

Deploy Cal Notify to Docker Containers

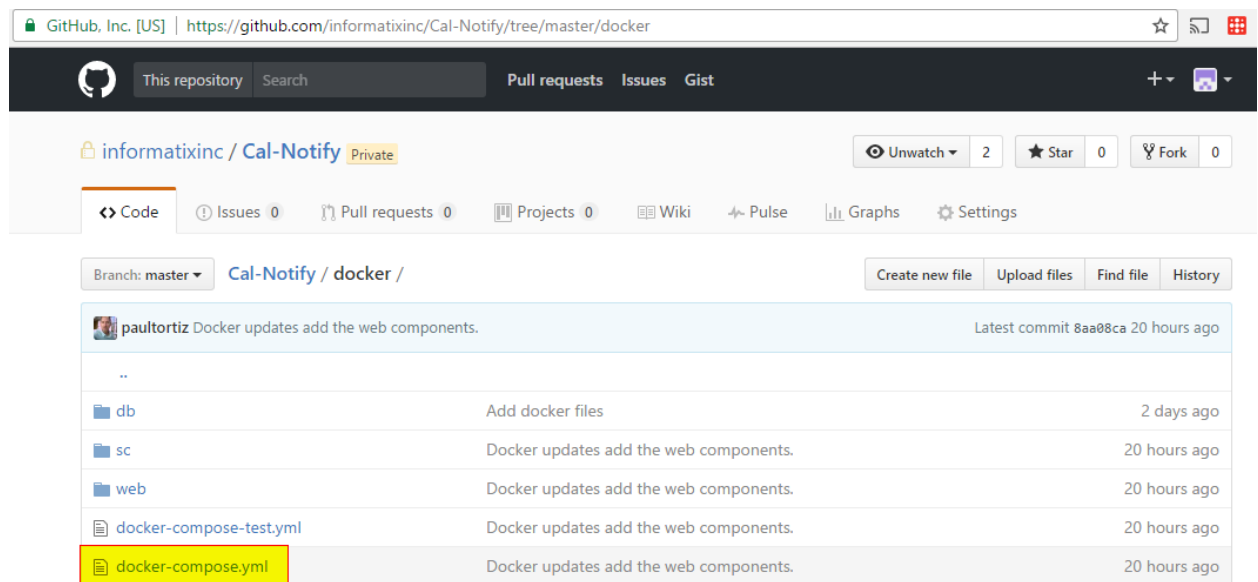
PREREQUISITES:

- The docker host must have internet access
- The docker host must be able to communicate with `smtp.gmail.com:587`

1. Install docker and docker-compose onto your platform of choice. The screenshots in this document are of docker v1.13.1, docker-compose v1.11.1 running on Ubuntu v16.04.1 (Xenial).

<https://www.docker.com/products/docker>
<https://docs.docker.com/compose/install/>

2. Obtain a copy of the Cal Notify docker-compose.yml file from the project GitHub repository at <https://github.com/informatixinc/Cal-Notify> .



3. Log into your docker host. At a desired location create a directory called `calnotify` or any name of your choosing.
4. Create, copy or transfer the docker-compose.yml file to this directory.

```

ubuntu@ip-10-0-50-53: ~/calnotify
ubuntu@ip-10-0-50-53:~$ cd calnotify
ubuntu@ip-10-0-50-53:~/calnotify$ ls
docker-compose.yml
ubuntu@ip-10-0-50-53:~/calnotify$ more d*
version: "2"
services:
  web:
    image: infxinc/calnotify-web
    restart: always
    ports:
      - "80:80"
    links:
      - sc

  sc:
    restart: always
    image: infxinc/calnotify-sc
    expose:
      - "8080"
    links:
      - db
    depends_on:
      - db

  db:
    restart: always
    image: infxinc/calnotify-db
    ports:
      - "5432:5432"
    volumes_from:
      - db-data

  db-data:
    image: cogniteev/echo
    command: echo 'Data Container for PostgreSQL'
    volumes:
      - /var/lib/postgresql/data
ubuntu@ip-10-0-50-53:~/calnotify$ ^C
ubuntu@ip-10-0-50-53:~/calnotify$ 

```

5. Enter the command `docker-compose up -d`, which will build , create, start and attach to the containers for the Cal Notify service.

ubuntu@ip-10-0-50-53: ~/calnotify

```
ubuntu@ip-10-0-50-53:~/calnotify$ docker-compose up -d
Creating network "calnotify_default" with the default driver
Pulling db-data (cogniteev/echo:latest)...
latest: Pulling from cogniteev/echo
a3ed95caeb02: Pull complete
a50c7ac0beb8: Pull complete
Digest: sha256:1373862ff5e33b19edc9f38ddb6522e790719c3049c764f515921fd4069e8131
Status: Downloaded newer image for cogniteev/echo:latest
Pulling db (infxinc/calnotify-db:latest)...
latest: Pulling from infxinc/calnotify-db
5040bd298390: Pull complete
f08454c3c700: Pull complete
4db038cdfe03: Pull complete
e1d9ba315f03: Pull complete
25e0ee93170e: Pull complete
3f28084c3f51: Pull complete
ebd975526cfb: Pull complete
63112c9f9e8d: Pull complete
512813961d56: Pull complete
71e6df12323a: Pull complete
a180292adaf3: Pull complete
aa13b6035e19: Pull complete
ad671404dcd8: Pull complete
c1a4e5aea1a8: Pull complete
Digest: sha256:5a16d236cd155c8ab2be94567a94a2c8b1b3baa2b8c25c67183aff850f40847c
Status: Downloaded newer image for infxinc/calnotify-db:latest
Pulling sc (infxinc/calnotify-sc:latest)...
latest: Pulling from infxinc/calnotify-sc
5040bd298390: Already exists
fce5728aad85: Pull complete
c42794440453: Pull complete
0c0da797ba48: Pull complete
7c9b17433752: Pull complete
d4d33418bd6d: Pull complete
0e10cce36e52: Pull complete
e7b2d7b8e68b: Pull complete
10585866f1fa: Pull complete
928abf40da2b: Pull complete
4555eca80ef2: Pull complete
e947356bdf83: Pull complete
332385513089: Pull complete
20de223a3696: Pull complete
9187eab62eac: Pull complete
Digest: sha256:939a6d0724a175c66f3d1841fa4416855fb528518bf947cd9897d8bed528363f
Status: Downloaded newer image for infxinc/calnotify-sc:latest
Pulling web (infxinc/calnotify-web:latest)...
latest: Pulling from infxinc/calnotify-web
5040bd298390: Already exists
31123d939af1: Pull complete
23f1bdd267a9: Pull complete
eabdf0b0c66e: Pull complete
Digest: sha256:6030e47674554e2c8d177f34e19da92871695684d69c0ac8d1e013c9aaec1ef2
Status: Downloaded newer image for infxinc/calnotify-web:latest
Creating calnotify_db_data_1
Creating calnotify_db_1
Creating calnotify_sc_1
Creating calnotify_web_1
ubuntu@ip-10-0-50-53:~/calnotify$
```

- Wait a minute or two for the service to initialize, and then enter the command `curl http://localhost`. The response output is the `index.html` for the Cal Notify homepage, showing the application is up and running.



```
ubuntu@ip-10-0-50-53: ~/calnotify
ubuntu@ip-10-0-50-53:~/calnotify$ curl http://localhost
<!DOCTYPE html>
<html>
<head>
  <base href="/">
  <title>Cal Notify</title>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="assets/css/bootstrap.css">
  <link rel="stylesheet" href="assets/css/font-awesome.min.css">
  <link rel="stylesheet" href="assets/css/uswds.css">
  <link rel="stylesheet" href="assets/css/style.css">

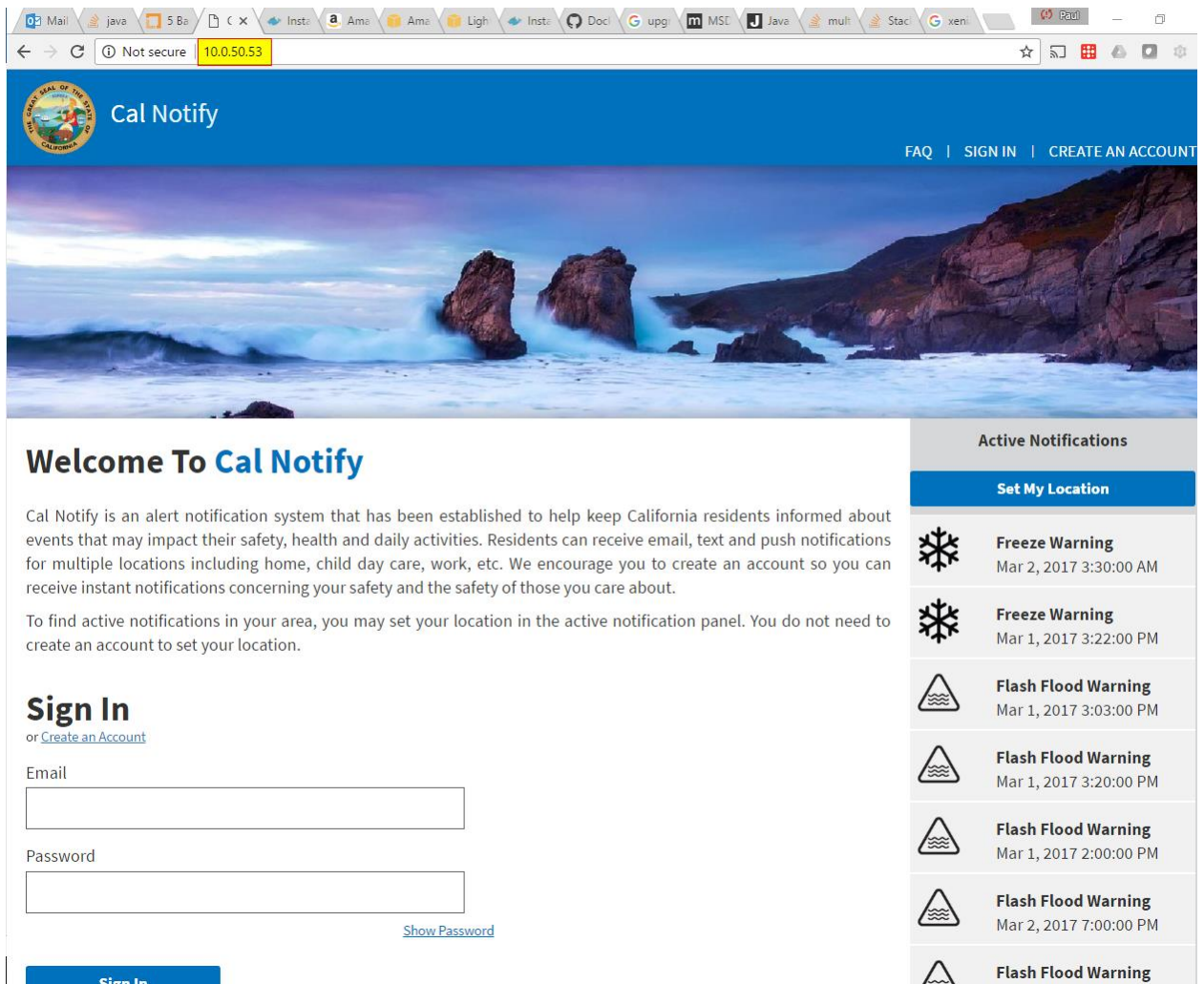
  <script src="assets/js/sha-512.js" type="text/javascript" defer></script>
  <script src="https://code.jquery.com/jquery-3.1.1.min.js" integrity="sha256-hVVnYaiADRTO2PzUGmuLJr8BLUSjGIZsDYGmIJLv2b8
t/javascript" defer></script>
  <script src="assets/js/bootstrap.min.js" type="text/javascript" defer></script>
  <script src="https://www.gstatic.com/charts/loader.js" type="text/javascript" defer></script>
  <script src="https://www.gstatic.com/firebasejs/3.6.10/firebase.js" type="text/javascript" defer></script>
  <link rel="manifest" href="assets/files/manifest.json">
  <script src="polyfills.003c25544843353cd07a.bundle.js" type="text/javascript" defer></script><script src="vendor.aa24d558
avascript" defer></script><script src="main.74a06c6810bf184f376e.bundle.js" type="text/javascript" defer></script></head>

<body>

  <app>
    Loading...
  </app>

  <script>
    setTimeout(function(){
      var config = {
        apiKey: "AIzaSyDqXuKcJA0viQIUvSAvhpLubA1TJjZDExc",
        authDomain: "calnotify-d2352.firebaseio.com",
        messagingSenderId: "1081107955861"
      };
      firebase.initializeApp(config);
    }, 3000);
  </script>
</body>
</html>
ubuntu@ip-10-0-50-53:~/calnotify$
```

- The `docker-compose.yml` has mapped the web server container port 80 to port 80 on the docker host. So from another local computer supporting a graphical user interface, you can open the Cal Notify web site in a web browser at <http://dockerhostname> or <http://dockerip> and begin using the application.



8. To stop the service enter the command `docker-compose stop`, and to start them again enter `docker-compose start`.

```

ubuntu@ip-10-0-50-53: ~/calnotify
ubuntu@ip-10-0-50-53:~/calnotify$ docker-compose stop
Stopping calnotify_web_1 ... done
Stopping calnotify_sc_1 ... done
Stopping calnotify_db_1 ... done
ubuntu@ip-10-0-50-53:~/calnotify$ docker-compose start
Starting db-data ... done
Starting db ... done
Starting sc ... done
Starting web ... done
ubuntu@ip-10-0-50-53:~/calnotify$

```

9. To remove the containers enter the command `docker-compose down`.
10. The Cal Notify docker images are pulled from a public docker hub repository at <https://hub.docker.com/r/infxinc/>.

The screenshot shows the Docker Hub profile for the user 'infxinc'. The profile includes a search bar, navigation links (Dashboard, Explore, Organizations, Create), and a list of repositories. The repositories are:

Repository	Stars	Pulls	Details
infxinc/calnotify-sc public	0	11	> DETAILS
infxinc/calnotify-db public	0	11	> DETAILS
infxinc/calnotify-web public	0	9	> DETAILS

The profile also shows the username 'infxinc' and the join date 'Joined August 2015'.