

What Is Container Orchestration All About?



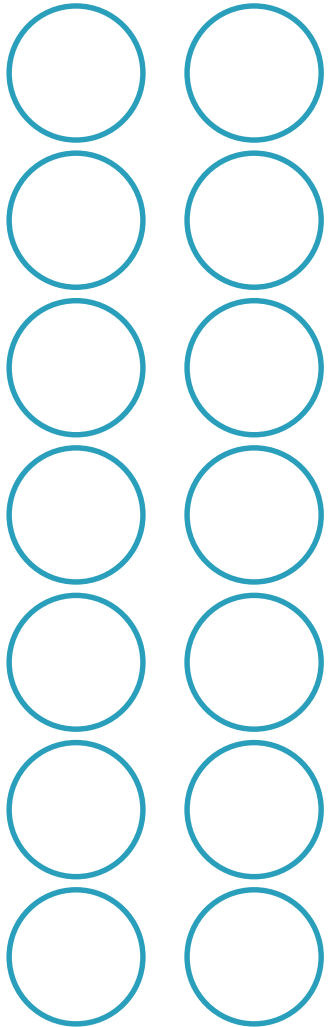
Nigel Poulton

@nigelpoulton www.nigelpoulton.com



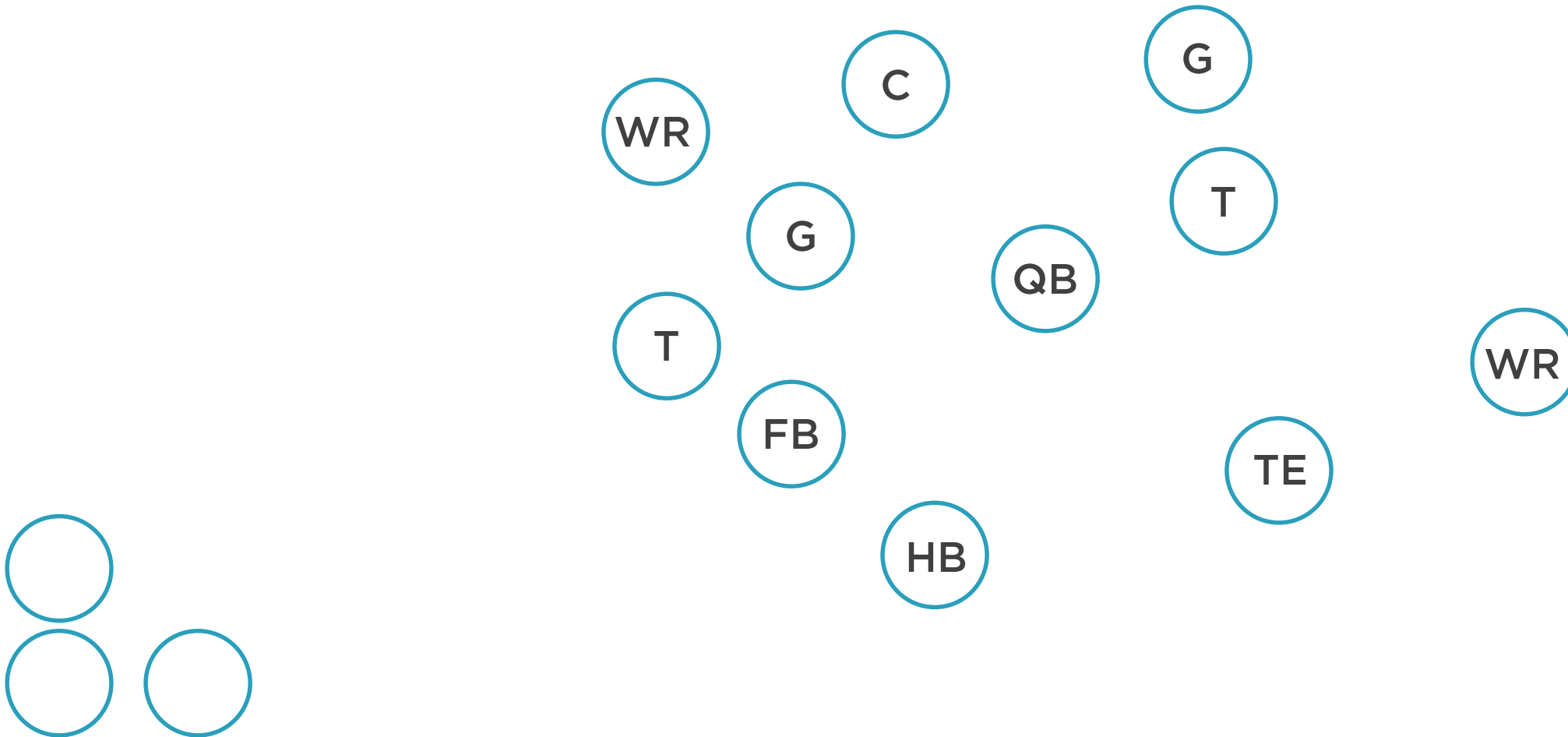
Container Orchestration - Analogy

Team



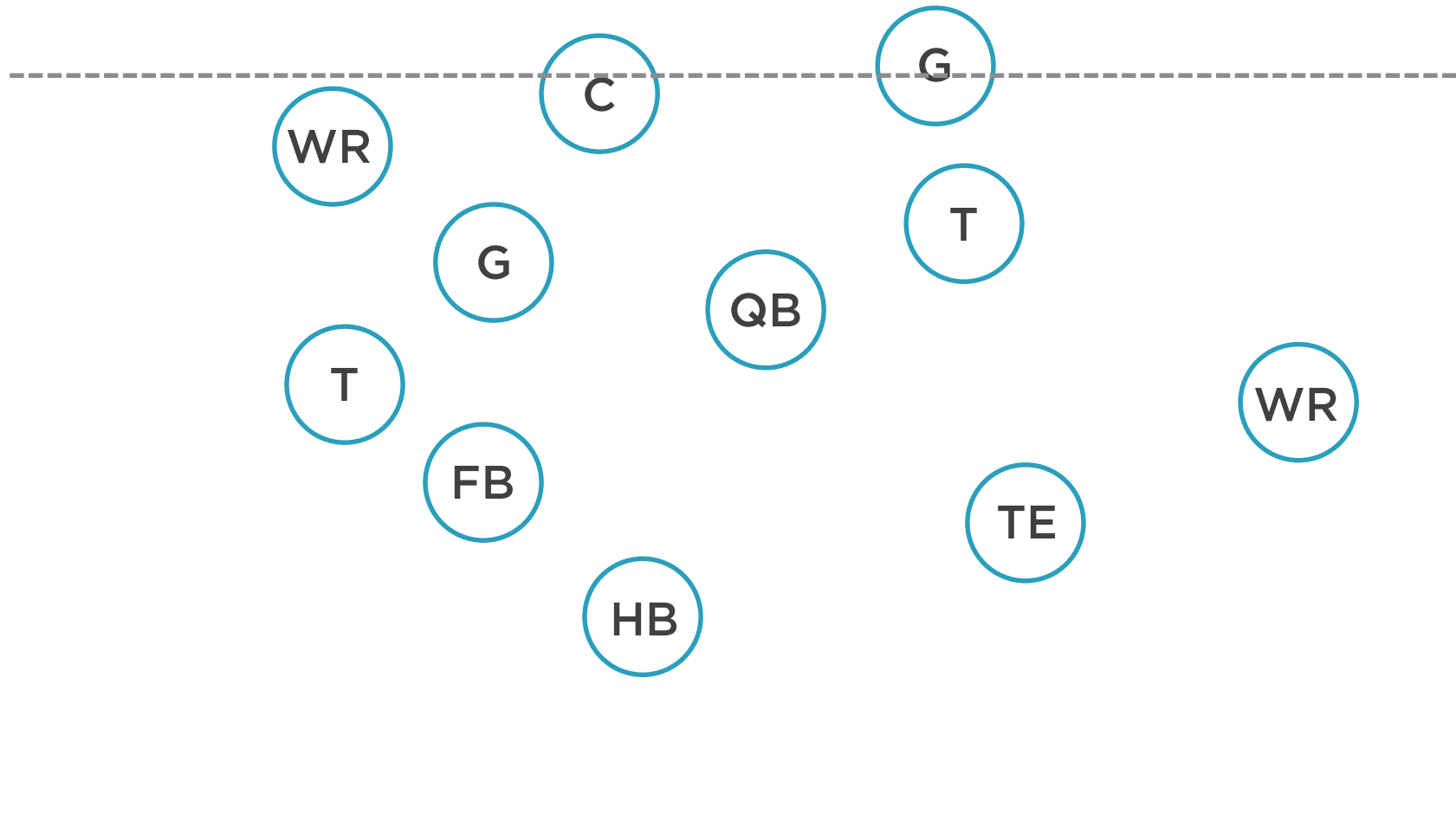
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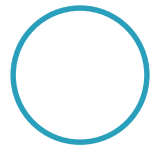
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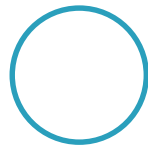


Apps comprise multiple parts

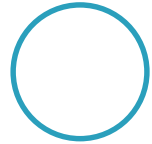
Container Orchestration



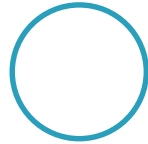
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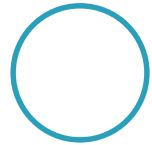
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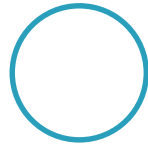
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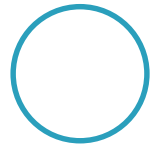
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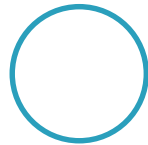
K/V store



MySQL



Log

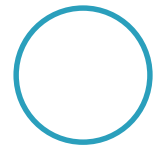


Load
balancer

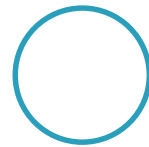


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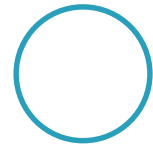
Container Orchestration



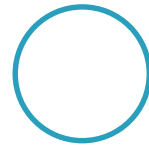
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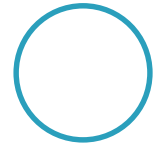
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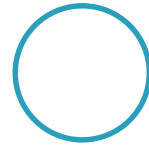
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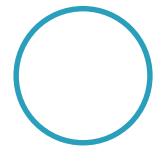
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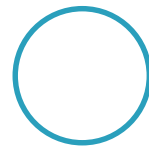
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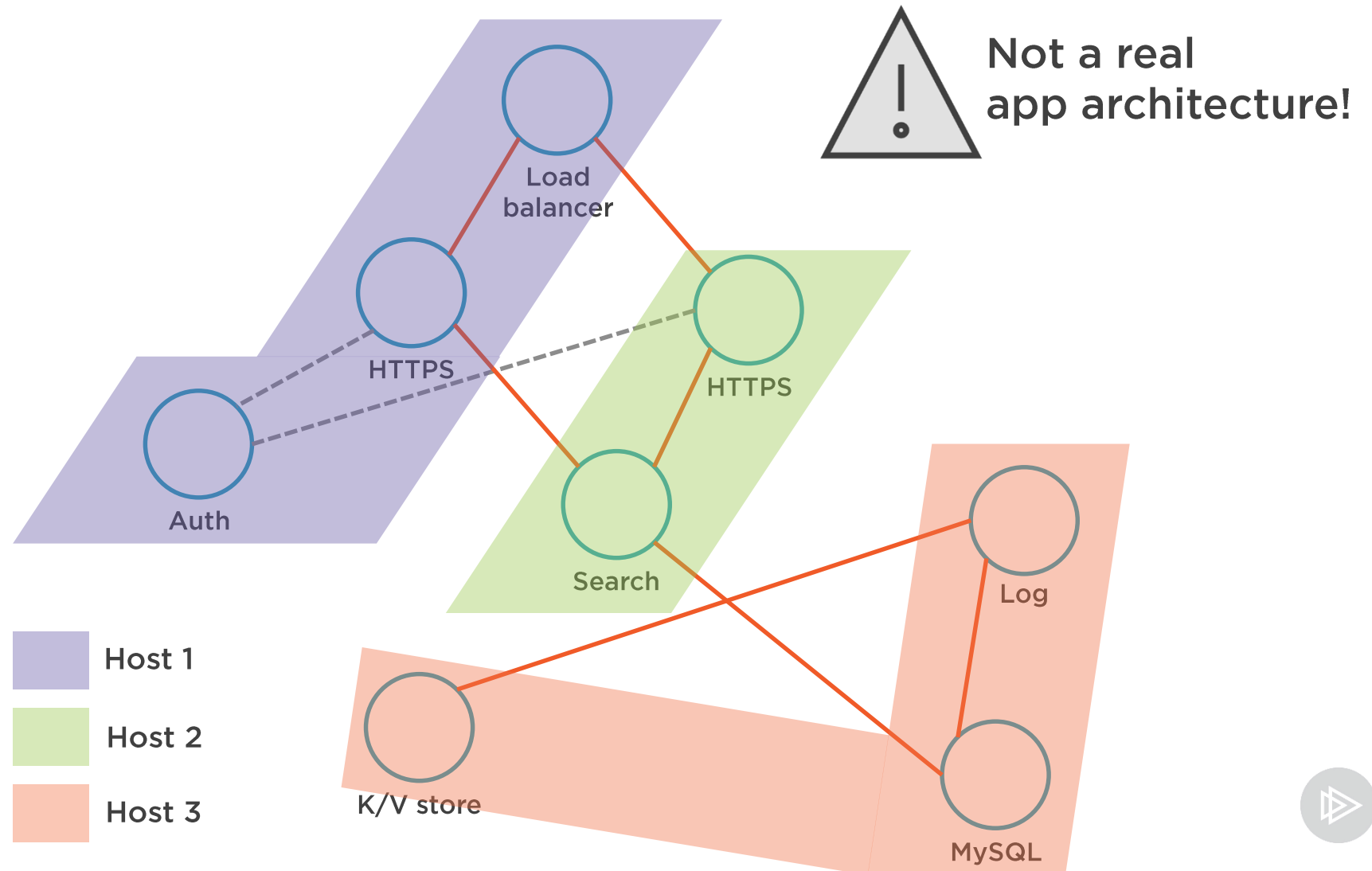
Load
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Apps comprise multiple parts

- Thousands of containers
- Hundreds of hosts

Container Orchestration



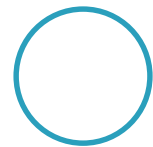
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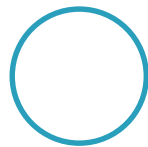
Orchestration:

- Defines our app

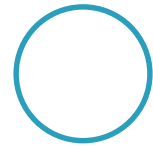
Container Orchestration



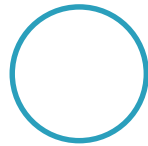
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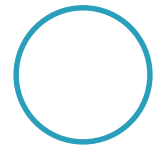
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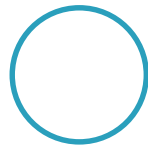
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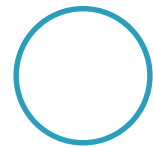
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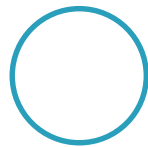
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Load
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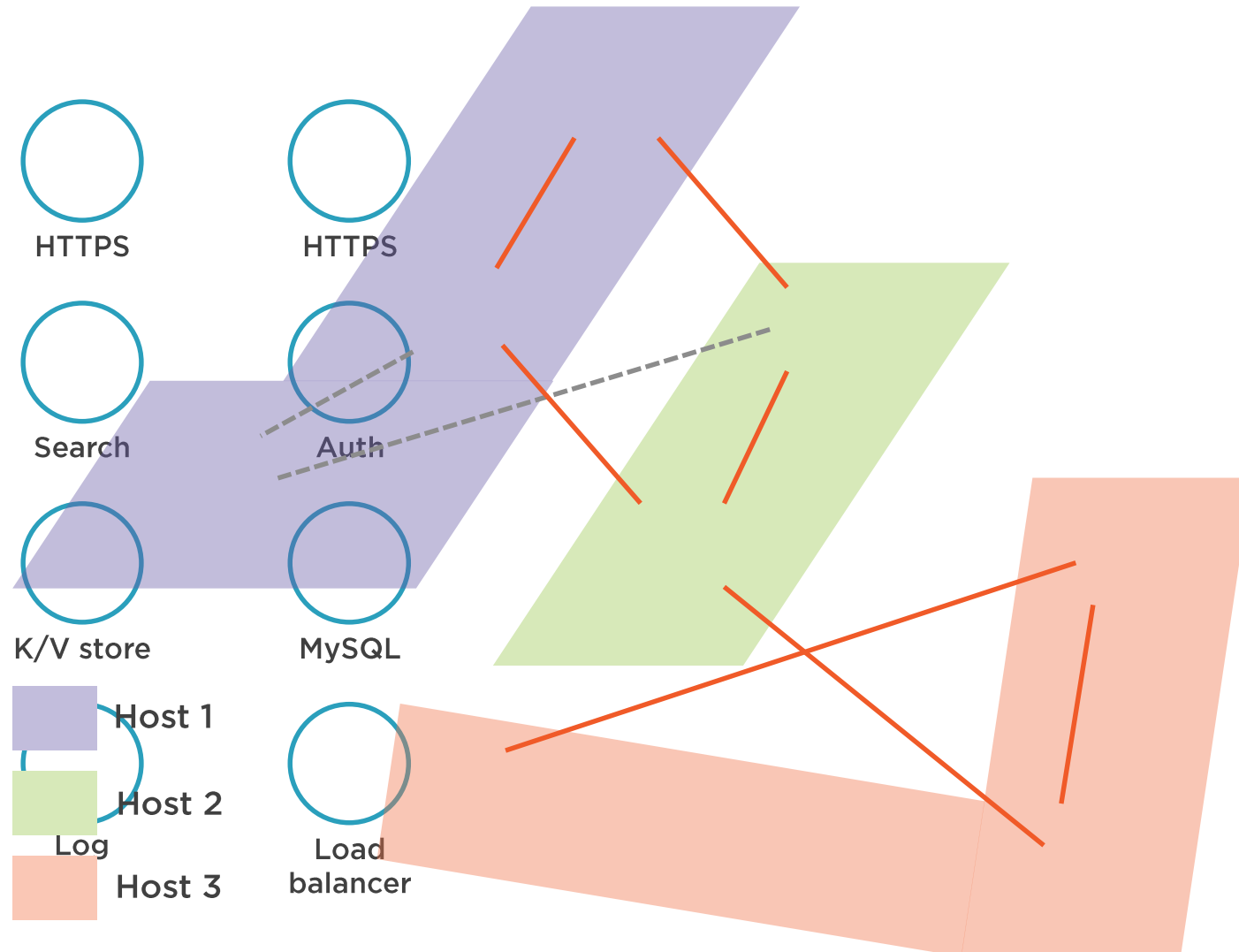
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Orchestration:

- Defines our app
- Provisions infrastructure
- Deploys our app
- Scales our app

Container Orchestration



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Docker orchestration products:

- Machine
- Compose
- Swarm

Ecosystem orchestration products:

Container Orchestration



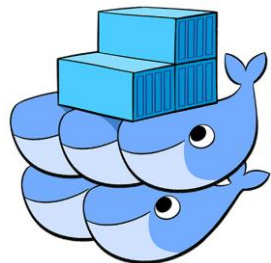
Docker Machine

Provisions Docker hosts/engines



Docker Compose

Compose multi-container apps



Docker Swarm

Schedule containers over multiple Docker engines



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Ecosystem orchestration products

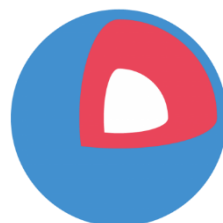
Container Orchestration



Kubernetes



Mesosphere DCOS



CoreOS fleet, etcd...



OpenStack Magnum



Summary

Container Orchestration

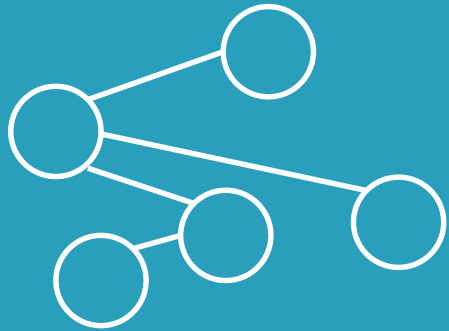
Apps are composed of
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Summary

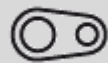
Container Orchestration

Apps are composed of multiple parts



Automates deployment and scaling...

Docker Inc.



Docker Machine



Docker Compose



Docker Swarm

Ecosystem

Kubernetes

Mesosphere

Cloudify

OpenStack

CoreOS

More...

