Install and configure Cacti on CentOS

Here we use root login for this installation and configuration. Before doing anything else, we should disable SELinux.

Step 1 – Disable SELinux

Open and edit SELinux configuration file.

```
vim /etc/sysconfig/selinux
```

Change SELINUX=enforcing to SELINUX=disabled. Save and exit. Reboot system

```
reboot
```

Step 2 – Enable Repos

Head over to the Fedora page and copy the latest download link of the latest file.

Setup the EPEL repository:

```
rpm -Uvh https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
```

Similarly, copy the link of Remi and install the Remi repository.

```
wget http://rpms.famillecollet.com/enterprise/remi-release-7.rpm
```

Install repository.

```
rpm -Uvh remi-release-7.rpm
```

List repositories.

```
yum repolist
```

Step 3 – Install Apache

Let's install Apache and start the service.

```
yum install httpd httpd-devel

systemctl start httpd
```

Step 4 – Install SNMP and RRDTool

To install SNMP and RRD Tool, enter the following command:

```
yum  install net-snmp net-snmp-utils net-snmp-libs rrdtool
```

Accept typing “Y” to confirm installation.

Start SNMP.

```
systemctl start snmpd
```

Step 5 – Install MariaDB Server

Use the following command to install the MariaDB server and start the service.

```
yum install mariadb-server

systemctl start mariadb
```

Complete MariaDB Secure Installation.

```
mysql_secure_installation
```

```
[root@localhost ~]# mysql_secure_installation

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
      SERVERS IN PRODUCTION USE!  PLEASE READ EACH STEP CAREFULLY!

In order to log into MariaDB to secure it, we'll need the current
password for the root user.  If you've just installed MariaDB, and
you haven't set the root password yet, the password will be blank,
so you should just press enter here.

Enter current password for root (enter for none):
OK, successfully used password, moving on...

Setting the root password ensures that nobody can log into the MariaDB
root user without the proper authorisation.

Set root password? [Y/n] Y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
 ... Success!


By default, a MariaDB installation has an anonymous user, allowing anyone
to log into MariaDB without having to have a user account created for
them.  This is intended only for testing, and to make the installation
go a bit smoother.  You should remove them before moving into a
production environment.

Remove anonymous users? [Y/n] Y
 ... Success!

Normally, root should only be allowed to connect from 'localhost'.  This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] Y
 ... Success!

By default, MariaDB comes with a database named 'test' that anyone can
access.  This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] Y
 - Dropping test database...
 ... Success!
 - Removing privileges on test database...
 ... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n] Y
 ... Success!

Cleaning up...

All done!  If you've completed all of the above steps, your MariaDB
installation should now be secure.

Thanks for using MariaDB!
```

Step 6 – Install PHP and needed packages

Fire up the following command to install a bunch of PHP related packages.

```
yum --enablerepo=remi install php-mysql php-pear php-common php-gd php-devel php php-mbstring php-cli php-intl php-snmp
```

Step 7 – Create a Cacti Database

Now you can log in to the database server with the previously configured password.

```
mysql -u root -p
```

```
[root@localhost ~]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 10
Server version: 5.5.56-MariaDB MariaDB Server

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]>
```

Create a Database and user.

```
MariaDB [(none)]> create database fosslinuxcacti;

MariaDB [(none)]> CREATE USER 'fosslinuxuser'@'localhost' IDENTIFIED BY 'C345gDvfr@#231';
```

Grant permission and flush privileges.

```
 MariaDB [(none)]> grant all privileges on fosslinuxcacti.* to fosslinuxuser@localhost ;

MariaDB [(none)]> FLUSH PRIVILEGES;
```

```
MariaDB [(none)]> create database fosslinuxcacti;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> CREATE USER 'fosslinuxuser'@'localhost' IDENTIFIED BY 'C345gDvfr@#231';
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> grant all privileges on fosslinuxcacti.* to fosslinuxuser@localhost ;
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]>
```

Create database user should have access to the mysql.time_zone_name Table. So we should import the mysql_test_data_timezone.sql to MySQL database first.

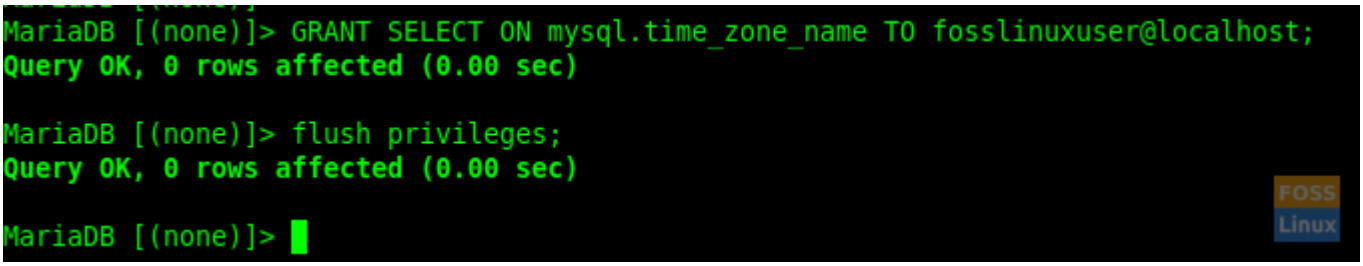
```
mysql -u root -p mysql < /usr/share/mysql/mysql_test_data_timezone.sql
```

Login to MariaDB.

```
mysql -u root -p
```

Grant access to the cacti database user and flush privileges.

```
MariaDB [(none)]> GRANT SELECT ON mysql.time_zone_name TO fosslinuxuser@localhost;

MariaDB [(none)]> flush privileges;
```



Step 8 – Optimize Database

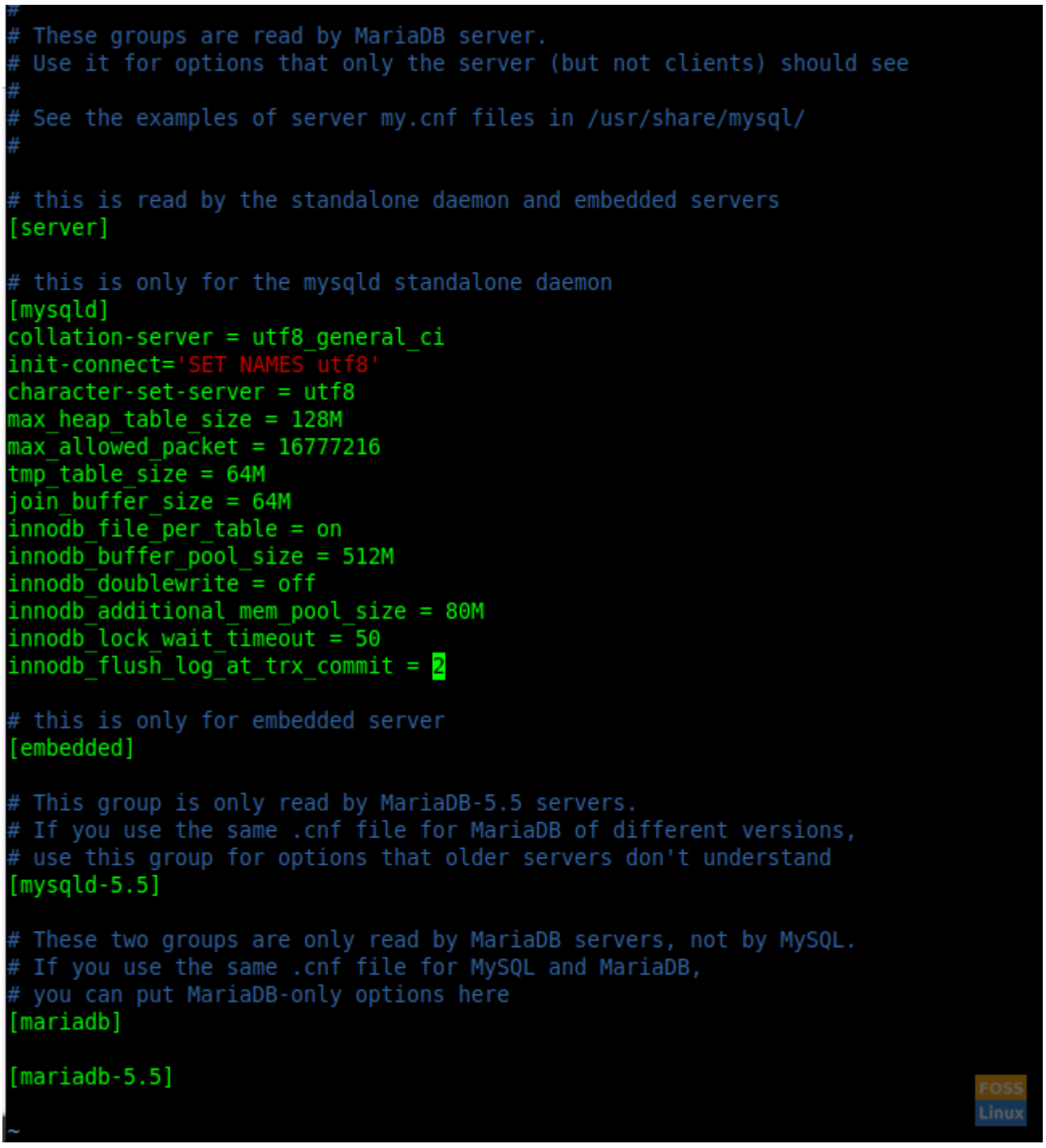
We need to modify database parameters for better performance. Use the following command.

```
vim /etc/my.cnf.d/server.cnf
```

Add the following lines to the [mysqld] section.

```
collation-server = utf8_general_ci

init-connect='SET NAMES utf8'

character-set-server = utf8

max_heap_table_size = 128M

max_allowed_packet = 16777216

tmp_table_size = 64M

join_buffer_size = ١٢٨M

innodb_file_per_table = on
```

```
innodb_buffer_pool_size = ١٠٢۴M

innodb_doublewrite = off

innodb_additional_mem_pool_size = 80M

innodb_lock_wait_timeout = 50

innodb_flush_log_at_trx_commit = 2
```



When done, restart the MariaDB service using the restart command:

```
systemctl restart mariadb.service
```

Step 9 – Install and configure Cacti

Time to install Cacti now using YUM.

```
yum -y install cacti
```

Import default cacti database file to the created database.

```
cd /usr/share/doc/cacti-1.1.38
```

Import the SQL file.

```
mysql -u root -p  fosslinuxcacti < cacti.sql
```

Edit the Cacti configuration file which includes a database, password details etc.

```
vim /usr/share/cacti/include/config.php
```

Modify database details.

```
$database_type     = 'mysql';

$database_default  = 'fosslinuxcacti';

$database_hostname = 'localhost';

$database_username = 'fosslinuxuser';

$database_password = 'C345gDvfr@#231';

$database_port     = '3306';

$database_ssl      = false;
```

```
/*
 +-------------------------------------------------------------------------+
 | Copyright (C) 2004-2018 The Cacti Group                                 |
 |                                                                         |
 | This program is free software; you can redistribute it and/or           |
 | modify it under the terms of the GNU General Public License             |
 | as published by the Free Software Foundation; either version 2          |
 | of the License, or (at your option) any later version.                  |
 |                                                                         |
 | This program is distributed in the hope that it will be useful,         |
 | but WITHOUT ANY WARRANTY; without even the implied warranty of          |
 | MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  See the           |
 | GNU General Public License for more details.                            |
 +-------------------------------------------------------------------------+
 | Cacti: The Complete RRDtool-based Graphing Solution                     |
 +-------------------------------------------------------------------------+
 | This code is designed, written, and maintained by the Cacti Group. See  |
 | about.php and/or the AUTHORS file for specific developer information.   |
 +-------------------------------------------------------------------------+
 | http://www.cacti.net/                                                   |
 +-------------------------------------------------------------------------+
*/

/* make sure these values reflect your actual database/host/user/password */

$database_type     = 'mysql';
$database_default  = 'fosslinuxcacti';
$database_hostname = 'localhost';
$database_username = 'fosslinuxuser';
$database_password = 'C345gDvfr@#231';
$database_port     = '3306';
$database_ssl      = false;

/* when the cacti server is a remote poller, then these entries point to
 * the main cacti server.  otherwise, these variables have no use.
 * and must remain commented out. */

#$rdatabase_type     = 'mysql';
#$rdatabase_default  = 'cacti';
#$rdatabase_hostname = 'localhost';
#$rdatabase_username = 'cactiuser';
#$rdatabase_password = 'cactiuser';
#$rdatabase_port     = '3306';
#$rdatabase_ssl      = false;
```

Step 10 – Set Cron for Cacti

Open cacti cron file.

```
vim /etc/cron.d/cacti
```

Uncomment the following line.

```
*/5 * * * *     apache  /usr/bin/php /usr/share/cacti/poller.php
> /dev/null 2>&1
```

```
*/5 * * * *     apache  /usr/bin/php /usr/share/cacti/poller.php > /dev/null 2>&1
~
~
```

Save and exit the file.

Step 11 – Configure Apache for Cacti

This will help us to do a remote installation. Edit the cacti config file.

```
 vim  /etc/httpd/conf.d/cacti.conf
```

Change "Require host localhost" to "Require all granted" and "Allow from localhost" to "Allow from all."

```
#
# Cacti: An rrd based graphing tool
#

# For security reasons, the Cacti web interface is accessible only to
# localhost in the default configuration. If you want to allow other clients
# to access your Cacti installation, change the httpd ACLs below.
# For example:
# On httpd 2.4, change "Require host localhost" to "Require all granted".
# On httpd 2.2, change "Allow from localhost" to "Allow from all".

Alias /cacti    /usr/share/cacti

<Directory /usr/share/cacti/>
        <IfModule mod_authz_core.c>
                # httpd 2.4
                Require all granted
        </IfModule>
        <IfModule !mod_authz_core.c>
                # httpd 2.2
                Order deny,allow
                Deny from all
                Allow from all
        </IfModule>
</Directory>

<Directory /usr/share/cacti/install>
        # mod_security overrides.
        # Uncomment these if you use mod_security.
        # allow POST of application/x-www-form-urlencoded during install
        #SecRuleRemoveById 960010
        # permit the specification of the rrdtool paths during install
        #SecRuleRemoveById 900011
</Directory>
```

Change Time Zone.

```
vim /etc/php.ini

date.timezone = your time Zone
```

E.g.:- date.timezone = Australia/Sydney

Restart apache, MariaDB, and SNMP.

```
systemctl restart httpd.service

systemctl restart mariadb.service

systemctl restart snmpd.service
```

Step 12 – Configure the Firewall

Use these commands:

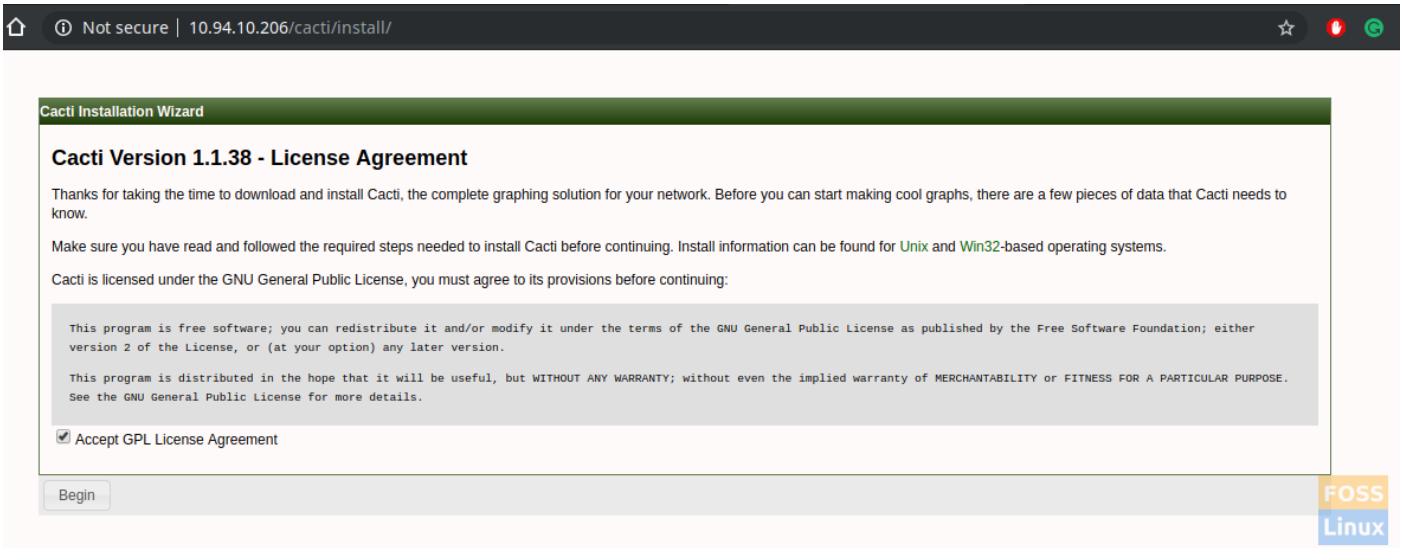
```
firewall-cmd --permanent --zone=public --add-service=http

firewall-cmd --reload
```

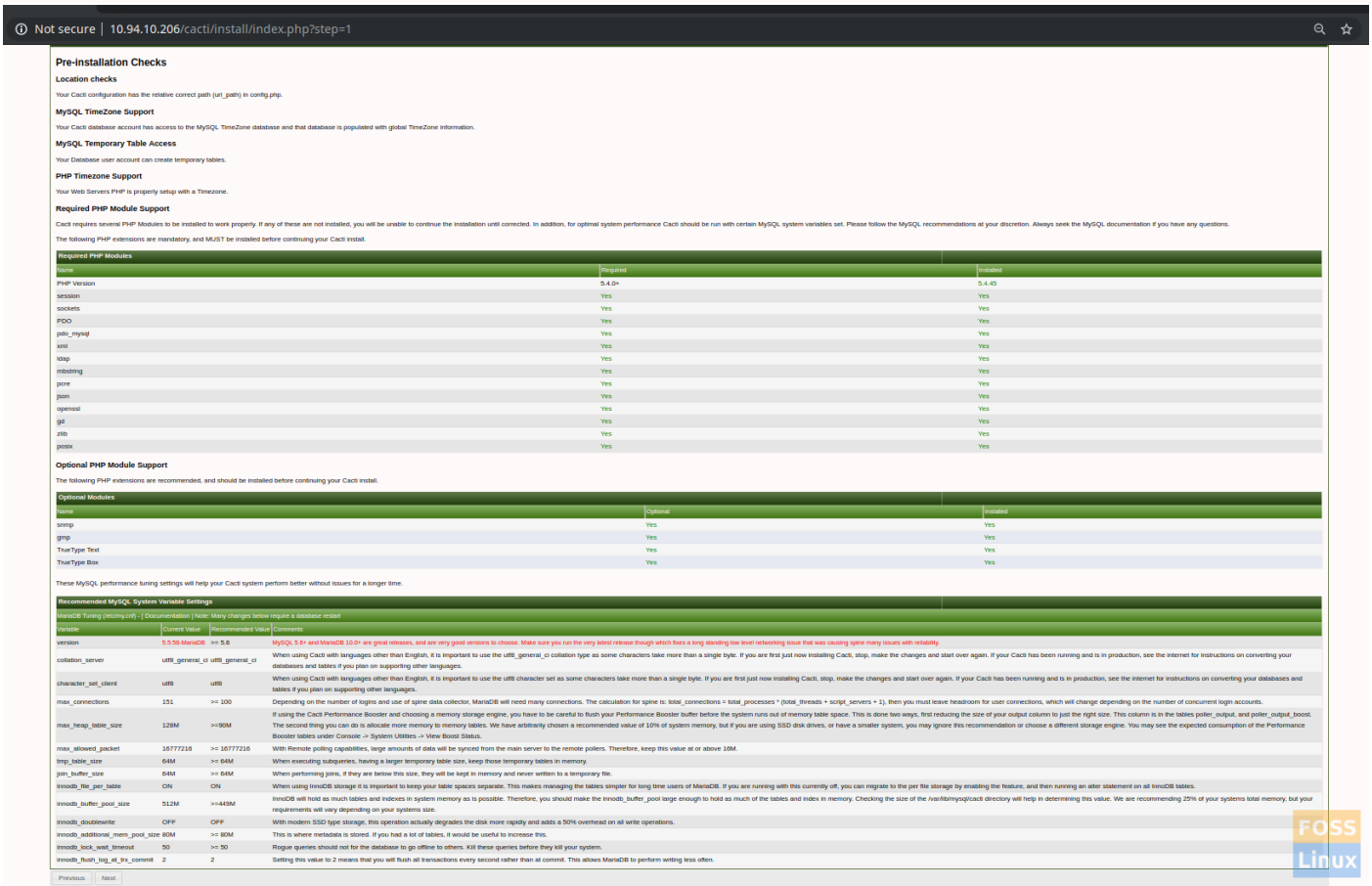
Step 13 – Start Cacti installation

Open a web browser and use the following URL to access Cacti web interface.

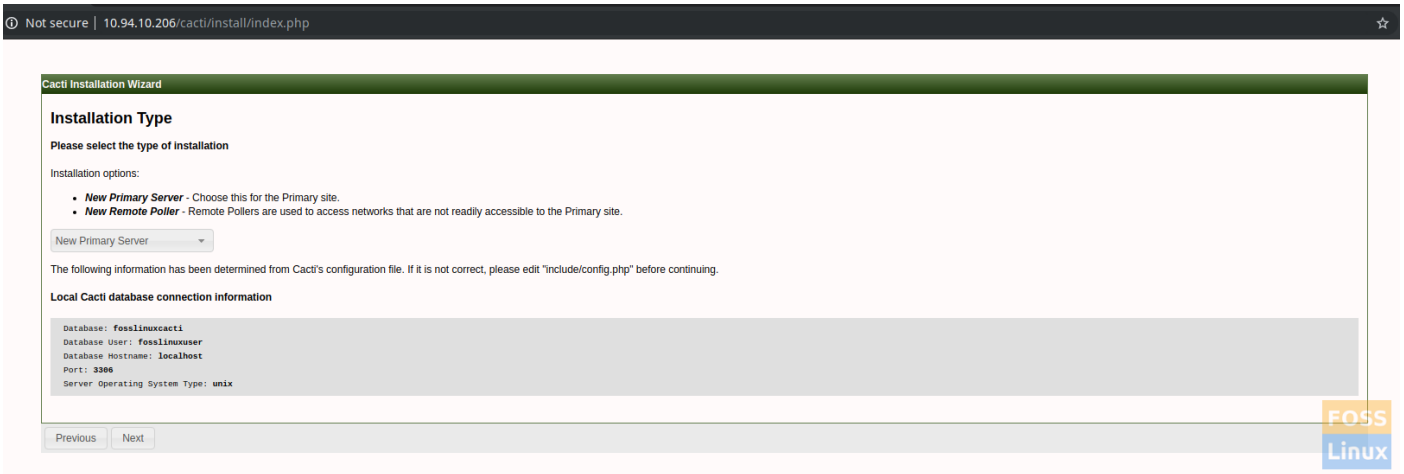
```
http://Your-Server-IP/cacti
```

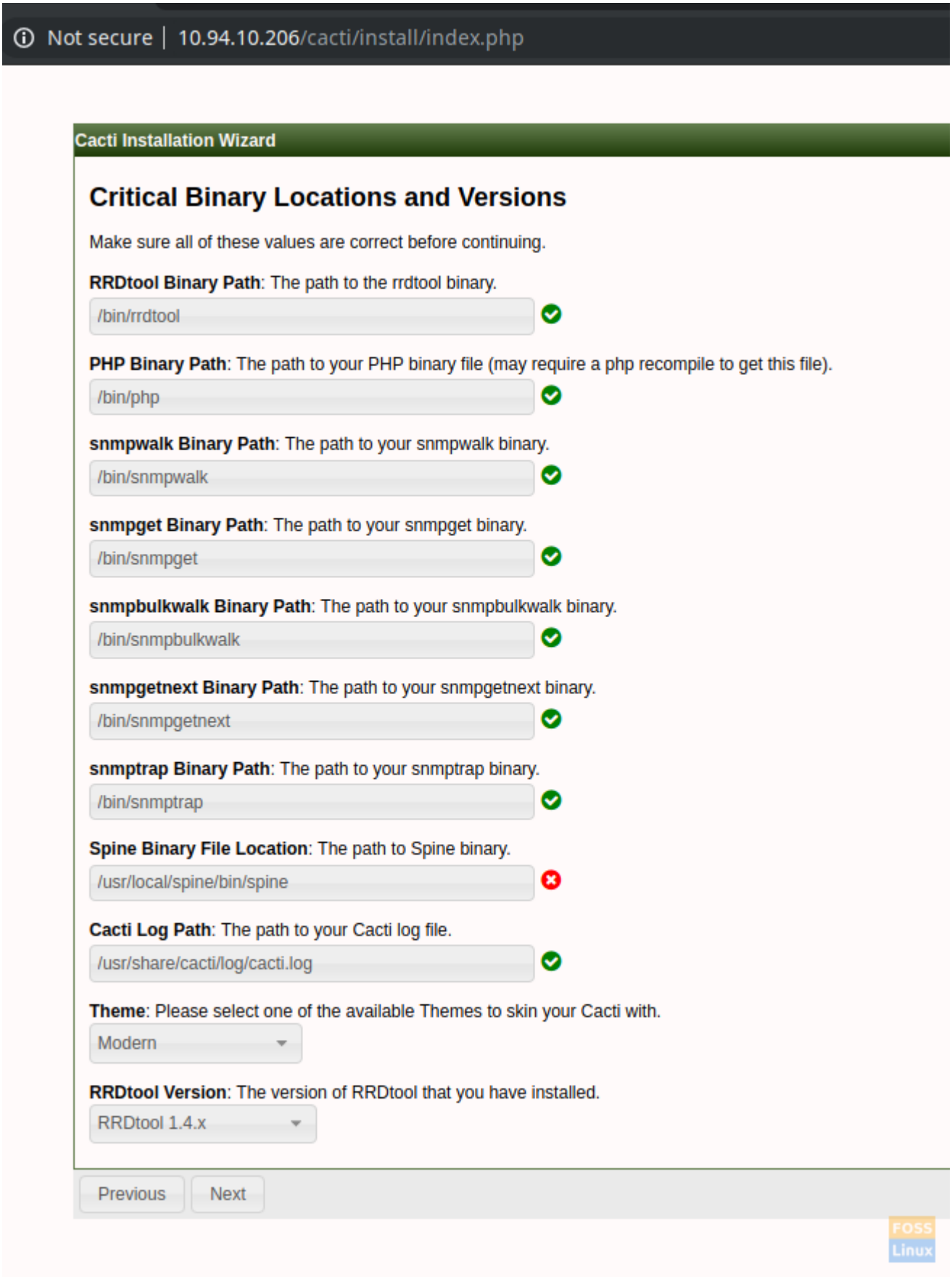
You will see the Licence Agreement page Then accept it and click Begin.



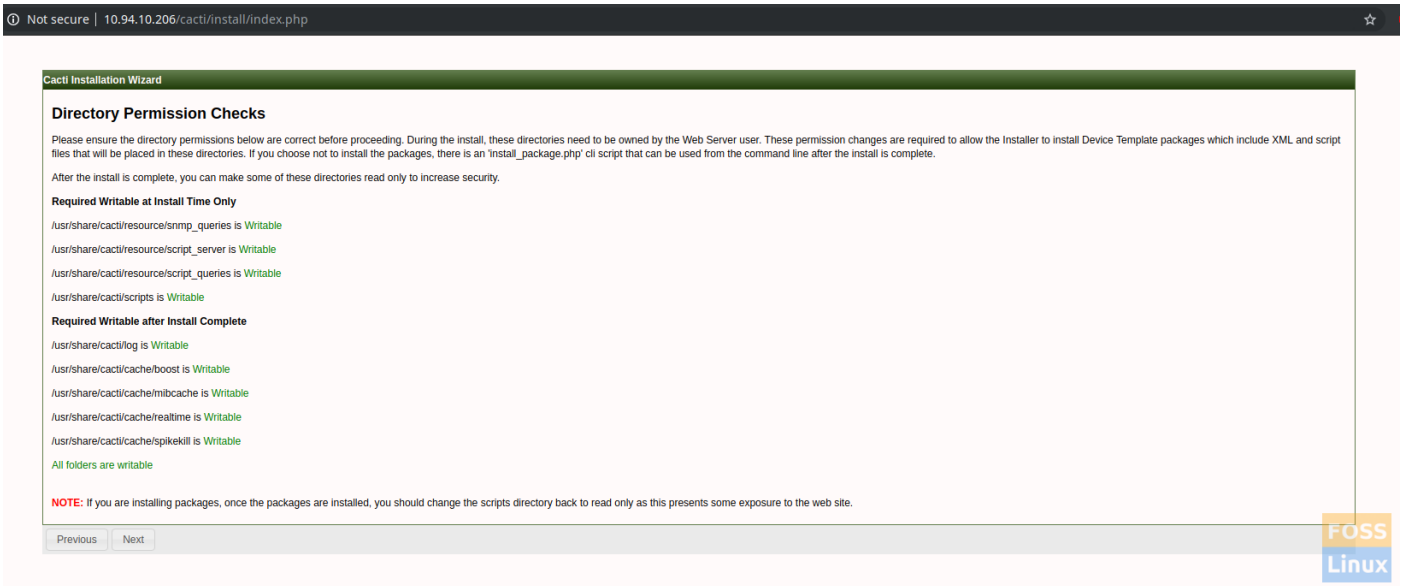


Next window is Installation Type. It will show Database connection details. Click Next to continue.

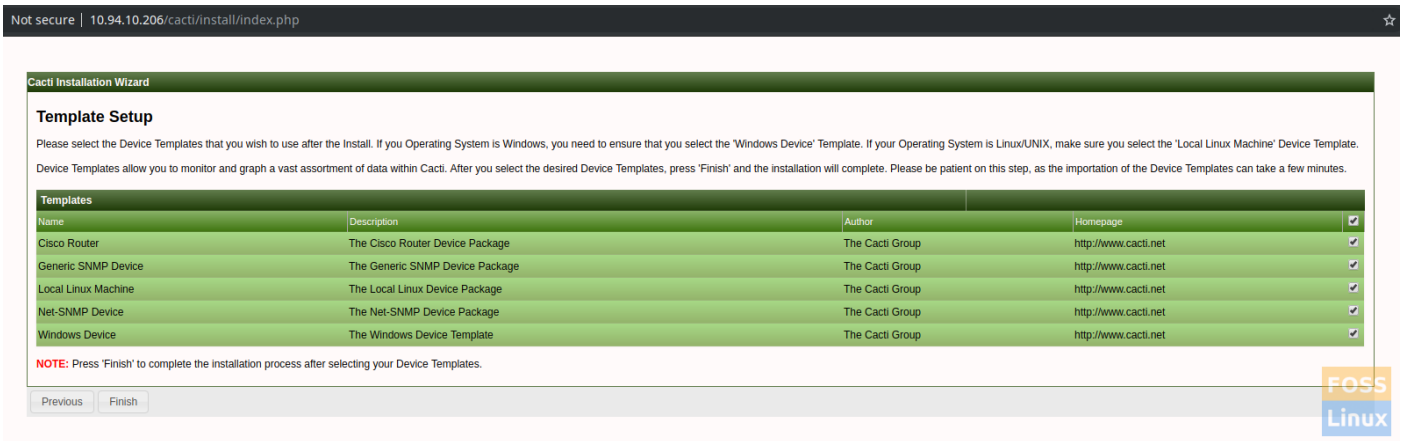

Not secure | 10.94.10.206/cacti/install/index.php
Cacti Installation Wizard
Installation Type
Please select the type of installation
Installation options:
New Primary Server - Choose this for the Primary site.
New Remote Poller - Remote Pollers are used to access networks that are not readily accessible to the Primary site.
New Primary Server
The following information has been determined from Cacti's configuration file. If it is not correct, please edit "include/config.php" before continuing.
Local Cacti database connection information
Database: fosslinuxcacti
Database User: fosslinuxuser
Database Hostname: localhost
Port: 3306
Server Operating System Type: unix
Previous
Next



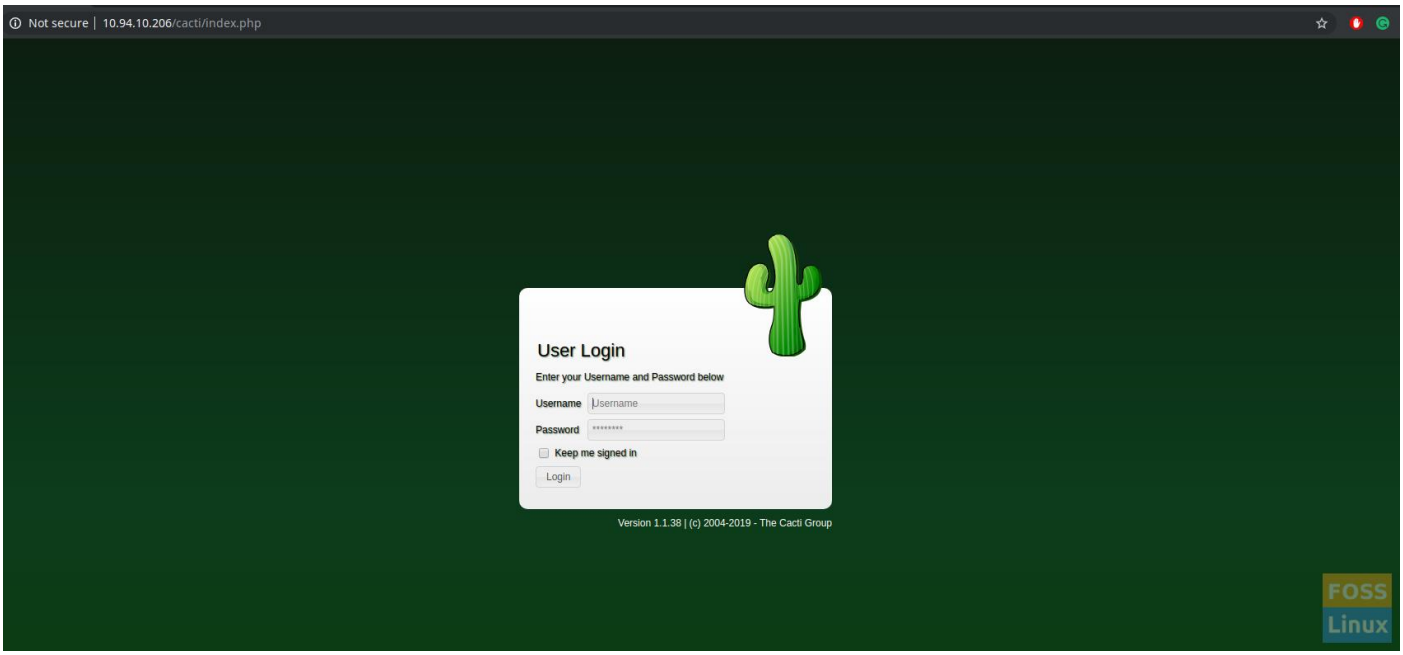
Verify Directory Permissions and continue.



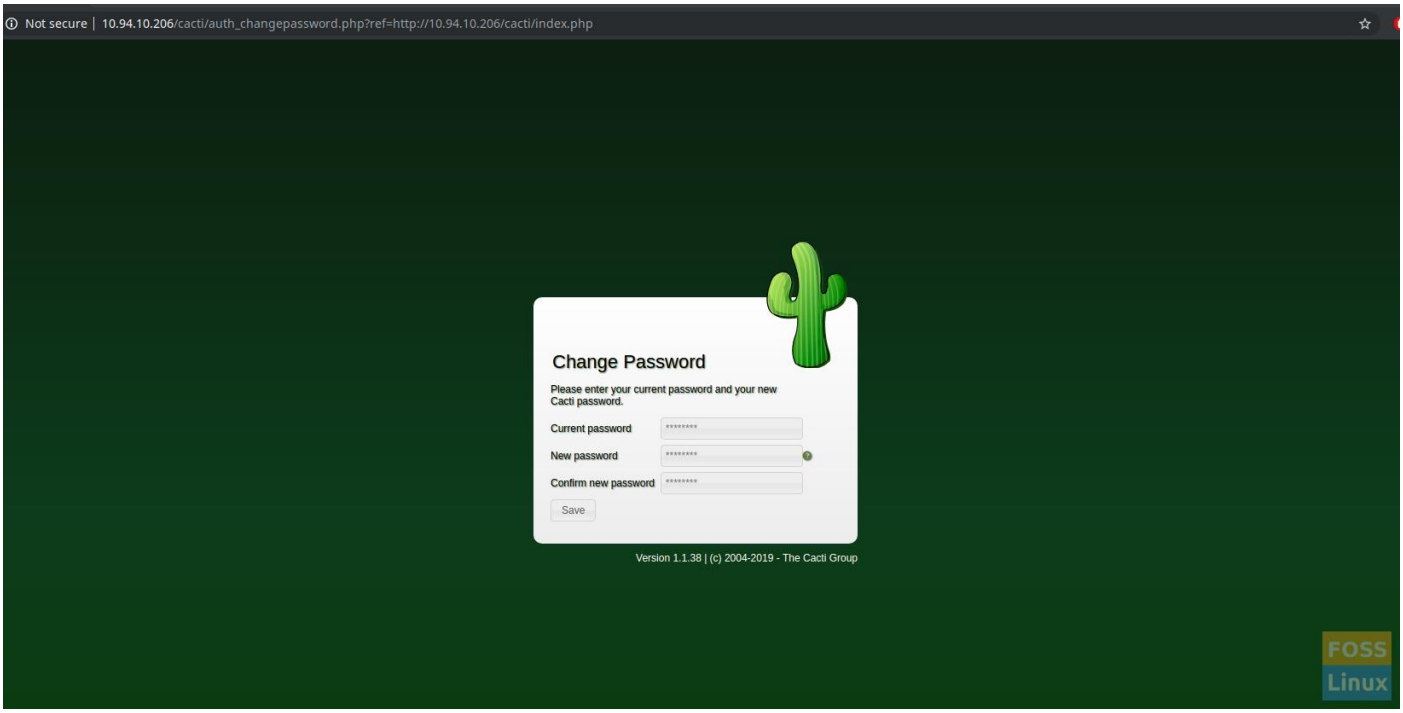
In the Template Setup window, you can select all templates, and click finish to the complete installation.



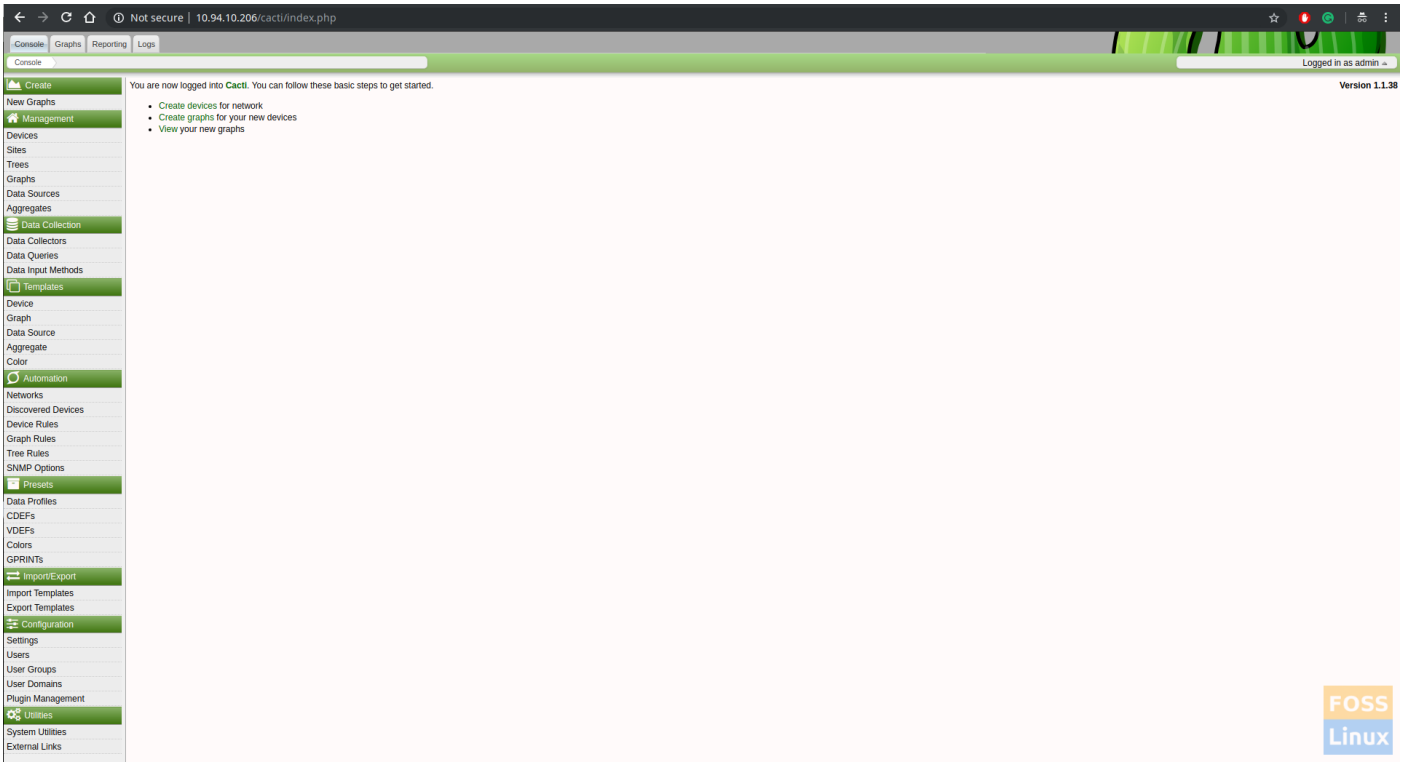
After the installation, it will redirect to Login Page.



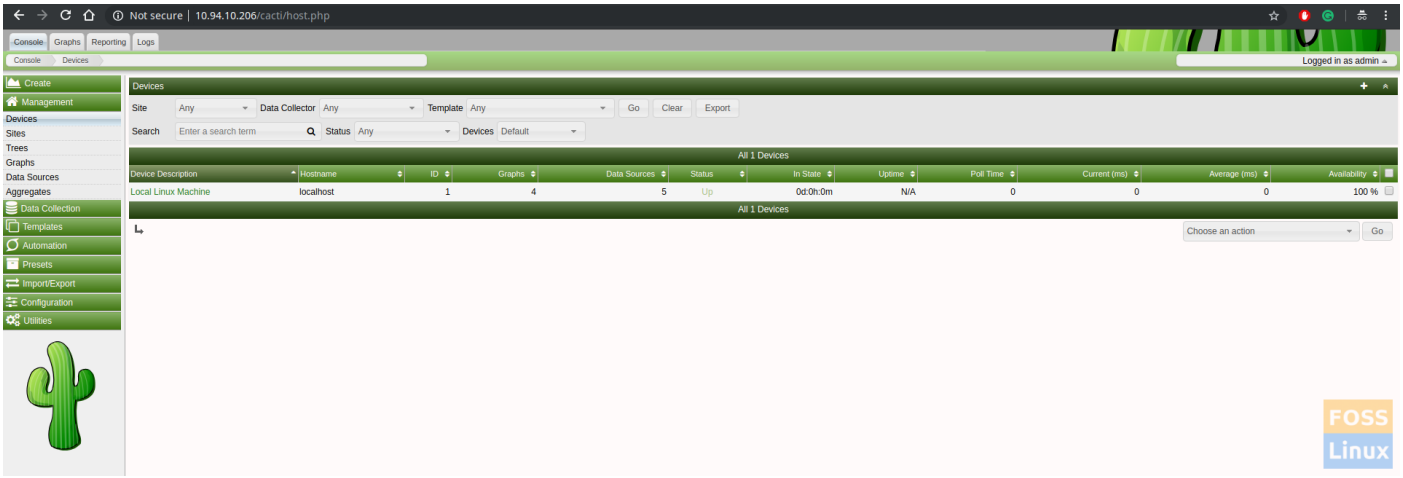
Using default user name “admin” and default password “admin” you can log in to Cacti server. You should be asked to change the password after that.



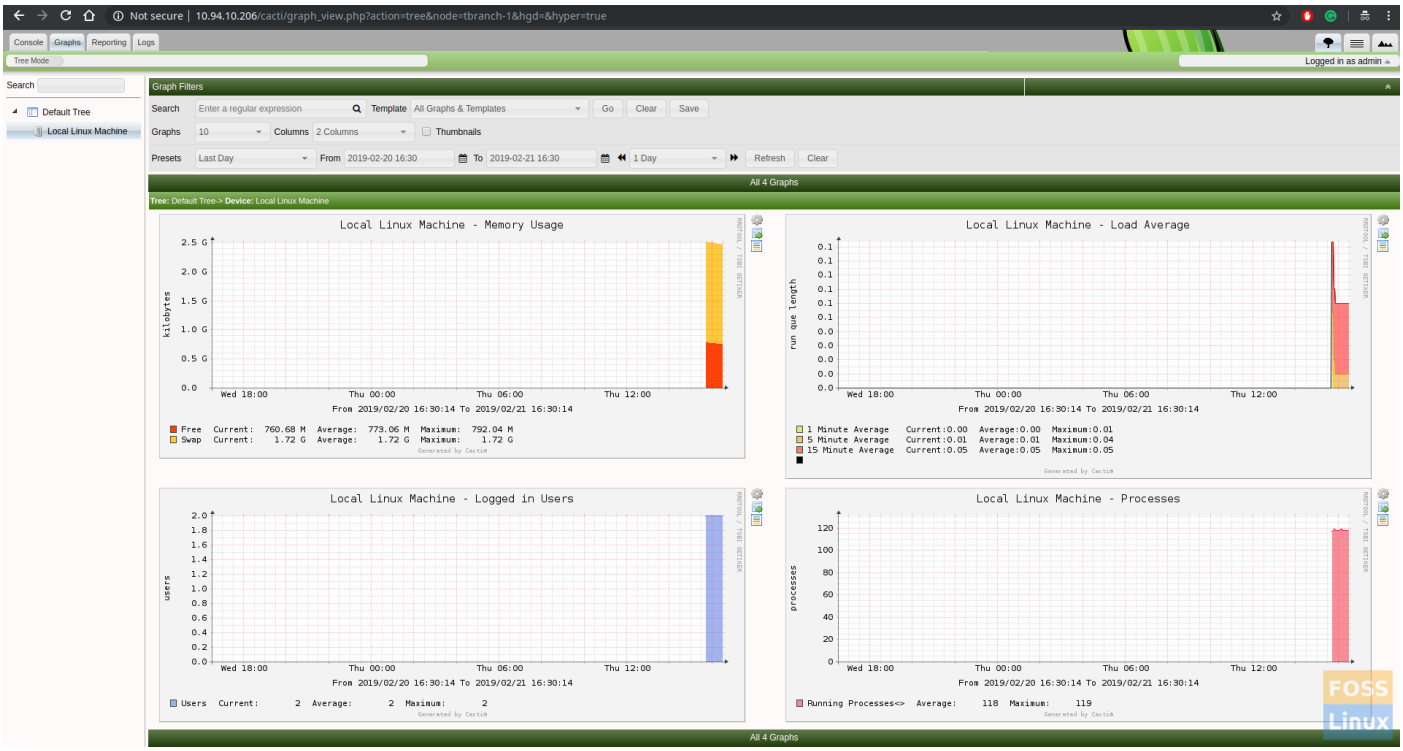
Change PasswordChange password and click save. Then you should see the Cacti Dashboard.



You can add new devices from Managemnt-> Devices Then click plus mark “+” on top of the right-hand corner.



Graphs



That’s it! You have successfully configured Cacti on CentOS 7!

https://www.fosslinux.com/7527/how-to-install-and-configure-cacti-on-centos-7.htm