Abstract

In this paper, a study on how to stabilize the performance of a distributed grid computing system is discussed. The key performance characteristics such as response time, throughput and scalability are vital to the operation of grid computing systems. Moreover, it is of utmost importance to have a computing network which is stable and less volatile. That is, when the performance factors of grid increase, it is prone to instability. Instability can arise due to rapid connection and disconnection of systems in the grid. In volunteer computing networks this is a huge problem that needs to be addressed. It is impractical to implement a complex algorithm to stabilize the grid as it would again require computing overheads and delays in response, which will make the system slow. Instead by using the data captured by the grid, the system needs to employ an algorithm which does not utilize huge computational power, at the same time, can be used as a versatile reservation algorithm.
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Index Terms

Computer Science
Algorithms
Keywords

GRA – Grid Reservation Algorithm