North West Grid Overview

R.J. Allan
CCLRC Daresbury Laboratory

A world-class Grid infrastructure for the North West.

A Unique North-West Project:
advancing Grid Technologies and Applications

Technology "tuned to the needs of practicing scientists".

Hooks to other Grid consortia: NGS, WRG

Top end: HPCx and CSAR

Applications and industry

Pharma, meds, bio, social, env, CCPs

Portals, client toolkits, active overlays

Mid range: NW-GRID and local clusters

User interfaces

Sensor networks and experimental facilities

Advanced Network technology

Desktop pools: Condor etc.

Rob Allan
Daresbury Laboratory

The NW-GRID Project

- Funded by NWDA
- A Grid resource for the North West
- The project will be structured around three major testbed milestones:
  - Testbed 1 (2006): High-performance and parametric applications
  - Testbed 2 (2007): Safe, bookable and accountable Grid
  - Testbed 3 (2008): Collaborative real-time Grid
- Academic users
- Commercial users
- Partners

Statement

- The NW-GRID project, a collaboration between CCLRC Daresbury Laboratory and the Universities at Lancaster, Liverpool and Manchester, will establish a computational Grid comprising large-scale commodity computing systems coupled by a high-speed network. It will establish, for the region, a world-class activity in the deployment and exploitation of Grid middleware technologies (the software that glues together the various data and computing resources) and demonstrate the capabilities of the Grid in leading edge computational science and engineering applications.
- The Grid was a key component of the proposed NW science strategy and the project resonates strongly with the key elements of the NWDA's regional strategy in particular in working with targeted emerging sectors in the environment, biotechnology and pharmaceutical and complex materials areas, establishing the North-West as a global player in Grid technologies and in embedding e-competencies across the region's business, academic and industrial base.

Key Applications and Research

- chemistry
- life sciences
- nano-technology
- human anatomy
- population modelling and epidemiology
- earth science
- oceanographic modelling
- environmental monitoring
- disaster response
- astronomy
- bio-informatics
- materials modelling
- social science and statistics
- management science
- complex fluids
- protein crystallography
- next generation middleware
- user interfaces
- enhancing production grids

Web site: http://www.nw-grid.ac.uk