Kubernetes Cluster for Redeployable Research Services

HW Mgmt

2x 30TB NFS Array

boneyard-mgmt

xCAT

storage01

storage02

1GbE Mgmt Net

Internet

boneyard

HAProxy

kubh01

kubh02

kubh03

kubc[01-11]

Login/Load Balancer

K8s Head Nodes

K8s Compute Nodes
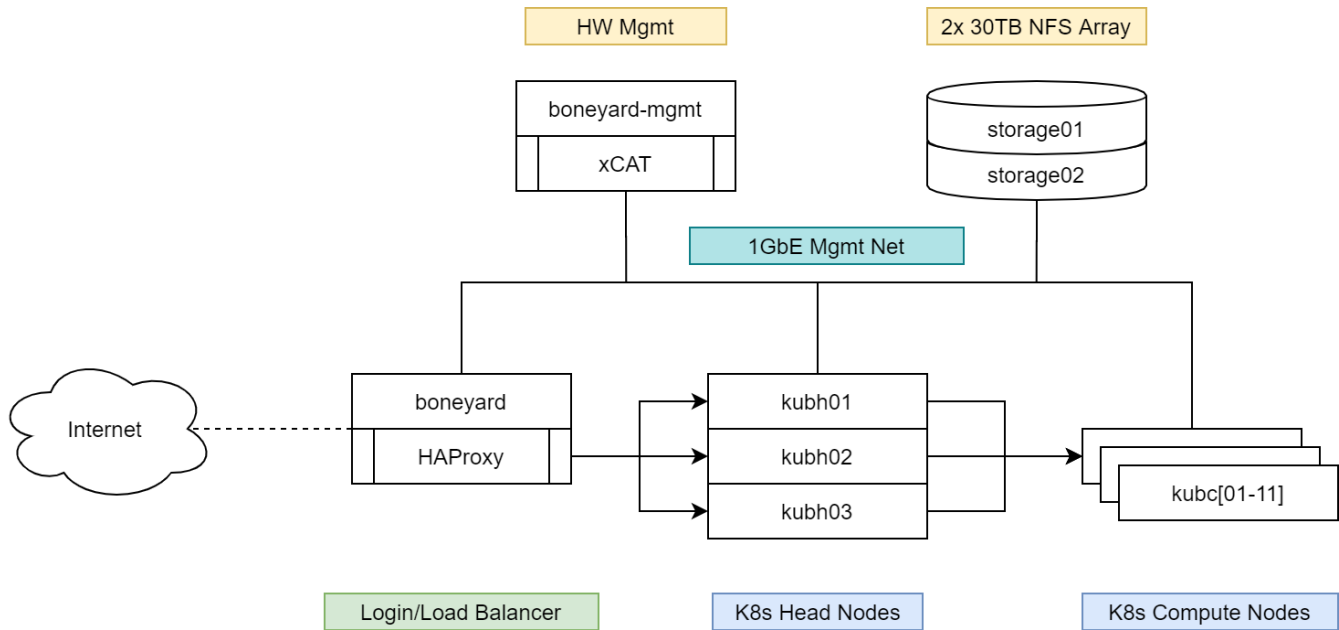
Hardware

Available

- 22 Dell PE R410
  - ~~missing mounting rails~~
  - acquired 15/22 rails
- 5 Dell MD1200
- 2 Dell R510 w/12 3.5" drives
- 4 Dell R710
  - PERC H800 controller (known to lock out non-Dell drives)

Deployed

- 11 Dell R410 - compute
  - ☑ racked
  - ☑ powered
  - ☑ base OS installed
  - ☑ K8s deployed
- 4 Dell MD1200 - storage
  - ☑ racked
  - ☑ powered
- 2 Dell R710 - storage controller
  - ☑ racked
  - ☑ powered
  - ☑ base OS installed
  - ☐ filesystem ready
- 3 Dell R410 - high availability control plane
  - ☑ racked
  - ☑ powered
  - ☑ base OS installed
  - ☑ K8s deployed
- 1 Dell R410 - management (xcat, IPMI, puppet, ...)
  - ☑

- ☑ racked
- ☑ powered
- ☑ base OS installed
- ☑ xcat
- ☐ puppet