Contribution ID: **71**   Type: **sectional reports**

An interactive tool for developing distributed telemedicine systems

Monday, 30 June 2014 17:15 (15 minutes)

Carrying out qualified medical examination can be difficult for people in remote areas because there might be no medical staff available or it might have no expert knowledge of proper level. Telemedicine is able to help in such situations. Firstly, telemedicine technologies allow highly qualified doctors to consult remotely thereby increasing the quality of diagnosis and plan treatment. Secondly, a computer-aided analysis of the research results, anamnesis and information on similar cases assist medical staff in facilitation of routine activities and decision-making.

Creating a telemedicine system for a particular domain is a laborious process. It's not enough to find qualified medical experts and to fill the knowledge base of the analytical module. It's also necessary to organize the whole infrastructure of the system to meet the requirements in terms of reliability, fault tolerance, protection of personal data and so on. Tools with reusable infrastructure elements, which are common to such systems, are able to decrease the amount of work needed for the development of telemedicine systems.

An interactive tool for creating distributed telemedicine systems is described in the article. A list of requirements for the systems is given; structural solutions for meeting the requirements are suggested. A cardiac telemedicine system is described as an example of applying the tool.

Primary authors: Mr GUSHCHANSKIY, Dmitry (SPbSU);   Mr GUSKOV, Vadim (Herzen State Pedagogical University of Russia, St.Petersburg)

Co-authors: Prof. BOGDANOV, Alexander (Saint Petersburg State University);   Prof. DEGTYAREV, Alexander (Saint Petersburg State University);   Ms KULABUKHOVA, Nataliia (Saint Petersburg State University);   Mr BALYAN, Serob (SEUA);   Mr ABRAHAMYAN, Suren (SEUA)

Presenter: Mr GUSKOV, Vadim (Herzen State Pedagogical University of Russia, St.Petersburg)

Session Classification: Algorithms and methods of application tasks solving in distributed computing environments

Track Classification: Section 5 - Scientific, industry and business applications in distributed computing systems