



THE WHITE ROSE GRID

e-Science Centre of Excellence

About the White Rose Grid

The White Rose Grid (WRG) is an initiative that brings together those researchers from the Yorkshire region (refer to Figure 1) who are engaged in e-Science activities and, as a consequence through these, in the development of grid technologies and grid-enabled applications.

It focuses on building, expanding and exploiting the emerging IT infrastructure, i.e. the grid, which employs many components, creating a collaborative environment for research computing in the region.

The project operates under the auspices of the White Rose University Consortium, which is an association of the three major research Universities in Yorkshire – Leeds, Sheffield and York - and has a large critical mass of research, teaching, and enterprise facilities.

This is a long-term strategic collaboration. The three institutions function as a *Virtual*

Organisation to tackle larger-scale projects that are beyond the scope and expertise of any one university.

Our IT partners are Esteem Systems, Sun Microsystems, and Streamline Computing. The Yorkshire and Humber Regional Development Agency, Yorkshire Forward, has enabled us to expand our activities into the region and engage research universities and companies in e-Science.

The WRG offers large heterogeneous computational facilities funded with a £5m investment mainly from HEFCE SRIF allocations. These include a large collection of Sun/UltraSPARC/Solaris, Intel/Linux and Sun/AMD Opteron/Linux systems delivering integrated computational facilities (see Figure 2).

There are four WRG nodes, each named after a white rose. They deliver a stable high performance computational (HPC) service for local users as well as the grid infrastructure for e-Science projects.

Application specific grid-portals are being developed to provide a user-friendly interface for access to all computing resources at the three institutions.



Figure 1: The UK e-Science Centres



This initiative presents the opportunity to harvest effectively computing assets available to the Consortium. The rationale is to enable WRG researchers to access the HPC service that best meets their needs.

provides a more productive operating environment as well as to gain an advantage over their market competitors with cutting-edge technology.

Our workshops and conferences provide open forums for discussions on all aspects of the grid and its exploitation in both industry and commerce. Many of our industrial partners presented their vision of grid benefits for their organisations at the last very successful conference that attracted over a hundred participants.

Further Information

Contact: Dr Joanna Schmidt, WRG e-Science Co-ordinator
(email: whiterosegrid@leeds.ac.uk)

The relevant web pages are at:

- <http://www.wrgrid.org.uk>
- <http://www.whiterose.ac.uk>
- http://www.wrgrid.org.uk/conference2004_slides.html
- http://www.wrgrid.org.uk/workshop2005_slides.html

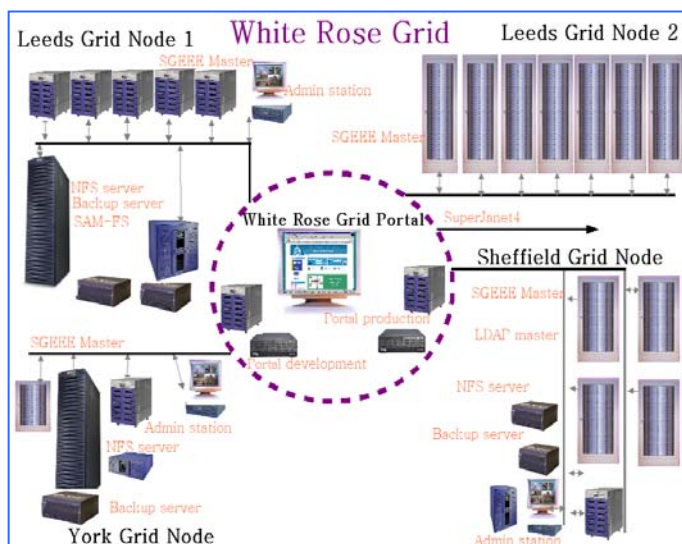


Figure 2: The White Rose Grid Architecture

The WRG delivers these benefits to a wide range of researchers, for example in the following areas: mathematical sciences; bio-informatics & bio-medical sciences, earth & environmental sciences, and computer science & informatics.

A large portfolio of collaborative e-Science projects is undertaken by White Rose researchers and their industrial partners.

The WRG is working with prestigious companies and organisations (e.g. Rolls-Royce) who wish to use the grid in collaborative R&D projects to assess the impact of this new technology. It enables them to evaluate to what extent the grid

“This initiative presents the opportunity to harvest effectively computing assets available to the Consortium.”



The University of Sheffield.



THE UNIVERSITY of York

