Construction and Application of an Integrated System for M-P2P and On－Line Shopping Platforms

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ABSTRACT

For users’ convenience, this study synthesized various information resources of handset merchandise to create a new on-line and mobile trade system. By incorporating the characteristic of resources sharing for peer-to-peer techniques and the high degree of human-machine interaction for mobile devices, the proposed trade system could be used anywhere and anytime. The proposed system was divided into three hierarchical components, including super nodes, relay terminals and mobile terminals, for efficiently utilizing the limited resources of mobile devices. The three components were devised for the global indexing plus the update of internet web databases, web plus regional enquiries, and user interaction, respectively. Moreover, there were six modules deliberately designed on the mobile terminal, including user interface module, connection control module, communication module, merchandise management module, search module and information display module. In the research, JXTA API was used to implement the hierarchical components of super node and relay terminal, and JXME API for mobile terminal. Compared with existing trade systems, the framework and operational procedure of the designed system are more flexible, efficient and sound. The proposed trade system is supposed to successfully provide another feasible and novel form of shopping systems through the posterior evaluation of satisfaction questionnaires for users.

Keywords : jxta

Table of Contents

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