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INTRODUCTION

This page provides examples to get started using the Openstack Container service known as Zun.

Setup

You must have an account and CLI access as described in Cloud Intro .

Running a Public Container

To run a container is as simple as

```
openstack appcontainer run --net network=campus37 --wait nginx
```

Try these commands to get started (using the UUID of your running container instances):

```
openstack appcontainer list
openstack appcontainer exec --interactive ${UUID} /bin/bash
```

Private Registry Images

Openstack automatically pulls from the Dockerhub registry, or images uploaded to Glance with

```
openstack image create --container-format docker ... openstack image list
```

To start a container image that was uploaded to Glance, provide a reference to it in the appcontainer. All other options remain as usual.

```
openstack appcontainer run --image-driver glance ...
```

Glance has no user authentication, but will prevent access to your image from outside your project. To use a private docker registry instead of glance, first create a registry row in Zun.

```
openstack appcontainer registry create --username gitlab+deploy-token-99 -- password sekret --domain vcs.cs.uchicago.edu --name VCS_LDAP
```

You can then create and run images from this registry, for example

```
openstack appcontainer create --registry VCS_LDAP --name ldap1 --wait --net network=campus37 --image-driver docker vcs.cs.uchicago.edu:5050/chudler/ldapslave
```

Substitute vcs.cs.uchicago.edu:5050/... for your own custom Docker Registry,

Modifying and Saving a Container

Importantly, the repository that you push the image to must have been setup in zun. See the previous section.

openstack appcontainer run --net network=campus37 --wait nginx sed -i -s 's/Welcome to nginx/Hello world/' /usr/share/nginx/html/index.html openstack appcontainer commit \${UUID} VCS_LDAPSLAVE:os_latest

Caveats

Private registries are not supported for the openstack appcontainer image pull, and related commands. Nonetheless, the images are automatically pulled to the compute host, or can be specified by

openstack appcontainer create --image-pull-policy ...

GPU

(currently, unavailable***)

Simply start your container on the designated host.

openstack appcontainer run --availability-zone gpu --environment NVIDIA_VISIBLE_DEVICES=all --auto-remove --wait --interactive nvidia/cuda:10.0-base nvidia-smi

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