EGEE'09 - Uniting our strengths to realise a sustainable European grid



Contribution ID: 167

Type: Poster

## Electrophysiology Data Analysis and Computing in Grid

## Project(s) or EGEE activity presenting the demo or poster (project or activity names only)

BalticGrid-II project

## Special requirements other than the set up mentioned in the CfA text.

Poster will have A0 format and will require a flat vertical surface to be posted.

## Abstract

Biomedical signals provide rich information about human health. Usually long-term monitoring is required in diagnosis and treatment of disease. Analysis of electrophysiological data is usually done manually by neurologist and is much time consuming. In poster the system of electrophysiology data computing and analysis using grid infrastructure is presented. The system includes EEG signal features detection, attributes and parameters computing, database construction, algorithms for some physiological phenomena (like epilepsy) detection and characterization., it posses huge amounts of data and make various analyses on it. The grid infrastructure (from BalticGrid-II project) is used for many applications and algorithms of the system. EDF standards are used for EEG files, many algorithms are implemented in Octave environment (open source analog of Matlab), and together with Octave are gridified and deployed in clusters of BalticGrid infrastructure.

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