

Lab: Mobile Hattrick

Hattrick (www.hattrick.org) is an online football management game that gained enormous popularity during the last few years. According to the Hattrick-website, more than 500'000 users from over 100 countries are currently participating in the game.



Bluetooth enabled mobile devices, such as smart phones and PDAs increasingly enter the market and provide a new gaming platform with its own characteristics. The success and simplicity of Hattrick suggest implementing a similar game for this new environment.

The basic idea is, that every participant has his/her own team managed on his/her mobile device. Whenever another player comes into the Bluetooth connection range, a game can be played or transfers can be made, and so on. Compared to the online version, a multitude of new problems emerge in such a mobile environment.

Obviously it is not possible to have leagues and a regular schedule of games in a decentralized architecture. However, using rating systems such as the one used in tennis (ATP) or chess (ELO) could facilitate to maintain some kind of global ranking. Further, it is difficult to detect and avoid cheating. How can a player prove he has won a game and really deserves the points he gets? How to avoid that a user alters the abilities of his players making them all Rolandinhos? How to make sure that random decisions are really random and not influenced by one of the players? Studying cryptographic protocols (such as multiparty computation) and coming up with a clever concept of the game that allows overcoming problems, such as those mentioned above, will make up the first part of the project. Then, the game has to be implemented in Java on real devices.

Further Information:

- www.hattrick.org (Hattrick website)

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