



LSST at FNAL Status Update

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CPI Projects Meeting

2 July 2020

Vera Rubin Observatory Legacy Survey of Space and Time (formerly LSST) Data Facility

The FOA (funding announcement of opportunity) for the LSST Data Facility Has not been put out yet by DOE. Expected sometime this summer.

We are planning to submit a competitive proposal in conjunction with NCSA/Uillinois.

There will be three 'pieces':

1. Data Movement (CTIO-FNAL-IN2P3), raw and processed data archiving (100% FNAL) and bulk processing (25%-50% FNAL, also IN2P3, UK Edinburgh)
2. Prompt processing (CTIO-NCSA) – using high speed network to NCSA.
3. Data serving (qServ, LSST Science Platform hosting thousands of users). Will propose FNAL as host site – but could go to cloud.

We are meeting every other week with NCSA until FOA comes out, then will meet more.

I need to follow through on talking to HEPcloud for insight into possible processing demo on cloud or 'switchable' cloud/local processing system.

Current FNAL involvement in LSST:

We (FNAL LSST pre-ops group) have been asked to help setup a 'iDF' Interim Data Facility which will be hosted in the cloud (Google or AWS likely hosts), and which will:

1. Serve a large (500TB?) set of images and 100 M object catalog (1-2TB) of simulated or other-telescope data to the LSST community. Community will examine data and look for flaws in the processing.
2. Will (re)process subsets of 1. using the latest LSST stack pipelines to help debug these pipelines.

We are talking with A. Tiradani here to perhaps setup a small version of this In kubernetes or okd cluster for practice.