GRIA:
A grid for today

The GRIA middleware is a Grid infrastructure developed by IT Innovation which is designed to allow businesses to supply and/or procure and federate computational services on a commercial basis.

The main distinguishing features of GRIA compared to other Grids is that it is based entirely on familiar Web Services technology, supports (and enforces) well-defined procurement and billing processes between service providers and consumers, and it is designed for easy integration with legacy computing cluster facilities and applications. GRIA was originally developed in the EC project of the same name (Grid Resources for Industrial Applications). In that project, the software was tested by two industrial users: CESI (part of the Italian Enel Group) who used it to outsource calculations needed to verify the condition of old (1930's vintage) hydroelectric dams, and KINO (a well-known Athens-based TV and movie production company) who used it to improve the productivity of animators building and rendering 3D virtual scenes for TV commercials.

The original GRIA project ended in November 2004, but GRIA the software lives on. Leading industrial partners in the SIMDAT project have concluded that GRIA is an important Grid technology that will improve collaborative engineering of complex products. Aerospace and automotive sectors within SIMDAT are looking to define new business models that will demonstrate how various engineering disciplines can collaborate more effectively across organisation boundaries. GRIA's support for B2B business processes, rigorous security mechanisms and adoption of industry-led Web Service standards is ensuring acceptance within both sectors.

BAE Systems and EADS are working with IT Innovation to deploy GRIA in a showcase multi-disciplinary optimization workflow for the collaborative design of a low-noise, high-lift landing system. Renault, IDEStyle and ESI are deploying GRIA to support OEM/Supplier collaborations where the confidentiality of component data needs to be maintained between participating organisations during simulation workflows. Meanwhile, GRIA will be integrated with other Grid software such as OGSA-DAI and with tools from the PROVENANCE project.

GRIA is even making a successful transition from industrial to academic use! GRIA 3.0 was adopted by the UK OMII as its starting point, and a repackaged version of GRIA 3.1 is now being supplied by the OMII to academic e-Scientists.

GRIA is now at version 3.2 and is available as open source. It can be obtained via the GRIA website at http://www.gria.org