# egee

Enabling Grids for E-sciencE

gLite 3.0 update and plans.

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EGEE JRA1 Deputy Middleware Manager.

Information Society

- **gLite overview**.
    - Resources, EGEE-II.
    - Middleware, Integration, Testing.
    - Development.
- **TCG**.
    - Security development priorities.
- **Future.**

- EGEE phase 2.
- EU-Funded for 2 years (until March 2008).
- EGEE offers the largest production grid facility in the world open to many applications (HEP, BioMedical, generic).
- **Pre-production** service based on gLite 3.0 (LCG/gLite).
- Existing **production** service based on LCG (**news**).
- Middleware Activity
  - Re-engineer and harden Grid middleware.
  - Provide production quality middleware.
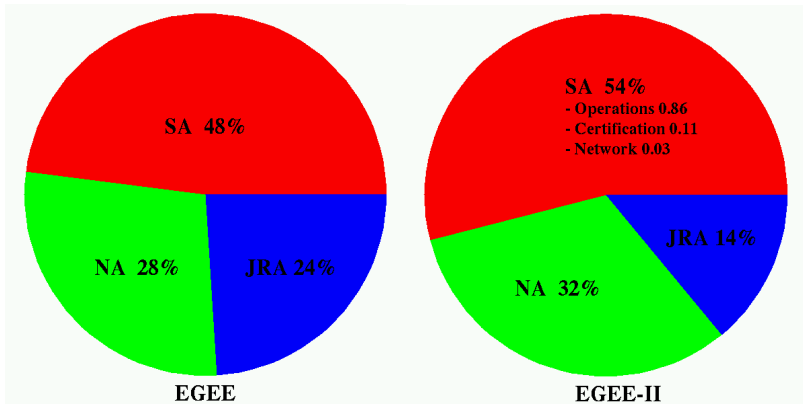
SA: Service Activities.
NA: Networking Activities.
JRA: Joint Research Activities.

- **Use existing services where possible.**
  - Condor, EDG, Globus, LCG, ?
- Portable(?)
  - Builds on Scientific Linux and (working) on ia64.
- Security.
  - Considered for both applications and deployment sites.
- Performance/Scalability & Resilience/Fault Tolerance.
  - Comparable to deployed infrastructure.
- Co-existence with other deployed infrastructure
  - eg. Interoperability with OSG, NorduGrid and NAREGI(?).
- Site autonomy to reduce dependence on "global" services
- Open source (Apache?) licence.

Integration and nightly build "as usual".

- 224 modules, build in 2 to 6 hours.
- Deployment Modules implemented high-level gLite node types.

Build system now spun off into the **ETICS** project.

- **Started on Jan 20th 2006.**
- **Will provide a single build system for gLite software.**

Testing of gLite middleware: **Three well-defined areas:**

- **Testbed infrastructure**: procedures for installation, configuration and maintenance.
- **Test development**: functional, regression and scalability tests.
  - Followed the TestManager suite.
- **Testing of release candidates** from the integration team.
  - Every single bug-fix individually tested before a release.

- Development uses a fast-prototyping approach
  - Distributed **development** test beds.
- EGEE-II Technical Coordination Group (**TCG**) composed of activity/client reps.
  - TCG gathers/prioritizes requirements.
  - From CERN HEP experiments, BioMed and "others".
- Components selected by Integration & Testing activity (SA3).
  - Ensures components are deployable and work.
- **No more "Big-Bang" releases!**
  - We must release in a Linux Style.
- Deployed by European Grid Support, Operation and Management activity (SA1).
  - Firstly, to a Pre-Production Service.
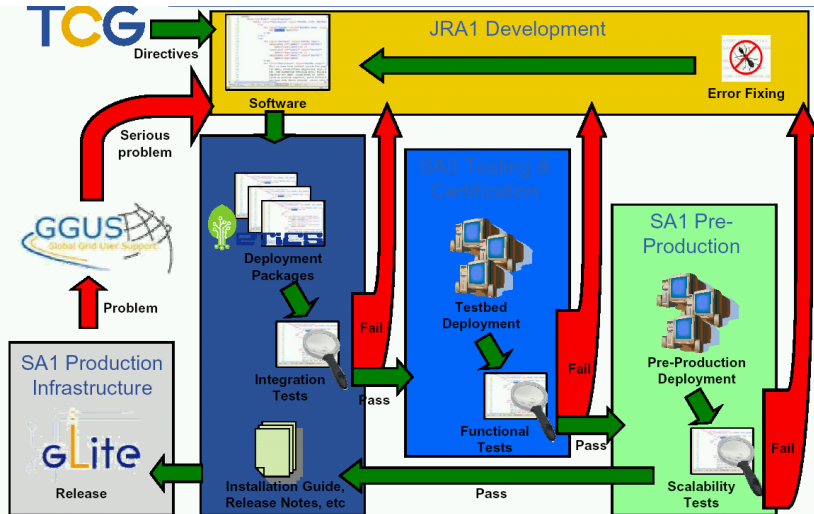 - Finally, to the Production Service.

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EGEE-II software development is client-driven.
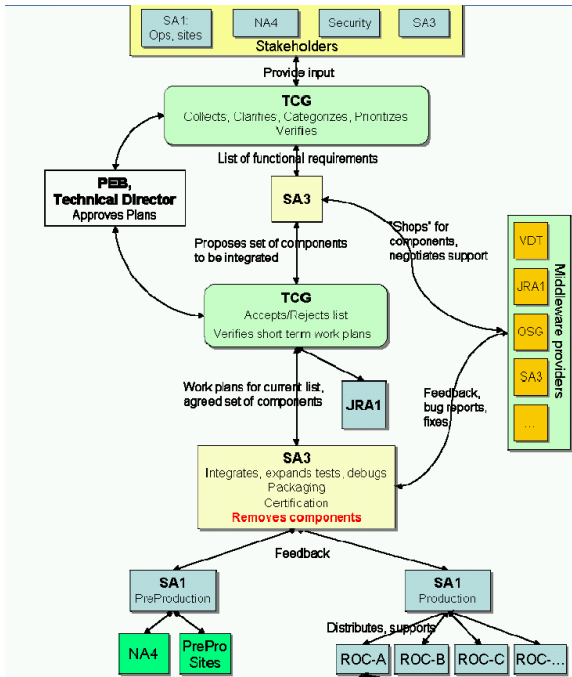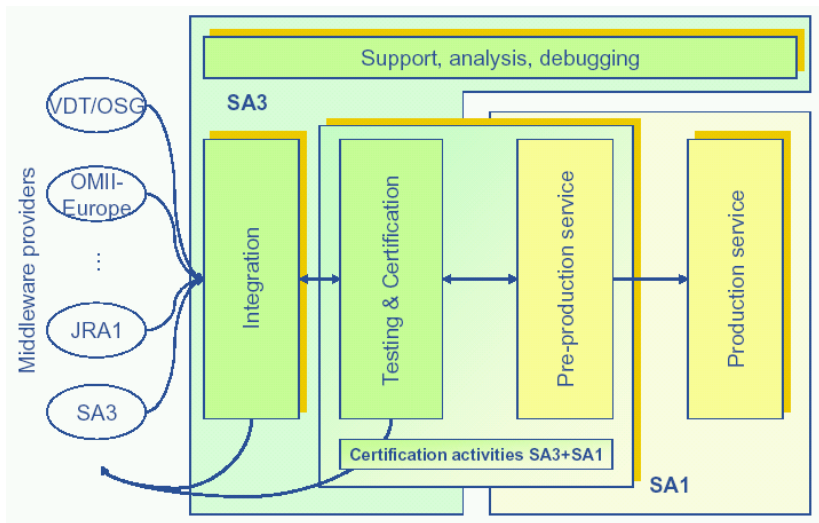
- gLite 3.0 now on the PPS. Open to applications on the 20/03/06.
    - **As of May 4th 2006, being deployed to Production**.
- Check-point "gLite 3.1" should be released to the Production Service by **September 2006**.
- **Once components are on the PPS they can be evaluated (case-by-case) and see how much (and when) work is needed for the next release (gLite** 3.1**).**

July and August	PPS runs	Holidays!
June	PPS deployment	Experience
May	Certification	Experience
April	Integration	ETICS/YAIM

- Integrated RC must be available end of April.
- $\rightarrow$ Functionality must be (have been) frozen end of March.
- **Fixes can be introduced at any time following problems found in the integration/certification/pre-production**

- TCG priorities from:
  `https://uimon.cern.ch/twiki/bin/view/EGEE/PriorityList`
- List solicited from LHC experiments.
- Iterated in TCG with NA4 (others).
- Prioritization/Work plans have been made for:
  - Data Management.
  - Workload Management.
  - Security*.
  - Information System*.
  - Logging & Bookkeeping*.
- As far as JRA1 (Security) is concerned...

#	Issue	Action(s)
101	VOMS groups and roles used by all middleware	Tracked by JRA1,SA3 in other items.
313	Allow agents on worker nodes to steer other jobs	glexec on WN.
103	Automatic handling of proxy renewal	Currently it is needed to send the MyProxy and VOMS server names. - The MyProxy endpoint definitely goes into the JDL - The VOMS end point is read directly from the user proxy associated to the job. To automate this process we should use the Information System to publish this data for use by the Service Discovery system.
105	Framework and recommendations for developing secure experiment specific services	Ongoing work. Met with LHCb for this very purpose. http://agenda.cern.ch/fullAgenda.php?ida=a061745 Moved to the sites for them to verify they are happy with security. Assigned to NIKHEF to verify as a test case.
502	Membership with multiple organizations must work correctly	Needs clarification from this form.
583	Access to these keys must be controlled by ACLs	Basically done. Work by Akos on the ACL management.
102	VOMS supporting user metadata	Vincenzo has code for this already Support needs to be implemented in the Java API and Gridsite library and PRIMA
592	Access to the server must be controlled via ACLs based on grid certificated	Who is working on the licence server?
580	Encryption Key Server	Worked on in Hydra
582	Ability to do an M/N split of keys	Csaba and other in Bergen are working on the library to do the split/join. Akos and Ricardo integrating this to DM tools.
104	Automatic renewal of Kerberos credentials via the GRID	Low priority.
103a	proxy renewal within the service	Done, split from WMS as a library. Integration by FTS needed.
103b	Establishment of trust between the service and myproxy	This is work by Daniel Kouril on the MyProxy server. Ongoing.
581	Ability to retrieve an encryption key based on a file id	Worked on in Hydra

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  - Well-defined routine Integration and Testing.
  - Security infrastructure, workload and data management, information system.
- Developed according to a well-defined process.
  - Controlled by the EGEE Technical Coordination Group.
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More info: `http://www.glite.org`