An OSCI TLM-2.0 Based Platform for Grid Computing Simulation

Abstract

In this paper a grid computing simulation platform, is implemented based on the OSCI TLM-2.0 standard. TLM-2.0 standard, offered as a layer on top of the System library, is becoming a key solution in system level design. The concurrency facility of TLM-2.0 on one side, and its ease of use on the other side, makes it an ideal choice for modeling and simulation of distributed systems. These days, one of the most important subjects in distributed system researches, is the corresponding scheduling algorithms. The simulation platform, implemented in this work can be configured easily for any scheduling algorithm and provides an opportunity for wide exploration in related design space.

Reference

- Rajkumar Buyya, Srikumar Venugopal, “A gentle introduction to grid computing and technologies”, Computer Society of India,CSI Communications, 2005
- John Aynsley, Doulos, “OSCI TLM-2.0 Language reference manual” by the Open SystemC Initiative (OSCI),2009
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Index Terms

Computer Science Distributed Computing
Key words

Grid computing

Modeling

Simulation

Transaction level modeling

SystemC

System level design