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# Third International Workshop

# Agent based Cluster and Grid Computing

## at CCGrid 2003 in Tokyo, Japan (May 2003)

http://www.cs.cf.ac.uk/User/O.F.Rana/agent-grid-2003/

Managing access to computing and data resources is a complex and time consuming task. As Grid and Cluster computing matures, deciding which systems to use, where the data resides for a particular application domain, how to migrate the data to the point of computation (or vice versa), and data rates required to maintain a particular application ``behaviour'' become significant. To support these, it is important to develop brokering approaches based on intelligent techniques -- to support service discovery, performance management, and data selection. Intelligent agents provide a useful means to achieve these objectives. An important and emerging area within Grid computing is the role of service ontologies -- especially domain specific ontologies, which may be used to capture particular application needs. Using these, scientists may be able to share and disseminate their data and software more effectively. This has been recognised as being important -- and current efforts towards establishing "Semantic Grids" is a useful first step in this direction.

The agent community on the other hand can find Grid environments useful testbeds to deploy agents on a large scale. Often, within the multi-agent community, agents are restricted to a few 10s of agents, and often agents undertake identical tasks. To support Grid computing, agents can offer different roles, be organised into regional or national dynamic "groups", and be able to migrate between groups to support load balancing. Therefore agents could play an important role in Grid Computing, and Grid Computing can offer useful testbeds for investigating Agent services. The Grid is not only a low level infrastructure for supporting computation, but can also facilitate and enable information and knowledge sharing at the higher semantic levels, to support knowledge integration and dissemination. The aim of this workshop is to bring together both infrastructure developers, and applications developers, who are working towards the vision of an Information Grid using agent technologies. The workshop will also aim to inspire and encourage collaboration between these two communities.

Authors are encouraged to:
• Submit a full paper (max: 6--8 pages in length)
• Submit a research statement (max: 2 pages in length)