

网络、通信、安全

## 数据网格下基于时间戳的副本一致性模型研究

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**摘要** 分析了目前数据网格环境下的副本一致性研究现状, 提出一种基于时间戳的副本一致性模型 (Replica Consistency Model Based on Timestamp, RCMTS), 克服了分布锁带来的时间延迟问题, 并在模拟环境OptorSim下与其他几种传统的模型算法进行比较, 实验结果表明该模型比传统算法更适合于网格环境中保持副本的一致性。

**关键词** [数据网格](#) [副本一致性](#) [时间戳](#) [OptorSim](#)

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## Research of replica consistency model based on timestamp for data grids

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### Abstract

This paper proposes a replica consistency model based on timestamp called RCMTS, which provides to distribute for the data grid system, efficiently, vivid replica consistency management mechanism. The model and experimental simulations are presented and evaluated by means of OptorSim as compared with the other several proposed coherence protocols. This model is superior to them as well as being suitable for the Data Grids environments according to simulations results.

**Key words** [data grid](#) [replica consistency](#) [timestamp](#) [OptorSim](#)

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