Grid Demo: — Technical Session on Live Demonstrations of Grid Technologies and Applications

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Recently, the Grid has been getting more and more popular not only in the academic world but even large companies like IBM, Sun and HP have expressed their strong interest in developing and providing Grid technology. A significant number of large national and international projects were launched world-wide to explore the possibilities of and advance this new technology. Large experimental scientific Grids, like physics, chemistry, biology, etc. Grids were built in the last couple of years with the hope that they will provide significant benefits for those communities in sharing and aggregating computing, storage and other resources, in achieving more intensive collaborative work and opening new ways of collaboration in the future.

Grid technology merges several important achievements of the past. Its roots came from distributed high-performance computing, parallel computing, high-throughput computing, network and Web computing. The current trends clearly show that the integration of these technologies will continue and will result in new standards in which new protocols, services and APIs for uniform access to resources, selection, and aggregation will be developed. The new efforts such as Open Grid Services Architecture (OGSA), Legion/Jxta, CPM/Jxta, and Bayanihan/.NET are expected to demonstrate this integration.

In organizing this technical session, we have two main objectives. First, we want to demonstrate that Grid technology is an already feasible technology that can actively be used for the scientific and other communities. Second, by showing the results and problems of various existing Grids, we would like to provide some kind of feedback for the technology developer community to better understand what they have achieved so far and what are the significant weak links that represent serious obstacles in the usability of current Grid technology.