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Data services on the NGS





Policy for re-use



- This presentation can be re-used for academic purposes.
- However if you do so then please let training-support@nesc.ac.uk know. We need to gather statistics of re-use: no. of events, number of people trained. Thank you!!



Acknowledgments



- Matt Ford, NGS Induction Workshop (Dec. 2004, NeSC)
- Neil Chue Hong , OGSA-DAI Tutorial GGF13
- OGSA-DAI website, www.ogsadai.org



Overview



- OGSA-DAI: data access and integration
- GridFTP: a protocol for large file transfer
- The Storage Resource Broker
- But first....



Oracle and the NGS (1)



- The NGS core nodes, from the outset, have been partitioned into compute and data clusters.
- As the NGS matures the requirement for data hosting will grow
- Oracle database: for both users and services offered by the NGS.

**The NGS Oracle service
is ready to host data
for your project!**

- The RAL and Manchester sites are designated as the data clusters with each site having the ability to dedicate up to eight nodes for use by Oracle.



Oracle and the NGS (2)



Support

- Additional application needed after joining the NGS
- All enquiries and production support for the Oracle service is via the Grid Operations Support Centre ([GOSC](#))
 - 9-5 Operational support (monitoring, notification, maintenance) other times best endeavours basis.



Data services on NGS



Simple data files

- Middleware supporting
 - **Replica files**
 - **Logical filenames**
 - **Catalogue**: maps logical name to physical storage device/file
 - **Virtual filesystems**, POSIX-like I/O
- **Storage Resource Broker**

Structured data

- RDBMS, XML databases
- Require extendable middleware tools to support
 - Move computation near to data
 - easy access, controlled by AA
 - integration and federation
- **OGSA -DAI**