Benchmarks for Grid computing: A Review of Ongoing Efforts and Future Directions

Title: Benchmarks for Grid computing: A Review of Ongoing Efforts and Future Directions

Authors: A.Snavely, G.Chun, H.Casanova, R.F.Van der Wijngaart, M.A.Frumkin

Abstract: Grid architectures are collections of computational and data storage resources linked by communication channels for shared use. It is important to deploy measurement methods so that Grid applications and architectures can evolve guided by scientific principles. Engineering pursuits need agreed upon metrics-a common language for communicating results, so that alternative implementations can be compared quantitatively. Users of systems need performance parameters that describe system capabilities so that they can develop and tune their applications. Architects need examples of how users will exercise their system to improve the design. The Grid community is building systems such as the TeraGrid [1] and The Informational Power Grid [2] while applications that can fully benefit from such systems are also being developed. We conclude that the time to develop and deploy sets of Grid benchmarks is now. This article reviews fundamental principles, early efforts, and benefits of Grid benchmarks to the study and design of Grids.

Reference: `@inproceedings{snavely03grid, Author = {Benchmarks for Grid computing: A Review of Ongoing Efforts and Future Directions}, Booktitle = {SIGMETRICS Performance Evaluation Review}, Title = {Benchmarks for Grid computing: A Review of Ongoing Efforts and Future Directions}, Year = {2003}}`