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# RAL/UK WP6 Test Bed Report

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## Previous RAL Test Bed

- First site started as testbed0 in July 2001 ,  
ran Globus 2 - alpha 15 from November
- Second site running from December 2001,  
running Globus 2 - beta 21.
- Total twelve dual 800 MHz PIII, 500Mb RAM, 30Gb.
- Redhat's Kickstart and post install scripts used for  
Installation.
- Jobs submitted from UI at Manchester and CERN,  
onto CERN's resource broker and executed on a local  
compute element at RAL.

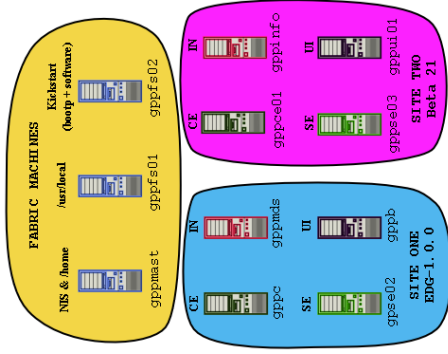


# RAL Test Bed

- From ten to twelve nodes.
- Dual 800 MHz PIII.
- 500 MB of RAM.
- 30 GB Hard Disks.



# Current RAL Test Bed



- Based on European Data Grid release TB1.0.0.
- Compute Element(CE), Storage Element(SE), User Interface(UI) and Information Node(IN).
- Some elements of the software are non-functional.
- Next EDG release TB1.1.0 will be soon.
- Installation still based on Kickstart. Reconfiguring generally requires a reinstall from scratch.



# Introduction of LCFG

- LCFG enables fine configuration of a group of machines both at installation and for the onward management from a single LCFG server.
- LCFG server provides XML profiles for individual clients built up from nested configuration files.
- Clients contain many LCFG modules; e.g. inet, boot, auth, xntpd, ... that interpret the XML profile and configure the relevant parts of the OS.
- Extra custom modules can be added such as the EDG's globus module.



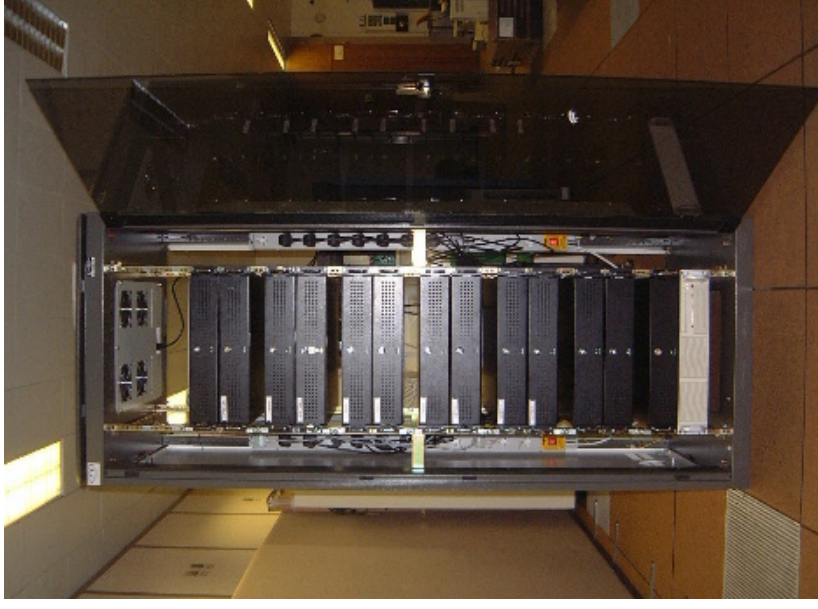
## LCFG at RAL

- An LCFG server is now maintaining a private EDG 1.0 WVN, SE, CE and UI.
- LCFG will be rolled out at RAL around EDG-1.1.0
- LCFG took one or two weeks to learn and set-up before EDG could be installed.
- No transitional phase exists between Kickstart and LCFG.
- Security must be improved for production environments, e.g. LCFG requires NFS, distributes root's password over http.



# New Test Bed

- LCFG exists on newer rack.
- Some new EDG releases will be installed on this rack.
- 14 Dual 1 GHz PIII.
- 500 MB RAM
- 40 GB Disks.
- Gigabit Ethernet.





# LCFG at RAL

- LCFG will enable both small and large software upgrades.
- Existing packages can be reconfigured, packages can be added or removed. This is not possible with a Kickstart box.
- Adding a new node is trivial.
- Replacement of boot floppies with network PXE boot will ease hardware issues.
- The LCFG tutorial and manuals need to be improved with some configuration detail.
- A central LCFG server maybe possible.



# Summary

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- Documentation is getting better.
- Software releases are constant, its easy to miss a bug fix or a new dependency.
- LCFG, once installed, does make life easier.
- All components have worked but never all at the same time or consistently with CERN.
- Repeated node registration. (RB, GIIS, GDMP, VO)
- Security Improvements, GDMP, LCFG profiles.