PD ISO/TR 28380-2:2014



BSI Standards Publication

Health informatics — IHE global standards adoption

Part 2: Integration and content profiles

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National foreword

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 215, *Health informatics*.

ISO/TR 28380 consists of the following parts, under the general title *Health informatics — IHE global standards adoption*:

— *Part 1: Process*

— *Part 2: Integration and content profiles*

The following parts are under preparation:

— *Part 3: Deployment*

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Introduction

This part of ISO/TR 28380 describes the most recent Integrating the Healthcare Enterprise (IHE) Profiles developed by IHE. IHE specifies and facilitates adoption of profiles of selected standards to support carefully defined healthcare-related tasks that depend on information exchange. Use of IHE processes and of the resulting profiles accelerates the worldwide adoption of standards targeted to achieving the interoperability of health information between software applications within enterprises and across various care settings.

IHE is an initiative designed to stimulate the integration of electronic information systems that support the delivery of modern healthcare. Its fundamental objective is to facilitate the standards-based exchange of authorized and relevant health information for citizens as consumers of health services and for healthcare professionals in the care of their patients. Integrating these systems and devices both within the healthcare enterprise, across a variety of care settings, and personal health management services will empower patients and health professionals with efficient access to necessary health information.

The information exchange between IT systems, applications, and devices in healthcare is a complex process due to the wide range of medical specialities, the rapid evolution of knowledge, use of technology in the delivery service, and the broad range of stakeholders that need to cooperate.

Stakeholders include legislative institutions, governmental entities, insurers, vendors, employers, and care providers organized in a variety of entities ranging from the small physician practice to large hospital networks. Interoperability standards have proven quite complex to develop, driven by a wide range of standard development organizations each effective at engaging a subset of these many stakeholders.

In such a complex environment, standards require flexibility to account for a variety of environments within which they can be used. Removing this flexibility would only result in further fragmentation. An agreed upon process to rationalize the implementation of combined sets of these standards is required in order to address some of the most common cases of information exchange in a defined manner that can be tested.

This part of ISO/TR 28380 summarizes the successful work done by the IHE initiative, in which several of the ISO/TC215 member countries are engaged. This part of ISO/TR 28380 is intended to provide all ISO members with an understanding of the valuable experience gained, as well as access to the results achieved. The IHE is both a process and a forum that rationalizes at a multi-national level the adoption of interoperability standards that can be profiled and combined to meet healthcare needs.

IHE draws on established healthcare-specific standards such as those developed by ISO/TC 215, as well as general purpose IT standards, to define Technical Frameworks for the implementation of information exchange to further address specific healthcare improvement or clinical goals. It includes a rigorous testing process for the implementation of these Technical Frameworks. It also organizes educational sessions and exhibits at major meetings of healthcare professionals to demonstrate the benefits of these frameworks and encourages their adoption by the healthcare industry, the technology industry, and other stakeholders worldwide. These elements are further discussed in this part of ISO/TR 28380.

By facilitating the adoption of internationally recognized standards (e.g. ISO, HL7, DICOM, IEEE, IETF, and OASIS) in healthcare, IHE is doing what "Wi-Fi" has done in the field of wireless networking to the adoption and deployment of the IEEE 802.11 standard. The IHE process produces detailed implementation guides called "Integration Profiles or Content Profiles" Each Profile references foundation standards from Standards Development Organizations (SDOs) and constrains them as allowed by the parent SDO.

IHE makes configuration choices where necessary in these standards to ensure that IT systems or devices commonly used in healthcare can easily exchange information in the context of the specific but broadly required use case. When clarifications or gaps are identified in the standards, IHE refers recommendations to the relevant standards bodies. To this end, IHE maintains liaison relationships with all major SDOs involved in healthcare (e.g. ISO, HL7, CEN, DICOM, and IEEE).

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The intended audience for this part of ISO/TR 28380 includes, but is not limited to, the following:

— IT departments of healthcare institutions;

— technical and marketing staff in the healthcare information technology industry;

— experts involved in standards development;

— those interested in integrating healthcare information systems and workflows;

— leadership in national and regional healthcare information exchange projects.

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Health informatics — IHE global standards adoption —

Part 2: Integration and content profiles

1 Scope

This part of ISO/TR 28380 describes the most recent Integrating the Healthcare Enterprise (IHE) Profiles developed by IHE. These profiles of selected standards support carefully defined healthcare-related tasks that depend on information exchange. It accelerates the worldwide adoption of standards targeted to achieving the interoperability of health information between software applications within enterprises and across various care settings. Each available Integration or Content Profile is described with reference to the specification provided.

ISO/TR 28380-1 is a companion to this part of ISO/TR 28380. The reader is encouraged to be familiar with the process followed by IHE in developing the Integration and Content Profiles described in this part of ISO/TR 28380.

2 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/TR 28380-1 and the following apply.

2.1
actor
functional component of a system that exchanges transactions with other actors as defined in an IHE Integration Profile

2.2
Content Profile
coordinated set of standards-based information content exchanged between the functional components of communicating healthcare IT systems and devices

Note 1 to entry: It also specifies a specific element of content (e.g. a document) that can be conveyed through the transactions of one or more associated Integration Profile(s).

2.3
Connectathon
testing event at which developers have registered their system implementations for supervised interoperability testing with other systems implementations

Note 1 to entry: Each participating system is tested for each registered combination of an IHE Actor and IHE Integration or Content Profile.

2.4
deployment-production process
part of the IHE process that deploys into production healthcare delivery systems that effectively support end users with standards-based interoperability as specified by IHE

Note 1 to entry: Although the IHE process is not directly responsible to conduct these deployment projects in production, it expects that such projects will continuously provide feedback to the development process.

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