SocialGrid: Utilising Power of Social Networks for Distributed Computing

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Today discoveries in science are hardly possible without using massive computing power and processing large amounts of data. Unluckily, few researchers can afford to create and support their own cluster for computing with sufficient power. At the same time more than 2.5 billion people surf the Internet every day. For simple displaying web pages no more than 10% of CPU is generally used. If the remaining 90% could be used to assist research projects, then mankind would receive the world`s largest distributed computing system with the performance of more than 47 exaFLOPS. The purpose of this research project is to develop a distributed computing system, which could utilize the unused computing power of Internet users to solve complex science problems. The main idea of the system is to use a browser as a computing element. The system has to be able to easily expand, shouldn't require special software, shouldn't interfere with the user and should be convenient for developers. The result of the project is the distributed computing system. The system has some advantages in comparison with its desktop analogs (like BOINC), such as expandability by connecting web-sites audience. There is no need to install special software and tasks can be written in one or more languages (the system can recompile some languages for using in web). Thanks to the system API and a special library, developers can use it directly from science project source code. The developed system provides opportunities for thousands of science projects which had no access to required computing power. It's being used in actual research projects and could became the largest distributed computing system in the world. This will utilize the unused potential of the Internet to help humanity.

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