Observium Installation on CentOS 6.7

Observium is a Network Management and Monitoring System that collects data from using **SNMP** and allows you to monitor all of the networks devices via an easy to use interface.

1. Installing Prerequisites

In order to install **Observium**, it's necessary to have a server with a fresh installation. Before installing **Observium** you need to make sure to install all dependencies.

Observuim need this list of software the run correctly:

- LAMP server
- fping
- Net-SNMP 5.4+
- RRDtool 1.3+
- Graphviz

Requirements for optional features:

- Ipmitool – Only if you want to poll IPMI baseboard controllers on servers
- Libvirt-bin – Only if you want to monitor remote VM hosts using libvirt

2. Install MySql / Create database

Installation of MySQL is already covered by our LAMP Stack Installation.

Login to MySQL with root to create a MySQL database and a user. Use the following commands in MySQL prompt to do it.

```
mysql -u root -p
mysql> create database observium;
mysql> CREATE USER observiumadmin@localhost IDENTIFIED BY
'observiumpass';
mysql> GRANT ALL PRIVILEGES ON observium.* TO
observiumadmin@localhost;
mysql> FLUSH PRIVILEGES;
mysql> exit
```

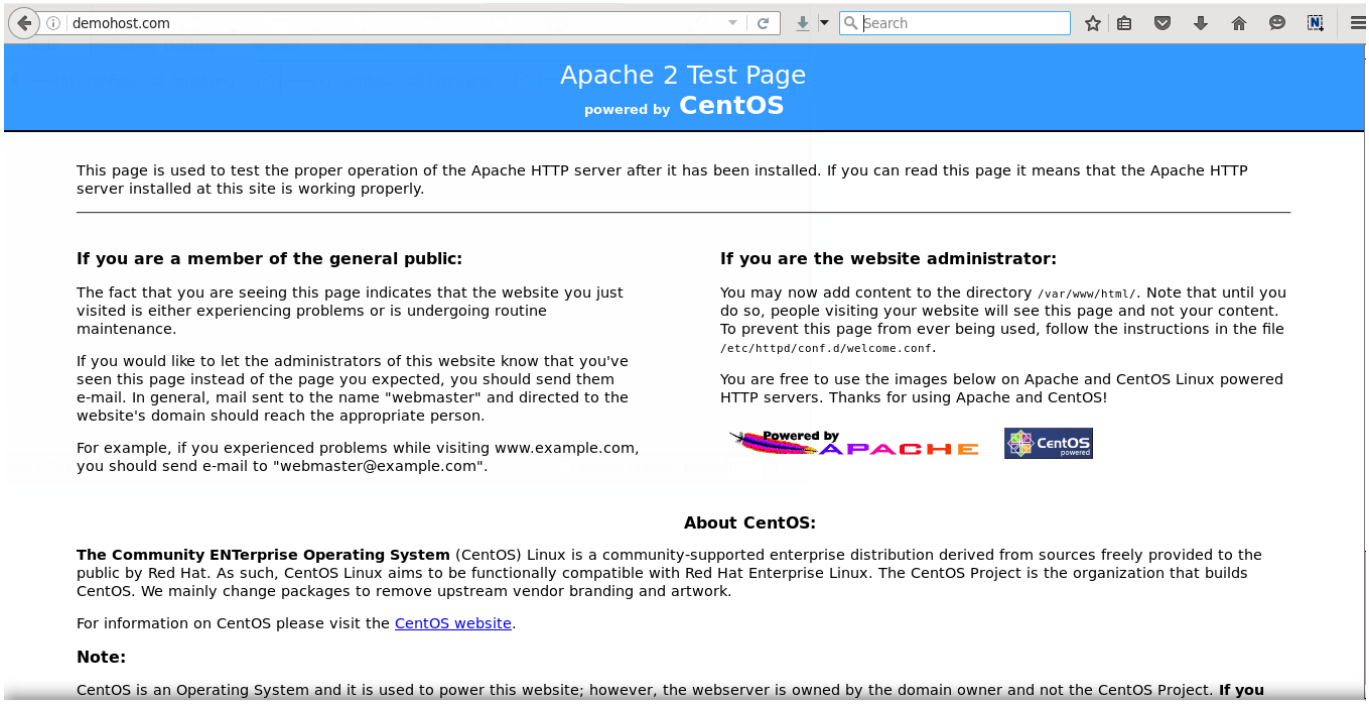
3. Install Apache

Installation of Apache is already covered by our LAMP Stack Installation.

Configure firewall to allow traffic to port 80

```
sudo iptables -I INPUT 5 -p tcp -m tcp --dport 80 -j ACCEPT
sudo service iptables save
sudo service iptables restart
```

Now point your browser to http://SERVER-IP-ADDRESS OR http://demohost.com , you will get the default index page like below



4. Add CentOS repository

You need to install epel and rpmforge repository in CentOS 6.7 server as few dependencies for observium are not found in default repository of CentOS 6.7.

```
sudo yum install epel-release
```

```
[root@demohost ~]# yum install epel-release
Loaded plugins: fastestmirror, presto
Setting up Install Process
Loading mirror speeds from cached hostfile
 * base: mirror.nus.edu.sg
 * extras: mirror.nus.edu.sg
 * updates: mirror.nus.edu.sg
Resolving Dependencies
--> Running transaction check
---> Package epel-release.noarch 0:6-8 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================
 Package                Arch              Version              Repository    Size
================================================================================
Installing:
 epel-release           noarch            6-8                  extras        14 k

Transaction Summary
================================================================================
Install       1 Package(s)

Total download size: 14 k
Installed size: 22 k
Is this ok [y/N]: y
```

```
wget http://apt.sw.be/redhat/el7/en/x86_64/rpmforge/RPMS/rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm
rpm -ivh rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm
```

```
[root@demohost ~]# wget http://apt.sw.be/redhat/el7/en/x86_64/rpmforge/RPMS/rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm
--2016-05-10 17:47:03--  http://apt.sw.be/redhat/el7/en/x86_64/rpmforge/RPMS/rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm
Resolving apt.sw.be... 193.1.193.67
Connecting to apt.sw.be|193.1.193.67|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 12520 (12K) [application/x-redhat-package-manager]
Saving to: `rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm'

100%[======================================>] 12,520      17.2K/s   in 0.7s

2016-05-10 17:47:05 (17.2 KB/s) - `rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm' saved [12520/12520]

[root@demohost ~]# rpm -ivh rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm
warning: rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm: Header V3 DSA/SHA1 Signature, key ID 6b8d79e6: NOKEY
Preparing...                ########################################### [100%]
   1:rpmforge-release       ########################################### [100%]
[root@demohost ~]#
```

```
sudo yum update -y
```

5. Install PHP/PHP extensions and Observium dependencies

Install fping separately as latest fping from epel/rpmforge repository may conflict with glibc version of CentOS 6.7. Therefore install fping version 3.9.1 from http://apt.sw.be using rpm -ivh

```
wget http://apt.sw.be/redhat/el6/en/x86_64/rpmforge/RPMS/fping-3.9-1.el6.rf.x86_64.rpm
rpm -ivh fping-3.9-1.el6.rf.x86_64.rpm
```

```
[root@demohost ~]#
[root@demohost ~]# wget http://apt.sw.be/redhat/el6/en/x86_64/rpmforge/RPMS/fping-3.9-1.el6.rf.x86_64.rpm
--2016-05-10 17:58:47--  http://apt.sw.be/redhat/el6/en/x86_64/rpmforge/RPMS/fping-3.9-1.el6.rf.x86_64.rpm
Resolving apt.sw.be... 193.1.193.67
Connecting to apt.sw.be|193.1.193.67|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 51044 (50K) [application/x-redhat-package-manager]
Saving to: `fping-3.9-1.el6.rf.x86_64.rpm'

100%[======================================>] 51,044      46.7K/s   in 1.1s

2016-05-10 17:58:49 (46.7 KB/s) - `fping-3.9-1.el6.rf.x86_64.rpm' saved [51044/51044]

[root@demohost ~]# rpm -ivh fping-3.9-1.el6.rf.x86_64.rpm
Preparing...                ########################################### [100%]
   1:fping                  ########################################### [100%]
[root@demohost ~]#
```

Install PHP/extensions and other packages which are prerequisites for observium with the following command.

```
yum install php php-cli php-json php-mysql php-gd php-snmp vixie-cron
php-mcrypt php-pear net-snmp net-snmp-utils graphviz subversion
rrdtool ImageMagick jwhois nmap ipmitool php-pear.noarch MySQL-python
libvirt
```

6. Download observium

Now download latest observium community version using wget and extract it to /opt/observium

First, create a directory called observium in /opt

```
mkdir -p /opt/observium
cd /opt
wget http://www.observium.org/observium-community-latest.tar.gz
tar zxf observium-community-latest.tar.gz
```

7. Configure observium

Next, enter the observium directory and copy the **config.php.default** file to a **config.php**. Enter the following:

```
cd /opt/observium
cp config.php.default config.php
```

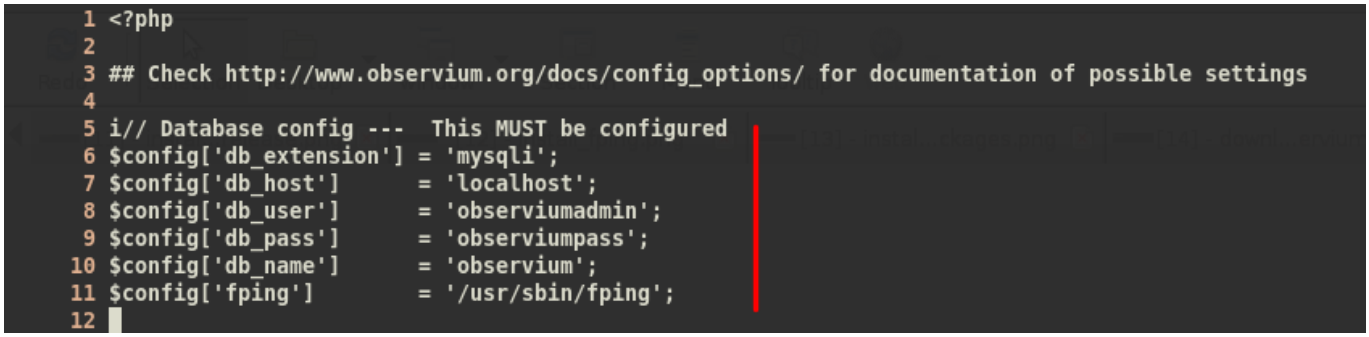
Using your favorite text editor, modify the database configuration parameters with the ones created previously. We are using **vi**:

```
sudo vi /opt/observium/config.php
```

After you edit the file and modify the database parameters, the section should look like this:

```
// Database config
$config['db_host'] = 'localhost';
$config['db_user'] = 'observiumadmin';
```

```
$config['db_pass'] = 'observiumpass';
$config['db_name'] = 'observium';
$config['fping'] = "/usr/sbin/fping";
```



```
1 <?php
2
3 ## Check http://www.observium.org/docs/config_options/ for documentation of possible settings
4
5 i// Database config ---  This MUST be configured
6 $config['db_extension'] = 'mysqli';
7 $config['db_host']      = 'localhost';
8 $config['db_user']      = 'observiumadmin';
9 $config['db_pass']      = 'observiumpass';
10 $config['db_name']      = 'observium';
11 $config['fping']        = '/usr/sbin/fping';
12
```

Configure Logging

```
mkdir -p /opt/observium/logs
chown -R www-data:www-data /opt/observium/logs
ln -s /opt/observium/logs /var/log/observium
```

Enter the following command to setup the MySQL database and insert the database default file schema.

```
./discovery.php -u
```

Create the directory to store RRDs in and set the proper ownership:

```
mkdir /opt/observium/rrd
chown apache:apache /opt/observium/rrd
```

8. Edit Apache's conf file

Create apache virtual host directive for Obervium in '**/etc/httpd/conf/httpd.conf**' file.

vi /etc/httpd/conf/httpd.conf

Add the following Virtual Host directive at the bottom of the file and enable Virtualhost section as shown in the screenshot below.

```
NameVirtualHost *:80
<VirtualHost *:80>
DocumentRoot /opt/observium/html/
ServerName  demohost.com
CustomLog /var/log/httpd/access_log combined
ErrorLog /var/log/httpd/error_log
```

```
<Directory "/opt/observium/html/">
  AllowOverride All
  Options FollowSymLinks MultiViews
</Directory>
</VirtualHost>
```

```
 989 #
 990 NameVirtualHost *:80
 991 #
 992 # NOTE: NameVirtualHost cannot be used without a port specifier
 993 # (e.g. :80) if mod_ssl is being used, due to the nature of the
 994 # SSL protocol.
 995 #
 996
 997 #
 998 # VirtualHost example:
 999 # Almost any Apache directive may go into a VirtualHost container.
1000 # The first VirtualHost section is used for requests without a known
1001 # server name.
1002 #
1003 <VirtualHost *:80>
1004         DocumentRoot /opt/observium/html/
1005         ServerName  demohost.com
1006         CustomLog /var/log/httpd/access_log combined
1007         ErrorLog /var/log/httpd/error_log
1008
1009           <Directory "/opt/observium/html/">
1010                 AllowOverride All
1011                 Options FollowSymLinks MultiViews
1012          </Directory>
1013 </VirtualHost>
```

9. Restart Apache / Add observium user

Restart Apache so the changes can take effect:

```
sudo service httpd restart
```

Next, enter the *observium* directory:

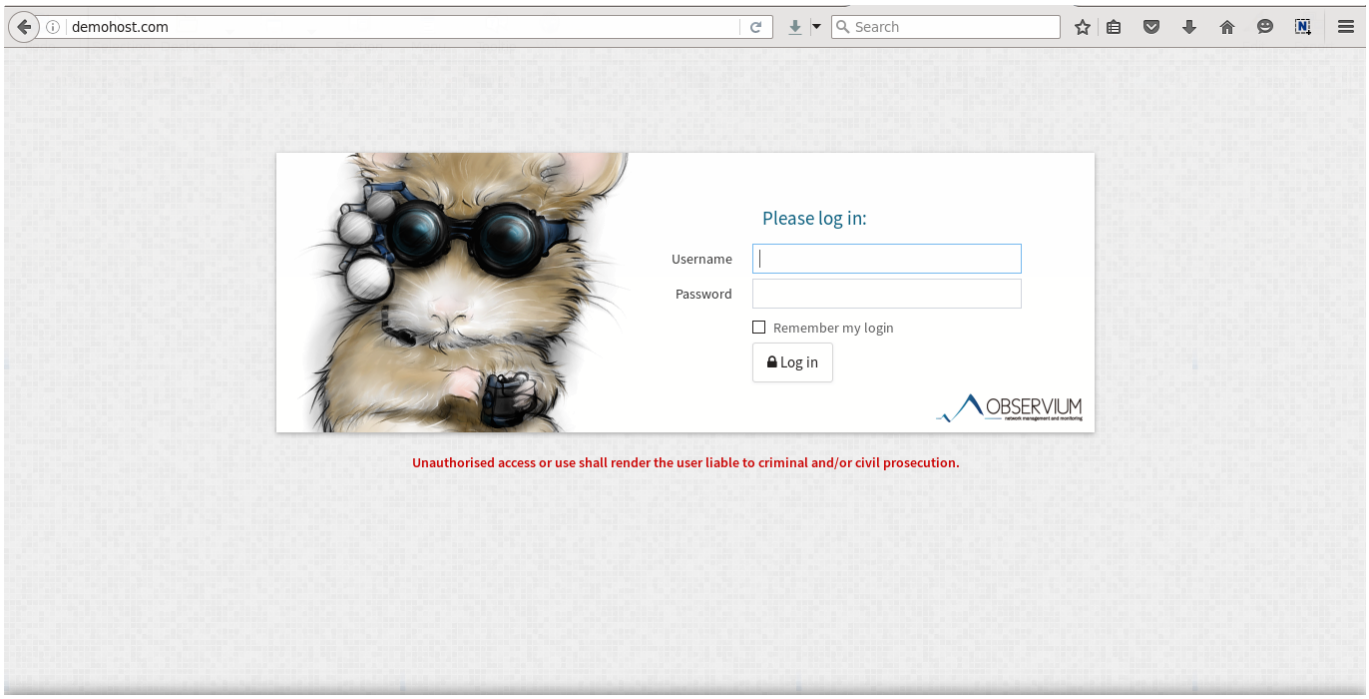
Add a first user with the use level of 10 for admin. The command sintax is below:

(* Replace obs_password with your preferred password)

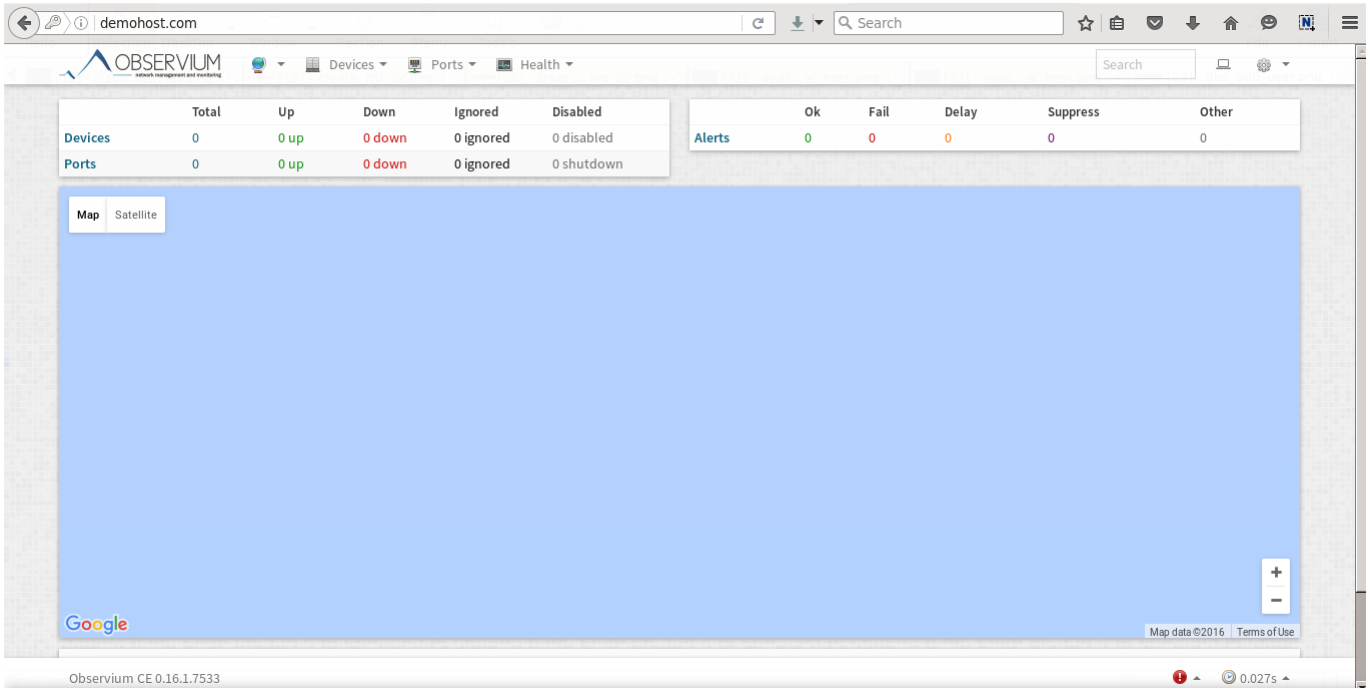
```
cd /opt/observium
./adduser.php admin obs_password 10
```

After creating the admin user, you can open your favorite web browser and navigate to http://your_server_IP or http://demohost.com . You will be welcomed by the Observium login

page.



Now provide the credentials you configured with the *adduser.php* script, you will be redirected to observium dashboard.



Congratulation! Your Observium setup is now completed.