

Title: Applications not registering to eureka when using docker-compose

Post Body:

I took this example <https://github.com/paulc4/microservices-demo> and I created 3 docker images from it, with the following Dockerfiles:

springdocker-registration:

```
FROM openjdk:8-jdk-alpine VOLUME /tmp ADD target/microservice-demo-1.1.0.RELEASE.jar app.jar EXPOSE 1111 ENTRYPOINT exec java
```

springdocker-accounts:

```
FROM openjdk:8-jdk-alpine VOLUME /tmp ADD target/microservice-demo-1.1.0.RELEASE.jar app.jar EXPOSE 2222 ENTRYPOINT exec java
```

springdocker-web:

```
FROM openjdk:8-jdk-alpine VOLUME /tmp ADD target/microservice-demo-1.1.0.RELEASE.jar app.jar EXPOSE 3333 ENTRYPOINT exec java
```

If I run the three images separately everything works ok, the web and accounts services register to the registration service (which is an implementation of the eureka registry) and I can use my application. However when using docker-compose with the following docker-compose.yml file

```
version: '3.4' services: registration: image: springdocker-registration ports: - '1111:1111' accounts: image: springdocker-accounts web: image: springdocker-web
```

the services web and accounts are not able to register to the registration service. Here are the configuration files for the applications:

registration-server.yml:

```
eureka: instance: hostname: localhost client: registerWithEureka: false fetchRegistry: false serviceUrl: http://localhost:1111/eureka
```

accounts-server.yml:

```
spring: application: name: accounts-service freemarker: enabled: false thymeleaf: cache: false
```

web-server.yml

```
spring: application: name: web-service freemarker: enabled: false thymeleaf: cache: false
```

I can post the full console log of docker-compose up but I think this is the interesting point:

```
1: ERROR RedirectingEurekaHttpClient - Request execution error com.sun.jersey.api.client.ClientHandlerException: java.net.ConnectException: Connection refused
```

Accepted Answer:

Since its running in docker, don't use localhost. Docker compose lets you refer to container names.

```
eureka: client: serviceUrl: http://registration:1111/eureka defaultZone: http://registration:1111/eureka
```

Side note: defaultZone must be exact, I spent 2 days wondering why it wouldn't work since intellij auto completes to do default-zone which wont work.

Highest Rated Answer:

For those who are working with docker-compose and if in your services.yml file you have the following:

```
eureka: client: serviceUrl: http://localhost:1111/eureka # Will get overridden in docker-compose defaultZone: http://localhost:1111/eureka
```

You can override this in your docker-compose file like below while running docker-compose up

```
version: '3.3' services: # Other services registered above web: image: springdocker-web environment: - EUREKA_HOST=registration # Important for registration
```

Tested on Docker version 19.03.8