# GRNET SA3 Progress Report

*Ioannis Liabotis - iliaboti@grnet.gr – GRNET*

*SA3 All Hands*
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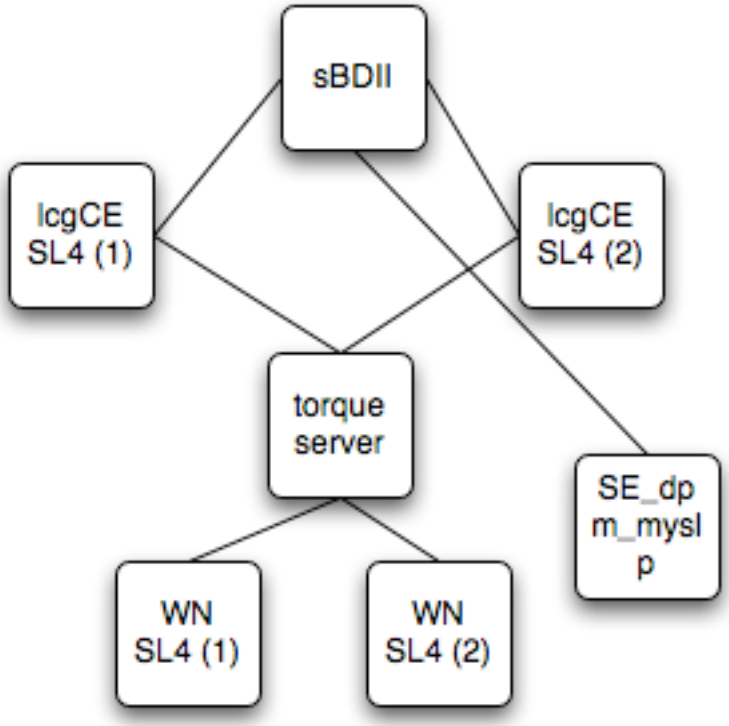
www.eu-egee.org

Information Society and Media

# EGEE-SEE-CERT New Setup

- Batch system : Torque supporting a configuration of 2 CEs
- Institution / Department Homepage: http://gridctb.uoa.gr
- Site email: contact@gridctbSPAMNOT.uoa.gr
- Site BDII URL: ldap://ctb03.gridctb.uoa.gr:2170/mds-vo-name=EGEE-SEE-CERT,o=grid



# EGEE-SEE-CERT Nodes

| | |
|---|---|
| ctb01.gridctb.uoa.gr | second WN |
| ctb02.gridctb.uoa.gr | MON |
| ctb03.gridctb.uoa.gr | BDII_site |
| ctb04.gridctb.uoa.gr | SE_dpm_mysql |
| ctb05.gridctb.uoa.gr | WN |
| ctb06.gridctb.uoa.gr | first lcgCE |
| ctb07.gridctb.uoa.gr | TORQUE_server |
| ctb08.gridctb.uoa.gr | secon lcgCE |

Hardware used for these nodes:

DELL SC1425 1U rack mounted servers
CPU Intel Xeon 3GHz
RAM 512MB
LAN dual Gigabit Ethernet
HDD 80GB
Support nodes on commodity PCs

Certification level UI
Production level UI
DHCP/PXEBOOT/SOL (Serial Over Lan)/NFS server

# Tasks-Patches-Bugs

- **Task #5803**
  - Maintain and support distributed architecture with:
    - Multiple lcgCEs
    - Separate torque
    - Separate sBDII
    - SL4 based
  - Propose and implement YAIM modifications where possible
- **Bug:**
  - https://savannah.cern.ch/bugs/?22717
    - SERVERHOST $TORQUE_SERVER is missing in /var/spool/maui/maui.cfg
  - Patch
  - https://savannah.cern.ch/patch/?1502
    - Additional maui packages for the glite-TORQUE_utils metapackage
    - Patch provided. Integrated into YAIM.

# Adding extra lcgCE

- https://twiki.cern.ch/twiki/bin/view/EGEE/MultipleCEs
- **Manual steps necessary to setup site with 2 lcgCE and separate torque**
- **On the new CE node:**
  - Create a second site-info.def, exactly the same as the one used typically for your site, except for the CE_HOST variable, which should be set to the new CE's hostname.
  - Configure the new CE as a Computing Element only, ie. no Torque Server and no Site BDII (you can only have one of these):
  - **`yaim -c -s site-info-2.def -n lcg-CE -n TORQUE_utils`**
- **The CE's basic functionality should now be ready, and should be tested with a simple job submitted directly to the CE:`globus-job-run $CE_HOST /bin/hostname`**

# Adding extra lcgCE (2)

- **On the Torque Server node:**
  - To configure your site's Torque_Server to accept job submission from the CE, append the $CE_HOST at the end of `/etc/hosts.equiv` file:
  - **`echo "$CE_HOST" >> /etc/hosts.equiv`**
  - Also you need to append the new $CE_HOST to ADMINHOSTS line in maui.cfg so that the vomaxjobs-maui command works from the new Computing Element.
- **On the Worker Nodes:**
  - Append $CE_HOST (new CE) at the NODES line, in file `/opt/edg/etc/edg-pbs-knownhosts.conf`.
  - Run the command `/opt/edg/sbin/edg-pbs-knownhosts` so that the file `/etc/ssh/ssh_known_hosts` is reproduced. This allows passwordless ssh login from the new CE to the WNs.
  - **Now the new CE should be able to submit jobs to the queues. You should submit a simple job to test the functionality:**
  - **`globus-job-run $CE_HOST:2119/jobmanager-lcgpbs /bin/hostname`**

# Adding extra lcgCE (3)

- **On the Site Bdii node:**
  - To allow the new CE to be published by the information system you should create a new line describing the BDII LDAP URL, at file `/opt/glite/etc/gip/site-urls.conf`.
  - For example: **`echo "CE2 ldap://$CE_HOST:2170/mds-vo-name=resource,o=grid" >> /opt/glite/etc/gip/site-urls.conf`**
  - **After a while the new CE should be published correctly, check it by running the `lcg-infosites` or the `glite-wms-job-list-match` command.**

# Future Plans

- **Work with YAIM to support the automatic setup of multiple lcgCEs**
- **Test performance and scalability of this setup using the already developed methodology**
  - http://master.gridctb.uoa.gr/torque-report/Torque-Maui_testplan.html

# Thank You

- **Questions?**