PPDG at BNL

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PPDF Collaboration Meeting

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Argonne National Laboratory

BNL PPDG *Early Adopter* Plans

- Activity of the RHIC/US ATLAS Computing Facilities at BNL
- Initially on test systems
  - Deploy basic Grid infrastructure
    - **Globus tool kit**
    - **Other (SRB)**
  - Deploy PPDG evolved components
- GRID serve some production resources
- Investigate simple Objectivity DB replication in Globus framework

Current Status

- Personnel
  - Full time summer CE student, John Leita
  - Part time: Rich Baker, Rich Ibbotson, Tom Robertazzi (last is Stony Brook, CE faculty)
- Test Equipment – 2 Intel/Linux & 1 Sun/Solaris
- Globus Installed – Client & Server 1.1.2 (& 1.1.3)
- BNL Firewall opened – (Port 754)
- Functionality tests conducted
  - Internally and from/to Boston U systems
- Simple performance tests underway

Mid-term Plans

- Continue deployment of basic Grid infrastructure
- Deploy some PPDG developed components
- Grid serve '*some*' US ATLAS Tier 1 resources – BU, IU, ANL, etc.
  - Out of ~3,000 SPECint95 of Intel/Linux and ~0.5 TByte of disk
  - Used for simulation & testbeam analysis
- Grid serve '*some*' RHIC Computing Facility resources – Probably initially for STAR to LBNL
  - Out of ~2,500 SPECint95 of Intel/Linux and ~ 4 TBytes of disk
  - Used for analysis of real RHIC data

Simple Objectivity Replication

- Simplifying Assumptions about Replication
  - Done by database
  - No Objectivity pointers from one db into another
  - Replica is read only
  - An approximate equating of federation with locality
- Plan (Thoughts): When reference to a database not contained in the local federation is encountered
  - Check LDAP server to determine its location
  - Use Globus tools to
    - Run a remote script to extract a flat copy
    - Transport it back to client
  - Attach it to local federation
- Goal is a first prototype sometime this Fall