IHE International

Conformity Assessment Scheme

Part 2: Requirements for Conformity Assessment - 2017 Cycle

(IHE-CAS-2)

June 22, 2017

Approved by Conformity Assessment Coordination Committee

on June 22, 2017

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, 2016 and the 2017 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 (July 2016) introduces an additional set of seven Profiles that now establishes the breadth of the IHE Conformity Assessment program by a number of IHE deployment Committees and IHE authorized laboratories.

The third version (2017 Cycle) of this document introduces three new profiles and enhanced testing coverage. These profiles cover the cross-organizational domain for regional and national health information exchange as well as interoperability within hospitals, including the access to medical device data.

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**	Patient Demographics Consumer : - *Pediatric Demographics*	IHE IT Infrastructure Technical Framework : • Vol 1 – Section 8	Section 3.4.1

IHE Profile	Actors and *Option* (See sections 1.3.4 & 1.3.5)	Reference Technical Framework	Test Methods
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 Supplier : - *Pediatric Demographics*		Section 3.4.2
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 Supplier:		Section 3.8.4

IHE Profile	Actors and *Option* (See sections 1.3.4 & 1.3.5)	Reference Technical Framework	Test Methods
	- *Inpatient/ Outpatient* - *Maintain demographics* - *Advanced encounter management* - *Historic movement*		
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
XUA **Cross Enterprise User Assertion**	X-Service User	IHE IT Infrastructure Technical Framework Vol 1 – Section 13	Section 3.18.1
	X-Service Provider		Section 3.18.2
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
Patient Care Devices			
DEC **Device Enterprise Communication**	Device Observation Consumer - *No Options*	IHE PCD Technical Framework Vol 1 – Section 3	Section 3.14.1

IHE Profile	Actors and *Option (See sections 1.3.4 & 1.3.5)*	Reference Technical Framework	Test Methods
Supports communication of vendor independent, multi-modality Patient Care Devices data to Enterprise Applications using consistent semantics.	Device Observation Reporter - *No Options*		Section 3.14.2
PIV **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 keystroke errors and by increasing the use of automatic dosage checking and increase caregiver productivity.*	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
Radiology			
XCA-I **Cross-Community Access for Imaging**	Initiating Imaging Gateway	IHE RAD Technical Framework – Section 29	Section 3.16.1
	Responding Imaging Gateway		Section 3.16.2
XDS-I.b **Cross-Enterprise Document Sharing for Imaging**	Imaging Document Source	IHE RAD Technical Framework – Section 18	Section 3.17.2
	Imaging Document Consumer		Section 3.17.1

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 A.1. It is used by IHE-CAS to specify the test cases to be executed by Test Laboratories.

The Detailed Test Report Template is displayed in Appendix A.2. 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 (see http://wiki.ihe.net/index.php/Conformity_Assessment_Committee).

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 displayed in Appendix A3. A Word file is available to an IHE International Authorized Testing Laboratory to report the execution of test cases (see http://wiki.ihe.net/index.php/Conformity_Assessment_Committee).

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 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.

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

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 2017 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_Time_Synchronization_NTP	CT Time Synchronization 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 : CATS2017 Last Modified : 2/2/17 3:33:50 PM Permanent number: 12562	Gazelle Security Suite
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	Test Tool Name	Test Tool Version	Developed by	Info Page	Category
Gazelle Security Suite	PKI, TLS Simulator and ATNA Questionnaire	5.3.3	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 : 2/15/17 5:40:37 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

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 : CATS2017 Last Modified : 2/9/17 5:35:29 PM Permanent number: 12543	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 : CATS2017 Last Modified : 2/10/17 10:00:50 AM 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 : CATS2017 Last Modified : 2/10/17 10:02:16 AM Permanent number: 12546	XDS Toolkit
XDS.b_REP _Retrieve	XDS.b - Document Repository - Retrieve Document Set	Accept Retrieve Document Set – two documents	Version : CATS2017 Last Modified : 2/10/17 10:04:31 AM 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 : CATS2017 Last Modified : 4 2/10/17 10:36:05 AM Permanent number: 12548	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 : CATS2017 Last Modified : 2/10/17 10:38:04 AM Permanent number: 12550	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 _Submit_Re ject	XDS.b - Document Repository - Reject submissions	Reject submissions where metadata and documents do not match (XDS.b)	Version : CATS2017 Last Modified : 2/10/17 10:39:40 AM Permanent number: 12551	XDS Toolkit
XDS.b_REP _Accept_Att ributes	XDS.b - Document Repository - Accept document with size and hash	Validate that Repository will accept document metadata that already contains size, and hash attributes.	Version : CATS2017 Last Modified : 2/10/17 11:03:18 AM Permanent number: 12716	XDS Toolkit
XDS.b_REP _Do_This_F irst	XDS.b Document Repository first step	This test is dedicated to the set up of the tooling and lauching of the test plan. Results will be provided in the next tests	Version : CATS2017 Last Modified : 2/9/17 5:34:50 PM Permanent number: 12715	XDS Toolkit
XDS.b_REP _Handle_mi meType	XDS.b - Document Repository - Handling of mimeType	Verify that the Repository accepts, stores, and returns the mimeType present in the Provide and Register transaction.	Version : CATS2017 Last Modified : 2/10/17 11:21:06 AM Permanent number: 12718	XDS Toolkit
XDS.b_REP _Retrieve_te sts	XDS.b - Document Repository - Retrieve tests	PnR - Submits a stable document.	Version : CATS2017 Last Modified : 2/10/17 11:26:38 AM Permanent number: 12719	XDS Toolkit
XDS.b_REP _Submit_Re trieve_TLS	XDS.b - Document Repository - Submit and Retrieve over TLS	Validate that Repository uses TLS when forwarding the metadata to the Registry in a Register transaction.	Version : CATS2017 Last Modified : 2/10/17 11:11:36 AM Permanent number: 12717	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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

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 : CATS2017 Last Modified : 2/9/17 11:47:59 AM Permanent number: 12520	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 : CATS2017 Last Modified : 2/9/17 12:03:11 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 : CATS2017 Last Modified : 2/9/17 1:48:29 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 : CATS2017 Last Modified : 2/9/17 1:50:38 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 : CATS2017 Last Modified : 2/9/17 2:03:31 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 : CATS2017 Last Modified : 2/9/17 2:07:34 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 : CATS2017 Last Modified : 2/9/17 2:08:40 PM Permanent number: 12527	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 : CATS2017 Last Modified : 2/9/17 2:17:33 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 : CATS2017 Last Modified : 2/9/17 2:20:06 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 : CATS2017 Last Modified : 2/9/17 2:36:40 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 : CATS2017 Last Modified : 2/9/17 2:51:07 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 : CATS2017 Last Modified : 2/9/17 2:40:50 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 - Submistion of multiple documents	Version : CATS2017 Last Modified : 2/9/17 2:43:07 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 : CATS2017 Last Modified : 2/9/17 2:44:31 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 - Submistion of single document	Version : CATS2017 Last Modified : 2/9/17 2:46:18 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 : CATS2017 Last Modified : 2/9/17 2:47:49 PM Permanent number: 12537	XDS Toolkit
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 : CATS2017 Last Modified : 2/9/17 2:49:11 PM Permanent number: 12538	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_RollBack	XDS.b - Document Registry - Submission Stored - All or Nothing	Verify the capability of Document Registry to rollback a complete submission	Version : CATS2017 Last Modified : 2/9/17 2:50:32 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 : CATS2017 Last Modified : 2/9/17 5:13:20 PM Permanent number: 12540	XDS Toolkit
XDS.b_REG_XDSResultNotSinglePati	XDS.b - Document Registry - XDSResultNotSinglePatient Error	Testing the XDSResultNotSinglePatient Error.	Version : CATS2017 Last Modified : 2/9/17 2:56:59 PM Permanent number: 12541	XDS Toolkit
XDS.b_REG_Accept_Document_Replace	XDS.b - Document Registry - Accept Document Replace	Test the capability of the Document Registry to Accept Document Replace, Addendum or transformation present	Version : CATS2017 Last Modified : 2/9/17 5:02:32 PM Permanent number: 12713	XDS Toolkit
XDS.b_REG_Do_This_First	XDS.b Document Registry first step	This test is dedicated to the set up of the tooling and lauching of the test plan. Results will be provided in the next tests	Version : CATS2017 Last Modified : 2/9/17 4:57:34 PM Permanent number: 12711	XDS Toolkit
XDS.b_REG_Extra_Metadata	XDS.b - Document Registry - Extra Metadata	Test the capability of the Document Registry to handle extra metadata and ebRIM slots not defined in XD* metadata.	Version : CATS2017 Last Modified : 2/9/17 5:05:48 PM Permanent number: 12714	XDS Toolkit
XDS.b_REG_Reject_Submission	XDS.b R.b Reject submisssion, Patient ID or Replacement document does not match the original	Reject submisssion, Patient ID or Replacement document does not match the original	Version : CATS2017 Last Modified : 2/9/17 4:39:04 PM Permanent number: 12712	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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

3.3.5 Integrated Document Source/Repository Actor

3.3.5.1 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

3.3.5.2 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

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 Text 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	9.4.5	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.6	IHE-Europe	http://gazelle.ihe.net/	Validator

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
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

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
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	9.4.5	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.6	IHE-Europe	http://gazelle.ihe.net/	Validator

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
Gazelle PatientManager	Patient Manager	9.4.5	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.6	IHE-Europe	http://gazelle.ihe.net/	Validator

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
Gazelle PatientManager	Patient Manager	9.4.5	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.6	IHE-Europe	http://gazelle.ihe.net/	Validator

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	9.4.5	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.6	IHE-Europe	http://gazelle.ihe.net/	Validator

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

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

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
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 : 7/19/16 5:04:35 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	9.4.5	IHE-Europe	http://gazelle.ihe.net/	Simulator
GazelleHL7Validator	HL7 V2 and V3 Message Validator	3.2.6	IHE-Europe	http://gazelle.ihe.net/	Validator

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 Patient Identity Cross Reference Manager Actor

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 : 4/6/16 12:44:25 PM Permanent number : 12568	Gazelle 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_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 : 4/6/16 12:46:15 PM Permanent number : 12578	Gazelle 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 : 4/6/16 12:49:01 PM Permanent number : 12579	Gazelle 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 : 4/6/16 12:49:12 PM Permanent number : 12570	Gazelle 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 : 4/6/16 12:49:24 PM Permanent number : 12572	Gazelle 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 : 4/6/16 12:49:43 PM Permanent number : 12573	Gazelle 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 : 4/6/16 12:49:53 PM Permanent number : 12610	Gazelle 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 : 7/19/16 4:19:25 PM Permanent number : 12574	Gazelle Patient Manager
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 : 7/19/16 3:37:55 PM Permanent number : 12575	Gazelle 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 : 4/6/16 12:51:29 PM Permanent number : 12567	Gazelle 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 : 1/21/16 1:47:53 PM Permanent number : 12569	Gazelle 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_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 : 4/6/16 12:54:33 PM Permanent number : 12576	Gazelle 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 : 7/19/16 4:58:47 PM Permanent number : 12577	Gazelle 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
Gazelle Patient Manager	Gazelle Patient Manager	9.4.5	IHE-Europe	https://gazelle.ihe.net	Simulator

3.7.2 Patient Identity Cross Reference Consumer Actor

3.7.2.1 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
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 : 2/10/16 9:26:08 AM Permanent number : 12566	Gazelle 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
Gazelle Patient Manager	Gazelle Patient Manager	9.4.5	IHE-Europe	https://gazelle.ihe.net	Simulator

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 : 4/4/16 11:54:22 AM Permanent number : 12636	Gazelle 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 : 4/4/16 11:53:11 AM Permanent number : 12637	Gazelle 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
Gazelle Patient Manager	Gazelle Patient Manager	9.4.5	IHE-Europe	https://gazelle.ihe.net	Simulator

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 : 4/4/16 11:55:08 AM Permanent number : 12643	Gazelle 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 : 4/4/16 11:55:48 AM Permanent number : 12646	Gazelle 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
Gazelle Patient Manager	Gazelle Patient Manager	9.4.5	IHE-Europe	https://gazelle.ihe.net	Simulator

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 : 4/4/16 11:57:58 AM Permanent number : 12642	Gazelle 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 : 4/4/16 11:56:36 AMPermanent number : 12627	Gazelle 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 : 4/4/16 11:58:21 AM Permanent number : 12629	Gazelle 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 : 4/4/16 11:59:52 AM 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 : 4/4/16 12:00:08 PM Permanent number : 12630	Gazelle 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_M AINTAIN_DE MOG	PAM Encounter - Maintain demographic option for Patient Encounter Consumer	Maintain Demographics option for the PEC actor	Version : CATS2016 Last modified : 4/4/16 12:00:23 PM Permanent number : 12635	Gazelle 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
Gazelle Patient Manager	Gazelle Patient Manager	9.4.5	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.6	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 : 4/4/16 12:31:14 PM Permanent number : 12628	Gazelle 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 : 4/4/16 12:01:34 PM Permanent number : 12628	Gazelle 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 : 4/4/16 12:02:04 PM Permanent number : 12649	Gazelle 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 : 4/4/16 12:02:41 PM 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 : 4/4/16 12:10:27 PM Permanent number : 12650	Gazelle 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_MAINTAIN_DEMOG	PAM Encounter - Maintain Demographic option for Patient Encounter Supplier	Maintain Demographics option for the PES	Version : CATS2016 Last modified : 4/4/16 12:07:00 PM Permanent number : 12651	Gazelle 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
Gazelle Patient Manager	Gazelle Patient Manager	9.4.5	IHE-Europe	https://gazelle.ihe.net	Simulator
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.6	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 : 4/8/16 2:21:50 PM Permanent number : 12654	None
XCA_INIT_Fi ndDocuments_ LeafClass	XCA - Initiating Gateway - XGQ FindDocuments for LeafClass	XGQ FindDocuments for LeafClass [12300]	Version : CATS2017 Last modified : 2/15/17 12:51:55 PM Permanent number : 12723	XDS Toolkit
XCA_INIT_Fi ndDocuments_ ObjectRef	XCA - Initiating Gateway - XGQ FindDocuments for ObjectRef	XGQ FindDocuments for ObjectRef [12306]	Version : CATS2017 Last modified : 2/15/17 12:53:08 PM Permanent number : 12724	XDS Toolkit
XCA_INIT_Ge tDocuments	XCA - Initiating Gateway - XGQ GetDocuments	XGQ GetDocuments [12307]	Version : CATS2017 Last modified : 2/15/17 12:53:53 PM Permanent number : 12725	XDS Toolkit
XCA_INIT_Re trieve_multi_D oc	XCA - Initiating Gateway - Cross Gateway Retrieve of multiple documents	Cross Gateway Retrieve of a multiple documents [12308]	Version : CATS2017 Last modified : 2/15/17 12:55:36 PM Permanent number : 12726	XDS Toolkit
XCA_INIT_Re trieve_Single_ Doc	XCA - Initiating Gateway - Cross Gateway Retrieve of a single document	Cross Gateway Retrieve of a single document [12301]	Version : CATS2016 Last modified : 2/10/17 3:48:37 PM Permanent number : 12589	XDS Toolkit
XCA_INIT_X DS_Aff_Negati ve_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 : CATS2017 Last modified : 2/15/17 1:17:08 PM Permanent number : 12668	XDS Toolkit
XCA_INIT_X DS_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 : CATS2017 Last modified : 2/15/17 1:19:16 PM Permanent number : 12665	XDS Toolkit
XCA_INIT_X DS_Aff_Ret_Si ngle_RG	XCA - Initiating Gateway - XDS Affinity Domain Option -	Testing the IG with the option XDS Affinity Domain - Retrieve Single Responding Gateway test [15809]	Version : CATS2017 Last modified : 2/15/17 2:06:03 PM	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
	Retrieve Single RG		Permanent number : 12666	
XCA_INIT_X DS_Aff_SQ_R et_Two_RG	XCA - Initiating Gateway - XDS Affinity Domain Option - Query and Retrieve Multiple RG	Testing the IG with the option XDS Affinity Domain - Two Responding Gateway Response test [15810]	Version : CATS2017 Last modified : 2/15/17 2:09:13 PM Permanent number : 12667	XDS Toolkit

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 4	4.3.4	NIST	http://ihexds.nist.gov/	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 : 4/8/16 2:21:50 PM Permanent number : 12654	None
XCA_RESP_Fi ndDocuments_ LeafClass	XCA - Responding Gateway - XCQ FindDocuments for LeafClass	XCQ FindDocuments for ObjectRef [12310]	Version : CATS2017 Last modified : 2/10/17 4:05:29 PM Permanent number : 12582	XDS Toolkit
XCA_RESP_Fi ndDocuments_ ObjectRef	XCA - Responding Gateway - XCQ FindDocuments for ObjectRef	XCQ FindDocuments for ObjectRef [12309]	Version : CATS2017 Last modified : 2/10/17 4:06:28 PM Permanent number : 12581	XDS Toolkit
XCA_RESP_G etDocuments	XCA - Responding Gateway - XCQ GetDocuments Cross Community Query	XCQ GetDocuments [12311]	Version : CATS2017 Last modified : 2/10/17 4:13:21 PM Permanent number : 12583	XDS Toolkit
XCA_RESP_In itialization	XCA - Responding	Establish test data in systems behind Responding Gateway.	Version : CATS2016 Last modified : 4/7/16 1:23:48 PM	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
	Gateway - Test initialization		Permanent number : 12580	
XCA_RESP_Negative_Tests	XCA - Responding Gateway - Responding Gateway negative tests	Responding Gateway negative tests[15815]	Version : CATS2017 Last modified : 2/10/17 5:09:02 PM 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 : 2/10/17 3:48:48 PM Permanent number : 12585	XDS Toolkit
XCA_RESP_Retrieve_Single_Doc	XCA - Responding Gateway - XCR Retrieve single document	XCR Retrieve Single Document [12312]	Version : CATS2017 Last modified : 2/10/17 5:11:25 PM Permanent number : 12584	XDS Toolkit
XCA_INIT_Aff_Do_This_First	XCA Responding Gateway (affinity domain option) first step	This test is dedicated to the set up of the tooling and lauching of the test plan. Results will be provided in the next tests	Version : CATS2017 Last modified : 2/15/17 1:14:30 PM Permanent number : 12734	XDS Toolkit
XCA_RESP_Do_This_First	XCA Responding Gateway first step	This test is dedicated to the set up of the tooling and lauching of the test plan. Results will be provided in the next tests	Version : CATS2017 Last modified : 2/10/17 3:59:29 PM Permanent number : 12721	XDS Toolkit
XCA_RESP_OnDemand_Do_This_First	XCA Responding Gateway (On demande option) first step	This test is dedicated to the set up of the tooling and lauching of the test plan. Results will be provided in the next tests	Version : CATS2017 Last modified : 2/22/17 11:34:27 AM Permanent number : 12735	XDS Toolkit
XCA_RESP_OnDemand_NoHome	XCA - Responding Gateway - On-demand retrieve without home	XCA Responding Gateway: on-demand retrieve to responding gateway without home	Version : CATS2017 Last modified : 2/22/17 11:44:07 AM Permanent number : 12737	XDS Toolkit
XCA_RESP_OnDemand_Repeat_Retr	XCA - Responding Gateway - On-demand option: Repeat retrieve	XCA Respdonding Gateway: Repeat retrieve [15829]	Version : CATS2017 Last modified : 2/22/17 11:41:15 AM Permanent number : 12736	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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & 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 : 4/8/16 2:21:50 PM Permanent number : 12654	None
XCPD_IG_Query	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 : 4/7/16 1:05:07 PM Permanent number : 12653	Gazelle 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 : 4/7/16 1:04:54 PM Permanent number : 12655	Gazelle 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
Patient Manager	Gazelle Patient Manager	9.4.5	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 : 4/8/16 2:21:50 PM Permanent number : 12654	None
XCPD_RG_De ferred_Respons e	XCPD/RG Deferred Response Option	Test the ability of XCPD RG with Deferred Response Option to receive valid request	Version : CATS2016 Last modified : 4/7/16 1:05:17 PM Permanent number : 12656	Gazelle 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 : 4/7/16 1:05:26 PM Permanent number : 12645	Gazelle Patient Manager
XCPD_RG_ITI 55_responsePrio rity	XCPD/RG responsePriority Code processing	The RG SHALL be able to process the responsePriorityCode	Version : CATS2016 Last modified : 4/7/16 1:05:38 PM Permanent number : 12652	Gazelle Patient Manager
XCPD_RG_Pre requisite	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 : 2/6/17 9:20:49 AM Permanent number : 12644	Gazelle Patient Manager
XCPD_RG_M ultipleAA	Discover patient and get matches from multiple assigning authorities	System discovers patient and get matches from multiple assigning authorities	Version : CATS2017 Last modified : 2/6/17 10:09:55 AM Permanent number : 12710	Gazelle 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
Gazelle Patient Manager	Gazelle Patient Manager	9.4.5	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 : 3/17/16 10:50:31 AM 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 : 3/17/16 10:33:30 AM Permanent number : 12612	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 : 3/17/16 10:54:34 AM Permanent number : 12615	Order Manager
LAW_AN_Reflex_By_Analyzer	LAW Reflex Decided On The Analyzer Immediately	In this test, the Analyzer needs to performs a new test after the first test.	Version : CATS2016 Last modified : 3/17/16 10:20:34 AM Permanent number : 12617	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)			
LAW_AN_Rerun_By_Analyzer	LAW Rerun Decided On The Analyzer Immediately After first Run (for Analyzer)	In this test, the Analyzer performs a second run immediately after the first run.	Version : CATS2016 Last modified : 3/17/16 10:21:32 AM Permanent number : 12618	Order Manager
LAW_AWOS_PRIORITY_CONFORMANCE	Scrutiny of messages for LAW_AWOS_PRIORITY 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 : 3/7/16 12:05:35 PM 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 : 3/17/16 10:21:40 AM Permanent number : 12611	Gazelle HL7 Validator
LAW_CONTRIB_SUB_CONFORMANCE	Scrutiny of messages for LAW_CONTRIB_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 : 3/7/16 12:05:49 PM Permanent number : 12591	Gazelle HL7 Validator
LAW_DILUTIONS_CONFORMANCE	Scrutiny of messages for LAW_DILUTIONS 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 : 3/7/16 12:06:01 PM Permanent number : 12592	Gazelle HL7 Validator
LAW_MASS_SPEC_CONFORMANCE	Scrutiny of messages for LAW_MASS_SPEC 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 : 3/7/16 12:06:10 PM Permanent number : 12603	Gazelle HL7 Validator

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
LAW_PAT_DEM_CONFORMANCE	Scrutiny of messages for LAW_PAT_DEM 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 : 3/7/16 12:06:21 PM Permanent number : 12593	Gazelle HL7 Validator
LAW_POOL_AN_CONFORMANCE	Scrutiny of messages for LAW_POOL_AN option	Analyzers 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 : 3/7/16 12:06:32 PM Permanent number : 12606	Gazelle HL7 Validator
LAW_POOL_NOAN_CONFORMANCE	Scrutiny of messages for LAW_POOL_NOAN 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 : 3/7/16 12:06:43 PM Permanent number : 12609	Gazelle HL7 Validator
LAW_RESULT_EXT_CONFORMANCE	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 : 3/7/16 12:06:53 PM Permanent number : 12605	Gazelle HL7 Validator
LAW_SPECIMEN_CONFORMANCE	Scrutiny of messages for LAW_SPECIMEN 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 : 3/7/16 12:07:05 PM Permanent number : 12600	Gazelle HL7 Validator
LAW_AM_POOL_NOAN_CONFORMITY	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_POOL_NOAN 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 3/7/16 2:24:28 PM Permanent number : 12608	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	3.2.6	IHE-Europe	https://gazelle.ihe.net	Validator
Order Manager	Gazelle Order Manager	5.0.1	IHE-Europe	https://gazelle.ihe.net	Simulator

3.11.2 Analzer Manager Actor

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 : 3/7/16 11:59:44 AM 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 : 3/7/16 2:20:27 PM 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 : 3/7/16 12:01:21 PM Permanent number : 12624	Order Manager

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
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 : 3/7/16 2:21:11 PM 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 : 3/7/16 2:22:46 PM Permanent number : 12623	Order Manager
LAW_AM_Normal_Process_W_Query	LAW Normal Process When Analyzers Query (for Analyzer Manager)	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 : 3/7/16 2:23:02 PM Permanent number : 12620	Order Manager
LAW_AM_POOL_AN_CONFORMANCE	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_POOL_AN 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 : 3/7/16 2:23:11 PM Permanent number : 12607	Gazelle HL7 Validator
LAW_AM_POOL_NOAN_CONFORMITY	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_POOL_NOAN 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 : 3/7/16 2:24:28 PM Permanent number : 12608	Gazelle HL7 Validator

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
LAW_AM_Reflex_By_Analyzer	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 : 3/7/16 2:24:35 PM Permanent number : 12625	Order Manager
LAW_AM_REL_OBS_CONFORMANCE	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting LAW_REL_OBS 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 : 3/7/16 2:24:41 PM Permanent number : 12604	Gazelle HL7 Validator
LAW_AM_Rerun_By_Analyzer	LAW Rerun Decided On The Analyzer Immediately After first Run (for Analyzer Manager)	In this test, the Analyzer performs a second run immediately after the first run.	Version : CATS2016 Last modified : 3/7/16 2:24:51 PM Permanent number : 12626	Order Manager
LAW_AM_RR_CONFORMANCE	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 : 3/7/16 12:03:58 PM Permanent number : 12596	Gazelle HL7 Validator
LAW_AM_RR_CONTROL_CONFORMANCE	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 : 3/7/16 12:03:34 PM Permanent number : 12597	Gazelle HL7 Validator
LAW_AM_SPECIMEN_CONFORMANCE	Scrutiny of messages for Analyzer Manager interacting with Analyzer supporting	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	Version : CATS2016 Last modified : 3/7/16 12:04:29 PM Permanent number : 12601	Gazelle HL7 Validator

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
	LAW_SPECIM EN option	sure of the conformance of the messages.		
LAW_AN_AW OS_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 : 3/17/16 10:33:30 AM Permanent number : 12612	Order Manager

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	3.2.6	IHE-Europe	https://gazelle.ihe.net	Validator
Order Manager	Gazelle Order Manager	5.0.1	IHE-Europe	https://gazelle.ihe.net	Simulator

3.12 Reserved

3.13 Reserved

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 : 4/7/16 12:16:36 PM Permanent number : 12660	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 : 4/7/16 12:16:45 PM Permanent number : 12658	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
PCD Tool	PCD HL7	1.6.2	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 : 4/7/16 12:16:53 PM Permanent number : 12659	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 : 4/7/16 12:17:01 PM Permanent number : 12657	PCD Tool

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
PCD Tool	PCD HL7	1.6.2	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 pump.	Version : CATS2016 Last modified : 4/7/16 12:17:33 PM Permanent number : 12663	PCD Tool
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 : 4/7/16 12:17:41 PM Permanent number : 12661	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
PCD Tool	PCD HL7	1.6.2	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 : 4/7/16 12:17:10 PM Permanent number : 12664	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 : 4/7/16 12:17:23 PM Permanent number : 12662	PCD Tool

3.15.2.2 List of related test tools

Test Tool ID	Test Tool Name	Test Tool Version	Develo ped by	Test Tool Info Page	Tool Category
Gazelle HL7 Validator	Gazelle HL7 Validator	3.2.6	IHE-Europe	https://gazelle.ihe.net	Validator
PCD Tool	PCD HL7	1.6.2	NIST	http://ihe-pcd-precon.nist.gov/PCD-HL7WebPreCon/	Simulator & Validator

3.16 Profile XCA-I

3.16.1 Initiation Imaging Gateway Actor

3.16.1.1 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
XCA-I_Mlt_IMG_ STUDY_Sgl _GTW	Multi-Image Study, Single Responding Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for	Version : CATS2017 Last modified : 2/2/17 3:15:00 PM Permanent number : 12703	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
		multiple DICOM image files from a single study. The main goal of this test is to have the Initiating Imaging Gateway retrieve an image from Community B.		
XCA-I_Multiple_TS_Sgl_GTW	Multiple Transfer Syntaxes, Single Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for a single DICOM image file using the JPEG lossless (1.2.840.10008.1.2.4.70) Transfer Syntax.	Version : CATS2017 Last modified : 2/2/17 3:15:19 PM Permanent number : 12696	XDS Toolkit
XCA-I_Mutliple_Responding_GTW	Multiple Responding Gateways	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for a DICOM image files from two Responding Imaging Gateways. One study is located in Community A, and the second study is located in Community B. The Initiating Imaging Gateway is expected to submit retrieve requests to both communities and provide a consolidated result.	Version : CATS2017 Last modified : 2/2/17 3:18:58 PM Permanent number : 12704	XDS Toolkit
XCA-I_Partial_Success_Sgl_GTW	Partial Success, Single Responding Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for two DICOM image files, in the case where one of the files is returned and the other is unknown to the Image Document Source. The first imaging study is present in Community A. The second imaging study is requested of Community A but is not present.	Version : CATS2017 Last modified : 2/2/17 3:15:32 PM Permanent number : 12702	XDS Toolkit
XCA-I_Partial_Sucess_Mlt_GTW	Partial Success, Multiple Gateways	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for two DICOM image files from difference Responding Imaging Gateways, in the case where the file requested from one Gateway is unknown.	Version : CATS2017 Last modified : 2/2/17 3:18:06 PM Permanent number : 12707	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-I_Single_Image_Single_GTW	Single Image Study, Single Responding Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Imaging Document Consumer actor (Simulator), for a single DICOM image file.	Version : CATS2017 Last modified : 2/2/17 3:18:06 PM Permanent number : 12690	XDS Toolkit
XCA-I_TS_Failure_Sgl_GTW	Transfer Syntax Failure, Single Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for a single DICOM image file using the JPEG lossless (1.2.840.10008.1.2.4.70) Transfer Syntax.	Version : CATS2017 Last modified : 2/2/17 3:15:47 PM Permanent number : 12698	XDS Toolkit
XCA-I_TS_JP_Lossless_Sgl_RSP_GTW	Transfer Syntax JPEG Lossless, Single Responding Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for a single DICOM image file using the JPEG lossless (1.2.840.10008.1.2.4.70) Transfer Syntax.	Version : CATS2017 Last modified : 2/2/17 3:15:47 PM Permanent number : 12694	XDS Toolkit
XCA-I_Two_IMG_Std_Sgl_RESP_GTW	Two Imaging Studies, Single Responding Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Imaging Document Consumer actor (Simulator), for a single DICOM image file.	Version : CATS2017 Last modified : 2/2/17 3:16:02 PM Permanent number : 12693	XDS Toolkit
XCA-I_Ukn_DICOM_UIDs_Sgl_GTW	Unknown DICOM UIDs, Single Responding Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for a single DICOM image file, in the case where the Imaging Document Source has no image with matching DICOM UID values.	Version : CATS2017 Last modified : 2/2/17 3:16:11 PM Permanent number : 12699	XDS Toolkit
XCA-I_Ukn_RSP_GTW	Unknown Responding Gateway	Tests the ability of the Initiating Imaging Gateway actor (SUT) to respond correctly to a Retrieve Image Document Set (RAD-69) Request from an Image Document Consumer actor (Simulator), for a single DICOM image file, in the case where the Home Community	Version : CATS2017 Last modified : 2/2/17 3:16:20 PM Permanent number : 12700	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
		Id for the requested image is unknown to the IIG.		

3.16.1.2 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

3.16.2 Responding Imaging Gateway Actor

3.16.2.1 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
XCA-I_Mlt_IMG_DOC_SRC_Actors	Multiple Imaging Document Source Actors (E, F)	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from a Initiating Imaging Gateway actor (Simulator) for DICOM image files from two Imaging Document Source actor (Simulators).	Version : CATS2017 Last modified : 2/2/17 2:41:07 PM Permanent number : 12687	XDS Toolkit
XCA-I_Multiple_TS_Single_IDS	Multiple Transfer Syntaxes, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator), for a single DICOM image file with two acceptable Transfer Syntaxes.	Version : CATS2017 Last modified : 2/9/17 4:46:47 PM Permanent number : 12679	XDS Toolkit
XCA-I_One_*-Image_Study_Sgl_IDS	One Multi-Image Study, Single IDS (F)	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator) for a multiple image DICOM study.	Version : CATS2017 Last modified : 2/2/17 2:39:04 PM Permanent number : 12685	XDS Toolkit
XCA-I_Partial_Success_Single_ID	Partial Success, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75)	Version : CATS2017 Last modified : 2/2/17 2:36:44 PM	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
		transaction from an Initiating Imaging Gateway actor (Simulator) for a single DICOM image file, in the case where the Repository Unique ID of the Image Document Source is unknown.	Permanent number : 12684	
XCA-I_P_S_Mlt_IMG_DOC_SRC_Actors	Partial Success, Multiple Imaging Document Source Actors (E, F)	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator) for a single DICOM image file, in the case where the Repository Unique ID of the Image Document Source is unknown.	Version : CATS2017 Last modified : 2/2/17 2:43:47 PM Permanent number : 12689	XDS Toolkit
XCA-I_Single_Image_Single_IDS	Single Image, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator) for a DICOM image file.	Version : CATS2017 Last modified : 2/2/17 12:14:06 PM Permanent number : 12673	XDS Toolkit
XCA-I_TS_Failure_Single_IDS	Transfer Syntax Failure, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator), for a single DICOM image file using the JPEG Baseline (Process 1) (1.2.840.10008.1.2.4.50) Transfer Syntax, in the case where the Image Document Source is not able to return the image file in that Syntax.	Version : CATS2017 Last modified : 2/2/17 2:28:55 PM Permanent number : 12681	XDS Toolkit
XCA-I_TS_JPEG_Lossless_Sgl_IDS	Transfer Syntax JPEG Lossless, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator) for a DICOM image file.	Version : CATS2017 Last modified : 2/2/17 2:26:54 PM Permanent number : 12677	XDS Toolkit
XCA-I_Two_Studi	Two Imaging Studies, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross	Version : CATS2017 Last modified : 2/2/17 2:23:37 PM	XDS Toolkit

Test Case ID	Test Case Name	Test Case Description	Test Case and Test Data with Version and Reference	Supporting Test Tool ID
es_Single_IDS		Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator) for a DICOM image file.	Permanent number : 12676	
XCA-I_Ukn_DICOM_UIDs_Single_IDS	Unknown DICOM UIDs, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator), for a single DICOM image file, in the case where the Image Document Source has no image with matching DICOM UID values.	Version : CATS2017 Last modified : 2/2/17 2:31:10 PM Permanent number : 12682	XDS Toolkit
XCA-I_Ukn_Img_DOC_SRC_Single_IDS	Unknown Imaging Document Source, Single IDS	Tests the ability of the Responding Imaging Gateway actor (SUT) to respond correctly to a Cross Gateway Retrieve Imaging Document Set (RAD-75) transaction from an Initiating Imaging Gateway actor (Simulator) for a single DICOM image file, in the case where the Repository Unique ID of the Image Document Source is unknown.	Version : CATS2017 Last modified : 2/2/17 2:34:29 PM Permanent number : 12683	XDS Toolkit

3.16.2.2 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

3.17 Profile XDS-I.b

3.17.1 Imaging Document Consumer Actor

3.17.1.1 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-I.b_RAD-55_Wado_RTV_Multi	RAD-55 WADO Retrieve: Multi Image Study	RAD-55 WADO Retrieve: Multi Image Study	Version : CATS2017 Last modified : 2/2/17 3:16:51 PM Permanent number : 12706	XDS Toolkit
XDS-I.b_RAD-55_WADO_RTV_Single	Imaging Document Consumer RAD-55 WADO Retrieve: Single Image Study	Imaging Document Consumer RAD-55 WADO Retrieve: Single Image Study	Version : CATS2017 Last modified : 2/2/17 3:14:45 PM Permanent number : 12705	XDS Toolkit
XDS-I.b-RAD-69_RTV_IMG_Multi	Imaging Document Consumer RAD-69 Retrieve Imaging Document Set: Multi Image Study	Imaging Document Consumer RAD-69 Retrieve Imaging Document Set: Multi Image Study	Version : CATS2017 Last modified : 2/2/17 3:20:31 PM Permanent number : 12709	XDS Toolkit
XDS-I.b_RAD-69_RTV_IMG_Single	RAD-69 Retrieve Imaging Document Set: Single Image Study	RAD-69 Retrieve Imaging Document Set: Single Image Study	Version : CATS2017 Last modified : 2/2/17 3:18:44 PM Permanent number : 12708	XDS Toolkit
XDS-I.b_Retrieve_KOS_Single_IMG	Imaging Document Consumer Retrieve KOS: Single Image Study	Imaging Document Consumer Retrieve KOS: Single Image Study	Version : CATS2017 Last modified : 2/2/17 3:15:08 PM Permanent number : 12701	XDS Toolkit

3.17.1.2 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

3.17.2 Imaging Document Source Actor

3.17.2.1 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-I.b_PnR_Multi	Validate Key Object Selection Document, Multi Image Study	Validate Key Object Selection Document, Multi Image Study	Version : CATS2017 Last modified : 2/2/17 2:26:03 PM Permanent number : 12678	XDS Toolkit
XDS-I.b_PNR_Single	Validate Key Object Selection Document, Single Image Study	Validate Key Object Selection Document, Single Image Study	Version : CATS2017 Last modified : 2/2/17 2:20:30 PM Permanent number : 12675	XDS Toolkit
XDS-I.b_PnR_Soap_Exceptions	Retrieve Image Document Set, Exception Cases	Retrieve Image Document Set, Exception Cases	Version : CATS2017 Last modified : 2/2/17 2:56:51 PM Permanent number : 12695	XDS Toolkit
XDS-I.b_PnR_Soap_Single	Retrieve Image Document Set, Single Image	Retrieve Image Document Set, Single Image	Version : CATS2017 Last modified : 2/2/17 2:49:47 PM Permanent number : 12691	XDS Toolkit
XDS-I.b_Rad69_Detail_Cases	Retrieve Image Document Set, Detail Cases	Retrieve Image Document Set, Detail Cases	Version : CATS2017 Last modified : 2/13/17 11:08:38 AM Permanent number : 12697	XDS Toolkit
XDS-I.-b_Soap_Multi	Retrieve Image Document Set, Multiple Images	Retrieve Image Document Set, Multiple Images	Version : CATS2017 Last modified : 2/2/17 2:55:36 PM Permanent number : 12692	XDS Toolkit
XDS-I.b_Wado_Exception_Cases	WADO Retrieve, Exception cases	WADO Retrieve, Exception cases	Version : CATS2017 Last modified : 2/13/17 10:56:53 AM Permanent number : 12688	XDS Toolkit
XDS-I.b_WADO_Multi_Image	WADO Retrieve, Multi Image Study	WADO Retrieve, Multi Image Study	Version : CATS2017 Last modified : 2/2/17 2:40:35 PM Permanent number : 12686	XDS Toolkit
XDS-I.b_WADO_Single	WADO Retrieve, Single Image	WADO Retrieve, Single Image	Version : CATS2017 Last modified : 2/2/17 2:29:45 PM Permanent number : 12680	XDS Toolkit

3.17.2.2 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator

3.18 Profile XUA

3.18.1 X-Service Provider Actor

3.18.1.1 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
XUA_Provider_Provide_Assertion	XUA X-Service Provider Provide Assertion	The X-Service Provider will receive ITI-40 Provide X-User Assertion transactions initiated by a Simulator acting as X-Assertion User.	Version : CATS2017 Last modified : 2/13/17 2:32:45 PM Permanent number : 12731	XDS Toolkit Gazelle STS
XUA_Provider_Restrict_Access	XUA X-Service Provider Restrict Access	The X-Service Provider will receive ITI-40 Provide X-User Assertion transactions initiated by a Simulator acting as X-Assertion User. Assertions included in requests will be invalid, the provider is expected to reject the transaction.	Version : CATS2017 Last modified : 2/13/17 2:51:08 PM Permanent number : 12732	XDS Toolkit Gazelle STS
XUA_X-Service_Provider_Setup	XUA_X-Service_Provider_Setup	This test is a configuration step for X-Service Provider required to perform other XUA tests.	Version : CATS2017 Last modified : 2/13/17 1:28:09 PM Permanent number : 12730	XDS Toolkit Gazelle STS

3.18.1.2 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator
Gazelle STS	Gazelle Security Token Service	rev #56011	IHE Europe	http://gazelle.ihe.net/content/sts	Simulator & Validator

3.18.2 X-Service User Actor

3.18.2.1 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
XUA_User_Provide_Assertion	XUA X-Service User Provide Assertion	X-Service User initiates ITI-40 Provide X-User Assertion transactions to a Simulator acting as X-Assertion Provider.	Version : CATS2017 Last modified : 2/13/17 1:57:51 PM Permanent number : 12728	XDS Toolkit Gazelle STS
XUA_X-Service_User _Setup	XUA X-Service User Setup	This test is a configuration step for X-Service User actor. It is required to perform other XUA tests.	Version : CATS2017 Last modified : 2/21/17 3:14:12 PM Permanent number : 12727	XDS Toolkit Gazelle STS

3.18.2.2 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 4	4.3.4	NIST	http://ihexds.nist.gov/	Simulator & Validator
Gazelle STS	Gazelle Security Token Service	rev #56011	IHE Europe	http://gazelle.ihe.net/content/sts	Simulator & Validator

4 Support tools

During testing and debugging various support tools may be useful. While they do not test anything themselves, they provide critical means of collecting the information that is needed to progress with testing. These support tools are listed in this section.

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	5.2.2	IHE Europe	http://gazelle.ihe.net/	Test Management
Demographic Data Server	Generate fake demographics for testing purposes	4.0.9	IHE Europe	http://gazelle.ihe.net	Data generation
SVS Simulator	Value Set repository	2.0.12	IHE Europe	http://gazelle.ihe.net	Data generation

Appendix A – Templates

A.1 IHE-CAS Template to Specify Test Cases

Template header to be used by the Test Case designer to specify a test case referenced by the profile/actor pairs test cases included in CAS-2.

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 Template to Report Test Case Execution Details

Template for reporting the execution of a test case by an Authorized Laboratory in its detailed report.

The testing of System Under Test will result in a series of such templates.

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.

++May be extended with other participants

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		

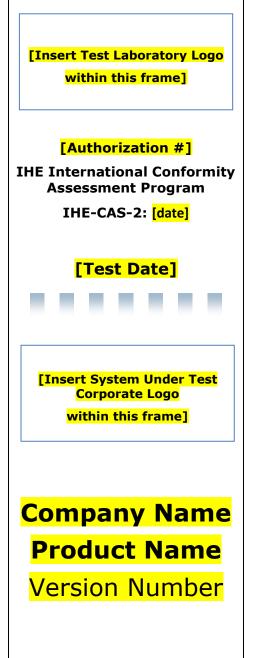## A.3　　　IHE-CAS Template to Summarize Test Execution

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.

The word template for this testing report is accessible at:
http://wiki.ihe.net/index.php/Conformity_Assessment_Committee.

IHE International

Conformity Assessment Summary Test Report

[Insert Test Laboratory Logo within this frame]

[Authorization #]

IHE International Conformity Assessment Program

IHE-CAS-2: [date]

[Test Date]

[Insert System Under Test Corporate Logo within this frame]

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: [casc-secretary@ihe.net.]

IHE International

Conformity Assessment Summary Test Report

Profiles/Actors Tested for Conformity Assessment

The IHE Authorized Testing Laboratory **[Test Laboratory Name]** verified compliance of:

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

[Company] located at **[Address]**

to the selected profile/actor pairs (see table below) for the IHE International Conformity Assessment Program per the testing processes and the test methods specified in 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 Comments

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	-	-

IHE International

Conformity Assessment Summary Test Report

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-1 **[date]** and IHE-CAS-2 **[date]** testing processes and test methods 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:
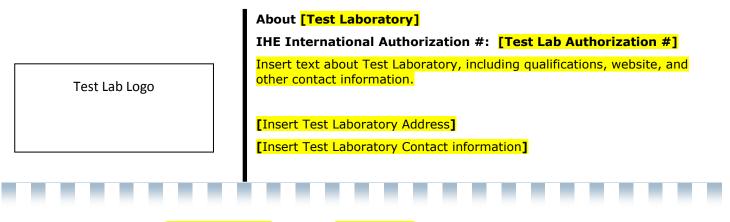
[Name]

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.

Copyright [current year] [Test Lab]. All Rights Reserved. Test reports shall not be reproduced except in full, without prior written approval of [Test Lab] or [IHE International]

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.