

Medicare-Grid: new trends on the development of E-Health System based on
Grid Technology

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Abstract

The evolution of information technology over the last decade has brought opportunities to improvements in the state of art of medical services.

One scenario is that a patient' s digital health record can easily be shared among

hospitals and medical centers via internet, enabling the examination performed

in one location while clinical diagnosis be done by physicians in another.

In this

paper, we propose a Medicare-Grid — a novel grid-based E-health system proposed to ease the process of retrieving and exchanging personal health data

among hospitals and medical centers. Grid and peer-to-peer technologies have

been used to integrate computing and storage resources provided by hospitals,

as also to develop an Electronic Health Record (EHR) center to store and share

EHRs among these locations. We have also developed a system prototype using

ultimate hardware resources and open source software systems to simulate a real scenario as described above. We demonstrate that the idea proposed in the

project is feasible, possible to be implemented and applicable to real world.

Keyword : Grid, E-health, P2P, data mining, RFID, wearable measuring system.