



SURAGrid STRATEGIC PLAN 2008-2012

The full 2008 SURAGrid Strategic Plan is available at: <http://sura.org/programs/docs/SURAGridSPlan.pdf>

EXECUTIVE SUMMARY

SURAGrid is an initiative of SURA originating from the volunteer collaboration of several institutions involved in the NSF Middleware Initiative (NMI) Integration Testbed Program operated by SURA under NSF Cooperative Agreement ANI-0123937, in partnership with Internet2 and EDUCAUSE.

SURAGrid adopted a formal governance structure in 2007 with the intent of supporting two core purposes: ensuring that institutions and organizations investing in SURAGrid have an appropriate role in its governance; and sustaining the growth of active community participation and cooperative engagement in enhancing the SURAGrid infrastructure.

The SURAGrid Governance Committee (SGC) has completed this multi-year strategic plan to provide overall guidance for SURAGrid's continued growth in alignment with SURA's broad mission to foster excellence in scientific research, to strengthen the scientific and technical capabilities of the nation and of the Southeast, and to provide outstanding training opportunities for the next generation of scientists and engineers.

The vision and mission for SURAGrid that has evolved from this process represents a maturing of the SURAGrid program and suggests leveraging the SURAGrid infrastructure that has been built over the past several years to create a new focus on community development and researcher engagement.

SURAGrid Vision

Promote excellence for research and education enterprises by fostering collaborative engagement in cyberinfrastructure across the SURA region.

SURAGrid Mission

SURAGrid provides a community for collaborative development and use of cyberinfrastructure services to support the research and education missions of our membership.

To realize this vision and carry out our mission, the SGC has identified the following **five goals** through our strategic planning process:

- 1) Develop a research outreach program to identify new users and new uses for the evolving regional and national computational and collaborative cyberinfrastructure available to the SURA region.
- 2) Plan, manage and support the SURAGrid infrastructure to provide a solid foundation for the evolution of SURA region research and education programs.
- 3) Develop a communications strategy for SURAGrid.
- 4) Develop a sustainability model for SURAGrid.
- 5) Strengthen existing and develop new corporate and organizational partnerships focused on improving regional use of Cyberinfrastructure (CI) services.

The SGC recommends an annual review and update of the SURAGrid strategic plan and associated program goals, action items and milestones. Revisiting this multi-year plan on an annual basis will allow the SURAGrid community to incorporate local, regional and national developments into the direction of SURAGrid as it continues to evolve and grow as part of the rapidly evolving academic cyberinfrastructure environment.

SURAGRID GOAL STATEMENTS AND MILESTONES

Goals and Milestones

Measurable milestones are important as they provide a clear mechanism to measure progress in meeting Strategic Goals. Milestones are listed for each Strategic Goal and its associated action items. Measurement implies ongoing monitoring and the adjustments that may be required to better accomplish the strategic elements. The SURAGrid Governance Committee is committed to periodic review, reporting and adjustment of milestones. The active and continuous engagement of the SURAGrid membership is critical in meeting milestones.

The following five goal statements and supporting milestones were developed through the SGC strategic planning process.

Goal 1 – Develop a research outreach program to identify new users and new uses for the evolving regional and national computational and collaborative cyberinfrastructure available to the SURA region.

- Promote use of SURAGrid (SG) as an integral part of regional and national cyberinfrastructure (CI) by creating a community of support to assist members in leveraging SURAGrid as a general-purpose infrastructure for delivering CI services and in grid-enabling SURAGrid member applications.
- Encourage large science teams with distributed, collaborative research programs to use SG resources for their science domain. Examples of such programs would be Coastal Ocean Researchers (SCOOP), Molecular Dynamics, Bioinformatics, Particle Physics (JLab), etc. Furthermore, these teams will be engaged in the development of domain specific methodologies and tools for leveraging SG resources.
- Create a program focused on supporting the use of SURAGrid and other national cyberinfrastructure services by researchers from Minority Serving and EPSCoR Institutions.

MILESTONES

- Identify at least two (2) new distributed, collaborative research programs/projects in the SURA region by May 2009.
- Engage at least five (5) SURA region Minority Serving Institutions in the development of a SURA MSI cyberinfrastructure program.
- Develop a SURA region Experimental Program to Stimulate Competitive Research (EPSCoR) focused cyberinfrastructure program.

Goal 2 – Plan, manage and support the SURAGrid infrastructure to provide a solid foundation for the evolution of SURA region research and education programs.

- Broaden understanding and adoption of SURAGrid through a statement of current capabilities and services.
- Leverage the broad CI perspective within the SURAGrid community to identify strategic services and align technological foundations, and provide regular assessments of technological trends of cyberinfrastructure initiatives.
- Develop peering relationships with national and international grid efforts such as TeraGrid and Open Science Grid in order to increase the computational and research capacity of our members
- Simplify the use of SURAGrid through improved integration of participant identity services and other CI components.
- Build a collaboration environment that supports the construction, operation, and management of SURAGrid, providing web and grid-based collaboration services for SURA Research Virtual Organizations.

MILESTONES

- Charge a SURAGrid Technology Infrastructure Planning Working Group to help guide the development and expansion of the SURAGrid infrastructure, including strategic relationships with other cyberinfrastructure initiatives such as TeraGrid and Open Science Grid.
- Complete an inventory of SURAGrid (computational resources, storage, visualization capabilities, software, users and applications) by March 2009.
- Align the activities and functions of existing working groups with the goals of this strategic plan.
- Increase SURAGrid resources by at least 50% each year through 2012.

TABLE 1. SURAGRID RESOURCE GOAL

SURAGrid Portal	Institutions	Resources	Cores	Peak (TeraFlops)	Memory (TeraBytes)	Disk (TeraBytes)
May 2009	18	24	3,000	25	7	70
May 2010	27	36	4,500	40	11	105
May 2011	40	52	7,000	60	17	157
May 2012	60	77	10,000	100	25	235

Goal 3 – Develop a communications strategy for SURAGrid.

- Develop and implement a communication strategy that presents the SURAGrid mission, infrastructure, capabilities, and support structure to current and potential users, resource providers, corporate partners and SURA members and management.
- Emphasize research and teaching success stories that are a result of using SURAGrid.
- Enhance SURAGrid’s online presence for both SURAGrid members and first time and repeat visitors to the SURAGrid web site.

MILESTONES

- Establish a Public Relations Working Group drawing upon the experience of SURA, SURAGrid members, and others who have expertise in Public Relations.
- Develop a set of standard SURAGrid talking points that can be presented by any SURAGrid member to the researchers, faculty, students, administration, and technical leadership of their campuses or communities.
- Establish a SURAGrid collaborative web-based environment that enables and enhances (through Wikis, forums or other common collaborative software) the ability of SURAGrid participants to interact and contribute their content.
- Publicize the vision of SURAGrid as a shared infrastructure that enhances and extends the research support infrastructure and organizations of its members in education, research, and industry publications.

Goal 4 – Develop a sustainability model for SURAGrid.

- Develop a sustainable funding model for SURAGrid leveraging national funding opportunities that are consistent and compatible with SURAGrid’s strategic goals and serving to focus the collaborative energy of the SURA region.
- Engage SURA community researchers in funding opportunities related to their usage of SURAGrid and other regional and national cyberinfrastructure services.

MILESTONES

- Establish a SURAGrid Sustainability Working Group to develop, evaluate and recommend a sustainability model for SURAGrid.

- Engage the SURAgrid membership (including the research user community) to complete and adopt a sustainable funding model by January 2010.

Goal 5 – Strengthen existing and develop new strategic partnerships focused on improving regional use of CI services.

- Expand existing corporate partnership program with a focus on offering new CI technologies and services to the SURAgrid community.
- Identify additional strategic partnerships (corporate or other organizational entities with cyberinfrastructure aligned purposes) capable of improving and expanding the SURAgrid infrastructure (computation, storage, visualization, application software, authentication/authorization, portals, and/or collaboration technology.)

MILESTONES

- Establish metrics to evaluate the impact of the SURAgrid Corporate Partnership program on the number of SURAgrid participants and the growth in use of SURAgrid cyberinfrastructure resources for research and education.
- Identify and negotiate specific corporate and organizational partnerships for new SURAgrid services (computation, visualization, distributed storage, systems software, middleware, application software, or support services relevant to SURA region domain science).

CONCLUSIONS

SURAggrid is an initiative of SURA originating from the volunteer collaboration of SURA member institutions. Its growth since 2004 reflects a community wide recognition of the importance of cyberinfrastructure as a key competitive advantage for higher education research and education. SURAggrid is recognized by SURA as a strategic activity for the region. Across the SURA region there are some exemplar activities, some regionally broad and others more locally focused, that are good examples of cyberinfrastructure investments by SURA and SURA member institutions.

SURAggrid members and other institutions in the SURA region are significant contributors to the evolving national research and education cyberinfrastructure and yet have not, to date, developed the collaborative research programs to effectively take advantage of available national cyberinfrastructure resources. The Strategic Plan outlined in this document attempts to define specific goals that will establish SURAggrid as an integral component of each SURAggrid member's campus cyberinfrastructure program and increase our members' ability to participate in and lead multi-institutional collaborative research programs that utilize local, regional and national cyberinfrastructure services. These goals are fully aligned with SURA's broader mission to foster excellence in scientific research, to strengthen the scientific and technical capabilities of the nation and of the Southeast, and to provide outstanding training opportunities for the next generation of scientists and engineers.