

Node Certification Testing Guide

Version 0.1 Draft 2

August 20, 2012



CONTENTS

- 1 Executive Summary.....6**
- 2 Intended Audience.....6**
- 3 Overview6**
- 4 Documentation and Configuration Information7**
 - 4.1 Required from Certifying Node.....7**
 - 4.2 Provided by ConnectVirginia8**
- 5 Connectivity & Secure Transport9**
 - 5.1 Certificates9**
 - 5.2 Initial Connectivity Tests9**
- 6 Conformance9**
 - 6.1 Initiating Node.....9**
 - a) SAML Assertion.....10**
 - b) Patient Discovery10**
 - c) Query for Documents.....10**
 - d) Retrieve Documents.....10**
 - e) Document Submission.....10**
 - 6.2 Responding Node10**
 - a) Patient Discovery11**
 - b) Query for Documents.....11**
 - c) Retrieve Documents.....11**
 - d) Document Submission.....11**
 - e) Consent11**
- 7 Interoperability.....11**
 - 7.1 Initiating Node.....12**
 - 7.1.1 Patient Discovery12**
 - 7.1.2 Query for Documents.....12**
 - 7.1.3 Retrieve Documents.....12**
 - 7.1.4 Document Submission.....13**
 - 7.1.5 Consent13**



- 7.2 Responding Node 15**
 - 7.2.1 Patient Discovery 15**
 - 7.2.2 Query for Documents 15**
 - 7.2.3 Retrieve Documents 16**
 - 7.2.4 Document Submission 16**
 - 7.2.5 Consent 16**
- 8 Patient Preferences 18**
 - 8.1 Communicating Preferences to ConnectVirginia 18**
 - 8.2 Receiving Preferences from ConnectVirginia 18**
- 9 Auditing and Reporting 18**
- Appendix A – NIST Tools 20**
- Appendix B - Initiating Node – Patient Discovery 21**
- Appendix C- Initiating Node – Document Query 24**
- Appendix D - Initiating Node – Document Retrieval 29**
- Appendix E - Initiating Node – Document Submission 34**
- Appendix F - Initiating Node – Emergency Consent Exception 37**
- Appendix G - Initiating Node – Public Health Consent Exception 44**
- Appendix H - Responding Node – Patient Discovery 51**
- Appendix I - Responding Node – Document Query 54**
- Appendix J- Responding Node – Document Retrieval 58**
- Appendix K - Responding Node – Document Submission 63**
- Appendix L - Responding Node – Emergency Consent Exception 66**
- Appendix M - Responding Node – Public Health Consent Exception 73**
- Appendix N - Responding Node – Opt Out Document Submission 80**



Table of Figures

Figure 1 **General overview of the certification testing a node is required to perform.7**



REVISION HISTORY

Version	Revision Date	Implemented By	Approved By	Approval Date	Reason

RELATED DOCUMENTATION

This table includes key related documentation.

ID	Title	Version	Notes



1 EXECUTIVE SUMMARY

Successful Health Information Exchange (HIE) relies on the strict adherence of all parties in the exchange to a set of standards that cover both the communication and semantics of the exchange. ConnectVirginia EXCHANGE must insure that all nodes certified to be part of the exchange adhere to the same set of standards.

This testing guide details the testing criteria that a node must successfully complete to verify its compliance with the standards that ConnectVirginia EXCHANGE has chosen to implement. The guide also covers other tests that verify the node's secure connectivity to the exchange and its ability to correctly provide the audit and reporting data required by ConnectVirginia.

2 INTENDED AUDIENCE

The intended audience of this document is the QA team of a certifying node. The document, however, is also a resource for the node's System Administrator to aid in configuring security and connectivity. Architects, Analysts, and Developers may also use this document in various stages of the development of the node's capabilities.

3 OVERVIEW

This document provides a roadmap to guide a node in completing all the required tests needed to be satisfied as part of the node certification process. The tests fall into several categories and must be completed in the dependency shown in Figure 1.

This testing guide also documents all the test interfaces offered by ConnectVirginia EXCHANGE that will allow a node to conduct these tests and verify successful completion. The guide contains several logical groupings each in a separate section.

- Documentation and Configuration Information details the information that a certifying node needs to provide to ConnectVirginia EXCHANGE and the information the node needs from ConnectVirginia EXCHANGE that will enable both ends to be correctly configured for proper communication.
- Connectivity & Secure Transport deals with tests to insure that the node and ConnectVirginia can communicate at a basic level and with proper TLS.
- Conformance covers Conformance Testing: insuring that the message content of messages sent by the node is valid and conforms to the standards required by ConnectVirginia EXCHANGE.
- Interoperability: covers tests to insure that the various exchange scenarios that ConnectVirginia currently supports can be handled by the node.
- Patient Preferences are devoted to insuring that the various scenarios dealing with consent are tested.
- Auditing and Reporting insures that a Certifying Node complies with the requirement to produce audit and monitoring reports on a monthly basis as defined in the ConnectVirginia EXCHANGE Policies and Procedures.

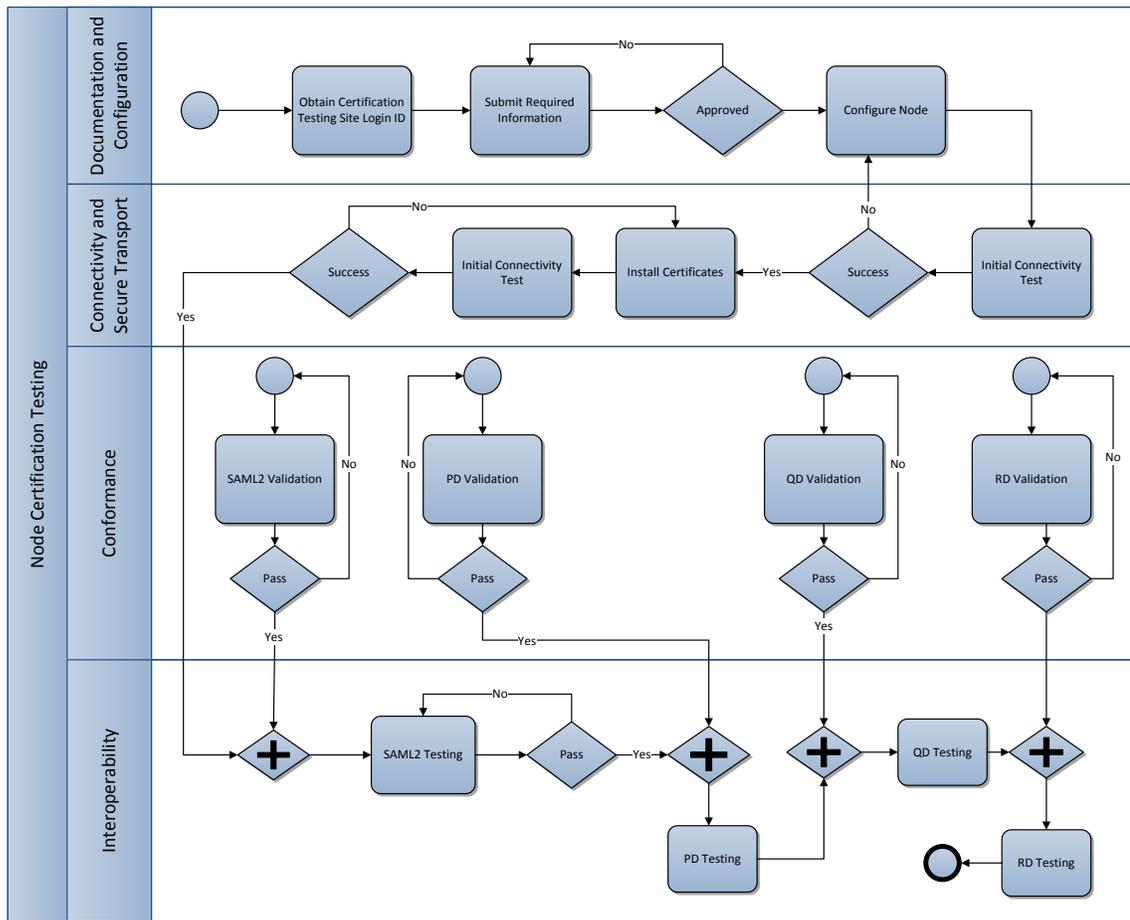


Figure 1 General overview of the certification testing a node is required to perform.

4 DOCUMENTATION AND CONFIGURATION INFORMATION

Before any testing with the purpose of formally certifying a node can begin, information needed to configure the node to work in the ConnectVirginia Certification Environment must be provided by the node. Information needed by the node is found in this guide.

4.1 Required from Certifying Node

The information listed in Table 1 must be provided by the node to ConnectVirginia and must be approved before any testing can begin.

Table 1 Information to be supplied by a Certifying Node to ConnectVirginia

ID	Name	Notes
1	Participant Name or Company name(Node side)	Name of the Organization.



ID	Name	Notes
2	Home Community ID	OID Assigned by organization for Home Community ID. This would be a sub OID of the organization's registered HL7 OID.
3	Assigning Authority OID	Assigning Authority OID for the Organization
4	IP Address of Initiating Node	Public IP Address of Organization's initiating node.
5	IP Address and port of Responding Node	Public IP Address and Port of Organization's responding node.
6	Contact Name Alternate Contact Name	The On-boarding team representative name for various communication needs.
7	Contact Phone Alternate Contact Phone	The On-boarding team representative Phone No for various communication needs.
8	Contact E-mail Alternate Contact E-mail	The On-boarding team representative e-mail for various communication needs.
9	Public Certificate information (can be a Self-Issued)	Client mutual authentication is used, the organization's public key will be imported to ConnectVirginia's key and trust store.
10	Will the node be initiating transactions to ConnectVirginia? The Node is assumed to be a responding node.	This information is needed to verify the on-boarding node as a responder only, or as both an initiator and a responder.
11	Does the Node support responding to a Document Query with Static Documents, On-Demand Documents, or both?	This information is needed to help selecting the test scenarios to be used.
12	Does the Node allow Social Security Numbers (SSN) to be exchanged?	Some Nodes may have restrictions on use of SSN.

4.2 Provided by ConnectVirginia

Table 2 shows the values that are needed for connectivity to ConnectVirginia.

Table 2 Information to be supplied by ConnectVirginia to the Certifying Node

ID	Name	Value	Notes
1	WSDL		
2	UDDI endpoints		
3	Home community ID		



5 CONNECTIVITY & SECURE TRANSPORT

Before any secure exchange of data can begin, Digital Certificates must be exchanged between ConnectVirginia and a Certifying Node. Once these certificates have been exchanged and installed, a connectivity test must be performed.

5.1 Certificates

For purposes of node certification, a self-signed certificate may be used. Public keys of ConnectVirginia and the Certifying Node will be exchanged. It is recommended, but not required, that this exchange follow the same procedure as would be for the go-live.

5.2 Initial Connectivity Tests

Once certificates are installed, a Patient Discovery Message will be sent by the node to ConnectVirginia EXCHANGE and await a response. The reverse scenario will also be tested. As long as a response is received in both cases, and even though the message content may not be valid, the initial connectivity test will be deemed successful.

6 CONFORMANCE

The objective of Conformance Testing is to verify that the messages sent by the node comply with the standards that ConnectVirginia EXCHANGE has chosen. Conformance tests generally deal with the adherence of the messages sent to the standards chosen. This testing does not need to be performed in a live exchange environment; it is, however, the precursor to the Interoperability testing referenced in the section following this. Conformance Testing allows Interoperability Testing to begin with the premise that the messages sent and received are correctly formatted and adhere to the standards chosen. Completion of these tests can be performed by the Certifying Node independently and must be completed successfully before any Interoperability Testing can begin. The certifying node must attest to the conformance with the ConnectVirginia standards of the messages it communicates to ConnectVirginia EXCHANGE. Please refer to Figure 1 for dependencies. These tests may be performed using any available tools. A tool from NIST is available for this purpose. Please Refer to Appendix A for additional information on this tool.

A Certifying Node plays two roles in ConnectVirginia: It acts as the initiator of a request or transaction; and as the responder to a request or transaction from ConnectVirginia. Each role has a different message associated with it for the services offered by ConnectVirginia.

6.1 Initiating Node

A node in the role of an Initiating Node communicates with ConnectVirginia to look for a patient. Once a patient is found, the node can retrieve a list of documents for that patient, and then selectively retrieve one or more documents. ConnectVirginia verifies the credentials of the requesting node and the validity of the message before responding. ConnectVirginia also checks that the patient has given consent for their information to be shared. An exception is made in the case of an emergency. The tests below are designed to insure that the messages the node sends conform to all the standards required by ConnectVirginia.



a) SAML Assertion

SAML assertions must conform to the NHIN standard. Conformance can be validated by using the specifications and related links found in the NHIN Authorization Framework Specification (v 3.0)

(https://developer.connectopensource.org/download/attachments/65601729/NHIN_AuthorizationFrameworkProductionSpecification_v3.0.pdf?version=1&modificationDate=1330007296000)

Note that:

- ConnectVirginia will need to validate that the attributes passed to it from the node are correct.
- Conformance Testing may be done using a SAML XSD or by using the NIST tools as part of the services conformance testing (See Appendix A) Patient Discovery

b) Patient Discovery

This is a Patient Discovery message sent from the node to ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

c) Query for Documents

This is a Query for Documents message sent from the node to ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

d) Retrieve Documents

This is a Retrieve Documents message sent from the node to ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

e) Document Submission

This is a Document Submission message sent from the node to ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

6.2 Responding Node

A node in the role of a Responding Node receives messages from ConnectVirginia and then responds to these messages. The messages begin with Patient Discovery and may progress to document query and document retrieve. The certifying node must insure that the responses it provides to ConnectVirginia conform to the standards implemented by ConnectVirginia. The list below enumerates the types of messages to which the response of the node must conform to ConnectVirginia standards.



a) Patient Discovery

This is the response message from the node to a Patient Discovery message sent from ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

b) Query for Documents

This is the response message from the node to a Query for Documents message sent from ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

c) Retrieve Documents

This is the response message from the node to a Retrieve Documents message sent from ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

d) Document Submission

This is the response message from the node to a Document Submission message sent from ConnectVirginia. A node has the option to use the NIST tools or other tools at its disposal to validate the message for conformance. Please refer to Appendix A for details on using the NIST Tools.

e) Consent

Consent changes are transmitted from ConnectVirginia to the node as a document via a Document Submission message. The node must respond with an appropriate confirmation which can be an acknowledgement of a successful document submit and store.

7 INTEROPERABILITY

Interoperability Testing refers to the testing to verify the ability of a node to be a functioning participant in the ConnectVirginia EXCHANGE. This end-to-end testing will exercise the node's ability to initiate and respond to all the scenarios documented in the ConnectVirginia EXCHANGE Services Implementation Guide.

As in Conformance Testing, a Certifying Node plays two roles: It acts as the initiator of a request or transaction; and as the responder to a request or transaction from ConnectVirginia. Each role has different scenarios associated with it. These scenarios, and the data needed to test them (if applicable) are documented below. Note that these scenarios treat both ConnectVirginia and the Certifying Node as a "black box" and thus do not necessarily duplicate scenarios in the Implementation Guide.



7.1 Initiating Node

Initiating a Patient Discovery is the first step that a node takes to find patient documents and then retrieve them. The subsections below list the various test cases that a node will have to undergo to successfully pass Interoperability Testing as an Initiating Node. The tests with the Certifying Node playing the role of an Initiating Node treat ConnectVirginia as a “black box” with no knowledge of its inner workings or how many Certified Nodes it has.

7.1.1 Patient Discovery

Test cases, the parameters to use, and expected results are provided in Appendix B.

Test Case ID	Services Tested	Objective
TC001	PD	No matching patient was found
TC002	PD	Match found in one Certified Node
TC003	PD	Match found in two Certified Nodes
TC004	PD	More than one patient is a possible match; ask for more information to narrow down the search.
TC005	PD	Message related error; a code is returned indicating the error.
TC006	PD	ConnectVirginia is not available
TC007	PD	ConnectVirginia had an Error

7.1.2 Query for Documents

The test cases below must start with a Patient Discovery to retrieve a patient identifier which can then be used to query for documents. Test cases, the parameters to use, and expected results are provided in Appendix C.

Test Case ID	Services Tested	Objective
TC008	PD, QD	No documents were found for patient
TC009	PD, QD	One document found
TC010	PD, QD	Multiple documents found
TC011	PD, QD	Message related error; a code is returned indicating the error.
TC012	PD, QD	ConnectVirginia is not available
TC013	PD, QD	ConnectVirginia had an Error

7.1.3 Retrieve Documents

The test cases below must start with a Patient Discovery to retrieve a patient identifier, then a query for documents to retrieve document identifiers, which can then be used to retrieve a document. Test cases, the parameters to use, and expected results are provided in Appendix D.



Test Case ID	Services Tested	Objective
TC014	PD, QD, RD	Success, one document returned
TC015	PD, QD, RD	Success, multiple documents returned
TC016	PD, QD, RD	Message related error; a code is returned indicating the error.
TC017	PD, QD, RD	ConnectVirginia is not available
TC018	PD, QD, RD	ConnectVirginia had an Error

7.1.4 Document Submission

The test cases below must start with a Patient Discovery to retrieve a patient identifier before a document related to that patient can be submitted. Test cases, the parameters to use, and expected results are provided in Appendix E.

Test Case ID	Services Tested	Objective
TC019	PD, SD	Success, Responding Node stores the document
TC020	PD, SD	Failure, document is not stored by Responding Node due to an error; a code is returned indicating the error
TC021	PD, SD	ConnectVirginia is not available
TC022	PD, SD	ConnectVirginia had an Error

7.1.5 Consent

Consent to share information through ConnectVirginia is maintained at ConnectVirginia. As it relates to the various services offered by ConnectVirginia, consent is invisible to the requesting nodes. Only when there is a valid consent exception (e.g. an emergency) is consent overridden and patient information otherwise invisible to the requester is made visible. Thus, only scenarios where there is a consent exception are applicable for purposes of testing consent.

7.1.5.1 No Consent on File

ConnectVirginia treats this as a request for a non-existent patient, or document. The test cases above are sufficient.

7.1.5.2 Patient Opted-in

Test cases above cover this scenario.

7.1.5.3 Patient Opted-out

ConnectVirginia treats this as a request for a non-existent patient, or document. The test cases above are sufficient.



7.1.5.4 Consent Exceptions

To test the consent exception functionality, test cases analogous to those in above will be used. The patient will have either opted-out or had never opted-in. A “purpose of use” code that is considered a “Consent Exception” will be transmitted. Currently, ConnectVirginia allows two scenarios to override a patient opt-out: Emergency, and Public Health.

7.1.5.4.1 Emergency

A “purpose of use” code of “EMERGENCY” will be transmitted. The table below lists the test cases. The test cases, parameters to use, and expected results are provided in Appendix G.

Test Case ID	Services Tested	Objective
TC023	PD	No matching patient was found
TC024	PD	Match found in one Certified Node
TC025	PD	Match found in two Certified Nodes
TC026	PD	More than one patient is a possible match; ask for more information to narrow down the search.
TC027	PD, QD	No documents were found for patient
TC028	PD, QD	One document found
TC029	PD, QD	Multiple documents found
TC030	PD, QD, RD	Success, one document returned
TC031	PD, QD, RD	Success, multiple documents returned

7.1.5.4.2 Public Health

A “purpose of use” code of “PUBLICHEALTH” will be transmitted. The table below lists the test cases. The test cases, parameters to use, and expected results are provided in Appendix H.

Test Case ID	Services Tested	Objective
TC032	PD	No matching patient was found
TC033	PD	Match found in one Certified Node
TC034	PD	Match found in two Certified Nodes
TC035	PD	More than one patient is a possible match; ask for more information to narrow down the search.
TC036	PD, QD	No documents were found for patient
TC037	PD, QD	One document found



Test Case ID	Services Tested	Objective
TC038	PD, QD	Multiple documents found
TC039	PD, QD, RD	Success, one document returned
TC040	PD, QD, RD	Success, multiple documents returned

7.2 Responding Node

Every Certified Node is expected to respond to messages initiated by ConnectVirginia EXCHANGE for Patient Discovery, Query for Documents, Retrieve Documents and Document Submission. The test cases below verify the capabilities of a node to fully participate in the ConnectVirginia EXCHANGE.

7.2.1 Patient Discovery

A node must be able to respond appropriately to a Patient Discovery request from ConnectVirginia EXCHANGE. Test cases, the parameters to use, and expected results are provided in Appendix H.

Test Case ID	Services Tested	Objective
TC041	PD	No matching patient was found
TC042	PD	A matching patient was found
TC043	PD	More than one patient is a possible match; ask for more information to narrow down the search.
TC044	PD	Message related error; a code is returned indicating the error.
TC045	PD	Node is not available
TC046	PD	Node had an Error

7.2.2 Query for Documents

In the following test cases, a certifying node is expected to respond to a Patient Query followed immediately by a Request for Documents for that patient. Test cases, the parameters to use, and expected results are provided in Appendix I.

Test Case ID	Services Tested	Objective
TC047	PD, QD	No documents were found for patient
TC048	PD, QD	One document found
TC049	PD, QD	Multiple documents found



Test Case ID	Services Tested	Objective
TC050	PD, QD	Message related error; a code is returned indicating the error.
TC051	PD, QD	Node is not available
TC052	PD, QD	Node had an Error

7.2.3 Retrieve Documents

Once documents for a patient have been found, a Document Retrieve message can request a document be sent back to ConnectVirginia EXCHANGE. The test cases below verify this functionality. Test cases, the parameters to use, and expected results are provided in Appendix J.

Test Case ID	Services Tested	Objective
TC053	PD, QD , RD	Success, one document returned
TC054	PD, QD , RD	Success, multiple documents returned
TC055	PD, QD , RD	Message related error; a code is returned indicating the error.
TC056	PD, QD , RD	Node is not available
TC057	PD, QD , RD	Node had an Error

7.2.4 Document Submission

ConnectVirginia EXCHANGE may start with a Patient Discovery message to the node to retrieve a patient identifier before a document related to that patient can be sent to the node. Test cases, the parameters to use, and expected results are provided in Appendix K.

Test Case ID	Services Tested	Objective
TC058	PD, SD	Success, Responding Node stores the document
TC059	PD, SD	Failure, document is not stored by Responding Node due to an error; a code is returned indicating the error
TC060	PD, SD	Node is not available
TC061	PD, SD	Node had an Error

7.2.5 Consent

7.2.5.1 No Consent on File

A Certified Node should treat this as a request for a non-existent patient, or document. The test cases above are sufficient.



7.2.5.2 Patient Opted-in

Test cases above cover this scenario.

7.2.5.3 Patient Opted-out

A Certified Node should treat this as a request for a non-existent patient, or document. The test cases above are sufficient.

7.2.5.4 Consent Exception

To test the consent exception functionality, test cases analogous to those in above will be used. The patient will have either opted-out or had never opted-in. A “purpose of use” code that is considered a “Consent Exception” will be transmitted. Currently, ConnectVirginia allows two scenarios to override a patient opt-out: Emergency, and Public Health.

7.2.5.4.1 Emergency

A “purpose of use” code of “EMERGENCY” will be transmitted. The table below lists the test cases. The test cases, parameters to use, and expected results are provided in Appendix L.

Test Case ID	Services Tested	Objective
TC062	PD	No matching patient was found
TC063	PD	A matching patient was found
TC064	PD	More than one patient is a possible match; ask for more information to narrow down the search.
TC065	PD, QD	No documents were found for patient
TC066	PD, QD	One document found
TC067	PD, QD	Multiple documents found
TC068	PD, QD, RD	Success, one document returned
TC069	PD, QD, RD	Success, multiple documents returned

7.2.5.4.2 Public Health

A “purpose of use” code of “PUBLICHEALTH” will be transmitted. The table below lists the test cases. The test cases, parameters to use, and expected results are provided in Appendix M.

Test Case ID	Services Tested	Objective
TC070	PD	No matching patient was found
TC071	PD	A matching patient was found



Test Case ID	Services Tested	Objective
TC072	PD	More than one patient is a possible match; ask for more information to narrow down the search.
TC073	PD, QD	No documents were found for patient
TC074	PD, QD	One document found
TC075	PD, QD	Multiple documents found
TC076	PD, QD, RD	Success, one document returned
TC077	PD, QD, RD	Success, multiple documents returned

8 PATIENT PREFERENCES

Patient Preferences supported by ConnectVirginia EXCHANGE are limited to the patient initially opting-in, or opting-out after they have opted-in. These preferences must be communicated by the node to ConnectVirginia EXCHANGE whenever there is a change in the patient’s preference initiated at the node. They must also be communicated by ConnectVirginia EXCHANGE to every Certified Node in the exchange whenever a patient opts-out. Test cases, the parameters to use, and expected results are provided in Appendix N.

8.1 Communicating Preferences to ConnectVirginia

Patient preferences for opting-in at the node will be set through the use of a GUI and therefore are out of scope for this testing guide. Patients opting-out of ConnectVirginia will also use a GUI; therefore, testing for this is out of scope.

8.2 Receiving Preferences from ConnectVirginia

Document Submission, tested in the previous section, will be used to communicate Patient Preferences. Only a patient opt-out from ConnectVirginia is communicated to a Certified Node. The following test case verifies this functionality.

Test Case ID	Services Tested	Objective
TC078	Consent	Receive and process Opt-out request

9 AUDITING AND REPORTING

Certified Nodes must produce audit and monitoring reports on a monthly basis as defined in the ConnectVirginia EXCHANGE Policies and Procedures. A Certified Node must provide these reports at the end of testing so that the ConnectVirginia EXCHANGE may verify the accuracy and completeness of these reports. At a minimum this report must include:



- Node users who submit a query
- Which record(s) were requested
- When the request was submitted
- The Permitted Purpose that forms the basis of the request



APPENDIX A – NIST TOOLS

This Appendix will be updated after the onboarding of the first node, and using the experience gained, to reflect the recommended pathways for conformance testing.

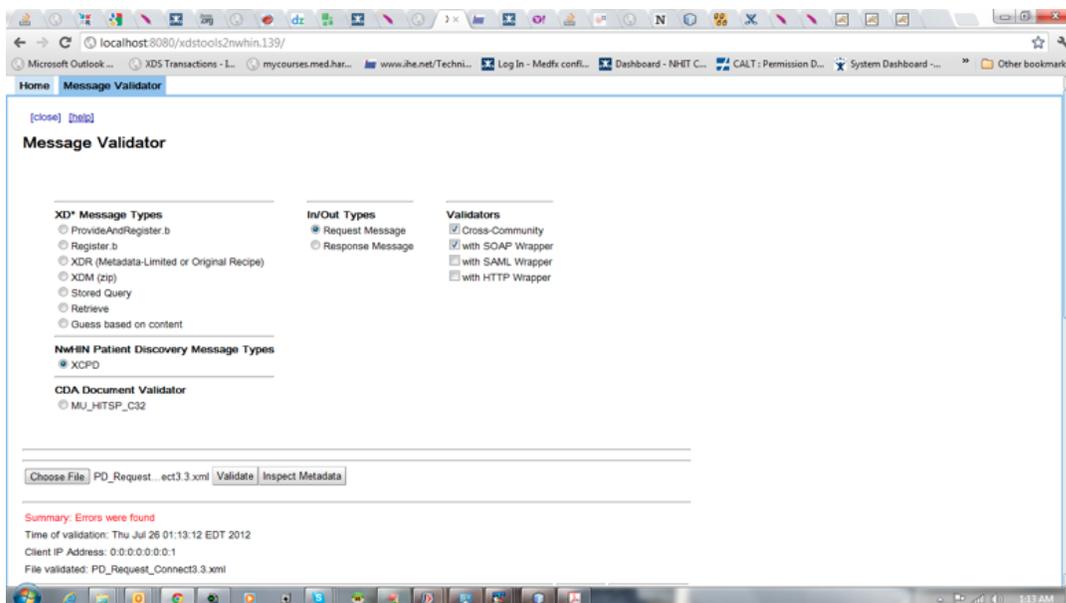
Link to access the NIST Tools:

<http://ihexds.nist.gov/>

And look for the XDS Toolkit on the page.

Quick Start Hints:

- A Self-test is part of conformance testing under which the validation of the “CrossGatewayMessages” needs to be performed.
- The Message validator validates the messages against HL7v3 specs and standards.
- Once clicking the above link select the Message Validator item from the main menu. This allows:
 - Upload of message
 - Select the message type (or let the tool guess based on inspection of the message)
 - It will produce a quite verbose analysis of your message. In case of errors found, you will be pointed to the relevant sections of the profile or standard for reference. The more specific we are in specifying the message type, the more feedback it gives



APPENDIX B - INITIATING NODE – PATIENT DISCOVERY

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC001	Initiating Node	No Matching Patient Found	Initiating Node sends patient discovery request which returns no match found.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds no matching patients. It returns a successful response message with a query total of 0.	Pt#	
TC002	Initiating Node	Match Found in One Certified Node	Initiating Node sends patient discovery request which returns one match found in a single node.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	Multiple Nodes are available.
TC003	Initiating Node	Match Found in Two Certified Nodes	Initiating Node sends patient discovery request which returns matches found in multiple nodes.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request against at least two Certified Nodes and finds patient in more than one node. It returns a successful response message with the patient information from each node.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC004	Initiating Node	More Than One Patient is a Possible Match	Initiating Node sends patient discovery request which returns more than one possible match.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds more than one matching patient. It returns a successful response message requesting additional attributes be provided to assist in patient matching.	Pt#	
				PD	2	Certified Node provides amended request with additional attributes from one of the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.		
TC005	Initiating Node	Message Related Error	Initiating Node sends patient discovery request where ConnectVirginia returns an error indicating there is a problem with the message.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters but encounters an error.	A message is returned indicating the error.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC006	Initiating Node	ConnectVirginia is Not Available	Initiating Node sends patient discovery request where ConnectVirginia is experiencing a maintenance outage and has taken their master patient index down.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	A response message of "ResponderBusy" is returned.	Pt#	
TC007	Initiating Node	ConnectVirginia has an Error	Initiating Node sends patient discovery request where ConnectVirginia returns an error.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia receives the patient discovery request and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring ConnectVirginia's IT support staff to perform an action (i.e. Human intervention is needed). ConnectVirginia generates a unique identifier and include the unique identifier in the "AnswerNotAvailable" response message.	Pt#	

APPENDIX C- INITIATING NODE – DOCUMENT QUERY

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC008	Initiating Node	No Matching Document Found	Initiating Node document query with no matching document found.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	Test patient does not have any associated documents.
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds no matching documents. It returns a successful response message with no document identifiers.		
TC009	Initiating Node	One Document in One Certified Node	Initiating Node document query with one match found in a single node.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
TC010	Initiating Node	Multiple Documents Found	Initiating Node document query with multiple matching documents found.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC011	Initiating Node	Message Related Error	Initiating Node document query where ConnectVirginia returns an error indicating there is a problem with the message.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request but encounters an error.	A message is returned indicating the error.		
TC012	Initiating Node	ConnectVirginia is Not Available	Initiating Node document query where ConnectVirginia is experiencing a maintenance outage and has taken their master patient index down.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	A response message of "ResponderBusy" is returned.		
TC013	Initiating Node	ConnectVirginia has an Error	Initiating Node sends patient discovery request where ConnectVirginia returns an error.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia receives a document query and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring ConnectVirginia's IT support staff to perform an action (i.e. Human intervention is needed). ConnectVirginia generates a unique identifier and include the unique identifier in the "AnswerNotAvailable" response message.		

APPENDIX D - INITIATING NODE – DOCUMENT RETRIEVAL

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC014	Initiating Node	Success, One Document Retrieved	Initiating Node retrieve document request with one document returned from a single node.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	Multiple Nodes are available.
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request to ConnectVirginia using the repositoryUniqueld, documentUniqueld, and homeCommunityId in the metadata received after the successful document query.	ConnectVirginia processes the retrieve document request and finds one document. It returns the document. All the data parameters used to search for the document are present in the associated document metadata.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC015	Initiating Node	Success, Multiple Documents Retrieved	Initiating Node retrieve document request with multiple documents returned.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request to ConnectVirginia using the repositoryUniqueld, documentUniqueld, and homeCommunityId in the metadata received after the successful document query.	ConnectVirginia processes the retrieve document request and finds more than one document. It returns all the documents. All the data parameters used to search for the documents are present in the associated metadata within each document.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC016	Initiating Node	Message Related Error	Initiating Node retrieve document request where ConnectVirginia returns an error indicating there is a problem with the message.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request to ConnectVirginia using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query but encounters an error.	A message is returned indicating the error.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC017	Initiating Node	ConnectVirginia is Not Available	Initiating Node retrieve document request where ConnectVirginia is experiencing a maintenance outage and has taken their master patient index down.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request to ConnectVirginia using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	A response message of "ResponderBusy" is returned.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC018	Initiating Node	ConnectVirginia has an Error	Initiating Node retrieve document request where ConnectVirginia returns an error.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				QD	2	Certified Node transmits a find documents query request to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request to ConnectVirginia using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	ConnectVirginia receives a retrieve document request and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring ConnectVirginia's IT support staff to perform an action (i.e. Human intervention is needed). ConnectVirginia generates a unique identifier and include the unique identifier in the "AnswerNotAvailable" response message.		

APPENDIX E - INITIATING NODE – DOCUMENT SUBMISSION

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC019	Initiating Node	Success, ConnectVirginia Accepts the Document	Initiating Node successfully submits document to ConnectVirginia.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				SD	2	Certified Node submits document to ConnectVirginia for the retrieved patient.	ConnectVirginia processes the document		
TC020	Initiating Node	Failure, Document is Not Submitted Due to an Error	Initiating Node submits document to ConnectVirginia, but ConnectVirginia returns an error indicating there is a problem with the message.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				SD	2	Certified Node submits document to ConnectVirginia for the retrieved patient but encounters an error.	A message is returned indicating the error.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC021	Initiating Node	ConnectVirginia is Not Available	Initiating Node document query where ConnectVirginia is experiencing a maintenance outage and has taken their master patient index down.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#	
				SD	2	Certified Node submits document to ConnectVirginia for the retrieved patient.	A response message of "ResponderBusy" is returned.		
TC022	Initiating Node	ConnectVirginia has an Error	Initiating Node sends patient discovery request where ConnectVirginia returns an error.	PD	1	Certified Node transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	Pt#7	
				SD	2	Certified Node submits document to ConnectVirginia for the retrieved patient.	ConnectVirginia receives a document submittal request and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring ConnectVirginia's IT support staff to perform an action (i.e. Human intervention is needed). ConnectVirginia generates a unique identifier and		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
							include the unique identifier in the "AnswerNotAvailable" response message.		

APPENDIX F - INITIATING NODE – EMERGENCY CONSENT EXCEPTION

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC023	Initiating Node	Consent Exception - No Matching Patient Found	Initiating Node Emergency Consent Exception patient discovery request with no match found.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds no matching patients. It returns a successful response message with a query total of 0.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	
TC024	Initiating Node	Consent Exception - Match Found in One Certified Node	Initiating Node Emergency Consent Exception patient discovery request with one match found in a single node.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC025	Initiating Node	Consent Exception - Match Found in Two Certified Nodes	Initiating Node Emergency Consent Exception patient discovery request with matches found in multiple nodes.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) code with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request against at least two Certified Nodes and finds patient in more than one node. It returns a successful response message with the patient information from each node.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	
TC026	Initiating Node	Consent Exception - More Than One Patient is a Possible Match	Initiating Node Emergency Consent Exception patient discovery request with more than one possible match found.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds more than one matching patient. It returns a successful response message requesting additional attributes be provided to assist in patient matching.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC027	Initiating Node	Consent Exception - No Matching Document Found	Initiating Node Emergency document query with no matching document found.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Test patient does not have any associated documents.
				QD	2	Certified Node transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds no matching documents. It returns a successful response message with no document identifiers.		
TC028	Initiating Node	Consent Exception - One Document in One Certified	Initiating Node Emergency Consent Exception document query with one match found in a single node.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN =	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
		Node				and Date of Birth as provided in the data parameters for a patient that has not given consent.		Address = Phone = * = required data element	
				QD	2	Certified Node transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
TC029	Initiating Node	Consent Exception - Multiple Documents Found	Initiating Node Emergency Consent Exception document query with multiple matching documents found.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	Certified Node transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
TC030	Initiating Node	Consent Exception - Success, One Document Retrieved	Initiating Node Emergency Consent Exception retrieve document request with one document returned.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.
				QD	2	Certified Node transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to ConnectVirginia using the	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
						Patient ID and Entry Type that are returned after the successful patient discovery request.			
				RD	3	Certified Node transmits a retrieve document request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to ConnectVirginia using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	ConnectVirginia processes the retrieve document request and finds one document. It returns the document. All the data parameters used to search for the document are present in the associated document metadata.		
TC031	Initiating Node	Consent Exception - Success, Multiple Documents Retrieved	Initiating Node Emergency Consent Exception retrieve document request with multiple documents returned.	PD	1	Certified Node transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	Certified Node transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds multiple documents. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to ConnectVirginia using the repositoryUniqueld, documentUniqueld, and homeCommunityId in the metadata received after the successful document query.	ConnectVirginia processes the retrieve document request and finds multiple documents. It returns the documents. All the data parameters used to search for the documents are present in the associated documents' metadata.		

APPENDIX G - INITIATING NODE – PUBLIC HEALTH CONSENT EXCEPTION

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC032	Initiating Node	Consent Exception - No Matching Patient Found	Initiating Node Public Health Consent Exception patient discovery request with no match found.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds no matching patients. It returns a successful response message with a query total of 0.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	
TC033	Initiating Node	Consent Exception - Match Found in One Certified Node	Initiating Node Public Health Consent Exception patient discovery request with one match found in a single node.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
								element	
TC034	Initiating Node	Consent Exception - Match Found in Two Certified Nodes	Initiating Node Public Health Consent Exception patient discovery request with matches found in multiple nodes.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request against at least two Certified Nodes and finds patient in more than one node. It returns a successful response message with the patient information from each node.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	
TC035	Initiating Node	Consent Exception - More Than One Patient is a Possible Match	Initiating Node Public Health Consent Exception patient discovery request with more than one possible match found.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds more than one matching patient. It returns a successful response message requesting additional attributes be provided to assist in patient matching.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC036	Initiating Node	Consent Exception - No Matching Document Found	Initiating Node Public Health document query with no matching document found.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Test patient does not have any associated documents.
				QD	2	Certified Node transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds no matching documents. It returns a successful response message with no document identifiers.		
TC037	Initiating Node	Consent Exception - One Document	Initiating Node Public Health Consent Exception document query with one match found in a single	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the	*Patient Name = *Gender = *Date of	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
		in One Certified Node	node.			of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	patient information from the node with the match.	Birth = SSN = Address = Phone = * = required data element	
				QD	2	Certified Node transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
TC038	Initiating Node	Consent Exception - Multiple Documents Found	Initiating Node Public Health Consent Exception document query with multiple matching documents found.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone =	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
						has not given consent.		* = required data element	
				QD	2	Certified Node transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
TC039	Initiating Node	Consent Exception - Success, One Document Retrieved	Initiating Node Public Health Consent Exception retrieve document request with one document returned.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	Certified Node transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to ConnectVirginia using the repositoryUniqueld, documentUniqueld, and homeCommunityId in the metadata received after the successful document query.	ConnectVirginia processes the retrieve document request and finds one document. It returns the document. All the data parameters used to search for the document are present in the associated document metadata.		
TC040	Initiating Node	Consent Exception - Success, Multiple Documents	Initiating Node Public Health Consent Exception retrieve document request with multiple documents returned.	PD	1	Certified Node transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of	ConnectVirginia processes the request and finds patient in one node. It returns a successful response message with the patient information from the node	*Patient Name = *Gender = *Date of Birth =	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
		Retrieved				"PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	with the match.	SSN = Address = Phone = * = required data element	
				QD	2	Certified Node transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to ConnectVirginia using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds multiple documents. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
				RD	3	Certified Node transmits a retrieve document request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to ConnectVirginia using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the	ConnectVirginia processes the retrieve document request and finds multiple documents. It returns the documents. All the data parameters used to search for the documents are present in the associated document metadata.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
						successful document query.			

APPENDIX H - RESPONDING NODE – PATIENT DISCOVERY

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC041	Responding Node	No Matching Patient Found	Responding Node receives a patient discovery request which returns no match found.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	Certified Node processes the request and finds no matching patients. It returns a successful response message with a query total of 0.	Pt#	Patient with given data parameters does not exist in the Certified Node's MPI.
TC042	Responding Node	One Matching Patient Found	Responding Node receives a patient discovery request which returns one match found in a single node.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC043	Responding Node	More Than One Patient is a Possible Match	Responding Node receives a patient discovery request with more than one possible match found.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds more than one matching patient. It returns a successful response message requesting additional attributes be provided to assist in patient matching.	Pt#	
				PD	2	ConnectVirginia provides amended request with additional attributes from one of the data parameters.	The Certified Node processes the request and finds patient in one node. It returns a successful response message with the patient information from the node with the match.		
TC044	Responding Node	Message Related Error	Patient discovery request from ConnectVirginia where the Certified Node returns an error indicating there is a problem with the message.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters but encounters an error.	A message is returned indicating the error.	Pt#	
TC045	Responding Node	Node is Not Available	Responding Node receives a patient discovery request where the Node is experiencing a maintenance outage	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	A response message of "ResponderBusy" is returned.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
			and has taken their master patient index down.						
TC046	Responding Node	Node has an Error	ConnectVirginia sends patient discovery request where Responding Node returns an error.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	Certified Node receives the patient discovery request and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring Node's IT support staff to perform an action (i.e. Human intervention is needed). The Certified Node generates a unique identifier and include the unique identifier in the "AnswerNotAvailable" response message.	Pt#	

APPENDIX I - RESPONDING NODE – DOCUMENT QUERY

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC047	Responding Node	No Matching Document Found	Responding Node receives a document query with no matching document found.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	Test patient does not have any associated documents.
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds no matching documents. It returns a successful response message with no document identifiers.		
TC048	Responding Node	One Document in One Certified Node	Responding Node document query with one match found in the node.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	Multiple Nodes are available.
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC049	Responding Node	Multiple Documents Found	Responding Node receives a document query with multiple matching documents found.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	ConnectVirginia processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
TC050	Responding Node	Message Related Error	ConnectVirginia submits document query where the Certified Node returns an error indicating there is a problem with the message.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request but encounters an error.	A message is returned indicating the error.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC051	Responding Node	Node is Not Available	ConnectVirginia document query where the Certified Node is experiencing a maintenance outage and has taken their master patient index down.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	A response message of "ResponderBusy" is returned.		
TC052	Responding Node	ConnectVirginia has an Error	ConnectVirginia sends patient discovery request where the Certified Node returns an error.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node receives a document query and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring the Node's IT support staff to perform an action (i.e. Human intervention is needed). The Certified Node generates a unique identifier and include the unique identifier in the "AnswerNotAvailable" response message.		

APPENDIX J- RESPONDING NODE – DOCUMENT RETRIEVAL

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC053	Responding Node	Success, One Document Retrieved	Responding Node receives retrieve document request with one document found and returned to ConnectVirginia.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	Multiple Nodes are available.
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request to the Certified Node using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	The Certified Node processes the retrieve document request and finds one document. It returns the document. All the data parameters used to search for the document are present in the associated document metadata.		
TC054	Responding Node	Success, Multiple Documents Retrieved	Responding Node receives retrieve document request with multiple documents found and returned to	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
			ConnectVirginia.						
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request to the Certified Node using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	The Certified Node processes the retrieve document request and finds more than one document. It returns all the documents. All the data parameters used to search for the documents are present in the associated metadata within each document.		
TC055	Responding Node	Message Related Error	Responding Node retrieve document request where the Certified Node returns an error indicating there is a problem with the message.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request to the Certified Node using the repositoryUniqueld, documentUniqueld, and homeCommunityId in the metadata received after the successful document query but encounters an error.	A message is returned indicating the error.		
TC056	Responding Node	Certified Node is Not Available	Responding Node retrieve document request where the Certified Node is experiencing a maintenance outage and has taken their master patient index down.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request to the Certified Node using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	A response message of "ResponderBusy" is returned.		
TC057	Responding Node	Certified Node has an Error	Responding Node retrieve document request where the Certified Node returns an error.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and finds exactly one matching patient and returns a successful response message to ConnectVirginia.	Pt#	
				QD	2	ConnectVirginia transmits a find documents query request to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				RD	3	ConnectVirginia transmits a retrieve document request to the Certified Node using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	The Certified Node receives a retrieve document request and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring the Node's IT support staff to perform an action (i.e. Human intervention is needed). The Certified Node generates a unique identifier and include the unique identifier in the "AnswerNotAvailable" response message.		

APPENDIX K - RESPONDING NODE – DOCUMENT SUBMISSION

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC058	Responding Node	Success, Responding Node Stores the Document	ConnectVirginia successfully submits document to the Certified Node.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and returns a successful response message with the patient information.	Pt#	
				SD	2	ConnectVirginia submits document to ConnectVirginia for the retrieved patient.	The Certified Node processes the document.		
TC059	Responding Node	Failure, Document is Not Stored by Responding Node Due to an Error	ConnectVirginia submits document to Certified Node for storage, but Certified Node returns an error indicating there is a problem with the message.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and returns a successful response message with the patient information.	Pt#	
				SD	2	ConnectVirginia submits document to the Certified Node for the retrieved patient but encounters an error.	A message is returned indicating the error.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC060	Responding Node	Responding Node is Not Available	Initiating Node document query where Certified Node is experiencing a maintenance outage and has taken their master patient index down.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and returns a successful response message with the patient information.	Pt#	
				SD	2	ConnectVirginia submits document to the Certified Node for the retrieved patient.	A response message of "ResponderBusy" is returned.		
TC061	Responding Node	Responding Node has an Error	ConnectVirginia sends patient discovery request where Certified Node returns an error.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and returns a successful response message with the patient information.	Pt#	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				SD	2	ConnectVirginia submits document to the Certified Node for the retrieved patient.	The Certified Node receives a document submittal request and encounters an error. Typical usages are when a backend service times out or is not available due to an unplanned outage, or there is a problem requiring the Node's IT support staff to perform an action (i.e. Human intervention is needed). The Certified Node generates a unique identifier and include the unique identifier in the "AnswerNotAvailable" response message.		

APPENDIX L - RESPONDING NODE – EMERGENCY CONSENT EXCEPTION

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC062	Responding Node	Consent Exception - No Matching Patient Found	ConnectVirginia submits Emergency Consent Exception patient discovery request with no match found.	PD	1	ConnectVirginia transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and finds no matching patients. It returns a successful response message with a query total of 0.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	
TC063	Responding Node	Consent Exception - Match Found in One Certified Node	ConnectVirginia submits Emergency Consent Exception patient discovery request with one match found in a single node.	PD	1	ConnectVirginia transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.
TC064	Responding Node	Consent	ConnectVirginia submits	PD	1	ConnectVirginia transmits a	The Certified Node processes the	*Patient	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
	ng Node	Exception - More Than One Patient is a Possible Match	Emergency Consent Exception patient discovery request with more than one possible match found.			patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	request and finds more than one matching patient. It returns a successful response message requesting additional attributes be provided to assist in patient matching.	Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	
TC065	Responding Node	Consent Exception - No Matching Document Found	ConnectVirginia submits Emergency Consent Exception document query with no matching document found.	PD	1	ConnectVirginia transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Test patient does not have any associated documents.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds no matching documents. It returns a successful response message with no document identifiers.		
TC066	Responding Node	Consent Exception - One Document in One Certified Node	ConnectVirginia submits Emergency Consent Exception document query with one match found in a single node.	PD	1	ConnectVirginia transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
TC067	Responding Node	Consent Exception - Multiple Documents Found	ConnectVirginia submits Emergency Consent Exception document query with multiple matching documents found.	PD	1	ConnectVirginia transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
TC068	Responding Node	Consent Exception - Success, One Document Retrieved	ConnectVirginia submits Emergency Consent Exception retrieve document request with one document returned.	PD	1	ConnectVirginia transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to the Certified Node using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	The Certified Node processes the retrieve document request and finds one document. It returns the document. All the data parameters used to search for the document are present in the associated document metadata.		
TC069	Responding Node	Consent Exception - Success, Multiple Documents Retrieved	ConnectVirginia submits Emergency Consent Exception retrieve document request with multiple documents returned.	PD	1	ConnectVirginia transmits a patient discovery request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" with Patient Name, Gender and Date of Birth as provided	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address =	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
						in the data parameters for a patient that has not given consent.		Phone = * = required data element	
				QD	2	ConnectVirginia transmits a find documents query request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request that includes an Emergency (Consent Exception) Purpose of Use code of "EMERGENCY" to the Certified Node using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	The Certified Node processes the retrieve document request and finds more than one document. It returns all the documents. All the data parameters used to search for the documents are present in the associated metadata within each document.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions

APPENDIX M - RESPONDING NODE – PUBLIC HEALTH CONSENT EXCEPTION

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC070	Responding Node	Consent Exception - No Matching Patient Found	ConnectVirginia submits Public Health Consent Exception patient discovery request with no match found.	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and finds no matching patients. It returns a successful response message with a query total of 0.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
								element	
TC071	Responding Node	Consent Exception - Match Found in One Certified Node	ConnectVirginia submits Public Health Consent Exception patient discovery request with one match found in a single node.	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.
TC072	Responding Node	Consent Exception - More Than One Patient is a Possible Match	ConnectVirginia submits Public Health Consent Exception patient discovery request with more than one possible match found.	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and finds more than one matching patient. It returns a successful response message requesting additional attributes be provided to assist in patient matching.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
								element	
TC073	Responding Node	Consent Exception - No Matching Document Found	ConnectVirginia submits Public Health Consent Exception document query with no matching document found.	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Test patient does not have any associated documents.
				QD	2	ConnectVirginia transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds no matching documents. It returns a successful response message with no document identifiers.		
TC074	Responding Node	Consent Exception - One	ConnectVirginia submits Public Health Consent Exception document	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health	The Certified Node processes the request and returns a successful response message with the	*Patient Name = *Gender =	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
		Document in One Certified Node	query with one match found in a single node.			(Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	patient information.	*Date of Birth = SSN = Address = Phone = * = required data element	
				QD	2	ConnectVirginia transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
TC075	Responding Node	Consent Exception - Multiple Documents Found	ConnectVirginia submits Public Health Consent Exception document query with multiple matching documents found.	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone =	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
						parameters for a patient that has not given consent.		* = required data element	
				QD	2	ConnectVirginia transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
TC076	Responding Node	Consent Exception - Success, One Document Retrieved	ConnectVirginia submits Public Health Consent Exception retrieve document request with one document returned.	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data element	Multiple Nodes are available.

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
				QD	2	ConnectVirginia transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds one document. It returns a successful response message with all the identifiers of the document found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to the Certified Node using the repositoryUniqueId, documentUniqueId, and homeCommunityId in the metadata received after the successful document query.	The Certified Node processes the retrieve document request and finds one document. It returns the document. All the data parameters used to search for the document are present in the associated document metadata.		
TC077	Responding Node	Consent Exception - Success, Multiple Documents	ConnectVirginia submits Public Health Consent Exception retrieve document request with multiple documents	PD	1	ConnectVirginia transmits a patient discovery request that includes a Public Health (Consent Exception) Purpose of Use code of	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth =	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
		Retrieved	returned.			"PUBLICHEALTH" with Patient Name, Gender and Date of Birth as provided in the data parameters for a patient that has not given consent.		SSN = Address = Phone = * = required data element	
				QD	2	ConnectVirginia transmits a find documents query request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to the Certified Node using the Patient ID and Entry Type that are returned after the successful patient discovery request.	The Certified Node processes the request and finds more than one document. It returns a successful response message with all the identifiers of the documents found and the associated document metadata.		
				RD	3	ConnectVirginia transmits a retrieve document request that includes a Public Health (Consent Exception) Purpose of Use code of "PUBLICHEALTH" to the Certified Node using the repositoryUniqueld, documentUniqueld, and homeCommunityId in the metadata received after the	The Certified Node processes the retrieve document request and finds more than one document. It returns all the documents. All the data parameters used to search for the documents are present in the associated metadata within each document.		

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
						successful document query.			

APPENDIX N - RESPONDING NODE – OPT OUT DOCUMENT SUBMISSION

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
TC078	Responding Node	Receive and Process Opt-out Request	A patient opt-out document is submitted to a Certified Node.	PD	1	ConnectVirginia transmits a patient discovery request with Patient Name, Gender and Date of Birth as provided in the data parameters.	The Certified Node processes the request and returns a successful response message with the patient information.	*Patient Name = *Gender = *Date of Birth = SSN = Address = Phone = * = required data	

Test Case ID	Role	Summary	Description	Service	Step #	Initiator Action	Responder Action	Data Parameters / Notes	Assumptions
								element	
				SD	2	ConnectVirginia submits a patient opt-out document to the Certified Node for the retrieved patient.	The Certified Node processes the document and sends an acknowledgement to ConnectVirginia.		