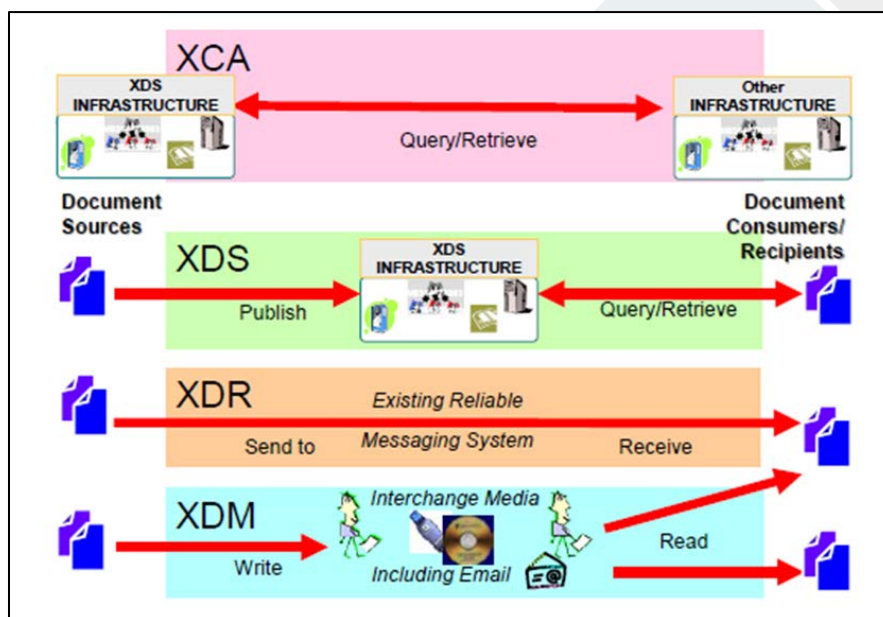


Standards Category: Information Exchange Standards

Information Exchanges Standards define the transport mechanisms of communicating (sending, receiving, obtaining) information. These mechanisms include:

- **Message-based communication** for point-to-point communication between information systems using Health Level Seven (HL7) version 2.x messaging standards
- **Document-based communication** via Health Information Exchanges (HIE) using HL7 Clinical Document Architecture (CDA) standard for structured documents expressed in eXtensible Markup Language (XML)
- **Secure email communication** of encrypted health information directly to cryptographically validated recipients over the Internet (Project Direct, <http://wiki.directproject.org/>)
- **Information access via Application Programming Interfaces (API)** using HL7 Fast Healthcare Interoperability Resources (FHIR) standards that represent granular clinical concepts which can be exchanged in isolation, or aggregated into documents. The resources are based on XML or JavaScript Object Notation (JSON) structures, with a Representational State Transfer (REST)-ful protocol where each resource has predictable URL. A RESTful API uses Hypertext Transfer Protocol (HTTP) requests to GET, PUT, POST and DELETE data.

Integrating the Healthcare Enterprise (IHE): Cross-Enterprise Document Sharing Models



Source: IHE, www.ihe.net. XCA - Cross-Community Access (XCA), XDS - Cross-Enterprise Document Sharing, XDR - Cross-Enterprise Document Reliable Interchange (XDR), XDM - Cross-Enterprise Document Media Interchange (XDM)

Resources

Orlova A. Health Information Technology Standards and Systems Interoperability Course. Henderson M. Lecture 8: Information Exchange Standards. Johns Hopkins School of Public Health (JHSPH) OpenCourseware. Johns Hopkins University. URL: <http://ocw.jhsph.edu/index.cfm/go/viewCourse/course/InfStandards/coursePage/index/>

Standards Category: Information Exchange Standards

ISO Technical Committee 215 Health Informatics (ISO/TC215)

Established in 1998, **International Organization for Standardization, Technical Committee 215, Health Informatics (ISO/TC215)** has over 70 member countries and liaison organizations representing millions of healthcare stakeholders worldwide. **The ISO/TC215 mission** is *standardization in the field of health informatics to facilitate the capture, interchange and use of health-related data, information, and knowledge to support and enable all aspects of the health system.*

The **US delegation** at ISO/TC215 is represented by the **Technical Advisory Group (ISO/TC215 USTAG)** – a committee accredited by American National Standards Institute – that develops US national positions on international standards. Since 2011 AHIMA provides Secretariat to ISO/TC215 and serves as Administrator to the USTAG at ISO/TC215.

ISO/TC215 develops international standards for semantic (shared content), technical (shared infrastructure) and functional (shared rules) interoperability. ISO/TC215 product portfolio contains **over 200 standards** including those under development. Information exchange standards are part of technical interoperability standards portfolio.

ISO/TC 215 Information Exchange Standards Examples

(IS – International Standard, TS – Technical Specification, TR – Technical Report)

ISO Number	Title
ISO/IEEE 11073	Point-of-care medical device communication
ISO/IS 12052	Digital imaging and communication in medicine (DICOM) including workflow and data management
ISO/IS 12967	Service architecture*
ISO/IS 13606	Electronic health record communication*
ISO/TR 16056	Interoperability of telehealth systems and networks
ISO/IS 17432	Messages and communication -- Web access to DICOM persistent objects
ISO/TR 18307	Interoperability and compatibility in messaging and communication standards -- Key characteristics
ISO/IS 18812	Clinical analyser interfaces to laboratory information systems -- Use profiles
ISO/TR 21730	Use of mobile wireless communication and computing technology in healthcare facilities
ISO/TR 28380	Integrating Healthcare Enterprise (IHE) global standards adoption
Under Development	
ISO/TS 21860	Reference standards portfolio -- Clinical imaging (RSP-CI)
ISO/ TR 22228	Healthcare applications of blockchain technologies

IEEE – Institute of Electrical and Electronics Engineers, URL: <https://www.ieee.org/>

* Under systematic review

Resources

ISO/TC215 Standards and Projects Catalog: <http://www.ahima.org/~media/AHIMA/Files/AHIMA-and-Our-Work/ISOTC215StandardsCatalog2017.ashx?la=en>

ISO/TC215 Website at ISO: <https://www.iso.org/committee/54960.html>

ISO/TC215 Website at AHIMA: <http://www.ahima.org/about/global?tabid=ISO>