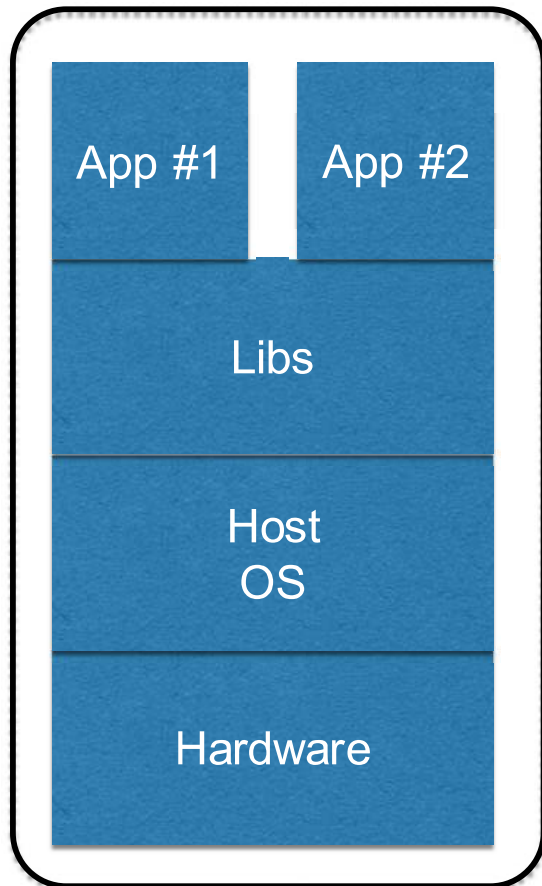


Using Containers to Support Agile Development and Research

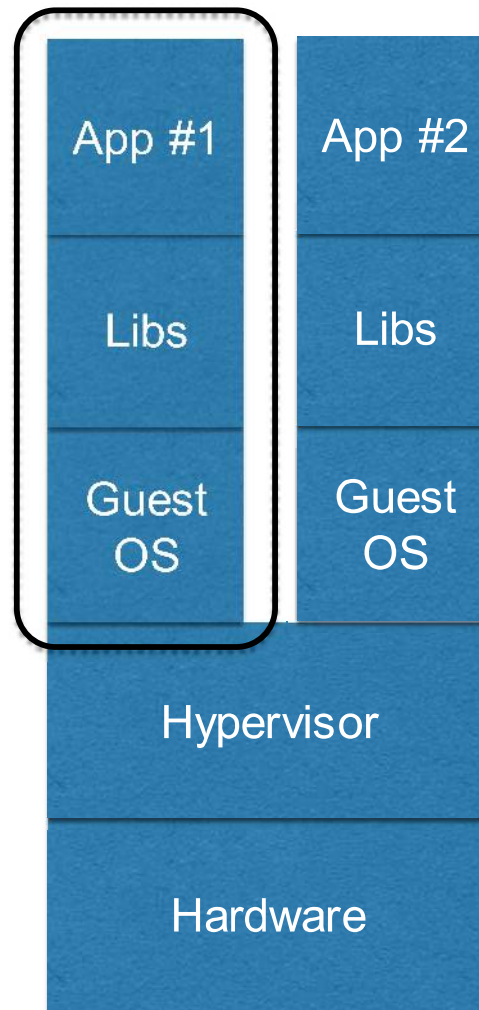
James Harper
Associate Director, Strategy & Design

The University of Auckland

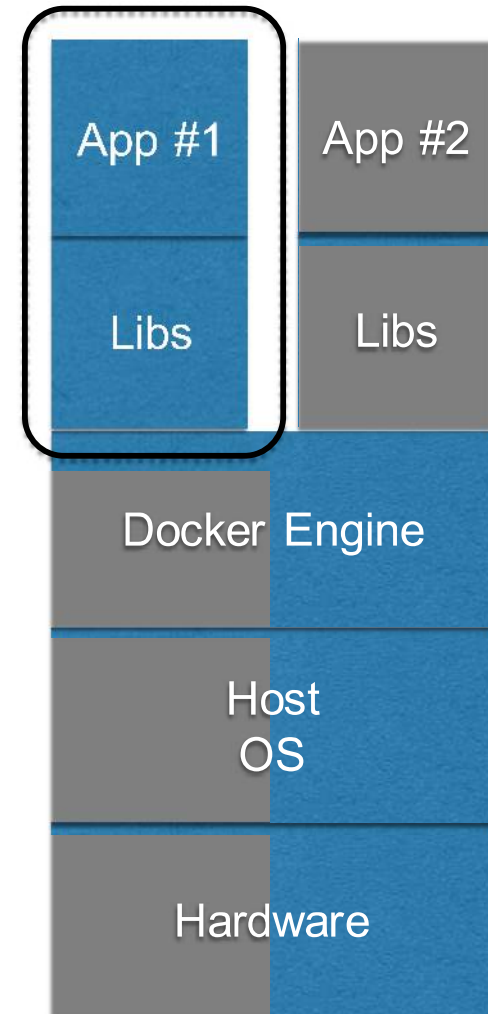
Server



Virtual Machine



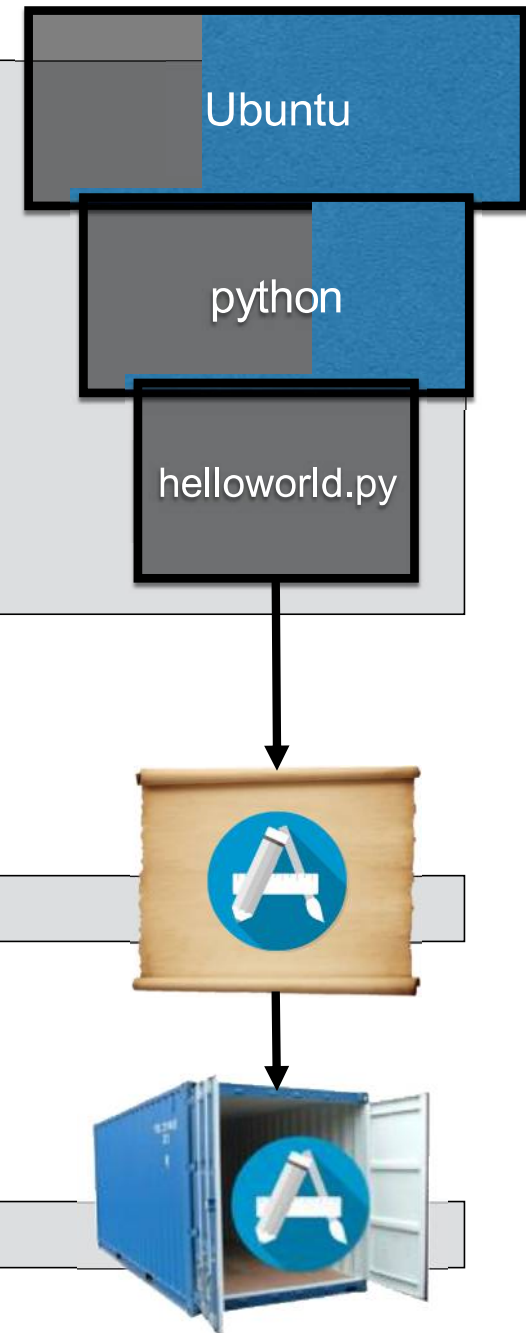
Container



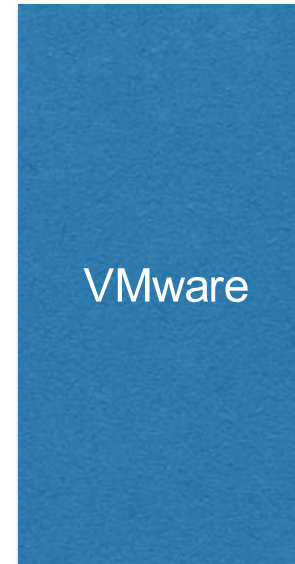
```
#  
# simple Dockerfile  
#  
FROM ubuntu:latest  
MAINTAINER James Harper "j.harper@auckland.ac.nz"  
  
RUN apt-get update  
RUN apt-get install -y python  
  
ADD helloworld.py /home/helloworld.py  
WORKDIR /home
```

```
$ docker build -t "example:dockerfile" .
```

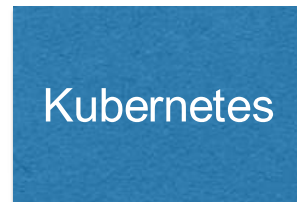
```
$ docker run example:dockerfile python helloworld.py
```



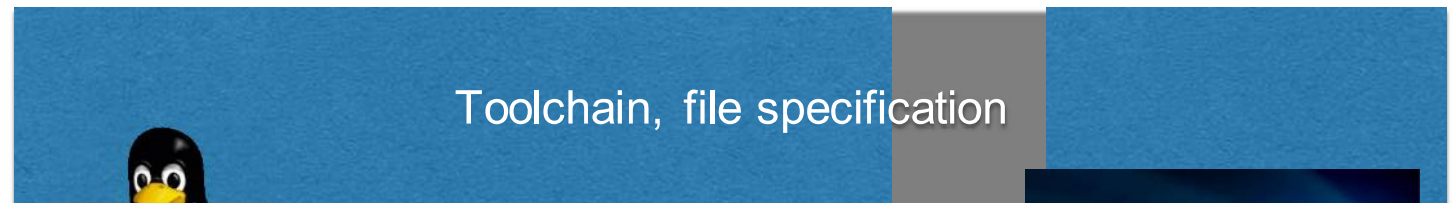
Access Control
UI



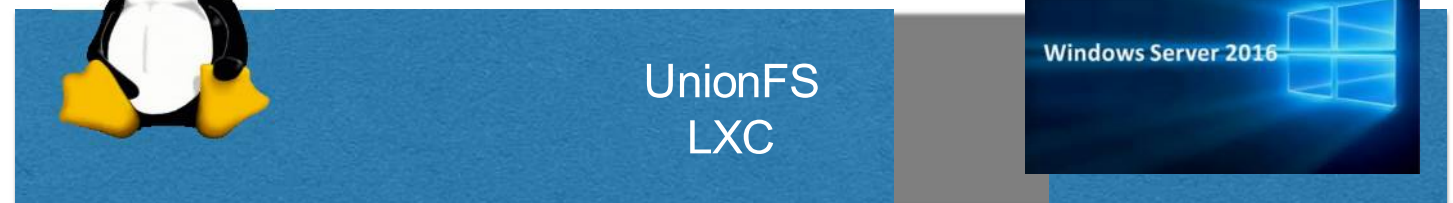
Automation/
Orchestration



Docker



OS

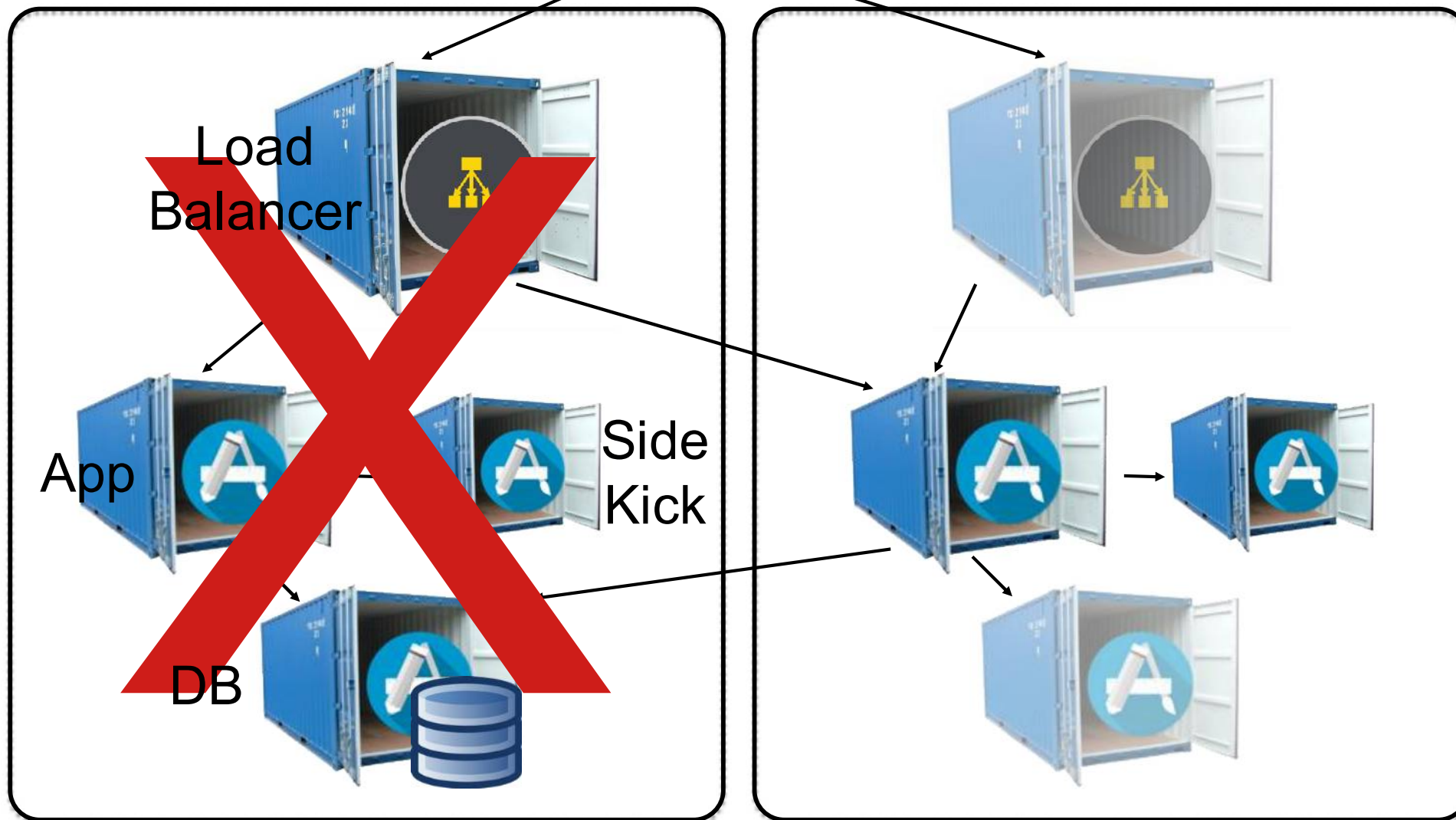


Hardware



vmware®





ACTIVE

cow1

10.10.25.155 | 1.9.1

CoreOS 899.15.0 (4.3.6-coreos)

4x3.33 GHz | 31.4 GiB | 24.4 GiB

LB=1 | HERD=DEFAULT | COW=1

traefik_lb=true

Stack: admcyu043web

admcyu043lb_1 10.42.31.76

Stack: ashi880

hello-spring-boot_1 10.42.22.110

Stack: convoy-nfs

convoy-nfs_1 10.42.159.155

Stack: datadog

datadog-agent_1 10.42.8.69

Sidekicks

Stack: janitor

cleanup_1 None

Stack: logspout

logspout_1 10.42.11.153

Stack: minecraft

MinecraftLB_1 10.42.2.142

Stack: mtuz243-jenkins-ci

Stack: mtuz243-tutorial

LB_1 10.42.180.92

mtuz243-tutorial_3 10.42.149.184

Stack: MySQLTest

INACTIVE

cow1010

10.10.25.212 | 1.10.3

CoreOS 1010.1.0 (4.5.0-coreos-r1)

4x3.33 GHz | 31.4 GiB | 24.4 GiB

HERD=DEFAULT | COW=1010

Stack: Standalone Containers

Network Agent 10.42.102.230

ACTIVE

cow2

10.10.25.215 | 1.9.1

CoreOS 899.15.0 (4.3.6-coreos)

4x3.33 GHz | 15.7 GiB | 24.4 GiB

LB=1 | HERD=DEFAULT | COW=2

traefik_lb=true

Stack: admcyu043arm4

admcyu043arm_1 10.42.182.250

Stack: admcyu043web

admcyu043lb_2 10.42.34.74

Stack: ashi880-kong

kong_1 10.42.118.126

Stack: convoy-nfs

convoy-nfs_2 10.42.170.138

Stack: datadog

datadog-agent_2 10.42.23.170

Sidekicks

Stack: F5

nginx2_2 10.42.38.185

Stack: janitor

cleanup_2 None

Stack: logspout

logspout_2 10.42.157.125

Stack: minecraft

MinecraftLB_2 10.42.67.136

Minecraft_2 10.42.230.30

RECONNECTING

cow3

10.10.25.209 | 1.9.1

CoreOS 899.15.0 (4.3.6-coreos)

4x3.33 GHz | 31.4 GiB | 24.4 GiB

LB=1 | HERD=DEFAULT | COW=3

traefik_lb=true

Stack: admcyu043web

admcyu043lb_3 10.42.111.96

admcyu043web_1 10.42.42.253

admcyu043web_2 10.42.191.65

admcyu043web_3 10.42.150.53

Stack: convoy-nfs

convoy-nfs_3 10.42.58.34

Stack: datadog

datadog-agent_3 10.42.85.166

Sidekicks

Stack: janitor

cleanup_3 None

Stack: logspout

logspout_3 10.42.44.15

Stack: minecraft

MinecraftLB_3 10.42.250.127

Minecraft_1 In Progress

Stack: mtuz243-tutorial

LB_3 10.42.204.22

Stack: MySQLTest

phpmyadminLB_3 10.42.127.124

ACTIVE

cow4

10.10.25.208 | 1.9.1

CoreOS 899.17.0 (4.3.6-coreos)

4x3.33 GHz | 31.4 GiB | 24.4 GiB

LB=0 | HERD=DEFAULT | COW=4

traefik_lb=true

Stack: ashi880

swagger-editor_1

hello-aihttp_1

go-hello_1

hello-rapidoid_1

kong-database_1

kong_1

kong-dashboard_1

flask-swagger-hello_1

Stack: ashi880-kong

kong-dashboard_1

kong-database_1

Stack: convoy-nfs

convoy-nfs_4

Stack: datadog

datadog-agent_4

Sidekicks

Stack: janitor

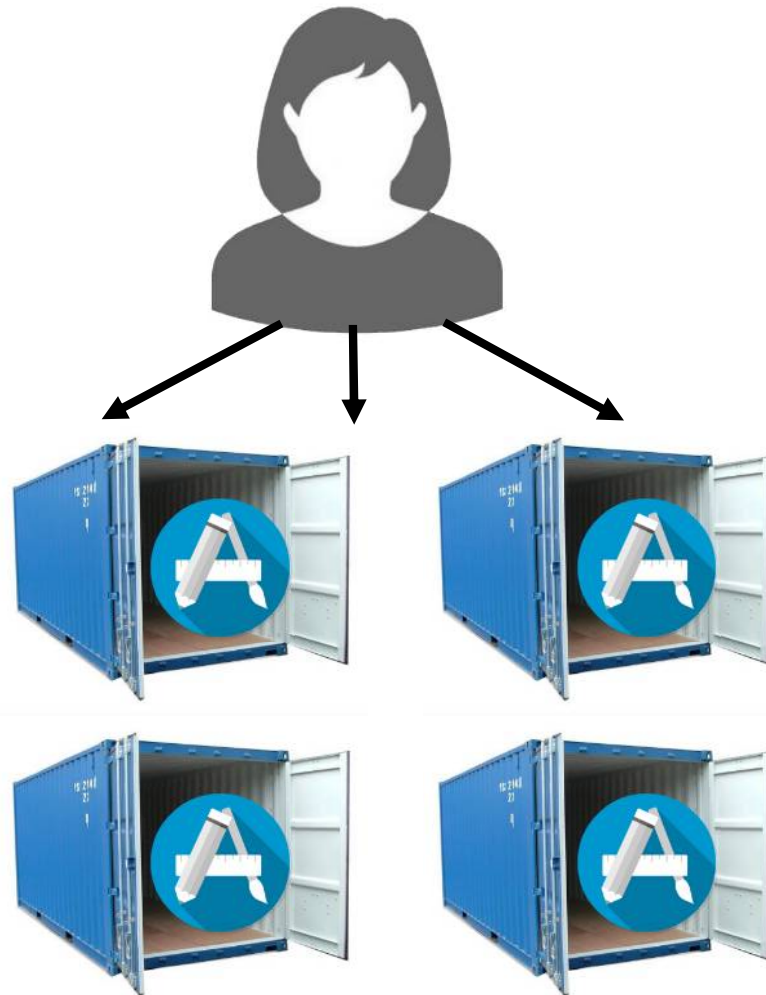
cleanup_4

Stack: logspout

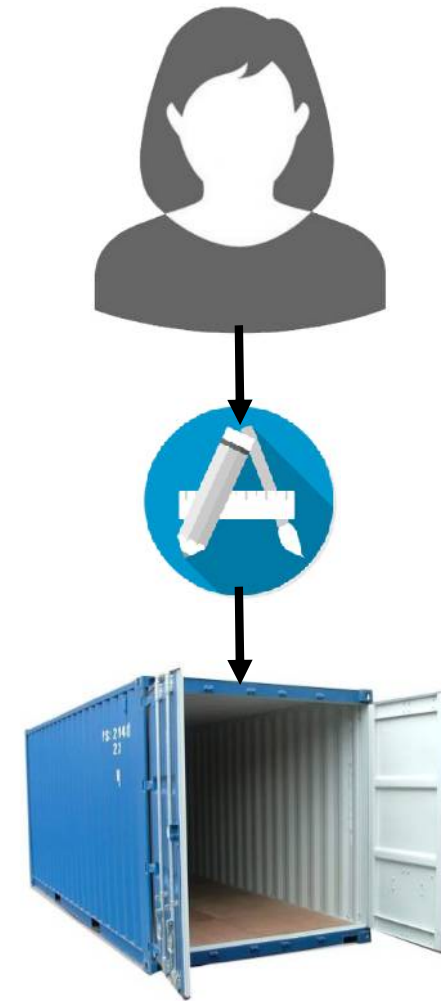
logspout_4

Stack: mtuz243-hackday1

Docker/IaaS



PaaS



Software carpentry



MATLAB®



git

