



Security Test Cases

For eHealth Exchange Participant and
Validated Product Testing

eHealth Exchange Testing Program Overview

The scope of the eHealth Exchange Testing Program is limited to the [Specifications](#); the information outlined in the [Validation Plan](#) and related [Test Materials](#) adopted by the Coordinating Committee, collectively called “Performance and Service Specifications”.

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

The eHealth Exchange Testing Program supports the following:

- Applicants who wish to join the eHealth Exchange as Participants;
- Existing eHealth Exchange Participants who wish to test new technology or retest as a condition of continued participation in eHealth Exchange; and
- Vendors who wish to have their product(s) validated as eHealth Exchange compliant. The eHealth Exchange Testing Program verifies that a System both complies with eHealth Exchange specifications and has the ability to interoperate with other eHealth Exchange Participant Systems.

The abbreviation of System Under Test (SUT) will be used to describe the role of the testing organization in the following test cases. The summary of test cases related to the Security Tests can be found below:

Table 1: Security Test Summary

SUT	Description	Specifications	Summary of Test Cases	Test Method
Participant	Transmitting clinical documentation to support treatment of an individual, care coordination or transitions of care	2011 version of the following: <ul style="list-style-type: none"> • Messaging Platform • Authorization Framework 	Security Tests (2011) 19 Required Security Tests	Run tests against the Sequoia Project Testing environment
Product Vendor	Transmitting clinical documentation to support treatment of an individual, care coordination or transitions of care	2011 version of the following: <ul style="list-style-type: none"> • Messaging Platform • Authorization Framework 	Security Tests (2011) 35 Required Security Tests	Results validated by the Sequoia Project

These test cases are currently in effect and are required for organizations wishing to onboard to the eHealth Exchange network and use a System supporting the 2011 specifications.

For more details: <https://ehealthexchange.org/testing-program/testing-references/>

These materials reflect the following:

- [Change Log](#) - The Official eHealth Exchange Specifications page lists, near the top, the Official Technical Errata and Change Log. This is the single authoritative source for changes to the Testing program, or specifications.
- [Validated Product Testing Overview](#) - List of documents for the required and provisional eHealth Exchange Product Testing Program. Includes the applications required and listing of all product test cases, documentation, provisional tests, conformity assessment checklists, Testing data load set and documents, and a description of content tests.
- [Participant Testing Overview](#) - A broad overview of the process, applications and documentation for the Participant Testing Program. List of all participant test cases, documentation, provisional tests, conformity assessment checklists, Testing data load sets and documents and a description of content tests for the current eHealth Exchange Participant Testing Program
- [Test Data Load Set](#) – Required data and associated document files to execute the test cases. This document contains the information required to execute the test cases within the Sequoia Testing environment including patient demographics, document metadata, as well as the mapping of the documents to the patients. The data must be loaded into the SUT exactly as prescribed in the spreadsheet and all attributes must be loaded (unless the attribute is an optional element and it is not supported by the SUT).

eHealth Exchange also has a Content Testing Program, which is not covered by this document. For an overview of the [Content Testing Program](#), visit the Content Testing Program page on the eHealth Exchange website.

Security Test Case List

The following table lists the security tests that must be completed for product testing, and for participants testing using a system that is not an eHealth Exchange Validated Product. Note that participants that are testing using a Validated Product are exempt from the security tests. Please consult the official [eHealth Exchange Validated Product list](#) to see if your product might be eligible for exemption and consult with your eHealth Exchange Testing Manager for confirmation.

#	TEST CASE ID	FUNCTIONAL AREA	PURPOSE/ DESCRIPTION	PARTICIPANT TESTING	PRODUCT TESTING
1	TC-MAPD-R-0003.000	SOAP security	Handle missing wsse:Security element	X	X
2	TC-MAPD-R-0003.101	SOAP security	Handle missing Security/Timestamp element	X	X
3	TC-MAPD-R-0003.201	WS-Addressing	Handle missing MessageID element		X
4	TC-MAPD-R-0003.301	XML Signature	Handle missing Assertion signature element	X	X
5	TC-MAPD-R-0003.302	XML Signature	Handle invalid Assertion signature	X	X
6	TC-MAPD-R-0003.303	XML Signature	Handle missing timestamp signature element	X	X
7	TC-MAPD-R-0003.306	XML Signature	Handle missing CanonicalizationMethod element in Timestamp signature	X	X
8	TC-MAPD-R-0003.307	XML Signature	Handle missing CanonicalizationMethod algorithm in Timestamp signature	X	X
9	TC-MAPD-R-0003.308	XML Signature	Handle missing SignatureMethod element in Timestamp signature	X	X
10	TC-MAPD-R-0003.315	XML Signature	Handle missing DigestValue element in Timestamp signature reference	X	X
11	TC-MAPD-R-0003.316	XML Signature	Handle Invalid DigestValue in Timestamp signature reference	X	X
12	TC-MAPD-R-0003.317	XML Signature	Handle missing SignatureValue element in Timestamp signature	X	X
13	TC-MAPD-R-0003.318	XML Signature	Handle missing KeyInfo element in timestamp signature		X
14	TC-MAPD-R-0003.319	XML Signature	Handle missing KeyInfo/SecurityTokenReference element in timestamp signature		X

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15	TC-MAPD-R-0003.320	XML Signature	Handle missing /KeyInfo/SecurityTokenReference/@TokenType attribute in timestamp signature		X
16	TC-MAPD-R-0003.321	XML Signature	Handle invalid TokenType version in timestamp signature		X
17	TC-MAPD-R-0003.323	XML Signature	Handle missing /SecurityTokenReference/KeyIdentifier/@ValueType attribute in timestamp signature		X
18	TC-MAPD-R-0003.324	XML Signature	Handle Invalid ValueType version in timestamp signature		X
19	TC-MAPD-R-0003.325	XML Signature	Handle Invalid KeyIdentifier (AssertionID) in timestamp signature	X	X
20	TC-MAPD-R-0003.326	XML Signature	Handle Missing KeyInfo in Assertion signature	X	X
21	TC-MAPD-R-0003.401	SAML Assertion	Handle missing Assertion element	X	X
22	TC-MAPD-R-0003.410	SAML Assertion	Handle Missing Issuer Format in Assertion		X
23	TC-MAPD-R-0003.411	SAML Assertion	Handle Invalid Issuer Email Name ID in Assertion		X
24	TC-MAPD-R-0003.412	SAML Assertion	Handle Invalid Issuer X.509 Name ID in Assertion		X
25	TC-MAPD-R-0003.413	SAML Assertion	Handle Invalid Issuer Windows Name ID in Assertion		X
26	TC-MAPD-R-0003.420	SAML Assertion	Handle Missing Subject element in Assertion		X
27	TC-MAPD-R-0003.421	SAML Assertion	Handle Missing Subject Name ID in Assertion	X	X
28	TC-MAPD-R-0003.422	SAML Assertion	Handle Invalid Subject Name ID in Assertion		X
29	TC-MAPD-R-0003.423	SAML Assertion	Handle Missing Subject Confirmation in Assertion	X	X
30	TC-MAPD-R-0003.424	SAML Assertion	Handle Missing Subject Confirmation Method in Assertion	X	X
31	TC-MAPD-R-0003.426	SAML Assertion	Handle Missing Subject Confirmation Data in Assertion	X	X
32	TC-MAPD-R-0003.427	SAML Assertion	Handle Missing Subject Confirmation Key Info in Assertion	X	X
33	TC-MAPD-R-0003.429	SAML Assertion	Handle Invalid RSA Public Key Modulus in Assertion		X
34	TC-MAPD-R-0003.430	SAML Assertion	Handle Missing RSA Public Key Exponent in Assertion		X
35	TC-MAPD-R-0003.431	SAML Assertion	Handle Invalid RSA Public Key Exponent in Assertion		X

Security Tests

TC: MAPD-R-0003.000

Test Case ID:	TC: MAPD-R-0003.000
Title:	Handle missing wsse:Security element
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing wsse:Security element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element wsse:Security is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: For a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Messaging Platform 3.0 Sec 3.6.2
2011 Underlying Specification	SOAP 1.2: Table 4 WS-Addressing 1.0, SOAP Binding: Section 6 WSS SOAP Message Security 1.1: Lines 2038-2044

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.101

Test Case ID:	TC:MAPD-R-0003.101
Title:	Handle missing Security/Timestamp element
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Timestamp element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Timestamp is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: For a Patient Discovery, a normal response is returned, but with no matching patients

found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

- 3. Verify conformance of the message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	Web Services Security: SAML Token Profile 1.1 specification

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.201

Test Case ID:	TC: MAPD-R-0003.201
Title:	Handle missing MessageID element
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing MessageID element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element MessageID is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: For a Patient Discovery, a normal response is returned, but with no matching patients

found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Messaging Platform 3.0 Section 3.5
2011 Underlying Specification	Web Services Addressing 1.0

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.301

Test Case ID:	TC: MAPD-R-0003.301
Title:	Handle missing assertion signature element
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Assertion/Signature element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Signature is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: For a Patient Discovery, a normal response is returned, but with no matching patients

found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3.4
2011 Underlying Specification	W3CExclusive XML Canonicalization Version 1.0 specification

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.302

Test Case ID:	TC: MAPD-R-0003.302
Title:	Handle invalid assertion signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with an incorrect Security/Assertion/Signature.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Signature is incorrect. Specifically, the SignatureValue does not allow the signature to be verified.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: For a

Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3.4
2011 Underlying Specification	W3CExclusive XML Canonicalization Version 1.0 specification

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.303

Test Case ID:	TC: MAPD-R-0003.303
Title:	Handle missing timestamp signature element
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature (for Timestamp) element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature (for Timestamp) is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: For a Patient Discovery, a normal response is returned, but with no matching patients

found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	OASIS XSPA profile of SAML

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.306

Test Case ID:	TC:MAPD-R-0003.306
Title:	Handel missing CanonicalizationMethod element in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature/SignedInfo/CanonicalizationMethod element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/SignedInfo/CanonicalizationMethod is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: For a

Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

- 3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.307

Test Case ID:	TC: MAPD-R-0003.307
Title:	Handle missing CanonicalizationMethod algorithm in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature/SignedInfo/CanonicalizationMethod/@algorithm element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/SignedInfo/CanonicalizationMethod/@algorithm is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.4
2011 Underlying Specification	W3CExclusive XML Canonicalization Version 1.0 specification

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.308

Test Case ID:	TC:MAPD-R-0003.308
Title:	Handle missing SignatureMethod element in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing SignatureMethod element in Timestamp signature.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/SignedInfo/SignatureMethod is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.4
2011 Underlying Specification	W3CExclusive XML Canonicalization Version 1.0 specification

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.315

Test Case ID:	TC: MAPD-R-0003.315
Title:	Handle missing DigestValue element in Timestamp signature reference
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature/SignedInfo/Reference/DigestValue element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/SignedInfo/Reference/DigestValue is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.316

Test Case ID:	TC: MAPD-R-0003.316
Title:	Handle invalid Digest/Value element in Timestamp signature reference
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a Security/Signature/SignedInfo/Reference/DigestValue element with an invalid value.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/SignedInfo/Reference/DigestValue has an invalid value.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message \to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.317

Test Case ID:	TC: MAPD-R-0003.317
Title:	Handle missing SignatureValue element in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature/SignatureValue element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/SignatureValue is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.4
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.318

Test Case ID:	TC: MAPD-R-0003.318
Title:	Handle missing KeyInfo element in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature/KeyInfo element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/KeyInfo is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3.4.3
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.319

Test Case ID:	TC: MAPD-R-0003.319
Title:	Handle missing KeyInfo/SecurityTokenReference element in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature/KeyInfo/SecurityTokenReference element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-0000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/KeyInfo/SecurityTokenReference is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3.4.3
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.320

Test Case ID:	TC: MAPD-R-0003.320
Title:	Handle missing KeyInfo/SecurityTokenReference/@TokenType element in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Security/Signature/KeyInfo/SecurityTokenReference/@TokenType element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/KeyInfo/SecurityTokenReference/@TokenType is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.321

Test Case ID:	TC: MAPD-R-0003.321
Title:	Handle expired Security/Timestamp
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the SUT with an invalid TokenType version in the timestamp signature.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

4. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SO - "http://docs.oasis-open.org/wss/oasis-wss-saml-token-profile-1.1#SAMLV1.1".AP header element Security/Signature/KeyInfo/@TokenType is invalid
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017

5. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

6. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.323

Test Case ID:	TC: MAPD-R-003.323
Title:	Handle missing /SecurityTokenReference/KeyIdentifier/@ValueType attribute in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the SUT with a missing /SecurityTokenReference/KeyIdentifier/@ValueType attribute in timestamp signature.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/KeyInfo/SecurityTokenReference/KeyIdentifier/@ValueType is missing
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.324

Test Case ID:	TC: MAPD-R-0003.324
Title:	Handle invalid ValueType version in timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with an invalid ValueType version in timestamp signature.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP Header attribute Security/Signature/KeyInfo/SecurityTokenReference/KeyIdentifier/@ValueType is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.325

Test Case ID:	TC: MAPD-R-0003.325
Title:	Handle invalid KeyIdentifier (assertionID) in Timestamp signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with an invalid KeyIdentifier (assertionID) in timestamp signature.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Signature/KeyInfo/SecurityTokenReference/KeyIdentifier is invalid: "XXXXXX", which does not resolve to anything.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.2.2
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.326

Test Case ID:	TC: MAPD-R-0003.326
Title:	Handle missing KeyInfo in assertion signature
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing KeyInfo in assertion signature.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Signature/KeyInfo is missing
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3.4.3
2011 Underlying Specification	

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.401

Test Case ID:	TC: MAPD-R-0003.401
Title:	Handle missing Assertion element
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Assertion element.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion is missing
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.410

Test Case ID:	TC: MAPD-R-0003.410
Title:	Handle missing Issuer Format in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Issuer Format in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Issuer/@Format is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SAML Token Profile 1.1: Section 3.6

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.411

Test Case ID:	TC: MAPD-R-0003.411
Title:	Handle invalid Issuer Email Name ID in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Issuer Email Name ID in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Issuer/@Format = "urn:oasis:names:tc:SAML:1.1:nameid-format:emailAddress" but the value supplied is not a valid email address format
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SAML Token Profile 1.1: Section 3.6; SAML Core 2.0: Section 8.3.2

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.412

Test Case ID:	TC: MAPD-R-0003.412
Title:	Handle invalid Issuer X.509 Name ID in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Issuer X.509 Name ID in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Issuer/@Format = "urn:oasis:names:tc:SAML:1.1:nameid-format:X509SubjectName" but the value supplied is not a valid X.509 Subject Name format.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SAML Token Profile 1.1: Section 3.6; SAML Core 2.0: Section 8.3.3

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.413

Test Case ID:	TC: MAPD-R-0003.413
Title:	Handle invalid Issuer Windows Name ID in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Windows Name ID in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Issuer/@Format = "urn:oasis:names:tc:SAML:1.1:nameid-format:WindowsDomainQualifiedName" but the value supplied is not a valid Window Domain Qualified Name format.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SAML Token Profile 1.1: Section 3.6; SAML Core 2.0: Section 8.3.4

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.420

Test Case ID:	TC: MAPD-R-0003.420
Title:	Handle missing Subject element in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Subject element in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.421

Test Case ID:	TC: MAPD-R-0003.421
Title:	Handle missing Subject NameID in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Subject NameID element in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/NameID is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.422

Test Case ID:	TC: MAPD-R-0003.422
Title:	Handle invalid Subject NameID in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with an invalid Subject NameID in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/NameID/@Format is something other than the two allowed formats, emailAddress and X509SubjectName.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.423

Test Case ID:	TC: MAPD-R-0003.423
Title:	Handle missing Subject Confirmation in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Subject Confirmation element in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

1. The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/SubjectConfirmation is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
2. The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC: MAPD-R-0003.424

Test Case ID:	TC: MAPD-R-0003.424
Title:	Handle missing Subject Confirmation Method in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Subject Confirmation Method element in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/SubjectConfirmation/@Method is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no

matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.426

Test Case ID:	TC: MAPD-R-0003.426
Title:	Handle missing Subject Confirmation Data in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Subject Confirmation Data element in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/SubjectConfirmation/SubjectConfirmationData is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.427

Test Case ID:	TC: MAPD-R-0003.427
Title:	Handle missing Subject Confirmation KeyInfo in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing Subject Confirmation KeyInfo element in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/SubjectConfirmation/SubjectConfirmationData/KeyInfo is missing.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the

request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.429

Test Case ID:	TC: MAPD-R-0003.429
Title:	Handle invalid RSA Public Key Modulus in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with an invalid RSA Public Key Modulus in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/SubjectConfirmation/SubjectConfirmationData/KeyInfo/KeyValue/RSA KeyValue/Modulus does not contain the modulus from the RSA public key embedded in the certificate assigned to the sending system.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SAML Token Profile 1.1: Section 3.6

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.430

Test Case ID:	TC: MAPD-R-0003.430
Title:	Handle missing RSA Public Key Exponent in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with a missing RSA Public Key Exponent element in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/SubjectConfirmation/SubjectConfirmationData/KeyInfo/KeyValue/RSA KeyValue is present but does not contain an <Exponent> element.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SOAP Message Security 1.1: Section 12

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters

TC:MAPD-R-0003.431

Test Case ID:	TC: MAPD-R-0003.431
Title:	Handle invalid RSA Public Key Exponent in Assertion
SUT Role:	Responder
Flow:	Error
Optionality:	Required

PURPOSE/DESCRIPTION

Testing Tool sends a simple PD Request to the System with an invalid RSA Public Key Exponent in Assertion.

PRECONDITIONS

Data Load Set: [DS:PRL-3](#)

Test Case Patient Association: P-000000010

TEST STEPS

- The Testing Tool sends a synchronous Patient Discovery Request to the System, using the following required parameters:
 - SOAP Header = MP: MA Default Request (TestTool) Message Parameters, **except the SOAP header element Security/Assertion/Subject/SubjectConfirmation/SubjectConfirmationData/KeyInfo/KeyValue/RSA KeyValue/Exponent does not contain the exponent from the RSA public key embedded in the certificate assigned to the sending system.
 - \$LivingSubjectName.Family = Davidson
 - \$LivingSubjectName.Given = Amy AND \$LivingSubjectName.Given = C
 - \$LivingSubjectAdministrativeGender = F
 - \$LivingSubjectBirthTime = 19831017
- The System returns a SOAP fault to the Testing Tool with text describing the internal error using MP: MA Fault (Both) Message Parameters.

OR

Based on its security policy, instead of returning a fault the System may return a normal response, but without performing the requested action. Example: if the request were a Patient Discovery, a normal response is returned, but with no matching patients found. This approach of concealing the fault is permitted by the underlying requirements to mitigate certain kinds of attacks.

3. Verify conformance of the fault Response message to the:
 - MP:MA Fault (Both) Message Parameters
OR
 - Verify conformance of the PD Response to the:
 - CL:MA SOAP Response Checklist

REFERENCED SPECIFICATIONS

2011 Exchange Specification	Authorization Framework 3.0 Sec 3.3
2011 Underlying Specification	SAML Token Profile 1.1: Section 3.6

CHANGE HISTORY

Date	Changes
July 10, 2018	Initial Draft Version
March 15, 2019	Updated link to data load set and SOAP parameters