

openstack®

A Quick Introduction
Faculty of Computer Science
Fall 2020

OpenStack

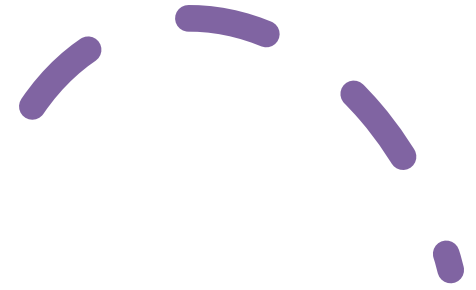


OpenStack is an open standard cloud computing platform where virtual servers and other resources are made available to users



Our local OpenStack install is running the Rocky version

Uses



Students can create virtual machines and other resources in a private cloud environment



Students can fully administer their VMs and build from the bottom up (e.g. Web stack)




Professors can provide a VM image with just the software necessary for a course



As a scaffold to build up an integrated infrastructure that can borrow resources between projects

Modules Available

- Horizon (dashboard)
 - Nova (compute service)
 - Glance (image service)
 - Neutron (software defined networking)
 - Cinder (block storage)
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Current Install

276 cores in 14
compute nodes

≈ 600 GB RAM
in 14 compute
nodes


≈ 140 TB of block
storage

Untested user
managed networks

1,000 public IP
addresses

- Dal VPN required from
off-campus

All faculty and
students have
access

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- Request only what you need
 - Create your volume in block storage instead of locally
 - If a flavor doesn't suit your needs, please consult with the CS Help Desk as we can adjust.
 - If your instance is not longer required, please delete it, or inform cshelp as we can kill them off.
 - Long running instances that have been abandoned will be purged.



Best
Practices



Where Is It

<https://openstack.research.cs.dal.ca/horizon>

- Domain: dalfcs
- User Name:
<your_CSID>
- Password:
<your_CSID_password>