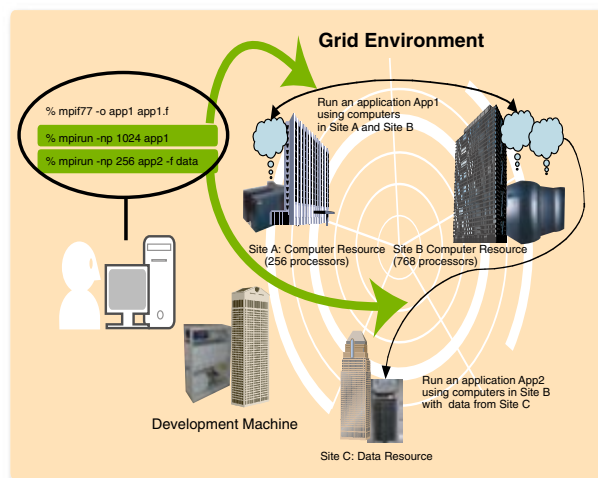# GridMPI: MPI Communication Library for the Grid

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The GridMPI is an implementation of the Message Passing Interface Standard (MPI) designed for high performance computing in the Grid environment. It establishes a synthesized single cluster computer environment by gathering multiple cluster computers from distant locations in the Grid. It realizes latency-aware interoperable communication, and employs optimizations in each level of the communication layers. Since it follows the widely-used MPI standard, users are allowed to develop applications using thier usual environment on a local computer, then to seamlessly deploy them to the Grid.
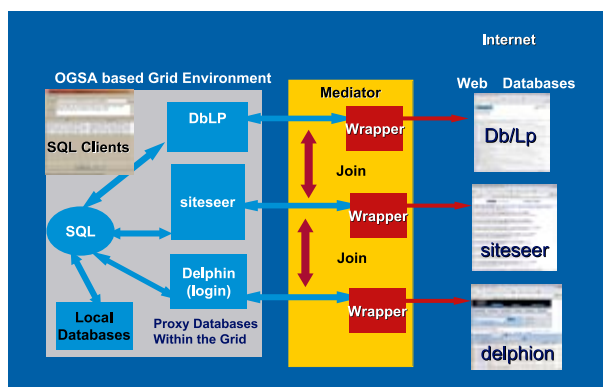

GridMPI Usage Scenario

Service Based Database Integration within the Grid Environment

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Distributed and heterogeneous database integration based on Grid technology is an emerging research topic especially for scientific databases. There is currently an enormous number of databases on the web and the problem is how to interface these existing web databases easily in the Grid. We have developed a system called OGSA-WebDB which brings existing web resources into the Grid without any modifications.

System Architecture of OGSA-WebDB