Simplified Wireless LAN Access to JuNet

Until now, all users of the wireless LAN at Forschungszentrum Jülich have been treated as if they were connecting from the Internet: they have to use VPN to access internal services. JSC now provides alternative wireless access for employees of Forschungszentrum Jülich that allows direct secure access to JuNet without additional software if they are within reach of a Trapeze Access Point. This access relies on X.509 certificates from the DFN Global Certificate Authority for client authentication and encryption. To use the new service, users need to obtain such a certificate from the Registration Authority located at JSC and register the client in the JuNet database.

The new access method is available at each of the about 260 Trapeze Access Points currently installed on campus. More information can be found in the documentation TKI-0408 at: *http://www.fz-juelich.de/jsc/files/docs/tki/tki-0408.pdf*
(Contact: Markus Meier, ext. 6766)

Launching the New Email Service

Since 1983, even before Germany was connected to the Internet, JSC (at that time named ZAM) has provided the central email service for Forschungszentrum Jülich, initially based on the EARN network. In June 2009, responsibility for email will be handed over to the new business division IT Services, which will at the same time put a new central email service into operation. This new email service is based upon the Microsoft Exchange technology. It offers a unified communication platform with extended groupware features.

At the same time, specific dispatch tasks concerning email and identity management will be switched from the JSC Dispatch to the IT Services division. Furthermore, IT Services will provide the central service desk for all incidents, questions and orders regarding email usage.

Support for all common client-sided email applications will be continued. Additional groupware functions will be available for MAPI-based email clients. Migration from the current JSC-operated email system to the new Exchange email server will be completely transparent to the email user. Every user will only have to use a newly assigned password for initial logon. Details will soon be provided to all email users.
(Contact: Franz Bläsen, ITS, ext. 8730)

News from the Hermes Project

The BMBF-funded Hermes project started on 1 November 2008 with the objective of improving safety for people in large multifunctional buildings as well as at big events by employing an evacuation assistant which provides a reliable prediction of the course of an evacuation. This collaborative project is part of the German High-Tech Strategy supported by the Federal Ministry of Education and Research (BMBF). The LTU arena in Düsseldorf is a partner in this project and provides the venue for testing the evacuation assistant.

From 29 to 30 April, a series of experiments were carried out in cooperation with the University of Wuppertal and the LTU arena with up to 300 students (see photo). The results of these experiments will be used to calibrate and validate the models for pedestrian dynamics that are currently being developed for the evacuation assistant by JSC and the University of Cologne. With these data, it will be possible for the first time to measure characteristics of staircases and other complex geometries based on the trajectories of the test persons. In the next step, JSC will implement the validated pedestrian dynamics models on state-of-art parallel systems such as the Cell Broadband Engine in order to achieve real-time simulations for a reliable forecast of the evacuation dynamics.
(Contact: Dr. Armin Seyfried, ext. 3427)

Chemomentum Project Successfully Completed

On 2 April 2009, the final review of the EU-funded Chemomentum project took place. In the project, a UNICORE-based system for workflow-centric applications was developed, focussing on ease of use, easy integration of applications and data management. The project mainly targeted applications from bioinformatics such as QSAR and molecular docking. Apart from JSC, partners from Poland, Germany, Italy, Estonia, Northern Ireland and France were involved in the project.

Researchers from JSC developed a Grid client based on Eclipse which allows users to create jobs, edit and run scientific workflows and access storage systems. A server-side workflow system dealing with workflow execution and selection of appropriate execution resources was designed and implemented. The key software components developed during the project have already been integrated into the core middleware and are available through the UNICORE web site *http://www.unicore.eu*.

Further information about the Chemomentum project can be found at: *http://www.chemomentum.org*
(Contact: Dr. Bernd Schuller, ext. 8736)

eeClust Project Started in April

The goal of the eeClust project (Energy-Efficient Cluster Computing), funded under the BMBF call "HPC-Software für skalierbare Parallelrechner", is to determine relationships between the behaviour of parallel programs and the energy consumption of their execution on a compute cluster. Based on this, strategies to reduce the energy consumption without impairing program performance will be developed. The main contribution of JSC will be the development of measurement and analysis software which also takes energy consumption metrics into account, as well as the evaluation of the developed strategies via synthetic and application benchmarks. Project partners are the University of Hamburg (coordinator), Dresden University of Technology (TUD/ZIH), ParTec Cluster Competence Center GmbH, and JSC of Forschungszentrum Jülich GmbH.
(Contact: Dr. Bernd Mohr, ext. 3218)

New 10 Gb/s Firewall for Forschungszentrum Jülich

On Saturday, 9 May 2009, JSC is installing a new high-performance firewall. The new CISCO ASA achieves wire-speed throughput with 10 Gigabit Ethernet interfaces and has a scalable architecture to fulfil the current and future requirements of supercomputing, Grids, and standard IT operations. This has also been proven in a comparative study of high-performance firewalls for Grid environments, carried out by JSC in the context of the D-Grid project. The installation of a redundant system for high availability is planned later in 2009. During the installation on 9 May, there will be intermediate interrupts in the communication between JuNet and external networks from 8:00 until 13:00. Perimeter networks like WLAN and demilitarised zones will also be affected. VPN access will not be affected.
(Contact: Egon Grünter, ext. 5408)

Events

Festkolloquium: Horst Rollnik und die computer-gestützten Wissenschaften
Date: Thursday, 14 May 2009, 13:30 - 19:00
Venue: VR-Rotunda, Jülich Supercomputing Centre
Please register at:
http://www.fz-juelich.de/nic/events/colloquium.html

Neues zur MATLAB-Software
Presentation of the company The Mathworks
Date: Monday, 18 May 2009, 13:30 - 16:45
Venue: Hörsaal, Jülich Supercomputing Centre
Agenda and registration:
http://www.mathworks.de/company/events/seminars/seminar34077.html

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