

Intro: SIG VMware

what is the SIG and what's going on right now

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Presenter

Bios

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Fabio is responsible for many of the Open Source integrations
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Abstract

Join the SIG VMware introduction session to learn our mission, recent accomplishments and discuss future work.

We will also focus on how new contributors can get involved in the SIG.

Kubernetes is in the process of moving to a new “out of tree” model, this effort spans all the touching points with the underlying infrastructure: compute, storage, network.

This allows cloud providers to have independent feature and patch release cycles, learn how SIG VMware is working to meet this new model on VMware platforms.

Agenda

What is the VMware SIG

Purpose, Projects managed, How to join

The Roadmap

Moving “Out of Tree” : vSphere cloud provider + storage (CSI)

How to Get Information on an ongoing basis

The VMware SIG

How to Contribute

Working Groups, GitHub, and more

The VMware SIG

Charter

SIG VMware serves to bring together members of the VMware and Kubernetes community to maintain, support and provide guidance for running Kubernetes on VMware platforms.

SIG VMware provides a forum for hosting related architectural planning and discussion. Associated activities related to development, testing, and documentation are tracked and reported by the SIG as well as architectural planning and discussion related to new CRDs, plug-ins and KEPs that allow the vSphere platform to supplement and support Kubernetes

How to Join

Link to join group: <https://groups.google.com/forum/#!forum/kubernetes-sig-vmware>

(This will give you write access to all the SIG VMware shared google documents)

Link to join Slack: <https://kubernetes.slack.com/messages/sig-vmware>

Or simply join #sig-vmware on the Kubernetes Slack instance

SIG Sponsored projects

vSphere cloud provider (In-tree and Out-of-tree)

- A cloud provider is a Kubernetes controller that runs cloud provider-specific loops required for the functioning of Kubernetes. These loops were originally a part of *kube-controller-manager*, but they were tightly coupling the *kube-controller-manager* to cloud-provider specific code. In order to free the Kubernetes project of this dependency, the *cloud-controller-manager* was introduced.

CSI provider for vSphere

- Container Storage Interface (CSI) is a standard API allowing a storage provider to write just one plugin that will work for all major container orchestration systems: Kubernetes, Mesos, Docker and Cloud Foundry.

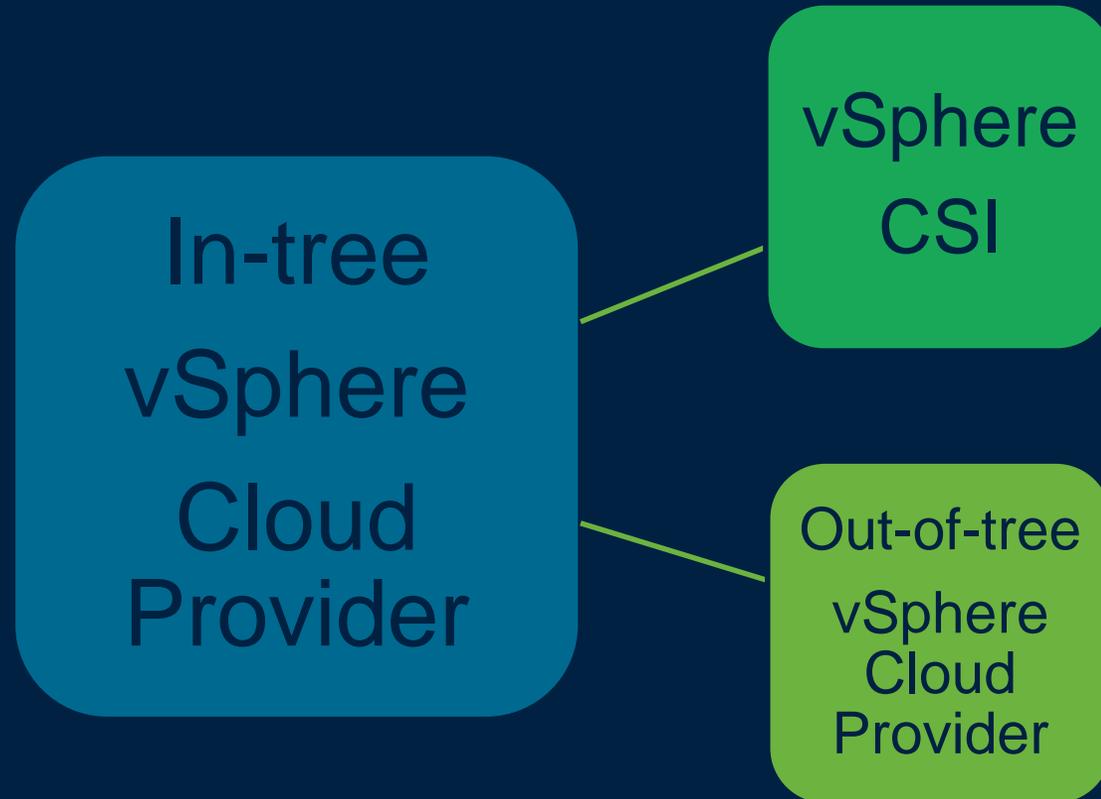
Cluster API provider for vSphere

- The Cluster API is a Kubernetes project to bring declarative, Kubernetes-style APIs to cluster creation, configuration, and management. It provides optional, additive functionality on top of core Kubernetes.

Minikube driver for Fusion and Workstation

- Minikube is a tool that makes it easy to run Kubernetes locally. Minikube runs a single-node Kubernetes cluster inside a VM on your laptop for users looking to try out Kubernetes or develop with it day-to-day.

Out of tree components, what changes for me?



Moving out of tree: the Kubernetes vSphere Cloud Provider

Why it exists

A plug-in mechanism

- allows Kubernetes to operate across platforms
- hosts portable apps in a standard way

What it does

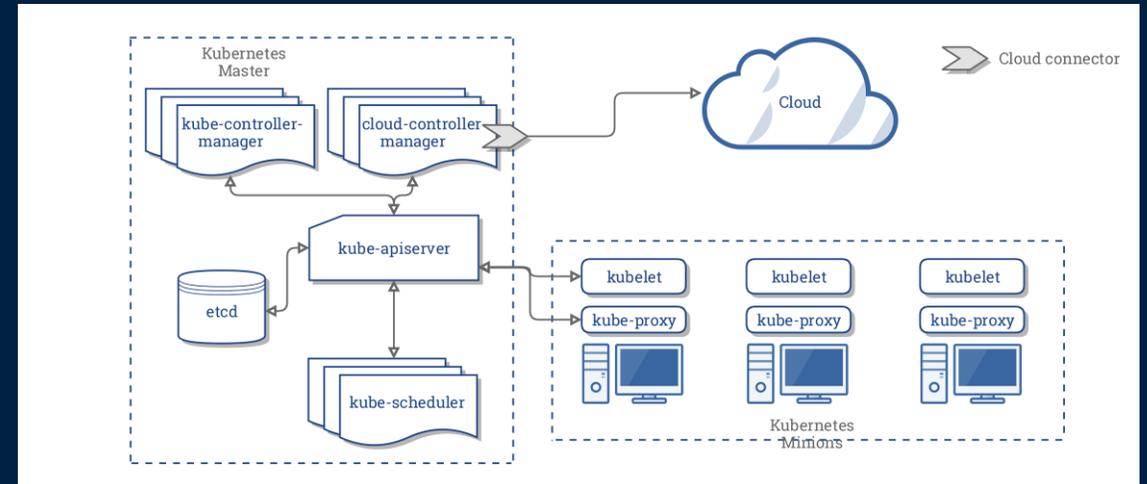
Handles identification of nodes

Labels nodes with zone information (optional)

Used to handle persistent volume provisioning, now done by CSI

Status within the Kubernetes project

The external cloud provider support has been added as Alpha in version 1.6, it is currently in Beta (as of version 1.13) and will graduate to Stable/GA in a couple of releases.



Moving out of tree: the CSI Provider

Why it exists

A plug-in mechanism

- allows Kubernetes to operate on different storage systems through a standard interface

What it does

Handles C/R/U/D of storage volumes

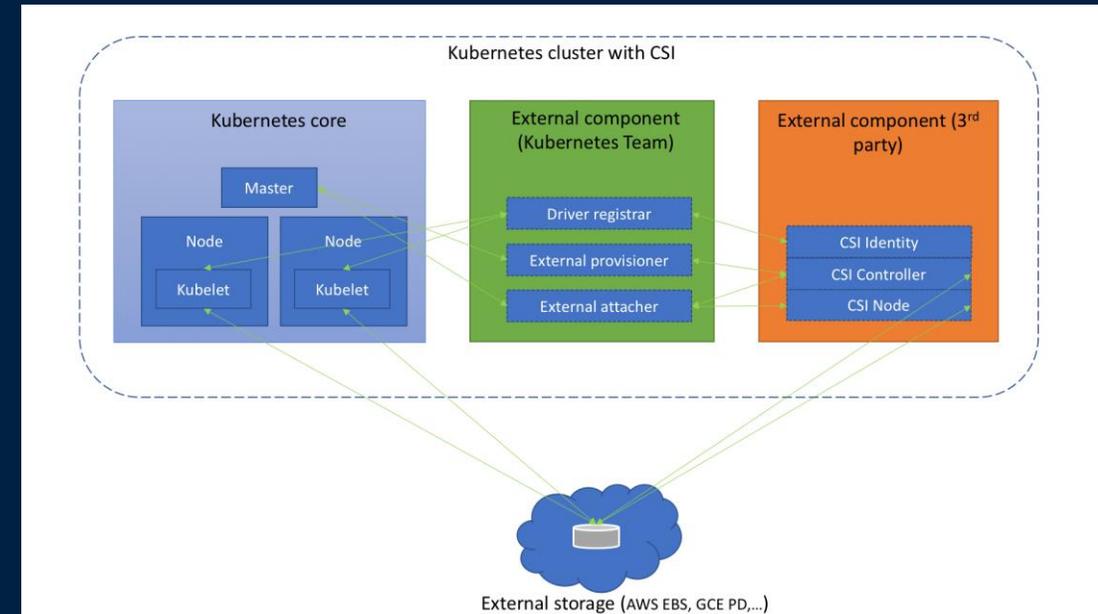
Coordinate storage with availability zones

Controls advanced storage functionalities like Snapshots

Status within the Kubernetes project

The CSI spec reached 1.0 and has been released as stable/GA with Kubernetes v1.13.

It is now the suggested way of handling storage volumes inside Kubernetes clusters.



How to contribute

Working Groups

Regular SIG Meeting: Thursdays at 11:00am Pacific (bi-weekly).

- [Meeting notes and agenda.](#)
- [Meeting recordings.](#)

vSphere Cloud Provider vSphere syncup: Wednesdays at 9:00am pacific (monthly, first Wednesday of the month)

- [Meeting notes and agenda.](#)
- [Meeting recordings.](#)

Cluster API Provider vSphere syncup: Mondays at 1:00pm pacific (bi-weekly)

- [Meeting notes and agenda.](#)
- [Meeting recordings.](#)

Github

in-tree vSphere cloud provider

<https://github.com/kubernetes/kubernetes/tree/master/pkg/cloudprovider/providers/vsphere>

out-of-tree vSphere cloud provider and CSI provider

<https://github.com/kubernetes/cloud-provider-vsphere>

Cluster API provider for vSphere

<https://github.com/kubernetes-sigs/cluster-api-provider-vsphere>

Sessions you should attend this week!

Today

- 3:40pm – Use the Cluster API to Deploy Clusters On-Prem and in Public Clouds
 - Loc Nguyen & Kris Nova

Tomorrow

- 1:45pm – Intro: Cloud Provider SIG
 - Chris Hoge & Jago Macleod

Thursday

- 10:50am – Deep Dive: Cloud Provider SIG
 - Chris Hoge & Jago Macleod
- 3:40pm – Deep Dive: VMware SIG
 - Michael Gasch & Steven Wong

Thank You / Closing