



PRESS RELEASE

Western New York Plays a Key Role in NYSGrid
The Announcement of a Cyberinfrastructure Initiative in NYS

BUFFALO, N.Y. -- Nineteen New York institutions have joined to create NYSGrid, a 21st century cyberinfrastructure initiative that will provide its constituency with unprecedented resources for research, education, and community outreach. NYSGrid resources will aggregate high-end computing, networking, data storage, visualization, and most importantly, intellectual capital from sites across the state.

“The digital revolution is data-driven and has permeated all aspects of society – from research to education, from entertainment to doing business,” said Dr. Russ Miller, NYSGrid Executive Director. “NYSGrid will provide researchers, teachers, students, and communities with the tools needed to navigate and excel in our data-driven, knowledge-based economy.”

Cyberinfrastructure sits at the core of modern simulation and modeling, which creates entirely new methods of investigation that allow scholars to address previously unsolvable problems. NYSGrid is taking advantage of recent advances in technologies in order to physically link distributed resources, including compute systems, data storage devices, visualization systems, sensors, and a wide variety of instruments. Using NYSERNet (www.nysernet.org) as the networking backbone, the conglomeration of integrated systems requires additional work in order to make such a “grid” easily accessible to the broad community.

By pooling together New York’s centers of expertise, NYSGrid will push the development of software, algorithms, portals, and interfaces that will free researchers and students from the complexities of navigating the grid: for example, the goal is to be able to transparently collect, manage, organize, analyze, and visualize data without having to worry about details such as where the data are stored, where the data are processed, where the data are rendered. This ease of use and high availability of data and information processing tools will allow for revolutionary advances in all areas of science, engineering, and beyond.

The founding institutions of this grass-roots New York State initiative include the University at Albany, Alfred University, Binghamton University, Brookhaven National Laboratory, the University at Buffalo, Columbia University, Cornell University, SUNY-Geneseo, the Hauptman-Woodward Medical Research Institute, Marist College, Memorial Sloan Kettering Cancer Center, Niagara University, NYSERNet, New York University (NYU), the Rochester Institute of Technology (RIT), the University of Rochester, Rensselaer Polytechnic Institute (RPI), Stony Brook University, and Syracuse University.

Significant progress has already been made in establishing a working grid that includes many of these institutions. The genesis of this grid comes from an \$800,000 National Science Foundation grant awarded to the Hauptman-Woodward Medical Research Institute, Niagara University, SUNY-Geneseo, and the University at Buffalo to create an integrated computational and data grid in Western New York. During the development of the WNY grid, additional institutions from around the state were brought into the grid. As a result, the creation of the grass-roots state-wide grid that serves as the foundation for NYSGrid has been led by the WNY contingent, including UB’s Center for Computational Research, which continues to provide leadership in terms of a wide variety of capital and personnel resources and expertise.

“The NSF grant has provided Niagara University with the opportunity to acquire significant computing power and skills,” remarked Dr. Mary McCourt, Chair and Professor of Chemistry at Niagara University. “In addition to putting us in a better position to train students on creating and utilizing modern computing platforms, the grid provides scientists at Niagara with the opportunity to perform science at a level previously unattainable.”

2/2/2/2

WNY Role in NYS Grid

User groups across the state are in the process of being identified, training sessions are being designed, middleware developers are being organized, and the mission and organizational structure is being developed and refined.

“We have been working on grid computing efforts with Russ Miller and his colleagues at UB for a number of years,” said Dr. Charles M. Weeks, Senior Research Scientist at Hauptman-Woodward. “Grid computing provides scientists at HWI who who need to do extensive computations with the opportunity to perform experiments orders of magnitude larger than previously possible.”

The initial Governing Board of NYSGrid consists of Linda Callahan (Cornell), James Davenport (Brookhaven), Chris Haile (Albany; chair of board), Gurcharan Khanna (RIT), Tim Lance (NYSERNet), Russ Miller (Buffalo, Executive Director), and Mark Shephard (RPI). NYSGrid was the result of two workshops that Cornell University organized during the summer of 2006 to consider “Data-Driven Science and Cyberinfrastructure in New York State.” The support of Dr. Shirley Jackson, President of RPI and former Chair of the U.S. Nuclear Regulatory Commission, and Dr. Bob Richardson, Nobel Laureate and Vice President for Research at Cornell University, as well as significant funds provided by New York State to both RPI and a Brookhaven-Stony Brook consortium, demonstrate the level of support in terms of providing key building blocks to enable 21st century discovery in New York State.

Dr. Richardson stated that “with the emphasis on support for cyberinfrastructure among federal agencies and the White House, we believe it is an opportune time to assemble institutions of higher education in New York State to develop a collaborative plan for increasing New York State competitiveness.”

The website for this initiative is www.nysgrid.org For additional information, please contact Executive Director, Russ Miller (www.cse.buffalo.edu/faculty/miller/), at miller@buffalo.edu or 716.645.3180 x113. Dr. Miller is UB Distinguished Professor of Computer Science and Engineering at the University at Buffalo (UB) and Senior Research Scientist at the Hauptman-Woodward Medical Research Institute. Dr. Miller is widely recognized as a leader in grid computing and cyberinfrastructure.

In May of 2006, UB’s Senior Vice Provost, Dr. Bruce Holm, agreed to support Dr. Miller’s vision for a UB CyberInstitute and name Dr. Miller as its founding Director. In order to secure a seamless transition at UB’s supercomputing center, in June of 2006, Dr. Miller, who served eight years as (founding) director of the Center for Computational, handed over the reigns of CCR to Dr. Tom Furlani, CCR’s Associate Director. According to Dr. Holm, the CyberInstitute should be formally announced shortly as he is correcting some financial issues and allocation of key resources.

About Hauptman-Woodward

Celebrating 50 years of exceptional scientific research, HWI is an independent, non-profit facility specializing in the area of fundamental biomedical research known as structural biology. Our team of more than 70 staff members is committed to improving human health by studying the causes of diseases, as well as potential therapies, at their basic molecular level. We are located in the heart of the Buffalo Niagara Medical Campus in downtown Buffalo, New York, in a new state-of-the-art structural biology research center at 700 Ellicott Street. For more information, visit HWI’s website at www.hwi.buffalo.edu or call 716-898-8600.

About Niagara University

Niagara University was founded in 1856 and has been in existence for 150 years and enrolls over 3800 students. The campus is located between Niagara Falls, New York and the Town of Lewiston. The University has evolved over its long history into an institution that offers degree programs in the Arts and Sciences, Business, Teaching and Travel and Tourism. The University has recently established an Academic Center for Integrated Sciences with funding from the geNYsis program and New York State.

About UB

The University at Buffalo is a premier research-intensive public university. It is the largest and most comprehensive campus in the State University of New York system. The Center for Computational Research and the soon-to-be established UB CyberInstitute are both entities that exist within the UB’s New York State Center of Excellence in Bioinformatics and Life Sciences.