



KubeCon



CloudNativeCon

Europe 2019



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SIG Azure Deep Dive

Stephen Augustus, VMware @stephenaugustus
Lachie Evenson, Microsoft @LachlanEvenson

Who are these two?



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Stephen Augustus

Senior Cloud Native Architect at VMware

SIG Chair for SIG PM, SIG Release, SIG Azure

KubeCon Program Committee



Lachie Evenson (sub for Dave Strebel)

Principal Program Manager, Azure Container Compute

SIG PM, 1.15 Release Lead Shadow

CNCF Ambassador

Agenda



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- Practical session sharing awesome community happenings in SIG

Azure

- Cluster-api-provider-azure
- Secrets-store-csi-driver
- AAD Pod Identity
- Kubernetes on CosmosDB
- Q&A

cluster-api-provider-azure (v0.1.0)



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The Cluster API brings declarative, Kubernetes-style APIs to cluster creation, configuration and management.

- <https://github.com/kubernetes-sigs/cluster-api-provider-azure/blob/master/docs/getting-started.md>

Secrets Store CSI driver (preview)



Integrates secrets stores with Kubernetes via a CSI volume

- Mounts secrets/keys/certs to pod using a CSI volume
- Supports CSI Inline volume (Kubernetes version v1.15+)
- Supports mounting multiple secrets store objects as a single volume
- Supports pod identity to restrict access with specific identities (WIP)
- Supports multiple secrets stores as providers:
 - Azure Keyvault
 - Hashicorp Vault
- <https://github.com/deislabs/secrets-store-csi-driver>

AAD Pod Identity (preview)



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Enables applications running in pods on Azure to securely access cloud resources by leveraging Azure Active Directory(AAD).

- Configure identities and bindings, to match pods with identities
- Pods will have discrete identity from the node
- <https://github.com/Azure/aad-pod-identity>
- Try it out!

Kubernetes on Cosmos (preview)



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- CosmosDB supports the etcd API
- Allows you to use Azure Cosmos as the backing store for Kubernetes
- Implements the wire level protocol of etcd
- API servers use Cosmos just like it would for a locally installed etcd
- <https://github.com/Azure/aks-engine/blob/master/examples/cosmos-etcd/readme.md>
- Try it out!

IPv4/IPv6 Dual-stack Kubernetes



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- Work in Progress
- Enabled multi-address family multi-interface pods
- Multi-release change
- First change scheduled to land in 1.15
- <https://github.com/kubernetes/enhancements/blob/master/keps/sig-network/2018-0612-ipv4-ipv6-dual-stack.md>
- <https://github.com/kubernetes/kubernetes/pull/73977>
- Looking for PR reviews once the [WIP] is removed

How can I help?



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Join the mailing list and slack channel

Participate in SIG meetings: Wednesdays at 16:00 UTC (biweekly)

Want more? Talk to Lachie and I after the session!

Questions?



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