SUSE CaasP automatic (semi) deployments on Openstack

SUSECon19
Florian Rommel, Datalounges Oy

@datalounges
https://www.datalounges.com
Welcome!
About Us

Who we are:

- Cloud professionals each passionate about tech
- Excited about new things and extremely good at helping customers learn and embrace new tech
- We work on things like Openstack, Ceph, Kubernetes, Nextcloud etc. (see the nice pictures in the footer??) and make them work for normal companies.
- We work on one of the worlds largest Openstack deployments and own our own cloud
- We have a lot of fun while working extreme hours to make the customers happy
Our Services

What we do (Consulting)

- Openstack Consulting: (Development and Deployment of one of the largest Openstack cluster)
- Ceph Consulting: (Multiple SES / Ceph deployments and designs for government and private)
- Kubernetes Consulting: CaasP and CAP deployment consulting
- Linux Consulting: Anything Linux, HA and assorted additions

What we do (Service)

- Openstack hosting and deployment
- Ceph (S3) hosting and deployment
- Kubernetes hosting and deployment
- Advanced (and a little extreme) Log Management hosted and quick deployment
- Cloud Vendor Management platform (invoicing and management)
How the next half hour will change your life!

• It probably won’t (but it got your attention)

• You will see a real example of how SUSE CaaS can be deployed in a mostly automated way

• You will see this in a real Openstack production Cloud

• You will be dazzled by how easily a CaaS environment can be deployed to that it is working.

• You will be able to verify yourself that the demo sites work by accessing the public IP….. for a while
Why SUSE CaaS?

- Kubernetes clustered Container Tech
- Built on SUSE’s stability track record
- Relative ease of deployment and integrate
- Fully compatible to host on Openstack Cloud or physical machines
Stop!… Demo time!

What we will do:

• We will build a complete 4 node CaaS Cluster inside Openstack Cloud

• We will then configure this cluster to be Cloud Provider Integrated

• While this is installing, we will look at how to deploy Wordpress inside CaaS, and publishing it to the big bad world

• When the cluster is done installing, we will do the exact same thing (just quicker) in the new cluster

• Either it all works perfectly, or it all goes up in flames…. Either way we will have some beer afterwards
Step1: Launching the cluster build up

- In order to automate a lot, we use a Heat Template for Openstack
- Select and fill in the form and click on “MAGIC!” (slow magic but magic)
Step 2: Wait

• While we wait, we will go through the parts that are needed and how it works…

• This should take approximately 15 -20 minutes, including all additional setup steps.
Step 2.01: Use cluster

• Built up cluster is accessed from the outside world, let’s keep it real

• To show full compatibility we will NOT be using a SUSE Linux machine to do the work with CaaS

• Why make things easy when you can make them difficult?
Step 3: Configure cluster with CPI (Cloud Provider Integration)

Nothing fancy, just a few UUIDs, usernames, and your credit card needed!
Step 4: Log into the Cluster and...

Get the kubeconfig file to work with.

This is already configured neatly to point to the correct IPs / FQDN and authentication.
Step 5: Deploy the parts of Wordpress that are needed

Wordpress yaml

Mysql / mariadb yaml

Services Yaml

Persistent Volumes yaml
Step 6: To complete the fun, delete it ALL

Tap tap, click click… GONE!
Thank you for watching the show, questions?

https://www.datalounge.com

@datalounge