Jason Novotny
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Work Address

UCSD - BIRN
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Professional Expertise

Jason Novotny is the chief architect of the GridSphere portal *http://www.gridsphere.org* and is involved with overseeing the development of the production bioinformatics research portal at the University of California, San Diego. Jason has been involved in distributed computing research and Grid computing since the early beginnings in 1998 and authored the Grid Portal Development Kit (GPDK) and co-authored the MyProxy online credential repository software. His interests include distributed computing frameworks and middleware, distributed system security, high performance networking, and high level tools and components for developing distributed computing applications using J2EE. Jason Novotny has been involved with developing and deploying distributed applications and Grid middleware for the DOE Science Grid, the NCSA/Alliance Virtual Machine Room (VMR) and the NASA information Power Grid (IPG) and has been an active participant in Grid Forum since its inception.

Education UNIVERSITY OF CALIFORNIA BERKELEY Berkeley, CA
B.S. Engineering Physics June 1997.

Employment NAT'L CENTER FOR MICROSCOPY FOR MICROSCOPY RESEARCH, UNIV. CALIFORNIA, SAN DIEGO San Diego, CA
2005–current

Chief architect of the standard compliant GridSphere portal http://www.gridsphere.org and overseer of the biomedical informatics research (BIRN) portal Chief responsibilities include:

- Managing a team of software engineers to produce a high quality, robust portal to support the needs of the BIRN project and application users.
- Participation within the Java Community Process (JCP) on the next generation of portal standards known as JSR-286.
- Day to day maintenace, support and development of the GridSphere portal framework.

ALBERT EINSTEIN INSTITUTE, MAX PLANCK INSTITUTE
Berlin, Germany

2002–2004

Lead Design Architect in the Grid Portals Work Package for the EU funded GridLab project and emgineer behind the standard compliant GridSphere portal http://www.gridsphere.org Chief responsibilities include:

- Working with a team of software engineers to produce a high quality, robust Grid portal to support the needs of the GridLab project and application users.
- Developing a standards (JSR 168 compliant) portlet implementation and compliance testing.
- Producing design specifications including use-case scenarios and UML diagrams.
- Java software development using XML, servlets, JSP, XSLT, Ant, Castor, Hibernate, JSSE and OGSA
- Provide application assistance to application developers and users wishing to use the GridLab developed portal.
- Acting as liaison and contact person between other GridLab workpackages and building synergy between work packages.
- Collaborating with Globus group at Argonne National Laboratory and working with Grid Forum representatives to introduce standards in developing Grid portals.
- Giving presentations and publishing papers on Grid portals.

LAWRENCE BERKELEY NAT'L LABORATORY Berkeley, CA
2000–2002

Computer Systems Engineer in Grid computing in the Distributed Systems Department Chief responsibilities include:

- Investigate and deploy Grid software including Globus to the DOE Science Grid. Provide assistance to the NERSC production computing center and other DOE computing facilities.
- Actively participating in Global Grid Forum in Grid Computing Environments Working Group.
- Developing higher level software tools and frameworks for utilizing Grid services including the Grid Portal Development Kit (GPDK). The GPDK has been downloaded and evaluated by numerous research communities around the world including NASA Ames, NCSA, CERN, and the UK HPC center.
- Distributed security research involving the Grid Security Infrastructure.
- Provide application assistance to scientific collaborations including the Supernova Cosmology Group, the Bay Area Air Quality Management District and the Earth Systems Grid.
- Routine system administration of DSD resources including a dual processor linux box and several Sun Solaris SMP nodes.

NASA AMES RESEARCH CENTER c/o NCSA Mountain View, CA
1999–2000

Worked as a remote NCSA research scientist on site at NASA Ames providing expertise in the Information Power Grid (IPG) project.

- Provide training and application assistance to researchers using Globus middleware across Ames, Langley and Glenn Research Centers.
- Research and develop Grid middleware and higher level Grid services including an online credential repository system known as MyProxy. The MyProxy software has gained international acceptance by the Global Grid Forum and is being used by research groups around the world including NASA Ames, NCSA, LBL, the European Datagrid, and the University of Tokyo.
- Assist in NASA Ames projects including Grid enabled agent based datamining and IPG user portal projects.

NAT'L CENTER FOR SUPERCOMPUTING APPLICATIONS
Champaign, IL

1998–2000

Funded to support the National Laboratory of Applied Network Research Distributed Applications Support Team (NLANR DAST).

- Provide application and training assistance to universities and research centers in the area of wide are network tuning. Develop training materials and give public presentations of current research efforts.
- Support and develop high performance network applications. Significant contribution includes the distributed Cactus astrophysical simulation at SC98.
- Research and investigate Grid middleware including Globus.

LAWRENCE BERKELEY NAT'L LABORATORY Berkeley, CA
1995–1997

Research Associate in the Accelerator and Fusion Research Division.

- Developed user interfaces to free electron laser and electrostatic PIC codes.
- Vectorizing and optimizing existing plasma simulation code on the Cray J90.

Publications

J. Novotny. M. Russell, O. Wehrens.
The Grid Portlets Web Application: A Grid Portal Framework

J. Novotny. M. Russell, O. Wehrens.
GridSphere: An Advanced Portal Framework
EUROMICRO 412-419 August, 2004

J. Novotny. M. Russell, O. Wehrens.
GridSphere: A Portal Framework For Building Collaborations
IEEE Concurrency and Practice April, 2004;

J. Novotny
Developing grid portlets using the GridSphere portal framework
IBM DeveloperWorks: Grid Zone
`http://www-106.ibm.com/developerworks/grid/library/gr-portlets/`
Feb, 2004

G. Allen, K. Davis, T. Dramlitsch, T. Goodale, I. Kelley, G. Lanfermann, J. Novotny, T. Radke, K. Rasul, M. Russell, E. Seidel, O. Wehrens
The GridLab Grid Application Toolkit
Proc. of the 11th IEEE Intl. Symp. on High Perf. Dist. Comp 2002;

M. Russell, G. Allen, G. Daues, I. Foster, E. Seidel, J. Novotny, J. Shalf, G. Laszewski
The Astrophysics Simulation Collaboratory: A Science Portal Enabling Community Software Development. *Cluster Computing* 5(3): 297-304 (2002)

J. Novotny.
The Grid Portal Development Kit.
IEEE Concurrency and Practice vol. 13, 2002;
(Also appeared in *Grid Computing: Making the Global Infrastructure a Reality*)

J. Novotny, S. Tuecke, V. Welch.
An Online Credential Repository for the Grid: MyProxy.
Proc. of the 10th IEEE Intl. Symp. on High Perf. Dist. Comp. 2001;

G. Allen, G. Daues, I. Foster, G. Laszewski, J. Novotny, M. Russell, E. Seidel, J. Shalf
The Astrophysics Simulation Collaboratory Portal: A Science Portal Enabling Community Software Development. *Proc. of the 10th IEEE Intl. Symp. on High Perf. Dist. Comp* 2001;

T. Hinke, J. Novotny
Data Mining on NASA's Information Power Grid
Proc. of the 9th IEEE Intl. Symp. on High Perf. Dist. Comp 2000;

W. Benger, I. Foster, J. Novotny, E. Seidel, J. Shalf, W. Smith, P. Walker.
Numerical Relativity in a Distributed Environment.
Proc. Ninth SIAM Conference on Parallel Processing for Scientific Computing 1999;