LIGO

OSG Futures Discussion: thoughts from LIGO

Patrick Brady
University of Wisconsin-Milwaukee

LIGO-G0900XXX-v1

Fabric for sharing resources

- OSG should provide a fabric for sharing resources in a manner that maximizes the usage of NSF/DOE funded computing
- LIGO will continue to add resources to OSG when they are nationally funded and not part of critical online analysis facilities
- OSG can provide the leverage to insure grid inter-operability as we move forward

LIGO

Prototype to Production

- OSG can provide a venue to take grid software from prototype to production.
- OSG has done this and can continue to push this forward
- Production software can become part of the standard toolkit for distributed computing .....

Software Integration/Release

- LIGO will continue to collaborate with the VDT team to understand what packaging of grid middleware best meets LIGO's needs
- At present, our belief is native packaging, means CentOS and Debian, is the direction we are moving. Also Mac ..... via Macports for example
- Open source community is large: OSG could become a leader within that community or it could overtake OSG

ID Management

- PKI solution alone does not currently work for all players in LIGO both users and service developers
- LIGO has been working on an integrated ID management, authentication and authorization infrastructure
- An OSG-LIGO-I2 A-team approach could bring a powerful, flexible and user-friendly system into production
- OSG can promote adoption on the national/ international stages

Advanced LIGO Computing

- Advanced LIGO project under way. Tentative acceptance in 2014.
- LIGO has a nascent plan for data handling and analysis in the AdLIGO era
  - Real-time requirements based on astronomical science targets
  - Not-so-real-time requirements based on other science targets
  - Detailed planning exercise started; target date for completion is end of summer 2010