



Enabling Grids for E-science

# SA3 Partner review HPCL-University of Cyprus

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[www.eu-egee.org](http://www.eu-egee.org)



- **Principle Investigator**
  - Marios D. Dikaiakos, Associate professor, University of Cyprus
- **SA3 participants**
  - Harald Gjermundrød
  - Asterios Katsifodimos

- **Starting Infrastructure**
  - 7x PIII @ 500 Mhz & 256MB RAM
  
- **Current Infrastructure(since Jan/2007)**
  - 2 x Dual Xeon 2.8 GHz HT 40 GB harddisk 3GB RAM
    - *Each can host 6 VMware Virtual Machines*
  - 1 x Pentium 4 1.5GHz 40GB harddisk 512MB RAM
  - 1 x Pentium 4 1.7GHz 40GB harddisk 256MB RAM
  - 1 x Dual Pentium III 800MHz 2x30+1x70GB SCSI harddisk 768MB RAM
  - 1 x Pentium III 800MHz 40GB harddisk 384MB RAM
  
  - Virtualization Technology used : VMware

- **Allocated: 24 PM**
- **Starting Objectives:**
  - Maintain a full testbed and apply updates-patches
  - Certify patches
  - Help “on demand”
- **Added Objectives**
  - Check firewall configuration
  - Make AMGA tests
  - Take up AMGA release maintenance

- **Release 3.0**

- OS version: SL Linux 3.0.8
- Java version: SUN jdk 1.4.2\_13
- Nodes
  - *gLite WMSLB*
  - *gLite BDII*
  - *gLite Mon*
  - *gLite UI*
  - *gLite CE*
  - *gLite WN*
  - *gLite dpm\_mysql*
  - *gLite LFC*
  - *AMGA 1.2*

- **Release 3.1**

- Nodes
  - *gLite WN (CentOS4.4)*
  - *gLite WMSLB (SLC4.4)*
  - *gLite UI (SL4.4)*
  - *AMGA 1.3 (SLC4.5)*

- **Maintained the operation of an “all services” cluster**
  - Cluster was up as long as repos were stable enough
    - Made easy to certify firewall configurations
    - Always ready for yaim patch certification
- **Use of Virtualization (after January 07)**
  - Keeping Backups Virtual Machines(after January)
    - Were kept before every update or installation
    - Easily restored keeping the site functional after update problems
- **Upgrades of the cluster**
  - Cluster was updated with latest patches
    - Caused many problems, site instability, failed SAM tests
- **Documentation**
  - Every step for installations was documented with full instructions
  - [http://docs.google.com/Doc?docid=dgskzrkt\\_6f64cbn&hl=en](http://docs.google.com/Doc?docid=dgskzrkt_6f64cbn&hl=en)

- **Set up firewall on the cluster (except for the LFC)**
  - Used:
    - <http://glite.cvs.cern.ch/cgi-bin/glite.cgi/org.glite.site-info.ports/doc/>
  - The document did not specify batch-system related ports
  - Reported missing ports and ambiguities in the Firewall Document to John White.
- **Site is up with firewall configured**
- **Lots of Louis & Andreas e-mail support**

- **Configuration of glite WN using SL 4.4**
  - Numerous attempts to use the SL 4.4 repository to install a WN
  - SL 4.4 repository was conflicting with needed packages
    - Always broken dependencies
  - Manual interventions with help from Louis Poncet were not successful
- **Configured glite-WN using CentOS(task #4480)**
  - Success
  - Instructions included in
    - [http://docs.google.com/Doc?docid=dgskzrkt\\_6f64cbn&hl=en](http://docs.google.com/Doc?docid=dgskzrkt_6f64cbn&hl=en)
    - The document was published in Twiki by Louis Poncet 15 May 2007

- **Contributed in Yaim patches certification**
  - Yaim 4.0.0(task #5550)
    - patch #1238, for the 3.0 nodes
    - patch #1239, YAIM 4.0.0 3.1 for glite-WN on CentOS
    - Results at:
      - [http://docs.google.com/Doc?docid=dgskzrkt\\_16hkmtbk&hl=en](http://docs.google.com/Doc?docid=dgskzrkt_16hkmtbk&hl=en)
  - Yaim 3.1.1(task #5090)
    - Results at:
      - [http://docs.google.com/View?docid=dgskzrkt\\_14jffq9w](http://docs.google.com/View?docid=dgskzrkt_14jffq9w)
  - Yaim 3.0.1-8(task #4492)

- **Yaim module**

- AMGA-postgres configuration module for yaim
- Yaim 4.0.0 compatible
- Configures AMGA 1.3 with ODBC 2.11 and PostgreSQL 7.4 on SLC4.5
- More testing will be done after the AMGA repository will be ready
- CVS: `glite.yaim.amga`

- **AMGA release**

- Close communication with CERN-SA3
- Provided a list of dependencies and repositories for the AMGA metapackage
- Etics team is going to include the PostgreSQL-odbc driver in the externals repository

- **AMGA SAM tests**

- Decided which tests should be made for the SAM portal
  - Layer 1:
    - *Ping test. Check whether the service is up and running. AMGA provides a function for this. The server responds with an XML file about the health of the service(3.1). The XML will be parsed and the results would give errors or warnings.*
  - Layer 2:
    - *Functional tests. Check whether a user can create directories delete rename add entries etc. This test will check all the commands that the AMGA server can accept. The results will be then parsed in order to see if the service is working as it should.*
- Tests under development
  - Test cases are ready, provided from Birger Koblitiz
  - Have to be ported in order to work with:
    - *Certificates & the SAM portal*

- **Hardware faults (before using vM's)**
- **Communication overhead**
  - Maybe use VOIP?
    - Skype would be a good choice...
- **Not well informed**
  - More detailed release notes
  - Example:
    - Tried wmslb 3.0 installation(during yaim 4.0 certification)
    - Run into many problems
      - *I was told to abandon 3.0 and move to 3.1*
      - *Spent 4 days, yaim certification was late*
  - -->more use of the egee-sa3 mailling list

- **Maintain the operation of the “full” cluster**
- **Finish, maintain & test the AMGA release**
  - yaim-amga (postgres) module has to be tested and released
  - Test and release glite-AMGA
- **Release AMGA-SAM tests**
  - Have to be finished and deployed for glite-AMGA release
- **Can verify/test firewall settings**
- **Can certify/test new yaim versions**
- **Can develop yaim modules for other services**

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**Any  
questions – comments – suggestions  
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