



Enabling Grids for
E-science in Europe

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*All Activity Meeting,
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Status of SA2 Network Resource Provision

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Contents

- Working environment
 - Status of current and planned WBSs
 - Hiring status
 - Risk analysis
- Overview of the network services in Europe
- State of the deliverable DSA2.1 (M6)
- Highest priority step



Working environment WBS – Detailed Efforts

- DSA2.1: Survey of pilot applications requirements on networks, initial SLRs and service classes
 - The document is under writing

| Task | Task Title | S | E | Effort | CNRS | GRNET | RCC KI |
|---------------|---------------------------------------|----------|----------|--------------|-------------|-------|--------------|
| TSA2.2 | Provide DSA2.1 deliverable | 1 | 6 | 12,20 | 2,05 | | 10,15 |
| TSA2.2.1 | Gathering of Application requirements | 1 | 5 | 6,70 | 0,70 | | 6,00 |
| TSA2.2.2 | SLR definition | 1 | 4 | 2,00 | 0,50 | | 1,50 |
| TSA2.2.3 | Definition of service classes | 3 | 5 | 1,50 | 0,50 | | 1,00 |
| TSA2.2.4 | Loopback with JRA4 | 4 | 5 | 1,00 | 0,25 | | 0,75 |
| TSA2.2.5 | Write/review deliverable | 5 | 6 | 1,00 | 0,10 | | 0,90 |

- The SA2 meeting in Moscow this week will review the subtasks

Working environment WBS – Detailed Efforts

- MSA2.2 Initial requirements aggregation model, specification of services as SLSs on the network
 - Scheduled for M9 (Dec. 04)

| Task | Task Title | S | E | Effort | CNRS | GRNET | RCC KI |
|---------------|---------------------------------|----------|----------|----------|------------|-------------|----------|
| TSA2.3 | Provide MSA2.2 milestone | 3 | 9 | 6 | 2,6 | 0,40 | 6 |
| TSA2.3.1 | Aggregation modeling | 3 | 6 | 2,5 | 0,9 | 0,10 | 1,5 |
| TSA2.3.2 | SLS definition | 4 | 8 | 2,00 | 1 | 0,1 | 0,9 |

- The work has begun, but we should have defined all the network services classes to continue.

Working environment WBS – Detailed Efforts

- MSA2.3 Operational interface between EGEE and GEANT/NRENs
 - Scheduled for M12 (March 2005)

| Task | Task Title | S | E | Effort | CNRS | GRNET | RCC KI |
|---------------|---------------------------------|----------|-----------|-----------|-------------|-------------|-------------|
| TSA2.4 | Provide MSA2.3 milestone | 3 | 12 | 11 | 1,50 | 0,40 | 9,10 |
| TSA2.4.1 | NOC operation survey | 3 | 5 | 2,00 | | | 2,00 |
| TSA2.4.2 | TT systems study (NOCs & EGEE) | 4 | 5 | 2,00 | | | 2,00 |

- These subtasks are underway, started in July.
 - Questionnaire for NOCs and ROCs

Working environment

- TSA2.6 Network Services follow-up
 - Overview of the current situation in European Networks
 - Work has started in June and we have now an up-to-date information.
 - This study will be useful for SA2, JRA4, SA1 and the TNLC
- Technical Network Liaison Committee
 - A new member : David Foster (CERN networking group)
 - JRA4 should provide a member to replace Javier.
 - Next meeting during the 2nd EGEE Conference
 - Wednesday 24 November

Working environment SA2 team



| Collaborator name | Partner | Function | FTE | Since |
|--------------------------|---------|-----------------------|-----------|------------|
| Jean-Paul Gautier | CNRS | SA2 Manager | 1 | 01/04/2004 |
| Mathieu Goutelle | CNRS | | 1 | 15/05/2004 |
| Afrodite Sevasti | Grnet | | 0,25 | 01/04/2004 |
| Mikhail Boyarskiy | RRC KI | RCC KI coordinator | 0,5 | 09/06/2004 |
| Veniamin Konoplev | RRC KI | | 0,5 | 09/06/2004 |
| Alexander Ilin | RCC KI | | 0,25 | 09/06/2004 |
| Anton Korotin | RCC KI | | 0,25 | 09/06/2004 |
| Anton Tesliouk | RCC KI | | 0,5 + 0,5 | 09/08/2004 |
| Julien Guignard | CNRS | | 0,5 | 01/10/2004 |
| Total effort | | | 5,25 | |
| Total from the TA | | | 4,25 | |

Working environment Risk analysis

- The top 5 risks for SA2
 - Human: Activity resources dispersion.
 - Gathering of adequate application network requirements. Collected application requirements currently are restricted/limited by the existing network services, mostly best effort IP based.
 - Failure to receive from the underlying network infrastructure (GEANT, NRENs, campus/last-mile parts of the end-to-end path) the services needed as technically and operationally specified by SA2.
 - Homogenization of Network SLAs: Failure to agree SLAs because of different services provide by the parties involved.
 - SLA Monitoring: Difficulty to recognize and resolve a particular fault of exact participant/node in the network service providers' chain.

Network Services in Europe

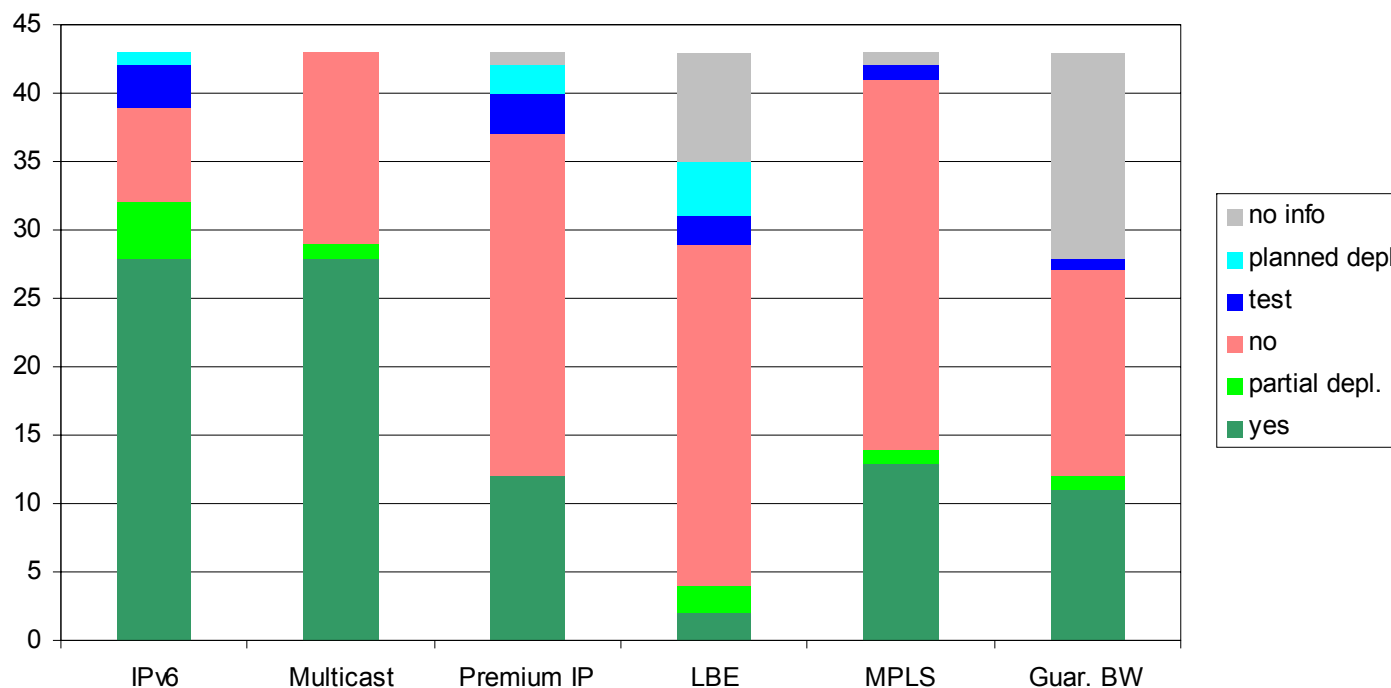
- The aim
 - Set of available network services.
 - Their deployment across GEANT/NRENs
- Gathering the information
 - NRENs web sites.
 - TERENA Compendium (<http://www.terena.nl/compendium/>)
 - A questionnaire sent to NRENs
- Result
 - A comprehensive and up-to-date document :
<https://edms.cern.ch/document/477861>
 - Mainly
 - NRENs connectivity
 - Services

Network Services in Europe

- Services: 43 networks

- IPV6 65%
- Multicast 65%
- Premium IP 28%
- LBE 5%
- MPLS 30%
- Guar. BW 28%

Network service deployment



DSA2.1: Scope & Objectives

- The aim of the deliverable is to present the survey of the applications network requirements, to define the Service Level Requirements (SLRs), and to define the initial EGEE service classes.
- The document summarizes the initial work on the topics above but it is evident that this work should be going on by the follow-up of the technological developments and services on networks, by a follow-up of the applications requirements from NA4, SA1 and JRA1 and by a cooperation with GN2 for the services classes and SLRs requests.

DSA2.1: Status

- All the topics will be finalized at the SA2 meeting
- TSA2.2.1 : Collection of application network requirements
 - A common workgroup SA2-JRA4
 - <https://edms.cern/document/476742>
 - A requirement document for SA2 and JRA4
 - Use cases from applications
 - Requirement sheets (27)
 - A tool to gather use case and requirements from the user who fill the form with:
 - A detailed description of the requirement/use-case.
 - If possible, the network requirement
 - » Operational (Duration, Scheduling, Monitoring, Service end-points ..)
 - » Flow control (Differentiation, Prioritization)
 - » Network characteristics (Bandwidth, Delay, Jitter)

DSA2.1: Status

- TSA2.2.2 : SLRs definition
 - <https://edms.cern/document/485527>
 - One document which describe the SLR and the associated request in a formal way
 - One document which defined the SLR tems
 - To give end users clear definitions of the basic terms.
- TSA2.2.3 : Definition of service classes
 - EGEE service classes from application requirements
 - They should reflect the needs of EGEE
 - Their implementation in the GEANT/NRENs context

Highest priority steps

- To keep to the deadline for DSA2.1.
- To have results on aggregation model and SLS for the next TNLC meeting.
- To finalize the NOCs operations and Trouble Ticket systems survey.
- To have a map of EGEE sites in each country.
 - A good overview on the expected network services.
- To begin DSA2.4 by SLA/Policies definition.