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An efficient privacy-preserving solution for finding the nearest doctor

Drosatos, George

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Title:	An efficient privacy-preserving solution for finding the nearest doctor
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Author:	George Drosatos Pavlos S. Efraimidis
Abstract:	In this work, we define the Nearest Doctor Problem for finding the nearest doctor in case of an emergency and present a privacy-preserving protocol for solving it. The solution is based on cryptographic primitives and makes use of the current location of each participating doctor. The protocol is efficient and protects the privacy of the doctors' locations. A prototype implementing the proposed solution for a community of doctors that use mobile devices to obtain their current location is presented. The prototype is evaluated on experimental communities with up to several hundred doctor agents.