
Web Services Implementation Guide

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Document History

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Table of Contents

1	Overview	4
1.1	Purpose	4
1.2	Intended Audience	4
2	Certificate Requirements for HIE Web Services	4
2.1	Certificate Handling	5
3	Endpoints for Web Service Transactions	6
4	Signature	7
5	Web Service Transactions	8
5.1	ITI-41 Provide and Register	8
5.2	ITI-41NS Provide and Register Non-standard	9
5.3	ITI-41MTOM Provide and Register Multi-Part	9
5.4	ITI-47 Patient Demographics Query (PDQ)	10
5.5	ITI-18 Registry Stored Query	10
5.6	ITI-43 Retrieve Document Set	10
5.7	Message Responses	10
6	HIE and CDR Operations Change Management	10
6.1	OneHealthPort HIE and CDR System Availability Notifications	10
6.2	OneHealthPort HIE and CDR Support Request Form	12
7	Appendix	13
7.1	Transaction Samples	13
7.2	Provide and Register Transaction Response Message Samples	30

1 Overview

The OneHealthPort Health Information Exchange (HIE) Web Services Implementation guide provides information for organizations that have the tools and resources to set up and manage web services using public key infrastructure certificate exchange for data submissions and query/response transactions.

1.1 Purpose

The purpose of this document is to provide the certificate requirements, end point connectivity information and additional transaction-based information for organizations' use in preparing for and implementing web services with the OneHealthPort HIE.

1.2 Intended Audience

This document is intended for:

- New trading partners requiring information about OneHealthPort web services.
- Parties responsible for implementing and managing certificate-based connectivity to the OneHealthPort HIE.

2 Certificate Requirements for HIE Web Services

The OneHealthPort HIE web services use the open internet to allow maximum bandwidth for message exchange. Certificates are used to sign and encrypt the messages using full Public Key Infrastructure (PKI) sent via a secured channel (https). Multiple web service transactions can be traded with a single certificate exchange.

Organizations choosing web services **are required to provide certificates to the OneHealthPort HIE**. Only certificates from a third-party certificate authority are accepted for use. The same CA issued certificate may be use with both the production and UAT (test) environments.

Certificate requirements:

- Certificates supplied must be from a commercial certificate authority – self-signed certificates will not be accepted
- The same certificate may be used with the production and UAT (test) environments
- 2048-bit SSL Secure Sockets Layer with TLS Encryption (not less than TLS 1.2)

- 256 bit encryption
- SHA-2
- Standard or Basic SSL certificate for a single Domain name (Wildcard or multi-domain is not required unless that is your organization's standard)
- Validity option: 1-3 years
- Preferred format - A digital certificate will be required for secure exchange of data. This may be in the form of either a DER encoded binary X.509 (.cer) or Cryptographic Message Syntax Standard PKCS #7 (.p7b, .p7c). If a .p7b/.p7c file is going to be used please export the entire certificate chain for use during the connectivity process
- Provide full certificate chain from a third-party certificate authority PLUS the public key.

2.1 Certificate Handling

The certificate generated for trading partner connectivity to the HIE is unique for each partner. The trust relationship is created between each partner and the OneHealthPort HIE through execution of the HIE Participation Agreement.

Each trading partner will only require the certificate of the OneHealthPort HIE to trade with the entire OneHealthPort HIE trading community. The OneHealthPort HIE is designed as a spoke and hub model with a single connection from each participant (trading partner) to the HIE (Hub). Data will flow from the sending party to the HIE and then outbound to the designated receiving party.

All the transactions to OneHealthPort HIE will be done using certificate based Mutual Authentication. Trading Partner and OneHealthPort HIE will need to exchange certificates prior to establishing the secure connection.

From a high-level point of view, the process of authenticating and establishing an encrypted channel using certificate-based mutual authentication involves the following steps:

1. A client requests access to a protected resource/Service.
2. The server presents its certificate to the client.
3. The client verifies the server's certificate.
4. If successful, the client sends its certificate to the server.
5. The server verifies the client's credentials.
6. If successful, the server grants access to the protected resource requested by the client.

3 Endpoints for Web Service Transactions

WSDLs and endpoint URLs are provided by the OneHealthPort Clinical Data Repository (CDR) for use by the organization when implementing web services to the CDR. The only accepted method for WSDL retrieval is a “GET”. Any “POST” requests to WSDLs will fail. Production endpoints will be provided upon successful completion of testing.

OneHealthPort HIE UAT (test) Environment:

1. ITI-41 WSDL – URL link for the ITI-41 WSDL <https://uat-onehealthport-api.axwaycloud.com/wsdl/ITI41?wsdl>
 - Endpoint - <https://uat-onehealthport-api.axwaycloud.com:8098/web service/ITI41>
2. ITI-41NS WSDL – URL link for the ITI-41NS WSDL <https://uat-onehealthport-api.axwaycloud.com/wsdl/ITI41NS?wsdl>
 - Endpoint - <https://uat-onehealthport-api.axwaycloud.com:8098/web service/ITI41NS>
3. ITI-41MTOM WSDL – URL link for the ITI-41MTOM WSDL <https://uat-onehealthport-api.axwaycloud.com/wsdl/ITI41MTOM?wsdl>
 - Endpoint - <https://uat-onehealthport-api.axwaycloud.com:8098/web service/ITI41MTOM>
4. ITI-47 WSDL – URL link for the ITI-47 WSDL <https://uat-onehealthport-api.axwaycloud.com/wsdl/ITI47?wsdl>
 - Endpoint – <https://uat-onehealthport-api.axwaycloud.com:8098/web service/ITI47>
5. ITI-18 WSDL – URL link for the ITI-18 WSDL <https://uat-onehealthport-api.axwaycloud.com/wsdl/ITI18?wsdl>
 - Endpoint - <https://uat-onehealthport-api.axwaycloud.com:8098/web service/ITI18>
6. ITI-43 WSDL – URL link for the ITI-43 WSDL <https://uat-onehealthport-api.axwaycloud.com/wsdl/ITI43?wsdl>
 - Endpoint - <https://uat-onehealthport-api.axwaycloud.com:8098/web service/ITI43>

4 Signature

For query and/or response transactions containing protected health information, OneHealthPort requires that the query transactions include signature on the timestamp. Specifically, the following web service transactions require signature components:

- ITI 41
- ITI41MTOM
- ITI41NS
- ITI43

OneHealthPort will configure UAT web services with trading partner signature as optional to facilitate connectivity and testing. Once connected, and prior to completing testing, trading partners will need to provide signatures in their UAT messages. **All submitters must successfully submit web services transactions with signature in UAT before being authorized to send any production submissions for transactions requiring signature.** Production web services on transactions requiring signature are configured with signature required. For signatures, trading partners:

- should sign the timestamp in the message header – the security reference section is added to define the digital signature starting with: `<wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">`. The timestamp must occur within the `<wsse:Security>` tag.
- must use their own private key to sign the message – the encrypted signature is added in the `<dsig:SignatureValue>` **of the header**
- should include the public key in the messages – included in the `<dsig:X509Certificate>`

Verification Process		
User Acceptance Testing (UAT)	Production	Description
Required	Required	Mutual authentication occurs using the root and intermediate certificate information
Required	Required	Certificate validation occurs using the complete certificate chain with leaf
Optional	Required	Signature validation occurs by signing the timestamp in the SOAP message header

Sample signature signing timestamp in SOAP header:

```
<s:Envelope xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">urn:ihe:iti:2007:ProvideAndRegisterDocumentSet-b</a:Action>
    <a:MessageID>urn:uuid:325d5e06-bae2-444b-a005-989d2b09d124</a:MessageID>
    <a:To s:mustUnderstand="1">https://uat-onehealthport-api.axwaycloud.com:8098/webservice/ITI41</a:To>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
```

```

    <u:Timestamp u:Id="id-11eb754e-c5d1-493c-8ace-ac025a6c5bb9" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
      <u:Created>2017-06-08T17:47:49.6190756Z</u:Created>
      <u:Expires>2017-06-08T18:17:49.6190756Z</u:Expires>
    </u:Timestamp>
    <Signature Id="id-11eb754e-c5d1-493c-8ace-ac025a6c5bb9"
xmlns="http://www.w3.org/2000/09/xmldsig#">
      <SignedInfo>
        <CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
        <SignatureMethod Algorithm="http://www.w3.org/2000/09/xmldsig#rsa-sha1" />
        <Reference URI="#id-11eb754e-c5d1-493c-8ace-ac025a6c5bb9">
          <Transforms>
            <Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
          </Transforms>
          <DigestMethod Algorithm="http://www.w3.org/2001/04/xmldsig#sha256" />
          <DigestValue>Data Redacted</DigestValue>
        </Reference>
      </SignedInfo>
      <SignatureValue> Data Redacted </SignatureValue>
      <KeyInfo Id="Data Redacted ">
        <X509Data>
          <X509Certificate> Data Redacted </X509Certificate>
        </X509Data>
      </KeyInfo>
    </Signature>
  </wsee:Security>
</s:Header>

```

5 Web Service Transactions

Currently OneHealthPort supports the following web service transactions shown below.

5.1 ITI-41 Provide and Register

Transaction used to push documents to a document registry. Currently the **CDR format required for this channel is SIMPLE SOAP with an embedded CCD that is base64 encoded**. Multipart messages (MTOM) using this channel will fail to process at the CDR.

In order for the ITI41 transaction format to successfully process the following prerequisites must be considered:

1. Sending organization must first process an ITI47 to obtain known patient identifiers in the CDR, for sponsored lives in the CDR.

2. Sending organization must choose the **CDR Global identifier** from the patient identifiers listed in the PDQ response to include in their ITI41 along with the corresponding OID associated with the identifier. The identifiers that are returned in the response to the ITI47 are shown below:

- a. CDR Global Identifier

```
<id root="1.3.6.1.4.1.38630.3.99.1.2.1.1.2" extension="NNNNNNN" assigningAuthorityName="OHP-MPI"/>
```

- b. Sponsor Identifier

```
<id root="1.3.6.1.4.1.38630.3.1.999.1.1.2" extension="222333444TP" assigningAuthorityName="OHP_HCA_SNS"/>
```

3. ITI41 message must be properly formatted and contain all the components required by the CDR for processing
4. OHP assigned OIDs for the submitting organization must be included in the required metadata fields in the ITI41 submission.

Sending organization must only include a single patient for each submission (post).

5.2 ITI-41NS Provide and Register Non-standard

Transaction used to push documents to a document registry for organizations who desire the use of a web service transaction but cannot meet the format/content requirements of the ITI41 or ITI41MTOM. Currently the **CDR format required is SIMPLE SOAP with an embedded CCD that is base64 encoded**. Multipart messages (MTOM) using this channel will fail to process at the CDR. When a transaction is submitted using this channel, internal logic exists to strip the ITI41 wrapper, and internally create an ITI41 that will successfully ingest in the CDR, using the content found in the CCD message header.

5.3 ITI-41MTOM Provide and Register Multi-Part

Transaction used to push documents to a document registry. Use of this channel requires the following prerequisites:

In order for the MTOM transaction format to successfully process the following prerequisites must be considered:

1. Sending organization must first process an ITI47 to obtain known patient identifiers in the CDR, for sponsored lives in the CDR.
2. Sending organization must choose the **CDR Global identifier** from the patient identifiers listed in the PDQ response to include in their ITI41MTOM along with the corresponding OID associated with the identifier. The identifiers that are returned in the response to the ITI47 are shown below:

- a. CDR Global Identifier

```
<id root="1.3.6.1.4.1.38630.3.99.1.2.1.1.2" extension="NNNNNNN" assigningAuthorityName="OHP-MPI"/>
```

- b. Sponsor Identifier

```
<id root="1.3.6.1.4.1.38630.3.1.999.1.1.2" extension="222333444TP" assigningAuthorityName="OHP_HCA_SNS"/>
```

3. ITI41MTOM message must be properly formatted and contain all the components required by the CDR for processing
4. OHP assigned OIDs for the submitting organization must be included in the required metadata fields in the ITI41 submission.
5. Sending organization must only include a single patient for each submission (post).

This is the only Provide and Register channel that will successfully process a multi-part message.

5.4 ITI-47 Patient Demographics Query (PDQ)

Transaction which queries for a list of patient identifiers in the CDR based on patient demographic data included in the query. The response returned will be CDR identifiers for the patient.

5.5 ITI-18 Registry Stored Query

Transaction which queries the CDR to find documents and document identifiers that meet the specified query criteria. The response returned will be a list of document entries/identifiers found to meet the criteria.

5.6 ITI-43 Retrieve Document Set

Transaction is used to retrieve a document or set of documents from the repository using known the document identifier(s). The response returned will be in the MTOM format with the CCD content from the repository for the specified document identifier(s) chunked in the message response.

5.7 Message Responses

Web services Provide and Register transaction submissions will receive message responses, indicating a successful transmission or an error condition. Samples of message responses are shown in the Appendix.

6 HIE and CDR Operations Change Management

Organizations will need to incorporate management of HIE and CDR connectivity and data submission activity monitoring into existing system management and operational change management processes. In addition to daily activities, processes and resources will also need to be organized to support monthly HIE and CDR maintenance activities and unplanned outages. The information listed below can be used for HIE and CDR operations planning.

6.1 OneHealthPort HIE and CDR System Availability Notifications

Scheduled monthly maintenance windows are posted on [OneHealthPort HIE](#) and [OneHealthPort CDR](#) web pages under the *Maintenance Schedule* section for customer use in operational planning. Non-regularly scheduled maintenance windows and unplanned outages are communicated through email messages to a distribution list to

which customers can subscribe. The screen shot below shows where to find maintenance information on the [OneHealthPort HIE web page](#).

The screenshot shows the OneHealthPort HIE website. The top navigation bar includes links for HOME, SINGLE SIGN-ON, HIE, CDR, CREDENTIALING, ADMINIMP, and ABOUT US. Below this is a dark blue banner with the OneHealthPort HIE logo. A secondary navigation bar contains links for HIE Home, Contracting, Registration, Transactions, Application Portal, Participants, Support, and About. The main content area features four columns: Contracting, Registration, Transactions, and Application Portal. The Maintenance Schedule section is circled in blue and includes the following text:

Maintenance Schedule

Production maintenance is scheduled monthly for up to a 3-hour outage starting at 7 PM Pacific.

Next scheduled Production maintenance is Thursday, October 18, 2018.

UAT maintenance is scheduled for a 2-hour outage the first Thursday of each month from 2-4 AM Pacific. Additional scheduled UAT maintenance is performed on a Thursday later in the month from 7-9 PM Pacific. Please see schedule for details.

[Maintenance Schedule](#) | [Notification Sign-Up](#)

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The screenshot below shows where to find maintenance information on the [OneHealthPort CDR web page](#).

The screenshot shows the OneHealthPort CDR web page. The navigation bar at the top includes links for HOME, SINGLE SIGN-ON, HIE, CDR, CREDENTIALING, ADMINIMP, and ABOUT US. Below the navigation bar is a secondary menu with links for CDR Home, Use the CDR, Vendor Readiness, Prepare the C-CDA, Become a Sponsor, Support, and About. The main content area features several sections: 'Use the CDR', 'Vendor Readiness', 'Prepare the C-CDA', 'Become a Sponsor', and 'Maintenance Schedule'. The 'Maintenance Schedule' section is circled in blue and contains information about production and UAT maintenance outages. At the bottom of the page, there is a footer with copyright information and contact links.

Use the CDR

To use the OneHealthPort CDR and other HIE applications, such as the C-CDA Validator and the OneHealthPort Provider Directory, your organization must be a participant with the OneHealthPort Health Information Exchange (HIE).

Vendor Readiness

Electronic Health Record (EHR) vendors play an important role assisting provider organizations to prepare for and begin C-CDA data submissions to the CDR. OneHealthPort is currently working with vendors to ready their systems for C-CDA data submissions. Learn where your vendor is at in the C-CDA data submission preparation process.

Prepare the C-CDA

These steps will help you prepare, test, and submit C-CDA documents to a Clinical Data Repository (CDR) or with other HIE participating organizations.

Become a Sponsor

Clinical Data Repository (CDR) services are offered by the OneHealthPort HIE to organizations interested in collecting clinical data for a specified patient population. The organizations, known as Sponsors, coordinate CDR initiatives with providers to exchange C-CDA documents using connectivity to the OneHealthPort HIE.

Maintenance Schedule

Production maintenance is scheduled monthly for up to a 3-hour outage starting at 7 PM Pacific.

Next scheduled Production maintenance is Thursday, October 18, 2018.

UAT maintenance is scheduled for a 2-hour outage the first Thursday of each month from 2-4 AM Pacific. Additional scheduled UAT maintenance is performed on a Thursday later in the month from 8 -10 PM Pacific. Please see schedule for details.

[Maintenance Schedule](#) | [Notification Sign-Up](#)

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6.2 OneHealthPort HIE and CDR Support Request Form

Use the OneHealthPort support request form to obtain technical support or assistance with issues related to information exchange activities with the OneHealthPort HIE or the CDR. The support request form is located on the OneHealthPort HIE and CDR web pages. The form is monitored by HIE and CDR technical consultants and business team members to ensure proper resources are quickly deployed to respond to customer issues. Access the support request form [here](#).

7 Appendix

7.1 Transaction Samples

7.1.1 ITI 41NS- Provide and Register Non-Standard

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns:urn="urn:ihe:iti:xds-b:2007"
xmlns:urn1="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0" xmlns:urn2="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0"
xmlns:urn3="urn:oasis:names:tc:ebxml-regrep:xsd:rsm:3.0">
<soap:Header /> (Note see signature example in section 4 for sample header)
<soap:Body>
  <urn:ProvideAndRegisterDocumentSetRequest>
    <lcm:SubmitObjectsRequest xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:rs="urn:oasis:names:tc:ebxml-
regrep:xsd:rs:3.0" xmlns:lcm="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0" xmlns:rsm="urn:oasis:names:tc:ebxml-
regrep:xsd:rsm:3.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
      <rsm:RegistryObjectList>
        <rsm:Identifiable xsi:type="rsm:ExtrinsicObjectType" id="Document01" mimeType="text/xml"
objectType="urn:uuid:7edca82f-054d-47f2-a032-9b2a5b5186c1">
          <rsm:Name>
            <rsm:LocalizedString value="Summarization of Episode Note" />
          </rsm:Name>
          <rsm:Slot name="creationTime">
            <rsm:ValueList>
              <!-- Creates a document with a creation date -->
              <rsm:Value>20161115105928</rsm:Value>
            </rsm:ValueList>
          </rsm:Slot>
          <rsm:Slot name="languageCode">
            <rsm:ValueList>
              <rsm:Value>en-us</rsm:Value>
            </rsm:ValueList>
          </rsm:Slot>
          <rsm:Slot name="sourcePatientId">
            <rsm:ValueList>
              <rsm:Value>Insert CDR Global Identifier here^^^OHP-MPI&
1.3.6.1.4.1.38630.3.99.1.2.1.1.2&ISO^PI</rsm:Value>
            </rsm:ValueList>
          </rsm:Slot>
          <rsm:Classification classificationScheme="urn:uuid:93606bcf-9494-43ec-9b4e-a7748d1a838d"
classifiedObject="Document01">
            <rsm:Slot name="authorPerson">
              <rsm:ValueList>
                <rsm:Value>^sending organization^^^^^^^&SendingOrgOID.999.5.2.5&ISO</rsm:Value>
              </rsm:ValueList>
            </rsm:Slot>
          </rsm:Classification>
          <!--XSDDocumentEntry.classCode -->

```

```

<rim:Classification classificationScheme="urn:uuid:41a5887f-8865-4c09-adf7-e362475b143a"
classifiedObject="Document01" nodeRepresentation="34133-9">
  <rim:Name>
    <rim:LocalizedString value="XDSDocumentEntry.classCode" />
  </rim:Name>
  <rim:Slot name="codingScheme">
    <rim:ValueList>
      <rim:Value>LOINC</rim:Value>
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!--XDSDocumentEntry.confidentialityCode -->
<rim:Classification classificationScheme="urn:uuid:f4f85eac-e6cb-4883-b524-f2705394840f"
classifiedObject="Document01" nodeRepresentation="N">
  <rim:Name>
    <rim:LocalizedString value="Normal" />
  </rim:Name>
  <rim:Slot name="codingScheme">
    <rim:ValueList>
      <rim:Value>2.16.840.1.113883.5.25</rim:Value>
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!--XDSDocumentEntry.formatCode -->
<rim:Classification classificationScheme="urn:uuid:a09d5840-386c-46f2-b5ad-9c3699a4309d"
classifiedObject="Document01" nodeRepresentation="CCDA">
  <rim:Name>
    <rim:LocalizedString value="Consolidated CDA" />
  </rim:Name>
  <rim:Slot name="codingScheme">
    <rim:ValueList>
      <rim:Value>2.16.840.1.113883.3.37.4.1.9.101</rim:Value>
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!-- XDSDocumentEntry.typeCode -->
<rim:Classification classificationScheme="urn:uuid:f0306f51-975f-434e-a61c-c59651d33983"
classifiedObject="Document01" nodeRepresentation="34133-9">
  <rim:Name>
    <rim:LocalizedString value="SUMMARIZATION OF EPISODE NOTE" />
  </rim:Name>
  <rim:Slot name="codingScheme">
    <rim:ValueList>
      <rim:Value>LOINC</rim:Value>
      <!-- <rim:Value>2.16.840.1.113883.6.1</rim:Value> -->
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!--XDSDocumentEntry.healthCareFacilityTypeCode -->

```

```

<rim:Classification classificationScheme="urn:uuid:f33fb8ac-18af-42cc-ae0e-ed0b0bdb91e1"
classifiedObject="Document01" nodeRepresentation="282N00000X">
  <rim:Name>
    <rim:LocalizedString value="General Acute Care Hospital" />
    <!--<rim:LocalizedString value="65836-9" />-->
  </rim:Name>
  <rim:Slot name="codingScheme">
    <rim:ValueList>
      <rim:Value>2.16.840.1.113883.6.101</rim:Value>
      <!--<rim:Value>2.16.840.1.113883.6.101</rim:Value>-->
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!-- XSDDocumentEntry.practiceSettingCode, AKA Speciality -->
<rim:Classification classificationScheme="urn:uuid:cccf5598-8b07-4b77-a05e-ae952c785ead"
classifiedObject="Document01" nodeRepresentation="282N00000X">
  <rim:Name>
    <rim:LocalizedString value="General Acute Care Hospital" />
  </rim:Name>
  <rim:Slot name="codingScheme">
    <rim:ValueList>
      <rim:Value>2.16.840.1.113883.6.101</rim:Value>
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!-- XSDDocumentEntry.patientId -->
<rim:ExternalIdentifier identificationScheme="urn:uuid:58a6f841-87b3-4a3e-92fd-a8ffeff98427"
registryObject="Document01" value="CDR Global Id^^OHP-MPI&amp;1.3.6.1.4.1.38630.3.99.1.2.1.1.2&amp;ISO^PI">
  <rim:Name>
    <rim:LocalizedString value="XSDDocumentEntry.patientId" />
  </rim:Name>
</rim:ExternalIdentifier>
<!-- XSDDocumentEntry.uniqueId -->
<rim:ExternalIdentifier identificationScheme="urn:uuid:2e82c1f6-a085-4c72-9da3-8640a32e42ab"
registryObject="Document01" value="1.3.6.1.4.1.22812.4.108.0.2000.3.1479500706949">
  <rim:Name>
    <rim:LocalizedString value="XSDDocumentEntry.uniqueId" />
  </rim:Name>
</rim:ExternalIdentifier>
</rim:Identifiable>
<!-- add submission set, this section for DocumentRegistry -->
<rim:Identifiable xsi:type="rim:RegistryPackageType" id="SubmissionSet01">
  <rim:Slot name="submissionTime">
    <rim:ValueList>
      <rim:Value>20161115105928</rim:Value>
    </rim:ValueList>
  </rim:Slot>
  <!-- submission set authorPerson -->

```

```

<rim:Classification classificationScheme="urn:uuid:a7058bb9-b4e4-4307-ba5b-e3f0ab85e12d"
classifiedObject="SubmissionSet01">
  <rim:Slot name="authorPerson">
    <rim:ValueList>
      <rim:Value>Author^Title^^^^^^^&SendingOrgOID.999.1.1.2&ISO</rim:Value>
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!--XDSSubmissionSet.contentTypeCode -->
<rim:Classification classificationScheme="urn:uuid:aa543740-bdda-424e-8c96-df4873be8500"
classifiedObject="SubmissionSet01" nodeRepresentation="34133-9">
  <rim:Name>
    <rim:LocalizedString value="Summarization of Episode Note"/>
  </rim:Name>
  <rim:Slot name="codingScheme">
    <rim:ValueList>
      <!-- <rim:Value>2.16.840.1.113883.6.1</rim:Value> -->
      <rim:Value>LOINC</rim:Value>
    </rim:ValueList>
  </rim:Slot>
</rim:Classification>
<!-- XDSSubmissionSet.uniqueId -->
<rim:ExternalIdentifier identificationScheme="urn:uuid:96fdda7c-d067-4183-912e-bf5ee74998a8"
value="1.3.6.1.4.1.22812.4.108.0.3000.3.1479500706949">
  <rim:Name>
    <rim:LocalizedString value="XDSSubmissionSet.uniqueId" />
  </rim:Name>
</rim:ExternalIdentifier>
<!-- XDSSubmissionSet.sourceId -->
<rim:ExternalIdentifier identificationScheme="urn:uuid:554ac39e-e3fe-47fe-b233-965d2a147832" value="Insert OHP
organization assigned OID or mapped OID">
  <rim:Name>
    <rim:LocalizedString value="XDSSubmissionSet.sourceId" />
  </rim:Name>
</rim:ExternalIdentifier>
<!-- XDSSubmissionSet.patientId -->
<rim:ExternalIdentifier identificationScheme="urn:uuid:6b5aea1a-874d-4603-a4bc-96a0a7b38446" value="CDR Global
Id^^^OHP-MPI&1.3.6.1.4.1.38630.3.99.1.2.1.1.2&ISO^PI">
  <rim:Name>
    <rim:LocalizedString value="XDSSubmissionSet.patientId" />
  </rim:Name>
</rim:ExternalIdentifier>
</rim:Identifiable>
<rim:Classification classifiedObject="SubmissionSet01" classificationNode="urn:uuid:a54d6aa5-d40d-43f9-88c5-
b4633d873bdd" />
<!-- Associate SubmissionSet01 to Document01-->
<rim:Association associationType="urn:oasis:names:tc:ebxml-regrep:AssociationType:HasMember"
sourceObject="SubmissionSet01" targetObject="Document01">
  <rim:Slot name="SubmissionSetStatus">

```



```
<rim:ValueList>
  <rim:Value>Original</rim:Value>
</rim:ValueList>
</rim:Slot>
</rim:Association>
</rim:RegistryObjectList>
</lcm:SubmitObjectsRequest>
<!-- This is a clinical document -->
<urn:Document id="Document01"> [Base64 encoded document is inserted here]
  </urn:Document>
</urn:ProvideAndRegisterDocumentSetRequest>
</soap:Body>
</soap:Envelope>
```

7.1.2 ITI 41 – Provide and Register

Sample transaction available on request.

7.1.3 ITI 41 MTOM – Provide and Register Multi-Part

Sample transaction available on request.

7.1.4 ITI 47 – Query

7.1.4.1 Query

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
  xmlns:urn="urn:ihe:iti:pdqv3:2007">
  <soap:Header/>
  <soap:Body>
    <PRPA_IN201305UV02 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns="urn:hl7-org:v3"
      xmlns:hl7="urn:hl7-org:v3"
      ITSVersion="XML_1.0">
      <id root="019ACDCA-F313-11E6-B2AC-505687380F00"
        extension="1" />
      <creationTime value="201805091406-0700" />
      <interactionId root="1.2.16.840.1.113883.1.6"
        extension="PRPA_IN201305UV02" />
      <processingCode code="T" />
      <processingModeCode code="T" />
      <acceptAckCode code="AL" />
      <receiver typeCode="RCV">
        <device classCode="DEV"
          determinerCode="INSTANCE">
          <id root="1.3.6.1.4.1.38630.2.1.1" /> (This OID represents the Washington State Health Care Authority CDR)
        </device>
      </receiver>
      <sender typeCode="SND">
        <device classCode="DEV"
          determinerCode="INSTANCE">
          <id root="Insert sending organization's OID here" />
        </device>
      </sender>
      <controlActProcess moodCode="EVN"
        classCode="CACT">
        <code code="PRPA_TE201305UV02"
          codeSystem="2.16.840.1.113883.1.6" />
        <queryByParameter>
          <queryId root="ae99dad3-5c9d-45cb-9182-49f42578fa5e"
            extension="1" />
          <statusCode code="new" />
          <responseModalityCode code="R" />
          <responsePriorityCode code="I" />
          <initialQuantity value="999" />
          <parameterList>
            <livingSubjectBirthTime>
              <value value="19940918" />
              <semanticsText>LivingSubject.birthTime</semanticsText>
            </livingSubjectBirthTime>
          </parameterList>
        </controlActProcess>
      </PRPA_IN201305UV02>
    </soap:Body>
  </soap:Envelope>
```

```

<livingSubjectName>
  <value use="SRCH">
    <given>Insert Patient First Name</given>
    <family> Insert Patient Last Name </family>
  </value>
  <semanticsText>LivingSubject.name</semanticsText>
</livingSubjectName>
</parameterList>
</queryByParameter>
</controlActProcess>
</PRPA_IN201305UV02>
</soap:Body>
</soap:Envelope>

```

7.1.4.2 Response

```

<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
  <soap:Body>
    <PRPA_IN201306UV02 ITSVersion="XML_1.0" xmlns="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema">
      <id root="1.3.6.1.4.1.38630.3.99.1.2.1.1.3" extension="2cd8a5c8-1a0a-4670-9463-f27af6282400"/>
      <creationTime value="20180509142337"/>
      <interactionId root="2.16.840.1.113883.1.6" extension="PRPA_IN201306UV02"/>
      <processingCode code="P"/>
      <processingModeCode code="T"/>
      <acceptAckCode code="NE"/>
      <receiver typeCode="RCV">
        <device classCode="DEV" determinerCode="INSTANCE">
          <id root="1.3.6.1.4.1.38630.2.1.1.117"/>
        </device>
      </receiver>
      <sender typeCode="SND">
        <device classCode="DEV" determinerCode="INSTANCE">
          <id root="1.3.6.1.4.1.38630.2.1.1"/>
        </device>
      </sender>
      <acknowledgement>
        <typeCode code="AA"/>
        <targetMessage>
          <id root="019ACDCA-F313-11E6-B2AC-505687380F00" extension="1"/>
        </targetMessage>
        <acknowledgementDetail typeCode="I">
          <text>This interactive continuation response for fragments 1 to 1 has been generated by the IPF</text>
        </acknowledgementDetail>
      </acknowledgement>
      <controlActProcess classCode="CACT" moodCode="EVN">
        <code code="PRPA_TE201306UV02" codeSystem="2.16.840.1.113883.1.6"/>
        <effectiveTime value="20180509142337"/>

```

```

<subject typeCode="SUBJ" contextConductionInd="false">
  <registrationEvent classCode="REG" moodCode="EVN">
    <statusCode code="active"/>
    <subject1 typeCode="SBJ">
      <patient classCode="PAT">
        <id root="1.3.6.1.4.1.38630.3.99.1.2.1.1.2" extension="1831345" assigningAuthorityName="OHP-MPI"/>
        <id root="1.3.6.1.4.1.38630.3.1.999.1.1.2" extension="222333444TP" assigningAuthorityName="OHP_HCA_SNS"/>
        <statusCode code="active"/>
        <patientPerson classCode="PSN" determinerCode="INSTANCE">
          <name use="L">
            <family>Patient Last Name</family>
            <given>Patient First Name</given>
            <given>Patient Middle Name.</given>
          </name>
          <telecom value="tel:(253) 489-2222" use="H"/>
          <administrativeGenderCode code="F"/>
          <birthTime value="19940918"/>
          <addr>
            <state>WA</state>
            <postalCode>98003</postalCode>
            <city>Federal Way</city>
            <streetAddressLine>123678 National Loop</streetAddressLine>
          </addr>
        </patientPerson>
        <providerOrganization classCode="ORG" determinerCode="INSTANCE">
          <id root="1.3.6.1.4.1.38630.3"/>
          <contactParty classCode="CON" nullFlavor="UNK"/>
        </providerOrganization>
        <subjectOf1>
          <queryMatchObservation classCode="COND" moodCode="EVN">
            <code code="DegOfMatch" codeSystem="1.2.3" codeSystemVersion="1.0" displayName="Degree Of Match"/>
            <value xsi:type="INT" value="100"/>
          </queryMatchObservation>
        </subjectOf1>
      </patient>
    </subject1>
    <custodian typeCode="CST">
      <assignedEntity classCode="ASSIGNED">
        <id root="1.3.6.1.4.1.38630.3.99.1.2" extension="1"/>
      </assignedEntity>
    </custodian>
  </registrationEvent>
</subject>
<queryAck>
  <queryId root="ae99dad3-5c9d-45cb-9182-49f42578fa5e" extension="1"/>
  <statusCode code="deliveredResponse"/>
  <queryResponseCode code="OK"/>
  <resultTotalQuantity value="1"/>
  <resultCurrentQuantity value="1"/>

```

```
<resultRemainingQuantity value="0"/>
</queryAck>
<queryByParameter>
  <queryId extension="1" root="ae99dad3-5c9d-45cb-9182-49f42578fa5e"/>
  <statusCode code="new"/>
  <responseModalityCode code="R"/>
  <responsePriorityCode code="I"/>
  <initialQuantity value="999"/>
  <parameterList>
    <livingSubjectBirthTime>
      <value value="19940918"/>
      <semanticsText>LivingSubject.birthTime</semanticsText>
    </livingSubjectBirthTime>
    <livingSubjectName>
      <value use="SRCH">
        <given>Patient First Name</given>
        <family>Patient Last Name</family>
      </value>
      <semanticsText>LivingSubject.name</semanticsText>
    </livingSubjectName>
  </parameterList>
</queryByParameter>
</controlActProcess>
</PRPA_IN201306UV02>
</soap:Body>
</soap:Envelope>
```

7.1.5 ITI 18 Stored Registry Query

7.1.5.1 Query

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
  <soap:Header></soap:Header>
  <soap:Body>
    <query:AdhocQueryRequest xsi:schemaLocation="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0
      ../schema/ebRS/query.xsd"
      xmlns:query="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0"
      xmlns:rim="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
      xmlns:rs="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
      <query:ResponseOption returnComposedObjects="true"
        returnType="LeafClass" />
      <rim:AdhocQuery id="urn:uuid:14d4debf-8f97-4251-9a74-a90016b0af0d">
        <!-- required parameters -->
        <rim:Slot name="$XDSDocumentEntryPatientId">
          <rim:ValueList>
            <rim:Value>'2234904^^^&1.3.6.1.4.1.38630.3.99.1.2.1.1.2&ISO'</rim:Value>
          </rim:ValueList>
        </rim:Slot>
        <rim:Slot name="$XDSDocumentEntryStatus">
          <rim:ValueList>
            <rim:Value>('urn:oasis:names:tc:ebxml-regrep:StatusType:Approved')</rim:Value>
          </rim:ValueList>
        </rim:Slot>
      </rim:AdhocQuery>
    </query:AdhocQueryRequest>
  </soap:Body>
</soap:Envelope>
```

7.1.5.2 Response

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
  <soap:Body>
    <ns6:AdhocQueryResponse status="urn:oasis:names:tc:ebxml-regrep:ResponseStatusType:Success"
      xmlns:ns6="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0" xmlns:ns5="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0"
      xmlns:ns4="urn:ihe:iti:xds-b:2007" xmlns:ns3="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0"
      xmlns:ns2="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0">
      <ns2:RegistryObjectList>
        <ns2:ExtrinsicObject mimeType="text/xml" lid="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153"
          objectType="urn:uuid:7edca82f-054d-47f2-a032-9b2a5b5186c1" status="urn:oasis:names:tc:ebxml-
            regrep:StatusType:Approved" id="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153"
          home="urn:oid:1.3.6.1.4.1.38630.2.1.1">
          <ns2:Slot name="creationTime">
            <ns2:ValueList>
              <ns2:Value>20180824174500</ns2:Value>
            </ns2:ValueList>
          </ns2:Slot>
```

```

<ns2:Slot name="hash">
  <ns2:ValueList>
    <ns2:Value>a7cbce2f1133de51de74cb29dc7026b36c348aa2</ns2:Value>
  </ns2:ValueList>
</ns2:Slot>
<ns2:Slot name="languageCode">
  <ns2:ValueList>
    <ns2:Value>en-us</ns2:Value>
  </ns2:ValueList>
</ns2:Slot>
<ns2:Slot name="repositoryUniqueId">
  <ns2:ValueList>
    <ns2:Value>1.3.6.1.4.1.38630.3</ns2:Value>
  </ns2:ValueList>
</ns2:Slot>
<ns2:Slot name="documentAvailability">
  <ns2:ValueList>
    <ns2:Value>urn:ihe:iti:2010:DocumentAvailability:Online</ns2:Value>
  </ns2:ValueList>
</ns2:Slot>
<ns2:Slot name="size">
  <ns2:ValueList>
    <ns2:Value>25135</ns2:Value>
  </ns2:ValueList>
</ns2:Slot>
<ns2:Slot name="sourcePatientId">
  <ns2:ValueList>
    <ns2:Value>2234904^^^&1.3.6.1.4.1.38630.3.99.1.2.1.1.2&ISO</ns2:Value>
  </ns2:ValueList>
</ns2:Slot>
<ns2:Name>
  <ns2:LocalizedString value="Summarization of Episode Note - N"/>
</ns2:Name>
<ns2:VersionInfo versionName="1"/>
<ns2:Classification classificationScheme="urn:uuid:93606bcf-9494-43ec-9b4e-a7748d1a838d"
classifiedObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153" nodeRepresentation="" id="urn:uuid:23137e4b-1358-
4304-ba0c-04b24bc13c60">
  <ns2:Slot name="authorPerson">
    <ns2:ValueList>
      <ns2:Value>^OneHealthPort - HIE Testing Account d/b/a OneHealthPort - HIE
TEST^^^^^^&1.3.6.1.4.1.38630.2.1.1.117.999.5.2.5&ISO</ns2:Value>
    </ns2:ValueList>
  </ns2:Slot>
</ns2:Classification>
<ns2:Classification classificationScheme="urn:uuid:41a5887f-8865-4c09-adf7-e362475b143a"
classifiedObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153" nodeRepresentation="34133-9" id="urn:uuid:9e72300d-
e510-42f6-98d7-fc4d51d0761c">
  <ns2:Slot name="codingScheme">
    <ns2:ValueList>

```

```

        <ns2:Value>LOINC</ns2:Value>
    </ns2:ValueList>
</ns2:Slot>
<ns2:Name>
    <ns2:LocalizedString value="XDSDocumentEntry.classCode"/>
</ns2:Name>
</ns2:Classification>
<ns2:Classification classificationScheme="urn:uuid:a09d5840-386c-46f2-b5ad-9c3699a4309d"
classifiedObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153" nodeRepresentation="CCDA" id="urn:uuid:f6b53e33-
1801-456b-9fbb-adc79efb8d52">
    <ns2:Slot name="codingScheme">
        <ns2:ValueList>
            <ns2:Value>General Format Codes</ns2:Value>
        </ns2:ValueList>
    </ns2:Slot>
    <ns2:Name>
        <ns2:LocalizedString value="Consolidated CDA"/>
    </ns2:Name>
</ns2:Classification>
<ns2:Classification classificationScheme="urn:uuid:f33fb8ac-18af-42cc-ae0e-ed0b0bdb91e1"
classifiedObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153" nodeRepresentation="282N00000X"
id="urn:uuid:85a9320f-9c1d-4738-874c-9935c3dba59a">
    <ns2:Slot name="codingScheme">
        <ns2:ValueList>
            <ns2:Value>Health Care Provider Taxonomy</ns2:Value>
        </ns2:ValueList>
    </ns2:Slot>
    <ns2:Name>
        <ns2:LocalizedString value="General Acute Care Hospital"/>
    </ns2:Name>
</ns2:Classification>
<ns2:Classification classificationScheme="urn:uuid:cccf5598-8b07-4b77-a05e-ae952c785ead"
classifiedObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153" nodeRepresentation="282N00000X"
id="urn:uuid:9c015acf-044f-4167-9b34-e079a79e9b8b">
    <ns2:Slot name="codingScheme">
        <ns2:ValueList>
            <ns2:Value>Health Care Provider Taxonomy</ns2:Value>
        </ns2:ValueList>
    </ns2:Slot>
    <ns2:Name>
        <ns2:LocalizedString value="General Acute Care Hospital"/>
    </ns2:Name>
</ns2:Classification>
<ns2:Classification classificationScheme="urn:uuid:f0306f51-975f-434e-a61c-c59651d33983"
classifiedObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153" nodeRepresentation="34133-9" id="urn:uuid:a80619d1-
5803-4ee3-8f8f-87bb19cc6dff">
    <ns2:Slot name="codingScheme">
        <ns2:ValueList>
            <ns2:Value>LOINC</ns2:Value>

```



```

        </ns2:ValueList>
    </ns2:Slot>
    <ns2:Name>
        <ns2:LocalizedString value="SUMMARIZATION OF EPISODE NOTE"/>
    </ns2:Name>
</ns2:Classification>
    <ns2:Classification classificationScheme="urn:uuid:f4f85eac-e6cb-4883-b524-f2705394840f"
classifiedObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153" nodeRepresentation="N" id="urn:uuid:219b852c-91c1-
45db-978a-5a0259f752ca">
        <ns2:Slot name="codingScheme">
            <ns2:ValueList>
                <ns2:Value>HL7 Confidentiality Codes</ns2:Value>
            </ns2:ValueList>
        </ns2:Slot>
        <ns2:Name>
            <ns2:LocalizedString value="Normal"/>
        </ns2:Name>
    </ns2:Classification>
    <ns2:ExternalIdentifier registryObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153"
identificationScheme="urn:uuid:58a6f841-87b3-4a3e-92fd-a8ffeff98427"
value="2234904^^^&1.3.6.1.4.1.38630.3.99.1.2.1.1.2&ISO" id="urn:uuid:d6c791b1-27b9-42f3-bb90-2f7d908872df">
        <ns2:Name>
            <ns2:LocalizedString value="XDSDocumentEntry.patientId"/>
        </ns2:Name>
    </ns2:ExternalIdentifier>
    <ns2:ExternalIdentifier registryObject="urn:uuid:9845af4f-a7ab-11e8-b68b-1c0320524153"
identificationScheme="urn:uuid:2e82c1f6-a085-4c72-9da3-8640a32e42ab"
value="1.3.6.1.4.1.38630.2.1.1.117.999.5.2.5.153512160667026798" id="urn:uuid:dab42d74-f2fc-404d-9f57-484aef4da834">
        <ns2:Name>
            <ns2:LocalizedString value="XDSDocumentEntry.uniqueId"/>
        </ns2:Name>
    </ns2:ExternalIdentifier>
</ns2:ExtrinsicObject>
</ns2:RegistryObjectList>
</ns6:AdhocQueryResponse>
</soap:Body>
</soap:Envelope>

```

7.1.6 ITI 43 Retrieve Document Set

7.1.6.1 Query (Sample includes signature and multiple document identifiers)

```
<soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
  <soapenv:Header xmlns:wsa="http://www.w3.org/2005/08/addressing">
    <wsse:Security soapenv:mustUnderstand="true" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
      <ds:Signature Id="SIG-36288AFC841C915DEF153693630223225"
xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
        <ds:SignedInfo>
          <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-
c14n#">
            <ec:InclusiveNamespaces PrefixList="wsa soapenv"
xmlns:ec="http://www.w3.org/2001/10/xml-exc-c14n#" />
          </ds:CanonicalizationMethod>
          <ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-
more#rsa-sha256" />
          <ds:Reference URI="#TS-36288AFC841C915DEF153693630221921">
            <ds:Transforms>
              <ds:Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
                <ec:InclusiveNamespaces PrefixList="wsse wsa
soapenv" xmlns:ec="http://www.w3.org/2001/10/xml-exc-c14n#" />
              </ds:Transform>
            </ds:Transforms>
            <ds:DigestMethod
Algorithm="http://www.w3.org/2001/04/xmldsig#sha256" />
            <ds:DigestValue>Data Redacted</ds:DigestValue>
          </ds:Reference>
        </ds:SignedInfo>
        <ds:SignatureValue>Data Redacted</ds:SignatureValue>
        <ds:KeyInfo Id="KI-36288AFC841C915DEF153693630222623">
          <wsse:SecurityTokenReference wsu:Id="STR-
36288AFC841C915DEF153693630222624">
            <wsse:KeyIdentifier EncodingType="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-soap-message-security-1.0#Base64Binary" ValueType="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-x509-token-profile-1.0#X509v3">Data Redacted</wsse:KeyIdentifier>
          </wsse:SecurityTokenReference>
        </ds:KeyInfo>
      </ds:Signature>
      <wsu:Timestamp wsu:Id="TS-36288AFC841C915DEF153693630221921">
        <wsu:Created>2018-09-14T14:45:02Z</wsu:Created>
        <wsu:Expires>2018-09-14T14:50:02Z</wsu:Expires>
      </wsu:Timestamp>
    </wsse:Security>
  </wsa:To soapenv:mustUnderstand="1">http://localhost:5000/tf6/services/xdsrepositoryb</wsa:To>
```

```

        <wsa:MessageID
soapenv:mustUnderstand="1">urn:uuid:3448B7F8EA6E8B9DFC1289514997508</wsa:MessageID>
        <wsa:Action soapenv:mustUnderstand="1">urn:ihe:iti:2007:RetrieveDocumentSet</wsa:Action>
    </soapenv:Header>
    <soapenv:Body>
        <RetrieveDocumentSetRequest xmlns="urn:ihe:iti:xds-b:2007">
            <DocumentRequest>
                <RepositoryUniqueId>1.3.6.1.4.1.38630.3</RepositoryUniqueId>

                <DocumentUniqueId>1.3.6.1.4.1.38630.2.1.1.117.999.5.2.5.153427130942323541</DocumentUniqueId>
            </DocumentRequest>
            <DocumentRequest>
                <RepositoryUniqueId>1.3.6.1.4.1.38630.3</RepositoryUniqueId>

                <DocumentUniqueId>1.3.6.1.4.1.38630.2.1.1.117.999.5.2.5.153427132858923542</DocumentUniqueId>
            </DocumentRequest>
        </RetrieveDocumentSetRequest>
    </soapenv:Body>
</soapenv:Envelope>

```

Response

--uuid:b83ecdda-6597-43b7-822a-1e302d8e2f90

Content-Type: application/xop+xml; charset=UTF-8; type="application/soap+xml"

Content-Transfer-Encoding: binary

Content-ID: <root.message@cxf.apache.org>

```

&lt;soap:Envelope &gt;&lt;soap:Header&gt;&lt;Action &gt;urn:ihe:iti:2007:RetrieveDocumentSetResponse&lt;/Action&gt;&lt;MessageID
&gt;urn:uuid:081490cf-d007-48f6-873e-bd49c2a91339&lt;/MessageID&gt;&lt;To
&gt;http://www.w3.org/2005/08/addressing/anonymous&lt;/To&gt;&lt;RelatesTo
&gt;urn:uuid:3448B7F8EA6E8B9DFC1289514997508&lt;/RelatesTo&gt;&lt;soap:Header&gt;&lt;soap:Body&gt;&lt;ns2:RetrieveDocument
SetResponse &gt;&lt;ns4:RegistryResponse status="urn:oasis:names:tc:ebxml-
regrep:ResponseStatusType:Success"/&gt;&lt;ns2:DocumentResponse&gt;&lt;ns2:RepositoryUniqueId&gt;1.3.6.1.4.1.38630.3&lt;/ns2:Rep
ositoryUniqueId&gt;&lt;ns2:DocumentUniqueId&gt;1.3.6.1.4.1.38630.2.1.1.117.999.5.2.5.153427130942323541&lt;/ns2:DocumentUnique
Id&gt;&lt;ns2:mimeType&gt;text/xml&lt;/ns2:mimeType&gt;&lt;ns2:Document&gt;&lt;xop:Include href="cid:ef3ccef2-b832-4d48-b546-
b00cbd4bb6a1-3@urn%3Aihe%3Aiti%3Axd-
b%3A2007"/&gt;&lt;/ns2:Document&gt;&lt;ns2:DocumentResponse&gt;&lt;ns2:DocumentResponse&gt;&lt;ns2:RepositoryUniqueId&gt;
1.3.6.1.4.1.38630.3&lt;/ns2:RepositoryUniqueId&gt;&lt;ns2:DocumentUniqueId&gt;1.3.6.1.4.1.38630.2.1.1.117.999.5.2.5.1534271328589
23542&lt;/ns2:DocumentUniqueId&gt;&lt;ns2:mimeType&gt;text/xml&lt;/ns2:mimeType&gt;&lt;ns2:Document&gt;&lt;xop:Include
href="cid:ef3ccef2-b832-4d48-b546-b00cbd4bb6a1-4@urn%3Aihe%3Aiti%3Axd-
b%3A2007"/&gt;&lt;/ns2:Document&gt;&lt;ns2:DocumentResponse&gt;&lt;ns2:RetrieveDocumentSetResponse&gt;&lt;/soap:Body&gt;
&lt;/soap:Envelope&gt;

```

--uuid:b83ecdda-6597-43b7-822a-1e302d8e2f90

Content-Type: text/xml

Content-Transfer-Encoding: binary

Content-ID: <ef3ccef2-b832-4d48-b546-b00cbd4bb6a1-3@urn:ihe:iti:xds-b:2007>

Content-Disposition: attachment;name="d7623e57-9fef-11e8-a835-b44420524153"

```

</ClinicalDocument> <realmCode code="US"/> <typeId extension="POCD_HD000040"
root="2.16.840.1.113883.1.3"/> <templateId root="2.16.840.1.113883.10.20.22.1.1"/> <templateId
root="2.16.840.1.113883.10.20.22.1.2"/> <id root="9b1f573a-1453-59e9-b236-04e4a8d16172"/> <code code="34133-9"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="**DO NOT REMOVE** ITI-41-NS: ITI-43-doc-
001"/> <title> <title> <effectiveTime value="201808141127-
0700"/> <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25" codeSystemName="Confidentiality Code"
displayName="Normal"/> <languageCode code="en-US"/> <recordTarget> <patientRole> <!-- OHP CDR OID and Global
ID --> <id extension="1831348" root="1.3.6.1.4.1.38630.3"/> <!-- OHP Organization Test OID --> <id extension="XXX"
root="1.3.6.1.4.1.38630.2.1.1.117"/> <addr use="HP" > <streetAddressLine>421 Puvgaz
Boulevard</streetAddressLine> <city>Fewidse</city> <state>KS</state> <postalCode>04990</postalCod
e> <country>US</country> <telecom use="HP" value="tel:(253)752-5492"/> <patient> <name
use="L" <given>Earl</given> <family>Jones</family> <administrativeGenderCode code="M"
codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender" displayName="male"/> <birthTime
value="19320811"/> <maritalStatusCode code="M" codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatusCode"
displayName="Married"/> <religiousAffiliationCode code="1013" codeSystem="2.16.840.1.113883.5.1076" codeSystemName="HL7
Religious Affiliation" displayName="Christian (non-Catholic, non-specific)"/> <raceCode code="2028-9"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC" displayName="Asian"/> <ethnicGroupCode
code="2186-5" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC" displayName="Not Hispanic or
Latino"/> <languageCommunication> <languageCode code="en-
US"/> <languageCommunication> <patient> <patientRole> <recordTarget> <author> <time
value="20180814112734"/> <assignedAuthor> <id extension="0197208642" root="2.16.840.1.113883.4.6"/> <addr
use="WP" > <streetAddressLine>1580 Denga
Plaza</streetAddressLine> <city>Peucacus</city> <state>RI</state> <postalCode>04715</postalCode>
<country>US</country> <telecom use="WP" value="tel:(807)262-
3853"/> <assignedPerson> <name> <given>Larry</given> <family>Dixon</family> <suffix>M.D.</
suffix> <name> <assignedPerson> <assignedAuthor> <author> <custodian> <assignedCustodian>
representedCustodianOrganization> <id root="c9e2c773-4e3d-5e85-a3f8-0a2bc5d6452e"/> <name>OHP Regression Test
Clinic</name> <telecom use="WP" value="tel:(801)830-2503"/> <addr use="WP" > <streetAddressLine>799 Magade
Square</streetAddressLine> <city>Titnuiso</city> <state>WI</state> <postalCode>13677</postalCode>
<country>US</country> <addr> <representedCustodianOrganization> <assignedCustodian> <custodian
> <documentationOf> <serviceEvent classCode="PCPR" > <effectiveTime> <low value="20180814112734"/> <high
value="20180814112734"/> <effectiveTime> <serviceEvent> <documentationOf> <component> <structuredBo
dy> <component> <section
nullFlavor="NI"/> <component> <structuredBody> <component> <ClinicalDocument>
--uuid:b83ecdda-6597-43b7-822a-1e302d8e2f90

```

Content-Type: text/xml

Response (example with one document found and one not found)

--uuid:b533026a-518b-4dea-a2a4-4e3dc0ee0904

Content-Type: application/xop+xml; charset=UTF-8; type="application/soap+xml"

Content-Transfer-Encoding: binary

Content-ID: <root.message@cxf.apache.org>

<soap:Envelope ><soap:Header><Action

><urn:ihe:iti:2007:RetrieveDocumentSetResponse</Action><MessageID ><urn:uuid:8e10648f-3c5f-4ff8-a3c7-

bae2d652cbe2</MessageID><To ><http://www.w3.org/2005/08/addressing/anonymous</To><RelatesTo

><urn:uuid:3448B7F8EA6E8B9DFC1289514997508</RelatesTo></soap:Header><soap:Body><ns2:RetrieveDoc
umentSetResponse ><ns4:RegistryResponse

status="urn:ihe:iti:2007:ResponseStatusType:PartialSuccess"><ns4:RegistryErrorList

highestSeverity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error"><ns4:RegistryError codeContext="Unknown

documentId[1.2.3]" errorCode="XDSDocumentUniqueIdError" severity="urn:oasis:names:tc:ebxml-

regrep:ErrorSeverityType:Error"/></ns4:RegistryErrorList></ns4:RegistryResponse></ns2:DocumentResponse><&

lt;ns2:RepositoryUniqueId>1.3.6.1.4.1.38630.3</ns2:RepositoryUniqueId></ns2:DocumentUniqueId>1.3.6.1.4.1.3863

0.2.1.1.117.999.5.2.5.153427130942323541</ns2:DocumentUniqueId></ns2:mimeType>text/xml</ns2:mimeType>

</ns2:Document></xop:Include href="cid:ef3ccef2-b832-4d48-b546-b00cbd4bb6a1-6@urn%3Aihe%3Aiti%3Axd-

b%3A2007"/></ns2:Document></ns2:DocumentResponse></ns2:RetrieveDocumentSetResponse></soap:Bo

dy></soap:Envelope>

--uuid:b533026a-518b-4dea-a2a4-4e3dc0ee0904

Content-Type: text/xml

Content-Transfer-Encoding: binary

Content-ID: <ef3ccef2-b832-4d48-b546-b00cbd4bb6a1-6@urn:ihe:iti:xds-b:2007>

Content-Disposition: attachment;name="d7623e57-9fef-11e8-a835-b44420524153"

```

<ClinicalDocument xmlns:realmCode code="US" xmlns:typeld extension="POCD_HD000040"
root="2.16.840.1.113883.1.3"/><templateId root="2.16.840.1.113883.10.20.22.1.1"/><templateId
root="2.16.840.1.113883.10.20.22.1.2"/><id root="9b1f573a-1453-59e9-b236-04e4a8d16172"/><code code="34133-9"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="***DO NOT REMOVE** ITI-41-NS: ITI-43-doc-
001"/><title><***DO NOT REMOVE** ITI-41-NS: ITI-43-doc-001/></title><effectiveTime value="201808141127-
0700"/><confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25" codeSystemName="Confidentiality Code"
displayName="Normal"/><languageCode code="en-US"/><recordTarget><patientRole><!-- OHP CDR OID and
Global ID --><id extension="1831348" root="1.3.6.1.4.1.38630.3"/><!-- OHP Organization Test OID --><id
extension="XXX" root="1.3.6.1.4.1.38630.2.1.1.117"/><addr use="HP"/><streetAddressLine>421 Puvgaz
Boulevard</streetAddressLine><city><Feward</city><state>KS</state><postalCode>04990</po
stalCode><country>US</country><addr><telecom use="HP" value="tel:(253)752-
5492"/><patient><name
use="L" ><given>Earl</given><family>Jones</family></name><administrativeGenderCode
code="M" codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender"
displayName="male"/><birthTime value="19320811"/><maritalStatusCode code="M"
codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatusCode"
displayName="Married"/><religiousAffiliationCode code="1013" codeSystem="2.16.840.1.113883.5.1076"
codeSystemName="HL7 Religious Affiliation" displayName="Christian (non-Catholic, non-specific)/><raceCode code="2028-
9" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race and Ethnicity - CDC"
displayName="Asian"/><ethnicGroupCode code="2186-5" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race
and Ethnicity - CDC" displayName="Not Hispanic or Latino"/><languageCommunication><languageCode code="en-
US"/></languageCommunication></patient></patientRole></recordTarget><author><time
value="20180814112734"/><assignedAuthor><id extension="0197208642" root="2.16.840.1.113883.4.6"/><addr
use="WP"/><streetAddressLine>1580 Denga
Plaza</streetAddressLine><city>Peucacus</city><state>RI</state><postalCode>04715</postal
Code><country>US</country><addr><telecom use="WP" value="tel:(807)262-
3853"/><assignedPerson><name><given>Larry</given><family>Dixon</family><suffix>
M.D.</suffix></name></assignedPerson></assignedAuthor></author><custodian><assignedCu
stodian><representedCustodianOrganization><id root="c9e2c773-4e3d-5e85-a3f8-
0a2bc5d6452e"/><name>OHP Regression Test Clinic</name><telecom use="WP" value="tel:(801)830-
2503"/><addr use="WP"/><streetAddressLine>799 Magade
Square</streetAddressLine><city>Titnuiso</city><state>WI</state><postalCode>13677</post
alCode><country>US</country><addr></representedCustodianOrganization></assignedCustodian>
</custodian></documentationOf><serviceEvent classCode="PCPR" ><effectiveTime><low
value="20180814112734"/><high
value="20180814112734"/></effectiveTime></serviceEvent></documentationOf><component><struct
uredBody><component><section
nullFlavor="NI"/></component></structuredBody></component></ClinicalDocument>
--uuid:b533026a-518b-4dea-a2a4-4e3dc0ee0904--

```

7.2 Provide and Register Transaction Response Message Samples

7.2.1 Success Response Sample

The CDR system sends HTTP 200 messages when a web services transaction crosses all the way to the CDR system. A **200 message** sample is shown below:

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
  <soap:Header>
    <Action xmlns="http://www.w3.org/2005/08/addressing">urn:ihe:iti:2007:ProvideAndRegisterDocumentSet-
bResponse</Action>
    <MessageID xmlns="http://www.w3.org/2005/08/addressing">urn:uuid:9c763d6a-5af8-4610-a9bf-
1585ed9a1054</MessageID>
    <To
xmlns="http://www.w3.org/2005/08/addressing">http://www.w3.org/2005/08/addressing/anonymous</To>
    <RelatesTo xmlns="http://www.w3.org/2005/08/addressing">urn:uuid:4df59bfb-0386-4fad-bc32-
59b89811c279</RelatesTo>
  </soap:Header>
  <soap:Body>
    <ns3:RegistryResponse xmlns:ns6="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0"
xmlns:ns5="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0" xmlns:ns4="urn:ihe:iti:xds-b:2007"
xmlns:ns3="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0" xmlns:ns2="urn:oasis:names:tc:ebxml-regrep:xsd:rsm:3.0"
status="urn:oasis:names:tc:ebxml-regrep:ResponseStatusType:Success"/>
  </soap:Body>
</soap:Envelope>

```

7.2.2 Provide and Register Transaction Error Response Samples

The CDR system has quite an extensive list of provide and register transaction response errors, many depending on the content in the transaction sent to the CDR. The most common error responses are shown below.

Blocked Message Error (500)

A **500 error** is sent when a message is blocked from crossing to the CDR because of certificate validation and mutual authentication issues, or the signature is not recognized. This message means the submitted transaction did not reach the CDR. A sample of this message content is shown below:

```

<?xml version="1.0" encoding="UTF-8"?>
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope">
  <env:Header>
  </env:Header>
  <env:Body>
    <env:Fault>
      <env:Code>
        <env:Value>env:Receiver
        </env:Value>
        <env:Subcode>
          <env:Value xmlns:fault="http://www.vordel.com/soapfaults">fault:MessageBlocked
          </env:Value>
        </env:Subcode>
      </env:Code>
      <env:Reason>
      </env:Reason>
    </env:Fault>
  </env:Body>
</env:Envelope>

```

```

    <env:Detail xmlns:fault="http://www.vordel.com/soapfaults" fault:type="faultDetails">
    </env:Detail>
  </env:Fault>
</env:Body>
</env:Envelope>

```

Sample web service error message with single validation error:

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns="urn:hl7-org:v3">
  <soap:Body>
    <ns3:RegistryResponse xmlns:ns3="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0" xmlns:ns2="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0" xmlns:ns4="urn:ihe:iti:xds-b:2007" xmlns:ns5="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0"
xmlns:ns6="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0" status="urn:oasis:names:tc:ebxml-regrep:ResponseStatusType:Failure">
      <ns3:RegistryErrorList highestSeverity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error">
        <ns3:RegistryError codeContext="The clinical document you submitted to the CDR on Fri Feb 15
10:56:36 PST 2019, , has failed the CDA R2 base standard conformance." To see the actual error validation content submit your document to
our CCDa validator at https://identity.onehealthport.com/EmpowerIDWebIDPForms/Login/VALIDATOR to get detailed error information.
The validation error(s) in your file follow: CCD Validation Error: lineNumber: 33; columnNumber: 202; cvc-pattern-valid: Value `Not a valid
code` is not facet-valid with respect to pattern `[^\s]` for type `cs`. CCD Validation Error: lineNumber: 33; columnNumber: 202; cvc-
attribute.3: The value `Not a valid code` of attribute `code` on element `religiousAffiliationCode` is not valid with respect to its type, `cs`. "
errorCode="InvalidDocumentContent" severity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error"/>
      </ns3:RegistryErrorList>
    </ns3:RegistryResponse>
  </soap:Body>
</soap:Envelope>

```

Sample web service error message with multiple validation errors:

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns="urn:hl7-org:v3">
  <soap:Body>
    <ns3:RegistryResponse xmlns:ns3="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0" xmlns:ns2="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0" xmlns:ns4="urn:ihe:iti:xds-b:2007" xmlns:ns5="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0"
xmlns:ns6="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0" status="urn:oasis:names:tc:ebxml-regrep:ResponseStatusType:Failure">
      <ns3:RegistryErrorList highestSeverity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error">
        <ns3:RegistryError codeContext="The clinical document you submitted to the CDR on Fri Feb 15
10:57:39 PST 2019, , has failed the CDA R2 base standard conformance." To see the actual error validation content submit your document to
our CCDa validator at https://identity.onehealthport.com/EmpowerIDWebIDPForms/Login/VALIDATOR to get detailed error information.
The validation error(s) in your file follow: CCD Validation Error: lineNumber: 32; columnNumber: 153; cvc-pattern-valid: Value `Not a valid
code` is not facet-valid with respect to pattern `[^\s]` for type `cs`. CCD Validation Error: lineNumber: 32; columnNumber: 153; cvc-
attribute.3: The value `Not a valid code` of attribute `code` on element `maritalStatusCode` is not valid with respect to its type, `cs`. CCD
Validation Error: lineNumber: 34; columnNumber: 202; cvc-pattern-valid: Value `Not a valid code` is not facet-valid with respect to pattern
`[^\s]` for type `cs`. CCD Validation Error: lineNumber: 34; columnNumber: 202; cvc-attribute.3: The value `Not a valid code` of attribute
`code` on element `religiousAffiliationCode` is not valid with respect to its type, `cs`. CCD Validation Error: lineNumber: 36; columnNumber:
151; cvc-pattern-valid: Value `Not a valid code` is not facet-valid with respect to pattern `[^\s]` for type `cs`. CCD Validation Error:
lineNumber: 36; columnNumber: 151; cvc-attribute.3: The value `Not a valid code` of attribute `code` on element `raceCode` is not valid
with respect to its type, `cs`. CCD Validation Error: lineNumber: 38; columnNumber: 175; cvc-pattern-valid: Value `Not a valid code` is not
facet-valid with respect to pattern `[^\s]` for type `cs`. CCD Validation Error: lineNumber: 38; columnNumber: 175; cvc-attribute.3: The

```



```

value `Not a valid code` of attribute `code` on element `ethnicGroupCode` is not valid with respect to its type, `cs`. "
errorCode="InvalidDocumentContent" severity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error"/>
    </ns3:RegistryErrorList>
  </ns3:RegistryResponse>
</soap:Body>
</soap:Envelope>

```

Sample web service error message with multiple error types – patient match and multiple validation errors:

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns="urn:hl7-org:v3">
  <soap:Body>
    <ns3:RegistryResponse xmlns:ns3="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0" xmlns:ns2="urn:oasis:names:tc:ebxml-
regrep:xsd:rim:3.0" xmlns:ns4="urn:ihe:iti:xds-b:2007" xmlns:ns5="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0"
xmlns:ns6="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0" status="urn:oasis:names:tc:ebxml-regrep:ResponseStatusType:Failure">
      <ns3:RegistryErrorList highestSeverity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error">
        <ns3:RegistryError codeContext="Unknown Patient Id [XXX] specified in request"
errorCode="XDSUnknownPatientId" severity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error"/>
        <ns3:RegistryError codeContext="The clinical document you submitted to the CDR on Fri Feb 15
10:56:36 PST 2019, , has failed the CDA R2 base standard conformance. To see the actual error validation content submit your document to
our CCDa validator at https://identity.onehealthport.com/EmpowerIDWebIdPForms/Login/VALIDATOR to get detailed error information.
The validation error(s) in your file follow: CCD Validation Error: lineNumber: 33; columnNumber: 153; cvc-pattern-valid: Value `Not a valid
code` is not facet-valid with respect to pattern `[^\s]` for type `cs`. CCD Validation Error: lineNumber: 33; columnNumber: 153; cvc-
attribute.3: The value `Not a valid code` of attribute `code` on element `maritalStatusCode` is not valid with respect to its type, `cs`. CCD
Validation Error: lineNumber: 35; columnNumber: 202; cvc-pattern-valid: Value `Not a valid code` is not facet-valid with respect to pattern
`[^\s]` for type `cs`. CCD Validation Error: lineNumber: 35; columnNumber: 202; cvc-attribute.3: The value `Not a valid code` of attribute
`code` on element `religiousAffiliationCode` is not valid with respect to its type, `cs`. CCD Validation Error: lineNumber: 37; columnNumber:
151; cvc-pattern-valid: Value `Not a valid code` is not facet-valid with respect to pattern `[^\s]` for type `cs`. CCD Validation Error:
lineNumber: 37; columnNumber: 151; cvc-attribute.3: The value `Not a valid code` of attribute `code` on element `raceCode` is not valid
with respect to its type, `cs`. CCD Validation Error: lineNumber: 39; columnNumber: 175; cvc-pattern-valid: Value `Not a valid code` is not
facet-valid with respect to pattern `[^\s]` for type `cs`. CCD Validation Error: lineNumber: 39; columnNumber: 175; cvc-attribute.3: The
value `Not a valid code` of attribute `code` on element `ethnicGroupCode` is not valid with respect to its type, `cs`. "
errorCode="InvalidDocumentContent" severity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error"/>
      </ns3:RegistryErrorList>
    </ns3:RegistryResponse>
  </soap:Body>
</soap:Envelope>

```

MTOM Not Using Proper Web Services Channel (512)

A **512 error** will generate if the message format is MTOM and the message is sent not using the dedicated MTOM web services channel. This is a connection closed or blank message response.

Other Errors encountered not specifically identified (599)

There are multiple other errors that could occur that have not been specifically delineated with a unique “500 range” number assignment. These will return as **599 errors**. Submitters in receipt of a 599 error response where they are unable to discern the underlying problem should contact OneHealthPort for assistance. The sample below shows a 599 error that generated when a required section of the ITI41 was missing from the web services transaction:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
  <soap:Body>
    <ns3:RegistryResponse xmlns:ns6="urn:oasis:names:tc:ebxml-regrep:xsd:query:3.0"
      xmlns:ns5="urn:oasis:names:tc:ebxml-regrep:xsd:lcm:3.0" xmlns:ns4="urn:ihe:iti:xds-b:2007"
      xmlns:ns3="urn:oasis:names:tc:ebxml-regrep:xsd:rs:3.0" xmlns:ns2="urn:oasis:names:tc:ebxml-regrep:xsd:rim:3.0"
      status="urn:oasis:names:tc:ebxml-regrep:ResponseStatusType:Failure">
      <ns3:RegistryErrorList highestSeverity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error">
        <ns3:RegistryError codeContext="Document Metadata is missing for a DocumentContent
with id[1A]" errorCode="XDSMissingDocumentMetadata" severity="urn:oasis:names:tc:ebxml-regrep:ErrorSeverityType:Error"/>
      </ns3:RegistryErrorList>
    </ns3:RegistryResponse>
  </soap:Body>
</soap:Envelope>
```