



Token Transition Report: BNL

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BNL SDCC

BNL Scientific Data and Computing Center (SDCC) provides data storage, transfer, and computing resources to scientific experiments and communities at Brookhaven National Lab and worldwide.

- Nuclear Physics (NP) Computing :
 - Active RHIC experiments (or soon to come online) - STAR, sPHENIX
 - Future collider (EIC) - BNL - JLab collaborating on Computing.
- High Energy Physics (HEP) Computing :
 - ATLAS - US Tier 1 Center
 - Belle 2
 - DUNE
- Non-NP or HEP computing:
 - National Synchrotron Light Source (NSLS) II
 - BNL Computer Science Initiative (CSI)

Token Status - NP

STAR

- Uses Computing at NERSC and opportunistically on OSG
 - Investigating Globus Transfer Service and XRootD for transfers back to BNL
 - Globus uses its own tokens for transfers (has for a while)
 - will use OSG issued Tokens. Currently uses Condor file transfer mechanism on OSG

sPHENIX

- Data taking starts in ~16 months. Setting up Distributed computing system based on PanDA/Rucio/FTS
 - Use of Tokens undecided yet. Will depend on amount of offsite computing and where it will be done

EIC

- Current model is lightweight. No special tools used. Rely on standard OSG infrastructure. (OSG submit host and OSGConnect)

Token Status - HEP

ATLAS

- Will need to use WLCG Tokens (IAM)
- Compute: Successfully Tested HTCondor CE w/ Harvester
 - Currently upgrading all CE's to handle tokens
- Storage: no plans yet will work with rest of ATLAS

Belle II

- Follow lead from Host lab KEK

DUNE

- Will need to use FNAL Tokens
- Compute:
 - Currently upgrading all CE to handle tokens. Need to test with DUNE jobs
- Storage:
 - upgrading our dCache instance to latest Golden release (7.2)
 - will configure for FNAL Tokens and WLCG Tokens (for testing)
 - Collaborate with FNAL on Rucio/FTS transfers between FNAL - BNL

Summary

BNL SDCC is a multidisciplinary Scientific Data Center

Each community has different token deployment schedules

BNL has been using tokens via Globus Transfer Service for over one year.

BNL SDCC will need to support at least 3 different token issuers (FNAL, OSG, WLCG) for the services it provides to the NP/HEP community.

Token transition/testing has begun