Getting Started with Mesos

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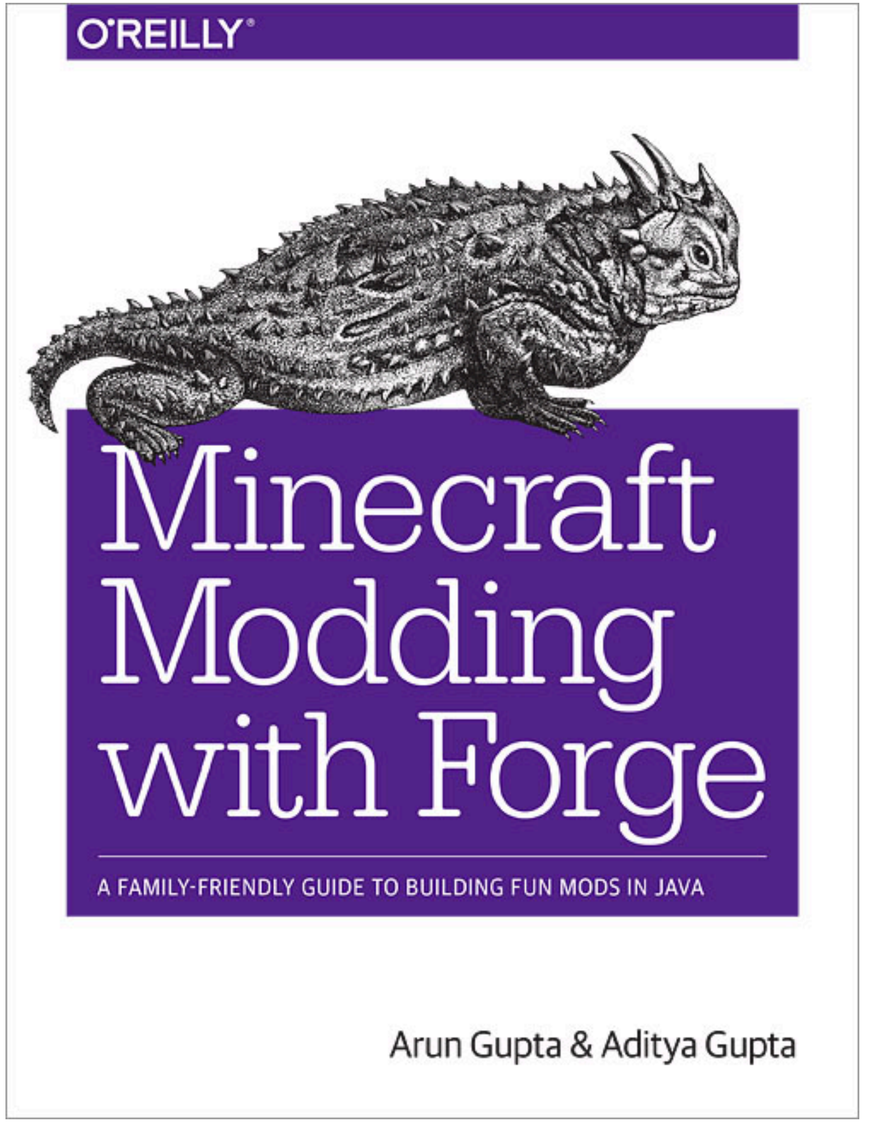

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Mesos

- Open source cluster manager
- Developed at UC Berkeley
- Provides efficient resource isolation and sharing across distributed applications, or frameworks

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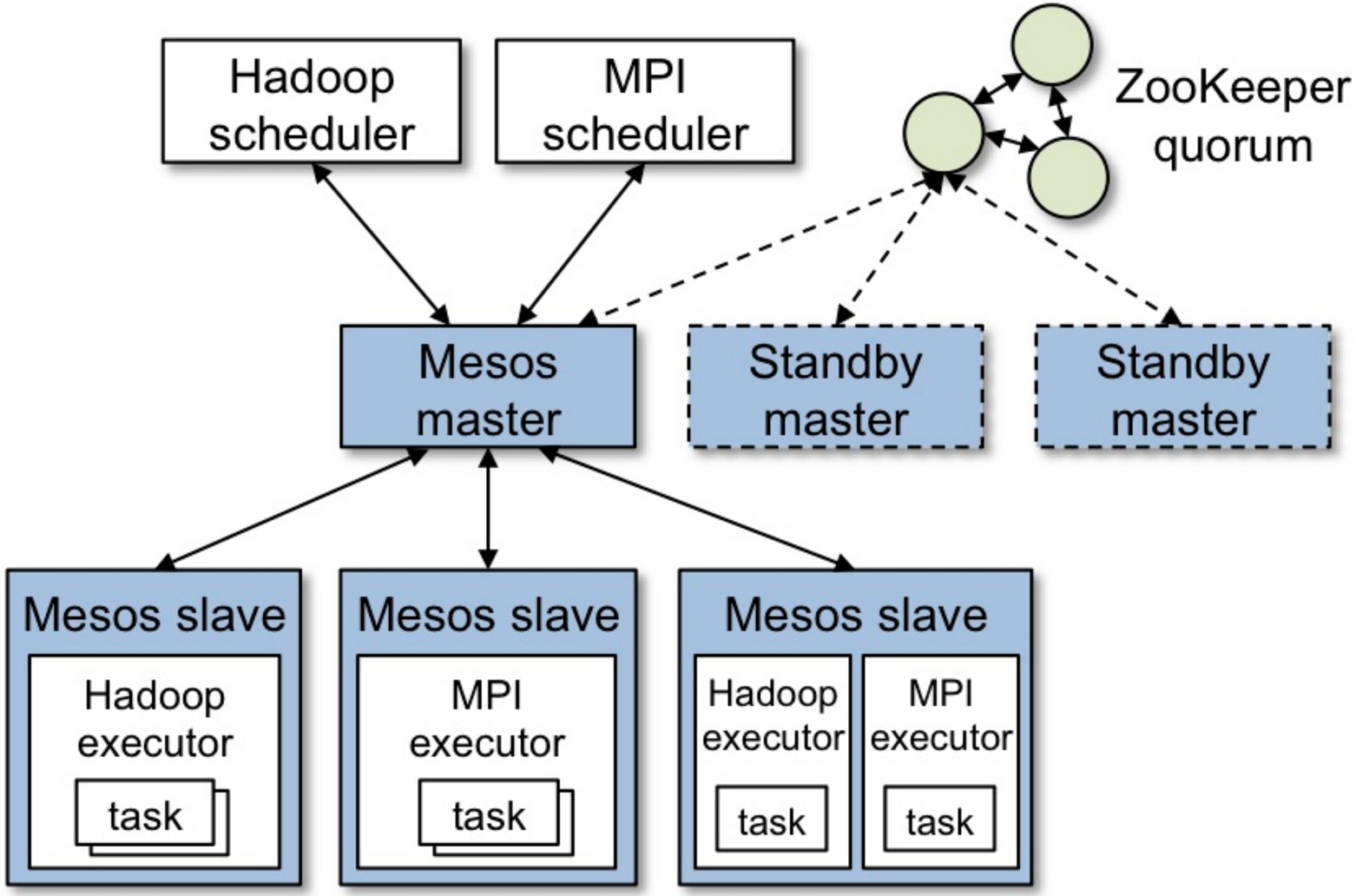
Mesos Architecture



http://mesos.apache.org/documentation/latest/architecture/

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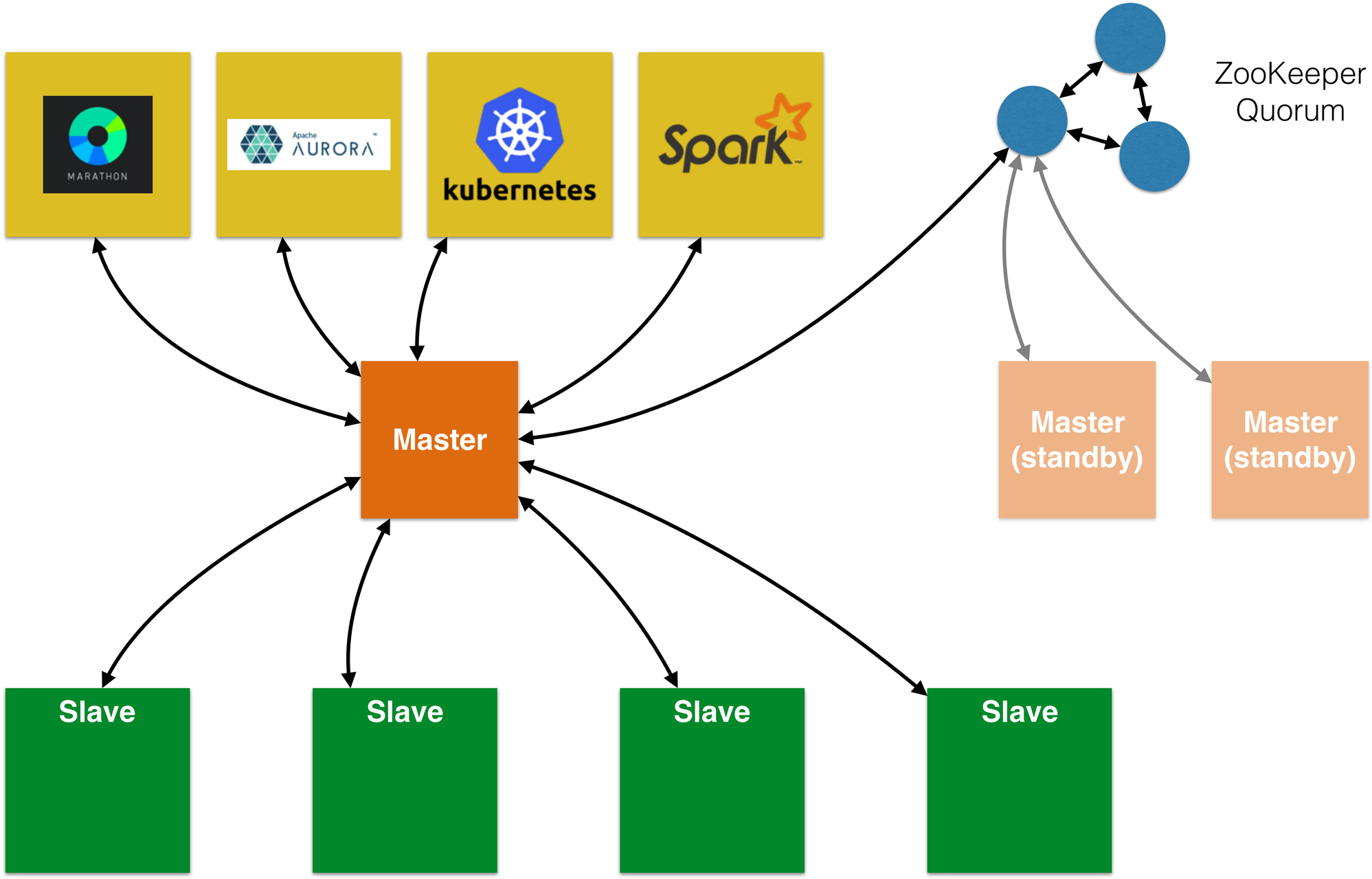

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Frameworks

- Frameworks are targeted at a use case and domain-specific
  - Master node “offers” resources to each framework
  - Framework “accepts” the offer and execute applications
- Framework has “scheduler” and “executor”
  - Scheduler registers with the master for “offer”
  - Executor launched on slave nodes to run the task
    - Passes a description of the task to run

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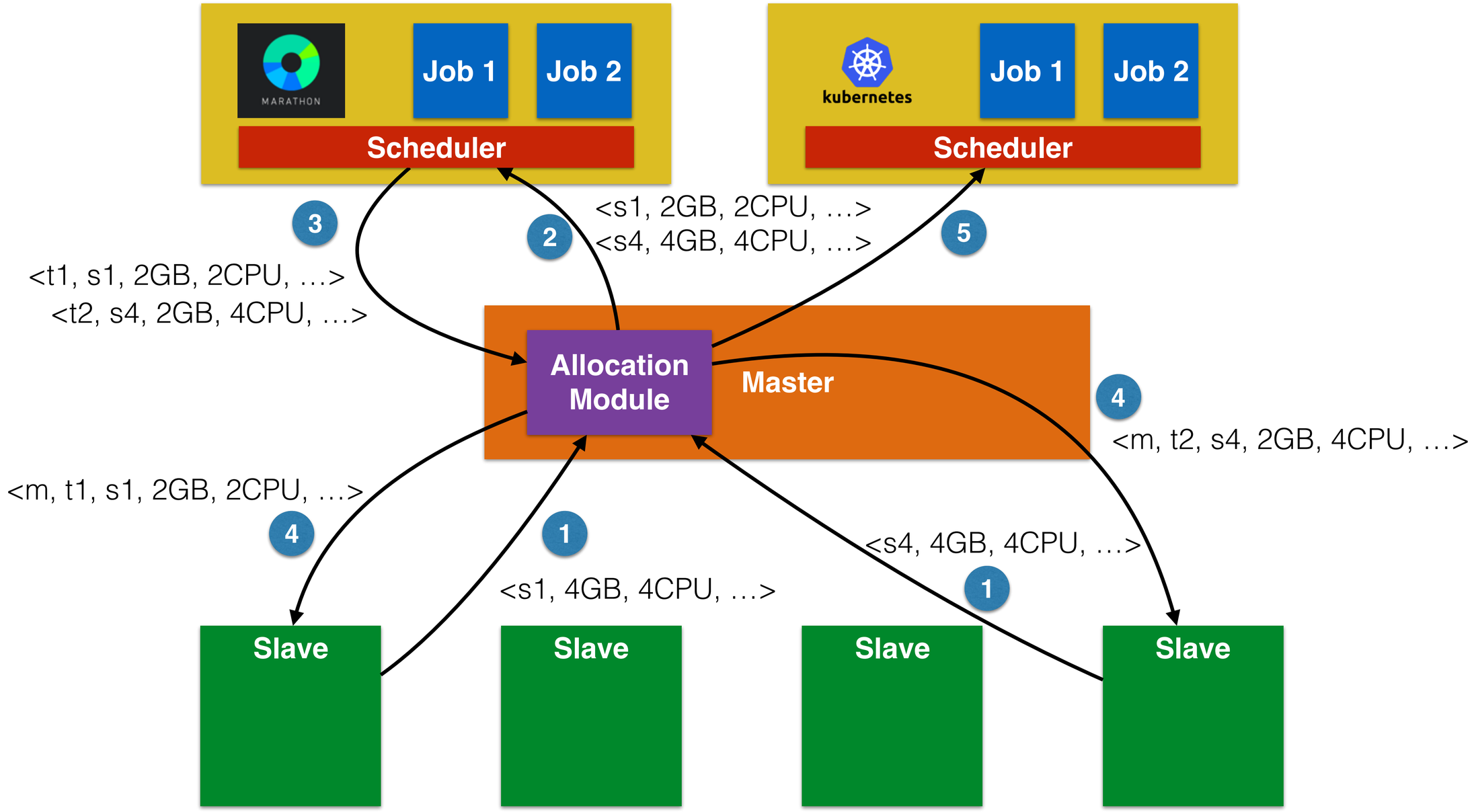

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- Built using the same principles as the Linux kernel, at a different level of abstraction
  - Computer: Data center
  - Kernel: Mesos
  - Application: Distributed application
  - Operating system: Mesos + Framework + Ecosystem

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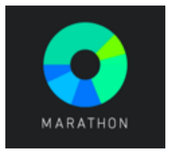
Workloads



Frameworks

Mesos

Kernel

Distributed File System

DFS

Distributed Resources
CPU, RAM, I/O, Filesystem, etc.

Cluster

Master

Node

Node

Node

Node

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http://www.slideshare.net/timothysc/apache-coneu

docker

kubernetes

MESOS

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References

- github.com/javaee-samples/docker-java
- mesos.apache.org/

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