Abstract

In distributed system field, there are many challenges, and one of them is leader election. It is really tough task to find suitable and efficient algorithms for leader election. The main role of an elected leader is that it performs a centralized coordination after being selected and manages the use of a shared resource in an optimal manner. Whenever a failure occurs the new leader is elected by nodes using various algorithms so that nodes can continue working. In this paper, the proposal is a new approach, the improved heap tree mechanism for electing the coordinator. The higher efficiency and better performance in the presented algorithms with respect to the existing algorithms is validated through results.

References

Leader Election using Modified Heap Tree Method

“Elections in a distributed computing system”;
- Xio Dong Wang, Ying Jie Wu, Journal of Computer Science and Technology. 22(6): 898-903 An improved heap sort algorithm with $n \log n - 0.788928n$ comparisons in worst case.

Index Terms

Computer Science

Algorithms

Keywords

Modified Heap tree

Modified Heap tree method