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# **Swiss Interoperability Conformity Assessment Scheme (SIAS)**

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## Glossary

Term	Abbr.	Definition	Source
Certificate		Third-party attestation related to products, processes, systems or persons. A certificate is delivered to the communities that meet the criteria set out in articles 9 to 13 of the EPRO and to the reference communities that meet the criteria set out in articles 9 to 21 of the EPRO.	ISO/IEC 17000 Art. 30 ff. EPRO (SR 816.11)
Certification		Communities and reference communities are subject to certification.	Art. 11 a EPRA (SR 816.1)
Certification Body	CB	“Certification body” is defined as an accredited external body issuing written assurance (the “certificate”) that it has audited and verified that the product or software conforms to the requirements of the EPRA and its ordinances. Requirements for the certification body in the context of the EPR are specified in Art. 28 and 29 EPRO (SR 816.11).	ISO 9001:2008 ISO 14001:2004 Art. 11 a EPRA (SR 816.1) Art. 28 and 29 EPRO (SR 816.11)
Certification Test System	CTS	Test system provided by the FOPH to examine the transfer of data between and inside communities or reference communities during an SIA.	Art. 28 para. 4 EPRO (SR 016.11)
Community		Organisational unit of health professionals and their institutions.	Art. 2 d EPRA (SR 816.1)
Conformity		Demonstration that specified requirements relating to a product, process, system, person or body are fulfilled.	ISO/IEC 17000
Conformity Assessment Scheme	CAS	Conformity assessment system related to specified objects of conformity assessment to which the same specified requirements, specific rules and procedures apply.	ISO/IEC 17000
Electronic Patient Record	EPR	A remotely archived virtual record which allows data from a patient’s medical history relevant to their treatment or data that the patient has recorded themselves to be retrieved in the event that the patient requires treatment.	EPRA (SR 816.1)
EPR Platform		Central IT infrastructure of a community or reference community.	
Execution Test Report		Document recording the test execution conditions and the final test results performed by an EPR platform of a specific community.	
FDHA Ordinance on the Electronic Patient Record	EPRO-FDHA	The ordinance of 22 March 2017 completes the Federal Act on the EPR by providing technical requirements in its nine annexes.	EPRO-FDHA (SR 816.111)
Federal Act on the Electronic Patient Record	EPRA	The Federal Act on the Electronic Patient Record, in force since 15 April 2017, regulates the conditions of introduction and dissemination of the EPR.	EPRA (SR 816.1)
Federal Ordinance on the Electronic Patient Record	EPRO	The ordinance of 22 March 2017 completes the Federal Act on the EPR by providing organisational, functional and certification requirements.	EPRO (SR 816.11)
Integration Profile		An integration profile is a guideline for implementation of a specific interoperability process, which provides precise definitions of how standards shall be implemented to meet specific requirements for exchanging or sharing clinical data.	IHE
Primary System		IT infrastructure of the health institution (hospital, pharmacy, nursing home, etc.)	13.050 Dispatch on the Federal Act on Electronic Patient

Term	Abbr.	Definition	Source
			Record of 29 May 2013; chapter 1.1.4
Reference Community		Community that performs additional tasks (e.g. administering patients).	Art. 2 e EPRA (SR 816.1)
Scheme Owner		Person or organisation responsible for developing and maintaining a specific certification scheme.	ISO/IEC 17065
Secondary System		Infrastructure of the EPR that holds data provided by the primary systems.	13.050 Dispatch on the Federal Act on Electronic Patient Record of 29 May 2013; chapter 1.1.4
Swiss Interoperability Conformity Assessment	SIA	Process demonstrating whether the Swiss interoperability requirements as defined in the EPRO-FDHA, annex 2, chapter 2.9, have been fulfilled by the community or the reference community.	
Swiss Interoperability Conformity Assessment Scheme	SIAS	Provides the technical and operational requirements as well as rules by which the Swiss Interoperability Conformity Assessment will be executed. Conformity requirements are derived from annex 2; annex 3; annex 5; annex 5, amendment 1 and amendment 2; and annex 9 of the EPRO-FDHA.	
System Under Test	SUT	“System under test” is a system implementation that is tested against the Conformity Assessment Scheme.	IHE CAS
Test Case		A set of test scripts including values, execution pre-conditions, expected results and execution post-conditions, developed for a particular objective or test condition, such as to exercise a particular programme path or to verify compliance with a specific requirement.	IEEE 610
Test Laboratory		Organisation that carries out the SIA by means of the certification test system and according to the rules defined in the SIAS.	
Test Method		A definitive procedure that produces a test result using a combination of test cases, procedures, test data references and test tools.	EURO-CAS
Test Procedure		A step-by-step implementation of a test method contained in an automated test tool or defined via manual step.	EURO-CAS
Test Scripts		Test procedures that describe the sequence of actions for the execution of a given test procedure.	ISTQB
Test Specifications		A collection of test procedures for a particular functional area, including the background, approach, procedure and possible results for a test. A test specification is an aggregation of test descriptions.	EURO-CAS
Test Tools		An automated implementation of one or more test procedures.	EURO-CAS

# 1. Introduction

## 1.1 Purpose of this document

This document describes the Swiss Interoperability Conformity Assessment Scheme (SIAS) for assessing the electronic patient record platform (EPR platform), under the operational responsibility of a community or a reference community<sup>1</sup>. It provides the technical and operational requirements as well as rules by which the conformity assessment will be executed. Conformity requirements are derived from annex 2; annex 3; annex 5; and annex 5, amendment 1, amendment 2.1, amendment 2.2 and amendment 2.3, of the FDHA Ordinance on the Electronic Patient Record (SR 816.111 EPDV-EDI).

The document is available in English only.

## 1.2 Document life cycle

This document is periodically updated by order of the FOPH. Reasons to update this document include but are not limited to updates of

- the EPRO-FDHA and its annexes,
- the test cases, data and tools used for assessing the SUT and included in the CTS.

The most current edition of the SIAS is available on the FOPH website at <https://www.bag.admin.ch/epra>.

## 1.3 Contact for inquiries about SIA and SIAS

If you have any question about this document and SIAS, please contact the FOPH via email to [ehealth@bag.admin.ch](mailto:ehealth@bag.admin.ch)

SAS accredited certification bodies are published on the SAS website at <https://www.sas.admin.ch/sas/en/home/akkreditiertestellen/akkrstellensuchesas.html>

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<sup>1</sup> In the remainder of this text, references to “community” always mean community AND reference community, except if stated otherwise.

## 2. References

### 2.1 Legislative texts (German version)

- [SR 816.1 Bundesgesetz vom 19. Juni 2015 \(Stand am 15. April 2020\) über das elektronische Patientendossier \(EPDG\)](#)
- [SR 816.11 Verordnung vom 22. März 2017 \(Stand am 1. April 2019\) über das elektronische Patientendossier \(EPDV\)](#)
- [SR 816.111 Verordnung des EDI vom 22. März 2017 \(Stand am 15. April 2021\) über das elektronische Patientendossier \(EPDV-EDI\)](#)
  - o [Anhang 2 der EPDV-EDI \(Zertifizierungsvoraussetzungen Gemeinschaften und Stammgemeinschaften\) - Ausgabe 4 - Inkrafttreten 15.04.2021](#)
  - o [Anhang 3 der EPDV-EDI \(Metadaten für den Austausch medizinischer Daten\) - Ausgabe 3 - Inkrafttreten 15.04.2021](#)
  - o [Ergänzung 1 zum Anhang 5 der EPDV-EDI \(Nationale Anpassungen der Integrationsprofile\) - Ausgabe 4 - Inkrafttreten 15.04.2021](#)
  - o [Ergänzung 2.1 zum Anhang 5 der EPDV-EDI \(Nationale Integrationsprofile\) - Ausgabe 4 - Inkrafttreten 15.04.2021](#)
  - o [Ergänzung 2.2 zum Anhang 5 der EPDV-EDI \(Nationale Integrationsprofile\) - Ausgabe 3 - Inkrafttreten 15.04.2020](#)
  - o [Ergänzung 2.3 zum Anhang 5 der EPDV-EDI \(Nationale Integrationsprofile\) - Ausgabe 4 - Inkrafttreten 15.10.2021](#)
  - o [Anhang 9 der EPDV-EDI \(Metadaten für den Dienst zur Abfrage der Gesundheitseinrichtungen und Gesundheitsfachpersonen\) - Ausgabe 2 - Inkrafttreten 15.04.2020](#)

### 2.2 Specifications

- Legally binding specifications are available on the FOPH website at <https://www.bag.admin.ch/epra>, tab “Technische Spezifikationen” (Technical specifications).
- Most current specifications (status: in process and not in force, respectively) are available on the eHealth Suisse website at <http://www.e-health-suisse.ch/specs>.
- Additional resources (e.g. XSD schemas, examples) are available on the FOPH website at <https://www.bag.admin.ch/epra>.

### 3. Scope of the SIA

The scope of the SIA is defined by EPRO-FDHA, annex 2, chapter 2.9.

For all transactions listed in chapter 2.9, a community must demonstrate during a SIA that these transactions are supported by its EPR platform according to the corresponding specifications. If a community decides not to implement one or more of the transactions defined in chapter 2.9, the community has to inform the test laboratory and the certification body at least four weeks prior to the SIA and has to document the identified deviations. The document provided by the community must list all the missing transactions, and for each of them a rationale explaining why these transactions have not been implemented. (See also chapter 6.4 note for document “Technical guidelines for SIA testing”.) After analysis of the provided information, the certification body together with FOPH will then decide whether it is acceptable not to support those transactions.

### 4. Resources

#### 4.1 Execution test reports

Two execution test reports describe the test results:

- An *execution test report summary* of the community EPR platform. The report provides a summary of the test results for each SUT of the EPR platform. An example is provided in annex 7.2.
- A *detailed test report* of the community EPR platform. The report provides detailed test results for each SUT of the EPR platform. An example is provided in annex 7.3.

#### 4.2 Testing tools

The testing tools used for the execution of the test cases are classified in different categories as described in Antilope Project D3.1 deliverable<sup>2</sup>:

Table 1: SIA testing tools overview (based on Antilope D3.1)

Test tool category	Description
Test management tools	<p>A test management tool needs to facilitate 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:</p> <p>a) Tools that help organise and run interoperability events involving large numbers of participants, such as the Swiss Projectathon or assessment sessions of a community where a large number of tests are performed.</p> <p>The tools in this group will typically manage test scenarios for peer-to-peer tests and may also support test planning and setup of the Swiss Projectathon. 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 such as simulators and validators). In order to trigger actual test runs, the software ideally 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.</p>

<sup>2</sup> <https://www.antilope-project.eu/front/index.html>

Test tool category	Description
	<p>b) Execution frameworks that facilitate the selection of individual tests and the collection of test results, including evidence of tests performed such as pass/fail verdicts with corresponding traces.</p> <p>Example: Gazelle Management Tool (<a href="https://gazelle.ihe.net/content/gazelle-user-guides">https://gazelle.ihe.net/content/gazelle-user-guides</a> or <a href="https://gazelle.ihe.net/EU-CAT/home.seam">https://gazelle.ihe.net/EU-CAT/home.seam</a>)</p>
Conformance testers	<p>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 conforms to the requirements of a given standard and integration profile. Advanced testers may take the roles of all entities that are communicating with the system under test.</p> <p>In some situations, a conformance tester is used to validate the structure and/or content of a document used in eHealth systems.</p> <p>The extent to which the conformance tester tools test the requirements in the integration profile varies and depends on the test plan defined in the CTS. Advanced conformance testing tools would check most or all important requirements.</p> <p>Depending on the level of precision in reporting discovered problems, conformance tester tools can provide valuable assistance in the rapid discovery and resolution of interoperability problems.</p> <p>Example: Gazelle EVS Client (<a href="https://gazelle.ihe.net/EVSCClient/home.seam">https://gazelle.ihe.net/EVSCClient/home.seam</a>)</p>
Simulators/stubs	<p>A simulator, or stub, is a tool acting as a connection partner to the system that needs to be tested.</p> <p>In most cases, a simulator stimulates the system under test (SUT) in order to trigger a certain behaviour. The kind of stimulation depends on the type of partner to be tested. For a system on a network, the stimulation would occur by sending network messages. For other systems, this could mean feeding data into specific directories, simulating user input or any other input.</p> <p>A simulator itself does not assess the behaviour of the tested entity. However, a simulator may have integrated capability to collect the trace of the exchange that could then be evaluated manually or by other means.</p> <p>Simulator tools are useful for pre-testing before interoperability events or as a replacement for needed communication partners that are not available in an event.</p> <p>For eHealth interoperability, testing general purpose tools may not be sufficient, and specific sophisticated simulators may be required.</p> <p>Example: Gazelle Patient Manager (<a href="https://gazelle.ihe.net/PatientManager/home.seam">https://gazelle.ihe.net/PatientManager/home.seam</a>)</p>
Software libraries	<p>Software libraries may be used to build both eHealth systems and eHealth testing tools. An example is a library that supports encoding and decoding of HL7 messages. Such a library can be and is used to build a system that follows an IHE integration profile, but it can also be used to build testing tools that can be used for testing the same integration profile. While, strictly speaking, such libraries are not testing tools as such, the ability to share code development efforts may contribute significantly to the improvement of interoperability of eHealth systems.</p>
Test data generators	<p>A 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 in such a way as to efficiently generate data that respects the constraints set by an integration profile being tested.</p> <p>Example: Gazelle Demographic Data Server (<a href="https://gazelle.ihe.net/DDS/home.seam">https://gazelle.ihe.net/DDS/home.seam</a>)</p>
Reference implementations	<p>A reference implementation is, generally speaking, an implementation of a specification (standard or integration profile) to be used as a definitive interpretation for that specification. Other testing tool categories (libraries, conformance testers and others) may also represent reference implementations.</p>



Test tool category	Description
Support tools	During testing and debugging, various support tools may be useful. While they do not test anything themselves, they may provide the means of collecting the information that is needed to progress with testing. Examples include viewers that present the information in an understandable format, proxies that facilitate reliable and uniform collection of traces and many others. Example: Gazelle Security Suite ( <a href="https://gazelle.ihe.net/gss/home.seam">https://gazelle.ihe.net/gss/home.seam</a> )
Network sniffers	Network sniffers are also known as network analysers or protocol analysers. A sniffer is capable of decoding and analysing communication protocol messages inside the data packages. This can be done transparently to an 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 not only used in eHealth but are applicable to any domain that uses network messaging to exchange information. Example: Gazelle Proxy ( <a href="https://gazelle.ihe.net/proxy/home.seam">https://gazelle.ihe.net/proxy/home.seam</a> )

## 5. SIA actors and responsibilities

The following paragraph provides the technical and operational requirements as well as the rules for the actors to comply with during SIA.

Responsibilities these actors may have during other parts of the certification process are beyond the scope of this document.

- **FOPH:** The Federal Office of Public Health holds the role of scheme owner. With technical experts (for example from eHealth Suisse, IHE Services or a selected test laboratory), the FOPH specifies this SIAS to cover all the requirements and criteria for assessing the community's conformity with the Swiss interoperability specifications. In the context of a SIA, the FOPH is responsible for providing the CTS.
- **Community and reference community:** The community provides access for patients and health professionals to the electronic patient record. The community must be certified by a certification body. In the context of an SIA, the community is responsible for following the technical certification process led by the test laboratory and submits its SIA results to the certification body.
- **Test laboratory:** The test laboratory, mandated by the FOPH, performs the SIA and evaluates the community's EPR platform for compliance with technical requirements as described in section 6.4 of this document. In the context of an SIA, the test laboratory is responsible for the following tasks:
  - The test laboratory receives the Certification Test System (CTS) from the FOPH as a virtual machine/SaaS, which includes the necessary testing environment for performing the SIA.
  - The test laboratory performs the SIA with the community following this SIAS and according to overarching requirements (e.g. ISO/IEC 17025).
  - When the SIA is completed, the test laboratory provides the test report to the community and the certification body.
- **Certification body:** The certification body reviews the technical and organisational requirements of the EPRO-FDHA in the community. During the SIA the certification body has no active role. After the SIA is completed, the certification body has, on request, access to all test related data produced during the SIA. The certification body decides in which category (verification procedure, ordinary renewal or extraordinary renewal) the certification process shall apply to the community when adaptations are reported.

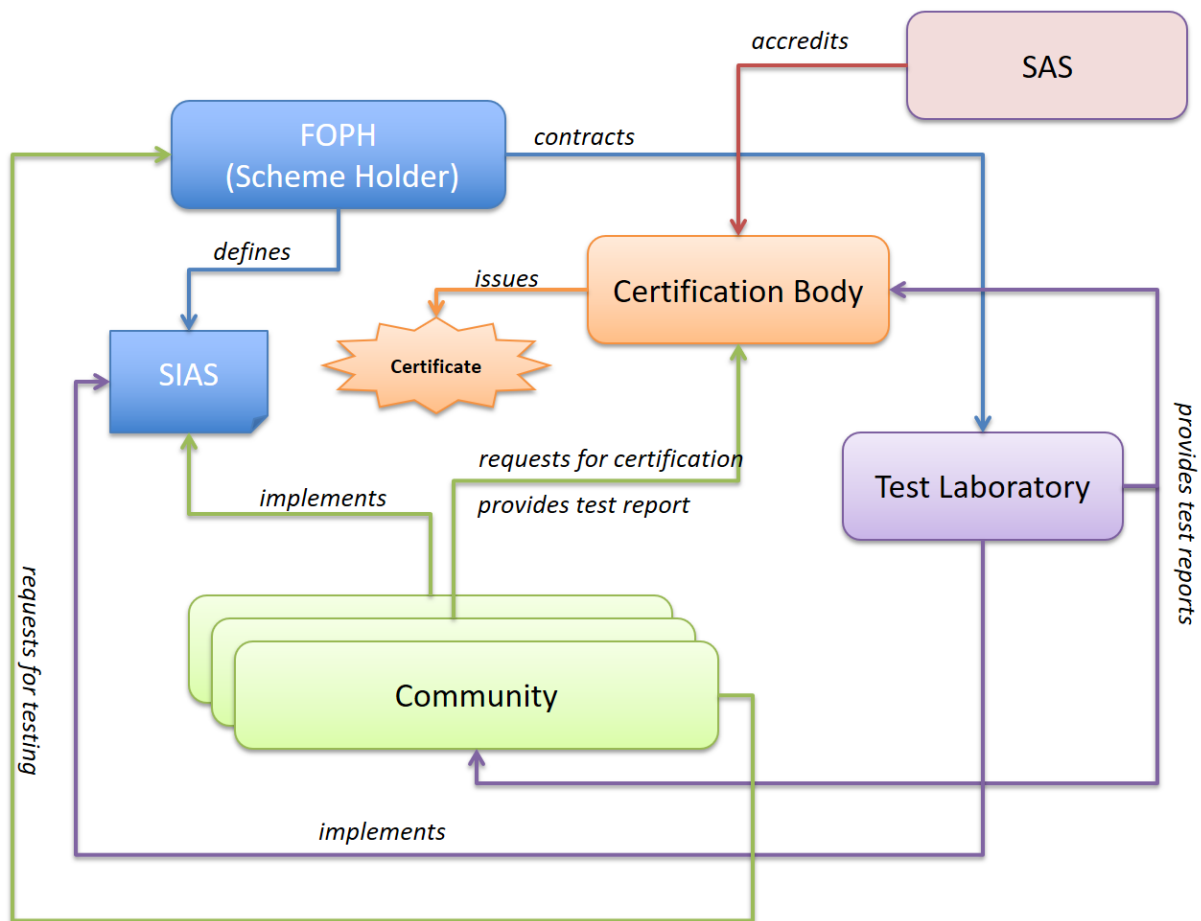


Figure 1: Actors, roles and certification workflow

## 6. Requirements

Requirements are statements of necessary conditions the actors need to comply with.

The requirements are being stated as

- SHALL: required or mandatory;
- SHALL NOT: prohibited;
- SHOULD: preferred, best practice or recommendation;
- MAY: acceptable or permitted.

These statements are compliant with [RFC 2119](#).

### 6.1 Requirements for the FOPH

[R01] The FOPH SHALL approve the CTS validation report that is provided by the test laboratory after installation and before the first use of each major version of the CTS.

## 6.2 Requirements for the certification body

[RA1] The certification body decides if the adaptations<sup>3</sup> that are reported by the community shall be examined in the context of the verification procedure, ordinary renewal or extraordinary renewal of the certification (art. 36, para. 2, ODEP). If necessary, the FOPH or the test laboratory MAY support the certification body for the evaluation of the category as defined in [RA2].

[RA2] Three categories of influence on the certification are defined:

1. Adaptions to be audited during renewal of the certification: This category includes those topics/changes whose implementation by the communities **is not considered urgent**, as there is little or no risk to the Swiss EPR if they are not implemented. The transition period for implementation corresponds to the validity of the certification.
2. Adaptions to be audited during the annual audit: This category includes those topics/changes whose implementation by the communities **is not considered particularly urgent**. A maximum implementation period of one year is accepted.
3. Adaptions to be audited during an extraordinary renewal of the certification: This category includes topics/changes whose implementation by the communities **is considered particularly urgent**. Failure to implement the change entails the risk that the interoperability of the community systems is no longer given and/or a data protection and data security risk exists. It is therefore mandatory that the communities implement and certify the change as soon as possible.

## 6.3 Requirements for test laboratories

[RB1] The test laboratory SHALL provide a guideline on how to prepare for the SIA to the communities.

[RB2] The test laboratory SHALL approve the list of SUTs provided by the community (see [RC1]) that are included in the EPR platform and that SHALL be assessed and this before registering the SUTs at the SIA. This approval also includes any documented deviations from EPRO-FDHA, annex 2, chapter 2.9, if applicable. (see chapter 3 *Scope of the SIA*)

[RB3] The test laboratory SHALL accurately and clearly report the results of each test or series of tests carried out in accordance with any specific instructions in the test scripts. The two execution test reports SHALL at least fulfil the ISO/IEC 17025 report requirements.

[RB4] In addition to the requirements listed in [RB3], the execution test reports SHALL – where relevant for the interpretation of the test results – include information about deviations from, additions to or exclusions from the test methods, and information on specific test conditions, any opinions or interpretations.

[RB5] When all the registered SUTs of the community EPR platform have completed their assessments, the test laboratory SHALL provide to the community all the execution test reports (detailed and summary execution test reports) of the SUTs that are included in the EPR platform.

[RB6] The test laboratory SHALL use the CTS provided by the FOPH. In case of provision as SaaS, the FOPH SHALL provide access credentials to the platform.

[RB7] The validation report of the major version of the CTS and its configuration SHALL be sent to the FOPH, which will authorise the test laboratory to perform the SIA.

*Note: The test laboratory receives the CTS on its premises or accesses the CTS directly in the cloud using its credentials. The test laboratory configures the CTS according to its own procedures*

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<sup>3</sup> Substantial technical or organizational adaptations are for example, but are not limited to, new or updated procedures which are audited during the certification process, IT infrastructure adaptations that ensure data exchanges between communities or the update of the authentication procedure by the software editors providing the identification means.

and controls the conformity of the CTS using, for example, reference test data before starting any test session. The test laboratory issues a validation report on the CTS conformity.

[RB8] The SIA MAY be conducted online. In this case, the test laboratory SHALL define operational rules and procedures for running the SIA. The operational rules and procedures that impact the EPR platform SHALL be clearly provided and explained to the community during the preparation of the SIA.

[RB9] The test laboratory SHALL NOT disclose the status of the community or the results of the SIA without the community's prior written approval (which MAY be given by email).

[RB10] The test laboratory SHALL operate under the [Federal Act on Data Protection](#) (FADP).

## 6.4 Requirements for the communities and reference communities

*Note: The document "Technical guidelines for SIA testing" provides information on the SIA testing process. It describes the SIA process, the main testing activities and technical requirements. Furthermore, it provides the list of actors and components needed to implement a reference EPR platform. The document "Technical guidelines for SIA testing" can be requested from the FOPH.*

### 6.4.1 Context reminder

A reference community or a community manages the EPR platform accessible by patients and healthcare professionals. The EPR platform is an aggregation of components or SUTs that collaborate in order to provide all the services for the EPR and where the set of integration profiles as defined in EPRO-FDHA, annex 2, chapter 2.9, is distributed among all the SUTs constitutive of the EPR platform.

[RC1] When a community registers for a SIA, the community SHALL provide an exhaustive list of SUTs and the needed information (see [RD5]) to the test laboratory and, if relevant, a documentation of any deviation from the required transactions as defined in EPRO-FDHA, annex 2, chapter 2.9. (see chapter 3 *Scope of the SIA*).

[RC2] When the list of SUTs is approved, the community SHALL register the EPR platform to the test laboratory for the assessment of their EPR platform SUTs and will provide their SUT characteristics (name, version, integration profile/actor/option) no later than three weeks before the start of the SIA testing.

[RC3] The list of SUTs that contribute to the integrity of the EPR platform SHALL NOT change at any time during the SIA. Its integrity SHALL be attested to when requested by the test laboratory.

[RC4] The community SHALL provide to the test laboratory all the information and documentation needed to successfully perform the SIA with a community or a reference community.

[RC5] When the conformity assessment is completed, the community SHALL send **all** the detailed reports of their EPR platform SUTs to the certification body as part of the documents needed for issuing the certification.

[RC6] The community MAY appeal the findings documented in a test execution report only if the community failed testing and believes in good faith that the test laboratory reported an incorrect decision about the compliance of the EPR platform based upon how it was evaluated during the SIA, due to a perceived bias or error and that, as a result, the test execution report does not accurately reflect the conformity of the EPR platform with the requirements listed in section 6.4.3. Both parties SHALL agree that neither of them will make any public statements or disclosures about the community's appeal during or after the appeal except as required by law. The appeal will be processed by the test laboratory under its ISO/IEC 17025 accreditation.

### 6.4.2 Preparation before the assessment

[RD1] The community SHALL select a set of integration profiles in the list of integration profile/actor pairs presented in section 6.4.3 for **each** of the SUTs of their EPR platform.

[RD2] During preparation, the community MAY be supported by the test laboratory only for the SIA scope and its context to successfully perform the SIA.

[RD3] For more efficiency and to reduce cost, the community SHOULD participate in one of the Swiss Projectathons and SHOULD test the SUTs of their EPR platform.

*Note 1: The Projectathon supports operators and implementers in improving their products and facilitating the adoption of the testing tools they will use during the SIA.*

*Note 2: The community has to prepare themselves by means of the reference EPR platform.*

[RD4] The community SHALL nominate a project leader who will interface with the test laboratory during the SIA and during preparation of the SIA.

*Note: The test laboratory MAY request other human resources such as SUT operators with relevant skills and experiences.*

[RD5] All the needed information about the SUTs – such as name(s) of the vendors(s), names of the SUTs, versions of the SUTs, names of the SUT operators, name and address of the community, contact names, previous execution test reports – SHALL be provided to the test laboratory.

### 6.4.3 Test plan

This section describes the technical criteria for certification called *test plan*. This test plan is defined based on the integration profiles and test methods, e.g. test cases and test tools, embedded in the CTS.

The next sub-section provides the list of profiles, actors and transactions as well as the reference specifications and a reference to a sub-section with a description of the related test cases. To perform test cases, the Certification Test System (CTS) is used as a reference test system. The CTS includes a set of test tools as described in the annex 7.1.

#### 6.4.3.1 IHE Integration Profiles

Integration Profile	Nat- Ext.	Actors	Transactions	Reference Specifications	Test cases
ATNA Audit Trail and Node Authentication <i>Basic security through a) functional access controls, b) defined security audit logging and c) secure network communications</i>	Yes	<ul style="list-style-type: none"> <li>Secure Application</li> <li>Audit Repository</li> </ul>	<ul style="list-style-type: none"> <li>Authenticate Node [ITI-19]</li> <li>Record Audit Event [ITI 20]</li> </ul>	IHE IT Infrastructure Technical Framework <ul style="list-style-type: none"> <li>Vol 1 – Section 9; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>Vol 2 ITI TF-2a; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> Amendment 1 to Annex 5 of the EPDV-EDI <ul style="list-style-type: none"> <li><a href="#">Revision 15-04-2021</a></li> </ul> XSD Schemas <ul style="list-style-type: none"> <li><a href="#">23-06-2021</a></li> </ul>	Section 6.4.4.1
CT Consistent Time <i>Synchronizes system clocks and time stamps of computers in a network (median error less than 1 second)</i>	Yes	<ul style="list-style-type: none"> <li>Time Client</li> </ul>	Maintain Time [ITI-1]	IHE IT Infrastructure Technical Framework <ul style="list-style-type: none"> <li>Vol 1 – Section 7; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>Vol 2 ITI TF-2a; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> Amendment 1 to Annex 5 of the EPDV-EDI <ul style="list-style-type: none"> <li><a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.2
HPD Health Provider Directory	Yes	<ul style="list-style-type: none"> <li>Provider Information Directory</li> <li>Provider Information Consumer</li> </ul>	<ul style="list-style-type: none"> <li>Provider Information Query [ITI-58]</li> <li>Provider Information Feed [ITI-59]</li> </ul>	IHE IT Infrastructure Technical Framework Supplement <ul style="list-style-type: none"> <li>Healthcare Provider Directory; <a href="#">Revision 1.8 (2018-07-24)</a></li> </ul>	Section 6.4.4.3

<p><i>Supports discovery and management of healthcare provider information, both individual and organizational, in a directory structure</i></p>		<ul style="list-style-type: none"> <li>• HPD Healthcare Provider Directory</li> </ul>	<ul style="list-style-type: none"> <li>• Provider Information Delta Download (CH:PIDD)</li> </ul>	<p>Central Services Interface Documentation</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 1.0.33 (2020-12-16)</a></li> </ul> <p>Amendment 1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul>	
<p>PDQv3 Patient Demographics Query HL7 V3 <i>Queries for patient identity from a central patient information server leveraging HL7 version 3</i></p>	Yes	<ul style="list-style-type: none"> <li>• Patient Demographics Supplier</li> <li>• Patient Demographics Consumer</li> </ul>	<p>Patient Demographics Query HL7 V3 [ITI-47]</p>	<p>IHE IT Infrastructure Technical Framework</p> <ul style="list-style-type: none"> <li>• Vol 1 – Section 24; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>• Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> <p>Amendment 1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.4
<p>PIXv3 Patient Identifier Cross-Referencing HL7 V3 <i>Queries for the patient identify Cross-References between hospitals, sites, Health Information exchange networks etc. leveraging HL7 version 3</i></p>	Yes	<ul style="list-style-type: none"> <li>• Patient Identifier Cross-Reference Manager</li> <li>• Patient Identifier Cross-Reference Consumer</li> <li>• Patient Identity Source</li> </ul>	<ul style="list-style-type: none"> <li>• Patient Identity Feed HL7 V3 [ITI-44]</li> <li>• PIXV3 Query [ITI-45]</li> </ul>	<p>IHE IT Infrastructure Technical Framework</p> <ul style="list-style-type: none"> <li>• Vol 1 – Section 23; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>• Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> <p>Amendment 1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.5
<p>SVS Sharing Value Set <i>Distributes centrally-managed common, uniform nomenclatures</i></p>	No	<ul style="list-style-type: none"> <li>• Value Set Consumer</li> <li>• MDI Metadata Index Service</li> </ul>	<ul style="list-style-type: none"> <li>• Retrieve Value Set [ITI-48]</li> </ul>	<p>IHE IT Infrastructure Technical Framework</p> <ul style="list-style-type: none"> <li>• Vol 1 – Section 21; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>• Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> <p>Central Services Interface Documentation</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 1.0.33 (2020-12-16)</a></li> </ul>	Section 6.4.4.6
<p>XCA Cross Community Access</p>	No	<ul style="list-style-type: none"> <li>• Initiating Gateway (no Option)</li> </ul>	<ul style="list-style-type: none"> <li>• Cross Gateway Query [ITI-38]</li> <li>• Cross Gateway Retrieve [ITI-39]</li> </ul>	<p>IHE IT Infrastructure Technical Framework</p> <ul style="list-style-type: none"> <li>• Vol 1 – Section 18; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul>	Section 6.4.4.7

<p><i>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.</i></p>		<ul style="list-style-type: none"> <li>• Responding Gateway (No option)</li> </ul>		<ul style="list-style-type: none"> <li>• Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul>	
<p>XCA-I Cross Community Access for Imaging <i>Extends XCA to share images, diagnostic reports and related information across communities</i></p>	No	<ul style="list-style-type: none"> <li>• Initiating Gateway (Imaging) (no Option)</li> <li>• Responding Gateway (Imaging) (No option)</li> </ul>	Cross Gateway Retrieve Image Document Set [RAD-75]	<p>IHE Radiology Technical Framework</p> <ul style="list-style-type: none"> <li>• Vol 1 – Section 18; <a href="#">Revision 17 (2018-07-27)</a></li> <li>• Vol 3; <a href="#">Revision 17.0 (2018-07-27)</a></li> </ul>	Section 6.4.4.8
<p>XCPD Cross-Community Patient Discovery <i>Locates communities with electronic health records for a patient and translates patient identifiers across communities</i></p>	Yes	<ul style="list-style-type: none"> <li>• Initiating Gateway (no Option)</li> <li>• Responding Gateway (No option)</li> </ul>	Cross Gateway Patient Discovery [ITI-55]	<p>IHE IT Infrastructure Technical Framework</p> <ul style="list-style-type: none"> <li>• Vol 1 – Section 27; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>• Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> <p>Amendment 1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.9
<p>XDS Cross-Enterprise Document Sharing <i>Shares and discovers electronic health record documents between healthcare enterprises, physician offices, clinics, acute care inpatient facilities and personal health records</i></p>	Yes	<ul style="list-style-type: none"> <li>• Document Consumer</li> <li>• Document Registry</li> <li>• Document Source</li> <li>• Document Repository</li> </ul>	Registry Stored Query [ITI-18]	<p>IHE IT Infrastructure Technical Framework</p> <ul style="list-style-type: none"> <li>• Vol 1 – Section 10; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>• Vol 2 ITI TF-2a; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> <p>Amendment 1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.10
<p>XDS Metadata Update <i>Provides support for updating metadata used in the profiles XDS and XDR.</i></p>	No	<ul style="list-style-type: none"> <li>• Document Registry</li> <li>• Document Administrator</li> </ul>	Update Document set (ITI-57)	<p>IHE IT Infrastructure Technical Framework</p> <ul style="list-style-type: none"> <li>• Technical Framework Supplement (TI) <a href="#">Revision 1.10 (2018-07-24)</a></li> </ul> <p>Amendment 1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.10



XDS-I Cross-enterprise Document Sharing for Imaging <i>Extends XDS to share images, diagnostic reports and related information across a group of care sites</i>	No	<ul style="list-style-type: none"> <li>Imaging Document Consumer</li> <li>Imaging Document Source</li> </ul>	<ul style="list-style-type: none"> <li>WADO Retrieve [RAD-55]</li> <li>Retrieve Imaging Document Set [RAD-69]</li> </ul>	IHE Radiology Technical Framework <ul style="list-style-type: none"> <li>Vol 1 – Section 18; <a href="#">Revision 17 (2018-07-27)</a></li> <li>Vol 3; <a href="#">Revision 17.0 (2018-07-27)</a></li> </ul>	Section 6.4.4.11
XDM Cross-Enterprise Document Media Interchange <i>Transfers documents and metadata using CDs, USB memory or email attachments</i>	No	<ul style="list-style-type: none"> <li>Portable Media Creator</li> <li>Portable Media Importer</li> </ul>	Distribute Document Set on Media [ITI-32]	IHE IT Infrastructure Technical Framework <ul style="list-style-type: none"> <li>Vol 1 – Section 16; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul>	Section 6.4.4.12
XUA Cross-Enterprise User Assertion <i>Communicates claims about the identity of an authenticated principal (user, application, system, ...) across enterprise boundaries - federated identity</i>	Yes	<ul style="list-style-type: none"> <li>X-Service User</li> <li>X-Service Provider</li> </ul>	<ul style="list-style-type: none"> <li>Authenticate User</li> <li>Get X-User Assertion</li> <li>Provide X-User Assertion [ITI-40]</li> </ul>	IHE IT Infrastructure Technical Framework <ul style="list-style-type: none"> <li>Vol 1 – Section 13; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> Amendment 1 to Annex 5 of the EPDV-EDI <ul style="list-style-type: none"> <li><a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.13
XDS-SD Scanned Document <i>Shares unstructured electronic documents between healthcare enterprises, physician offices, clinics, acute care in-patient facilities and personal health records</i>	No		Provide and Register Document Set [ITI-41]	IHE IT Infrastructure Technical Framework <ul style="list-style-type: none"> <li>Vol 1 – Section 20; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>Vol 2 ITI TF-2b; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul>	Section 6.4.4.14
RMU Restricted Metadata Update <i>Provides a mechanism for changing Document Sharing Metadata both within and across community boundaries in a controlled manner</i>	Yes	<ul style="list-style-type: none"> <li>Update Initiator</li> <li>Update Responder</li> </ul>	Restricted Update Document Set [ITI-92]	IHE IT Infrastructure Technical Framework Supplement <ul style="list-style-type: none"> <li>Restricted Metadata Update <a href="#">Revision 1.0 (2018-05-23)</a></li> </ul> Amendment 1 to Annex 5 of the EPDV-EDI <ul style="list-style-type: none"> <li><a href="#">Revision 15-04-2021</a></li> </ul>	Section 6.4.4.15

### 6.4.3.2 National Integration Profiles

Integration Profile	National Extension	Actors and Options	Transactions	Reference Specifications	Test Cases
<p>CH: ADR</p> <p>Authorization Decision request</p> <p><i>Defines new functionalities for XDS-based communities concerning the enforcement of access policies. They are applied to the clinical data by an XDS Document registry, as well as to the access policies themselves, which are stored in a Policy Repository</i></p>	New actors and transactions	<ul style="list-style-type: none"> <li>• Authorization Decision Provider</li> <li>• Authorization Decision Consumer</li> </ul>	Authorization Decision Request (CH:ADR)	<p>Amendment 2.1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul> <p>XSD Schemas</p> <ul style="list-style-type: none"> <li>• <a href="#">26-11-2021</a></li> </ul>	Section 6.4.4.16
<p>CH: PPQ</p> <p>Privacy Policy Query</p> <p><i>Defines new functionalities for XDS-based communities concerning the management of access policies in terms of updating or modifying policies as well as querying policies from and adding policies to a Policy Repository by a Policy Source and Policy Consumer</i></p>	New actors and transactions	<ul style="list-style-type: none"> <li>• Policy Repository</li> <li>• Policy Source</li> <li>• Policy Consumer</li> </ul>	Privacy Policy Query	<p>Amendment 2.1 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul> <p>XSD Schemas</p> <ul style="list-style-type: none"> <li>• <a href="#">26-11-2021</a></li> </ul>	Section 6.4.4.17
<p>CH:ATC</p> <p>Audit Trail Consumption</p> <p><i>Defines the audit trail consumption requirements a community has to provide for a patient's audit trail</i></p>	Yes	<ul style="list-style-type: none"> <li>• Patient Audit Consumer</li> <li>• Patient Audit Repository</li> </ul>	<ul style="list-style-type: none"> <li>• Retrieve ATNA Audit</li> <li>• Audit Event [ITI-81]</li> <li>• Incorporate Authorization</li> <li>• Token [ITI-72]</li> </ul>	<p>Amendment 2.2 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2020</a></li> </ul> <p>XSD Schemas</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-10-2019</a></li> </ul>	Section 6.4.4.18
<p>CH:CPI</p> <p>Community Portal Index</p> <p><i>Index containing all information about certified (reference-) communities and their endpoints according to the Federal Act on the Electronic Patient Record (EPRA)</i></p>		<ul style="list-style-type: none"> <li>• CPI Consumer</li> <li>• CPI Provider</li> </ul>	<ul style="list-style-type: none"> <li>• Community Information</li> <li>• Query (CH :CIQ)</li> </ul>	<p>Amendment 2.3 to Annex 5 of the EPDV-EDI</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 15-04-2021</a></li> </ul> <p>Central Services Interface Documentation</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 1.0.33 (2020-11-01)</a></li> </ul> <p>Central services WSDL files</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 1.0.33 (2020-11-01)</a></li> </ul> <p>Central services LDIF files</p> <ul style="list-style-type: none"> <li>• <a href="#">Revision 1.0.33 (2020-11-01)</a></li> </ul>	Section 6.4.4.19

				XSD Schemas <ul style="list-style-type: none"> <li><a href="#">Revision 15-10-2019</a></li> </ul>	
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### 6.4.3.3 Other Interfaces: UPI

Standard interfaces to the Unique Person Identification (UPI) register of the Central Compensation Office (ZAS)

Profile	National Extension	Actors and Options	Interfaces	Reference Specifications	Test Cases
UPI Unique Person Identification  <i>Index maintained by the Central Compensation Office (ZAS) that implements administrative identification of physical persons and the identification management</i>		<ul style="list-style-type: none"> <li>UPI_Service</li> <li>UPI Client</li> </ul>	eCH-0213  <i>UPI / SPID announcements: This interface covers all SPID-based announcements that record information in the UPI. This standard also describes the common types of the three interfaces (eCH-0213-commons). The communication is based on a request addressed to the UPI and the response of the latter.</i>	eCH-0213 Schnittstellenstandard Meldungen UPI/SPID <ul style="list-style-type: none"> <li><a href="#">Version 1.0 (2017-09-13)</a></li> </ul>	Section 6.4.4.20
		<ul style="list-style-type: none"> <li>UPI_Service</li> <li>UPI Client</li> </ul>	eCH-0214  <i>UPI / SPID request: this interface covers all UPI requests concerning SPIDs. This is a read only interface. The communication is based on a request and a response from UPI.</i>	eCH-0214 Abfragen UPI/SPID <ul style="list-style-type: none"> <li><a href="#">Version 2.0 (2018-12-03)</a></li> </ul>	
		<ul style="list-style-type: none"> <li>UPI_Service</li> <li>UPI Client</li> </ul>	eCH-0215  <i>Broadcast Mutations UPI / SPID: this interface describes the broadcast (distribution) of the mutations of people with SPID that the UPI</i>	eCH-0215 Broadcast Mutationen UPI/SPID <ul style="list-style-type: none"> <li><a href="#">Version 2.0 (2018-12-03)</a></li> </ul>	

			<i>sends to all the customers who subscribed.</i>		
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#### 6.4.4 Test cases description and related tools

The following tables provide for each integration profile, the related test cases, a short test case description and the test case version. Above each table, there is a link to a PDF document with a detailed description of all test cases for the corresponding profile.

##### 6.4.4.1 ATNA – Audit trail and Node Authentication

[Detailed test case description for ATNA](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
12564	ATNA_SA-SN_ITI19_Error_Cases	Verify Secure Application or Secure Node acting as Server are able to reject invalid TLS handshakes	Version: 1.1 Last modified: 03/01/2020 16:07:20
12562	ATNA_SA-SN_ITI-20	Verify a Secure Application or a Secure Node is able to send an Audit Message with the Syslog protocol to the Syslog Collector simulator	Version: 1.0 Last modified: 11/09/2019 12:50:06
12534	ATNA_SA-SN_Questionnaire	ATNA Secure Application or Secure Node completes the ATNA Questionnaire to provides information on secured elements of the system.	Version: 1.1 Last modified: 11/02/2021 14:28:53

##### 6.4.4.2 CT – Consistent Time

[Detailed test case description for CT](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13432	CHCT_TIME-CLIENT_ITI1	Synchronize a system with a public NTP server on Swiss time	Version: 1.0 Last modified: 30/08/2019 14:59:45

##### 6.4.4.3 HPD – Health Provider Directory

[Detailed test case description for HPD](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13293	CHHPD_PROV_INFO_CONS_ITI-58	Provider Info Consumer ITI-58 HPD query request on HPD Simulator Provider Info Directory message validation using EVSClient.	Version: 1.0 Last modified: 04/09/2019 17:09:47

13295	CHHPD_PROV_INFO_DIR_ITI-58	Provider Info Consumer ITI-58 HPD query request on HPD Simulator Provider Info Directory message validation using EVSClient.	Version: 1.0 Last modified: 07/04/2022 18:13:37
13297	CHHPD_PROV_INFO_DIR_ITI-59	An ITI-59 Provider Information Feed initiated from HPD Simulator to your system. HPD query response message validation using EVSClient	Version: 1.0 Last modified: 04/09/2019 10:54:21
13291	CHHPD_PROV_INFO_SRC_ITI-59	HPD Provider Info Feed message from Provider Info Source, sent on HPD Simulator Provider Info Directory, validated using EVSClient	Version: 1.0 Last modified: 03/09/2019 11:31:37

#### 6.4.4.4 PDQv3 – Patient identifier Cross-Referencing HL7v3

[Detailed test case description for PDQv3](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13203	CHPDQv3_PDC_ITI-47	This test evaluates the capability of the system acting as a CH:PDQV3 Patient Demographics Consumer actor to send a valid query (ITI-47) to the PatientManager tool acting as a CH:PDQV3 Patient Demographics Supplier	Version: 1.1 Last modified: 04/12/2019 14:07:56
13206	CHPDQv3_PDS_ITI-47_1	This test checks the ability of your system acting as a CH:PDQV3 Patient Demographic Supplier to answer to an exact match query (ITI-47) in a single domain	Version: 1.0 Last modified: 03/09/2019 15:52:54
13207	CHPDQv3_PDS_ITI-47_2	Test test checks the ability of your system acting as CH:PDQV3 Patient Demographic Supplier to answer to a query (ITI-47) in a single domain	Version: 1.0 Last modified: 03/09/2019 16:06:16
13201	CHPIX_CHPDQ_SERVER_CONF	This is a preliminary test for CH:PDQv3 suppliers and CH:PIXV3 managers. The goal is to populate the system under test with a well-known set of patient data.	Version: 1.0 Last modified: 17/06/2019 16:59:58

#### 6.4.4.5 PIXv3 – Patient Identifier Cross Referencing HL7v3

##### [Detailed test case description for PIXv3](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13201	CHPIX_CHPDQ_SERVER_CONF	This is a preliminary test for CH:PDQv3 suppliers and CH:PIXV3 managers. The goal is to populate the system under test with a well-known set of patient data.	Version: 1.0 Last modified: 17/06/2019 16:59:58
13210	CHPIXV3_CONS_ITI-45	This test checks the ability of the CH:PIXV3 Patient Identifier Cross-Reference Consumer actor to query for patient identifiers (ITI-45).	Version: 1.1 Last modified: 07/04/2022 08:46:32
13213	CHPIXV3_MGR_CONF	The purposes of this test are first to demonstrate that your system acting as CH:PIXV3 Patient Identifier Cross-Reference Manager can be configured to access feeds from specific patient identity source systems and then to actually configure your system to access feeds from the testing tool.	Version: 1.1 Last modified: 10/04/2020 14:59:55
13212	CHPIXV3_MGR_ITI-44	This test checks the ability of the CH:PIXV3 Patient Identifier Cross-Reference Manager to integrate the messages exchanged in the context of the Patient Identity Feed HL7v3 (ITI-44) transaction: add record, revise record and resolve duplicates.	Version: 1.1 Last modified: 07/04/2022 13:43:15
13214	CHPIXV3_MGR_ITI-45_1	This test checks that your CH:PIXV3 Patient Identifier Cross-Reference manager correctly answers to PIXV3 queries (ITI-45) when both the query patient identifier and the requested domain are known.	Version: 1.0 Last modified: 03/09/2019 15:06:51
13216	CHPIXV3_MGR_ITI-45_3	This test verifies the ability of the CH:PIXV3 Patient Identifier Cross reference manager actor to handle the error case of the PIXV3 Query (ITI-45) where no identifier exists for the queried patient in any of the domains sent in DataSource.value	Version: 1.0 Last modified: 03/09/2019 15:07:41
13217	CHPIXV3_MGR_ITI-45_4	This test verifies the ability of the CH:PIXV3 Patient Identifier Cross reference manager actor to handle the error case of the PIXV3 Query (ITI-45) where the system under test does not know the patient identifier enclosed in the query.	Version: 1.0 Last modified: 03/09/2019 15:08:06

13218	CHPIXV3_MGR_ITI-45_5	This test verifies the ability of the CH:PIXV3 Patient Identifier Cross reference manager actor to handle the error case of the PIXV3 Query (ITI-45) when it does not recognize one or more of the Patient Identification Domains for which an identifier has been requested.	Version: 1.0 Last modified: 03/09/2019 15:09:09
13219	CHPIXV3_MGR_ITI-45_6	This test checks that your SUT correctly answers to PIXV3 queries when it knows multiple identifiers within at least one of the requested domains	Version: 1.0 Last modified: 04/09/2019 10:33:58
13208	CHPIXV3_SRC_ITI-44	This test verifies the ability of the CH:PIXV3 Patient Identity Source actor to issue conform messages for the Patient Identity Feed HL7V3 (ITI-44) transaction: add record, revise record and resolve duplicates operations.	Version: 1.1 Last modified: 06/09/2021 16:20:55

#### 6.4.4.6 SVS – Sharing Value Set

[Detailed test case description for SVS](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13276	SVS_VALUE_SET_CONS_ITI-48	Value Set Consumer SUT ITI-48 Retrieve Value Set Request with Value Set Repository simulator	Version: 1.0 Last modified: 03/09/2019 15:40:19
13274	SVS_VALUE_SET_REPO_CONF	SVS Repository is loaded with value sets (codes) for the test session	Version: 1.1 Last modified: 24/09/2019 12:39:33
13282	SVS_VALUE_SET_REPO_ITI_48	Value Set Repository SUT responds to ITI-48 Retrieve Value Set Request from Value Set Consumer simulator	Version: 1.0 Last modified: 03/09/2019 15:30:04

#### 6.4.4.7 XCA – Initiating Gateway Actor

[Detailed test case description for XCA](#)

Test Case Permanent ID	Test Case Name	Test Case description	Version and reference
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13460	CHXCA_INIT-GW_ITI-38	This test is to verify the SUT capacity to query the metadatas of documents through an ITI-38 transaction to a XCA Responding Gateway.	Version: 1.2 Last modified: 08/04/2020 16:08:19
13461	CHXCA_INIT-GW_ITI-39	This test is to verify the SUT capacity to retrieve documents through an ITI-39 transaction to a XCA Responding Gateway.	Version: 1.3 Last modified: 08/04/2020 10:30::27
13449	CHXCA_RESP_GW_ITI-38	This test is to verify the SUT capacity to provide the metadatas of documents through an ITI-38 transaction from a XCA Initiating Gateway.	Version: 1.1 Last modified: 18/04/2020 10:36:09
13447	CHXCA_RESP_GW_ITI-38_INVALID	This test is to verify the SUT capacity to provide the correct error messages in response to a flawed ITI-38 transaction formulated by an XCA Initiating Gateway.	Version: 1.0 Last modified: 08/04/2020 10:35:19
13446	CHXCA_RESP_GW_ITI-39	This test is to verify the SUT capacity to provide documents through an ITI-39 transaction in response to a XCA Initiating Gateway.	Version: 1.2 Last modified: 08/04/2020 10:38:25
13448	CHXCA_RESP_GW_ITI-39_INVALID	This test is to verify the SUT capacity to send the correct error messages in response to a flawed ITI-39 transaction through a XCA initiating gateway	Version: 1.2 Last modified: 08/04/2020 10:40:14
13445	XCA_DOCUMENTS_DATA	Description of the documents contained in the registry and repository that will be used for testing.	Version: 1.2 Last modified: 11/02/2020 10:17:27

#### 6.4.4.8 XCA-I - Cross Community Access for Imaging

##### [Detailed test case description for XCA-I](#)

Test Case Permanent ID	Test Case Name	Test Case description	Version and reference
13488	CHXCA-I_INIT_GW_RAD-69_RAD-75	This test will verify the ability of the SUT to answer an RAD-69 query from a Document Consumer, as well as sending a document set the request (RAD-75) to a Responding Gateway simulator.	Version: 1.0 Last modified: 11/09/2019 17:30:06
13487	CHXCA-I_RESP_GW_RAD-69_RAD-75	This test is to provide the data necessary to execute the XCA-I RAD-69 and RAD-75 transactions for Initiating Gateway testing.	Version: 1.0 Last modified: 11/09/2019 17:29:40

#### 6.4.4.9 XCPD - Cross Community Patient Discovery

##### [Detailed test case description for XCPD](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13245	CHXCPD_INIT-GW_ITI-55	This test evaluates the capability of the CH:XCPD Initiating Gateway to send a valid Cross-Community Patient Discovery (ITI-55) query.	Version: 1.0 Last modified: 04/09/2019 11:56:21
13244	CHXCPD_RESP-GW_CONF	This is a test to configure the system under test acting as a CH:XCPD Responding Gateway before the other tests are executed.	Version: 1.0 Last modified: 17/06/2019 16:36:22
13246	CHXCPD_RESP-GW_ITI-55	This test verifies the ability of the system under test acting as a CH:XCPD Responding Gateway to handle Cross-Community Patient Discovery queries (ITI-55) for which it owns matching patients.	Version: 1.0 Last modified: 04/09/2019 09:46:05

#### 6.4.4.10 XDS - Cross-Enterprise Document Sharing and Metadata Update

##### [Detailed test case description for XDS](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13437	CHXDS.b_DOC_CONS_CONF	Description of the registry and repository content used for testing.	Version: 1.1 Last modified: 03/01/2020 16:08:39
13438	CHXDS.b_DOC_CONS_ITI-18	This test verifies the SUT's ability to request a document metadata through an ITI-18 transaction against a simulated XDS document registry (with the support of XUA).	Version: 1.1 Last modified: 29/11/2019 16:53:56
13463	CHXDS.b_DOC_CONS_ITI-43	This test is to verify the SUT capacity to request a document through an ITI-43 transaction with a XDS document repository.	Version: 1.1 Last modified: 29/11/2019 16:51:43
13519	CHXDS.b_DOC_REG_CONF	Configuration and data feed for the XDS Document Registry.	Version: 1.1 Last modified: 03/01/2020 16:05:11

13436	CHXDS.b_DOC_REG_ITI-18	This test is to verify the SUT capacity to provide document metadatas through an ITI-18 transaction with a XDS document consumer.	Version: 1.1 Last modified: 14/01/2020 15:45:41
13435	CHXDS.b_DOC_REG_ITI-42	This test is to verify the SUT capacity to register a document metadatas through an ITI-42 transaction with a XDS document repository.	Version: 1.1 Last modified: 14/01/2020 15:45:16
13316	CHXDS.b_DOC_REG_ITI-57	Document Registry SUT receives update document metadata from Document Administrator Simulator.	Version: 1.1 Last modified: 14/01/2020 15:52:16
13440	CHXDS.b_DOC_REPO_CONF	This test targets at setting up the context for the XDS.b Document Repository actor.	Version: 1.2 Last modified: 06/02/2020 16:46:36
13443	CHXDS.b_DOC_REPO_ITI41_ITI42	This test verifies the capacity of a system to receive and accept a document in a Provide and Register (ITI-41) transaction. It includes metadata forwarding (ITI-42).	Version: 1.1 Last modified: 14/01/2020 15:57:18
13444	CHXDS.b_DOC_REPO_ITI43	This test verifies the capacity of a system to respond to a retrieve request in a Retrieve Document (ITI-43) transaction.	Version: 1.1 Last modified: 14/01/2020 15:56:43
13433	CHXDS.b_DOC_SRC_ITI-41	This test is to verify the SUT capacity to register a document and its metadata through an ITI-41 transaction with a XDS document repository.	Version: 1.1 Last modified: 03/01/2020 16:08:51
13318	XDS.b_DOC_ADMIN_ITI-57	ITI-57 Update Document Set for Document Administrator from a Document Administrator SUT to a simulated Document Registry	Version: 1.1 Last modified: 02/12/2019 17:11:21

#### 6.4.4.11 XDS-I - Cross-Enterprise Document Sharing for Imaging

[Detailed test case description for XDS-I](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13476	CHXDS-I.b_DOC_CONS_RAD-69	This test is to verify the SUT capacity to request an image document through a RAD-69 transaction with a XDS-I document source simulator.	Version: 1.1 Last modified: 04/12/2019 10:42:07
13475	CHXDS-I.b_DOC_SRC_RAD-68	This test is to verify the SUT capacity to register a DICOM KOS through a RAD-68 transaction with a XDS document repository.	Version: 1.1 Last modified: 20/11/2019 17:46:58
13477	CHXDS-I.b_DOC_SRC_RAD-69	This test is to verify the SUT capacity to provide an image document requested through a RAD-69 transaction initiated by a XDS-I Document Consumer simulator.	Version: 1.1 Last modified: 20/11/2019 17:50:38

#### 6.4.4.12 XDM - Cross Enterprise Document Media Interchange

[Detailed test case description for XDM](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13284	XDM_PMC_Create_Media	Portable Media Creator creates CD-R and/or USB	Version: 1.0 Last modified: 06/09/2019 14:56:51
13285	XDM_PMC_Validate_ZIP	NIST tool validates XDM Zip file generated by Portable Media Creator	Version:1.0 Last modified: 08/04/2020 11:53:17
13515	XDM_PMI_Import_Error_case	Portable Media Creator and Importer exchange content on XDM media (CD-R or USB). Content is taken from gazelle samples	Version: 1.0 Last modified: 11/02/2020 16:04:22

		so no PMC needed for this test. Content contains errors that shall be reported by the SUT.	
13288	XDM_PMI_Import_Media	Portable Media Creator and Importer exchange content on XDM media (CD-R or USB). Content is taken from gazelle samples so no PMC needed for this test	Version: 1.0 Last modified: 11/02/2020 16:04:48

#### 6.4.4.13 XUA - Cross Enterprise User Assertion

[Detailed test case description for XUA](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13366	CHXUA_X-ASSERT-PROV_ASS	This test checks the conformance of the assertion issued by the X Assertion Provider when the Authenticate User is an Assistant.	Version: 1.0 Last modified: 17/09/2019 10:19:19
13364	CHXUA_X-ASSERT-PROV_DADM	This test checks the conformance of the assertion issued by the X Assertion Provider when the Authenticate User is a Document Administrator.	Version: 1.0 Last modified: 06/09/2019 14:23:54
13362	CHXUA_X-ASSERT-PROV_HCP	This test checks the conformance of the assertion issued by the X Assertion Provider when the Authenticate User is an Healthcare Professional.	Version: 1.0 Last modified: 06/09/2019 14:24:27
13442	CHXUA_X-ASSERT-PROV_INVALID_CASE	Simulated X-Service User sending an invalid requests for an assertion to an X-Assertion Provider	Version: 1.0 Last modified: 11/09/2019 13:13:47
13360	CHXUA_X-ASSERT-PROV_PADM	This test checks the conformance of the assertion issued by the X Assertion Provider when the Authenticate User is a Policy Administrator.	Version: 1.0 Last modified: 06/09/2019 14:24:56

13358	CHXUA_X-ASSERT-PROV_PAT	This test checks the conformance of the assertion issued by the X Assertion Provider when the Authenticate User is a Patient.	Version : 1.0 Last modified: 06/09/19 14:26:57
13356	CHXUA_X-ASSERT-PROV_REP	This test checks the conformance of the assertion issued by the X Assertion Provider when the Authenticate User is a Representative.	Version: 1.0 Last modified: 06/09/2019 14:27:41
13354	CHXUA_X-ASSERT-PROV_TCU	This test checks the conformance of the assertion issued by the X Assertion Provider when the Authenticate User is a Technical User.	Version: 1.0 Last modified: 17/09/2019 10:19:27
13352	CHXUA_X_SERV_USR_AUTH_USR	Verify X-Service User is able to initiate and run a valid CH:XUA Authenticate User transaction with the simulated User Authentication Provider using the artifact binding.	Version: 1.0 Last modified: 16/09/2019 11:58:06
13350	CHXUA_X-SERV-USR_GXUA_ASS	X-Service User requests an assertion to a simulated X-Assertion Provider for an Assistant.	Version: 1.0 Last modified: 06/09/2019 14:30:13
13348	CHXUA_X-SERV-USR_GXUA_DADM	X-Service User requests an assertion to a simulated X-Assertion Provider for a Document Administrator.	Version: 1.0 Last modified: 06/09/2019 14:33:11
13346	CHXUA_X-SERV-USR_GXUA_HCP	X-Service User requests an assertion to a simulated X-Assertion Provider for an Healthcare Provider.	Version: 1.0 Last modified: 06/09/2019 14:31:53
13344	CHXUA_X-SERV-USR_GXUA_PADM	X-Service User requests an assertion to a simulated X-Assertion Provider for a Policy Administrator.	Version: 1.0 Last modified: 06/09/2019 14:33:33
13342	CHXUA_X-SERV-USR_GXUA_PAT	X-Service User requests an assertion to a simulated X-Assertion Provider for a Patient.	Version: 1.0 Last modified: 06/09/2019 14:33:55
13340	CHXUA_X-SERV-USR_GXUA_REP	X-Service User requests an assertion to a simulated X-Assertion Provider for a Representative.	Version: 1.0 Last modified: 06/09/2019 14:34:16

13338	CHXUA_X-SERV-USR_GXUA_TCU	X-Service User requests an assertion to a simulated X-Assertion Provider for a Technical User.	Version: 1.0 Last modified: 06/09/2019 14:34:45
13336	XUA_X-SERVICE-PROV_ITI-40	This test is used to synthesis the testing of the XUA X-Service-Provider actor.	Version: 1.2 Last modified: 05/05/2020 17:51:35
13521	XUA_X-SERVICE-USER_ITI-40	This test is used to synthesis the testing of the XUA X-Service-User actor.	Version: 1.0 Last modified: 12/09/2019 17:59:34

#### 6.4.4.14 XDS-SD - Scanned Document

[Detailed test case description for XDS-SD](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13320	XDSSD_CONTENT_CREATOR_Create	Content Creator creates CDA-wrapped text and/or PDF sample(s)	Version: 1.0 Last modified: 06/09/2019 17:35:23

#### 6.4.4.15 RMU - Restricted Metadata Update

[Detailed test case description for RMU](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13332	RMU_UPDATE_INIT_ITI-92	The Initiator prepares and issues an update to DocumentEntry metadata objects via Restricted Update Document (ITI-92) transaction with the Responder as a simulator.	Version: 1.2 Last modified: 16/07/2020 16:32:04
13330	RMU_UPDATE_RESP_ITI-92	The Responder accepts requests for updates to DocumentEntry metadata objects send by a simulated Update Initiator.	Version: 1.2 Last modified: 16/07/2020 16:43:41

#### 6.4.4.16 CH:ADR - Authorization Decision Request

[Detailed test case description for CH:ADR](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13147	CHADR_due_to_ATC_for_Provider	Authorization Decision Provider	Version: 1.1 Last modified: 10/12/2019 09:52:35
13148	CHADR_due_to_ATC_for_Provider_Error	Authorization Decision Provider Error case	Version: 1.1 Last modified : 10/12/2019 09:52:44
12899	CHADR_due_to_PPQ_for_Provider	Authorization Decision Provider	Version: 1.1 Last modified: 10/12/2019 09:56:36
12927	CHADR_due_to_PPQ_for_Provider_Error	Authorization Decision Provider Error case	Version: 1.1 Last modified: 07/04/2022 14:30:16
12894	CHADR_due_to_XDS_for_Provider	A simulator sends ADR AuthorizatoonDecisionrequests due to XDS requests to an ADR Provider SUT	Version: 1.1 Last modified: 09/12/2019 16:31:54
12929	CHADR_due_to_XDS_for_Provider_Error	Authorization Decision Provider	Version: 1.1 Last modified: 09/12/219 16:34:28
13522	CHADR_FOR_CONSUMER	This test is used to synthesize the testing of the ADR Authorization Decision Consumer actor.	Version: 1.0 Last modified: 13/09/2019 16:21:50

#### 6.4.4.17 CH:PPQ - Privacy Policy Query

[Detailed test case description for CH:PPQ](#)

Test Case Permanent ID	Test Case Name	Test Case description	Test Case and Test Data Version
13380	CHPPQ_POLICY_CONS_PPQ2	Policy Consumer executes a valid PPQ-2 XACML Policy query to a simulated Policy Repository	Version: 1.1 Last modified: 05/12/2019 16:53:17
13368	CHPPQ_POLICY_REPO_PPQ-1_ADD	System acting as PPQ Repository must respond to a simulated PPQ request aiming at adding a policy in the repository.	Version: 1.1 Last modified: 05/12/2019 16:26:07
13370	CHPPQ_POLICY_REPO_PPQ-1_DEL1	System acting as PPQ Repository must respond to valid and invalid PPQ requests aiming at deleting a policy in the repository.	Version: 1.1 Last modified: 05/12/2019 16:26:58



13382	CHPPQ_POLICY_REPO_PPQ-1_UPD	PPQ Repository must respond to a valid simulated PPQ UpdatePolicy Request.	Version: 1.1 Last modified: 05/12/2019 16:27:46
13386	CHPPQ_POLICY_REPO_PPQ-2	PPQ Repository must respond to a valid simulated PPQ XACMLPolicy Request	Version: 1.1 Last modified: 05/12/2019 16:27:46
13374	CHPPQ_POLICY_SRC_PPQ-1_ADD	Policy Source requests to add new Policy in a simulated PPQ repository	Version: 1.1 Last modified: 05/12/2019 16:51:13
13376	CHPPQ_POLICY_SRC_PPQ-1_DEL	Policy Source Delete Policy requests to a simulated PPQ repository a valid PPQ-1 Delete Policy query	Version: 1.1 Last modified: 05/12/19 16:58:03
13378	CHPPQ_POLICY_SRC_PPQ-1_UPD	Policy Source Policy requests to a simulated PPQ repository a valid UpdatePolicy request	Version: 1.1 Last modified: 05/12/2019 17:02:06
13520	PPQ_REPO_CONF	Configuration and data feed for the PPQ Repository	Version: 1.0 Last modified: 12/09/2019 17:12:37

#### 6.4.4.18 CH:ATC - Authorization Request

##### [Detailed test case description for CH:ATC](#)

Test Case Permnet ID	Test Case Name	Test Case description	Test Case and Test Data Version
13221	CHATC_ARR_CONF	Configuration and data feed for the ATC Patient Audit Record Repository.	Version: 1.0 Last modified: 08/09/2019 16:04:20
13220	CHATC_ARR_ITI81_ErrorCases	Patient Audit Record Repository must handle correctly authorization enforcement and various error situations of ITI-81 according to CH:ATC profile.	Version: 1.1 Last modified: 06/07/2022 10:12:58
13224	CHATC_ARR_ITI81_NormalCases	The purpose of this test case is to make sure your Patient Audit Record Repository is able to answer to the Search operation on AuditEvent resources using the search parameters as defined in CH:ATC profile	Version: 1.0 Last modified: 12/09/2019 15:57:55
13226	CHATC_PAT_AUDIT_CONS_ITI81	This is a no-peer test run against a simulator of the ATC Audit Record Repository actor. We are checking that the Patient Audit Consumer is able to query using the required parameter and evaluate its capability to use the optional parameter. This test also checks that the system sends the IUA assertion in the HTTP header.	Version: 1.1 Last modified: 06/07/2022 10:13:26

13228	CHATC_PAT_AUDIT_CONS_Translate	Verify that a Patient Portal is able to translate Audit Events with codes into German, French or Italian	Version: 1.0 Last modified: 03/09/2019 11:19:15
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#### 6.4.4.19 CH:CPI - Community Portal Index

[Detailed test case description for CH:CPI](#)

Test Case ID	Test Case Name	Test Case description	Test Case and Test Data Version
13642	CHCPI_CONSUMER_CHCIDD_1	CPI consumer as SUT must query CPI provider	Version: 2.0 Last modified: 04/04/2022 13:09:34
13643	CHCPI_CONSUMER_CHCIQ_1	CH-CPI consumer as SUT must query CH-CPI provider	Version: 2.0 Last modified: 04/04/2022 13:09:34

#### 6.4.4.20 UPI – Unique Person Identification

[Detailed test case description for UPI](#)

Test Case ID	Test Case Name	Test Case description	Test Case and Test Data Version
13644	CH:UPI_eCH0213_SPID_CANCEL	UPI client send an eCH0213 request to cancel the SPID for a patient	Version: 2.0 Last modified: 07/04/2022 08:22:27
13645	CH:UPI_eCH0213_SPID_CREATION	UPI client send an eCH0213 request to create an SPID for a patient	Version: 2.0 Last modified: 07/04/2022 08:23:39
13646	CH:UPI_eCH0213_SPID_INACTIVATE	Verify the inactivation of a SPID for a patient	Version: 2.0 Last modified: 07/04/2022 08:24:04
13647	CH:UPI_eCH0214_FROM_DEMOGRAPHICS	UPI client send an eCH0214 request for a patient attributes using his demographics.	Version: 2.0 Last modified: 07/04/2022 08:26:25
13648	CH:UPI_eCH0214_FROM_NAVS	UPI client send an eCH0214 request for a patient demographics using his NAVS.	Version: 2.0 Last modified: 07/04/2022 08:26:39
13649	CH:UPI_eCH0214_FROM_SPID	UPI client send an eCH0214 request for a patient demographics using his SPID.	Version: 2.0 Last modified: 07/04/2022 08:27:31
13650	CH:UPI_eCH0215_RECEIVE_A_BROADCAST_MUTATION	UPI client receive an eCH0215 broadcast mutation and modify its patients.	Version: 2.0 Last modified: 23/03/2022 16:23:53

## 7. Annexes

### 7.1 Certification Test System and Test Tools

Tool name	Classification	CTS v1.6 - installed version	Tested profile
Gazelle Test Management	Test management tool	6.1.1	NONE
Proxy	Captures & Forwarding of messages	5.0.4	NONE
Assertion Manager	Support tools	4.2.0	NONE
Demographic Data Server	Test data generator	4.2.2	NONE
SVS Simulator	Support tools, Simulator/stub	2.3.0	NONE
EVSCient	Interoperability validator	5.13.4	CH:ADR
			CH:ATC
			CH:CDA
			CH:EMED
			CH:IUA
			CH:PPQ
			CH:UPI
			CH:XUA
			CH:HPD
			CH:XDS
			CH:ATNA
			CH:MHD
			CH:PMIR
			CH:PIX
			CH:PDQ
			CH:XCPD
			CH:XUA
CH:XCA			
CH:XCA-I			
CH:XDM			
CH-XDS-I			
CH:XDS.B			
Gazelle HL7 Validator	Interoperability validator	3.7.3	CH:PIX
			CH:XCPD
			CH:PDQ
Schematron Validator	Interoperability validator	2.5.0	CH:CDA EMED
			CH:CDA LREP

Tool name	Classification	CTS v1.6 - installed version	Tested profile
			CH:CDA VACD
			CH:ADR
			CH:ATNA
			CH:PPQ
			CH:UPI
			CH:XUA
Patient Manager	Simulator/stub	9.15.2	CH:PDQ
			CH:PIX
			CH:XCPD
HPD Simulator	Simulator/stub	2.4.1	CH:HPD
Gazelle Security Suite	Support tool, Simulator/stub, interoperability validator	6.3.0	CH:ATNA
			CH:XUA
XDStarClient	Simulator/stub, interoperability validator	2.5.8	CH:XCA
			CH:XCPD
			CH:RMU
XDS Tools	Conformance tester	7.6.0	CH:XCA
			CHU:RMU
			CH:XDSMU
			CH:XDS-I.b
			CH:ADR
Gazelle Webservice Tester	Conformance tester	1.7.4	CH:PPQ
			CH:XCA
			CH:XDS-I.b
			CH:XDS
			CH:ADR
			CH:ATC
CDAGenerator	Test data generator, interoperability validator	2.2.2	CH :CDA SCDO
Gazelle FHIR Validator	Interoperability validator	3.0.3	CH :ATC
Assertion Provider Simulator	Simulator/stub	1.2.0	CH:XUA
ADR Provider	Simulator/stub	1.3.6	CH:ADR
PPQ Repository	Simulator/stub	1.3.5	CH:PPQ
Metadata Update Responders = XDSMU	Simulator/stub	1.3.1	CH:RMU
			CH:XDSMU
ATC Patient Audit Record Repository	Simulator/stub	1.3.4	CH:ATC
XDS/XCA Simulator	Simulator/stub	1.0.2	CH:XDS CH:XCA
Authentication Simulator	Simulator/stub	0.1.2	CH:XUA

Tool name	Classification	CTS v1.6 - installed version	Tested profile
UPI Simulator	Simulator/stub	1.0.0	UPI / ech-0213 UPI / ech-0214

## 7.2 Execution test report summary (sample)

See following page.

# Swiss Interoperability Conformity Assessment

## Execution Test Report Summary

The [product and version] of the [Company] documented in this report is a component of the EPR platform of the community [Name, address] This product and version was tested according to the requirements developed in the Swiss Interoperability Conformity Assessment Scheme (SIAS) to demonstrate conformance with the specifications described in annex 2 section [XX] section [XX], annex 3 section [YY] and annex 5 section [ZZ] of the ordinance of FDHO; RS 816.111.

It demonstrates that the product is capable to contribute to the EPR platform of the community, according to normative specifications defined in EPRO-FDHO.

Testing consisted of observed demonstrations in a controlled environment under normal operating conditions and using approved test tools used by the ISO/IEC 17025 accredited test laboratory. Test efforts also included review of test tool results, self-attestation materials and, where applicable, interoperability testing files and audit logs. Testing was constrained by the requirements as specified in the latest version of the SIAS at the time of testing. Any exceptions to these requirements are noted within the execution test reports when applicable.

Report ID:

Test Session: [Dates]

Community: [Name] [Address]

Number of the component: [X]

Total Number of components tested for the community: [Z]

Company Name

Product Name

Version

## Integration Profiles/Actors Tested for Conformity Assessment

The [name of test laboratory] determined that

[product name] [version] provided for conformity assessment by

[company name] located at [address]

successfully demonstrated compliance to the integration profile(s)/actor(s) pairs required for the Swiss Conformity Assessment described in the SIAS [Date].

The system under test was made available for test on [Date]. Tests were executed from [Date] to [Date], [on-line] [on the premises of the test laboratory at [Address]].

Integration Profile	Actors and options	Reference Specifications	Test Results
<b>IHE Integration Profiles</b>			
IHE RMU Restricted Metadata Update Document Metadata Update	Name of the actor  No options	IHE IT Infrastructure Technical Framework Supplement  <ul style="list-style-type: none"> <li>Restricted Metadata Update; <a href="#">Revision 1.0 (2018-05-23)</a></li> </ul> Amendment 1 to Annex 5 of the EPDV-EDI <ul style="list-style-type: none"> <li><a href="#">Revision 15-07-2019</a></li> </ul>	Passed
<b>IHE Integration Profiles with extension</b>			
CH: ATNA Audit Trail and Node Authentication	No options	IHE IT Infrastructure Technical Framework  <ul style="list-style-type: none"> <li>Vol 1 – Section 9; <a href="#">Revision 15.0 (2018-07-24)</a></li> <li>Vol 2 ITI TF-2a; <a href="#">Revision 15.0 (2018-07-24)</a></li> </ul> Amendment 1 to Annex 5 of the EPDV-EDI <ul style="list-style-type: none"> <li><a href="#">Revision 15-07-2019</a></li> </ul> XSD Schemas <ul style="list-style-type: none"> <li><a href="#">Revision 2017-12-13</a></li> </ul>	Passed with comments
<b>CH Profiles</b>			
CH: ADR Authorization Decision request	No options	Amendment 2.1 to Annex 5 of the EPDV-EDI  <ul style="list-style-type: none"> <li><a href="#">Revision 15-07-2019</a></li> </ul> XSD Schemas <ul style="list-style-type: none"> <li><a href="#">Revision 15-07-2019</a></li> </ul>	Passed

### Additional Software required for testing

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

Software Products and Developer	Associated files/Actors	Integration	Pro-	Functionality Provided
None	-			-

[Name of the test laboratory] [N°Accreditation][Report ID]/

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# Report Summary

[Test Laboratory Name] an accredited ISO/IEC 17025 under contract [Reference] with FOPH has reviewed and confirms that [Product] [Version] successfully passed the test scripts identified in this report through attestation, observed demonstration, review of audit logs, and interoperability file validations. Testing was conducted using SIAS requirements testing processes based on ISO/IEC 17025. All tests results documented in this report including the mentioned exceptions, are considered formal test results. This test result summary is authorized by

-----  
Test laboratory Representative

-----  
Function/Title

-----  
Signature and Date

Information on the Accreditation Body  
(logo, other)

A detailed test report is kept by [Test Laboratory], the [Community Name] and the certification body and available upon requests to the [Company Name].

Please visit <https:// .....> for the most current version of the SIAS

---

About [Test laboratory]

Information on [Test Laboratory],

Name of the contact

Address

*Copyright*

---

[Name of the test laboratory] [N°Accreditation][Report ID]/

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## Appendix A – Testing Comments

This appendix documents or references any exceptions identified during the SIA.

Integration Profile	Actors and options	Test Case Comments	Test Tools
<b>IHE Integration Profiles</b>			
IHE CT Consistent Time	Time Client No option		No test tools

Additional software required for testing with exceptions:

Software Products and Developer	Associated files/Actors	Integration Pro-	Functionality Provided
None	-		-

[Name of the test laboratory] [N°Accreditation][Report ID]/

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### **7.3 Detailed test report (Template example)**

See following page.

## TEST EVENT – DATE

[COMPANY]

### Test Laboratory

Contact	
Email address	

### Tested Organization

Contact Name	
Address	
Email address	

### Tested System(s)

Name of the test session		
Product Name	Version	Owner
This test session was held from dd/mm/yyyy to dd/mm/yyyy		

### Report identification

This report has been generated on dd/mm/yyyy with identifier [name of test session].[COMPANY.Id].

### Disclaimer

This report summarizes the outcome of the testing performed by [COMPANY] during the [TEST SESSION], it includes information about success and failure and should only be used internally. This report does not certify the capabilities of any commercial product offered by [COMPANY].

### System: [SUT] (Version)

### Results per Integration Profile/Actor/Option

Results per integration profile/actor/option				
Integration Profile	Actor	Option	Type*	Result
		(None, option)	(T,S)	(Pass, Failed)
* T: Thorough/S: Supportive				

### Test instances summary

Test instances summary				
Tests	Performed	Passed	Failed	Partially verified
[nn]	[nn]	[nn]	[nn]	[nn]

Tests: Number of individual test cases run during the session.

Performed: Total number of test instances performed (This count does not take into account the aborted, still running and not verified test instances)

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This report shall not be reproduced, except in full, without the written permission of the FOPH.

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## 8. Changelog

### Version 0.8.2

- Transactions for UPI added (section 6.4.3.3 and 6.4.4.20)
- List of test tools added (section 7.1)
- Changelog added (section 8)
- Minor changes and corrections

### Edition 1.0

- Links to legislative texts updated (section 2.1)
- Responsibilities of certification body and test lab modified (section 5, 6)
- Links to specifications updated (section 6.4.3.1, 6.4.3.2, 6.4.3.3)
- Links to test case PDF per profile added (section 6.4.4)
- List of certification test system and test tools updated (section 7.1)

### Edition 1.1

- Link to amendment 2.3. appendix 5 of EPRO-FDHA updated to edition 3 of amendment 2.3. appendix 5 of EPRO-FDHA. (New endpoint for RMU was added.) (section 2.1)
- Links to XSD Schemas updated (section 6.4.3.2)
- Tables with test case descriptions updated and aligned to CTS 1.1 (section 6.4.4). Changes apply to:
  - o 6.4.4.1 ATNA – Audit trail and Node Authentication
  - o 6.4.4.3 HPD – Health Provider Directory
  - o 6.4.4.6 SVS – Sharing Value Set
  - o 6.4.4.10 XDS - Cross-Enterprise Document Sharing
  - o 6.4.4.11 XDS-I - Cross-Enterprise Document Sharing for Imaging
  - o 6.4.4.17 CH:PPQ - Privacy Policy Query
- Table with test tools updated (section 7.1)
- Minor changes and corrections

### Edition 1.2

- A more detailed definition was added to chapter 3 *Scope of the SIA*. Plus some depending changes were made in chapters 6.3 and 6.4.1.
- Tables with test case descriptions updated and aligned to CTS 1.2 (section 6.4.4). Changes apply to:
  - o 6.4.4.1 ATNA – Audit trail and Node Authentication
  - o 6.3.4.4 PDQv3 – Patient Identifier Cross-Referencing HL7v3
  - o 6.4.4.6 SVS – Sharing Value Set
  - o 6.4.4.7 XCA – Initiating Gateway Actor
  - o 6.4.4.10 XDS - Cross-Enterprise Document Sharing
  - o 6.4.4.11 XDS-I - Cross-Enterprise Document Sharing for Imaging
  - o 6.3.4.14 XUA – CrossEnterprise User Assertion
  - o 6.3.4.16 RMU – Restricted Metadata Update
  - o 6.4.4.17 CH:ADR – Authorization Decision Request

- 6.4.4.17 CH:PPQ - Privacy Policy Query
- Table with test tools updated (section 7.1)
- Minor changes and corrections

#### Edition 1.3

- Updating of references to legal texts and specifications to the state of legislation as of 15.04.2020 (chapters 2.1, 6.4.3.1, 6.4.3.2)
- Removal of transaction ITI-46 from chapter 6.4.3.1
- Table with test case descriptions for PIXv3 updated (chapter 6.4.4.5)
- Minor changes and corrections

#### Edition 1.4

- Table with test case descriptions for PIXv3 updated (chapter 6.4.4.5)
- Table with test case descriptions for XUA updated (chapter 6.4.4.13)
- Table with test case descriptions for CH:CPI updated (chapter 6.4.4.19)

#### Edition 1.5

- Updating of references to legal texts that were updated in April, 2021
- Additional paragraph in the chapter 2, scope of the SIA on the technical guidelines for SIA testing
- Requirements for the certification body in chapter 6.2 updated
- Requirements for the communities and reference communities in chapter 6.4 updated
- Tables 6.4.4.10 XDS - Cross-Enterprise Document Sharing and 6.4.4.12 XDS – Metadata Update merged
- Table with test case description for ATNA updated (chapter 6.4.4.1)
- Table with test case description for HPD updated (chapter 6.4.4.3)
- Table with test case description for PIXv3 updated (chapter 6.4.4.5)
- Table with test case description for XCA updated chapter 6.4.4.7)
- Table with test case description for XDS updated (chapter 6.4.4.10)
- Table with test case description for XDM updated (chapter 6.4.4.12)
- Table with test case description for XUA updated (chapter 6.4.4.13)
- Table with test case description for RMU updated (chapter 6.4.4.15)
- Table with test case description for CH:ATC updated (chapter 6.4.4.18)
- Table with test case description for CH:UPI updated (chapter 6.4.4.20)
- Certification Test System and Test Tools in Annex 7.1 updated

#### Edition 1.5.1

- 6.4.3.1 *IHE Integration Profiles* and Chapter 6.4.3.2 *National Integration Profiles*: Links to specifications in column *Reference Specifications* were updated.
- Certification Test System and Test Tools in Annex 7.1 updated based on new CTS version 1.5
- Correction of typos

#### Edition 1.6

- Table with test case description for CH:CPI updated (chapter 6.4.4.19)
- Table with test case description for CH:UPI updated (chapter 6.4.4.20)
- List of test tools updated with UPI simulator and new version of HPD simulator (section 7.1)

## Edition 1.6.1

- Updated versions and dates of test cases modified by patch 20220630 (section 6.4.4)
- Update of the Proxy version modified by patch 20220630 (section 7.1)