ArgoCon

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Secure ArgoCD Multi-Cluster Management Across Clouds Without Static Tokens

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Salt Lake City

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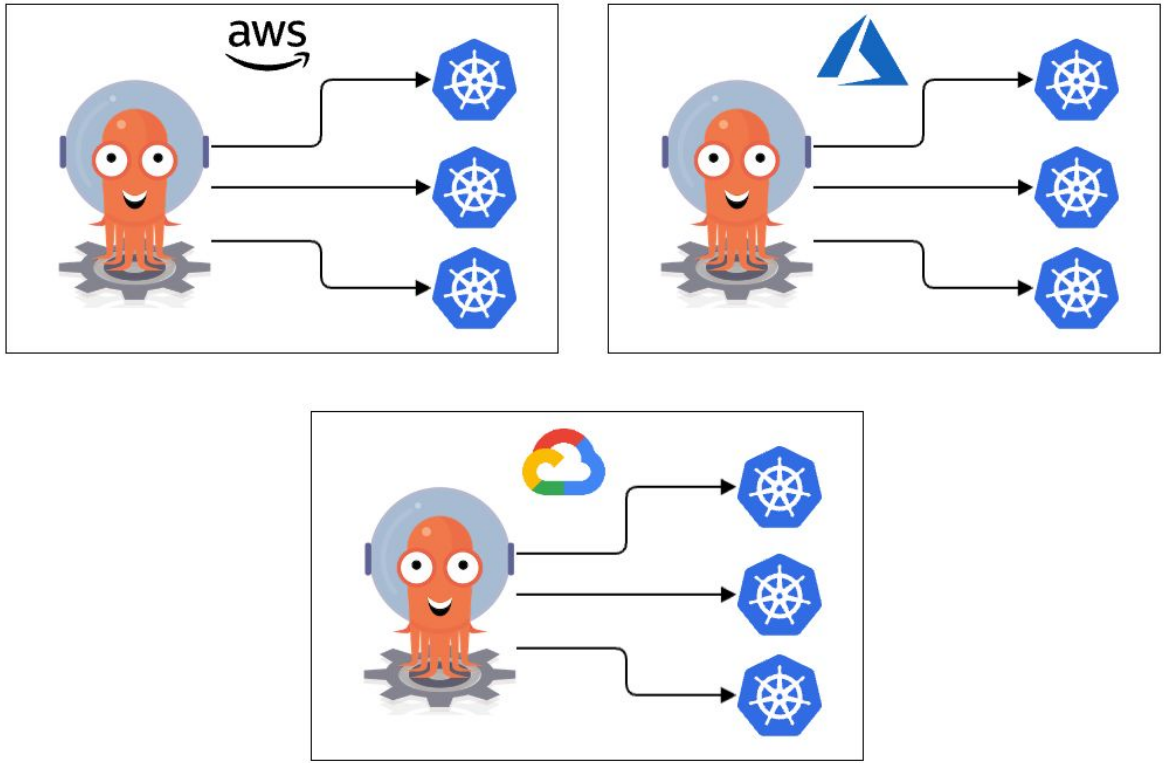
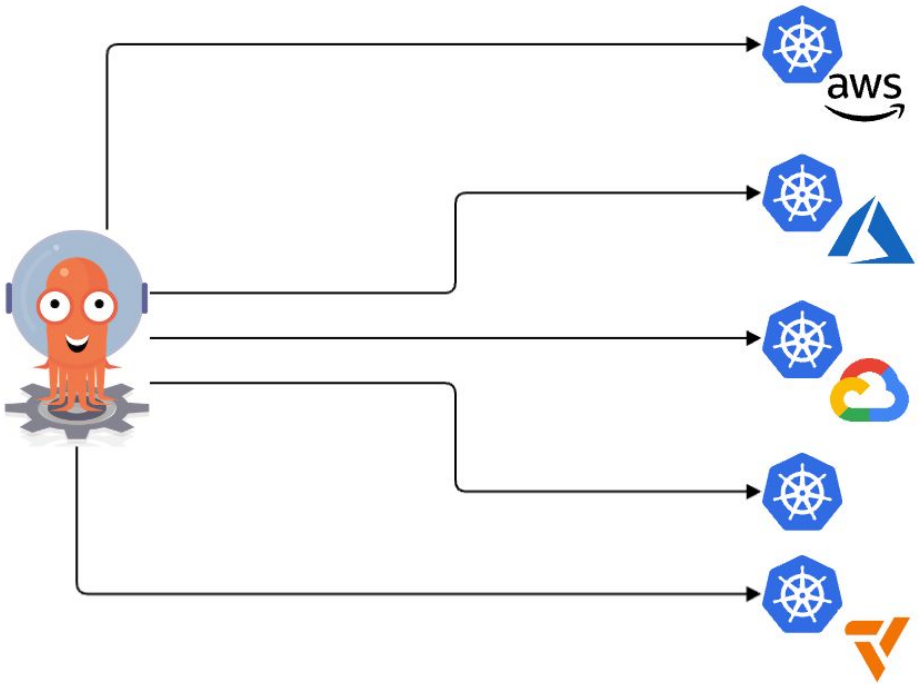
CTO
Tremolo Security

Multi-Cluster ArgoCD in One Cloud



Multi-Cluster ArgoCD Multiple Clouds

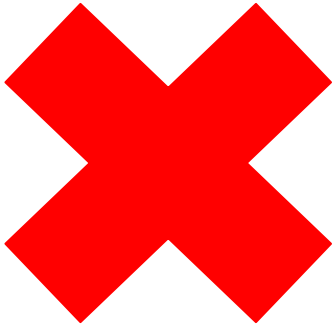
Multi-Cluster ArgoCD Multiple Clouds

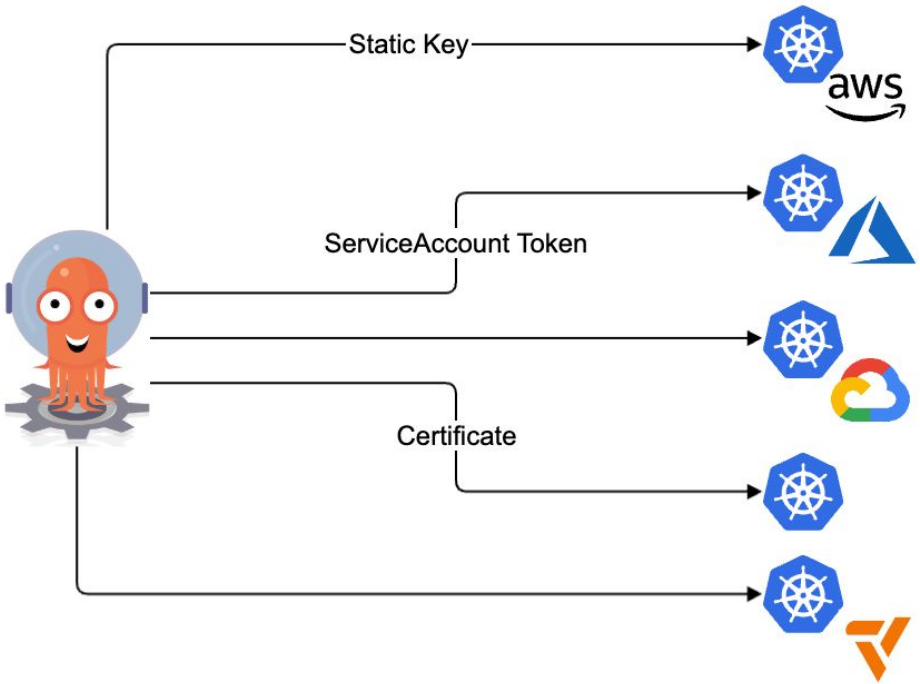


Securing Access Across Boundaries

- Short Lived
- Verifiable
- Unique

Cross Cluster Anti-Patterns





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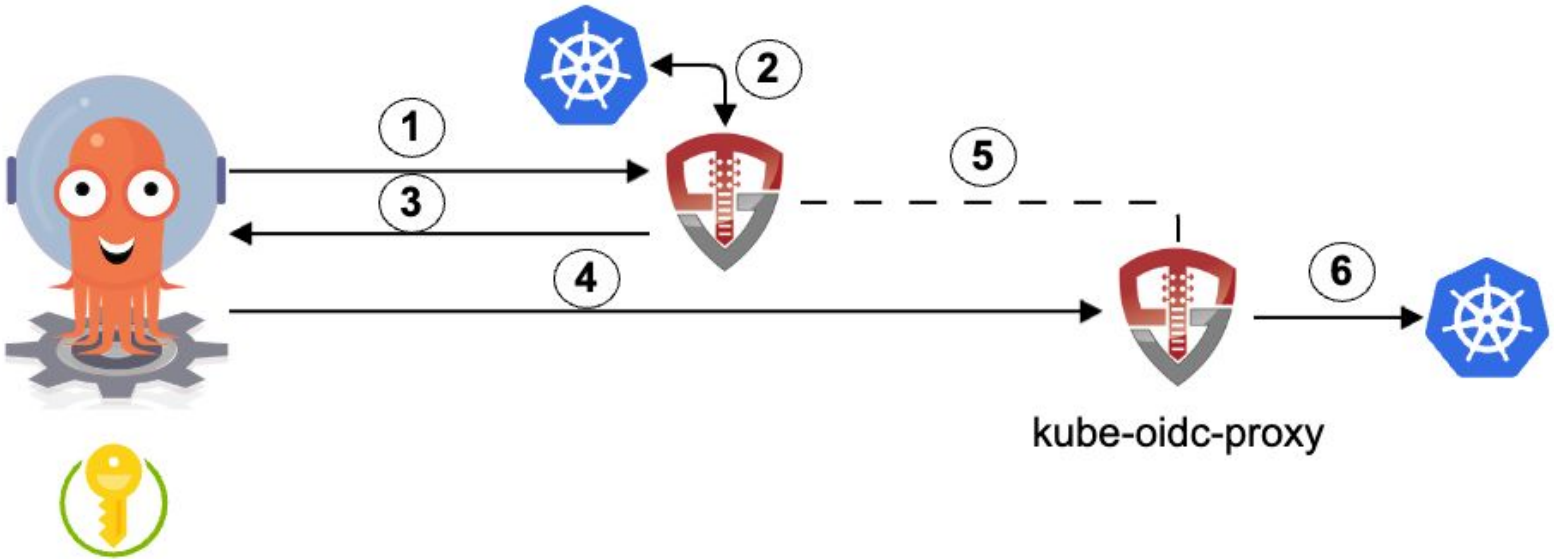
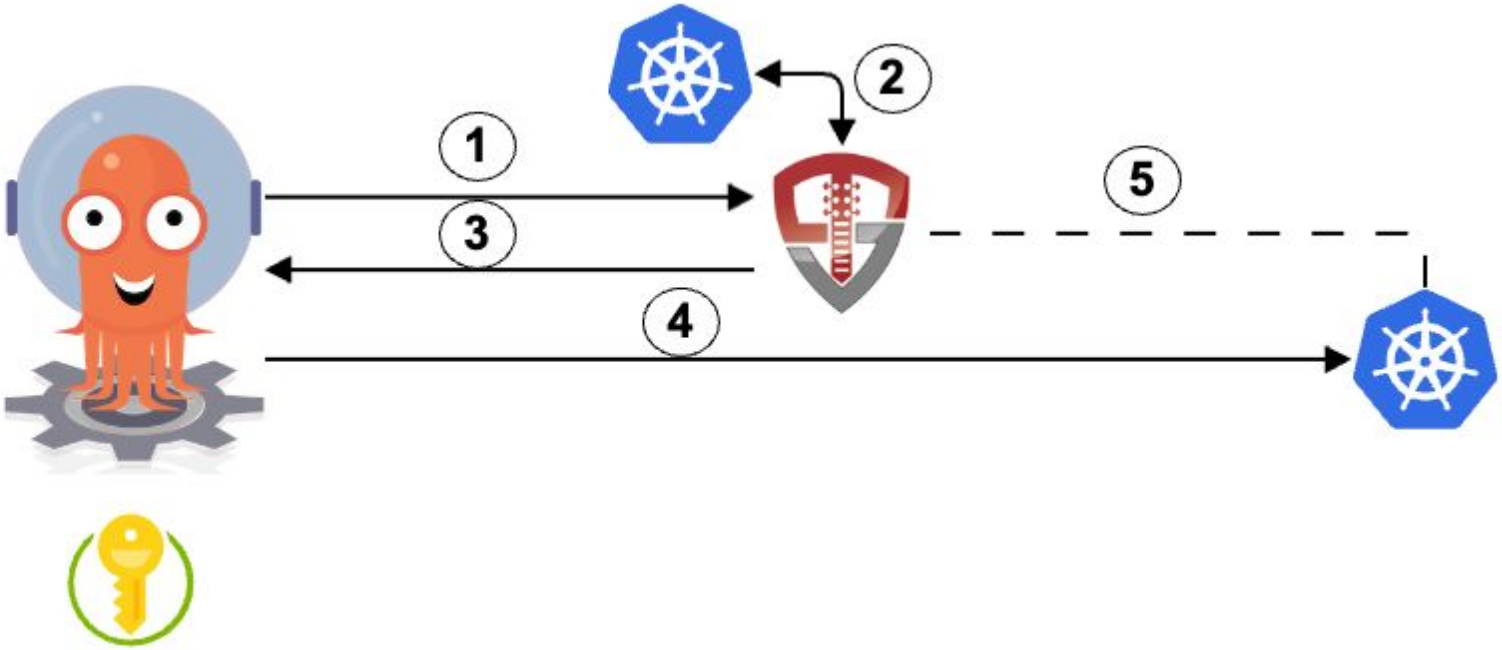


Securing Access Across Boundaries



ArgoCD Customizations

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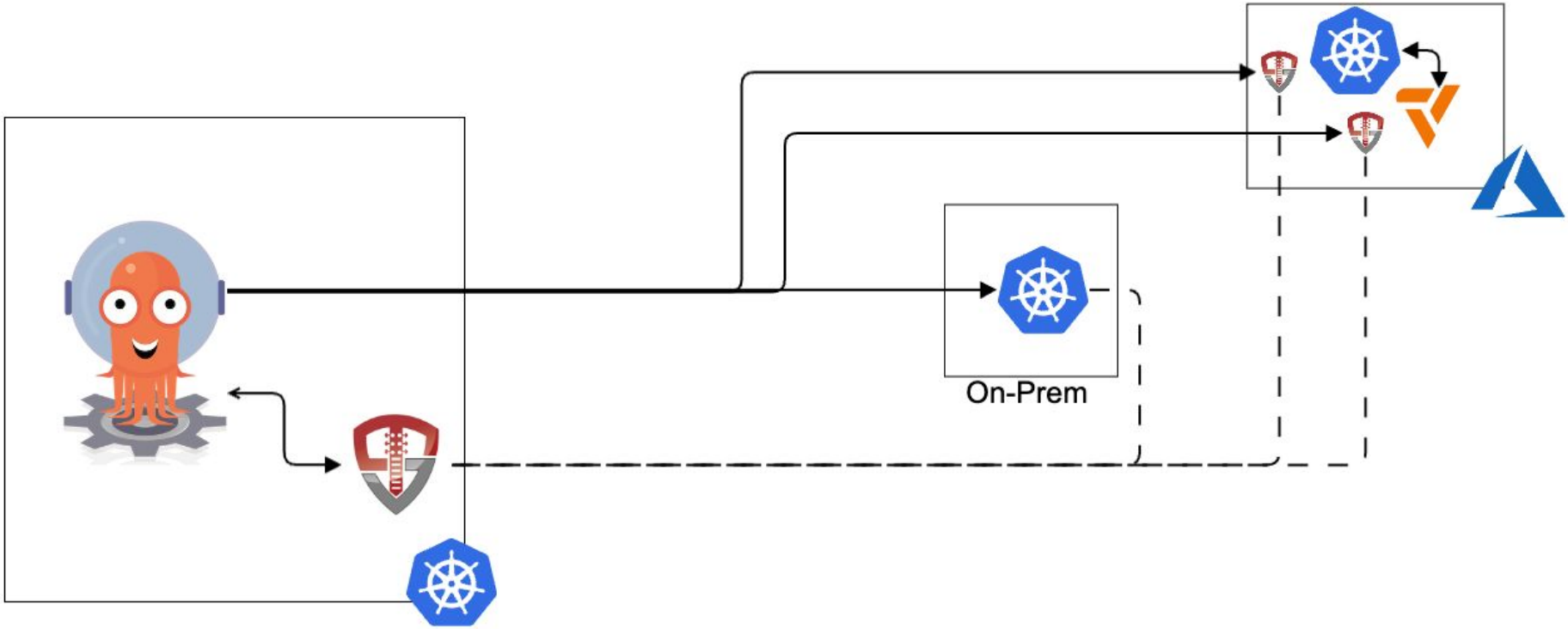
Component	*Customization*
Kubernetes Client Go SDK	Client Credential Plugin
Client Credential Plugin	Bash Script in a ConfigMap, mounted into container
Token retrieval - curl	Installed via initContainer
Destination	Generated via Secret+ApplicationSet

Demo!



Thank You and Questions?

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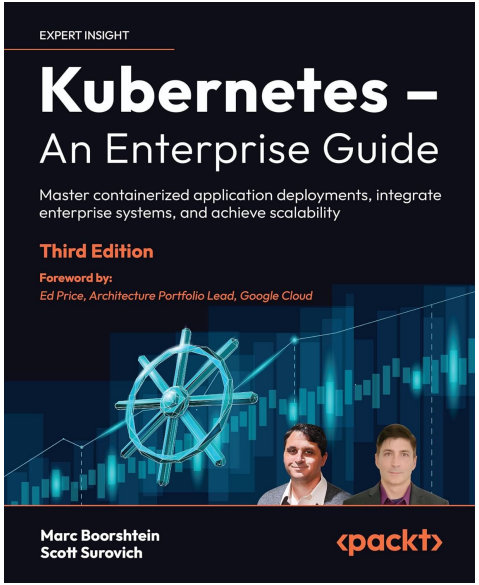
Twitter - @mlbiam
Mastodon - mlbiam@infosec.exchange
LinkedIn - https://www.linkedin.com/in/marc-boorshtein-5979a82/

Kubernetes - An Enterprise Guide 3rd Ed
https://www.amazon.com/dp/B0CT8M958T



Appendix

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Securing Multi-Cluster ArgoCD -
https://www.tremolo.io/post/securing-multi-cluster-argocd

Don’t Use Certificates for Authentication -
https://www.tremolo.io/post/kubernetes-dont-use-certificates-for-authentication

Pipelines and Kubernetes Authentication -
https://www.tremolo.io/post/pipelines-and-kubernetes-authentication

Secure Access to Kubernetes from Your Pipeline -
https://www.tremolo.io/post/secure-access-to-kubernetes-from-your-pipeline

Amazon EKS and Identity, 2.0 -
https://www.tremolo.io/post/amazon-eks-and-identity-2-0