# HITSP Interoperability Specification: View Lab Results from a Web Application Transaction

# HITSP/IST-18



Submitted to:

**Healthcare Information Technology Standards Panel** 

Submitted by:

**Electronic Health Records Technical Committee** 



# DOCUMENT CHANGE HISTORY

Version Number	Description of Change	Name of Author	Date Published
1.0	Final Draft	Electronic Health Record Technical Committee	18 August 2006
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#### 1.0 FOREWORD

Healthcare Information Technology Standards Panel (HITSP) is a multi-stakeholder coordinating body designed to provide the process within which affected parties can identify, select, and harmonize standards for communicating healthcare information throughout the healthcare spectrum. HITSP functions as a partnership of the public and private sectors and operates with a neutral and inclusive governance model administered by the American National Standards Institute. The goal of the Panel is to:

- Facilitate the development of harmonized interoperability specifications and information policies, including SDO work products (e.g. standards, technical reports). These policies, profiles and work products are essential for establishing privacy, security and interoperability among healthcare software applications.
- Coordinate, as appropriate, with other national, regional and international groups addressing healthcare informatics to ensure that the resulting standards are globally relevant.
- Be use-case driven, utilize information from stakeholders and base its decisions on industry needs.

The HITSP shall serve the public good by working to ensure that the combined work of various healthcare information standards organizations supports interoperability, accurate use, access, privacy and security of shared health information.

In order to advance the goal of expanding harmonized interoperability specifications and information policies, HITSP was tasked with developing interoperability specifications for three main use case "breakthroughs areas" in which specific, near term value to the health care consumer could be realized. The harmonized use case areas are:

1. Biosurveillance		Transmit essential ambulatory care and emergency department visit, utilization, and lab
	4	result data from electronically enabled health care delivery and public health systems in
		standardized and anonymized format to authorized Public Health Agencies with less than
		one day lag time.
2.	Consumer	Allow consumers to establish and manage permissions access rights and informed consent
	Empowerment	for authorized and secure exchange, viewing, and querying of their linked patient
		registration summaries and medication histories between designated caregivers and other
		health professionals.
3.	Electronic Health	Allow ordering clinicians to electronically access laboratory results, and allow non-ordering
	Record	authorized clinicians to electronically access historical and other laboratory results for
		clinical care.

The interoperability specification provide a detailed mapping of existing standards and specifications such as implementation guides, integration profiles to actions and actors that satisfy the requirements imposed by the relevant use cases. It identifies and constrains standards where necessary, and creates groupings



of specific actions and actors to further describe the relevant contexts. Where gaps and overlaps are identified, the interoperability specification provides recommendations and a roadmap for corrections to be made.

#### 2.0 INTRODUCTION

This Transaction uses the HITSP/ISC-44 secure web connection component.

#### 2.1 OVERVIEW

The Interoperability Specification focuses on a set of constrained standards for information interchange that address the core requirements of the Use Case described herein. It does not define all functions, constructs and standards necessary to implement a conforming system in a real world environment. In particular, an implementer must provide the technical infrastructure and security framework necessary to support operations in accordance with law, regulation, best practices and business agreements.

Related Documents	Document Description		Document Name and Location	
HITSP/ISC-44	Secure web connection		HITSP / ISC-44	

#### 2.2 AUDIENCE

The interoperability specification is designed to be used by analysts who need to understand the interoperability requirements for the described use case, and by implementers working to develop interoperable applications. Understanding and using the relevant interoperability set of specifications is a key requirement for establishing interoperability compliance.

#### 2.3 TERMS AND DEFINITIONS

The definitions used for the purposes of this document can be found in the glossary. Refer to appendix 5.0 for the Common Terms and Definitions Document.

# 2.4 CONVENTIONS

This specification uses the following to convey the full descriptions and usage of standards:

#### **UML** sequence and activity diagrams

In these diagrams, the actors and transactions are highlighted within the framework of the specific scenario or context. The actors involved in the specified use-scenario or context are mapped out, and the interactions between each action and actor for a particular context, and the flow of data are provided through the use of arrows. Diagrams are named according to the section in which they reside, and will use the following naming convention:

Figure <section number>-<consecutive number for the diagram, e.g. 1, 2, 3, etc.>. <Short name/description of diagram>. For example, a diagram residing in section 3.1.3 showing the Actor Interactions for the Send Lab Results transaction package is named:



#### Figure 3.1.3-1. Send Lab Results Transaction Package

#### **Tables**

Tables are used to indicate standards categorizations, as well as dependencies and constraints between constructs. Tables are named according to the section in which they reside, and will use the following naming convention:

Table <section number>-<consecutive number for the table, e.g. 1, 2, 3, etc.>. <Short name/description of table>. For example, a table residing in section 2.7.1 showing the Dependencies between the transactions for the Send Lab Results transaction package is named:

Table 2.7.1-1. Send Lab Results Transaction Package dependencies

#### References

When references are made to another section within an Interoperability Specification a section number is used by itself. When references are made to other constructs that are related to the Interoperability Specification, such as Transaction Packages, Components or Composite Standards, the HITSP document short name and section number are displayed as follows:

<HITSP Document short name or Composite Standard Short Name>-<Volume Number>: <section number>

#### where:

- <HITSP document short name> is a short designator for the construct (e.g. HITSP/ISTP-013)
- <Composite Standard Short Name> is a short designator for the composite standard (e.g. IHE-ITI TF)
- <Volume Number> is the applicable volume within the given composite standard (e.g. 1)
- <section number> is the applicable section number (e.g. 3.1)

For example: HITSP/ISTP-013: 3.1 refers to Section 3.1 in the Interoperability Specification for a Transaction Package, IHE-ITI TF-2: 4.33 refers to Section 4.33 in volume 2 of the IHE IT Infrastructure Technical Framework.

# Reproductions

Where large sections of composite standards or base standards are reproduced within a HITSP specification, the reproduced sections are cited with introductory text containing the reference information for the composite or base standard. In addition, the beginning and ending of the reproduced text are respectively shown using a beginning statement:

The text for the <composite or base standard name> specification begins here:

#### And an ending statement:

The text for the <composite or base standard name> ends here.



# 2.5 COMMENTS

To submit comments for this interoperability specification, please download the Comment Submission sheet from the HITSP site at <a href="www.hitsp.org">www.hitsp.org</a> and provide all relevant information, and then email the completed document to hitspcomments@ansi.org. Comments are consolidated periodically and sent to the Technical Committees for review.

# 2.6 COPYRIGHT PERMISSIONS

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fashion and's copyright is clearly noted.	

#### 2.7 LIST OF COMPOSITE STANDARDS

Network browser related standards are approved by the <u>Internet Engineering Task Force (IETF)</u> as a <u>standard</u>. IETF is the main <u>standards</u> organization for the <u>Internet</u>. The IETF is a large open international community of network designers, operators, <u>vendors</u>, and researchers concerned with the evolution of <u>the Internet</u> architecture and the smooth operation of the <u>Internet</u>. It is open to any interested individual.

#### 2.8 LIST OF COMPONENTS

The following list of components and their definitions are used by the transaction specification.

Component Name	Description	Document Reference	Date Added
HITSP/ISC-44	Secure web connection	HITSP/ISC-44	18 Aug 06

#### 2.8.1 DEPENDENCIES

Component	Depends On (Name of component that it depends on)	Dependency Type (Pre-condition, post-condition)	Purpose (Reason for this dependency)
none			_

#### 2.8.2 CONSTRAINTS

Component	Constraint	Constraint Type (Pre-condition, post-condition, general)	Purpose (Reason for this constraint)
none		, , , , , , , , , , , , , , , , , , ,	

# 3.0 TRANSACTIONS

Transactions are a logical grouping of actions, including necessary content and context that must all succeed or fail as a group.



# 3.1 CONTEXT OVERVIEW

Healthcare provider wishes to view lab results in a document repository

# 3.1.1 CONTEXTUAL CONSTRAINTS

none

### 3.1.2 TECHNICAL ACTORS

Actor Description

User Healthcare professional who wishes to view a lab report on the web

Document Repository Server where the document (e.g., lab report) resides

# 3.1.3 ACTOR INTERACTIONS

A. Technical actors

USER ←> Document Repository

- B. Transactions in which the technical actor is involved View lab report
- C. Components with which the technical actor is involved Secure web connection

#### 3.2 PROCESS FLOWS

# 3.2.1 PROCESS PRE-CONDITIONS

Lab report is resident in document repository

# 3.2.1.1 PROCESS TRIGGERS

User request

#### 3.2.2 PROCESS POST-CONDITIONS

Document display

#### 3.2.2.1 PROCESS OUTPUTS

Formatted web page, using standard web tools

#### 3.3 DATA FLOWS

N/A

# 4.0 CONSTRAINTS FOR REUSE

None.



# 5.0 APPENDIX

# 5.1 GLOSSARY

Included is the common interoperability glossary that is used for all the Use Cases. This is the HITSP glossary that spans all the interoperability specifications, which can be found at:

<a href="http://public.ansi.org/ansionline/Documents/Standards%20Activities/Healthcare%20Informatics%20Technology%20Standards%20Panel/Gap%20Analysis%20%20Appendices/GapAnalysis\_Appendix%20D\_HISTP\_Glossary.doc</a>

TP\_Glossary.doc

