

Information Technology Committee Report

Spring Board Meeting

April 7, 2008

Hampton University

Agenda

- Joint discussions with Coastal Committee
- Update from CASC meetings and status of federal cyberinfrastructure programs
- SERON Update
- SURA-Grid Update
- Atlantic Wave and other International Initiatives
- Internet2 and National Lambda Rail update
- IT Strategic Plan

Joint Discussions with Coastal Committee

- Both committees are at critical junctures
 - Coastal Committee has a new strategic plan but is struggling with access to capital
 - IT committee entering a new phase focused on building programs to bring science communities to the CyberInfrastructure
- Alan Blatecki (Interim Director of RENCI)
 - Discussion of potential funding opportunities related to NSF standing programs and new announcements

Funding Outlook

- Sue Fratkin reported on:
 - Recent Consortium for Academic Supercomputing meeting in DC.
 - Current status of NSF CyberInfrastructure (CI) program.
 - Selection process for new Director
 - Current focus on ‘big iron’ at the expense of other cyberinfrastructure priorities.
 - Impact of upcoming elections
 - Focus on new science and tech-savvy legislators.
- Discussion of potential collaborations of SURA with CASC, EDUCAUSE and others to redirect CI focus.

SERON Update

- Charlie McMahon (LSU) stepped down as SERON chair.
- Replaced by Phil Halsted, CEO of Florida Lambda Rail (FLR)
 - Phil has brought great new energy to the group
- New strategy and focus articulated.
- Significant activity focused on FCC Rural Health opportunity.
 - \$1.2 B opportunity



Brief timeline

- **March 2006**
 - SURA Board of Trustees endorsement
- **November 2006**
 - begin SURAGRID Project Planning Working Group (transitional)
- **March 2007**
 - vote on *SURAGRID Governance & Decision-Making Structure* approved by SURAGRID
- **May 31, 2007**
 - SURAGRID Governance Committee established
 - SGC begins 1 year term (to May 31, 2008)
- **Dec 6, 2007**
 - SURA Board of Trustees Fall meeting, status report to SURA IT Committee



Sept 2006 All Hands

Mission: Provide collaborative community and a shared grid resource to advance the R&E goals of the SURA region.

SURAGRID goals

- Scalable grid infrastructure for secure access to shared resources across institutional boundaries
- Promote use for broad research and education community
- Vehicle for outreach and training to the wider community
- Forum to gain experience with grids and collaborative project development
- Facilitate collaboration, interaction, interoperability with other grids
- Capacity, knowledge and policy bridge between campus and national grids
- Evolution as a sustainable dual-purpose resource [reliable/experimental]
- *SURAGRID for Everyone*



SC06 Strategic Advisory Group

Near-term Objectives

- 1. Engage SURAGrid Strategic Advisory Group for high-level input
- 2. Review governance structure
- 3. Recommend strategies for alignment with other grid infrastructures

Ongoing Objectives

1. Expansion of SURAGrid by additional corporate partnerships
2. Inventory extant data collections, strategy for sharing via SURAGrid
3. Continued community building, development via collaborative joint funding
4. Outreach and awareness via educational workshops - raising awareness and use of high performance computing resources in the region (and nation)
5. Development of metrics of SURAGrid (capacity; applications; people on SURAGrid; proposals generated and funded; outreach events)
6. Annual review of goals and objectives



Members *(20 contributing, 6 participating)*

SURAgrid Contributing Members - April 4, 2008	Institutional Voting Lead
University of Alabama, Birmingham	John-Paul Robinson
University of Arkansas*	Amy Apon
University of Florida	Renato Figueiredo
George Mason University	Chaowei (Phil) Yang
Georgia State University	Art Vandenberg
University of Kentucky	John Connolly
Louisiana State University	Daniel S. Katz
University of Maryland	David McNabb
University of Miami (New Member)	Nicholas F. Tsinoremas
University of Michigan	Shawn McKee
Mississippi Center for SuperComputing Research	Jason Hale
University of North Carolina, Charlotte	Barry Wilkinson
Old Dominion University	Mike Sachon
University of South Carolina	Duncan Buell
Southeastern Universities Research Association	Gary Crane
Stephen F. Austin State University	P. R. Blackwell
Texas A&M University	Slev Johnson
Texas Advanced Computing Center	Warren Smith
Texas Tech	Philip Smith
University of Virginia*	Jim Jockl
SURAgrid Participating Members - April 4, 2008	Contact
University of Central Florida (New Member)	Brian Goldiez
Clemson University	Bill Gemmill
University of Louisiana at Lafayette	Ian Chang-Yen
North Carolina State University	Stephen Baker
University of Southern California*	Maureen Dougherty
Wake Forest University	Tim Miller



Working Groups

- SURAgrid Access Management Planning
 - PKI interoperation; BridgeCA; LDAP account management
- SURAgrid Accounting
 - Standard format, common view to basic usage records (metrics)
- SURAgrid SCOOP Applications Deployment
 - Multiple models & ensembles, running at multiple sites
- SURAgrid Software Stack
 - “one click” install, synch with OSG (via Tigre & TTU)
- SURAgrid Teaching Environment
 - Classroom grids, integrated courses

On hiatus

- *SURAgrid Environment Variables - common application environment*
- *SURAgrid Funding - external funding collaboration*
- *SURAgrid Implementation Team - Technical Roadmaps*

Applications: Deployed on SURAgrid

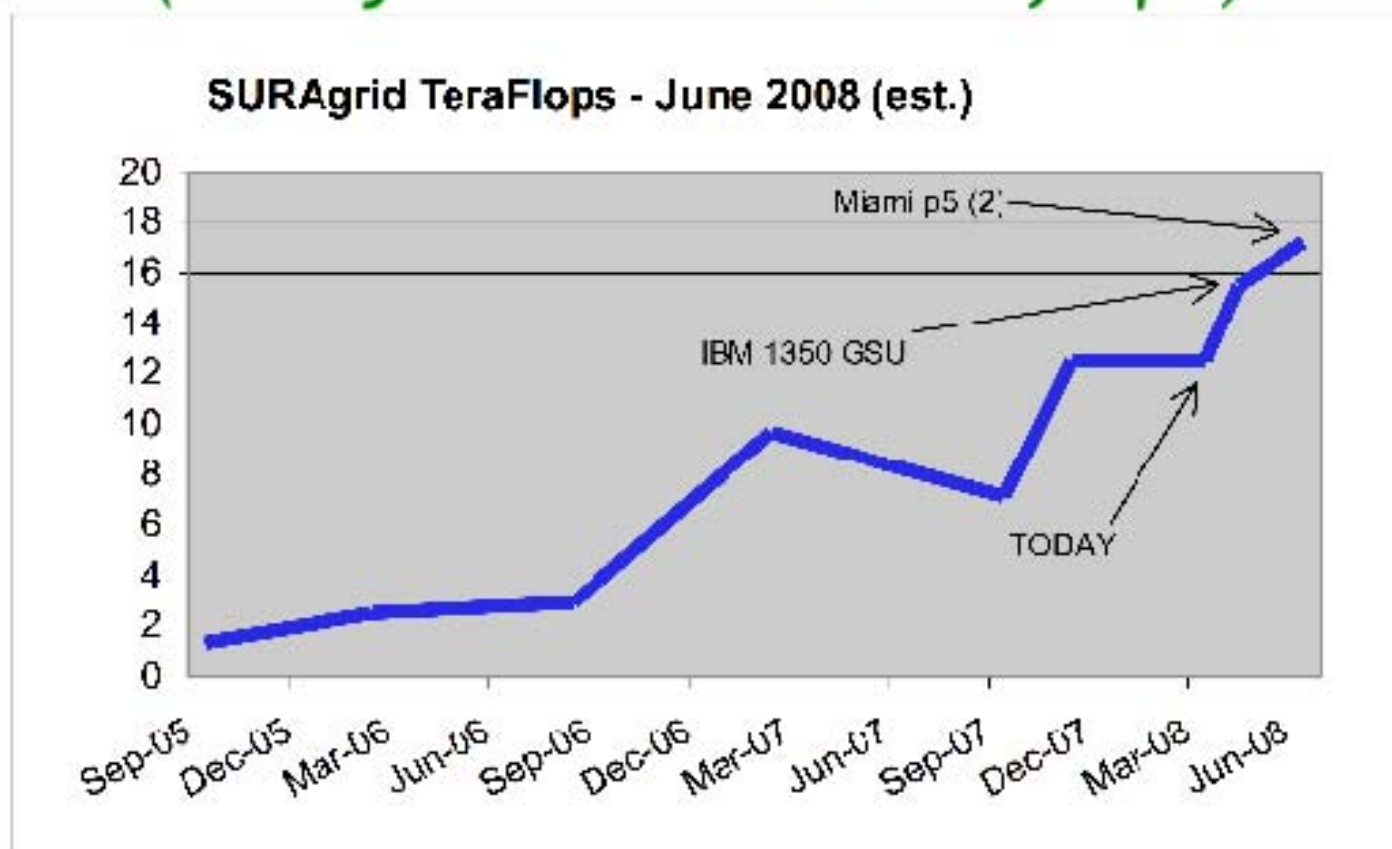
CI-Enabled Transformative Research

http://www.sura.org/programs/sura_grid_apps.html

		Current Status	Date Deployed
1	GSU Multiple Genome Alignment on the Grid	Hiatus	Dec-03
2	UABgrid Dynamic BLAST	Hiatus	May-05
3	UNC Storm Surge Modeling with ADCIRC	Hiatus	Jun-05
4	NCSU Simulation-Optimization for Threat Management in Urban Water Systems	Hiatus	Mar-06
5	LSU Wave Watch 3 for SCOOP	Hiatus	Mar-06
6	SURA SURAgrid Teaching Environment	Active	Aug-06
7	ODU Bio-Sim: Bio-electric Simulator for Whole Body Tissue	Hiatus	Aug-06
8	UFL CH3D Storm Surge Monitoring System with Grid Appliance	Hiatus	Sep-06
9	University of Delaware Climate Modeling with CAM3	Active	Jun-07
10	GSU Virtual Screening for Computational Chemistry	Active	Jun-07
11	VCU Virtual Parasite	Active	Sep-07



SURAgrid - (really more than Teraflops)



Expected addition of 10+ TeraFlops (UKY and others)

Strategic Plan

- New plan targeted for Fall Board meeting
- Strategic Planning Committee appointed by the steering committee.
- Third Wave Strategy
 - Building out the Network
 - Constructing the Grid
 - Bringing Science Communities to the CyberInfrastructure
- Trying to 'THINK BIG' and take the Long View
- Goals cannot be achieved by the IT community alone
- Critical to build/rebuild support among critical communities
 - Academic Leadership
 - Science leaders and working scientists
 - State governments, SGA, Economic Development

Strategic Planning Committee

- Dave Lambert – Georgetown and Chair of the SURA IT Committee
- JL Albert, Georgia State
- Guy Alms, Texas A&M
- Alan Blatecky–RENCI
- Jim Bottum- Clemson
- Gary Crane – SURA
- Jerry Draayer – SURA President
- Sue Fratkin – SURA Consultant
- John Mullin – GaTech
- Dick Neuman, Florida Tech
- N. Radhakrishnan – NCA&T
- Don Riley – UMd& SURA IT Fellow
- Ed Seidel – LSU
- Jim Siedow – Duke
- Chuck Staben, University of Kentucky
- Art Vandenberg – GSU
- Brian Voss - LSU
- Don Wright – SURA SCOOP