DELIVERABLE D3.3 FIRST WP3 SOFTWARE RELEASE - EXECUTIVE SUMMARY

WP3 New Grid Services and Tools

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Executive summary of deliverable D3.3

The main objective of workpackage WP3 (New Grid Services and Tools) is to develop Grid services and software infrastructure required to support the Grid users, applications and tools as defined in workpackages WP1 and WP2. This workpackage includes a set of tools and services, which (also including the results of WP2) will define the middleware layer of the CrossGrid project. Additionally, the workpackage includes extra tasks concerning tests and integration as well as the co-ordination.

The formal list of tasks in WP3:

- Task 3.0 Co-ordination and management
- Task 3.1 Portals and roaming access
- Task 3.2 Grid resource management
- Task 3.3 Grid monitoring
- Task 3.4 Optimisation of data access
- Task 3.5 Tests and integration

The third deliverable is announcing the first software release of middleware tools and services developed in WP3. The main issues of D3.3 are the following:

a) test scenarios, evaluation suite,

b) documentation of design, implementation, and interfaces.

The results of D3.3 will be available for all applications, e.g. medical and HEP applications, as defined in the Annex. The formal delivery for the first applications' prototype (WP1) is the PM 18. Therefore, the final presentation and integration with WP1 will be done before the month 18, basing on prototype 0 of WP1. Nowadays, for test purposes, the HEP application will be integrated with WP3 to present the existing functionality.

The results of the current deliverable include reports (list below) and source code (available in the central data base: https://gridportal.fzk.de/projects/cg-wp3/).

The report was split into several documents according to the list of tools and services as well as the general issues of all tasks:

1. Executive summary of D3.2
http://wp3.crossgrid.org/doc/d33-24-02-2003/CG3.0-D3.3-v1.1-PSNC010-ExecSummary.doc

2. Portals and roaming access design
http://wp3.crossgrid.org/doc/d33-24-02-2003/3.1/CG3.1-D3.3-v1.1-PSNC035-PrototypeFunctionality.doc main report

http://wp3.crossgrid.org/doc/d33-24-02-2003/3.1/CG3.1-D3.3-v1.1-PSNC031-PrototypeInstallationGuide.doc installation guide (specific part of the task 3.1)

http://wp3.crossgrid.org/doc/d33-24-02-2003/3.1/CG3.1-D3.3-v1.0-PSNC033-PrototypeUserGuide.doc users guide

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http://wp3.crossgrid.org/doc/d33-24-02-2003/3.1/CG3.1-D3.3-v1.0-PSNC032-PrototypeFunctionality.doc existing functionality to be available under the 1st prototype

3. Grid resource management design
http://wp3.crossgrid.org/doc/d33-24-02-2003/3.2/CG3.2-D3.3-v1.1-UAB010-PrototypeDescription.doc

http://wp3.crossgrid.org/doc/d33-24-02-2003/3.2/CG3.2-D3.3-v1.1-CSIC-installationguide.doc

4. Grid monitoring
   - Executive summary of the task 3.3
     http://wp3.crossgrid.org/doc/d33-24-02-2003/3.3/CG-3.3-TCD-D3.3-v1.0-ExecutiveSummary.doc
   - OCM-G Monitoring
     http://wp3.crossgrid.org/doc/d33-24-02-2003/3.3/CG-3.3.1-CYF-D3.3-v1.0-OCM-G.doc
   - Santa-G
     http://wp3.crossgrid.org/doc/d33-24-02-2003/3.3/CG3.3.2-TCD-D3.3-v1.1-SANTAG.doc
   - Jiro based monitoring
     http://wp3.crossgrid.org/doc/d33-24-02-2003/3.3/CG3.3.3-CYF-D3.3-v1.1-Jiro.doc
   - Post-processing analysis
     http://wp3.crossgrid.org/doc/d33-24-02-2003/3.3/CG3.3.4-v1.0-ICM-PrototypeDoc.doc

5. Optimisation of data access design
http://wp3.crossgrid.org/doc/d33-24-02-2003/3.4/CG3.4-D33-v1.1-CYF021-PrototypeDescriptionRpt.doc

6. Installation Guide of WP3 and test procedures to be done before releasing the first prototype
http://wp3.crossgrid.org/doc/d33-24-02-2003/3.5/CG3.5-D3.3-v1.0-CSIC021-TestIntegrationPrototype.doc

The reports describe in details the functionality of the 1st prototype (guide for the end user), a set of installation steps (will be available for each module independently – publicly available and as a general list of installation steps to be done for the whole WP3 – mainly used within the CrossGrid consortium). Additionally, the D3.3 report describes the structure of WP3 software as well. Test procedures (task 3.5) will allow checking the functionality in the CrossGrid testbed after a successful installation.

Each module also delivers a description of API functions, which can be used to integrate the whole WP3 or some components to another middleware software developed, not necessarily in CrossGrid. Therefore, all components will be released finally as open source. The first prototype is fully open source, except the Grid monitoring subpart – Jiro (it will be done before the second prototype), using commercial libraries.

According to the main assumptions, the first prototype in Month 12 will base on the Globus 2.x and DataGrid autumn releases. Hence, we have to find a way to migrate to web services but after the first prototype.

The prototype functionality in a nutshell:

- Portals and roaming access (3.1)

These modules have been integrated with the HEP application, testbed (installed in distributed environment) and the resource broker (task 3.2).

- Grid resource management (3.2)

  Integrated with portal (3.1), installed on the CrossGrid testbed. Task 3.2 is basing on the resource broker developed in EU DataGrid (version 1.4.x). The core functionality – scheduler will be released before the second WP3 prototype. Functions, like jobs submitting and monitoring, have been integrated with the portal and roaming access modules.

- Grid monitoring (3.3)

  Presented as demonstrators, to be integrated with applications (e.g. Jiro part with the flood crisis team application) and WP2 (e.g. performance evaluation - task 2.4). Task 3.3 mainly presents the functionality. The integration, especially with applications will be done later on – after the first prototype.

- Optimisation of data access (3.4)

  The core functionality being used by task 3.4 has been taken from the EU DataGrid project (Replica Manager and Replica Catalogue). The mentioned modules are under redesign in DataGrid. Therefore, task 3.4 is presenting its functionality without the Replica Manager and Catalogue. The integration with the beta version of DataGrid is planned after deliverable D3.3.

All details concerning each task can be found in separate documents and D3.3 reports. The integration process will finish at the end of February 2003.

The internal review process was described in *CG-5.1-IRS-D3.3-tirado-ramos00x2.doc*

Remarks to IRS report have been included in CG3-CAF-v1.0-PSNC022-D33.doc.

Delivery Slip

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Approved by	Norbert Meyer		2003-02-24	Norbert Meyer

Document Log

Version	Date	Summary of changes	Author(s)
1.0	21-01-2003	Summary of deliverable D3.3	Norbert Meyer
1-1	24-01-2003	Corrections after internal review process	Norbert Meyer