



Enabling Grids for
E-science in Europe

www.eu-egee.org

GENIUS/GILDA Tutorial, Catania, 24-25.05.2004

GENIUS and GILDA

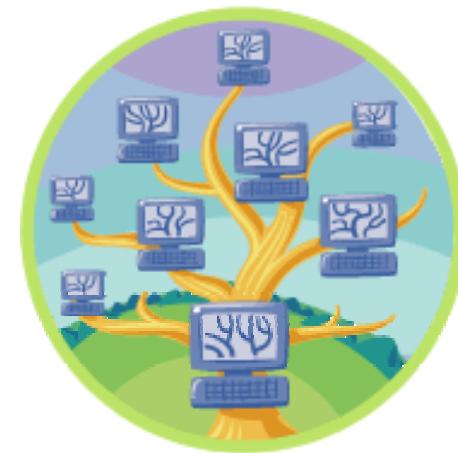
Roberto Barbera
EGEE NA4 Generic Applications coordinator



EGEE is a project funded by the European Union under contract IST-2003-508833

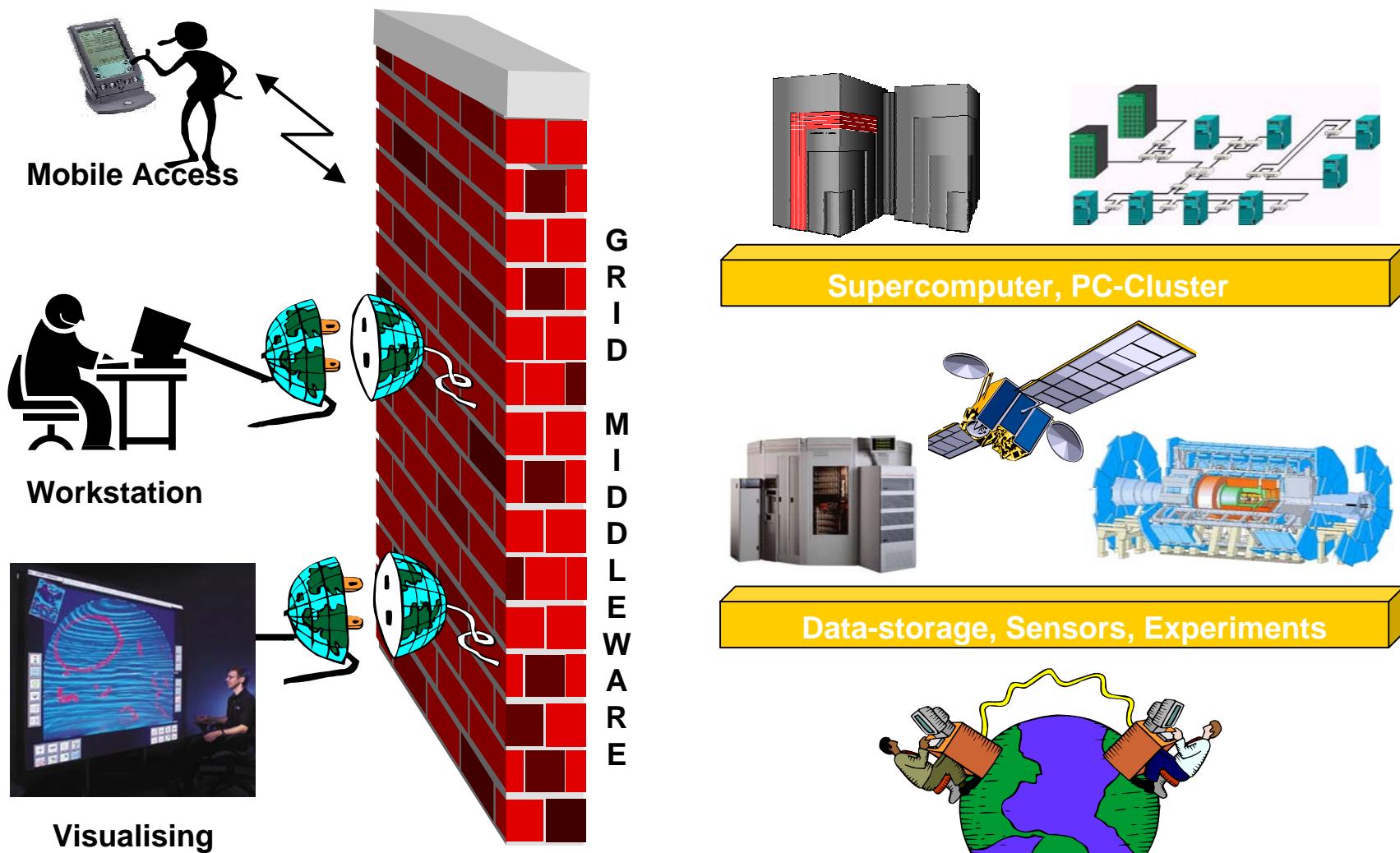
Contents

- Introduction
- The GENIUS grid portal
- The GILDA Project
- The EGEE Project and the NA4 activities
- Summary and conclusions

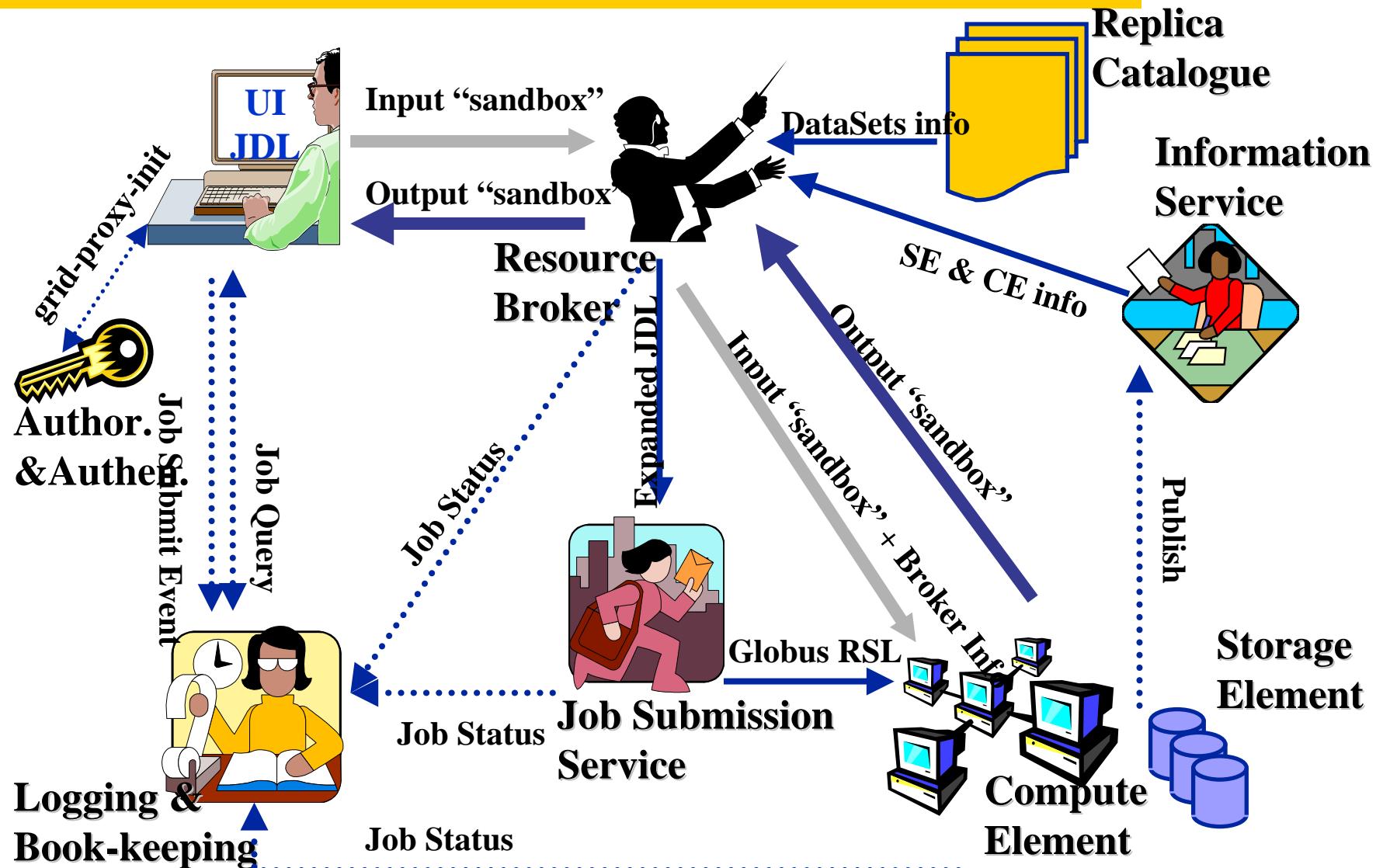


The Grid metaphor

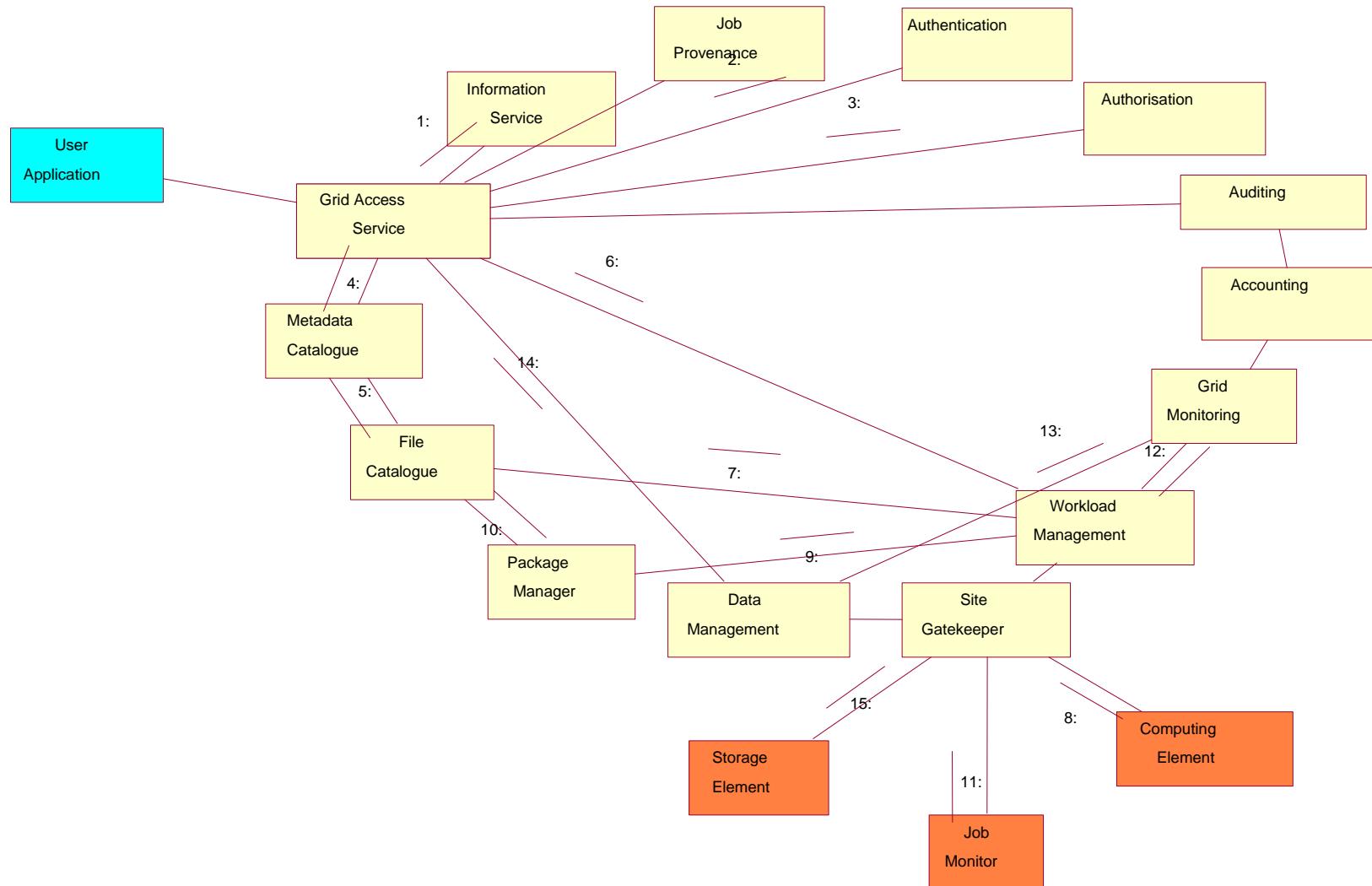
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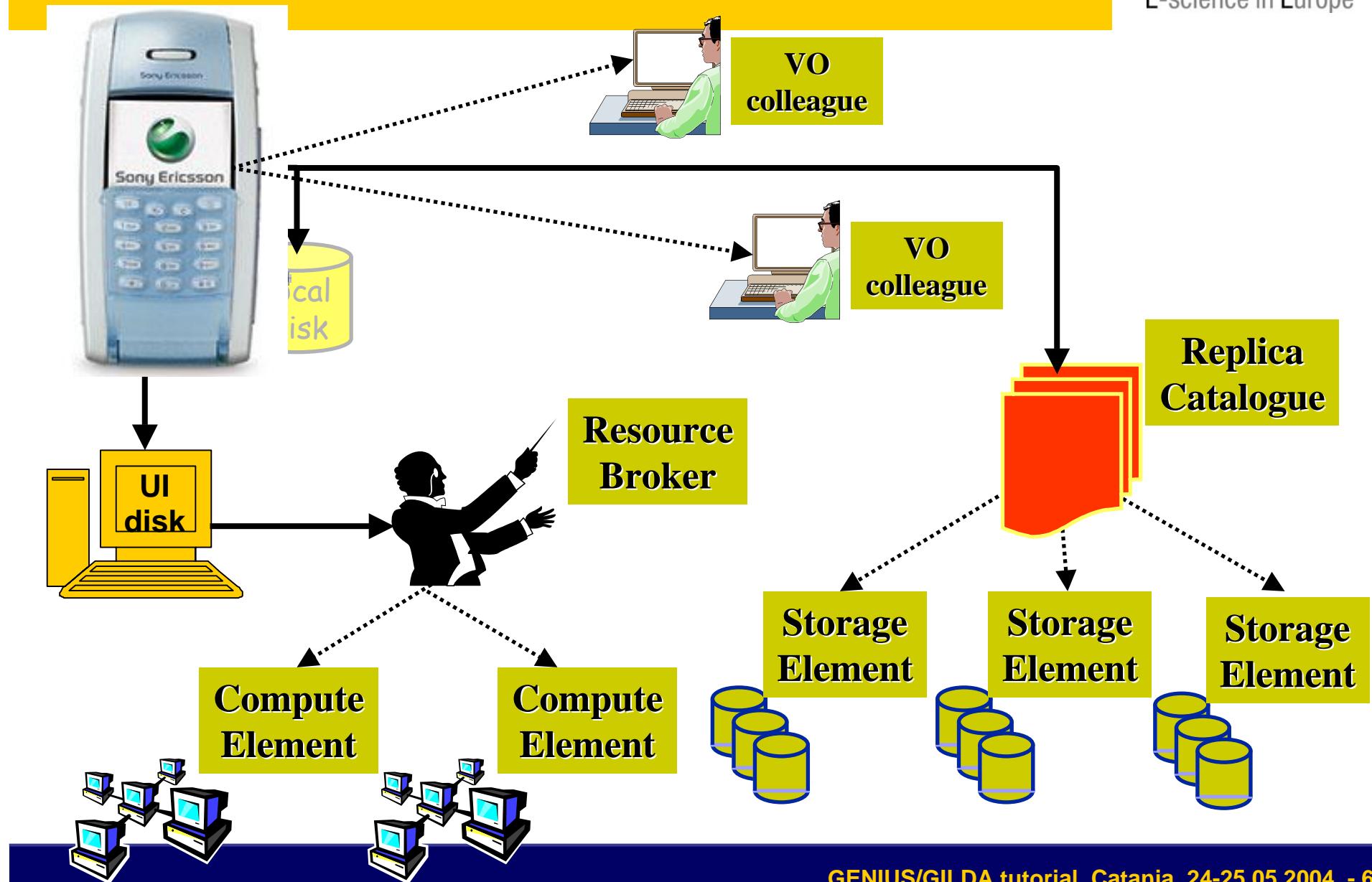
A typical job workflow (DataGrid)



Typical grid services (ARDA)



The transparent grid access



A grid portal: why and how



- It can be accessed from everywhere and by “everything” (desktop, laptop, PDA, cell phone).
- It can keep the same user interface to several back-ends.
- It must be redundantly “secure” at all levels: **1)** secure for web transactions, **2)** secure for user credentials, **3)** secure for user authentication, **4)** secure at VO level.
- All available grid services must be incorporated in a logic way, just “one mouse click away”.
- Its layout must be easily understandable and user friendly.

The GENIUS hourglass model

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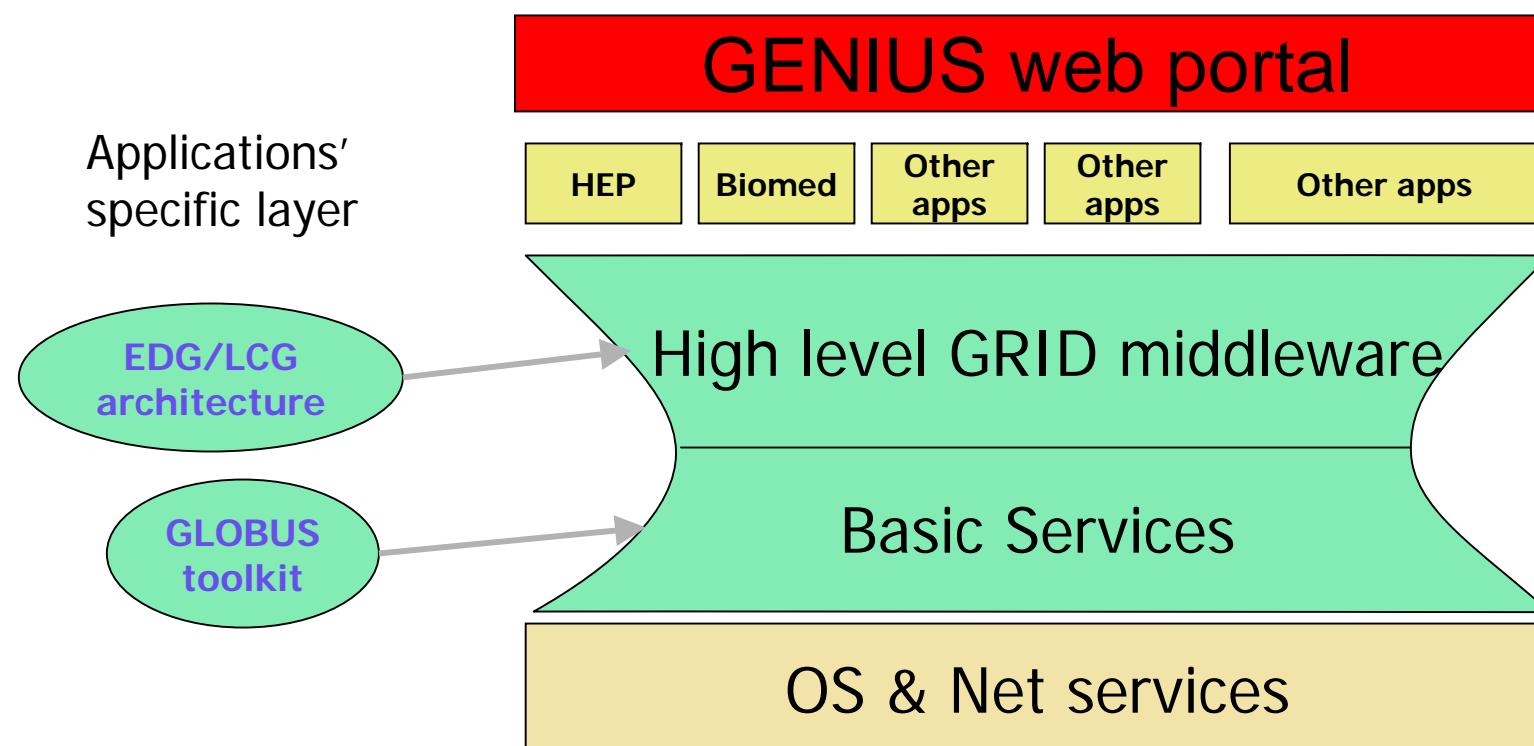


GENIUS®

(Grid Enabled web eNvironment for
site Independent User job Submission)

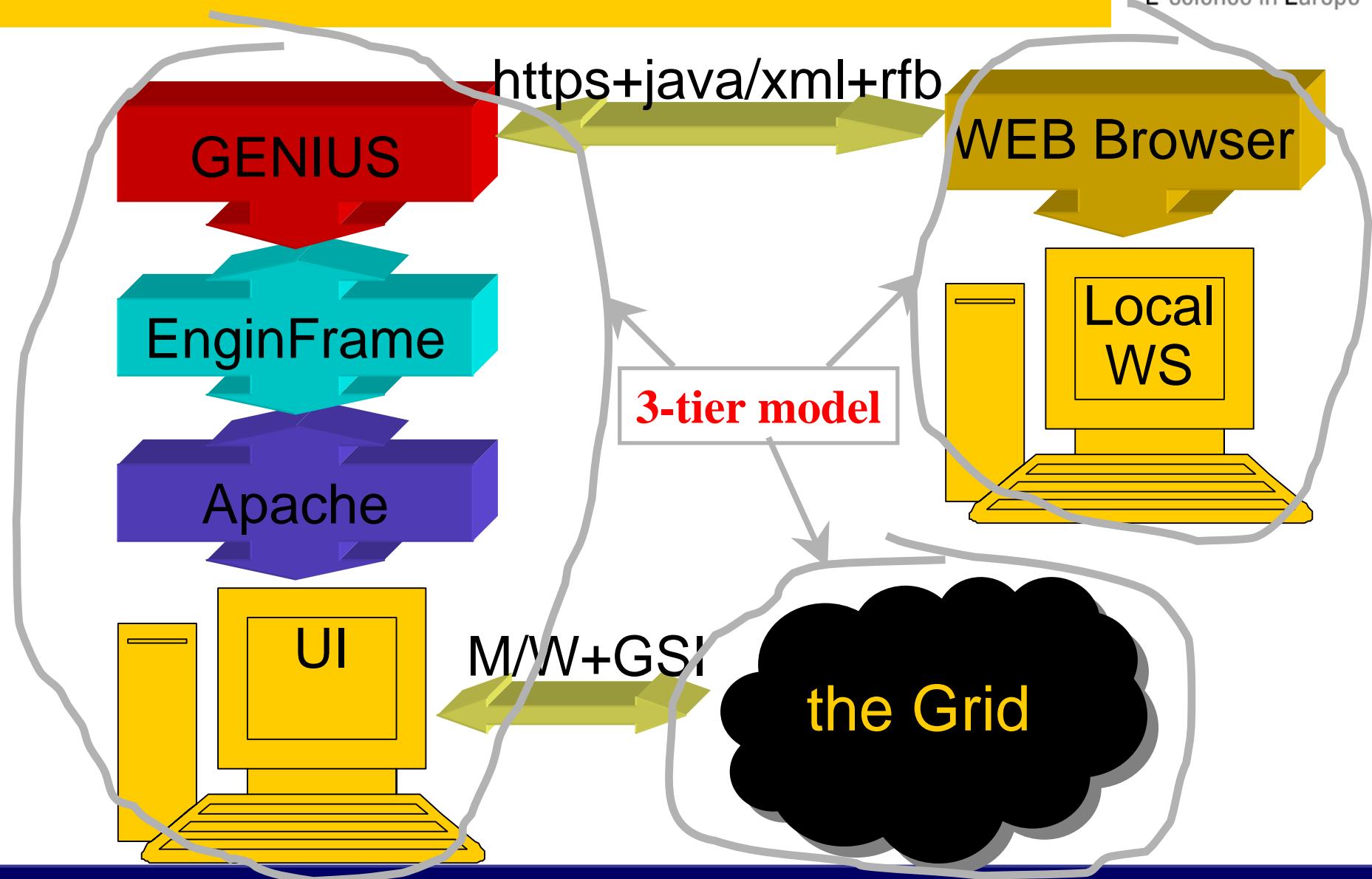
[<https://genius.ct.infn.it>]

INFN/NICEsrl collaboration



GENIUS: how it works

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GENIUS home page

(<https://genius.ct.infn.it> - <https://grid-tutor.ct.infn.it>)



Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://genius.ct.infn.it/

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 EnginFrame

 genius

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Grid Enabled web eNvironment for site Independent User job Submission

Welcome to GENIUS 2.8.3

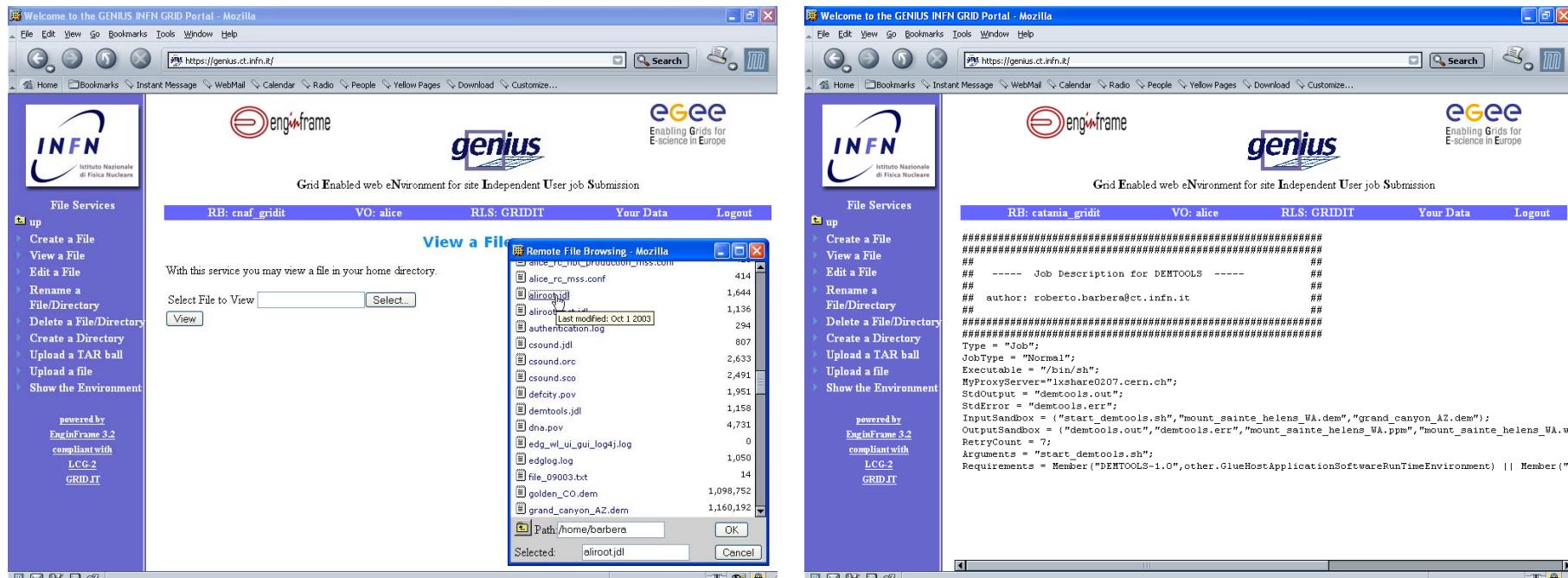
[Important Notice](#)
[GENIUS User's Guide \(doc, pdf, ps, ps.gz\)](#)
[New Grid Authentication with MyProxy](#)
[GENIUS MyProxy Server Installation](#)
[GENIUS CVS Available](#)
[GENIUS Mailing List](#)
[GENIUS Mailing Archive \(Help on Majordomo Commands\)](#)
[GRID MOVIE](#)
[Useful Links](#)
[Credits](#)

This portal is best viewed with Mozilla 1.6.
Netscape (4.79, 4.80, 6 and higher) and Internet
Explorer (5 or higher) can also be used.
The use of any other web browsers could induce some
visualization mismatches and is not currently suggested.
GENIUS is based on Apache 1.3.29 and OpenSSL 0.9.7c.
Last update: Fri 2 Apr 2004

powered by
[EnginFrame 3.2](#)
compliant with
[LCG-2](#)
[GRID.IT](#)

GENIUS file services

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GENIUS authentication with MyProxy

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The screenshot shows a Mozilla browser window displaying the 'Welcome to the GENIUS INFN GRID Portal - Mozilla' page. The URL in the address bar is <https://genius.ct.infn.it/>. The page features the INFN logo and a sidebar with various service links. The main content area includes logos for enginframe and genius, and a title 'Grid Enabled web eNvironment for site Independent User job Submission'. A 'Login to the GRID' form is present, requiring Username (barbera), MyProxy Passphrase (xxxxxx), and Validity (hours) (4). The login button is labeled 'Login'.

Welcome to the GENIUS INFN GRID Portal - Mozilla

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https://genius.ct.infn.it/

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File Services Security Services Job Services Data Services Info Services Monitoring Services Interactive Services

Grid Settings Set VO Current VO Services Statistics Logout

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GRID.IT

enginframe

genius

Grid Enabled web eNvironment for site Independent User job Submission

Login to the GRID

Username:

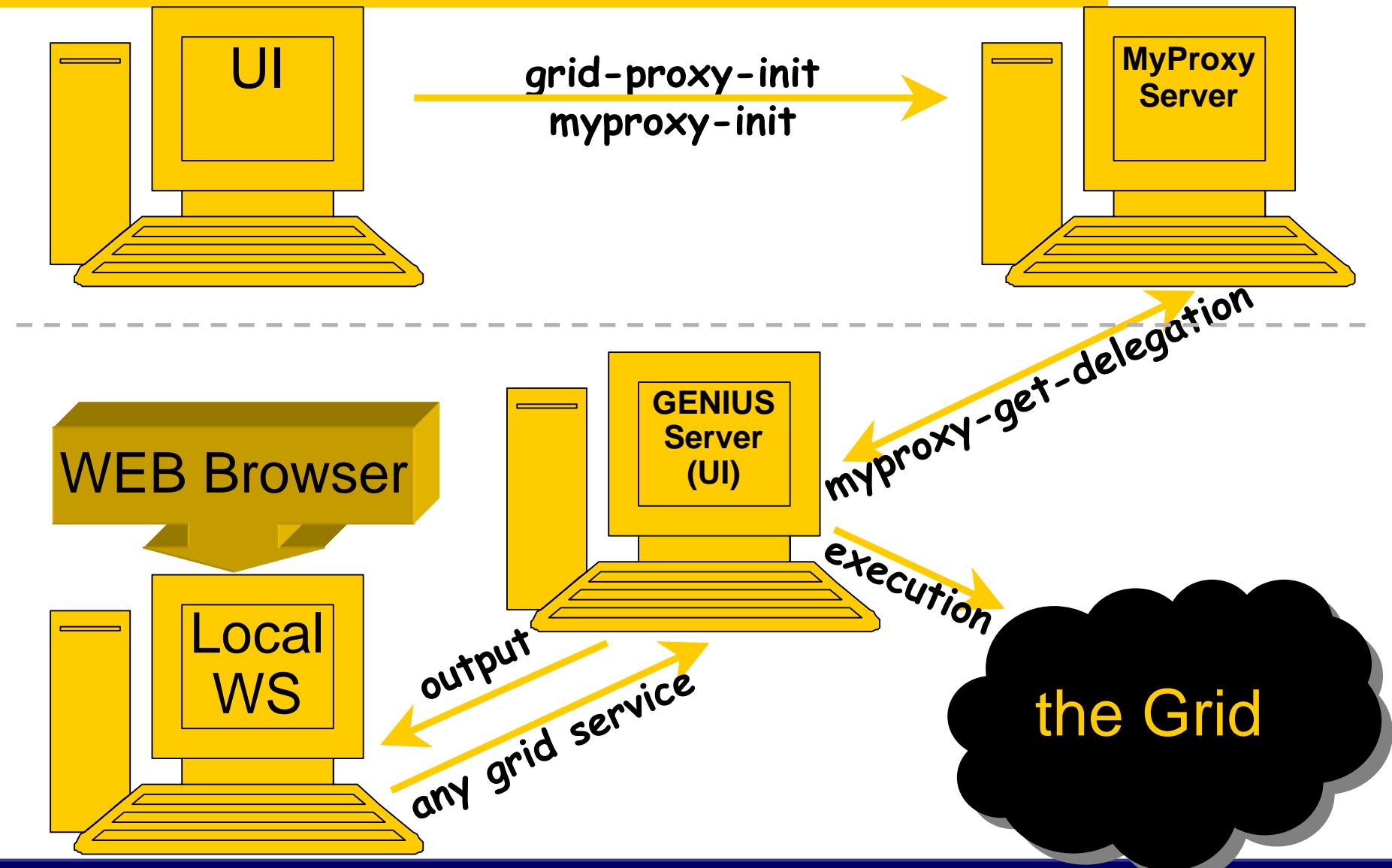
MyProxy Passphrase:

Validity (hours):

Login

Grid authentication with MyProxy

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GENIUS grid settings

The image shows two side-by-side screenshots of a web browser displaying the 'Grid Settings' page of the GENIUS INFN GRID Portal.

Left Screenshot: The page title is 'Welcome to the GENIUS INFN GRID Portal - Mozilla'. It features the INFN logo and Enginframe logo. The main content area is titled 'Grid Enabled web eNvironment for site Independent User job Submission'. It includes a sidebar with links for File Services, Security Services, Job Services, Data Services, Info Services, Monitoring Services, and Interactive Services. The 'Grid Settings' section contains dropdown menus for 'Resource Broker (RB)' set to 'CNAF GRIDIT (currently selected)', 'Replica Location Server (RLS)' set to 'GRIDIT (currently selected)', and 'MyProxy Server' set to 'grid001.ct.infn.it (currently selected)'. A blue 'Update' button is at the bottom. The URL in the address bar is https://genius.ct.infn.it/.

Right Screenshot: The interface is identical to the left one, but the 'MyProxy Server' dropdown menu is open, showing a list of options: CNAF GRIDIT (currently selected), GILDA, CERN EDG, CNAF EDG, NIKHEF EDG, RAL EDG, CATANIA GRIDIT (highlighted in blue), BARCELLONA LCG, BUDAPEST LCG, CERN-H LCG, CERN-2 LCG, CNAF LCG, MOSCOW LCG, RAL LCG, TAIPEI LCG, VALENCIA LCG, and FZK LCG. The URL in the address bar is https://genius.ct.infn.it/infn/grid/config/settings.

GENIUS VO selection

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Welcome to the GENIUS INFN GRID Portal - Mozilla

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File Services
Security Services
Job Services
Data Services
Info Services
Monitoring Services
Interactive Services
Grid Settings
Set VO
Current VO Services
Statistics
Logout

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LCG-2
GRID.IT

enginframe

genius

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Grid Enabled web eNvironment for site Independent User job Submission

RB: cnaf_gridit VO: alice RLS: GRIDIT Your Data Logout

Set VO

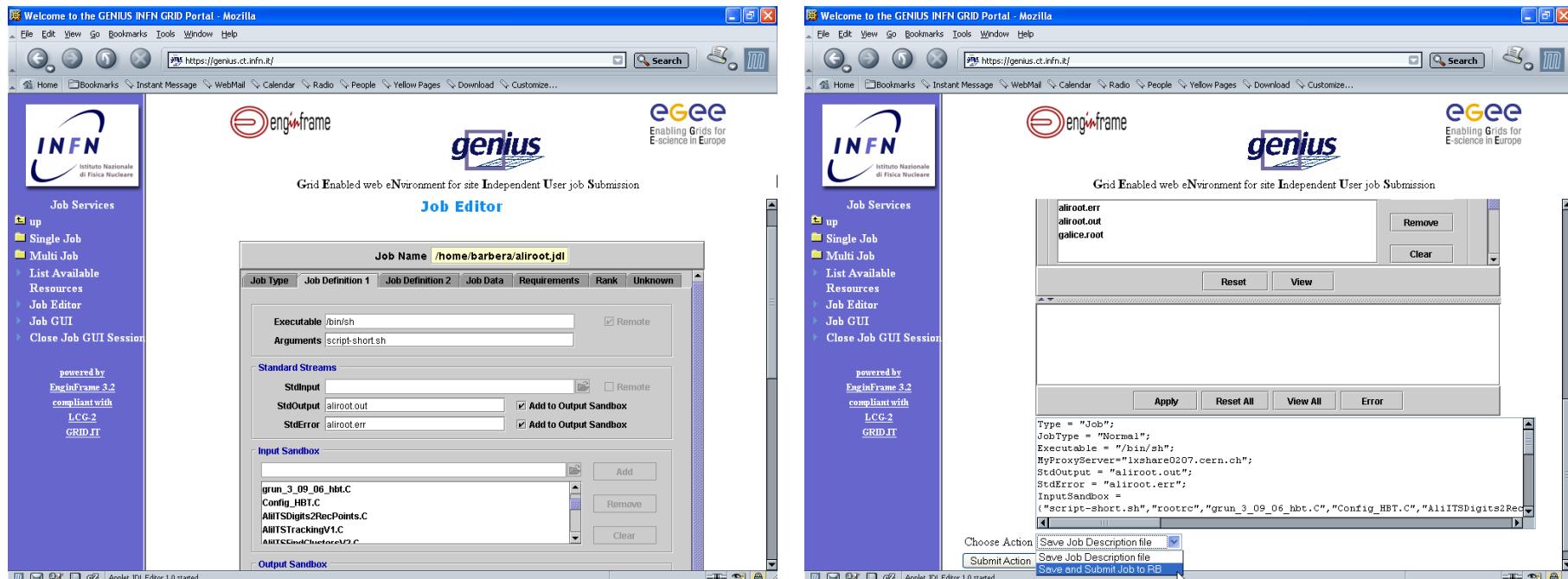
With this service you can select the Virtual Organization you belong to.

Virtual Organization (VO):

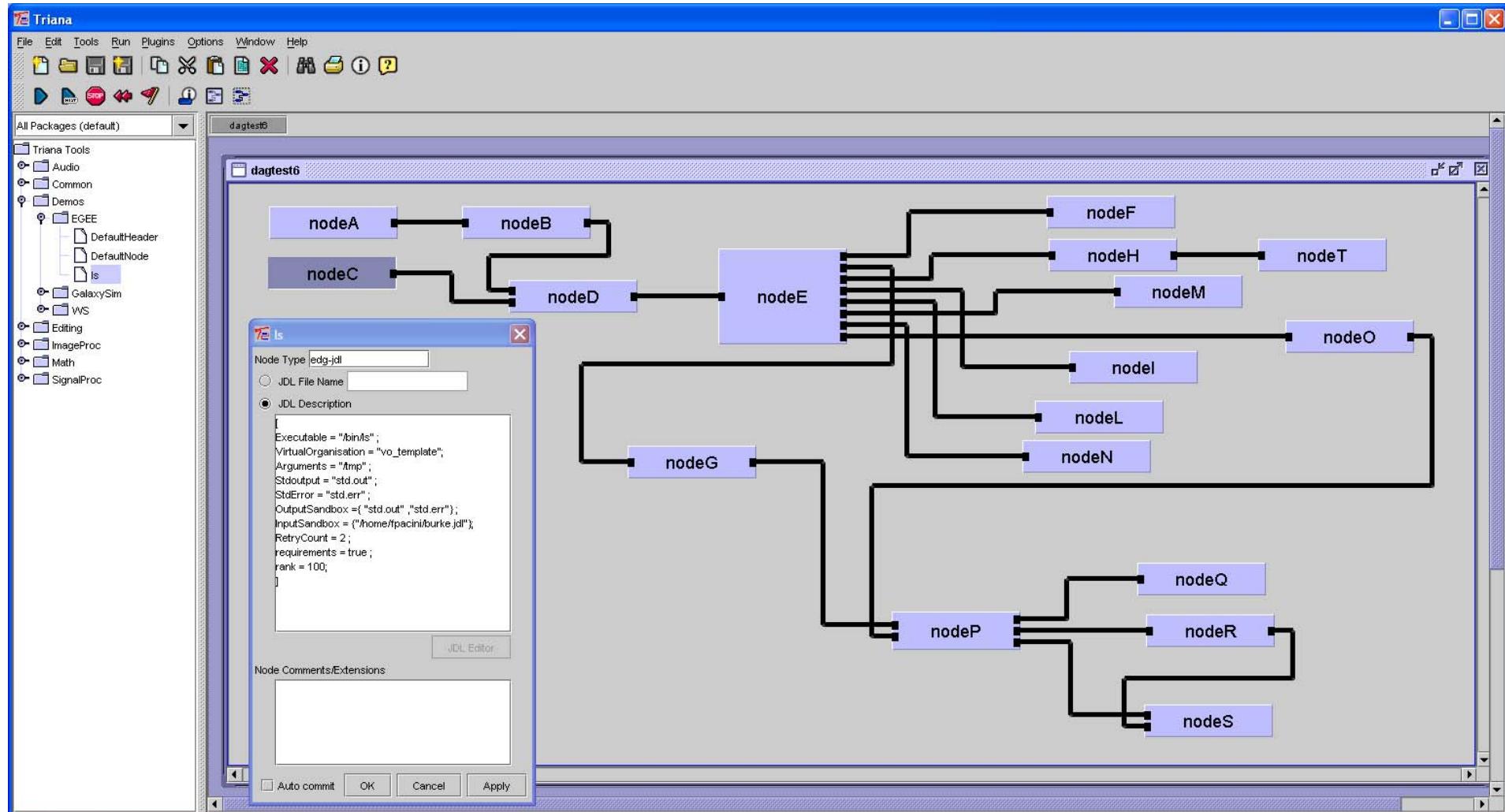
ALICE (currently selected)
GILDA
ATLAS
BABAR
BIO
Biomedical
CMS
D0
DIANE
Dissemination
Earth Observation
ITeam
LHCb
PANDA
THEOPHYS
TUTOR
VIRGO
WORLDGRID
WPSix

GENIUS graphic job editor (work in collaboration with DATAMAT)

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GENIUS graphic workflow editor (integration of TRIANA from GridLab)



GENIUS single job submission

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Single Job

- up
- Job Submission
- Job Queue
- Job Data
- Clean Job Queues
- Close Interactive Job Session

powered by EnginFrame 3.2 compliant with LCG-2 GRID.IT

enginframe genius

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Grid Enabled web eNvironment for site Independent User job Submission

RB: catania_gridit VO: alice RLS: GRIDIT Your Data Logout

Now you may also choose a specific Computing Element for your job.

JDL File Selected /home/barbera/hostname.jdl

Specify the CE Resource Let the CATANIA_GRIDIT Resource Broker choose

grid002.ca.infn.it:2119/jobmanager-lcgpbs-infinite
grid002.ca.infn.it:2119/jobmanager-lcgpbs-long
grid002.ca.infn.it:2119/jobmanager-lcgpbs-short
grid002.pi.infn.it:2119/jobmanager-lcgpbs-infinite
grid002.pi.infn.it:2119/jobmanager-lcgpbs-long
grid002.pi.infn.it:2119/jobmanager-lcgpbs-short
grid008.to.infn.it:2119/jobmanager-lcgpbs-infinite
grid008.to.infn.it:2119/jobmanager-lcgpbs-lcg
grid008.to.infn.it:2119/jobmanager-lcgpbs-long
grid008.to.infn.it:2119/jobmanager-lcgpbs-short
grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite
grid012.ct.infn.it:2119/jobmanager-lcgpbs-short
grid20.bo.ingv.it:2119/jobmanager-lcgpbs-long
grid20.bo.ingv.it:2119/jobmanager-lcgpbs-short
gridba2.ba.infn.it:2119/jobmanager-lcgpbs-infinite
gridba2.ba.infn.it:2119/jobmanager-lcgpbs-long
gridba2.ba.infn.it:2119/jobmanager-lcgpbs-short
gridit001.pd.infn.it:2119/jobmanager-lcglsf-infinite
gridit001.pd.infn.it:2119/jobmanager-lcglsf-long
gridit001.pd.infn.it:2119/jobmanager-lcglsf-short

Submit Job

GENIUS single job queue

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The screenshot shows a Mozilla Firefox browser window displaying the GENIUS INFN GRID Portal. The title bar reads "Welcome to the GENIUS INFN GRID Portal - Mozilla". The address bar shows the URL "https://genius.ct.infn.it/". The page content includes the INFN logo, EnginFrame and genius logos, and the text "Grid Enabled web eNvironment for site Independent User job Submission". A navigation menu on the left lists "Single Job" options: up, Job Submission, Job Queue, Job Data, Clean Job Queues, and Close Interactive Job Session. Below this, it says "powered by EnginFrame 3.2 compliant with LCG-2 GRID.IT". The main area shows a table for the "Job Queue" with columns: #, Job ID, JDL Name, Last Update, Destination, and Status. One entry is listed: "Thu Apr 15 19:28:04 2004 G0ECFDOnNTBK2gOPAxrDg /home/barbera/hostname.jdl gridba2.ba.infn.it:2119/jobmanager-lcgpbs-long Scheduled". The status column shows "Scheduled".

#	Job ID	JDL Name	Last Update	Destination	Status
1	G0ECFDOnNTBK2gOPAxrDg	/home/barbera/hostname.jdl	Thu Apr 15 19:28:04 2004	gridba2.ba.infn.it:2119/jobmanager-lcgpbs-long	Scheduled

GENIUS multi job submission

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Welcome to the GENIUS INFN GRID Portal - Mozilla

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https://genius.ct.infn.it/

Search

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Multi Job

- up
- Job Submission
- Job Queue
- Job Data
- Clean Job Queues

powered by
[EnginFrame 3.2](#)
compliant with
[LCG-2](#)
[GRID.IT](#)

enginframe

genius

Grid Enabled web eNvironment for site Independent User job Submission

RB: cnaf_gridit VO: alice RLS: GRIDIT Your Data Logout

Job Submission

Please, select the name of the group containing the jobs that you want to submit.
If it is a new group, choose the JDL(s) files relative to the jobs.
Then select the number of cycles of multi-job submissions that you want to perform.

Job Group Name: test-job-1

JDL File(s):

Select Clean

Multi-Job Type: Parallel

Submission Cycles: 5

Submit

Remote File Browsing - Mozilla

File	Last modified
alice_rc_def.conf	413
alice_rc_hbt_production.conf	422
alice_rc_hbt_production_mss.conf	423
alice_rc_mss.conf	414
aliroot.jdl	1,644
aliroot.test.jdl	1,136
authentication.log	294
csound.jdl	807
csound.orc	2,633
csound.sco	2,491
defcity.pov	1,951
demtools.jdl	1,158
dna.pov	4,731
edg_wl_u_gu_r094.jdl	0
edglog.log	1,050

Last modified: Oct 2 2003

Path: /home/barbera

OK Cancel Select all Unselect all

GENIUS multi job queue

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The screenshot shows a Mozilla browser window displaying the GENIUS INFN GRID Portal. The page title is "Welcome to the GENIUS INFN GRID Portal - Mozilla". The URL in the address bar is <https://genius.ct.infn.it/>. The page header includes the INFN logo, EnginFrame logo, and eGEE logo.

The main content area displays a "Job Queue" table with the following data:

#	Job ID	Last Update	Destination	Status	Exit Code	Action
6	_OI1R41j0z0rQ9yk-h9WdQ	Thu Apr 15 19:29:11 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Running		Cancel
5	SPSM_X9bG1QIjday7ew8hA	Thu Apr 15 19:26:36 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Scheduled		Cancel
4	gEDcoARDsYJ3Af9pFMizw	Thu Apr 15 19:29:10 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Running		Cancel
3	tRr2Va5JOtbqQ1AzwJApNw	Thu Apr 15 19:29:10 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-short	Running		Cancel
2	CCffOjj-44rMu63qS0Mjw	Thu Apr 15 19:29:11 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Running		Cancel
1	CCffOjj-44rMu63qS0Mjw	Thu Apr 15 19:29:11 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Running		Cancel

GENIUS data spooler (1/2)

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Multi Job

- up
- Job Submission
- Job Queue
- Job Data
- Clean Job Queues

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[GRID.IT](#)

enginframe **genius** **eGEE**
Grid Enabled web eNvironment for site Independent User job Submission

RB: catania_gridit VO: alice RLS: GRIDIT Your Data Logout

Destroy Directory contents - 20040415_212509_test-job-2/barbera_gEDcoARDsYJ3Afp9pFMizw

[Home](#) [Back](#)

csound.aiff	11,379,286	csound.out.txt	12,691
csound.err.txt			175

RealOne Player

File > [csound.aiff](#) 0:09 / 1:04

csound.aiff

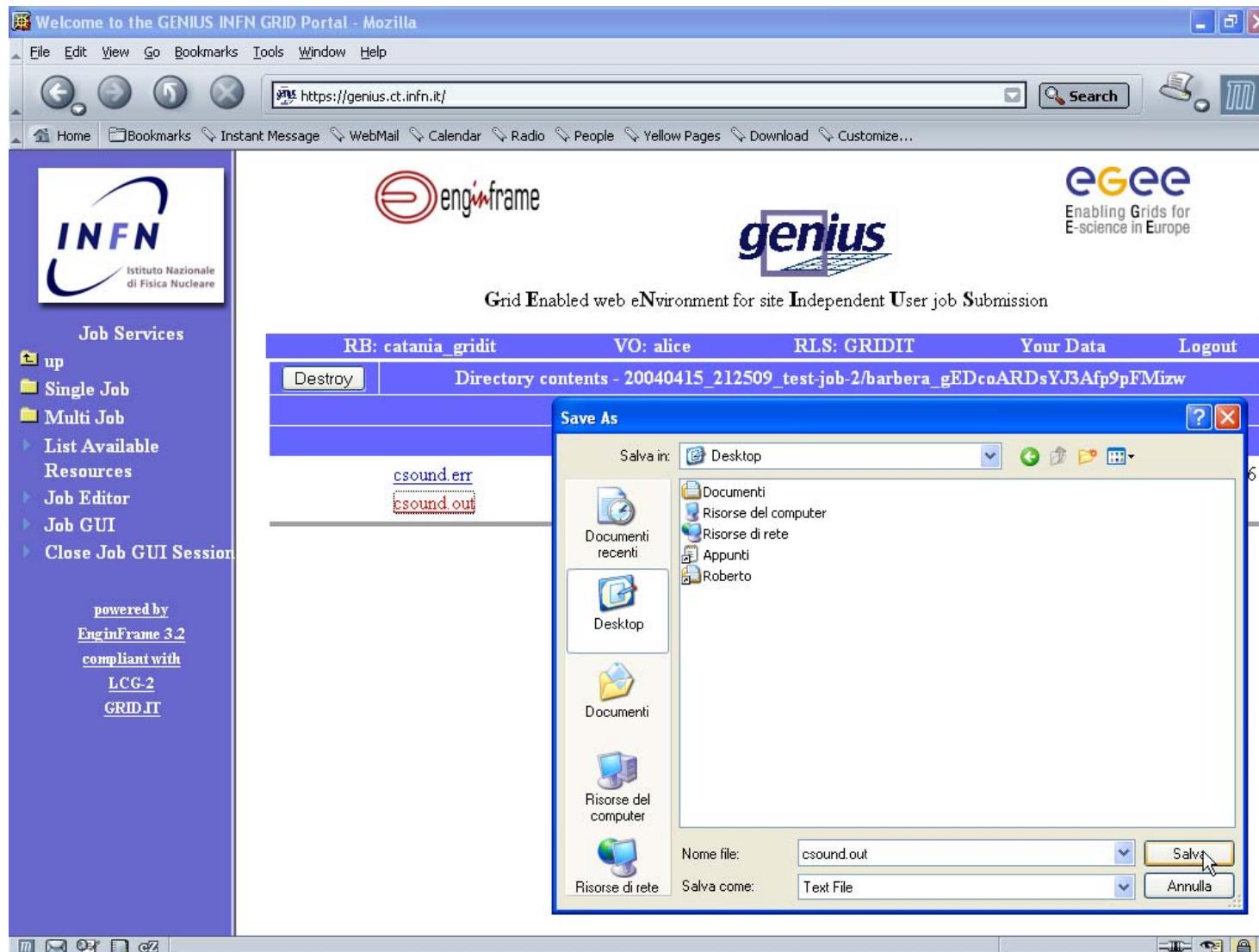
RealOne Player

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https://genius.ct.infn.it/ef/download/csound.aiff?spooler=spooler:///opt/gen...olers/tmp1082057707024.ef&file=/barbera_gEDcoARDsYJ3Afp9pFMizw/csound.aiff

GENIUS data spooler (2/2)

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GENIUS RLS browsing

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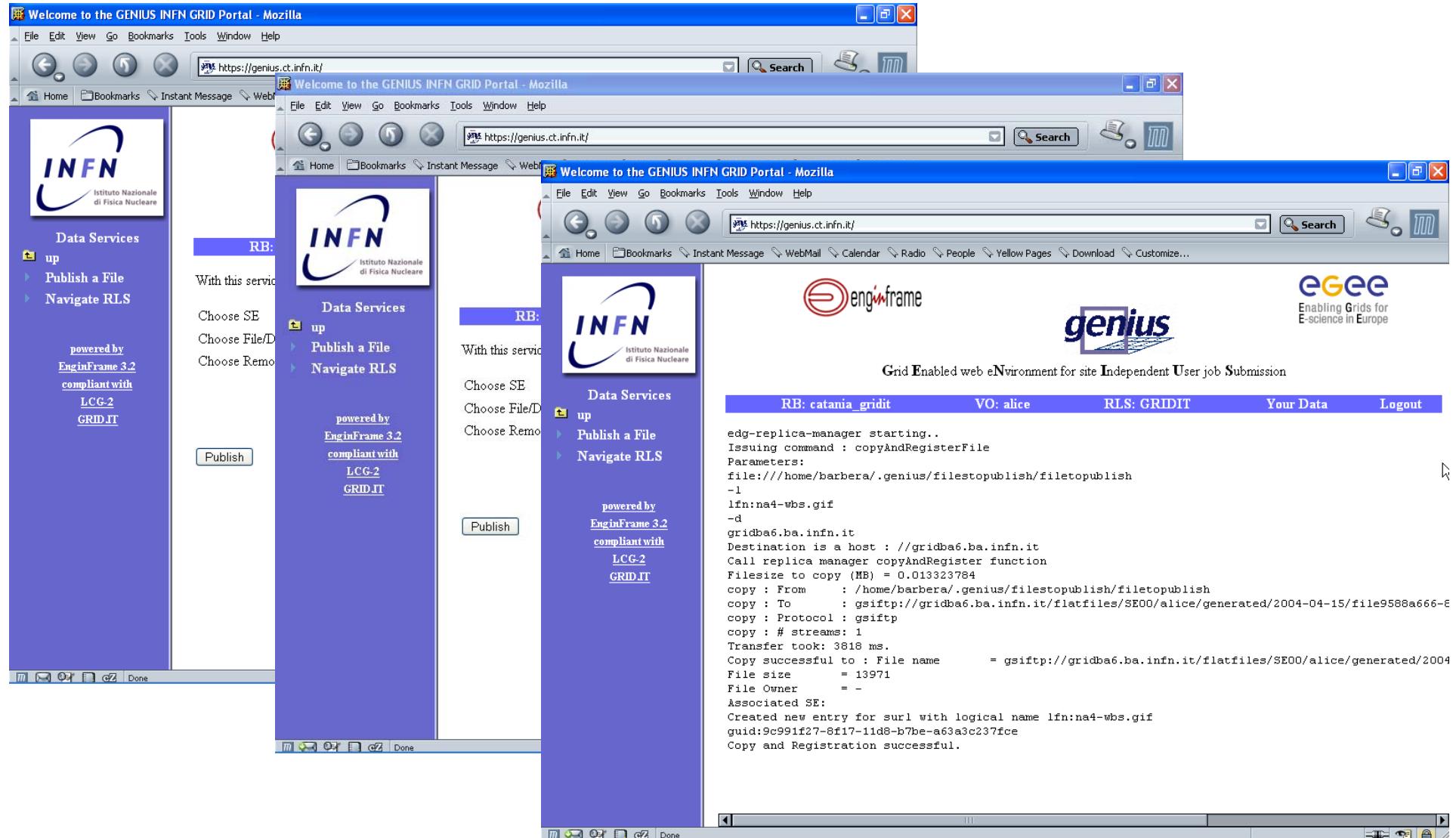
The image displays two side-by-side screenshots of the GENIUS INFN GRID Portal interface, specifically showing the RLS (Remote Location Selection) browsing feature.

Screenshot 1 (Left): Shows the initial RLS browsing view. The left sidebar lists "Data Services", "up", "Publish a File", and "Navigate RLS". The right sidebar shows the "powered by" information: EngInFrame 3.2, compliant with LCG-2, and GRID-IT. The main area displays a list of logical files under the current directory "/". The file "alroot.test.jdl" is highlighted with a cursor. The URL in the browser bar is <https://genius.ct.infn.it/>.

Screenshot 2 (Right): Shows the same interface after selecting the "alroot.test.jdl" file. A message at the top states: "You have selected the file alroot.test.jdl. This logical file corresponds to the following SRM(s). Click on the SRM(s) to view its properties." Below this, a link is shown: <sfn://grid005.ct.infn.it/flatfiles/alice/generated/2004-04-15/filebe6df-8ef3-11d8-9c65-b4d90db37641>. The URL in the browser bar is https://genius.ct.infn.it/grid.navigate.rls?url=https://infn.grid.navigate.rl-file-view&option=eda_file_view&eda_file_view=alroot.test.jdl.

GENIUS data publication

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GENIUS data replication

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The figure consists of four screenshots of the GENIUS INFN GRID Portal interface, arranged in a 2x2 grid. Each screenshot shows a Mozilla browser window with the URL <https://genius.ct.infn.it>.

- Screenshot 1:** Shows the initial job submission screen. It displays the 'Data Services' menu (up, Publish a File, Navigate RLS), the 'eGEE' logo, and the 'genius' logo. The main area shows 'Grid Enabled web eNvironment for site Independent User job Submission'. It has tabs for RB: catania.gridit, VO: alice, RLS: GRIDIT, Your Data, and Logout. A message says: 'You have selected the file `alice/test.pdf`. Click on the SRM(s) to replicate it.' Below is the command: `sfn://grid005.ct.infn.it/filestore/alice/generated/2004-04-15/file4bec6df$ef3-11d8-9c65-b4d90db37641`.
- Screenshot 2:** Shows the selection of source and destination storage elements. The 'FROM SE' dropdown lists various storage elements, and the 'TO SE' dropdown also lists them. A 'Replicate' button is visible.
- Screenshot 3:** Shows the execution of the replication command. The terminal output shows: 'edg-replica-manager starting...', 'Issuing command : /usr/bin/edg-replicaFile', 'Parameters: /tmp/alice/test.jdl -d', 'grid005.be.infn.it', 'Destination is a mount point /grid005.be.infn.it', 'Calling generic replicateFile function', 'Finding best replica of : /tmp/alice/test.jdl', 'Best' with respect to : grid005.be.infn.it', 'Filesize to copy (MB) : 0.001083374', 'copy : From : /grid005.ct.infn.it/filestore/alice/generated/2004-04-15/file4bec6df\$ef3-11d8-9c65-b4d90db37641', 'copy : To : ghttp://grid005.ct.infn.it/filestore/SE00/alice/generated/2004-04-15/file2d3dece-8f18-11d8-937c-ed3a3d76460', 'copy : Protocol : ghttp', 'copy : # streams: 1', 'Total size to copy : 1136', 'Copy successful to : file name = ghttp://grid005.ct.infn.it/filestore/SE00/alice/generated/2004-04-15/file2d3dece-8f18-11d8-937c-ed3a3d76460', 'File size = 1136', 'File Owner = ', 'Last modified SE: sfn://grid005.be.infn.it/filestore/SE00/alice/generated/2004-04-15/file2d3dece-8f18-11d8-937c-ed3a3d76460', 'Replication successful.'
- Screenshot 4:** Shows the confirmation of the replicated file. It displays the same interface as Screenshot 1, but the message now says: 'You have selected the file `alice/test.pdf`. This logical file corresponds to the following SRM(s). Click on the SRM(s) to view its properties.' Below is the command: `sfn://grid005.ct.infn.it/filestore/alice/generated/2004-04-15/file4bec6df$ef3-11d8-9c65-b4d90db37641`. A note indicates: '◎ = The Best Replica'.

GENIUS information services

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Info Services

- up
- > Check Testbed
- > Explore Testbed

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compliant with
LCG-2
GRID.IT

ibm140.cnaf.infn.it : 2170

- ↳ Mds-vo-name=local,o=grid
- ↳ Mds-Vo-name=infn
 - ↳ Mds-Vo-name=infn-bari
 - ↳ Mds-Vo-name=infn-bologna
 - ↳ Mds-Vo-name=infn-cagliari
 - ↳ Mds-Vo-name=infn-catania
 - ↳ GlueCESEBindGroupCEUniqueID=grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite
 - ↳ GlueCESEBindGroupCEUniqueID=grid012.ct.infn.it:2119/jobmanager-lcgpbs-long
 - ↳ GlueCESEBindGroupCEUniqueID=grid012.ct.infn.it:2119/jobmanager-lcgpbs-short
 - ↳ GlueCEUniqueID=grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite
 - ↳ GlueCEUniqueID=grid012.ct.infn.it:2119/jobmanager-lcgpbs-long
 - ↳ GlueCEUniqueID=grid012.ct.infn.it:2119/jobmanager-lcgpbs-short
 - ↳ GlueClusterUniqueID=grid012.ct.infn.it
 - ↳ GlueSEUniqueID=grid005.ct.infn.it
 - ↳ GlueSLUniqueID=grid005.ct.infn.it
 - ↳ GlueServiceURI=ldap://grid005.ct.infn.it:2136
 - ↳ in=grid012.ct.infn.it/steinfo
 - ↳ Mds-Vo-name=infn-ferrara
 - ↳ Mds-Vo-name=infn-lnl
 - ↳ Mds-Vo-name=infn-napoli

LDAP Explorer - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://genius.ct.infn.it/LDAPExplorer/index.php?host=ibm140.cnaf.infn.it&port=2170&dn=GlueCEUniqueID%3Dgrid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite

GlueCEUniqueID = grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite

GlueCEInfoGatekeeperPort = 2119

GlueCEInfoHostName = grid012.ct.infn.it

GlueCEInfoLRMSType = pbs

GlueCEInfoLRMSVersion = OpenPBS_2.4

GlueCEInfoTotalCPUs = 112

GlueCEStateEstimatedResponseTime = 0

GlueCEStateFreeCPUs = 100

GlueCEStateRunningJobs = 0

GlueCEStateStatus = Production

GlueCEStateTotalJobs = 0

GlueCEStateWaitingJobs = 0

GlueCEStateWorstResponseTime = 0

GlueCEPolicyMaxCPUTime = 172800

GlueCEPolicyMaxRunningJobs = 4

GlueCEPolicyMaxTotalJobs = 999999

GlueCEPolicyMaxWallClockTime = 259200

GlueCEPolicyPriority = 1

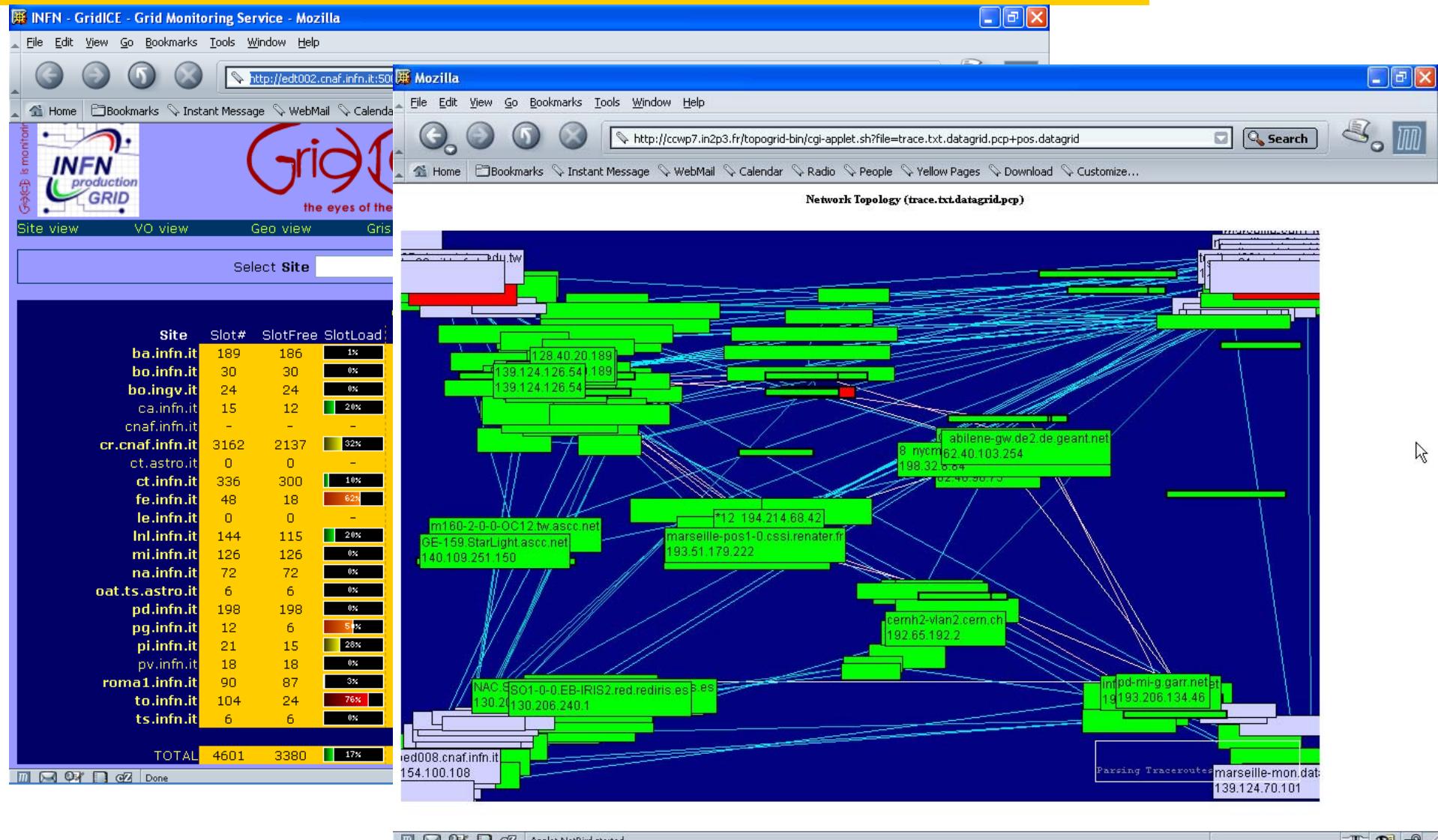
GlueCEAccessControlBaseRule = VO:alice

GlueCEAccessControlBaseRule = VO:alice

New/Add Modify Delete Rename Reset

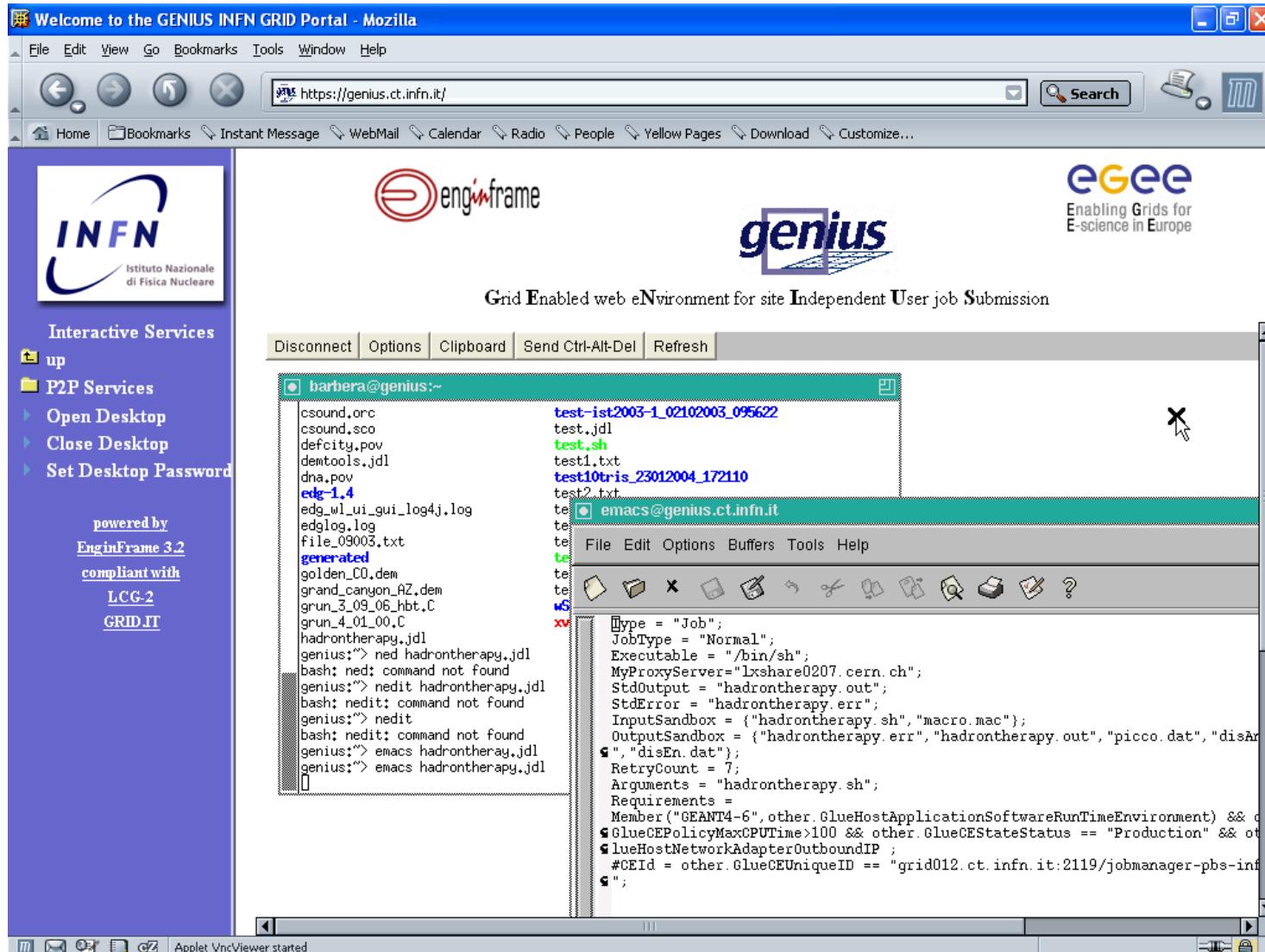
GENIUS monitoring services

eGEE
Enabling Grids for
E-science in Europe



GENIUS interactive services

eGEE
Enabling Grids for
E-science in Europe



GENIUS P2P services

eGEE
Enabling Grids for
E-science in Europe

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://genius.ct.infn.it/

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

INFN
Istituto Nazionale
di Fisica Nucleare

P2P Services
up
Register
Access

powered by
[EnginFrame 3.2](#)
compliant with
[LCG-2](#)
[GRID.II](#)

enginframe

genius

eGEE
Enabling Grids for
E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

RB: catania_gridit VO: alice RLS: GRIDIT Your Data Logout

GENIUS Chat Room for ALICE VO

Options Clear Font: monospaced 12 Users: 1

**
** Welcome on Chat Everywhere
** If you have any problem with this server, send a mail
** to roberto.barbera@ct.infn.it.
** You may type /help to see the available commands
**
<barbera> hello everyone !

barbera <-Type here

Powered by [Chat Everywhere](#)

Applet Chat started

GENIUS for PDA (1/2)

Home Page

Grid Enabled web eNvironment for site
Independent User job Submission
Welcome to GENIUS 2.7.0
Click to Enter

Known Limitations for PDA **Important Notice**
New Grid Authentication with MyProxy

Services

[File Services](#)
[Security Services](#)
[Job Services](#)
[Data Services](#)
[Info Services](#)
[Monitoring Services](#)
[Change RB](#)
[Change VO](#)
[Change RLS](#)
[Browse Statistics](#)
[Logout](#)

Remote file browsing

View a File

With this service you may view a file in your home directory.

File to
View
or
Select
File to
View
▼ **View** aliroot.jdl
alice_rc_hbt_production.conf
alice_rc_hbt_production_mss.conf
alice_rc_mss.conf
authentication.log
csound.jdl
csound.orc

Remote file inspection

```
File: /home/barbera/aliroot.jdl
Type = "Job";
JobType = "Normal";
Executable = "/bin/sh";
MyProxyServer = "lxshare0207.cern.ch";
StdOutput = "aliroot.out";
StdError = "aliroot.err";
InputSandbox = {"script-short.sh"};
OutputSandbox = {"aliroot.err", "aliroot.out"};
RetryCount = 7;
Arguments = "script-short.sh";
AliceSoftware = Member("ALICE-3.0");
MaxCPUTime = other.GlueCEPolicyMaxCPUTime;
MaxMemory = other.GlueHostMainMemory;
```

GENIUS for PDA (2/2)

Job submission

This screenshot shows the 'Job Submission' page of the GENIUS interface. It features a dropdown menu for selecting a JDL file. The current selection is 'Next' (highlighted in blue), which corresponds to the file '/home/barbera/csound.jdl'. Below the dropdown, there are several other JDL files listed: 'aliroot.jdl', 'hostname.jdl', 'hostname1.jdl', 'interactive.jdl', and 'powray_defcity.jdl'. At the bottom of the page are standard browser navigation buttons.

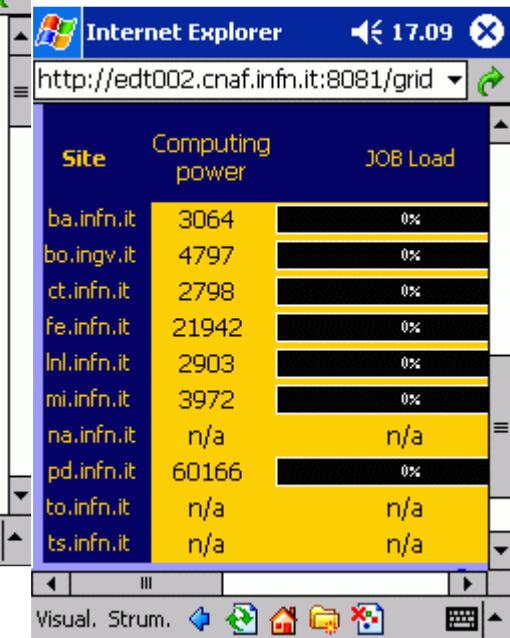
Job monitoring

This screenshot shows the 'Job Queue' monitoring page. It displays a table with one row of data. The columns are labeled '#', 'Job ID', 'JDL Name', 'Last Update', 'Destination', 'Status', and 'Action'. The job details are as follows:
4
Job ID bYqRSTN1oW6xOuwzVkRG
JDL Name /home/barbera/hostname.jdl
Last Update Thu Oct 9 07:52:14 2003
Destination testbed001.cnaf.infn.it:2111
Status Done
Exit Code 0
Action Get Output

RC browsing

This screenshot shows the 'RC browsing' interface. It displays a list of files in the current directory, which is '/'. The files listed are: daniprova, data.out, data.out1, data.out2, data.out3, datatest, datatest1, edglog.log, and hostname.out. The interface includes standard browser navigation buttons at the bottom.

GridICE integration



GENIUS for cell phone

eGEE
Enabling Grids for
E-science in Europe

INFN
engframe
genius Data GRID

Grid Enabled web eNvironment for site Independent User job Submission

Welcome to GENIUS 2.7.0

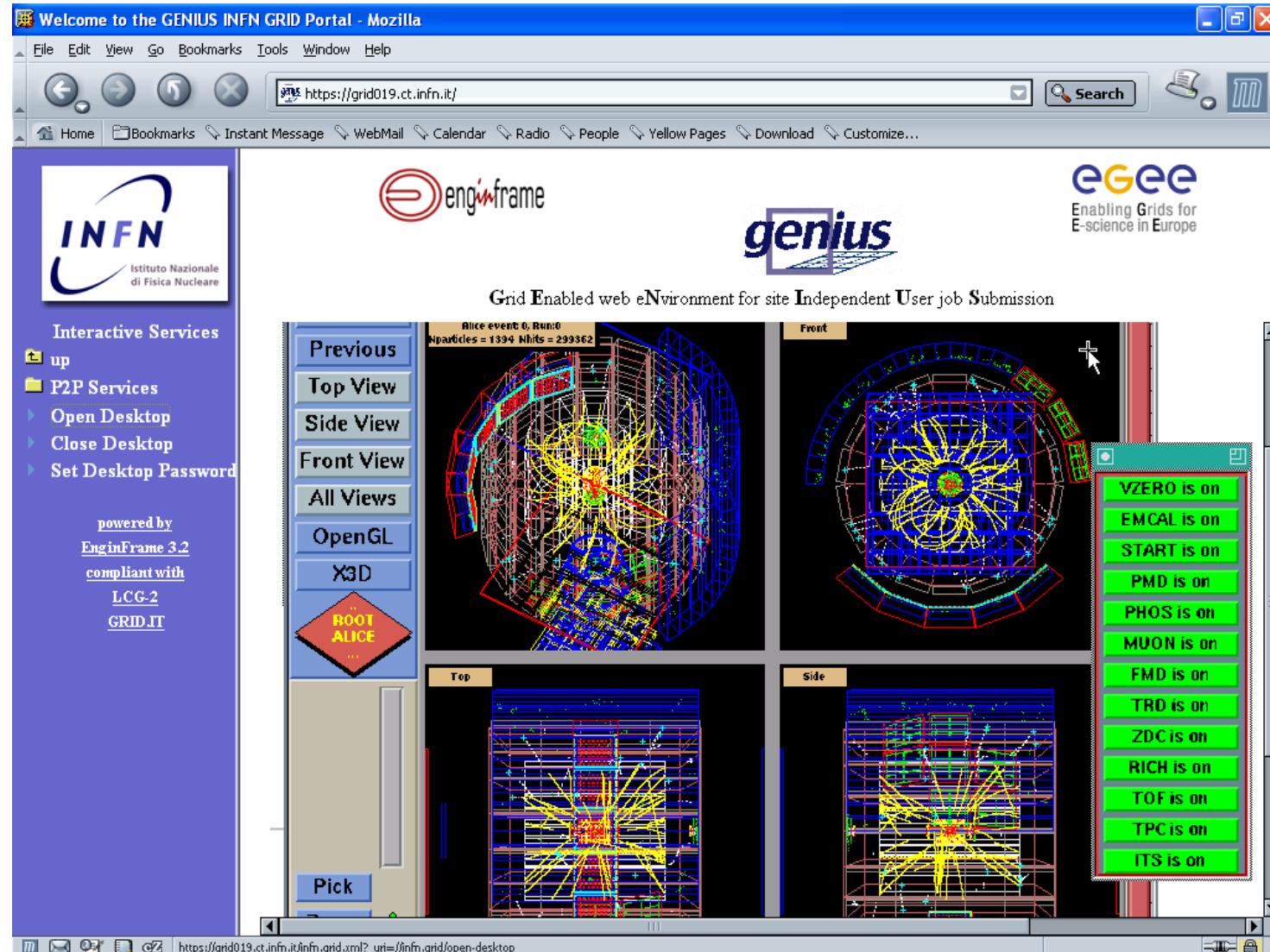
[Click to Enter](#)

Known Limitations for PDA

File Services
Security Services
Job Services
Data Services
Info Services
VO Services
Monitoring Services
Change RB
Change VO
Change RLS
Logout

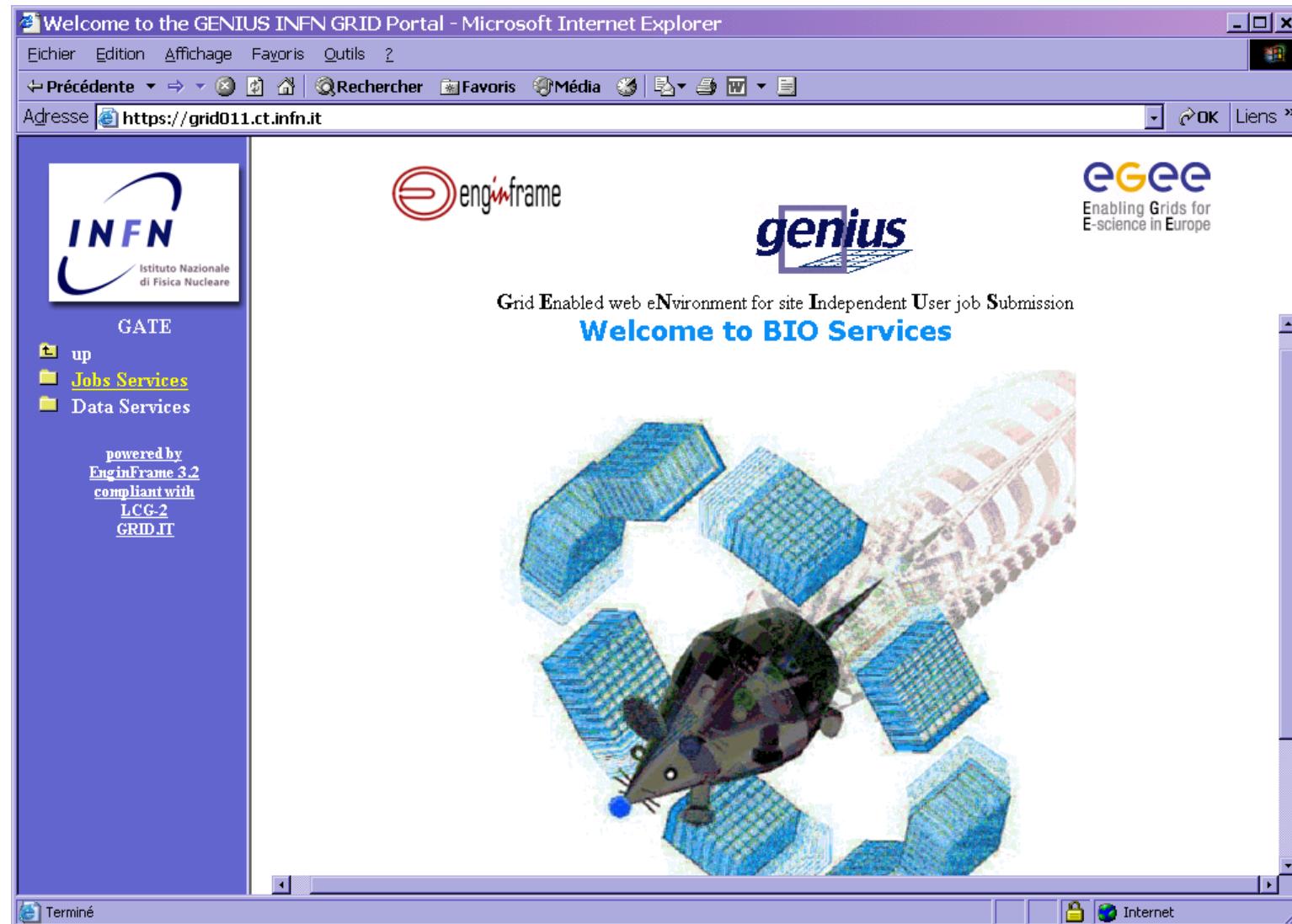
GENIUS Applications: ALICE

eGEE
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GENIUS Applications: GATE (1/3)

eGEE
Enabling Grids for
E-science in Europe



GENIUS Applications: GATE (2/3)

Welcome to the GENIUS INFN GRID Portal - Microsoft Internet Explorer

Echier Edition Affichage Favoris Outils ?
Précédente ▶ Rechercher Favoris Média OK Liens »
Adresse https://grid011.ct.infn.it

genius
Grid Enabled web eNvironment for site Independent User job Submission

RB: catania_gridit VO: bio RLS: GRIDIT Your Data Logout

Create GATE files

With this service it will be created/checked your GATE Repository and Settings

Repository Name: Demo

InputSandbox Files (3 files):
/home/maigne/JOBs/jobGate_5/re
/home/maigne/JOBs/jobGate_5/re
Select...
Clean

InputData lfn:
macro (.mac): /home/maigne/GATE/n Select...

Number of Partitions: 5

Status Files (=Number of Partitions):
/home/maigne/GATE/STATUS/status
/home/maigne/GATE/STATUS/status
/home/maigne/GATE/STATUS/status
/home/maigne/GATE/STATUS/status
/home/maigne/GATE/STATUS/status
Select...
Clean

Create

Terminé Internet

The screenshot shows a Microsoft Internet Explorer window displaying the GENIUS INFN GRID Portal. The portal is titled "Welcome to the GENIUS INFN GRID Portal - Microsoft Internet Explorer". The interface includes a navigation bar with links like "Echier", "Edition", "Affichage", "Favoris", "Outils", "Précédente", "Rechercher", "Favoris", "Média", "OK", and "Liens". The address bar shows the URL "https://grid011.ct.infn.it". The main content area features logos for INFN (Istituto Nazionale di Fisica Nucleare), Enginframe, and eGEE (Enabling Grids for E-science in Europe). The title "Grid Enabled web eNvironment for site Independent User job Submission" is displayed. A sidebar on the left lists "Jobs Settings" with options like "up", "Create GATE files", "Remove GATE files", and "Make JDLs". Below this, a note states "powered by EnginFrame 3.2 compliant with LCG-2 GRID.IT". The main form for "Create GATE files" has fields for "Repository Name" (set to "Demo"), "InputSandbox Files" (listing two paths: "/home/maigne/JOBs/jobGate_5/re" and another identical one), "InputData lfn" (macro path: "/home/maigne/GATE/n"), "Number of Partitions" (set to "5"), and "Status Files" (listing five paths related to "/home/maigne/GATE/STATUS/status"). A "Create" button is at the bottom. The status bar at the bottom of the browser window shows "Terminé" and "Internet".

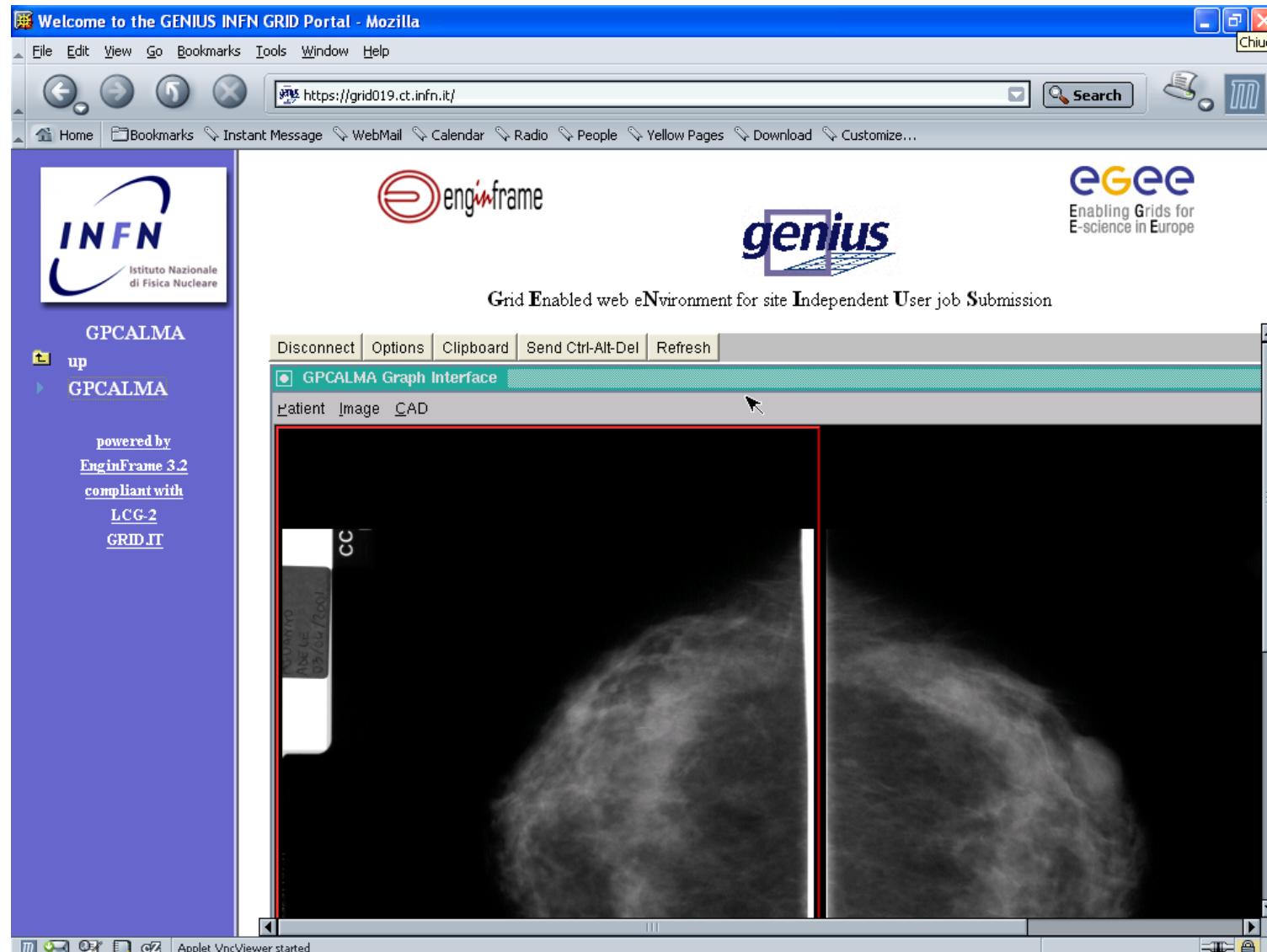
GENIUS Applications: GATE (3/3)

The screenshot shows a Microsoft Internet Explorer window displaying the GENIUS INFN GRID Portal. The title bar reads "Welcome to the GENIUS INFN GRID Portal - Microsoft Internet Explorer". The menu bar includes "Fichier", "Edition", "Affichage", "Favoris", "Outils", and a question mark icon. The toolbar includes "Précédente", "Suivante", "Rechercher", "Favoris", "Média", and other icons. The address bar shows the URL "https://grid011.ct.infn.it". The main content area features the INFN logo, the EnginFrame logo, and the eGEE logo. A table lists five submitted jobs:

Job ID	Last update	Destination	Status
https://grid014.ct.infn.it:9000/gKL5BHkh3nllT26wiCnnKg	Fri Apr 16 08:07:32 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Scheduled
https://grid014.ct.infn.it:9000/EoY3T3MxJEFOnUAB8MVQDQ	Fri Apr 16 08:06:37 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Scheduled
https://grid014.ct.infn.it:9000/hbtma7zW1XMTKpOTdg65tQ	Fri Apr 16 08:05:53 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Scheduled
https://grid014.ct.infn.it:9000/ApwHH5rl9KLHecxhjoXeTQ	Fri Apr 16 08:05:19 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Scheduled
https://grid014.ct.infn.it:9000/gKN99_RfaThA5stPsxkYUQ	Fri Apr 16 08:07:54 2004	grid012.ct.infn.it:2119/jobmanager-lcgpbs-infinite	Running

GENIUS Applications: GPCALMA

eGEE
Enabling Grids for
E-science in Europe



GENIUS present status

- Current implementation of **GENIUS** includes more than 100 services. Among them:
 - **grid authentication with MyProxy !**
 - **several Resource Brokers, VO's and RLS available;**
 - **full support for “interactive” and “parallel” multi-jobs**
 - **web guided job description, submission and monitoring (in collaboration with DATAMAT)**
 - **Web guided workflow description (in collaboration with GridLab)**
 - **P2P services available**
 - **PDA and cell phone versions available**
 - **Transparently compliant with EDG2.1, LCG2 and Grid.it middlewares/VO's**
 - **Interfaced to many High Energy Physics, Biomed and Generic Applications**

Conclusions and outlook for GENIUS



- GENIUS is “well on track” and seems to have a recognized present and a promising future
- It tries to merge the concepts of “user portal” and “science portal” and can easily evolve into a graphic “problem solving environment”
- It is the most advanced suite “on the market” for transparent access to several grid middlewares
- GENIUS is not only intended for a scientist day-by-day use. It has expressly been included in the EU EGEE Proposal and Technical Annex as a dissemination and tutoring tool for non expert users and as the grid portal for generic applications

The GILDA home page (<http://gilda.ct.infn.it>)

eGEE
Enabling Grids for
E-science in Europe

GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

http://gilda.ct.infn.it/ Search

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

INFN GRID

GILDA
GRID INFN LABORATORY for
DISSEMINATION ACTIVITIES

eGEE
Enabling Grids for
E-science in Europe

TESTBED **GRID DEMONSTRATOR** **1) CERTIFICATION AUTHORITY** **2) VIRTUAL ORGANIZATION** **3) GRID TUTOR** **MONITORING** **CONTACTS**

GILDA (Grid Infrastruttura per la Laboratorio di Disseminazione delle Attività)

► **Instructions for users** is a virtual laboratory to demonstrate/disseminate the strong capabilities of grid computing.

► **Instructions for sites**

► **Useful links** GILDA consists of the following elements:

► **Usage Statistics**

- the GILDA Testbed: a series of sites and services (Resource Broker, Information Index, Replica Location Server, Monitoring tool, Computing Elements, and Storage Elements) spread all over Italy on which the last version of the INFN Grid middle-ware is installed;
- the Grid Demonstrator: a customized version of the full GENIUS web portal, jointly developed by INFN and NICE, from where **everybody** can submit a pre-defined set of applications to the GILDA Testbed;
- the GILDA Certification Authority: a fully functional Certification Authority which issues 14-days X.509 certificates to everybody wanting to experience grid computing on the GILDA Testbed;
- the GILDA Virtual Organization: a Virtual Organization gathering all people wanting to experience grid computing on the GILDA Testbed;
- the Grid Tutor: based on a full version of the GENIUS web portal, to be used only during grid tutorials;
- the monitoring system: a versatile monitoring system completely based on GridICE, the grid monitoring tool developed by INFN;
- the GILDA mailing list: gilda@infn.it, also archived on the web [here](#).

GILDA is an activity of the Italian Istituto Nazionale di Fisica Nucleare (INFN) carried on in the context of both the Italian INFN Grid and European eGEE Projects.

The GILDA Testbed

eGEE
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GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

http://gilda.ct.infn.it/

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INFN GRID GILDA eGEE Enabling Grids for E-science in Europe

GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

HOME TESTBED GRID DEMONSTRATOR 1 CERTIFICATION AUTHORITY 2 VIRTUAL ORGANIZATION 3 GRID TUTOR MONITORING CONTACTS

► Grid tutorials
► Instructions for users
► Instructions for sites
► Useful links

► Usage Statistics



Grid services

This is a table of the general Grid Services nodes running.

SERVICE	HOST
Resource Broker (RB)	grid004.ct.infn.it

GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

http://gilda.ct.infn.it/

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INFN GRID GILDA eGEE Enabling Grids for E-science in Europe

GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

HOME TESTBED GRID DEMONSTRATOR 1 CERTIFICATION AUTHORITY 2 VIRTUAL ORGANIZATION 3 GRID TUTOR MONITORING CONTACTS

► Grid tutorials
► Instructions for users
► Instructions for sites
► Useful links

► Usage Statistics



Grid services

This is a table of the general Grid Services nodes running.

SERVICE	HOST
Resource Broker (RB)	grid004.ct.infn.it
Information Index (BDII)	grid017.ct.infn.it
Top MDS	grid018.infn.it
LDAP (for GILDA VO's)	grid-vo.cna.infn.it:10389
GridICE	alifarm7.ct.infn.it:50080
Replica Location Service (RLS)	grid008.ct.infn.it

The GILDA Certification Authority (1/2)

The screenshot shows a Mozilla Firefox browser window with the title bar "GILDA Certification Authority - Mozilla". The address bar contains "GILDA http://gilda.ct.infn.it/CA/". The main content area displays the GILDA logo and the heading "The GILDA Certification Authority". To the left, a sidebar lists links: "General information", "GILDA CA certificate", "Request a personal certificate", "Request an account", "Request a host certificate", "Check a personal certificate", and "Certificate Revocation List". The main text area explains the GILDA CA issues temporary certificates compliant with X.509, noting no identity check is performed. It provides contact information for Giuseppe Platania at INFN Catania, including address, phone, fax, and email. It also instructs users on how to inspect and request certificates.

The GILDA Certification Authority (GILDA CA) issues temporary (two weeks) personal public key certificates (compliant with the X.509 standard) in order to access the GILDA Testbed.

Absolutely no identity check is going to be performed on the requester, so the personal certificates issued by the GILDA CA have absolutely no value on any real production Grid Infrastructure.

The GILDA Certification Authority is managed by:

Giuseppe Platania
INFN Catania
Via S. Sofia, 64
I-95123 Catania
ITALY

e-mail: gilda-ca@ct.infn.it
Tel: +39 095 378 5469
Fax: +39 095 378 5231

In order to inspect the GILDA CA certificate and/or save it in your web browser (necessary to validate your personal certificate) click on **GILDA CA certificate** in the left part of this page.

In order to request a certificate, click on **Request a personal certificate** in the left part of this page.

If you already have a trusted personal certificate, click on **Request an account**, in the left part of this page, to request an account. Your personal certificate must be included in your browser before doing this.

In order to request a host certificate, click on **Request a host certificate** in the left part of this page.

The GILDA Certification Authority (2/2)

Request a GILDA CA personal certificate - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://gilda.ct.infn.it/CA/mgt/restricted/ucert.php

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

Request an account Request a host certificate Check a personal certificate Certificate Revocation List

In order to correctly generate a request it is mandatory to fill all fields in the form below. Please, double check the correctness of the e-mail address that you are going to provide since no verification will be performed by the server.

The password you are prompted about in the form below is the password of your personal account on the GENIUS Portal from where you will access the GILDA Testbed and it is NOT the passphrase of your personal certificate.

When the certificate will be signed by the GILDA CA manager you will be notified by e-mail with the instructions to download your GILDA CA personal certificate and access the GILDA Testbed.

Institute/University/Company:	INFN Catania
First name and last name:	Roberto Barbera
Account username (max 8 characters; only non-accented letters and digits are allowed, both lowercase and uppercase):	barbera
Account password (only non-accented letters and digits are allowed, both lowercase and uppercase):	AAAAAAA
Confirm account password (only non-accented letters and digits are allowed, both lowercase and uppercase):	AAAAAAA
E-mail:	roberto.barbera@ct.infn.it
KeySize:	2048 (High Grade) <input type="button" value=""/>

Mozilla

File Edit View Go Bookmarks Tools Window Help

https://gilda.ct.infn.it/CA/mgt/restricted/srvreq.php

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

The GILDA Certification Authority

GRID INFN LABORATORY FOR DISSEMINATION ACTIVITIES

General information Request a GILDA host certificate

GILDA CA certificate Request a personal certificate

Request an account Request a host certificate

Check a personal certificate Certificate Revocation List

When the certificate will be signed by the GILDA CA manager you will be notified by e-mail with the instructions to download your GILDA host certificate.

Institute/University/Company:	INFN Catania
Full server hostname (do not use generic names from Internet Providers):	grid-ce.ct.infn.it
E-mail address of server administrator (do not use generic addresses but only personal ones):	roberto.barbera@ct.infn.it

The GILDA Virtual Organization

eGEE
Enabling Grids for
E-science in Europe

GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

INFN GRID

HOME TESTBED 1) CERTIFICATION AUTHORITY 2) REGISTER to the GILDA VO 3) Go to the GRID DEMONSTRATOR GENIUS PORTAL MONITORING CONTACTS

GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

INFN

► Grid tutorials
► Instructions for users
► Instructions for sites
► Useful links
► Usage Statistics

Registration Form

Nome e cognome / First name and family name: Roberto Barbera

Istituto/Institute: GILDA-INFN Catania

Telefono/Phone number: +390951234567

E-mail: roberto.barbera@ct.infn.it

Selezione VO / VO choice:

La sottomissione della domanda implica l'obbligo ad un corretto uso delle risorse messe a disposizione dell'utente.

Clear Form Register

Done

The GILDA monitoring system (1/3)

The screenshot shows a Mozilla browser window displaying the GILDA Testbed website. The address bar shows "GILDA http://gilda.ct.infn.it/". The page header includes the INFN GRID logo, the GILDA logo, and the eGEE logo. The menu bar has options like File, Edit, View, Go, Bookmarks, Tools, Window, Help. The toolbar includes Back, Forward, Stop, Home, Search, and other navigation icons. The main content area features the GILDA logo, the "GRID INFN LABORATORY for DISSEMINATION ACTIVITIES" text, and a navigation menu with links: HOME, TESTBED, 1) CERTIFICATION AUTHORITY, 2) REGISTER to the GILDA VO, 3) Go to the GRID DEMONSTRATOR, GENIUS PORTAL, MONITORING, and CONTACTS. On the left, there's a sidebar with links: Grid tutorials, Instructions for users, Instructions for sites, Useful links, and Usage Statistics. The central part of the page shows a "GridICE" interface with tabs for VO view, Geo view, Gris view, and buttons for Select Site, and/or Role, Show. Below this is a table titled "Computing Resources" and "Storage Resources" showing resource usage for sites ct.infn.it and pd.infn.it. The table includes columns for Site, Slot#, SlotFree, SlotLoad, RunJob, WaitJob, Power, CPU#, CPULoad, Available, Total, and %. The bottom of the page shows the date and time "hu, 15 Apr 2004 22:18:13 +0200" and a link to the "GridICE Homepage".

Site	Computing Resources				Storage Resources						
	Slot#	SlotFree	SlotLoad	RunJob	WaitJob	Power	CPU#	CPULoad	Available	Total	%
ct.infn.it	48	48	0%	0	0	14418	18	0%	1.8 Tb	1.9 Tb	3%
pd.infn.it	12	12	0%	0	0	3984	4	0%	499.3 Gb	499.3 Gb	0%
TOTAL	60	60	0%	0	0	18402	22	0%	2.3 Tb	2.4 Tb	2%

The GILDA monitoring system (2/3)

GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

INFN GRID

GILDA

GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

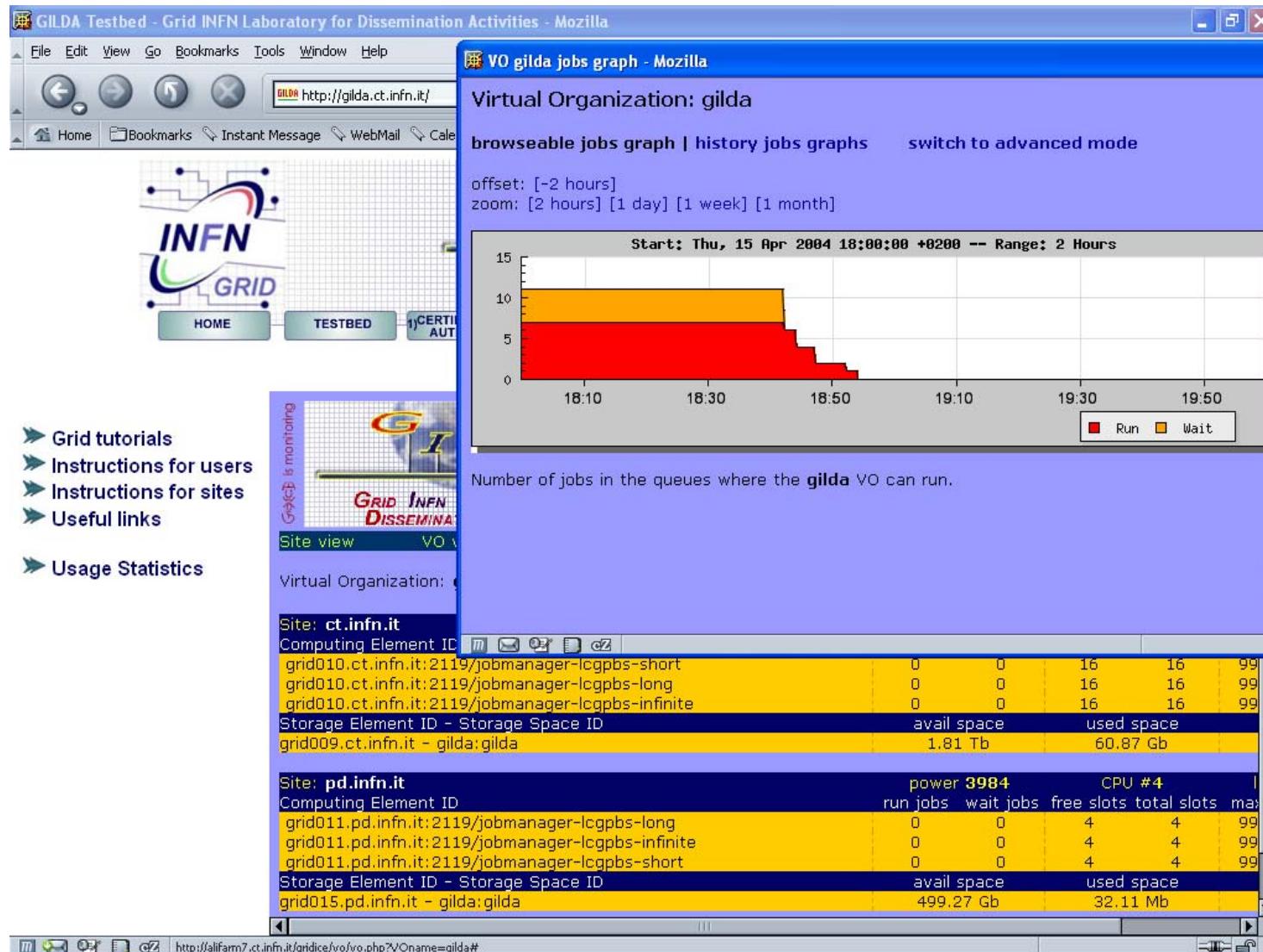
eGEE Enabling Grids for E-science in Europe

HOME TESTBED 1) CERTIFICATION AUTHORITY 2) REGISTER to the GILDA VO 3) Go to the GRID DEMONSTRATOR GENIUS PORTAL MONITORING CONTACTS

➤ Instructions for users
➤ Instructions for sites
➤ Useful links
➤ Usage Statistics

grid017.ct.infn.it	BD	UpTime: 38-7:30	Reg.OpenFiles.: 223	Socket: TCP(4)	UDP(9)	FS
grid004.ct.infn.it	RB	UpTime: 22-4:33	Reg.OpenFiles.: 3499	Socket: TCP(17)	UDP(13)	FS
	Process	Status	Instances	CPU	Memory	
	Process Name	Inst#	First	Last	1Max	1Avg
broker	condorg-scheduler	S	1	6-11:55	6-11:55	0 0 0 0 0 0
	condor-master	S	1	6-11:55	6-11:55	0 0 0 0 0 0
	fmon-agent	S	1	22-6:18	22-6:18	0 0 0 0 0 0
	ftp-server	S	1	6-12:35	6-12:35	0 0 0 0 0 0
	job-controller	S	1	6-12:35	6-12:35	0 0 0 0 0 0
	local-logger	S	1	6-11:35	6-11:35	0 0 0 0 0 0
	local-logger-interlog	S	5	6-11:55	6-11:54	0 0 0 0 0 0
	logging-and-bookkeeping	S	11	6-11:15	0-0:6	0 0 0 0 0 0
	log-monitor	S	1	6-11:55	6-11:55	0 0 1 1 0 0
	network-server	S	21	6-11:55	6-11:55	0 0 1 1 0 0
proxy-renewal	S	2	6-11:54	6-11:54	0 0 0 0 0 0	
rdxprof	S	1	22-5:40	22-5:40	0 0 0 0 0 0	
workload-manager	S	4	6-11:55	6-11:55	0 0 1 1 0 0	
grid010.ct.infn.it	CE	UpTime: 6-11:1	Reg.OpenFiles.: 623	Socket: TCP(15)	UDP(20)	FS
grid009.ct.infn.it	SE	UpTime: 38-3:10	Reg.OpenFiles.: 1416	Socket: TCP(15)	UDP(16)	FS
grid019.ct.infn.it	WN	UpTime: 3-18:1	Reg.OpenFiles.: 172	Socket: TCP(5)	UDP(14)	FS
grid020.ct.infn.it	WN	UpTime: 6-10:1	Reg.OpenFiles.: 172	Socket: TCP(5)	UDP(14)	FS
grid021.ct.infn.it	WN	UpTime: 6-7:31	Reg.OpenFiles.: 169	Socket: TCP(5)	UDP(14)	FS
grid022.ct.infn.it	WN	UpTime: 6-5:1	Reg.OpenFiles.: 172	Socket: TCP(5)	UDP(14)	FS
grid023.ct.infn.it	WN	UpTime: 6-7:31	Reg.OpenFiles.: 169	Socket: TCP(5)	UDP(14)	FS

The GILDA monitoring system (3/3)



The GILDA Grid Demonstrator (1/3)

(<https://grid-demo.ct.infn.it>)

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/ Search

Home Bookmarks Instant Message WebMail Calendar Radio People Yellow Pages Download Customize...

INFN
Istituto Nazionale
di Fisica Nucleare

File Services
Security Services
Info Services
Monitoring Services
VO Services
Logout

powered by
EnginFrame 3.2
compliant with
LCG-2
GRID.IT

enginframe **genius** **eGEE**
Grid Enabled web eNvironment for site Independent User job Submission

Welcome to the **GILDA** Grid Demonstrator
powered by **GENIUS** 2.8.4

GILDA Grid Demonstrator User's Guide ([pdf](#))
[Credits](#)

This portal is best viewed with Mozilla 1.6.
Netscape (4.79, 4.80, 6 and higher) and Internet
Explorer (5 or higher) can also be used.
The use of any other web browsers could induce some
visualization mismatches and is not currently suggested.
GENIUS is based on Apache 1.3.29 and OpenSSL 0.9.7c.

Last update: Fri 16 Apr 2004

The GILDA Grid Demonstrator (2/3)

(<https://grid-demo.ct.infn.it/>)

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The screenshot shows a Mozilla browser window displaying the GENIUS INFN GRID Portal at <https://grid-demo.ct.infn.it/>. The page features a purple sidebar on the left with the INFN logo and links for File Services, Security Services, Info Services, Monitoring Services, VO Services (which is currently selected), and Logout. The main content area includes logos for enginframe, genius, and eGEE, followed by the text "Grid Enabled web eNvironment for site Independent User job Submission". A "Login to the GRID" form is present, asking for Username (demo07), MyProxy Passphrase (redacted), Validity (hours) (4), and a Login button. The bottom of the page has a footer bar with various icons and the text "powered by EnginFrame 3.2 compliant with LCG-2 GRID.IT".

The GILDA Grid Demonstrator (3/3)

(<https://grid-demo.ct.infn.it>)

The figure consists of two side-by-side screenshots of a Mozilla browser window displaying the GENIUS INFN GRID Portal. Both screenshots show the same page: "Grid Enabled web eNvironment for site Independent User job Submission".

Screenshot 1 (Left): A dropdown menu labeled "Group Type" is open, showing a list of options. The option "02. Virtual Reality" is highlighted with a mouse cursor. Below the dropdown, there is a "Next" button.

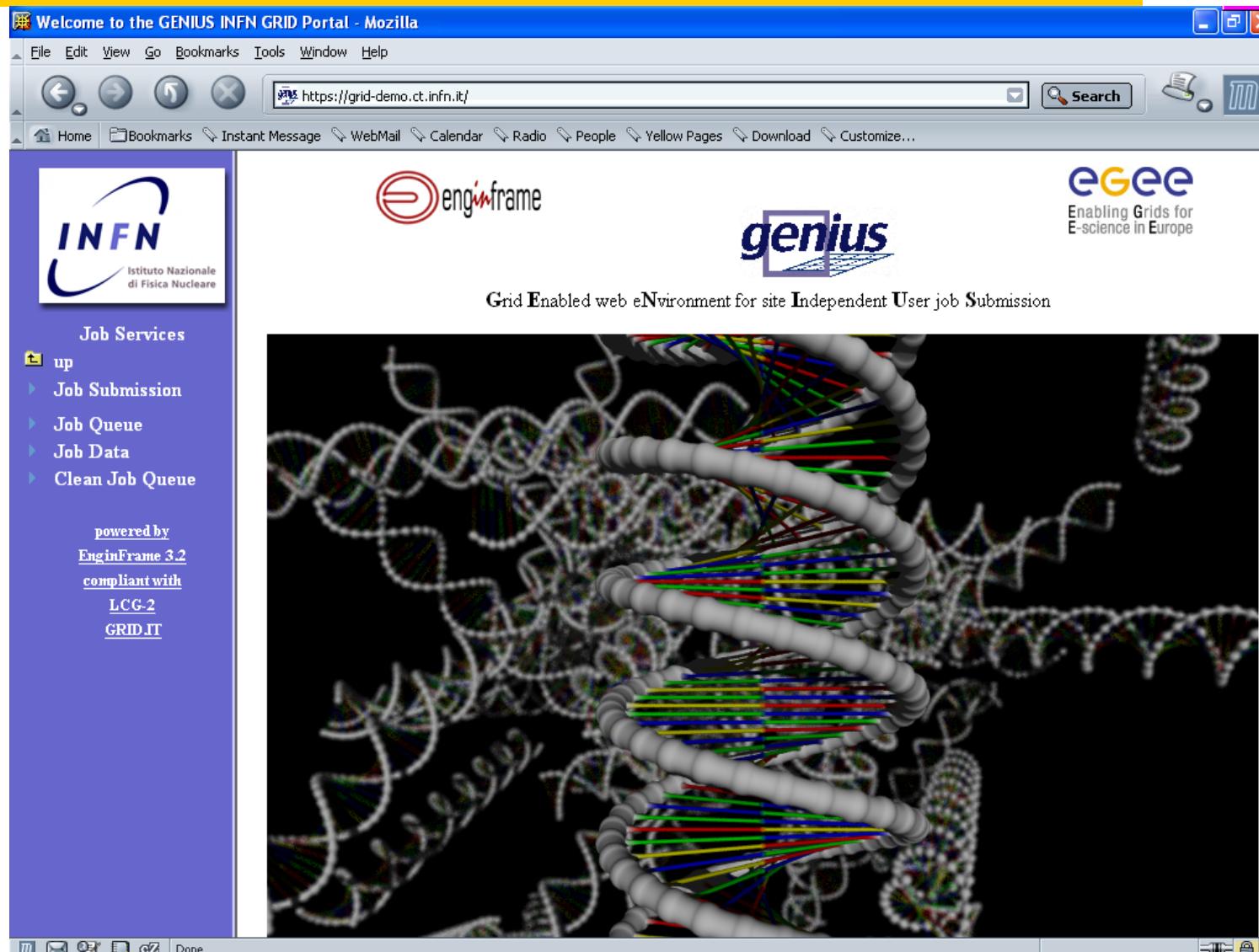
01. Sound Creation.
02. Virtual Reality.
03. 3D-Rendering of static images.
04. Cyclic Animation.
05. Simple examples.
06. ENVISAT Satellite MERIS applications.
07. ENVISAT Satellite ASAR applications.

Screenshot 2 (Right): A dropdown menu labeled "Job Type" is open, showing a list of options. The option "06. Virtual Reality of two American mountains (demtools3.jdl - exec. time: 6 min.)" is highlighted with a mouse cursor. Below the dropdown, there is a "Next" button.

04. Virtual Reality of 2 Digital Elevation Models (demtools.jdl - exec. time: 5 min.)
05. Virtual Reality of Etna and Stromboli volcano's eruptions (demtools2.jdl - exec. time: 5 min.)
06. Virtual Reality of two American mountains (demtools3.jdl - exec. time: 6 min.)

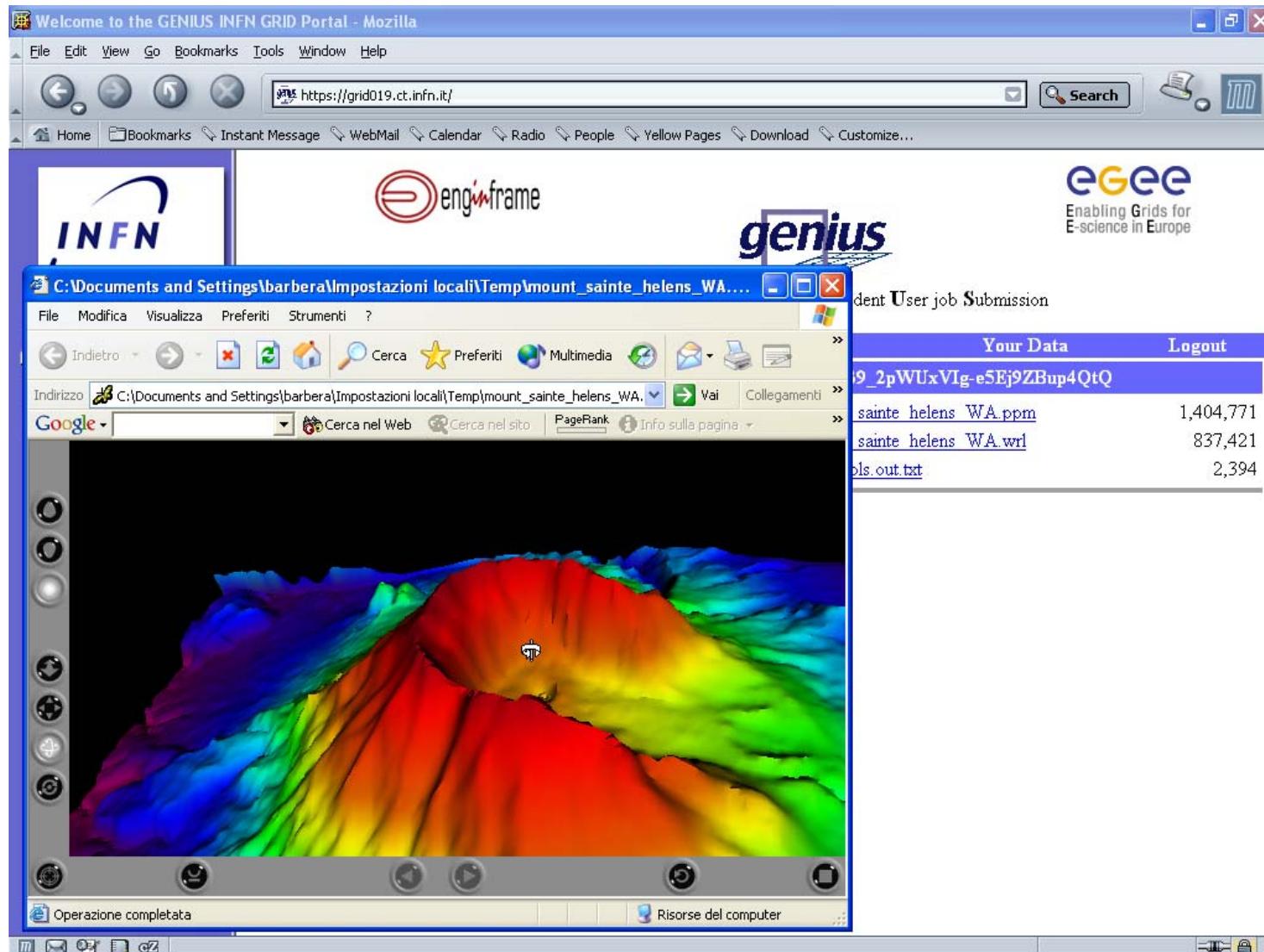
The GILDA Applications: Biomedicine (1/3)

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The GILDA Applications: Earth Observations (2/3)

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The GILDA Applications: Engineering (3/3)

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The GILDA Tutorials (1/2) [\(http://gilda.ct.infn.it/tutorials.html\)](http://gilda.ct.infn.it/tutorials.html)



- Edinburgh, 7 April 2004
- Tunis, 22-23 April 2004
- Edinburgh, 26-28 April 2004
- CERN, 17-19 May 2004
- **Catania, 24-25 May 2004**
 - http://egee-na4.ct.infn.it/ct_may_24
- **Catania, 14-16 July 2004**
 - http://egee-na4.ct.infn.it/na4_open_meeting

The GILDA Tutorials (2/2)

(<http://gilda.ct.infn.it/tutorials.html>)

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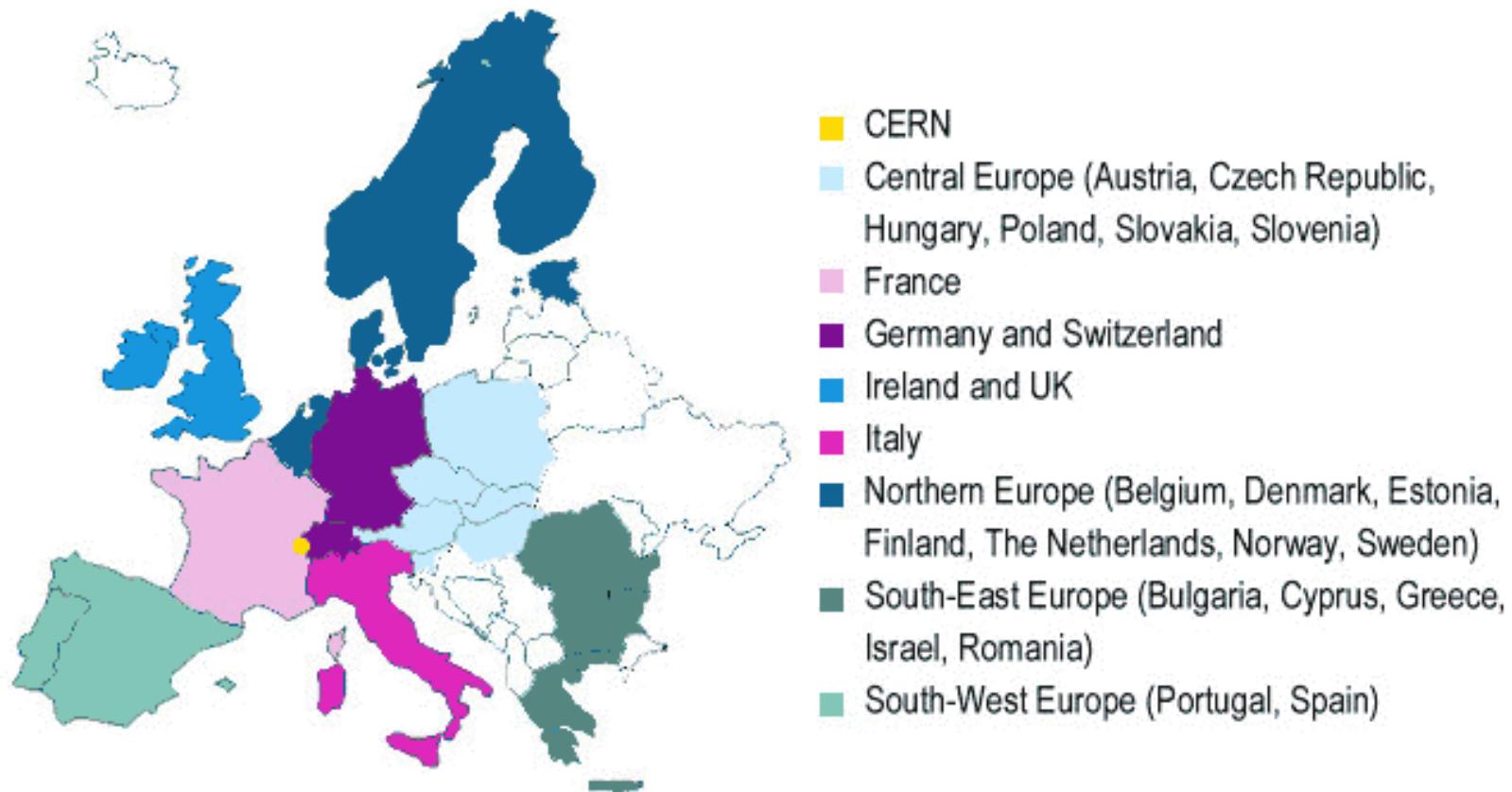
Conclusions and outlook for GILDA



- GILDA is a complete suite of grid elements (RB, BDII, RLS, CA, VO, monitoring system, web portal) and applications fully dedicated to dissemination purposes.
- GILDA runs and will run the last production (stable) version of the grid middleware (currently Grid.it 2.0.0 based on LCG 2.0.0).
- GILDA is the dissemination tool which will be used during induction courses and tutorials
- Next future (2-3 weeks):
 - **add new sites to the GILDA testbed: NeSC, GL2006, InterQuanta, Telecom Italia Lab, and any other interested;**
 - **create video-tutorials and publish them on the GILDA web site for streaming.**

The EGEE Project (2004-'06) <http://www.eu-egee.org>

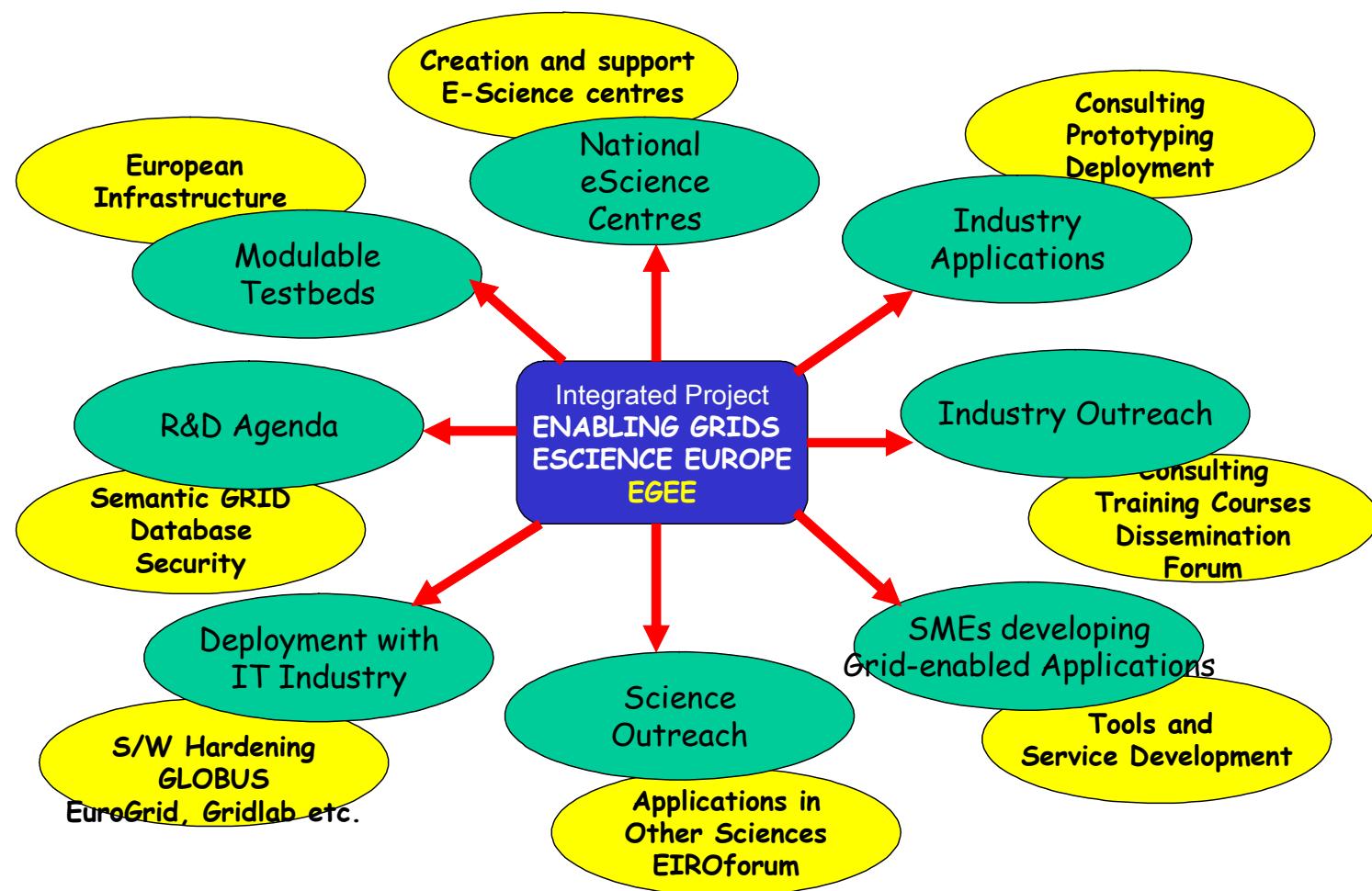
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70 partners, more than 600 FTE's
32 M€ of financing from EU, 46 M€ in total !

The EGEE activity spectrum

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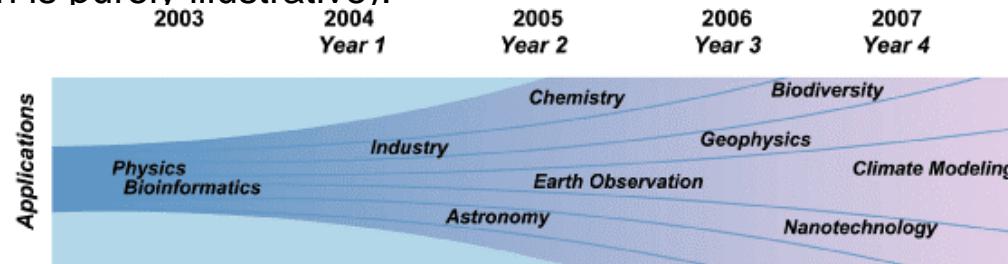


EGEE NA4 Generic Applications goals

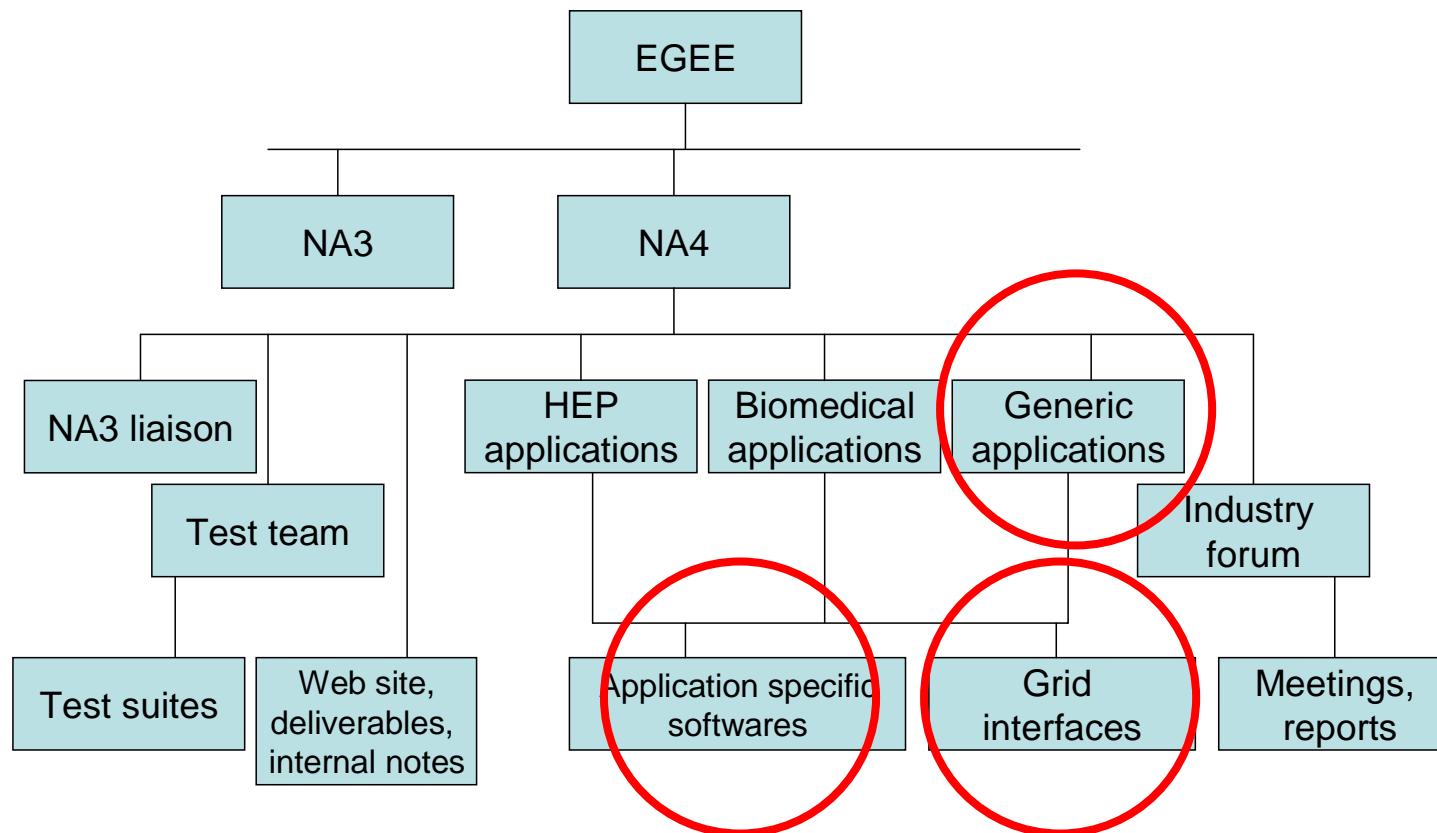
Activity NA4 focuses on the identification and support of early-user and established applications for use on the EGEE infrastructure. It has the following objectives:

- To identify through the dissemination partners and a well defined integration process a portfolio of early user applications from a broad range of application sectors from academia, industry and commerce.
- To support development and production use of all of these applications on the EGEE infrastructure and thereby establish a strong user base on which to build a broad EGEE user community.
- To initially focus on two well-defined application areas – Particle Physics and Life sciences.

The expected outcome of the activity will be the establishment of a broad portfolio of applications across a wide range of sectors suited to execution on the EGEE infrastructure meeting the needs of a broad collection of user groups from many sectors across Europe as illustrated in Figure (note the timeline for the introduction of each application domain is purely illustrative).



EGEE NA4 Work Breakdown Structure



<http://egee-na4.ct.infn.it>

The Generic Application questionnaire (contribution to MNA4.1)



- Questionnaire to get information and first requirements from new communities interested in using the EGEE Infrastructure (<http://egee-na4.ct.infn.it/questionnaire/na4-genapp-questionnaire.doc>)
- Feed-backs received so far (<http://egee-na4.ct.infn.it/questionnaire>):
 - **Astrophysics (EVO and Planck satellite)**
 - **Earth Observation (ozone maps, seismology, climate)**
 - **Digital Libraries (DILIGENT Project)**
 - **Grid Search Engines (GRACE Project)**
 - **Industrial applications (SIMDAT Project)**
- Interest also from Computational Chemistry (Italy and Czech Republic), Civil Engineering (Spain), and Geophysics (Switzerland and France) communities

Final conclusions and outlook

- EGEE-NA4 Generic Applications is a key activity in the process of getting new scientific and industrial communities interested and committed to use the continental grid infrastructure built by the EGEE Project.
- GENIUS is a well established tool which will be fundamental in the process of interfacing new applications with the EGEE middleware hiding its complex internals to non-experts users from new communities.
- GILDA is a complete suite of grid elements and applications fully dedicated to dissemination purposes. **This also represents the ideal grid testbed where to start the porting of new generic applications (e.g., GRACE Project).**
- The first meeting of the EGAAP board to define the first Generic Applications to be interfaced is scheduled for June, 15 at CERN.