

# HECF SIO 2009

Welcome everyone,  
we need your help!

Aug 8/9-8/12

# HECF SIO

- Purpose
  - The HEC FSIO was created to advise the HECIWG in coordination of government R&D funding in the HEC File Systems and I/O area so that the government's investment in this area of HEC is well spent, reduces gaps and overlaps. We are attempting to enable more and better R&D and pass along the knowledge to the next generation.
- History
  - This is the 5<sup>th</sup> workshop, \$10's of millions in R&D funding, dozens of funded NSF HECURA/CPA, DoE, and DoD projects, huge reliability/usage/trace data releases, successful community building, published portfolio of R&D and gaps, etc.
  - See
- Workshop Goals
  - Community building and Technical Exchange
  - Showcase/review
    - New NSF HECURA FSIO II Awards
    - Two SciDAC projects FSIO work and past NSF FSIO Projects
    - Relevant standards efforts
    - Other research enabling efforts (data availability/resources)
  - Collect input for R&D portfolio management
    - Shape Roadmaps for next 5 years R&D investments for upcoming decade problems
    - Collect input for R&D enabling
  - We need your help in shaping the Govt HECFSIO Portfolio

# FY09 – Serious Gap Revisit

- FY08 FSIO was the beginning of roadmap based portfolio management
- FY09 FSIO needs to be a thoughtful revisit of where are gaps really are and our R&D breakdown structure
  - Given we have dozens of projects finishing
  - Given we have dozens of new projects spinning up
  - Given that many of us are beginning to plan for Exaflop/Petaflop in a Rack, etc.
  - Is our breakdown still useful?
  - What gaps will remain in a few years?
  - What new gaps will emerge?

# Monday

- Preconf CDE 7:30 AM 8:30 AM Cont Breakfast
- Preconf CDE 8:15 AM 10:00 AM Late Registration
- FITZ CDE 8:30 AM 8:50 AM HECFSIO Welcome
- 8:50 AM 9:10 AM NSF Welcome
- Almadena Chtchelkanova
- 9:10 AM 9:40 AM Roadmaps
- James Nunez
- Security
- Break
- Next Generation I/O
- Lunch
- pNFS update
- Announcements/Short talks
- Breakouts (Security/Next Generation I/O)
- Communications and Protocols
- QoS
- Breakout (Communications and Protocols/QoS)
- Posters with munchies

# Tuesday

- Preconf CDE 7:30 AM 8:30 AM Cont Breakfast
- FITZ CDE 8:30 AM 8:40 AM Announcements
- Measurement and Understanding
- Break
- Management and RAS
- Breakout (Measurement and Understanding/Management and RAS)
- Data Release Announcements
- Lunch
- Announcements
- SciDAC SDM Update
- SciDAC PDSI Update
- Curricula and Other Gap Areas
- Archive
- Break
- Metadata
- Breakout (Archive/Metadata)
- Posters

# Wednesday

- Preconf CDE      7:30 AM 8:30 AM    Cont Breakfast
- FITZ CDE        8:30 AM 8:45 AM    Announcements
- Review all Gap Areas
- Wrap up
  
- HECFSIO Report and 2010 Planning

# National HPC Workshop on Resilience

- STARTS: Wednesday (8/12) 5pm – Poster Session
- ENDS: Thursday (8/13) 5:30pm
- The motivation for a National Resilience workshop is the pressing need for an integrated multi-disciplinary approach to maintaining productivity within HPC systems of today and tomorrow.
- Organizers:
  - Nathan DeBardeleben (LANL)
  - John Daly (DoD / Center for Exceptional Computing)
  - Stephen Scott (ORNL)
  - William Harrod (DARPA)