

论文

融合网络的NGN增值服务平台及建模分析

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摘要

该文提出一种融合网络的下一代网络增值服务平台以解决下一代网络应用服务器的性能问题。该平台将下一代网络应用服务器中的增值业务以网格服务的形式进行封装, 并为封装后的增值服务提供运行环境。平台采用一种基于网格技术的任务调度算法, 通过利用现有网络上的处理能力以提高系统整体处理能力和性能。采用随机Petri网对平台进行建模, 并进行性能仿真实验。实验结果说明本平台能较好地达到利用网络中空闲处理能力以提高系统整体性能的目标。

关键词 [下一代网络](#) [网格](#) [增值服务平台](#) [随机Petri网](#)

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A Grid-Enabled Value-Added Service Platform in NGN and Model

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Abstract

This paper introduces a value-added service platform in Next Generation Network (NGN) enabled by grid technology to solve the performance issue with traditional application server in NGN. All of the value-added services hosted by this platform are wrapped into grid service. This platform provides running environment to value-added service in NGN. A grid-based task scheduling algorithm is also proposed with this platform. This grid-based task scheduling algorithm can solve the system performance bottleneck problem when system gets overload by leveraging existing resources in the same virtual organization with the help of grid technology. This paper models the service platform using Stochastic Petri Net (SPN), and the simulation experiment is done with SPNP (Stochastic Petri Net Package) to test the performance of the service platform according to this model. The simulation result verifies the platform can achieve the goal of improving the system performance.

Key words [NGN](#) [Grid](#) [Value-added service platform](#) [Stochastic Petri net](#)

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