.ai www.oceanitlabs.com www.scintechnology.com www.supercoolvest.com.
Do you want to disable/revoke the existing certificate and create a new one? [y/N]: y

_____
Changes to perform

The following changes will be performed to your Bitnami installation:

1. Stop web server
2. Revoke existing Let's Encrypt certificate:
/opt/bitnami/letsencrypt/certificates/www.oceanitlabs.com.crt
3. Configure web server to use a free Let's Encrypt certificate for the domains:
www.oceanitlabs.com oceanitlabs.com dragxsurfaces.oceanitlabs.com
everpeltech.oceanitlabs.com anthronoetic.oceanitlabs.com
blastninja.oceanitlabs.com heatxcoatings.oceanitlabs.com
heatxsurfaces.oceanitlabs.com foulx.oceanitlabs.com                                                                    ]
aeropeltechnology.oceanitlabs.com ioview.oceanitlabs.com
oceanitventures.oceanitlabs.com scintechnology.oceanitlabs.com
supercoolvest.oceanitlabs.com dragxsurfaces.com everpeltech.com anthronoetic.com
blastninja.com heatxcoatings.com heatxsurfaces.com foulx.com
aeropeltechnology.com ioview.ai scintechnology.com supercoolvest.com
www.dragxsurfaces.com www.everpeltech.com www.anthronoetic.com
www.blastninja.com www.heatxcoatings.com www.dragxsurfaces.oceanitlabs.com
www.everpeltech.oceanitlabs.com www.anthronoetic.oceanitlabs.com
www.blastninja.oceanitlabs.com www.heatxcoatings.oceanitlabs.com
www.heatxsurfaces.oceanitlabs.com www.foulx.oceanitlabs.com
www.aeropeltechnology.oceanitlabs.com www.ioview.oceanitlabs.com
www.oceanitventures.oceanitlabs.com www.scintechnology.oceanitlabs.com
www.supercoolvest.oceanitlabs.com www.heatxsurfaces.com www.foulx.com
www.aeropeltechnology.com www.ioview.ai www.scintechnology.com
www.supercoolvest.com
4. Disable existing Let's Encrypt cron jobs configured with the tool
5. Configure a cron job to automatically renew the certificates each month
6. Configure web server name to: www.oceanitlabs.com
7. Enable HTTP to HTTPS redirection (example: redirect http://oceanitlabs.com to
https://oceanitlabs.com)
8. Enable non-www to www redirection (example: redirect oceanitlabs.com to
www.oceanitlabs.com)
9. Start web server once all changes have been performed

You can modify the list of changes to perform if you select 'No'

Do you agree to these changes? [Y/n]: ▊
```

   3. This is where bitnami has automatically prepended www to our subdomains.
      a. Enter n
      b. When asked for which changes to allow, do the following
         i. Enable HTTP to HTTPS redirection [Y/n]: y
         ii. Enable non-www to www redirection [Y/n]: n
            1. This is preventing dragxsurfaces.oceanitlabs.com from being redirected to the faulty link www.dragxsurfaces.oceanitlabs.com
         iii. Enable www to non-www redirection [y/N]: y
            1. Routes any www site to a non-www site, allowing www.supercoolvest.com to be covered by supercoolvest.com
         iv. Add missing domains: …. [Y/n]: n
   4. Accept the changes: Y
   5. Email address associated: info@oceanit.com
   6. Agree to the subscriber agreement: Y

7. After finishing, press enter and the domains now should have HTTPS. Let's Encrypt SSLs last for 90 days, but automatic renewal of the SSLs have also been handled by this installation through cron jobs. You can check all cron jobs by running: `crontab -l`

```
--------------------------------------------------------------------------
Create a free HTTPS certificate with Let's Encrypt

Please provide a valid e-mail address for which to associate your Let's Encrypt
certificate.

Domain list: aeropeltechnology.com aeropeltechnology.oceanitlabs.com
anthronoetic.com anthronoetic.oceanitlabs.com blastninja.com
blastninja.oceanitlabs.com dragxsurfaces.com dragxsurfaces.oceanitlabs.com
everpeltech.com everpeltech.oceanitlabs.com foulx.com foulx.oceanitlabs.com
heatxcoatings.com heatxcoatings.oceanitlabs.com heatxsurfaces.com
heatxsurfaces.oceanitlabs.com ioview.ai ioview.oceanitlabs.com oceanitlabs.com
oceanitventures.oceanitlabs.com scintechnology.com
scintechnology.oceanitlabs.com supercoolvest.com supercoolvest.oceanitlabs.com

Server name: aeropeltechnology.com

E-mail address []: info@oceanit.com

The Let's Encrypt Subscriber Agreement can be found at:

https://letsencrypt.org/documents/LE-SA-v1.2-November-15-2017.pdf

Do you agree to the Let's Encrypt Subscriber Agreement? [Y/n]: y


--------------------------------------------------------------------------
Performing changes to your installation

The Bitnami HTTPS Configuration Tool will perform any necessary actions to your
Bitnami installation. This may take some time, please be patient.

--------------------------------------------------------------------------
Success

The Bitnami HTTPS Configuration Tool succeeded in modifying your installation.

The configuration report is shown below.

Backup files:
* /opt/bitnami/apache2/conf/httpd.conf.back.201908021917
* /opt/bitnami/apache2/conf/bitnami/bitnami-apps-prefix.conf.back.201908021917
* /opt/bitnami/apache2/conf/bitnami/bitnami.conf.back.201908021917

Find more details in the log file:

/tmp/bncert-201908021917.log

If you find any issues, please check Bitnami Support forums at:

https://community.bitnami.com

Press [Enter] to continue:
```