| Paper | : *Grids: Top Ten Questions*. J.M. Schopf and B. Nitzberg |
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## Discussion

1. Some students suggested that users should be able to run theirs applications on the grid in a seamlessly fashion. Users should not care where their applications are running, but just execute them on the grid. In today's grids, however, users must manually set up the entire scenario to run an application on the grid. That is, all the necessary software, data, special configurations, etc. need to get replicated to all the participating machines in the grid (on all sites) where the application will run. Some people suggested that the lack of standards makes this complication together with the socio-political issues.

2. The agnostic argued the sequence of steps, described as tedious and complex, to run applications on the grid are clearly differentiated by the nature of the task. Anyone wanting to run grid application will not go through all these steps all the times. First, system administrators are in charged of the installation and configuration of all the necessary components of the grid infrastructure. Second, developers are dedicated to write lines of code to build grid-enabled applications. The installation and set up steps are done once, whereas the programming is done many times; maintenance of the infrastructure will eventually require upgrading the software or adding physical components to the infrastructure, but it's not something that is done every day. So, it is not true that to run a grid application a grid user will execute all the sequence of steps, from installation until submission of the job, every time.

3. On June 26th 2006, two previously independent groups signed an agreement to work together on defining grid standards and promoting the implementation of grid technologies in the industry: Global Grid Forum (GGF) and Enterprise Grid Alliance (EGA). The former often times associated to **scientific/academic grids**, while the latter dedicated to deal with technical issues on **enterprise grids**. The new group is called Open Grid Forum (OGF). This group seems to be the unique body that was missing to standardize the existing standards and foster grid utilization in all the fields. You can see the details of this new group at http://www.ogf.org

4. Also, important differentiating points of grids against traditional distributed computing environments that were overlooked in this paper are cost-effectiveness and loosely coupled machines. Cost-effectiveness is relevant because otherwise, assuming you had enough money, you could use supercomputers and computer clusters to solve resource intensive problems in a timely fashion but at a very high economical cost. On the other hand, the grid is assumed to run on an unreliable network, as opposed to supercomputers or computer clusters that run on very

reliable and fast network interconnects, so considerations like high availability and performance should be taken into account.

5.  There are still some coordination issues in the development of grid applications. For example, two users may deploy a service with the same name and overwrite each other's work.