

# Beta Release

## Features included in this release:

- Beta launch of hosted service
  - beta.ndslabs.org
  - Multi-node cluster on NCSA Nebula (OpenStack)
    - (Specs)
  - Gluster shared filesystem
    - (Specs)
  - TLS
  - Backup and monitoring
  - Cluster load balancer with name-based access to services (ingress)
  - Cluster logging, monitoring, alerts
- Account registration and approval
- System-wide catalog of approved tools
- Service catalog organization (tags) and new filtering interface
- Service specification improvements
  - Multiple image tags
  - Associated repositories
  - Logo
  - Filtering tags
- Personal service catalog support
  - Ability to import, export, clone, add and edit service specifications
- Per-account "home" directory mounted on every container
- Per-account resource constraints/quotas
- Console access to running containers
- Access to container logs
- Development environments
  - General: Node Js, Go, Python
  - Application-specific: Clowder, pyClowder
- Build/run workflow
- Integrated file manager
- Remote access (ssh tunnel over http)
- Ability to customize services (e.g., override configuration settings)
- New data tools:
  - TBD
- Local Docker registry

## Primary components

- Docker
- Kubernetes
- Etcd
- API Server
- Command line interface
- Web UI
- Gluster FS servers
- Nginx ingress load-balancer
- Grafana/Kibana