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**Technical Service Specification**  
**PCEHR Registration Service**

Version 1.0 — 30 May 2012

FINAL

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## Version History

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# Preface

## Purpose

The purpose of this document is to provide an implementable technical interface specification for the Registration Service.

This document should be read in conjunction with the Registration Service Logical Service Specification [[REG-LSS](#)].

## Intended Audience

This document is intended primarily for:

- Developers and implementers of software products which seek to interact with the PCEHR System (normative)
- Jurisdictional eHealth programs (informative)
- The Australian Health Informatics Standards development community (informative)

This is a technical document which makes use of the UML2.3 standard [[UML2010](#)]. It is assumed that the audience is familiar with:

- UML and service-oriented architecture concepts and patterns
- The PCEHR Concept of Operations, September 2011 release [[PCEHR-CON-OPS](#)]
- [RM-ODP] (Reference Model of Open Distributed Processing) reference model.

# Document Map

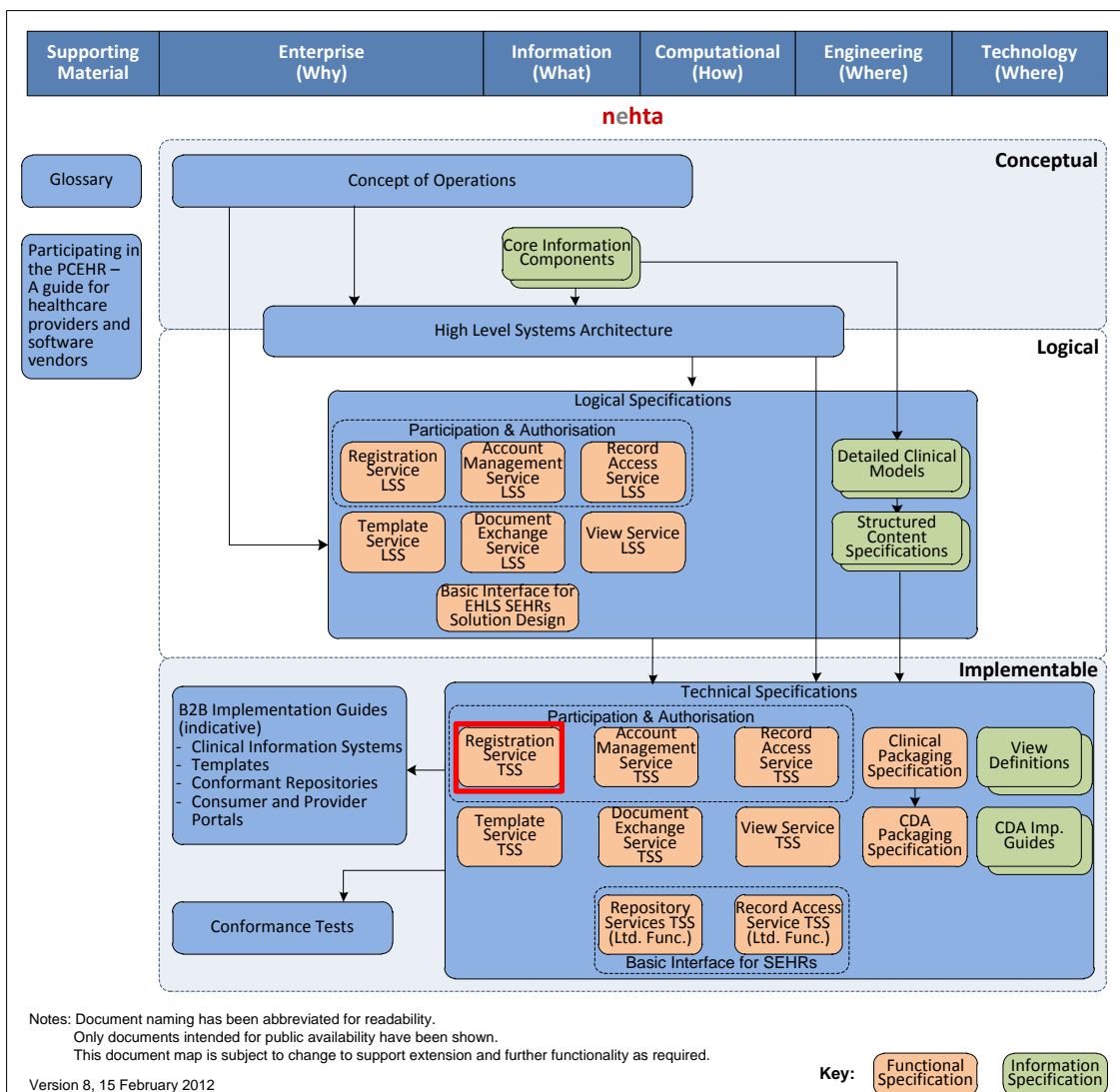


Figure 1 – Document map

## Acronyms and Terminology

Please refer to [Appendix B](#) for definitions of the acronyms and terminology used within this document.

The keywords SHALL, SHALL NOT, SHOULD and SHOULD NOT in this document are to be interpreted as described in IETF's RFC 2119 [\[RFC2119\]](#).

## References

Please refer to [Appendix C](#) for details of the references used within this document.



# 1 Introduction

## 1.1 Context

The *PCEHR Registration Logical Service Specification* [REG-LSS] presents a platform-independent specification of the PCEHR Registration Service. This Technical Service Specification presents an implementable interface that is supported by the PCEHR System and can be used by systems integrating to the PCEHR System.

Figure 2 shows how the set of operations addressed within this specification fit into the broader set of PCEHR functionality.

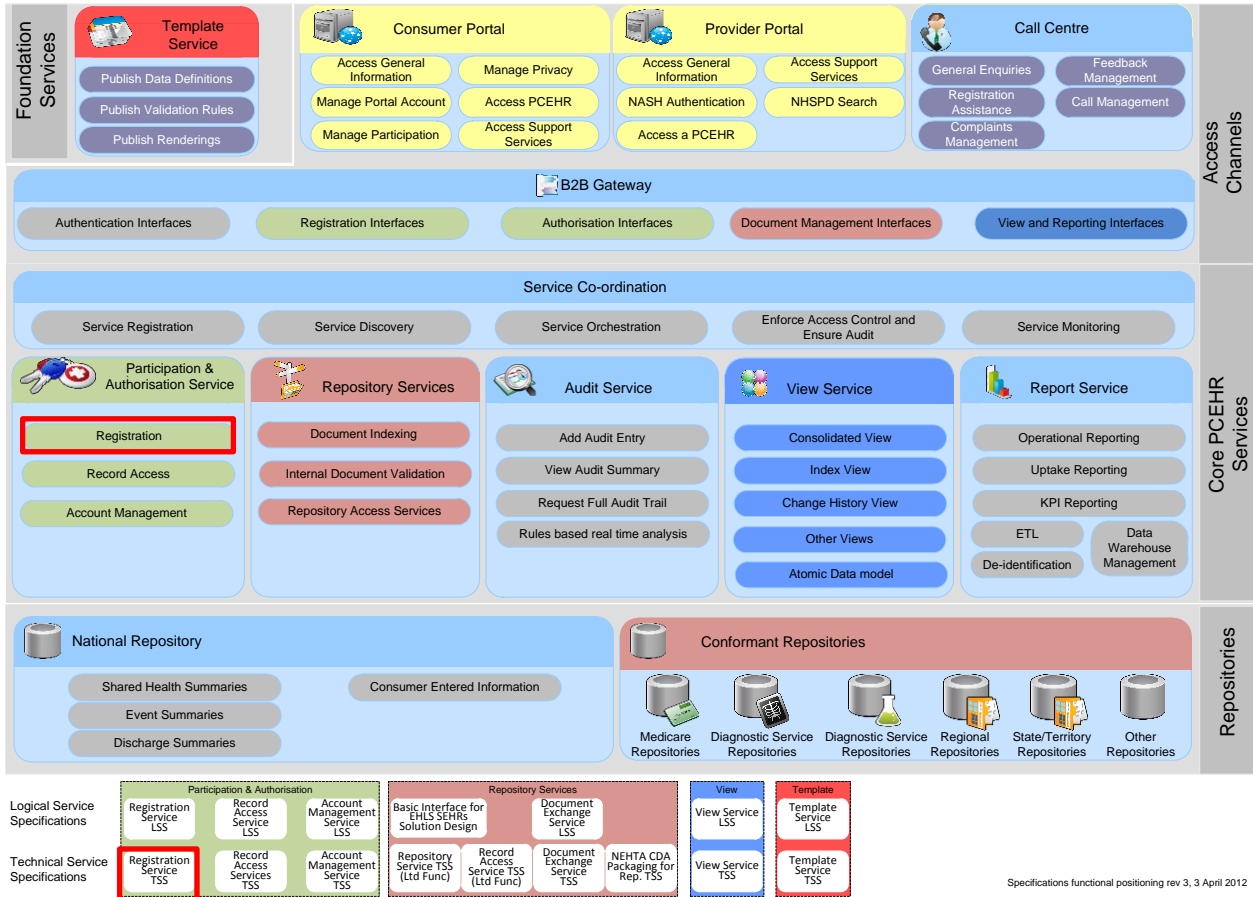


Figure 2 – PCEHR functions addressed

## 1.2 Scope of Document

This document provides a set of the functions required to register a personally controlled electronic health record (PCEHR).

## 1.3 Conformance Points

This specification contains conformance points that identify normative requirements that are to be met by identified members of the Registration Service interface user system roles (as described in the logical service specification) in order to comply with this specification when interacting with the Registration Service interface.

Conformance points include requirements on a party (Registration Service User) invoking the service and the party (Registration Service) providing the service.

Any capability required to meet a conformance point SHALL be considered part of the requirements to be met under this specification.

Conformance points are identified within this document by the means of the following notation:

**REGS-T 0**

This is an example only. Conformance points SHALL be numbered and contain an identifier of 'REGS-T' which identifies them as being applicable to the Registration Service technical service specification.

## 2 Standards and Technology Platform

A standards and technology platform is a collection of standards and technologies which may be used collectively to realise an implementation of one or more service interfaces specified within a logical service specification.

A single service interface within a logical specification must be realised fully by a single technology platform. However, each service interface specified within a logical specification may be realised wholly on different standards and technology platforms.

The technology platform for this technical service specification is comprised of interaction through web service interfaces that conform to identify elements of the E-health Web Services Profile [ATS 5820-2010].

This specification depends on the following infrastructure services:

- Healthcare Identification (HI) Service for identification of healthcare provider organisations (HPI-O), healthcare provider individuals (HPI-I) and the subject of care – an individual identified by an individual health identifier (IHI).
- The National Authentication Service for Health (NASH) compliant certificate for the provision of X.509 certificates used for signing and encryption.

### *Conformance points*

The following conformance points define the application of the E-health web services profile [ATS 5820-2010] to service interactions:

<b>REGS-T 1</b>	All implementations SHALL conform to the web services base profile from the Standards Australia E-health Web Services Profile [ATS 5820-2010] for all web service invocations.
<b>REGS-T 2</b>	All implementations SHALL implement the TLS Security Profile from the Standards Australia E-health Web Services Profile [ATS 5820-2010] for all web service invocations.

## 3 Computational Viewpoint

The Computational Viewpoint addresses how the service interfaces and service operations defined in the logical service specification map onto the operation and transport specifications provided by the standards and technology platform.

### 3.1 Service Interface Realisation

This section shows the service interfaces defined in the logical service specification and specifies how these are realised on the chosen technology platform.

Table 1 shows how the logical operations are realised in this technical service specification.

*Table 1 - Mapping between logical and technical service operations*

Logical Service Specification	Technical Service Specification
register	registerPCEHR
deactivate	NA
reactivate	NA
getTermsAndConditions	NA
acceptTermsAndConditions	registerPCEHR
linkToPCEHR	NA

#### 3.1.1 SOAP Signature

##### *Conformance points*

<b>REGS-T 3</b>	The Service Invoker and Service Provider SHALL include a Transmission Signature (section 4.1.1.3) containing a signed attestation of elements contained within the SOAP message on all SOAP Request and Response messages, except where the response contains a SOAP Fault.
<b>REGS-T 4</b>	The Service Invoker and Service Provider SHALL perform the signature using a certificate that asserts the same identity as that asserted in the TLS connection.
<b>REGS-T 5</b>	The Service Provider SHOULD respond to an invalid [ATS 5820-2010] Transmission Signature by rejecting the entire message and respond with an error.

### 3.1.2 registerPCEHR

Figure 3 shows the process for registering a PCEHR for an individual or for a dependent child.

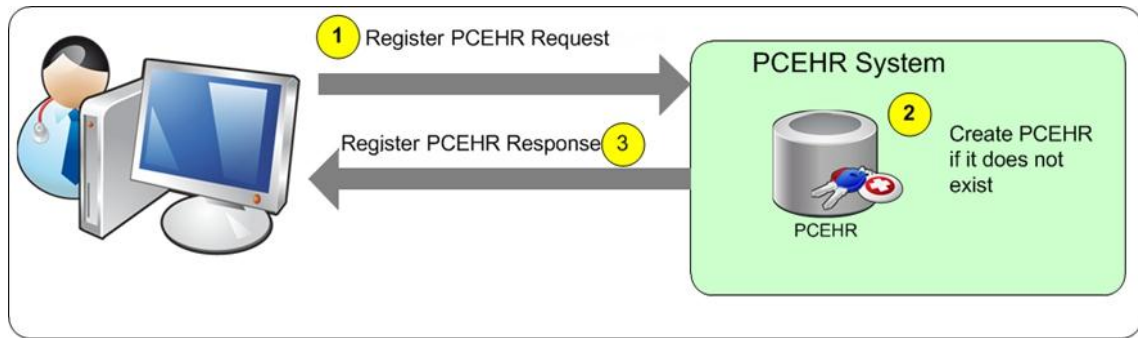


Figure 3 – registerPCEHR Conceptual interaction view

#### 3.1.2.1 Actors and roles

##### **Role 1: register Service Invoker**

The *registerPCEHR Service Invoker* role represents the party responsible for invoking the *registerPCEHR* operation. This role will typically be realised by a clinical information system (CIS) or contracted service provider (CSP). This role will be referred to as the *Service Invoker*.

##### **Role 2: register Service Provider**

The *registerPCEHR Service Provider* role is the party responsible for fulfilling the *registerPCEHR* request. This role will be realised by the PCEHR system. This role will be referred to as the *Service Provider*.

#### 3.1.2.2 Pre-conditions

##### *Conformance points*

<b>REGS-T 6</b>	A mutually authenticated encrypted connection SHALL be established between the Service Invoker (CIS and CSP) and Service Provider in conformance with the TLS Security Profile set out in <a href="#">[ATS 5820-2010]</a> .
<b>REGS-T 7</b>	The Service Invoker (CIS and CSP) SHALL have the verified IHI of the individual that the record relates to.

#### 3.1.2.3 Post-conditions

##### *Conformance points*

<b>REGS-T 8</b>	The <i>Service Provider</i> SHALL return a response indicating whether a record has been created.
<b>REGS-T 9</b>	In case of an error or validation failure, the <i>Service Provider</i> SHALL return a response with an appropriate error message. For a list of possible Response Codes please refer to section <a href="#">4.2</a> , Table 2.

### 3.1.2.4 Interaction

Figure 4 shows the interaction between an example *Service Invoker (CIS and CSP)* and *Service Provider*.

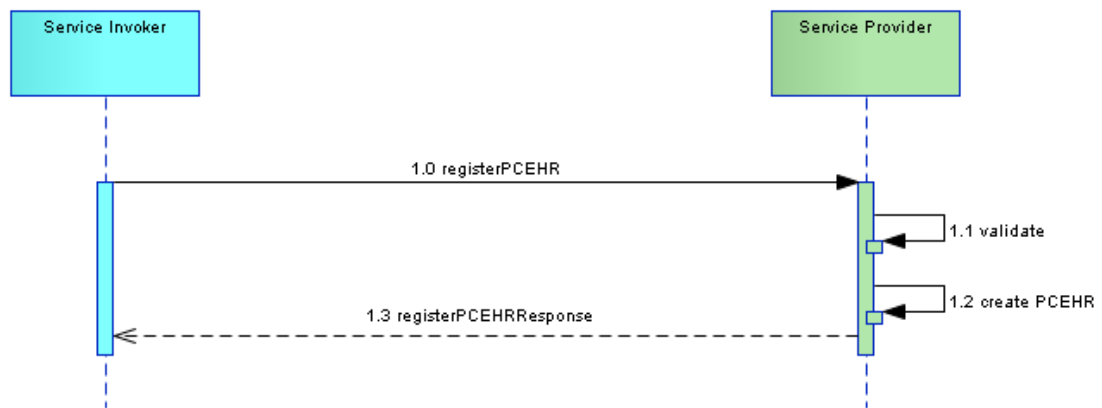


Figure 4 – registerPCEHR – Sequence diagram

#### Conformance points

- |                  |  |
|------------------|--|
| <b>REGS-T 10</b> | This operation SHALL be realised as a synchronous query between the Service Invoker system (CIS and CSP) and the Service Provider.                   |
| <b>REGS-T 11</b> | The response SHALL be returned on the same software communication connection and within a timely manner considered appropriate for user interaction. |

### 3.1.2.5 Inputs, Outputs and Faults

This section details the data which is submitted to the service as an input, the response returned and the details of any faults. The data types are realised as XSDs within [Appendix A](#).

The WSDL definition for this operation and the XML Schema Definitions for the underlying data types are provided in [Appendix A](#).

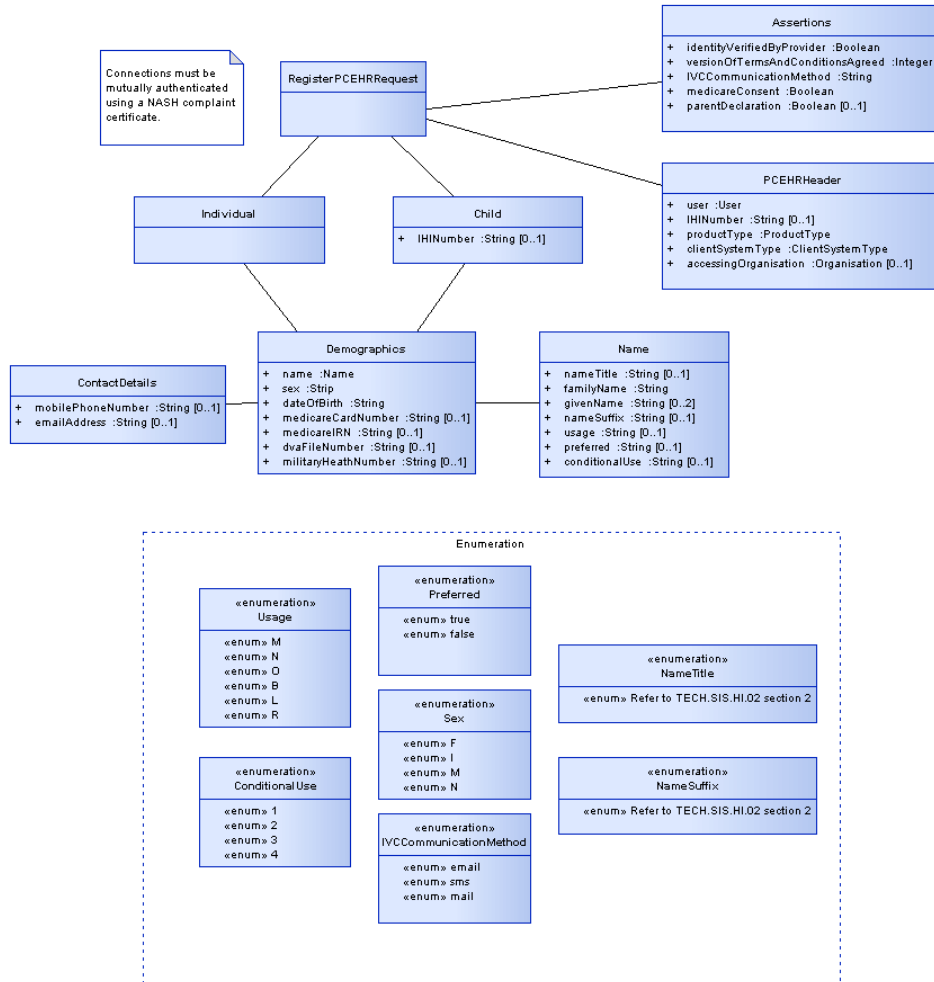


Figure 5 – registerPCEHR - Operation data view

**Input message**

Table 3 register Request

Element Name	Type	Cardinality	Remarks
registerPCEHR	Grouping	1..1	
individual	Grouping	0..1	The individual is mandatory if the IHI number not passed in the header
demographics	Grouping	1..1	
name	Grouping	1..1	
nameTitle	String	0..1	
familyName	String	1..1	Individual surname
givenName	String	0..2	Individual given names
nameSuffix	String	0..1	

Element Name	Type	Cardinality	Remarks
usage	String	0..1	Values ('M', 'N', 'O', 'B', 'L', 'R')
preferred	String	0..1	Values ('true', 'false')
conditionalUse	String	0..1	Values ('1', '2', '3', '4')
/name	Grouping		
sex	String	1..1	Values("F", "I", "M", "N")
dateOfBirth	Date	1..1	
medicareCardNumber	String	0..1	Individual Medicare Card Number
medicareIRN	Integer	0..1	Individual Reference Number
dvaFileNumber	String	0..1	DVA File Number
militaryHealthNumber	String	0..1	
contactDetails	Grouping	0..1	
mobilePhoneNumber	String	0..1	
emailAddress	String	0..1	
/contactDetails	Grouping		
/demographics			
/individual	Grouping		
child	Choice	0..1	Choice of (1) ihiNumber or (2) demographics
ihiNumber	String	0..1	Child IHI number
demographics	Grouping	0..1	
name	Grouping	1..1	
nameTitle	String	0..1	
familyName	String	1..1	Individual surname
givenName	String	0..2	Individual given names
nameSuffix	String	0..1	
usage	String	0..1	Values ('M', 'N', 'O', 'B', 'L', 'R')
preferred	String	0..1	Values ('true', 'false')
conditionalUse	String	0..1	Values ('1', '2', '3', '4')
/name	Grouping		
sex	String	1..1	Values("F", "I", "M", "N")
dateOfBirth	Date	1..1	
medicareCardNumber	String	0..1	Individual Medicare Card Number



Element Name	Type	Cardinality	Remarks
medicareIRN	Integer	0..1	Individual Reference Number
dvaFileNumber	String	0..1	DVA File Number
militaryHealthNumber	String	0..1	
/demographics	Grouping		
/child	Choice		
assertions	Grouping	1..1	
identityVerifiedByProvider	Boolean	1..1	This is an assertion that the identity of the individual has been verified.
versionOfTermsAndConditionsAgreed	Integer	1..1	This determines the version of the T&Cs that the individual has agreed to.
IVCCommunicationMethod	String	1..1	Values("email","sms","mail")
medicareConsent	Boolean	1..1	true means all existing and future Medicare documents (MPB, PBS, ODR, ACIR) will be available in the PCEHR. false means that no Medicare documents will be available in the PCEHR.
parentDeclaration	Boolean	0..1	This flag is mandatory if child block is given
/assertions	Grouping		
/registerPCEHR	Grouping		

### *Conformance points*

- REGS-T 12** The Service Invoker (CIS and CSP) SHALL set the accessingOrganisation to the HPI-O of the organisation attempting to register the PCEHR.
- REGS-T 13** The Service Provider SHALL set the individual demographics if the IHI number is not passed in the PCEHRHeader.
- REGS-T 14** The Service Provider SHALL set the child ihiNumber if the child demographics are not passed in the request.
- REGS-T 15** The Service Provider SHALL set the child demographics if the child ihiNumber is not passed in the request.
- REGS-T 16** The Service Provider SHALL set the parentDeclaration flag when registering for a child.

### **3.1.2.6 Output Message**

The registerPCEHR operation will return the PCEHR System common response fields.

Please refer to section [4.2](#) for details and response codes.

***Service Fault***

The following conformance points apply to a provider of this service when creating a service fault.

*Conformance points*

<b>REGS-T 17</b>	The Service Provider SHOULD respond with a fault containing a se:standardError element in the circumstances defined for this fault by <a href="#">[ATS 5820-2010]</a> .
------------------	---

## 4 Information Viewpoint

The Information Viewpoint addresses common information models that are used in the service operations defined in the Computational Viewpoint.

Note: The error code tables may be subject to extension as the development of the PCEHR system progresses.

### 4.1 Information Data Type Realisation

This section shows the logical service specification [REG-LSS] information data type realisation into this technical specification.

#### 4.1.1 Common Header

Common Header is realised into the SOAP Header on web service calls as:

- WS-Addressing Header
- PCEHRHeader
- Timestamp
- Signature

##### 4.1.1.1 WS-Addressing Header (Request)

Table 4 WS addressing header request

Element Name	Type	Cardinality	Remarks
<b>WS Addressing</b>		<b>1..1</b>	
MessageId	UUID	1..1	Unique id for the message. E.g. uuid:95b48e68-5dfc-4dbd-ab05-aaa855cec03f
To	anyURI	1..1	Value: e.g. http://www.w3.org/2005/08/addressing/anonymous
Action	anyURI	1..1	Identifier (full namespace) of the virtual service being invoked.
<b>/WS Addressing</b>			

#### Conformance points

**REGS-T 18** The *Service Invoker* SHALL set these values in accordance with the [\[ATS 5820-2010\]](#) Section 6 - Metadata.

### 4.1.1.2 WS-Addressing Header (Response)

Table 5 WS addressing header response

Element Name	Type	Cardinality	Remarks
<b>WS Addressing</b>		<b>1..1</b>	
MessageId	UUID	1..1	Unique id for the message. E.g. uuid:95b48e68-5dfc-4dbd-ab05- aaa855cec03f
RelatesTo	UUID	1..1	MessageId of the original service request.
<b>/WS Addressing</b>			

#### Conformance points

**REGS-T 19** The *Service Provider* SHALL set these values in accordance with the [\[ATS 5820-2010\]](#) Section 6 - Metadata.

### 4.1.1.3 Timestamp

Table 6 Timestamp

Element Name	Type	Cardinality	Remarks
<b>timestamp</b>		<b>1..1</b>	
created	dateTime	1..1	Time at SOAP message creation. Inclusive of Date, Time and UTC Timezone. E.g. 2011-10-25T03:06:13Z
expires	dateTime	0..1	For future use.
<b>/timestamp</b>	-	-	-

### 4.1.1.4 Signature

Table 7 - Transmission signature in SOAP header

Element Name	Type	Cardinality	Remarks
<b>signature</b>		<b>1..1</b>	
signature	ds:signature	1..1	A signed attestation of key SOAP message elements using the ATS 5821 specification.
<b>/signature</b>	-	-	-

#### Conformance points

**REGS-T 20** The elements signed by the Transmission Signature by all parties SHALL include the SOAP Body element.

**REGS-T 21** The elements signed by the Transmission Signature by the Service Invoker SHALL also include the PCEHR Header element (as defined in section [4.1.1.5](#)).

- REGS-T 22** The elements signed by the Transmission Signature SHOULD include the Transmission Timestamp element (as defined in section 4.1.1.3).
- REGS-T 23** The ds:SignedInfo element type SHALL be realised in conformance with "Section 4. XML Signature Profile" as specified in [ATS 5820-2010].
- REGS-T 24** The fragment identifier used within the ds:Reference element, specified in "Section 4. XML Signature Profile" of [ATS 5820-2010], SHALL refer to the "id" attribute specified in section 3.3 of [W3C-XML-1.1] of the element referenced.
- REGS-T 25** The ds:signature element type SHALL be realised in conformance with "Section 4. XML Signature Profile" as specified in [ATS 5820-2010].

### 4.1.1.5 PCEHRHeader

PCEHRHeader is used for all interactions with the PCEHR System.

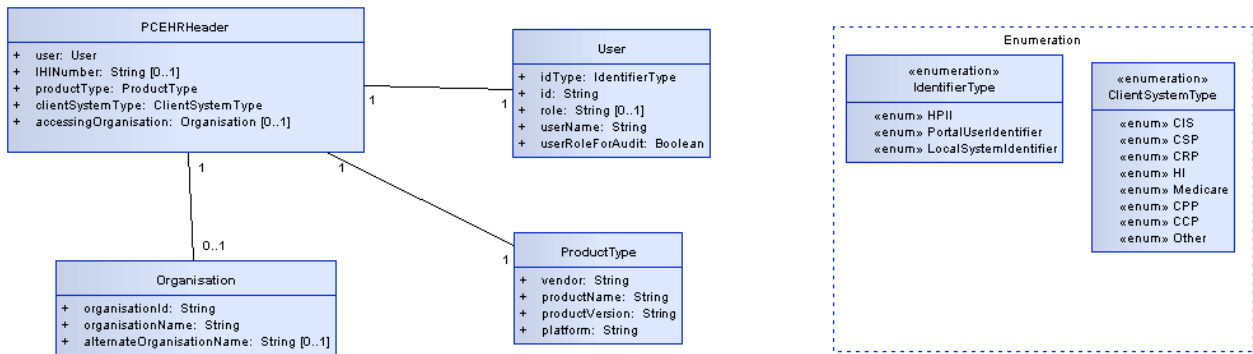


Figure 6 – PCEHRHeader

Table 8 PCEHRHeader

Element Name	Type	Cardinality	Remarks
<b>PCEHRHeader</b>		<b>1..1</b>	
<b>User</b>		<b>1..1</b>	
IDType	Identifier Type	1..1	Values ("HPII", "PortalUserIdentifier", "LocalSystemIdentifier")
ID	String	1..1	Portal User Identifier, 16 Digit HPI-I number or Other User ID
role	String	0..1	Optional User Role
userName	String	1..1	User's Name
useRoleForAudit	Boolean	1..1	If true, PCEHR will use sourceSystemUserRole as the user name for audit, else PCEHR will use sourceSystemUserName as the user name for audit
<b>/User</b>			
ihiNumber	String	0..1	PCEHR individual's 16 digit IHI number

Element Name	Type	Cardinality	Remarks
<b>productType</b>		<b>1..1</b>	
vendor	String	1..1	Client system's vendor name
productName	String	1..1	Client system's product name
productVersion	String	1..1	Client system's product version
platform	String	1..1	Client system's platform
<b>/productType</b>			
clientSystemType	String	1..1	Values ("CCP", "CPP", "CIS", "CSP", "CRP", "HI", "Medicare", "Other")
<b>accessingOrganisation</b>		<b>0..1</b>	
organisationID	String	1..1	The 16-digit Healthcare Organisation Identifier (HPI-O)
organisationName	String	1..1	Healthcare organisation name
alternateOrganisationName	String	0..1	Alternate healthcare organisation name
<b>/accessingOrganisation</b>			
<b>/PCEHRHeader</b>			

### Conformance points

<b>REGS-T 26</b>	The Service Invoker (CIS, CSP and Provider Portal) SHALL set the accessingOrganisation to the accessing organisation attempting to query the PCEHR.
<b>REGS-T 27</b>	The Service Invoker SHALL set the User.ID to either: <ul style="list-style-type: none"> <li>• Preferably, if known, the 16-digit HPI-I of the provider attempting to access the PCEHR.</li> <li>• Or alternatively a local identifier of the provider attempting to access the PCEHR.</li> </ul>
<b>REGS-T 28</b>	The Service Invoker SHALL set the User.IDType to the relevant value to identify the type of User.ID.
<b>REGS-T 29</b>	The Service Invoker (CIS, CSP) SHALL set the productType.vendor to the vendor name of the client system.
<b>REGS-T 30</b>	The Service Invoker (CIS, CSP) SHALL set the productType.productName to the product name of the client system.
<b>REGS-T 31</b>	The Service Invoker (CIS, CSP) SHALL set the productType.productVersion to the product version of the client system.
<b>REGS-T 32</b>	The Service Invoker (CIS, CSP) SHALL set the productType.platform to the client system vendor.
<b>REGS-T 33</b>	The Service Invoker (CIS) SHALL set the clientSystemType to CIS.
<b>REGS-T 34</b>	The Service Invoker (CSP) SHALL set the clientSystemType to CSP.

## 4.2 Common Response Status

All PCEHR System operations will return common response fields.

ResponseStatus	
+	code: String
+	description: String
+	details: String [0..1]

Figure 7 – ResponseStatus

Table 9 ResponseStatus Responses

Element Name	Type	Cardinality	Remarks
<b>ResponseStatus</b>		<b>1..1</b>	
code	String	1..1	Status code for the result of the transaction
description	String	1..1	Brief status description
details	String	0..1	Additional detail of the response
<b>/ ResponseStatus</b>			

### Conformance points

**REGS-T 35** The Service Provider SHALL set the appropriate code from Table 10 for any business failure.

### Response Codes

Table 10 Response codes

Code	Description
PCEHR_SUCCESS	SUCCESS
PCEHR_ERROR_9001	Identity has not been verified by provider
PCEHR_ERROR_9002	Invalid terms and conditions version
PCEHR_ERROR_9003	The latest terms and conditions have not been accepted
PCEHR_ERROR_9004	IVC communication method has not been specified
PCEHR_ERROR_9005	Invalid IVC communication method
PCEHR_ERROR_9006	Medicare consent has not been specified
PCEHR_ERROR_9007	Parent declaration is required for parent-child registration
PCEHR_ERROR_9008	Individual PCEHR already exists
PCEHR_ERROR_9009	Child PCEHR already exists
PCEHR_ERROR_9010	Individual cannot be less than 14 years of age
PCEHR_ERROR_9011	Parent and child must be on the same Medicare card
PCEHR_ERROR_9012	Child cannot be older than 18 years of age
PCEHR_ERROR_9013	There must be a 14-year age gap between parent and child
PCEHR_ERROR_9014	Registration successful - IVC correspondence will be delayed. Please contact System Administrator if required urgently
PCEHR_ERROR_5006	No unique active IHI found
PCEHR_ERROR_0101	Invalid family name

<b>Code</b>	<b>Description</b>
PCEHR_ERROR_0102	Invalid given name
PCEHR_ERROR_0103	The birth year must not be less than 1800
PCEHR_ERROR_0104	The date of birth must not be in the future
PCEHR_ERROR_0105	Invalid mobile phone number
PCEHR_ERROR_0106	Invalid email address
PCEHR_ERROR_0107	Invalid Medicare card number
PCEHR_ERROR_0108	Invalid Medicare IRN
PCEHR_ERROR_0109	Invalid DVA file number
PCEHR_ERROR_0110	Invalid military health number
PCEHR_ERROR_0111	Invalid postcode
PCEHR_ERROR_0112	Invalid suburb
PCEHR_ERROR_0113	Invalid combinations of state, postcode and suburb
PCEHR_ERROR_0114	Postal Delivery Number is mandatory when Postal Delivery Type Code is entered, unless Postal Delivery Type Code is Care PO, CMA or CMB
PCEHR_ERROR_0115	If Unit Type is present, Unit Number must be keyed
PCEHR_ERROR_0116	If Level Type is present, Level Number must be keyed
PCEHR_ERROR_0117	Invalid unit number
PCEHR_ERROR_0118	Invalid address site name
PCEHR_ERROR_0119	Invalid level number
PCEHR_ERROR_0120	Invalid street number
PCEHR_ERROR_0121	Invalid lot number
PCEHR_ERROR_0122	Invalid street name
PCEHR_ERROR_0123	Invalid postal delivery number
PCEHR_ERROR_0124	Either street number or lot number required for an Australian address
PCEHR_ERROR_0125	Only one of lot number or street number required for an Australian address
PCEHR_ERROR_0126	If the country is Australia, you cannot enter InternationalAddressLine, InternationalStateProvince, InternationalPostcode
PCEHR_ERROR_0127	Invalid IHI status
PCEHR_ERROR_0128	Invalid IHI verification status
PCEHR_ERROR_0129	Invalid IHI record status
PCEHR_ERROR_0130	Invalid date effective
PCEHR_ERROR_0131	Invalid ID type
PCEHR_ERROR_0132	Invalid ID number
PCEHR_ERROR_0133	Invalid state
PCEHR_ERROR_0134	Invalid sex
PCEHR_ERROR_0135	Invalid date of birth



# 5 Engineering Viewpoint

The engineering viewpoint includes definitions of mechanisms and functions to support distributed interactions between computational objects as a series of templates (i.e. patterns) for computational interactions. These, in turn, are parameterised to support a range of different policies defined in the enterprise, information or computational specifications.

Examples of such functions are:

- repository (e.g. storage and information organisation function)
- security (e.g. access control, authentication, security audit, integrity and confidentiality functions)
- network services (e.g. naming services, time services and directory)
- type repository functions.

The engineering viewpoint is relevant for those who are providing infrastructure services and functions, such as system architects, network architects, security architects and middleware specialists.

## 5.1 Discovery Services

The location of the register operations will be shared between parties before interaction. Dynamic discovery mechanisms will not be provided.

# Appendix A XSD and WSDL

## A.1 Data Types

### A.1.1 XML schema – PCEHR\_RegisterPCEHR.xsd

The following XML schema defines the XSD for data associated with the B2B\_RegisterPCEHR.wsdl interface

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Version 1.0 issued 24 April 2012-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:ns1="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCoreElements/1.0"
  xmlns:ns2="http://ns.electronichealth.net.au/pcehr/xsd/interfaces/RegisterPCEHR/1.0"
  targetNamespace="http://ns.electronichealth.net.au/pcehr/xsd/interfaces/RegisterPCEHR/1.0" elementFormDefault="qualified"
  attributeFormDefault="unqualified">
  <xs:import
    namespace="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCoreElements/1.0" schemaLocation="../../../Common/PCEHR_CommonTypes_Supplementary.xsd"/>
  <xs:element name="registerPCEHR">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="individual" minOccurs="0">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="demographics">
                <xs:complexType>
                  <xs:complexContent>
                    <xs:extension base="ns1:individualTypeSup">
                      <xs:sequence>
                        <xs:element ref="ns1:medicareCardNumber"
minOccurs="0"/>
                        <xs:element ref="ns1:medicareIRN" minOccurs="0"/>
                        <xs:element ref="ns1:dvaFileNumber" minOccurs="0"/>
                        <xs:element ref="ns1:militaryHealthNumber"
minOccurs="0"/>
                        <xs:element name="contactDetails"
type="ns1:contactDetailsType" minOccurs="0"/>
                      </xs:sequence>
                    </xs:extension>
                  </xs:complexContent>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="child" minOccurs="0">
          <xs:complexType>
            <xs:choice>
              <xs:element ref="ns1:ihiNumber" minOccurs="0"/>
              <xs:element name="demographics" minOccurs="0">
                <xs:complexType>
                  <xs:complexContent>
                    <xs:extension base="ns1:individualTypeSup">
                      <xs:sequence>
                        <xs:element ref="ns1:medicareCardNumber"
minOccurs="0"/>
                        <xs:element ref="ns1:medicareIRN" minOccurs="0"/>

```

```

                <xs:element ref="ns1:dvaFileNumber" minOccurs="0"/>
                <xs:element ref="ns1:militaryHealthNumber"
minOccurs="0"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
</xs:element>
</xs:choice>
</xs:complexType>
</xs:element>
<xs:element name="assertions">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="identityVerifiedByProvider"
type="xs:boolean"/>
            <xs:element name="versionOfTermsAndConditionsAgreed"
type="xs:integer"/>
            <xs:element name="IVCCommunicationMethod">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:enumeration value="email"/>
                        <xs:enumeration value="sms"/>
                        <xs:enumeration value="mail"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
            <xs:element name="medicareConsent" type="xs:boolean"/>
            <xs:element name="parentDeclaration" type="xs:boolean"
minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="registerPCEHRResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="responseStatus" type="ns1:responseStatusType"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
</xs:schema>

```

### A.1.2 XML schema – wsp-StandardError-2010.xsd

The following XML schema defines the XSD for the standard error data types.

```

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"

xmlns:tns="http://ns.electronichealth.net.au/wsp/xsd/StandardError/2010"

targetNamespace="http://ns.electronichealth.net.au/wsp/xsd/StandardError/2010"
        elementFormDefault="qualified">
    <xsd:element name="standardError" type="tns:StandardErrorType"/>
    <xsd:simpleType name="StandardErrorCodeType">
        <xsd:restriction base="xsd:string">

```

```

        <xsd:enumeration value="servicePermanentUnavailable"/>
        <xsd:enumeration value="serviceTemporaryUnavailable"/>
        <xsd:enumeration value="certificateSkiMissing"/>
        <xsd:enumeration value="certificateKeyUsage"/>
        <xsd:enumeration value="invalidCredentials"/>
        <xsd:enumeration value="notAuthenticated"/>
        <xsd:enumeration value="notAuthorised"/>
        <xsd:enumeration value="badParam"/>
        <xsd:enumeration value="badlyFormedMsg"/>
        <xsd:enumeration value="badTimestamp"/>
        <xsd:enumeration value="badSignature"/>
        <xsd:enumeration value="badEncryption"/>
        <xsd:enumeration value="badSigEncOrder"/>
        <xsd:enumeration value="badCertificateTransmitted"/>
        <xsd:enumeration value="badWsaAction"/>
        <xsd:enumeration value="badWsaMessageId"/>
        <xsd:enumeration value="badWsaTo"/>
        <xsd:enumeration value="badAlgorithmDataEncryption"/>
        <xsd:enumeration value="badAlgorithmKeyEncryption"/>
        <xsd:enumeration value="badAlgorithmC14N"/>
        <xsd:enumeration value="badAlgorithmDigest"/>
        <xsd:enumeration value="badAlgorithmSignature"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="StandardErrorType">
    <xsd:sequence>
        <xsd:element name="errorCode" type="tns:StandardErrorCodeType"
minOccurs="1" maxOccurs="1"/>
        <xsd:element name="message" type="xsd:string" minOccurs="1"
maxOccurs="1"/>
    </xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

### A.1.3 XML Schema - PCEHR\_CommonTypes.xsd

The following XML schema defines the XSD for common data types that are used by all WSDL interfaces.

```

<?xml version="1.0" encoding="UTF-8"?>
<!--Version 1.0.1 issued 24 April 2012-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:ns1="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCoreElemen
ts/1.0" xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
targetNamespace="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCore
Elements/1.0" elementFormDefault="qualified"
attributeFormDefault="unqualified">
    <xs:import namespace="http://www.w3.org/2000/09/xmldsig#"
schemaLocation="xmldsig-core-schema.xsd"/>
    <xs:element name="timestamp" type="ns1:timestampType"/>
    <xs:complexType name="timestampType">

```

```

    <xs:sequence>
      <xs:element name="created" type="xs:dateTime" minOccurs="1"
maxOccurs="1"/>
      <xs:element name="expires" type="xs:dateTime" minOccurs="0"
maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="signature" type="ns1:signatureContainerType"/>
  <xs:complexType name="signatureContainerType">
    <xs:sequence>
      <xs:element ref="ds:Signature" minOccurs="1" maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="nameType">
    <xs:sequence>
      <xs:element name="nameTitle" minOccurs="0" maxOccurs="1">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:maxLength value="40"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="familyName" minOccurs="1" maxOccurs="1">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:maxLength value="40"/>
            <xs:minLength value="1"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="givenName" minOccurs="0" maxOccurs="2">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:minLength value="1"/>
            <xs:maxLength value="40"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="nameSuffix" minOccurs="0" maxOccurs="1">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:maxLength value="40"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="nameAlias" minOccurs="0" maxOccurs="1">
        <xs:simpleType>

```

```

        <xs:restriction base="xs:string">
            <xs:maxLength value="40"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="addressType">
    <xs:sequence>
        <xs:element name="type" minOccurs="1" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:enumeration value="International"/>
                    <xs:enumeration value="AustralianStreet"/>
                    <xs:enumeration value="AustralianPostal"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="state" type="xs:string" minOccurs="1" maxOccurs="1"/>
        <xs:element name="postCode" minOccurs="0" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:minLength value="1"/>
                    <xs:maxLength value="4"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="suburb" minOccurs="0" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:minLength value="1"/>
                    <xs:maxLength value="30"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="postalDeliveryGroup" minOccurs="0" maxOccurs="1">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="postalDeliveryType" type="xs:string"
minOccurs="0" maxOccurs="1"/>
                    <xs:element name="postalDeliveryNumber" minOccurs="0"
maxOccurs="1">
                        <xs:simpleType>
                            <xs:restriction base="xs:string">
                                <xs:minLength value="1"/>
                                <xs:maxLength value="11"/>
                            </xs:restriction>
                        </xs:simpleType>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>

```

```

        </xs:simpleType>
    </xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="addressSiteName" minOccurs="0" maxOccurs="1">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="30"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
<xs:element name="unitGroup" minOccurs="0" maxOccurs="1">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="unitType" type="xs:string" minOccurs="0"
maxOccurs="1"/>
            <xs:element name="unitNumber" minOccurs="0" maxOccurs="1">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:minLength value="1"/>
                        <xs:maxLength value="6"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="levelGroup" minOccurs="0" maxOccurs="1">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="levelType" type="xs:string" minOccurs="0"
maxOccurs="1"/>
            <xs:element name="levelNumber" minOccurs="0" maxOccurs="1">
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:minLength value="1"/>
                        <xs:maxLength value="4"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="lotNumber" minOccurs="0" maxOccurs="1">
    <xs:simpleType>
        <xs:restriction base="xs:string">

```

```

        <xs:minLength value="1"/>
        <xs:maxLength value="15"/>
    </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="streetNumber" minOccurs="0" maxOccurs="1">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:minLength value="1"/>
            <xs:maxLength value="12"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
<xs:element name="streetName" minOccurs="0" maxOccurs="1">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:minLength value="1"/>
            <xs:maxLength value="30"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
<xs:element name="streetType" type="xs:string" minOccurs="0"
maxOccurs="1"/>
<xs:element name="streetSuffix" type="xs:string" minOccurs="0"
maxOccurs="1"/>
<xs:element name="country" type="xs:string" minOccurs="0"
maxOccurs="1"/>
<xs:element name="internationalAddressLine" minOccurs="0" maxOccurs="1">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:minLength value="1"/>
            <xs:maxLength value="120"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="responseStatusType">
    <xs:sequence>
        <xs:element name="code" minOccurs="1" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:minLength value="1"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="description" type="xs:string" minOccurs="1"
maxOccurs="1"/>

```



```

    <xs:element name="details" type="xs:string" minOccurs="0"
maxOccurs="1"/>
  </xs:sequence>
</xs:complexType>
<xs:simpleType name="statusType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Active"/>
    <xs:enumeration value="Deceased"/>
    <xs:enumeration value="Retired"/>
    <xs:enumeration value="Resolved"/>
    <xs:enumeration value="Expired"/>
  </xs:restriction>
</xs:simpleType>
<xs:element name="medicareCardNumber">
  <xs:simpleType>
    <xs:restriction base="xs:token">
      <xs:minLength value="10"/>
      <xs:maxLength value="10"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="medicareIRN">
  <xs:simpleType>
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="1"/>
      <xs:maxInclusive value="9"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="dvaFileNumber">
  <xs:simpleType>
    <xs:restriction base="xs:token">
      <xs:minLength value="2"/>
      <xs:maxLength value="9"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:simpleType name="recordStatusType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Verified"/>
    <xs:enumeration value="Unverified"/>
  </xs:restriction>
</xs:simpleType>
<xs:element name="PCEHRHeader">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="User" minOccurs="1" maxOccurs="1">

```

```

<xs:complexType>
  <xs:sequence>
    <xs:element name="IDType" minOccurs="1" maxOccurs="1">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="HPII"/>
          <xs:enumeration value="PortalUserIdentifier"/>
          <xs:enumeration value="LocalSystemIdentifier"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="ID" type="xs:string" minOccurs="1"
maxOccurs="1"/>
    <xs:element name="role" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="userName" type="xs:string" minOccurs="1"
maxOccurs="1"/>
    <xs:element name="useRoleForAudit" type="xs:boolean"
minOccurs="1" maxOccurs="1"/>
  </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element ref="ns1:ihiNumber" minOccurs="0" maxOccurs="1"/>
<xs:element name="productType" minOccurs="1" maxOccurs="1">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="vendor" type="xs:string" minOccurs="1"
maxOccurs="1"/>
      <xs:element name="productName" type="xs:string" minOccurs="1"
maxOccurs="1"/>
      <xs:element name="productVersion" type="xs:string" minOccurs="1"
maxOccurs="1"/>
      <xs:element name="platform" type="xs:string" minOccurs="1"
maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="clientSystemType" minOccurs="1" maxOccurs="1">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="CIS"/>
      <xs:enumeration value="CSP"/>
      <xs:enumeration value="CRP"/>
      <xs:enumeration value="HI"/>
      <xs:enumeration value="Medicare"/>
      <xs:enumeration value="CPP"/>
      <xs:enumeration value="CCP"/>
      <xs:enumeration value="Other"/>
    </xs:restriction>
  </xs:simpleType>

```

```

</xs:element>
<xs:element name="accessingOrganisation" minOccurs="0" maxOccurs="1">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="organisationID" type="xs:string" minOccurs="1"
maxOccurs="1"/>
      <xs:element name="organisationName" type="xs:string"
minOccurs="1" maxOccurs="1"/>
      <xs:element name="alternateOrganisationName" type="xs:string"
minOccurs="0" maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="sex">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="M"/>
      <xs:enumeration value="F"/>
      <xs:enumeration value="I"/>
      <xs:enumeration value="N"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:complexType name="accessConditionsType">
  <xs:sequence>
    <xs:element name="accessLevel" minOccurs="0" maxOccurs="1">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="Self"/>
          <xs:enumeration value="General"/>
          <xs:enumeration value="Limited"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="accessPermission" minOccurs="0" maxOccurs="1">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="Permit"/>
          <xs:enumeration value="Deny"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="accessConditions" minOccurs="0" maxOccurs="1">
      <xs:simpleType>
        <xs:restriction base="xs:string">

```

```

        <xs:enumeration value="OpenAccess"/>
        <xs:enumeration value="AccessRevoked"/>
        <xs:enumeration value="PACAccess"/>
        <xs:enumeration value="PACXAccess"/>
        <xs:enumeration value="EmergencyAccess"/>
        <xs:enumeration value="LocalConsentAccess"/>
        <xs:enumeration value="AuthorisedRepresentativeAccess"/>
        <xs:enumeration value="NominatedRepresentativeAccess"/>
        <xs:enumeration value="IncorrectCode"/>
        <xs:enumeration value="LocalConsentAccessDenied"/>
        <xs:enumeration value="AccessRevoked"/>
    </xs:restriction>
</xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="organisationServiceType">
    <xs:sequence>
        <xs:element name="organisationType" minOccurs="1" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="7"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="organisationServiceType" minOccurs="1" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="7"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="organisationServiceUnit" minOccurs="0" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="1000"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="serviceComments" minOccurs="0" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="250"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="complexDate" minOccurs="1" maxOccurs="unbounded">

```

```

<xs:complexType>
  <xs:sequence>
    <xs:element name="type" minOccurs="1" maxOccurs="1">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="StartDate"/>
          <xs:enumeration value="EndDate"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="date" type="xs:date" minOccurs="1"
maxOccurs="1"/>
    <xs:element name="accuracyIndicator" type="xs:string"
minOccurs="1" maxOccurs="1"/>
  </xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="organisationType">
  <xs:sequence>
    <xs:element ref="ns1:ihiNumber" minOccurs="1" maxOccurs="1"/>
    <xs:element name="name" type="xs:string" minOccurs="1"
maxOccurs="unbounded"/>
    <xs:element name="organisationService"
type="ns1:organisationServiceType" minOccurs="1" maxOccurs="unbounded"/>
    <xs:element name="participatingOrganisation" minOccurs="0"
maxOccurs="unbounded">
      <xs:complexType>
        <xs:sequence>
          <xs:element ref="ns1:ihiNumber" minOccurs="1" maxOccurs="1"/>
          <xs:element name="name" type="xs:string" minOccurs="1"
maxOccurs="unbounded"/>
          <xs:element name="organisationService"
type="ns1:organisationServiceType" minOccurs="1" maxOccurs="unbounded"/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="participantDetailsType">
  <xs:sequence>
    <xs:element name="providerID" minOccurs="0" maxOccurs="1">
      <xs:simpleType>
        <xs:restriction base="xs:string"/>
      </xs:simpleType>
    </xs:element>
    <xs:element name="providerName" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="accessingHPIO" minOccurs="0" maxOccurs="1">

```

```

        <xs:simpleType>
            <xs:restriction base="xs:string"/>
        </xs:simpleType>
    </xs:element>
    <xs:element name="accessingHPIOName" minOccurs="0" maxOccurs="1">
        <xs:simpleType>
            <xs:restriction base="xs:string"/>
        </xs:simpleType>
    </xs:element>
    <xs:element name="participatingHPPIO" minOccurs="0" maxOccurs="1">
        <xs:simpleType>
            <xs:restriction base="xs:string"/>
        </xs:simpleType>
    </xs:element>
    <xs:element name="participatingHPIOName" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="userID" type="xs:string" minOccurs="0" maxOccurs="1"/>
    <xs:element name="userName" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="displayRole" minOccurs="0" maxOccurs="1">
        <xs:simpleType>
            <xs:restriction base="xs:string"/>
        </xs:simpleType>
    </xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="accessedEntityType">
    <xs:sequence>
        <xs:element ref="ns1:ihiNumber" minOccurs="0" maxOccurs="1"/>
        <xs:element name="ihiName" type="xs:string" minOccurs="0"
maxOccurs="1"/>
        <xs:element name="subjectType" type="xs:string" minOccurs="0"
maxOccurs="1"/>
        <xs:element name="subject" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="participantActionType">
    <xs:sequence>
        <xs:element name="actionType" minOccurs="0" maxOccurs="1">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:enumeration value="Create"/>
                    <xs:enumeration value="Read"/>
                    <xs:enumeration value="Update"/>
                    <xs:enumeration value="Delete"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
    </xs:sequence>
</xs:complexType>

```

```

    </xs:element>
    <xs:element name="operationPerformed" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="reason" minOccurs="0" maxOccurs="1">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="IncorrectIdentity"/>
          <xs:enumeration value="MedicalInaccuracy"/>
          <xs:enumeration value="ElectToRemove"/>
          <xs:enumeration value="IHIStatusIsDeceased"/>
          <xs:enumeration value="NoLegallyAppointmentAuthorised"/>
          <xs:enumeration value="NoOwnershipOfPCEHR"/>
          <xs:enumeration value="IHINotActive"/>
          <xs:enumeration value="IHINotVerified"/>
          <xs:enumeration value="TermsAndConditionsWereNotAccepted"/>
          <xs:enumeration value="Death"/>
          <xs:enumeration value="WithdrawalFromParticipation"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="approvalDateTime" type="xs:dateTime" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="approvalRole" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="approvalName" type="xs:string" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="statusPriorDeactivation" type="xs:string"
minOccurs="0" maxOccurs="1"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="ihiNumber">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="16"/>
      <xs:maxLength value="16"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="militaryHealthNumber" type="xs:string"/>
<xs:element name="dateAccuracyIndicatorType">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:length value="3"/>
      <xs:enumeration value="AAA">
        <xs:annotation>
          <xs:documentation>Accurate day, accurate month, accurate
year</xs:documentation>
        </xs:annotation>
      </xs:enumeration>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

```

    <xs:enumeration value="AAE">
      <xs:annotation>
        <xs:documentation>Accurate day, accurate month, estimated
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="AAU">
      <xs:annotation>
        <xs:documentation>Accurate day, accurate month, unknown
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="AEA">
      <xs:annotation>
        <xs:documentation>Accurate day, estimated month, accurate
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="AEE">
      <xs:annotation>
        <xs:documentation>Accurate day, estimated month, estimated
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="AEU">
      <xs:annotation>
        <xs:documentation>Accurate day, estimated month, unknown
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="AUA">
      <xs:annotation>
        <xs:documentation>Accurate day, unknown month, accurate
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="AUE">
      <xs:annotation>
        <xs:documentation>Accurate day, unknown month, estimated
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="AUU">
      <xs:annotation>
        <xs:documentation>Accurate day, unknown month, unknown
year</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EAA">
      <xs:annotation>

```



```

        <xs:documentation>Estimated day, accurate month, accurate
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EAE">
        <xs:annotation>
            <xs:documentation>Estimated day, accurate month, estimated
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EAU">
        <xs:annotation>
            <xs:documentation>Estimated day, accurate month, unknown
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EEA">
        <xs:annotation>
            <xs:documentation>Estimated day, estimated month, accurate
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EEE">
        <xs:annotation>
            <xs:documentation>Estimated day, estimated month, estimated
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EEU">
        <xs:annotation>
            <xs:documentation>Estimated day, estimated month, unknown
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EUA">
        <xs:annotation>
            <xs:documentation>Estimated day, unknown month, accurate
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EUE">
        <xs:annotation>
            <xs:documentation>Estimated day, unknown month, estimated
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="EUU">
        <xs:annotation>
            <xs:documentation>Estimated day, unknown month, unknown
year</xs:documentation>

```

```

        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UAA">
        <xs:annotation>
            <xs:documentation>Unknown day, accurate month, accurate
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UAE">
        <xs:annotation>
            <xs:documentation>Unknown day, accurate month, estimated
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UAU">
        <xs:annotation>
            <xs:documentation>Unknown day, accurate month, unknown
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UEA">
        <xs:annotation>
            <xs:documentation>Unknown day, estimated month, accurate
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UEE">
        <xs:annotation>
            <xs:documentation>Unknown day, estimated month, estimated
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UEU">
        <xs:annotation>
            <xs:documentation>Unknown day, estimated month, unknown
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UUA">
        <xs:annotation>
            <xs:documentation>Unknown day, unknown month, accurate
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    <xs:enumeration value="UUE">
        <xs:annotation>
            <xs:documentation>Unknown day, unknown month, estimated
year</xs:documentation>
        </xs:annotation>
    </xs:enumeration>

```

```

        <xs:enumeration value="UUU">
            <xs:annotation>
                <xs:documentation>Unknown day, unknown month, unknown
year</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
    </xs:restriction>
</xs:simpleType>
</xs:element>
</xs:schema>

```

#### A.1.4 XML Schema - PCEHR\_CommonTypes\_Supplementary.xsd

```

<?xml version="1.0" encoding="UTF-8"?>
<!--Version 1.0 issued 24 April 2012-->
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCoreElements/1
.0"
xmlns:tns="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCoreElemen
ts/1.0"
targetNamespace="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCore
Elements/1.0" elementFormDefault="qualified"
attributeFormDefault="unqualified">
    <xsd:include schemaLocation="PCEHR_CommonTypes.xsd"/>
    <!--
===== ADDRESS TYPES =====
-->
    <xsd:complexType name="addressTypeSupp">
        <xsd:sequence>
            <xsd:element name="unstructuredAddress" minOccurs="0">
                <xsd:complexType>
                    <xsd:sequence>
                        <xsd:element name="australianAddressLine" minOccurs="0">
                            <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                    <xsd:minLength value="1"/>
                                    <xsd:maxLength value="120"/>
                                </xsd:restriction>
                            </xsd:simpleType>
                        </xsd:element>
                        <xsd:element name="postcode" type="tns:postcodeType"/>
                        <xsd:element name="suburb" type="tns:suburbType"/>
                        <xsd:element name="state" type="tns:stateType"/>
                    </xsd:sequence>
                </xsd:complexType>
            </xsd:element>
            <xsd:element name="australianStreetAddress"
type="tns:australianStreetAddressType" minOccurs="0"/>
            <xsd:element name="australianPostalAddress"
type="tns:australianPostalAddressType" minOccurs="0"/>

```

```

    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="australianPostalAddressType">
    <xsd:sequence>
      <xsd:element name="state" type="tns:stateType"/>
      <xsd:element name="postcode" type="tns:postcodeType"/>
      <xsd:element name="suburb" type="tns:suburbType"/>
      <xsd:element name="postalDeliveryGroup"
type="tns:postalDeliveryGroupType"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="postalDeliveryGroupType">
    <xsd:sequence>
      <xsd:element name="postalDeliveryType" type="tns:postalDeliveryType"/>
      <xsd:element name="postalDeliveryNumber"
type="tns:postalDeliveryNumberType" minOccurs="0"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:simpleType name="postalDeliveryType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="Care PO">
        <xsd:annotation>
          <xsd:documentation>Care-of Post Office (also known as Poste
Restante)</xsd:documentation>
        </xsd:annotation>
      </xsd:enumeration>
      <xsd:enumeration value="CMA">
        <xsd:annotation>
          <xsd:documentation>Community Mail Agent</xsd:documentation>
        </xsd:annotation>
      </xsd:enumeration>
      <xsd:enumeration value="CMB">
        <xsd:annotation>
          <xsd:documentation>Community Mail Bag</xsd:documentation>
        </xsd:annotation>
      </xsd:enumeration>
      <xsd:enumeration value="GPO Box">
        <xsd:annotation>
          <xsd:documentation>General Post Office Box</xsd:documentation>
        </xsd:annotation>
      </xsd:enumeration>
      <xsd:enumeration value="Locked Bag">
        <xsd:annotation>
          <xsd:documentation>Locked Mail Bag Service</xsd:documentation>
        </xsd:annotation>
      </xsd:enumeration>
      <xsd:enumeration value="MS">
        <xsd:annotation>

```

```

        <xsd:documentation>Mail Service</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PO Box">
    <xsd:annotation>
        <xsd:documentation>Post Office Box</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="POR">
    <xsd:annotation>
        <xsd:documentation>Post Restante (also known as Care-of Post
Office)</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Private Bag">
    <xsd:annotation>
        <xsd:documentation>Private Mail Bag Service</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RSD">
    <xsd:annotation>
        <xsd:documentation>Roadside Delivery</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RMB">
    <xsd:annotation>
        <xsd:documentation>Roadside Mail Box/Bag</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RMS">
    <xsd:annotation>
        <xsd:documentation>Roadside Mail Service</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="postalDeliveryNumberType">
    <xsd:restriction base="xsd:string">
        <xsd:minLength value="1"/>
        <xsd:maxLength value="11"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="australianStreetAddressType">
    <xsd:sequence>
        <xsd:element name="state" type="tns:stateType"/>
        <xsd:element name="postcode" type="tns:postcodeType"/>
        <xsd:element name="suburb" type="tns:suburbType"/>
    </xsd:sequence>
</xsd:complexType>

```

```

    <xsd:element name="addressSiteName" type="tns:addressSiteNameType"
minOccurs="0"/>
    <xsd:element name="unitGroup" type="tns:unitGroupType" minOccurs="0"/>
    <xsd:element name="levelGroup" type="tns:levelGroupType" minOccurs="0"/>
    <xsd:element name="lotNumber" type="tns:lotNumberType" minOccurs="0"/>
    <xsd:element name="streetNumber" type="tns:streetNumberType"
minOccurs="0"/>
    <xsd:element name="streetName" type="tns:streetNameType"/>
    <xsd:element name="streetType" type="tns:streetType" minOccurs="0"/>
    <xsd:element name="streetSuffix" type="tns:streetSuffixType"
minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="streetSuffixType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="CN">
      <xsd:annotation>
        <xsd:documentation>Central</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="E">
      <xsd:annotation>
        <xsd:documentation>East</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="EX">
      <xsd:annotation>
        <xsd:documentation>Extension</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="LR">
      <xsd:annotation>
        <xsd:documentation>Lower</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="N">
      <xsd:annotation>
        <xsd:documentation>North</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="NE">
      <xsd:annotation>
        <xsd:documentation>North East</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="NW">
      <xsd:annotation>
        <xsd:documentation>North West</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
  </xsd:restriction>
</xsd:simpleType>

```

```

    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="S">
    <xsd:annotation>
      <xsd:documentation>South</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="SE">
    <xsd:annotation>
      <xsd:documentation>South East</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="SW">
    <xsd:annotation>
      <xsd:documentation>South West</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="UP">
    <xsd:annotation>
      <xsd:documentation>Upper</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="W">
    <xsd:annotation>
      <xsd:documentation>West</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="streetType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="ACCS">
      <xsd:annotation>
        <xsd:documentation>ACCESS</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="ALLY">
      <xsd:annotation>
        <xsd:documentation>ALLEY</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="ALWY">
      <xsd:annotation>
        <xsd:documentation>ALLEYWAY</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="AMBL">

```

```
<xsd:annotation>
  <xsd:documentation>AMBLE</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ANCG">
  <xsd:annotation>
    <xsd:documentation>ANCHORAGE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="APP">
  <xsd:annotation>
    <xsd:documentation>APPROACH</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ARC">
  <xsd:annotation>
    <xsd:documentation>ARCADE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ART">
  <xsd:annotation>
    <xsd:documentation>ARTERY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="AVE">
  <xsd:annotation>
    <xsd:documentation>AVENUE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BASN">
  <xsd:annotation>
    <xsd:documentation>BASIN</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BCH">
  <xsd:annotation>
    <xsd:documentation>BEACH</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BEND">
  <xsd:annotation>
    <xsd:documentation>BEND</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BLK">
  <xsd:annotation>
    <xsd:documentation>BLOCK</xsd:documentation>
```



```
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BWLK">
  <xsd:annotation>
    <xsd:documentation>BOARDWALK</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BVD">
  <xsd:annotation>
    <xsd:documentation>BOULEVARD</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BRCE">
  <xsd:annotation>
    <xsd:documentation>BRACE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BRAE">
  <xsd:annotation>
    <xsd:documentation>BRAE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BRK">
  <xsd:annotation>
    <xsd:documentation>BREAK</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BDGE">
  <xsd:annotation>
    <xsd:documentation>BRIDGE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BDWY">
  <xsd:annotation>
    <xsd:documentation>BROADWAY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BROW">
  <xsd:annotation>
    <xsd:documentation>BROW</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="BYPA">
  <xsd:annotation>
    <xsd:documentation>BYPASS</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
```

```
<xsd:enumeration value="BYWY">
  <xsd:annotation>
    <xsd:documentation>BYWAY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CAUS">
  <xsd:annotation>
    <xsd:documentation>CAUSEWAY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CTR">
  <xsd:annotation>
    <xsd:documentation>CENTRE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CNWY">
  <xsd:annotation>
    <xsd:documentation>CENTREWAY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CH">
  <xsd:annotation>
    <xsd:documentation>CHASE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CIR">
  <xsd:annotation>
    <xsd:documentation>CIRCLE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CLT">
  <xsd:annotation>
    <xsd:documentation>CIRCLET</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CCT">
  <xsd:annotation>
    <xsd:documentation>CIRCUIT</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CRCS">
  <xsd:annotation>
    <xsd:documentation>CIRCUS</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CL">
  <xsd:annotation>
```

```

        <xsd:documentation>CLOSE</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CLDE">
    <xsd:annotation>
        <xsd:documentation>COLONNADE</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CMMN">
    <xsd:annotation>
        <xsd:documentation>COMMON</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CON">
    <xsd:annotation>
        <xsd:documentation>CONCOURSE</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CPS">
    <xsd:annotation>
        <xsd:documentation>COPSE</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CNR">
    <xsd:annotation>
        <xsd:documentation>CORNER</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CSO">
    <xsd:annotation>
        <xsd:documentation>CORSO</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CT">
    <xsd:annotation>
        <xsd:documentation>COURT</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CTYD">
    <xsd:annotation>
        <xsd:documentation>COURTYARD</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="COVE">
    <xsd:annotation>
        <xsd:documentation>COVE</xsd:documentation>
    </xsd:annotation>

```

```
</xsd:enumeration>
<xsd:enumeration value="CRES">
  <xsd:annotation>
    <xsd:documentation>CRESCENT</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CRST">
  <xsd:annotation>
    <xsd:documentation>CREST</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CRSS">
  <xsd:annotation>
    <xsd:documentation>CROSS</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CRSG">
  <xsd:annotation>
    <xsd:documentation>CROSSING</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CRD">
  <xsd:annotation>
    <xsd:documentation>CROSSROAD</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="COWY">
  <xsd:annotation>
    <xsd:documentation>CROSSWAY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CUWY">
  <xsd:annotation>
    <xsd:documentation>CRUISEWAY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CDS">
  <xsd:annotation>
    <xsd:documentation>CUL-DE-SAC</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CTTG">
  <xsd:annotation>
    <xsd:documentation>CUTTING</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DALE">
```

```
<xsd:annotation>
  <xsd:documentation>DALE</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DELL">
  <xsd:annotation>
    <xsd:documentation>DELL</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DEVN">
  <xsd:annotation>
    <xsd:documentation>DEVIATION</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DIP">
  <xsd:annotation>
    <xsd:documentation>DIP</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DSTR">
  <xsd:annotation>
    <xsd:documentation>DISTRIBUTOR</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DR">
  <xsd:annotation>
    <xsd:documentation>DRIVE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DRWY">
  <xsd:annotation>
    <xsd:documentation>DRIVEWAY</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EDGE">
  <xsd:annotation>
    <xsd:documentation>EDGE</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ELB">
  <xsd:annotation>
    <xsd:documentation>ELBOW</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="END">
  <xsd:annotation>
    <xsd:documentation>END</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
```

```
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ENT">
  <xsd:annotation>
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        <xsd:documentation>Upper Ground</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="unitGroupType">
    <xsd:sequence>
        <xsd:element name="unitType" type="tns:unitType"/>
        <xsd:element name="unitNumber" type="tns:unitNumberType" minOccurs="0"/>
    </xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="unitNumberType">
    <xsd:restriction base="xsd:string">
        <xsd:minLength value="1"/>
        <xsd:maxLength value="6"/>
    </xsd:restriction>
</xsd:simpleType>

```

```
<xsd:simpleType name="unitType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="ANT">
      <xsd:annotation>
        <xsd:documentation>Antenna</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="APT">
      <xsd:annotation>
        <xsd:documentation>Apartment</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="ATM">
      <xsd:annotation>
        <xsd:documentation>Automated Teller Machine</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="BBQ">
      <xsd:annotation>
        <xsd:documentation>Barbeque</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="BTSD">
      <xsd:annotation>
        <xsd:documentation>Boatshed</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="BLDG">
      <xsd:annotation>
        <xsd:documentation>Building</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="BNGW">
      <xsd:annotation>
        <xsd:documentation>Bungalow</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="CAGE">
      <xsd:annotation>
        <xsd:documentation>Cage</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="CARP">
      <xsd:annotation>
        <xsd:documentation>Carpark</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
  </xsd:restriction>
</xsd:simpleType>
```



```
<xsd:enumeration value="CARS">
  <xsd:annotation>
    <xsd:documentation>Carspace</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CLUB">
  <xsd:annotation>
    <xsd:documentation>Club</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="COOL">
  <xsd:annotation>
    <xsd:documentation>Coolroom</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CTGE">
  <xsd:annotation>
    <xsd:documentation>Cottage</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DUP">
  <xsd:annotation>
    <xsd:documentation>Duplex</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="FY">
  <xsd:annotation>
    <xsd:documentation>Factory</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="F">
  <xsd:annotation>
    <xsd:documentation>Flat</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="GRGE">
  <xsd:annotation>
    <xsd:documentation>Garage</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HALL">
  <xsd:annotation>
    <xsd:documentation>Hall</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HSE">
  <xsd:annotation>
```

```
<xsd:documentation>House</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="KSK">
  <xsd:annotation>
    <xsd:documentation>Kiosk</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LSE">
  <xsd:annotation>
    <xsd:documentation>Lease</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LBBY">
  <xsd:annotation>
    <xsd:documentation>Lobby</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LOFT">
  <xsd:annotation>
    <xsd:documentation>Loft</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LOT">
  <xsd:annotation>
    <xsd:documentation>Lot</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MSNT">
  <xsd:annotation>
    <xsd:documentation>Maisonette</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MB">
  <xsd:annotation>
    <xsd:documentation>Marine berth</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="OFF">
  <xsd:annotation>
    <xsd:documentation>Office</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PTHS">
  <xsd:annotation>
    <xsd:documentation>Penthouse</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
```

```
</xsd:enumeration>
<xsd:enumeration value="RESV">
  <xsd:annotation>
    <xsd:documentation>Reserve</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RM">
  <xsd:annotation>
    <xsd:documentation>Room</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SHED">
  <xsd:annotation>
    <xsd:documentation>Shed</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SHOP">
  <xsd:annotation>
    <xsd:documentation>Shop</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SIGN">
  <xsd:annotation>
    <xsd:documentation>Sign</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SITE">
  <xsd:annotation>
    <xsd:documentation>Site</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SL">
  <xsd:annotation>
    <xsd:documentation>Stall</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="STOR">
  <xsd:annotation>
    <xsd:documentation>Store</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="STR">
  <xsd:annotation>
    <xsd:documentation>Strata Unit</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="STU">
```

```
<xsd:annotation>
  <xsd:documentation>Studio</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SUBS">
  <xsd:annotation>
    <xsd:documentation>Substation</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SE">
  <xsd:annotation>
    <xsd:documentation>Suite</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TNCY">
  <xsd:annotation>
    <xsd:documentation>Tenancy</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TWR">
  <xsd:annotation>
    <xsd:documentation>Tower</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TNHS">
  <xsd:annotation>
    <xsd:documentation>Townhouse</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="U">
  <xsd:annotation>
    <xsd:documentation>Unit</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="VLLA">
  <xsd:annotation>
    <xsd:documentation>Villa</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="WARD">
  <xsd:annotation>
    <xsd:documentation>Ward</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="WE">
  <xsd:annotation>
    <xsd:documentation>Warehouse</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
```

```

        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="WKSH">
        <xsd:annotation>
            <xsd:documentation>Workshop</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="addressSiteNameType">
    <xsd:restriction base="xsd:string">
        <xsd:minLength value="1"/>
        <xsd:maxLength value="30"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="postcodeType">
    <xsd:restriction base="xsd:string">
        <xsd:minLength value="1"/>
        <xsd:maxLength value="4"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="suburbType">
    <xsd:restriction base="xsd:string">
        <xsd:minLength value="1"/>
        <xsd:maxLength value="50"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="stateType">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="ACT">
            <xsd:annotation>
                <xsd:documentation>Australian Capital Territory</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
        <xsd:enumeration value="NSW">
            <xsd:annotation>
                <xsd:documentation>New South Wales</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
        <xsd:enumeration value="NT">
            <xsd:annotation>
                <xsd:documentation>Northern Territory</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
        <xsd:enumeration value="QLD">
            <xsd:annotation>
                <xsd:documentation>Queensland</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    </xsd:restriction>
</xsd:simpleType>

```

```

        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="SA">
        <xsd:annotation>
            <xsd:documentation>South Australia</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="TAS">
        <xsd:annotation>
            <xsd:documentation>Tasmania</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="VIC">
        <xsd:annotation>
            <xsd:documentation>Victoria</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="WA">
        <xsd:annotation>
            <xsd:documentation>Western Australia</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
<!--
===== IDENTIFIER TYPES
=====
-->
<xsd:simpleType name="ihiNumberType">
    <xsd:restriction base="xsd:string">
        <xsd:minLength value="16"/>
        <xsd:maxLength value="16"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="IDType">
    <xsd:restriction base="xsd:string">
        <xsd:length value="3"/>
        <xsd:enumeration value="IHI"/>
        <xsd:enumeration value="MCA"/>
        <xsd:enumeration value="DVA"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="IDNumber">
    <xsd:restriction base="xsd:string">
        <xsd:maxLength value="20"/>
        <xsd:whiteSpace value="collapse"/>
    </xsd:restriction>

```

```

</xsd:simpleType>
<xsd:simpleType name="hpioNumber">
  <xsd:restriction base="xsd:string">
    <xsd:minLength value="16"/>
    <xsd:maxLength value="16"/>
  </xsd:restriction>
</xsd:simpleType>
<!--
===== DATE TYPES =====
-->
<xsd:simpleType name="dateAccuracyIndicatorType">
  <xsd:restriction base="xsd:string">
    <xsd:length value="3"/>
    <xsd:enumeration value="AAA">
      <xsd:annotation>
        <xsd:documentation>Accurate day, accurate month, accurate
year</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="AAE">
      <xsd:annotation>
        <xsd:documentation>Accurate day, accurate month, estimated
year</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="AAU">
      <xsd:annotation>
        <xsd:documentation>Accurate day, accurate month, unknown
year</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="AEA">
      <xsd:annotation>
        <xsd:documentation>Accurate day, estimated month, accurate
year</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="AEE">
      <xsd:annotation>
        <xsd:documentation>Accurate day, estimated month, estimated
year</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="AEU">
      <xsd:annotation>
        <xsd:documentation>Accurate day, estimated month, unknown
year</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>

```

```
<xsd:enumeration value="AUA">
  <xsd:annotation>
    <xsd:documentation>Accurate day, unknown month, accurate
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="AUE">
  <xsd:annotation>
    <xsd:documentation>Accurate day, unknown month, estimated
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="AUU">
  <xsd:annotation>
    <xsd:documentation>Accurate day, unknown month, unknown
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EAA">
  <xsd:annotation>
    <xsd:documentation>Estimated day, accurate month, accurate
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EAE">
  <xsd:annotation>
    <xsd:documentation>Estimated day, accurate month, estimated
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EAU">
  <xsd:annotation>
    <xsd:documentation>Estimated day, accurate month, unknown
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EEA">
  <xsd:annotation>
    <xsd:documentation>Estimated day, estimated month, accurate
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EEE">
  <xsd:annotation>
    <xsd:documentation>Estimated day, estimated month, estimated
year</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EEU">
  <xsd:annotation>
```



```

        <xsd:documentation>Estimated day, estimated month, unknown
year</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="EUA">
        <xsd:annotation>
            <xsd:documentation>Estimated day, unknown month, accurate
year</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    <xsd:enumeration value="EUE">
        <xsd:annotation>
            <xsd:documentation>Estimated day, unknown month, estimated
year</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    <xsd:enumeration value="EUU">
        <xsd:annotation>
            <xsd:documentation>Estimated day, unknown month, unknown
year</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    <xsd:enumeration value="UAA">
        <xsd:annotation>
            <xsd:documentation>Unknown day, accurate month, accurate
year</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    <xsd:enumeration value="UAE">
        <xsd:annotation>
            <xsd:documentation>Unknown day, accurate month, estimated
year</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    <xsd:enumeration value="UAU">
        <xsd:annotation>
            <xsd:documentation>Unknown day, accurate month, unknown
year</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    <xsd:enumeration value="UEA">
        <xsd:annotation>
            <xsd:documentation>Unknown day, estimated month, accurate
year</xsd:documentation>
            </xsd:annotation>
        </xsd:enumeration>
    <xsd:enumeration value="UEE">
        <xsd:annotation>
            <xsd:documentation>Unknown day, estimated month, estimated
year</xsd:documentation>

```

```

        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="UEU">
        <xsd:annotation>
            <xsd:documentation>Unknown day, estimated month, unknown
year</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="UUA">
        <xsd:annotation>
            <xsd:documentation>Unknown day, unknown month, accurate
year</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="UUE">
        <xsd:annotation>
            <xsd:documentation>Unknown day, unknown month, estimated
year</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="UUU">
        <xsd:annotation>
            <xsd:documentation>Unknown day, unknown month, unknown
year</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
<!--
===== NAME TYPES =====
-->
<xsd:complexType name="nameTypeSupp">
    <xsd:sequence>
        <xsd:element name="nameTitle" type="nameTitle" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="familyName">
            <xsd:simpleType>
                <xsd:restriction base="xsd:string">
                    <xsd:minLength value="1"/>
                    <xsd:maxLength value="40"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="givenName" minOccurs="0" maxOccurs="2">
            <xsd:simpleType>
                <xsd:restriction base="xsd:string">
                    <xsd:minLength value="1"/>
                    <xsd:maxLength value="40"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
    </xsd:sequence>
</xsd:complexType>

```

```

        </xsd:restriction>
    </xsd:simpleType>
</xsd:element>
<xsd:element name="nameSuffix" type="nameSuffix" minOccurs="0"/>
<xsd:element name="usage" type="usage" minOccurs="0"/>
<xsd:element name="preferred" type="preferred" minOccurs="0"/>
<xsd:element name="conditionalUse" type="conditionalUse" minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="nameTitle">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="ABBOT"/>
        <xsd:enumeration value="AB"/>
        <xsd:enumeration value="ADML"/>
        <xsd:enumeration value="ACM"/>
        <xsd:enumeration value="AIRCDRE"/>
        <xsd:enumeration value="AM"/>
        <xsd:enumeration value="AVM"/>
        <xsd:enumeration value="AC"/>
        <xsd:enumeration value="ACW"/>
        <xsd:enumeration value="ALD"/>
        <xsd:enumeration value="AMBSR"/>
        <xsd:enumeration value="ARCHBISHOP"/>
        <xsd:enumeration value="ARCHDEACON"/>
        <xsd:enumeration value="ASSOC PROF"/>
        <xsd:enumeration value="BARON"/>
        <xsd:enumeration value="BARONESS"/>
        <xsd:enumeration value="BISHOP"/>
        <xsd:enumeration value="BDR"/>
        <xsd:enumeration value="BRIG"/>
        <xsd:enumeration value="BR"/>
        <xsd:enumeration value="CDT"/>
        <xsd:enumeration value="CANON"/>
        <xsd:enumeration value="CAPT"/>
        <xsd:enumeration value="CAPT, RAN"/>
        <xsd:enumeration value="CARDNL"/>
        <xsd:enumeration value="CHAP"/>
        <xsd:enumeration value="CPO"/>
        <xsd:enumeration value="COL"/>
        <xsd:enumeration value="CMDR"/>
        <xsd:enumeration value="CMM"/>
        <xsd:enumeration value="CDRE"/>
        <xsd:enumeration value="CONST"/>
        <xsd:enumeration value="CONSUL"/>
        <xsd:enumeration value="CPL"/>
        <xsd:enumeration value="COUNT"/>
        <xsd:enumeration value="COUNTESS"/>
    
```

```
<xsd:enumeration value="DAME"/>
<xsd:enumeration value="DEACON"/>
<xsd:enumeration value="DEACONESS"/>
<xsd:enumeration value="DEAN"/>
<xsd:enumeration value="DEPUTY SUPT"/>
<xsd:enumeration value="DIRECTOR"/>
<xsd:enumeration value="DR"/>
<xsd:enumeration value="EARL"/>
<xsd:enumeration value="ENGR"/>
<xsd:enumeration value="FR"/>
<xsd:enumeration value="FLTLT"/>
<xsd:enumeration value="FSGT"/>
<xsd:enumeration value="FLGOFF"/>
<xsd:enumeration value="GEN"/>
<xsd:enumeration value="GOV"/>
<xsd:enumeration value="GP CAPT"/>
<xsd:enumeration value="HON"/>
<xsd:enumeration value="JUDGE"/>
<xsd:enumeration value="JUSTICE"/>
<xsd:enumeration value="LADY"/>
<xsd:enumeration value="LBDR"/>
<xsd:enumeration value="LCPL"/>
<xsd:enumeration value="LAC"/>
<xsd:enumeration value="LACW"/>
<xsd:enumeration value="LS"/>
<xsd:enumeration value="LT"/>
<xsd:enumeration value="LEUT"/>
<xsd:enumeration value="LTCOL"/>
<xsd:enumeration value="LCDR"/>
<xsd:enumeration value="LTGEN"/>
<xsd:enumeration value="LTGOV"/>
<xsd:enumeration value="LORD"/>
<xsd:enumeration value="MADAM"/>
<xsd:enumeration value="MADAME"/>
<xsd:enumeration value="MAJ"/>
<xsd:enumeration value="MAJGEN"/>
<xsd:enumeration value="MGR"/>
<xsd:enumeration value="MSTR"/>
<xsd:enumeration value="MAYOR"/>
<xsd:enumeration value="MAYORESS"/>
<xsd:enumeration value="MIDN"/>
<xsd:enumeration value="MISS"/>
<xsd:enumeration value="MR"/>
<xsd:enumeration value="MON"/>
<xsd:enumeration value="MOST REV"/>
<xsd:enumeration value="MTHR"/>
<xsd:enumeration value="MRS"/>
```

```
<xsd:enumeration value="MS"/>
<xsd:enumeration value="NURSE"/>
<xsd:enumeration value="OCDT"/>
<xsd:enumeration value="PASTOR"/>
<xsd:enumeration value="PO"/>
<xsd:enumeration value="PLTOFF"/>
<xsd:enumeration value="PTE"/>
<xsd:enumeration value="PROF"/>
<xsd:enumeration value="RABBI"/>
<xsd:enumeration value="RADM"/>
<xsd:enumeration value="RECTOR"/>
<xsd:enumeration value="RSM"/>
<xsd:enumeration value="RSM-A"/>
<xsd:enumeration value="REV"/>
<xsd:enumeration value="RTHON"/>
<xsd:enumeration value="RT REV"/>
<xsd:enumeration value="SMN"/>
<xsd:enumeration value="2LT"/>
<xsd:enumeration value="SEN"/>
<xsd:enumeration value="SNR"/>
<xsd:enumeration value="SGT"/>
<xsd:enumeration value="SIR"/>
<xsd:enumeration value="SR"/>
<xsd:enumeration value="SISTER SUP"/>
<xsd:enumeration value="SQNLDR"/>
<xsd:enumeration value="SCDT"/>
<xsd:enumeration value="SSGT"/>
<xsd:enumeration value="SM"/>
<xsd:enumeration value="SBLT"/>
<xsd:enumeration value="SUPT"/>
<xsd:enumeration value="SWAMI"/>
<xsd:enumeration value="VADM"/>
<xsd:enumeration value="VCE CMNDR"/>
<xsd:enumeration value="VISCOUNT"/>
<xsd:enumeration value="WOFF"/>
<xsd:enumeration value="WO"/>
<xsd:enumeration value="WO1"/>
<xsd:enumeration value="WO2"/>
<xsd:enumeration value="WOFF-AF"/>
<xsd:enumeration value="WO-N"/>
<xsd:enumeration value="WCDR"/>
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="nameSuffix">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="BM"/>
    <xsd:enumeration value="BEM"/>
  </xsd:restriction>
</xsd:simpleType>
```

```
<xsd:enumeration value="COMDC"/>
<xsd:enumeration value="CH"/>
<xsd:enumeration value="AC"/>
<xsd:enumeration value="CV"/>
<xsd:enumeration value="DCMG"/>
<xsd:enumeration value="DCB"/>
<xsd:enumeration value="DBE"/>
<xsd:enumeration value="DCVO"/>
<xsd:enumeration value="AD"/>
<xsd:enumeration value="DFM"/>
<xsd:enumeration value="DSC"/>
<xsd:enumeration value="DSM"/>
<xsd:enumeration value="VIII"/>
<xsd:enumeration value="ESQ"/>
<xsd:enumeration value="V"/>
<xsd:enumeration value="I"/>
<xsd:enumeration value="IV"/>
<xsd:enumeration value="GC"/>
<xsd:enumeration value="JNR"/>
<xsd:enumeration value="JP"/>
<xsd:enumeration value="KB"/>
<xsd:enumeration value="KCMG"/>
<xsd:enumeration value="KCB"/>
<xsd:enumeration value="KBE"/>
<xsd:enumeration value="KCVO"/>
<xsd:enumeration value="KG"/>
<xsd:enumeration value="AK"/>
<xsd:enumeration value="KT"/>
<xsd:enumeration value="MD"/>
<xsd:enumeration value="OAM"/>
<xsd:enumeration value="MP"/>
<xsd:enumeration value="MHA"/>
<xsd:enumeration value="MHR"/>
<xsd:enumeration value="MLA"/>
<xsd:enumeration value="MLC"/>
<xsd:enumeration value="AM"/>
<xsd:enumeration value="MBE"/>
<xsd:enumeration value="MC"/>
<xsd:enumeration value="IX"/>
<xsd:enumeration value="OC"/>
<xsd:enumeration value="AO"/>
<xsd:enumeration value="OBE"/>
<xsd:enumeration value="OM"/>
<xsd:enumeration value="QC"/>
<xsd:enumeration value="II"/>
<xsd:enumeration value="SNR"/>
<xsd:enumeration value="VII"/>
```

```

        <xsd:enumeration value="VI"/>
        <xsd:enumeration value="SC"/>
        <xsd:enumeration value="X"/>
        <xsd:enumeration value="III"/>
        <xsd:enumeration value="VC"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="usage">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="M"/>
        <xsd:enumeration value="N"/>
        <xsd:enumeration value="O"/>
        <xsd:enumeration value="B"/>
        <xsd:enumeration value="L"/>
        <xsd:enumeration value="R"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="preferred">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="true"/>
        <xsd:enumeration value="false"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="conditionalUse">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="1"/>
        <xsd:enumeration value="2"/>
        <xsd:enumeration value="3"/>
        <xsd:enumeration value="4"/>
    </xsd:restriction>
</xsd:simpleType>
<!--
===== STATUS TYPES =====
-->
<xsd:simpleType name="recordStatusTypeSupp">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="Verified"/>
        <xsd:enumeration value="Unverified"/>
        <xsd:enumeration value="Provisional"/>
    </xsd:restriction>
</xsd:simpleType>
<!--
===== CONTACT DETAILS TYPES =====
-->
<xsd:complexType name="contactDetailsType">
    <xsd:sequence>
        <xsd:element name="mobilePhoneNumber" minOccurs="0">

```

```

    <xsd:simpleType>
      <xsd:restriction base="xsd:string">
        <xsd:minLength value="1"/>
        <xsd:maxLength value="50"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:element name="emailAddress" minOccurs="0">
    <xsd:simpleType>
      <xsd:restriction base="xsd:string">
        <xsd:minLength value="1"/>
        <xsd:maxLength value="255"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
<!--
===== ORGANISATION TYPES =====
-->
<xsd:complexType name="organisationTypeSupp">
  <xsd:sequence>
    <xsd:element name="hpioNumber" type="hpioNumber"/>
    <xsd:element name="name" type="xsd:string" maxOccurs="unbounded"/>
    <xsd:element name="organisationService" type="organisationServiceType"
maxOccurs="unbounded"/>
    <xsd:element name="participatingOrganisation" minOccurs="0"
maxOccurs="unbounded">
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="hpioNumber" type="hpioNumber"/>
          <xsd:element name="name" type="xsd:string" maxOccurs="unbounded"/>
          <xsd:element name="organisationService"
type="organisationServiceType" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<!--
===== INDIVIDUAL TYPES =====
-->
<xsd:complexType name="individualTypeSupp">
  <xsd:sequence>
    <xsd:element name="name" type="nameTypeSupp"/>
    <xsd:element ref="sex"/>
    <xsd:element name="dateOfBirth" type="xsd:date"/>
  </xsd:sequence>

```



```
</xsd:complexType>
<xsd:complexType name="contactPersonTypeSupp">
  <xsd:sequence>
    <xsd:element name="type">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:enumeration value="Emergency"/>
          <xsd:enumeration value="Next of Kin"/>
          <xsd:enumeration value="Carer"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="name">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:minLength value="1"/>
          <xsd:maxLength value="255"/>
          <xsd:whiteSpace value="collapse"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="phoneNumber" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:minLength value="1"/>
          <xsd:maxLength value="50"/>
          <xsd:whiteSpace value="collapse"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="emailAddress" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:minLength value="1"/>
          <xsd:maxLength value="255"/>
          <xsd:whiteSpace value="collapse"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="relationship" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:minLength value="1"/>
          <xsd:maxLength value="255"/>
          <xsd:whiteSpace value="collapse"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
```

```

    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

## A.2 registerPCEHR interface

### A.2.1 Interface Definition

The following WSDL specification defines the registerPCEHR SOAP interface.

#### A.2.1.1 B2B\_RegisterPCEHRInterface.wsdl

```

<?xml version="1.0" encoding="UTF-8"?>
<!--Version 1.0 issued 24 April 2012-->
<wsdl:definitions xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:pcehr="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0"
xmlns:pcehr_b2b="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCore
Elements/1.0"
xmlns:ns2="http://ns.electronichealth.net.au/pcehr/xsd/interfaces/RegisterPCEH
R/1.0"
xmlns:tns="http://ns.electronichealth.net.au/wsp/xsd/StandardError/2010"
xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
xmlns:ns="http://www.w3.org/2000/09/xmldsig#" name="RegisterPCEHR"
targetNamespace="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0
">
  <wsdl:types>
    <xsd:schema
targetNamespace="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0
" elementFormDefault="qualified">
      <xsd:import
namespace="http://ns.electronichealth.net.au/pcehr/xsd/common/CommonCoreElemen
ts/1.0" schemaLocation="../../../schema/Common/PCEHR_CommonTypes.xsd"/>
      <xsd:import
namespace="http://ns.electronichealth.net.au/pcehr/xsd/interfaces/RegisterPCEH
R/1.0" schemaLocation="../../../schema/External/PCEHR_RegisterPCEHR.xsd"/>
      <xsd:import
namespace="http://ns.electronichealth.net.au/wsp/xsd/StandardError/2010"
schemaLocation="../../../schema/Common/wsp-StandardError-2010.xsd"/>
    </xsd:schema>
  </wsdl:types>
  <wsdl:message name="registerPCEHRInMsg">
    <wsdl:part name="timestampHeader" element="pcehr_b2b:timestamp"/>
    <wsdl:part name="signatureHeader" element="pcehr_b2b:signature"/>
    <wsdl:part name="PCEHRHeader" element="pcehr_b2b:PCEHRHeader"/>
    <wsdl:part name="parameters" element="ns2:registerPCEHR"/>
  </wsdl:message>
  <wsdl:message name="registerPCEHROutMsg">
    <wsdl:part name="signatureHeader" element="pcehr_b2b:signature"/>
    <wsdl:part name="parameters" element="ns2:registerPCEHRResponse"/>
  </wsdl:message>
  <wsdl:message name="standardErrorMsg">
    <wsdl:part name="parameters" element="tns:standardError"/>
  </wsdl:message>
  <wsdl:portType name="RegisterPCEHRPortType">

```

```

    <wsdl:operation name="registerPCEHR" parameterOrder="parameters">
        <wsdl:input message="pcehr:registerPCEHRInMsg"
wsam:Action="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0/Reg
isterPCEHRPortType/registerPCEHRRequest"/>
        <wsdl:output message="pcehr:registerPCEHROutMsg"
wsam:Action="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0/Reg
isterPCEHRPortType/registerPCEHRResponse"/>
        <wsdl:fault name="standardError" message="pcehr:standardErrorMsg"
wsam:Action="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0/Reg
isterPCEHRPortType/Fault/standardError"/>
    </wsdl:operation>
</wsdl:portType>
</wsdl:definitions>

```

## A.2.2 TLS Binding

The following WSDL defines the binding of the registerPCEHR based on the TLS Security Profile defined in ATS 5820—2010.

The following WSDL defines the binding of the Registration interface using a policy for TLS authentication and session privacy.

```

<?xml version="1.0" encoding="UTF-8"?>
<!--Version 1.0 issued 24 April 2012-->
<wsdl:definitions xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/" xmlns:wsp="http://www.w3.org/ns/ws-
policy" xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata" xmlns:sp="http://docs.oasis-
open.org/ws-sx/ws-securitypolicy/200702"
xmlns:pcehr="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0" name="registerPCEHR"
targetNamespace="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0">
    <wsdl:import namespace="http://ns.electronichealth.net.au/pcehr/svc/RegisterPCEHR/1.0"
location="B2B_RegisterPCEHRInterface.wsdl"/>
    <wsdl:binding name="registerPCEHRServiceSOAP12Binding" type="pcehr:RegisterPCEHRPortType">
        <soap12:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
        <wsp:PolicyReference URI="#AddressingPolicy"/>
        <wsp:PolicyReference URI="#TlsPolicy"/>
        <wsdl:operation name="registerPCEHR">
            <soap12:operation soapActionRequired="false" style="document"/>
            <wsdl:input>
                <soap12:header message="pcehr:registerPCEHRInMsg" part="timestampHeader" use="literal"/>
                <soap12:header message="pcehr:registerPCEHRInMsg" part="signatureHeader" use="literal"/>
                <soap12:header message="pcehr:registerPCEHRInMsg" part="PCEHRHeader" use="literal"/>
                <soap12:body parts="parameters" use="literal"/>
            </wsdl:input>
            <wsdl:output>
                <soap12:header message="pcehr:registerPCEHROutMsg" part="signatureHeader" use="literal"/>
                <soap12:body parts="parameters" use="literal"/>
            </wsdl:output>
            <wsdl:fault name="standardError">
                <soap12:fault name="standardError" use="literal"/>
            </wsdl:fault>
        </wsdl:operation>
    </wsdl:binding>

```



# Appendix B Acronyms and Terminology

The core set of terms used within the PCEHR are specified within the PCEHR System Glossary [[PCEHR-SYSTEM-GLOSSARY](#)].

Acronym	Explanation
CIS	Clinical information system
CSP	Contracted service provider
HPI-I	Healthcare Provider Identifier Individual
HPI-O	Healthcare Provider Identifier Organisation
IHI	Individual Healthcare Identifier
LSS	Logical service specification
PCEHR	Personally controlled electronic health record
TLS	Transport layer security
TSS	Technical service specification
UML	Unified Modeling Language
WSDL	Web Service Definition Language
WSP	Web Service Profile – Commonly used to refer to the ATS-5820 Web Service Profile.
XSD	XML Schema Definition

## Appendix C References

Tag	Name	Version Release/ Date
[ATS 5820-2010]	ATS 5820-2010 Australian Technical Specification E-health Web Services Profile	5/3/2010
[REG-LSS]	PCEHR Registration Service Logical Service Specification v0.8	V0.8
[PCEHR-CON-OPS]	PCEHR Concept of Operations	1.0.5
[PCEHR-SYSTEM-GLOSSARY]	PCEHR System - Glossary	1.0 6/05/2011
[RFC2119]	IETF, <i>RFC 2119: Keywords for use in RFCs to Indicate Requirement Levels</i> , S. Bradner, March 1997, <a href="http://ietf.org/rfc/rfc2119.txt">http://ietf.org/rfc/rfc2119.txt</a>	03/1997
[RM-ODP]	Reference Model of Open Distributed Processing ISO/IEC 10746-3:2009	2009
[UML2010]	UML Version 2.3 <a href="http://www.omg.org/spec/UML/2.3/">http://www.omg.org/spec/UML/2.3/</a>	Version 2.3 May 2010