Distributed computing systems are designed to solve computationally
intensive problems with the help of convergence of computing resources scattered across the
network. Distributed computing object middleware technologies have bring revolutionary
concepts in the world of distributed computing and also made the building of distributed
computing applications more efficient and nearer to real world. But the selection of most
efficient distributed computing object middleware technology on the basis of different
performance metrics is an important research issue. In this paper we are presenting the
performance evaluation and comparison of distributed computing object middleware
technologies which include Common Object Request Broker Architecture (CORBA), Internet
Communication Engine (ICE), HORB, and TCP based Dot NET Remoting. Because these
distributed computing object middleware technologies have not been evaluated and compared
collectively on the basis of performance metrics which include overhead generation and round
trip latency. The results that we have gathered showed that ICE is showing better performance
in terms of overhead generation. And HORB has showed reduced round trip latency as
compared to other middleware's.
Reference

- Distributed Programming with Ice, Michi Henning, Mark Spruiell; www.zeroc.com/ice.html
- Microsoft® .NET Remoting, Scott McLean, James Naftel, Kim Williams, Microsoft Press.

- Florian Mircea Boain Aan Rares, RMI VERSUS CORBA: A Message Transfer Speed Comparison, Stidia Univ. Babes (Bolyai, INFORMATICA, Volume XLIX, Number 1, 2004
- Matjaz B. Juric, Ivan Rozman, Alan P. Stevens, Marjan Hericko, Simon Nash, Java 2 Distributed Object Models Performance Analysis, Comparison and Optimization; 2000 IEEE

Index Terms

Computer Science
Distributed Computing

Key words
Performance Evaluation
Distributed Computing Object Middleware technology

CORBA

HORB

ICE

Dot NET Remoting