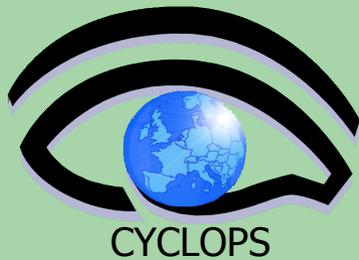


# The GILDA t-Infrastructure



**Antonio Calanducci**

National Institute of Nuclear Physics

INFN Catania

EGEE NA3 Training & Dissemination

CYCLOPS Second Training Workshop

Chania (Crete), 05th-07th May 2008





# Outline

- Motivation for t-Infrastructure and e-Infrastructure
- The GILDA project
  - Services
  - Tools
  - Applications
  - Users' support
- Tutorial layout and set up
- Summary and conclusions





# GILDA t-Infrastructure

- Why t-infrastructure?
  - Training is necessary!
  - e-Infrastructure for production
  - t-Infrastructure for training
- Need guaranteed response for tutorials; limit the vulnerability of production systems
  - use training grid
  - have training CA
  - able to change middleware to prepare participants for future releases on production system
  - need safe resources for installation training
  - easy entry point for new communities





# What GILDA is

- **Grid INFN Laboratory for Dissemination Activities**
- Demonstrate/disseminate grid computing
- Adopted by several Grid projects worldwide
- It runs the latest production (stable) version of EGEE gLite grid middleware in order to make the transition to the new middleware smoother and easier
- It is free





# The GILDA Project – web portal

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

Arquivo Editar Exibir Histórico Favoritos Ferramentas Ajuda GBookmarks

← → ↻ × 🏠 **GILDA** https://gilda.ct.infn.it/ 🔍 Google

📄 Guia rápido 📰 Últimas notícias



**INFN**  
GRID



**GILDA**

GRID INFN LABORATORY for  
DISSEMINATION ACTIVITIES



**EGEE**  
Enabling Grids for  
E-science in Europe



**ICEAGE**

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

NEWNEW

- News ★
- List of Tutorials
- Request a Tutorial
- Posters
- Video Tutorials
- User Interface PnP
- Virtual Services
- Instructions for Users
- Instructions for Sites
- Training Material (wiki)
- GILDA Forge ★
- Support System
- Useful Links
  
- Sponsors

## GILDA ( G rid I nfn L aboratory for D issemination A ctivities )

is a virtual laboratory to demonstrate/disseminate the strong capabilities of grid computing.

GILDA consists of the following elements:

- [the GILDA Testbed](#): a series of sites and services (Resource Broker, Information Index, Data Managers, Monitoring tool, Computing Elements, and Storage Elements) spread all over Italy and the rest of the world on which the latest version of the [INFN Grid](#) middle-ware (fully compatible with [gLite](#)) 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

Concluído gilda.ct.infn.it





# The GILDA Project – web portal



## https://gilda.ct.infn.it

- Request a Tutorial
- Posters
- Video Tutorials
- User Interface PnP
- Virtual Services
- Instructions for Users
- Instructions for Sites
- Training Material (wiki)
- GILDA Forge <sup>NEW</sup>
- Support System
- Useful Links
  
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Concluído

gilda.ct.infn.it



# The GILDA Test-bed



**~ 20 sites in 4 continents**



# All gLite services on GILDA



## Grid services

This is a table of the general Grid Services available on GILDA.

SERVICE	HOST
Resource Broker (RB)	<a href="http://glite-rb.ct.infn.it">glite-rb.ct.infn.it</a>
Backup Resource Broker (RB)	<a href="http://glite-rb2.ct.infn.it">glite-rb2.ct.infn.it</a>
WM proxy Resource Broker (RB)	<a href="http://glite-rb3.ct.infn.it">glite-rb3.ct.infn.it</a>
Information Index (BDII)	<a href="http://grid004.ct.infn.it">grid004.ct.infn.it</a>
Backup Information Index (BDII)	<a href="http://grid013.ct.infn.it">grid013.ct.infn.it</a>
VOMS server	<a href="http://voms.ct.infn.it:8443/voms/gilda">voms.ct.infn.it:8443/voms/gilda</a>
DGAS Price Authority	<a href="http://grid-demo1.ct.infn.it:56568">grid-demo1.ct.infn.it:56568</a>
DGAS HLR	<a href="http://grid-demo1.ct.infn.it:56567">grid-demo1.ct.infn.it:56567</a>
GridICE Monitoring System	<a href="http://alifarm7.ct.infn.it:50080">alifarm7.ct.infn.it:50080</a>
LCG File Catalog (LFC)	<a href="http://lfc-gilda.ct.infn.it">lfc-gilda.ct.infn.it</a>
gLite File Transfer Service	<a href="http://fts.ct.infn.it">fts.ct.infn.it</a>
AMGA Metadata Catalog	<a href="http://amga.ct.infn.it:8822">amga.ct.infn.it:8822</a>
R-GMA server	<a href="http://rgmasrv.ct.infn.it:8443">rgmasrv.ct.infn.it:8443</a>
MyProxy Server	<a href="http://grid001.ct.infn.it">grid001.ct.infn.it</a>
Backup MyProxy Server	<a href="http://grid014.ct.infn.it">grid014.ct.infn.it</a>

MIDDLEWARE VERSION: LCG/gLite  
3.0 / glite 3.1





# All gLite services on GILDA



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

## Grid services

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WM proxy Resource Broker (RB)	<a href="http://glite-rb3.ct.infn.it">glite-rb3.ct.infn.it</a>
Information Index (BDII)	<a href="http://grid004.ct.infn.it">grid004.ct.infn.it</a>
Backup Information Index (BDII)	<a href="http://grid013.ct.infn.it">grid013.ct.infn.it</a>
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gLite File Transfer Service	<a href="http://fts.ct.infn.it">fts.ct.infn.it</a>
AMGA Metadata Catalog	<a href="http://amga.ct.infn.it:8822">amga.ct.infn.it:8822</a>
R-GMA server	<a href="http://rgmasrv.ct.infn.it:8443">rgmasrv.ct.infn.it:8443</a>
MyProxy Server	<a href="http://grid001.ct.infn.it">grid001.ct.infn.it</a>
Backup MyProxy Server	<a href="http://grid014.ct.infn.it">grid014.ct.infn.it</a>

MIDDLEWARE VERSION: LCG/gLite 3.0 / glite 3.1



# The GILDA Sponsors

(<https://gilda.ct.infn.it/sponsors.html>)



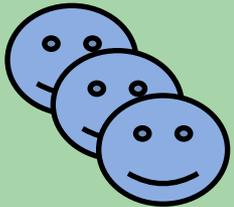


# Training Strategy (1)





# Training Strategy (1)



**CERTIFICATION**  
GILDA  
**AUTHORITY**





# The GILDA Certification Authority (<https://gilda.ct.infn.it/CA>)





# The GILDA Certification Authority (<https://gilda.ct.infn.it/CA>)

**GILDA**

GRID INFN LABORATORY for  
DISSEMINATION ACTIVITIES

## The GILDA Certification Authority

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](mailto: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.

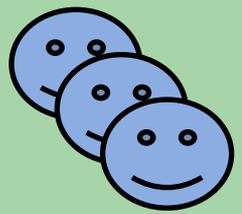
If you already have a trusted personal certificate, click on **Request an account**, in the left part of this page, to request an account. Your personal certificate must be included in your browser before doing this.

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

- [General information](#)
- [GILDA CA certificate](#)
- [Request a personal certificate](#)
- [Request an account](#)
- [Request a host certificate](#)
- [Renew a certificate](#)
- [Check a personal certificate](#)
- [Certificate Revocation List](#)

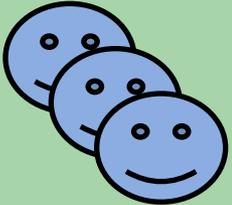


# Training Strategy (2)





# Training Strategy (2)





# The GILDA VOMS

(<https://voms.ct.infn.it:8443/voms/gilda/>)



## Virtual Organization Membership Service

VOMS

### FOR VO USERS

My membership details

New user registration

My requests

### FOR VO MANAGERS

Administer the VO

Handle requests

Check audit data

### CONFIGURATION

Configuration information

List all VOs on this server

## Welcome to VOMS!

VOMS is the Virtual Organization Membership Service, a central database for VO membership information.

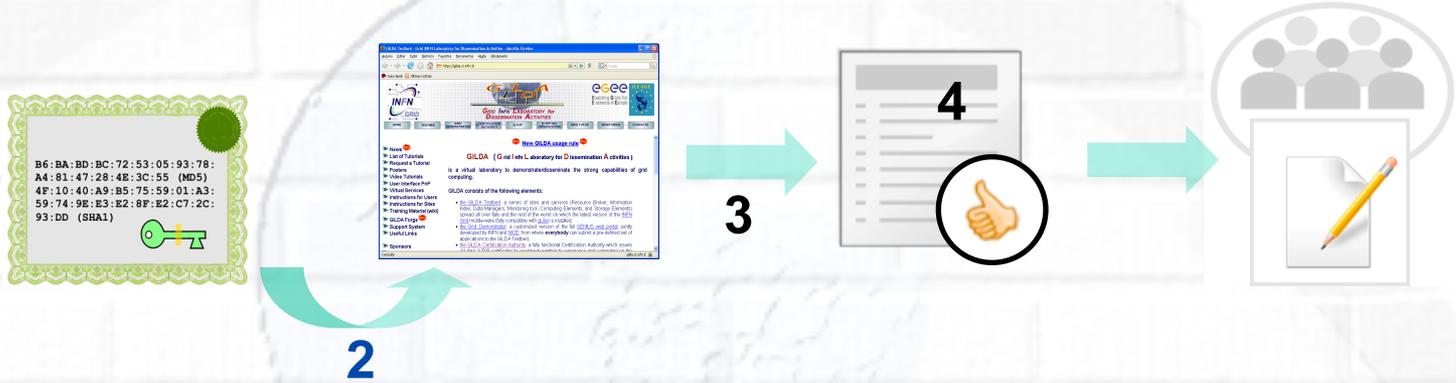
This is the VOMS administration interface providing VO membership-related services for VO users and VO managers.

Please select an item from the services listed on the left side of this page.



# Before trying GILDA...

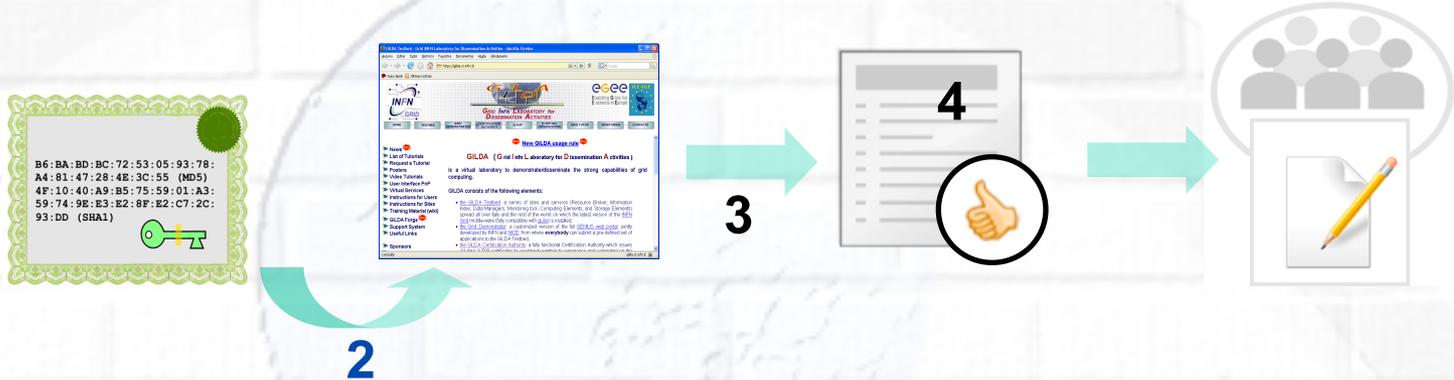
- Steps:





# Before trying GILDA...

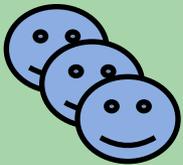
- Steps:



1. Ask for a GILDA personal certificate
2. Load the certificate in your browser
3. Accept Use Policy
4. Subscribe to the GILDA Virtual Organisation



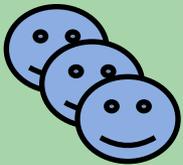
# Training Strategy (3)



**TUTORIALS DONE IN 5 CONTINENTS**



# Training Strategy (3)



**TUTORIALS DONE IN 5 CONTINENTS**



# User Tutorial: User Interfaces

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))

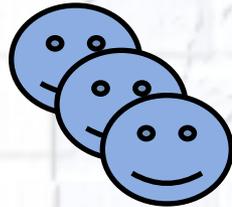




# User Tutorial: User Interfaces



INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))





# User Tutorial: User Interfaces



## GILDA USER INTERFACE PLUG & PLAY (GLITE 3.0)

The *GILDA User Interface Plug & Play* tarball contains all the necessary software to seamlessly turn your Linux PC into a machine from you can access and use the [GILDA](#) dissemination grid realized in the context of both the Italian [INFN Grid Project](#) and the European [EGEE Project](#). The installation procedure installs the User Interface in the user directory so no root privilege is required. This User Interface is based both on gLite 3.0.

GILDA User  
Interface Plug  
& Play  
INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))

Use

Download

Useful links & info

Contacts &  
acknowledgments



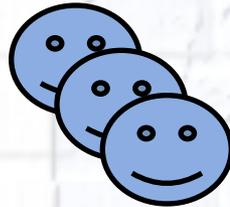


# User Tutorial: User Interfaces



USER INTERFACE PLUG AND PLAY

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))





# User Tutorial: User Interfaces



USER INTERFACE PLUG AND PLAY

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))



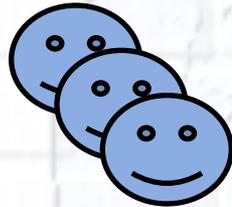


# User Tutorial: User Interfaces



USER INTERFACE PLUG AND PLAY

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))



USER INTERFACE  
VIRTUAL MACHINE

CYCLOPS



# User Tutorial: User Interfaces



USER INTERFACE PLUG AND PLAY

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))

```
[glite-tutor] /home/giorgio > voms-proxy-init --vor
Cannot find file or dir: /home/giorgio/.glite/vomse
Your identity: /C=IT/O=GILDA/OU=Personal Certificat
CN=Emidio Giorgio/Email=emidio.giorgio@ct.infn.it
Enter GRID pass phrase:
Your proxy is valid until Mon Jan 30 23:35:51 2006
Creating temporary
proxy.....Done
Contacting voms.ct.infn.it:15001 [/C=IT/O=GILDA/OU
L=INFN Catania/CN=voms.ct.infn.it/
Email=emidio.giorgio@ct.infn.it] "gilda"
Creating proxy
Your proxy is valid until Mon Jan 30 23:35:51 2006
```



USER INTERFACE  
VIRTUAL MACHINE

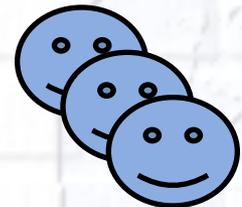


# User Tutorial: User Interfaces



USER INTERFACE PLUG AND PLAY

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))



USER INTERFACE  
VIRTUAL MACHINE



CYCLOPS



# User Tutorial: User Interfaces



USER INTERFACE PLUG AND PLAY

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))



Grid Enabled web eNvironment for



site Independent User job Submission



NICE

- GENIUS Services
- File
- Security
- Job
- Data
- Info
- Monitoring
- Interactive
- Preferences
- VO Services

## Welcome to GENIUS Portal



ver. 3.1.1

compliant with [qLite 3.0](#) middleware

[Credits](#)

This portal is best viewed with Mozilla 1.7.12 or higher.  
Netscape (4.79, 4.80, 6 or 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.  
powered by



Last update: Mon 3 July 2006



USER INTE  
VIRTUAL M.

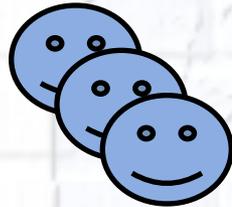


# User Tutorial: User Interfaces



USER INTERFACE PLUG AND PLAY

INFN USER INTERFACE  
([glite-tutor.ct.infn.it](http://glite-tutor.ct.infn.it))



GENIUS  
WEB PORTAL

<https://glite-tutor.ct.infn.it>

USER INTERFACE  
VIRTUAL MACHINE





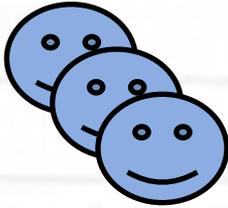
# Tutorial: Site Managers





# Tutorial: Site Managers

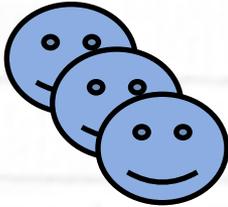
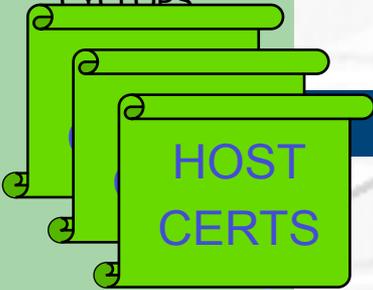
**TUTORIALS**  
GILDA  
Site  
Managers



# Tutorial: Site Managers



CYCLOPS



TUTORIALS  
GILDA  
Site  
Managers

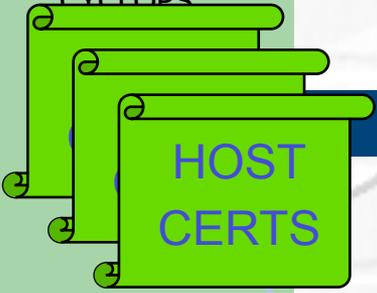


Information Society  
and Media

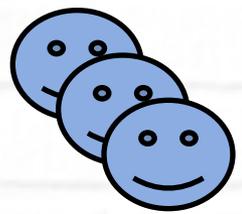
CYCLOPS



# Tutorial: Site Managers



GILDA TESTBED  
( SERVICES AND  
SITES )



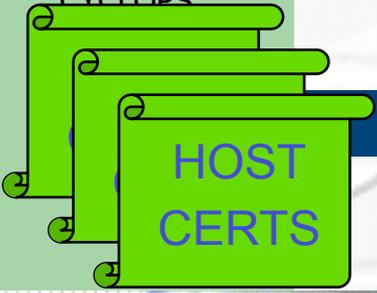
TUTORIALS  
GILDA  
Site Managers



CYCLOPS



# Tutorial: Site Managers



GILDA TESTBED  
( SERVICES AND

TUTORIALS  
GILDA  
Site Managers



GRID INFN LABORATORY for  
DISSEMINATION ACTIVITIES

1) CERTIFICATION  
AUTHORITY

2) AUP

3) VIRTUAL  
ORGANIZATION

GRID TUTOR

## Virtual Services

MD5SUM

GILDA VM Base (Readme)

GILDA VM UI gLite 3.0 (Readme)

GILDA VM BDII gLite 3.0 (Readme)

GILDA VM DPM gLite 3.0 (Readme)

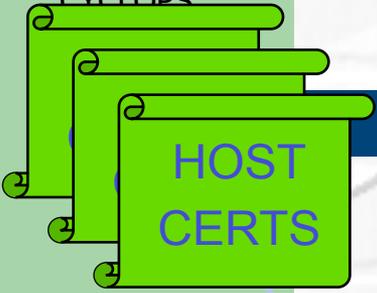
GILDA VM CE gLite 3.0 (Readme)

GILDA VM FTS gLite 3.0 (Readme)

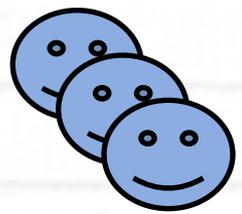




# Tutorial: Site Managers



GILDA TESTBED  
( SERVICES AND  
SITES )



TUTORIALS  
GILDA  
Site  
Managers



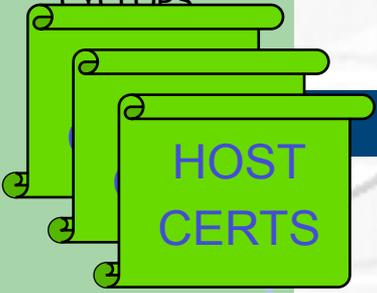
GILDA VIRTUAL  
SERVICES  
MACHINES



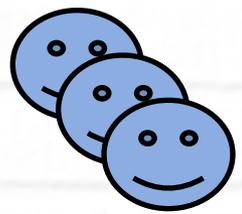
# Tutorial: Site Managers



Site Managers



GILDA TESTBED ( SERVICES AND SITES )



GILDA MONITORING SYSTEMS



GILDA VIRTUAL SERVICES MACHINES



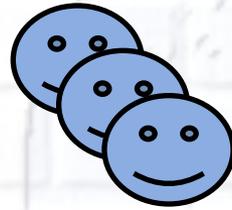
# Tutorial: Application Developers





# Tutorial: Application Developers

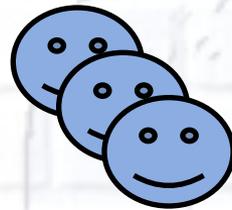
**TUTORIALS**  
Application Developers  
GILDA





# Tutorial: Application Developers

**TUTORIALS**  
Application Developers  
GILDA



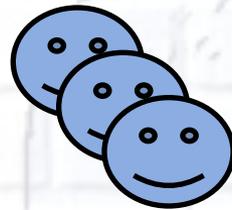
**HOW TO USE CLI/  
API/WEB SERVICES  
in gLite**





# Tutorial: Application Developers

**TUTORIALS**  
Application Developers  
GILDA



**HOW TO USE CLI/  
API/WEB SERVICES  
in gLite**

**GILDA TEAM  
SUPPORT FOR  
APPLICATION  
INTEGRATION  
(GENIUS ALSO)**





# Tutorial: Application Developers

TUTORIALS  
Application Developers

GILDA  
DEMONSTRATOR  
<https://glite-demo.ct.infn.it>



- GENIUS Services
  - File
  - Security
  - Data
  - Info
  - Monitoring
  - BLAST Services
  - VO Services

Welcome to the **GILDA** Grid Demonstrator  
powered by **GENIUS Portal**  
based on **GILDA TEAM SUPPORT FOR APPLICATION INTEGRATION (GENIUS ALSO)**

**HOW TO USE CLI/ API/WEB SERVICES in glite**  
**Demonstrative Applications**

**enginframe**

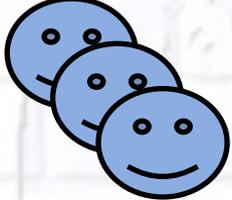
Last update: Mon 3 July 2006



# Tutorial: Application Developers

**TUTORIALS**  
Application Developers

**GILDA DEMONSTRATOR**  
<https://glite-demo.ct.infn.it>



**HOW TO USE CLI/  
API/WEB SERVICES  
in gLite**

**GILDA TEAM  
SUPPORT FOR  
APPLICATION  
INTEGRATION  
(GENIUS ALSO)**



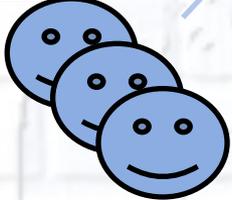


# Tutorial: Application Developers

**TUTORIALS**  
Application Developers

**GILDA DEMONSTRATOR**  
<https://glite-demo.ct.infn.it>

**GILDA USE CASES**



**HOW TO USE CLI/  
API/WEB SERVICES  
in gLite**

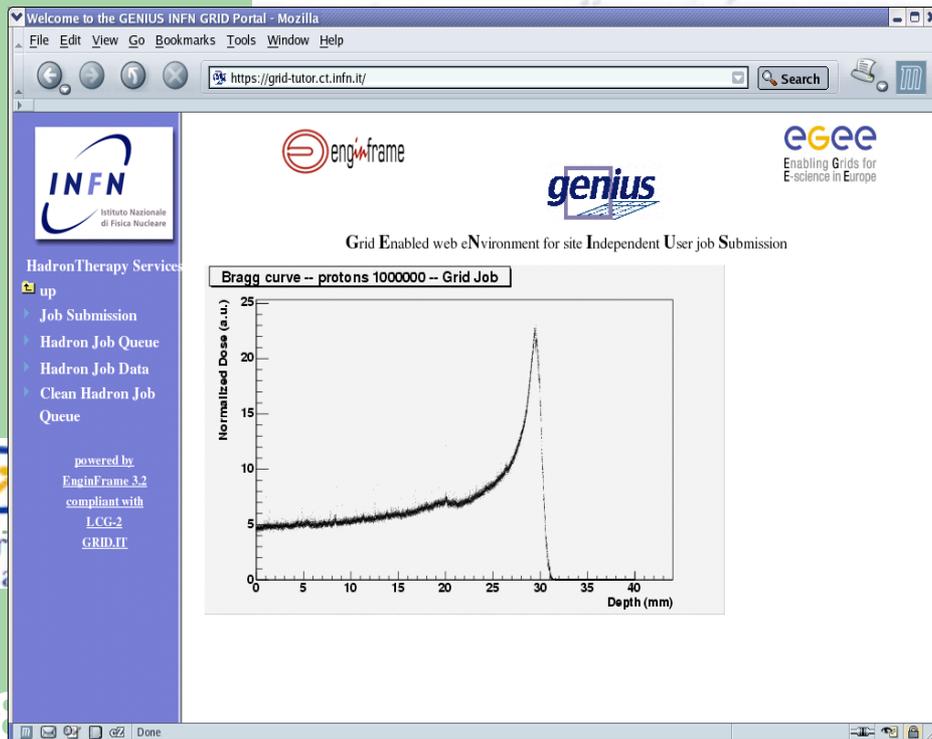
**GILDA TEAM  
SUPPORT FOR  
APPLICATION  
INTEGRATION  
(GENIUS ALSO)**





# Applications: hadronTherapy

- Employed for the treatment of some kind of ocular tumour
- Used to calibrate the proton beamline in reality





# Applications: RASTER-3D

- Set of tools for generating high quality raster images of molecules

Welcome to the GENIUS Grid Portal - Mozilla Firefox

Arquivo Editar Exibir Histórico Favoritos Ferramentas Ajuda GBookmarks

https://glite-demo.ct.infn.it/ israel map

Guia rápido Últimas noticias

INFN egee Grid Enabled web environment for **genius** site Independent User job Submission enginframe NICE

Welcome demo-46 Resource Broker: gilda Virtual Organization: gilda LFC Host: lfc-gilda.ct.infn.it Your Data Logout

**Generate a Raster Image**

Now you may also choose a specific Computing Element where start the rendering of the protein.

Protein Selected

Raster Tools

Specify the CE Resource

GILDA Grid Services

- Job Services
- HadronTherapy Services
- Raster-3D
  - Generate a Raster Image
  - Show Raster Queue
  - Raster Job Data
  - Clean Raster Queue
- WATERMARKING
- CODESA3D
- EMPIRE
- GA4ts
- GATE
- gMOD
- MAGIC
- NOAH
- PATSEARCH
- Sonification
- SW-Alignment
- Back home

Information Society and Media

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Concludo glite-demo.ct.infn.it



# Applications: RASTER-3D

- Set of tools for generating high quality raster images of molecules

Welcome to the GENIUS Grid Portal - Mozilla Firefox

Arquivo Editar Exibir Histórico Favoritos Ferramentas Ajuda GBookmarks

https://glite-demo.ct.infn.it/

Guia rápido Últimas noticias

INFN egee Grid Enabled web environment for genius sites Independent User job Submission

Welcome demo-46 Resource Broker: gilda Virtual Organization: gilda LFC Host: lfc-gilda.ct.infn.it

GILDA Grid Services

- Job Services
- HadronTherapy Services
- Raster-3D
  - Generate a Raster Image
  - Show Raster Queue
  - Raster Job Data
  - Clean Raster Queue
- WATERMARKING
- CODESA3D
- EMPIRE
- GA4ts
- GATE
- gMOD
- MAGIC
- NOAH
- PATSEARCH
- Sonification
- SW-Alignment
- Back home

**Generate a Raster Image**

Now you may also choose a specific Computing Element rendering of the protein.

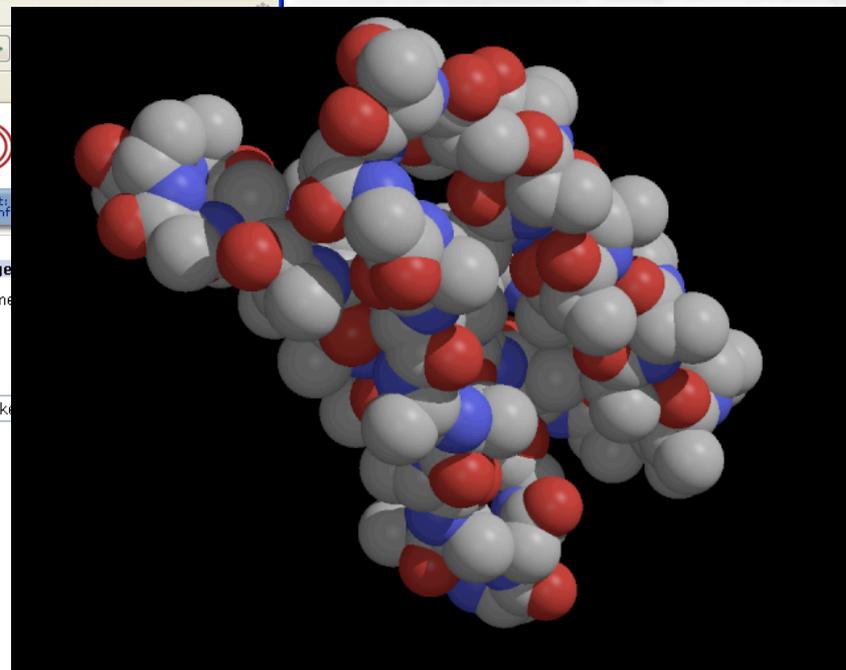
Protein Selected

Raster Tools

Specify the CE Resource

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Concludo glite-demo.ct.infn.it





# Applications: Volcano Sonification

- “Sonified” data from geophysical data collected by digital seismographs placed on volcanoes.

## Etna, Italy



## Tungurahua, Ecuador



Text

<http://grid.ct.infn.it/etnasound>

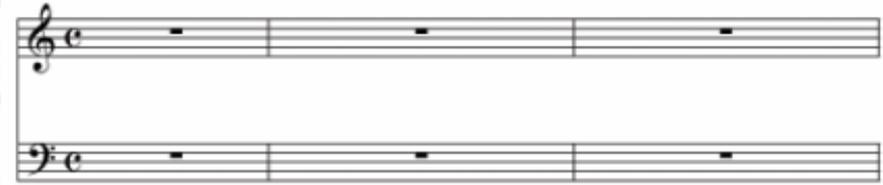
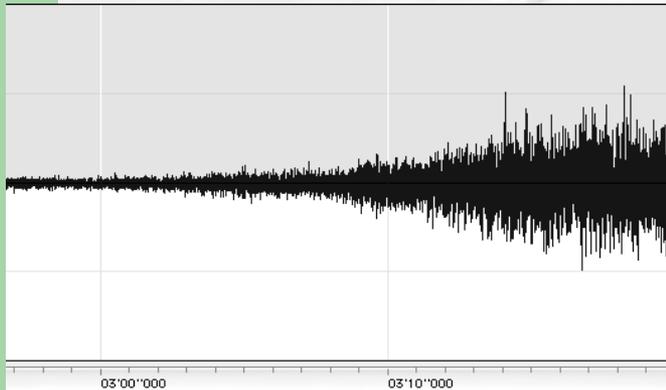
(Picture: g1.globo.com)

(Picture: M. Monzier IRD/IG-EPN)

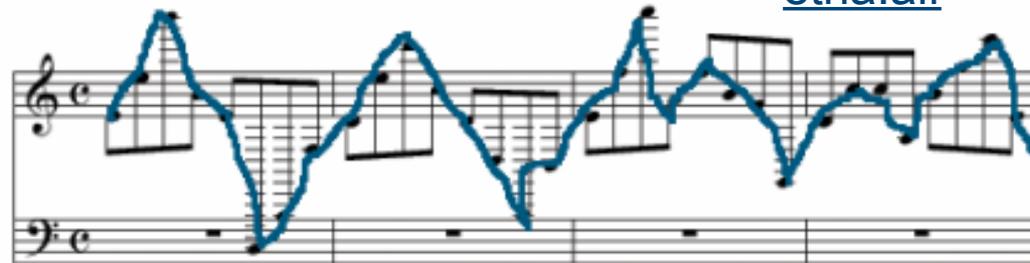


# Applications: Volcano Sonification

- Seismograms Melodisation



<http://grid.ct.infn.it/etnasound/page4/page8/etna.aif>





# gMOD: grid Movie-On-Demand

gMOD is accesible through the Genius Portal (<https://glite-demo.ct.infn.it>)

Welcome to the GENIUS INFN GRID Portal - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Address bar: <https://glite-tutor.ct.infn.it/>

Logos: INFN Istituto Nazionale di Fisica Nucleare, EnginFrame, genius, eGEE Enabling Grids for E-science

Grid Enabled web eNvironment for site Independent User job Submission

RB: gildav VO: gildav Catalog: GILDA Your Data Logout

You have selected the trailer /trailers/Shrek2.mpg.  
These are the attributes of the trailer you have choosen.

Title	<b>Shrek 2</b>				
Run Time	92	Country	USA	Release Date	2004
Genre	Action	Director	William Steig		
Cast	Mike Myers .... Shrek (voice) Eddie Murphy .... Donkey (voice) Cameron Diaz .... Fiona (voice) John Cleese .... King (voice) Rupert Everett .... Prince Charming (voice) Jeffrey Tambor .... Puss in Boots (voice) John Noble .... Lord Farquaad (voice) John Mahoney .... Lord Farquaad's Father (voice) John Noble .... Lord Farquaad's Mother (voice) Christopher Knights .... Blind Mouse (voice) David P. Smith .... Herald/Marshmallow (voice)				
Plot Outline	The film picks up right where the first movie ended... Shrek and Fiona return from their honeymoon and find out that their daughter is now an ogre.				

```

LFN: /trailers/Shrek2.mpg
Created: 2005-10-13 17:23:58.000
Modified: 2005-10-13 17:23:58.000
Size: 6100996
Type: File
Expires: Never
GUID: 000f0e2e-7c0d-134e-a731-c1ced08dbee
Created: 2005-10-13 17:24:03.000
Modified: 2005-10-13 17:24:03.000
Size: 6100996
Checksum: 00000000
Status: 0
User: /C=IT/O=GILDA/OU=Personal Certificate/L=INFN
Group: egee-group
User rights: pdrwl-gs
Group rights: pdrwl-gs
  
```

powered by EnginFrame 3.2 compliant with LCG-2 GRID.IT gLite-1

VLC media player window showing a scene from Shrek 2.

Done

glite-tutor.ct.infn.it

# gMOD interactions



CYCLOPS

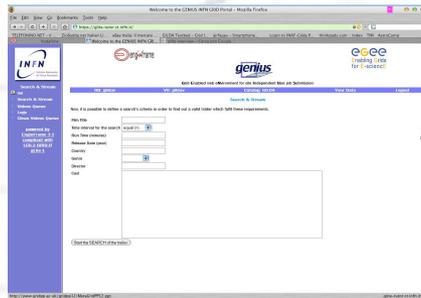
VOMS

get Role



User

GENIUS Portal

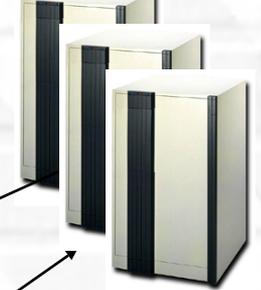


Metadata Catalogue

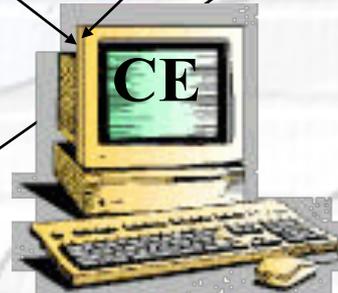
AMGA

LFC File Catalogue

Storage Elements



Workload Management System

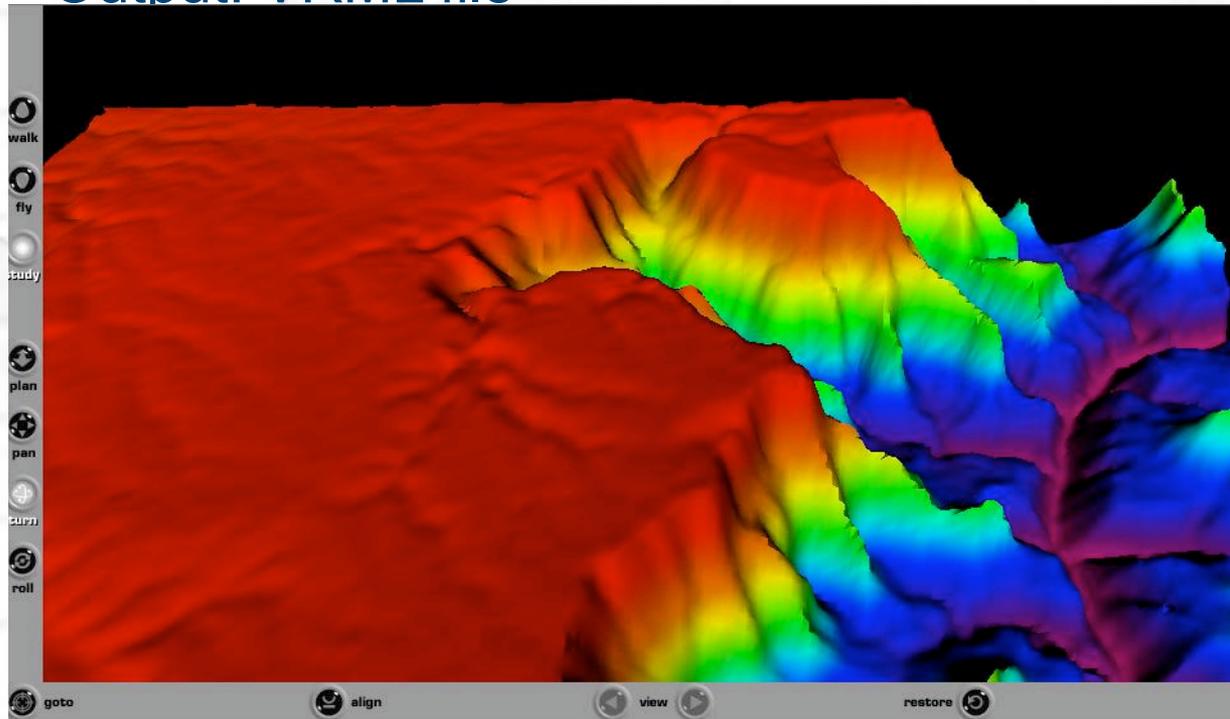


Information Society and Media



# Applications: DEMTOOLS

- Satellite image rendering program
- Input: ASCII file in DEM format (Digital Elevation Model)
- Output: VRML file





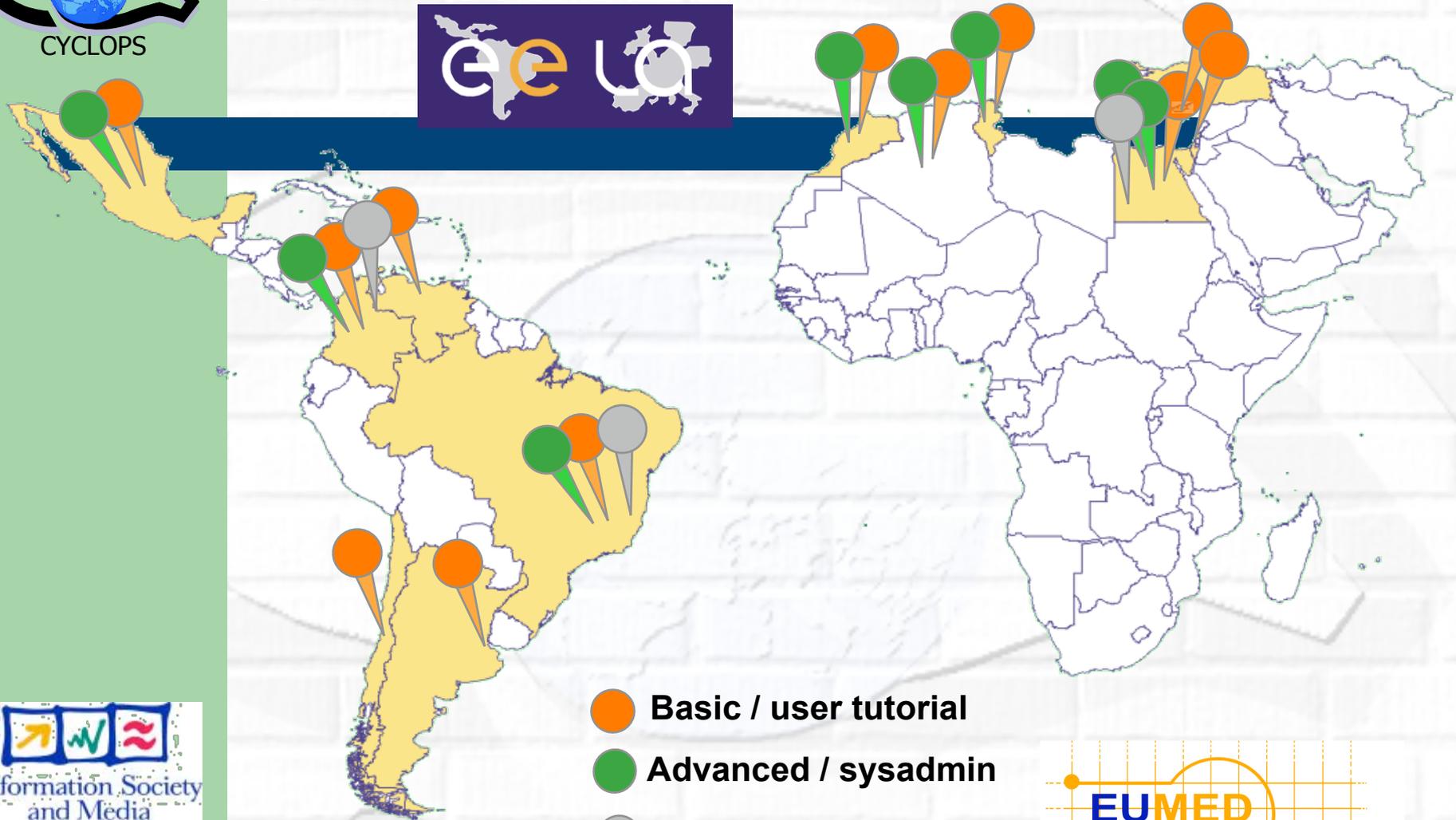
# Some of the Applications ported on GILDA

- 8 Virtual Organizations supported:
  - Biomedicine (Biomed)
  - Earth Science Academy (ESR)
  - Earth Science Industry (CGG)
  - Astroparticle Physics (MAGIC)
  - Computational Chemistry (GEMS)
  - Grid Search Engines (GRACE)
  - Astrophysics (PLANCK)
  - Computation Archaeology (ARCHAEOGRID)
- Development of complete interfaces with GENIUS for Biomed Applications: GATE, hadronTherapy etc.
- Development of complete interfaces with GENIUS for Generic Applications: EGEODE (CGG), MAGIC, GEMS, and CODESA-3D (ESR) (successful demos of EGEODE and GEMS at EGEE review)
- Development of complete interfaces with GENIUS for demonstrative applications available on the GILDA Grid Demonstrator (<https://grid-demo.ct.infn.it>)
- Development of complete interface with CLI for NEMO





# Non EU countries benefited by GILDA courses



- **Basic / user tutorial**
- **Advanced / sysadmin**
- **Application Porting**





# Non EU countries benefited by GILDA courses



- Basic / user tutorial
- Advanced / sysadmin
- Application Porting



# User Assistance & support







# Some training statistics

- Used in more than 180 tutorials
- 7693 certificates issued
- > 3 TB of videos and Virtual Grid services downloaded
- Web portal: 768.880 hits in 2006



The screenshot shows a Mozilla Firefox browser window with the title 'Statistics of certificates - Mozilla Firefox'. The address bar shows 'http://gilda.ct.infn.it'. The page content is titled 'Statistics of certificates' and displays the following data:

<b>TOTAL CERTIFICATES</b>	<b>7693</b>
<b>PERSONAL CERTIFICATES</b>	
<b>TOTAL</b>	<b>6213</b>
<b>REQUESTED ONE TIME</b>	<b>3099</b>
<b>REQUESTED MORE TIMES</b>	<b>1140</b>
<b>HOST CERTIFICATES</b>	
<b>TOTAL</b>	<b>1250</b>
<b>REQUESTED ONE TIME</b>	<b>989</b>
<b>REQUESTED MORE TIMES</b>	<b>125</b>

The browser status bar at the bottom shows 'Done' and the URL 'gilda.ct.infn.it'.



# Statistics

CYBERS

## Executive Overview

Export

gilda.ct.infn.it | 1/28/2007 - 4/27/2007

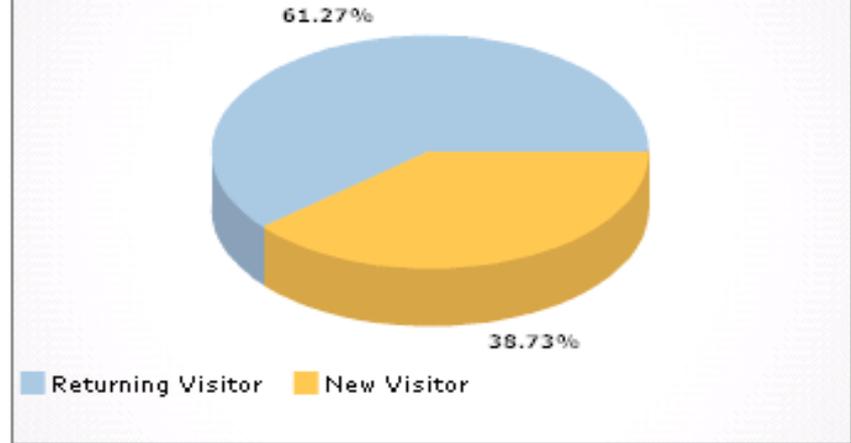
### Visits and Pageviews

Average: 7.48 P/V  
Visits: 4,111  
Pageviews: 30,761



Show All Hide All

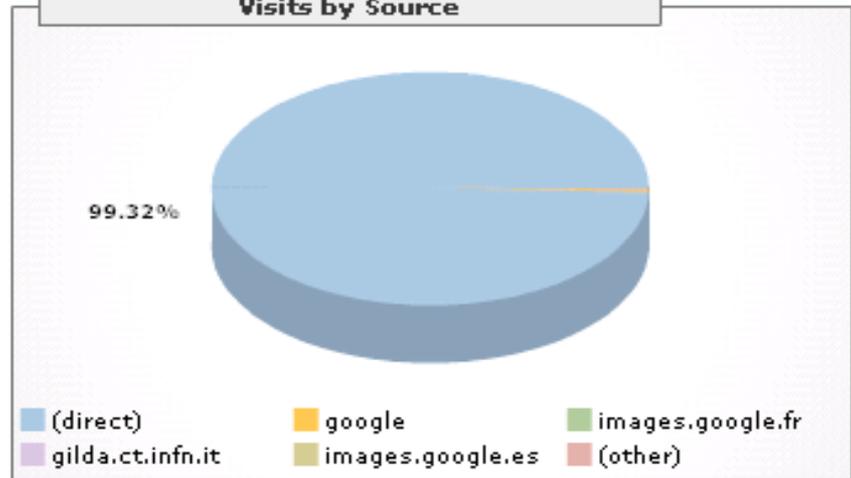
### Visits by New and Returning



### Geo Map Overlay



### Visits by Source





# The GILDA Training Material

(<https://grid.ct.infn.it/twiki/bin/view/GILDA/WebHome>)



## GILDA



[Log In](#) or [Register](#)

- [GILDA Web](#)
- [Create New Topic](#)
- [Index](#)
- [Search](#)
- [Changes](#)
- [Notifications](#)
- [Statistics](#)
- [Preferences](#)

### Webs

- [GILDA](#)
- [Main](#)
- [Sandbox](#)
- [TWiki](#)

You are here: [Grid CT WIKI](#) > [GILDA Web](#) > [WebHome](#)

## Welcome to the GILDA web

### Topics

- Grid Elements Installation : [gLite 3.0](#)
- GFAL Java API : [GFAL Java API](#)
- gLite 3.0 [UserTutorials](#)
- gLite 3.0 [SysAdminTutorials](#) ?
- [GildaVirtualServices](#)

### GILDA Web Utilities

- [Search](#) - [advanced search](#)
- [WebTopicList](#) - all topics in alphabetical order
- [WebChanges](#) - recent topic changes in this web
- [WebNotify](#) - subscribe to an e-mail alert sent when topics change
- [WebRss](#), [WebAtom](#) - RSS and ATOM news feeds of topic changes
- [WebStatistics](#) - listing popular topics and top contributors
- [WebPreferences](#) - preferences of this web





# The GILDA Support System

<http://gilda-support.ct.infn.it>



Monday, 3 April 2006

Site Search

## Login

Username:

Password:

User Login

Lost Password?

Register now!

This is the entry point of the Support System of GILDA. You are welcome to register to it if you want to submit Tickets for problems and/or requests of information.

Powered by XOOPS 2.0 © 2001-2003 The XOOPS Project  
Page Load Statistics: 0.065 Seconds | 39 Queries  
Grid CT 2006

and Media





# Ticket Creation (1/2)



Monday, 3 April 2006

Site Search

## Login

Username:

Password:

User Login

[Lost Password?](#)

[Register now!](#)

This is the entry point of the Support System of GILDA. You are welcome to register to it if you want to submit Tickets for problems and/or requests of information.



Powered by XOOPS 2.0 © 2001-2003 The XOOPS Project  
Page Load Statistics: 0.066 Seconds | 39 Queries  
Grid CT 2006

CYCLOPS



# Ticket Creation (1/2)



Monday, 3 April 2006

## Login

Username:

Password:

User Login

[Lost Password?](#)

[Register now!](#)



**eGee**  
Enabling Grids  
for E-science

Site Search

You are welcome to register to requests of information.

## Login

Username:

Password:

User Login

[Lost Password?](#)

[Register now!](#)



# Ticket Creation (1/2)

The screenshot displays the GILDA website interface. At the top, there are logos for INFN, GILDA, and EGEE (Enabling Grids for E-science). A blue "Login" button is highlighted with a red border. Below the logos, the text "GRID INFN LABORATORY for DISSEMINATION ACTIVITIES" is visible. A search bar with the text "Site Search" is located on the right. On the left, there are two navigation menus: "Main Menu" and "User Menu".

**Main Menu**

- Home
- Ticket Management
- Contact Us

**User Menu**

- View Account
- Edit Account
- Notifications
- Logout
- Inbox

**Information and Media**

**Message**

**Site Search**

**This is the entry point of the Support System of GILDA. You are welcome to register to it if you want to submit Tickets for problems and/or requests of information.**

Powered by XOOPS 2.0 © 2001-2003 The XOOPS Project  
Page Load Statistics: 0.08 Seconds | 63 Queries  
Grid CT 2006





# Ticket Creation (1/2)

The screenshot displays the GILDA website interface. At the top, there are logos for INFN, GILDA, and EGEE (Enabling Grids for E-science). A 'Login' button is visible. The main navigation menu is expanded, showing the following items:

- Main Menu
  - Home
  - Ticket Management** (highlighted with a red oval)
  - Contact Us
- User Menu
  - View Account
  - Edit Account
  - Notifications
  - Logout
  - Inbox

A red box highlights the 'Main Menu' and 'User Menu' sections. A red arrow points from the 'User Menu' section to a pink box containing the text 'This is the ent...'. In the bottom right corner, there is a 'Site Search' input field and a button. A pink banner at the bottom contains the text: 'are welcome to register to it if you want to ests of information.'

Grid CT 2006



# Ticket Creation (2/2)

 Site Search

### Main Menu

- Home
- Ticket Management
- Contact Us

### User Menu

- View Account
- Edit Account
- Notifications
- Logout
- Inbox

- Main
- Create Ticket
- My Profile
- View All Tickets
- Search

**★ Highest Priority Unassigned Tickets**  
No tickets found

**✉ ★ New Tickets**  
No tickets found

**✉ Open Tickets Assigned to Me**  
No tickets found

**✉ My Submitted Tickets**  
No tickets found

**Batch Actions:**  
With Selected:



# Ticket Creation (2/2)

 Site Search

## Main Menu

- Home
- Ticket Management
- Contact Us

## User Menu

- View Account
- Edit Account
- Notifications
- Logout
- Inbox

- Main
- Create Ticket**
- My Profile
- View All Tickets
- Search

**Highest Priority Unassigned Tickets**  
No tickets found

**New Tickets**  
No tickets found

**Open Tickets Assigned to Me**  
No tickets found

**My Submitted Tickets**  
No tickets found

**Batch Actions:**  
**With Selected:**



# Ticket Creation (2/2)



- Main Menu
- Home
- Ticket Management
- Contact Us
- User Menu
- View Account
- Edit Account
- Notifications
- Logout
- Inbox

- Mail
- High
- No tick
- New
- No tick
- Open
- No tick
- My
- No tick
- Batch
- With s
- No Aut

Site Search

Search

**Create a Ticket**

**Username:**  Lookup User

**Class:**

**Priority:**

**Subject:**

**Description:**

**Add File:**

Site Search

Search

[List of search results]



# Ticket Creation (2/2)



- Main Menu
- Home
- Ticket Management
- Contact Us
- User Menu
- View Account
- Edit Account
- Notifications
- Logout
- Inbox

- Ma
- No tick
- Batch
- With s
- No Aut

**Create a Ticket**

**Username:**  Lookup User

**Class:**

**Priority:**

**Subject:**

**Description:**

**Add File:**

- Accounting
- Authorization / Authentication
- Data Management
- Grid Interactive
- Grid Monitoring
- Grid MPI jobs
- Grid Portal
- Grid User Environment
- Information System
- Other
- Security
- Site CECUM-ME
- Site CENAPAD-UNICAMP
- Site IHEP-BEIJING
- Site IISAS-BRATISLAVA
- Site INAF-CATANIA
- Site INFN-CATANIA
- Site INFN-CATANIA ( gLite )
- Site INFN-CNAF
- Site INFN-CNAF ( gLite )
- Site INFN-PADOVA
- Site INFN-PADOVA ( gLite )
- Site ING-MESSINA
- Site IUCC-LCG2
- Site TRIGRID\_UNIPA
- Site ULA-MERIDA
- Site UNIANDES ( gLite )
- Site UNIDIST-GENOVA
- Workload Management



# Ticket Creation (2/2)



- Main Menu
- Home
- Ticket Management
- Contact Us
- User Menu
- View Account
- Edit Account
- Notifications
- Logout
- Inbox

- Mail
- High
- No tick
- New
- No tick
- Open
- No tick
- My
- No tick
- Batch
- With s
- No Aut

Site Search

Search

**Create a Ticket**

**Username:**  Lookup User

**Class:**

**Priority:**

**Subject:**

**Description:**

**Add File:**

Site Search

Search

[List of search results]



# Ticket Creation (2/2)



- Main Menu
  - Home
  - Ticket Management
  - Contact Us
- User Menu
  - View Account
  - Edit Account
  - Notifications
  - Logout
  - Inbox

**Create a Ticket**

**Username:**  Lookup User

**Class:**

**Priority:**

**Subject:**

**Description:**

**Add File:**

Site Search

Search

- Item 1
- Item 2
- Item 3
- Item 4
- Item 5
- Item 6
- Item 7



# User Interfaces in this room



chania03



chania01



chania02



chania04



chania05



chania17



chania19



chania06



chania07



chania08



chania09



chania10



chania11



chania12



chania13



chania14



chania15



chania16



chania18

## User Credentials

Username: **chaniaXX**

where XX in [01..19]

Password: **GridCHAXX**





# UIs for laptop's users



IP: 192.168.128.10

chania20  
chania23  
chania26  
chania29



IP: 192.168.128.11

chania21  
chania24  
chania27  
chania30



IP: 192.168.128.12

chania22  
chania25  
chania28  
chania31

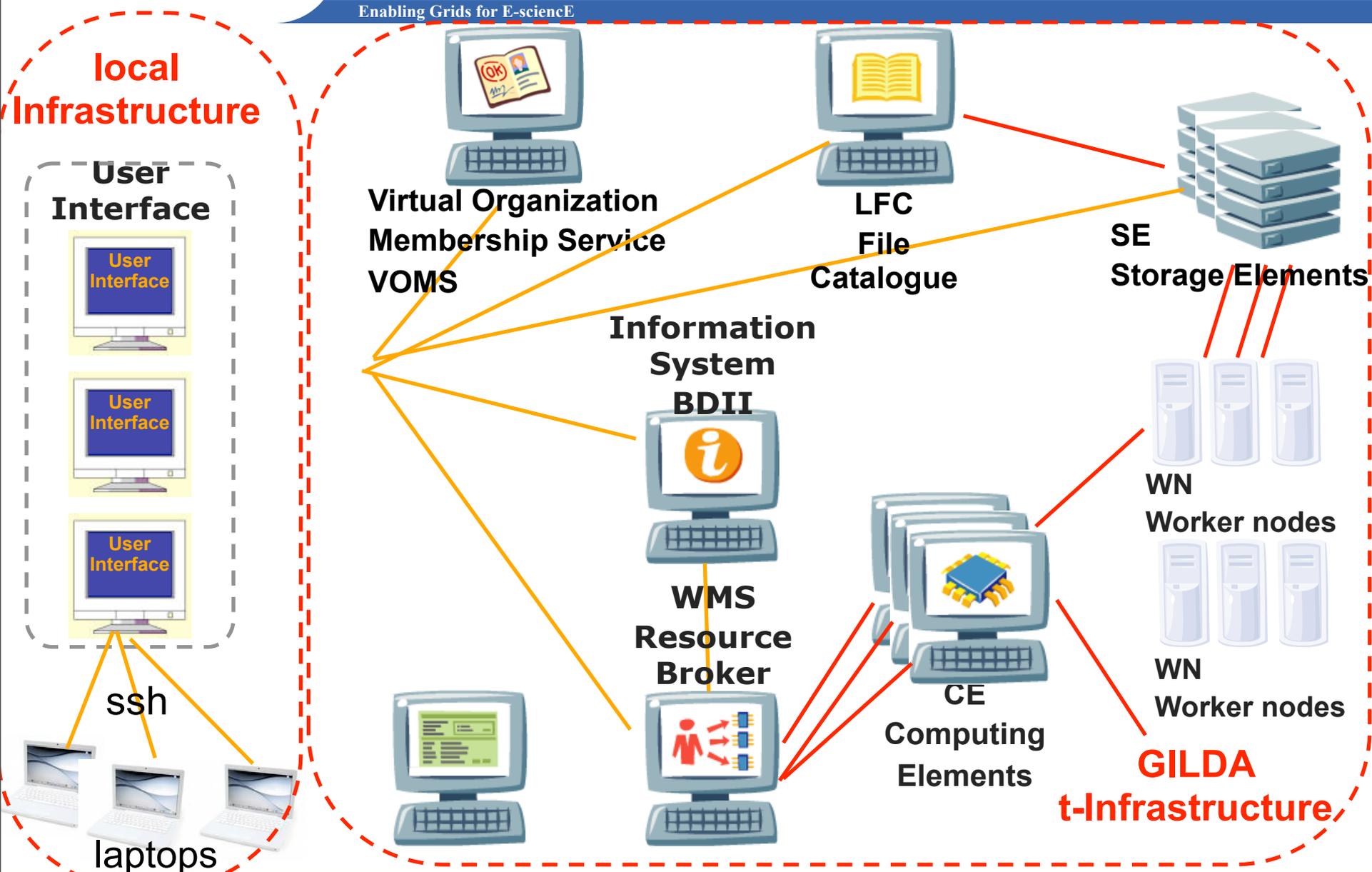
ssh [chaniaXX@192.168.128.yy](#)

where yy in {10, 11, 12}

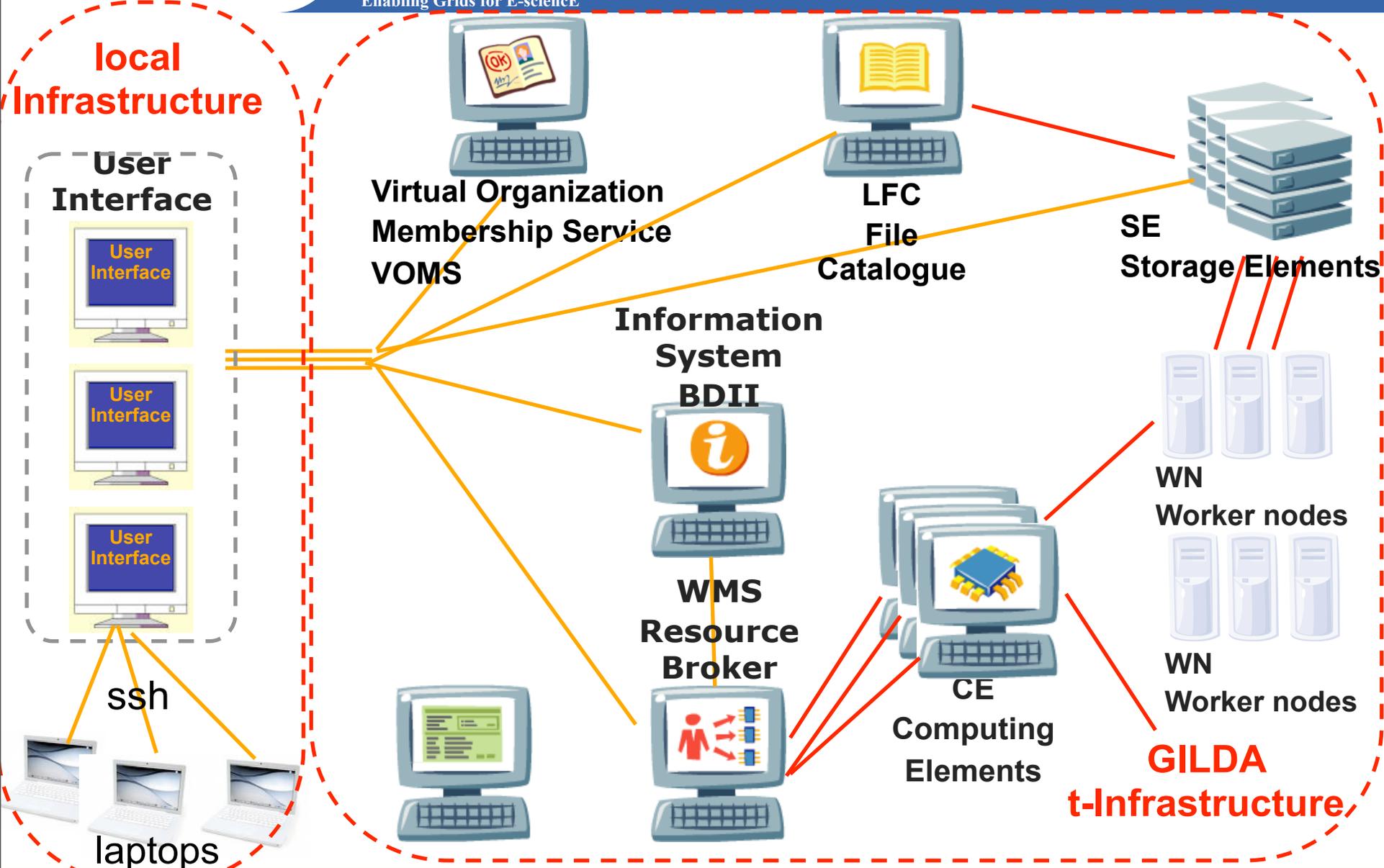
Password: **GridCHAXX**

where XX in [20..31]





**GILDA**  
**t-Infrastructure**





# Summary and Conclusions

GILDA is a virtual laboratory for dissemination of grid computing:

- It is a “de facto” standard t-Infrastructure adopted both by EGEE and many EU-FP6 projects (EELA, EUCHINAGRID, EUMEDGRID, EUINDIAGRID, ICEAGE, etc.)
- It is a complete suite of grid elements (test-bed, CA, VO, monitoring system, web portal, user interfaces, support system) and applications fully dedicated to dissemination purposes and pre-porting of new applications to EGEE Infrastructure
- GILDA runs latest production version of the gLite middleware to make the transition from the t-Infrastructure to the e-Infrastructure easy and transparent

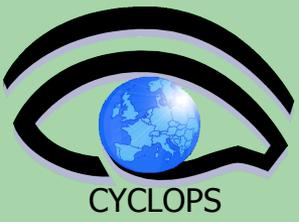




# References

- GILDA home page
  - <https://gilda.ct.infn.it>
- GILDA Certification Authority
  - <https://gilda.ct.infn.it/CA/>
- GILDA Virtual Organization
  - <https://voms.ct.infn.it:8443/voms/gilda/>
- GILDA Support System
  - <http://gilda-support.ct.infn.it>
- GILDA Form for Bookings
  - <http://gilda-support.ct.infn.it>
- GILDA Repository of Training Material
  - <https://grid.ct.infn.it/twiki/bin/view/GILDA/WebHome>
- GILDA Virtual Services
  - <https://gilda.ct.infn.it/VirtualServices.html>





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and Media

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**Thank you very much for  
your kind attention!**

