

eClinics Integration Techniques to Clinical Information Systems moving into a National Network

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Only the Abstract is available

Abstract

Patients in rural areas in developing countries have less access to specialised consultations within their hometown. They are required to incur a great cost, time and effort to reach a Health Institute that provides specialised health care. Yet, it is discovered that through the utilisation of comparatively cheaper Information and Communication Technology advances, it is possible to provide better health services for developing regions. The healthcare delivery setting in rural parts of Sri Lanka today exposes limited access to highly specialised consultancies. It is stated that 35 per cent of the medical specialists in the curative sector are concentrated in the Colombo district. A pilot project funded by the Information and Communication Technology Agency of Sri Lanka (ICTA) was initiated connecting the Marawila Base Hospital and Dankotuwa Peripheral hospital which is situated around 33 miles away from Colombo in the North-Western province of Sri Lanka. The hospitals are connected through a web-based Electronic Medical Record (EMR) system along with a video-conferencing component through which a patient from his/her village peripheral hospital can consult a Specialist in the city/urban area to receive treatment with the assistance of a doctor in an eClinic.

After the successful implementation of this concept, a research is being carried out by the authors focusing on eClinics integration and role based access level security implementation to the Clinical Information Systems. The pilot project involves one-to-one connection. However, when going for a wider network in order to replicate the solution throughout the island, several integration techniques must be considered. This includes patient-to-eClinic, patient-to-consultant and hospital-to-eClinic connections. Also in the wider network with many eclinics integrated, access rights must be enforced to users using role based access level security model. This paper describes the architecture, methodology, features and security model of the eClinics Integration module in Clinical Information Systems.

Keywords - eClinic, Clinical Information Systems, EMR