IHE International

Conformity Assessment Scheme

Part 2: Requirements for Conformity Assessment - 2016 Cycle

(IHE-CAS-2)

May 25, 2016

Contents

1 Section 1 - General Information

1.1 Context

This document is the second of the two volumes of the IHE Conformity Assessment Scheme (IHE-CAS). It describes:

- The set of IHE profiles selected for IHE Conformity Testing by the 2015 and the 2016 Cycles.
- Test methods including: test cases, test tools and test data
- Templates to be used by test laboratories

IHE-CAS-2 builds upon the governance and processes of conformity assessment specified by IHE-CAS-1. See http://www.ihe.net/ Conformity_Assessment.aspx

IHE-CAS-2 provides requirements for assessing product conformance to the selected IHE Profiles. A Testing Report is delivered by an IHE Authorized Testing Laboratory as the result of this assessment.

IHE-CAS-2 also provides requirements for any Testing Laboratory in its accreditation and IHE authorization processes (see section 3.6 of IHE-CAS-1).

IHE-CAS-1 describes the governance and processes of conformity assessment including test laboratory accreditation and authorization processes (see section 3.6 of IHE-CAS-1).

1.2 Lifecycle

The IHE-CAS-2 document is periodically updated (typically every year) by the IHE International Conformity Assessment Coordination Committee (CAsC) as described in section 4.2 of IHE-CAS-1

The first version (2015 Cycle) of this document (July 2015) introduces an initial set of six Profiles that has been intentionally limited to enable the ramp-up of the IHE Conformity Assessment program by a limited number of IHE deployment Committees and IHE authorized laboratories.

The second version (2016 Cycle) of this document (May 2016) introduces an additional set of nine Profiles that now establishes the breadth of the IHE Conformity Assessment program by a number of IHE deployment Committees and IHE authorized laboratories.

The current version of this IHE-CAS-2 document is available at: See http://www.ihe.net/ Conformity_Assessment.aspx

1.3 Requirements for Test Labs and SUT in Using CAS-2

1.3.1 A testing laboratory offering conformity assessment of products shall select one or more Profiles listed in the table below. It shall offer conformity assessment of products for all Actors and profile-defined Option(s) listed in the table below.

1.3.2 A testing laboratory shall report in the detailed test report (using the template in Section 2.1.1) for the scope selected per Section 1.3.1, all performed test cases and their result: pass/fail/pass with comment. A testing Laboratory shall only include in the Summary Test Report the results for profile/actor/options for which the SUT passes or passes with comments the relevant test cases (See Section 3).

1.3.3 A party seeking conformity assessment of its product may select one or more Profiles listed below.

1.3.4 For each selected Profile, a party seeking conformity assessment may select one or more Actors among those listed in the table below.

1.3.5 For each Actor, a party seeking conformity assessment may select for testing the profile-defined Option(s) listed in the table below.

Table 1.3-1 Overview of the Profile/Actor pairs for which Conformity Assessment is available

IHE Profile	Actors and *Option* (See sections 1.3.4 & 1.3.5)	Reference Technical Framework	Test Methods
IT Infrastructure			
CT **Consistent Time** *enables system clocks and time stamps of computers in a network to be synchronized (median error less than 1 second).*	Time Client : - *No Options*	IHE IT Infrastructure Technical Framework • Vol 1 – Section 7	Section 3.1.1
ATNA **Audit Trail and Node Authentication** *Basic security through (a) functional access controls, (b) defined security audit logging and (c) secure network communications.*	Secure Application : - *No Option*	IHE IT Infrastructure Technical Framework : • Vol 1 – Section 9	Section 3.2
XDS.b **Cross Enterprise Document Sharing** *Share and discover electronic health record documents between healthcare enterprises, physician offices, clinics, acute care in-patient facilities and personal health records.*	Document Registry : - *Patient Identity Feed* - *Patient Identity Feed v3*	IHE IT Infrastructure Technical Framework : • Vol 1 – Section 10	Section 3.3.4
	Document Repository : - *No Options*		Section 3.3.3
	Document Source : - *Doc Replacement*		Section 3.3.2
	Document Consumer : - *No Options*		Section 3.3.1
PDQ **Patient Demographics HL7v2** *Query a patient information server for a list of patients, based on user defined*	Patient Demographics Consumer : - *Pediatric Demographics*	IHE IT Infrastructure Technical Framework : • Vol 1 – Section 8	Section 3.4.1
	Patient Demographics Supplier : - *Pediatric*		Section 3.4.2

IHE Profile	Actors and *Option* (See sections 1.3.4 & 1.3.5)	Reference Technical Framework	Test Methods
search criteria, and retrieve a patient's demographic information	*Demographics*		
PDQv3 **Patient Demographics Query HL7v3** *Query a patient information server for a list of patients, based on user defined search criteria, and retrieve a patient's demographic information*	Patient Demographics Consumer : - *Pediatric Demographics*	IHE IT Infrastructure Technical Framework : • Vol 1 – Section 24	Section 3.5.1
	Patient Demographics Supplier : - *Pediatric Demographics*		Section 3.5.2
PIXv3 **Patient Identifier Cross Referencing HL7v3** *Supports the cross-referencing of patient identifiers from multiple Patient Identifier Domains.*	Patient Id Cross-Reference Consumer: - *No Options*	IHE IT Infrastructure Technical Framework : • Vol 1 – Section 23	Section 3.6.1
	Patient Id Cross-reference Manager: - *Pediatric Demographics*		Section 3.6.2
PIX **Patient Identifier Cross Referencing HL7v2** *Supports the cross-referencing of patient identifiers from multiple Patient Identifier Domains.*	Patient Id Cross-Reference Consumer: - *No Options*	IHE IT Infrastructure Technical Framework : • Vol 1 – Section 5	Section 3.7.1
	Patient Id Cross-reference Manager: - *Pediatric Demographics*		Section 3.7.2
PAM **Patient Administration Management** *Defines transactions based on message exchanges to support patient identity and encounter information, as well as movements within an acute care encounter.*	Patient Demographic Consumer: - *Merge* - *Link/Unlink*	IHE IT Infrastructure Technical Framework • Vol 1 – Section 14	Section 3.8.1
	Patient Demographic Supplier: - *Merge* - *Link/Unlink*		Section 3.8.2
	Patient Encounter Consumer: - *Inpatient/ Outpatient* - *Maintain demographics* - *Advanced encounter management* - *Historic movement*		Section 3.8.3
	Patient Encounter		Section

IHE Profile	Actors and *Option* *(See sections 1.3.4 & 1.3.5)*	Reference Technical Framework	Test Methods
	Supplier: - *Inpatient/ Outpatient* - *Maintain demographics* - *Advanced encounter management* - *Historic movement*		3.8.4
XCA **Cross Community Access** *Supports the means to query and retrieve patient relevant medical data held by other communities. A community is defined as a coupling of facilities/ enterprises that have agreed to work together.*	Initiating Gateway - *No Options*	IHE IT Infrastructure Technical Framework Vol 1 – Section 18	Section 3.9.1
	Responding Gateway - *No Options*		Section 3.9.2
XCPD **Cross Community Patient Discovery** *Supports the means to locate communities that hold patient relevant health data and the translation of patient identifiers across communities holding the same patient's data.*	Initiating Gateway - *Deferred response*	IHE IT Infrastructure Technical Framework Vol 1 – Section 27	Section 3.10.1
	Responding Gateway - *No Options*		Section 3.10.1
Pathology and Laboratory Medicine			
LAW **Laboratory Analytical Workflow** *Supports the analytical workflow between analyzers (an IVD device) of the clinical laboratory and the systems managing their work such as a LAS or a LIS. Both patient and quality control (QC) specimens are in scope.*	Analyzer - *No Options*	PaLM Supplement – Laboratory Analytical Workflow (LAW) – Final Text 24 February 2016.	Section 3.11.1
	Analyzer Manager - *No Options*		Section 3.11.2
Radiology			
XDS-I.b **Cross-Enterprise Document**	Imaging Document Consumer - *No Options*	IHE Radiology Technical Framework	Section 3.12.1

IHE Profile	Actors and *Option* *(See sections 1.3.4 & 1.3.5)*	Reference Technical Framework	Test Methods
Sharing for Imaging *Supports the sharing (publishing, finding and retrieving) documents across a group of affiliated enterprises. It extends and specializes the mechanisms defined by XDS.b to support imaging "documents"*		Vol 1 – Section 18	
	Imaging Document Source - *Set of DICOM Instances* - *PDF Report* - *CDA Wrapped Text Report* - *CDA Imaging Report with Structured Headings*		Section 3.12.2
XCA-I **Cross-Community Access for Imaging** *Supports query and retrieve patient-relevant medical imaging data being held by other communities It extends the IT Infrastructure XCA Profile by providing access to diagnostic reports, imaging Manifests and the imaging objects referenced in the Manifests.*	Initiating Imaging Gateway - *No Options*	IHE Radiology Technical Framework Vol 1 – Section 29	Section 3.13.1
	Responding Imaging Gateway - *No Options*		Section 3.13.2
Paztient Care Devices			
Device Enterprise Communication *Supports communication of vendor independent, multi-modality Patient Care Devices data to Enterprise Applications using consistent semantics.*	Device Observation Consumer - *No Options*	IHE PCD Technical Framework Vol 1 – Section 3	Section 3.14.1
	Device Observation Reporter - *No Options*		Section 3.14.2
Point-of-care Infusion Verification *Supports the electronic transfer of infusion parameters from a Bedside Computer assisted Medication Administration (BCMA) system to a general-purpose infusion pump. This capability will reduce errors by eliminating*	Infusion Order Programmer - *No Options*	IHE PCD Technical Framework Vol 1 – Section 4	Section 3.15.1
	Infusion Order Consumer - *No Options*		Section 3.15.2

IHE Profile	Actors and *Option* *(See sections 1.3.4 & 1.3.5)*	Reference Technical Framework	Test Methods
keystroke errors and by increasing the use of automatic dosage checking and increase caregiver productivity.			

1.4 Definitions

See IHE-CAS-1 Section 1.4 "Definitions". In addition, the following terms are defined.

Conformity

Conformity means compliance with standards, rules, or laws [NOAD]

Conformity Assessment

Testing to see if an implementation or product faithfully meets the requirements of a standard or specification. [ISO]

System Under Test (SUT)

A system implementation that has applied to be tested against a conformity assessment scheme.

Test Case

A set of test scripts including input values, execution preconditions, expected results and execution post-conditions, developed for a particular objective or test condition, such as to exercise a particular program path or to verify compliance with a specific requirement. [From IEEE 610]

Test Management Tool

A tool that provides support to the test management and controls part of a test process. It often has several capabilities, such as testware management, scheduling of tests, logging of results, progress tracking, incident management and test reporting.

Test Method

Defined technical procedure, test cases, test tools, test data and processes to determine one or more specified characteristics of a product.

Test Method Evaluation Report

A quality management report that covers the description of the test tools and test cases included, their requirements coverage, and the quality management process applied to the test tools development.

Testing Report

A document issued by an authorized and accredited testing laboratory, attesting to the performing of the test methods specified by the IHE conformity assessment scheme - Part 2 (CAS-2).

Test Scripts

Test procedures that describe the sequence of actions for the execution of a given test. (ISTQB)

Test Tool

A software that supports one or more test activities, such as planning and control, specification, building initial files and data, test execution and test analysis. [TMap].

2 Resources

2.1 Templates

Three templates are provided. Their names and relationship are shown in figure 2.1-1.

Figure 2.1-1 Templates and Relationships

2.1.1 Test Case and Detailed Test Report Templates

The Test Case Template is included in Appendix A1. It is used by IHE-CAS to specify the test cases to be executed by Test Laboratories.

The Detailed Test Report Template is included in Appendix A2. It is used for reporting test execution by Test Laboratories. It builds upon the Test Cases template.

A Word file is available for users of these two templates such as an IHE International Authorized Testing Laboratory to report the execution of those test cases.

IHE-CAS-2-Test
Cases Secification and

This template is use by the Test Cases listed in Section 3 to test a specific Profile/Actor. A Test Case includes one or more test scripts (Gazelle calls it a test) as well as the supporting test data.

An SUT (System under Test) plays one of the ROLES for which the test case has been specified. A ROLE is a list of Actor/Profile/Option combination to which a test case applies.

2.1.2 Templates used for summary reports of test execution

This Summary Report template is used by an IHE International Authorized Testing Laboratory to summarize the execution of test cases by a System Under Test per the principles stated in Section 1.3.2.. Such a summary is may be made publicly-available by IHE International or by the party seeking conformity assessment in promoting its conformity to specific IHE Profiles.

The Detailed Test Report Template is included in Appendix A3. A Word file is available to an IHE International Authorized Testing Laboratory to report the execution of test cases:

IHE-CAS-2-Summary
Test Report Template

2.2 Types of test tools

IHE-CAS classifies the Interoperability Testing tools that support the execution of test cases in several categories (from EU Antilope Project D3.1 deliverable[1]):

Test Management Tool: facilitates the execution of tests but may include additional functionalities that would be useful in performing the tests and collecting the results. This document will focus on two distinct groups within the wide range of Test Management tools:

> a) Tools that help organize and run large interoperability events involving large number of participants and a large number of tests. The tools in this group will typically manage test scenarios for peer-to-peer tests and may also support test planning and setup for large test events. They may also support the configuration process for all participating communication partners (e. g. IP addresses, ports, codes to be used, message types, other tools like simulators and validators). In order to trigger actual test runs, the software selects the communication partners from the pool of existing systems based on a number of criteria, including their communication capabilities and test instances required to reach the system's certification goals for the event (e. g. to run each test case with a certain number of distinct test partners). Such tools may also support other functionalities such as authoring of test cases and reporting of interim and final test results to the test managers and test partners.

> b) Execution frameworks that facilitate the selection of individual tests, collection of test results including evidence of tests performed such as pass/fail verdicts with corresponding traces.

Conformance testers: A conformance tester is an automated tool that is capable of checking the behaviour of the system under test. The tester takes the role of the communication partner, provides stimuli to the system under test, collects the responses and evaluates whether the order, timing and/or content of messages sent by the system under test conform to the requirements of a given standard and profile. Advanced testers may take the roles of all entities that are communicating with the system under test. In some situations a conformance tester is used to validate the structure and/or content of a document used in eHealth systems. Conformance tester tools vary in the extent to which they test the requirements in the profile. The simplest testers may only check some requirements, for example message or document syntax. Advanced conformance testing tool would check most or all important requirements. Depending on the level of precision in reporting problems discovered, conformance tester tools can provide valuable aid in rapid discovery and resolution of interoperability problems.

Interoperability Validator: automated tool that is checking the behavior of the system under test. It collects the messages exchanged between the two interacting systems one of which may be a simulator

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[1] Antilope: www.antilope-project.eu

tool and evaluates whether the order, timing and/or content of messages sent by the system under test conform to the requirements of a given standard and profile.

Interoperability validator tools vary considerably in their checking capabilities. Some may be dedicated to check only specific requirements, for example message or document syntax. In addition, the level of automation in triggering testing activities, in collecting the test traces and in the automated analysis of the test results can be quite different.

Simulator: is a tool acting as a connection partner to the system that needs to be tested.

In most cases, a simulator interacts with a system under test (SUT) in order to trigger certain behavior. For a system on a network, the simulator could send network messages. For other systems, it could simulate user input or any other input.

A simulator itself does not assess the behavior of the SUT. However, a simulator may have integrated capability to collect the trace of the exchange that could then be evaluated manually or using other means.

Simulator tools are useful for testing before peer-to-peer interoperability events or as replacement for needed communication partners that are not available.

Test data generator: accelerates test data preparation by providing valid, input data to be used in testing. The best results are achieved if a data generator can be used such that it efficiently generates data that both respects and exercises the constraints set by a profile being tested.

Support tools: During testing and debugging various support tools may be useful. While they do not test anything themselves, they may provide means of collecting the information that is needed to progress with testing. The examples are viewers that present the information in an understandable format, proxies that facilitate reliable and uniform collection of traces and many others.

Sniffers: also known as network analyzers or protocol analyzers. A sniffer is able to capture, record, decode and analyze communication protocol messages inside the data packages. This can be done transparently to the ongoing communication, as required by non-destructive protocol testing. Network sniffers must be able to decode all relevant communication protocols (TCP/IP, HL7, DICOM, etc.) in order to prepare message validation or other tasks. Sniffers are used not only in eHealth but are applicable to any domain that uses network messaging to exchange information.

2.3 Test tool requirements

Authors of Test Methods in Section 3 shall ensure that any test tools incorporated there comply with the following requirements and guidelines. The test tools:

   a) Shall have technical documentation, including the supporting operating system and development environment

   b) Shall either:
   - Be developed by organizations operating under ISO/IEC 17025 (or ISO/IEC 9001) quality system, or
   - Be validated by an IHE-designated organization under ISO/IEC 17025 (or ISO/IEC 9001) quality system

   c) Shall have an identified organization committed to maintaining the tool

d) Shall have its source code available as open source (Apache or equivalent right to use and modify without having to contribute back changes)

e) Shall have a proof for its validation (e.g. report per ISO/IEC 9001)

f) Shall have demonstrated integration with a test management tool. For 2015 and 2016 Gazelle has been selected.

g) Shall have a documented track record of use (e.g. used as part of pre-connectathon testing)

h) Shall generate reports and documentation required for ISO/IEC 17025 (observer notes, check points, documentation templates) and enable efficient observer documentation generation

i) Should be easy to install and use for the SUT and the testing monitor.

j) Should be "extensible" to incorporate testing additional details for national extensions or other interoperability project specifications.

2.4 Test data requirements

Authors of Test Methods in Section 3 shall ensure that any test data incorporated there comply with the following requirements and guidelines. The test data:

a) Should be dynamically generated or drawn from a large pool to prevent gaming of the system

b) Should be clinically accurate (as vetted by clinicians)

c) Shall contain data that is consistent within a test case and across test cases when relevant

2.5 Test Cases requirements

Authors of Test Cases in Section 3 shall ensure that the test Cases comply with the following requirements and guidelines. The test cases:

a) Shall specifically address the "details" that formed the basis of including the Profile in CAS-2. (See Appendix A)

b) Shall be efficient and pragmatic, meaning they:
- Simplify test execution (e.g. do not repeat identical tests except in the case of test workflow and only when relevant)
- Prioritize testing of sensitive areas

c) Should be automated and easy to use for the SUT and the monitors.

d) Shall calculate and document test coverage in terms of:
- Number of requirements identified
- Number of requirements addressed
- % addressed   (Number of requirements addressed/Number of requirements identified)
- % not addressed (Number of requirements not addressed/ Number of requirements identified). Note: the two above should sum to 100%

e) Shall include testing of responses to selected non-conforming exchanges

f) Shall include testing of the breadth of the scope of the test cases

g) Shall be placed under requirements traceability management (linked to the IHE Technical Framework)

h) Shall either:
- Be developed by organizations operating under ISO 17025 (or ISO 9001) quality system, or
- Be validated by an IHE-designated organization under ISO 17025 (or ISO 9001) quality system

i) Shall have a documented track record of use (e.g. used as part of pre-connectathon testing)

3   Test methods

The specification of the 2015 Cycle Test Methods are available on-line:
- Test Cases as a set of documents (based on the above template)
- Test Data as set of files
- Test Tools Including the IHE Gazelle test management tool (gazelle.ihe.net)

Each Test Case is identified by a name and an ID number.

A Test Case plus the associated Test Data also receives a unique "permanent reference number" plus a "time stamp". If corrections are applied either to the test case or to the test data or to both, the time stamp will change, but not the permanent number.

A System Under Test (SUT) shall be tested using the test methods as specified in this section (See IHE-CAS-1 Section 5.4.2). SUTs shall succeed at all test cases for the profile/actor pair and option(s) selected for Conformity Assessment.

Test Data to be used as part of the test methods specified in this Section 3, is specified by the Test Cases and is available along with the Test Tools. It is not intended to use alternative test data. This may be considered in future versions of CAS-2.

3.1   Profile CT

The Consistent Time Profile enables system clocks and time stamps of computers in a network to be synchronized (median error less than 1 second).

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:7, section from version 11.0 of this Technical Framework, issued September 29th 2014, without any additional Final Text Change Proposals.

Final Text CPs that were approved after September 1st, 2014 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case pass with a comment.

3.1.1   Time Client Actor

3.1.1.1   List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data Version and Reference	Supporting Test Tool ID
CT_Client_Synch	CT Time Synchroniza tion NTP	CT Client Synchronizes with Time Server	Version : CATS2015 Last Modified : 3/26/15 5:50:04 PM Permanent number : 12558	None

3.1.1.2 List of related test tools

Not applicable.

3.2 Profile ATNA

The Consistent Time Profile enables Basic security through (a) functional access controls, (b) defined security audit logging and (c) secure network communications.

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:9, section from version 11.0 of this Technical Framework, issued September 29th 2014, without any additional Final Text Change Proposals.

Final Text CPs that were approved after September 1st, 2014 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case pass with a comment.

3.2.1 Secure Application Actor

3.2.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data Version and Reference	Supporting Test Tool ID
ATNA_Complete_Questionnaire	ATNA: Complete Questionnaire	ATNA: Complete Questionnaire	Version : CATS2016 Last Modified : 3/30/16 2:28:05 PM Permanent number: 12553	Gazelle Security Suite
ATNA_Message_Send	ATNA: Send messages to Audit Record Repository	The purpose of this test is to check that your system correctly implements the syslog protocol	Version : CATS2015 Last Modified : 4/21/15 4:22:01 PM Permanent number: 12562	Syslog collector
ATNA_Audit_message_check	ATNA - Audit message check	Audit message check	Version : CATS2016 Last Modified : 3/30/16 2:45:05 PM Permanent number: 12556	Gazelle Security Suite
ATNA_Authentication_Test	ATNA - Authentication test	Test authentication using TLS and certificates	Version : CATS2016 Last Modified : 3/30/16 2:32:50 PM Permanent number: 12554	Gazelle Security Suite
ATNA_Authentication_Error_Cases	ATNA - Authentication error cases	Test TLS authentication error cases	Version : CATS2016 Last Modified : 3/30/16 2:43:06 PM Permanent number: 12564	Gazelle Security Suite

3.2.1.2 List of related test tools

Test Tool ID	Name	Version	Developed by	Info Page	Category
Syslog Collector	Simulator for collecting syslog messages	2.1	MIR	http://ihewiki.wustl.edu/wiki/index.php/Syslog_Message_Browser	Simulator
Gazelle Security SuiteSecurity Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.05.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.3 Profile XDS.b

The Cross-Enterprise Document Sharing Profile enables sharing and discovery of electronic health record documents between healthcare enterprises, physician offices, clinics, acute care in-patient facilities and personal health records.

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:10, section from version 11.0 of this Technical Framework, issued September 29th 2014, without any additional Final Text Change Proposals.

Final Text CPs that were approved after September 1st, 2014 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.
- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case pass with a comment.

3.3.1 Document Consumer Actor

One option may be selected by the SUT :
- *Doc Replacement*

3.3.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_CONS_Configuration	XDS.b registry and repository configuration for Document Consumer	Description of the configuration of the registry and repository used for testing	Version : CATS2015 Last Modified : 4/8/16 4:54:42 PM Permanent number: 12517	XDS Toolkit

XDS.b_CONS_Query	XDS.b Consumer testing	A list of steps to be executed to verify the consumer is able to interact with a registry/repository	Version : CATS2015 Last Modified : 4/16/15 3:04:34 PM Permanent number: 12518	XDS Toolkit
XDS.b_CONS_Retrieve_TLS	XDS.b Document Consumer Retrieve over TLS	The Document Consumer retrieves successfully a binary document from the document Repository, over TLS transaction	Version : CATS2015 Last Modified : 4/16/15 3:03:59 PM Permanent number: 12519	XDS Toolkit

3.3.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
XDSToolkit	XDS Tools 2	2.202.4	NIST	http://ihexds.nist.gov/	Simulator & Validator
Gazelle Security SuiteSecurity Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.05.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.3.2 Document Source Actor

3.3.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_SRC_Replace	XDS.b Document Source - Replace Existing Document	Verify that Document Source can issue a document replacement	Version : CATS2015 Last Modified : 4/17/15 2:44:41 PM Permanent number: 12552	XDS Toolkit
XDS.b_SRC_Submit	Submit one document via XDS.b	Verify that the XDS.b Document Source can submit a single document via Provide and Register Document Set-b transaction.	Version : CATS2015 Last Modified : 4/17/15 4:31:35 PM Permanent number: 12542	XDS Toolkit

3.3.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
XDSToolkit	XDS Tools 2	2.202.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle Security SuiteSecurity Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.05.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.3.3 Document Repository Actor

3.3.3.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_REP _PnR	XDS.b - Document Repository - Accept one document via XDS.b	Verify that the XDS.b Document Repository can accept a single document via the Provide and Register Document Set-b transaction and forward the updated metadata to the Public Registry.	Version : CATS2015 Last Modified : 4/16/15 3:38:31 PM Permanent number: 12543	XDS Toolkit
XDS.b_REP _PnR_TLS	XDS.b - Document Repository - Accept one document via XDS.b over TLS	Verify that the XDS.b Document Repository can accept a single document via the Provide and Register Document Set-b transaction and forward the updated metadata to the Public Registry. Transaction over TLS	Version : CATS2015 Last Modified : 4/16/15 3:22:54 PM Permanent number: 12544	XDS Toolkit
XDS.b_REP _PnR_XDS RepositoryE rr	XDS.b - Document Repository - XDSRepository MetadataError	Testing the XDSRepositoryMetadataError Error as applied to supplied size and hash attributes.	Version : CATS2015 Last Modified : 4/16/15 3:38:43 PM Permanent number: 12545	XDS Toolkit
XDS.b_REP _RegErrors	XDS.b - Document Repository - Return Errors from Registry (XDS.b)	Return Errors from Registry (XDS.b)	Version : CATS2015 Last Modified : 4/16/15 3:27:51 PM Permanent number: 12546	XDS Toolkit
XDS.b_REP _Retrieve	XDS.b - Document Repository - Retrieve Document Set	Accept Retrieve Document Set – two documents	Version : CATS2015 Last Modified : 4/16/15 3:28:35 PM Permanent number: 12547	XDS Toolkit
XDS.b_REP _Retrieve_S ingle_Doc	XDS.b - Document Repository - Retrieve single Document	Accept Retrieve Document Set – single document	Version : CATS2015 Last Modified : 4/16/15 3:29:01 PM Permanent number: 12548	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_REP_Retrieve_TLS	XDS.b - Document Repository - Retrieve Document Set over TLS	Accept Retrieve Document Set – single document via TLS	Version : CATS2015 Last Modified : 4/16/15 3:29:43 PM Permanent number: 12549	XDS Toolkit
XDS.b_REP_Submit2	XDS.b - Document Repository - Submit Two Document	Verify that the XDS.b Document Repository can accept a submission containing two documents	Version : CATS2015 Last Modified : 4/16/15 3:38:57 PM Permanent number: 12550	XDS Toolkit
XDS.b_REP_Submit_Reject	XDS.b - Document Repository - Reject submissions	Reject submissions where metadata and documents do not match (XDS.b)	Version : CATS2015 Last Modified : 4/16/15 3:39:08 PM Permanent number: 12551	XDS Toolkit

3.3.3.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
XDSToolkit	XDS Tools 2	2.202.4	NIST	http://ihexds.nist.gov/	Simulator & Validator
Gazelle Security SuiteGazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.05.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.3.4 Document Registry Actor

Two options may be selected by the SUT:
- *Patient Identity Feed*
- *Patient Identity Feed v3*

3.3.4.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_REG_Association	XDS.b - Document Registry - Association Documentation Classifications	Test the Registry actors management of a Association Documentation Classifications	Version : CATS2015 Last Modified : 4/16/15 3:03:30 PM Permanent number: 12520	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_REG_Configuration	Load test data into Document Registry via Register.b transaction	Load test data into Document Registry via Register.b transaction	Version : CATS2015 Last Modified : 4/16/15 3:05:20 PM Permanent number: 12521	XDS Toolkit
XDS.b_REG_Folder_2	XDS.b - Document Registry - Accept Create Folder with Initial Document	Verify that the XDS.b Document Registry can accept the submission of a Folder with a document.	Version : CATS2015 Last Modified : 4/16/15 3:06:05 PM Permanent number: 12522	XDS Toolkit
XDS.b_REG_Folder_3	XDS.b - Document Registry - Accept Add New Document to Folder	Verify that the XDS.b Document Registry can accept a submission that contains a document which is added to an existing folder.	Version : CATS2015 Last Modified : 4/16/15 3:06:40 PM Permanent number: 12523	XDS Toolkit
XDS.b_REG_Folder_4	XDS.b - Document Registry - Reject Add Document to Folder	Verify that the XDS.b Document Registry will reject a submission that contains a document which is added to an existing folder with a different Patient ID	Version : CATS2015 Last Modified : 4/16/15 3:07:25 PM Permanent number: 12524	XDS Toolkit
XDS.b_REG_Folder_Add	XDS.b - Document Registry - Add Existing document to existing folder	Add Existing document to existing folder	Version : CATS2015 Last Modified : 4/16/15 3:35:37 PM Permanent number: 12525	XDS Toolkit
XDS.b_REG_Folder_Repl	XDS.b - Document Registry - R.b Accept Document Replace, Document in Folder	Accept Document Replace, Document in Folder	Version : CATS2015 Last Modified : 4/16/15 3:35:53 PM Permanent number: 12526	XDS Toolkit
XDS.b_REG_lastUpdateTime	XDS.b - Document Registry - Folder lastUpdateTime	Test an XDS.b Document Registry implementation to prove it can properly manage the XDSFolder.lastUpdateTime attribute	Version : CATS2015 Last Modified : 4/16/15 3:09:02 PM Permanent number: 12527	XDS Toolkit
XDS.b_REG_R.b_TLS	XDS.b Document Registry Register Document Set Single Document over TLS	Test the Document Registry regarding the transaction Register Document Set - Submistion of single document over TLS	Version : CATS2015 Last Modified : 4/16/15 3:36:18 PM Permanent number: 12528	XDS Toolkit
XDS.b_REG_R.b_Trans_RPLC	XDS.b Document Registry Register Document Set - Transform/Replace	Test the Document Registry regarding the transaction Register Document Set - Transform/Replace documents	Version : CATS2015 Last Modified : 4/16/15 3:36:33 PM Permanent number: 12529	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_REG_R.b_UnknownPatientId	XDS.b Document Registry Register Document Set - Invalid Patient ID	Test the Document Registry regarding the transaction Register Document Set - Reject Submission of Invalid Patient ID via XDS.b	Version : CATS2015 Last Modified : 4/16/15 3:36:52 PM Permanent number: 12530	XDS Toolkit
XDS.b_REG_R.b_XDSPatientIdDoesNo	XDS.b Document Registry Register Document Set - Patient ID does not match Document	Test the Document Registry regarding the transaction Register Document Set - Reject Submission Set, Patient ID does not match Document (XDS.b)	Version : CATS2015 Last Modified : 5/27/15 5:38:59 PM Permanent number: 12531	XDS Toolkit
XDS.b_REG_Register_Create_Folder	XDS.b Document Registry Register Document Set - Create Folder	Test the Document Registry regarding the transaction Register Document Set - Accept Create Folder	Version : CATS2015 Last Modified : 4/16/15 3:37:15 PM Permanent number: 12532	XDS Toolkit
XDS.b_REG_Register_Query_Addenda	XDS.b Document Registry Register Document Set - Document Addendum	Test the Document Registry regarding the transaction Register Document Set - Document Addendum	Version : CATS2015 Last Modified : 4/16/15 3:37:26 PM Permanent number: 12533	XDS Toolkit
XDS.b_REG_Register_Query_Multipl	XDS.b Document Registry Register Document Set - Multiple Document	Test the Document Registry regarding the transaction Register Document Set - Submission of multiple documents	Version : CATS2015 Last Modified : 4/16/15 3:37:40 PM Permanent number: 12534	XDS Toolkit
XDS.b_REG_Register_Query_Replace	XDS.b Document Registry Register Document Set - Replace Document	Test the Document Registry regarding the transaction Register Document Set - replace document	Version : CATS2015 Last Modified : 4/16/15 3:37:55 PM Permanent number: 12535	XDS Toolkit
XDS.b_REG_Register_Query_Single	XDS.b Document Registry Register Document Set Single Document	Test the Document Registry regarding the transaction Register Document Set - Submission of single document	Version : CATS2015 Last Modified : 4/16/15 3:38:07 PM Permanent number: 12536	XDS Toolkit
XDS.b_REG_Register_Query_Tranfor	XDS.b Document Registry Register Document Set - Document Transform	Test the Document Registry regarding the transaction Register Document Set - Document Transform	Version : CATS2015 Last Modified : 4/16/15 3:16:45 PM Permanent number: 12537	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XDS.b_REG_Resubmission	XDS.b - Document Registry - R.b Document Resubmission	Verify that the XDS.b Document Registry will accept a duplicate XDSDocumentEntry, with same DSDocumentEntry.uniqueId, if XDSDocumentEntry.hash is the same reject if the hash is different	Version : CATS2015 Last Modified : 4/16/15 3:17:09 PM Permanent number: 12538	XDS Toolkit
XDS.b_REG_RollBack	XDS.b - Document Registry - Submission Stored - All or Nothing	Verify the capability of Document Registry to rollback a complete submission	Version : CATS2015 Last Modified : 4/16/15 3:17:35 PM Permanent number: 12539	XDS Toolkit
XDS.b_REG_Stored_Query	XDS.b Stored Query Testing	Test the ability of document registry to respond to SQ transaction	Version : CATS2015 Last Modified : 4/16/15 3:18:45 PM Permanent number: 12540	XDS Toolkit
XDS.b_REG_XDSResultNotSinglePati	XDS.b - Document Registry - XDSResultNotSinglePatient Error	Testing the XDSResultNotSinglePatient Error.	Version : CATS2015 Last Modified : 4/16/15 3:20:10 PM Permanent number: 12541	XDS Toolkit

3.3.4.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
XDSToolkit	XDS Tools 2	2.202.4	NIST	http://ihexds.nist.gov/	Simulator & Validator
Gazelle Security SuiteSecurity Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.05.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.4 Profile PDQ

The Patient Demographics Query Profile enables the query of a patient information server for a list of patients, based on user defined search criteria, and retrieve a patient's demographic information.

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:8, section from version 11.0 of this Technical Framework, issued September 29th 2014, without any additional Final Text Change Proposals.

Final Text CPs that were approved after September 1st, 2014 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.4.1 Patient Demographic Consumer Actor

One option may be selected by the SUT :
- *Pediatric Demographics*

3.4.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PDQ_PDC_PediatricDemographics	PDQ/PDC Query with Pedriatric Demographics	This test evaluates the capability of the SUT to support the Pediatric Demographics Option	Version : CATS2015 Last Modified : 03/24/15 21:30:42 Permanent number: 12485	Gazelle Patient Manager GazelleHL7Validator
PDQ_PDC_Query	PDQ/PDC Query with various parameters	This test evaluates the capability of the SUT to send a valid query to the PatientManager tool acting as a PDQ supplier	Version : CATS2015 Last Modified : 04/15/15 13:32:57 Permanent number: 12481	Gazelle Patient Manager GazelleHL7Validator

3.4.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle PatientManager	Patient Manager	9.2.29.2.2	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.13.2.1	IHE-Europe	http://gazelle.ihe.net/	Validator
Gazelle Security SuiteSecurity Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.05.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.4.2 Patient Demographic Supplier Actor

One option may be selected by the SUT:
- *Pediatric Demographics*

3.4.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PDQ_PDS_Case1	PDQ/PDS Case 1: Data Found - Single Domain	This test checks the ability of your system to answer to an exact match query in a single domain	Version : CATS2015 Last Modified : 02/04/15 15:43:14 Permanent number: 12486	Gazelle Patient Manager GazelleHL7Validator
PDQ_PDS_Case2	PDQ/PDS Case 2: Data Found - Single Domain	This test checks the ability of your system to answer to a query in a single domain	Version : CATS2015 Last Modified : 02/04/15 15:43:31 Permanent number: 12487	Gazelle Patient Manager GazelleHL7Validator
PDQ_PDS_Case3	PDQ/PDS Case 3: Unknown Domain	This test checks the ability of your system to answer to a query with an unknown value in QPD-8	Version : CATS2015 Last Modified : 02/04/15 15:43:48 Permanent number: 12488	Gazelle Patient Manager GazelleHL7Validator
PDQ_PDS_Continuation_Pointer	PDQ/PDS Continuation Pointer	This test checks the ability of your system to support the HL7 Query Continuation Pointer Protocol	Version : CATS2015 Last Modified : 24/03/15 21:18:52 Permanent number: 12489	Gazelle Patient Manager GazelleHL7Validator
PDQ_PDS_PediatricDemographics	PDQ/PDS Pediatric Demographics option	This test checks the ability of your system to support the pediatric demographics option	Version : CATS2015 Last Modified : 02/04/15 15:44:07 Permanent number: 12490	Gazelle Patient Manager GazelleHL7Validator
PDQ_PDS_Prerequisite	PDQ/PDS Pre-Requisite	This test explains how to configure both your System and the tooling to perform the following test cases in the best conditions	Version : CATS2015 Last Modified : 02/04/15 11:35:07 Permanent number: 12491	Gazelle Patient Manager GazelleHL7Validator

3.4.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle PatientManager	Patient Manager	9.2.29.2.2	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.13.2.1	IHE-Europe	http://gazelle.ihe.net/	Validator
Gazelle Security SuiteSecurity Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.05.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.5 Profile PDQ-V3

The Patient Demographics Query-V3 Profile enables the query of a patient information server for a list of patients, based on user defined search criteria, and retrieve a patient's demographic information.

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:24, section from version 11.0 of this Technical Framework, issued September 29th 2014, without any additional Final Text Change Proposals.

Final Text CPs that were approved after September 1st, 2014 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.5.1 Patient Demographic Consumer Actor

One option may be selected by the SUT:
- *Pediatric Demographics*

3.5.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PDQV3_PDC_Pediatric Demographics	PDQV3/PDC Query with Pedriatric Demographics	This test evaluates the capability of the SUT to support the Pediatric Demographics Option	Version : CATS2015 Last Modified : 3/24/15 4:15:45 PM Permanent number: 12496	Gazelle Patient Manager GazelleHL7Validator
PDQV3_PDC_Query	PDQV3/PDC Query with various parameters	This test evaluates the capability of the SUT to send a valid query to the PatientManager tool acting as a PDQV3 supplier	Version : CATS2015 Last Modified : 4/2/15 11:19:23 AM Permanent number: 12492	Gazelle Patient Manager GazelleHL7Validator

3.5.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
PatientManager	Patient Manager	9.2.2	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.1	IHE-Europe	http://gazelle.ihe.net/	Validator
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.5.2 Patient Demographic Supplier Actor

One option may be selected by the SUT:
- *Pediatric Demographics*

3.5.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PDQV3_PDS_Case1	PDQV3/PDS Case 1: Data Found - Single Domain	This test checks the ability of your system to answer to an exact match query in a single domain	Version : CATS2015 Last Modified : 4/2/15 3:44:26 PM Permanent number: 12497	Gazelle Patient Manager GazelleHL7Validator
PDQV3_PDS_Case2	PDQV3/PDS Case 2: Data Found - Single Domain	This test checks the ability of your system to answer to a query in a single domain	Version : CATS2015 Last Modified : 4/2/15 3:44:39 PM Permanent number: 12498	Gazelle Patient Manager GazelleHL7Validator
PDQV3_PDS_Case3	PDQV3/PDS Case 3: Unknown Domain	This test checks the ability of your system to answer to a query with an unknown value in otherIDsScopingOrganization	Version : CATS2015 Last Modified : 4/2/15 3:44:57 PM Permanent number: 12499	Gazelle Patient Manager GazelleHL7Validator
PDQV3_PDS_Pediatric Demographics	PDQV3/PDS Pediatric Demographics option	This test checks the ability of your system to support the pediatric demographics option	Version : CATS2015 Last Modified : 4/2/15 3:45:10 PM Permanent number: 12500	Gazelle Patient Manager GazelleHL7Validator
PDQV3_PDS_Prerequisite	PDQV3/PDS Pre-Requisite	This test explains how to configure both your System and the tooling to perform the following test cases in the best conditions	Version : CATS2015 Last Modified : 4/2/15 11:34:19 AM Permanent number: 12560	Gazelle Patient Manager GazelleHL7Validator

3.5.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
PatientManager	Patient Manager	9.2.2	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.1	IHE-Europe	http://gazelle.ihe.net/	Validator
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.6 Profile PIXv3

The Patient Identifier Cross-Referencing-V3 Profile enables *the cross-referencing of patient identifiers from multiple Patient Identifier Domains.*

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:23, section from version 11.0 of this Technical Framework, issued September 29th 2014, without any additional Final Text Change Proposals.

Final Text CPs that were approved after September 1st, 2014 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.6.1 Patient Id Cross-reference Consumer Actor

3.6.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and test Data with Version and Reference	Supporting Test Tool ID
PIXV3_Query	PIXV3: Patient Identifier Cross-Reference Consumer queries PIXV3 manager	This test checks that your SUT is able to query a PIXV3 manager	Version : CATS2015 Last Modified : 3/23/15 8:43:00 PM Permanent number: 12515	Gazelle Patient Manager GazelleHL7Validator

3.6.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle PatientManager	Patient Manager	9.2.2	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.1	IHE-Europe	http://gazelle.ihe.net/	Validator
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.6.2 Patient Identity Cross Reference Manager Actor

One option may be selected by the SUT:
- *Pediatric Demographics*

3.6.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PIXV3_Manager_Feed_Merge	PIXV3: Patient Identity Feed HL7V3 - Merge	This test checks that your SUT correctly integrates the Merge message received from a PIX Source	Version : CATS2015 Last Modified : 3/23/15 10:19:52 PM Permanent number: 12501	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Feed_W_known_dom	PIXV3: Feed Patient Identifier Cross-Reference Manager with a valid domain	This test checks that your SUT accept feeds for a patient with identifiers from a valid and known domain	Version : CATS2015 Last Modified : 3/23/15 10:02:50 PM Permanent number: 12502	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Feed_W_Unknown_dom	PIXV3: Feed Patient Identifier Cross-Reference Manager with an unknown domain	This test checks that your SUT does not accept feeds for a patient with identifiers from an unknown domain	Version : CATS2015 Last Modified : 3/23/15 10:04:20 PM Permanent number: 12503	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Query_Case1	PIXV3: Query PIXV3 Manager (Case 1)	This test checks that your SUT correctly answers to PIXV3 queries	Version : CATS2015 Last Modified : 3/25/15 11:19:07 AM Permanent number: 12505	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Query_Case2	PIXV3: Query PIXV3 Manager (Case 2)	This test checks that your SUT correctly answers to PIXV3 queries	Version : CATS2015 Last Modified : 3/23/15 9:11:56 PM Permanent number: 12504	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Query_Case3	PIXV3: Query PIXV3 Manager (Case 3)	This test checks that your SUT correctly answers to PIXV3 queries	Version : CATS2015 Last Modified : 3/23/15 9:13:47 PM Permanent number: 12506	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Query_Case4	PIXV3: Query PIXV3 Manager (Case 4)	This test checks that your SUT correctly answers to PIXV3 queries	Version : CATS2015 Last Modified : 3/23/15 9:18:43 PM Permanent number: 12507	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Query_Case5	PIXV3: Query PIXV3 Manager (Case 5)	This test checks that your SUT correctly answers to PIXV3 queries	Version : CATS2015 Last Modified : 3/23/15 10:13:15 PM Permanent number: 12508	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Query_Case6	PIXV3: Query PIXV3 Manager (Case 6)	This test checks that your SUT correctly answers to PIXV3 queries	Version : CATS2015 Last Modified : 3/23/15 9:27:24 PM Permanent number: 12509	Gazelle Patient Manager GazelleHL7Validator

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PIXV3_Manager_Update	PIXV3: Update Patient Identifier Cross-Reference Manager	This test checks that your SUT accept feeds and is able to update patients	Version : CATS2015 Last Modified : 3/23/15 9:38:49 PM Permanent number: 12510	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Update_Notificatio	PIXV3 Manager sends update notifications	We are testing the ability of your system to issue PIXV3 Update notification messages to a consumer which registered for such feeds	Version : CATS2015 Last Modified : 3/23/15 9:47:43 PM Permanent number: 12561	Gazelle Patient Manager GazelleHL7Validator
PIXV3_Manager_Update_unknown_dom	PIXV3: Update Patient Identifier Cross-Reference Manager with an unknown domain	This test checks that your SUT does not accept to update patient demographics when coming from an unknown domain	Version : CATS2015 Last Modified : 3/23/15 9:51:01 PM Permanent number: 12511	Gazelle Patient Manager GazelleHL7Validator
PIXV3_PDO_BirthInformation	PIXV3: Query PIXV3 Manager PDO (Multiple Birth indicator and birth order)	This test checks that your SUT correctly supports the Pediatric Demographics Option	Version : CATS2015 Last Modified : 4/2/15 3:45:22 PM Permanent number: 12512	Gazelle Patient Manager GazelleHL7Validator

3.6.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle PatientManager	Patient Manager	9.2.2	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.1	IHE-Europe	http://gazelle.ihe.net/	Validator
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.0	IHE Europe	http://gazelle.ihe.net/	Simulator

3.7 Profile PIX

The Patient Identifier Cross-Referencing Profile enables *the cross-referencing of patient identifiers from multiple Patient Identifier Domains.*

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:5, section from Rev. 12.1 Final Text of this Technical Framework, issued April 22th 2016, without any additional Final Text Change Proposals.

Final Text CPs that were approved after March 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.7.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PIX_Manager_Feed_Merge	PIX: Patient Identity Feed HL7 - Merge	This test checks that your SUT correctly integrates the Merge message received from a PIX Source	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12568	Patient Manager
PIX_Manager_Feed_W_known_dom	PIX: Feed Patient Identifier Cross-Reference Manager with a valid domain	This test checks that your SUT accept feeds for a patient with identifiers from a valid and known domain	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12578	Patient Manager
PIX_Manager_Feed_W_Unknown_dom	PIX: Feed Patient Identifier Cross-Reference Manager with an unknown domain	This test checks that your SUT does not accept feeds for a patient with identifiers from an unknown domain	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12579	Patient Manager
PIX_Manager_Query_Case1	PIX: Query PIX Manager (Case 1)	This test checks that your SUT correctly answers to PIX queries	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12570	Patient Manager
PIX_Manager_Query_Case2	PIX: Query PIX Manager (Case 2)	This test checks that your SUT correctly answers to PIX queries	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12572	Patient Manager
PIX_Manager_Query_Case3	PIX: Query PIX Manager (Case 3)	This test checks that your SUT correctly answers to PIX queries	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12573	Patient Manager
PIX_Manager_Query_Case4	PIX: Query PIX Manager (Case 4)	This test checks that your SUT correctly answers to PIX queries	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12610	Patient Manager
PIX_Manager_Query_Case5	PIX: Query PIX Manager (Case 5)	This test checks that your SUT correctly answers to PIXV3 queries	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12574	Patient Manager

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PIX_Manager_Query_Case6	PIX: Query PIX Manager (Case 6)	This test checks that your SUT correctly answers to PIX queries	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12575	Patient Manager
PIX_Manager_Update	PIX: Update Patient Identifier Cross-Reference Manager	This test checks that your SUT accept feeds and is able to update patients	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12567	Patient Manager
PIX_Manager_Update_Notification	PIX Manager sends update notifications	We are testing the ability of your system to issue PIXV3 Update notification messages to a consumer which registered for such feeds	Version : CATS2016 Last modified : 2016-01-21 Permanent number : 12569	Patient Manager
PIX_Manager_Update_unknown_dom	PIX: Update Patient Identifier Cross-Reference Manager with an unknown domain	This test checks that your SUT does not accept to update patient demographics when coming from an unknown domain	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12576	Patient Manager
PIX_PDO_BirthInformation	PIX: Query PIX Manager PDO (Multiple Birth indicator and birth order)	This test checks that your SUT correctly supports the Pediatric Demographics Option	Version : CATS2016 Last modified : 2016-04-06 Permanent number : 12577	Patient Manager

3.7.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator

3.7.2 Patient Identity Cross Reference Manager Actor

3.7.2.1 List of test cases

Test case ID	Test case name	Test case description	Test Case and Test Data with	Supporting test tool ID

			Version and Reference	
PIX_Query	PIX: Patient Identifier Cross-Reference Consumer queries PIX manager	This test checks that your SUT is able to query a PIX manager	Version : CATS2016 Last modified : 2016-02-10 Permanent number : 12566	Patient Manager

3.7.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator

3.8 Profile PAM

The Patient Administration Management Profile enables *the message exchanges to support patient identity and encounter information, as well as movements within an acute care encounter.*

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:14, section from Rev. 12.1 Final Text of this Technical Framework, issued April 22th 2016, without any additional Final Text Change Proposals.

Final Text CPs that were approved after March 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.8.1 Patient Demographic Consumer Actor

Two options may be selected by the SUT:
- *Merge*
- *Link/Unlink*

3.8.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PDC_Link	PAM: Identification Management (Link) for Patient Demographic Consumer	PAM Patient Identification Management, ITI-30 with the LINK/UNLINK option	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12636	Patient Manager
PAM_PDC_Merge	PAM: Identification Management (Merge) for Patient Demographic Consumer	PAM Patient Identification Management, ITI-30 with the MERGE option	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12637	Patient Manager

3.8.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator

3.8.2 Patient Demographic Supplier Actor

Two options may be selected by the SUT:
- *Merge*
- *Link/Unlink*

3.8.2.1 List of test cases for Link-Unlink Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PDS_Link	PAM: Identification Management (Link) for Patient Demographic Supplier	PAM Patient Identification Management, ITI-30 with the LINK/UNLINK option	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12643	Patient Manager

3.8.2.2 List of test cases for Merge Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PDS_Merge	PAM: Identification Management (Merge) for Patient Demographic Supplier	PAM Patient Identification Management, ITI-30 with the MERGE option	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12646	Patient Manager

3.8.2.3 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator

3.8.3 Patient Encounter Consumer Actor

Four options may be selected by the SUT:
- *Inpatient/ Outpatient*
- *Maintain demographics*
- *Advanced encounter management*
- *Historic movement*

3.8.3.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PEC_BASIC	PAM: Encounter Management (Basic subset for Patient Encounter Consumer)	Patient Encounter Management, this test uses the trigger events required for all systems implementing ITI-31	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12642	Patient Manager

3.8.3.2 List of test cases with Advanced Encounter Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PEC_ADVANCE	PAM: Encounter Management (Advanced Encounter Management) for Patient Encounter Consumer	This test is dedicated to the Advanced Encounter Management option defined for the ITI-31 transaction from the PAM profile	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12627	Patient Manager

3.8.3.3 List of test cases with Historic Movement Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PEC_HIST	PAM: Encounter Management (Historic Movement Management) for Patient Encounter Consumer	This test is dedicated to the Historic Movement Management option defined for the ITI-31 transaction from the PAM profile	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12629	Patient Manager
PAM_PEC_HIST_Scutiny	PAM: Encounter Management (Historic Movement) for PEC	This test is used to gather the URL of test instances in which you have been sent the ZBE segment	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12633	Gazelle HL7 Validator

3.8.3.4 List of test cases with Inpatient Outpatient Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PEC_IN_OUT	PAM: Encounter Management (Inpatient/Outpatient management) for Patient Encounter Consumer actor	This test is dedicated of the Inpatient:Outpatient management option of the PAM profile.	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12630	Patient Manager

3.8.3.5 List of test cases with Maintain Demographics Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PEC_MAINTAIN_DEMOG	PAM Encounter - Maintain demographic option for Patient Encounter Consumer	Maintain Demographics option for the PEC actor	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12635	Patient Manager

3.8.3.6 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator

3.8.4 Patient Encounter Supplier Actor

Four options may be selected by the SUT:
- *Inpatient/ Outpatient*
- *Maintain demographics*
- *Advanced encounter management*
- *Historic movement*

3.8.4.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PES_BASIC	PAM: Encounter Management (Basic subset for Patient Encounter Supplier)	Patient Encounter Management, this test uses the trigger events required for all systems implementing ITI-31	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12628	Patient Manager

3.8.4.2 List of test cases with Advanced Encounter Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PES_BASIC	PAM: Encounter Management (Basic subset for Patient Encounter Supplier)	Patient Encounter Management, this test uses the trigger events required for all systems implementing ITI-31	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12628	Patient Manager

3.8.4.3 List of test cases with historic movement option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PES_HIST	PAM: Encounter Management (Historic Movement Management) for Patient Encounter Supplier	This test is dedicated to the Historic Movement Management option defined for the ITI-31 transaction from the PAM profile	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12649	Patient Manager
PAM_PES_HIST_Scrutiny	PAM: Encounter Management (Historic Movement) for PES	This test is used to gather the URL of test instances in which you have sent the ZBE segment	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12634	Gazelle HL7 Validator

3.8.4.4 List of test cases with Inpatient Outpatient Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PES_IN_OUT	PAM: Encounter Management (Inpatient/Outpatient management) for Patient Encounter Supplier	This test is dedicated of the Inpatient:Outpatient management option of the PAM profile.	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12650	Patient Manager

3.8.4.5 List of test cases with maintain demographics option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PAM_PES_M AINTAIN_DE MOG	PAM Encounter - Maintain Demographic option for Patient Encounter Supplier	Maintain Demographics option for the PES	Version : CATS2016 Last modified : 2016-04-04 Permanent number : 12651	Patient Manager

3.8.4.6 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator

3.9 Profile XCA

The Cross Community Access Profile Supports the means to query and retrieve patient relevant medical data held by other communities. A community is defined as a coupling of facilities/ enterprises that have agreed to work together.

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:18, section from Rev. 12.1 Final Text of this Technical Framework, issued April 22th 2016, without any additional Final Text Change Proposals.

Final Text CPs that were approved after March 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.9.1 Initiating Gateway Actor

3.9.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XC_Read_This_First	XC_Read_This_First	Preparation for XCA, XCPD and/or XCA-I tests	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12654	None
XCA_INIT_FindDocuments_LeafClass	XCA - Initiating Gateway - XGQ FindDocuments for LeafClass	XGQ FindDocuments for LeafClass [12300]	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12587	XDS Toolkit
XCA_INIT_FindDocuments_ObjectRef	XCA - Initiating Gateway - XGQ FindDocuments for ObjectRef	XGQ FindDocuments for ObjectRef [12306]	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12586	XDS Toolkit
XCA_INIT_GetDocuments	XCA - Initiating Gateway - XGQ GetDocuments	XGQ GetDocuments [12307]	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12588	XDS Toolkit
XCA_INIT_Retrieve_multi_Doc	XCA - Initiating Gateway - Cross Gateway Retrieve of multiple documents	Cross Gateway Retrieve of a multiple documents [12308]	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12590	XDS Toolkit
XCA_INIT_Retrieve_Single_Doc	XCA - Initiating Gateway - Cross Gateway Retrieve of a single document	Cross Gateway Retrieve of a single document [12301]	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12589	XDS Toolkit
XCA_INIT_XDS_Aff_Negative_tests	XCA - Initiating Gateway - XDS Affinity Domain Option - negative tests	Testing the IG with the option XDS Affinity Domain - Initiating Gateway negative tests [15814]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12668	XDS Toolkit
XCA_INIT_XDS_Aff_Query_Single_RG	XCA - Initiating Gateway - XDS Affinity Domain Option - Query Single RG	Testing the IG with the option XDS Affinity Domain - Query Single Responding Gateway test [15808]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12665	XDS Toolkit
XCA_INIT_XDS_Aff_Ret_Single_RG	XCA - Initiating Gateway - XDS Affinity Domain Option - Retrieve Single RG	Testing the IG with the option XDS Affinity Domain - Retrieve Single Responding Gateway test [15809]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12666	XDS Toolkit
XCA_INIT_XDS_Aff_SQ_Ret_Two_RG	XCA - Initiating Gateway - XDS Affinity Domain Option - Query	Testing the IG with the option XDS Affinity Domain - Two Responding Gateway Response test [15810]	Version : CATS2016 Last modified : 2016-04-07 Permanent number :	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
	and Retrieve Multiple RG		12667	

3.9.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
XDS Toolkit	XDS Tools 2	2.202.4	NIST	http://ihexds.nist.gov/	Simulator & Validator
Syslog collector	Simulator for collecting syslog messages	2.1	MIR	http://ihewiki.wustl.edu/wiki/index.php/Syslog_Message_Browser	Simulator
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.0	IHE-Europe	http://gazelle.ihe.net/	Simulator & Validator

3.9.2 Responding Gateway Actor

3.9.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XC_Read_This_First	XC_Read_This_First	Preparation for XCA, XCPD and/or XCA-I tests	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12654	None
XCA_RESP_findDoc_XDS	XCA - Responding Gateway - FindDocuments for LeafClass RG	FindDocuments for LeafClass RG test [15811]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12669	XDS Toolkit
XCA_RESP_FindDocuments_LeafClass	XCA - Responding Gateway - XCQ FindDocuments for LeafClass	XCQ FindDocuments for ObjectRef [12310]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12582	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XCA_RESP_FindDocuments_ObjectRef	XCA - Responding Gateway - XCQ FindDocuments for ObjectRef	XCQ FindDocuments for ObjectRef [12309]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12581	XDS Toolkit
XCA_RESP_GetDocuments	XCA - Responding Gateway - XCQ GetDocuments Cross Community Query	XCQ GetDocuments [12311]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12583	XDS Toolkit
XCA_RESP_Initialization	XCA - Responding Gateway - Test initialization	Establish test data in systems behind Responding Gateway.	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12580	XDS Toolkit
XCA_RESP_Negative_Tests	XCA - Responding Gateway - Responding Gateway negative tests	Responding Gateway negative tests[15815]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12671	XDS Toolkit
XCA_RESP_Retrieve_Multi_Doc	XCA - Responding Gateway - XCR Retrieve multiple documents	XCR Retrieve Multiple Documents [12313]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12585	XDS Toolkit
XCA_RESP_Retrieve_Single_Doc	XCA - Responding Gateway - XCR Retrieve single document	XCR Retrieve Single Document [12312]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12584	XDS Toolkit
XCA_RESP_Retrieve_XDS	XCA - Responding Gateway - Responding Gateway Retrieve	Responding Gateway Retrieve test [15813]	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12670	XDS Toolkit

3.9.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
XDS Toolkit	XDS Tools 2	2.202.4	NIST	http://ihexds.nist.gov/	Simulator & Validator
Syslog collector	Simulator for	2.1	MIR	http://ihewiki.wustl.edu/wiki/index.php/Syslog_Message_Browser	Simulator

	collecting syslog messages				
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionn aire	5.2.0	IHE-Europe	http://gazelle.ihe.net/	Simulato r & Validator

3.10 Profile XCPD

The Cross Community Patient Discovery Profile enables *the message exchanges to support patient identity and encounter information, as well as movements within an acute care encounter.*

The test methods specified in this section are based on the IHE Profile as specified in IHE ITI TF-1:27, section from Rev. 12.1 Final Text of this Technical Framework, issued April 22th 2016, without any additional Final Text Change Proposals.

Final Text CPs that were approved after March 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.10.1 Initiating Gateway Actor

One option may be selected by the SUT:
  - *Deferred Response*

3.10.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XC_Read_This _First	XC_Read_This_ First	Preparation for XCA, XCPD and/or XCA-I tests	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12654	None
XCPD_IG_Que ry	XCPD/IG Query	This test evaluates the capability of the IG SUT to send a valid query to the PatientManager tool acting as a XCPD Responding Gateway	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12653	Patient Manager

3.10.1.2 List of test cases with Deferred Response Option

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XCPD_IG_Deferred_Response	XCPD/IG Deferred Response Option	Test the ability of XCPD IG with Deferred Response Option to send valid request	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12655	Patient Manager

3.10.1.3 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Syslog collector	Simulator for collecting syslog messages	2.1	MIR	http://ihewiki.wustl.edu/wiki/index.php/Syslog_Message_Browser	Simulator
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.0	IHE-Europe	http://gazelle.ihe.net/	Simulator & Validator
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator

3.10.2 Responding Gateway Actor

3.10.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
XC_Read_This_First	XC_Read_This_First	Preparation for XCA, XCPD and/or XCA-I tests	Version : CATS2016 Last modified : 2016-04-08 Permanent number : 12654	None
XCPD_RG_Deferred_Response	XCPD/RG Deferred Response Option	Test the ability of XCPD RG with Deferred Response Option to receive valid request	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12656	Patient Manager
XCPD_RG_ITI 55	XCPD/RG ITI-55 requests	Test the ability of the RG to respond to ITI-55 requests	Version : CATS2016 Last modified : 2016-04-	Patient Manager

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
			07 Permanent number : 12645	
XCPD_RG_ITI55_responsePriority	XCPD/RG responsePriority Code processing	The RG SHALL be able to process the responsePriorityCode	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12652	Patient Manager
XCPD_RG_Prerequisite	XCPD/RG Prerequisite	This test explains how to configure both your System and the tooling to perform the following test cases in the best conditions	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12644	Patient Manager

3.10.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Syslog collector	Simulator for collecting syslog messages	2.1	MIR	http://ihewiki.wustl.edu/wiki/index.php/Syslog_Message_Browser	Simulator
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.2.0	IHE-Europe	http://gazelle.ihe.net/	Simulator & Validator
Patient Manager	Gazelle Patient Manager	9.2.2	IHE-Europe	https://gazelle.ihe.net	Simulator

3.11 Profile LAW

The Laboratory Analytical WorkflowProfile supports the analytical workflow between analyzers (an IVD device) of the clinical laboratory and the systems managing their work such as a LAS or a LIS. Both patient and quality control (QC) specimens are in scope.

The test methods specified in this section are based on the IHE Profile as specified in the final text IHE PaLM Supplement Final Text of this Technical Framework, issued February 24th 2016, without any additional Final Text Change Proposals.

Final Text CPs that were approved after January 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.
- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.11.1 Analyzer Actor

3.11.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
LAW_AN_AWOS_Manual	LAW Normal Process With AWOS Manual Entry (for Analyzer)	In this test, the Analyzer participant will enter the AWOS manually, no previous AWOS broadcast is received.	Version : CATS2016 Last modified : 2016-03-17 Permanent number : 12614	Order Manager
LAW_AN_AWOS_Update	LAW AWOS Update Prior To Specimen Arrival (for Analyzer)	This test concerns the update of an Analytical Work Order triggering the update of its AWOS.	Version : CATS2016 Last modified : 2016-03-17 Permanent number : 12612	Order Manager
LAW_AN_Manual_Urgent_AWOS	LAW Manual Urgent AWOS (for Analyzer)	In this test, the Analyzer Manager receives the Work Order after that the Analyzer has performed the test.	Version : CATS2016 Last modified : 2016-03-17 Permanent number : 12613	Order Manager
LAW_AN_Normal_Process_W_Query	LAW Normal Process When Analyzers Query	In this use case, the Analyzer queries the Analyzer Manager for WOS related to the specimen. The Analyzer Manager sends the scheduled list of AWOS.	Version : CATS2016 Last modified : 2016-03-17 Permanent number : 12615	Order Manager
LAW_AN_Reflex_By_Analyzer	LAW Reflex Decided On The Analyzer Immediately After First Run (for Analyzer)	In this test, the Analyzer needs to performs a new test after the first test.	Version : CATS2016 Last modified : 2016-03-17 Permanent number : 12617	Order Manager
LAW_AN_Rerun_By_Analyz	LAW Rerun Decided On The Analyzer	In this test, the Analyzer performs a second run immediately after the	Version : CATS2016 Last modified : 2016-03-17	Order Manager

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
er	Immediately After first Run (for Analyzer)	first run.	Permanent number : 12618	
LAW_AWOS_ PRIORITY_C ONFORMANC E	Scrutiny of messages for LAW_AWOS_P RIORITY option	Analyzers implementing the LAW_AWOS_PRIORITY options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12598	Gazelle HL7 Validator
LAW_AWOS_ Received_Prior _To_Speci	LAW AWOS Received Prior To Specimen Arrival	In this test, the Analyzer receives the AWOS from the analyzer Manager, performs the test and notifies the Analyzer Manager of the completion of the AWOS.	Version : CATS2016 Last modified : 2016-03-17 Permanent number : 12611	Gazelle HL7 Validator
LAW_CONTR IB_SUB_CON FORMANCE	Scrutiny of messages for LAW_CONTRI B_SUB option	Analyzers implementing the LAW_CONTRIB_SUB options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12591	Gazelle HL7 Validator
LAW_DILUTI ONS_CONFO RMANCE	Scrutiny of messages for LAW_DILUTI ONS option	Analyzers implementing the LAW_DILUTIONS options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12592	Gazelle HL7 Validator
LAW_MASS_ SPEC_CONFO RMANCE	Scrutiny of messages for LAW_MASS_S PEC option	Analyzers implementing the LAW_MASS_SPEC option are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12603	Gazelle HL7 Validator
LAW_PAT_D EM_CONFOR MANCE	Scrutiny of messages for LAW_PAT_DE M option	Analyzers implementing the LAW_PAT_DEM options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12593	Gazelle HL7 Validator
LAW_POOL_	Scrutiny of	Analyzers implementing the	Version : CATS2016	Gazelle HL7

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
AN_CONFOR MANCE	messages for LAW_POOL_A N option	LAW_POOL_AN option are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Last modified : 2016-03-07 Permanent number : 12606	Validator
LAW_POOL_ NOAN_CONF ORMANCE	Scrutiny of messages for LAW_POOL_N OAN option	Analyzers implementing the LAW_POOL_NOAN option are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12609	Gazelle HL7 Validator
LAW_RESUL T_EXT_CONF ORMANCE	Scrutiny of messages for LAW_RESULT _EXT option	Analyzers implementing the LAW_RESULT_EXT option are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12605	Gazelle HL7 Validator
LAW_SPECIM EN_CONFOR MANCE	Scrutiny of messages for LAW_SPECIM EN option	Analyzers implementing the LAW_SPECIMEN options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12600	Gazelle HL7 Validator

3.11.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator
Order Manager	Gazelle Order Manager	4.2.3	IHE-Europe	https://gazelle.ihe.net	Simulato r

3.11.2 Analzer Manager

3.11.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
LAW_AM_AWOS_Manual	LAW Normal Process With AWOS Manual Entry (for Analyzer Manager)	In this test, the Analyzer participant will enter the AWOS manually, no previous AWOS broadcast is received.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12621	Order Manager
LAW_AM_AWOS_PRIORITY_CONFORMANCE	Conformance testing of messages for Analyzer Manager interacting with Analyzer supporting LAW_AWOS_PRIORITY option	Analyzer Managers which communicate with an Analyzer implementing the LAW_AWOS_PRIORITY options are expected to transmit some extra data. This test is expected to make sure the produced messages are conformant to the profile.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12599	Gazelle HL7 Validator
LAW_AM_AWOS_Update	LAW AWOS Update Prior To Specimen Arrival (For Analyzer Manager)	This test concerns the update of an Analytical Work Order triggering the update of its AWOS.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12624	Order Manager
LAW_AM_CONTAINER_CONFORMANCE	Conformance review of messages for Analyzer Manager interacting with Analyzer supporting LAW_CONTAINER option	Analyzer Managers which communicate with an Analyzer implementing the LAW_CONTAINER options are expected to transmit some extra data. This test is expected to ensure conformance testing for elements described by this option in the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12602	Gazelle HL7 Validator
LAW_AM_Manual_Urgent_AWOS	LAW Manual Urgent AWOS (For Analyzer Manager)	In this test, the Analyzer Manager receives the Work Order after that the Analyzer has performed the test.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12623	Order Manager
LAW_AM_Normal_Process	LAW Normal Process When	In this use case, the Analyzer queries the Analyzer Manager for	Version : CATS2016 Last modified : 2016-03-	Order Manager

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
_W_Query	Analyzers Query (for Analyzer Manager)	WOS related to the specimen. The Analyzer Manager sends the scheduled list of AWOS.	07 Permanent number : 12620	
LAW_AM_PO OL_AN_CON FORMANCE	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_POOL_A N option	Analyzer Managers which communicate with an Analyzer implementing the LAW_POOL_AN option are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12607	Gazelle HL7 Validator
LAW_AM_PO OL_NOAN_C ONFORMITY	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_POOL_N OAN option	Analyzer Managers which communicate with an Analyzer implementing the LAW_POOL_NOAN options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12608	Gazelle HL7 Validator
LAW_AM_Ref lex_By_Analyz er	LAW Reflex Decided On The Analyzer Immediately After First Run (for Analyzer Manager)	In this test, the Analyzer needs to performs a new test after the first test.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12625	Order Manager
LAW_AM_RE L_OBS_CONF ORMANCE	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_REL_OB S option	Analyzer Managers which communicate with an Analyzer implementing the LAW_REL_OBS options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12604	Gazelle HL7 Validator
LAW_AM_Re run_By_Analyz er	LAW Rerun Decided On The Analyzer Immediately	In this test, the Analyzer performs a second run immediately after the first run.	Version : CATS2016 Last modified : 2016-03-07 Permanent number :	Order Manager

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
	After first Run (for Analyzer Manager)		12626	
LAW_AM_RR _CONFORMA NCE	Scrutiny of messages for LAW_RERUN_ REFLEX option	Analyzer Managers implementing the LAW_RERUN_REFLEX options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12596	Gazelle HL7 Validator
LAW_AM_RR _CONTROL_C ONFORMANC E	Scrutiny of messages for LAW_AM_RR_ CONTROL option	Analyzer Managers implementing the LAW_AM_RR_CONTROL options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12597	Gazelle HL7 Validator
LAW_AM_SP ECIMEN_CO NFORMANCE	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_SPECIM EN option	Analyzer Managers which communicate with an Analyzer implementing the LAW_SPECIMEN options are expected to transmit some extra data. This test is expected to make sure of the conformance of the messages.	Version : CATS2016 Last modified : 2016-03-07 Permanent number : 12601	Gazelle HL7 Validator

3.11.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator
Order Manager	Gazelle Order Manager	4.2.3	IHE-Europe	https://gazelle.ihe.net	Simulato r

3.12 Profile XDS-I

The Cross-Enterprise Document Sharing for Imaging Profile Supports the sharing (publishing, finding and retrieving) documents across a group of affiliated enterprises. It extends and specializes the mechanisms defined by XDS.b to support imaging "documents".

The test methods specified in this section are based on the IHE Profile as specified in IHE RAD TF-1:18, section from Rev. 14.0 Final Text of this Technical Framework, issued July 24th 2016, without any additional Final Text Change Proposals.

Final Text CPs that were approved after March 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.12.1 Imaging Document Consumer Actor

The following list of test cases and list of related test tools are being developed and may be updated in a later version of the CAS-2.

3.12.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID

3.12.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category

3.12.2 Imaging Document Sourcer Actor

Four options may be selected by the SUT and are not subject to Conformity Assessment:
- *Set of DICOM Instances*
- *PDF Report*
- *CDA Wrapped Text Report*
- *CDA Imaging Report with Structured Headings*

The following list of test cases and list of related test tools are being developed and may be updated in a later version of the CAS-2.

3.12.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID

3.12.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category

3.13 Profile XCA-I

The Cross-Community Access for Imaging Profile supports query and retrieve patient-relevant medical imaging data being held by other communities It extends the IT Infrastructure XCA Profile by providing access to diagnostic reports, imaging Manifests and the imaging objects referenced in the Manifests.

The test methods specified in this section are based on the IHE Profile as specified in IHE RAD TF-1:29, section from Rev. 14.0 Final Text of this Technical Framework, issued July 24th 2016, without any additional Final Text Change Proposals.

Final Text CPs that were approved after March 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.13.1 Initiating Imaging Gateway

The following list of test cases and list of related test tools are being developed and may be updated in a later version of the CAS-2.

3.13.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID

3.13.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category

3.13.2 Responding Imaging Gateway

The following list of test cases and list of related test tools are being developed and may be updated in a later version of the CAS-2.

3.13.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID

3.13.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category

3.14 Profile DEC

The Device Enterprise Communication Profile Supports communication of vendor independent, multi-modality Patient Care Devices data to Enterprise Applications using consistent semantics.

The test methods specified in this section are based on the IHE Profile as specified in IHE PCD TF-1:3, section from Rev. 5.0 Final Text of this Technical Framework, issued October 14th 2015, without any additional Final Text Change Proposals.

Final Text CPs that were approved after September 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.14.1 Device Observation Consumer Actor

3.14.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
DEC DOC POI SUT	DEC_DOR_DOC_POI_(DOC_SUT)	Evaluates the capability of a DEC DOC which supports POI to consume valid PCD-01 messages from a DOR and transmit the Accept ACKs.	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12660	NIST PCD Tool
DEC DOC SUT	DEC_DOR_DOC_(DOC_SUT)	Evaluates the capability of a DEC DOC to consume valid PCD-01 messages from a DOR and transmit the Accept ACKs.	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12658	NIST PCD Tool

3.14.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
NIST PCD Tool	NIST PCD Tool	1.6	NIST	http://ihe-pcd-precon.nist.gov/PCD-HL7WebPreCon/	Simulator & Validator

3.14.2 Device Observation Reporter Actor

3.14.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
DEC DOR POI SUT	DEC_DOR_DOC_POI_(DOR_SUT)	Evaluates the capability of a DEC DOR which supports POI to transmit valid PCD-01 messages to a DOC and consume the Accept ACKs.	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12659	NIST PCD Tool
DEC DOR SUT	DEC_DOR_DOC_(DOR_SUT)	Evaluates the capability of a DEC DOR to transmit valid PCD-01 messages to a DOC and consume the Accept ACKs.	Version : CATS2016 Last modified : 2016-04-07 Permanent number :	NIST PCD Tool

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
			12657	

3.14.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
NIST PCD Tool	NIST PCD Tool	1.6	NIST	http://ihe-pcd-precon.nist.gov/PCD-HL7WebPreCon/	Simulator & Validator

3.15 Profile PIV

The Patient Administration Mana Point-of-care Infusion Verification Profile Supports the electronic transfer of infusion parameters from a Bedside Computer assisted Medication Administration (BCMA) system to a general-purpose infusion pump. This capability will reduce errors by eliminating keystroke errors and by increasing the use of automatic dosage checking and increase caregiver productivity.

The test methods specified in this section are based on the IHE Profile as specified in IHE PCD TF-1:4, section from Rev. 5.0 Final Text of this Technical Framework, issued October 14th 2015, without any additional Final Text Change Proposals.

Final Text CPs that were approved after March 1st, 2016 are not in scope of this profile Conformity Assessment. This implies that:

- Systems Under Test may implement such additional Final Test CPs.

- In case, a SUT does not pass a test case due to the implementation of such an additional CP, the Authorized Test Laboratory shall consider the test case passed with a comment.

3.15.1 Infusion Order Programmer Actor

3.15.1.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PIV IOP Piggyback SUT	PIV_IOP_IOC _Piggyback_(I OP_SUT)	Evaluates the capability of a PIV IOP to transmit valid PCD-03 messages indicating piggyback to a IOC and consume the Accept Acknowledgement and Application Acknowledgement messages. This test requires one	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12663	NIST PCD Tool

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
		pump.		
PIV IOP SUT	PIV_IOP_IOC _(IOP_SUT)	Evaluates the capability of a PIV IOP to transmit valid PCD-03 messages to a IOC and consume the Accept Acknowledgement and Application Acknowledgement messages. This test requires two pumps.	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12661	NIST PCD Tool

3.15.1.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
NIST PCD Tool	NIST PCD Tool	1.6	NIST	http://ihe-pcd-precon.nist.gov/PCD-HL7WebPreCon/	Simulator & Validator

3.15.2 Infusion Order Consumer Actor

3.15.2.1 List of test cases

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
PIV IOC Piggyback SUT	PIV_IOP_IOC _Piggyback_(I OC_SUT)	Evaluates the capability of a PIV IOC to receive valid PCD-03 messages indicating piggyback from an IOP and transmit the Accept Acknowledgement and Application Acknowledgement messages. This test requires one pump.	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12664	NIST PCD Tool
PIV IOC SUT	PIV_IOP_IOC _(IOC_SUT)	Evaluates the capability of a PIV IOC to receive valid PCD-03 messages from an IOP and transmit the Accept Acknowledgement and Application Acknowledgement messages. This test requires two pumps.	Version : CATS2016 Last modified : 2016-04-07 Permanent number : 12662	NIST PCD Tool

3.15.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category

Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.1	IHE-Europe	https://gazelle.ihe.net	Validator
NIST PCD Tool	NIST PCD Tool	1.6	NIST	http://ihe-pcd-precon.nist.gov/PCD-HL7WebPreCon/	Simulator & Validator

4 Support tools

Test Tool ID	Test Tool Name	Test Tool Version	Developed by	Test Tool Info Page	Tool Category
Gazelle Test Management	The Gazelle Test Management Test Bed	5.2.0	IHE Europe	http://gazelle.ihe.net/	Test Management
Demographic Data Server	Generate fake demographics for testing purposes	3.0.0	IHE Europe	http://gazelle.ihe.net	Data generation
SVS Simulator	Value Set repository	2.0.3	IHE Europe	http://gazelle.ihe.net	Date generation

Appendix A – Templates

A.1 IHE-CAS-2 Template to Specify Test Cases

A Test Case is made of a series of test scripts (Gazelle calls it a test) to test a specific profile/actor.

A Test Case assembles all test scripts in which the SUT (System under Test) plays one of the ROLES for which the test script has been specified.

Test Case Specification			
Test case Identification	Test Case name	ID issued by IHE	Version assigned by IHE
Test Case Approved	Yes / No	Date	Who
Roles Tested	ROLE1, ROLE2, etc. (a ROLE is a list Actor/Profile/Option combination to which the case applies) *(e.g. for XDS, 3 ROLEs: (1) XDS Doc Source,(2) XDS Doc Repository,(3) XDS Doc Registry)*		

++May be extended with other participants

A.2 IHE-CAS-2 Template to Report Test Case Execution

Template for reporting the execution of a test case. Note that the yellow elements are those coming from the test case specification template. The "brown" elements, cover the participants which number is specific to the test case.

Test Case Execution			
Test case Identification	Test Case name	ID issued by IHE	Version assigned by IHE
Test Case Approved	Yes / No	Date	Who approves:
Roles Tested	ROLE1, ROLE2, etc. (a ROLE is a list Actor/Profile/Option combination to which the case applies) *(e.g. for XDS, 3 ROLEs: (1) XDS Doc Source,(2) XDS Doc Repository,(3) XDS Doc Registry)*		
Test Execution	Start/StopTime Stamp	**ID**	Who executes:
Test Results Validation	Time Stamp	**Pass/Fail**	Who validates:
Overall Test Case Execution and Evaluation Notes			
Participant 1	NAME of ROLE NAME tested		
Product Id	Id used in the test result tracking by the Test Laboratory.		
Customer Name	Organization submitting the product for testing		
Product Name	Commercial Product Name		
Version / Release	Commercial Product Version		
Participant 2 (++)	NAME of ROLE NAME tested		
Product Id	Id used in the test result tracking by the Test Laboratory.		
Customer Name	Organization submitting the product for testing		
Product Name	Commercial Product Name		
Version / Release	Commercial Product Version		

A3   IHE-CAS-2 Template to Summarize Test Execution

This Summary Report template is used by an IHE International Authorized Testing Laboratory to summarize the execution of test cases by a System Under Test.

IHE International
Conformity Assessment - Summary Test Report

Company Name
Product Name
Version Number

The product and version documented in this report was tested by an IHE International-authorized testing laboratory in accordance with ISO/IEC 17025 requirements and the IHE Conformity Assessment Scheme (IHE-CAS) to demonstrate conformance with the IHE International profiles and actors identified in this report.

It provides a third-party conformity assessment of the product's adherence to one or more IHE Profiles. It demonstrates that the product is capable of assisting healthcare providers and hospitals in meeting requirements for clinical integration.

Testing was conducted as specified in the IHE-CAS-1 and IHE-CAS-2 documents. Testing consisted of observed demonstrations in a controlled location under normal operating conditions and using approved test tools. Test efforts also included review of test tool results, self-attestation materials and, where applicable, interoperability testing files and audit logs. Testing was constrained to the use of the IHE International technical frameworks specified in IHE-CAS-2 at the time of testing. Any exceptions to these requirements are noted within this test report, when applicable.

About [Test Lab] and [Regional/National Deployment Committee]

[Test Laboratory Name] is authorized by IHE International ;Authorization #: [Test Lab Authorization #]; in conjunction with [Name of Deployment Committee], an IHE Deployment Committee, to perform testing of health information technology to IHE International profiles and actors, as specified in the IHE technical frameworks.

Appendix B of this test report will document any specific additional testing requirements per the regional or national IHE Deployment Committee.

For comments or suggestions on this Conformity Assessment program, please contact: [info@deployment.ihe.net]

Profiles/Actors Tested for Conformity Assessment

The IHE Authorized Testing Laboratory [Test Laboratory Name] determined that:

[Product Name]/[Version] provided for conformity assessment by

[Company] located at [Address]

successfully demonstrated compliance to the selected profile/actor pairs for the IHE International Conformity Assessment Program per IHE-CAS-1 [date] and IHE-CAS-2 [date].

The System Under Test was made available for test on [date].

Tests were executed between [date] and [date] at location [Location City, Country].

IHE Profile	Actor and Options	Test Result
[IHE Domain Name]		
Example: IHE-CT Consistent Time enables system clocks and time stamps of computers in a network to be synchronized (median error less than 1 second).	Time Client: - No Option	Pass, Pass with Comments
[IHE Domain Name] /		
IHE-Profile Tested	Actor 1	Pass, Pass with Comments
	Actor 2	Pass, Pass with Comments
IHE-Profile Tested	Actor 1	Pass, Pass with Coments

Additional Software Required for Testing

The following additional software/options were required by **[Product/Version]** from **[Company]** to assist in demonstrating compliance with the associated conformance requirements by providing the specified functionality:

Software Product and Company	Associated Profiles / Actors	Functionality Provided
None	-	-

Report Summary

[Testing Laboratory], **an IHE International Authorized Testing Laboratory** attests that **[Company/Product/Version]** successfully passed the test cases identified in this report through attestation, observed demonstration, review of audit logs, and/or interoperability file validations. Testing was conducted using IHE-CAS-2: **[date]** testing processes based on ISO/IEC 17025. All test results documented in this report including the exceptions mentioned, are considered formal test results. This test results summary is issued by:

[Name]

Test Lab Authorized Representative

[Health IT Test Lab Manager]

Function/Title

Signature and Date

Please visit **www.ihe.org/conformityassessment** for the most current information about this IHE Conformity Assessment program.

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Test Lab Logo

About [Test Laboratory]

IHE International Authorization #: [Test Lab Authorization #]

Insert text about Test Laboratory, including qualifications, website, and other contact information.

[Insert Test Laboratory Address]
[Insert Test Laboratory Contact Information]

Appendix A – Testing Comments

This Appendix documents or references any exceptions identified during testing.

IHE Profile	Actor and Required Options	Test Cases Comments	Test Tools
[IHE Domain Name] / [Technical Framework version]			
Example: IHE-CT	Time Client: - *No Option*	Name and Version Name and Version Name and Version Name and Version Pass, Pass with Comments (#)	Name1 and Version Name2 and Version Name3 and Version
[IHE Domain Name] / [Technical Framework version]			
IHE-Profile Tested	Actor 1	Name and Version Name and Version Name and Version Pass, Pass with Comments	Name1 and Version Name2 and Version
	Actor 2	Name and Version Pass, Pass with Comments	Name3 and Version Name4 and Version
IHE-Profile Tested	Actor 1	Name and Version Pass, Pass with Coments.	Name1 and Version Name2 and Version

Additional Software Required for Testing with Exceptions:

Software Product and Company	Associated Profiles/Actors	Exception identified during testing
None	None	None

Appendix B: (Optional) Regional/National Extensions Testing

Appendix B of this test report document or reference any specific additional regional or national IHE Deployment Committee testing requirements performed by this testing lab for the named product and version. If not such testing was performed, this Appendix shall be removed.

The test or certification report summaries in this Appendix B fall under the responsibility of [IHE National/Regional Deployment Committee].

Note: The testing of these extensions is related to one or more of the IHE Profiles/Actors object of this IHE International test Report. The testing/certification scheme and supporting test methods used to perform such testing has been specified by the IHE National/Regional Deployment Committee and is distinct from the IHE International scheme and specified test methods.