Radiology Information System (RIS)

Overview

The Radiology Information System supports all business processes of the radiology departments in a healthcare facility, such as patient registration and scheduling of imaging services for inpatients and outpatients, custom report creation, appointment booking and management of waiting lists. It complements a hospital information system (e.g., for billing, electronic health record, order management and picture archiving and communication) and is critical to efficient workflow to radiological practices.

The Radiology Information System application belongs to the nursing and medical applications family (ICS-M) of FORTH-ICS’ Integrated Care Solutions suite. It is based upon an open, scalable and evolvable architecture that integrates distributed information and knowledge in a flexible manner, focusing on the timely and effective delivery of the appropriate information to all authorized users. Being the outcome of applied research, it encompasses both state of the art trends and real-world requirements for effective use.

The main characteristics of the Radiology Information System application are:

- It can be installed either as stand-alone system or in combination with other ICS applications.
- It is a subsystem of an integrated solution.
- It supports automation of business processes both within and between healthcare facilities.
- It can electronically interface with third party applications and open devices. All interfaces are based on standards such as HL7, DICOM, XML, and web services.
- It is customizable and scalable according to the needs of each institution.
- It supports role based access control.

Target Domains

The application is suitable for radiology departments in healthcare facilities.
**Description**

**Main Functionalities**

The supported functionalities of the Radiology Information System application include: patient management, encounter creation (scheduled or unscheduled), recording of radiology exam findings, access and update of patient history, recording of drugs / materials used during the imaging examinations, and medical reports on imaging examinations. The application communicates with information systems for:

- Patient Admissions Office for electronic sending and receiving of patient and encounter data.
- Patient Accounting for electronic transmission of billing data.
- Business Intelligence/ MIS for the electronic transmission of data for statistical analyses.

**Minimum Technical Requirements**

**Database server:** Microsoft SQL Server 2000 SP3 or Oracle 10g R2 or PostgreSQL 9.1, 8 GB RAM, 200 GB Hard Disk. **Application Server:** 4 GB RAM, 200 GB Hard Disk. **Clients:** Compatible with the latest versions of popular web browsers (e.g., Microsoft Internet Explorer, Google Chrome, Mozilla, etc.). Windows desktop version also available.

**Additional Information**

The ICS suite follows high quality international trends regarding both the structure of the Electronic Health Record (EHR), as well as integration with third party systems through the use of internationally acclaimed standards and protocols (like HL7, DICOM, etc.). This system is deployed at more than 20 Hospitals in Greece since 2001.

The Nursing and Medical Applications (ICS-M) family of ICS is certified with the Seal of Quality Electronic Health Record (EHR) Level 2 by the European Institute for Health Records EuroRec. The testing took place in 2011 and proved compliance with all 50 Seal-2 criteria.

Other products of the nursing and medical applications family (ICS-M) of ICS include applications for Ward Management (WM), Supply Management (SM), Outpatient Clinic (OC), Emergency Department (ED), Operating Rooms Management (OR), Electronic Health Record for medical specialties: Pathology, Cardiology, Paediatrics, Orthopaedics, Intensive Care Unit (EHR), and Hospital IT Department (M-ITD).

**Contact details:** Dimitrios G. Katehakis  
katehaki@ics.forth.gr  
www.ics.forth.gr/ceha