

IMPLEMENTATION OF A DISTRIBUTED COMPUTING APPLICATION USING ADVANCED JAVA TECHNOLOGY

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ABSTRACT

Over the next decade, the computing landscape will change dramatically as devices become ubiquitous, network connected, and ready for communicate. As the landscape changes, the way people design and build software will change as well; the distributed application will become the natural way people build system, while the standalone desktop application will become nearly extinct. Designing distributed software is remarkably hard, however. The fundamental characteristics of a networked environment and the difficulty of “gluing together” multiple, independent process into a robust, scalable application present the programmer with many challenges that don’t arise when designing and building desktop applications. Therefore, this project is intended as a research study distributed computing, which includes parallel computing. The author mainly focuses on providing a new solution for distributed computing problems, which is JavaSpaces Technology, a simple and powerful tool that eases the burden of creating distributed application. Processes are loosely coupled-communicating and synchronizing their activities sing a persistent object store called spaces, rather through direct communication. This method of coordinating distributed processes leads to a system that is flexible, scalable and reliable.