
**Health informatics — Token-based
health information sharing**

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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).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 215, *Health informatics*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The interexchange of patient health information between healthcare facilities is important for both patients and the facilities to ensure the continuity and safety of healthcare and to reduce unnecessary examinations. Exchange of health information using IHE XDS is known as an effective solution for accessing patient health information in real-time when needed to provide care.

NOTE 1 Integrating the Healthcare Enterprise (IHE) Cross-enterprise Document Sharing (XDS) architecture and specifications. See [Annex A](#) for more information.

However, the ability to share information using IHE XDS technologies tends to require high cost to build and maintain the necessary infrastructure, and it is sometimes difficult for each healthcare facility to create the operational policy for the interoperable exchange of patient health information using that infrastructure. Therefore, media such as CD / DVD continues to be used for exchanging images and other health information (e.g. examination report, lab results, prescriptions, etc.).

In token-based health information sharing, each HI-TOKEN (health information token) contains metadata of a health information document stored in a repository. The HI-TOKEN includes the document ID, which identifies the specific document to be shared. Therefore, there is no need to search for the document using, for example, patient identifying information as search keys. This saves time for the recipient to locate and retrieve the shared document.

A HI-TOKEN can be provided to the patient, who can provide it to the referred healthcare facility at his / her discretion. The referred healthcare facility can then use the HI-TOKEN to retrieve the shared document. This process has the additional advantage that it allows the patient to provide implicit consent for the information exchange in that they are in full control of providing the HI-TOKEN to the receiving care service provider.

Standardization of HI-TOKEN metadata and exchange formats minimizes the potential differences in interpretation between vendors implementing the corresponding systems, thereby contributing to the overall improvement of interoperability.

NOTE 2 [Annex B](#) provides an example implementation and data flow for a health information sharing system using HI-TOKEN based exchange, including data content and token format examples.