MUDR and Mobile Communication

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1. Introduction

The European Centre for Medical Informatics, Statistics and Epidemiology – Cardio (EuroMISE Centre - Cardio) is focused on new approaches to design of electronic health record (EHR). Developed EHR application – *MUltimedia Distributed Record* (MUDR) [1] includes the possibility of physician's mobile data access. This possibility is enabled by three-layer architecture consisting of a data layer, an application layer and a user interface. By virtue of the defined communication interfaces based predominantly on HTTP, HTTPS, XML and WAP protocols, it is possible to use clients for various purposes (e.g. medical data entering and their visualisation, statistical data processing or mobile data accessing).

For our purpose another advantage of the MUDR lies in separation of recorded values and other information stored in database allowing to obtain general information from knowledge base without any interference with a particular patient data. This is crucial from the point of data security.

2. Modules and Methods

Development of *MUDR Mobile Data Access* consists of three different modules. *MUDR-WM* is a module using WML developed for lowest possible requirements and security constraints. It allows physician to get general information about drugs, medical guidelines, recommended values etc. in a brief form advisable to basic mobile clients such as mobile phones using WAP. *MUDR-GD* module allows physician to compare medical guidelines (in the pilot version the hypertension guidelines [2]) with the stored patient record. It keeps low system requirements, but counts on higher security. *MUDR-JM* module development focuses on new technologies and tries to enable similar functions as MUDR PC clients by using Java for mobile devices as system environment.

3. Discussion

Usage and capabilities of mobile modules depends mainly on the development in mobile communications. We attempt to respect this fact by using most supported and popular tools.

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References

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