Apache mod_proxy

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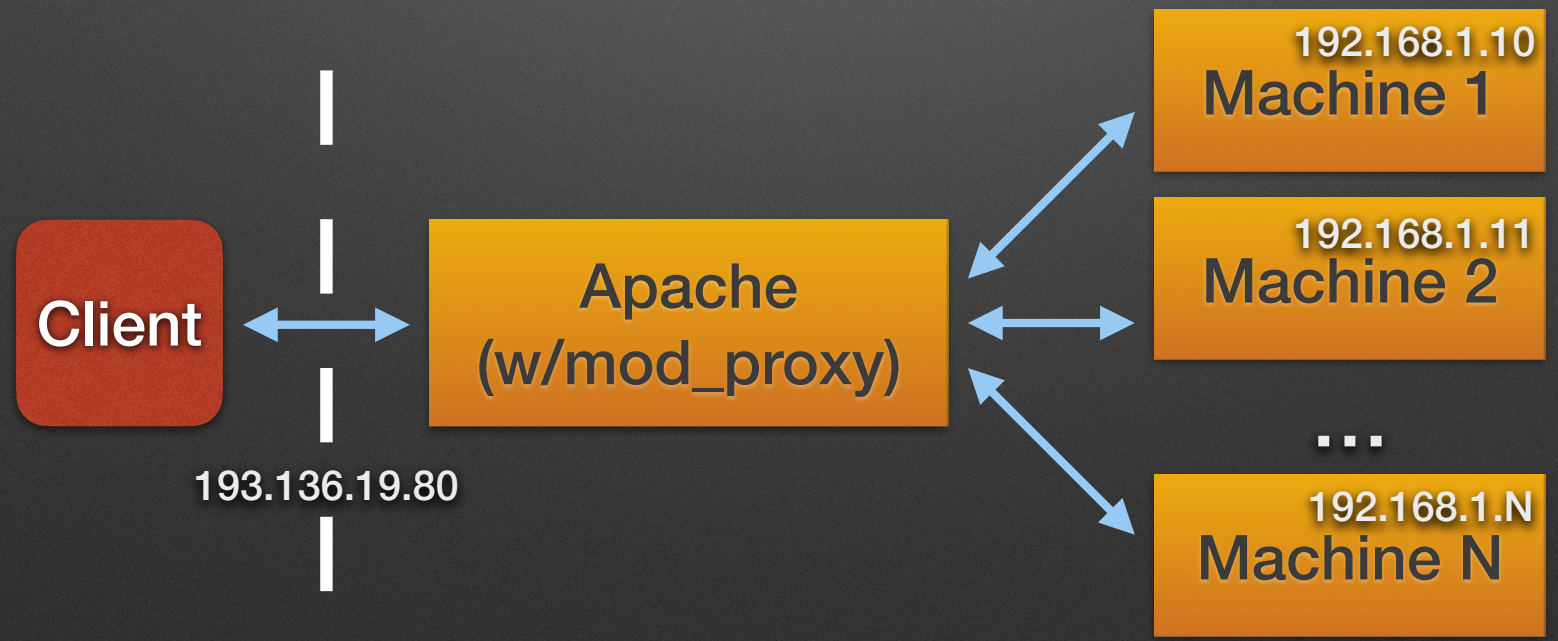
Introduction

- mod_proxy is a proxy module for the Apache HTTP server.
- It implements routing features as well as load balancing.
- It is bundled with apache by default.

Introduction

- With mod_proxy, a machine can be easily configured to be the load balancer.
- The process is transparent to the user.



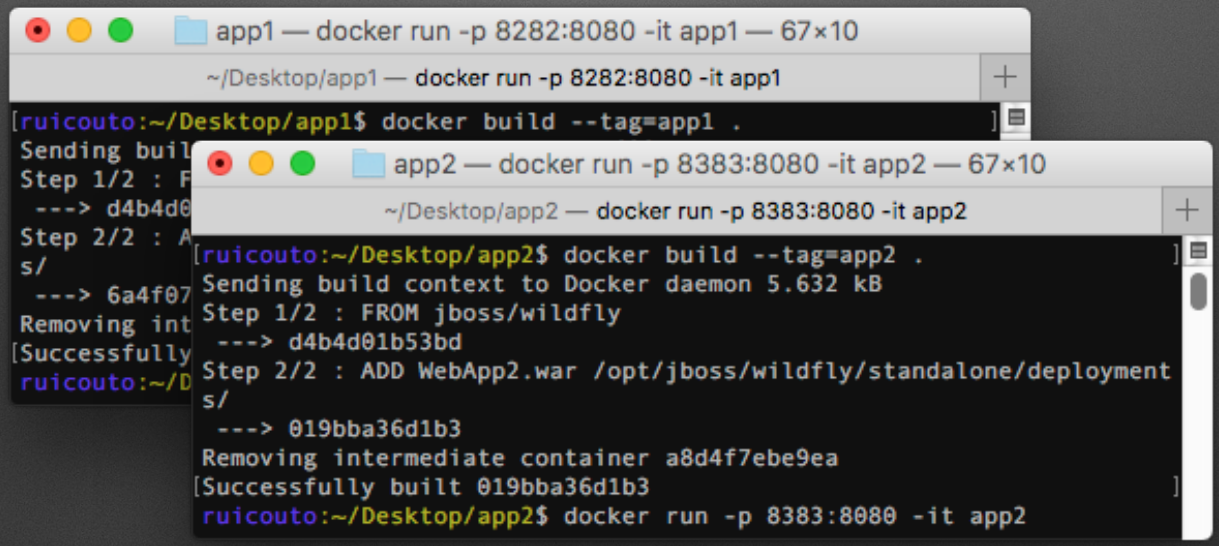
Configuration

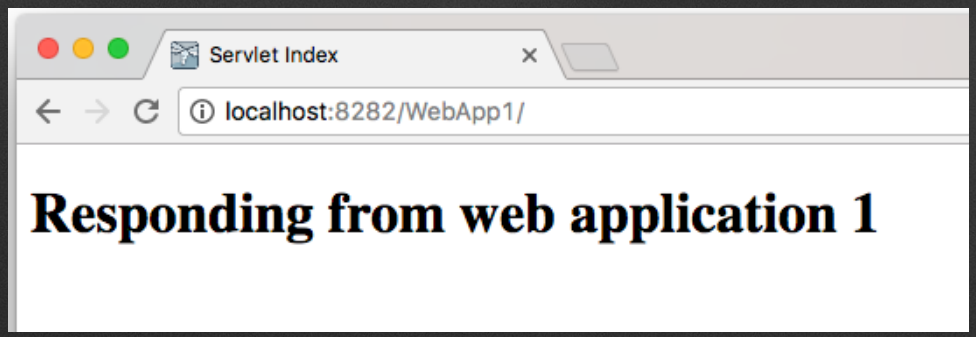
- mod_proxy is enabled and configured in the apache configuration file.

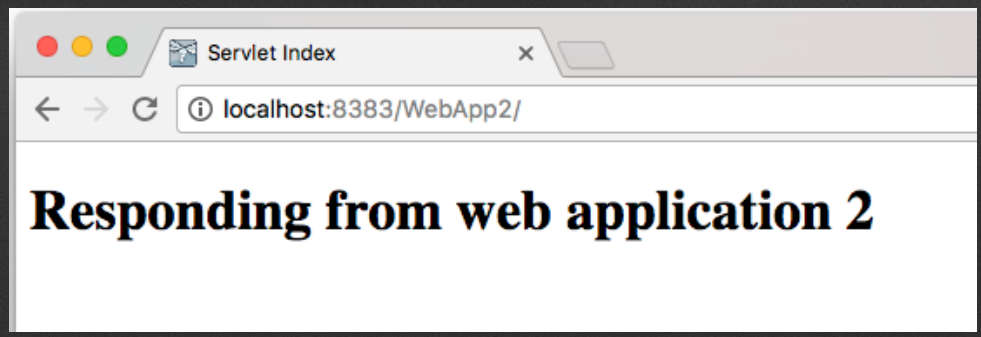
```
LoadModule proxy_module libexec/apache2/mod_proxy.so
...
ProxyPass / balancer://mycluster/ stickysession=JSESSIONID|jsessionid
...
ProxyPassReverse / http://localhost:8080/
...

<Proxy balancer://mycluster/>
   BalancerMember http://<url> ... loadfactor=A
   ...
</Proxy>
```

Example

- Two docker containers wit Java web applications were deployed in ports 8282 and 8383.



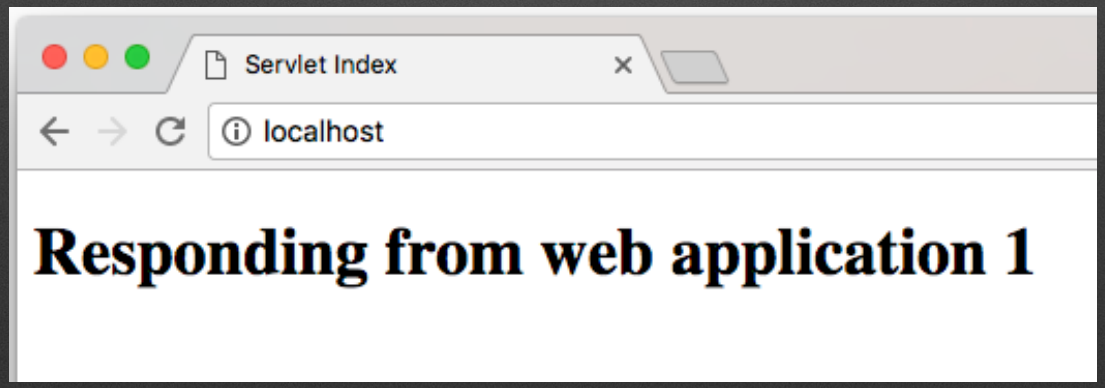




Example

- Apache was configured to route requests on / to both addresses.

```
<Proxy balancer://mycluster/>
  BalancerMember http://localhost:8282/WebApp1 route=node1 retry=60 loadfactor=80
  BalancerMember http://localhost:8383/WebApp2 route=node2 retry=60 loadfactor=20
</Proxy>
```



Example

- For a significative number of requests , it is possible to see that the load is being balanced.