Intro to Rancher Desktop 1.3

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Who Am I?

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DevSecOps Engineer - CTO AlphaBravo

- 25 years in Information Technology
- 10 years in Cloud Infrastructure
- 6 years in Container Management
- 5 years in Kubernetes Management
- Worked for RedHat, Infor, SiriusXM

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Agenda

- What is Rancher Desktop and Why Was It Created?
- Demo of Deploying Containerized App
- Demo of Deploying an app using Helm
- Demo of App Working after Kubernetes Upgrade
- Demo Working with Internal Services In Kubernetes
- Recap and next Steps

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Kubernetes on the Desktop

When you think of Kubernetes on the Desktop, what do you think of?

Kubernetes on the Desktop Options?

- **Kind (Kubernetes In Docker):** Originally created for testing Kubernetes itself.
- **Minikube:** Longest active Kubernetes local dev box. Runs on Docker out of the box. Can use VMS
- **K3d (K3s in Docker):** Runs a multi-node capable version of K3s on Docker

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=

kind

minikube

K3D

K3S

Themes in Common

- They All Rely On Docker
- They are all CLI Based Tools (No UI)

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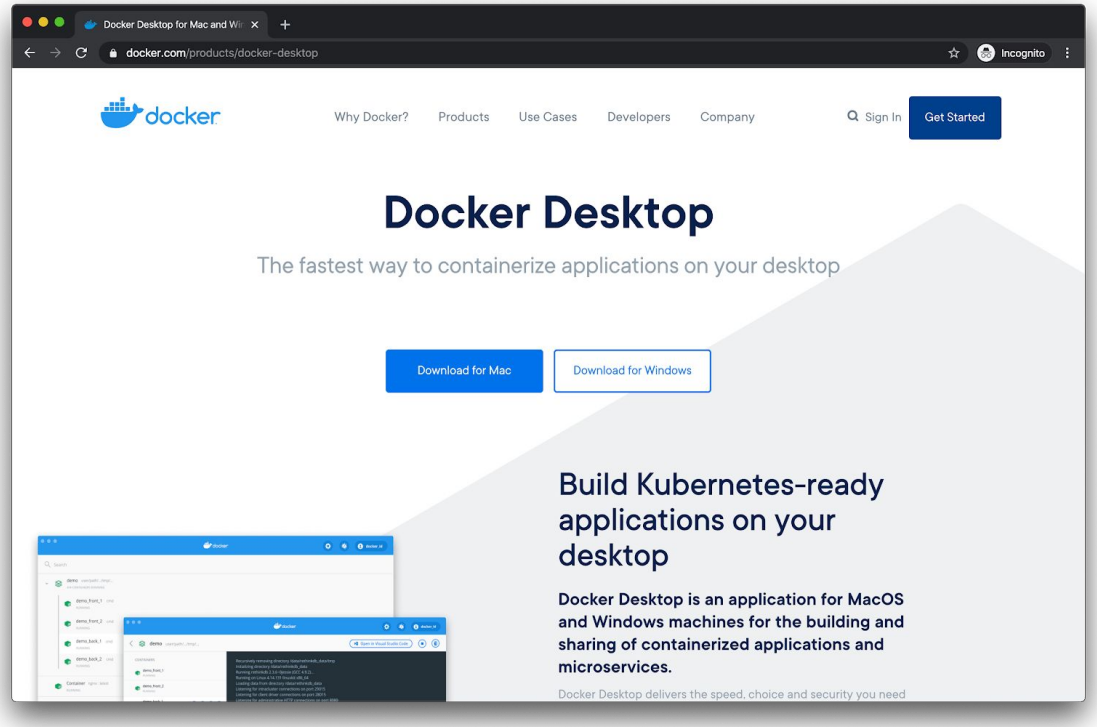
Docker Desktop

Closed Source. Coupled with Docker. Only one version of Kubernetes.



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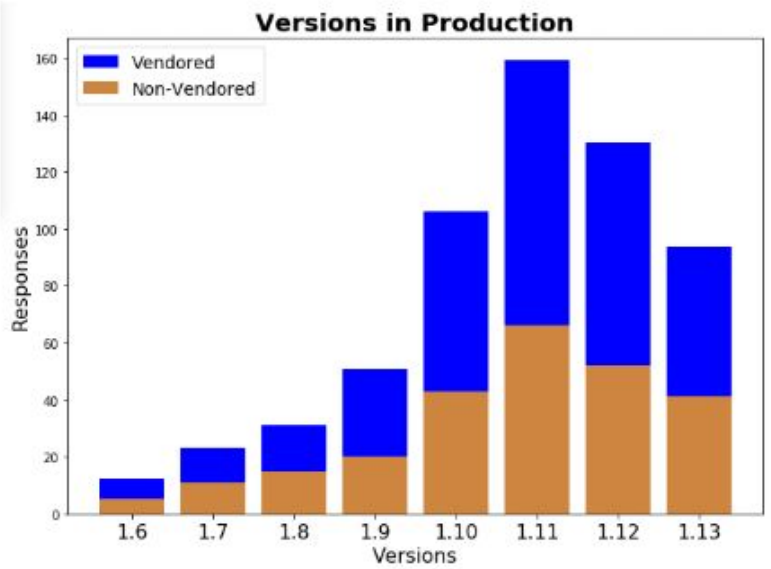
Many Versions of Kubernetes in Use

Survey are varied and even within the same org they may differ.



26.06%	Newer than 1.10 but older than 1.17	255 responses
18.8%	1.18	184 responses
17.0%	1.17	167 responses
13.9%	1.19	136 responses
11.2%	I say 1.21 because I want to look cool, but it's really 1.20	110 responses
7.1%	1.20	70 responses
5.9%	Older than 1.0 (we don't judge, old timer)	58 responses

Rancher Determined There Were No Great Open-Source Kubernetes Desktop Apps.

So they created one. And made it open-source.

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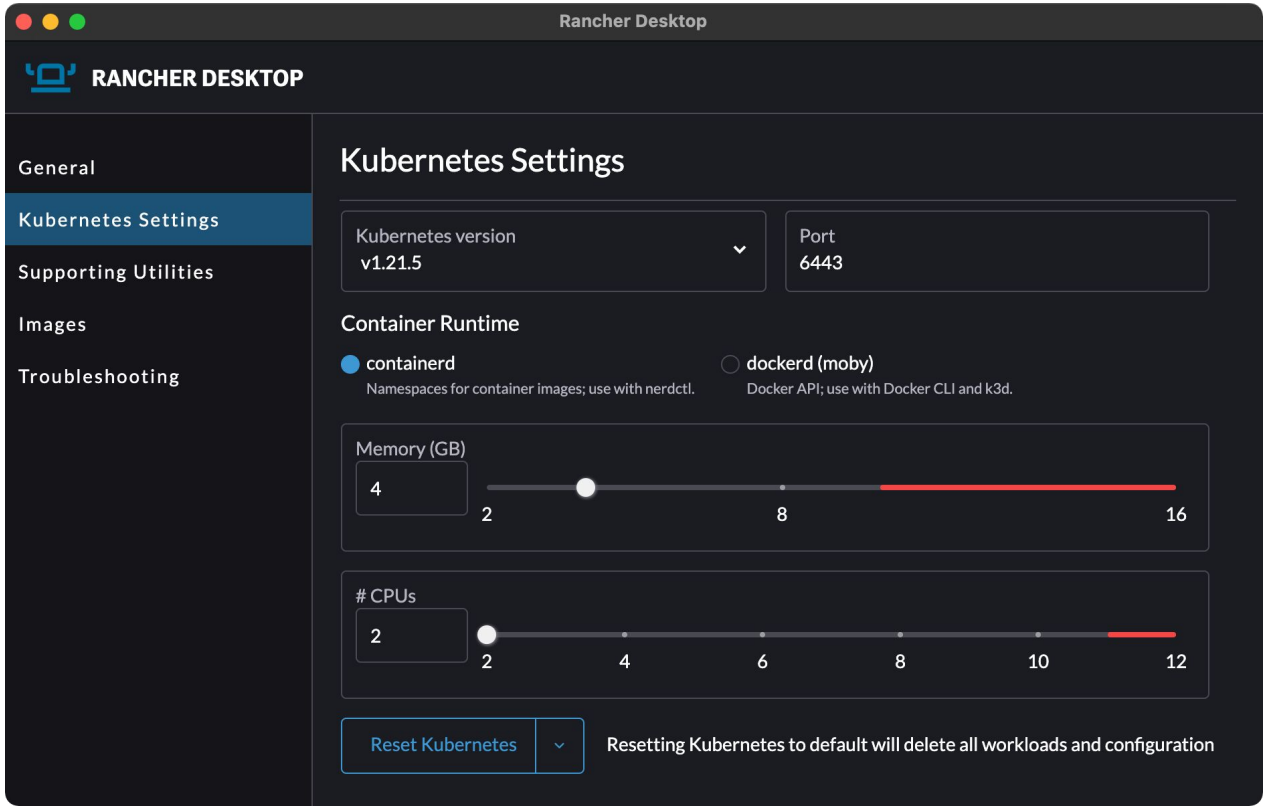

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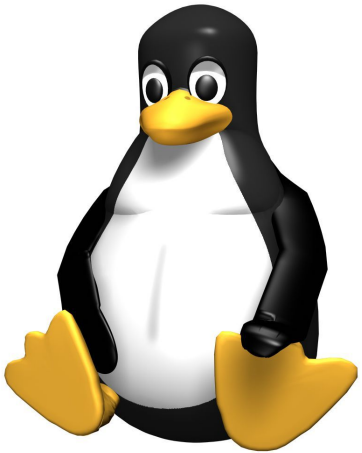
Where Does Rancher Desktop Run?

Windows

macOS



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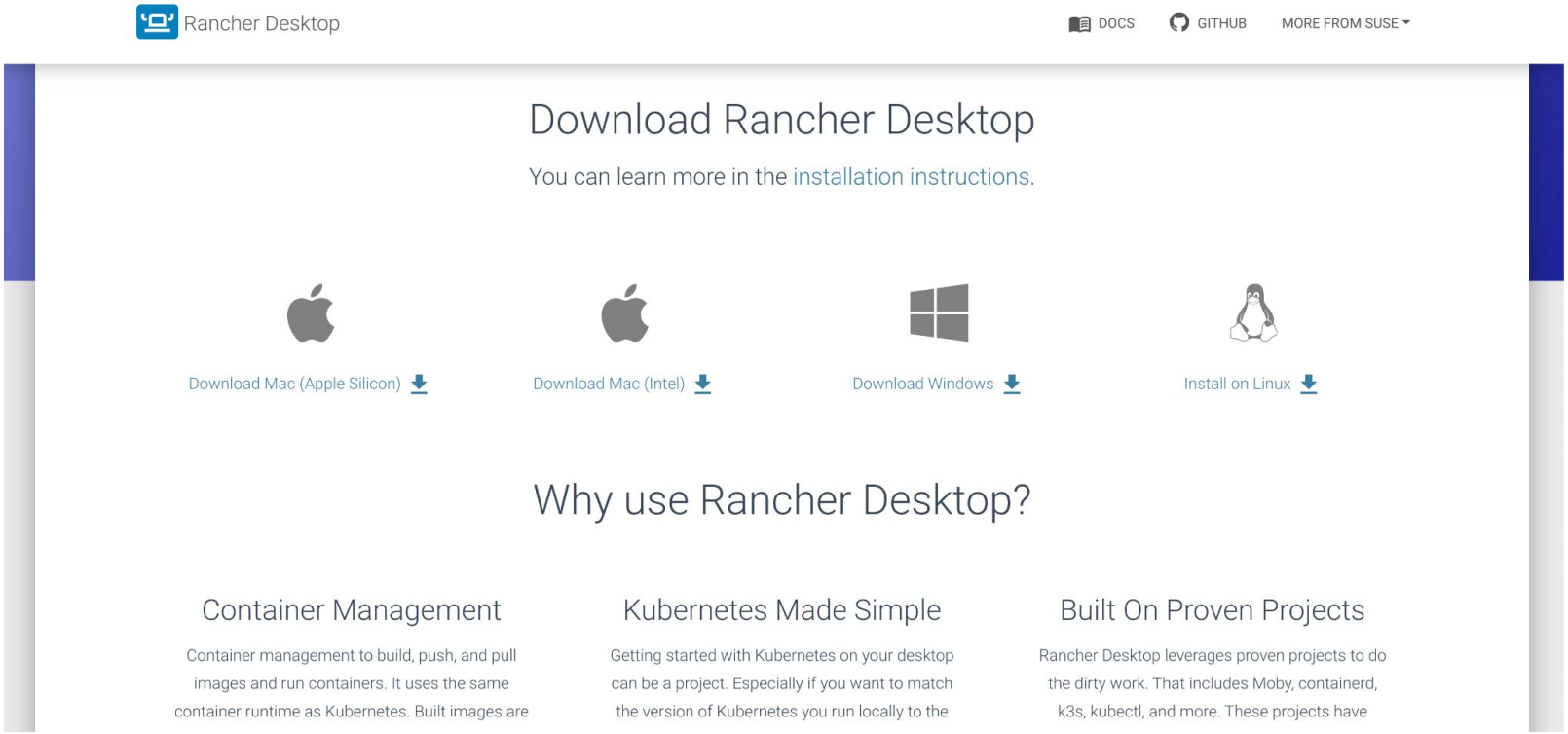
Download at https://rancherdesktop.io



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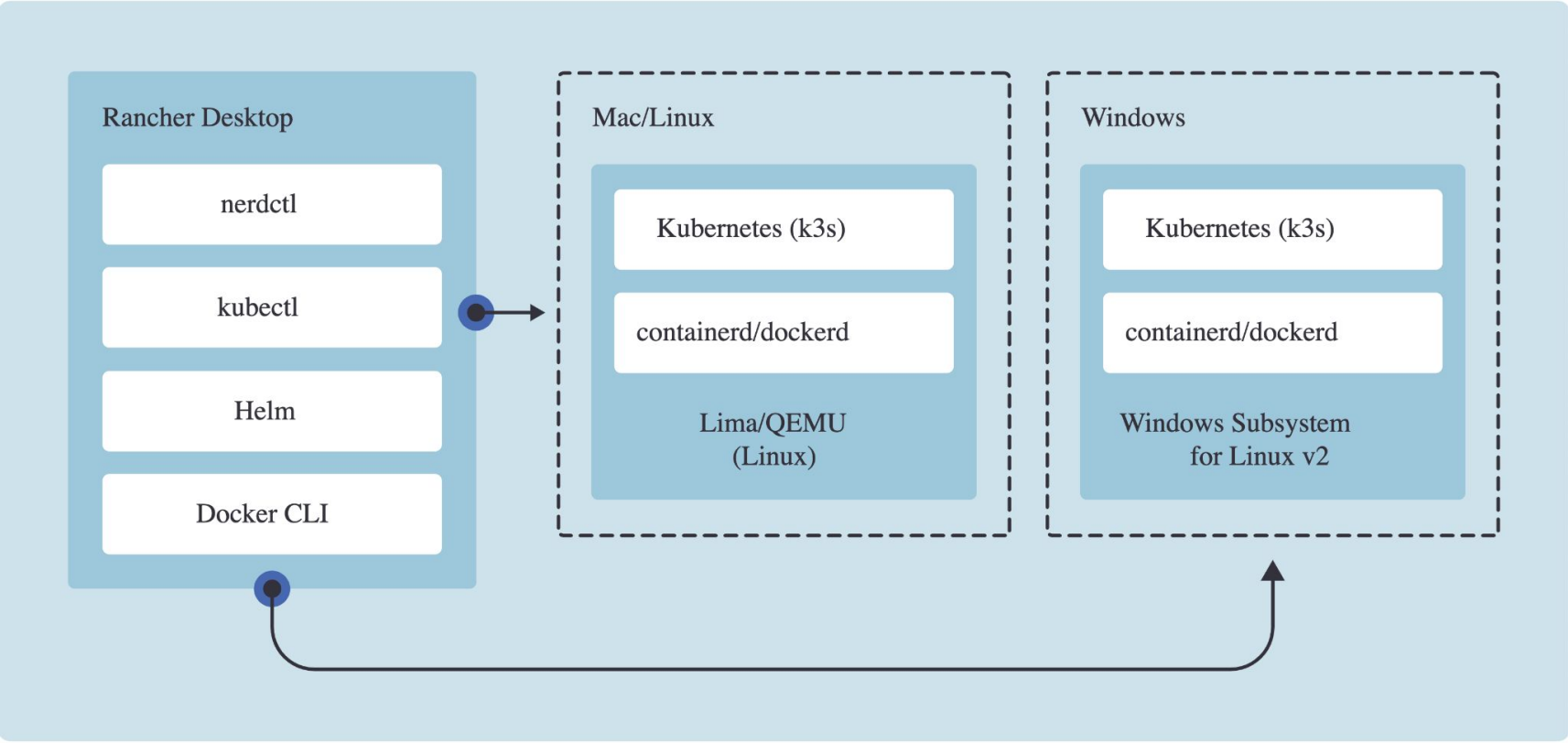
Architecture



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Design Goals

Choose the version you want. Very rarely is the latest version of K8s used in Prod

Leverage Upstream Projects. Use well known and supportable products

Completely Open Source. No hidden magic

Seamless Upgrades. Test applications across version changes

Easy Install. Available for Mac, Windows and Linux

Container Toolchain. Build, Push, Pull images along with running containers

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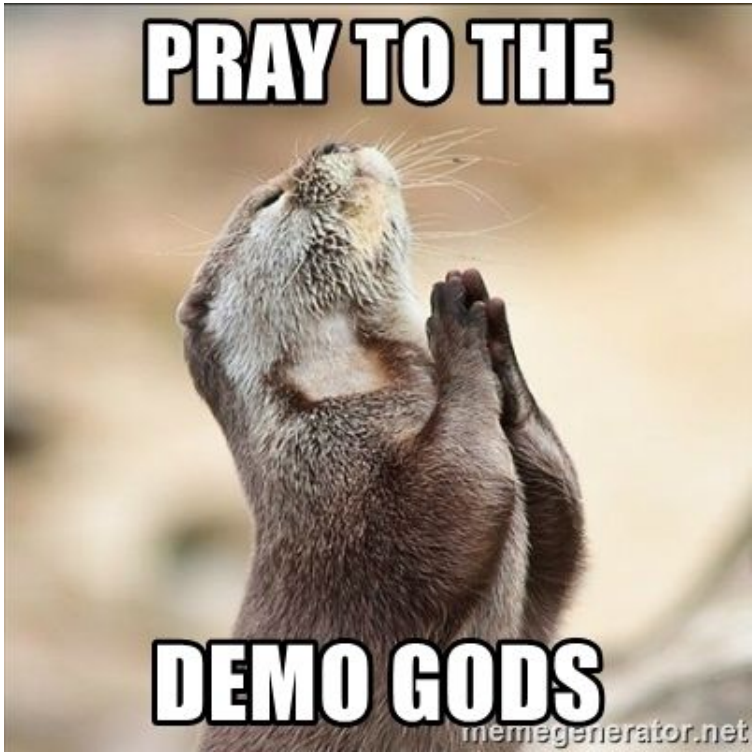
Demo / Workshop Time



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Demo and Lab Repositories

Presentation Repo:
https://github.com/AlphaBravoCompany/rancher-desktop-demo

Code Repo:
https://github.com/abenginerd/dc-hello-world

Helm Repo:
https://github.com/abenginerd/dc-hello-world-chart

Questions?

Thank You!