

Využití J2ME při vývoji telemedicínských aplikací pro klasické mobilní telefony

Josef Špidlen

*EuroMISE centrum – Kardio, Ústav informatiky AV ČR
Pod Vodárenskou věží 2, 182 00 Praha 8*

spidlen@euromise.cz

Abstract.

Špidlen J.: J2ME Usage in Telemedicine Applications Development for Classical Mobile Phones.

Lately we have been undergoing a significant progress in the field of telecommunication services and information technologies. A mobile phone becomes an indispensable tool permanently providing a wider range of services and more frequently implementing runtime support for applications in the Java language. In the research frame of the EuroMISE Centre we naturally dealt with the question whether and how it would be possible to utilize mobile Java for telemedicine applications development. The paper brings an overview of the smallest Java edition – Java 2 Micro Edition (J2ME) – and it also summarizes possibilities of the „Connected Limited Device Configuration” (CLDC) and “Mobile Information Device Profile” (MIDP) specifications. The specifications are analyzed mostly in relation to the possibilities applicable in telemedicine applications. Brief instructions how to develop a telemedicine application in the Midlet form and how to work with a mobile phone user interface are described. Possibilities of communication with the server application on Internet are outlined. The pilot J2ME application formalizing medical guidelines for hypertension treatments – „1999 WHO/ISH Hypertension Guidelines“ is introduced. Readers may try this application by themselves. Restrictions met in most contemporary mobile phones are discussed in conclusions. There are also described possibilities brought by new J2ME specification versions, which are gradually implemented in the latest mobile devices on the market.

Keywords: Java, J2ME, Telemedicine, Medical Guidelines, Hypertension