



K8s and HTCCondor

Center for High Throughput
Computing

The view as of Yesterday



Why Linux

- 1) Our users are there
- 2) Good enough

“Unix”

- › Spelled “unix”, but pronounced?

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 - U - Fix

Whose doing the Fixing?

- › Partially HTCondor software
- › Partially the site admin (SRE)

Enter Kubernetes

Many users are here or working to getting here

K8s as distributed operating system

Can k8s fix some things we had to fix before?



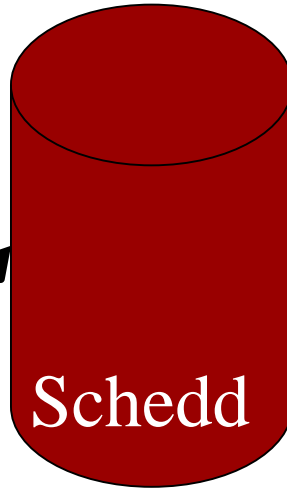
Two current projects

- › K8s gahp
- › Deploying Htcondor in k8s

K8s as Htcondor grid type

> Kubernetes as grid type:

```
Universe = grid
Grid_type = k8s
hostname
k8s_image = my_image
...
queue
```



```
apiVersion: v1
kind: Pod
metadata:
  name: job
spec:
  ...
```

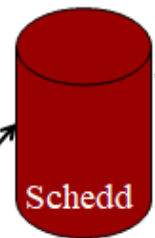


- › One scheduler
- › K8s sees jobs

First potential integration

- › Kubernetes as grid type:

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K8s add submit attrs

- › k8s_image
- › k8s_namespace
- › k8s_priority
- › ...
- › Idea is that the ce adds these to localize pilot
- › Other attributes xlated – e.g. RequestMemory

K8s gahp

- › Shipping in 8.9.6
- › Still alpha – missing file xfer

- › Wisdom of Alan Perliss...

2nd integration

Htcondor pool inside k8s

- › E.g.
- › \$ helm install snotty-todd htcondor

But this is Mat's problem...