

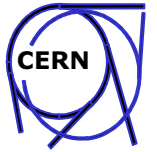
The Code, the Builds & the Tasks

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CERN IT/GD

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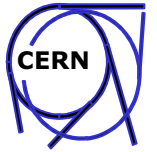
The Code



- LCG middleware has various origins
 - VDT: Globus, Condor(-G), MyProxy, ...
 - EDG: WP1, WP2, ...
 - DataTAG: GLUE, GridICE, ...
 - LCG: GFAL, lcg-BDII, exp. SW tools, ...
 - DESY/FNAL: dCache
 - ...
- Maintenance and development
 - GD group cannot maintain 993537 lines of EDG code!
 - Ideally just do certification and testing of “external” middleware
 - Support agreements with WP1, VDT
 - GD maintains/develops critical components that currently:
 - Are missing (e.g. GFAL)
 - Have performance issues (e.g. Replica Manager)
 - GD provides fixes or workarounds for serious bugs only
 - EGEE/ARDA may completely replace many components



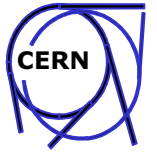
Where is the code?



- CERN central CVS system → autobuild (see next page)
 - EDG code
 - <http://isscvcs.cern.ch:8180/cgi-bin/cvsweb.cgi/?cvsroot=lcgware>
 - LCG code:
 - <http://lcgapp.cern.ch/cgi-bin/viewcvs/viewcvs.cgi/?cvsroot=lcgdeploy>
 - <http://lcgapp.cern.ch/cgi-bin/viewcvs/viewcvs.cgi/?cvsroot=lcg-middleware>
 - ...
- Everything else is “external”
 - Simplifies build
 - Complicates debugging
 - Need at least the sources
- LCG code guidelines adapted from EDG
 - <http://grid-deployment.web.cern.ch/grid-deployment/cgi-bin/index.cgi>
 - Documentation menu



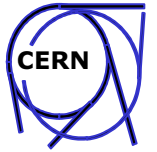
The Builds



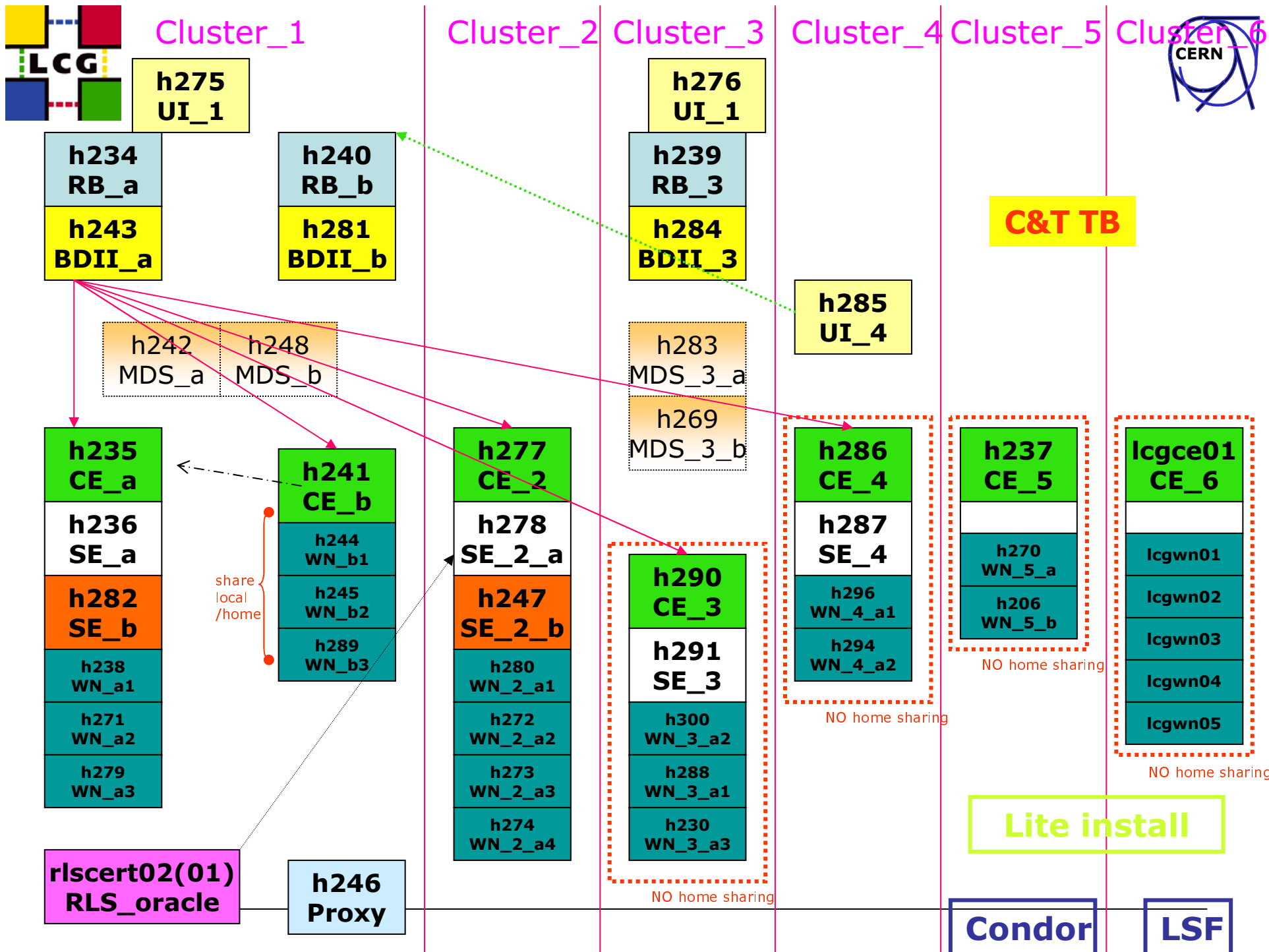
- EDG autobuild system has been ported to LCG
 - Yannick Patois (author), Carlos Osuna, Louis Poncet
 - <http://lxshare0297.cern.ch/LCG/autobuild/>
 - Compliant CVS tagging triggers nightly build of affected packages
 - Build-on-demand tag triggers immediate build
- Currently only RH 7.3 supported
 - Porting to RH Enterprise Linux underway in GD group
 - CERN OpenLab porting EDG code + build recipes to IA-64
 - Other platforms being considered:
 - Fedora
 - RH 9
 - RH 6.2
 - Solaris
 - IRIX
 - ...



The Certification

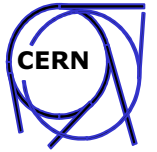


- Porting issues to be identified
 - The process should become simpler over time
 - Consider other autobuild systems
- Resulting middleware must be certified on all supported platforms
- Current “big” certification testbed shown on next page
 - Only RH 7.3 for now
 - Remote sites to be added (again)
 - Madison (VDT), Taipei, Budapest, ...
 - Simulates multiple realistic configurations
 - Can test multiple platforms at the same time





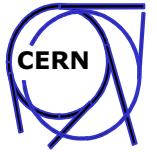
The Tasks



- Web page to open bugs and tasks:
 - <https://savannah.cern.ch/projects/lcgooperation/>
- Main task: stabilize LCG-2
 - Allow serious work to get done efficiently
 - Minor remaining inconveniences should be tolerable
 - To be addressed by EGEE/ARDA
- Main ingredients
 - dCache
 - Porting to RH 7.3 successors
 - Redo Replica Manager core
 - Flexible info providers → corresponding changes in WP1/WP2 code
 - Shield CE against overload risk
 - ...



More Tasks



- Try and follow Globus releases (via VDT)
- Use the VDT more:
 - Helps EU-US interoperability
 - Try more functionality already provided by VDT
 - Use Condor as default batch system
 - PacMan
 - Try and put more into the VDT
- Try R-GMA for monitoring
 - Combine with GridICE
- Get rid of MDS completely
- LCFGng → Quattor
- ...
- ...
- ... ← input appreciated!!