论文

一种3G中基于三层数据库的呼叫建立机制研究

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摘要
基于3G网络三层数据库结构中GLR (Gateway Location Register)服务区远大于VLR (Visitor Location Register)服务区的情况，考虑被呼业务本地化(即本地移动用户呼叫本地移动用户的比例占总呼叫数的比例大)，通过在GLR中设置缓存的方法，给出了一种新的呼叫建立机制。建立分析模型得到新机制的总代价函数和总时间延迟函数，并同基本呼叫建立机制以及2G网络基于VLR缓存的呼叫建立机制进行了对比分析，验证了新呼叫建立机制的优越性。
关键词　呼叫建立　位置管理　GLR　3G网络
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A Novel Call Setup Mechanism Based on Three-tier Databases in 3G

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Abstract
Based on the situation that the serving area of Gateway Location Register (GLR) is larger than that of Visitor Location Register (VLR) in three-tier database architecture in 3G network, this paper presents a novel call setup mechanism by taking consideration of the locality of the called traffic which means the number of local mobile users calling local users is a large part of the total call number and caching callee current GLR address in caller GLR database. An analytical model is established and the total cost function and total time delay function are presented based on the model. Then the performance of this mechanism is evaluated over the basic call setup mechanism and the VLR cache based call setup mechanism in 2G network. The outcomes show that the new call setup mechanism outperforms the other two mechanisms.
Key words　Call setup　Location management　Gateway Location Register (GLR)　3G networks

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