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Zun

Project Update, OpenStack Summit Vancouver

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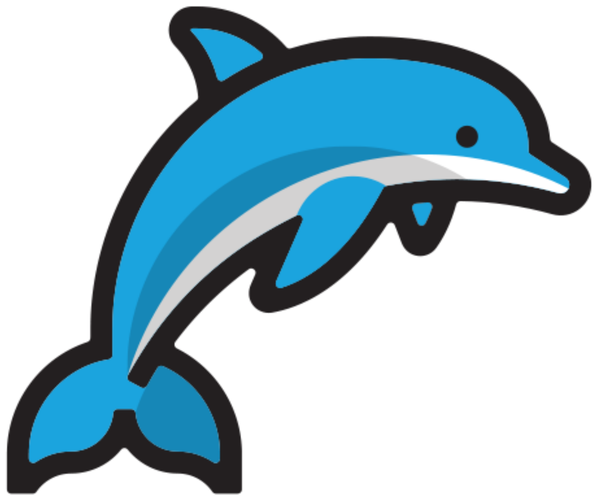
What is Zun?

- OpenStack Container service
- Run containers in the cloud without servers or cluster
  - Neutron for network
  - Cinder for volume
  - Keystone multi-tenancy
  - Deploy images from DockerHub



ZUN

an OpenStack Community Project

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Why Zun?

- Existing Options
  - Provision VMs as container hosts
  - Provision VMs to host a Container Orchestration Engine (COE)
- Pros
  - Powerful orchestration APIs
- Cons
  - Additional steps to setup the infrastructure
  - Need to manage the orchestrating platform as well as the infrastructure

Common Scenarios

- CI/CD (DevOps)
- Batch workload
- Application hosting
- ...

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Zun + Orchestrator

Zun

- No server management
- Fast startup
- Better packing
- Neutron network
- Cinder volume

Orchestrator

- HA Deployment
- Rolling upgrade
- Load balancing
- Auto scaling
- ...

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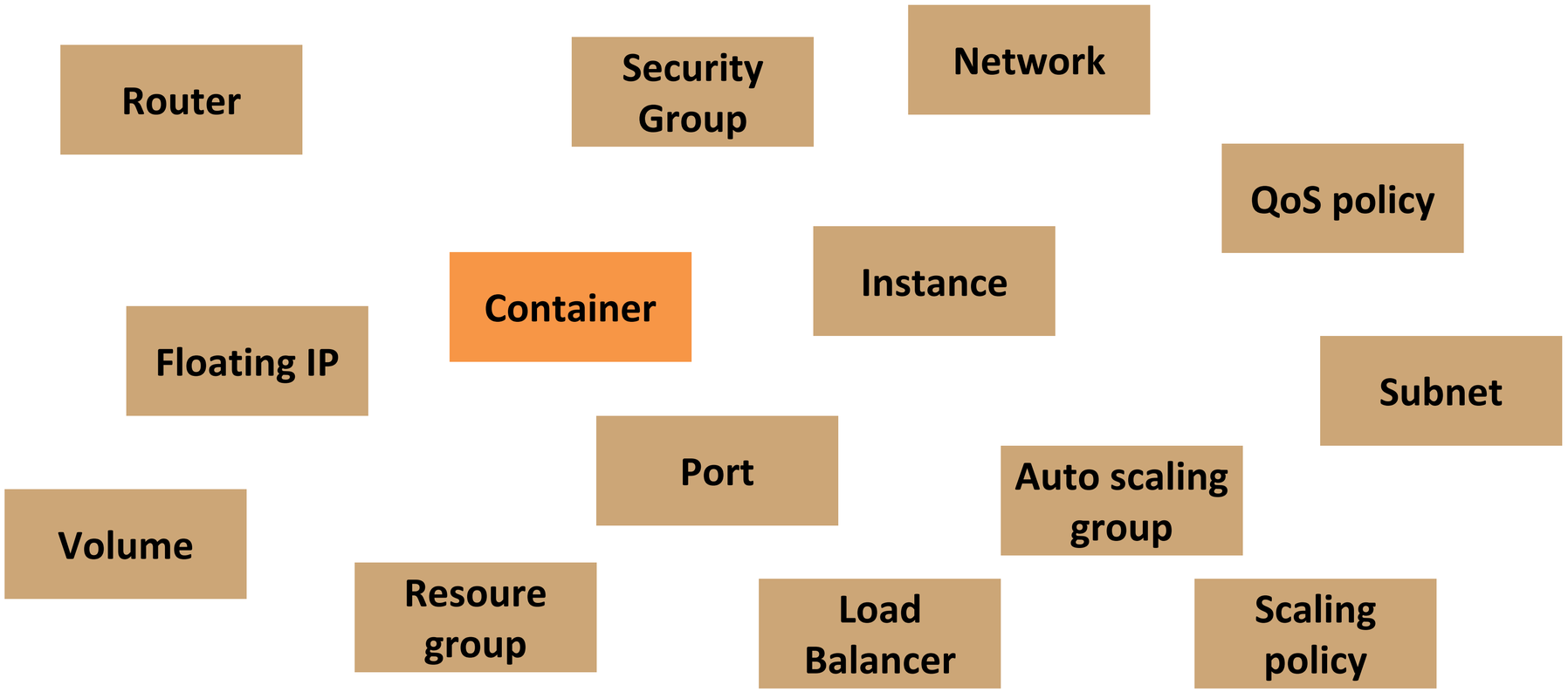
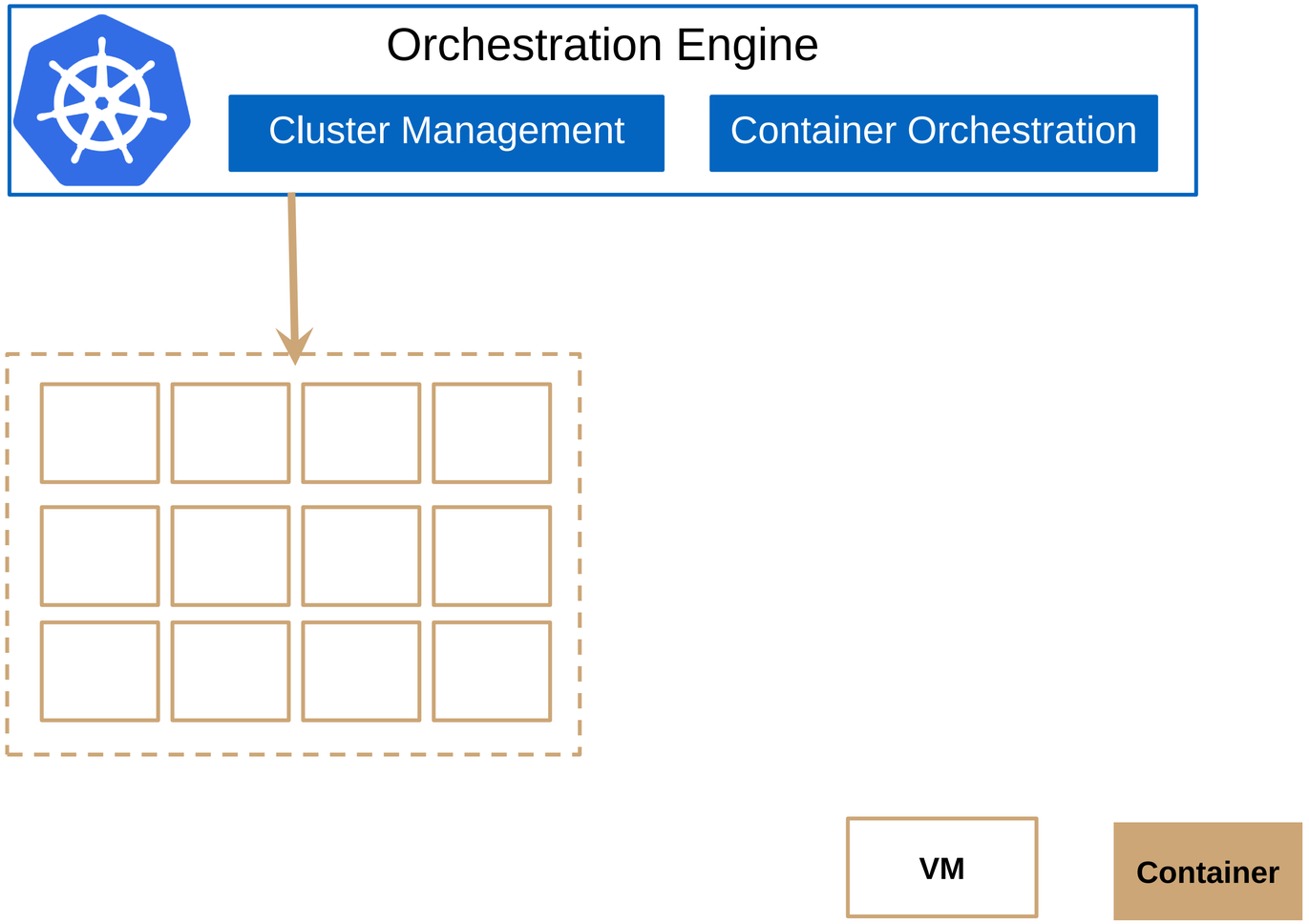
Zun + Heat



Zun + Kubernetes

- Connector for Kubernetes
- Enable Kubernetes to schedule pods to Zun
- Scenarios
  - Lauch everythng in VMs
  - Lauch everyting in Zun
  - Bursting



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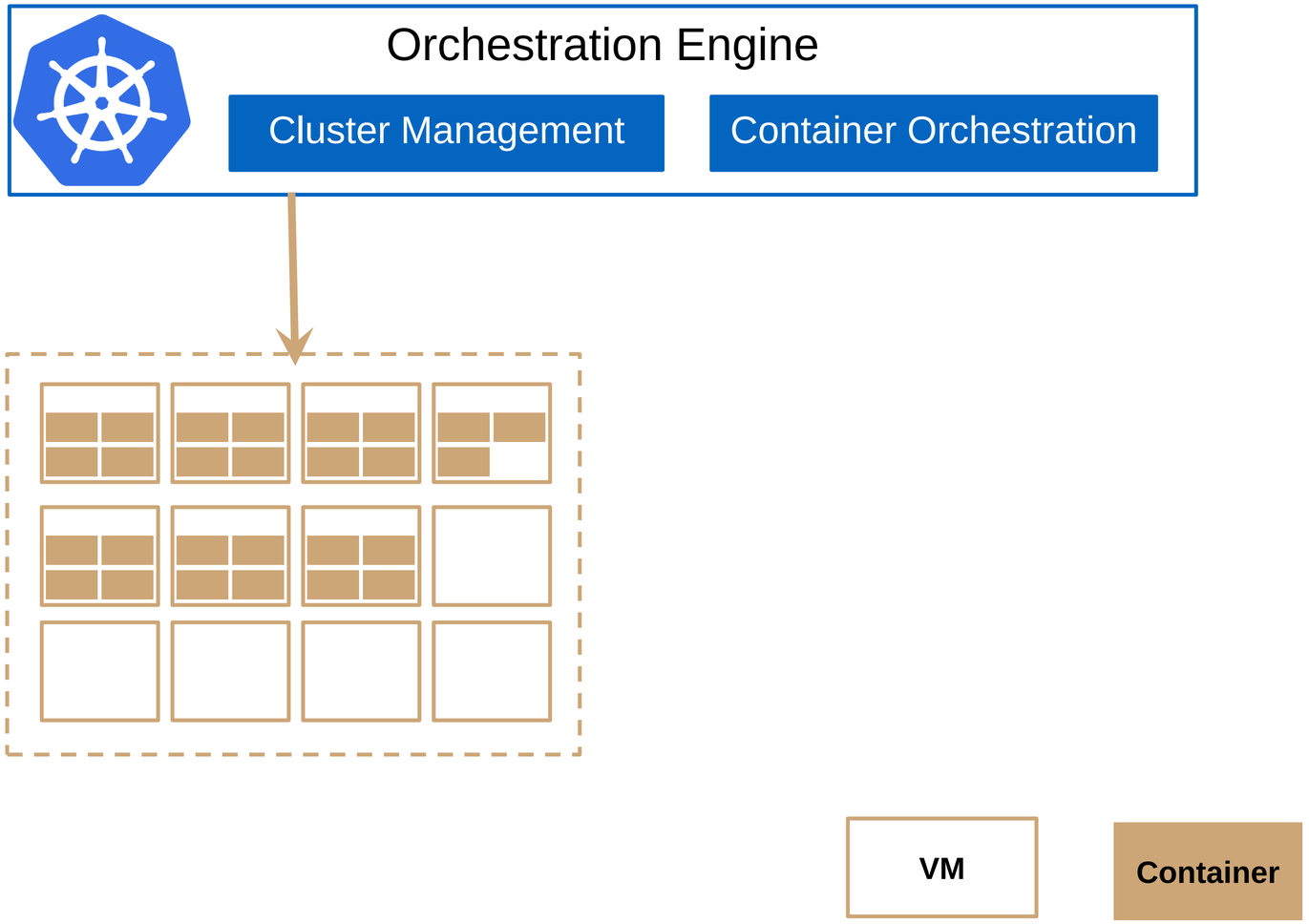

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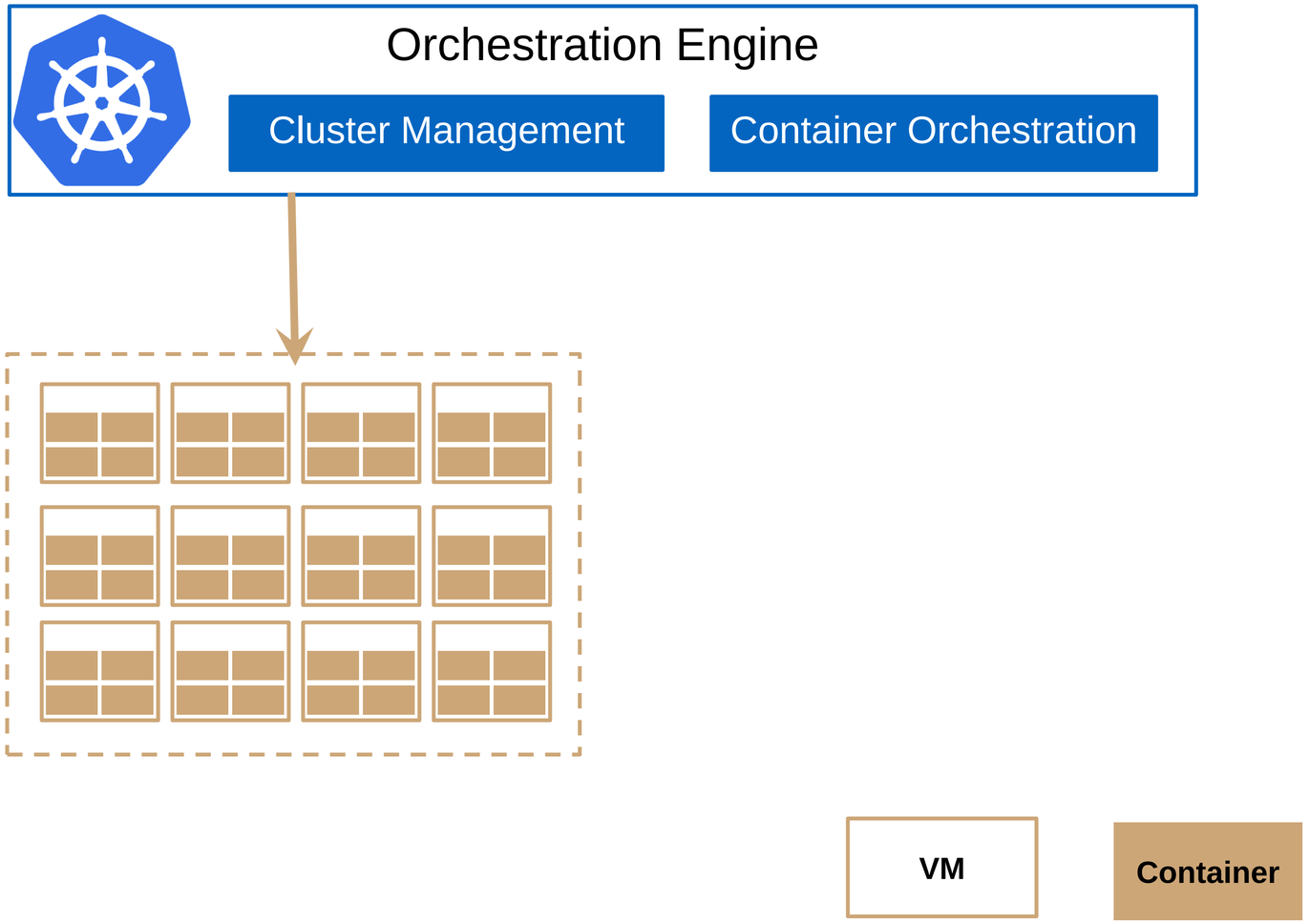

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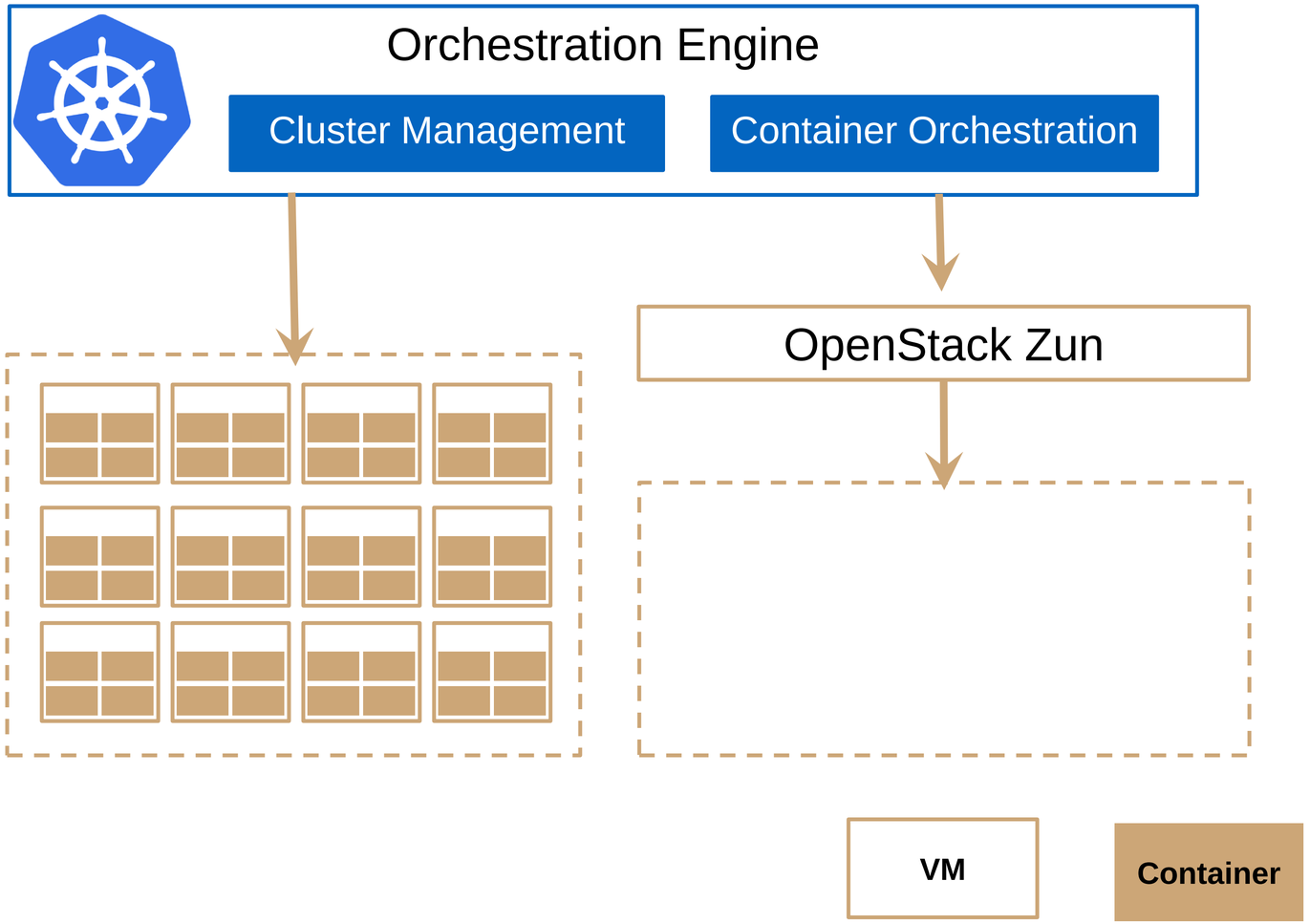

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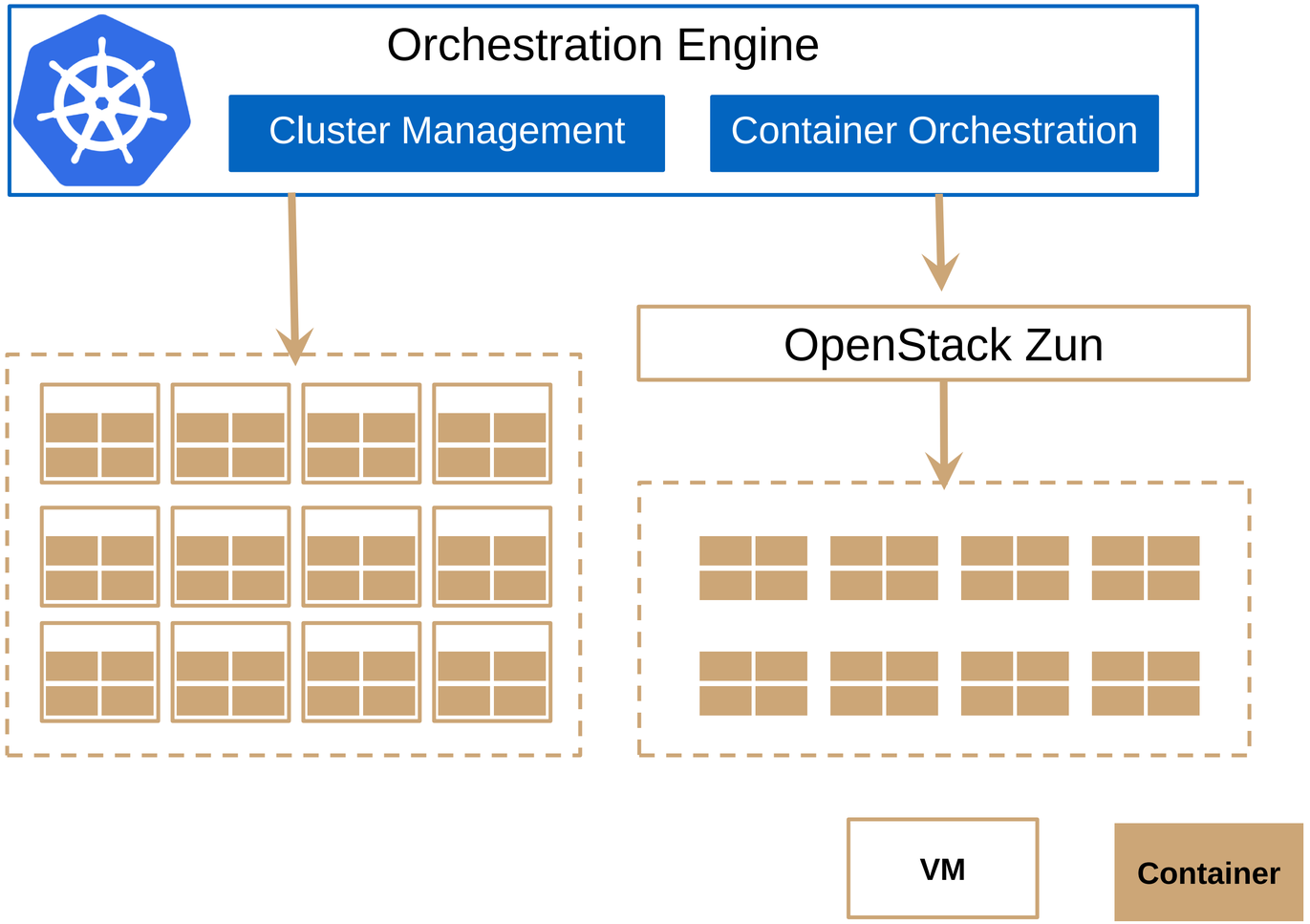

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OpenStack Queens Features

- Cinder integration
- Container group (Capsule)
- PCI passthrough / SR-IOV
- Clear Container
- Cloud shell:
  - Short Video: https://youtu.be/lYt2U7qZG38
  - Patch: https://review.openstack.org/#/c/512987/

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OpenStack Rocky

- Kubernetes integration
- Kata Container integration
- Quota
  - Limit the number of containers per tenant
- Container rebuild
- Availability zone

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Beyond Rocky

- Cinder Volume multi-attach
- Notification
- Monitoring
- Placement API
- vGPU

How to contribute

- Join our IRC Channel: #openstack-zun
- Join our weekly meeting: UTC 0300 every Tuesday at #openstack-zun
- Get Started: https://docs.openstack.org/zun/latest/contributor/quickstart.html
- Documentation: https://docs.openstack.org/zun/latest/
- Blueprint: https://blueprints.launchpad.net/zun
- Bug Tracker: https://bugs.launchpad.net/zun
- Source code: https://git.openstack.org/cgit/openstack/zun

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Demo

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Q&A

Thank you!

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