Docker Workshop

Plamen Kalchev

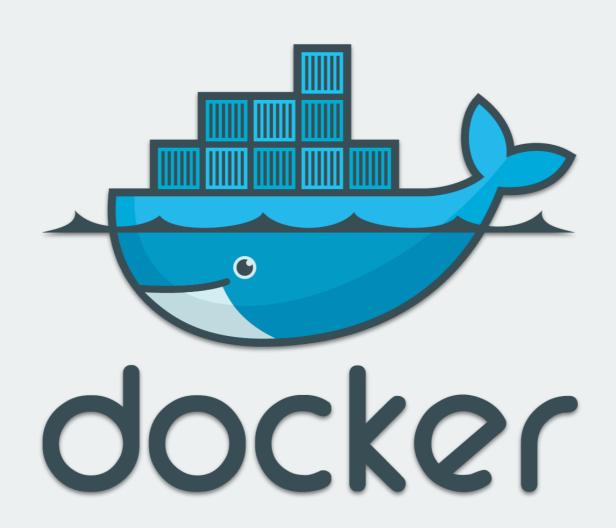


Resources

https://github.com/icnbg/docker-workshop

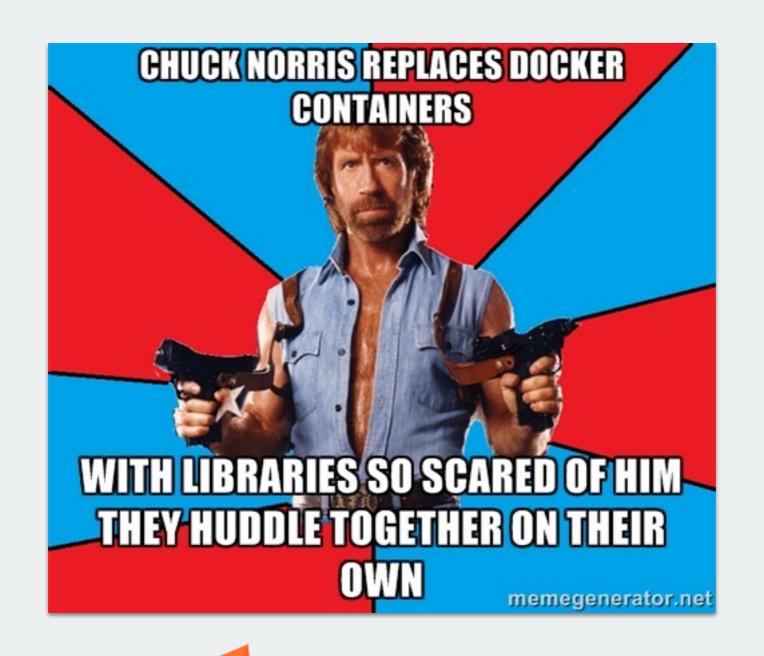


What is Docker?



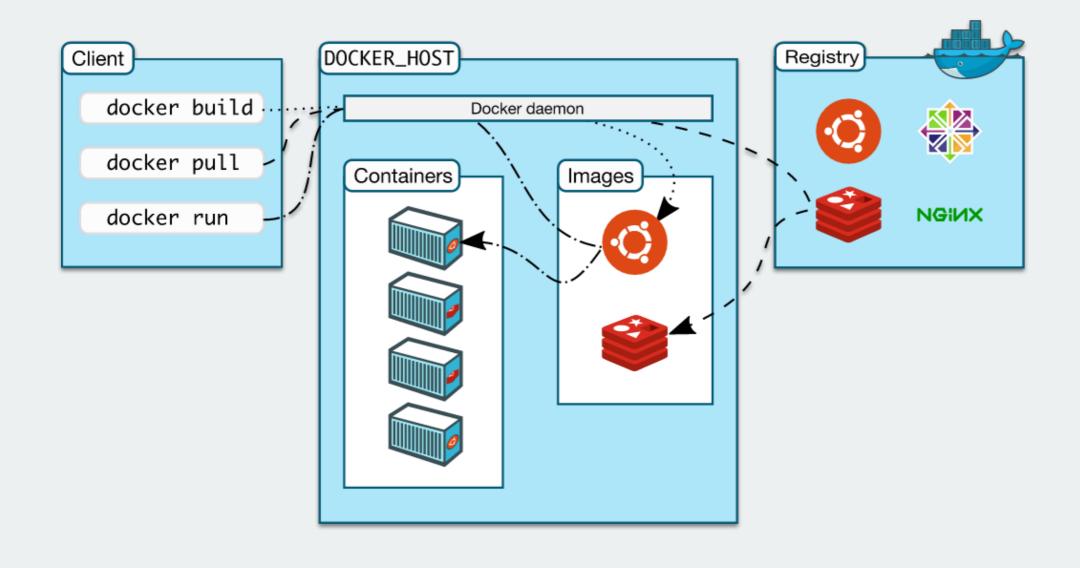


Why use it?





The Docker Platform



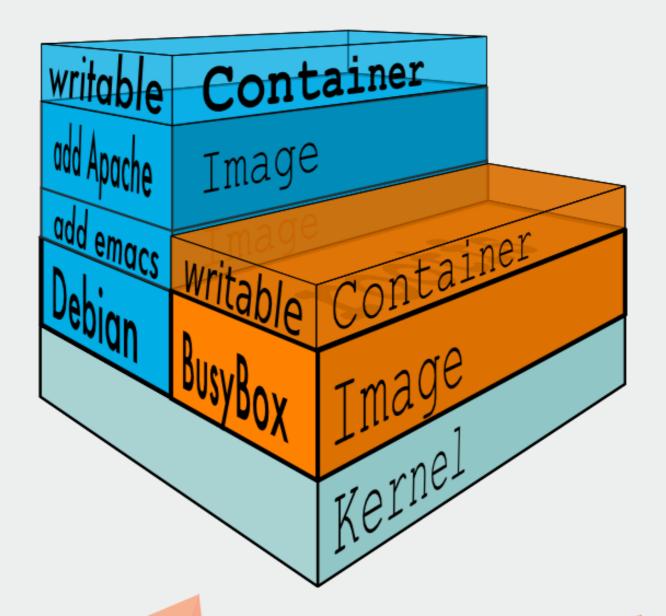


Containers and Images





Storage and Volumes



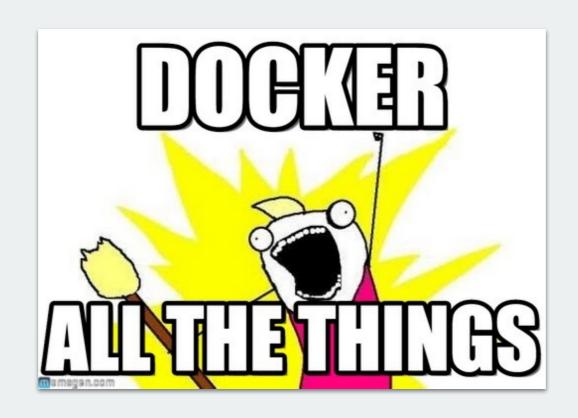


Building our own images

```
23 lines (14 sloc) 673 Bytes
                                                                                                       History
                                                                                               Blame
                                                                                         Raw
       FROM debian: jessie
      MAINTAINER NGINX Docker Maintainers "docker-maint@nginx.com"
       RUN apt-key adv --keyserver hkp://pgp.mit.edu:80 --recv-keys 573BFD6B3D8FBC641079A6ABABF5BD827BD9BF62
       RUN echo "deb http://nginx.org/packages/mainline/debian/ jessie nginx" >> /etc/apt/sources.list
       ENV NGINX_VERSION 1.9.6-1~jessie
   9
       RUN apt-get update && \
 10
           apt-get install -y ca-certificates nginx=${NGINX_VERSION} && \
 11
           rm -rf /var/lib/apt/lists/*
 12
 13
       # forward request and error logs to docker log collector
       RUN ln -sf /dev/stdout /var/log/nginx/access.log
       RUN ln -sf /dev/stderr /var/log/nginx/error.log
 16
 17
       VOLUME ["/var/cache/nginx"]
 18
 19
       EXPOSE 80 443
  20
 21
      CMD ["nginx", "-g", "daemon off;"]
```

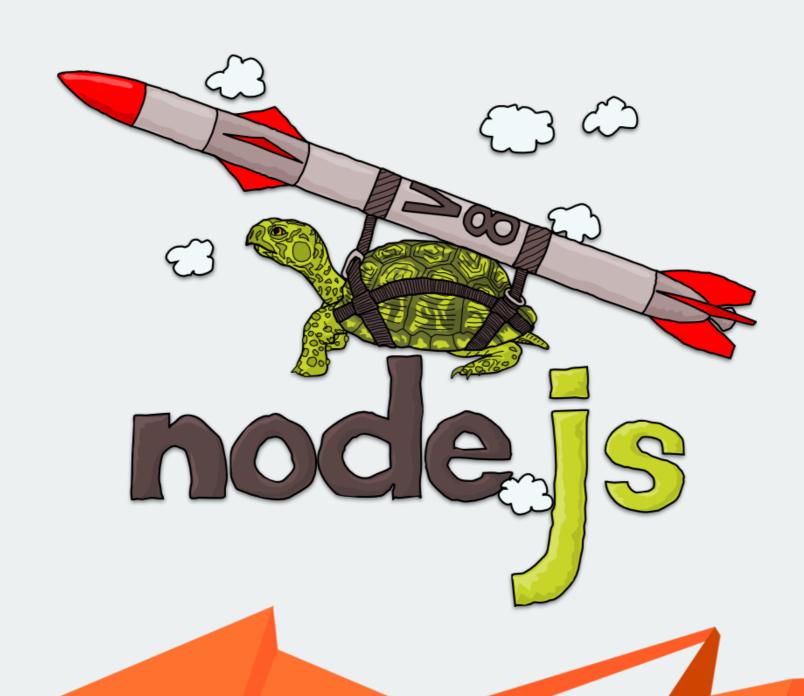


Examples





Hello



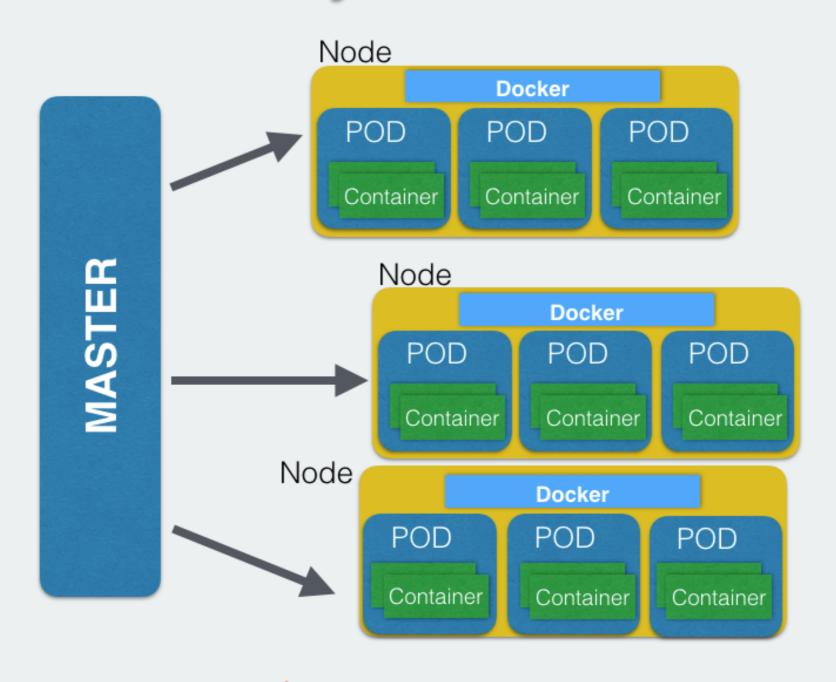


What is Kubernetes?





Why use it?



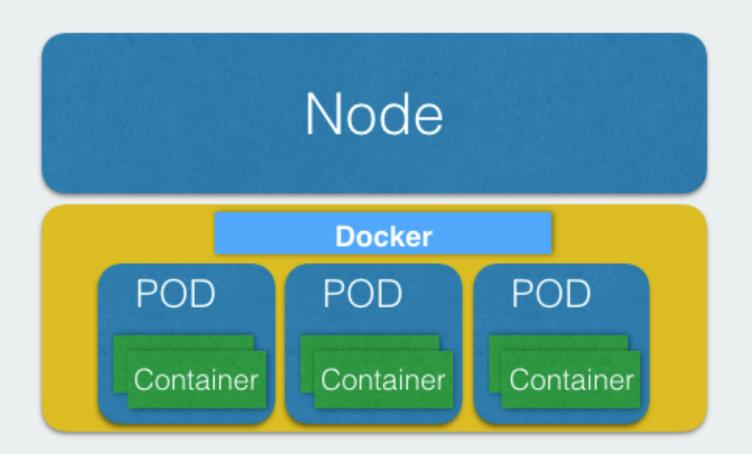


Kubernetes building blocks

Pods RC Services Labels Selectors



Pods





Replication Controllers

Replication Controller

Replicas: 2

Selector: app=webapp role=frontend

POD

Label: app=webapp

Label: version=v2

POD

Label: app=webapp

Label: version=v1



Services

Service

Selector: app=webapp role=frontend

POD

Label: role=frontend

Label: app=webapp

Label: version=v2

POD

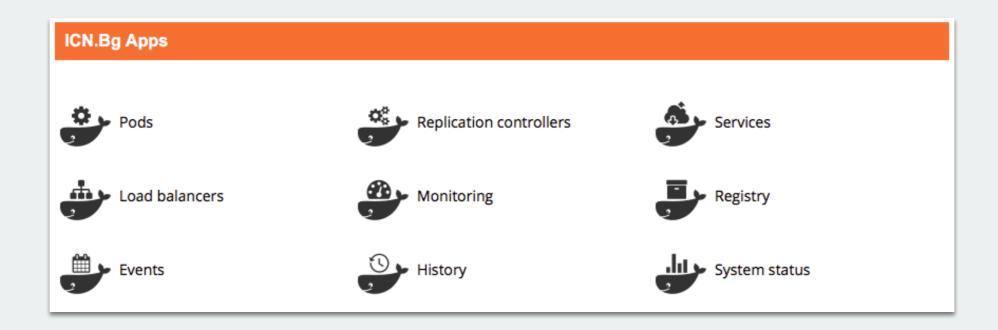
Label: role=frontend

Label: app=webapp

Label: version=v1

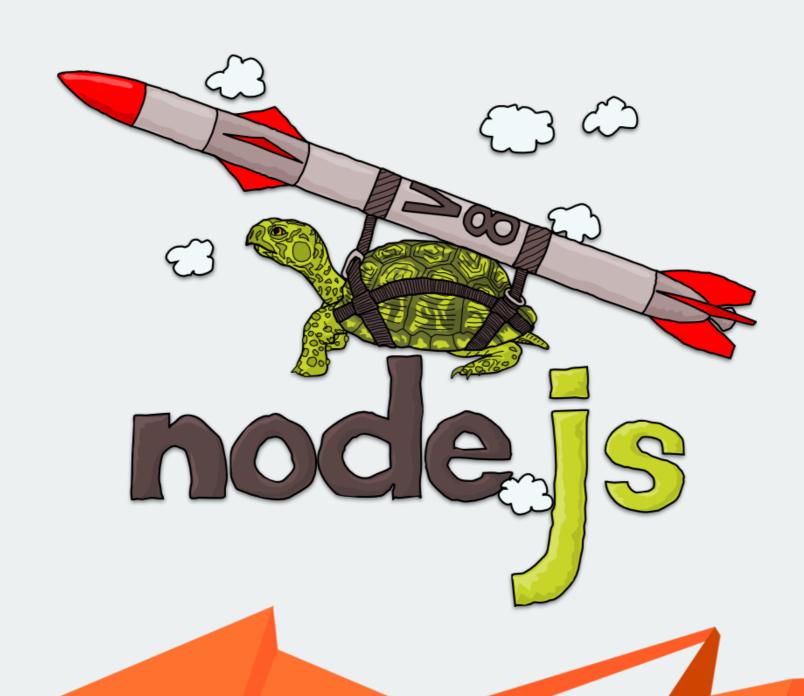


ICN.Bg Apps





Hello





Scaling Up and Down

Replication controllers				
Edit Replication Controller Replication Controller name				
nginx				
1				



Accessing our apps from the outside world

Services					
Create Service Service name					
nginx			.plamer.icnapp.net		
Ports Add service ports Protocol	Port	Name			
TCP \$	8080		Remove		
Add All Selectors icnapp=Medium_Container icnapp=Medium_Container name=storage icnapp=Medium_Container name=storage1		Select name	ted e=nginx		
Create		< Remove			

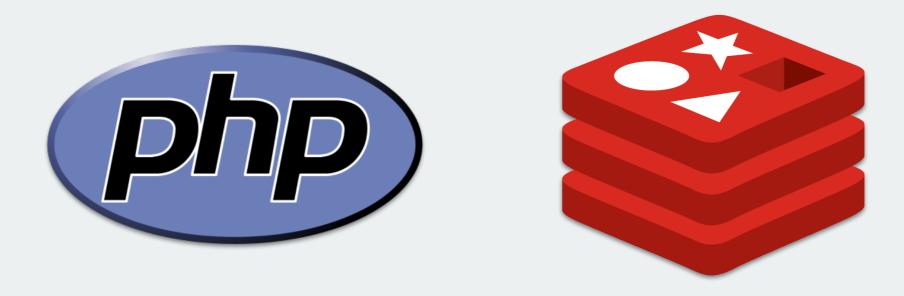


Migrating from local Docker to the cluster

Build Tag Push Deploy via UI



php/redis





Questions?

