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Vendors should note that the contents of the final technical specifications may vary from the draft document provided.

Technical Specifications for Health Card Validation (HCV) Service via EBS
**Table of Contents**

TABLE OF CONTENTS.................................................................................................................. 2  
GLOSSARY .................................................................................................................................. 3  
NOTICE TO READER.............................................................................................................. 5  
INTENDED AUDIENCE FOR THIS TECHNICAL SPECIFICATION DOCUMENT............ 6  
ABOUT THIS DOCUMENT....................................................................................................... 7  
INTRODUCTION...................................................................................................................... 8  
  Health Card Validation............................................................................................................ 8  
  Web Service Interface for HCV Service................................................................................... 8  
TECHNICAL INTERFACE...................................................................................................... 9  
  SOAP Message....................................................................................................................... 9  
  The Message WSDL.............................................................................................................. 9  
  WSDL Definitions Table....................................................................................................... 9  
VALIDATION MESSAGE SCHEMA....................................................................................... 10  
  Data Specifications for Fields............................................................................................... 10  
  Input (Request) Message Fields........................................................................................... 10  
  Output (Response) Message Fields..................................................................................... 10  
TESTING................................................................................................................................. 13  
APPENDIX A: RESPONSE CODES.................................................................................... 14  
APPENDIX B: FEE SERVICE CODE - ERROR CODES.................................................... 16  
APPENDIX C: ERROR CODES............................................................................................. 17  
APPENDIX D: THE MESSAGE WSDL............................................................................... 18  
APPENDIX E: MESSAGE SCHEMA................................................................................... 22  
APPENDIX F: MSA MODEL MESSAGE EXAMPLE....................................................... 26  
APPENDIX G: IDP MODEL MESSAGE EXAMPLE.......................................................... 31  
SUPPORTED FEE SERVICE CODES ADDENDUM.......................................................... 37
# Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Claim Submission Number (CSN) (aka Billing Number)</strong></td>
<td>A unique identifier that is assigned to a Health Care Provider who is registered with MOHLTC on the Corporate Provider Database for the purpose of submitting claims for insured services.</td>
</tr>
<tr>
<td><strong>Health Card Validation (HCV)</strong></td>
<td>Health Card Validation: Service provided by MOHLTC that checks the status and validity of a health card version, presented to determine an individual’s eligibility for health care coverage.</td>
</tr>
<tr>
<td><strong>HCV Service Schedule</strong></td>
<td>A Service Schedule to the Master Service agreement that forms part of the Agreement between the Service Requestor and MOHLTC and captures the roles and responsibilities that relate to the HCV via EBS.</td>
</tr>
<tr>
<td><strong>Health Care Provider (HCP)</strong></td>
<td>Individual, group or facility licensed to provide health care services to residents of Ontario.</td>
</tr>
<tr>
<td><strong>Health Information Custodian (HIC)</strong></td>
<td>Health Information Custodian in or under <em>Personal Health &amp; Information Privacy Act (PHIPA).</em></td>
</tr>
<tr>
<td><strong>Health Number (HN)</strong></td>
<td>Health number consists of a 10 digit personal health number. A version code identifies the specific health card of the card holder.</td>
</tr>
<tr>
<td><strong>Identity Provider (IDP)</strong></td>
<td>A kind of <em>service provider</em> that creates, maintains, and manages identity information for <em>principals</em> and provides principal authentication to other <em>service providers</em>.</td>
</tr>
<tr>
<td><strong>MOHLTC</strong></td>
<td>The Ontario Ministry of Health and Long-Term Care.</td>
</tr>
<tr>
<td><strong>MOHLTC Electronic Business Services (EBS)</strong></td>
<td>The Electronic Business Service is a framework which provides an electronic business gateway that exposes MOHLTC services to the Broader Health Sector and provides a full featured IAM suite of provisioning, business enrolment, business and IT federation agreements, technical specifications and terms of acceptable use governance.</td>
</tr>
<tr>
<td><strong>Master Services Agreement (MSA)</strong></td>
<td>Master Services Agreement. The binding legal agreement through which MOHLTC accepts the identity of an end user at face value based on authenticating the end user’s organization at the time of the service request.</td>
</tr>
<tr>
<td><strong>Output (Response) Message Fields</strong></td>
<td>Output (Response) Message fields are those fields which are returned by the Health Card Validation (HCV) web service. The response fields are broken into two categories: Mandatory (fields that must be returned) and Optional (fields that may or may not be returned). The Optional Fields are further broken down into Category I, Category II and Category III Fields. Which field categories are returned is dependent upon the type of service being provisioned, e.g. HCV Full returns Category I and Category II fields. HCV</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Basic returns Category I fields only. Refer to enrolment criteria outlined in the HCV Reference Manual.</td>
<td></td>
</tr>
<tr>
<td>Response Code</td>
<td>Code returned in an HCV response identifying the outcome of the transaction – either the eligibility status of the individual if applicable, or an explanatory failure code otherwise.</td>
</tr>
<tr>
<td>Service Provider (SP)</td>
<td>Throughout this document, Service Provider refers exclusively to MOHLTC, as the provider of the Health Card Validation service via EBS.</td>
</tr>
<tr>
<td>Stakeholder Number (SN)</td>
<td>A unique identifier that is assigned to stakeholders of interest who are registered with the MOHLTC on the Corporate Provider Database. The unique identifier is either 7 digits long or 8 digits long depending on the type of stakeholder to which it belongs.</td>
</tr>
<tr>
<td>UID</td>
<td>It is a version 4 Universally Unique Identifier (UUID). A UUID is a 16-byte (128-bit) number. In its canonical form, a UUID consists of 32 hexadecimal digits, displayed in 5 groups separated by hyphens, in the form 8-4-4-4-12 for a total of 36 characters (32 digits and 4 hyphens)</td>
</tr>
<tr>
<td>Web Services Description Language (WSDL)</td>
<td>Web Services Description Language: an XML-based language for describing web services and how to access them. For more information refer to <a href="http://www.w3.org/TR/wsd">http://www.w3.org/TR/wsd</a>.</td>
</tr>
</tbody>
</table>
Notice to Reader

All possible measures are exerted to ensure accuracy of the contents of this manual; however, the manual may contain typographical or printing errors. The public is cautioned against complete reliance upon the contents hereof without confirming the accuracy and currency of the information contained herein. The Crown in Right of Ontario, as represented by the Ministry of Health and Long-Term Care (MOHLTC), assumes no responsibility for any person’s use of the material herein or any costs or damages associated with such use.

This technical specification is intended to be a technical document to guide the development of the Health Card Validation (HCV) via EBS, a web interface service client application.

Revisions to the specification will be made as required. It is essential that implementers keep current regarding any changes to this specification. The current version of the technical specification will be available for download at the following URL:


Please direct any questions that arise during the integration of your computer system with the standardized, internet based protocols, assertions and communication methods described in this Technical Specifications document to the Service Support Contact Centre at 1 800 262-6524.

For further details about HCV via EBS service including enrolment criteria please refer to the HCV Reference Manual posted at:


Intended Audience for this Technical Specification Document

This document is intended for use by developers of applications and products that support communication with MOHLTC’s HCV via EBS (web service interface) a service provided by the ministry to support health card validation. This service is built to the web services standards detailed in this document.

This document is also intended to be read in the context of either a service agreement between the ministry and the Service Requestor or through an accepted IDP. The service agreement is defined by a Master Service Agreement (MSA) and a Health Card Validation Service Schedule between the ministry and the Service Requestor (SR).

This technical specification is also targeted to vendors of various software applications and products that have or plan to have modules that support HCV through a web service interface within the province of Ontario in Canada.

The document describes the web service, the SOAP message specification and aims to guide the users in the development of client application to integrate with this web service.

It is assumed that the reader has knowledge of web services and related protocols, SOAP and XML message formats/processing, SAML 2.0, relevant interoperability profiles and identity assertions and has read the ‘MOHLTC EBS - Generic Security Specification’ document.
About This Document

The Ministry of Health and Long-Term Care Health Card Validation (HCV) service allows health care providers (HCP) to validate the eligibility of a health card holder and the status of his or her health card version.

This document is an extension of the “MOHLTC EBS – Generic Security SOAP Specification” document and is intended to provide the reader with sufficient information to implement service requestor software that can use the service. The HCV service will only support the MSA security model in its first release.

The introduction provides an overview of the HCV service and provides a glossary of the terminology used throughout the document. Additional functional information and overview of the HCV process is provided in the HCV reference manual published at http://www.health.gov.on.ca/english/providers/pub/ohip/ohipvalid_manual/ohipvalid_manual_mn.html

The Simple Object Access Protocol (SOAP) Message Section provides the technical specifications of the SOAP message including:

- Message Web Services Description Language (WSDL);
- Validation message schema including the request and the response; and
- Data specifications for fields.

Appendices provide:

- Response codes;
- The Message WSDL;
Introduction

The Health Card Validation service adheres to the EBS security models and as such requires that the unique ministry identifier for Service Requestor (SR) be a Stakeholder Number (SN) and for Service User (SU) be either a SN or a Claim Submission Number (CSN).

Health Card Validation

Each eligible resident of the Province of Ontario that registers for the Ontario Health Insurance Plan (OHIP) is assigned a unique 10-digit health number. A health card is provided to the insured person for the purpose of obtaining insured health services in Ontario. The health card version is identified by a version code. Photo health cards are assigned a two-letter version code; standard “red & white” cards might have no version code, a single letter or a two letter version code. An insured person presents his/her health card at each visit to a health care provider.

HCPs can and should validate this information at the time a health card is presented and prior to the health services being rendered. The health card must be valid and belong to the patient who is presenting it. The HCV service will not, however, guarantee payment of any claim submitted.

Web Service Interface for HCV Service

The Province of Ontario, via the Ministry of Health and Long-Term Care Health Card, offers EBS to the HCV service for users through third party or client software.

HCV via EBS is being provided in addition to the existing HCV methods.
Technical Interface
The Province of Ontario is responsible and accountable for the service provider component.

The service interface uses the SOAP protocol for communication and the SAML protocol, bound by WS-Security, for transaction security. There are several implementations of the SAML protocol available and it is suggested that one of those be used where possible. The following sections assume an appropriate SAML header is included as defined by the “EBS – Generic Security SOAP Specification”.

SOAP Message:
SOAP is an XML-based standard protocol that defines a message specification for transmitting XML documents via a network. Since this message specification does not depend on a particular programming language or operating system, data transfer can be conducted among and between systems that use different languages or operating systems.

The Message WSDL
A WSDL is a specification for coding web services-related information (access point and interface specifications, etc.) in XML. Note that while WSDL does not define a protocol when sending/receiving messages, the ministry is using SOAP via HTTPS as the protocol for message transmission.

WSDL Definitions Table
The WSDL includes the following standard elements:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCV Service URI</td>
<td>The URI of the HCV web service in the form of https://[domain name or IP address]/HCVServeHCValidationService</td>
</tr>
</tbody>
</table>

The complete WSDL is included in Appendix D.
Validation Message Schema

The validation message schema includes definitions of both the request and the response elements. Schema elements are described below, and the full schema is included in Appendix E.

Data Specifications for Fields

The fields described in the message specification are necessarily generic in order to follow the XML data typing standards. However, in order to pass validation, some of the fields must be presented in the format expected by the ministry.

WS-Security will be used to encrypt the returning data. All \texttt{hcvResults} objects will be encrypted with the public key of the callers signing certificate. For more information please refer to the ‘MOHLTC EBS – Generic Security Specification’ document.

Input (Request) Message Fields

- \texttt{name=“healthNumber” type=“xs:string” pattern=“[1-9]\d{9}”}
  The health number is sent to the ministry as a string. The health number is a ten-digit number that appears on the face of every health card.

- \texttt{name=“versionCode” type=“xs:string” pattern=“[A-Z]{0, 2}”}
  Version code is an alphabetic identifier that along with the health number uniquely identifies a health card version. This field appears on the face of all photo cards and some standard (“red & white”) cards. When present on the card, a version code is one letter or two letters.

Optional Fields

- \texttt{maxOccurs=“10” minOccurs=“0” name=“feeServiceCodes” type=“xs:string” pattern=“[A-Z]\d{3}”}
  A list of the fee service codes that are to be checked.

The list of supported fee service codes can be found in the HCV reference manual at \url{http://www.health.gov.on.ca/english/providers/pub/ohip/ohipvalid_manual/ohipvalid_manual_mn.html}.

Output (Response) Message Fields

The Output Messages identified below have been classed into Mandatory and Optional Response Fields – Category I, Category II and Category III. The output message fields that can be included in the interface you are developing is determined by the type of HCV service you are enrolled for. Please refer to the HCV Reference Manual for details.

Mandatory Fields:

The following mandatory fields are returned for each validation request submitted.

- \texttt{name=“auditUID” type=“xs:string”}
pattern=\[0-9A-F\]{8}-[0-9A-F]\{4\}-4[0-9A-F]\{3\}-[89AB][0-9A-F]\{3\}-[0-9A-F]\{12\}\]”
The audit UID is an identifier created by the service for each SOAP message processed. The UID returned is a version 4 Universally Unique Identifier (UUID). A UUID is a 16-byte (128-bit) number. In its canonical form, a UUID consists of 32 hexadecimal digits, displayed in 5 groups separated by hyphens, in the form 8-4-4-4-12 for a total of 36 characters (32 digits and 4 hyphens).

Name=”responseCode” type=”xs:string”
A two character representation of the validation response code for given health number and/or version code. (See ‘Response Codes’ in Appendix A for more details)

Name=”responseID” type=”xs:responseID”
A mnemonic representation of the validation response code for given health number and/or version code. (See ‘Response Codes’ in Appendix A for more details)

OPTIONAL FIELDS

The following are optional fields and can be returned for each validation request submitted.

Category I

Name=”responseAction” type=”xs:string”
The action required of the caller for the returned response code.

Name=”responseDescription” type=”xs:string”
A description for the validation response code for given health number and/or version code.

Category II

name=”healthNumber” type=”xs:string” pattern=”[1-9]\d{9}”
The health number is sent to the ministry as a string. The health number is a ten-digit number that appears on the face of every health card.

name=”versionCode” type=”xs:string” pattern=”[A-Z]\{0, 2\}”
Version code is an alphabetic identifier that along with the health number uniquely identifies a health card version. This field appears on the face of all photo cards and some standard (“red & white”) cards. When present on the card, a version code is one letter or two letters.

name=”firstName” type=”xs:string”
MOHLTC stores this value as upper case characters. A maximum of 20 characters are kept on file. No accents or other diacritic marks are stored or returned.

Name=”secondName” type=”xs:string”
MOHLTC stores this value as upper case characters. A maximum of 20 characters are kept on file. No accents or other diacritic marks are stored or returned.
Name="lastName" type="xs:string"
MOHLTC stores this value as upper case characters. A maximum of 30 characters are kept on file. No accents or other diacritic marks are stored or returned.

Name="gender" type="xs:string"
The gender is returned as either an M or F, for male or female respectively.

Name="dateOfBirth" type="xs:date"
The card holder’s date of birth.

Name="expiryDate" type="xs:date"
The date the card expires.

Category III

name="feeServiceCode" type="xs:string" pattern="[A-Z]\d{3}" The fee service code passed in to be queried.

name="feeServiceDate" type="xs:date"
The last date the service was issued.

name="feeServiceResponseCode" type="xs:string"
The error if an error occurs returning the fee service code data.

name="feeServiceResponseDescription" type="xs:string"
The error if an error occurs returning the fee service code data.
Testing
Conformance testing must be completed for HCV. For more details please refer to the Testing section in the ‘MOHLTC EBS – Generic Security Specification’ document.
**APPENDIX A: Response Codes**

Character based response codes are returned as well as character constants for Response IDs to provide more information to developers what codes and data has been returned. All response codes are two characters.

The following is an overview of valid response codes:

- between 00 and 49 indicates the health card is invalid; cardholder not eligible
- between 50 and 59 indicates a valid health card; cardholder is eligible
- between 60 and 89 indicates health card is invalid; cardholder is eligible

The following are the constants that will be returned and their mapping to character based response codes and comments about their use.

<table>
<thead>
<tr>
<th>Response Code</th>
<th>Response ID</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>NOT_10_DIGITS</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>10</td>
<td>FAILED_MOD10</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>15</td>
<td>IS_IN_DISTRIBUTED_STATUS</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>20</td>
<td>IS_NOT_ELIGIBLE</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>IS_NOT_ELIGIBLE_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>50</td>
<td>NOT_ON_ACTIVE_ROSTER</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>NOT_ON_ACTIVE_ROSTER_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>51</td>
<td>IS_ON_ACTIVE_ROSTER</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>IS_ON_ACTIVE_ROSTER_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>52</td>
<td>HAS_NOTICE</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>HAS_NOTICE_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>53</td>
<td>IS_RQ_HAS_EXPIRED</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>IS_RQ_HAS_EXPIRED_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>53</td>
<td>IS_THC</td>
<td></td>
</tr>
<tr>
<td>Response Code</td>
<td>Response ID</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>53</td>
<td>IS_THC_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>54</td>
<td>IS_RQ_FUTURE_ISSUE</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>IS_RQ_FUTURE_ISSUE_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>55</td>
<td>RETURNED_MAIL</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>RETURNED_MAIL_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>65</td>
<td>INVALID_VERSION_CODE</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>INVALID_VERSION_CODE_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>70</td>
<td>IS_STOLEN</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>IS_STOLEN_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>75</td>
<td>IS_CANCELLLED_OR_VOIDED</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>IS_CANCELLLED_OR_VOIDED_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>75</td>
<td>IS_VOID_NEVER_ISS</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>IS_VOID_NEVER_ISS_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>80</td>
<td>DAMAGED_STATE</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>DAMAGED_STATE_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>83</td>
<td>LOST_STATE</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>LOST_STATE_ND</td>
<td>Response Code is returned but no Personal Characteristics are available</td>
</tr>
<tr>
<td>90</td>
<td>INFO_NOT_AVAIL</td>
<td>Information not available.</td>
</tr>
</tbody>
</table>
# APPENDIX B: Fee Service Code - Error Codes

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Error Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>Invalid Fee Service Code</td>
</tr>
<tr>
<td>99</td>
<td>System unavailable</td>
</tr>
</tbody>
</table>
APPENDIX C: Error Codes

Character based error codes are returned as well as textual descriptions of the error. All ministry specific error codes are 9 characters.

The following are the ministry specific error codes that may be returned within a SOAP Fault accompanied by brief explanations.

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Error Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMID1000</td>
<td>Web Service Unavailable</td>
</tr>
<tr>
<td>SMIDL0100</td>
<td>Web Service Initialization Failure</td>
</tr>
<tr>
<td>SMIDL0202</td>
<td>Web Service System Error</td>
</tr>
</tbody>
</table>
Appendix D: The Message WSDL

```xml
<?xml version="1.0" encoding="UTF-8"?>
<definitions name="HCValidationService" targetNamespace="http://hcv.health.ontario.ca/"
    xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
    xmlns:xmls:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:hcv="http://hcv.health.ontario.ca/">

    <wsp:Policy wsu:Id="EBSService_EnvelopePolicy">
        <sp:AsymmetricBinding>
            <sp:Policy>
                <sp:InitiatorToken>
                    <wsp:Policy>
                        <sp:X509Token
                            sp:IncludeToken="http://docs.oasis-open.org/ws-sx/ws-securitypolicy/200702/IncludeToken/AlwaysToRecipient">
                            <wsp:Policy>
                                <sp:RequireThumbprintReference />
                                <sp:WssX509V3Token11 />
                            </wsp:Policy>
                        </sp:X509Token>
                    </wsp:Policy>
                </sp:InitiatorToken>
            </sp:Policy>
            <sp:RecipientToken>
                <wsp:Policy>
                    <sp:X509Token
                        sp:IncludeToken="http://docs.oasis-open.org/ws-sx/ws-securitypolicy/200702/IncludeToken/Never">
                        <wsp:Policy>
                            <sp:RequireThumbprintReference />
                            <sp:WssX509V3Token11 />
                        </wsp:Policy>
                    </sp:X509Token>
                </wsp:Policy>
            </sp:RecipientToken>
            <sp:AlgorithmSuite>
                <wsp:Policy>
```

---

18

<table>
<thead>
<tr>
<th>Issue Date</th>
<th>December 9, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Health Card Validation (HCV) Service

<sp:Basic256 />
<sp:Basic256Sha256 />
<sp:Basic128 />
<sp:Basic192 />
<sp:Basic192Sha256 />
<sp:Basic128Sha256 />
</wsp:Policy>
</sp:AlgorithmSuite>
<sp:Layout>
</sp:Layout>
<sp:IncludeTimestamp />
<sp:ProtectTokens />
<sp:OnlySignEntireHeadersAndBody />
</wsp:Policy>
</sp:AsymmetricBinding>
<sp:SignedSupportingTokens>
<sp:SamlToken
    sp:IncludeToken="http://docs.oasis-open.org/ws-sx/ws-securitypolicy/200702/IncludeToken/AlwaysToRecipient">
</wsp:Policy>
</sp:SamlToken>
</sp:SignedSupportingTokens>
<sp:Wss11>
<sp:Policy>
<sp:MustSupportRefKeyIdentifier />
<sp:MustSupportRefIssuerSerial />
<sp:MustSupportRefThumbprint />
<sp:MustSupportRefEncryptedKey />
<sp:RequireSignatureConfirmation />
</wsp:Policy>
</sp:Wss11>
</wsp:Policy>
<wsp:Policy wsu:Id="EBSService_MandatoryElementsPolicy">
  <sp:RequiredElements>
    <All>
      <sp:XPath>
        //saml2:Attribute[@Name='urn:moh:names:idm:attribute:su-ministry-unique-id']
      </sp:XPath>
      <sp:XPath>
        //saml2:Attribute[@Name='urn:moh:names:idm:attribute:auth-model']
      </sp:XPath>
      <sp:XPath>
        //saml2:Attribute[@Name='urn:moh:names:idm:attribute:software-conformance-id']
      </sp:XPath>
      <sp:XPath>
        //saml2:Attribute[@Name='urn:moh:names:idm:attribute:tx-audit-id']
      </sp:XPath>
      <ExactlyOne>
        <All>
          <sp:XPath>
            //saml2:Attribute[@Name='urn:moh:names:idm:attribute:identity-provider']
          </sp:XPath>
          <sp:XPath>
            //saml2:Attribute[@Name='urn:moh:names:idm:attribute:encrypted-password']
          </sp:XPath>
        </All>
        <All>
          <sp:XPath>
            //saml2:Attribute[@Name='urn:moh:names:idm:attribute:sr-ministry-unique-id']
          </sp:XPath>
        </All>
      </ExactlyOne>
    </All>
  </sp:RequiredElements>
</wsp:Policy>

<types>
  <xsd:schema>
    <xsd:import namespace="http://hcv.health.ontario.ca/"
    schemaLocation="HCValidationService_schema1.xsd"/>
  </xsd:schema>
</types>
<message name="validate">
    <wsdl:part element="tns:validate" name="parameters"/>
</message>

<message name="validateResponse">
    <part element="tns:validateResponse" name="parameters"/>
</message>

<portType name="HCValidation">
    <operation name="validate">
        <input message="tns:validate"/>
        <output message="tns:validateResponse"/>
    </operation>
</portType>

<binding name="HCValidationPortBinding" type="tns:HCValidation">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsp:PolicyReference URI="#HCValidationService_EnvelopePolicy"/>
    <operation name="validate">
        <soap:operation soapAction=""/>
        <input>
            <wsdlsoap:body parts="parameters" use="literal"/>
        </input>
        <output>
            <soap:body use="literal"/>
        </output>
    </operation>
</binding>

<service name="HCValidationService">
    <port binding="tns:HCValidationPortBinding" name="HCValidationPort">
        <soap:address location="https://[HCV URL]/HCVService/HCValidationService"/>
    </port>
</service>
</definitions>
Appendix E: Message Schema

```xml
<?xml version="1.0" encoding="UTF-8"?><xs:schema targetNamespace="http://hcv.health.ontario.ca/" version="1.0"

  <xs:element name="validate" type="tns:validate"/>
  <xs:element name="validateResponse" type="tns:validateResponse"/>

  <xs:complexType name="validate">
    <xs:sequence>
      <xs:element maxOccurs="100" minOccurs="1" name="requests" type="tns:hcvRequest"/>
      <xs:element minOccurs="0" name="locale" type="tns:lc"/>
    </xs:sequence>
  </xs:complexType>

  <xs:simpleType name="lc">
    <xs:restriction base="xs:string">
      <xs:pattern value="en"/>
      <xs:pattern value="fr"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:complexType name="hcvRequest">
    <xs:sequence>
      <xs:element minOccurs="1" name="healthNumber" type="tns:hn"/>
      <xs:element minOccurs="1" name="versionCode" type="tns:vc"/>
      <xs:element maxOccurs="10" minOccurs="0" name="feeServiceCodes" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>

  <xs:simpleType name="hn">
    <xs:restriction base="xs:string">
      <xs:pattern value="[1-9]\d{9}"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="vc">
    <xs:restriction base="xs:string">
    </xs:restriction>
  </xs:simpleType>

</xs:schema>
```
Health Card Validation (HCV) Service

Sensitivity: Low

```xml
<xs:pattern value="[A-Z]([A-Z]{2})"/>
</xs:restriction>
</xs:simpleType>

<xs:complexType name="validateResponse">
  <xs:sequence>
    <xs:element minOccurs="1" name="results" type="tns:hcvResults"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="hcvResults">
  <xs:sequence>
    <xs:element minOccurs="1" name="auditUID" type="xs:string"/>
    <xs:element maxOccurs="100" minOccurs="1" name="results" nillable="true" type="tns:person"/>
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="audit">
  <xs:restriction base="xs:string">
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="sex">
  <xs:restriction base="xs:string">
    <xs:pattern value="M"/>
    <xs:pattern value="F"/>
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="person">
  <xs:sequence>
    <xs:element minOccurs="0" name="dateOfBirth" type="xs:date"/>
    <xs:element minOccurs="0" name="expiryDate" type="xs:date"/>
    <xs:element minOccurs="0" name="firstName" type="xs:string"/>
    <xs:element minOccurs="0" name="gender" type="tns:sex"/>
    <xs:element minOccurs="1" name="healthNumber" type="tns:hn"/>
    <xs:element minOccurs="0" name="lastName" type="xs:string"/>
    <xs:element minOccurs="0" name="responseAction" type="xs:string"/>
    <xs:element minOccurs="1" name="responseCode" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

<table>
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<tr>
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<th>December 9, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>2.5</td>
</tr>
</tbody>
</table>
<xs:element minOccurs="1" name="responseDescription" type="xs:string"/>
<xs:element minOccurs="1" name="responseID" type="tns:responseID"/>
<xs:element minOccurs="0" name="secondName" type="xs:string"/>
<xs:element minOccurs="1" name="versionCode" type="tns:vc"/>
<xs:element maxOccurs="10" minOccurs="0" name="feeServiceDetails" type="tns:feeServiceDetails"/>
</xs:sequence>
</xs:complexType>

<xs:simpleType name="fsc">
  <xs:restriction base="xs:string">
    <xs:pattern value="[A-Z]\d{3}"/>
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="feeServiceDetails">
  <xs:sequence>
    <xs:element minOccurs="1" name="feeServiceCode" type="tns:fsc"/>
    <xs:element minOccurs="0" name="feeServiceDate" type="xs:date"/>
    <xs:element minOccurs="1" name="feeServiceResponseCode" type="xs:string"/>
    <xs:element minOccurs="1" name="feeServiceResponseDescription" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="responseID">
  <xs:restriction base="xs:string">
    <xs:enumeration value="INFO_NOT_AVAIL"/>
    <xs:enumeration value="LOST_STATE_ND"/>
    <xs:enumeration value="LOST_STATE"/>
    <xs:enumeration value="DAMAGED_STATE_ND"/>
    <xs:enumeration value="DAMAGED_STATE"/>
    <xs:enumeration value="IS_VOID_NEVER_ISS_ND"/>
    <xs:enumeration value="IS_VOID_NEVER_ISS"/>
    <xs:enumeration value="IS_CANCELLED_OR_VOIDED_ND"/>
    <xs:enumeration value="IS_CANCELLED_OR_VOIDED"/>
    <xs:enumeration value="IS_STOLEN_ND"/>
    <xs:enumeration value="IS_STOLEN"/>
    <xs:enumeration value="INVALID_VERSION_CODE_ND"/>
    <xs:enumeration value="INVALID_VERSION_CODE"/>
    <xs:enumeration value="RETURNED_MAIL_ND"/>
    <xs:enumeration value="RETURNED_MAIL"/>
  </xs:restriction>
</xs:simpleType>
<xs:enumeration value="IS_THC_ND"/>
<xs:enumeration value="IS_THC"/>
<xs:enumeration value="IS_RQ_HAS_EXPIRED_ND"/>
<xs:enumeration value="IS_RQ_HAS_EXPIRED"/>
<xs:enumeration value="IS_RQ_FUTURE_ISSUE"/>
<xs:enumeration value="IS_RQ_FUTURE_ISSUE_ND"/>
<xs:enumeration value="HAS_NOTICE_ND"/>
<xs:enumeration value="HAS_NOTICE"/>
<xs:enumeration value="IS_ON_ACTIVE_ROSTER_ND"/>
<xs:enumeration value="IS_ON_ACTIVE_ROSTER"/>
<xs:enumeration value="NOT_ON_ACTIVE_ROSTER_ND"/>
<xs:enumeration value="NOT_ON_ACTIVE_ROSTER"/>
<xs:enumeration value="IS_NOT_ELIGIBLE_ND"/>
<xs:enumeration value="IS_NOT_ELIGIBLE"/>
<xs:enumeration value="IS_IN_DISTRIBUTED_STATUS"/>
<xs:enumeration value="FAILED_MOD10"/>
<xs:enumeration value="NOT_10_DIGITS"/>
</xs:restriction>
</xs:simpleType>
</xs:schema>
APPENDIX F: MSA Model Message Example

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/
 xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns:wsse="http://schemas.xmlsoap.org/ws/2003/06/secext"
 xmlns:sp="http://schemas.xmlsoap.org/ws/2005/07/securitypolicy"
 xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
 xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:tns="http://hcv.health.ontario.ca/">
  <soapenv:Header>
    <wsse:Security SOAP-ENV:mustUnderstand="1">
      <wsu:Timestamp wsu:Id="timestamp">
        <wsu:Created>2011-12-06T18:08:43.772Z</wsu:Created>
        <wsu:Expires>2011-12-06T18:09:43.772Z</wsu:Expires>
      </wsu:Timestamp>
      <saml2:Assertion ID="_32e6cde0-3a31-4e91-92c6-1a22c6240974"
        IssueInstant="2011-12-05T22:03:41.500Z" Version="2.0"
        xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion">
        <saml2:Issuer Format="urn:oasis:names:tc:SAML:1.1:nameid-format:X509SubjectName">
          SERIALNUMBER=DSAP114895 + CN=John Doe, OU=People, O=Government of Ontario, ST=on, C=ca
        </saml2:Issuer>
        <ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
          <ds:SignedInfo>
            <ds:CanonicalizationMethod
              Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
            <ds:SignatureMethod
              Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />
            <ds:Reference URI="#_32e6cde0-3a31-4e91-92c6-1a22c6240974"/>
            <ds:Transforms>
              <ds:Transform
                Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature" />
            </ds:Transforms>
            <ds:SignatureValue/>
          </ds:SignedInfo>
          <ds:KeyInfo>
            <ds:KeyName>KeyID</ds:KeyName>
            <ds:KeyTransportAlgorithm
              Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />
          </ds:KeyInfo>
        </ds:Signature>
      </saml2:Assertion>
    </wsse:Security>
  </soapenv:Header>
</soapenv:Envelope>
```

<saml2:Subject>
  <saml2:NameID Format="urn:oasis:names:tc:SAML:2.0:nameid-format:persistent">
    Rumplestiltskin
  </saml2:NameID>
  <saml2:SubjectConfirmation Method="urn:oasis:names:tc:SAML:2.0:cm:sender-vouches" />
</saml2:Subject>

  <saml2:Audience>
    /HCVService/HCValidationService
  </saml2:Audience>
</saml2:Conditions>

<saml2:AuthnStatement AuthnInstant="2011-12-05T22:03:41.672Z"
  SessionIndex="54825472-adce-48f6-800a-23620712b3a0"
  SessionNotOnOrAfter="2011-12-05T22:08:41.672Z">
  <saml2:SubjectLocality Address="192.168.1.100" />
  <saml2:AuthnContext>
    <saml2:AuthnContextDecl>
      GoverningAgreement
    </saml2:AuthnContextDecl>
  </saml2:AuthnContext>
</saml2:AuthnStatement>

<saml2:AttributeStatement>
  <saml2:Attribute Name="urn:moh:names:idm:attribute:auth-model">
    <saml2:AttributeValue xsi:type="xs:string"
      xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
      msa
    </saml2:AttributeValue>
  </saml2:Attribute>
  <saml2:Attribute Name="urn:moh:names:idm:attribute:tx-audit-id">
    <saml2:AttributeValue xsi:type="xs:string"
      xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
      4dc81e30-3119-4b0e-afb0-6423c45e56bb
    </saml2:AttributeValue>
  </saml2:Attribute>
</saml2:AttributeStatement>
Health Card Validation (HCV) Service

Sensitivity: Low

<?xml version="1.0" encoding="UTF-8"?>
  <soapenv:Body>
    <tns:validate>
        <saml2:Attribute Name="urn:moh:names:idm:attribute:personal-id">
        </saml2:Attribute>
        <saml2:Attribute Name="urn:moh:names:idm:attribute:software-conformance-id">
          <saml2:AttributeValue xsi:type="xs:string" xmlns:xs="http://www.w3.org/2001/XMLSchema">d61ad41a-72bd-4cf9-a52c-6ed82813435e</saml2:AttributeValue>
        </saml2:Attribute>
        <saml2:Attribute Name="urn:moh:names:idm:attribute:technical-id">
        </saml2:Attribute>
      </saml2:Assertion>
    </tns:validate>
  </soapenv:Body>
</soapenv:Envelope>
<requests>
  <healthNumber>2222222222</healthNumber>
  <versionCode>IT</versionCode>
</requests>

<locale>en</locale>
</tns:validate>
</soapenv:Body>
</soapenv:Envelope>
APPENDIX G: IDP Model Message Example

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
 xmlns:sp="http://schemas.xmlsoap.org/ws/2005/07/securitypolicy"
 xmlns:wdl="http://schemas.xmlsoap.org/wsd1/"
 xmlns:xs="http://www.w3.org/2001/XMLSchema"
 xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:tns="http://hcv.health.ontario.ca/">
 <soapenv:Header>
  <wsse:Security SOAP-ENV:mustUnderstand="1">
   <wsu:Timestamp wsu:Id="timestamp">
    <wsu:Created>2011-12-06T18:08:43.772Z</wsu:Created>
    <wsu:Expires>2011-12-06T18:09:43.772Z</wsu:Expires>
   </wsu:Timestamp>
   <saml2:Assertion ID="_5125f40c-de71-47be-8e4f-7bced8dd521e"
    IssueInstant="2011-12-05T18:01:38.073Z" Version="2.0"
    xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion">
    <saml2:Issuer Format="urn:oasis:names:tc:SAML:1.1:nameid-format:X509SubjectName">
     SERIALNUMBER=DSAP111898 + CN=John Doe, OU=People, O=Government of Ontario, ST=on, C=ca
    </saml2:Issuer>
   </saml2:Assertion>
  </wsse:Security>
</soapenv:Header>
```

Health Card Validation (HCV) Service

Sensitivity: Low

Issue Date
December 9, 2011

Version
2.5
Health Card Validation (HCV) Service

Sensitivity: Low

Issue Date
December 9, 2011

Version 2.5
Health Card Validation (HCV) Service

Algorithm="http://www.w3.org/2001/04/xmlenc#aes128-cbc"
xmlns:xenc="http://www.w3.org/2001/04/xmlenc#"
<ds:KeyInfo xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
  <ds:RetrievalMethod
    Type="http://www.w3.org/2001/04/xmlenc#EncryptedKey"
    URI="#_b9b6672ed0ca24c492bcba4e9b73b010" />
</ds:KeyInfo>
</xenc:CipherData>
</xenc:EncryptedData>
<xenc:EncryptedKey Id="#_b9b6672ed0ca24c492bcba4e9b73b010" xmlns:xenc="http://www.w3.org/2001/04/xmlenc#">
  <xenc:EncryptionMethod
    Algorithm="http://www.w3.org/2001/04/xmlenc#rsa-oaep-mgf1p"
    xmlns:xenc="http://www.w3.org/2001/04/xmlenc#">
    <ds:DigestMethod Algorithm="http://www.w3.org/2000/09/xmldsig#sha1"
      xmlns:ds="http://www.w3.org/2000/09/xmldsig#" />
  </xenc:EncryptionMethod>
</xenc:EncryptedKey>
</xenc:EncryptedData>
</xenc:CipherData>
</xenc:EncryptedData>
<xenc:KeyInfo xmlns:xenc="http://www.w3.org/2001/04/xmlenc#"/>
</xenc:CipherData>
</xenc:EncryptedData>
</xenc:CipherData>
</xenc:EncryptedData>
</xenc:CipherData>
</xenc:EncryptedData>
</xenc:CipherData>
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</xenc:EncryptedData>
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</xenc:EncryptedData>

Issue Date: December 9, 2011
Version: 2.5

Health Card Validation (HCV) Service

Issue Date: December 9, 2011
Version: 2.5
## SUPPORTED FEE SERVICE CODES ADDENDUM

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<td>A112</td>
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<td>Therapeutic Study for Sleep Related Breathing Disorders</td>
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<td>J895</td>
<td>Therapeutic Study for Sleep Related Breathing Disorders</td>
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<td>J897</td>
<td>Repeat Diagnostic Study</td>
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<td>K066</td>
<td>Periodic oculo-visual assessment, aged 20-64 Ministry of Community Social Services (MCSS) – Ontario Works (OW)</td>
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<td>Subsequent test – low risk patient, two or more sites</td>
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<tr>
<td>X149</td>
<td>Bone mineral density measurement – high risk patient, one site</td>
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<tr>
<td>X152</td>
<td>Bone mineral density measurement – low risk patient, one site</td>
</tr>
<tr>
<td>X153</td>
<td>Bone mineral density measurement – low risk patient, two or more sites</td>
</tr>
<tr>
<td>X155</td>
<td>Bone mineral density measurement – low risk patient, two or more sites</td>
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<td>Periodic oculo-visual assessment, aged 19 and below</td>
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<td>A239</td>
<td>Periodic oculo-visual assessment, aged 65 and above</td>
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<tr>
<td><strong>Optometrists</strong></td>
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<tr>
<td>V406</td>
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</tr>
<tr>
<td>V409</td>
<td>Major eye examination, aged 20 - 64</td>
</tr>
<tr>
<td>V450</td>
<td>Periodic oculo-visual assessment, aged 20 – 64 (MCSS – ODSP)</td>
</tr>
<tr>
<td>V451</td>
<td>Periodic oculo-visual assessment, aged 20 – 64 (MCSS – OW)</td>
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</table>