

Visualizing Cloud-native Applications with KubeDiagrams

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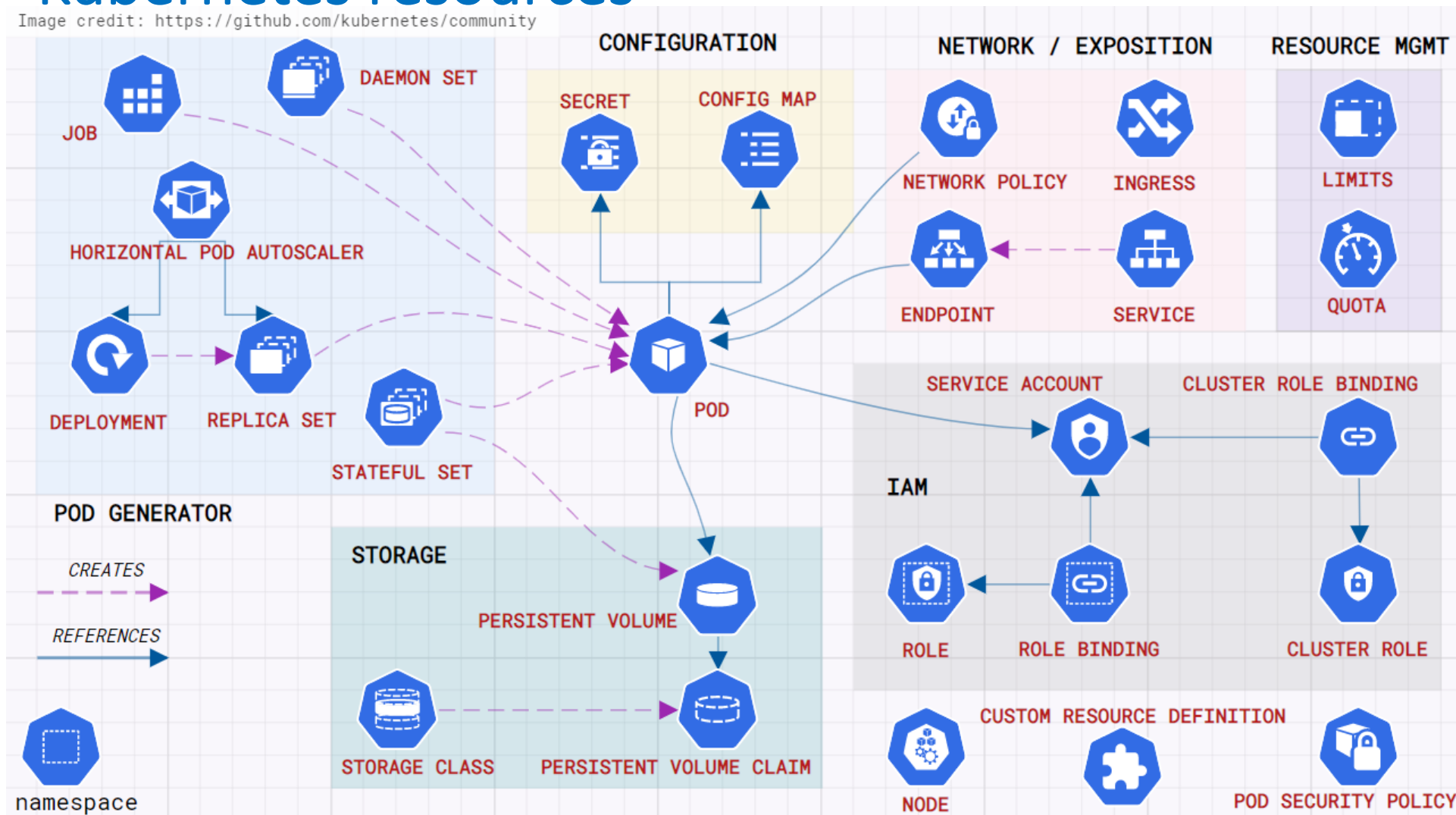


Cloud-native applications

- Natively built to exploit **Cloud Computing**
- Based on **microservices**
- Executed in **containers**
- Orchestrated by **Kubernetes**

Kubernetes resources

Image credit: <https://github.com/kubernetes/community>



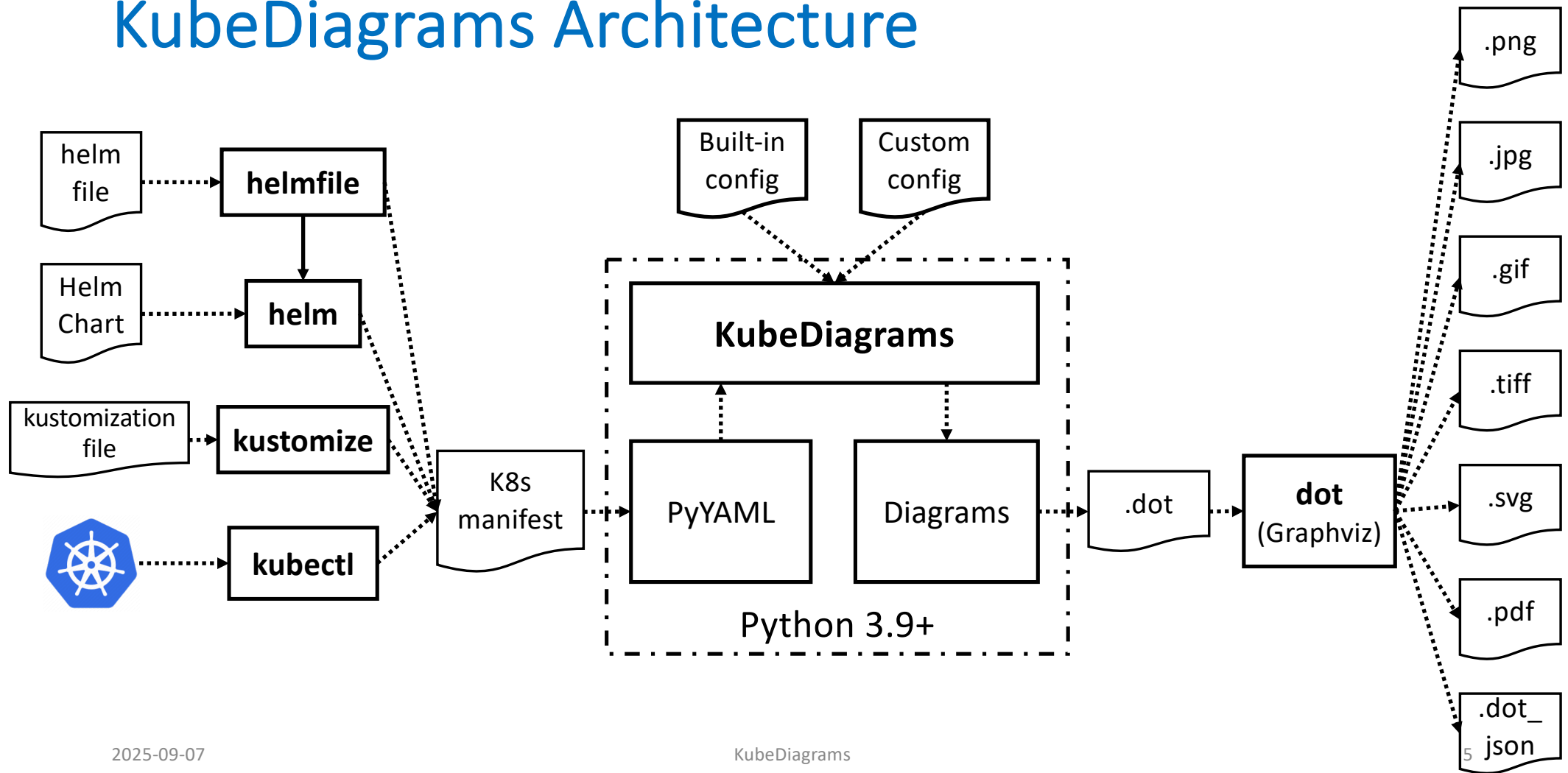
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KubeDiagrams

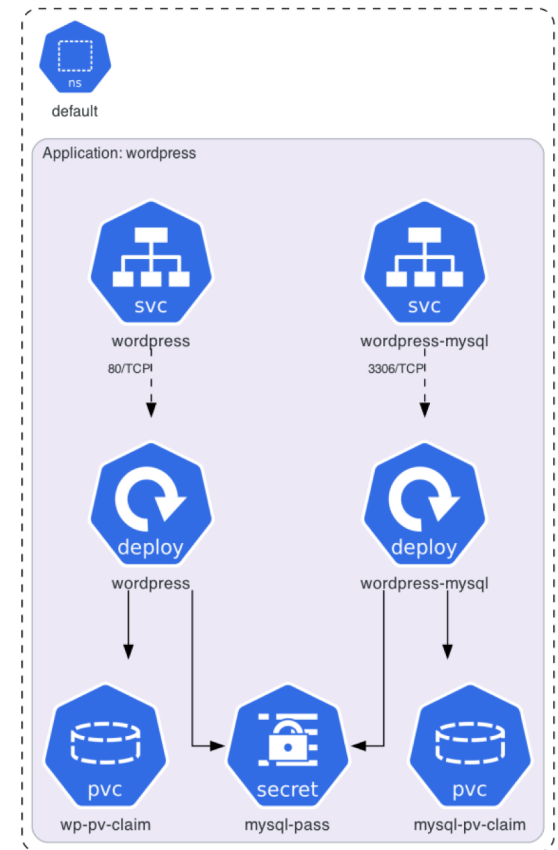
KubeDiagrams

- Generate **Kubernetes architecture diagrams** from any Kubernetes artifact, i.e., manifest files, kustomization files, Helm charts, helmfile descriptors, and actual cluster state
- Its key features are the support of:
 1. **most of all Kubernetes built-in resources**
 2. **any Kubernetes custom resources**
 3. **customizable resource clustering**
 4. **declarative custom diagrams**
 5. **an interactive diagram viewer**
 6. **a very large set of examples**
- Available as Python package, container image, NIX flake, kubectl plugin, and GitHub action

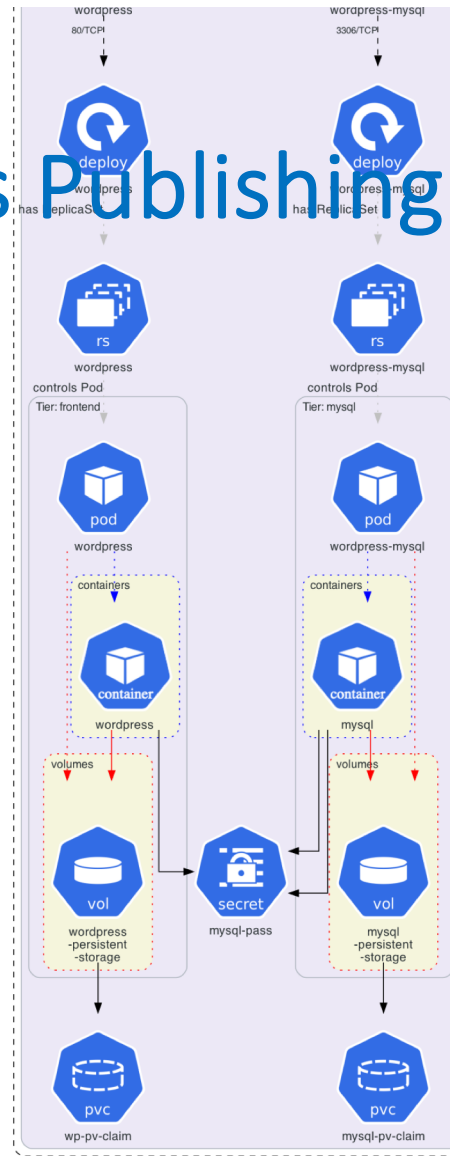
KubeDiagrams Architecture



UC#1: WordPress Publishing Platform



UC#1: WordPress Publishing Platform

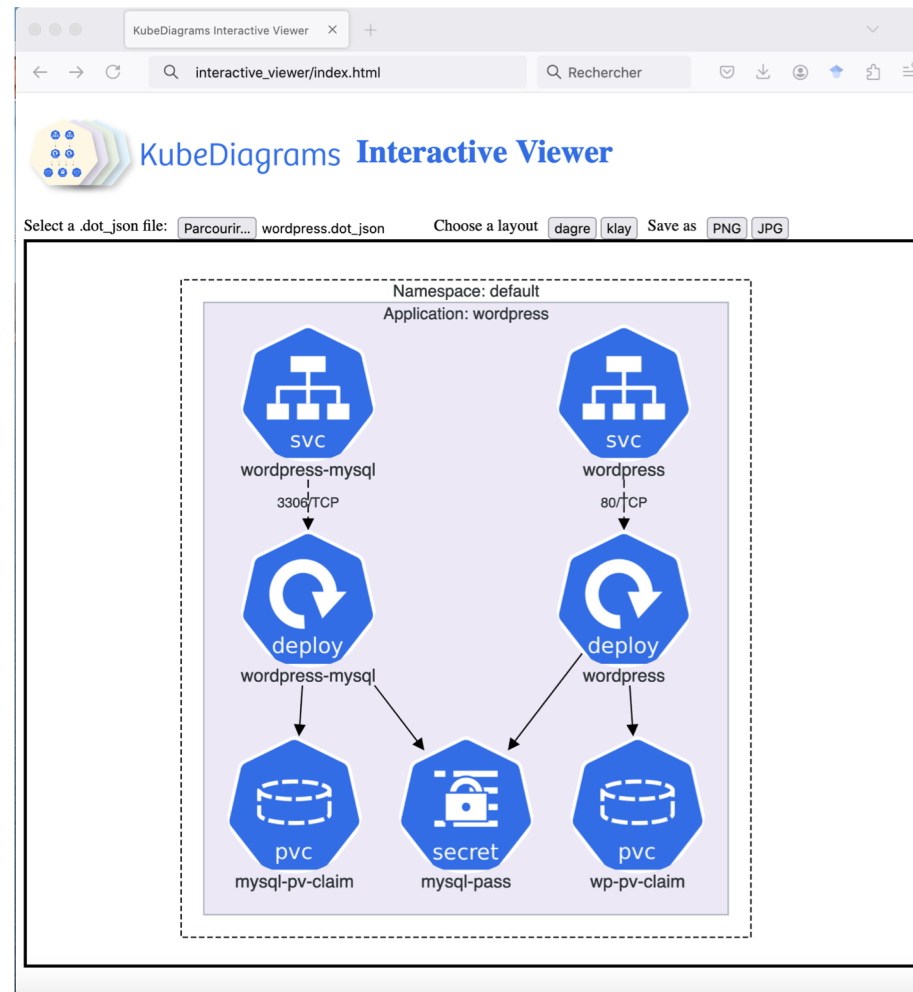


KubeDiagrams

Zoom inside workloads

ReplicaSet
Pods
Containers
Pod Volumes

UC#1: WordPress Publishing Platform

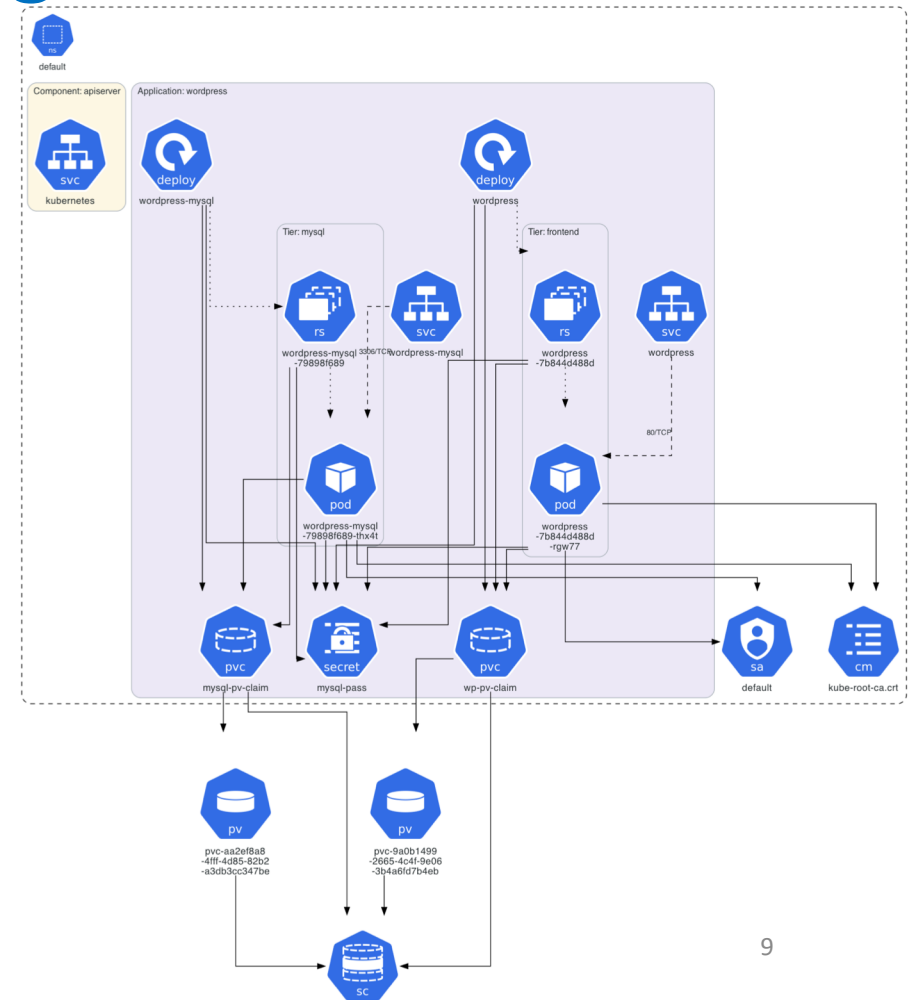


Zoom in/out
Open/close clusters
Move nodes
Tooltips everywhere

UC#1: WordPress Publishing Platform



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[illegible]

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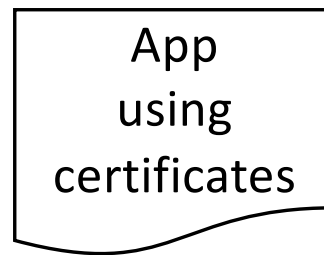
UC#2: cert-manager Operator

Helm
Chart

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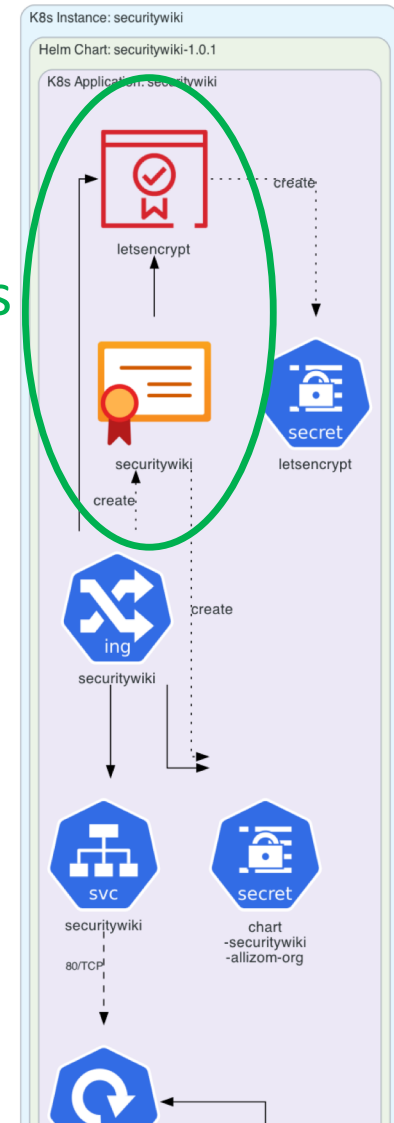


UC#2: `cert-manager` Operator



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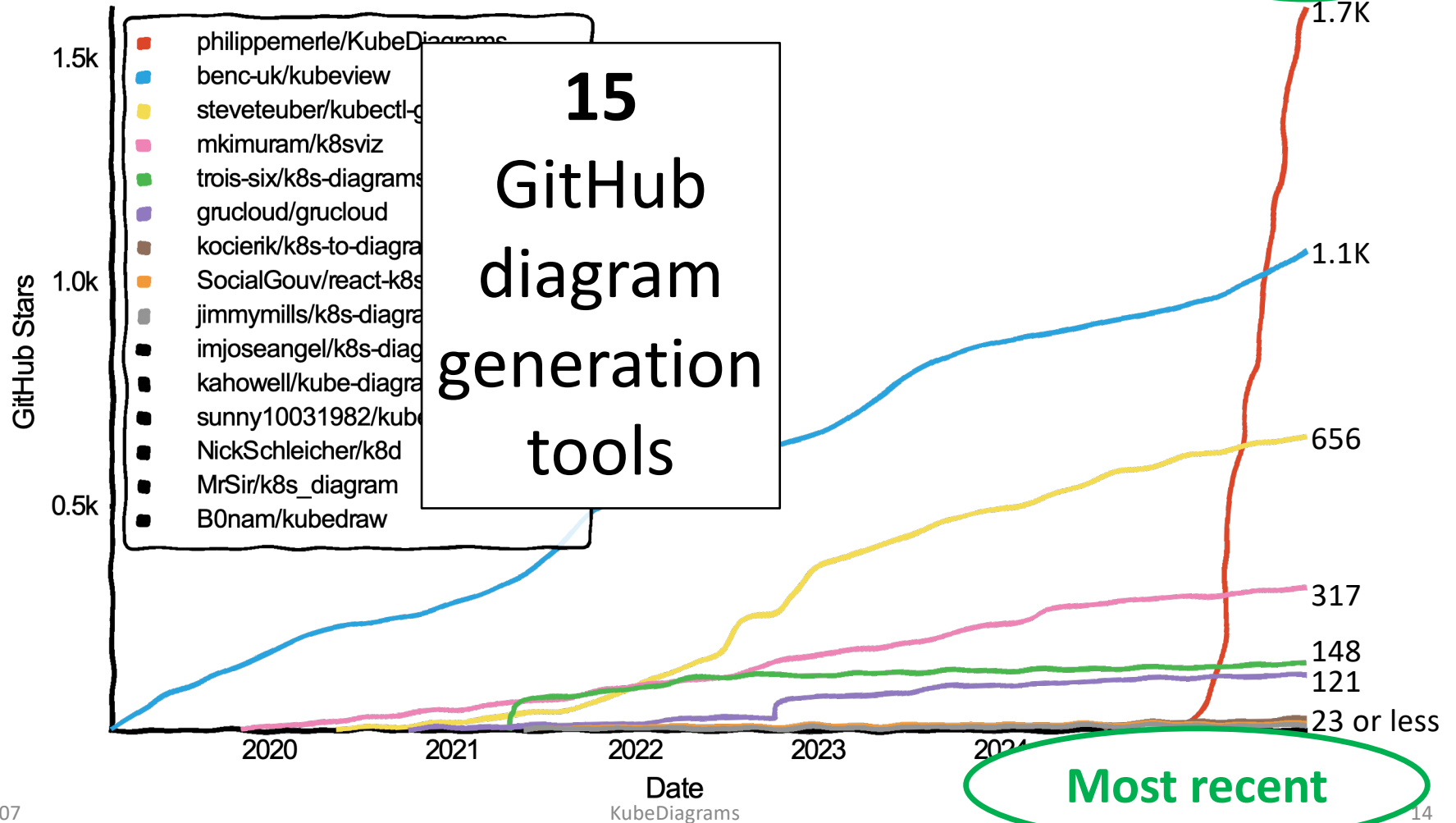
Custom Resources





Related Work

Star History



Thank you for your attention!



<https://github.com/philippemerle/KubeDiagrams>

Try KubeDiagrams and you'll love it!