Scoreboard: Accounting for IF experiments

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Stakeholder meeting 2/12/2014
Fermilab

Survey

- Meetings to understand better the accounting practices and needs
  - Stuart C Fuess, Margaret Votava, Steve Wolberg, Panagiotis Spentzouris (FNAL CD)
  - Thomas Junk, Elizabeth S Sexton-Kennedy, Maxim Potekhin (LBNE)
  - Adam Lyon (g-2)
  - Brian Rebel (LArIAT)
  - Heidi Schellman, Rick Snider (Minerva)
  - Arthur Kreymer (Minos)
  - Rob Kutschke (Mu2e)
  - Michael Kirby
- We tried to contact also representative from NOvA (Andrew Norman, Gavin S. Davies) and MicroBooNE (Herb Greenlee) but had no replies

Use cases

- Capacity planning both for user and provider
  - How many resources do I need? How can I build my case? Are the needs of this experiment justified?
- Pledge monitoring and recognizing contributions
  - Thank you for contributing all these CPU hours
- Trends analysis
  - Are we on track? We are ramping up analysis
- Job efficiency and failure monitoring
  - Other experiments have higher efficiency
- Experiment accounting summary
  - Today all business as usual

Current tools

- IF Experiments
  - CDF CAF monitoring
  - Fermigrid view (Keith's plots)
  - FIFEmon (Joe Boyd's plots)
  - Gratia
  - MCAS (Art Kreymer)
  - Scoreboard
  - Custom pages or scripts (dd - Rob Kutschke)
- Other experiments/collaborations
  - APEL and EGI/WLCG Accounting Portal
  - Experiments (ARDA) Dashboard
  - Panda monitoring
  - XSEDE Metrics on Demand (XDMoD)

What's missing

- Information
  - Computing capacity
  - Storage capacity and usage
- Presentation
  - Tailored information
  - Responsive overview
  - Both fixed and flexible time selection

Scoreboard lessons learned

- Prototype to present accounting information:
  - Overview page
  - Monthly summary
- Feedback on the interface
  - Positive feedback on both the summary and monthly reports
  - Made data more accessible
  - Request for experiment pages
  - Some data not so important (remove deltas)
  - Titles and names need to be adapted, using more familiar concepts

Next steps

- Add/Activate missing probes
  - Storage (dCache, BlueArc, Enstore)
  - Cluster capacity
- UI: GratiaWeb
  - Python (cherry.py, mathplotlib)
  - Less flexible, No support for user management, filters, client-side UI, Limited maintenance
  - OSG product, Integrated with Gratia, Quick way to a limited solution
- UI: XDMoD
  - PHP and Javascript framework, feature rich
  - Evaluated (running instance in Fermicloud)
  - No MySQL support, developers at New Buffalo (XSEDE)
  - Structured UI, Client-side UI, Good user management and customization
- UI: (ARDA) Dashboard
  - Python (templates, mathplotlib) and Javascript framework, feature rich
  - Needs evaluation
  - No MySQL support, developers at CERN
  - Structured UI, Client-side UI, Good data filters and flexible displays