Intro: vSphere Cloud Provider and CSI

KubeCon San Diego 2019

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kubernetes

Discussion

Rules of engagement:

- Be respectful

- Don't wait until the end to ask your question!

- Goal is to get thoughts/participation from everyone

- Ask your question, I'll repeat it for the recording

SIG Folding

- As previously agreed with the Steering Committee the folding of all the existing provider-specific SIGs into subprojects happened on Friday July 12th 2019.

- SIG VMware was part of this operation

- Former SIG VMware projects are now owned by SIG Cloud Provider and SIG Cluster Lifecycle

- Still laser focused on improving running Kubernetes on VMware platforms and removing technical debt

Why is in-tree a problem?

Legacy cloud providers and storage plugins were built directly into the Kubernetes release

- Could not be patched or enhanced independent of a full Kubernetes release

- Resulted in undesirable bloat of Kubernetes itself – any particular deployment needs only a subset, yet irrelevant code is part of the release.

- Runs as a privileged component of Kubernetes itself – security and stability risk

- Kubernetes should be an orchestration kernel, with drivers maintained independently by domain experts

vSphere and Kubernetes

Where are we in November 2019?

- Cloud Provider

- CSI

- Cluster API

- Future: CNI...

Cloud Provider

git.k8s.io/cloud-provider-vsphere

- Reached GA with version 1.0.0

- Supports Availability Zones through vSphere tagging

- Currently planning for Load Balancer support (it's tricky)

CSI

sigs.k8s.io/vsphere-csi-driver

- Production ready with version 1.0.1

- Only supports vSphere >= 6.7u3

- Uses the new CNS (Cloud Native Storage) APIs in vSphere

- PVs are now visible in the vSphere HTML5 client

Cluster API

sigs.k8s.io/cluster-api-provider-vsphere

- Lots of activity in Cluster API

- Version 0.5.3 of the vSphere provider is out

- Since version 0.5.2 the default deployment includes out-of-tree components (CPI and CSI)

    - In-tree providers are still supported

How do I get involved?

Interested in cluster lifecycle management? Want to help make Cluster API better on vSphere? We meet every other Monday at 1pm pacific

Interested in working on the Cloud Provider interface and/or CSI storage? Join SIG Cloud Provider every other Wednesday at 1pm Pacific

Are you a user that just wants to talk to other end users? A VMware user group is forming, see #ug-vmware on the Kubernetes slack.

Anything else? #provider-vsphere on Kubernetes slack

Questions & Discussions

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