

SURAgriid Accounting Working Group Report

Basic Information

Purpose:

- To obtain basic usage information on SURAGrid

Issues:

- Heterogeneity (LL, PBS, Condor, SGE)
- User account setup, configuration, etc.
- Current accounting software / package

A Simple Test Plan

- A simple procedure to produce report (based on the User Record Field of Interest on LL, PBS and SGE)
- An automatic data collection procedure
 - 1) Collects basic records from local schedulers
 - 2) Uses scripts to extract information and converts data into the XML scheme (decided by SURAGrid accounting WG phase 1)
 - Instructions (PBS -- Steve; LL -- Victor; SGE -- JPR)
 - 3) Stores the data into specific local directory (using the name convention), and notices a centralized server to collect those data (gridftp) (in progress)

Next Step

- Automatic, periodical basic usage report
 - Parses those XML files and aggregate the basic usage data (in progress)
 - Presents data in a unified format
 - Will be discussed after data samples are collected

Other issues

- Usage record vs. accounting activity
- Grid-wide account setup and tracking
- Accuracy (such as 20% usage issue)
- Integration with grid accounting activities
- Future plans/directions

Access Management Working Group

Mission Statement

- [Informally] To shepherd progress in six major areas:
 - Overall Access Management planning
 - SURAgrid BridgeCA
 - SURAgrid Admin (iKey) CA
 - SURAgrid (user) CA
 - LDAP & User Account system
 - Policy documentation

Method of Work

- Formation Date & Life Span?
 - No clear date of formation, no end in sight...
- Meeting Method
 - Via conference call on an as-needed basis

Membership

- Participation is open
- Facilitator: Mary Fran Yafchak
- Current “members”
 - Jim Jokl/UVA
 - Dali Wang/SURA
 - Gary Crane/SURA
 - Others?

Overview of Work

- Current focus is to complete deliverables identified in Sept. 07 All-Hands meeting, as part of two-tiered PKI implementation.
- Expect to complete iKey distribution process, draft initial CP & CPS, and bring up SURAgrid CAs (iKey and user) this quarter.

Latest and detailed updates will be here this Friday morning, so stick around :-)!

Software Stack Team

Mission Statement

- [Informally] Assist in the testing and release of the packaged stack install as contributed by TTU in the February 2007 All-Hands meeting
 - Coordinate with related SURAGrid processes and user documentation
 - Coordinate community testing of packaged stack on various platforms for a) debugging if/as needed for current release, b) planning what's needed or desirable in future releases.

Method of Work

- Formation Date & Life Span?
 - In motion June 2007 & anticipated to end when stack is released, however, this area will need some ongoing attention for support of released version, and any future releases
- Meeting Method
 - Via conference call on an as-needed basis

Membership

- Participation is open
- Facilitator: Mary Fran Yafchak
- Current “members”
 - **Development & Support:** Jerry Perez/TTU, Mary Trauner/SURA, Dali Wang/SURA, (Jim Jokl/UVA)
 - **Pilot Testing:** Nicole Geiger/GSU, Victor Bolet/GSU, Mahantesh Halappanavar/ODU, David McNabb/UMD, Bin Zhou/GMU, Taner Pirim/MCSR-OleMiss

Overview of Work

- Current focus is to finalize v3 of the “Adding Computational Resources to SURAGrid” user documentation in conjunction with a fully tested version of the packaged stack
- We hope the Install Fest this week will be final verification of stack v1 and doc v3. Will base release on what is learned!

Implementation Team

Mission Statement

- [Informally] Established to help SURA staff resolve technical issues in the planning, deployment or use of SURAGrid resources, and to provide in-depth consideration of technical topics as needed to support discussion or decisions by the larger SURAGrid community.

Method of Work

- Formation Date & Life Span?
 - Formed in March 2005 in conjunction with SURA contracts to GSU, TACC & UVA for initial SURAGrid work. Put on hold Dec 07 pending re-examination of deployment process in light of a) new SURA staff, and b) SGC consideration of Working Group process
- Meeting Method
 - (Was) via conference call every two weeks

Membership

- Participation: From “appointed” to open...
- Facilitator: Mary Fran Yafchak
- Members
 - Art Vandenberg/GSU
 - Mahantesh Halappanvar/ODU
 - Dali Wang/SURA
 - Mary Trauner/SURA
 - Linda Akli/SURA
 - Ashok Adiga/TACC (previously)
 - Kate Barzee/SURA (previously)

Overview of Work

- The agenda for this group is primarily determined by what support SURAgrid requires beyond that which SURA staff are able to provide. Group is on hold while SURA staff responsibilities are being transitioned and clarified.

Environment Variables Working Group

Mission Statement

- Established in response to community desire for a more predictable and consistent application environment across SURAgrid resources.

Method of Work

- Formed October 2005, completed work January 2006
- Meeting Method
 - Via conference call & email as needed

Membership

- Participation was open
- Facilitator: Warren Smith/TACC
- Members
 - Victor Bolet/GSU
 - Shawn McKee/UMich
 - Jerry Perez/TTU
 - John-Paul Robinson/UAB
 - Judith Utley/(ODU at the time)

Overview of Work

- Completed first version of the environment variables specification. To date, these variables have not been well deployed on resources or used enough by application developers for SURAgrid to understand what more (or different) is needed.

Funding Working Group

Mission Statement

- Established to review external funding opportunities and develop ideas for collaborative proposals among SURAgrid members, and with SURA, that could provide external support for SURAgrid activities

Method of Work

- Met through most of 2005 and 2006, then put on hold due to limited time on the part of SURA staff
- Meeting Method
 - Came together approximately quarterly for a short series of conference calls focused on near-term program solicitations.

Membership

- Participation was open and varied
- Facilitator: Mary Fran Yafchak
- Members:
 - Sue Fratkin/SURA, Gary Crane/SURA, Gabrielle Allen/LSU, Hartmut Kaiser/LSU, Art Vandenberg/GSU, Sandra Redman/UAH, Phil Yang /GMU, Alan Shih/UAB, Ashok Adiga/TACC, Amy Apon/UArk

Overview of Work

- One half dozen or so proposal developments were “spun up” by the group during this time:
- Unfunded: NSF NMI, CRI, BPC, CCLI, CI-TEAM
- Funded:
 - TATRC “Developing Regional Grid Technology Support for TATRC Programs” (Award W81XWH-06-0419)
 - NSF SGER “Creating a Catalyst Application Set for the Development of Large-Scale Multi-purpose Grid Infrastructure,” (NSF OCI-0545550)

SG-Teach

Mission & Method of Work

- **Mission:** Develop a teaching environment within SURAGrid that can be used by SURA faculty to support hands-on exercises as part of their distributed computing and grid courses.
- **Method of Work:** Periodic conference calls
- **Participation type:** Open

Membership

1. Facilitator: Linda Akli

2. Participants:

- Amy Apon, University of Arkansas
 - Puri Bangalore, University of Alabama at Birmingham
 - Ian Chang-Yen, University of Louisiana at Lafayette
 - Jason Hale, Mississippi Center for SuperComputing Research
 - Tefvik Kosar, Louisiana State University
 - David McNabb, University of Maryland, College Park
 - Mark Matties, Bowie State University
 - Mike Sachon, Old Dominion University
 - Barry Wilkinson, University of North Carolina, Charlotte
 - Mary Fran Yafchak, SURA
 - Phil Yang, George Mason University
- Participation type: Open

2007-2008 Plans & Progress

1. UArk piloting UFL's Virtual Grid Appliance as a way to support student class assignments.
2. As part of the SURA Cyberinfrastructure Series, developed a workshop exploring the current practices and challenges in Grid-enabling Applications. The workshop was presented as part of the LSU Mardi Gras 2008 Conference in January 2008.
3. ODU used SURAGrid for student assignments for two courses during 2007.
4. Developed and continuing to refine the requirements for a teaching environment on SURAGrid.
5. Continue to explore collaborative funding opportunities.

**SURAgriid SCOOP
Applications Deployment
Team**

Mission Statement

The purpose of this working group is to promote communication between SCOOP and SURAGrid, deploy SCOOP models on SURAGrid, develop demonstrations for both SCOOP and SURAGrid presentations, and develop easy-to-use deployment documentation. Overall this group works to enable significant, predictive science in the SURA region, for the SURA region.

Method of Work

1. April 2007 - open
2. Conference call, biweekly
(liaison team on Tuesday,
deployment team on Friday)

Membership

1. Facilitator: Mary Trauner

2. Participation Information

- Liaison group: Luis Bermudez (SURA), Matt Smith (UAH), Mary Fran Yafchak (SURA), Mary Trauner (SURA) *Appointed*
- Deployment: Art Vandenberg and Nicole Geiger (GSU), Archit Kulshrestha, Gabrielle Allen, Dan Katz (LSU), Steve Johnson (TAMU), Mary Trauner, Mary Fran Yafchak, Dali Wang (SURA) *Resource owners, SURA*

Overview of Work

Last quarter we accomplished several things including

- general deployment of WW3 on the IBMs
- implementation/testing of pre-emptive queuing

We are currently working to

- bring our new liaison up to speed
- set goals for the next year (hurricane season)

As it stands we will likely

- switch from the event driven to retrospective modes
- concentrate on three models (ADCIRC, WW3, CH3D)
- recruit more computational sites

Side effects of this SCOOP application deployment are

- successful inclusion of the first partnership systems into SURAGrid
- some formulation/discussion of the 20% policy & procedure mechanisms