

## Case Research Computing Newsletter

### 29 September 2005

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**1. SC|05 November 12-18 Seattle, WA**

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<http://sc05.supercomputing.org/>

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**2. Possible Internet2 Consolidation with National LambdaRail**

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<http://www.internet2.edu/consolidation/>

The boards of Internet2 and [National LambdaRail](http://www.lambdarail.org/) each passed resolutions to begin discussions towards consolidation of the two organizations. These resolutions endorse the recommendations of reports recently completed by Group A and Group B, both of which were convened by the National LambdaRail Board and the Internet2 Network Planning and Policy Advisory Council, with the endorsement of the Internet2 Board.

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**3. gridMathematica to be available on the Case pilot HPC cluster**

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ITS is in the process of acquiring the gridMathematica product from Wolfram Research for installation on the pilot HPC cluster. The projected date of availability is October 16, 2005. See

<http://www.wolfram.com/products/gridmathematica/> for information on gridMathematica.

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#### **4. Sun Microsystems to Work with NLR to Extend Grid Computing**

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<http://www.nlr.net/20050711-PR.html>

On July 11, 2005, Sun Microsystems Inc. and National LambdaRail (NLR) announced a joint initiative to extend Sun's grid efforts, which provide flexible access to distributed high-performance computing resources. NLR, a major initiative of U.S. research universities, including Case, and private sector technology companies, owns and operates a national-scale fiber optic infrastructure for research and experimentation in networking technologies and applications.

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#### **5. Case announces availability of Oracle HTML DB service**

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ITS is now making available a hosting service for Oracle HTML DB. ITS hosts HTML DB on its servers and provides access via web browser to the research community for a small monthly fee. Please see <http://www.case.edu/its/researchcomputing/databasehosting.htm> for details.

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#### **6. NSF awards \$10 million to the Data Intensive Science University Network**

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<http://www.supercomputingonline.com/article.php?sid=9053>

Scientific research and grid computing at universities across the country took a big step forward recently with an award of \$10 million from the National Science Foundation to the Data Intensive Science University Network. DISUN will allow over 200 physicists at U.S. universities to study the fundamental properties of particles and forces by providing access to data from the Compact Muon Solenoid experiment at the Large Hadron Collider at CERN in Geneva, Switzerland.

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#### **7. World's first gigaconference pushes videoconference equipment limits**

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<http://www.supercomputingonline.com/article.php?sid=9124>

The world's first Gigaconference videoconferencing event opened on August 5 to showcase the use of high-end, high-performance videoconferencing equipment. The Internet2 Commons and Codian Corporation are the sponsors. More than 20 participating sites from around the world gave presentations on a variety of topics including animated videos, musical performances, classroom teaching experiences, remote medical collaborations, and much more. Some of the highlights included: "Classical Music and the IP Prince" by the Cleveland

Institute of Music; "Telemedicine via Live High-Performance Video" from Helsinki, Finland; "Live from the Distance Teaching and Learning Conference" in Madison, WI; and "The Ohio State University Marching Band."

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**8. QB3 and LBNL Establish Joint Biological Data Management Core**

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<http://www.supercomputingonline.com/article.php?sid=9098>

To help researchers turn the growing mountains of biological data into scientific knowledge, the California Institute for Quantitative Biomedical Research (QB3) and Lawrence Berkeley National Laboratory (Berkeley Lab) have agreed to turn the Lab's Biological Data Management and Technology Center into a joint Biological Data Management Core Facility.

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**9. Scientists Reach Back 2,000 Years to Bring Rare Child Mummy Back To Life**

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<http://www.supercomputingonline.com/article.php?sid=9082>

Two thousand years ago in the sands of Egypt, grieving parents put their tiny child to rest in a way that was customary even during the time of Christ. They removed all of the youth's organs except for the heart, packed the remains in salt to cure them, and wrapped them in linen coated with perfumed resin. Like all Egyptians of the age, they were certain that their careful efforts would prepare their loved one to someday come back to life. In Silicon Valley, a team of world-renowned experts proved those parents right - although the mummy's high-tech resurrection may not quite be what ancient Egyptians had in mind.

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**10. Now Open for Scientific Research: Open Science Grid**

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<http://www.supercomputingonline.com/article.php?sid=9016>

On July 20, 2005 the Open Science Grid Consortium officially inaugurated the Open Science Grid, a national grid computing infrastructure for large scale science. The OSG is built and operated by teams from U.S. universities and national laboratories, and is open to small and large research groups nationwide from many different scientific disciplines.

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**11. Groundbreaking Combustion Research by Lawrence Berkeley National Laboratory**

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<http://www.supercomputingonline.com/article.php?sid=9051>

Computational and combustion scientists at the U.S. Department of Energy's Lawrence Berkeley National Laboratory have earned national recognition in the July 19, 2005 Proceedings of the National Academy of Sciences with their cover article about unparalleled computer simulations of turbulent flames. The LBNL group has developed an algorithmic approach that combines the "low Mach-number equations," which remove sound waves, with "adaptive mesh refinement" (AMR). The combined methodology strips away relatively unimportant aspects of the simulation and focuses computing resources on the most important processes. Developed with the support of the Applied Mathematics Program of the DOE Office of Advanced Scientific Computing Research, the group's algorithms have slashed computational costs for combustion simulations by a factor of 10,000. Even so, the combustion simulation required substantial computing power - the simulation ran for about 1,000 hours on 256 processors of the IBM SP supercomputer at DOE's National Energy Research Scientific Computing Center.

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## **12. TeraGrid Initiative Seeks to Address Needs of Computational Scientists**

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<http://www.supercomputingonline.com/article.php?sid=9032>

Key representatives of the TeraGrid initiative - the world's largest, most comprehensive cyberinfrastructure for open scientific research - will participate at the eighth official Congress of the United States Association for Computational Mechanics (USACM) to better understand how the TeraGrid's high-performance cyberinfrastructure can further advance the particular research needs of computational scientists.

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## **13. AT&T to Offer Utility Computing Service**

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<http://www.computerworld.com/printthis/2005/0,4814,103718,00.html>

AT&T Corp. will launch a managed utility computing service late in 2005 based on hardware from Sun Microsystems Inc. as one of several improvements to its hosting service.

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## **14. Sun launches open-source digital rights community**

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<http://www.openmediacommons.org/>  
[http://news.com.com/2100-1025\\_3-5840492.html](http://news.com.com/2100-1025_3-5840492.html)

After years of work, Sun Microsystems has begun trying to rally corporate allies behind a neutral standard for digital rights management, technology that governs how music, video or other information can be used or copied.

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## **15. Sun Sets up Open-Source Office**

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[http://news.com.com/2100-7344\\_3-5838721.html](http://news.com.com/2100-7344_3-5838721.html)

Sun launches an office dedicated to open-source matters, signaling a new elevation of the collaborative programming philosophy within the company. Sun Open-Source Officer Simon Phipps says, "Sun is now heading in the direction where all its software is going to be based on open source. It's become more important than ever to have coordination to promote best practices and ensure consistency in the way Sun behaves with open-source communities."

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#### **16. Sun Adds Identity Management to Open Source**

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[http://searchdatacenter.techtarget.com/originalContent/0,289142,sid80\\_gci1116891,00.html](http://searchdatacenter.techtarget.com/originalContent/0,289142,sid80_gci1116891,00.html)

Sun taps into the pulse of the identity management market with its Web single sign-on (SSO) offering open source and the announcement of high profile implementations of its Java-based identity management software.

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#### **17. Enterprise Grid Alliance publishes on Grid Security**

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<http://www.computerworld.com/hardwaretopics/hardware/gridcomputing/story/0,10801,103470,00.html>

The Enterprise Grid Alliance publishes its first paper on the unique security requirements of grids. The 37-page paper aims to help end users, vendors and standards groups identify the risks associated with enterprise grid computing.

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#### **18. WSCG 2006 Call for Papers and Participation**

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W S C G ' 2006 (formerly the Winter School of Computer Graphics)

14th International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision 2006 in co-operation with EUROGRAPHICS. University of West Bohemia, Plzen, Czech Republic, January 30 - February 3, 2006

Topics include computer graphics and visualization, computer vision, image processing and pattern recognition, fundamental algorithms, graphical human computer interfaces, geometric modeling and computer aided geometric design, computational geometry, rendering and virtual reality, animation and multimedia, medical imaging, graphical interaction, object\_oriented graphics, parallel and distributed graphics, WWW technologies, CAD/CAM, DTP and GIS systems and others.

for more information contact Prof. Vaclav Skala, c/o University of West Bohemia, Univerzitni 8, Box 314, CZ 306 14 Plzen, Czech Republic.

Email: [skala@kiv.zcu.cz](mailto:skala@kiv.zcu.cz) with Subject: INFO WSCG 2006. Tel/Fax: +420-

37-763-2457. Feel free to visit <http://wscg.zcu.cz> where on-line papers are available (no access restriction) since 1992.

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**19. IEEE International Symposium on High Performance Distributed Computing - June 2006 - Paris, France - Call for Papers**

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HPDC'15 - The 15th IEEE International Symposium on High Performance Distributed Computing June 19-23 2006 Paris, France → [www.hpdc.org](http://www.hpdc.org)

The Fifteenth IEEE International Symposium on High-Performance Distributed Computing (HPDC) will be a forum for presenting the latest research findings on the design and use of parallel and distributed systems for high end computing, collaboration, data analysis, and other innovative applications. Submissions are welcomed covering all aspects of high- performance distributed computing, Grids, and global computing ensembles. New scholarly research emphasizing empirical and reproducible results as well as investigative expositions of successful application and deployment efforts are particularly encouraged.

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