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