



2015 杭州·云栖大会
COMPUTING CONFERENCE

How the World's Best Companies Run Containers in Production

——Mesosphere Datacenter Operating System (DCOS)

Michael Jin, Mesosphere
Morten Kuhl, Mesosphere

Agenda:

From Monolithic to Microservices

Rise of Containerization

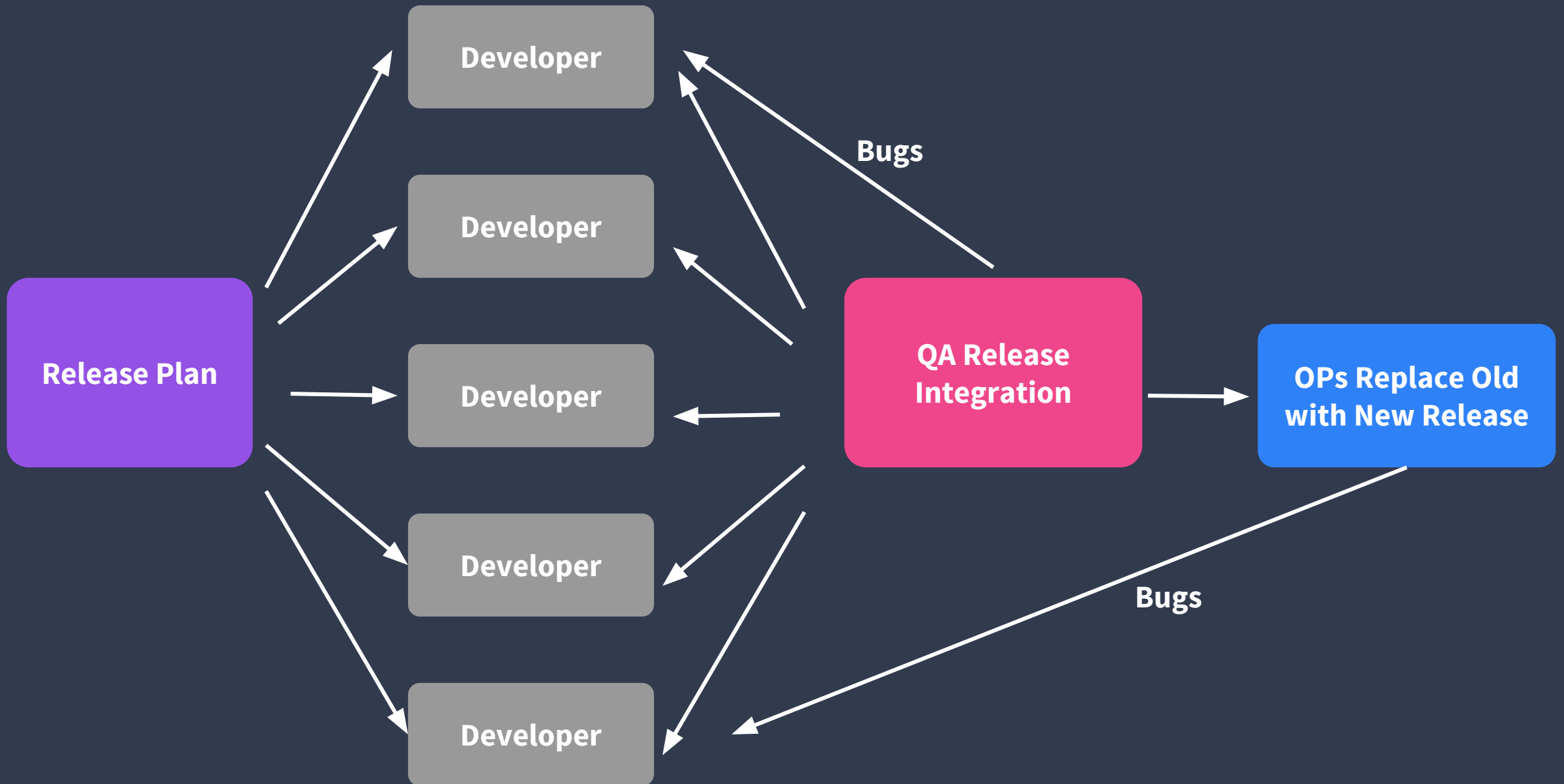
Mesosphere Datacenter Operating System (DCOS)

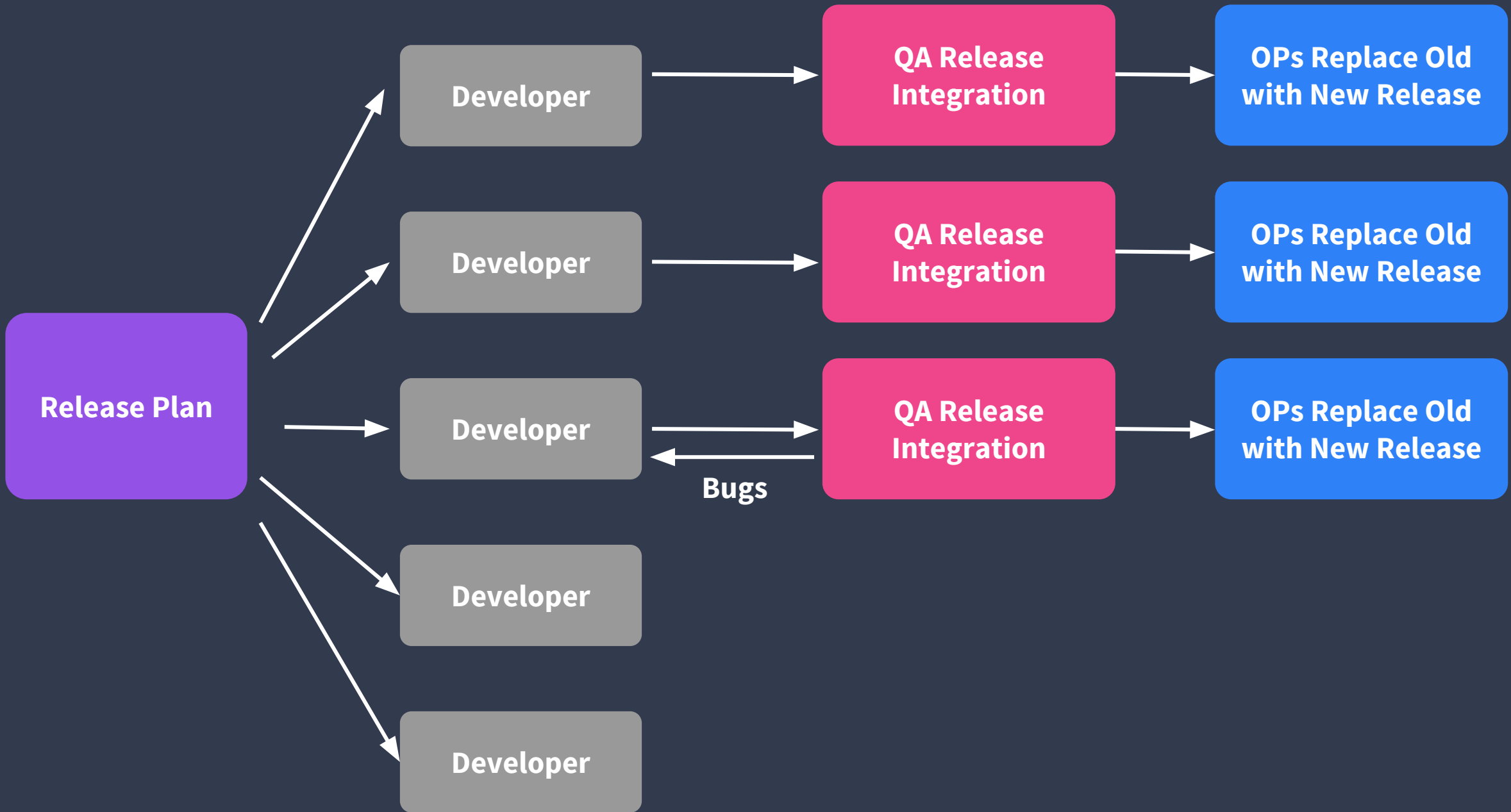


**"Mesosphere brings Google-scale
compute to everybody"**

Adbur Chowdhury, Former Chief Scientist, Twitter

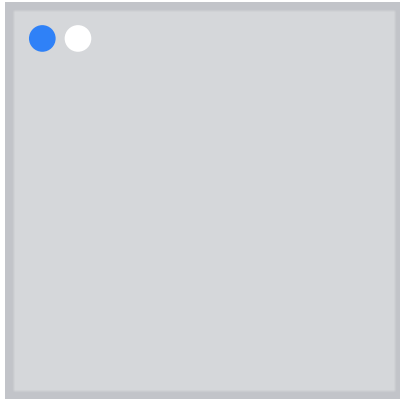
FROM MONOLITHIC TO MICROSERVICES





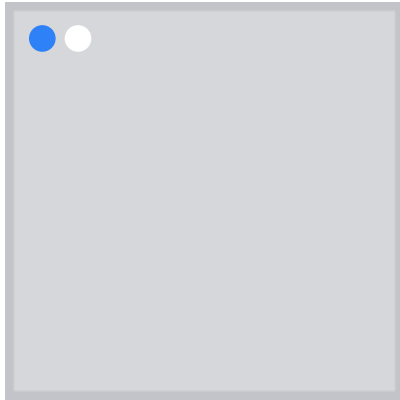
BUT...
**YOU NEED PROPER
INFRASTRUCTURE!**

THE HISTORY OF INFRASTRUCTURE

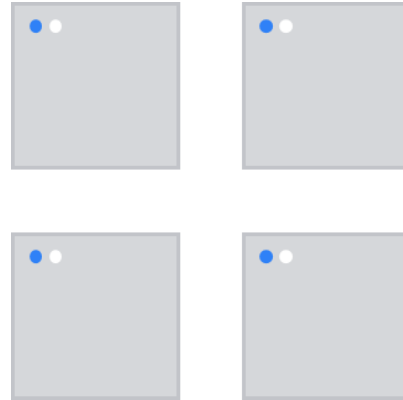


MAINFRAME

THE HISTORY OF INFRASTRUCTURE

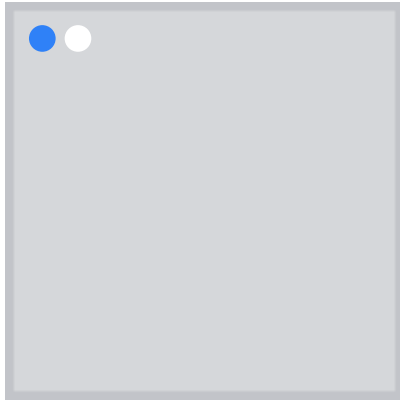


MAINFRAME

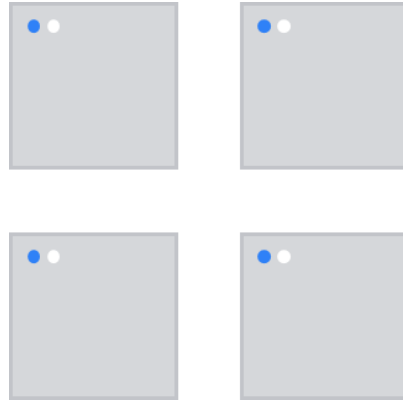


PHYSICAL (x86)

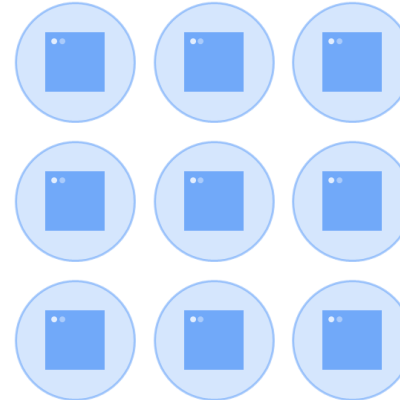
THE HISTORY OF INFRASTRUCTURE



MAINFRAME

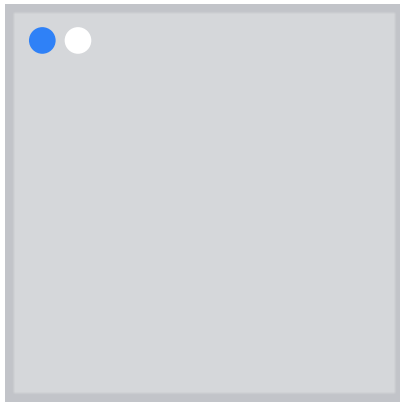


PHYSICAL (x86)

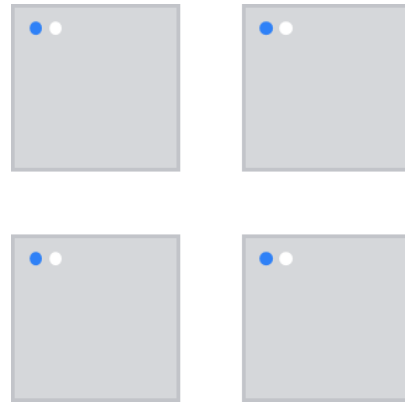


VIRTUAL

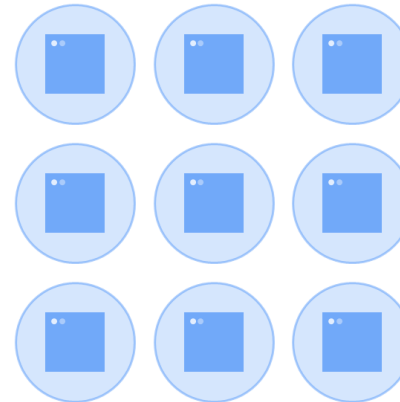
THE HISTORY OF INFRASTRUCTURE



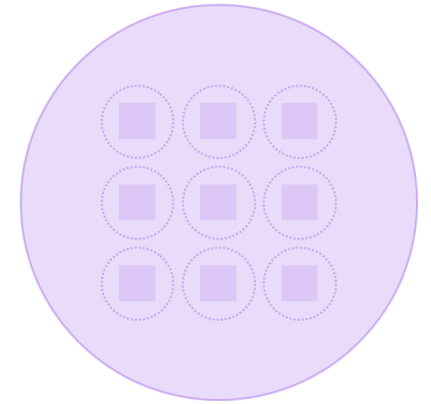
MAINFRAME



PHYSICAL (x86)

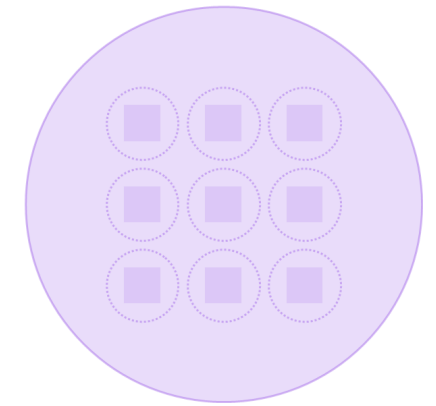
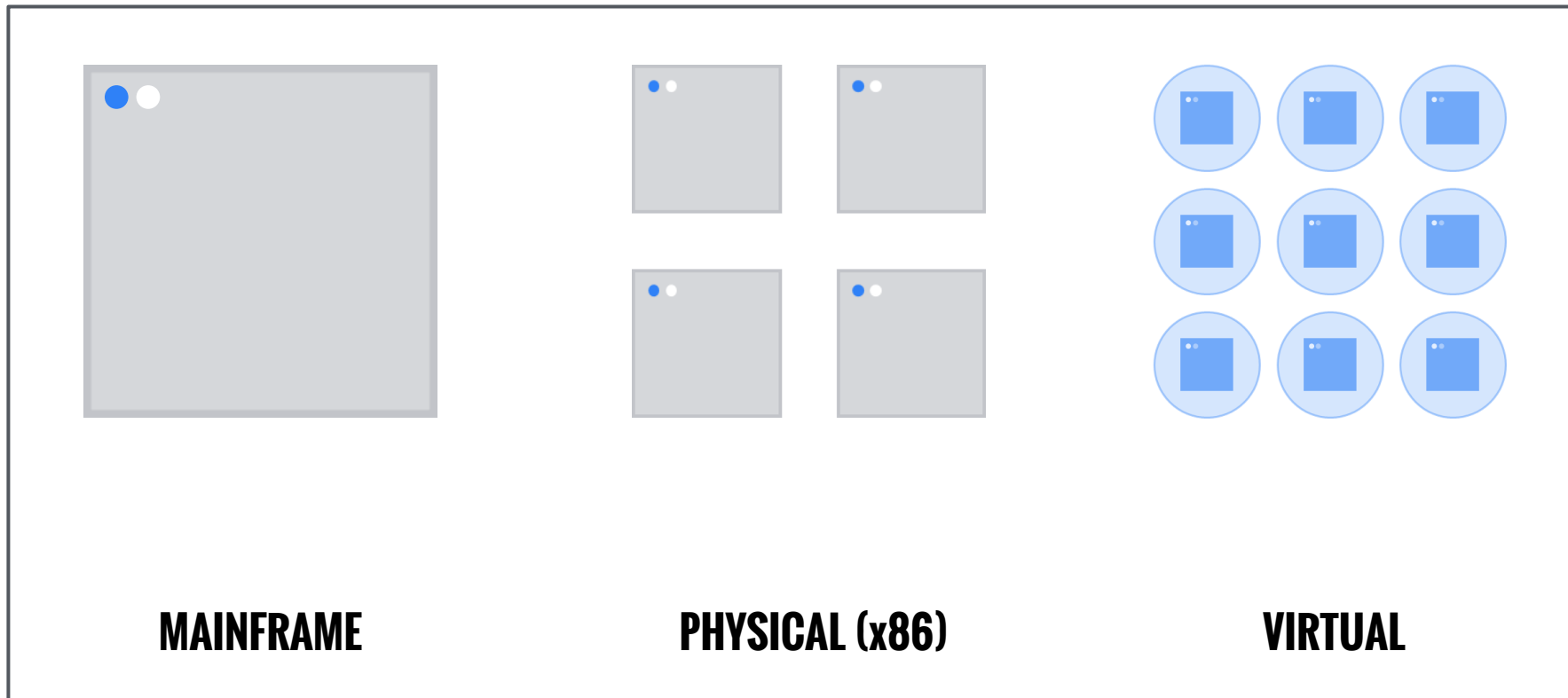


VIRTUAL



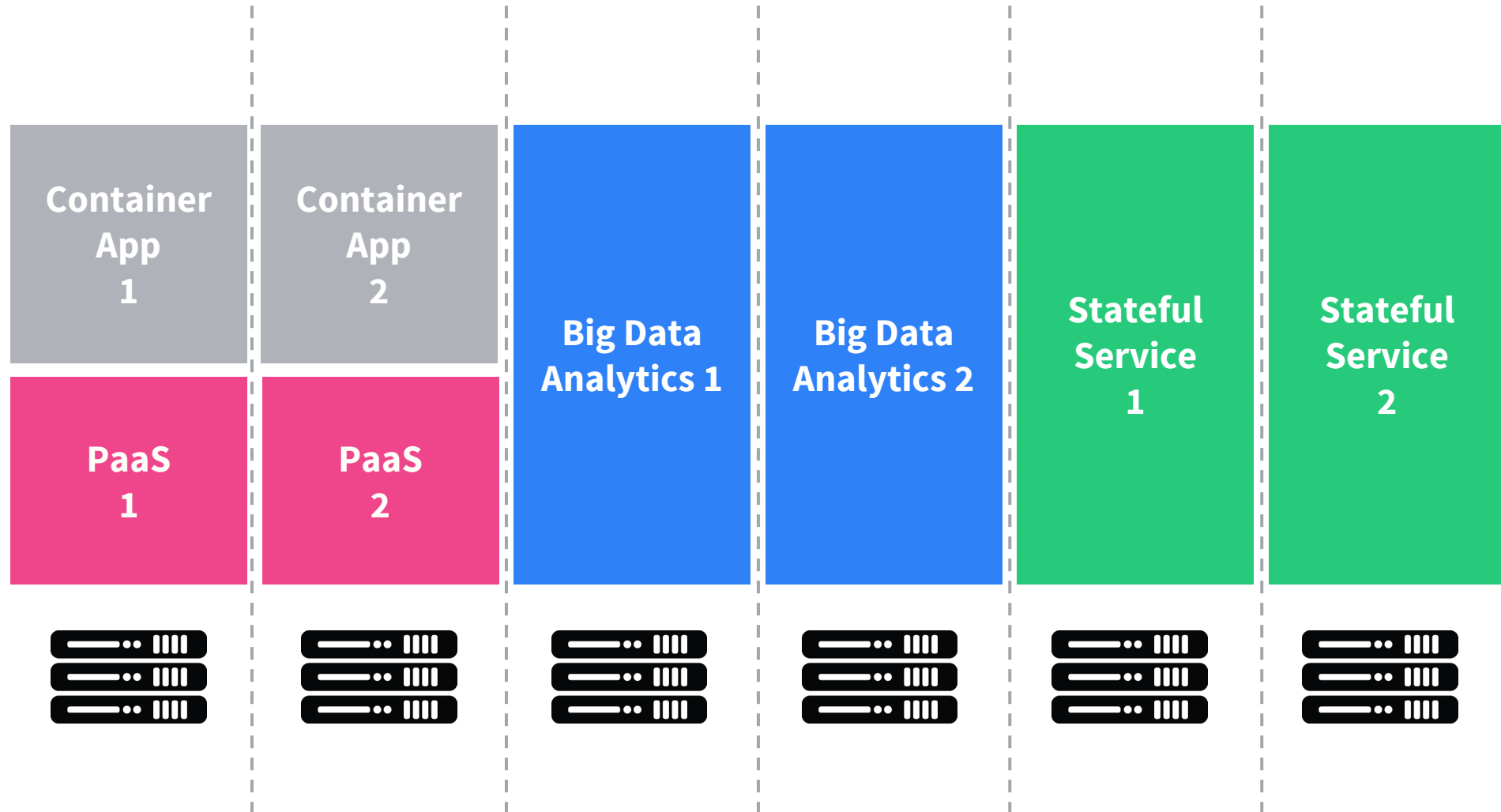
**UNIFIED
HYPERSCALE**

THE HISTORY OF INFRASTRUCTURE

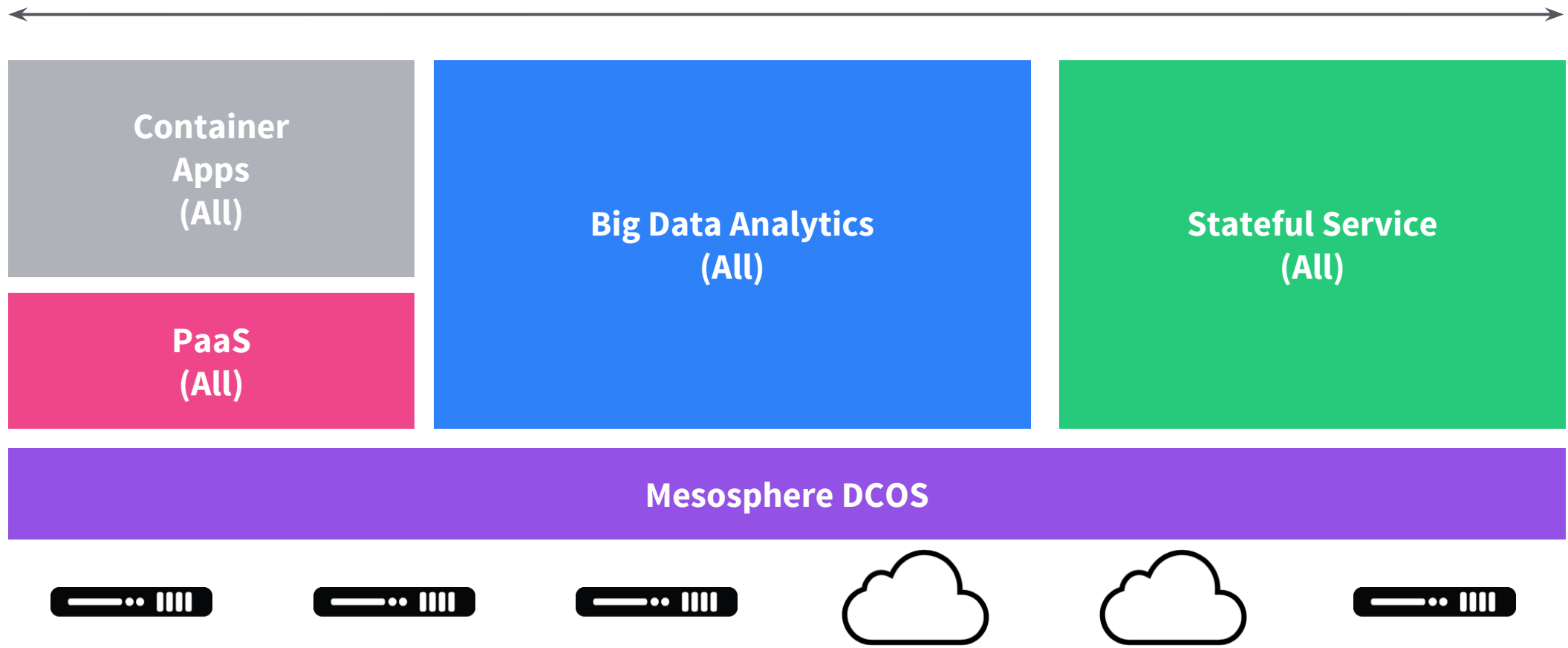


**UNIFIED
HYPERSCALE**

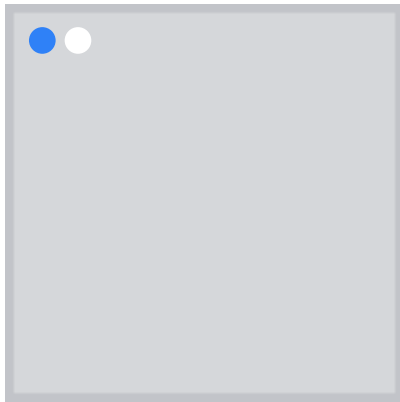
TRADITIONAL IT APPROACH



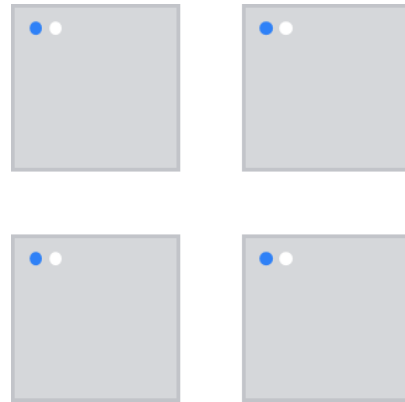
THE MESOSPHERE DCOS APPROACH



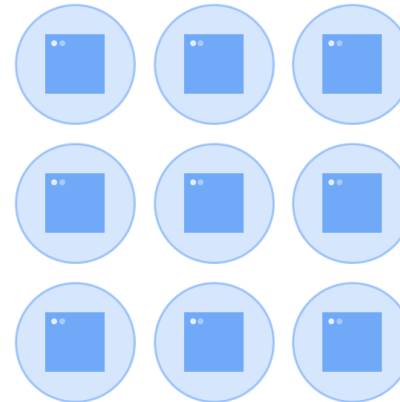
THE NEXT WAVE OF COMPUTING



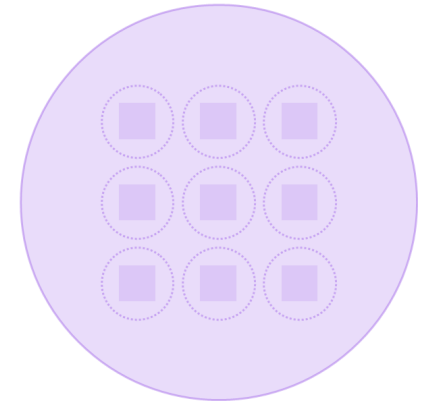
MAINFRAME



PHYSICAL (x86)

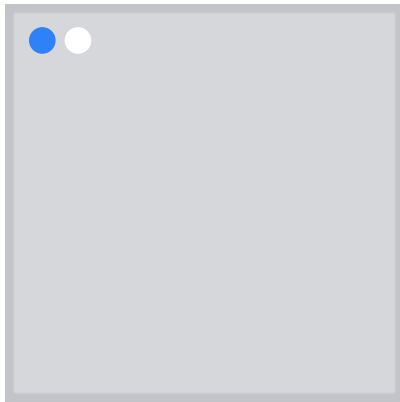


VIRTUAL



**UNIFIED
HYPERSCALE**

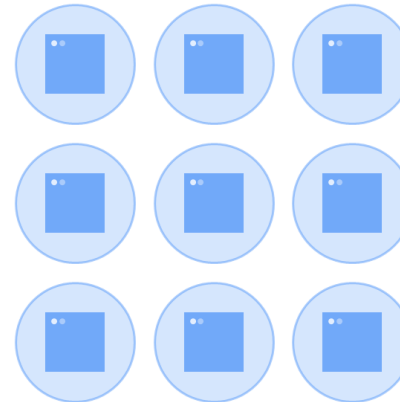
THE NEXT WAVE OF COMPUTING



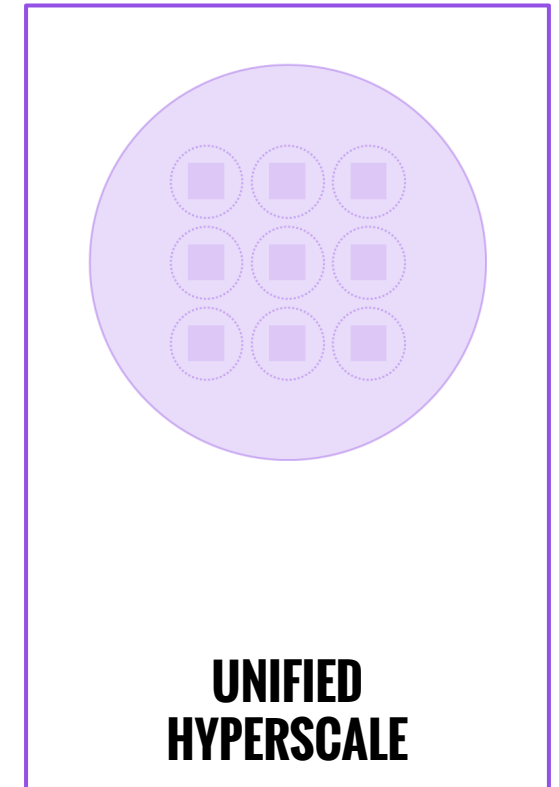
MAINFRAME



PHYSICAL (x86)



VIRTUAL



**UNIFIED
HYPERSCALE**

PROVEN AT SCALE

OPERATING SYSTEM

“a collection of software that manages the computer hardware resources and provides common services for computer programs”

DATACENTER OPERATING SYSTEM (DCOS)

“a collection of software that manages the datacenter computer hardware resources and provides common services for computer programs”

DATACENTER OPERATING SYSTEM (DCOS)

Just another form factor!



MESOSPHERE DCOS

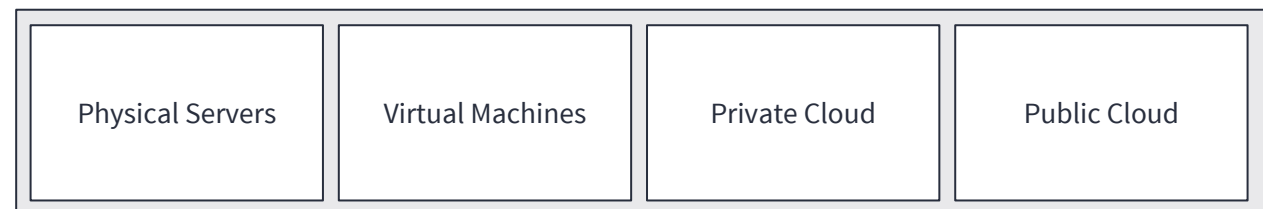
Services & Containers



Mesosphere DCOS



Existing Infrastructure



PRODUCTION CUSTOMERS AND MESOS USERS



Proven reliable for large scale, mission-critical deployments

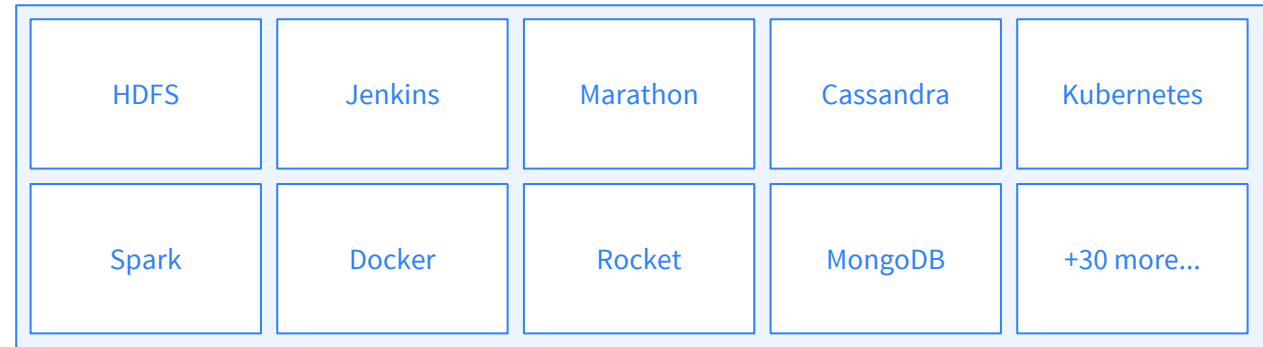


POWERED BY MESOS

Product Overview

MESOSPHERE DCOS

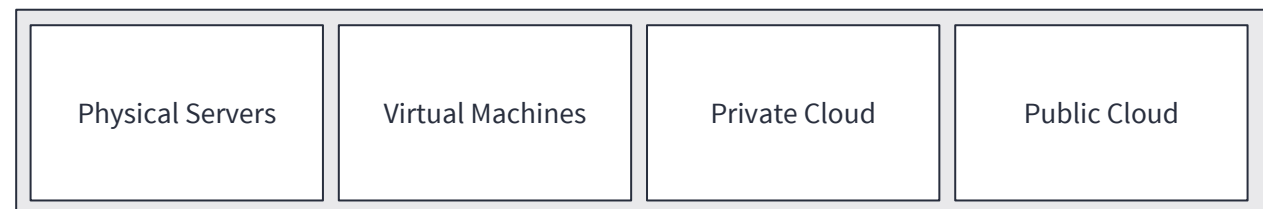
Services & Containers



Mesosphere DCOS



Existing Infrastructure




```
$ dcos package install spark
```

```
...
```

```
$ dcos marathon app list
```

```
...
```

```
$ dcos service log spark
```

```
...
```



DCOSWebUI

52.26.155.2



Dashboard



Services



Nodes



Mesosphere DCOS v.1.0.0

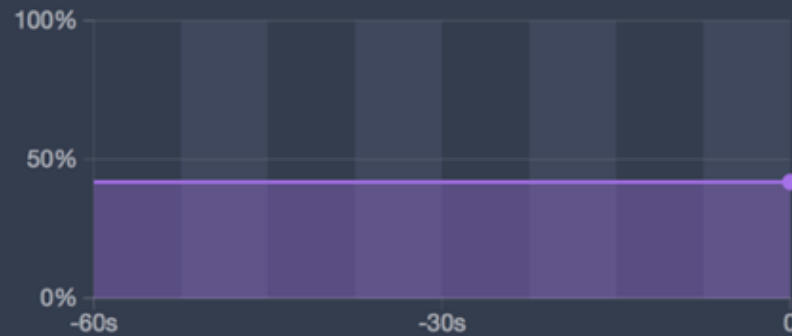


Dashboard

CPU Allocation

42%

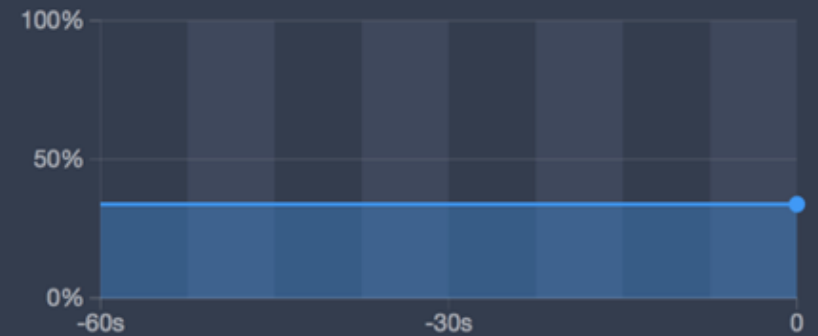
10.05 of 24 Shares



Memory Allocation

34%

28 GiB of 82 GiB



Task Failure Rate

0%

Current Failure Rate



Services Health

kubernetes

Healthy

kafka

Healthy

spark

Healthy

**"Mesosphere brings Google-scale
compute to everybody"**

Adbur Chowdhury, Former Chief Scientist, Twitter

