

Grid Computing Developments in India

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Several Indian Institutes including TIFR, BARC, VECC, SINP etc. are actively involved in the mega-science projects like STAR at BNL and LHC at CERN. Indian scientists are building large detector systems, so that they take part in data analysis and extraction of physics information from huge amount of raw experimental data. In these large experiments, apart from path breaking developments in the areas of detector technology, electronics, instrumentation, development of upcoming Grid technology for handling Terabytes amount of experimental data requiring hundreds of Teraflops of computing stands out as unique technology.

Thus integration of all resources available in all collaborating places via high-speed Internet-II similar to electric Grid is the only solution for handling this problem. This is not just connecting computers around the world but it is a technology where one needs to deal with the problem of connecting heterogeneous systems, data security & connecting them at high speed so that they break the barrier of distance and many other issues. This World Wide Grid Technology driven by High Energy Researchers at the moment would surely reach out from high-energy physics to e-governance and then in medical, geophysics, weather & many other areas very soon.

Over the years since Independence, India has built up a tremendous S&T platform, backed by a growing industrial base. For some reason Indians are very good in software and that is proven beyond doubt. It is therefore natural that we make a huge contribution in solving this complex problem and make Internet computing and data handling a reality.

This presentation will describe various Grid initiatives in India, its development, current status and the tools developed with brief description of various applications benefited from this Grid technology.