



**Grant agreement no. 283562**

## **N4U**

**NeuGRID for you:**

**expansion of NeuGRID services and outreach to new user communities**

**Combination of Collaborative Project and Coordination and Support Action**

**Objective INFRA-2011-1.2.1 – e-Science environments**

**Start date:** July 1st 2011- **Duration:** 42 months

### **Deliverable data**

**Deliverable reference number and title:** D5.1. DCI Extension Tier 1 (Additional GRID resources) Report

**Due date:** 30 June 2012

**Actual submission date:** 31 July 2012

**Lead contractor for this deliverable:** P2 maatG

**Dissemination level:** public

## Authors

Baptiste Grenier (P2 maatG)  
Jérôme Revillard (P2 maatG)

## Approval

**Workpackage Leader:** Jérôme Revillard (P2 maatG)

**Project Coordinator:** G.B. Frisoni (CO1 FBF)

**PMT members:** G.B. Frisoni (CO1 FBF), D. Manset (P2maatG), R. McClatchey (P3 UWE)

## History Record

Version	Date	Notes
1	12/07/2012	First draft circulated by MaatG for comments
2	16/07/2012	General Revision by CFc
3	30/07/2012	Final Version

# Table of Contents

---

1	Executive summary .....	5
2	Introduction .....	6
2.1	Document organisation .....	7
2.2	Document review .....	7
3	Deployment/extension methodology.....	8
3.1	Hardware requirements.....	8
3.2	VO configuration on the grid site .....	8
3.2.1	VO certificate support.....	9
3.2.2	VO configuration on the site .....	9
3.2.3	users.conf .....	9
3.2.4	groups.conf .....	10
3.2.5	Site reconfiguration .....	10
3.2.6	Conclusion .....	10
3.3	Gateway installation .....	10
3.4	Installation preparation .....	11
3.4.1	Installation.....	11
3.4.2	Test methodology.....	11
3.4.3	Registration of the resources allowed to the VO in the IS.....	12
3.4.4	Job submission testing .....	13
3.4.5	File storage testing .....	14
3.4.6	VO-specific software installation and usage testing.....	15
3.4.7	Gateway testing .....	16
3.4.8	Conclusion .....	16
4	N4U interconnection with CATI/CEA .....	17
4.1	Resources registration into the Information System.....	17
4.2	Job submission and environment display .....	18
4.3	File storage testing.....	18
4.4	N4U-related software installation.....	18
4.5	Gateway installation report .....	19
4.6	Conclusion .....	19
5	N4U interconnection with HUG/UNIGE.....	20
6	N4U interconnection with EGI/LSGC .....	21
6.1	Installation at IN2P3/France .....	21

6.1.1	Resources registration into the Information System .....	21
6.1.2	Job submission and environment display .....	22
6.1.3	File storage testing .....	22
6.1.4	N4U-related software installation.....	23
6.1.5	Gateway installation report.....	24
6.1.6	Conclusion .....	24
6.2	Installation at Gisela/Brasil .....	24
6.2.1	Resources registration into the Information System .....	24
6.2.2	Job submission and environment display .....	25
6.2.3	File storage testing .....	25
6.2.4	N4U-related software installation.....	25
6.2.5	Gateway installation report.....	25
6.2.6	Conclusion .....	25
7	Conclusion .....	26
8	Appendix 1: show-env.sh script .....	27
9	Appendix 2: test-storage.sh.....	30
10	Appendix 3: Quick reference sheet for VO installation tests .....	33
10.1	IS querying .....	33
10.2	Job submission .....	33
10.3	File storage testing.....	33
11	Appendix 4: CEA test job output .....	35
12	Appendix 5:.....	56

## 1 Executive summary

The D5.1 DCI Extension Tier 1 (additional Grid resources) report will give the reader a precise overview of the status of the extension of the N4U Distributed Computing Infrastructure (DCI) using existing or new grid resources.

The extension to a new Data Archive and Computing Site (DACS) requires two major steps: the hardware deployment and the grid site configuration. In order to help hardware selection and ensure a common quality of service and a coherent user experience, some hardware configurations have been preselected and have been made available to the new DACS administrators.

The extension to an existing grid site consists in reconfiguring the site for supporting the vo.neugrid.eu Virtual Organization (VO). The information required for configuring the vo.neugrid.eu VO will be detailed in the document.

In order to validate the success of the extension a test procedure created and will be presented. Firstly, it validates the registration inside the grid Information System (IS), secondly, it confirms that everything is working by testing the infrastructure as in a real research scenario, by launching jobs and interacting with the storage area.

This Tier 1 extension to Grid resources will be followed by two more extensions, the Tier 2 extension to High Performance Computing infrastructure and the Tier 3 extension to Cloud resources, so this extension is just the first step to a broader deployment of the N4U infrastructure making it more and more robust and heterogeneous.

## 2 Introduction

This deliverable aims at reporting the deployment and tests of the Tier 1 Infrastructure extension, in particular detailed information about the CATI/NeuroSpin, UNIGE DACS and extension to EGI/LSVRC resources will be provided.

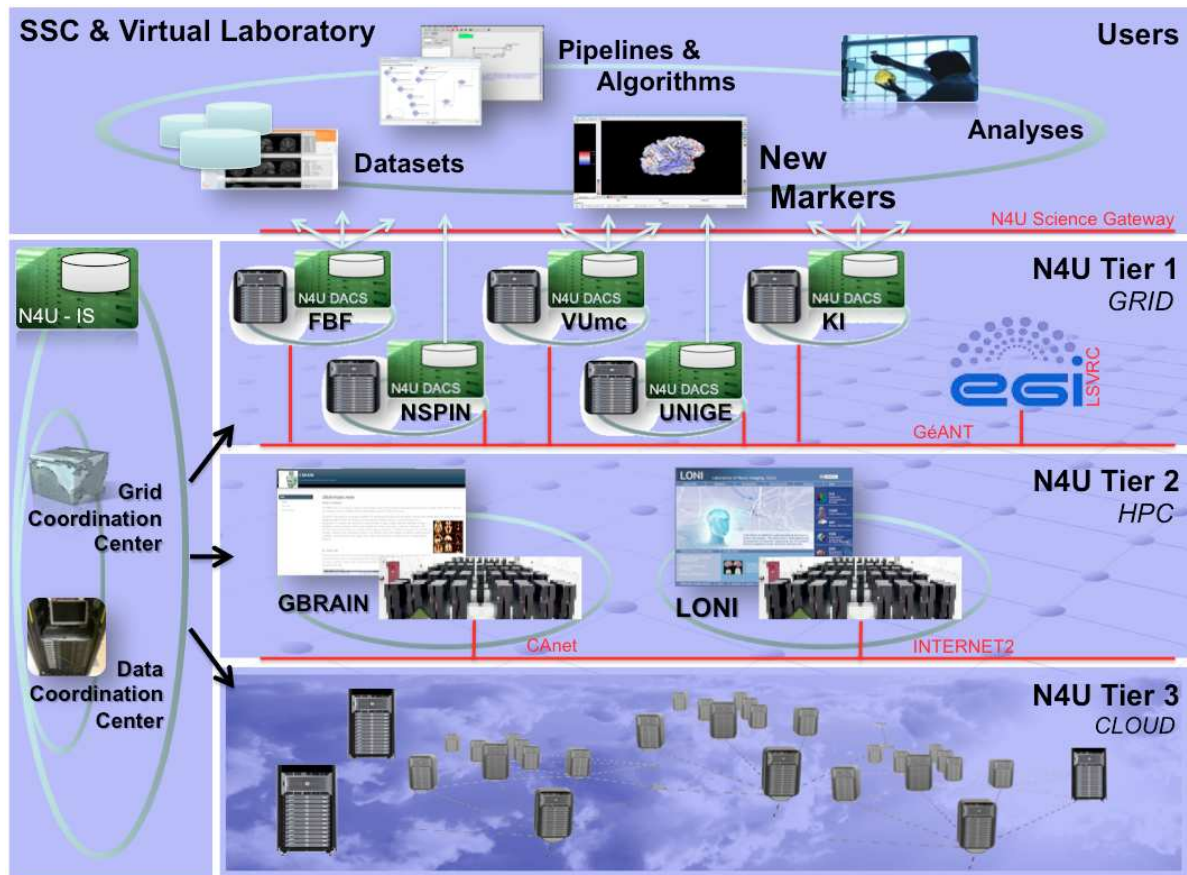


Figure 1: The N4U DCI tiers

The neuGRID DCI will be expanded and it will be connected to new renowned centres and international neuroscience initiatives, as part of the activities to be carried out by WP5. As a consequence, two new institutions, v.i.z. P8 CEA and P9 HUG, will be equipped with a dedicated DACS, strengthening the core resources of Tier 1 in the N4U infrastructure, while two external initiatives (respectively LONI represented by P10 UCLA and CBRAIN represented by P11 MNI) will be interconnected with N4U, in Tier 2, thus bridging with existing HPC computing resources.

The DCI will expand over the 3 first years of project activity. From month 1 to 12, additional Grid resources will be attached to the N4U DCI from the newly deployed DACS as well as the EGI/LSVRC, further strengthening Tier 1. Also starting at month 1 but running until month 24, Tier 2 will witness an expansion to HPC resources coming from the transatlantic initiatives. Finally new developments and tests over Cloud facilities will take place up to month 36, when the final and stable interface will be released, thus concluding the infrastructure expansion with its elastic Tier 3 as shown on figure 1.

The Description of Work (DoW) contains three tasks concerning this Tier 1 extension:

- Task 5.4.2: N4U Interconnection with CATI

- Task 5.4.3: N4U Interconnection with HUG
- Task 5.4.4: N4U Interconnection with EGI/LSVRC

## 2.1 Document organisation

After a detailed presentation of the DCI Extension procedure, the tests used to validate the resources addition will be detailed and the extension status and test results will be presented.

## 2.2 Document review

This deliverable can be seen as an extension of the **neuGRID D8.3, Phase 2 & 3, Updated deployment, Test & Validation Report** deliverable that was presenting the deployment of the 3 neuGRID DACS at FBF, KI and VUmc that was done during the neuGRID project.

According to the Description of Work (DoW), two followers of this document will be released in June 2013 (M24) and June 2014 (M36) respectively under the names of D5.3 DCI Extension Tier 2 (Additional HPC resources) Report and D5.5 DCI Extension Tier 2 (Additional Cloud resources) Report. These documents will be present the N4U DCI extension to these additional resources.

### 3 Deployment/extension methodology

In order to be able to thoroughly and safely repeat the DCI extension, a procedure has been setup.

Once a contact with the site which has to be extended has been established, several tasks need to be carried out in order to have the N4U DCI extended to the proposed infrastructure.

One of the first thing is to find an agreement on what resources will be accessible by the vo.neugrid.eu Virtual Organisation (VO), how many Computing Elements (CE), how many Worker Nodes (WN) and how much storage capacity are available in one or more Storage Elements (SE).

Here is a quick overview of the required steps:

- Discuss hardware requirements with the site ;
- Ask administrators to configure the VO on the grid site ;
- Prepare and proceed to the gateway installation.

#### 3.1 Hardware requirements

The first step is to discuss the hardware requirements needed to achieve the same level of quality of service as for the existing N4U DACS.

During the neuGRID project, different configurations were proposed and are presented in the neuGRID deliverable **D8.1 - Ground Truth And Phase 1 Deployment Test Report** that was produced by WP8. Each configuration have its own specificities in terms of physical space, price, number of CPU, raw disk space, memory, heat dissipation, and power consumption.

For N4U the configurations were updated to be in line with the actual hardware.

Sites needing to buy hardware before being part of the N4U DCI are encouraged to follow one of these specifications as close as possible.

#### 3.2 VO configuration on the grid site

In order for the site to appear inside the Grid Information System, the site administrators should configure their site to support the VO.

This section presents the main configuration files that have to be adapted to support the vo.neugrid.eu VO. It is more some hints that can be given to the site administrators than a step-by-step how-to. To get the full installation procedure, please, look at:

- <https://twiki.cern.ch/twiki/bin/view/LCG/YaimGuide400>
- <https://gridedu.jinr.ru/gLite3.2QuickHowto>
- <https://twiki.cern.ch/twiki/bin/view/LCG/GenericInstallGuide320>
- <http://www.eu-emi.eu/documentation>

Files that are not expressed as a full absolute path have to be installed into the directory where the yaim configuration is stored.



Here is the list of potentially required changes:

- VO certificate support ;
- site configuration using the `site-info.def` file and a VO-dedicated file in the `vo.d` directory ;
- pool for normal users and software grid managers ;
- groups configuration ;
- grid-map files configuration for authorization.

### 3.2.1 VO certificate support

A Virtual Organization Membership Service (VOMS) aware service will verify that the proxy presented by the client is signed by a trusted VOMS server. The trusted VOMS information is stored inside the `/etc/grid-security/vomsdir`.

For services not using `*.lsc` files yet (like the Workload Management System (WMS)), the VOMS server certificate should be added to the `/etc/grid-security/vomsdir` directory.

For service using `*.lsc` files, `yaim` will create a `/etc/grid-security/vomsdir/vo.neugrid.eu/voms.maatg.eu.lsc` file containing the DN of the VOMS server and the DN of the CA who signed this certificate, like this:

```
/O=GRID-FR/C=FR/O=MAATG/CN=voms.maatg.eu  
/C=FR/O=CNRS/CN=GRID2-FR
```

### 3.2.2 VO configuration on the site

The VO configuration is done in the `vo.d/vo.neugrid.eu` file. When YAIM will be launched to re-configure the node, it will parse this configuration file and create or update the required files.

```
SW_DIR=$VO_SW_DIR/neugrid  
DEFAULT_SE=ng-maat-server3.maatg.eu  
STORAGE_DIR=$CLASSIC_STORAGE_DIR/neugrid  
VOMS_SERVERS="vomss://voms.maatg.eu:8443/voms/vo.neugrid.eu?/vo.neugrid.eu/' "  
VOMSES=" 'vo.neugrid.eu      voms.maatg.eu      15001      /O=GRID-FR/C=FR/O=MAATG/CN=voms.maatg.eu  
vo.neugrid.eu' "  
VOMS_CA_DN=" ' /C=FR/O=CNRS/CN=GRID2-FR' "  
RBS="wms.maatg.eu"  
WMS_HOSTS="wms.maatg.eu"  
LB_HOSTS="lb.maatg.fr:9000"  
PX="myproxy.maatg.eu"
```

Once the VO configuration file has been added, the main `site-info.def` file as to be adapted to support the VO, by adding the `neugrid` VO to the VOS variables:

```
VOS="vo.neugrid.eu"
```

### 3.2.3 users.conf

The pool accounts for the normal users and Software Grid Managers are defined inside the `users.conf` file.

The following example has to be adapted to the local site configuration.

```
9001:sgmneugrid001:9123,2123:sgmneugrid,neugrid:vo.neugrid.eu:sgm:  
9002:sgmneugrid002:9123,2123:sgmneugrid,neugrid:vo.neugrid.eu:sgm:
```

```

9003:sgmneugrid003:9123,2123:sgmneugrid,neugrid:vo.neugrid.eu:sgm:
2001:neugrid001:2123:neugrid:vo.neugrid.eu:neugridgroup:
2002:neugrid002:2123:neugrid:vo.neugrid.eu:neugridgroup:
2003:neugrid003:2123:neugrid:vo.neugrid.eu:neugridgroup:
2004:neugrid004:2123:neugrid:vo.neugrid.eu:neugridgroup:
2005:neugrid005:2123:neugrid:vo.neugrid.eu:neugridgroup:
2006:neugrid006:2123:neugrid:vo.neugrid.eu:neugridgroup:
2007:neugrid007:2123:neugrid:vo.neugrid.eu:neugridgroup:
2008:neugrid008:2123:neugrid:vo.neugrid.eu:neugridgroup:
2009:neugrid009:2123:neugrid:vo.neugrid.eu:neugridgroup:
2010:neugrid010:2123:neugrid:vo.neugrid.eu:neugridgroup:
2011:neugrid011:2123:neugrid:vo.neugrid.eu:neugridgroup:
2012:neugrid012:2123:neugrid:vo.neugrid.eu:neugridgroup:
2013:neugrid013:2123:neugrid:vo.neugrid.eu:neugridgroup:
2014:neugrid014:2123:neugrid:vo.neugrid.eu:neugridgroup:
2015:neugrid015:2123:neugrid:vo.neugrid.eu:neugridgroup:
2016:neugrid016:2123:neugrid:vo.neugrid.eu:neugridgroup:
2017:neugrid017:2123:neugrid:vo.neugrid.eu:neugridgroup:
2018:neugrid018:2123:neugrid:vo.neugrid.eu:neugridgroup:
2019:neugrid019:2123:neugrid:vo.neugrid.eu:neugridgroup:
2020:neugrid020:2123:neugrid:vo.neugrid.eu:neugridgroup:
2021:neugrid021:2123:neugrid:vo.neugrid.eu:neugridgroup:
2022:neugrid022:2123:neugrid:vo.neugrid.eu:neugridgroup:
2023:neugrid023:2123:neugrid:vo.neugrid.eu:neugridgroup:
2024:neugrid024:2123:neugrid:vo.neugrid.eu:neugridgroup:
2025:neugrid025:2123:neugrid:vo.neugrid.eu:neugridgroup:
2026:neugrid026:2123:neugrid:vo.neugrid.eu:neugridgroup:
2027:neugrid027:2123:neugrid:vo.neugrid.eu:neugridgroup:
2028:neugrid028:2123:neugrid:vo.neugrid.eu:neugridgroup:
2029:neugrid029:2123:neugrid:vo.neugrid.eu:neugridgroup:
2030:neugrid030:2123:neugrid:vo.neugrid.eu:neugridgroup:

```

### 3.2.4 groups.conf

The *groups.conf* file defines the user categories that must be accepted by the grid services provided by a site. It indicates for each category to which kind of local accounts the user should be mapped.

```

"/vo.neugrid.eu/ROLE=sgmneugrid":sgmneugrid::sgm:
"/vo.neugrid.eu/ROLE=nagios":::neugridgroup:
"/vo.neugrid.eu/poc":::neugridgroup:
"/vo.neugrid.eu/prod":::neugridgroup:
"/vo.neugrid.eu":::neugridgroup:

```

### 3.2.5 Site reconfiguration

Once all the files have been updated, the site reconfiguration should be launched using *yaim*.

Example for a Cream CE:

```

/opt/glite/yaim/bin/yaim -c -s /etc/glite/site-info.def -n creamCE -n TORQUE_server -n
TORQUE_utils

```

### 3.2.6 Conclusion

Once the site has been reconfigured for the *vo.neugrid.eu* VO, it has to be tested to ensure that both computing power and storage facilities are working as expected. As a step of testing, VO-specific software will be installed.

## 3.3 Gateway installation

The gateway is a custom component that is the ground of the N4U infrastructure; it is a System Oriented Architecture (SOA) acting not only as a layer on top of the grid services, but also providing a set of Web Services for authentication, pipeline launch and more.

## 3.4 Installation preparation

As the gateway is a homemade component, site administrators have no idea on the requirements (mainly TCP ports having to be open) or on the security implications.

In some institutions, the longer part could be to have the gateway installation authorized by the security team, as local security rules can be quite strict on what can be installed or not.

To ease this step, a dedicated page presenting the gateway (daemons, configuration and log files locations, ports used) has been setup:

<http://www.maatg.fr/wiki/-/wiki/Main/Reference%20card>.

### 3.4.1 Installation

The gateway is packaged for x86\_64 Debian-based systems, and it is advised to start from a fresh bare installation of the latest Debian stable with a Mail Transport Agent (MTA) and a Network Time Protocol (NTP) client setup.

Deploying a gateway is not a difficult task; it is just a matter of following a list of steps.

These steps won't be detailed here as an online documentation always up-to-date is provided at:

<http://www.maatg.fr/wiki/-/wiki/Main/Pandora%20Gateway%20installation%20on%20Debian%20compatible%20distributions>

But, nevertheless, here is a quick overview of the process.

The first thing is to request a server certificate from a Certification Authority (CA) being part of the International Grid Trust Federation (IGTF). All CA which are members of this federation will be compliant with the gateway.

The second thing is to reference the future node in the Pandora gateway infrastructure information system in order to have the gateway interconnected with all the other gateways.

Then the gateway will be installed using .deb packages provided in the N4U software repository available at <http://repo.maatg.fr/apt/pandora>.

### 3.4.2 Test methodology

After the site deployment the following natural step is to test the deployment to validate it. In order to assess the success of the deployment, several complementary tests are used:

- resources registration for the VO into the Information System (IS) testing ;
- job submission testing ;
- file storage testing ;
- VO-specific software installation and usage testing ;
- gateway testing.

Please note that currently the N4U resources are private and are registered only in the *bdii.maatg.eu* top Berkeley Database Information Index (BDII) available at *bdii.maatg.eu:2170*. The effect is that the main top BDII located at *lcg-bdii.cern.ch:2170* will only contain the public resources, and only *bdii.maatg.eu:2170* will contain all the *vo.neugrid.eu* resources.

The top BDII could be specified on the *ldapsearch* command line using the *-h* switch.

For *lcg-info* either the *LCG\_GFAL\_INFOSYS* environment variable will be used if set, or the “*-bdii*” switch can be specified to bypass *LCG\_GFAL\_INFOSYS*.

### 3.4.3 Registration of the resources allowed to the VO in the IS

Once the *vo.neugrid.eu* VO has been configured in a new site, the IS should return the new resources when querying for the VO-specific resources.

The IS is a Lightweight Directory Access Protocol (LDAP) tree that can be queried using several different tools, either generic LDAP tools such as *ldapsearch* or grid-specific tools like the *lcg-info* command provided by the *lcg-info* package available from the *gLite/EMI* repositories.

In order to find the space available for the *vo.neugrid.eu* VO on all the configured SE, the following command can be helpful:

```
% ldapsearch -x -LLL -h bdii.maatg.eu:2170 -b "mds-vo-name=local,o=grid" \
'GlueSAAccessControlBaseRule=VO:vo.neugrid.eu' GlueSAStateAvailableSpace
```

Using *ldapsearch* requires a thorough knowledge of the Glue schema used to structure the information stored into the LDAP tree, so *lcg-info* command is the preferred tool, but when debugging, being able to query the LDAP server directly can be very helpful.

- To find *vo.neugrid.eu* configured CEs the following command has to be used:

```
% lcg-info --bdii bdii.maatg.eu:2170 --vo VO:vo.neugrid.eu --list-ce
```

- *vo.neugrid.eu* configured SEs can be shown using:

```
% lcg-info --vo VO:vo.neugrid.eu --list-se
```

- To find *vo.neugrid.eu* configured sites one can use::

```
% lcg-info --vo VO:vo.neugrid.eu --list-site
```

A list of attributes to be returned can be found and it is also possible to add a query parameter to more precisely filter the output.

- Here all the CE whose names are matching *\*cea.fr\** will be printed with some attributes:

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*cea.fr*' --attrs OS,OSRelease, \
TotalCPUs,FreeCPUs,RunningJobs,FreeJobSlots,Tag
```

- For a SE, the following command line can be useful:

```
% lcg-info --vo VO:vo.neugrid.eu --list-se --query 'SE=*cea.fr*' \
--attrs SACapability,TotalOnline,UsedOnline,FreeOnline,SESite,SAName
```

The combination of *ldapsearch* and *lcg-info* offers a wide range of possibility and flexibility for querying the grid Information System.

### 3.4.4 Job submission testing

Once that the resources are shown in the Information System it is possible to use them in real jobs requirements.

Following is presented an example of a small job description explicitly requiring a CE:

```
[
Executable = "show-env.sh";
Arguments = "";
InputSandbox = {"show-env.sh"};
OutputSandbox = {"show-env-out"};
StdOutput = "show-env-out";
StdError = "show-env-out";
Requirements = other.GlueCEUniqueID == "ce01.eela.if.ufrj.br:8443/cream-pbs-neugrid";
]
```

Here is the main information shown by our show-env.sh test script that can be found in appendix 1:

- OS and hardware related configuration
  - redhat version
  - quota for the user's main group
  - CPU, RAM and swap information
  - PCI devices information
  - Disk space and mounts
  - Shell limits
  - Kernel configuration if available
  - All the environment variables
- Network configuration
  - Network interfaces
  - Network routes
  - DNS configuration
  - Hosts configuration
  - A traceroute to gnu.org
- Grid-related configuration
  - User's proxy VO
  - Full user's proxy information
  - Content of the gridmap-file
  - Location, size and content of the VO-specific software directory

- User-related information
  - username
  - full user ID and groups
  - /etc/passwd content for the user
  - User's home directory content

This script provides valuable information allowing to precisely check the software and hardware specifications of the Worker Nodes which have been made available to the N4U DCI.

### 3.4.5 File storage testing

In addition to the computing, storage space can be provided using one or more SE. The provided SE should first be listed when showing the SE allocating space to the vo.neuGRID.eu VO using the aforementioned lcg-info.

In order to lay down the working status of the Storage Element configuration, the most simple test is to directly access the SE using the lcg-\*, the dpns-\* and/or Remote File Input/Output (RFIO) commands.

- Uploading a file on the SE and registering it in the Logical File Catalog (LFC) with lcg-cr:

```
% lcg-cr -d node12.datagrid.cea.fr --vo vo.neuGRID.eu file:///home/bgrenier/plop.pp \
-l lfn://grid/vo.neuGRID.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp
```

- Listing replicas of a file using its Logical File Name (LFN):

```
% lcg-lr lfn://grid/vo.neuGRID.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp
```

- Retrieving a file using its LFN and lcg-cp:

```
% lcg-cp -v lfn://grid/vo.neuGRID.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp
plop12.pp
```

- Retrieving a file using its Storage Uniform Resource Locator (SURL) and lcg-cp:

```
% lcg-cp -v srm://node12.datagrid.cea.fr/dpm/datagrid.cea.fr/home/vo.neuGRID.eu/generated/2012-06-26/
file32d63ee2-5ddf-41f5-a29c-61fbbd8d1482 plop42.pp
```

- Listing files with dpns-ls:

```
% export DPNS_HOST=ng-maat-server3.maatg.eu
% dpns-ls -l /dpm/maatg.eu/home/vo.neuGRID.eu/
```

- Listing information on a file using rfstat:

```
% export DPNS_HOST=node12.datagrid.cea.fr
% rfstat /dpm/datagrid.cea.fr/home/vo.neuGRID.eu/generated/2012-06-26/file32d63ee2-5ddf-41f5-
a29c-61fbbd8d1482
```

- Removing a replica with rfrm and un-registering it using lcg-uf:

```
% export DPM_HOST=node12.datagrid.cea.fr
% rfrm /dpm/datagrid.cea.fr/home/vo.neuGRID.eu/generated/2012-06-26/file32d63ee2-5ddf-41f5-
a29c-61fbbd8d1482
```

```
%          lcg-uf          $(lcg-lg          lfn://grid/vo.neugrid.eu/home/O=GRID-
FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp)
srm://node12.datagrid.cea.fr/dpm/datagrid.cea.fr/home/vo.neugrid.eu/generated/2012-06-
26/file32d63ee2-5ddf-41f5-a29c-61fbbd8d1482
```

Once this first access have been validated it is mandatory to test the storage as in a real life situation with a job retrieving and putting data on the SE.

The simple test-storage.sh script provided in Appendix 2 allows to easily do such a test, it will:

1. pre-stage files on the SE
2. create a small test script that will retrieve the files, alter them and store them on the SE
3. create a JDL
4. Launch the job
5. Create another script that will validate the modified files (script will have to be launched once the Job ran)

The test script will be run twice, on a CE of the same site and on a CE of a different site to ensure that the SE is accessible from everywhere.

### 3.4.6 VO-specific software installation and usage testing

Another important part of the test is the VO-specific software installation. In fact it is the final step that will make the provided resources be really integrated into the N4U DCI, without this N4U-specific software installation, the DCI extension will be quite senseless.

Here is a preliminary list of software having to be installed:

- civet
- FSL
- Freesurfer
- brainvisa
- octave
- R

Installation and validation scripts for these components have been developed during the neuGRID project by the WP10 and are still being updated since the start of N4U.

Installation is done using grid jobs that have to be run by a user having the Software Grid Manager (SGM) role, and installation will be done in VO-specific directory of the CE, the software installation directory, so SGM role configuration and software installation directory will be validated on the same occasion.

Once the software have been installed and validated it is possible to check the Tags set on the CE using the lcg-tags command.

The tags should also be registered into the Information System to permit the Workload Management System (WMS) to do the matchmaking of the resources.

It is possible to display the tags set on a CE using the `lcg-tags` command that will query the CE directly:

```
% lcg-tags --ce node74.datagrid.cea.fr --vo vo.neugrid.eu -list
```

In order to query the grid Information System, it is possible to use the `lcg-info` command:

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*cea.fr*' --attrs Tag | grep -E 'CE:|vo.neugrid.eu'
```

If there are differences into the tags shown for a particular CE, it could be a sign that there is either a problem with the information propagation or it is also possible that the Tags have to be set elsewhere.

### **3.4.7 Gateway testing**

Once the gateway will be correctly deployed, it will be possible to login into the N4U portal using it (the Central Authentication Service (CAS) login page will allow to select the gateway), and it will give access to the grid resources of the access point.

Once logged into the N4U Science Gateway, it will be possible to use the N4U applications to use the grid resources associated with the gateway.

### **3.4.8 Conclusion**

In order to ease the following of this procedure a quick reference sheet with all the steps and command line example is provided in appendix 3.



## 4 N4U interconnection with CATI/CEA

“Centre pour l’Acquisition et le Traitement de l’Image” (CATI) is a notional French effort based at the Neurospin imaging center in Paris. P7 CEA is a member of the CATI effort.

CATI aims at implementing all the resources required by French imaging scientists working in the field of Alzheimer’s disease to perform multi-center neuroimaging studies at the highest world standards.

As CEA did not need to buy resources before being able to be interconnected with N4U, they gave N4U users access to some of their computing and storage facilities.

Installation of the vo.neugrid.eu VO was done quite quickly with a really good interaction with CEA’s site administrators, fixing configuration really quickly.

### 4.1 Resources registration into the Information System

The resources provided by CEA are correctly reported into the Information System as shown by the following commands.

CEA gave N4U community access to two CEs with different specifications.

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*cea.fr*' \  
--attrs OS,OSRelease,TotalCPUs,FreeCPUs,RunningJobs,FreeJobSlots  
  
- CE: node16.datagrid.cea.fr:8443/cream-pbs-vo.neugrid.eu  
- OS ScientificSL  
- OSRelease 5.3  
- TotalCPUs 0  
- FreeCPUs 24  
- RunningJobs 0  
- FreeJobSlots 24  
  
- CE: node74.datagrid.cea.fr:8443/cream-pbs-vo.neugrid.eu  
- OS ScientificSL  
- OSRelease 5.3  
- TotalCPUs 2600  
- FreeCPUs 7  
- RunningJobs 0  
- FreeJobSlots 7
```

The node16.datagrid.cea.fr CE is a small Message Passing Interface (MPI) cluster allowing to run interconnected and coordinated jobs.

On the other hand, node74.datagrid.cea.fr is a bigger CE with two different kinds of job slots: mainly standard job slots and a few Short Deadline Job (SDJ). SDJ jobs slots cannot be queued but offers an instant access to the computing nodes.

CEA also allocated a 4TB storage pool on the node12.datagrid.cea.fr SE.

```
% lcg-info --vo VO:vo.neugrid.eu --list-se --query 'SE=*cea.fr*' \  
--attrs SACapability,TotalOnline,UsedOnline,FreeOnline,SESite,SAName  
- SE: node12.datagrid.cea.fr  
- SACapability InstalledOnlineCapacity=4095  
InstalledNearlineCapacity=0  
- TotalOnline 4095  
- UsedOnline 0  
- FreeOnline 4095  
- SESite GRIF  
- SAName Unreserved space for VO vo.neugrid.eu
```

This storage pool is equivalent to the ones that are available into the N4U DACS.

## 4.2 Job submission and environment display

As shown in appendix 4, the test output is very versatile and complete. It gives an overview of a WN specification.

Key points are the following:

- Scientific Linux 5.4 Operating System (OS)
- 24 cores
- 36GB of RAM
- User quota are in place
- CPU time and other resources limitations are configured

## 4.3 File storage testing

Due to the strict security rules in place at the CEA, the SE is not accessible from the outside using the `dpns-*` and `RFIO` commands. `lcg-*` commands can nevertheless be used to interact with the SE.

The `test-storage.sh` script successfully proved that the SE is working and accessible from jobs.

## 4.4 N4U-related software installation

Some software has already been installed on the CE provided by the CEA as shown by the following commands.

Listing the CEA's CEs:

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*cea.fr*'
- CE: node16.datagrid.cea.fr:8443/cream-pbs-vo.neugrid.eu
- CE: node74.datagrid.cea.fr:8443/cream-pbs-vo.neugrid.eu
```

Displaying tags for the CEs:

```
% lcg-tags --ce node16.datagrid.cea.fr --vo vo.neugrid.eu --list
VO-vo.neugrid.eu-freesurfer-5.0.0
VO-vo.neugrid.eu-fsl-4.1.9

% lcg-tags --ce node74.datagrid.cea.fr --vo vo.neugrid.eu --list
VO-vo.neugrid.eu-civet-200906-aborted-install
VO-vo.neugrid.eu-freesurfer-5.0.0
VO-vo.neugrid.eu-fsl-4.1.9
```

Listing tags propagated into the Information System:

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*cea.fr*' --attrs Tag \
| grep -E 'CE:|vo.neugrid.eu'
- CE: node16.datagrid.cea.fr:8443/cream-pbs-vo.neugrid.eu
      VO-vo.neugrid.eu-freesurfer-5.0.0
      VO-vo.neugrid.eu-fsl-4.1.9
- CE: node74.datagrid.cea.fr:8443/cream-pbs-vo.neugrid.eu
```

From this we can see that, at least for the `node74.datagrid.cea.fr` CE, there is a mismatch in the Tags set on the CE and in the Tags reported in the Information System.

This issue is being resolved with the CEA's grid site administrators.

We can also see that Freesurfer and FSL have already been installed, but that there was a problem while installing Civet. Civet's installation script is being adapted to cope with CEA's site (Due to the old version of the WN's OS, the installation scripts had to be adapted in order to be more generic and compatible with more OS versions).

#### **4.5 Gateway installation report**

Due to the CEA strict security-related measures and requirements, the gateway deployment had to be carefully planned and an administrative procedure for getting the required ports to be opened and all the installation authorizations to be granted is ongoing. The gateway reference card and installation guide aforementioned are a great help for discussing with CEA.

Once all this will be available the gateway will be deployed.

#### **4.6 Conclusion**

The N4U DCI extension to the CEA infrastructure is complete for the grid part, and the gateway installation is ongoing. N4U users are already able to send jobs to the CEA site.

## **5 N4U interconnection with HUG/UNIGE**

As the Hôpitaux Universitaires de Genève (HUG) did not have servers to devote to N4U, they were provided with the updated DACS configuration presented earlier.

Unfortunately, due to lengthy bureaucratic procedures, the purchase of the hardware has been delayed.

## 6 N4U interconnection with EGI/LSGC

The European Grid Initiative (EGI) delivers integrated computing services to European researchers, driving innovation and enabling new solutions to answer the big questions of tomorrow.

EGI is a federation of over 350 resource centres and coordinated by EGU.eu, a not-for-profit foundation created to manage the infrastructure on behalf of its participants: National Grid Initiatives (NGIs) and European Intergovernmental Research Organisations (EIROs). EGI.eu is governed by a Council of 35 participant countries and institutions.

The GISELA Project (Grid Initiatives for e-Science virtual communities in Europe and Latin America) aims at:

- Implementing the Latin American Grid Initiative (LGI) sustainability model rooted on National Grid Initiatives (NGI) or Equivalent Domestic Grid Structures (EDGS), in association with CLARA, the Latin American National Research And Education Networks (NRENs) and collaborating with the European Grid Initiative (EGI)
- Providing Virtual Research Communities (VRCs) with the e-Infrastructure and Application-related Services required to improve the effectiveness of their research.

The GISELA Project encompasses 19 Partners from 15 countries in Europe and Latin America.

The Life-Science Grid Community (LSGC) is Virtual Research Community (VRC), ie. a self-organised group that collects and represents the interests of researchers in the field of the Life-Science. It aims at represent Life-Science grid users to negotiate resources, promote their requirements and establish a liaison with EGI.

The GISELA project have accepted to devote some resources to the vo.neugrid.eu VO and with the help of the LSGC some resources have been provided by the french Institut National de Physique Nucléaire et de Physique des Particules (IN2P3) Computing Center. Thus a connection with resources that are part of EGI has been established.

### 6.1 Installation at IN2P3/France

#### 6.1.1 Resources registration into the Information System

IN2P3's resources are shown in the Information System, both for the CE and SE nodes.

CEs provided by IN2P3:

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*in2p3.fr*' \  
--attrs OS,OSRelease,TotalCPUs,FreeCPUs,RunningJobs,FreeJobSlots  
- CE: grid10.lal.in2p3.fr:2119/jobmanager-pbs-vo.neugrid.eu  
  - OS                ScientificSL  
  - OSRelease         5.5  
  - TotalCPUs         1920  
  - FreeCPUs          24  
  - RunningJobs       1  
  - FreeJobSlots      24  
  
- CE: grid36.lal.in2p3.fr:8443/cream-pbs-vo.neugrid.eu  
  - OS                ScientificSL  
  - OSRelease         5.5  
  - TotalCPUs         1920  
  - FreeCPUs          24  
  - RunningJobs       1
```

IN2P3 allows N4U users to use two CEs having access to the same pool of Worker Nodes giving access to 1920 CPUs.

SE space provided by IN2P3:

```
% lcg-info --vo VO:vo.neugrid.eu --list-se --query 'SE=*in2p3.fr*' \
--attrs SACapability,TotalOnline,UsedOnline,FreeOnline,SESite,SAName
- SE: grid05.lal.in2p3.fr
  - SACapability          InstalledOnlineCapacity=78736
                        InstalledNearlineCapacity=0
  - TotalOnline          72784
  - UsedOnline           60615
  - FreeOnline           12168
  - SESite               GRIF
  - SAName               Unreserved space for VOs alice,astro.vo.eu-
                        egee.org,atlas,auger,biomed,calice,climate-g.vo.eu-egee.org,cms,compchem,cppm,demo.vo.edges-
                        grid.eu,desktopgrid.vo.edges-grid.eu,dteam,dzero,edgiprod.vo.edgi-
                        grid.eu,egeode,esr,eticsproject.eu,fusion,glast.org,hone,ilc,lhcb,na4.vo.eu-
                        egee.org,ops,planck,proactive,superbvo.org,supermemo.vo.eu-egee.org,vo.apc.univ-
                        paris7.fr,vo.complex-systems.eu,vo.cta.in2p3.fr,vo.dapnia.cea.fr,vo.france-
                        grilles.fr,vo.gear.cern.ch,vo.grif.fr,vo.hess-
                        experiment.eu,vo.ipno.in2p3.fr,vo.irfu.cea.fr,vo.iscpif.fr,vo.lal.in2p3.fr,vo.lapp.in2p3.fr,vo
                        .llr.in2p3.fr,vo.lpnhe.in2p3.fr,vo.neugrid.eu,vo.u-psud.fr,vo.ucad.sn
```

The Storage Element provided by IN2P3 has access to 72 TB of storage, and there is currently 12 TB free.

### 6.1.2 Job submission and environment display

The test output is available in appendix 5, giving an overview of a WN specification, with the following key points:

- Scientific Linux 5.5 Operating System (OS)
- cores
- 16GB of RAM
- No user quota are in place
- CPU time and other resources limitations are configured

### 6.1.3 File storage testing

- Copying a file on the SE and registering it in the LFC works as expected:

```
% lcg-cr -d grid05.lal.in2p3.fr --vo vo.neugrid.eu file:///home/bgrenier/plop.pp \
-l lfn://grid/vo.neugrid.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop2.pp
guid:81682501-62a2-45a2-a53c-2ce8fa4ffb87
```

- Listing the replicas of the file shows that it is stored on the grid05.lal.in2p3.fr SE:

```
% lcg-lr lfn://grid/vo.neugrid.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop2.pp
srm://grid05.lal.in2p3.fr/dpm/lal.in2p3.fr/home/vo.neugrid.eu/generated/2012-06-
29/filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c
```

- Retrieving this file using its LFN is straightforward:

```
% lcg-cp -v lfn://grid/vo.neugrid.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop2.pp
plop12.pp
Using grid catalog type: LFC
Using grid catalog : lfc.maatg.eu
VO name: vo.neugrid.eu
Checksum type: None
Trying SURL srm://grid05.lal.in2p3.fr/dpm/lal.in2p3.fr/home/vo.neugrid.eu/generated/2012-06-
29/filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c ...
```

```

Source SE type: SRMv2
Source SRM Request Token: 1e3c4dc4-dafc-43e4-ab0f-95dc5666b532
Source URL: /grid/vo.neugrid.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop2.pp
File size: 245
Source                                URL                                for                                copy:
gsiftp://grid41.lal.in2p3.fr/grid41.lal.in2p3.fr:/dpm/part1/vo.neugrid.eu/2012-06-29/
filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c.85931740.0
Destination URL: file:/home/bgrenier/repos/software-management/generic/plop12.pp
# streams: 1
0 bytes      0.00 KB/sec avg      0.00 KB/sec inst
Transfer took 1060 ms

```

```

Retrieving this file using its SURL works the same:
% lcg-cp -v \
srm://grid05.lal.in2p3.fr/dpm/lal.in2p3.fr/home/vo.neugrid.eu/generated/2012-06-29/
filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c plop42.pp
Using grid catalog type: UNKNOWN
Using grid catalog : lfc.maatg.eu
VO name: vo.neugrid.eu
Checksum type: None
Trying SURL srm://grid05.lal.in2p3.fr/dpm/lal.in2p3.fr/home/vo.neugrid.eu/generated/2012-06-29/
filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c ...
Source SE type: SRMv2
Source SRM Request Token: 55355e77-8ceb-4ae2-8045-9f91fc2ae4fd
Source URL: srm://grid05.lal.in2p3.fr/dpm/lal.in2p3.fr/home/vo.neugrid.eu/generated/2012-06-29/
filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c
File size: 245
Source                                URL                                for                                copy:
gsiftp://grid41.lal.in2p3.fr/grid41.lal.in2p3.fr:/dpm/part1/vo.neugrid.eu/2012-06-29/
filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c.85931740.0
Destination URL: file:/home/bgrenier/repos/software-management/generic/plop42.pp
# streams: 1
0 bytes      0.00 KB/sec avg      0.00 KB/sec inst
Transfer took 1020 ms

```

- The `dpns-*` commands can also be used for listing the content of the `vo.neugrid.eu`-dedicated storage root:

```

% export DPNS_HOST=grid05.lal.in2p3.fr
% dpns-ls /dpm/lal.in2p3.fr/home/vo.neugrid.eu/generated

```

- RFIO commands are also available:

```

% export DPNS_HOST=grid05.lal.in2p3.fr
% rfstat \
/dpm/lal.in2p3.fr/home/vo.neugrid.eu/generated/2012-06-29/filed77ded0f-f232-40ee-91eb-0bb97a5a2a8c
Device          : 0
Inode number    : 32068644
Nb blocks       : 0
Protection      : -rw-rw-r-- (100664)
Hard Links      : 1
Uid             : 7342 (/O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste)
Gid             : 20219 (vo.neugrid.eu)
Size (bytes)    : 245
Last access     : Fri Jun 29 12:15:23 2012
Last modify     : Fri Jun 29 12:11:25 2012
Last stat. mod. : Fri Jun 29 12:11:25 2012

```

Testing the storage from the grid using the `test-storage.sh` script was a success.

To conclude, the SE provided by the IN2P3 is fully operational, and can be accessed by using all the traditional ways of interacting with it.

### 6.1.4 N4U-related software installation

Here are the tags set on the two aforementioned CEs:

```

% lcg-tags --ce grid10.lal.in2p3.fr --vo vo.neugrid.eu --list
% lcg-tags --ce grid36.lal.in2p3.fr --vo vo.neugrid.eu --list
VO-vo.neugrid.eu-R-2.13.1-1.sl5-aborted-install
VO-vo.neugrid.eu-brainvisa-3.2.1

```

```
VO-vo.neugrid.eu-civet-200906
VO-vo.neugrid.eu-freesurfer-5.0.0
VO-vo.neugrid.eu-fsl-4.1.9
VO-vo.neugrid.eu-octave-3.0.5-1.e15
```

The grid10.lal.in2p3.fr CE does not have any tag registered whereas grid36.lal.in2p3.fr CE has already brainvisa, civet, freesurfer, FSL and octave installed.

The Information System reports the following tags for the CEs:

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*in2p3.fr*' --attrs Tag | grep -E
'CE:|neugrid'
- CE: grid10.lal.in2p3.fr:2119/jobmanager-pbs-vo.neugrid.eu
      VO-vo.neugrid.eu-brainvisa-3.2.1
      VO-vo.neugrid.eu-civet-200906
      VO-vo.neugrid.eu-freesurfer-5.0.0
- CE: grid36.lal.in2p3.fr:8443/cream-pbs-vo.neugrid.eu
      VO-vo.neugrid.eu-brainvisa-3.2.1
      VO-vo.neugrid.eu-civet-200906
      VO-vo.neugrid.eu-freesurfer-5.0.0
```

There is once again a mismatch between the tags set on the CEs and the ones reported in the Information System, in order to debug this problem, a Global Grid User Support (GGUS) ticket was created ([https://ggus.eu/ws/ticket\\_info.php?ticket=82055](https://ggus.eu/ws/ticket_info.php?ticket=82055)), and it appears that now the grid10 and grid36 tags are provided by the grid33.lal.in2p3.fr node. Installations are being updated to fix the tags on the CEs.

Here are the tags set on grid33.lal.in2p3.fr:

```
% lcg-tags --ce grid33.lal.in2p3.fr --vo vo.neugrid.eu --list
VO-vo.neugrid.eu-brainvisa-3.2.1
VO-vo.neugrid.eu-civet-200906
VO-vo.neugrid.eu-freesurfer-5.0.0
```

And it correlates the fact that tags reported in the Information System for grid10 and grid36 are the ones set on grid33.

### 6.1.5 Gateway installation report

No gateway installation is planned on the EGI/LSGC resources, they just provide computing power and storage capacity.

### 6.1.6 Conclusion

IN2P3-provided resources are consequent and give N4U users access to a fair additional amount of computing power and storage space, allowing more and more researchers to count on the grid for their daily use.

## 6.2 Installation at Gisela/Brasil

### 6.2.1 Resources registration into the Information System

Two CEs were correctly registered inside the Information System:

```
% export LCG_GFAL_INFOSYS=lcg-bdii.cern.ch:2170
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*ufrj.br*' --attrs OS,OSRelease
- CE: ce01.eela.if.ufrj.br:8443/cream-pbs-neugrid
  - OS          Scientific Linux
  - OSRelease   5.x
- CE: ce02.eela.if.ufrj.br:8443/cream-pbs-neugrid
  - OS          _UNDEF_
  - OSRelease   _UNDEF_
```



As shown in the Grid Operation Centre DataBase (GOODB) ([https://goc.eji.eu/portal/index.php?Page\\_Type=View\\_Object&object\\_id=359&grid\\_id=0](https://goc.eji.eu/portal/index.php?Page_Type=View_Object&object_id=359&grid_id=0)), the site is currently down for a scheduled outage, so it is impossible to run all the remaining tests yet.

### **6.2.2 Job submission and environment display**

As the site is currently down, the detailed results are not available, but some jobs were already successfully submitted to UFRJ CEs.

### **6.2.3 File storage testing**

The UFRJ-IF administrators warned that the SE is about to be decommissioned so no storage space is currently available.

### **6.2.4 N4U-related software installation**

When the site was up, several software installation attempts were made, but the SGM role mapping was never working.

Once the site will be up again, this support will be fixed in cooperation with the UFRJ-IF grid administrators.

### **6.2.5 Gateway installation report**

No gateway installation is planned at UFRJ-IF.

### **6.2.6 Conclusion**

Extension to the UFRJ-IF site, that is part of GISELA, is ongoing, the first steps (registering the CEs in the IS, being able to run standard jobs) were achieved successfully, but there is still some issues to fix. The main ones are to fix the SGM role mapping in order to install N4U-related software, and to have some storage space available on a SE for the vo.neugrid.eu VO.

## 7 Conclusion

The DCI Extension Tier 1 is on the way to be completed. The first interesting production is a procedure for deploying and testing the deployment of the vo.neugrid.eu VO.

The tasks “5.4.2: N4U Interconnection with CATI” and “5.4.4: N4U Interconnection with EGI/LSVRC” are mostly completed. Only little fixes are missing. Task “5.4.3: N4U Interconnection with HUG” has started, but due to administrative delays, the hardware installation and as a consequence the software installation has not started yet.

N4U users can already access a lot more computing power and storage space, giving them more and more resources for their researches.

The next steps are to extend the N4U DCI to High Performance Computing (HPC) by integrating LONI and CBRAIN resources in the context of the task 5.5 (this is already well advanced). Once this will be done the N4U DCI will be extended to the Cloud to allow N4U to offer again more possibilities to N4U users, making N4U DCI really strong and fault tolerant.

## 8 Appendix 1: show-env.sh script

```
#!/bin/sh

#####
#
# Script for checking Worker Node environment
#
# Script: show-env.sh
# Usage: show-env.sh
#
# Version: 1.2
#
# Project: neuGRID 2010, outGRID 2011, N4U 2012
# Author: Baptiste Grenier
# Copyright: maatG
# Licence:
#
# -----
# Log:
#
# ??-??-???? 1.0: Initial version. (BG)
# 02-10-2012 1.1: Add header, check more things. (BG)
# 05-15-2012 1.2: Add user-related checks. (BG)
#
#####

PATH="/bin:/sbin:/usr/sbin:/usr/bin:$PATH"
VO="$(voms-proxy-info --vo)"
FORMATED_VO_NAME="$(echo $VO | tr '[:lower:]' '[:upper:]' | sed 's/\./_/g')"
eval VODIR="\$VO_${FORMATED_VO_NAME}_SW_DIR"

echo '-----'
echo 'OS/hardware configuration'
echo '-----'

echo 'Script launched on:'
echo " -> $(hostname -f) ($(uname -a) as $(whoami))"
echo

echo 'Redhat version'
cat /etc/redhat-release
echo

if [ -x /usr/bin/quota ]; then
    echo "Quotas for $(id -nu)'s main group $(id -ng):"
    quota -g 2>&1
fi

echo 'CPU'
cat /proc/cpuinfo
echo

echo 'RAM'
free -m 2>&1
echo

echo 'Swap'
cat /proc/swaps 2>&1
echo

echo 'PCI devices'
lspci -v 2>&1
echo

echo 'Disk space'
df -h 2>&1
echo

echo 'Mounts'
mount 2>&1
echo

echo 'Limits'
ulimit -a 2>&1
echo
```

```

if [ -r /proc/config.gz ]; then
    echo 'Kernel config'
    cat /proc/config.gz
else
    echo '/boot content'
    ls /boot 2>&1
fi
echo

echo 'env'
env 2>&1
echo

echo '-----'
echo 'Network configuration'
echo '-----'

echo 'Network interfaces'
ifconfig 2>&1
echo

echo 'Routes using route'
route -vne 2>&1
echo

echo 'Routes using iproute'
ip r s 2>&1
echo

echo 'DNS configuration'
cat /etc/resolv.conf
echo

echo 'Hosts configuration'
cat /etc/hosts
echo

echo 'Traceroute to gnu.org'
traceroute gnu.org
echo

echo '-----'
echo 'Grid-related configuration'
echo '-----'

echo "VO is $VO"
echo

echo 'Proxy information'
voms-proxy-info --all
echo

echo "SW_DIR is: $VODIR"
echo

echo 'Size of SW_DIR:'
du -schx "$VODIR" 2>&1
echo

echo "SW_DIR ($VODIR)"
ls -ld "$VODIR" 2>&1
echo

echo "Content of SW_DIR ($VODIR)"
ls -la "$VODIR" 2>&1
echo

echo 'Space available on SW_DIR partition'
df -h "$VODIR" 2>&1
echo

echo '-----'
echo 'User-related configuration'
echo '-----'

echo "User: $(whoami)"
echo "Groups: $(groups)"
echo "ID: $(id)"

```

```
echo "/etc/passwd info: $(grep $(whoami) /etc/passwd)"  
echo  
  
echo "$(whoami) home directory $HOME content"  
ls -ld "$HOME" 2>&1  
ls -laRH "$HOME" 2>&1  
  
exit 0
```

## 9 Appendix 2: test-storage.sh

```
#!/bin/sh

#####
#
# Script for testing storage
#
# Script: test-storage.sh
# Usage: test-storage.sh <CE> <SE> <LFC>
#
# Version: 1.0
#
# Project: N4U 2012
# Author: Baptiste Grenier bgrenier@maatg.fr
# Copyright: maatG
# Licence: ?
#
#|-----#
# Log:
#
# 02-14-2012 1.0: Initial version. (BG)
# 06-27-2012 1.1: First complete implementation. (BG)
#
#####

USAGE="$(basename $0) <CE> <SE> <LFC> <LFC_HOME>"

#####
# Validate parameters
#####

if [ $# -ne 4 ]; then
    echo "Wrong numbers of parameters!"
    echo "$USAGE"
    exit 1
else
    CE="$1"
    SE="$2"
    LFC="$3"
    LFC_HOME="$4"
fi

VO=$(voms-proxy-info --vo)

[ -d tmp ] && rm -rf tmp
mkdir tmp
cd tmp
TMP_DIR="$(pwd)"

# Create files to be copied on the SE
echo 'Creating input files...'

cat > input0 << EOF
I am input zero file
EOF

cat > input1 << EOF
I am input one file
EOF

cat > input2 << EOF
I am input two file
EOF

echo 'done.'
echo

export LFC_HOST="$LFC"

# Clean files on the SE
for file in 'input0' 'input1' 'input2' 'input0-mod' 'input1-mod' 'input2-mod'; do
    LFN="lfn://$LFC_HOME/$file"
    echo "Deleteing existing $LFN if any..."
    lcg-del -a "$LFN"
    echo 'done.'
done
```

```

echo

# Copy files on the SE
for file in 'input0' 'input1' 'input2'; do
  LFN="lfn://$LFC_HOME/$file"
  echo "Uploading $file as $LFN on SE $SE..."
  lcg-cr -d "$SE" --vo "$VO" "file://$TMP_DIR/$file" -l "$LFN"
  echo 'done.'
done
echo

# Script that will
# - retrieve the files
# - alter them
# - store them on the SE
cat > test.sh << EOF
#!/bin/sh

set -x

echo "Running on: \$(hostname -f)"

export LFC_HOST="$LFC"
for file in 'input0' 'input1' 'input2'; do
  lcg-cp -v "lfn://$LFC_HOME/\$file" "\$file"
  echo 'Hello, I am the second line' >> "\$file"
  lcg-cr -d "$SE" --vo "$VO" "file://\$(pwd)/\$file" -l "lfn://$LFC_HOME/\$file-mod"
done

exit 0
EOF

chmod +x test.sh

# JDL that will
# - launch the previous script on the grid with CE and SE from
# parameters
cat > test.jdl << EOF
[
Executable="test.sh";
Arguments="";
InputSandbox={"test.sh"};
OutputSandbox={"test.out"};
StdError="test.out";
StdOutput="test.out";
Requirements=other.GlueCEUniqueID == "$CE";
]
EOF

echo 'Launching storage testing job...'
RESULT=$(exec glite-wms-job-submit -a --nomsg test.jdl 2>&1)
if [ $? -eq 0 ]; then
  echo "Job successfully submitted as $RESULT"
  echo 'You can monitor it using:'
  echo "watch glite-wms-job-status $RESULT"
  echo 'You can retrieve its output using:'
  echo "glite-wms-job-output --dir results $RESULT"
  echo
  # Script that will
  # - retrieve the modified files
  # - validate them
  cat > test2.sh << EOF
#!/bin/sh

export LFC_HOST="$LFC"
for file in 'input0' 'input1' 'input2'; do
  lcg-cp -v "lfn://$LFC_HOME/\$file-mod" "\$file-mod"
  echo 'Modified file content should be the original plus a second line:'
  echo '"Hello, I am the second line"'
  echo
  echo "Displaying content of original file: \$file"
  cat \$file
  echo "Displaying content of modified file: \$file-mod"
  cat \$file-mod
  echo
done

exit 0

```

```
EOF
  chmod +x test2.sh
  echo "Once the job will be successful, you can go to $TMP_DIR"
  echo 'and launch: ./test2.sh to retrieve and test the files.'
else
  echo "There was an error during the $JOB_NAME job submission:"
  echo "$RESULT"
fi

exit 0
```



## 10 Appendix 3: Quick reference sheet for VO installation tests

### 10.1 IS querying

Find space available for the vo.neuGRID.eu VO on all SE using ldapsearch:

```
% ldapsearch -x -LLL -h bdii.maatsg.eu:2170 -b "mdu-vo-name=local,o=grid" \
'GlueSAAccessControlBaseRule=VO:vo.neuGRID.eu' GlueSASpaceAvailable
```

Find vo.neuGRID.eu configured CEs::

```
% lcg-info --bdii bdii.maatsg.eu:2170 --vo VO:vo.neuGRID.eu --list-ce
```

Find vo.neuGRID.eu configured SEs:

```
% lcg-info --vo VO:vo.neuGRID.eu --list-se
```

Find vo.neuGRID.eu configured sites:

```
% lcg-info --vo VO:vo.neuGRID.eu --list-site
```

Print CE matching \*cea.fr\* with some attributes:

```
% lcg-info --vo VO:vo.neuGRID.eu --list-ce --query 'CE=*cea.fr*' \
--attrs OS,OSRelease,TotalCPUs,FreeCPUs,RunningJobs,FreeJobSlots,Tag
```

Print SE matching \*cea.fr\* with some attributes:

```
% lcg-info --vo VO:vo.neuGRID.eu --list-se --query 'SE=*cea.fr*' \
--attrs SACapability,TotalOnline,UsedOnline,FreeOnline,SESite,SAName
```

### 10.2 Job submission

JDL showing environment/configuration of a CE using show-env.sh script:

```
[
Executable = "show-env.sh";
Arguments = "";
InputSandbox = {"show-env.sh"};
OutputSandbox = {"show-env-out"};
StdOutput = "show-env-out";
StdError = "show-env-out";
Requirements = other.GlueCEUniqueID == "ce01.eela.if.ufrj.br:8443/cream-pbs-neuGRID";
]
```

### 10.3 File storage testing

- Upload a file on the SE and register it in the LFC:

```
% lcg-cr -d node12.datagrid.cea.fr --vo vo.neuGRID.eu file:///home/bgrenier/plop.pp \
-l lfn:///grid/vo.neuGRID.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp
```

- List replicas of a file using LFN:

```
% lcg-lr lfn:///grid/vo.neuGRID.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp
```

- Retrieve a file using LFN:

```
% lcg-cp -v lfn:///grid/vo.neuGRID.eu/home/O=GRID-FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp
plop12.pp
```

- Retrieve a file using SURL:

```
% lcg-cp -v
srm:///node12.datagrid.cea.fr/dpm/datagrid.cea.fr/home/vo.neuGRID.eu/generated/2012-06-
26/file32d63ee2-5ddf-41f5-a29c-61fbbd8d1482 plop42.pp
```

- List files/directories:

```
% export DPNS_HOST=ng-maat-server3.maatg.eu
% dpns-ls -l /dpm/maatg.eu/home/vo.neugrid.eu/
```

- List files information:

```
% export DPM_HOST=node12.datagrid.cea.fr
% rfstat \
/dpm/datagrid.cea.fr/home/vo.neugrid.eu/generated/2012-06-26/file32d63ee2-5ddf-41f5-a29c-61fbbd8d1482
```

- Remove a replica and un-register it:

```
% export DPM_HOST=node12.datagrid.cea.fr
% rfrm \
/dpm/datagrid.cea.fr/home/vo.neugrid.eu/generated/2012-06-26/file32d63ee2-5ddf-41f5-a29c-61fbbd8d1482
%                               lcg-uf                               $(lcg-lg                               lfn://grid/vo.neugrid.eu/home/O=GRID-
FR_C=FR_O=MAATG_CN=Baptiste_Grenier/plop.pp) \
srm://node12.datagrid.cea.fr/dpm/datagrid.cea.fr/home/vo.neugrid.eu/generated/2012-06-26/file32d63ee2-5ddf-41f5-a29c-61fbbd8d1482
```

- Test storage from the grid using test-storage.sh.
- Install N4U-related tools (FSL, Freesurfer, Civet...)
- List tags set on a CE:

```
% lcg-tags --ce node16.datagrid.cea.fr --vo vo.neugrid.eu -list
```

- List tags reported in the IS:

```
% lcg-info --vo VO:vo.neugrid.eu --list-ce --query 'CE=*cea.fr*' --attrs Tag | grep -E 'CE:|vo.neugrid.eu'
```

- Test the gateway by login against it in CAS.
- Use Desktop Fusion to access the access point resources.

# 11 Appendix 4: CEA test job output

-----  
OS/hardware configuration  
-----

Script launched on:

-> wn214.datagrid.cea.fr (Linux wn214.datagrid.cea.fr 2.6.18-308.4.1.el5 #1 SMP Tue Apr 17 14:33:50 EDT 2012 x86\_64 x86\_64 x86\_64 GNU/Linux) as neusnss

Redhat version

Scientific Linux SL release 5.4 (Boron)

Quotas for neusnss's main group vo.neugrid.eu:

Disk quotas for group vo.neugrid.eu (gid 1952005):

Filesystem	blocks	quota	limit	grace	files	quota	limit	grace
node18.datagrid.cea.fr:/soft2/alice	9331572	10485760	10485760		50889	0	0	

CPU

```
processor      : 0
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 1600.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 0
cpu cores     : 6
apicid        : 0
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc  arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.72
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor      : 1
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 1600.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 1
cpu cores     : 6
apicid        : 2
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc  arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 7085.93
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor      : 2
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
```

```
stepping      : 2
cpu MHz       : 1600.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 2
cpu cores     : 6
apicid        : 4
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.40
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor      : 3
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 2668.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 8
cpu cores     : 6
apicid        : 16
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.41
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor      : 4
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 1600.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 9
cpu cores     : 6
apicid        : 18
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.56
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor      : 5
vendor_id     : GenuineIntel
```

```

cpu family      : 6
model           : 44
model name     : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping       : 2
cpu MHz        : 1600.000
cache size     : 12288 KB
physical id    : 0
siblings       : 12
core id        : 10
cpu cores      : 6
apicid         : 20
fpu            : yes
fpu_exception  : yes
cpuid level    : 11
wp             : yes
flags          : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips       : 5333.41
clflush size   : 64
cache_alignment : 64
address sizes  : 40 bits physical, 48 bits virtual
power management: [8]

```

```

processor       : 6
vendor_id      : GenuineIntel
cpu family     : 6
model          : 44
model name     : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping       : 2
cpu MHz        : 1600.000
cache size     : 12288 KB
physical id    : 1
siblings       : 12
core id        : 0
cpu cores      : 6
apicid         : 32
fpu            : yes
fpu_exception  : yes
cpuid level    : 11
wp             : yes
flags          : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips       : 5333.53
clflush size   : 64
cache_alignment : 64
address sizes  : 40 bits physical, 48 bits virtual
power management: [8]

```

```

processor       : 7
vendor_id      : GenuineIntel
cpu family     : 6
model          : 44
model name     : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping       : 2
cpu MHz        : 1600.000
cache size     : 12288 KB
physical id    : 1
siblings       : 12
core id        : 1
cpu cores      : 6
apicid         : 34
fpu            : yes
fpu_exception  : yes
cpuid level    : 11
wp             : yes
flags          : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips       : 5333.52
clflush size   : 64
cache_alignment : 64
address sizes  : 40 bits physical, 48 bits virtual
power management: [8]

```

```
processor      : 8
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 2668.000
cache size    : 12288 KB
physical id   : 1
siblings      : 12
core id       : 2
cpu cores     : 6
apicid        : 36
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.44
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor      : 9
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 1600.000
cache size    : 12288 KB
physical id   : 1
siblings      : 12
core id       : 8
cpu cores     : 6
apicid        : 48
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.44
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor      : 10
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 1600.000
cache size    : 12288 KB
physical id   : 1
siblings      : 12
core id       : 9
cpu cores     : 6
apicid        : 50
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.44
clflush size  : 64
```

```

cache_alignment      : 64
address sizes       : 40 bits physical, 48 bits virtual
power management: [8]

processor           : 11
vendor_id          : GenuineIntel
cpu family         : 6
model              : 44
model name         : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping           : 2
cpu MHz            : 1600.000
cache size         : 12288 KB
physical id        : 1
siblings           : 12
core id            : 10
cpu cores          : 6
apicid             : 52
fpu                : yes
fpu_exception      : yes
cpuid level        : 11
wp                 : yes
flags               : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips           : 5333.75
clflush size       : 64
cache_alignment    : 64
address sizes       : 40 bits physical, 48 bits virtual
power management: [8]

processor           : 12
vendor_id          : GenuineIntel
cpu family         : 6
model              : 44
model name         : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping           : 2
cpu MHz            : 2668.000
cache size         : 12288 KB
physical id        : 0
siblings           : 12
core id            : 0
cpu cores          : 6
apicid             : 1
fpu                : yes
fpu_exception      : yes
cpuid level        : 11
wp                 : yes
flags               : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips           : 5333.45
clflush size       : 64
cache_alignment    : 64
address sizes       : 40 bits physical, 48 bits virtual
power management: [8]

processor           : 13
vendor_id          : GenuineIntel
cpu family         : 6
model              : 44
model name         : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping           : 2
cpu MHz            : 1600.000
cache size         : 12288 KB
physical id        : 0
siblings           : 12
core id            : 1
cpu cores          : 6
apicid             : 3
fpu                : yes
fpu_exception      : yes
cpuid level        : 11
wp                 : yes
flags               : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida

```

```

nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.45
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]

processor      : 14
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 2668.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 2
cpu cores     : 6
apicid        : 5
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.67
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]

processor      : 15
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 1600.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 8
cpu cores     : 6
apicid        : 17
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips      : 5333.52
clflush size  : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]

processor      : 16
vendor_id     : GenuineIntel
cpu family    : 6
model         : 44
model name    : Intel(R) Xeon(R) CPU           X5650 @ 2.67GHz
stepping      : 2
cpu MHz       : 2668.000
cache size    : 12288 KB
physical id   : 0
siblings      : 12
core id       : 9
cpu cores     : 6
apicid        : 19
fpu           : yes
fpu_exception : yes
cpuid level   : 11

```



wp : yes  
flags : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36  
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpelgb rdtscp lm constant\_tsc ida  
nonstop\_tsc arat pni monitor ds\_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4\_1 sse4\_2 popcnt  
lahf\_lm  
bogomips : 5333.44  
clflush size : 64  
cache\_alignment : 64  
address sizes : 40 bits physical, 48 bits virtual  
power management: [8]

processor : 17  
vendor\_id : GenuineIntel  
cpu family : 6  
model : 44  
model name : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz  
stepping : 2  
cpu MHz : 2668.000  
cache size : 12288 KB  
physical id : 0  
siblings : 12  
core id : 10  
cpu cores : 6  
apicid : 21  
fpu : yes  
fpu\_exception : yes  
cpuid level : 11  
wp : yes  
flags : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36  
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpelgb rdtscp lm constant\_tsc ida  
nonstop\_tsc arat pni monitor ds\_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4\_1 sse4\_2 popcnt  
lahf\_lm  
bogomips : 5333.44  
clflush size : 64  
cache\_alignment : 64  
address sizes : 40 bits physical, 48 bits virtual  
power management: [8]

processor : 18  
vendor\_id : GenuineIntel  
cpu family : 6  
model : 44  
model name : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz  
stepping : 2  
cpu MHz : 2668.000  
cache size : 12288 KB  
physical id : 1  
siblings : 12  
core id : 0  
cpu cores : 6  
apicid : 33  
fpu : yes  
fpu\_exception : yes  
cpuid level : 11  
wp : yes  
flags : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36  
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpelgb rdtscp lm constant\_tsc ida  
nonstop\_tsc arat pni monitor ds\_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4\_1 sse4\_2 popcnt  
lahf\_lm  
bogomips : 5333.75  
clflush size : 64  
cache\_alignment : 64  
address sizes : 40 bits physical, 48 bits virtual  
power management: [8]

processor : 19  
vendor\_id : GenuineIntel  
cpu family : 6  
model : 44  
model name : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz  
stepping : 2  
cpu MHz : 2668.000  
cache size : 12288 KB  
physical id : 1  
siblings : 12  
core id : 1  
cpu cores : 6  
apicid : 35

```
fpu : yes
fpu_exception : yes
cpuid level : 11
wp : yes
flags : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips : 5333.45
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor : 20
vendor_id : GenuineIntel
cpu family : 6
model : 44
model name : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz
stepping : 2
cpu MHz : 1600.000
cache size : 12288 KB
physical id : 1
siblings : 12
core id : 2
cpu cores : 6
apicid : 37
fpu : yes
fpu_exception : yes
cpuid level : 11
wp : yes
flags : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips : 5333.43
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor : 21
vendor_id : GenuineIntel
cpu family : 6
model : 44
model name : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz
stepping : 2
cpu MHz : 1600.000
cache size : 12288 KB
physical id : 1
siblings : 12
core id : 8
cpu cores : 6
apicid : 49
fpu : yes
fpu_exception : yes
cpuid level : 11
wp : yes
flags : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips : 5333.44
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]
```

```
processor : 22
vendor_id : GenuineIntel
cpu family : 6
model : 44
model name : Intel(R) Xeon(R) CPU X5650 @ 2.67GHz
stepping : 2
cpu MHz : 2668.000
cache size : 12288 KB
physical id : 1
siblings : 12
```

```

core id      : 9
cpu cores   : 6
apicid      : 51
fpu         : yes
fpu_exception : yes
cpuid level : 11
wp          : yes
flags       : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips    : 5333.75
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]

```

```

processor    : 23
vendor_id   : GenuineIntel
cpu family   : 6
model       : 44
model name   : Intel(R) Xeon(R) CPU           X5650  @ 2.67GHz
stepping    : 2
cpu MHz     : 2668.000
cache size  : 12288 KB
physical id : 1
siblings    : 12
core id     : 10
cpu cores   : 6
apicid      : 53
fpu         : yes
fpu_exception : yes
cpuid level : 11
wp          : yes
flags       : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall pdpe1gb rdtscp lm constant_tsc ida
nonstop_tsc arat pni monitor ds_cpl vmx smx est tm2 ssse3 cx16 xtpr sse4_1 sse4_2 popcnt
lahf_lm
bogomips    : 5333.45
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: [8]

```

```

RAM
      total        used        free      shared    buffers     cached
Mem:   36169        22051        14117          0         184         9989
-/+ buffers/cache:  11878        24291
Swap:   70323          177         70146

```

```

Swap
Filename                                Type              Size    Used    Priority
/dev/sdb1                                partition         72011320 181784  -1

```

#### PCI devices

```

00:00.0 Host bridge: Intel Corporation 5520 I/O Hub to ESI Port (rev 22)
  Subsystem: Inventec Corporation Unknown device 0047
  Flags: fast devsel
  Capabilities:

00:01.0 PCI bridge: Intel Corporation 5520/5500/X58 I/O Hub PCI Express Root Port 1 (rev 22)
(prog-if 00 [Normal decode])
  Flags: bus master, fast devsel, latency 0
  Bus: primary=00, secondary=01, subordinate=01, sec-latency=0
  I/O behind bridge: 0000d000-0000dfff
  Memory behind bridge: fbd00000-fbdfffff
  Capabilities:

00:03.0 PCI bridge: Intel Corporation 5520/5500/X58 I/O Hub PCI Express Root Port 3 (rev 22)
(prog-if 00 [Normal decode])
  Flags: bus master, fast devsel, latency 0
  Bus: primary=00, secondary=02, subordinate=02, sec-latency=0
  Capabilities:

00:05.0 PCI bridge: Intel Corporation 5520/X58 I/O Hub PCI Express Root Port 5 (rev 22) (prog-if 00 [Normal decode])
  Flags: bus master, fast devsel, latency 0

```

```

Bus: primary=00, secondary=03, subordinate=03, sec-latency=0
Capabilities:

00:07.0 PCI bridge: Intel Corporation 5520/5500/X58 I/O Hub PCI Express Root Port 7 (rev 22)
(prog-if 00 [Normal decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=00, secondary=04, subordinate=04, sec-latency=0
Capabilities:

00:13.0 PIC: Intel Corporation 5520/5500/X58 I/O Hub I/OxAPIC Interrupt Controller (rev 22)
(prog-if 20 [IO(X)-APIC])
Flags: bus master, fast devsel, latency 0
Memory at fec8a000 (32-bit, non-prefetchable) [size=4K]
Capabilities:

00:14.0 PIC: Intel Corporation 5520/5500/X58 I/O Hub System Management Registers (rev 22)
(prog-if 00 [8259])
Flags: fast devsel
Capabilities:

00:14.1 PIC: Intel Corporation 5520/5500/X58 I/O Hub GPIO and Scratch Pad Registers (rev 22)
(prog-if 00 [8259])
Flags: fast devsel
Capabilities:

00:14.2 PIC: Intel Corporation 5520/5500/X58 I/O Hub Control Status and RAS Registers (rev 22)
(prog-if 00 [8259])
Flags: fast devsel
Capabilities:

00:14.3 PIC: Intel Corporation 5520/5500/X58 I/O Hub Throttle Registers (rev 22) (prog-if 00
[8259])
Flags: fast devsel

00:16.0 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 10
Memory at fbef8000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:16.1 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 5
Memory at fbef4000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:16.2 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 15
Memory at fbef0000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:16.3 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 11
Memory at fbefc000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:16.4 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 10
Memory at fbef8000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:16.5 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 5
Memory at fbef4000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:16.6 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)

```

```

Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 15
Memory at fbee0000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:16.7 System peripheral: Intel Corporation 5520/5500/X58 Chipset QuickData Technology Device
(rev 22)
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, fast devsel, latency 0, IRQ 11
Memory at fbedc000 (64-bit, non-prefetchable) [size=16K]
Capabilities:

00:1d.0 USB Controller: Intel Corporation 82801JI (ICH10 Family) USB UHCI Controller #1 (prog-
if 00 [UHCI])
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, medium devsel, latency 0, IRQ 217
I/O ports at cc00 [size=32]
Capabilities:

00:1d.1 USB Controller: Intel Corporation 82801JI (ICH10 Family) USB UHCI Controller #2 (prog-
if 00 [UHCI])
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, medium devsel, latency 0, IRQ 225
I/O ports at c880 [size=32]
Capabilities:

00:1d.2 USB Controller: Intel Corporation 82801JI (ICH10 Family) USB UHCI Controller #3 (prog-
if 00 [UHCI])
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, medium devsel, latency 0, IRQ 233
I/O ports at c800 [size=32]
Capabilities:

00:1d.7 USB Controller: Intel Corporation 82801JI (ICH10 Family) USB2 EHCI Controller #1
(prog-if 20 [EHCI])
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, medium devsel, latency 0, IRQ 217
Memory at fbada000 (32-bit, non-prefetchable) [size=1K]
Capabilities:

00:1e.0 PCI bridge: Intel Corporation 82801 PCI Bridge (rev 90) (prog-if 01 [Subtractive
decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=00, secondary=05, subordinate=05, sec-latency=32
I/O behind bridge: 0000e000-0000efff
Memory behind bridge: faf00000-fb7fffff
Capabilities:

00:1f.0 ISA bridge: Intel Corporation 82801JIR (ICH10R) LPC Interface Controller
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, medium devsel, latency 0
Capabilities:

00:1f.2 SATA controller: Intel Corporation 82801JI (ICH10 Family) SATA AHCI Controller (prog-
if 01 [AHCI 1.0])
Subsystem: Inventec Corporation Unknown device 0047
Flags: bus master, 66MHz, medium devsel, latency 0, IRQ 50
I/O ports at bc00 [size=8]
I/O ports at c480 [size=4]
I/O ports at c400 [size=8]
I/O ports at c080 [size=4]
I/O ports at c000 [size=32]
Memory at fbed8000 (32-bit, non-prefetchable) [size=2K]
Capabilities:

00:1f.3 SMBus: Intel Corporation 82801JI (ICH10 Family) SMBus Controller
Subsystem: Inventec Corporation Unknown device 0047
Flags: medium devsel, IRQ 233
Memory at fbed6000 (64-bit, non-prefetchable) [size=256]
I/O ports at 0400 [size=32]

01:00.0 Ethernet controller: Intel Corporation 82576 Gigabit Network Connection (rev 01)
Subsystem: Inventec Corporation Unknown device 004a
Flags: bus master, fast devsel, latency 0, IRQ 58
Memory at fbde0000 (32-bit, non-prefetchable) [size=128K]
Memory at fbdc0000 (32-bit, non-prefetchable) [size=128K]
I/O ports at dc00 [size=32]
Memory at fbd9c000 (32-bit, non-prefetchable) [size=16K]

```

Expansion ROM at fbda0000 [disabled] [size=128K]  
Capabilities:

01:00.1 Ethernet controller: Intel Corporation 82576 Gigabit Network Connection (rev 01)  
Subsystem: Inventec Corporation Unknown device 004a  
Flags: bus master, fast devsel, latency 0, IRQ 114  
Memory at fbd60000 (32-bit, non-prefetchable) [size=128K]  
Memory at fbd40000 (32-bit, non-prefetchable) [size=128K]  
I/O ports at d880 [size=32]  
Memory at fbdlc000 (32-bit, non-prefetchable) [size=16K]  
Expansion ROM at fbd20000 [disabled] [size=128K]  
Capabilities:

05:04.0 VGA compatible controller: ASPEED Technology, Inc. ASPEED Graphics Family (rev 10)  
(prog-if 00 [VGA controller])  
Subsystem: Inventec Corporation Unknown device 0047  
Flags: medium devsel, IRQ 10  
Memory at fb000000 (32-bit, non-prefetchable) [size=8M]  
Memory at fafe0000 (32-bit, non-prefetchable) [size=128K]  
I/O ports at ec00 [size=128]  
Capabilities:

#### Disk space

Filesystem	Size	Used	Avail	Use%	Mounted on
/dev/sda2	3.8G	827M	2.8G	23%	/
/dev/mapper/vg0-tmpvol					
/dev/mapper/vg0-varvol	9.9G	217M	9.2G	3%	/tmp
/dev/mapper/vg0-homevol					
/dev/mapper/vg0-homevol	89G	350M	84G	1%	/var
/dev/mapper/vg0-homevol	274G	48G	213G	19%	/home
/dev/mapper/vg0-usrvol					
/dev/mapper/vg0-usrvol	9.9G	3.1G	6.4G	33%	/usr
/dev/sda1	471M	17M	431M	4%	/boot
tmpfs	18G	12K	18G	1%	/dev/shm
cvmfs2	245G	51G	195G	21%	/cvmfs/atlas.cern.ch
node18.datagrid.cea.fr:/soft1/atlas					
node18.datagrid.cea.fr:/soft1/atlas	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__atlas
node18.datagrid.cea.fr:/soft2/alice					
node18.datagrid.cea.fr:/soft2/alice	1.8T	173G	1.6T	10%	/grid_mnt/opt__exp_soft__alice
node18.datagrid.cea.fr:/soft2/cms					
node18.datagrid.cea.fr:/soft2/cms	1.8T	173G	1.6T	10%	/grid_mnt/opt__exp_soft__cms
node74.datagrid.cea.fr:/cream_sandbox					
node74.datagrid.cea.fr:/cream_sandbox	50G	15G	32G	32%	/grid_mnt/cream_sandbox__node74.datagrid.cea.fr
node18.datagrid.cea.fr:/soft1/biomed					
node18.datagrid.cea.fr:/soft1/biomed	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__biomed
node18.datagrid.cea.fr:/soft1/dapnia					
node18.datagrid.cea.fr:/soft1/dapnia	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__dapnia
node18.datagrid.cea.fr:/soft1/fusion					
node18.datagrid.cea.fr:/soft1/fusion	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__fusion
node18.datagrid.cea.fr:/soft1/ilc					
node18.datagrid.cea.fr:/soft1/ilc	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__ilc
node18.datagrid.cea.fr:/soft1/irfu					
node18.datagrid.cea.fr:/soft1/irfu	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__irfu
node18.datagrid.cea.fr:/soft1/ops					
node18.datagrid.cea.fr:/soft1/ops	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__ops
node18.datagrid.cea.fr:/soft1/vo.cta.in2p3.fr					
node18.datagrid.cea.fr:/soft1/vo.cta.in2p3.fr	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__vo.cta.in2p3.fr
node18.datagrid.cea.fr:/soft1/vo.formation.idgrilles.fr					
node18.datagrid.cea.fr:/soft1/vo.formation.idgrilles.fr	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__vo.formation.idgrilles.fr
node18.datagrid.cea.fr:/soft1/vo.hess-experiment.eu					
node18.datagrid.cea.fr:/soft1/vo.hess-experiment.eu	1.8T	322G	1.4T	19%	/grid_mnt/opt__exp_soft__vo.hess-experiment.eu
cvmfs2	245G	297M	244G	1%	/cvmfs/atlas-condb.cern.ch
cvmfs2	245G	134M	245G	1%	/cvmfs/cms.cern.ch
cvmfs2	245G	1.2G	243G	1%	/cvmfs/geant4.cern.ch
cvmfs2	245G	492M	244G	1%	/cvmfs/sft.cern.ch
cvmfs2	245G	7.5M	245G	1%	/cvmfs/grid.cern.ch
node18.datagrid.cea.fr:/soft2/vo.neugrid.eu					
node18.datagrid.cea.fr:/soft2/vo.neugrid.eu	1.8T	173G	1.6T	10%	/grid_mnt/opt__exp_soft__vo.neugrid.eu

#### Mounts

/dev/sda2 on / type ext3 (rw)  
proc on /proc type proc (rw)  
sysfs on /sys type sysfs (rw)  
devpts on /dev/pts type devpts (rw,gid=5,mode=620)  
/dev/mapper/vg0-tmpvol on /tmp type ext3 (rw,nosuid)  
/dev/mapper/vg0-varvol on /var type ext3 (rw,nosuid)

```

/dev/mapper/vg0-homevol on /home type ext3 (rw,nosuid)
/dev/mapper/vg0-usrvol on /usr type ext3 (rw)
/dev/sdal on /boot type ext3 (rw)
tmpfs on /dev/shm type tmpfs (rw,nosuid)
none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw)
sunrpc on /var/lib/nfs/rpc_pipefs type rpc_pipefs (rw)
cvmfs2 on /cvmfs/atlas.cern.ch type fuse (ro,nosuid,nodev,allow_other,user=cvmfs)
node18.datagrid.cea.fr:/soft1/atlas on /grid_mnt/opt__exp_soft__atlas type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft2/alice on /grid_mnt/opt__exp_soft__alice type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft2/cms on /grid_mnt/opt__exp_soft__cms type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node74.datagrid.cea.fr:/cream_sandbox on /grid_mnt/cream_sandbox__node74.datagrid.cea.fr type
nfs (rw,nosuid,tcp,intr,hard,addr=192.54.206.204)
node18.datagrid.cea.fr:/soft1/biomed on /grid_mnt/opt__exp_soft__biomed type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/dapnia on /grid_mnt/opt__exp_soft__dapnia type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/fusion on /grid_mnt/opt__exp_soft__fusion type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/ilc on /grid_mnt/opt__exp_soft__ilc type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/irfu on /grid_mnt/opt__exp_soft__irfu type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/ops on /grid_mnt/opt__exp_soft__ops type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/vo.cta.in2p3.fr on /grid_mnt/opt__exp_soft__vo.cta.in2p3.fr type
nfs (rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/vo.formation.idgrilles.fr on
/grid_mnt/opt__exp_soft__vo.formation.idgrilles.fr type idgrilles.fr nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
node18.datagrid.cea.fr:/soft1/vo.hess-experiment.eu on /grid_mnt/opt__exp_soft__vo.hess-
experiment.eu type nfs (rw,nosuid,tcp,intr,hard,addr=192.54.206.45)
cvmfs2 on /cvmfs/atlas-condb.cern.ch type fuse (ro,nosuid,nodev,allow_other,user=cvmfs)
cvmfs2 on /cvmfs/cms.cern.ch type fuse (ro,nosuid,nodev,allow_other,user=cvmfs)
cvmfs2 on /cvmfs/geant4.cern.ch type fuse (ro,nosuid,nodev,allow_other,user=cvmfs)
cvmfs2 on /cvmfs/sft.cern.ch type fuse (ro,nosuid,nodev,allow_other,user=cvmfs)
cvmfs2 on /cvmfs/grid.cern.ch type fuse (ro,nosuid,nodev,allow_other,user=cvmfs)
node18.datagrid.cea.fr:/soft2/vo.neugrid.eu on /grid_mnt/opt__exp_soft__vo.neugrid.eu type nfs
(rw,nosuid,tcp,intr,hard,addr=192.54.206.45)

```

#### Limits

```

core file size      (blocks, -c) 0
data seg size      (kbytes, -d) unlimited
scheduling priority      (-e) 0
file size          (blocks, -f) unlimited
pending signals     (-i) 303104
max locked memory   (kbytes, -l) 32
max memory size     (kbytes, -m) unlimited
open files         (-n) 32768
pipe size           (512 bytes, -p) 8
POSIX message queues (bytes, -q) 819200
real-time priority   (-r) 0
stack size         (kbytes, -s) 10240
cpu time           (seconds, -t) 86400
max user processes  (-u) 303104
virtual memory      (kbytes, -v) 4194304
file locks         (-x) unlimited

```

#### /boot content

```

System.map-2.6.18-308.4.1.el5
config-2.6.18-308.4.1.el5
grub
initrd-2.6.18-308.4.1.el5.img
lost+found
memtest86+-1.65
symvers-2.6.18-308.4.1.el5.gz
vmlinuz-2.6.18-308.4.1.el5

```

#### env

```

MANPATH=/opt/globus/man:/opt/globus/man:/opt/glite/share/man:/opt/lcg/man:/opt/lcg/share/man
:/opt/glite/share/man:/opt/lcg/man:/opt/lcg/share/man
HOSTNAME=wn214.datagrid.cea.fr
PBS_VERSION=TORQUE-2.3.6
VO_ALICE_SW_DIR=/opt/exp_soft/alice
VO_VO_FORMATION_IDGRILLES_FR_DEFAULT_SE=node12.datagrid.cea.fr
VO_VO_HESS_EXPERIMENT_EU_SW_DIR=/opt/exp_soft/vo.hess-experiment.eu

```

```

SHELL=/bin/bash
LCG_LOCATION_VAR=/opt/lcg/var
VO_VO_IRFU_CEA_FR_DEFAULT_SE=node12.datagrid.cea.fr
HISTSZ=1000
GLOBUS_LOCATION=/opt/globus
PBS_JOBNAME=cream_167982681
GLOBUS_PATH=/opt/globus
VO_VO_FRANCE_GRILLES_FR_DEFAULT_SE=node12.datagrid.cea.fr
KDE_NO_IPV6=1
VO_FUSION_DEFAULT_SE=node12.datagrid.cea.fr
VO_OPS_DEFAULT_SE=node12.datagrid.cea.fr
VO_VO_IPNO_IN2P3_FR_DEFAULT_SE=node12.datagrid.cea.fr
__delegationProxyCertSandboxPath=gsiftp://node74.datagrid.cea.fr/cream_sandbox/vo.neuGRID.eu/_
O_GRID_FR_C_FR_O_MAATG_CN_Grenier_Baptiste_vo_neuGRID.eu_Role_sgmneuGRID_Capability_NULL_neusn
ss/proxy/13403684942E955075wms2Emaatg2Eeul0158819221108
DPM_HOST=node12.datagrid.cea.fr
GT_PROXY_MODE=old
VO_VO_GRIF_FR_DEFAULT_SE=node12.datagrid.cea.fr
PBS_ENVIRONMENT=PBS_BATCH
VO_VO_LPNHE_IN2P3_FR_DEFAULT_SE=node12.datagrid.cea.fr
GLITE_WMS_LOCATION=/opt/glite
X509_CERT_DIR=/etc/grid-security/certificates
PBS_O_WORKDIR=/var/tmp
VO_VO_IRFU_CEA_FR_SW_DIR=/opt/exp_soft/irfu
GLITE_LOCATION_LOG=/var/log/glite
USER=neusnss
PBS_TASKNUM=1
VO_VO_LL_R_IN2P3_FR_DEFAULT_SE=node12.datagrid.cea.fr
LS_COLORS=
LD_LIBRARY_PATH=/opt/c-
ares/lib:/opt/classads/lib64:/opt/glite/lib64:/opt/glite/lib:/opt/lcg/lib64:/opt/globus/lib:/o
pt/c-
ares/lib:/opt/classads/lib64:/opt/glite/lib64:/opt/glite/lib:/opt/lcg/lib64:/opt/globus/lib:/o
pt/d-cache//dcap/lib:/opt/d-cache//dcap/lib
GRID_JOBID=https://lb.maatg.fr:9000/g2JvKuN6JNMASLU4qPxVJg
PBS_O_HOME=/home/neusnss
GPT_LOCATION=/opt/gpt
LCG_LOCATION=/opt/lcg
VO_CMS_SW_DIR=/opt/exp_soft/cms
VO_DTEAM_SW_DIR=/opt/exp_soft/dteam
GLITE_LOCATION_TMP=/tmp
ATLAS_LOCAL_AREA=/opt/exp_soft/atlas/atlas-local
VO_ILC_DEFAULT_SE=node12.datagrid.cea.fr
KDEDIR=/usr
PBS_MOMPORT=15003
VO_FUSION_SW_DIR=/opt/exp_soft/fusion
VO_OPS_SW_DIR=/opt/exp_soft/ops
GLITE_WMS_JOBID=https://lb.maatg.fr:9000/g2JvKuN6JNMASLU4qPxVJg
VO_ATLAS_DEFAULT_SE=node12.datagrid.cea.fr
VO_GEANT4_DEFAULT_SE=node12.datagrid.cea.fr
VO_VO_NEUGRID_EU_SW_DIR=/opt/exp_soft/vo.neuGRID.eu
PBS_O_QUEUE=vo.neuGRID.eu
VO_DZERO_DEFAULT_SE=node12.datagrid.cea.fr
GLITE_WMS_RB_BROKERINFO=/home/neusnss/home_cream_167982681/CREAM167982681/.BrokerInfo
PATH=/bin:/sbin:/usr/bin:/opt/glite/bin:/opt/glite/externals/bin:/opt/lcg/bin:/opt/l
cg/sbin:/opt/globus/sbin:/opt/globus/bin:/opt/gpt/sbin:/usr/local/bin:/usr/kerberos/bin:/opt/g
lite/bin:/opt/glite/externals/bin:/opt/lcg/bin:/opt/lcg/sbin:/opt/globus/sbin:/opt/globus/bin:
/opt/gpt/sbin:/usr/local/bin:/bin:/usr/bin:/opt/d-cache//srm/bin:/opt/d-
cache//dcap/bin:/usr/java/jdk1.6.0_31/bin:/home/neusnss/bin:/opt/d-cache//srm/bin:/opt/d-
cache//dcap/bin:/usr/java/jdk1.6.0_31/bin
PBS_O_LOGNAME=neusnss
MAIL=/var/spool/mail/neusnss
GLITE_LOCAL_CUSTOMIZATION_DIR=/opt/glite/etc/wms
VO_BIOMED_DEFAULT_SE=node12.datagrid.cea.fr
VO_VO_FORMATION_IDGRILLES_FR_SW_DIR=/opt/exp_soft/vo.formation.idgrilles.fr
PBS_O_LANG=en_GB
DPM_HOST=node12.datagrid.cea.fr
PBS_JOBCOOKIE=8202D115913ABAF8B165AC2304DDA77D
LCG_TMP=/tmp
VO_CMS_DEFAULT_SE=node12.datagrid.cea.fr
VO_DTEAM_DEFAULT_SE=node12.datagrid.cea.fr
PWD=/home/neusnss/home_cream_167982681/CREAM167982681
INPUTRC=/etc/inputrc
LANG=C
PBS_NODENUM=0
KDE_IS_PRELINKED=1
VO_VO_CTA_IN2P3_FR_DEFAULT_SE=node12.datagrid.cea.fr
SASL_PATH=/opt/globus/lib/sasl:/opt/globus/lib/sasl

```



```

PBS_O_SHELL=/bin/sh
MYPROXY_SERVER=myproxy.grif.fr
VO_VO_LAL_IN2P3_FR_DEFAULT_SE=node12.datagrid.cea.fr
PERLLIB=/opt/glite/lib64/perl:/opt/lcg/lib64/perl:/opt/glite/lib64/perl:/opt/lcg/lib64/perl
GLITE_WMS_SEQUENCE_CODE=UI=000000:NS=0000000004:WM=000005:BH=0000000000:JSS=000002:LM=000002:L
RMS=000004:APP=000000:LBS=000000
PBS_SERVER=node74.datagrid.cea.fr
PBS_JOBID=8481840.node07.datagrid.cea.fr
VO_VO_GRIF_FR_SW_DIR=/opt/exp_soft/grif
__copy_retry_first_wait=30
ENVIRONMENT=BATCH
SSH_ASKPASS=/usr/libexec/openssh/gnome-ssh-askpass
CE_ID=node74.datagrid.cea.fr:8443/cream-pbs-vo.neugrid.eu
CREAM_JOBID=https://node74.datagrid.cea.fr:8443/CREAM167982681
HOME=/home/neusnss/home_cream_167982681
SHLVL=6
GLITE_LOCATION_VAR=/var/glite
VO_ALICE_DEFAULT_SE=node12.datagrid.cea.fr
VO_VO_HESS_EXPERIMENT_EU_DEFAULT_SE=node12.datagrid.cea.fr
__copy_proxy_min_retry_wait=60
__copy_retry_count=5
GLOBUS_TCP_PORT_RANGE=20000,25000
__delegationTimeSlot=3600
X509_USER_PROXY=/home/neusnss/home_cream_167982681/cream_167982681.proxy
PBS_O_HOST=node74.datagrid.cea.fr
PBS_VNODENUM=0
LOGNAME=neusnss
LCG_GFAL_INFOSYS=topbdii.grif.fr:2170
VO_ILC_SW_DIR=/opt/exp_soft/ilc
PYTHONPATH=/opt/glite/lib64/python:/opt/lcg/lib64/python:/opt/lcg/lib/python:/opt/glite/lib64/
python:/opt/lcg/lib64/python:/opt/lcg/lib/python
CVS_RSH=ssh
GLOBUS_TCP_SOURCE_RANGE=20000,25000
PBS_QUEUE=vo.neugrid.eu
VO_BIOMED_SW_DIR=/opt/exp_soft/biomed
PBS_O_MAIL=/var/spool/mail/neusnss
LESSOPEN=|/usr/bin/lesspipe.sh %s
VO_VO_APC_UNIV_PARIS7_FR_DEFAULT_SE=node12.datagrid.cea.fr
__delegationProxyCertSandboxPathTmp=/tmp/13403684942E955075wms2Emaatg2Eeu101588192211081679826
81
VO_ATLAS_SW_DIR=/cvmfs/atlas.cern.ch/repo/sw
VO_GEANT4_SW_DIR=/cvmfs/geant4.cern.ch
VO_VO_NEUGRID_EU_DEFAULT_SE=node12.datagrid.cea.fr
GLITE_LOCATION=/opt/glite
SITE_NAME=GRIF
VO_VO_CTA_IN2P3_FR_SW_DIR=/opt/exp_soft/vo.cta.in2p3.fr
PBS_NODEFILE=/var/spool/pbs/aux//8481840.node07.datagrid.cea.fr
G_BROKEN_FILENAMES=1
GLITE_WMS_LOG_DESTINATION=node74.datagrid.cea.fr
PBS_O_PATH=/usr/kerberos/bin:/opt/glite/bin:/opt/glite/externals/bin:/opt/globus/sbin:/opt/glo
bus/bin:/opt/gpt/sbin:/opt/lcg/bin:/opt/lcg/sbin:/opt/edg/sbin:/usr/bin:/bin:/opt/d-
cache//srm/bin:/opt/d-cache//dcap/bin:/usr/java/jdk1.6.0_31/bin:/home/neusnss/bin
VO_DZERO_SW_DIR=/opt/exp_soft/dzero
_=/bin/env

```

```

-----
Network configuration
-----

```

```

Network interfaces

```

```

eth0      Link encap:Ethernet  HWaddr 00:26:6C:FE:80:08
          inet addr:192.54.207.94  Bcast:192.54.207.255  Mask:255.255.254.0
          inet6 addr: fe80::226:6cff:fefe:8008/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:4601986650 errors:0 dropped:0 overruns:0 frame:0
          TX packets:670113245 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:6705623260340 (6.0 TiB)  TX bytes:379297075735 (353.2 GiB)
          Memory:fbde0000-fbe00000

eth1      Link encap:Ethernet  HWaddr 00:26:6C:FE:80:09
          inet addr:192.54.207.94  Bcast:192.54.207.255  Mask:255.255.254.0
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Memory:fbd60000-fbd80000

```

```

lo          Link encap:Local Loopback
            inet addr:127.0.0.1  Mask:255.0.0.0
            inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING  MTU:16436  Metric:1
            RX packets:350357 errors:0 dropped:0 overruns:0 frame:0
            TX packets:350357 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:0
            RX bytes:50892997 (48.5 MiB)  TX bytes:50892997 (48.5 MiB)

```

Routes using route

Kernel IP routing table

Destination	Gateway	Genmask	Flags	MSS Window	irrt	Iface
192.54.206.0	0.0.0.0	255.255.254.0	U	0 0		0 eth0
192.54.206.0	0.0.0.0	255.255.254.0	U	0 0		0 eth1
0.0.0.0	192.54.207.254	0.0.0.0	UG	0 0		0 eth0

Routes using iproute

```

192.54.206.0/23 dev eth0 proto kernel scope link src 192.54.207.94
192.54.206.0/23 dev eth1 proto kernel scope link src 192.54.207.94
default via 192.54.207.254 dev eth0

```

DNS configuration

```

search datagrid.cea.fr
options timeout:1 attempts:4
nameserver 192.54.206.2          # added by Quattor
nameserver 192.54.206.1          # added by Quattor
nameserver 132.166.172.103       # added by Quattor
nameserver 132.166.172.102       # added by Quattor

```

Hosts configuration

```

127.0.0.1 localhost.localdomain localhost
192.54.206.1 gate01.datagrid.cea.fr gate01
192.54.206.2 gate02.datagrid.cea.fr gate02
192.54.206.3 wn001.datagrid.cea.fr wn001
192.54.206.4 wn002.datagrid.cea.fr wn002
192.54.206.5 wn003.datagrid.cea.fr wn003
192.54.206.6 wn004.datagrid.cea.fr wn004
192.54.206.7 wn005.datagrid.cea.fr wn005
192.54.206.8 wn006.datagrid.cea.fr wn006
192.54.206.9 wn007.datagrid.cea.fr wn007
192.54.206.10 wn008.datagrid.cea.fr wn008
192.54.206.11 wn009.datagrid.cea.fr wn009
192.54.206.12 wn010.datagrid.cea.fr wn010
192.54.206.13 wn011.datagrid.cea.fr wn011
192.54.206.14 wn012.datagrid.cea.fr wn012
192.54.206.15 wn013.datagrid.cea.fr wn013
192.54.206.16 node01.datagrid.cea.fr node01
192.54.206.17 node02.datagrid.cea.fr node02
192.54.206.18 node03.datagrid.cea.fr node03
192.54.206.19 node04.datagrid.cea.fr node04
192.54.206.20 node05.datagrid.cea.fr node05
192.54.206.21 node06.datagrid.cea.fr node06
192.54.206.22 node07.datagrid.cea.fr node07
192.54.206.23 node08.datagrid.cea.fr node08
192.54.206.24 node09.datagrid.cea.fr node09
192.54.206.25 node10.datagrid.cea.fr node10
192.54.206.26 node11.datagrid.cea.fr node11
192.54.206.27 node12.datagrid.cea.fr node12
192.54.206.28 wn014.datagrid.cea.fr wn014
192.54.206.29 wn015.datagrid.cea.fr wn015
192.54.206.30 wn016.datagrid.cea.fr wn016
192.54.206.31 wn017.datagrid.cea.fr wn017
192.54.206.32 wn018.datagrid.cea.fr wn018
192.54.206.33 wn019.datagrid.cea.fr wn019
192.54.206.34 wn020.datagrid.cea.fr wn020
192.54.206.35 wn021.datagrid.cea.fr wn021
192.54.206.36 wn022.datagrid.cea.fr wn022
192.54.206.37 wn023.datagrid.cea.fr wn023
192.54.206.38 wn024.datagrid.cea.fr wn024
192.54.206.39 wn025.datagrid.cea.fr wn025
192.54.206.40 node13.datagrid.cea.fr node13
192.54.206.41 node14.datagrid.cea.fr node14
192.54.206.42 node15.datagrid.cea.fr node15
192.54.206.43 node16.datagrid.cea.fr node16
192.54.206.44 node17.datagrid.cea.fr node17
192.54.206.45 node18.datagrid.cea.fr node18
192.54.206.46 node19.datagrid.cea.fr node19

```

192.54.206.47 node20.datagrid.cea.fr node20  
192.54.206.48 node21.datagrid.cea.fr node21  
192.54.206.49 node22.datagrid.cea.fr node22  
192.54.206.52 wn026.datagrid.cea.fr wn026  
192.54.206.53 wn027.datagrid.cea.fr wn027  
192.54.206.54 wn028.datagrid.cea.fr wn028  
192.54.206.55 wn029.datagrid.cea.fr wn029  
192.54.206.56 wn030.datagrid.cea.fr wn030  
192.54.206.57 wn031.datagrid.cea.fr wn031  
192.54.206.58 wn032.datagrid.cea.fr wn032  
192.54.206.59 wn033.datagrid.cea.fr wn033  
192.54.206.60 wn034.datagrid.cea.fr wn034  
192.54.206.61 wn035.datagrid.cea.fr wn035  
192.54.206.62 wn036.datagrid.cea.fr wn036  
192.54.206.63 wn037.datagrid.cea.fr wn037  
192.54.206.64 wn038.datagrid.cea.fr wn038  
192.54.206.65 wn039.datagrid.cea.fr wn039  
192.54.206.66 wn040.datagrid.cea.fr wn040  
192.54.206.67 wn041.datagrid.cea.fr wn041  
192.54.206.68 wn042.datagrid.cea.fr wn042  
192.54.206.69 wn043.datagrid.cea.fr wn043  
192.54.206.70 wn044.datagrid.cea.fr wn044  
192.54.206.71 wn045.datagrid.cea.fr wn045  
192.54.206.72 wn046.datagrid.cea.fr wn046  
192.54.206.73 wn047.datagrid.cea.fr wn047  
192.54.206.74 wn048.datagrid.cea.fr wn048  
192.54.206.75 wn049.datagrid.cea.fr wn049  
192.54.206.76 wn050.datagrid.cea.fr wn050  
192.54.206.77 wn051.datagrid.cea.fr wn051  
192.54.206.78 wn052.datagrid.cea.fr wn052  
192.54.206.79 wn053.datagrid.cea.fr wn053  
192.54.206.80 wn054.datagrid.cea.fr wn054  
192.54.206.81 wn055.datagrid.cea.fr wn055  
192.54.206.82 node23.datagrid.cea.fr node23  
192.54.206.83 node24.datagrid.cea.fr node24  
192.54.206.84 node25.datagrid.cea.fr node25  
192.54.206.85 node26.datagrid.cea.fr node26  
192.54.206.86 wn056.datagrid.cea.fr wn056  
192.54.206.87 wn057.datagrid.cea.fr wn057  
192.54.206.88 wn058.datagrid.cea.fr wn058  
192.54.206.89 wn059.datagrid.cea.fr wn059  
192.54.206.90 wn060.datagrid.cea.fr wn060  
192.54.206.91 wn061.datagrid.cea.fr wn061  
192.54.206.92 wn062.datagrid.cea.fr wn062  
192.54.206.93 wn063.datagrid.cea.fr wn063  
192.54.206.94 wn064.datagrid.cea.fr wn064  
192.54.206.95 wn065.datagrid.cea.fr wn065  
192.54.206.96 wn066.datagrid.cea.fr wn066  
192.54.206.97 wn067.datagrid.cea.fr wn067  
192.54.206.98 wn068.datagrid.cea.fr wn068  
192.54.206.99 wn069.datagrid.cea.fr wn069  
192.54.206.101 node27.datagrid.cea.fr node27  
192.54.206.102 node28.datagrid.cea.fr node28  
192.54.206.103 node29.datagrid.cea.fr node29  
192.54.206.104 node30.datagrid.cea.fr node30  
192.54.206.105 node31.datagrid.cea.fr node31  
192.54.206.106 node32.datagrid.cea.fr node32  
192.54.206.107 node33.datagrid.cea.fr node33  
192.54.206.108 node34.datagrid.cea.fr node34  
192.54.206.109 node35.datagrid.cea.fr node35  
192.54.206.110 wn070.datagrid.cea.fr wn070  
192.54.206.111 wn071.datagrid.cea.fr wn071  
192.54.206.112 wn072.datagrid.cea.fr wn072  
192.54.206.113 wn073.datagrid.cea.fr wn073  
192.54.206.114 wn074.datagrid.cea.fr wn074  
192.54.206.115 wn075.datagrid.cea.fr wn075  
192.54.206.116 wn076.datagrid.cea.fr wn076  
192.54.206.117 wn077.datagrid.cea.fr wn077  
192.54.206.118 wn078.datagrid.cea.fr wn078  
192.54.206.119 wn079.datagrid.cea.fr wn079  
192.54.206.120 wn080.datagrid.cea.fr wn080  
192.54.206.121 wn081.datagrid.cea.fr wn081  
192.54.206.122 wn082.datagrid.cea.fr wn082  
192.54.206.123 wn083.datagrid.cea.fr wn083  
192.54.206.124 wn084.datagrid.cea.fr wn084  
192.54.206.125 wn085.datagrid.cea.fr wn085  
192.54.206.126 wn086.datagrid.cea.fr wn086  
192.54.206.127 wn087.datagrid.cea.fr wn087

192.54.206.128 wn088.datagrid.cea.fr wn088  
192.54.206.129 wn089.datagrid.cea.fr wn089  
192.54.206.130 wn090.datagrid.cea.fr wn090  
192.54.206.131 wn091.datagrid.cea.fr wn091  
192.54.206.132 wn092.datagrid.cea.fr wn092  
192.54.206.133 wn093.datagrid.cea.fr wn093  
192.54.206.134 wn094.datagrid.cea.fr wn094  
192.54.206.135 wn095.datagrid.cea.fr wn095  
192.54.206.136 wn096.datagrid.cea.fr wn096  
192.54.206.137 wn097.datagrid.cea.fr wn097  
192.54.206.138 wn098.datagrid.cea.fr wn098  
192.54.206.139 wn099.datagrid.cea.fr wn099  
192.54.206.140 wn100.datagrid.cea.fr wn100  
192.54.206.141 wn101.datagrid.cea.fr wn101  
192.54.206.142 wn102.datagrid.cea.fr wn102  
192.54.206.143 wn103.datagrid.cea.fr wn103  
192.54.206.144 wn104.datagrid.cea.fr wn104  
192.54.206.145 wn105.datagrid.cea.fr wn105  
192.54.206.146 wn106.datagrid.cea.fr wn106  
192.54.206.147 wn107.datagrid.cea.fr wn107  
192.54.206.148 wn108.datagrid.cea.fr wn108  
192.54.206.149 wn109.datagrid.cea.fr wn109  
192.54.206.150 wn110.datagrid.cea.fr wn110  
192.54.206.151 wn111.datagrid.cea.fr wn111  
192.54.206.152 wn112.datagrid.cea.fr wn112  
192.54.206.153 wn113.datagrid.cea.fr wn113  
192.54.206.154 wn114.datagrid.cea.fr wn114  
192.54.206.155 wn115.datagrid.cea.fr wn115  
192.54.206.156 wn116.datagrid.cea.fr wn116  
192.54.206.157 wn117.datagrid.cea.fr wn117  
192.54.206.158 wn118.datagrid.cea.fr wn118  
192.54.206.159 wn119.datagrid.cea.fr wn119  
192.54.206.160 wn120.datagrid.cea.fr wn120  
192.54.206.161 wn121.datagrid.cea.fr wn121  
192.54.206.162 wn122.datagrid.cea.fr wn122  
192.54.206.163 wn123.datagrid.cea.fr wn123  
192.54.206.164 wn124.datagrid.cea.fr wn124  
192.54.206.165 wn125.datagrid.cea.fr wn125  
192.54.206.166 node36.datagrid.cea.fr node36  
192.54.206.167 node37.datagrid.cea.fr node37  
192.54.206.168 node38.datagrid.cea.fr node38  
192.54.206.169 node39.datagrid.cea.fr node39  
192.54.206.170 node40.datagrid.cea.fr node40  
192.54.206.171 node41.datagrid.cea.fr node41  
192.54.206.172 node42.datagrid.cea.fr node42  
192.54.206.173 node43.datagrid.cea.fr node43  
192.54.206.174 node44.datagrid.cea.fr node44  
192.54.206.175 node45.datagrid.cea.fr node45  
192.54.206.176 node46.datagrid.cea.fr node46  
192.54.206.177 node47.datagrid.cea.fr node47  
192.54.206.178 node48.datagrid.cea.fr node48  
192.54.206.179 node49.datagrid.cea.fr node49  
192.54.206.180 node50.datagrid.cea.fr node50  
192.54.206.181 node51.datagrid.cea.fr node51  
192.54.206.182 node52.datagrid.cea.fr node52  
192.54.206.183 node53.datagrid.cea.fr node53  
192.54.206.184 node54.datagrid.cea.fr node54  
192.54.206.185 node55.datagrid.cea.fr node55  
192.54.206.186 node56.datagrid.cea.fr node56  
192.54.206.187 node57.datagrid.cea.fr node57  
192.54.206.188 node58.datagrid.cea.fr node58  
192.54.206.189 node59.datagrid.cea.fr node59  
192.54.206.190 node60.datagrid.cea.fr node60  
192.54.206.191 node61.datagrid.cea.fr node61  
192.54.206.192 node62.datagrid.cea.fr node62  
192.54.206.193 node63.datagrid.cea.fr node63  
192.54.206.194 node64.datagrid.cea.fr node64  
192.54.206.195 node65.datagrid.cea.fr node65  
192.54.206.196 node66.datagrid.cea.fr node66  
192.54.206.197 node67.datagrid.cea.fr node67  
192.54.206.198 node68.datagrid.cea.fr node68  
192.54.206.199 node69.datagrid.cea.fr node69  
192.54.206.200 node70.datagrid.cea.fr node70  
192.54.206.201 node71.datagrid.cea.fr node71  
192.54.206.202 node72.datagrid.cea.fr node72  
192.54.206.203 node73.datagrid.cea.fr node73  
192.54.206.204 node74.datagrid.cea.fr node74  
192.54.206.205 node75.datagrid.cea.fr node75

192.54.206.206 wn126.datagrid.cea.fr wn126  
192.54.206.207 wn127.datagrid.cea.fr wn127  
192.54.206.208 wn128.datagrid.cea.fr wn128  
192.54.206.209 wn129.datagrid.cea.fr wn129  
192.54.206.210 wn130.datagrid.cea.fr wn130  
192.54.206.211 wn131.datagrid.cea.fr wn131  
192.54.206.212 wn132.datagrid.cea.fr wn132  
192.54.206.213 wn133.datagrid.cea.fr wn133  
192.54.206.214 wn134.datagrid.cea.fr wn134  
192.54.206.215 wn135.datagrid.cea.fr wn135  
192.54.206.216 wn136.datagrid.cea.fr wn136  
192.54.206.217 wn137.datagrid.cea.fr wn137  
192.54.206.218 wn138.datagrid.cea.fr wn138  
192.54.206.219 wn139.datagrid.cea.fr wn139  
192.54.206.220 wn140.datagrid.cea.fr wn140  
192.54.206.221 wn141.datagrid.cea.fr wn141  
192.54.206.222 wn142.datagrid.cea.fr wn142  
192.54.206.223 wn143.datagrid.cea.fr wn143  
192.54.206.224 wn144.datagrid.cea.fr wn144  
192.54.206.225 wn145.datagrid.cea.fr wn145  
192.54.206.226 wn146.datagrid.cea.fr wn146  
192.54.206.227 wn147.datagrid.cea.fr wn147  
192.54.206.228 wn148.datagrid.cea.fr wn148  
192.54.206.229 wn149.datagrid.cea.fr wn149  
192.54.206.230 wn150.datagrid.cea.fr wn150  
192.54.206.231 wn151.datagrid.cea.fr wn151  
192.54.206.232 wn152.datagrid.cea.fr wn152  
192.54.206.233 wn153.datagrid.cea.fr wn153  
192.54.206.234 wn154.datagrid.cea.fr wn154  
192.54.206.235 wn155.datagrid.cea.fr wn155  
192.54.206.236 wn156.datagrid.cea.fr wn156  
192.54.206.237 wn157.datagrid.cea.fr wn157  
192.54.206.238 wn158.datagrid.cea.fr wn158  
192.54.206.239 wn159.datagrid.cea.fr wn159  
192.54.206.240 wn160.datagrid.cea.fr wn160  
192.54.207.1 wn161.datagrid.cea.fr wn161  
192.54.207.2 wn162.datagrid.cea.fr wn162  
192.54.207.3 wn163.datagrid.cea.fr wn163  
192.54.207.4 wn164.datagrid.cea.fr wn164  
192.54.207.5 wn165.datagrid.cea.fr wn165  
192.54.207.6 wn166.datagrid.cea.fr wn166  
192.54.207.7 wn167.datagrid.cea.fr wn167  
192.54.207.8 wn168.datagrid.cea.fr wn168  
192.54.207.9 wn169.datagrid.cea.fr wn169  
192.54.207.10 wn170.datagrid.cea.fr wn170  
192.54.207.11 wn171.datagrid.cea.fr wn171  
192.54.207.12 wn172.datagrid.cea.fr wn172  
192.54.207.13 wn173.datagrid.cea.fr wn173  
192.54.207.14 wn174.datagrid.cea.fr wn174  
192.54.207.15 wn175.datagrid.cea.fr wn175  
192.54.207.16 wn176.datagrid.cea.fr wn176  
192.54.207.17 wn177.datagrid.cea.fr wn177  
192.54.207.18 wn178.datagrid.cea.fr wn178  
192.54.207.19 wn179.datagrid.cea.fr wn179  
192.54.207.20 wn180.datagrid.cea.fr wn180  
192.54.207.21 wn181.datagrid.cea.fr wn181  
192.54.207.22 wn182.datagrid.cea.fr wn182  
192.54.207.23 wn183.datagrid.cea.fr wn183  
192.54.207.24 wn184.datagrid.cea.fr wn184  
192.54.207.25 wn185.datagrid.cea.fr wn185  
192.54.207.26 wn186.datagrid.cea.fr wn186  
192.54.207.27 wn187.datagrid.cea.fr wn187  
192.54.207.28 wn188.datagrid.cea.fr wn188  
192.54.207.29 wn189.datagrid.cea.fr wn189  
192.54.207.30 wn190.datagrid.cea.fr wn190  
192.54.207.31 wn191.datagrid.cea.fr wn191  
192.54.207.32 wn192.datagrid.cea.fr wn192  
192.54.207.33 wn193.datagrid.cea.fr wn193  
192.54.207.34 wn194.datagrid.cea.fr wn194  
192.54.207.35 wn195.datagrid.cea.fr wn195  
192.54.207.36 wn196.datagrid.cea.fr wn196  
192.54.207.37 wn197.datagrid.cea.fr wn197  
192.54.207.38 wn198.datagrid.cea.fr wn198  
192.54.207.39 wn199.datagrid.cea.fr wn199  
192.54.207.40 wn200.datagrid.cea.fr wn200  
192.54.207.41 wn201.datagrid.cea.fr wn201  
192.54.207.42 wn202.datagrid.cea.fr wn202  
192.54.207.43 wn203.datagrid.cea.fr wn203

192.54.207.44 wn204.datagrid.cea.fr wn204  
192.54.207.45 wn205.datagrid.cea.fr wn205  
192.54.207.86 wn206.datagrid.cea.fr wn206  
192.54.207.87 wn207.datagrid.cea.fr wn207  
192.54.207.88 wn208.datagrid.cea.fr wn208  
192.54.207.89 wn209.datagrid.cea.fr wn209  
192.54.207.90 wn210.datagrid.cea.fr wn210  
192.54.207.91 wn211.datagrid.cea.fr wn211  
192.54.207.92 wn212.datagrid.cea.fr wn212  
192.54.207.93 wn213.datagrid.cea.fr wn213  
192.54.207.94 wn214.datagrid.cea.fr wn214  
192.54.207.95 wn215.datagrid.cea.fr wn215  
192.54.207.96 wn216.datagrid.cea.fr wn216  
192.54.207.97 wn217.datagrid.cea.fr wn217  
192.54.207.98 wn218.datagrid.cea.fr wn218

192.54.207.46 node76.datagrid.cea.fr node76  
192.54.207.47 node77.datagrid.cea.fr node77  
192.54.207.48 node78.datagrid.cea.fr node78  
192.54.207.49 node79.datagrid.cea.fr node79  
192.54.207.50 node80.datagrid.cea.fr node80  
192.54.207.51 node81.datagrid.cea.fr node81  
192.54.207.52 node82.datagrid.cea.fr node82  
192.54.207.53 node83.datagrid.cea.fr node83  
192.54.207.54 node84.datagrid.cea.fr node84  
192.54.207.55 node85.datagrid.cea.fr node85  
192.54.207.56 node86.datagrid.cea.fr node86  
192.54.207.57 node87.datagrid.cea.fr node87  
192.54.207.58 node88.datagrid.cea.fr node88  
192.54.207.59 node89.datagrid.cea.fr node89  
192.54.207.60 node90.datagrid.cea.fr node90  
192.54.207.61 node91.datagrid.cea.fr node91  
192.54.207.62 node92.datagrid.cea.fr node92  
192.54.207.63 node93.datagrid.cea.fr node93  
192.54.207.64 node94.datagrid.cea.fr node94  
192.54.207.65 node95.datagrid.cea.fr node95  
192.54.207.66 node96.datagrid.cea.fr node96

#### Traceroute to gnu.org

traceroute to gnu.org (208.118.235.148), 30 hops max, 40 byte packets

```
 1 192.54.206.254 (192.54.206.254) 0.653 ms 0.791 ms 0.868 ms
 2 * * *
 3 * * *
 4 * * *
 5 * * *
 6 te0-1-0-5-paris1-rtr-001.noc.renater.fr (193.51.189.242) 3.988 ms 5.656 ms 5.676 ms
 7 ge3-0-0-xcrl1.prp.cw.net (195.10.54.65) 1.990 ms 1.902 ms 1.885 ms
 8 cogent-gw.par.cw.net (195.2.22.138) 2.461 ms te0-6-0-7.ccr21.par04.atlas.cogentco.com
(130.117.15.117) 2.856 ms cogent-gw.par.cw.net (195.2.22.138) 2.505 ms
 9 te0-2-0-4.ccr21.par01.atlas.cogentco.com (130.117.2.157) 2.803 ms te0-2-0-
4.mpd21.par01.atlas.cogentco.com (130.117.50.145) 3.177 ms te0-1-0-
4.mpd21.par01.atlas.cogentco.com (130.117.2.77) 2.898 ms
10 te0-4-0-6.mpd21.lon13.atlas.cogentco.com (154.54.37.157) 87.532 ms te0-4-0-
1.mpd22.lon13.atlas.cogentco.com (154.54.37.185) 87.816 ms te0-1-0-
1.mpd21.lon13.atlas.cogentco.com (130.117.3.6) 87.515 ms
11 te0-1-0-4.ccr21.bos01.atlas.cogentco.com (154.54.1.93) 87.377 ms te0-0-0-
4.ccr21.bos01.atlas.cogentco.com (154.54.5.161) 87.538 ms te0-1-0-
4.ccr21.bos01.atlas.cogentco.com (154.54.1.93) 87.349 ms
12 te4-1.mag02.bos01.atlas.cogentco.com (154.54.43.70) 87.046 ms 87.227 ms 87.849 ms
13 cogent-px.bos1.twdx.net (38.99.204.94) 87.668 ms 87.627 ms 87.930 ms
14 xe-0-1-0.dcr03.bos1.twdx.net (216.93.255.182) 88.847 ms 88.856 ms 88.799 ms
15 FREE-SOFTWA.dcr03.bos1.twdx.net (208.118.224.186) 87.841 ms 87.487 ms 87.405 ms
16 pyxis.fsf.org (208.118.235.165) 87.627 ms 87.971 ms 87.750 ms
```

#### ----- Grid-related configuration

VO is vo.neugrid.eu

#### Proxy information

subject : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste/CN=proxy/CN=proxy/CN=proxy/CN=limited  
proxy  
issuer : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste/CN=proxy/CN=proxy/CN=proxy  
identity : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste/CN=proxy/CN=proxy/CN=proxy  
type : limited proxy

```

strength : 512 bits
path      : /home/neusnss/home_cream_167982681/cream_167982681.proxy
timeleft  : 11:42:45
=== VO vo.neugrid.eu extension information ===
VO        : vo.neugrid.eu
subject   : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste
issuer    : /O=GRID-FR/C=FR/O=MAATG/CN=voms.maatg.eu
attribute : /vo.neugrid.eu/Role=sgmneugrid/Capability=NULL
attribute : /vo.neugrid.eu/Role=NULL/Capability=NULL
attribute : /vo.neugrid.eu/poc/Role=NULL/Capability=NULL
attribute : /vo.neugrid.eu/prod/Role=NULL/Capability=NULL
attribute : webportal_admin_role = 1 (vo.neugrid.eu)
timeleft  : 11:43:45
uri       : voms.maatg.eu:15001

```

```
SW_DIR is: /opt/exp_soft/vo.neugrid.eu
```

```
Size of SW_DIR:
```

```
0      /opt/exp_soft/vo.neugrid.eu
0      total
```

```
SW_DIR (/opt/exp_soft/vo.neugrid.eu)
```

```
lrwxrwxrwx 1 root root 38 Jun 1 15:35 /opt/exp_soft/vo.neugrid.eu ->
/grid_mnt/opt__exp_soft__vo.neugrid.eu
```

```
Content of SW_DIR (/opt/exp_soft/vo.neugrid.eu)
```

```
lrwxrwxrwx 1 root root 38 Jun 1 15:35 /opt/exp_soft/vo.neugrid.eu ->
/grid_mnt/opt__exp_soft__vo.neugrid.eu
```

```
Space available on SW_DIR partition
```

Filesystem	Size	Used	Avail	Use%	Mounted on
node18.datagrid.cea.fr:/soft2/vo.neugrid.eu	1.8T	173G	1.6T	10%	/grid_mnt/opt__exp_soft__vo.neugrid.eu

```
-----
User-related configuration
-----
```

```
User: neusnss
```

```
Groups: vo.neugrid.eu
```

```
ID: uid=1952000(neusnss) gid=1952005(vo.neugrid.eu) groups=1952005(vo.neugrid.eu)
/etc/passwd info: neusnss:x:1952000:1952005:VO vo.neugrid.eu SW manager
(/vo.neugrid.eu/Role=sgmneugrid):/home/neusnss:/usr/bin/rsch
```

```
neusnss home directory /home/neusnss/home_cream_167982681 content
```

```
drwxr-xr-x 3 neusnss vo.neugrid.eu 4096 Jun 22 14:36 /home/neusnss/home_cream_167982681
/home/neusnss/home_cream_167982681:
```

```
total 48
```

```
drwxr-xr-x 3 neusnss vo.neugrid.eu 4096 Jun 22 14:36 .
drwx----- 3 neusnss vo.neugrid.eu 4096 Jun 22 14:36 ..
drwxr-xr-x 2 neusnss vo.neugrid.eu 4096 Jun 22 14:36 CREAM167982681
-rwx----- 1 neusnss vo.neugrid.eu 23842 Jun 22 14:34 CREAM167982681_jobWrapper.sh
-rw----- 1 neusnss vo.neugrid.eu 8451 Jun 22 14:34 cream_167982681.proxy
```

```
/home/neusnss/home_cream_167982681/CREAM167982681:
```

```
total 84
```

```
drwxr-xr-x 2 neusnss vo.neugrid.eu 4096 Jun 22 14:36 .
drwxr-xr-x 3 neusnss vo.neugrid.eu 4096 Jun 22 14:36 ..
-rw-r--r-- 1 neusnss vo.neugrid.eu 7396 Jun 22 14:36 .BrokerInfo
-rw-r--r-- 1 neusnss vo.neugrid.eu 0 Jun 22 14:36 .tmp_file
-rw-r--r-- 1 neusnss vo.neugrid.eu 58167 Jun 22 14:36 show-env-out
-rwxr-xr-x 1 neusnss vo.neugrid.eu 3944 Jun 22 14:36 show-env.sh
```

## 12 Appendix 5:

-----  
OS/hardware configuration  
-----

Script launched on:

-> grid69.lal.in2p3.fr (Linux grid69.lal.in2p3.fr 2.6.18-274.18.1.el5 #1 SMP Thu Feb 9 12:20:03 EST 2012 x86\_64 x86\_64 x86\_64 GNU/Linux) as neusns074

Redhat version

Scientific Linux SL release 5.5 (Boron)

Quotas for neusns074's main group vo.neugrid.eu:

CPU

```
processor      : 0
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping      : 7
cpu MHz       : 2324.000
cache size    : 4096 KB
physical id   : 0
siblings      : 4
core id       : 0
cpu cores     : 4
apicid        : 0
fpu           : yes
fpu_exception : yes
cpuid level   : 10
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips      : 4655.00
clflush size  : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:
```

```
processor      : 1
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping      : 7
cpu MHz       : 2324.000
cache size    : 4096 KB
physical id   : 0
siblings      : 4
core id       : 1
cpu cores     : 4
apicid        : 1
fpu           : yes
fpu_exception : yes
cpuid level   : 10
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips      : 4654.99
clflush size  : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:
```

```
processor      : 2
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping      : 7
cpu MHz       : 2324.000
cache size    : 4096 KB
physical id   : 0
siblings      : 4
core id       : 2
```



```
cpu cores      : 4
apicid        : 2
fpu           : yes
fpu_exception : yes
cpuid level   : 10
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips      : 4655.03
clflush size  : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:
```

```
processor      : 3
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping     : 7
cpu MHz       : 2324.000
cache size    : 4096 KB
physical id   : 0
siblings      : 4
core id       : 3
cpu cores     : 4
apicid        : 3
fpu           : yes
fpu_exception : yes
cpuid level   : 10
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips      : 4654.99
clflush size  : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:
```

```
processor      : 4
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping     : 7
cpu MHz       : 2324.000
cache size    : 4096 KB
physical id   : 1
siblings      : 4
core id       : 0
cpu cores     : 4
apicid        : 4
fpu           : yes
fpu_exception : yes
cpuid level   : 10
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips      : 4655.77
clflush size  : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:
```

```
processor      : 5
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping     : 7
cpu MHz       : 2324.000
cache size    : 4096 KB
physical id   : 1
siblings      : 4
core id       : 1
```

```

cpu cores      : 4
apicid        : 5
fpu           : yes
fpu_exception : yes
cpuid level   : 10
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips      : 4655.04
clflush size  : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:

```

```

processor      : 6
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping     : 7
cpu MHz      : 2324.000
cache size   : 4096 KB
physical id  : 1
siblings     : 4
core id      : 2
cpu cores    : 4
apicid       : 6
fpu          : yes
fpu_exception : yes
cpuid level  : 10
wp           : yes
flags        : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips     : 4655.11
clflush size : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:

```

```

processor      : 7
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Xeon(R) CPU           E5345 @ 2.33GHz
stepping     : 7
cpu MHz      : 1992.000
cache size   : 4096 KB
physical id  : 1
siblings     : 4
core id      : 3
cpu cores    : 4
apicid       : 7
fpu          : yes
fpu_exception : yes
cpuid level  : 10
wp           : yes
flags        : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36
clflush dts acpi mmx fxsr sse sse2 ss ht tm syscall lm constant_tsc pni monitor ds_cpl vmx est
tm2 ssse3 cx16 xtpr lahf_lm
bogomips     : 4655.31
clflush size : 64
cache_alignment : 64
address sizes : 36 bits physical, 48 bits virtual
power management:

```

```

RAM
total      used      free      shared  buffers   cached
Mem:      16050    15327     723         0        405    10246
-/+ buffers/cache:
Swap:     15633         35    15597

```

```

Swap
Filename                                Type              Size  Used  Priority
/dev/sda3                               partition        16008764  36628  -1

```

PCI devices

00:00.0 Host bridge: Intel Corporation 5000X Chipset Memory Controller Hub (rev 31)  
Subsystem: Intel Corporation Unknown device 8086  
Flags: bus master, fast devsel, latency 0  
Capabilities: <access denied>

00:02.0 PCI bridge: Intel Corporation 5000 Series Chipset PCI Express x8 Port 2-3 (rev 31)  
(prog-if 00 [Normal decode])  
Flags: bus master, fast devsel, latency 0  
Bus: primary=00, secondary=10, subordinate=14, sec-latency=0  
Capabilities: <access denied>

00:03.0 PCI bridge: Intel Corporation 5000 Series Chipset PCI Express x4 Port 3 (rev 31)  
(prog-if 00 [Normal decode])  
Flags: bus master, fast devsel, latency 0  
Bus: primary=00, secondary=23, subordinate=23, sec-latency=0  
Capabilities: <access denied>

00:04.0 PCI bridge: Intel Corporation 5000 Series Chipset PCI Express x8 Port 4-5 (rev 31)  
(prog-if 00 [Normal decode])  
Flags: bus master, fast devsel, latency 0  
Bus: primary=00, secondary=07, subordinate=07, sec-latency=0  
I/O behind bridge: 00005000-0000ffff  
Capabilities: <access denied>

00:05.0 PCI bridge: Intel Corporation 5000 Series Chipset PCI Express x4 Port 5 (rev 31)  
(prog-if 00 [Normal decode])  
Flags: bus master, fast devsel, latency 0  
Bus: primary=00, secondary=22, subordinate=22, sec-latency=0  
Capabilities: <access denied>

00:06.0 PCI bridge: Intel Corporation 5000 Series Chipset PCI Express x4 Port 6 (rev 31)  
(prog-if 00 [Normal decode])  
Flags: bus master, fast devsel, latency 0  
Bus: primary=00, secondary=03, subordinate=04, sec-latency=0  
Memory behind bridge: ca000000-ccffffff  
Capabilities: <access denied>

00:07.0 PCI bridge: Intel Corporation 5000 Series Chipset PCI Express x4 Port 7 (rev 31)  
(prog-if 00 [Normal decode])  
Flags: bus master, fast devsel, latency 0  
Bus: primary=00, secondary=02, subordinate=02, sec-latency=0  
Capabilities: <access denied>

00:08.0 System peripheral: Intel Corporation 5000 Series Chipset DMA Engine (rev 31)  
Subsystem: IBM Unknown device 02dd  
Flags: bus master, fast devsel, latency 0, IRQ 5  
Memory at fe700000 (64-bit, non-prefetchable) [size=1K]  
Capabilities: <access denied>

00:10.0 Host bridge: Intel Corporation 5000 Series Chipset FSB Registers (rev 31)  
Subsystem: IBM Unknown device 02dd  
Flags: fast devsel

00:10.1 Host bridge: Intel Corporation 5000 Series Chipset FSB Registers (rev 31)  
Subsystem: Intel Corporation Unknown device 8086  
Flags: fast devsel

00:10.2 Host bridge: Intel Corporation 5000 Series Chipset FSB Registers (rev 31)  
Subsystem: Intel Corporation Unknown device 8086  
Flags: fast devsel

00:11.0 Host bridge: Intel Corporation 5000 Series Chipset Reserved Registers (rev 31)  
Subsystem: Intel Corporation Unknown device 8086  
Flags: fast devsel

00:13.0 Host bridge: Intel Corporation 5000 Series Chipset Reserved Registers (rev 31)  
Subsystem: Intel Corporation Unknown device 8086  
Flags: fast devsel

00:15.0 Host bridge: Intel Corporation 5000 Series Chipset FBD Registers (rev 31)  
Subsystem: IBM Unknown device 02dd  
Flags: fast devsel

00:16.0 Host bridge: Intel Corporation 5000 Series Chipset FBD Registers (rev 31)  
Subsystem: IBM Unknown device 02dd  
Flags: fast devsel

```

00:1c.0 PCI bridge: Intel Corporation 631xESB/632xESB/3100 Chipset PCI Express Root Port 1
(rev 09) (prog-if 00 [Normal decode])
    Flags: bus master, fast devsel, latency 0
    Bus: primary=00, secondary=05, subordinate=06, sec-latency=0
    Memory behind bridge: cd000000-cfffffff
    Capabilities: <access denied>

00:1d.0 USB Controller: Intel Corporation 631xESB/632xESB/3100 Chipset UHCI USB Controller #1
(rev 09) (prog-if 00 [UHCI])
    Subsystem: IBM Unknown device 02dd
    Flags: bus master, medium devsel, latency 0, IRQ 74
    I/O ports at 2200 [size=32]

00:1d.1 USB Controller: Intel Corporation 631xESB/632xESB/3100 Chipset UHCI USB Controller #2
(rev 09) (prog-if 00 [UHCI])
    Subsystem: IBM Unknown device 02dd
    Flags: bus master, medium devsel, latency 0, IRQ 82
    I/O ports at 2600 [size=32]

00:1d.2 USB Controller: Intel Corporation 631xESB/632xESB/3100 Chipset UHCI USB Controller #3
(rev 09) (prog-if 00 [UHCI])
    Subsystem: IBM Unknown device 02dd
    Flags: bus master, medium devsel, latency 0, IRQ 74
    I/O ports at 2a00 [size=32]

00:1d.7 USB Controller: Intel Corporation 631xESB/632xESB/3100 Chipset EHCI USB2 Controller
(rev 09) (prog-if 20 [EHCI])
    Subsystem: IBM Unknown device 02dd
    Flags: bus master, medium devsel, latency 0, IRQ 74
    Memory at f9000000 (32-bit, non-prefetchable) [size=1K]
    Capabilities: <access denied>

00:1e.0 PCI bridge: Intel Corporation 82801 PCI Bridge (rev d9) (prog-if 01 [Subtractive
decode])
    Flags: bus master, fast devsel, latency 0
    Bus: primary=00, secondary=01, subordinate=01, sec-latency=0
    I/O behind bridge: 00004000-00004fff
    Memory behind bridge: dc000000-ddffffff
    Prefetchable memory behind bridge: 00000000d0000000-00000000dbf00000
    Capabilities: <access denied>

00:1f.0 ISA bridge: Intel Corporation 631xESB/632xESB/3100 Chipset LPC Interface Controller
(rev 09)
    Flags: bus master, medium devsel, latency 0

00:1f.1 IDE interface: Intel Corporation 631xESB/632xESB IDE Controller (rev 09) (prog-if 8a
[Master SecP PriP])
    Subsystem: IBM Unknown device 02dd
    Flags: bus master, medium devsel, latency 0, IRQ 74
    I/O ports at <ignored>
    I/O ports at <ignored>
    I/O ports at <ignored>
    I/O ports at <ignored>
    I/O ports at 0480 [size=16]

00:1f.2 RAID bus controller: Intel Corporation 631xESB/632xESB SATA RAID Controller (rev 09)
    Subsystem: IBM Unknown device 02dd
    Flags: bus master, 66MHz, medium devsel, latency 0, IRQ 90
    I/O ports at 3060 [size=8]
    I/O ports at 3068 [size=4]
    I/O ports at 3070 [size=8]
    I/O ports at 306c [size=4]
    I/O ports at 3080 [size=32]
    Memory at dffff400 (32-bit, non-prefetchable) [size=1K]
    Capabilities: <access denied>

00:1f.3 SMBus: Intel Corporation 631xESB/632xESB/3100 Chipset SMBus Controller (rev 09)
    Subsystem: IBM Unknown device 02dd
    Flags: medium devsel, IRQ 90
    I/O ports at 0440 [size=32]

01:01.0 VGA compatible controller: ATI Technologies Inc ES1000 (rev 02) (prog-if 00 [VGA
controller])
    Subsystem: IBM Unknown device 0305
    Flags: bus master, stepping, medium devsel, latency 64, IRQ 11
    Memory at d0000000 (32-bit, prefetchable) [size=128M]
    I/O ports at 4000 [size=256]
    Memory at ddf00000 (32-bit, non-prefetchable) [size=64K]

```

```

[virtual] Expansion ROM at d8000000 [disabled] [size=128K]
Capabilities: <access denied>

03:00.0 PCI bridge: Broadcom EPB PCI-Express to PCI-X Bridge (rev c3) (prog-if 00 [Normal
decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=03, secondary=04, subordinate=04, sec-latency=0
Memory behind bridge: ca000000-cfffffff
Capabilities: <access denied>

04:00.0 Ethernet controller: Broadcom Corporation NetXtreme II BCM5708 Gigabit Ethernet (rev
12)
Subsystem: IBM Unknown device 0342
Flags: bus master, 66MHz, medium devsel, latency 64, IRQ 106
Memory at ca000000 (64-bit, non-prefetchable) [size=32M]
Capabilities: <access denied>

05:00.0 PCI bridge: Broadcom EPB PCI-Express to PCI-X Bridge (rev c3) (prog-if 00 [Normal
decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=05, secondary=06, subordinate=06, sec-latency=0
Memory behind bridge: cd000000-cfffffff
Capabilities: <access denied>

06:00.0 Ethernet controller: Broadcom Corporation NetXtreme II BCM5708 Gigabit Ethernet (rev
12)
Subsystem: IBM Unknown device 0342
Flags: bus master, 66MHz, medium devsel, latency 64, IRQ 177
Memory at ce000000 (64-bit, non-prefetchable) [size=32M]
Capabilities: <access denied>

10:00.0 PCI bridge: Intel Corporation 6311ESB/6321ESB PCI Express Upstream Port (rev 01)
(prog-if 00 [Normal decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=10, secondary=11, subordinate=13, sec-latency=0
Capabilities: <access denied>

10:00.3 PCI bridge: Intel Corporation 6311ESB/6321ESB PCI Express to PCI-X Bridge (rev 01)
(prog-if 00 [Normal decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=10, secondary=14, subordinate=14, sec-latency=64
Capabilities: <access denied>

11:00.0 PCI bridge: Intel Corporation 6311ESB/6321ESB PCI Express Downstream Port E1 (rev 01)
(prog-if 00 [Normal decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=11, secondary=13, subordinate=13, sec-latency=0
Capabilities: <access denied>

11:01.0 PCI bridge: Intel Corporation 6311ESB/6321ESB PCI Express Downstream Port E2 (rev 01)
(prog-if 00 [Normal decode])
Flags: bus master, fast devsel, latency 0
Bus: primary=11, secondary=12, subordinate=12, sec-latency=0
Capabilities: <access denied>

```

```

Disk space
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda2        1.2G  575M  577M  50% /
/dev/mapper/vg.01-varvol
                 98G   13G   80G  14% /var
/dev/mapper/vg.01-cernvmfs
                 20G   8.9G   9.9G  48% /cernvmfs
/dev/mapper/vg.01-tmpvol
                 1008M  55M  903M   6% /tmp
/dev/mapper/vg.01-optvol
                 2.0G  570M  1.4G  30% /opt
/dev/mapper/vg.01-usrvol
                 5.0G  3.6G  1.2G  76% /usr
/dev/sda1        244M   21M  211M   9% /boot
tmpfs            7.9G  12K   7.9G   1% /dev/shm
grid35.lal.in2p3.fr:/vohome
                 410G  3.7G  386G   1% /grid_mnt/vohome
grid22.lal.in2p3.fr:/swareas
                 1.4T  814G  495G  63% /grid_mnt/swareas
grid36.lal.in2p3.fr:/sandboxes
                 36G   13G   21G  39% /grid_mnt/cream_sandbox__grid36.lal.in2p3.fr

```

## Mounts

```
/dev/sda2 on / type ext3 (rw)
proc on /proc type proc (rw)
sysfs on /sys type sysfs (rw)
devpts on /dev/pts type devpts (rw,gid=5,mode=620)
/dev/mapper/vg.01-varvol on /var type ext3 (rw)
/dev/mapper/vg.01-cernvmfs on /cernvmfs type ext3 (rw)
/dev/mapper/vg.01-tmpvol on /tmp type ext3 (rw)
/dev/mapper/vg.01-optvol on /opt type ext3 (rw)
/dev/mapper/vg.01-usrvol on /usr type ext3 (rw)
/dev/sdal on /boot type ext2 (rw)
tmpfs on /dev/shm type tmpfs (rw)
none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw)
sunrpc on /var/lib/nfs/rpc_pipefs type rpc_pipefs (rw)
grid35.lal.in2p3.fr:/vohome on /grid_mnt/vohome type nfs
(rw,noatime,intr,hard,addr=134.158.72.185)
grid22.lal.in2p3.fr:/swareas on /grid_mnt/swareas type nfs
(rw,noatime,intr,hard,addr=134.158.72.172)
grid36.lal.in2p3.fr:/sandboxes on /grid_mnt/cream_sandbox__grid36.lal.in2p3.fr type nfs
(rw,noatime,intr,hard,addr=134.158.72.186)
```

## Limits

```
core file size (blocks, -c) 0
data seg size (kbytes, -d) unlimited
scheduling priority (-e) 0
file size (blocks, -f) unlimited
pending signals (-i) 139264
max locked memory (kbytes, -l) 32
max memory size (kbytes, -m) unlimited
open files (-n) 32768
pipe size (512 bytes, -p) 8
POSIX message queues (bytes, -q) 819200
real-time priority (-r) 0
stack size (kbytes, -s) 10240
cpu time (seconds, -t) 86400
max user processes (-u) 139264
virtual memory (kbytes, -v) unlimited
file locks (-x) unlimited
```

## /boot content

```
System.map-2.6.18-274.18.1.el5
System.map-2.6.18-308.4.1.el5
System.map-2.6.18-308.4.1.el5debug
config-2.6.18-274.18.1.el5
config-2.6.18-308.4.1.el5
config-2.6.18-308.4.1.el5debug
grub
initrd-2.6.18-274.18.1.el5.img
initrd-2.6.18-308.4.1.el5.img
initrd-2.6.18-308.4.1.el5debug.img
lost+found
memtest86+-1.65
symvers-2.6.18-274.18.1.el5.gz
symvers-2.6.18-308.4.1.el5.gz
symvers-2.6.18-308.4.1.el5debug.gz
vmlinuz-2.6.18-274.18.1.el5
vmlinuz-2.6.18-308.4.1.el5
vmlinuz-2.6.18-308.4.1.el5debug
```

## env

```
MANPATH=/opt/globus/man:/opt/globus/man:/opt/glite/share/man:/opt/lcg/man:/opt/lcg/share/man
:/opt/glite/share/man:/opt/lcg/man:/opt/lcg/share/man
HOSTNAME=grid69.lal.in2p3.fr
PBS_VERSION=TORQUE-2.3.6
MPI_MPICC_OPTS=-m64
VO_NA4_VO_EU_EGEE_ORG_SW_DIR=/swareas/na4.vo.eu-egee.org
VO_VO_HESS_EXPERIMENT_EU_SW_DIR=/swareas/vo.hess-experiment.eu
SHELL=/bin/bash
LCG_LOCATION_VAR=/opt/lcg/var
VO_VO_IRFU_CEA_FR_DEFAULT_SE=grid05.lal.in2p3.fr
HISTSIZ=1000
MATLAB_R2008B_ROOT=/swareas/matlab/R2008b
VO_ESR_DEFAULT_SE=grid05.lal.in2p3.fr
GLOBUS_LOCATION=/opt/globus
PBS_JOBNAME=cream_584004634
TMPDIR=/var/spool/pbs/tmpdir/14036514.grid33.lal.in2p3.fr
GLOBUS_PATH=/opt/globus
VO_PROACTIVE_DEFAULT_SE=grid05.lal.in2p3.fr
```

```

VO_VO_FRANCE_GRILLES_FR_DEFAULT_SE=grid05.lal.in2p3.fr
KDE_NO_IPV6=1
MPI_OPENMPI_PATH=/opt/openmpi/1.2.8
MPI_SSH_HOST_BASED_AUTH=yes
VO_FUSION_DEFAULT_SE=grid05.lal.in2p3.fr
VO_HONE_SW_DIR=/swareas/hone
VO_OPS_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_IPNO_IN2P3_FR_DEFAULT_SE=grid05.lal.in2p3.fr
__delegationProxyCertSandboxPath=gsiftp://grid36.lal.in2p3.fr/sandboxes/vo.neugrid.eu/_O_GRID_
FR_C_FR_O_MAATG_CN_Grenier_Baptiste_vo_neugrid_eu_Role_NULL_Capability_NULL_neusns074/proxy/13
409630672E893306wms2Emaatg2Eeu10293621262808
GT_PROXY_MODE=old
VO_VO_GRIF_FR_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_UCAD_SN_DEFAULT_SE=grid05.lal.in2p3.fr
PBS_ENVIRONMENT=PBS_BATCH
EDG_WL_SCRATCH=/var/spool/pbs/tmpdir/14036514.grid33.lal.in2p3.fr
LCAS_LOG_LEVEL=1
VO_VO_APC_UNIV_PARIS7_FR_SW_DIR=/swareas/vo.apc.univ-paris7.fr
VO_VO_LPNHE_IN2P3_FR_DEFAULT_SE=grid05.lal.in2p3.fr
GLITE_WMS_LOCATION=/opt/glite
VO_ASTRO_VO_EU_EGEE_ORG_DEFAULT_SE=grid05.lal.in2p3.fr
VO_GLAST_ORG_DEFAULT_SE=grid05.lal.in2p3.fr
X509_CERT_DIR=/etc/grid-security/certificates
PBS_O_WORKDIR=/var/tmp
MPI_LAM_VERSION=7.1.3
VO_VO_IRFU_CEA_FR_SW_DIR=/swareas/vo.irfu.cea.fr
VO_VO_LAPP_IN2P3_FR_DEFAULT_SE=grid05.lal.in2p3.fr
GLITE_LOCATION_LOG=/var/log/glite
MPI_MPICH2_MPIEXEC=/opt/mpiexec-0.80/bin/mpiexec
USER=neusns074
PBS_TASKNUM=1
VO_VO_LLR_IN2P3_FR_DEFAULT_SE=grid05.lal.in2p3.fr
LS_COLORS=
LD_LIBRARY_PATH=/opt/c-
ares/lib:/opt/classads/lib64:/opt/glite/lib64:/opt/glite/lib:/opt/lcg/lib64:/opt/globus/lib:/o
pt/c-
ares/lib:/opt/classads/lib64:/opt/glite/lib64:/opt/glite/lib:/opt/lcg/lib64:/opt/globus/lib:/o
pt/d-cache//dcap/lib:/opt/d-cache//dcap/lib
GRID_JOBID=https://lb.maatg.fr:9000/A8oBL438QBqWoRmbPvAIxg
PBS_O_HOME=/vohome/vo.neugrid.eu/neusns074
GPT_LOCATION=/opt/gpt
VO_VO_GEAR_CERN_CH_DEFAULT_SE=grid05.lal.in2p3.fr
LCG_LOCATION=/opt/lcg
VO_CMS_SW_DIR=/swareas/cms
VO_DTEAM_SW_DIR=/swareas/dteam
GLITE_LOCATION_TMP=/tmp
VO_DESKTOPGRID_VO_EDGES_GRID_EU_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_LAPP_IN2P3_FR_SW_DIR=/swareas/vo.lapp.in2p3.fr
LCMAPS_LOG_LEVEL=1
ATLAS_LOCAL_AREA=/swareas/atlas-local
VO_COMPCHEM_DEFAULT_SE=grid05.lal.in2p3.fr
VO_ETICSPROJECT_EU_SW_DIR=/swareas/eticsproject.eu
VO_ILC_DEFAULT_SE=grid05.lal.in2p3.fr
KDEDIR=/usr
PBS_MOMPORT=15003
VO_LHCB_DEFAULT_SE=grid05.lal.in2p3.fr
VO_PLANCK_SW_DIR=/swareas/planck
VO_VO_U_PSUD_FR_SW_DIR=/swareas/vo.u-psud.fr
VO_FUSION_SW_DIR=/swareas/fusion
VO_OPS_SW_DIR=/swareas/ops
VO_VO_IPNO_IN2P3_FR_SW_DIR=/swareas/vo.ipno.in2p3.fr
GLITE_WMS_JOBID=https://lb.maatg.fr:9000/A8oBL438QBqWoRmbPvAIxg
VO_ATLAS_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_NEUGRID_EU_SW_DIR=/swareas/vo.neugrid.eu
PBS_O_QUEUE=vo.neugrid.eu
VO_DZERO_DEFAULT_SE=grid05.lal.in2p3.fr
GLITE_WMS_RB_BROKERINFO=/var/spool/pbs/tmpdir/14036514.grid33.lal.in2p3.fr/CREAM584004634/.Bro
kerInfo
VO_PROACTIVE_SW_DIR=/swareas/proactive
VO_VO_FRANCE_GRILLES_FR_SW_DIR=/swareas/vo.france-grilles.fr
PATH=/bin:/sbin:/usr/sbin:/usr/bin:/opt/glite/bin:/opt/glite/externals/bin:/opt/lcg/bin:/opt/l
cg/sbin:/opt/globus/sbin:/opt/globus/bin:/opt/gpt/sbin:/opt/mpi/bin:/usr/kerberos/bin:/opt/gli
te/bin:/opt/glite/externals/bin:/opt/lcg/bin:/opt/lcg/sbin:/opt/globus/sbin:/opt/globus/bin:/o
pt/gpt/sbin:/opt/mpi/bin:/bin:/usr/bin:/opt/d-cache//srm/bin:/opt/d-
cache//dcap/bin:/usr/java/jdk1.6.0_31/bin:/opt/d-cache//srm/bin:/opt/d-
cache//dcap/bin:/usr/java/jdk1.6.0_31/bin
PBS_O_LOGNAME=neusns074
MAIL=/var/spool/mail/neusns074

```

```

GLITE_LOCAL_CUSTOMIZATION_DIR=/opt/glite/etc/wms
MPI_MPICXX_OPTS=-m64
VO_BIOMED_DEFAULT_SE=grid05.lal.in2p3.fr
LCMAPS_DEBUG_LEVEL=0
PBS_O_LANG=en_US.UTF-8
VO_DESKTOPGRID_VO_EDGES_GRID_EU_SW_DIR=/swareas/desktopgrid.vo.edges-grid.eu
PBS_JOBCOOKIE=5DA60492FF9003B59D792388C18DB6A9
MPI_LAM_PATH=/usr
LCG_TMP=/tmp
MPI_MPIF77_OPTS=-m64
MPI_OPENMPI_VERSION=1.2.8
VO_CMS_DEFAULT_SE=polgrid4.in2p3.fr
VO_DTEAM_DEFAULT_SE=grid05.lal.in2p3.fr
PWD=/var/spool/pbs/tmpdir/14036514.grid33.lal.in2p3.fr/CREAM584004634
INPUTRC=/etc/inputrc
VO_AUGER_DEFAULT_SE=grid05.lal.in2p3.fr
VO_CPPM_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_LL_R_IN2P3_FR_SW_DIR=/swareas/vo.llr.in2p3.fr
MPI_SHARED_HOME=/grid_mnt/vohome/vo.neugrid.eu/neusns074/home_cream_584004634
VO_ESR_SW_DIR=/swareas/esr
LANG=C
PBS_NODENUM=0
KDE_IS_PRELINKED=1
VO_ASTRO_VO_EU_EGEE_ORG_SW_DIR=/swareas/astro.vo.eu-egee.org
VO_GLAST_ORG_SW_DIR=/swareas/glast.org
VO_VO_COMPLEX_SYSTEMS_EU_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_CTA_IN2P3_FR_DEFAULT_SE=node12.datagrid.cea.fr
SASL_PATH=/opt/globus/lib/sasl:/opt/globus/lib/sasl
MPI_MPIF90_OPTS=-m64
PBS_O_SHELL=/bin/sh
MYPROXY_SERVER=myproxy.grif.fr
VO_VO_LAL_IN2P3_FR_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_LPNHE_IN2P3_FR_SW_DIR=/swareas/vo.lpnhe.in2p3.fr
PERLLIB=/opt/glite/lib64/perl:/opt/lcg/lib64/perl:/opt/glite/lib64/perl:/opt/lcg/lib64/perl
GLITE_WMS_SEQUENCE_CODE=UI=000000:NS=0000000004:WM=000005:BH=0000000000:JSS=000002:LM=000002:L
RMS=000004:APP=000000:LBS=000000
PBS_SERVER=grid36.lal.in2p3.fr
MPI_MPICH_VERSION=1.2.7
PBS_JOBID=14036514.grid33.lal.in2p3.fr
MATLAB_R2008A_ROOT=/swareas/matlab/R2008a
VO_VO_GRIF_FR_SW_DIR=/swareas/vo.grif.fr
VO_VO_UCAD_SN_SW_DIR=/swareas/vo.ucad.sn
__copy_retry_first_wait=30
ENVIRONMENT=BATCH
SSH_ASKPASS=/usr/libexec/openssh/gnome-ssh-askpass
CE_ID=grid36.lal.in2p3.fr:8443/cream-pbs-vo.neugrid.eu
VO_LHCB_SW_DIR=/cvmfs/lhcb.cern.ch
CREAM_JOBID=https://grid36.lal.in2p3.fr:8443/CREAM584004634
HOME=/grid_mnt/vohome/vo.neugrid.eu/neusns074/home_cream_584004634
SHLVL=6
GLITE_LOCATION_VAR=/var/glite
VO_NA4_VO_EU_EGEE_ORG_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_HESS_EXPERIMENT_EU_DEFAULT_SE=grid05.lal.in2p3.fr
__copy_proxy_min_retry_wait=60
__copy_retry_count=5
GLOBUS_TCP_PORT_RANGE=20000,25000
VO_CALICE_DEFAULT_SE=grid05.lal.in2p3.fr
VO_EGEODE_DEFAULT_SE=grid05.lal.in2p3.fr
__delegationTimeSlot=3600
X509_USER_PROXY=/grid_mnt/vohome/vo.neugrid.eu/neusns074/home_cream_584004634/cream_584004634.proxy
PBS_O_HOST=grid36.lal.in2p3.fr
MPI_MPICH2_PATH=/opt/mpich2-1.0.4
MPI_MPIEXEC_PATH=/opt/mpiexec-0.80/bin/mpiexec
VO_SUPERBVO_ORG_SW_DIR=/swareas/superbvo.org
VO_VO_ISCPIF_FR_SW_DIR=/swareas/vo.iscpif.fr
VO_AUGER_SW_DIR=/swareas/auger
VO_CPPM_SW_DIR=/swareas/cppm
PBS_VNODENUM=0
MATLAB_ROOT=/swareas/matlab/R2008b
LOGNAME=neusns074
LCG_GFAL_INFOSYS=topbdii.grif.fr:2170
MPI_MPICH2_VERSION=1.0.4
VO_COMPCHEM_SW_DIR=/swareas/compchem
VO_ETICSPROJECT_EU_DEFAULT_SE=grid05.lal.in2p3.fr
VO_ILC_SW_DIR=/swareas/ilc
PYTHONPATH=/opt/glite/lib64/python:/opt/lcg/lib64/python:/opt/lcg/lib/python:/opt/glite/lib64/python:/opt/lcg/lib64/python:/opt/lcg/lib/python

```



```

CVS_RSH=ssh
VO_SUPERBVO_ORG_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_ISCPIF_FR_DEFAULT_SE=grid05.lal.in2p3.fr
I2G_MPI_START=/opt/i2g/bin/mpi-start
PBS_QUEUE=vo.neugrid.eu
VO_BIOMED_SW_DIR=/swareas/biomed
MPI_MPICH_MPIEXEC=/opt/mpiexec-0.80/bin/mpiexec
VO_CALICE_SW_DIR=/swareas/calice
VO_EGEODE_SW_DIR=/swareas/egeode
VO_SUPERNEMO_VO_EU_EGEE_ORG_DEFAULT_SE=grid05.lal.in2p3.fr
PBS_O_MAIL=/var/spool/mail/neusns074
VO_VO_GEAR_CERN_CH_SW_DIR=/swareas/vo.gear.cern.ch
LESSOPEN=|/usr/bin/lesspipe.sh %s
VO_VO_APC_UNIV_PARIS7_FR_DEFAULT_SE=grid05.lal.in2p3.fr
LCAS_DEBUG_LEVEL=0
__delegationProxyCertSandboxPathTmp=/tmp/13409630672E893306wms2Emaatg2Eu102936212628085840046
34
VO_HONE_DEFAULT_SE=grid05.lal.in2p3.fr
VO_ATLAS_SW_DIR=/cvmfs/atlas.cern.ch/repo/sw
VO_VO_NEUGRID_EU_DEFAULT_SE=grid05.lal.in2p3.fr
GLITE_LOCATION=/opt/glite
VO_CLIMATE_G_VO_EU_EGEE_ORG_SW_DIR=/swareas/climate-g.vo.eu-egee.org
VO_DEMO_VO_EDGES_GRID_EU_SW_DIR=/swareas/demo.vo.edges-grid.eu
VO_PLANCK_DEFAULT_SE=grid05.lal.in2p3.fr
VO_VO_LAL_IN2P3_FR_SW_DIR=/swareas/vo.lal.in2p3.fr
VO_VO_U_PSUD_FR_DEFAULT_SE=grid05.lal.in2p3.fr
SITE_NAME=GRIF
VO_VO_COMPLEX_SYSTEMS_EU_SW_DIR=/swareas/vo.complex-systems.eu
VO_VO_CTA_IN2P3_FR_SW_DIR=/swareas/vo.cta.in2p3.fr
PBS_NODEFILE=/var/spool/pbs/aux//14036514.grid33.lal.in2p3.fr
MPI_MPICH_PATH=/opt/mpich-1.2.7pl
VO_SUPERNEMO_VO_EU_EGEE_ORG_SW_DIR=/swareas/supernemo.vo.eu-egee.org
G_BROKEN_FILENAMES=1
GLITE_WMS_LOG_DESTINATION=grid36.lal.in2p3.fr
PBS_O_PATH=/usr/kerberos/bin:/opt/glite/bin:/opt/glite/externals/bin:/opt/globus/sbin:/opt/globus/bin:/opt/gpt/sbin:/opt/lcg/bin:/opt/lcg/sbin:/opt/edg/sbin:/opt/mpi/bin:/usr/bin:/bin:/opt/d-cache//srm/bin:/opt/d-cache//dcap/bin:/usr/java/jdk1.6.0_29/bin
VO_CLIMATE_G_VO_EU_EGEE_ORG_DEFAULT_SE=grid05.lal.in2p3.fr
VO_DEMO_VO_EDGES_GRID_EU_DEFAULT_SE=grid05.lal.in2p3.fr
VO_DZERO_SW_DIR=/swareas/dzero
_=/bin/env

```

```

-----
Network configuration
-----

```

```

Network interfaces

```

```

eth0      Link encap:Ethernet  HWaddr 00:14:5E:DD:73:21
          inet addr:134.158.72.219  Bcast:134.158.73.255  Mask:255.255.254.0
          inet6 addr: 2002:869e:4aa2:a:214:5eff:fedd:7321/64 Scope:Global
          inet6 addr: fec0::b:214:5eff:fedd:7321/64 Scope:Site
          inet6 addr: 2002:869e:593d:b:214:5eff:fedd:7321/64 Scope:Global
          inet6 addr: fec0::a:214:5eff:fedd:7321/64 Scope:Site
          inet6 addr: 2002:869e:5933:a:214:5eff:fedd:7321/64 Scope:Global
          inet6 addr: fe80::214:5eff:fedd:7321/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:631919722 errors:0 dropped:2 overruns:0 frame:0
          TX packets:273566629 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:731786988542 (681.5 GiB)  TX bytes:87956578210 (81.9 GiB)
          Interrupt:98 Memory:ca000000-ca012800

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:198290 errors:0 dropped:0 overruns:0 frame:0
          TX packets:198290 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:37611871 (35.8 MiB)  TX bytes:37611871 (35.8 MiB)

```

```

Routes using route

```

```

Kernel IP routing table

```

Destination	Gateway	Genmask	Flags	MSS Window	irtt	Iface
134.158.72.0	0.0.0.0	255.255.254.0	U	0 0		0 eth0
169.254.0.0	0.0.0.0	255.255.0.0	U	0 0		0 eth0
0.0.0.0	134.158.72.1	0.0.0.0	UG	0 0		0 eth0

```
Routes using iproute
134.158.72.0/23 dev eth0 proto kernel scope link src 134.158.72.219
169.254.0.0/16 dev eth0 scope link
default via 134.158.72.1 dev eth0
```

```
DNS configuration
search lal.in2p3.fr
nameserver 134.158.88.149 # added by Quattor
nameserver 134.158.91.80 # added by Quattor
Hosts configuration
# Do not remove the following line, or various programs
# that require network functionality will fail.
127.0.0.1 localhost.localdomain localhost
::1 localhost6.localdomain6 localhost6
134.158.72.219 grid69.lal.in2p3.fr grid69
```

```
Traceroute to gnu.org
traceroute to gnu.org (208.118.235.148), 30 hops max, 40 byte packets
 1 orsay1.lal.in2p3.fr (134.158.88.1) 0.420 ms 0.501 ms 0.582 ms
 2 * * *
 3 te0-1-0-5-paris1-rtr-001.noc.renater.fr (193.51.189.242) 3.988 ms 4.024 ms 4.019 ms
 4 ge3-0-0-xcrl.prp.cw.net (195.10.54.65) 61.449 ms 61.452 ms 61.447 ms
 5 te0-6-0-7.ccr21.par04.atlas.cogentco.com (130.117.15.117) 1.813 ms 2.027 ms 2.177 ms
 6 te0-5-0-4.ccr21.par01.atlas.cogentco.com (154.54.38.221) 12.058 ms te0-2-0-
4.mpd22.par01.atlas.cogentco.com (130.117.1.141) 12.202 ms te0-4-0-
4.ccr21.par01.atlas.cogentco.com (130.117.48.249) 11.946 ms
 7 te0-4-0-1.mpd21.lon13.atlas.cogentco.com (154.54.37.153) 95.806 ms te0-4-0-
2.mpd22.lon13.atlas.cogentco.com (154.54.60.217) 96.675 ms te0-1-0-
3.mpd21.lon13.atlas.cogentco.com (154.54.59.21) 92.931 ms
 8 te0-2-0-4.ccr21.bos01.atlas.cogentco.com (66.28.4.189) 96.226 ms te0-2-0-
4.ccr22.bos01.atlas.cogentco.com (154.54.43.57) 94.911 ms te0-3-0-
4.ccr22.bos01.atlas.cogentco.com (154.54.5.122) 95.164 ms
 9 te7-1.mag02.bos01.atlas.cogentco.com (154.54.7.42) 131.986 ms 123.992 ms 123.420 ms
10 cogent-px.bos1.twdx.net (38.99.204.94) 86.797 ms 86.852 ms 86.394 ms
11 xe-0-1-0.dcr03.bos1.twdx.net (216.93.255.182) 109.824 ms 89.320 ms 87.842 ms
12 FREE-SOFTWA.dcr03.bos1.twdx.net (208.118.224.186) 86.792 ms 86.891 ms 86.909 ms
13 pyxis.fsf.org (208.118.235.165) 87.208 ms 86.642 ms 86.447 ms
```

```
-----
Grid-related configuration
-----
```

```
VO is vo.neugrid.eu
```

```
Proxy information
```

```
subject : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste/CN=proxy/CN=proxy/CN=proxy/CN=limited
proxy
issuer : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste/CN=proxy/CN=proxy/CN=proxy
identity : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste/CN=proxy/CN=proxy/CN=proxy
type : limited proxy
strength : 512 bits
path :
/grid_mnt/vohome/vo.neugrid.eu/neusns074/home_cream_584004634/cream_584004634.proxy
timeleft : 11:57:42
=== VO vo.neugrid.eu extension information ===
VO : vo.neugrid.eu
subject : /O=GRID-FR/C=FR/O=MAATG/CN=Grenier Baptiste
issuer : /O=GRID-FR/C=FR/O=MAATG/CN=voms.maatg.eu
attribute : /vo.neugrid.eu/Role=NULL/Capability=NULL
attribute : /vo.neugrid.eu/poc/Role=NULL/Capability=NULL
attribute : /vo.neugrid.eu/prod/Role=NULL/Capability=NULL
attribute : webportal_admin_role = 1 (vo.neugrid.eu)
timeleft : 11:58:49
uri : voms.maatg.eu:15001
```

```
SW_DIR is: /swareas/vo.neugrid.eu
```

```
Size of SW_DIR:
```

```
9.0G /swareas/vo.neugrid.eu
9.0G total
```

```
SW_DIR (/swareas/vo.neugrid.eu)
```

```
drwxr-xr-x 8 neusnss vo.neugrid.eu 4096 May 18 15:37 /swareas/vo.neugrid.eu
```

```
Content of SW_DIR (/swareas/vo.neugrid.eu)
```

```
total 32
```

```
drwxr-xr-x 8 neusnss vo.neugrid.eu 4096 May 18 15:37 .
drwxr-xr-x 53 root root 4096 Feb 29 13:20 ..
drwxrwxr-x 4 neusnss vo.neugrid.eu 4096 May 11 19:29 R-2.13.1-1.sl5
```

```

drwxrwxr-x 12 neusnss vo.neugrid.eu 4096 May 11 15:27 brainvisa-3.2.1
drwxrwxr-x 15 neusnss vo.neugrid.eu 4096 May 11 20:32 civet-200906
drwxrwxr-x 14 neusnss vo.neugrid.eu 4096 May 16 02:55 freesurfer-5.0.0
drwxrwxr-x 15 neusnss vo.neugrid.eu 4096 May 9 15:55 fsl-4.1.9
drwxrwxr-x 4 neusnss vo.neugrid.eu 4096 May 10 18:04 octave-3.0.5-1.el5

```

Space available on SW\_DIR partition

```

Filesystem      Size  Used Avail Use% Mounted on
grid22.lal.in2p3.fr:/swareas
                1.4T  814G  495G   63% /grid_mnt/swareas

```

-----  
User-related configuration  
-----

```

User: neusns074
Groups: vo.neugrid.eu
ID: uid=1952079(neusns074) gid=1952005(vo.neugrid.eu) groups=1952005(vo.neugrid.eu)
/etc/passwd      info:      neusns074:x:1952079:1952005:VO      vo.neugrid.eu      pool
account:/vohome/vo.neugrid.eu/neusns074:/bin/bash

```

```

neusns074 home directory /grid_mnt/vohome/vo.neugrid.eu/neusns074/home_cream_584004634 content
drwx----- 2      neusns074      vo.neugrid.eu      4096      Jun      29      11:44
/grid_mnt/vohome/vo.neugrid.eu/neusns074/home_cream_584004634
/grid_mnt/vohome/vo.neugrid.eu/neusns074/home_cream_584004634:
total 44
drwx----- 2 neusns074 vo.neugrid.eu 4096 Jun 29 11:44 .
drwx----- 5 neusns074 vo.neugrid.eu 4096 Jun 29 11:44 ..
-rwx----- 1 neusns074 vo.neugrid.eu 23822 Jun 29 11:44 CREAM584004634_jobWrapper.sh
-rw----- 1 neusns074 vo.neugrid.eu 8386 Jun 29 11:44 cream_584004634.proxy

```