

ONC TEFCA RECOGNIZED COORDINATING ENTITY

Sequoia Interoperability Testing Platform (ITP) User Guide

TABLE OF CONTENTS

1	Intro	itroduction						
	1.1	Purpose of Document	.3					
	1.2	Prerequisites – Getting Started	.4					
	1.2.2	L Applying to the Sequoia RCE QHIN Testing Program	. 4					
	1.2.2	2 Activating User Accounts	. 4					
	1.2.3	3 Password Resets	. 5					
2	ΡΑΤ	IENT DISCOVERY TOOLS	.6					
	2.1	As an Initiating Gateway	.6					
	2.2	As a Responding Gateway	.8					
3	XDS	Tools	10					
	3.1	XDS Toolkit Test Session Setup	10					
	3.2	Running the Tests	13					
4	Gazo	elle Security Suite	15					
5	Finis	shing Up	18					



1 INTRODUCTION

1.1 Purpose of Document

This document describes how to use the Sequoia Interoperability Testing Platform (ITP) tools and run the test cases for the Recognized Coordinating Entity (RCE)/Qualified Health Information Network (QHIN) Testing program. This is limited to the <u>QHIN Technical Framework (QTF) Version</u> <u>1 Specification</u>; the information outlined in the Common Agreement and related test materials adopted by the RCE, collectively called "Standard Operating Procedures".

Changes to the base standards, Specifications, and Test Materials may be made in accordance with the applicable version of the QTF as described in the <u>Trusted Exchange Framework and</u> <u>Common Agreement (TEFCA)</u>.

The Sequoia Project QHIN Testing Program verifies that a System both complies with the QTF specifications and has the ability to interoperate with other QHIN Networks. The Sequoia Project QHIN Testing program supports the following:

- Applicants who wish to onboard as a QHIN;
- Existing QHINs who wish to test new technology or retest as a condition of continued participation in the TEFCA; and
- Vendors who wish to have their product(s) validated as QHIN compliant.



1.2 Prerequisites – Getting Started

1.2.1 Applying to the Sequoia RCE QHIN Testing Program

To begin the testing process you will be required to fill out the QHIN Application form. Once your application has been approved, your organization will be referred to testing and users will be provisioned to the tooling. The Sequoia Project testing team will schedule a testing kick off call to orient your users on how to navigate the tooling components to complete testing.

If additional users need to be added, please send their name, email, and phone number to <u>testing@seqouiaproject.org</u>.



DO NOT USE THE "CREATE AN ACCOUNT" FEATURE TO ADD NEW USERS!

1.2.2 Activating User Accounts

Sequoia staff will create your organization's accounts and send activation emails to new users. Their user ID will be contained in the email. New Users must validate their email address by clicking the link in the activation email.



1.2.3 Password Resets

Passwords can be reset by clicking the "Forgot your password?" link on the login page.

Username:	
lbright	
Password:	
•••••	
Remember M	le
	LOGIN
O Create an acc	ount
? Forgot your pa	assword?
Eorgot your p	resword?
	assword:
For security reas web browser wh	sons, please log out and exit your en you are done accessing service

An email will be sent to the users registered email address from <u>testing@sequoiaproject.org</u> with the subject "Gazelle-Password assistance". Click on the link in the email to complete the password reset process.

The following browsers are supported for use of Gazelle:

- Firefox
- Chrome
- Safari



2 PATIENT DISCOVERY TOOLS

Patient Discovery tests are done using a tool called the Patient Manager, which can be accessed by going to <u>https://validation.sequoiaproject.org/</u> and selecting the Patient Manager link.

		Sequoia Interoperability Testing Platform (ITP) A joint collaboration between IHE International, IHE Services, and NIST		
	Version	Description		
×	5.9.0	The Gazelle Test Management Test Bed		
×	4.1.0	Assertion coverage management		
×	4.1.0	Generate fake data demographics for testing purpose		
×	2.1.0	Value set repository simulator		
	Version	Description		
×	5.5.0	External Validation tool services		
×	3.4.1	Offers web services to validate HL7v2.x and HL7v3 messages exchanged in the context of IHE		
×	9.10.5	Tool for testing PD transaction		
×	5.7.1	PKI, TLS Simulators, syslog, and ATNA Questionnaire		
×	4.3.4.1	XDS Tools 4 configured for RSNA Image Share		
×	6.4.0-SNAPSHOT	Access to XDS Tool 4 dedicated test environment		
×	1.1.1	Security Token Service used to issue and validate SAML Assertions		
×	1.2.1	Gazelle Webservice Tester		
	Version	Description		
		SSO login		
		Nagios monitoring of services		
	A A A A A A A A A A	Version 59.0 4.1.0 4.1.0 5.5.0 5.5.0 3.4.1 9.10.5 5.7.1 4.3.4.1 6.4.0-SNAPSHOT 1.1.1 1.2.1 Version		

2.1 As an Initiating Gateway

To run Patient Discovery tests as an Initiating Gateway, configure your system to point to the Patient Manager Responding Gateway endpoint and use your system to send a PD message to the Patient Manager tool. The endpoint information can be found under the menu option XCPD -> Responding Gateway.



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Patient	Manager						
XCPD 👻					HL7 messages		
XCF	PD Re	spond	ing Gatewa	ау			
XCPD	Responding	g Gateway					
) IT_GATEWA (SUT) OSS Gatew PRPA PRPA PRPA PRPA PRPA PRPA	ACPD Response Y RE ay Patient Di RE (IN201305UV0 RE ay Patient Di RE Some delay Some delay PA_IN201306U IN00002U/VC	nding Gateway SP_GATEWAY tientManager)	ode)	XCF Pridip ejb/F Recc 1.3.6 Hom 1.3.6 S S	PD Responding Gateway point :://validation.sequoiaproject.org:14/ RespondingGateway_Service/Resp eiver device.id root OID 1.4.1.12559.11.24.4.1.16 eiver organization OID 5.1.4.1.12559.11.24.4.1.12 te Community ID 5.1.4.1.12559.11.24.4.12	430/PAMSimulator- ondingGateway_PortType?wsd

Send a Patient Discovery Message with the Patient Demographics required in the test to the Gateway. The Gateway will respond with information about the matching patient. You can find the results of the test under the HL7 Messages link at the top of the screen. Click on the magnifying glass icon to see the messages.

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			ectathon HL7 messages	alue Sets					
essages bro	wser								
oarah Critaria									
earch Chtena									0
Domain	Show All		× Simulated Act	Show All	*	×	Transaction	Show All	* ×
Initiator role S	Show All *		× Responder rol	e Show All	- ×				
Initiator	Show All	v	× Responder	Show All	×	×			
Timestamp	Any	~ ×							
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administrator has restricted i ssages nestamp 💌	the access to the r	nessages. You are on Transaction	ly seeing the messages sent by	anonymous users. Responder	Request			Response	Action
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2.2 As a Responding Gateway

The test data can be found on the RCE website here.

Go to the SUT Configurations and make sure that your system has been set up as a known HL7v3 Responder and that the endpoint is correct. If the information is not correct, contact your Test Manager for assistance.

Patient Manager		
XCPD + XUA + All patients SUT Configurations +	Connectation + HL7 messages Value Sets	
HL7v3 Responders		
Search Criteria		
	Usage Show All	
Systems under test		
Name +	System name 🔺	Endpoint
ef Epic	Epc	https://epen-ic.epic.com/interconnect-ce-2015/wc1/epic.community.hie/xcpdrespondinggatewaysync.svc
SIMULATOR - PDQV3 Supplier	Patient Manager - PDQV3 Supplier	http://localhost.8080/PAMSimulator-ejb/PDQSuppler_Service/PDQSuppler_PortType?wsdl
SIMULATOR - PIXV3 Manager	Patient Manager - POXV3 Manager	http://localhost.8080/PAMSimulator.ejb/P00Manager_Service/P00Manager_PortTyper/wsd

Go to the XCPD Initiating Gateway menu and select [ITI-55] Cross-Gateway Patient Discovery.

Patient Manager									
XCPD -	XUA - All patients SUT Configurations - Connectathon - HL7 messages Value Sets								
Initiating (eway [ITI-55] Cross Gateway Patient Discovery								
Respondi	Gateway Configuration and Deterred queries								
XCPD	tiating Gateway								
Simu	tor								
Name	Configuration								
simu	device id.root OID								
1.3.6	4.1.12559.11.24.4.1.15								
Orga	ation OID								
136	4 1 12559 11 24 4 1 12								

Select your system from the System under test list and then select the Pre-defined query for the test you are running. The Patient Manager will populate the patient demographics needed. Click "Send Message" to run the test and send the message to your System.



XCPD Initiating Gateway

Simulator	VCDD Initiating Gateway	
Name Simulator Configuration sender device id.root OID 1.3.6.1.4.1.12559.11.24.4.1.15 Organization OID	(Patient Manager) Cross Gateway Patient Discovery (ITI-55) PRPA_IN201305UV02	System Under Test (SUT) Name SIMULATOR - Gazelle.ihe.net URL https://gazelle.ihe.net/PAMSimulator. ejbiRespondingGateway_Service/RespondingGateway_PortType?wsdl
1.3.6.1.4.1.12609.11.2444.112 Home Community ID 1.3.6.1.4.1.12559.11.24.4.12	PRPA_IN201306U/02 Cross Gateway Patient Discovery (Deferred mode) PRPA_IN201305U/02 MCCL_IN000002U/01 Some delay PRPA_IN201306U/02 MCCL_IN000002U/01	1.2.3 Organization OID 1.2.3
System under test SIMPLATOR - I Pre-defined query Please select Please select	Gazelle.he.net	, v
Deferred response mode PD-R-0016.0 Deferred response mode Use XUA ? PD-R-0016.0 PD-R-0016.0 PD-R-0016.0 PD-R-0016.0 PD-R-0010.0 PD-R-		
Demographic information PD-R-0021.0 PD-R-0022.0 PD-R-0022.0 PD-R-0022.0 PD-R-0022.0 PD-R-0022.0		
PD-R-0030.0 PD-R-0033.0		

The system will display the test results, including the message sent, and the response.

Oper63.Com X Hweld order: X NHN Asher: X +		+ - a ×
Patient Manager		
XCPD - XUA - All patient	nts SUT Configurations - Connectation - HL7 messages Value Sets	CAS Login
Transaction in	nstance details (#18537)	
Metadata		
Timestamp: 8/13/20 11:47:52 PI Simulated actor: Initiating Gates Domain: IT-Infraschructure Transaction: ITI-55 Initiator: PatientManager (Initiat Responder: BSCC (Responding Permanent link: https://validatio Permanent link to test report: I	PM (CEST GMT+0200) eway tiling Gateway) ig Gateway) on sequulaproject.org/PatientManager/messages/messageDisplay.seam?id=18537 :https://validation.sequulaproject.org/PatientManager/rest/Get/Report?id=18537	
Request: PRPA_IN201305UV02	2 Response: PRPA_IN201306UV02	
Message metadata		
Message ID	1.3.6.1.4.1.12559.11.24.4.1.17.1:7568	
⊕ ×ML		
xml version="1.0" encodil<br <prpa_in201305uv02 itsve<br=""><id extension="7568" root<="" td=""><td>ling="UTF8" standalone="yes"?> Arsion="XML_1.0" xmlns="um.hl7-org.v3"> =="1.3.6.1.4.1.12559.11.24.4.1.7.1"></td><td></td></id></prpa_in201305uv02>	ling="UTF8" standalone="yes"?> Arsion="XML_1.0" xmlns="um.hl7-org.v3"> =="1.3.6.1.4.1.12559.11.24.4.1.7.1">	
Constant lime vetue="10:00	About Contact us Issue Tracker Copyright 2020 IHE International	English ~
Re_00045,1198-54zi ^ □ hultestuni	Representation of the second s	Show all X



3 XDS TOOLS

Query for Documents and Retrieve Documents Tests are done using the XDS Toolkit which can be found by going to <u>https://validation.sequoiaproject.org</u> and selecting the "QD and RD Testing" link.

NOTE: Do not select the XDS Toolkit link. This goes to a version of XDS Toolkit that is set up for Imaging testing.

lOla roject			Sequoia Interoperability lesting Platform (IIP) A joint collaboration between IHE International, IHE Services, and NIST			
Access tools						
Support Tools		Version	Description			
Gazelle Test Management	Þ	5.9.0	The Gazelle Test Management Test Bed			
Assertion Manager Gui	Þ	4.1.0	Assertion coverage management			
Demographic Data Server	×	4.1.0	Generate fake data demographics for testing purpose			
Sharing Value Set Simulator	Þ	2.1.0	Value set repository simulator			
Test tools		Version	Description			
EVS Client	×	5.5.0	External Validation tool services			
Gazelle HL7 Validator	Þ	3.4.1	Offers web services to validate HL7v2.x and HL7v3 messages exchanged in the context of IHE			
PatientManager	Þ	9.10.5	Tool for testing PD transaction			
Gazelle Security Suite	×	5.7.1	PKI, TLS Simulators, syslog, and ATNA Questionnaire			
XDD Toomin	×	4.3.4.1	XDS Tools 4 configured for RSNA Image Share			
QD and RD testing	Þ	6.4.0-SNAPSHOT	Access to XDS Tool 4 dedicated test environment			
Garalle STO	×	1.1.1	Security Token Service used to issue and validate SAML Assertions			
Gazelle Webservice Tester	×	1.2.1	Gazelle Webservice Tester			
Utilities		Version	Description			
CAS login			SSO login			
Naglos Monitoring			Nagios monitoring of services			

3.1 XDS Toolkit Test Session Setup

Your Sequoia Project Test Manager will create a Test Session for you. The Test Session ID will be assigned by your Test Manager. Select your test session by typing the name in the text box at the top of the screen.



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Toolkit	Environment: Sequola Test Session Session	Cliot Add Delete Test pilot Delete Change Exit Create Add Add Add Add Add Add Add Add Add Ad
Iome foolkit configurations system Configurations vanage Patient IDs simulators vew Simulator Logs Ducries & Retrieves TindDocuments Find Documents (All Parameters)	X Home XDS Toolkit Last Published: 2018-09-05 Version: 6.5 Toolkit System Requirements System Components Download Release forms	7794c 0aa23d 218736 default ef2x72 22b4ebb 803070 98317 JIKit connect 163023
Indocuments PPC-FindOcuments 3etDocuments 3etRelated indFolders 3etFolderAndContents 3etGubristonSetAndContents 3etAll RetrieveDocuments RetrieveImagingDocumentSet	HowTo Tools License Lissue fur tracker Save fur tracker On-line Documentation But trying Built Built Built	Sector Se
FHIR Search Submit	Seno Som	I a V2 Patient Identity Feed message

Your Sequoia Project Test Manager will create all the systems and simulators you will need. Select the system you want to test by clicking the blue Test Context button on the right and selecting the system from the list.

« Toolkit	Environment: Sequoia Test pil Session:	ot • Add Delete Test Session:	pilot Delete	Change Exit Create New Signed-
Toolkit Home Toolkit configuration System Configurations Manage Patient IDs Simulators New Simulator Logs Ducries & Retrieves Find Documents Find Documents (All Parameters) FindDocuments ByRefld MPQ-FindDocuments GetDocuments GetDocuments GetFolders Get	Codes Codes X Hone X Conffests Session: Coverview Actor to test Tests are organized as: Actor Profile Option. Initiating Gateway XDS Smoke Provisional ACP Legend: Not Run Successes Failures	Add Labele Testion Selection of codes and certificates Environment: Sequoia A Test Session holds the test results for a single system under test. Test Session holds the test results for a single system under Equipart Contains results for systems: Equipart Contains results for sy	- e ests	Change Exit Create are signed.
Conformance Tests				

Select "Conformance Tests from the menu on the right. This will bring up the list of actors and options available for testing. Select the actor and option you want to test by clicking on the actor name or Option Name. Smoke tests are the required tests. Provisional tests are optional.



« Toolkit	Environment: Sequoia Test pilot Codes	Add [Delete Test pilot Session:	Delete	Change E	Kit Create You New are signed-
Home Toolkit configuration	X Home X ConfTests					
System Configurations Manage Patient IDs Simulators New Simulator Logs		Confo	rmance Tests	5		
Queries & Retrieves	Overview Actor to test Tests are organized as: Actor Profile Option, Select th	e ontion vou are interested in			CAbout this Tool	Test Context Environment: Sequoia TestSession: pilot SUT:
Find Documents (All Parameters) FindDocumentsByRefld MPQ-FindDocuments GetDocuments	 Initiating Gateway 	Responding Gateway				Testing_Harness_Tar
GetRelated FindFolders GetFolders GetFolderAndContents	Smoke Provisional	Smoke Provisional				
GetSubmissionSetAndContents GetAll RetrieveDocuments RetrieveImagingDocumentSet	ACP	ACP				
Submit	Legend: Not Run Successes Failures					
XDS Provide & Register XDR Provide & Register Submit Resource						
Other Tools Repository Listing						
Testing						
Conformance Tests						

Make sure the endpoints listed under System Under Test Configuration are correct. If you are doing the tests with TLS, make sure the SAML and TLS boxes are checked. You do not need to initialize the testing environment.

x Toolkit Home	Environment: Sequola • Text pilot • Add Delete Test pilot Delete Colange E Codes Session: X Home C Conflexis	xit Create New You are signed-
System Configurations Manage Patient IDs Simulators New Simulator Logs	Conformance Tests	Tast Contast
Queries & Retrieves FindDocuments Find Documents (All	Active Control	Environment: Sequoia TestSession: pilot SUT:
Parameters) FindDocumentsByRefld MPQ-FindDocuments GetDocuments GetRelated	Profile	(esuig_namess_tai)
FindFolders GetFolders GetFolderAndContents GetSubmissionSetAndContents GetAll	Smoke Provisional ACP Testing Environment	
RetrieveDocuments RetrieveImagingDocumentSet FHIR Search Submit	The system under test is a Responding Gateway. For the testing to be Milly automated by this tool one of the following configurations must be supported by your implementation. • Expected Responding Gateway, For the testing to be Milly automated by this tool one of the following configurations for the supported by your implementation. • Expected Responding Gateway, For the Responding Cateway, Forderson (Section 1997), and the section of	
XDS Register XDS Provide & Register XDR Provide & Register Submit Resource	these actors. If your Responding Gateway does not meet the above requirement it must be initialized manually. See here for details. When the test is un a Cross Gateway Query or Retrieve transaction will be sent to the Responding Gateway selected in the Test Context (located to the right). This will start the	
Other Tools Repository Listing Connectation Tools	en. Derer furming alles, men sue your responsing userway is compared to onward respension in a document responsion and document registery above. # Exposed Registry/Repository Channel Registry/Repository Dis Potent Uniter Same Workth Same Month Same	
Testing Conformance Tests	Poster-Industry includes all supporting simulators and Patient IDs and recreate them. Poster-Industry includes all supporting simulators and Patient IDs and recreate them. PostANL	
(VF TLS	
c	Initialization Complete System Under Test Configuration	
	Testing_Harness_tango_CONNECT (System Configuration)	
	Endpoints and IDs Secure Nk Provide and Secure Nk	
	Register https://30.1/3.34.106/8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery	
	Register https://35.173.34.106/8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery	
	XCPD Query https://35.173.34.106:8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery Cross-Community	
	Ouery nttps://do.17.3.34.10e/s181/Gateway/DocumentOuery/2_0NhinServiceRespondingGateway_Query_ServiceDocQuery http://64.23.247.108.13000/xdsl Cross-Community https://35.173.34.106.8181/Gateway/DocumentRetrieve3_0NhinServiceRespondingGateway_Retrieve_ServiceDocRetrieve Retrieve	
	homa@ommunitul/200.251.180.228.0.3	1



3.2 Running the Tests

Scroll down to the bottom of the page to see the test list. You can click on the arrow beside the Test Group name to run all of the tests in the group, or you can click on the individual tests to run just that one.

		Conformance	Tests	
& Retrieves ments (All 3) mentsByRefid Documents tents	Initialization Complete System Under Test Conf Epic [System Configuration]	iguration		 Test Conte: Environme Sequola TestSessio SUT: Epic
d rs	Endpoints and IDs	Secure	Non-secure	
8 AndContents	XDR Provide and Register	https://open-ic.epic.com:4437/interconnect-CE- 2015/sc/facio.committe bio/researchingatives	http://open-ic.epic.com/interconnect-ce-	
ssionSetAndContents	Provide and Register	2015/wc/epic.community.herespondinggateway.svc https://open-ic.epic.com.4437/Interconnect-CE- 2015/wc/epic.community.hie/respondinggateway.svc	20 Torwchepic.community.nie/respondinggateway.svc	
ocuments hagingDocumentSet rch	Cross-Community Retrieve	https://open-ic.epic.com:4437/Interconnect-CE- 2015/wc/epic.community.hie/respondinggateway.svc/intom https://open.ic.opic.com/A37/Interconnect_CE		
	Cross-Community Query	2015/wc/epic.community.hie/respondinggateway.svc https://open-ic.epic.com/4437/interconnect-ce-		-
ster	ACPD query	2015/wcf/epic.community.hie/xcpdrespondinggatewaysync.svc		
de & Register	(1.2.840.114350.1.13.16.1.7.3.688884	100)		
de & Register source	homeCommunityId	1.2.840.114350.1.13.16.1.7.3.688884.100		
Listing	Supporting Environment	t Configuration		
non loois	Utilities run to initialize environment			
nce Tests	Test: 15823 - Send Pati	ent Identity Feed 20:25 Aug 23, 2018 🕑	•	
	Test: 12318 - Respondi	ng Gateway test data 20 25 Aug 23, 2018 🕑 TLS	•	
	Patient IDs			
	Patient ID P0823194439.34464.0	611113101816 65 10001150		1
<	Responding Gate	way - Smoke Tests 🕑 🔿	団)
	Taste (2			
	Tests: 2 Successes: 0			
	Tests: 2 Successes: 0 Failures: 0			L

For Responding Gateway tests, the running test will send messages to your system and wait for a response. Tests that have passed will turn blue, failed test will be red.

DS Provide & Register	(1.2.840.114350.1.13.16.1.7.3)	388884.100)	
DR Provide & Register ubmit Resource	homeCommunityId	1.2.840.114350.1.13.16.1.7.3.688884.100	
ther Tools	Supporting Environ	ment Configuration	
epository Listing onnectathon Tools	System: None		
esting	Utilities run to initialize environm	lent	
onformance Tests	Test: 15823 - Send	Patient Identity Feed 20:25 Aug 23, 2018 ()	۵ 🛦
	Test: 12318 - Resp	onding Gateway test data 20:25 Aug 23, 2018 (1) TLS	
	Patient IDs		
	Patient ID P0823194428.3*	**81.3.6.1.4.1.21367.13.20.10008ISO	
	Responding G	ateway - Smoke Tests 🕑 🔿	▲ 団
\langle	Tests: 2 Successes: 0 Failures: 2 Not Run: 0		
	Test: QD-RD-R-000 Test: QD-RD-R-000 21:40 Oct 29, 2018 🕑	00.0-2011 - Respond to a basic QD & RD 21.40 Oct 29, 2018 ④ 00.0-2011od - Respond to a basic QD & RD (2011 systems - C	●▲ 団 □ Dn-Demand option) ●▲ 団 □

Clicking on the test and then the test step name will show you the results of the test. To see the logs, click on the eye symbol to bring up the Results Inspector tab. Clicking on the garbage can symbol will erase the test results and let you try again.



Sequoia Interoperability Testing Platform (ITP) User Guide

« Toolkit Home Toolkit configuration	Environment Sequoia Test connect Session: Add Delete Test Session: Change Change Change	Exit Create New You are signe
System Configurations Manage Patient IDs Simulators New Simulator Logs	Conformance Tests	
Queries & Retrieves	Test: 15823 - Send Patient Identity Feed 17.25 Sept 24, 2018 🕑 💿 🛦	Test Context Environment:
FindDocuments Find Documents (All	Test: 12318 - Responding Gateway test data 17.25 Sept 24, 2018 🕑 TLS	TestSession: connect SUT: Testing Harness Tan
FindDocumentsByRefld MPQ-FindDocuments	Patient IDs	
GetDocuments GetRelated	Patient ID P0921212616.4^^^81.3.6.1.4.1.21367.13.20.1000&ISO	
FindFolders GetFolders GetFolderAndContents GetSubmissionSetAndContents	Responding Gateway - Smoke Tests 🕑 Ċ 🔹 🔺 🔟	
GetAll RetrieveDocuments	Tests: 2	
FHIR Search	Successes: 0 Failures: 2	
Submit	Not Run 0	
XDS Register XDS Provide & Register XDR Provide & Register	Test: QD-RD-R-0000.0-2011 - Respond to a basic QD & RD 20:30 Oct 30, 2018 🕑 🖉 🛆 🛍 🕚	
Submit Resource	Section: PD 20:30 Oct 30, 2018 🕑	
Other Tools	Uvien Exclusion Internal Error: No endpoint specified for transaction xcpd and XDS version Unknown and secure = false on site Testing_Harness_Tango_CONNECT actor configns	
Repository Listing Connectathon Tools	default/Testing_Harness_Tango_CONNECT Exception XdsInternalException gov nist toolkit xdsexception client XdsInternalException: No endpoint specified for transaction xcpd and XDS version Unknown and secure = false on site Testing_Harness_Tango_CONNECT	
Testing	Step: PD EView Metadata	
Conformance Tests	Goals:	
	Endpoint: null Expected Status: Success Errors:	
	Message	
	Internal Error: No endpoint specified for transaction xcpd and XDS version Unknown and secure = false on site Testing_Harness_Tango_CONNECT actor confin is default/Testing_Harness_Tango_CONNECT	
	Exception XdsinternalException	
	gov.nist.toolkit.xdsexception.client.XdsInternalException: No endpoint specified for transaction xcpd and XDS version Unknown and secure = false on site Testing_Harness_Tango_CONNECT	
	Section: QD (D)	
	Section PD ()	

In the Results Inspector you can view the request and response messages for each test step, asl well as full logs and error messages.

Toolkit	Environment: Sequoia • Codes X Home X ConfTests	Test connect • Session:	Ad	d Defete Test Session:	connect	Delete	Change	Exit	Create New	You are signe
System Configurations Manage Patient IDs Simulators New Simulator Logs Queries & Retrieves	Advanced Options)									
FindDocuments Find Documents (All Find Documents (Synthetic MPO-FindDocuments GetRelated FindFolders GetDocuments GetDocuments GetSubmissionsEvAndContents GetSubmissionsEvAndContents GetSubmissionsEvAndContents Filtis Search Submit Submit XDS Register XDS Provide & Register XDR Provide & Register	History Contents History Contents Co-RAR R0000 -2011 (Ti Gas Status : fail endpoint request request request header erroyse header erroyse header dillog assertions	ee Oct 30 20:30.41 CET 2018	Cleatibles join-PD' status- citype-ideStatus-Success - <pre>cleatible</pre> - <pre>cleatible</pre>	Fail"> Fail"> Fail"> Fail: CarageMetadata> codarisettemal_cache etadataFie> et	transaction xc transaction xc ception: No encourse saction fatal(Ba saction fatal(Ba saction fatal(Ba saction doRun() (FlancOntext, IRFaurum) cogst Sates	Sequoia/testkits/defa pd and XDS version ng_Harness_Tango. Jonit specified for tr at maxacton java BasicTransaction java BasicTransa	utitests/QD-RD-R-0000.0- Unknown and secure = false on s CONNECT Exception XdSintern amaction xqd and XDS version 828) at (cion java: 703) at ra 218) at ava: 168) at (sisserviceManager java: 155) at 11) (siepld=PD)	ilte IlExcep Unknov	Struc	cture
Repository Listing Connectation Tools Testing Conformance Tests										

For Initiating Gateway tests, just send the appropriate message from your system to the simulator endpoints listed. The simulator will send back a response and log the messages. When you have successfully received a response, let your Test Manager know and they will validate the messages.



4 GAZELLE SECURITY SUITE

Security tests are done using a tool called the Gazelle Security Suite, which can be accessed by going to <u>https://validation.sequoiaproject.org/</u> and selecting the Gazelle Security Suite link.

ans project			Sequoia Interoperability Testing Platform (ITP) A joint collaboration between IHE International, IHE Services, and NIST
Access	tools		
Support Tool	s	Version	Description
Gazelle Test I	Management >	5.9.0	The Gazelle Test Management Test Bed
Assertion Mar	nager Gui	4.1.0	Assertion coverage management
Demographic	Data Server	4.1.0	Generate fake data demographics for testing purpose
Sharing Value	Set Simulator	2.1.0	Value set repository simulator
Test tools		Version	Description
EVS Client	×	5.5.0	External Validation tool services
Gazelle HL7	/alidator	3.4.1	Offers web services to validate HL7v2.x and HL7v3 messages exchanged in the context of IHE
PatientManad	or D	9.10.5	Tool for testing PD transaction
Gazelle Secu	rity Suite	5.7.1	PKI, TLS Simulators, syslog, and ATNA Questionnaire
XDS Toolkit	2	4.3.4.1	XDS Tools 4 configured for RSNA Image Share
QD and RD te	esting	6.4.0-SNAPSHOT	Access to XDS Tool 4 dedicated test environment
Gazelle-STS	>	1.1.1	Security Token Service used to issue and validate SAML Assertions
Gazelle Webs	service Tester	1.2.1	Gazelle Webservice Tester
Utilities		Version	Description
CAS login			SSO login
Nagios Monito	pring		Nagios monitoring of services
121 23.23			

The list of tests that can be run is accessed through the menu items XUA -> X-Service Provider tests -> Test Cases.

Gazelle Security Suite	
PKI - TLS / SSL - Audit Trail -	XUA -
Gazelle Security	 Class documentation Constraint documentation
OVERVIEW The GAZELLE ATNA Tool gathers severa	Constraint administration X-Service Provider tests Test cases Test instances Ures:
 A Public Key Infrastructure, to sha A TLS simulator that will simulate The ATNA questionnaire. 	re trusted certificates and associated Ancillary transactions clients and servers that can establish
DIGITAL CERTIFICATES for Conformit	y Assessment Testing :
The CA certificate is available here.	
TEST YOUR TLS IMPLEMENTATION:	
TLS SERVER SIMULATORS: To (HTTPS server (<domain_oi "<="" "any"="" (<domain_or,="" (<domain_or_="" server="" syslog="" th=""><th>check your SUT as a consumer/client, the tool will act as a server. You may connect to : r_IP>:2001) _IP>:20009) IP>:20070)</th></domain_oi>	check your SUT as a consumer/client , the tool will act as a server. You may connect to : r_IP>:2001) _IP>:20009) IP>:20070)
• TLS CLIENT SIMULATORS: To cl	heck your SUT as a provider/server, the tool will act as a client. You can start a connection from these TLS client simulators
Edit home content	



From the list of test cases, find the test you want to run and click the green arrow to the right of the screen to create an instance of that test.

Gazelle Security Sui	te						
					🕐 He		
X-Service	Provider test cases						
Available test cases							
Keyword 🔺	Description	Expected result	Last modifier	Last changed ≑	Action	۱	
MAQD-R-0003.000	Handle missing wsse:Security element	UNSPECIFIED	aberge	6/16/17 4:55:22 PM (CEST GMT+0200)		. 1	۵.
MAQD-R-0003.101	Handle missing Security/Timestamp element	UNSPECIFIED	aberge	6/16/17 4:55:22 PM (CEST GMT+0200)		101	1
MAQD-R-0003.102	Handle an expired Security/Timestamp	UNSPECIFIED	aberge	6/16/17 4:55:22 PM (CEST GMT+0200)	Þa	101	1
MAQD-R-0003.103	Handle a Security/Timestamp in the future	UNSPECIFIED	aberge	6/16/17 4:55:22 PM (CEST GMT+0200)	Þa		1
MAQD-R-0003.201	Handle missing MessageID element	UNSPECIFIED	aberge	6/16/17 4:55:22 PM (CEST GMT+0200)	Þ q	10	(i)
MAQD-R-0003.301	Handle missing Assertion signature element	UNSPECIFIED	aberge	6/16/17 4:55:22 PM (CEST GMT+0200)	ÞQ	10	Ô
MAQD-R-0003.302	Handle invalid assertion signature	UNSPECIFIED	aberge	6/16/17 4:55:23 PM (CEST GMT+0200)	ÞQ	1	Ô

Inside the test instance, type your system's Patient Discovery endpoint address into the text box labeled "Endpoint to test". Select Patient Discovery from the Transaction drop-down menu, and click "Launch Test" to run the test.

Gazelle Securit	y Suite
Test inst	tance
Test case detai	ls
Test case Description Expected result	MAQD-R-0003.102 Handle an expired Security/Timestamp UNSPECIFIED
Configuration	Endpoint to test https://35.173.34,106:8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery
Back to ist	Launch test

The Gazelle Security Suite will send a test message to your system and display the message that was sent and the response.



CA COGNIZED ORDINATING

Sequoia Interoperability Testing Platform (ITP) User Guide

st case transent link ted endpoint sillary 13.4 108.18 11/Gateway/PatientDiscovery/1_ONNinServiceNhinPatientDiscovery B2281 10.84.6 MW termane bit termane				
<pre>s PASED * * * * * * * * * * * * * * * * * * *</pre>	est case ermanent Link ested endpoint ncillary transaction xecution date sername	MAQD-R-0003.000 #285 55.173.34.106.8181//Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery PD - Patient Discovery 8/28/18.10.58:45 PM (CEST GMT+0200) matt		
Back to list tchanged messages Message sent by the tool Message received from SUT	IS PASSED		Ŧ	
Addressing of minis="http://www.w3.org/2005/08/addressing">55.173.34.106.181//Gateway/Patient/Discovery Composition Composition Composition Composition <td>Back to list</td> <td></td> <td></td> <td></td>	Back to list			
Message sent by the tool Message received from SUT xml version="1.0" encoding="UTF-8" <env:envelope xmlns:env="http://www.sd.org/2005/06/addressing">6.173.34.106.8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery/<to> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.34.106.8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery/<to> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.34.106.8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery/<to> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.34.106.8181/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery/<to> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.34.106.8181/Gateway/PatientDiscovery/<to> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.34.106.8181/Gateway/PatientDiscovery/<to> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.34.106/8181/Gateway/PatientDiscovery/<action> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.34.106/8181/Gateway/PatientDiscovery/<action> <fo: xmlns="http://www.sd.org/2005/08/addressing">6.173.41.10 <fo: xmlns="thtp://www.sd.org/2005/08/addressing">6.173.41.11259 <fo: xmlns="thtp://www.sd.org/2005/08/addressing">6.173.41.11259 <fo: xmlns="thtp://www.sd.org/2005/08/addressing">6.173.41.11259 <fo: xmlns="thtp://www.sd.org/2005/08/addressing">6.173.41.11259 <fo: xmlns="thtp://www.sd.org/2005/08/addressing">6.173.41.11259<!--</th--><td>changed messages</td><td></td><td></td><td></td></fo:></fo:></fo:></fo:></fo:></fo:></action></fo:></action></fo:></to></fo:></to></fo:></to></fo:></to></fo:></to></fo:></to></env:envelope>	changed messages			
<pre><tm encoding="UTF-8" version="1.0"> </tm></pre>	Message sent by the tool	Message received from SUT		
	<pre>cram version=1.0 en env:Envolope xmlins:en env:Headar> <to <action="" http:="" th="" www="" wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww<="" xmlns="http://www <Action xmlns="><th>varing= Unite (r) r=http://www.x3.org/2003/05/isoap-envelope"> vx3.org/2005/08/addressing" = 55, 173.34, 106.8181//Gateway/PatientDiscovery/1_0NhinService/NhinPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututedef1507/66-6073-4d77-b082-836185ac87b2 vx1.org/2005/08/addressing"= commututedef1507/66-6073-4d77-b082-836185ac87b2 vx1.org/2005/08/addressing"= commututedef1507/66-6073-4d77-b082-836185ac87b2 vx1.org/2005/08/addressing= commututedef1507/66-6073-4d77-b082-836185ac87b2 <tr< th=""><th></th><th></th></tr<></th></to></pre>	varing= Unite (r) r=http://www.x3.org/2003/05/isoap-envelope"> vx3.org/2005/08/addressing" = 55, 173.34, 106.8181//Gateway/PatientDiscovery/1_0NhinService/NhinPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututederstand="true"-um:ht7-org/s2-PRPA_IN201305UV02.CrossGatewayPatientDiscovery/4/action> vx4.org/2005/08/addressing"= commututedef1507/66-6073-4d77-b082-836185ac87b2 vx1.org/2005/08/addressing"= commututedef1507/66-6073-4d77-b082-836185ac87b2 vx1.org/2005/08/addressing"= commututedef1507/66-6073-4d77-b082-836185ac87b2 vx1.org/2005/08/addressing= commututedef1507/66-6073-4d77-b082-836185ac87b2 <tr< th=""><th></th><th></th></tr<>		



5 FINISHING UP

When you are finished testing and are ready to have your tests validated, send an email with the permanent links for all the testing completed to be evaluated by email your Sequoia Project Test Manager to <u>testing@sequoiaproject.org</u>.

Remember to log out of all of the systems and shut down all of the windows that have been opened!

Our standard business workflow is to return your report within 5 business days of your submission of testing results. Please ensure someone from your organization is available to redo any failed or partially verified tests.

