

## Introduction to the Grid

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The grid is an emerging paradigm for organizing scientific work, and for sharing resources, such as computers, networks, storage capacity, or large-scale scientific instruments, but also data, and eventually knowledge. The presentation will give an introduction to activities of recently initiated Japanese grid projects, including such as Business Grid, National Research Grid Initiative, Asia Pacific Grid and several AIST activities. Since 2003 two proposals for large grid projects have started. One of them, termed "Research Grid", aims at the deployment of a new grid enabled

infrastructure for scientific research. This is a grid "grand challenge" project, yet is an extension to the classical concept of the grid. The other one, termed "Business Grid", has objectives that go far beyond the classical concept of the grid and towards exploring the use of grid infrastructures in a business environment. New business models that can be put on top of the grid are a major concern of this endeavor, as are such issues as security and reliability. By opening the door towards the business field, OGSA has provided for an important stimulus towards launching this endeavor. As you all know, the grid is no longer owned by engineers and researchers alone, but is now attempting to venture in the business world. Finally, looking around countries in the Asian Pacific region, we realize a considerable number of quite significant grid projects that have been proposed as well as an increasing number of projects that actually got funded. It is the right time to make further steps and advance the grid further toward more

practical platform for everyone, a vision that I believe we all share.

We have continued the discussion with grid technology leaders across the Asia Pacific region, in order to explore possible directions for promoting grid technology on the ApGrid. Today, the goal of the ApGrid remains with providing a full-scale grid environment to enable practical experiment with grids and grid technologies. The status and recent experimental results will be covered.