Kubernetes

Jem Camba - 2019-03-06 - in *Platforms*

Resources for deploying Kubernetes on Packet.

With modern web services, users expect applications to be available 24/7, and developers expect to deploy new versions of those applications several times a day. Containerization helps package software to serve these goals, enabling applications to be released and updated in an easy and fast way without downtime.

Kubernetes helps you make sure those containerized applications run where and when you want, and helps them find the resources and tools they need to work. Kubernetes is a production-ready, open source platform designed with Google's accumulated experience in container orchestration, combined with best-of-breed ideas from the community.

Guides

- [How to deploy on bare-metal in ~10 minutes](#).
- [Packet: Explore Weave & Kubernetes](#).

Plugins and Official Integrations

As the Kubernetes ecosystem matures, it has adopted formal specifications to help ensure a consistent experience across infrastructure providers and third party solutions.

- [Flex Volume Plugin](#): This community contribution allows for native management within Kubernetes of Packet block storage volumes.
- More coming soon!

Non-Commercial Deployment Solutions

Kubernetes is free, but sometimes deploying and managing it takes work. A number of

projects and distributions exist to help ease that operational pain - here are some that are validated against Packet (note: this is an easily outdated list):

- Kubicorn: is an *unofficial* project that solves the Kubernetes infrastructure problem and gives users a rich golang library to work with infrastructure.
- Kubespray: runs perfectly on Packet, using Ansible as its substrate for provisioning and orchestration. Kops performs the provisioning and orchestration itself, and as such is less flexible in deployment platforms.
- Pharmer: a technical preview from Appscode of a Kubernetes cluster manager for kubeadm. Pharmer lets you set up, tear down, and scale clusters up and down on Packet.
- Pharos: Pharos is a free Kubernetes distribution offered by Kontena, which offers support for setup and management in addition to orchestration tooling. Kontena tests against Packet x86 and Armv8 servers.
- DC/OS - Mesosphere's Datacenter Operating System (DC/OS) offers an upstream Kubernetes distribution. Packet is an official provider DC/OS.

Commercial Deployment Solutions

- Stackpoint.io: Packet is the only bare metal provider supported by Stackpoint, which offers a universal control plane for managed Kubernetes.
- Platform9: Packet works closely with Platform9, a managed cloud provider, to enable users with Kubernetes, Openstack, and Serverless solutions.
- Containership: Containersip offers a single pane of glass for all of your infrastructure needs. Deploy, scale, and manage your services instantly, anywhere.
- Cloud66: London-based Cloud66 offers a managed Kubernetes container service called Maestro, which is tested against Packet.

Community
Packet is actively involved in supporting the cloud native space, including Kubernetes.

- CNCF Community Infrastructure Lab: Packet donates $25,000 per month in compute resources that are available to the CNCF and broader open source community.
- CNCF Cross Cloud CI - Packet is represented as the only bare metal cloud on the this unique dashboard, which shows the results of a sample implementation of the CNCF project stack against various providers.

External Resources:

- The Linux Foundation's Kubernetes Fundamentals course
- Kubernetes API
- Kubernetes Documentation

- [K8 Public Slack](#)

Tags

kubernetes