

t-Infrastructure report

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- **GILDA effectively acts as a t-Infrastructure for several european projects, providing resources and knowledge for training events**
- **Besides training events, GILDA is available around the clock for grid novices, with dedicated facilities**
- **The GILDA t-Infrastructure is currently formed by half a dozen sites, sometimes managed on **best effort** basis**
 - sites are not always responsive on upgrades and ticket answers
- **Efforts have been made on documentation provision and facilities offered to grid beginners**
 - GILDA tWiki
 - Service monitoring
 - Support System

~35% of personal certificates requested
 have been renewed at least once!

Statistics of certificates

TOTAL CERTIFICATES	12801
PERSONAL CERTIFICATES	
TOTAL	10357
REQUESTED ONE TIME	4972
REQUESTED MORE TIMES	1757
HOST CERTIFICATES	
TOTAL	2210
REQUESTED ONE TIME	1767
REQUESTED MORE TIMES	200

The GILDA Certification Authority

The GILDA Certification Authority (compliant with the X.509 standard) provides primary (two weeks) personal public key certificates (GILDA Testbed).

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default certificate lifetime is 14 days

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successfully used in tutorial and Schools!

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Virtual Organization Membership Service

Administration > Users > List of users

There are 968 users in /gilda :

/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 01/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/O=GermanGrid/OU=FZK/CN=H...	edit	remove	manage attributes
/C=AT/O=Austri...	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 02/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 03/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 04/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 05/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 06/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 07/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
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/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 03/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 04/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
/C=IT/O=GILDA/OU=Personal Certificate/L=INFN Catania/CN=Gilda Demonstrator 05/Email=gilda-ca@ct.infn.it	edit	remove	manage attributes
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successfully used during tutorial and schools !

900+ people registered in the GILDA VO!
750+ "real" users + 270 "generic" users

privileged set of users : tutors, SoftwareManager....

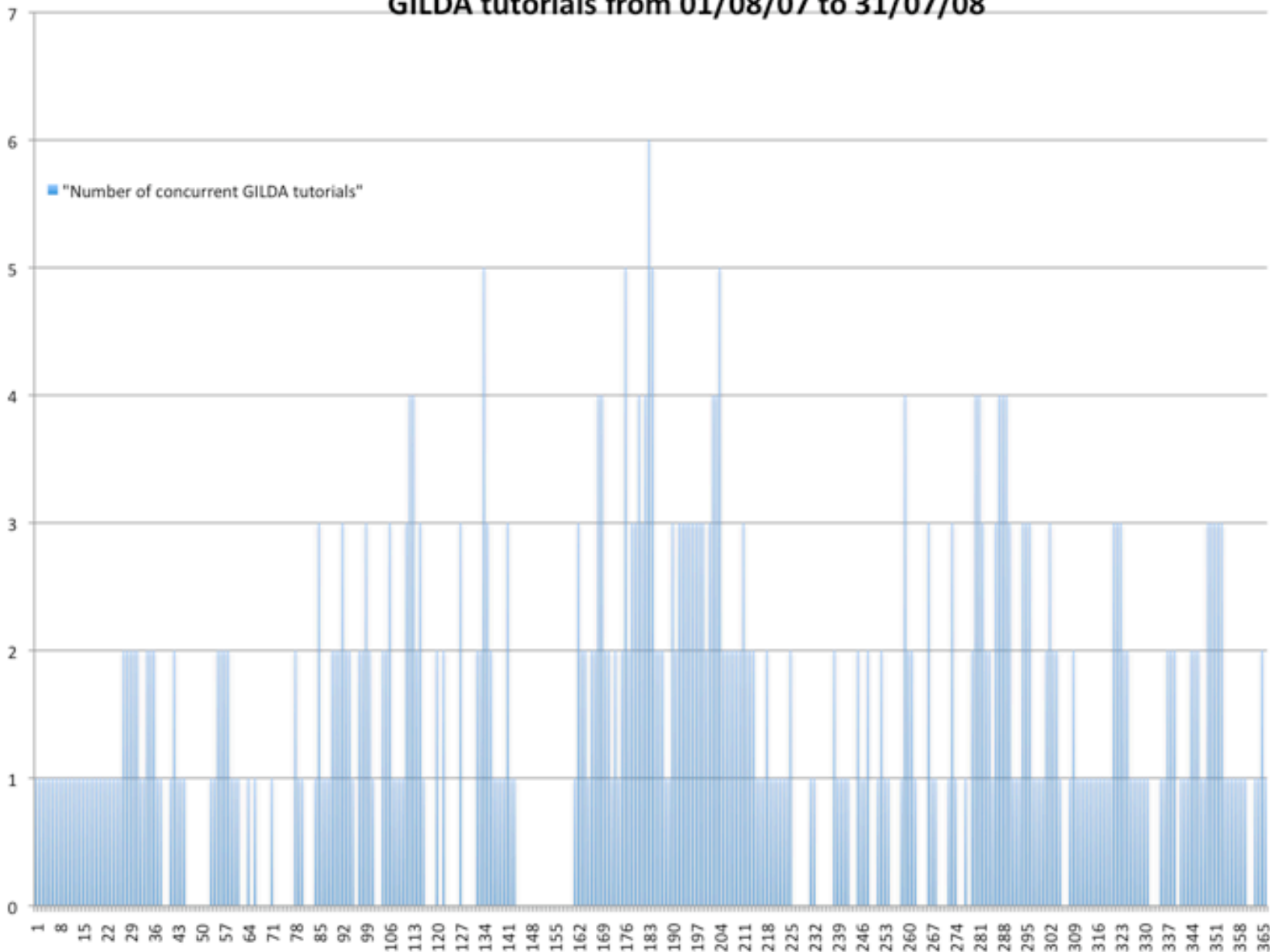


~6 sites....

- 4 INFN (144 pm)
- 1 SZTAKI (69 pm)
- 1 BME (11 pm)

Several partners into TNA3.2 task (t-Infrastructure provision) are not providing resources

GILDA tutorials from 01/08/07 to 31/07/08



- **In 2008 (Sept 18th), 56 training events**
Among them 5 international grid schools:
 - 1st International Winter School on Grid Computing, on-line course, February 6th - March 12th
 - 2nd Biomed Grid School, Varenna, Italy, 12th-16th May
 - 6th International Summer School on Grid Computing, Balatonfüred, Hungary, July 6th-18th
 - International Summer School on e-Science and Grid Computing, Seoul, July 14th-25th
 - Cern School of Computing, Gjøvik, Norway, September 1st-5th
- **Complete list available here : <https://gilda.ct.infn.it/tutorials.html>**

• STATE OF THE ART

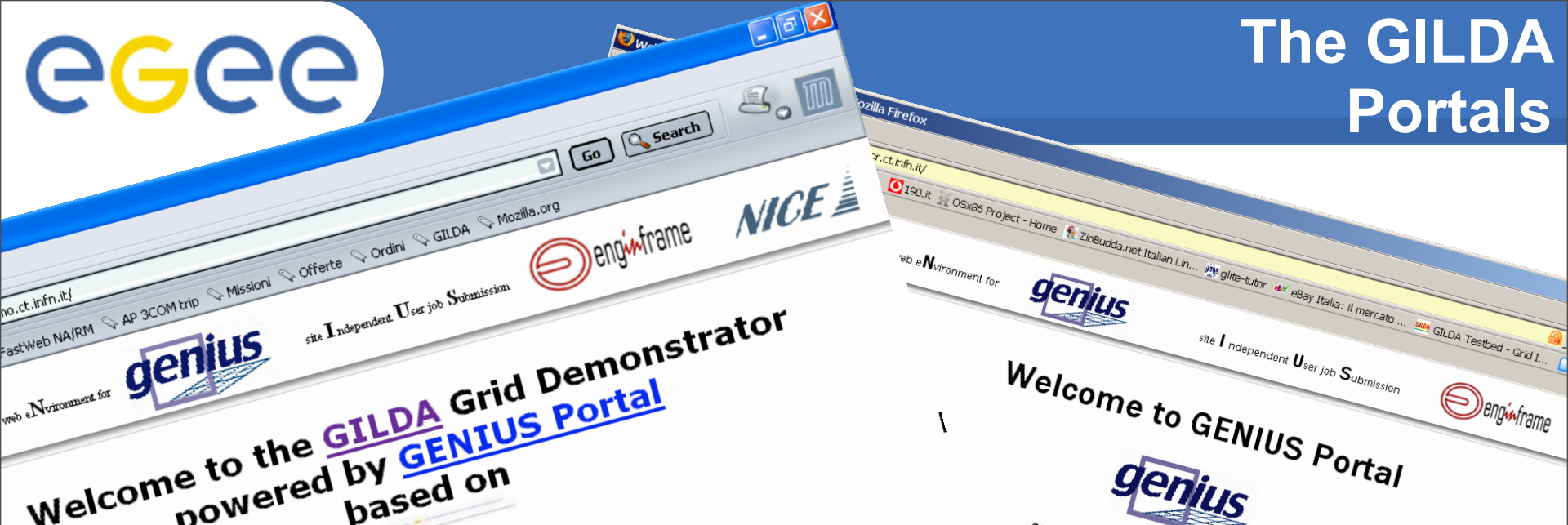
- gLite 3.1 grid being deployed in South Africa among research entities
- GILDA used as national and regional infrastructure model deployments.

- STRATEGY

- **Infrastructure setup**: hardware infrastructure compatible with the standard EGEE model
- Temporary joined to GILDA t-Infrastructure until the stability will be reached.
- Compute services will be provided by several South African Universities and National Laboratories:
 - UCTCERN Research Centre(Cape Town), University of the Free State(Bloemfontein), Northwest University(Potchefstroom), iThemba LABS(Faure), University of the Witwatersrand, University of Johannesburg, CSIR Cluster Computing Centre (C4 Pretoria);
- **Virtual Organisation's to be supported**: computational chemistry, astronomy, bioinformatics, hadron therapy, meteorology and climate modelling....)
- existing international collaborations will be continued : **ALICE, ATLAS, WISDOM**
- **Institutional procedures support**
 - Creation of a South Africa Certification Authority: in the context of **EUGridPMA** and **IGTF**
 - South Africa Joint Research Unit: **30 September 2008** deadline for signature!

- **Initial training and induction programme**
 - 7 tutorials from June 2008
 - 2 users tutorial
 - 2 site administration (service installation, troubleshooting)
 - 1 Tutorial for application porting
 - 1 Dissemination event (Grid Science and Industry Open Day)
 - 1 Training event for Certification and Registration authority
 - *leading to the creation of 4 INFN RA in South Africa*
 - 102 participants “trained”
- **Next events :**
 - GILDA Training event in Lilongwe (Malawi), 12-14 November 2008
 - *Open Access 2008 Conference supported by EU and EELA-2*
 - GILDA Training event in Durban, South Africa, 11-13 December 2008
 - *CHPC National Meeting and Workshop*

- **Exchange Programme to advance e-Infrastructure Know-How, EPIKH Project 2009-2012. Main aims :**
 - Reinforce the impact of e-Infrastructures in scientific research defining and delivering stimulating programme of educational events, including Grid Schools and High Performance Computing courses;
 - Broaden the engagement in e-Science activities and collaborations both geographically and across disciplines;
 - The EPIKH consortium counts 23 partners from 4 continents (Africa, Asia, Europe and Latin America); 115 persons involved in more than 600 secondments.



PGrade Grid portal

https://n41.hpcc.sztaki.hu:8443/gridsphere/gridsphere

Apple (107) News (958) Writing Yahoo Google

RELEASE 2.5

P-GRADE → GILDA portal

MTA SZTAKI

GridSphere Home

News

06/Mar/2007: The GILDA P-GRADE Portal was upgraded to v2.5. Among other new features, P-GRADE Portal 2.5 gives support for the development and execution of workflow based grid parameter studies. For more information on the 2.5 release please visit portal.p-grade.hu

09/Jan/2006: Portal was upgraded to P-GRADE Portal v.2.4.1. The new version contains several new features and bug fixes. For further information on P-GRADE Portal v.2.4.1 please visit portal.p-grade.hu.

11/Nov/2006: GILDA P-GRADE Portal tutorial is available on-line [here](#). The tutorial demonstrates the capabilities of the Portal and provides exercises that can be easily followed by self-guided learners and participants of P-GRADE Portal training events.

17/Oct/2006: From now on participants of organized grid tutorials have precedence on the GILDA infrastructure with respect to other GILDA users. During organized tutorials GILDA resources are inaccessible for those who are not participants of the events. The list of GILDA training events can be found [here](#). The GILDA P-GRADE Portal is accessible during these trainings too, however, for those who are not participants of the events workflows can only be edited but not executed.

English

Login

User Name

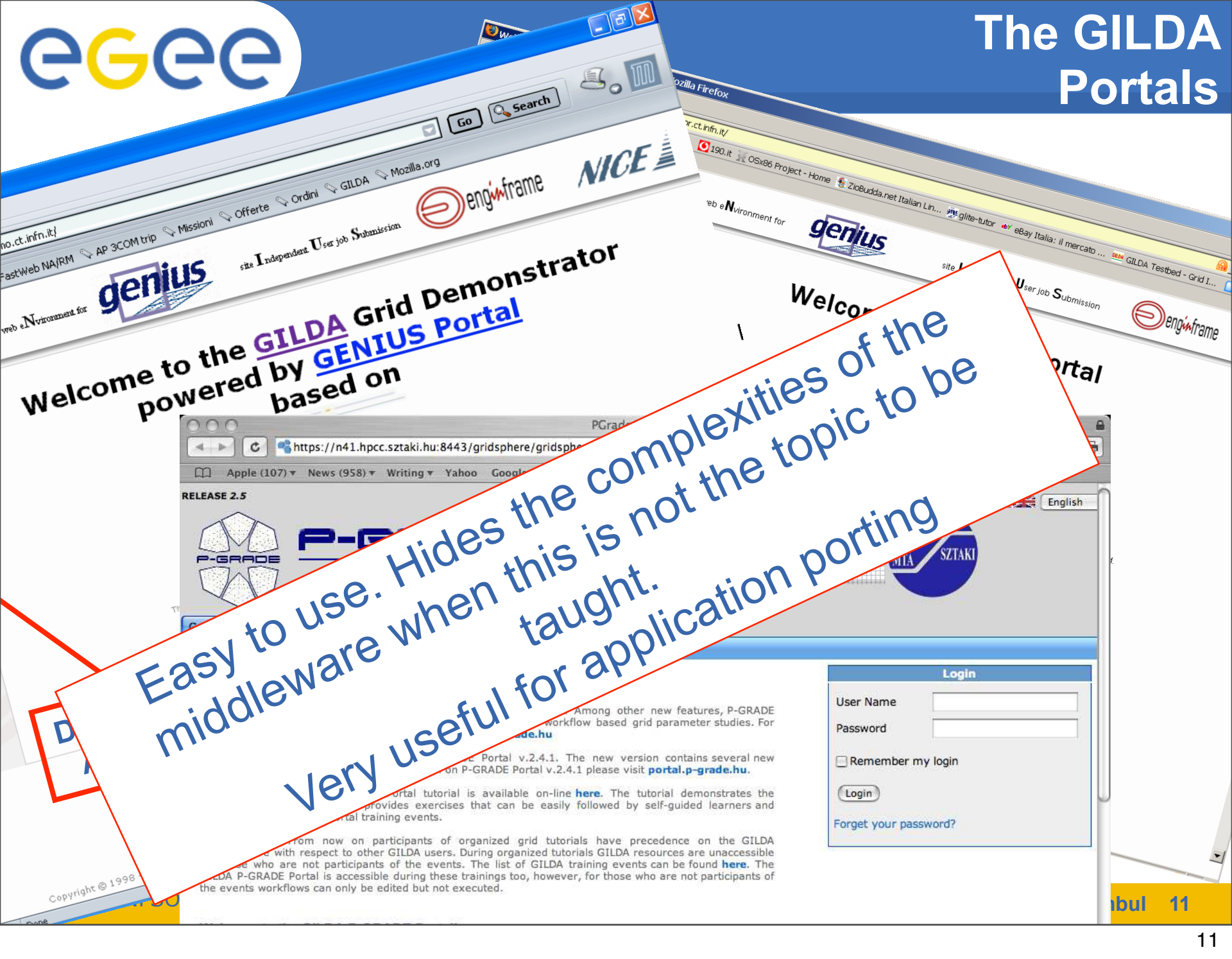
Password

Remember my login

Login

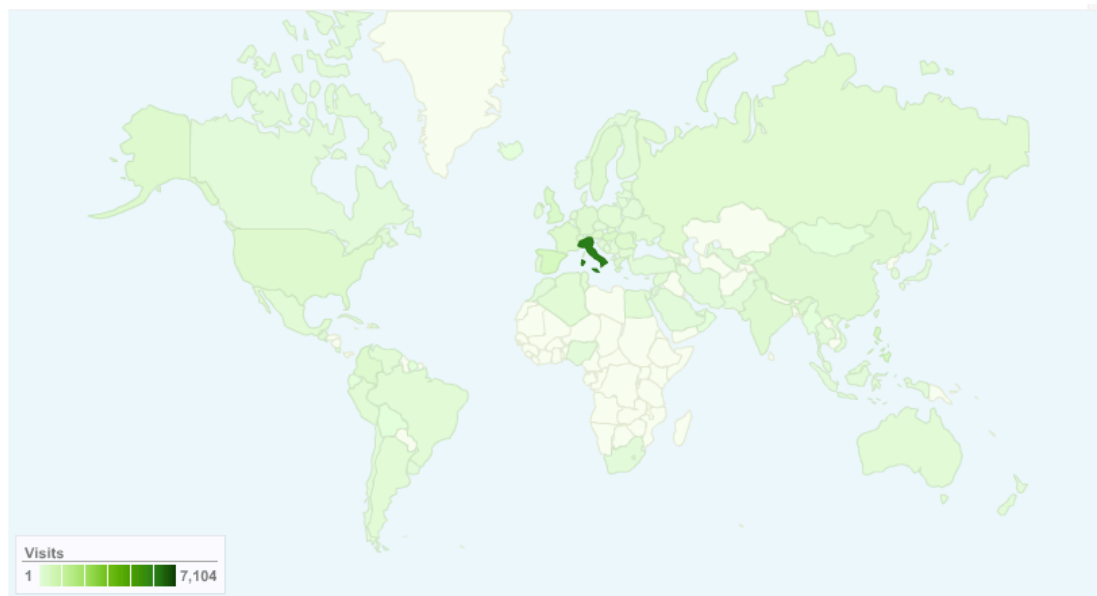
[Forget your password?](#)

Demonstrator Application



Easy to use. Hides the complexities of the middleware when this is not the topic to be taught.
Very useful for application porting

- GILDA uses a tWiki as on-line repository for training material:
<https://grid.ct.infn.it/twiki/bin/view/GILDA/WebHome>
- A huge number of exercises and tutorials, organized “per topic” (Security, WMS, DMS, ...) and “per difficulty level” have been written, tested and maintained
- Also tutorials on “external” software are hosted
 - GReIC
 - gEclipse
 - G-DSE
 - GridWay
 - Grid2Win



14,476 visits came from 97 countries/territories

- In order to improve the reliability of the t-Infrastructure, and quickly spotting sites with errors, SAM (Service Availability Monitoring) has been installed
- Sending periodically (4 times per day) tests to grid elements, SAM gives a constantly updated report on sites efficiency, allowing also to take the appropriate action in case of problems.
- <https://sam.ct.infn.it/sam/sam.py>
- Test results are also summarized on a Google MAP page
 - https://gilda.ct.infn.it/google_maps/mysam.html

- **The Imperial College London (UK) Real Time Monitoring is also available**
 - <https://gilda.ct.infn.it/rtm3d.html>
- **RTM shows, with very impressive graphic effects, the real time situation on sites, providing also detailed statistics**
- **GILDA is also monitored by GStat**
 - <http://goc.grid.sinica.edu.tw/gstat/gilda/>
- **GStat summarizes information published by the Information System, providing a compact view of data published in it, spotting when sites have network or efficiency problems**

- In 2008 the GILDA Team has continued developing enhancements for some functionalities missing on gLite middleware
 - Grid2Win : Graphical User Interface cross platform (Win, Linux)
 - gLite Worker Node on Windows
 - Storage Accounting for Grid Elements (SAGE), still under development
 - “Encrypted” version of lcg-* commands with AES 256 bits now in production release
- A “GILDA Forge” for code repository is hosted and maintained at
 - <https://gilda-forge.ct.infn.it/>

- Besides the support during training events, GILDA is available for applications' porting use with dedicated facilities
- **Support System** : <http://gilda-support.ct.infn.it/>
 - Users are requested to subscribe it, and submit tickets there
 - email support is discontinued
 - Support system allows tracking of problems and solutions adopted, as well scaling to upper levels and
 - building of a knowledge base
 - 190 ticket opened in 2007, 95% closed within a week
 - 90 ticket opened in 2008 (Sept 18th)
- **GILDA News**: <https://gilda.ct.infn.it/news.html>
 - A “news” section present in the GILDA web portal

- **Virtualization techniques have been widely exploited for training purposes**
 - Installation tutorials
 - working images of grid services available to everyone for download
 - Test of new releases/services/configurations
 - Production services backup
- **A significant number of machines, with public IP address and host certificates is permanently available for installation tutorials**
- **Thanks to the use of specific tools like Adobe Connect® training itself can be virtualized**
 - physical participation not strictly necessary
 - lessons/tutorial available also for off-line use

- **Collaboration from task-partners needs to be enhanced**
 - more resources and better maintained
 - improve responsiveness on ticket

- **Questions ?**