A distributed system is a collection of independent entities that cooperate to solve a problem that cannot be individually solved. A mobile computing system is a distributed system where some of processes are running on mobile hosts (MHs), whose location in the network changes with time. Mobile distributed systems raise new issues such as mobility, low bandwidth of wireless channels, disconnections, limited battery power and lack of reliable stable storage on mobile nodes. This paper addresses the problem of fault tolerant computing in mobile distributed systems. The techniques described are based on checkpointing and roll back recovery.

Abstract

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Reference

- Alvisi, Lorenzo and Marzullo, Keith,” Message Logging: Pessimistic, Optimistic, Causal,


- Quagila, F., Ciciani, R., Baldoni, R., “Checkpointing Protocols in Distributed Systems with
- R K Chauhan, Parveen Kumar, Lalit Kumar, “Hybrid and intrusive synchronous checkpointing protocols for mobile distributed systems”, Accepted for publication in ACCST Journal of Research, Volume IV, No. 4, 2006


Index Terms

Computer Science  Distributed Computing

Key words

Distributed systems
Fault tolerance

Checkpointing
Mobile computing systems
Backward error recovery