

Habitat Builder

Cloud native application automation



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What is Habitat?

Application automation that enables modern application teams to build, deploy, and manage **any application** in **any environment** - from traditional data-centers to containerized microservices.



What is Habitat Builder?

Habitat Builder facilitates the end-to-end lifecycle management for your application. It **builds** your Habitat plans, **stores** the resulting artifacts, **exports** to multiple formats and **coordinates** promotion of applications.



Target Users

- App teams that are responsible for shipping their apps to production
- Build Engineers / Release Engineers / SREs responsible for building and shipping applications
- Ops teams responsible for managing apps
- Anyone that has an application running in a mixed environment and wants an easy on-ramp into Kubernetes



Understanding the Problems

- 01 Applications coupled to OS/distro/platform via hidden and unknown dependencies
- 02 Managing configuration changes in both Kubernetes (immutable or stateless) and legacy infrastructure (mutable or stateful)
- 03 Container images are inherently opaque and difficult to audit which can be compounded at scale
- 04 Extensive rewrites required to make your app cloud native and Kubernetes-operable

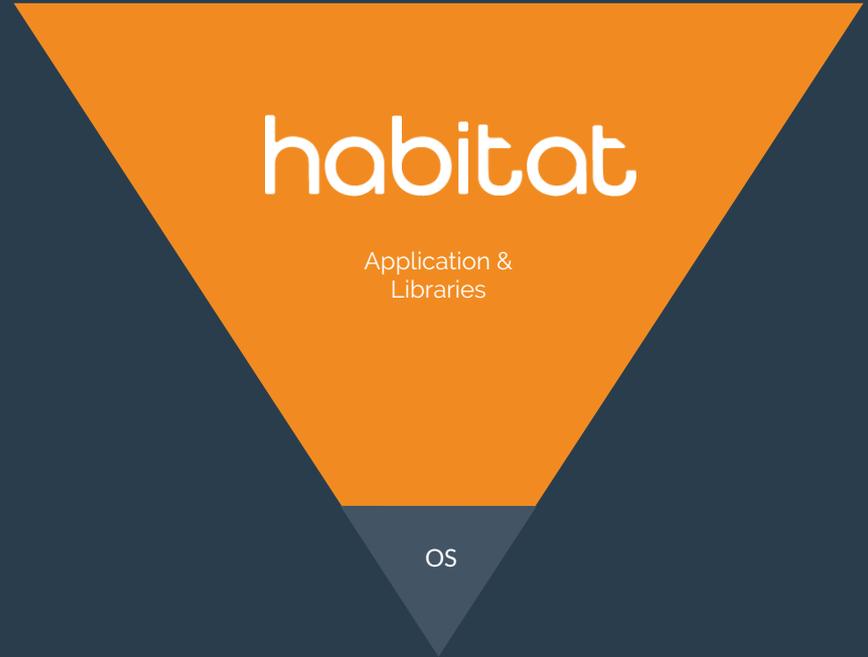
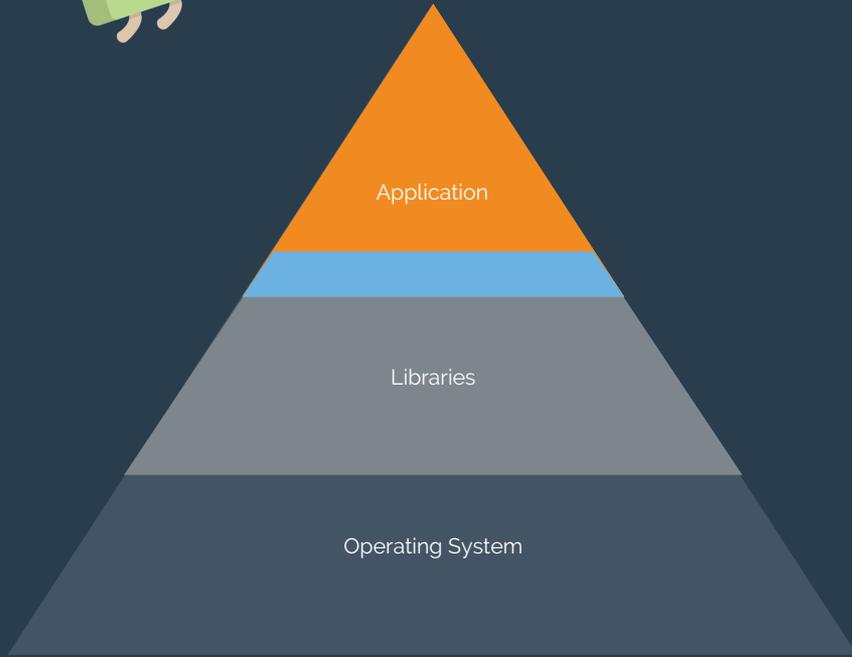


A Few Current Build Tools

- Jenkins and GitLab
 - Prove integrated workflow is valuable
 - Easy on-ramp from code-production in Kubernetes
 - Still need to shape your app to work in a container
- Aptomi
 - Shows the need for application definitions
 - Interesting approach to application packaging and deployment
 - Only available to apps ready to run in Kubernetes



Habitat Build Philosophy



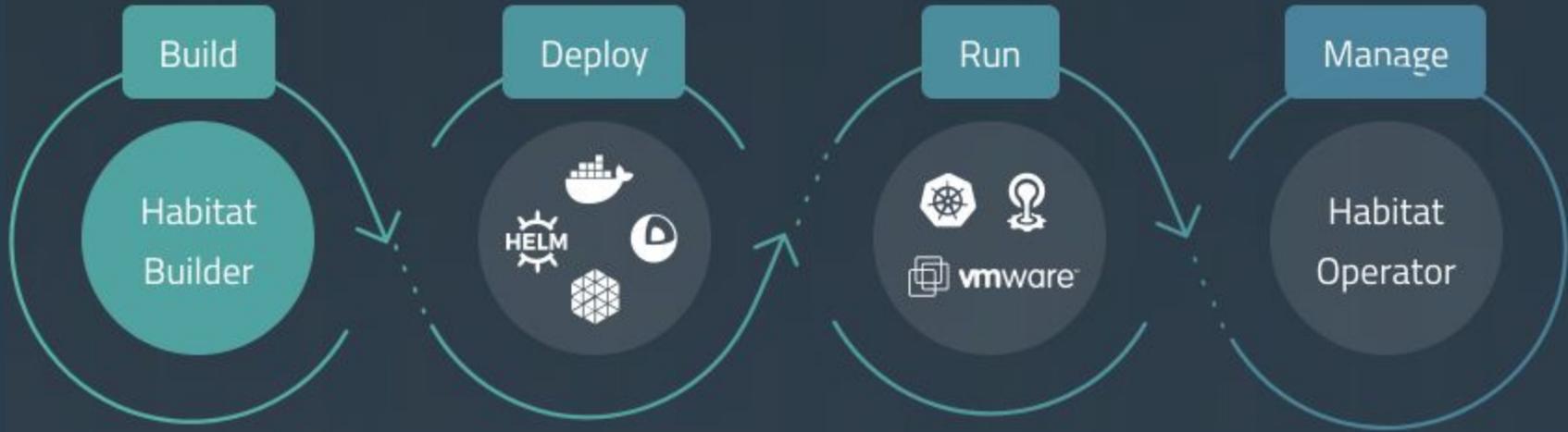


Habitat ❤️ Kubernetes

- Exporters for Docker, Kubernetes and Helm
 - Leverage powerful tools in the Kubernetes ecosystem out of the box with Habitat
- Habitat Operator
 - Manage application deployments and configuration changes
- Habitat Open Service Broker(s)
 - Enable external service consumption via simple, secure API-driven model

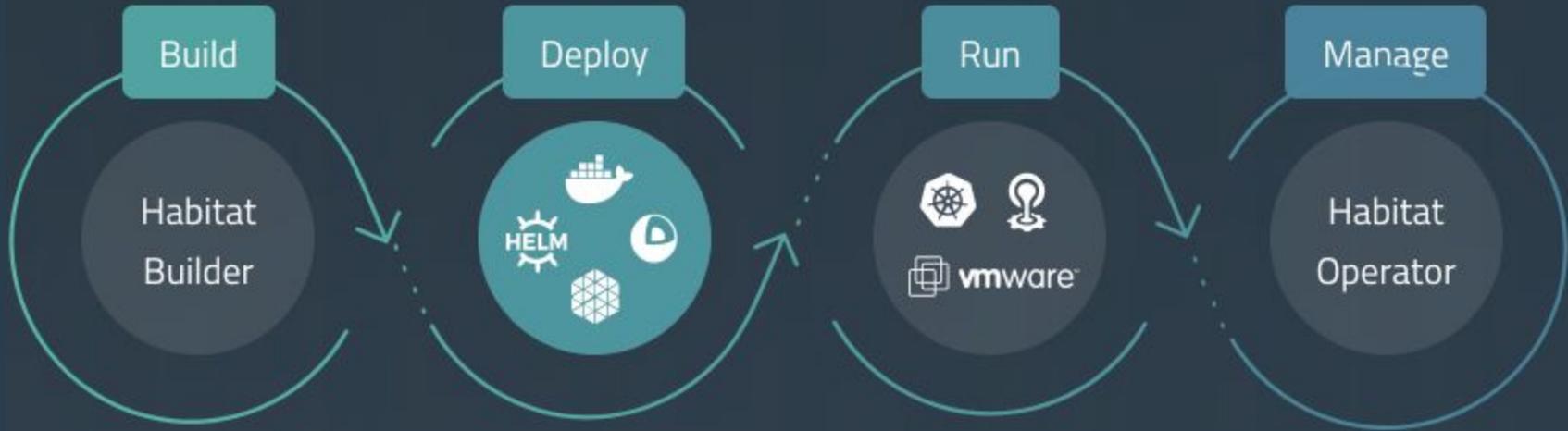


Application Lifecycle Management



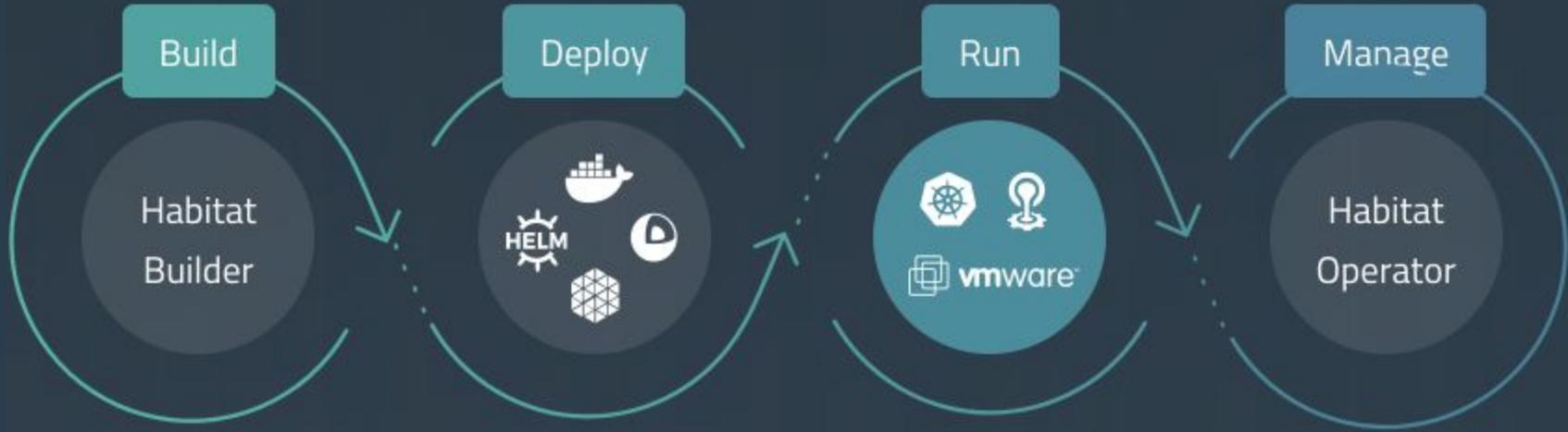


Application Lifecycle Management



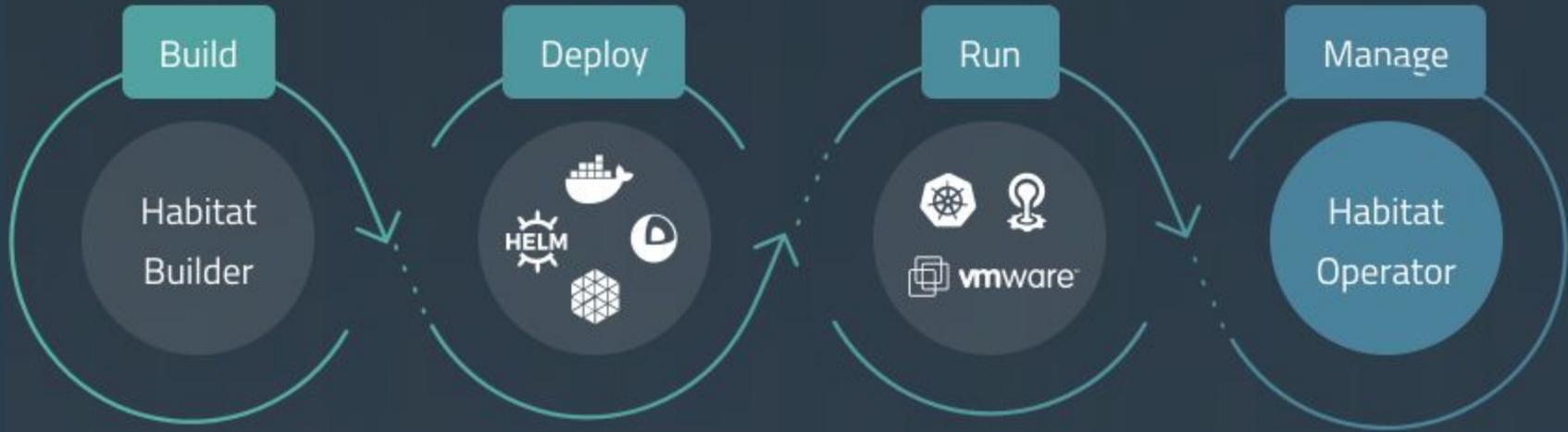


Application Lifecycle Management





Application Lifecycle Management





Habitat Operator

- The Habitat Operator is a Kubernetes controller designed to solve running and auto-managing Habitat services on Kubernetes
- Allows Kubernetes users to interact with Kubernetes as they usually do, the Operator handles the rest
- Automation should live close to the application
- The Habitat Operator enables native Kubernetes behavior for all app types and deployments (one Operator to rule them all!)

Demo

habitat





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Thank you!

Come say hello on the habi-slack
or on the Habitat forums

<https://habitat.sh/kubernetes>

