Abstract

Medical records like - Patient Charts/Case Sheets, Discharge Summary, Visit Summary, Family Card, Rx History, Drug Interactions, Medications, Allergies, Problems/Diagnosis, Social Problems and Population Based Care are critical aids for doctors/physicians in making a patient’s Healthcare decision. Every year Healthcare industry players invest a major share of their budget in maintenance of medical records. Various non-profitable organizations also enforce restrictions on representation, maintenance and transfer of healthcare details within and outside the organization.

EMR-Electronic Medical Records are replacing Paper Medical Records which is now considered a key initiative in the Healthcare industry. It is because Paper medical records are easily lost and damaged and also disappears during emergencies. They are often incomplete with incorrect or missing information. Doctors therefore end up duplicating tests, making uninformed decisions and delaying care.

But are EMR/Electronic charts really any better? - Unless it is available to providers at the right time.
Every now and then new technology arrives and influences our lifestyle and changes the perception of business in several ways. Many workflows in industry are being defined by technologies and EMR is one among them.

Nowadays more focus is on mobile industries and many technological applications bloom around it. We observed the new NFC technology, currently used in ticketing and payment systems, having great potential in healthcare industry. We did a detailed analysis of the NFC technology and healthcare workflows and found that it can be improved to a much better phenomenon with the application of NFC.

We came up with a novel framework of integrating NFC and healthcare workflows - involving cost effective secured representation of EMR inside the NFC tag. With our framework we made EMR available in remote areas with limited/no sophisticated devices with hundred percent availability to doctors/physicians for every patient. We evaluated our framework by building a system to update EMR on clinical visit flow and integrating with an EMR system.