



UKTO @ RAL

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Hardware Procurement

- RAL hardware procurement
- Compute - £300k
 - 108 Systems procured to provide 1728 cores
 - Delivered, racked and cabled and waiting to go into acceptance testing
- Storage - £350k
 - 21 systems with two storage shelves each to provide approximately 3PB of useable storage
 - Delivered, racked and cabled and waiting to go into acceptance testing



Compute

We will provide two interfaces for workloads.

1. **IaaS Cloud** - Self service VMs. We provide curated VM images.

You can use your allocation as you like, short or long lived VMs. Many different interfaces and APIs for access:

a. Horizon Web Interface - OpenStack standard web interface

b. Nova - Openstack standard API

c. EC2 - Amazon compatible API

Keystone is used for Authentication

Volumes are available for persistent disk.

Heat is available for orchestration

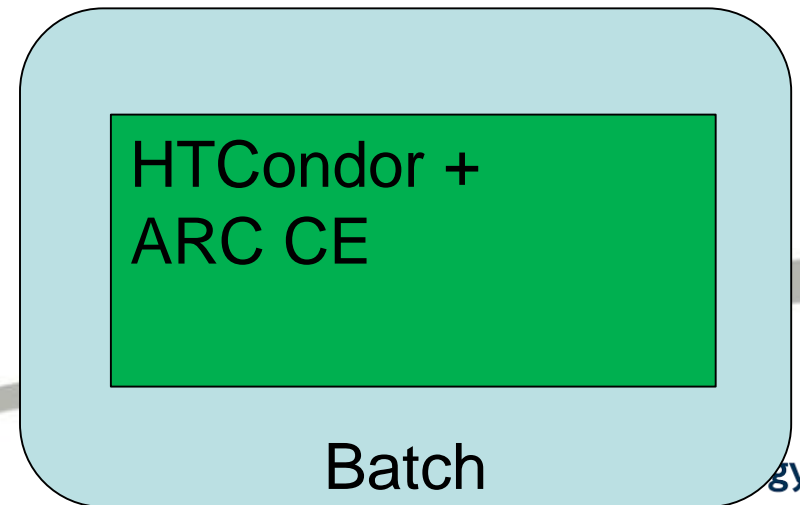
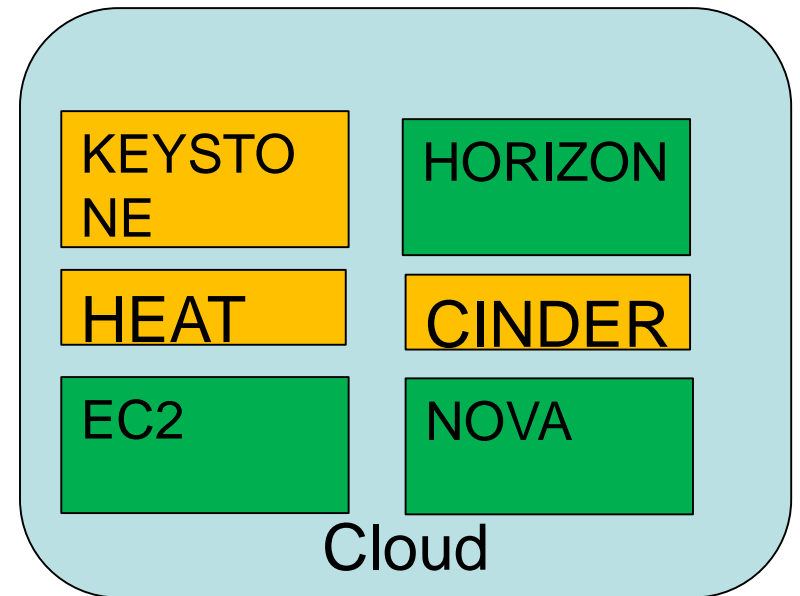
Plans to offer other aaS options eventually

2. **HTCondor Batch System** - same as used by Tier1

This will be used to backfill the Cloud

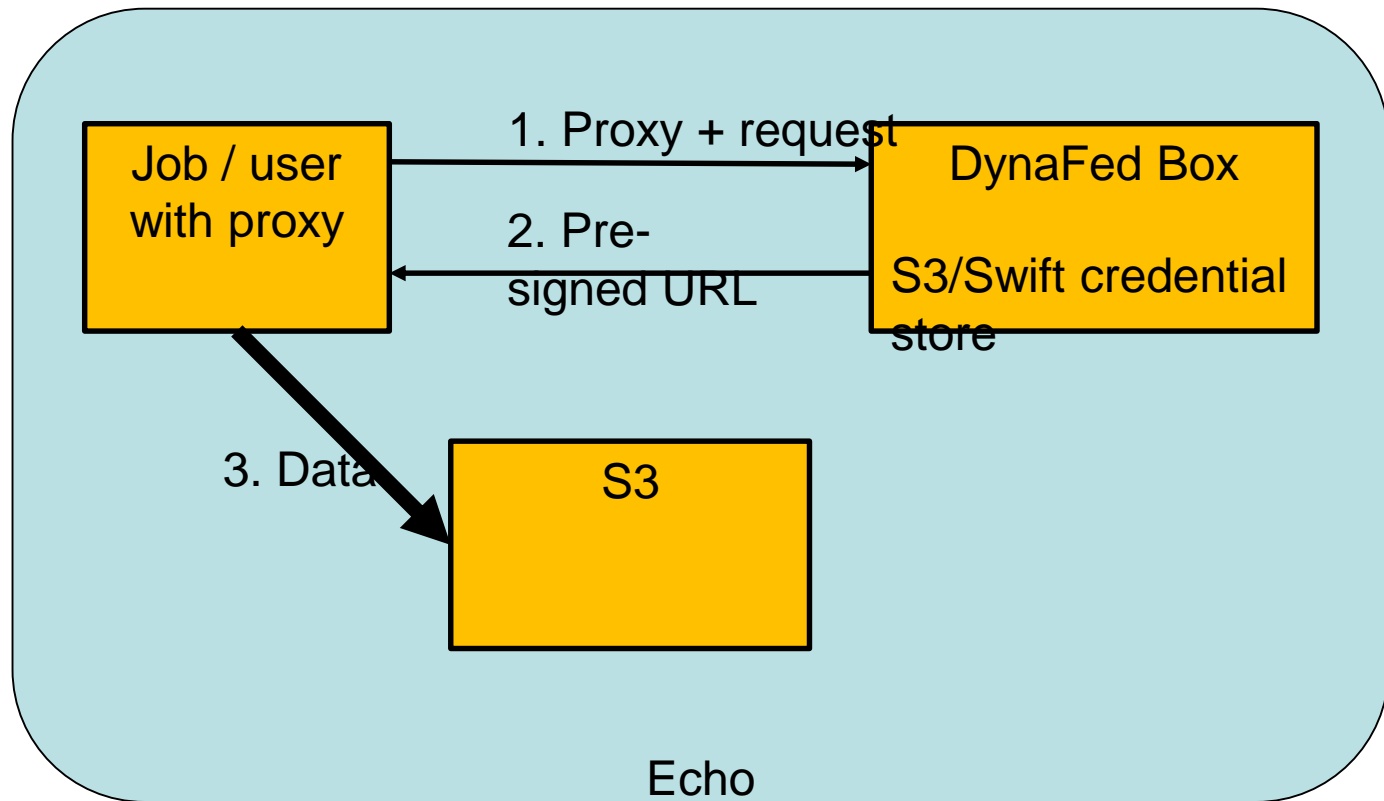
Limited resource available now by request.

Full resource should be available in August



Storage

Dynafed can be offered as an authentication layer over S3 - Working with x509 certificates, additional plugins are in development starting with LDAP. Shibboleth will be next targetting LIGO initially. (graduate project Jan-Jun)



CVMFS can be offered for software distribution.

Also work happening on "Large Scale CVMFS" - Read only access to data - also being targetted to LIGO.

Limited storage through Dynafed available now. Ramp up available storage to 3 petabyte in September



Delivery

- Batch is available now.
- Storage is accessible now and if people needed < 100TB of space we can provide it. The hardware has been delivered and will go into acceptance testing soon. The full 3PB procurement won't be available until ~August but the quota available will ramp up between now and then as hardware is added in stages.
- UKT0 compute hardware has been delivered and will go into acceptance testing soon
- Cloud Services will become available over the next six months. The order of availability may depend on demand.

