

# **Computing for Human Services**

**Chief Editor**

**Shihab Ahmed Hameed**

*Electrical and Computer Engineering-IIUM University*

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## Chapter 30

### Confidentiality to Service Medical Emergency Model

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#### 30.1. Introduction

Medical Emergency System is a unified emergency web services information architecture which ties together the various data systems used by law, emergency medical and public health security agencies. Authorized agencies will register their name, emergency contact information and the incident types for which they want notification. The evolution from paper-based to computer-based patient records changes the way in which we have to perceive and deal with privacy and security issues. The ability to automatically manipulate data, the increased ease of possible access to vast amount of data, and their availability regardless of time and place all create a completely different and increasingly complex environment that challenges traditional approaches to confidentiality and security.

The main focus of this project; concerns information in diagnosing medical conditions based on a list of symptoms and prevent disclosure patient information due to making attack the data. In situation when the data contains patient information, the system must assure the confidential access to such information. It is imperative that patient identifiable information meet high standards of security to ensure patient confidence in quality health care.

#### 30.2. Integrated Emergency Healthcare

**Medical Emergency System:** The main architecture of an integrated Emergency, Healthcare, and Medical Information System (IEHMS) is shown in figure 1. This architecture consists of the following components:

- Web Server: listens for requests from Web browsers and upon receiving a request for a file sends it back to the browser.
- Database: stores all important and detailed information about the system stakeholder such as general users, emergency authorities, doctors, patients, hospitals and emergency centres, places or locations and events within the area of implementation. In addition, the