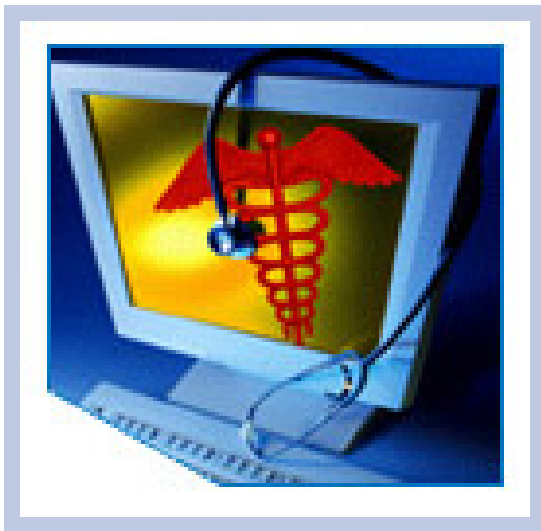


# HITSP View Laboratory Results from a Web Application Transaction

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HITSP/T18



*Submitted to:*

**Healthcare Information Technology Standards Panel**

*Submitted by:*

**Provider Perspective Technical Committee  
(Formerly Care Delivery Technical Committee)**



## DOCUMENT CHANGE HISTORY

Version Number	Description of Change	Name of Author	Date Published
1.0	Final Draft	Electronic Health Record Technical Committee	August 18, 2006
1.1	Ready for Public Comment	Electronic Health Record Technical Committee	September 12, 2006
1.2	Ready for Implementation Testing	Electronic Health Record Technical Committee	October 20, 2006
1.3	Review Copy	Care Delivery Technical Committee	April 27, 2007
2.0	Released for Implementation	Care Delivery Technical Committee	May 11, 2007
2.0.1	Review Copy	Provider Perspective Technical Committee	May 8, 2008
2.1	Released for Implementation	Provider Perspective Technical Committee	May 16, 2008



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## 1.0 INTRODUCTION

As an introduction to the HITSP View Laboratory Results from a Web Application Transaction, this section provides a high level overview of the information sharing scenario enabled by following this specification, provides a document map of the construct relationships for this specification, acknowledges the copyright protections that pertain, and provides links to key reference documents and background material. If you are already familiar with this information, proceed to Section 2.0 Transaction Definition.

### 1.1 OVERVIEW

This section describes the contents of this specification and provides a high level definition of this Transaction and background information about the underlying Components that the Transaction is based on.

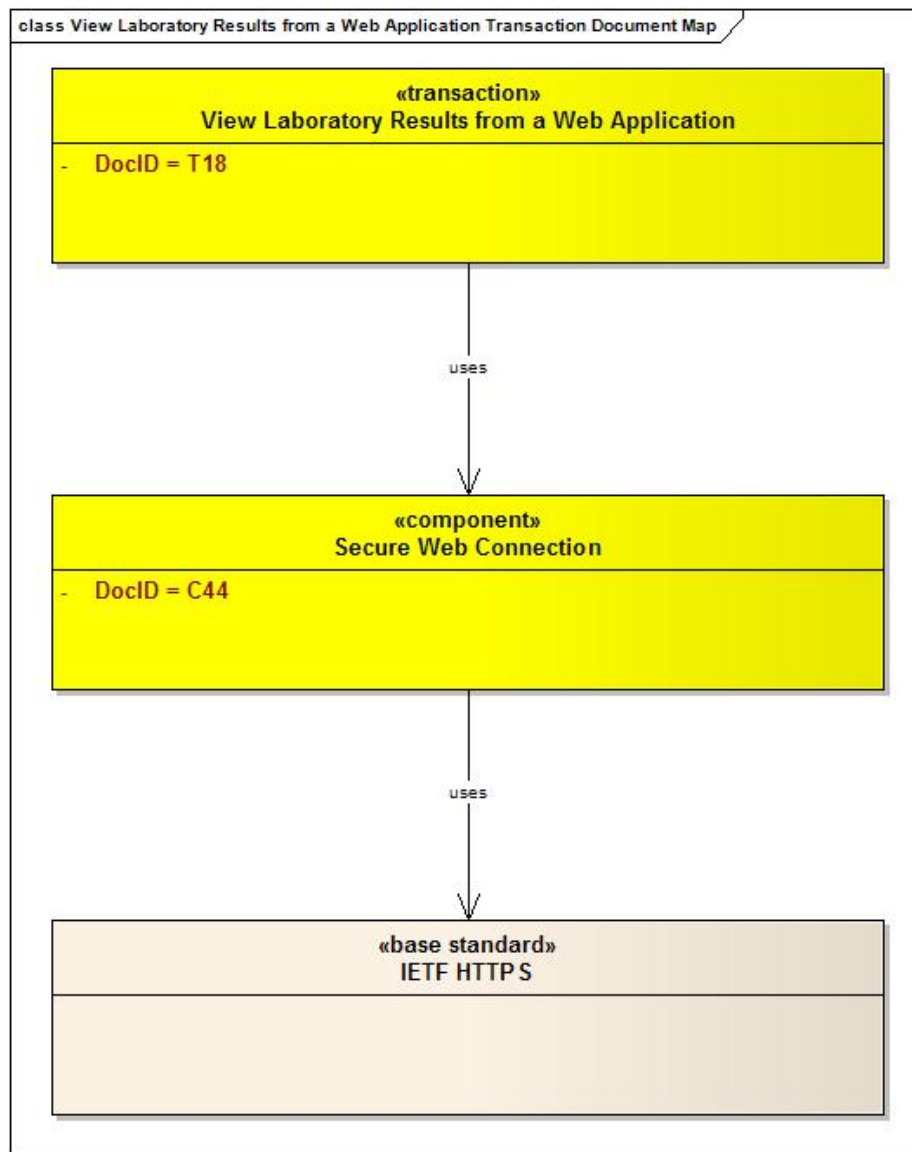
This Transaction allows a user to view a laboratory report through a secure browser. This Transaction uses the HITSP/C44 - Secure Web Connection Component. It may not define all functions, constructs and standards necessary to implement a conforming system in a real world environment. In particular, an implementer must provide the technical infrastructure and security framework necessary to support operations in accordance with law, regulation, best practices and business agreements.

### 1.2 TRANSACTION DOCUMENT MAP

Each HITSP Interoperability Specification (IS) is comprised of a suite of constructs that, taken as a whole, define how to integrate and constrain existing standards and specifications that will satisfy the requirements imposed by a given Use Case. There are four types of HITSP constructs called Interoperability Specifications (IS), Transaction Packages (TP), Transactions (T), and Components (C). The current View Laboratory Results from a Web Application Transaction specification is used with other constructs to meet the requirements of one or more ISs. Review Section 1.2 (Interoperability Specification Document Map) from the relevant IS to better understand the context, dependencies, and relationships between the constructs used to meet the IS requirements. The document map in Figure 1.2-1 depicts how this construct integrates and constrains HITSP constructs and existing standards selected, constrained, or referenced to support the logical grouping of actions that must all succeed or fail as a group, within the defined context of this document. Implementers should read the documents that describe the constructs represented in the diagram for their details and specific uses.



Figure 1.2-1 Transaction Document Map



### 1.3 COPYRIGHT PERMISSIONS

#### COPYRIGHT NOTICE

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### 1.4 REFERENCE DOCUMENTS

A list of key reference documents and background material is provided in the table below. These documents can be retrieved from the [hitsp.org](http://hitsp.org) Web Site.



**Table 1.4-1 Reference Documents**

Reference Document	Document Description
HITSP Interoperability Specification Overview	Provides background information about the HITSP and its role in the overall U.S. efforts to realize large scale interoperability of health information. The document also provides a description of the HITSP process for healthcare standards harmonization and explains how to use the Interoperability Specifications and other related documents to inform your health IT product development or product refinement.
HITSP Conventions List	Describes the conventions that are used to convey the full descriptions and usage of standards in the HITSP specifications.
HITSP Acronyms List	Lists and defines the acronyms used in this document.
HITSP Glossary	Provides definitions for relevant terms used by HITSP documents.
HITSP Harmonization Framework	Describes the current framework within which the Interoperability Specifications are built.
TN900 - Security and Privacy Technical Note	<p>Developed as a reference document to provide the overall context for use of the HITSP Security and Privacy constructs. It includes the following:</p> <ul style="list-style-type: none"><li>• The scope, reference policy background, and Security and Privacy principles used in the development of the constructs</li><li>• A detailed description and schematics of the conceptual relationship between the Security and Privacy constructs</li><li>• A mapping of existing standards and constructs to be used in meeting the stated requirements of the AHIC Use Cases</li><li>• A list of identified gaps and the recommended approaches to resolving those gaps</li><li>• A roadmap for how the Security and Privacy constructs will evolve and eventually align with other HITSP Interoperability Specifications</li><li>• A conceptual framework for Security and Privacy management, including reference information on privacy policies, risk assessment, and risk management</li><li>• A glossary of terms used in all the Security and Privacy construct documents</li><li>• A description of the application of the Security and Privacy constructs to the HITSP Interoperability Specifications for the three initial AHIC Use Cases – Biosurveillance, Electronic Health Records - Laboratory Results Reporting, and Consumer Empowerment</li></ul> <p>HITSP will periodically update this Technical Note as required by the introduction of new contexts for use.</p>



## 2.0 TRANSACTION DEFINITION

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

### 2.1 CONTEXT OVERVIEW

This section provides a general description of the Transaction. It includes a detailed definition of the Transaction and the reason for its use. It also provides all the necessary background information that further describes the context in which the Transaction is needed, and the Components or composite standards that the Transaction is based on.

This HITSP View Laboratory Results from a Web Application Transaction is used to provide a secure, standards-based, method for using a web browser to view laboratory results over a network. It is triggered when a healthcare provider uses a web application to view a laboratory result.

#### 2.1.1 TRANSACTION CONSTRAINTS

This section describes the constraints that limit the context in which the Transaction construct may be used. A constraint describes a rule that limits the use of the actors, actions or data within the given context, or to which the interactions must conform to be used within the described context. It is a description of the limits and scope of the interactions and can describe actions or events that are not part of the initial definition for the context.

**Table 2.1.1-1 Transaction Constraints**

Constraint
No applicable constraints

#### 2.1.2 TECHNICAL ACTORS

This section identifies the technical actors used within the Interoperability Specification. Note that a technical actor represents an internal software component or IT system, which supports a specific aspect of a real world business information interchange (e.g., set of message exchanges). Technical Actors implement system data exchange transactions, which implement real world business actor information interchanges. The table below identifies the technical actors and gives a description of the technical actor roles involved in the Transaction.





**Table 2.1.2-1 Technical Actors**

Actor	Description	Used in Component/ Standard	Transaction/Content	Optionality*
Web Application	The Web Application the healthcare professional uses to view a laboratory report Web	HITSP/T18	Discovery, receipt and display of the requested laboratory result or results	R
Document Repository	Server where the document (e.g., laboratory report) resides	HITSP/T18	Provide document requested	R [101]

**\*NOTE:** Optionality = “R” for Required, “R2” for Required if known, “O” for Optional, or “C” for Conditional. If applicable, conditional footnotes are further described below.

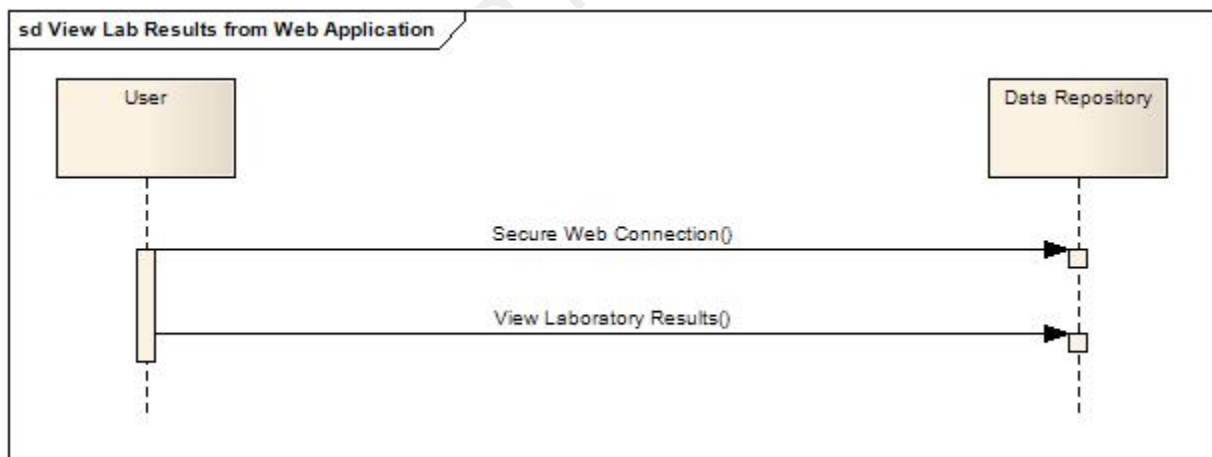
### Transaction/Content Optionality Conditions

R [101] The Document Repository serves the result only if the document exists and the appropriate security and privacy conditions have been met.

### 2.1.3 ACTOR INTERACTIONS

The following sections document the content of the Transaction and the basic process flows that are supported by the Transaction. It describes the underlying events that fulfill the Transaction, the sequence and timing of the events, and the specific actors involved. Process flow diagrams are provided to illustrate the process relationships.

**Figure 2.1.3-1 View Lab Results From a Web Application**



### 2.1.4 PRE-CONDITIONS

This section describes the necessary conditions that must be in place prior to the start of the workings of the Transaction. The pre-conditions are used to convey any conditions that must be true at the outset of a Transaction. They describe the context that must be established before the Transaction is executed. They are not however the triggers that initiate the Transaction. Where one or more pre-conditions are not met, the behavior of the Transaction should be considered uncertain.



**Table 2.1.4-1 Pre-conditions**

Pre-condition
It is expected that the security framework under which this Transaction operates is in accordance with the Interoperability Specification that references this construct. Therefore all applicable HITSP Security and Privacy constructs are implemented as required
Laboratory report is a resident in the Document Repository

#### 2.1.4.1 Process Triggers

This section describes the process triggers, including actors and/or processes, which are necessary to start the Transaction. They can invoke an automatic or manual process or result that in turn starts off the Transaction. A process trigger is not the same as a pre-condition that describes a context that needs to be in place at the start of the event.

**Table 2.1.4.1-1 Process Triggers**

Process Trigger
User requests a lab result document

#### 2.1.5 POST-CONDITIONS

This section provides an overview of the conditions or results that must occur at the end of the Transaction in order for the Transaction to be deemed successfully completed. This includes any required outputs from the Transaction, or specific actor states.

**Table 2.1.5-1 Post-conditions**

Post-condition
Lab Report document is displayed

The repository actor, upon receiving a fully authorized and valid request for a document, returns a lab report document as defined in HITSP/C37 - Lab Report Document Component as a response to the request. The repository may optionally provide a style sheet.

#### 2.1.5.1 Required Outputs

This section identifies the required outputs that must be produced at the end of the Transaction in order for the Transaction to be deemed successfully completed. This includes the format and usage of the required output.

**Table 2.1.5.1-1 Required Outputs**

Required Output	Format/Usage
See Post-condition	N/A



## 2.1.6 DATA FLOWS

This section describes the basic data flows that are supported by this Transaction. It also describes the format of the data, the data sources, and the relevant actors involved in the successful flow of data for the Transaction. Any prevailing pre- and post-conditions are identified, as well as the purpose of each data post-condition associated with each Transaction. Any data that need to be made available to particular actors are highlighted, as well as the conditions and processes that will use the data to achieve the stated post-conditions.

No applicable data flows.

## 2.2 LIST OF HITSP CONSTRUCTS

The following list of constructs and their definitions are used by the Transaction specification.

**Table 2.2-1 List of HITSP Constructs**

Construct Name	Technical Actors	Description	Event/Action Code	Content
HITSP/C44 - Secure Web Connection	N/A	This component provides the capability to access documents through a secure web browser	3.5.2.3a	Lab report document

### 2.2.1 CONSTRUCT DEPENDENCIES

The following table shows a list of Components with their existing dependencies. Dependencies usually exist when there are some additional pre-requisites for a specific construct:

**Table 2.2.1-1 Construct Dependencies**

Construct	Depends On (Name of Component that it depends on)	Dependency Type (Pre-condition, post-condition, general)	Purpose (Reason for this dependency)
HITSP/C37 - Lab Report Document Component	N/A	Pre-condition	A document must be available

### 2.2.2 ADDITIONAL CONSTRAINTS ON REQUIRED CONSTRUCTS

This section describes the constraints that further limit the constructs that are used by this Transaction.

**Table 2.2.2-1 Additional Constraints on Required Constructs**

Data Element	Construct	Constraint	Constraint Type (Pre-condition, post-condition, general)	Purpose (Reason for this constraint)
No applicable constraints				



## 2.3 LIST OF STANDARDS

It is important to understand that the standards selected here are within the context of the specific Use Case requirements and do not necessarily reflect selection in other contexts. The following standards are used to implement this Transaction specification:

**Table 2.3-1 List of Standards**

Standard	Description
Internet Engineering Task Force (IETF) Hypertext Transfer Protocol (HTTP) over Transport Layer Security (TLS) (RFC) #2818, May 2000	Describes how to use TLS to secure HTTP connections over the Internet. Current practice is to layer HTTP over SSL (the predecessor to TLS), distinguishing secured traffic from insecure traffic by the use of a different server port. For more information visit <a href="http://www.ietf.org">www.ietf.org</a> .



## 3.0 TECHNICAL IMPLEMENTATION

### 3.1 CONFORMANCE

This section describes the conformance criteria, which are objective statements of requirements that can be used to determine if a specific behavior, function, interface, or code set has been implemented correctly.

#### 3.1.1 CONFORMANCE CRITERIA

In order to claim conformance to this construct specification, an implementation must satisfy all the requirements and mandatory statements listed in this specification, the associated HITSP Interoperability Specification, its associated construct specifications, as well as conformance criteria from the selected base and composite standards. A conformant system must also be constrained as specified in Table 2.1.1-1, and implement all of the required actors from Table 2.1.2-1, within the scope, subset or implementation option that is selected from the associated Interoperability Specification.

Claims of conformance may only be made for the overall HITSP Interoperability Specification with which this construct is associated.

#### 3.1.2 CONFORMANCE SCOPING, SUBSETTING AND OPTIONS

A HITSP Interoperability Specification must be implemented in its entirety for an implementation to claim conformance to the specification. HITSP may define the permissibility for actor scoping, subsetting or implementation options by which the specification may be implemented in a limited manner. Such scoping, subsetting and options may extend to associated constructs, such as this construct. This construct must implement all requirements within the selected scope, subset or options as defined in the associated Interoperability Specification to claim conformance.



## 4.0 APPENDIX

The following sections include relevant materials referenced throughout this document.

No additional information at this time.

RELEASED FOR IMPLEMENTATION



## 5.0 CHANGE HISTORY

The following sections provide the history of changes made to this document.

### 5.1 MAY 11, 2007

This document is now Released for Implementation.

### 5.2 MAY 8, 2008

This document has been updated to include the HITSP Security and Privacy constructs and has been updated to reflect the new template.

In addition, the following changes have been made:

- Terminology gap section removed; gap has been addressed in HITSP/C37 - Lab Report Document Component
- Cross Affinity Domain Document Sharing gap section removed; gap has been addressed in HITSP/TP13 - Manage Sharing of Documents
- Included references to IETF RFC 2818 in List of Standards

### 5.3 MAY 16, 2008

Upon approval by the HITSP Panel on May 16, 2008, this document is now Released for Implementation.

