

EGEE

ACTIVITY SA1 INPUT TO OVERALL QUARTERLY REPORT QUARTER 02

NOTE: all information provided in this document will be fully integrated in the overall QR (deliverable)

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Delivery Slip

| | Name | Partner | Date |
|-------------|----------------|----------------|-----------------|
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| Verified | Ian Bird | CERN | Xx October 2004 |
| Approved by | NA1 | CERN | Xx October 2004 |

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Project information

| | |
|------------------------|--|
| Project acronym: | EGEE |
| Project full title: | Enabling Grids for E-science in Europe |
| Proposal/Contract no.: | INFSO-RI-508833 |
| Activity Manager: | Ian Bird |
| Address: | CERN IT Department CH-1211 Geneva 23 Switzerland |
| Phone: | + 41 22 767 5888 |
| Fax: | + 41 22 767 4900 |
| E-mail | ian.bird@cern.ch |

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1. STATUS OF THE ACTIVITY

The activity is operating a production grid with more than 80 resource centres providing resources at levels exceeding 8000 processors. All of the federations of the Activity are actively working on EGEE and have resources available and working on the grid.

The activity has completed its first deliverable (DSA1.1), the execution plan, and it has been sent to the EU. The activity has completed its second deliverable (DSA1.2), the release notes, and it is in moderation. It is on time and budget. The activity has met its first milestone “Initial Grid Operational” (MSA1.1).

During the period covered by this report, the middleware releases were made on 9 August 2004 (2_2_0) and 8 July (2_1_0).

There are no major issues facing the activity. However, the federations based in France, South East Europe and Central Europe, have not met their project month one commitment for the provision of computing resources. There are paragraphs in section 1.3 addressing this. An apparent anomaly has been noted in the commitment of resources from the federation in the South West. There is a paragraph dealing with this in section 1.3

1.1. ACTIVITY SUMMARY

The second quarter of the project has seen the growth of the LCG-2 infrastructure, which forms the initial EGEE production service, to some 80 sites, providing more than 8500 CPU of compute power (with occasions reaching close to 10,000 CPU). All federations are providing resources at a level close to or, in most cases, exceeding those committed to in the Annexe 1 (see *Table 1: Number of processors*). In addition to the resources listed in the table, there are some 2000 CPU provided through non-EGEE sites in Taiwan, China, US, Canada, Pakistan, and India.

Table 1: Number of processors

| Fed. | TA Expectation | | Actual |
|--------|----------------|------|--------|
| | PM1 | PM15 | PM6 |
| CERN | 900 | 1800 | 956 |
| UK | 100 | 2200 | 2132 |
| Fr | 400 | 895 | 160 |
| It | 553 | 679 | 1836 |
| SE | 146 | 322 | 108 |
| SW | 250 | 250 | 408 |
| CE | 385 | 730 | 443 |
| NE | 200 | 2000 | 348 |
| DE+CH | 100 | 400 | 910 |
| Ru | 50 | 152 | 169 |
| Totals | 3084 | 9428 | 7237 |

The following figure (*Figure 1: Number of processors over time*) shows the growth of the number of processors in the infrastructure over time.

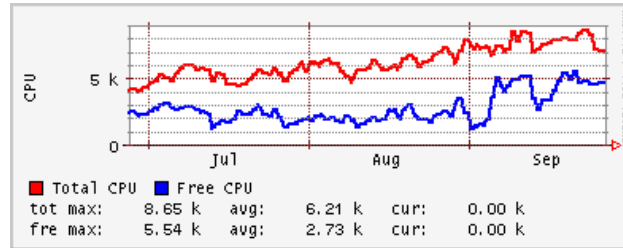


Figure 1: Number of processors over time

The establishment of the Regional Operations Centres (ROCs) in all the regions is largely complete and they are now beginning to provide the first level support for deployment and operations within their regions.

The planning for the Core Infrastructure Centres is well advanced, and a development plan has been produced. The CIC in France has taken responsibility for providing services for the Biomed VO, and has set up the VO servers and other VO-specific services for them. The Biomed application has successfully submitted test jobs on the EGEE service. Many VOs are supported locally within the various regions; these will gradually get broader support within EGEE over the coming months, as the processes for introducing new VOs are refined. At present around 40 VOs are supported in the project.

The preparation of the pre-production service is in progress, with resources being provided at a number of sites within several federations. This service is using the LCG-2 middleware initially, but is due to deploy the gLite components on top of the basic service as they become available during the next quarters.

Significant effort from all EGEE regions involved in LCG has been invested in the support for the ongoing LCG data challenges. This represents the first major significant use of a grid service of this size, and is an extremely valuable exercise, providing feedback on the middleware functionality, operations procedures, and debugging and management tools. During these challenges significant numbers of jobs have been run, at peaks reaching over 8000 concurrent jobs. The following figure (*Figure 2: Number of jobs over time*) shows the growth in the number of jobs over time.

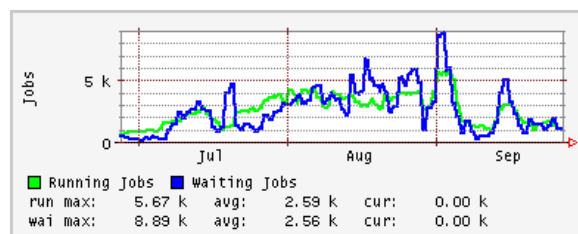


Figure 2: Number of jobs over time

During the quarter, most of the coordination and liaison activities continued, albeit with a slow down for the month of August. The activity has bi-weekly ROC coordination meetings and now also CIC coordination meetings. The liaison persons with the other activities within the project have been

nominated and the liaison mechanisms worked out. The work of the task force to build and define a support model for the distributed infrastructure, led by FZK in Germany has continued.

Technical discussions are taking place with other grid projects (Grid 2003 in the US and NorduGrid in Scandinavia) to understand how to bring about interoperability between the different infrastructures.

The focus in the coming months will be to consolidate the daily operations activities. During the extensive use of the facility for the data challenges it became clear that the biggest problem is maintaining stable operations with so many sites each of which have their own set of fabric management problems, maintenance times, support models etc. In early November there will be a 3 day workshop, the outcome of which is intended to be a draft operations model for the coming year, based on experience and lessons learned in the past 8 months of data challenges and the setting up of the EGEE infrastructure.

1.2. MAJOR TASKS, PRODUCTS AND SERVICES

The execution plan (DSA1.1) provides detail on the tasks for the activity. At its simplest, the task break down is three main tasks. These are activity initialization (until month 7), grid operations (throughout the lifetime of the activity), and administration (throughout the lifetime of the activity).

1.2.1. Task SA1.1: Activity Initialisation

Activity initialization refers to the first seven months of the activity. It concludes with the first milestone (MSA1.1) and the acceptance of deliverable DSA1.2. It includes two deliverables, the execution plan and the release notes for the initial grid. Both of these deliverables have been delivered on time.

1.2.2. Task SA1.2: Grid Operations

This task is a very large one, and extends from the day the project started until the end of the current phase of the project at project month 24. This task is progressing well with steady operation of the Grid infrastructure and continued growth in the number of resource centres and in the number of computers available.

Software releases are made approximately monthly. The releases are documented at the following page:

<http://grid-deployment.web.cern.ch/grid-deployment/cgi-bin/index.cgi?var=releases>

During the period covered by this report, the following table (*Table 2: Software releases*) provides information on the software releases which were made:

Table 2: Software releases

| Date | Release version | Web site |
|---------------|-----------------|---|
| 9 August 2004 | 2_2_0 | http://grid-deployment.web.cern.ch/grid-deployment/gis/lcg-2_2_0/LCG2InstallNotes/LCG2InstallNotes.html |
| 8 July 2004 | 2_1_0 | http://grid-deployment.web.cern.ch/grid-deployment/gis/lcg-2_1_0/LCG2InstallNotes/LCG2InstallNotes.html |

1.2.3. Task SA1.A: Activity Administration

This task is a small one and has continued to meet the needs of the activity for administration.

1.3. SUMMARY OF ISSUES

There are a no major issues to be addressed within the activity.

However, the federations based in France, and South East Europe, have not met their project month one commitment for the provision of computing resources. The following paragraphs address this.

In France, explanation follows.

In South East Europe, explanation follows.

It has also been noted that the commitment of resources for the federation in South West Europe. Explanation follows.

2. STATUS OF DELIVERABLES AND MILESTONES

2.1. DELIVERABLES AND MILESTONES DUE THIS QUARTER

The following table (*Table 3: Deliverables and milestones*) provides detail on the deliverable and milestones due this quarter.

Table 3: Deliverables and milestones

| Id | Activity No | Deliverable / Milestone title | Nature (***) | Lead partner | Original Delivery date(*) ¹ | Revised delivery date(*) | Status (**) |
|--------|-------------|-------------------------------|--------------|--------------|--|--------------------------|---------------|
| DSA1.1 | | Execution Plan | Report | CERN | 30 June | 30 June | Complete |
| DSA1.2 | | Release notes # 1 | Report | Italy | 30 Sept | 30 Sept | In moderation |
| MSA1.2 | | Initial grid operational | Other | CERN | 30 Sept | 30 Sept | In moderation |
| | | | | | | | |

2.2. DELIVERABLES AND MILESTONES DUE NEXT QUARTER

The following table (*Table 4: Deliverables and milestones due next quarter*) provides detail on the deliverable and milestones due this quarter.

Table 4: Deliverables and milestones due next quarter

| Id | Activity No | Deliverable / Milestone title | Nature (***) | Lead partner | Original Delivery date(*) | Revised delivery date(*) | Status (**) |
|--------|-------------|-------------------------------|--------------|--------------|---------------------------|--------------------------|-------------|
| DSA1.3 | | Accounting system | Other | UK | 31 Dec | 31 Dec | On time |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

¹ (*)Dates are expressed in project quarter (1 to 8).

(**)Status = Not started – In preparation – Pending internal review - Pending EC review - Accepted

(***) Nature = **R** = Report **P** = Prototype **D** = Demonstrator **O** = Other, Deliverable id: for Milestone attached to a deliverable

3. PLANS FOR THE NEXT REPORTING QUARTER

In addition to meeting the deliverables and milestones planned for next quarter, the following are also planned.

3.1. THE ROC MEETING IN BOLOGNA

This meeting will take place on 5 October 2004.

<http://agenda.cern.ch/fullAgenda.php?ida=a043657>

3.2. THE BI-WEEKLY MEETINGS OF THE ROCS

These meetings will take place as scheduled in the agenda system at CERN:

3.3. THE BI-WEEKLY MEETINGS OF THE CICS

These meetings usually follow the ROC meeting, one day later, and are scheduled in the agenda system at CERN.

3.4. OPERATIONS WORKSHOP IN NOVEMBER

The LCG/EGEE workshop on operations will take place in November. The agenda page is at the following URL:

<http://agenda.cern.ch/fullAgenda.php?ida=a044377>

3.5. THE ATTENDANCE AT THE EGEE CONFERENCE

The EGEE-2 conference will take place in Den Haag on the week of 22 November. There are inter-activity meetings with JRA1-JRA3, with SA2 and with NA4 planned. The current estimated number of participants from SA1 is 48.

3.6. TESTING OF NEW MIDDLEWARE ON THE PRE-PRODUCTION SERVICE

The current pre-production system has LCG-2 production software at the moment. During the quarter, it is expected to take delivery of components from JRA1. These will be introduced when they are available and tested to ensure correct operation on the system. The results of this activity will be fed back to JRA1.

3.7. IMPROVEMENTS TO THE PRE-PRODUCTION SYSTEM

Depending on the success of this pre-production service it may be possible to extend the number of contributors. However the current plan is to keep the number of contributors small but their participation high.

3.8. IMPROVEMENTS TO THE SUPPORT SYSTEM FOR USERS OF THE GRID INFRASTRUCTURE

There are plans to extend the system based on GGUS for the support of the grid infrastructure. It is now important to increase the take-up of this system by the users.

3.9. EXTENSIONS TO THE CURRENT INFRASTRUCTURE

The last quarter has seen a growth in the size of the grid infrastructure of some 15% using the usual measures of size such as number of processors. It is expected that the grid will grow by around the same percentage in this quarter.

3.10. IMPROVEMENTS TO THE SUPPORT FOR THE ESTABLISHMENT OF NEW VOS

The establishment of new VOs is one of the key indicators of success. The current procedures for doing this are complex and time consuming. During this quarter, we are planning to simplify and clarify these procedures.

3.11. CERTIFICATION OF NEW MIDDLEWARE RELEASES

There are plans to improve the certification procedures for middleware releases during this quarter. There are two main activities anticipated. The first is to finalise the port of the current production release to Scientific Linux. This will be done by mid-October, and is important because many large sites need this release in order to be able to assign more resources to the production service. The second activity will be to begin the certification of gLite components as they are delivered to SA1.

3.12. IMPROVEMENTS TO THE OPERATION OF SECURITY ON THE GRID INFRASTRUCTURE

The grid is getting to a size such that security incidents can have very wide spread effects. In the context of the Joint Security Group, SA1 is setting up an incident response team, under the leadership and coordination of the OMC group at CERN. Exactly how this will function and its responsibilities is one of the aspects of operations to be discussed in the November workshop (*3.4 Operations Workshop in November*).

3.13. CLARIFICATION OF THE RELATIONSHIP BETWEEN EGEE AND LCG

The relationship of EGEE to LCG is the source of some difficulties in the project. These are not so serious to constitute an issue, but they have to be clarified during this quarter. The workshop in November will address this matter (*3.4 Operations Workshop in November*).

3.14. IMPROVEMENTS TO THE SITE CERTIFICATION

There are plans to improve the way in which sites are certified as being ready to join the grid. This will introduce a more distributed way to do this. This will be necessary to ensure reliable and scalable operations as the grid continues to grow.

4. MAIN PROJECT ACTIVITY METRICS

In accordance with the Measurement Plan sections 2.2 and 2.3, SA1 reports statistics on Utilisation and Service provision.

The development of automated ways of collecting data on the utilisation of EGEE and the service provided by EGEE is part of the EGEE project. In this section of the report, it is intended that the quality and detail of the information will improve over the term of the project. However we shall avoid changing the section headings, so that statistics can be compared from one quarter to the next.

4.1. UTILISATION

Statistics are provided for the following areas:

- VOs;
- users;
- disciplines;
- participants.

4.1.1. VOs

The following is a table showing the participation of the Federations in the Virtual Organisations:

Table 5: Participation in VOs

| | CERN OMC | UK/I ROC | IT ROC | FR ROC | D/CH ROC | SW ROC | SE ROC | CE ROC | NE ROC | RU ROC | |
|------------|-------------|-------------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|----|
| Atlas | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 10 |
| Alice | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 10 |
| LHCb | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 10 |
| CMS | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 10 |
| CDF | | yes | | | | | | | | | 1 |
| BaBar | yes | yes | yes | | yes | | | | | | 4 |
| UKQCD | | yes | | | | | | | | | 1 |
| GridPP | | yes | | | | | | | | | 1 |
| Dzero | yes | yes | | | yes | | | | yes | | 4 |
| Eobs | | | | | | | | | yes | | 1 |
| Pvier | | | | | | | | | yes | | 1 |
| Ncf | | | | | | | | | yes | | 1 |
| Nadc | | | | | | | | | yes | | 1 |
| Biomed | | | yes | yes | | | yes | | | yes | 4 |
| Infngrid | | | yes | | | | | | | | 1 |
| Virgo | | | yes | | | | | | | | 1 |
| Tutor | | | | | | | | | | | 0 |
| Ific | | | | | | | | | | | 0 |
| Hone | | | | | | | | | | | 0 |
| Grid-IT | | | yes | | | | | | | | 1 |
| Ingv | | | yes | | | | | | | | 1 |
| inaf | | | yes | | | | | | | | 1 |
| Teophys | | | yes | | | | | | | | 1 |
| CosmoGrid | | yes | | | | | | | | | 1 |
| WebCom/G | | yes | | | | | | | | | 1 |
| MarineGrid | | yes | | | | | | | | | 1 |
| SoloGrid | | yes | | | | | | | | | 1 |
| NGS-1 | | yes | | | | | | | | | 1 |
| NGS-2 | | yes | | | | | | | | | 1 |
| NGS-3 | | yes | | | | | | | | | 1 |
| NGS-4 | | yes | | | | | | | | | 1 |
| NGS-5 | | yes | | | | | | | | | 1 |
| DESY | | | | | yes | | | | | | 1 |
| H1 | | | | | yes | | | | | | 1 |
| HERAB | | | | | yes | | | | | | 1 |
| HERMES | | | | | yes | | | | | | 1 |
| LC | | | | | yes | | | | | | 1 |
| ZEUS | | | | | yes | | | | | | 1 |
| SixT | | | | | | | | | | | 0 |
| | | | | | | | | | | | 0 |
| | | | | | | | | | | | 0 |
| dteam | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | 10 |
| | 7 | 19 | 13 | 6 | 13 | 5 | 6 | 5 | 10 | 6 | 90 |

4.1.2. Users

Maria will provide the number of registered users for the following VOs on her return from vacation on Monday 18th October 2004.

Atlas
Alice
LHCb
CMS
Dteam
SixT
Zeus
H1

Table 6: Number of users in VOs

| ID | Name | Users |
|----------|-------------------------|-------|
| EGEE-001 | Atlas | 0 |
| EGEE-002 | Alice | 0 |
| EGEE-003 | LHCb | 0 |
| EGEE-004 | CMS | 0 |
| EGEE-005 | CDF | 0 |
| EGEE-006 | BaBar | 0 |
| EGEE-007 | UKQCD | 0 |
| EGEE-008 | GridPP | 0 |
| EGEE-009 | Dzero | 0 |
| EGEE-010 | ESR | 0 |
| EGEE-011 | Pvier | 0 |
| EGEE-012 | Ncf | 0 |
| EGEE-013 | Nadc | 0 |
| EGEE-014 | Biomed | 0 |
| EGEE-015 | Infngrid | 0 |
| EGEE-016 | Virgo | 0 |
| EGEE-017 | Tutor | 0 |
| EGEE-018 | Ific | 0 |
| EGEE-019 | Hone | 0 |
| EGEE-020 | Grid-IT | 0 |
| EGEE-021 | Ingv | 0 |
| EGEE-022 | inaf | 0 |
| EGEE-023 | Teophys | 0 |
| EGEE-024 | CosmoGrid | 0 |
| EGEE-025 | WebCom/G | 0 |
| EGEE-026 | MarineGrid | 0 |
| EGEE-027 | SoloGrid | 0 |
| EGEE-028 | NGS-1 | 0 |
| EGEE-029 | NGS-2 | 0 |
| EGEE-030 | NGS-3 | 0 |
| EGEE-031 | NGS-4 | 0 |
| EGEE-032 | NGS-5 | 0 |
| EGEE-033 | DESY | 0 |
| EGEE-034 | H1 | 0 |
| EGEE-035 | HERAB | 0 |
| EGEE-036 | HERMES | 0 |
| EGEE-037 | LC | 0 |
| EGEE-038 | ZEUS | 0 |
| EGEE-039 | Computational Chemistry | 0 |
| EGEE-040 | Astro-particle physics | 0 |
| EGEE-041 | Reserved | 0 |
| EGEE-042 | dteam | 0 |
| EGEE-043 | SixT | 0 |
| EGEE-043 | NA4 Test | 0 |
| | | 0 |

4.1.3. Disciplines

The VOs are associated with the following disciplines:

Table 7: Disciplines in VOs

| ID | Name | Discipline |
|----------|-------------------------|------------------------|
| EGEE-001 | Atlas | Physics |
| EGEE-002 | Alice | Physics |
| EGEE-003 | LHCb | Physics |
| EGEE-004 | CMS | Physics |
| EGEE-005 | CDF | Physics |
| EGEE-006 | BaBar | Physics |
| EGEE-007 | UKQCD | Chemistry |
| EGEE-008 | GridPP | Physics |
| EGEE-009 | Dzero | Physics |
| EGEE-010 | ESR | Earth Sciences |
| EGEE-011 | Pvier | Unknown |
| EGEE-012 | Ncf | Unknown |
| EGEE-013 | Nadc | Unknown |
| EGEE-014 | Biomed | Biomed |
| EGEE-015 | Infngrid | Unknown |
| EGEE-016 | Virgo | Unknown |
| EGEE-017 | Tutor | Unknown |
| EGEE-018 | Ific | Unknown |
| EGEE-019 | Hone | Unknown |
| EGEE-020 | Grid-IT | Unknown |
| EGEE-021 | Ingv | Unknown |
| EGEE-022 | inaf | Unknown |
| EGEE-023 | Teophys | Physics |
| EGEE-024 | CosmoGrid | Astronomy |
| EGEE-025 | WebCom/G | Unknown |
| EGEE-026 | MarineGrid | Unknown |
| EGEE-027 | SoloGrid | Unknown |
| EGEE-028 | NGS-1 | Unknown |
| EGEE-029 | NGS-2 | Unknown |
| EGEE-030 | NGS-3 | Unknown |
| EGEE-031 | NGS-4 | Unknown |
| EGEE-032 | NGS-5 | Unknown |
| EGEE-033 | DESY | Unknown |
| EGEE-034 | H1 | Unknown |
| EGEE-035 | HERAB | Unknown |
| EGEE-036 | HERMES | Unknown |
| EGEE-037 | LC | Unknown |
| EGEE-038 | ZEUS | Physics |
| EGEE-039 | Computational Chemistry | Chemistry |
| EGEE-040 | Astro-particle physics | Astronomy |
| EGEE-041 | Reserved | Unknown |
| EGEE-042 | dteam | Infrastructure testing |
| EGEE-043 | SixT | Unknown |
| EGEE-043 | NA4 Test | Application testing |
| | Chemistry | 2 |
| | Astronomy | 2 |
| | Physics | 10 |
| | Earth Sciences | 1 |
| | Infrastructure testing | 1 |
| | Application testing | 1 |
| | Unknown | 26 |
| | Confidential | 0 |
| | General purpose | 0 |
| | | 43 |

4.1.4. Participants

The following countries are actively participating:

Table 8: Participating countries

| Federation | Count | 1 | 2 | 3 | 4 | 5 |
|---------------------|-------|---------|-------------|----------|---|---|
| CERN | 1 | CERN | | | | |
| France | 1 | France | | | | |
| UK/Ireland | 2 | UK | Ireland | | | |
| Germany/Switzerland | 2 | Germany | Switzerland | | | |
| Italy | 1 | Italy | | | | |
| Central Europe | 2 | Poland | Czech | Hungary | | |
| Northern | 3 | Sweden | Netherlands | Belgium | | |
| South East | 3 | Greece | Israel | Bulgaria | | |
| South West | 2 | Spain | Portugal | | | |
| Russia | 1 | Russia | | | | |
| | 18 | | | | | |

The following countries have associated participation in the project:

Table 9: Associated Countries

| Associates | Count | 1 | 2 | 3 | 4 | 5 |
|------------|-------|----------|---|---|---|---|
| Taiwan | 1 | Taiwan | | | | |
| China | 1 | China | | | | |
| Pakistan | 1 | Pakistan | | | | |
| India | 1 | India | | | | |
| USA | 1 | USA | | | | |
| Canada | 1 | Canada | | | | |
| Russia | 1 | Russia | | | | |
| | 7 | | | | | |

The following industrial partners are participating in the project:

Table 10: Industrial Partners

| Associates | Count | 1 | 2 | 3 | 4 | 5 |
|------------|-------|----|---|---|---|---|
| HP | 1 | HP | | | | |
| | 1 | | | | | |

4.2. SERVICE PROVISION

Statistics are provided for the following areas:

- Production service;
- Organisation;
- Reliability;
- Job success and throughput;
- User support.

4.2.1. Production service

Statistics on the provision of services are available at the Grid Operations Centre at the following URL:

<http://goc.grid.sinica.edu.tw/goc>

The following figures were taken from the Grid Operations Centre: *Figure 1: Number of processors over time* and *Figure 2: Number of jobs over time*.

4.2.2. Organisation

The following is a table of active OMC, ROCs and CICs:

Table 11: Number of OMC, ROCs and CICs

| Federation | OMC | CIC | ROCs | RCs | Lead partner(s) | Leader(s) |
|---------------------|-----|-----|------|-----|-----------------|----------------------------|
| CERN | 1 | 1 | 0 | 1 | CERN | Ian Bird |
| France | 0 | 1 | 1 | 3 | IN2P3 | Rolf Rumler |
| UK/Ireland | 0 | 1 | 2 | 5 | CCLRC/TCD | John Gordon/ Brian Coghlan |
| Germany/Switzerland | 0 | 0 | 1 | 4 | FZK | Holger Marten |
| Italy | 0 | 1 | 1 | 4 | INFN | Cristina Vistoli |
| Central Europe | 0 | 0 | 1 | 5 | CYFRONET | Aleksander Kuszniir |
| Northern | 0 | 0 | 2 | 7 | KTH/SARA | Per Oster/ Julius Wolfrat |
| South East | 0 | 0 | 1 | 3 | GRNET | Ognjen Prnjat |
| South West | 0 | 0 | 1 | 5 | IFAE | Andreu Pacheco Pages |
| Russia | 0 | 1 | 1 | 8 | IHEP | Yuriy Lazin |
| | 1 | 5 | 11 | 45 | | |

The following is a table of RCs:

Table 12: Resource Centres

| Federation | Count | 1 | 2 | 3 | 4 | 5 |
|---------------------|-------|----------|------------------|-----------|--------|-----------------------------|
| CERN | 1 | CERN | | | | |
| France | 2 | Lyon | Clermont Ferrand | | | |
| UK/Ireland | 11 | RAL | DL | | | |
| Germany/Switzerland | 4 | FZK | | | | |
| Italy | 19 | Bologna | | | | |
| Central Europe | 7 | CYFRONET | CESNET | KFKI RMKI | II-SAS | UNIINNSBRUCK ICM MTA SZTAKI |
| Northern | 2 | KTH | SARA | | | |
| South East | 3 | GRNET | Israel | Bulgaria | | |
| South West | 6 | Various | | | | |
| Russia | 4 | IHEP | JINR | SINP | ITEP | |

The following references contain tables of CAs:

<http://www.eugridpma.org>

<http://marianne.in2p3.fr/datagrid/ca/ca-table-ca.html>

At the time of writing this report, the number in the table is 27.

4.2.3. Reliability

The JRA2 activity of EGEE is currently developing a web site which displays information on the reliability of the grid. This is available at the following location.

<http://ccjra2.in2p3.fr/EGEE-JRA2/QAmeasurement/showstats.php>

A recognised user name and password is required to access the information on this site.

4.2.4. Job success and throughput

The JRA2 activity of EGEE is currently developing a web site which displays information on job success and throughput. This is available at the following location.

<http://ccjra2.in2p3.fr/EGEE-JRA2/QAmeasurement/showstats.php>

A recognised user name and password is required to access the information on this site.

4.2.5. User support

The GGUS organisation at FZK in Germany is dealing with user support matters. There is a web portal at the following location:

<https://gus.fzk.de/>

A valid digital certificate is required to access the information on this site.

4.2.6. Further indicators

No further indicators are provided in this report.

5. EVENTS

5.1. PROJECT AND ACTIVITY MEETINGS

Note that the number in brackets following a meeting title is the project week number.

Table 13: Project and activity meetings

| Date | Location | Title | Participants | Outcome (short report) |
|-------------------|-----------|-----------------------------|------------------|---|
| 06 July 2004 | Telephone | SA1 Phone Conference (14) | All ROC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a042491 |
| 13 July 2004 | Telephone | SA1 Phone Conference (15) | All ROC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a042492 |
| 20 July 2004 | Telephone | SA1 Phone Conference (16) | All ROC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a042493 |
| 27 July 2004 | Telephone | SA1 Phone Conference (17) | All ROC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a042494 |
| 03 August 2004 | Telephone | SA1 Phone Conference (18) | All ROC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a042495 |
| 07 September 2004 | Telephone | SA1 Phone Conference (23) | All ROC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a042500 |
| 21 September 2004 | Telephone | SA1 Phone Conference (25) | All ROC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a042655 |
| 12 July 2004 | Telephone | CIC Managers' group meeting | All CIC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a043137 |
| 28 July 2004 | Telephone | CIC Managers' group meeting | All CIC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a043296 |
| 25 August 2004 | Telephone | CIC Managers' group meeting | All CIC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a043299 |
| 14 September 2004 | Telephone | CIC Managers' group meeting | All CIC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a043301 |
| 22 September 2004 | Telephone | CIC Managers' group meeting | All CIC Managers | http://agenda.cern.ch/fullAgenda.php?ida=a043302 |

5.2. CONFERENCES/WORKSHOPS ORGANISED

None.

5.3. OTHER CONFERENCES/WORKSHOPS ATTENDED

The CE federation of EGEE participated in the following events:

- 1 April 2004, Interview in "Rzeczpospolita", Wojciech Wislicki;
- 2 April 2004, Polish Radio II channel - Radio broadcast, Wojciech Wislicki;
- 08 April 2004, Hungarian CERN Committee Budapest, Dezso Horvath, GRID report;
- 12 April 2004, ATOMKI Debrecen, Dezso Horvath, GRID tutorial;
- 17 June 2004, ACK CYFRONET - Krakow, Aleksander Kuszniar, Introduction to EGEE;

20-22 July 2004, University Linz, Dieter Kranzlmüller, GUP EGEE Induction Event;
20 September 2004, EuroPVM/MPI Conference/DAPSYS - Budapest, Dieter Kranzlmüller,
Introduction to EGEE;
28 September 2004, Workshop on Clusters and Computational Grids for Scientific Computing
- Lyon, Introduction to EGEE.

5.4. PUBLICATIONS

None.