2010 &2011

eHealth Exchange Smoke Tests (Participant & Product Testing)

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2010 & 2011 Smoke
Tests (Participant & Product)

eHealth Exchange

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eHealth Exchange Testing Program Overview

The scope of the eHealth Exchange Testing program is limited to the Specifications; the information outlined in the Validation Plan and related Test Materials adopted by the Coordinating Committee, collectively called "Performance and Service Specifications".

Testing requirements may vary depending upon Specification version(s), as well as the profiles (i.e. use cases) that an Applicant or Participant wishes to support. The summary of test cases related to the Smoke Tests can be found below.

Changes to the profiles, Specifications, Validation Plan and Test Materials may be made in accordance with the applicable change processes described in the DURSA.

Profile	Description	Specifications	Summary of Test Cases	Test Method
Treatment	Transmitting clinical documentation to support treatment of an individual, care coordination or transitions of care	Messaging Platform Authorization Framework Patient Discovery Query for Documents	• Smoke tests (2010)	Run tests against Developers Integration Lab (DIL) Testing environment Results validated by the Sequoia Project
Authorized Release of Information	Transmit clinical documentation to the	Retrieve Documents		
(SSA)	Social Security Administration (SSA) for the purposes of supporting a claimant's eligibility for Social Security disability benefits	Messaging Platform Authorization Framework Patient Discovery Query for Documents Retrieve Documents	Smoke tests (2011) Security interoperability tests (2011)	Run tests against Developers Integration Lab (DIL) Testing environment Results validated by the Sequoia Project
		At least one of the following clinical document types Basic C32 Bridge C32 HL7 C-CDA v1.1 US Realm	Set up test data Generate sample Message	Run sample Message through the corresponding NIST validator tool Results validated by the Sequoia Project



- 2010 eHealth Exchange Specifications These initial production specifications are in limited use
 and the participants currently using the 2010 specification are migrating to support 2011
 specifications in preparation for their future sunset. The sunset date is yet to be determined.
 Organizations using a previously validated System under the prior onboarding program have the
 option of only conducting the below tests:
- 2011 eHealth Exchange Specifications These production specifications are currently in effect and are required for organizations that are not using a previously validated System under the prior onboarding program and use a System supporting the 2011 specifications.
 - o 6 Smoke Interoperability tests (2010 & 2011)
 - o 35 Required Security Tests (19 Participants & 35 Product 2011)

The following list represents the set of service sets, test scenarios and test cases that are ready and available for the eHealth Exchange Testing Programs

For more details: http://sequoiaproject.org/ehealth-exchange/testing-overview/testing-references-2/

These materials reflect the following:

- <u>Change Log</u> The Official eHealth Exchange Specifications page lists, near the top, the Official Technical Errata and Change Log. This is the single authoritative source for changes to the Testing program, or specifications.
- <u>Product Test Case Documentation</u> List of documents for the required and provisional eHealth Exchange Product Testing Program. Includes the applications required and listing of all product test cases, documentation, provisional tests, conformity assessment checklists, Testing data load set and documents, and a description of content tests.
- <u>Participant Testing Program Overview</u> A broad overview of the process, applications
 and documentation for the Participant Testing Program. List of all participant test cases,
 documentation, provisional tests, conformity assessment checklists, Testing data load
 sets and documents and a description of content tests for the current eHealth Exchange
 Participant Testing Program
- eHealth Exchange/AEGIS Developers Integration Lab (DIL) Guides



Smoke Tests Summary

The Smoke Tests Service Sets, Test Scenarios and Test Cases can be summarized as below for the Participant and Product Testing Programs:

2010 Service set	2010 Scenario	2010 Test Case	Participant	Product
SS: PRL-0000.0-2010	TS: PRL-I-0000.0-2010	TC: PD-I-0000.0-2010	X	Peer to Peer
SS: PRL-0000.0-2010	TS: PRL-I-0000.0-2010	TC: QD-I-0000.0-2010	X	Peer to Peer
SS: PRL-0000.0-2010	TS: PRL-I-0000.0-2010	TC: RD-I-0000.0-2010	X	Peer to Peer
SS: PRL-0000.0-2010	TS: PRL-R-0000.0-2010	TC: PD-R-0000.0-2010	X	Peer to Peer
SS: PRL-0000.0-2010	TS: PRL-R-0000.0-2010	TC: QD-R-0000.0-2010	X	Peer to Peer
SS: PRL-0000.0-2010	TS: PRL-R-0000.0-2010	TC: RD-R-0000.0-2010	X	Peer to Peer
2011 Service set	2011 Scenario	2011 Test Case	Participant	Product
SS: PRL-0000.0-2011	TS: PRL-I-0000.0-2011	TC: PD-I-0000.0-2011	X	Χ
SS: PRL-0000.0-2011	TS: PRL-I-0000.0-2011	TC: QD-I-0000.0-2011	Х	Χ
SS: PRL-0000.0-2011	TS: PRL-I-0000.0-2011	TC: RD-I-0000.0-2011	X	Χ
SS: PRL-0000.0-2011	TS: PRL-R-0000.0-2011	TC: PD-R-0000.0-2011	X	Χ
SS: PRL-0000.0-2011	TS: PRL-R-0000.0-2011	TC: QD-R-0000.0-2011	X	Χ
SS: PRL-0000.0-2011	TS: PRL-R-0000.0-2011	TC: RD-R-0000.0-2011	Х	Χ



eHealth Exchange 2010 & 2011 Smoke Tests Test Case Development Requirement Specification Test Case ID: TC: PD-I-0000.0 Title: Smoke Test: Send a basic PD Release Date: Version: 78 SUT Role: Initiator

Coverage Specifications

2011 Exchange:	True
2010 Exchange:	True
IHE Profile:	XCPD
Flow:	Basic Success
Optionality:	Required

Purpose/Description

System initiates PD Request to the Testing Tool with the required parameters. Testing Tool responds with a match.

Preconditions

Data Load Set

DS: PRL-2

Data Notes

P-00000002

Test Steps

1.The System sends an immediate PD Request to the Testing Tool with the following parameters, with values taken from patient P-000000002:



SOAP Header = MP: MA Default Request (SUT) Message Parameters LivingSubjectName LivingSubjectAdministrativeGender LivingSubjectBirthTime

2. **Expected Result:** The Testing Tool returns a PD Response with a match for patient P-000000002.

3. Verify conformance of the PD Request to the:

- CL: PD Initiator Request Checklist
- CL: MA SOAP Request Checklist
- 4. Verify the System generates an audit message and that it conforms to the:
 - CL: PD Initiator Audit Checklist

The user will extract the audit message and manually upload it to the test case in the DIL through the DIL's file attachment submission interface. The Systems that are capable of submitting ATNA-compliant logs should do so. Systems that create proprietary content formats should assemble and submit data from their logs that describe the above transactions. The user should only extract and submit the log information relevant to the transaction described in the test case, and to exclude audit data that may correspond to other, unrelated transactions.

2011 Exchange Specification	Patient Discovery v2.0
2011 Underlying Specification	IHE IT Infrastructure Cross-Community Patient Discovery (XCPD) ITI-55 (Version 2010-08-10) and IHE IT Infrastructure Technical Framework Vol.1 & 2a, 2x, 3 Revision 7.0 (2010-08-10)
2010 Exchange Specification	Patient Discovery v1.0
2010 Underlying Specification	IHE IT Infrastructure Cross-Community Patient Discovery (XCPD) ITI-55 – (Version 2009-08-10) and IHE IT Infrastructure Technical Framework Vol.1 & 2a, 2x, 3 Revision 6.0 (2009-08-10)

Change History	
Date	Author
December 10, 2014	Didi Davis



eHealth Exchange 2010 & 2011 Smoke Tests		
Test Case		
Development Requirement Specification		
Test Case ID:	TC: PD-R-0000.0	
Title:	Smoke Test: Respond to a basic PD	
Release Date:	Smoke Test	
Version:	55	
SUT Role:	Responder	

Coverage Specifications

2011 Exchange:	True
2010 Exchange:	True
IHE Profile:	XCPD
Flow:	Basic Success
Optionality:	Required

Purpose/Description

Testing Tool sends a PD Request to the System with the required elements. System responds with a match.

Preconditions

Data Load Set

DS: PRL-2

Data Notes

P-00000010

Test Steps

The Testing Tool sends an immediate PD Request to the System with the following parameters, with values taken from patient P-000000010:

SOAP Header = MP: MA Default Request (TestTool) Message Parameters LivingSubjectName



NOTE: LivingSubjectName: contains 2 given names with middle name in the second <given> element

LivingSubjectAdministrativeGender LivingSubjectBirthTime LivingSubjectId:

NOTE: Include SSN, use value taken from patient P-000000010

LivingSubjectBirthPlaceAddress MothersMaidenName PatientAddress PatientTelecom

- 2 **Expected Result:** The System returns a PD Response with a match for patient
- P-000000010.
- 3 Verify conformance of the PD Response to the:
 - CL: PD Responder Response Checklist
 - CL: MA SOAP Response Checklist
- 4 Verify the System generates an audit message and that it conforms to the:
 - CL: PD Responder Audit Checklist

The user will extract the audit message and manually upload it to the test case in the DIL through the DIL's file attachment submission interface. The Systems that are capable of submitting ATNA-compliant logs should do so. Systems that create proprietary content formats should assemble and submit data from their logs that describe the above transactions. The user should only extract and submit the log information relevant to the transaction described in the test case, and to exclude audit data that may correspond to other, unrelated transactions.

2011 Exchange Specification	Patient Discovery v2.0
2011 Underlying Specification	IHE IT Infrastructure Cross-Community Patient Discovery (XCPD) ITI-55 (Version 2010-08-10) and IHE IT Infrastructure Technical Framework Vol.1 & 2a, 2x, 3 (Revision 7.0 2010-08-10)
2010 Exchange Specification	Patient Discovery v1.0



2010 Underlying Specification	IHE IT Infrastructure Cross-Community Patient Discovery (XCPD) ITI-55 – (Version 2009-08-10) and
	IHE IT Infrastructure Technical Framework Vol.1 & 2a, 2x, 3 (Revision 6.0 2009-08-10)

Change History	
Date	Author
December 10, 2014	Didi Davis



eHealth Exchange 2010 & 2011 Smoke Tests Test Case Development Requirement Specification Test Case ID: TC: QD-I-0000.0 Title: Smoke Test: Send a basic QD Release Date: Version: 52 SUT Role: Initiator

Coverage Specifications

2011 Exchange:	True
2010 Exchange:	True
IHE Profile:	XCA
Flow:	Basic Success
Optionality:	Required

Purpose/Description

System initiates QD synchronous Find Documents request to the Testing Tool with the required parameters. Testing Tool responds with the matching documents metadata.

Preconditions

Data Load Set

DS: PRL-2

Data Notes

P-00000002

Test Steps

The System sends a synchronous Find Documents Request to the Testing Tool, using the following required parameters:

SOAP Header = MP: MA Default Request (SUT) Message Parameters

\$XDSDocumentEntryPatientID = [P-000000002 PID]

\$XDSDocumentEntryStatus = Approved OR Deprecated

\$XDSDocumentEntryType = [Stable OR On-Demand Documents] NOTE: Only send

\$XDSDocumentEntryType parameter for 2011



returnType = LeafClass SOAP request = synchronous returnComposedObjects = true

NOTE: Recommendation is to send both Stable OR On-Demand Documents as the \$XDSDocumentEntryType default for all queries.

2 **Expected Result:** The Testing Tool successfully processes the Request and returns a Response to the System that contains the following objects:

A 'Document Match' for D-000000002.1, D-000000002.16, D-000000002.17, and D-000000002.26 unless the Request only contains \$XDSDocumentEntryType = On-Demand Documents in which case the Testing Tool will not send a document in the Response

NOTE: The parameters that are part of the Request should be the minimum that's checked on the Response.

- 3 Verify conformance of the QD Request to the:
 - CL: QD Initiator Request Checklist
 - CL: QD Initiator FindDocuments Checklist
 - CL: MA SOAP Request Checklist
- 4 Verify the System generates an audit message and that it conforms to the:
 - CL: QD Initiator Audit Checklist

The user will extract the audit message and manually upload it to the test case in the DIL through the DIL's file attachment submission interface. The Systems that are capable of submitting ATNA-compliant logs should do so. Systems that create proprietary content formats should assemble and submit data from their logs that describe the above transactions. The user should only extract and submit the log information relevant to the transaction described in the test case, and to exclude audit data that may correspond to other, unrelated transactions.

2011 Exchange Specification	Query for Documents v3.0
2011 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2010-08-10) IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 7.0 – 2010-08-10)
2010 Exchange Specification	Query for Documents v2.0
2010 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2009-8-10)



IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 6.0 – 2009-08-10)

Change History	
Date	Author
December 10, 2014	Didi Davis



eHealth Exchange 2010 & 2011 Smoke Tests Test Case Development Requirement Specification	
Test Case ID:	TC: QD-R-0000.0
Title:	Smoke Test: Respond to a basic QD
Release Date:	Smoke Test
Version:	60
SUT Role:	Responder

Coverage Specifications

2011 Exchange:	True
2010 Exchange:	True
IHE Profile:	XCA
Flow:	Basic Success
Optionality:	Required

Purpose/Description

Testing Tool initiates QD synchronous Find Documents request to the System with the required parameters. System responds with the matching documents metadata.

Preconditions

Data Load Set

DS: PRL-2

Data Notes

P-00000010

If the SUT is testing as an On-Demand system, the SUT should pre-create document D-000000010.1 from document D-000000010.27. After the document has been created, no data should change.

Test Steps

1 The Testing Tool sends a synchronous Find Documents Request to the System, using the following required parameters:

SOAP Header = MP: MA Default Request (TestTool) Message Parameters

\$XDSDocumentEntryPatientID = [P-000000010 PID]

\$XDSDocumentEntryStatus = Approved OR Deprecated OR DeferredCreation NOTE: Only send DeferredCreation for 2010

\$XDSDocumentEntryType = [Stable OR On-Demand Documents] NOTE: Only send \$XDSDocumentEntryType parameter for 2011

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returnType = LeafClass SOAP request = synchronous returnComposedObjects = true

Expected Result: The System successfully processes the Request and returns a Response to the Testing Tool that contains the following objects:

2011 ONLY:

One Stable document with:

-A 'DocumentMatch' of either: XDSDocumentEntry.uniqueId = D-000000010.1 OR (XDSDocumentEntry.patientID = [P-000000010 PID] AND XDSDocumentEntry.authorPerson = [value from D-000000010.1])

-A match on: XDSDocumentEntry.status = [value from D-00000010.1]

-A match on: XDSDocument.objectType = [value from D-00000010.1]

If the SUT is testing as an On-Demand system, they would send one On-Demand document with:

-A 'DocumentMatch' of either: XDSDocumentEntry.uniqueId = D-000000010.27 OR (XDSDocumentEntry.patientID = [P-000000010 PID] AND XDSDocumentEntry.authorPerson = [value from D-000000010.27])

-A match on: XDSDocumentEntry.status = [value from D-000000010.27]

-A match on: XDSDocument.objectType = [value from D-000000010.27]

NOTE: The creationTime, hash, and size SHALL not be included in the Response. The legalAuthenticator SHOULD not be included in the Response.

2010 ONLY:

If the SUT is testing as a Stable system, they would send one Stable document with:

-A 'DocumentMatch' of either: XDSDocumentEntry.uniqueId = D-000000010.1 OR (XDSDocumentEntry.patientID = [P-000000010 PID] AND XDSDocumentEntry.authorPerson = [value from D-000000010.1])

-A match on: XDSDocumentEntry.status = [value from D-000000010.1]

-A match on: XDSDocument.objectType = [value from D-000000010.1]

Otherwise, if the SUT is testing as a DeferredCreation system, they would send one DeferredCreation document with:

-A 'DocumentMatch' of either: XDSDocumentEntry.uniqueId = D-000000010.3 OR (XDSDocumentEntry.patientID = [P-000000010 PID] AND XDSDocumentEntry.authorPerson = [value from D-000000010.3])

- 3 Verify conformance of the QD Response to the:
 - CL: QD Responder Response Checklist
 - CL: MA SOAP Response Checklist
- 4 Verify the System generates an audit message and that it conforms to the:

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CL: QD Responder Audit Checklist

The user will extract the audit message and manually upload it to the test case in the DIL through the DIL's file attachment submission interface. The Systems that are capable of submitting ATNA-compliant logs should do so. Systems that create proprietary content formats should assemble and submit data from their logs that describe the above transactions. The user should only extract and submit the log information relevant to the transaction described in the test case, and to exclude audit data that may correspond to other, unrelated transactions.

2011 Exchange Specification	Query for Documents v3.0
2011 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2010-08-10) IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 7.0 – 2010-08-10)
2010 Exchange Specification	Query for Documents v2.0
2010 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2009-8-10) IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 6.0 – 2009-08-10)

Change History	
Date	Author
December 10, 2014	Didi Davis



eHealth Exchange 2010 & 2011 Smoke Tests Test Case Development Requirement Specification Test Case ID: TC: RD-I-0000.0 Title: Smoke Test: Send a basic RD Release Date: Version: 32 SUT Role: Initiator

Coverage Specifications

2011 Exchange:	True
2010 Exchange:	True
IHE Profile:	XCA
Flow:	Basic Success
Optionality:	Required

Purpose/Description

System initiates a synchronous Retrieve Documents request for one document to the Testing Tool. Testing Tool responds with the requested document.

Preconditions

Data Load Set

DS: PRL-2

Data Notes

P-000000002

Test Steps

- 1 The System transmits to the Testing Tool a synchronous Retrieve Documents request for one
- . document using the following required parameters:

SOAP Header = MP: MA Default Request (SUT) Message Parameters

RepositoryUniqueId: [Repository ID for D-000000002.1] DocumentUniqueId: [Document ID for D-000000002.1]

homeCommunityId: [HCID for the Testing Tool]



2 Expected Result: The Testing Tool returns to the System an RD Response containing the requested

. document:

RegistryResponse/@status:Success

DocumentResponse: 1 present, contains document D-000000002.1

3 Verify conformance of the RD Request to the:

CL: RD Initiator Request Checklist

CL: MA SOAP Request Checklist

4 Verify the System generates an audit message and that it conforms to the:

CL: RD Initiator Audit Checklist

The user will extract the audit message and manually upload it to the test case in the DIL through the DIL's file attachment submission interface. The Systems that are capable of submitting ATNA-compliant logs should do so. Systems that create proprietary content formats should assemble and submit data from their logs that describe the above transactions. The user should only extract and submit the log information relevant to the transaction described in the test case, and to exclude audit data that may correspond to other, unrelated transactions.

2011 Exchange Specification	Retrieve Documents v3.0
2011 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2010-08-10) IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 7.0 – 2010-08-10)
2010 Exchange Specification	Retrieve Documents v2.0
2010 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2009-8-10) IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 6.0 – 2009-08-10)

Change History	
Date	Author
December 10, 2014	Didi Davis



eHealth Exchange 2010 & 2011 Smoke Tests Test Case Development Requirement Specification Test Case ID: TC: RD-R-0000.0 Title: Smoke Test: Respond to basic RD Release Date: Version: 42 SUT Role: Responder

Coverage Specifications

2011 Exchange:	True
2010 Exchange:	True
IHE Profile:	XCA
Flow:	Basic Success
Optionality:	Required

Purpose/Description

Testing Tool initiates a synchronous Retrieve Documents request for two documents to the System. System responds with the requested documents.

Preconditions

Data Load Set

DS: PRL-2

Data Notes

P-00000010

Test Steps

- 1 The Testing Tool transmits to the System a synchronous Retrieve Documents request for one
- . document using the following required parameters:

2011 ONLY:

SOAP Header = MP: MA Default Request (TestTool) Message Parameters

RepositoryUniqueId: [Repository ID for D-00000010.1] DocumentUniqueId: [Document ID for D-000000010.1]

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homeCommunityId: [HCID for the System]

If the SUT is testing as an On-Demand system, the following On-Demand document would also need to be retrieved:

SOAP Header = MP: MA Default Request (TestTool) Message Parameters

RepositoryUniqueId: [Repository ID for the System] RepositoryUniqueId: [Repository ID for D-00000010.27] DocumentUniqueld: [Document ID for D-00000010.27]

homeCommunityId: [HCID for the System]

2010 ONLY:

If the SUT is testing as a Stable system, the following Stable document would need to be retrieved:

SOAP Header = MP: MA Default Request (TestTool) Message Parameters

RepositoryUniqueId: [Repository ID for D-000000010.1] DocumentUniqueId: [Document ID for D-00000010.1]

homeCommunityId: [HCID for the System]

Otherwise, if the SUT is testing as a DeferredCreation system, the following DeferredCreation document would need to be retrieved:

SOAP Header = MP: MA Default Request (TestTool) Message Parameters

RepositoryUniqueId: [Repository ID for the System] RepositoryUniqueId: [Repository ID for D-000000010.3] DocumentUniqueId: [Document ID for D-000000010.3]

homeCommunityId: [HCID for the System]

Expected Result: The System returns to the Testing Tool an RD Response containing the requested document:

2011 ONLY:

RegistryResponse/@status:Success

DocumentResponse: 2 present, contains document D-000000010.1 and D-000000010.27

RepositoryUniqueId: [Repository ID for D-000000010.1] DocumentUniqueId: [Document ID for D-00000010.1]

homeCommunityId: [HCID for the System]

If the SUT is testing as an On-Demand system, the following On-Demand document would be in the Response:

RepositoryUniqueId: [Repository ID for D-00000010.27] DocumentUniqueId: [Document ID for D-00000010.27]

homeCommunityId: [HCID for the System]

-Attribute NewRepositoryUniqueId should be present -Attribute NewDocumentUniqueId should be present

2010 ONLY:

If the SUT is testing as a Stable system, the following Stable document would be in the Response:

RegistryResponse/@status:Success

DocumentResponse: 2 present, contains document D-00000010.1 and D-00000010.27

RepositoryUniqueId: [Repository ID for D-00000010.1] DocumentUniqueId: [Document ID for D-000000010.1]

homeCommunityId: [HCID for the System]

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If the SUT is testing as a DeferredCreation system, the following DeferredCreation document would be in the Response:

RepositoryUniqueId: [Repository ID for D-000000010.3] DocumentUniqueId: [Document ID for D-000000010.3]

homeCommunityId: [HCID for the System]

- -Attribute NewRepositoryUniqueId should be present
- -Attribute NewDocumentUniqueId should be present
- 3 Verify conformance of the RD Response to the:
 - CL: RD Responder Response Checklist
 - CL: MA SOAP Response Checklist
- 4 Verify the System generates an audit message and that it conforms to the:
 - CL: RD Responder Audit Checklist

The user will extract the audit message and manually upload it to the test case in the DIL through the DIL's file attachment submission interface. The Systems that are capable of submitting ATNA-compliant logs should do so. Systems that create proprietary content formats should assemble and submit data from their logs that describe the above transactions. The user should only extract and submit the log information relevant to the transaction described in the test case, and to exclude audit data that may correspond to other, unrelated transactions.

2011 Exchange Specification	Retrieve Documents v3.0
2011 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2010-08-10) IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 7.0 – 2010-08-10)
2010 Exchange Specification	Retrieve Documents v2.0
2010 Underlying Specification	IHE IT Infrastructure Technical Framework Supplement XCA (Version 2009-8-10) IHE IT Infrastructure Technical Framework Vol. 1 & 2a, 2b, 2x, 3 (Revision 6.0 – 2009-08-10)

Change History	
Date	Author
December 10, 2014	Didi Davis