SA1: Grid Operations from vision to work plan

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Information Society and Media

EGEE III Operations

Goals

- **The provision of a large-scale, production Grid infrastructure that interoperates at many levels, offering reliable services to a wide range of applications**
  - Continuation of the present service
- **Set the groundwork for the migration to a distributed model based on coordination at the European level of National Grid Infrastructures**
  - This is the challenge for the next 2 years, to do this without breaking the 1st goal (continuation of reliable service)

With the constraints:

- 2 years
- Significantly less effort

Changes in EGEE-III

No major content changes! Mostly in the organization

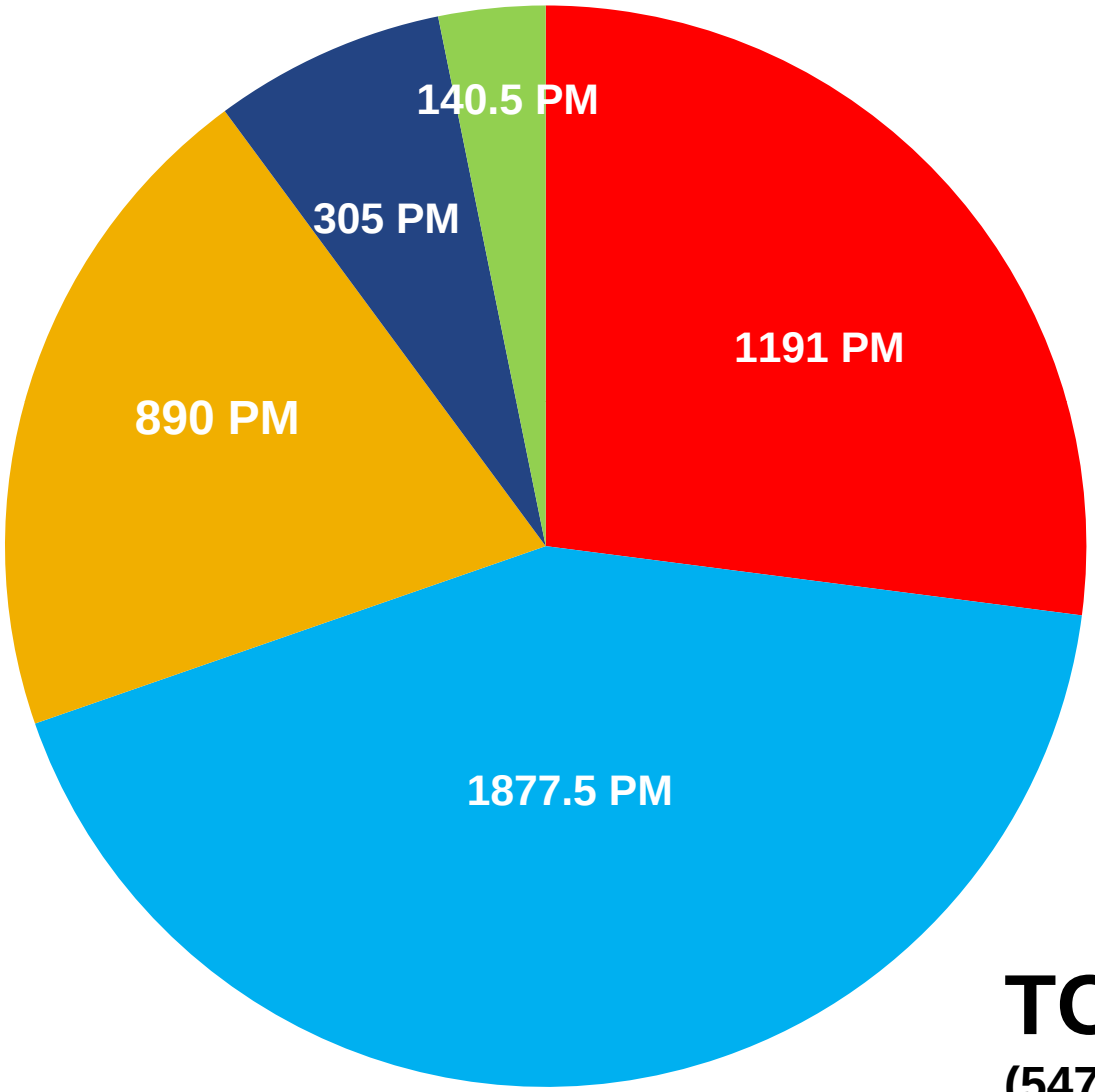
- Move from central supervision to central coordination
- All tasks distributed to ROCs, with OCC or one of the ROCs responsible for coordination
- Improve coordination and working model so all this is possible and effective
- Define clear interfaces: between OCC and ROCs(NGIs), between ROCs(NGIs) and sites
- Test possible transitional organisational structures towards and NGI model
- AUTOMATION

Centralized vs. distributed

What is our target model?

- ROCs (NGIs) are responsible for day to day operations, without a central organization overseeing them. Set of operations tools supporting this
- Central body (OCC) responsible for coordination of cross-regional tasks
- Clear interfaces/targets between OCC and ROCs(NGIs), between ROCs(NGIs) and sites
- Sites with well developed fabric tools that monitor local and grid services in a common way and trigger alarms directly, so most of the issues are solved at this level

Effort



- Grid management
- Grid operations and support
- VO-user-application support
- grid security
- Activity management

TOTAL: 4404 PM

(5470 in EGEE II)

TSA1.1: Grid Management

- Overall coordination of the Operations through the Operations Coordination Centre.
- ROC Management
- Monitoring and enforcement of Service Level Agreements, **John Shade**
- Application – Resource Provider Coordination. The Resource Allocation Group is co-chaired by NA4 and SA1. **Tomasz Szepieniec**
- Grid Accounting. **To be nominated**
- Interoperability and collaboration.
- Operation of national or regional Certification Authorities and Registration Authorities where required, including overall "catch-all" authorities for EGEE.
- Quality assurance

Resource Allocation

Process of providing virtual organisations with access to compute and storage resources (known issue in EGEE II)

- **All JRUs/NGIs or partners in SA1 are required to commit a certain percentage of their resources to be used by new VOs (seed resources)**
  - "catch-all" or regional VOs for new user groups in the region
- **Funding of 51,000€ to provide additional computing resources for new user communities not linked to the partners of the EGEE consortium:**
  - Installed at a maximum of 3 sites that can guarantee access to the resources with a high level of service for new VOs according to a Service Level Agreement to be defined
  - The Service Level Agreement and selected sites will be subject to approval of the Project Management Board.
- **The NA4 VO manager's group will be responsible for identifying new VOs eligible for project support.**

TSA1.2: Grid operations and support

- **Grid Operator on Duty, Helene Cordier**
- **Oversight and management of Grid operations, Nicholas Thackray + ROC managers**
- **1st line support for operations problems**
- **Run Grid services for production and pre-production services, Antonio Retico**
- **Middleware deployment and support, Nicholas Thackray**
  - Coordination of middleware deployment and support for problems
  - Regional certification of middleware releases (anticipated to be very rare and will require specific justification)
- **Interoperations: local, regional, international, Nicholas Thackray**
- **Monitoring tools to support Grid operations: Operations Automation Team, James Casey**

TSA1.3: Support to Vos, users, applications

- GGUS management and tools
- TPM and user support effort. This is staffed by effort from each of the ROCs as one of their mandatory core tasks. Support for middleware related issues is the responsibility of JRA1 and SA3. Dedicated LHC experiment support by the EIS team
- Regional helpdesk
- SA1 participation in site and user training. SA1 will work together with NA3 on developing material for on-line training for site administrators.
- Torsten Antoni

TSA1.4: Grid security

- A security team responsible for coordinating all aspects of operational security, including responding to security incidents,
- A team dealing with security vulnerabilities in the middleware and deployment,
- Responsibility for developing and maintaining the Security Policy and procedures jointly with other Grids,
- Ensuring the continued existence of a federated identity trust domain, and encouraging the integration of national or community based authentication-authorisation schemes.
- **Romain Wartel**

TSA1. 5 : Activity Management

- Activity management
- ROC coordination
- Coordination with and participation in project technical bodies
- Oversight and management of specific technical tasks within SA1
- Federation reviews
- Metrics and Quality Team. Ensures that the appropriate sets of metrics are gathered within the operation to monitor the quality of all aspects of the operation, for monitoring SLAs, and for reporting purposes. The partner reviews will be organised by this team. **To be nominated**
- Contributions to general project tasks (conference preparation, reviews, etc.)
- Production, editing, reviews of milestones and deliverables
- **Maite Barroso**

Task responsibles

- **The tasks will be the working units of the activity, in terms of effort, work plans, reporting, deliverables, milestones, etc**
  - **Effort**: to be collected in the next weeks to build the SA1 WBS. The task responsible will be given the effort and names from each ROC collaborating to the task. It is their responsibility to make sure that the effort is dedicated and correctly spent (no checks at PPT level!! Just at daily working/progress level)
  - **Reporting**: to the activity leader and ROC managers
  - **Plans**: ALL tasks should produce work plans, **ready by the end of PM2** (plans are done to be changed!)
  - **Meetings**: freedom to organize their own meetings, would be good if they profit the SA1 coordination meetings and meet before/after
- **Task responsibles should book enough time to drive the task and promote participation! We need progress in all areas.**
- **All tasks will be regularly called to report on progress and issues to the SA1 coordination meetings**

Organization

- **Activity coordination: OCC plus ROC managers plus task/subtask responsibles (coordination of a subtask across ROCs)**
  - Phone meetings every 2 weeks, to present plans, track progress, discuss issues
  - Face to face meetings (3-4 per year)
    - One at CERN and one somewhere else
    - First one (today) at CERN, next one we'll try to have it during the EGEE conference in Turkey; next one, 1st week of December at CERN

- **Each deliverable/milestone has a responsible partner:**
  - This is NOT ONLY editorial responsibility
  - It is the FULL responsibility for the deliverable: content, edition, coordination with other contributors, timelines, etc
  - **This is not feasible if the partner is not highly engaged in the daily work of the associated task**
  - **So, please, check which deliverables/milestones you are responsible for and book enough effort in your WBS for the D/M itself AND for collaborating actively with that task!!**

Deliverables

	Description	Delivery date	Partner
DSA1.1	Global Grid user Support (GGUS) Plan	2	FZK
DSA1.2	Assessment of production service status	11 - 22	INFN
DSA1.3	Report on the status of the regional Operations Centres (ROCs) and national/regional grid integration	14	GRNET
DSA1.4	Progress report on SLA implementation	16	GRNET
DSA1.5	Operations Cookbook	18	RRC KI

Milestones

	Description	Delivery date	Partner
MSA1.1	Operations Automation Strategy	1	CERN
MSA1.2	Operations procedures in place	1	CNRS
MSA1.3	Activity Quality Assurance and measurement plan	2	CYFRONET
MSA1.4	Security assessment plan	2	STFC
MSA1.5	SLA Roadmap	3	GRNET
MSA1.6	Assessment of the status of user support	4	IFAE
MSA1.7	Assessment of infrastructure reliability	6	RRC KI
MSA1.8	Grid Security Vulnerability and Risk Analysis	11	STFC
MSA1.9	Status report on Interoperations	12	FZK
MSA1.10	Grid Computer Security Incident handling	16	CERN
MSA1.11	Security Policy Integration	20	STFC

Conclusion

- **Moving to a fully distributed model; we have some experience with this, SA1 is partially distributed already**
- **Challenge to do this with less effort and in 2 years; no place for duplication, loose initiatives**
- **Collaboration is essential; we need an agreed vision as input to EGI, and we need to work together towards this vision**
- **Site responsibility for daily operations is the best way of saving effort and simplifying operations at all levels!**
  - We need to provide the tools to facilitate this
  - We need more site involvement
  - Site and ROC/NGI partnership should be reinforced