

End-to-End Basic Test

Overview

This page describes a basic end-to-end test of the NDSLabs service. This assumes access to a CoreOSAlpha virtual machine on the NCSA Nebula OpenStack system. The IP address below is for the ndsc5-demo virtual machine in the NDS-hackathon project.

Login to the VM

Credentials were sent in an email. Open a terminal and ssh into your VM:

```
ssh ndslabs@141.142.210.130
```

Clone the startup scripts

(Note: this process will change when the system shell is complete, but for now use these startup scripts):

```
git clone https://github.com/craig-willis/ndslabs-startup.git
cd ndslabs-startup
```

Start Kubernetes

Run the kube-up.sh script. This starts the Kubernetes services via a privileged docker container. This script also downloads the kubectl utility to your ~/bin directory:

```
./kube-up.sh
```

Use docker ps to wait for the kubernetes services to start:

```
docker ps | grep gcr | wc -l
```

There should be 12 services running.

Start NDSLabs API Server and GUI services

Run the ndslabs-up.sh script to start the API server and GUI services. If you are on an OpenStack VM, you can accept the defaults:

```
./ndslabs-up.sh
```

Use kubectl to wait for the GUI service to be available:

```
kubectl get svc,rc,pod
```

Wait for the NDSLabs API server and GUI to be in "ready" state:

| NAME | READY | STATUS | RESTARTS | AGE |
|-------------------------|-------|---------|----------|-----|
| ndslabs-apiserver-xxxxx | 1/1 | Running | 0 | 37s |
| ndslabs-gui-xxxxx | 1/1 | Running | 0 | 37s |

Start ToolServer

Run the toolsrv.sh to start a Tool Server docker container:

```
./toolsrv.sh
```



Confirm it's running with docker ps:



```
docker ps | grep toolserver
```

Open a browser

Go to <http://141.142.210.130:30000/>. This is the NDSLabs GUI.

Create a project

With  **NDS-202** - Cluster administrator can specify project memory and CPU limits - CLI/API  completed, until

 **NDS-497** - Cluster administrator can specify project memory, CPU, and storage limits - UI  is completed, use ndslabsctl to create a resource-limited project.

~~If you don't have a project, create one by selecting the "Create Project" link.~~

```
{
  "id": "demo",
  "name": "demo project",
  "description": "demo project description",
  "namespace": "demo",
  "password": "123456",
  "storageQuota": 10,
  "resourceLimits": {
    "cpuMax": "2",
    "cpuDefault": "1",
    "memMax": "8Gi",
    "memDefault": "100Mi",
    "storageQuota": "10Gb"
  }
}
```

Add and launch services

At this point, you should be free to add, launch, stop, and delete services. Try walking through some of the [NDS Labs Test Cases](#) for ELK, Clowder, iRODS or Dataverse.