



## **GILDA: A point of entry to the EGEE Grid infrastructure**

### **The Idea**

EGEE is in the business of building Grids, specifically a very large scale production Grid for scientists around the world. While this one Grid is the project's major product, building it actually requires the construction of many smaller Grids for a variety of tasks such as software testing and pre-production. It also requires resources to aid demonstrations and in-depth training sessions for users and administrators. While simulations and other virtual training systems might have been used, EGEE has access to a 'real world' training system: the GILDA testbed.

Launched in 2004 by the EGEE partner INFN, GILDA (the Grid INFN virtual Laboratory for Dissemination Activities) is a fully working Grid testbed devoted to dissemination activities, and allows both users and system administrators access to first hand experience with Grid systems. In the context of EGEE, GILDA acts as a crucial component of the project's t-Infrastructure (training infrastructure) programme, helping to pass on knowledge and experience, as well as computing resources, to the scientific community and Industry.

### **The Product**

The GILDA testbed consists of 20 sites on three continents, using heterogeneous hardware to act as a 'real world' grid environment. It is made up of all the components of a larger Grid project, including testing and monitoring systems. To allow use of the testbed by any interested party, it also features a Virtual Organisation and a real Certification Authority (CA) that grants two-week certificates for the test use of the GILDA infrastructure. To tailor GILDA to the t-Infrastructure needs of EGEE, it features a number of different portals for different uses, including basic portals for first time users and full featured ones for more in depth tutorials and demonstrations.

GILDA fits seamlessly into the EGEE training and dissemination activities on a number of levels. It acts as a first point of contact for new users, allowing them quick and easy access to a working Grid and experience with the system of Virtual Organisations and CA used in Grids across the world. Later, it also acts as a resource for EGEE training activities such as demonstrations, tutorials and hands-on sessions. So far it has been used for more than 170 induction courses and demonstrations, with its website generating several million hits from many of countries in the world. Finally, GILDA acts as a mini-production environment, allowing users to test applications ported to the EGEE infrastructure.

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The GILDA testbed is a very useful resource in its own right, but also forms part of the 'Virtuous Cycle', the process whereby EGEE aims to recruit new user communities. As well as giving first hand grid experience, successful use of the GILDA testbed aids recruitment of future users by providing an increasing pool of applications for use in Grid demonstrations.

## Using GILDA

GILDA is open to anyone who wants to try out the Grid, be they EGEE partners or members of the public. By using EGEE's "Try the Grid" walkthrough (see link below), users are able to get quick and easy access to the Grid, as a demonstration but also for the full Grid experience (including obtaining an authentication certificate and joining a Virtual Organisation). In addition, GILDA runs gLite, EGEE's new lightweight middleware solution, keeping in step with the project and allowing users access to cutting edge technology.

At a more advanced level, GILDA offers a one-of-a-kind service for those interested in testing the Grid, gLite and the EGEE infrastructure with their own systems. While offering basic experience through the "Try the Grid" walkthrough in minutes, GILDA can also offer far more intensive and in-depth introductions to the Grid. In just a week, the GILDA team will train you in Grid usage, port your application to gLite and customise the Genius Grid portal for your work, providing instant Grid experience tailored to your needs.

## The EGEE Project

The second phase of Enabling Grids for E-Science (EGEE) is an EU funded project to build a 24/7 Grid Production Service for scientific research. Already serving many scientific disciplines, it aims to provide academic and industrial researchers with access to major computing resources, independent of their location. The EGEE project is led by CERN, the European Organization for Nuclear Research, and involves over 90 partner institutions across Europe, Asia and the United States.

## Links & Contacts

### EGEE Contacts

Industry Forum contact	<a href="mailto:s.parker@metaware.it">s.parker@metaware.it</a>
Press Office contact	<a href="mailto:pressoffice@eu-egee.org">pressoffice@eu-egee.org</a>
Project Office contact	<a href="mailto:projectoffice@eu-egee.org">projectoffice@eu-egee.org</a>

### GILDA Contacts

GILDA contacts	<a href="https://gilda.ct.infn.it/contacts.html">https://gilda.ct.infn.it/contacts.html</a>
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### Websites

EGEE homepage	<a href="http://www.eu-egee.org">http://www.eu-egee.org</a>
GILDA homepage	<a href="https://gilda.ct.infn.it/">https://gilda.ct.infn.it/</a>
Try the Grid	<a href="http://www.eu-egee.org/try-the-grid">http://www.eu-egee.org/try-the-grid</a>

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