

# nehta

---

## **Standards Analysis**

### **PCEHR System**

Version 3.8 — 1 July 2011

Final

---

**National E-Health Transition Authority Ltd**

Level 25  
56 Pitt Street  
Sydney, NSW, 2000  
Australia.  
[www.nehta.gov.au](http://www.nehta.gov.au)

**Disclaimer**

NEHTA makes the information and other material ('Information') in this document available in good faith but without any representation or warranty as to its accuracy or completeness. NEHTA cannot accept any responsibility for the consequences of any use of the Information. As the Information is of a general nature only, it is up to any person using or relying on the Information to ensure that it is accurate, complete and suitable for the circumstances of its use.

**Document Amendments**

This document may be subject to further amendments as a result of feedback from broader consultation and outcomes of policy positions. The design of the PCEHR system is expected to be finalised following the public consultation period on the PCEHR Concept of Operations.

**Document Control**

The current electronic revision of this document is held and controlled by NEHTA. The printed form of the document is considered uncontrolled. It is the responsibility of the user to verify that this copy is latest revision of the document.

**Security**

The content of this document is confidential. The information contained herein must only be used for the purpose for which it is supplied and must not be disclosed other than explicitly agreed in writing with NEHTA.

**Copyright © 2011 NEHTA**

This document contains information which is protected by copyright. All Rights Reserved. No part of this work may be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—without the permission of NEHTA. All copies of this document must include the copyright and other information contained on this page.

# Document information

## Purpose

This document provides supporting information to accompany the PCEHR Standards Matrix. It will be periodically updated as the PCEHR program progresses.

This document will also be updated as a result of the public consultation process around the Concept of Operations, outcomes of the tender process with infrastructure providers and lessons learned from lead implementations.

The document will be superseded by the PCEHR Standards Plan document, which will include additional information and background and outline the delivery approach for standards development activities supported by Standards Australia.

The purpose of this document is to provide advice to readers regarding:

- the recommended selection of Standards Publications applicable to the PCEHR;
- the recommended methods in which the Standards Publications might be applied in the development of PCEHR Infrastructure and Adoption;
- where adaptation (Profiling) of those Standards Publications is required; and
- where development of new Standards and/or Specifications are required.

## Intended audience

This document is primarily aimed at the following audience:

- Prospective implementers of PCEHR related functionality; and
- The DoHA eHealth Division, Standards Australia, the IT-014 Health Informatics Committee, HL7 Australia and others working on eHealth standards.

This document assumes the reader has read the PCEHR System Concept of Operations and is based on the April 2011 release of the Draft Concept of Operations (ConOps) and will be updated to reflect changes to the ConOps as well as general consultation on standards.

## Questions and feedback

Feedback from the review of this document should be provided by email to <pcehr@nehta.gov.au>.

## Document status

|          |   |               |
|----------|---|---------------|
| Name     | PCEHR System - High-Level System Architecture |               |
| Date     | 1 July 2011                                   | Status: Final |
| Owner    | Head of Architecture                          |               |
| Location | Sydney  |               |

## Change History

| Version | Date         | Contributor   | Comments                                    |
|---------|--------------|---------------|---|
| 3.7     | 28 June 2011 | PCEHR Program | Updated to reflect DOHA feedback            |
| 3.8     | 1 July 2011  | PCEHR Program | Updated to reflect feedback from NEHTA Exec |

## Document Authorisation

| Version | Name                            | Authorisation | Date        |
|---------|---------------------------------|---------------|-------------|
| 3.8     | Manager, PCEHR Design Authority | Les Schumer   | 1 July 2011 |

**This page is intentionally left blank**

# Table of contents

**Document information..... iii**

Purpose iii

Intended audience ..... iii

Questions and feedback ..... iii

Document status ..... iv

Change History ..... iv

Document Authorisation ..... iv

This page is intentionally left blank ..... v

**Table of contents ..... vi**

Table of Tables ..... vi

**1 Executive Summary..... 7**

1.1 Work Effort Required ..... 7

**2 Background ..... 8**

2.1 The PCEHR Program ..... 8

2.2 The Role of NEHTA within Standards ..... 8

2.3 PCEHR Standards Review ..... 8

2.4 Approach to developing this analysis ..... 9

2.4.1 Standards Review ..... 9

2.4.2 Standards Analysis (the Matrix) ..... 9

2.5 Overview of Standards Development Approach ..... 10

**3 Standards Recommendations ..... 11**

3.1 Relevance to the PCEHR System ..... 11

3.2 Level of involvement required..... 11

**4 Standards Matrix ..... 13**

## Table of Tables

Table 1 - Standards Summary ..... 11

# 1 Executive Summary

NEHTA has outlined in the PCEHR Concept of Operation the intention and necessity to develop a standards based PCEHR solution, that supports interoperability principles and the broadest market adoption of the PCEHR System.

A Standards Review was commissioned by NEHTA, utilising Australian and International experts in the Health IT Standards community, and the subsequent analysis has yielded a comprehensive set of Standards publications with application to the development of the PCEHR System.

The contribution of the Authors of the Standards Review is gratefully acknowledged as is their diligence, attention to detail and highly consultative approach.

## 1.1 Work Effort Required

The table below represents the summary of view of the Standards Analysis that was conducted.

|             | New Standard / Specification | Update / Revision | Profile Existing | Engage / Adapt | Adopt |     |
|-------------|------------------------------|-------------------|------------------|----------------|-------|-----|
| Required    | 37                           | 2                 | 2                | 3              | 17    | 61  |
| Recommended | 8                            | 2                 | 18               | 4              | 18    | 50  |
| Informative | 0                            | 0                 | 4                | 10             | 20    | 34  |
|             | 45                           | 4                 | 24               | 17             | 55    | 145 |

Of the 145 functional areas where standards are relevant identified in the review, 61 of these are considered "Required" for the PCEHR. Of these:

- 17 are considered immediately adoptable with no development effort required.
- 3 may either be leveraged directly or simply adapted or use in the PCEHR context; and
- 2 may be profiled for use.

The Reports also indicates 37 functional areas where standards development is required.

It is recommended that 2 existing NEHTA Specifications relating to Secure Messaging be Updated to accommodate PCEHR Requirements.

## 2 Background

### 2.1 The PCEHR Program

The Australian Government will deliver a Personally Controlled Electronic Health Record (PCEHR) system and associated services as part of a \$466.7 million investment announced by the Government in the 2010/11 federal budget. The PCEHR Program is intended to provide all Australians who wish to participate with the ability to register for their own personally controlled electronic health record from 1 July 2012.

The National E-Health Transition Authority (NEHTA) has responsibility for a range of activities required to deliver national eHealth capability, including the design and specification of the PCEHR system, which is to be developed and delivered by a national infrastructure partner, with oversight by NEHTA and the Department of Health and Ageing (DoHA).

Successful implementation of the PCEHR system (and other elements of the national eHealth program) depends on having appropriate standards and specifications available and their being used in development and delivery of a national electronically interoperable healthcare system.

### 2.2 The Role of NEHTA within Standards

The development of nationally consistent standards and specifications for e-health software and service delivery is a core principle underpinning NEHTA's work program and a vital mechanism for ensuring the quality and consistency of domestic systems and effective alignment with international products and services.

NEHTA has committed through its Working Together Agreement with Standards Australia to deliver specifications for development with Standards Australia's IT-014 Health Informatics Committee and subsequently to enable conformance testing using the National Association of Testing Authorities' accredited testing facilities as agreed in the CCA Consensus Statement.

A close working relationship between NEHTA and the Standards community is supported by Standards Australia and it is expected that the community will play a key role in the successful deployment of eHealth systems in 2011/2012 and into the future.

### 2.3 PCEHR Standards Review

In December 2010, NEHTA commissioned an external, independent consortium, within the following broad terms of reference:

*"to analyse and recommend the most appropriate Australian and International standards to support specification, development and delivery of the Personally Controlled Electronic Health Record (PCEHR) service for use in the Australian health sector."*

The delivered report outlines the processes used in carrying out the PCEHR Standards Review, considers progress since previous related reviews and discusses the assessment of candidate standards and issues arising.

It presents findings and recommendations in relation to the most appropriate approaches for both the use of standards and further standards work in the context of the proposed PCEHR system and the broader national eHealth program.

NEHTA worked with the Standards Consortium to produce a comprehensive analysis of standards (the draft Standards Matrix – contained within document) combined with the draft PCEHR High Level Systems Architecture (HLSA) to guide the further development and/or implementation of relevant standards for the PCEHR System.

## 2.4 Approach to developing this analysis

The National E-Health Strategy, NEHTA and the PCEHR initiative specifically all strongly emphasise the use of Australian and International Standards as a foundation upon which to ensure interoperability.

In order for interoperability to succeed a suite of nationally-defined standards is essential. Open standards are the cornerstone of interoperability as they allow e-health systems to evolve without being constrained by proprietary software products.

While NEHTA has been recommending and orchestrating the delivery of e health standards (e.g. for secure messaging) for some years now, the establishment of the PCEHR system development project now necessitates the selection of standards specifically applicable to Shared Electronic Health Records.

### 2.4.1 Standards Review

NEHTA initiated a project to analyse and recommend the most appropriate Australian and International standards to support specification, development and delivery of the Personally Controlled Electronic Health Record service for use in the Australian health sector.

The development of the PCEHR Standards Review included:

- Gathering input on PCEHR Standards needs in the Australian health sector.
- Identifying and analysing options, and recommending the most appropriate Australian and International standards to address PCEHR Standards Needs in the Australian health sector.
- Making recommendations on the risks, challenges and issues associated with adopting the recommended standards - including implications for certification and conformance assessment.
- Identifying issues and making recommendations about programming, resourcing and governing standards activities required to deliver and support the proposed standards approaches.
- Making recommendations on a framework for categorising and considering relevant standards; their ongoing management as a critical national resource; and the large scale adoption and implementation of standards, and
- Providing associated guidance on and input to consultation and other processes, including Stage 2 of Standards Needs development for the PCEHR.

### 2.4.2 Standards Analysis (the Matrix)

NEHTA worked with the Standards Consortium to produce a comprehensive analysis of standards (the Standards Matrix) to be used, profiled and developed for the PCEHR, based on the Review and the PCEHR High Level Systems Architecture (HLSA).

This Standards Matrix will provide direction to the PCEHR National Infrastructure Provider in the detailed design, build and operation of the services, and the Department of Health and Aging in the selection process for a National Infrastructure Partner.

The approach to selection of standards relevant to the design, based on recommendations and analysis from the Review is to identify:

- the key standards that currently exist for use in the service;
- profiling activities for key components of existing standards;
- key standards that are currently in development; and
- Standards that aren't relevant to the design of the system (with appropriate justification).

## 2.5 Overview of Standards Development Approach

NEHTA has been strategically engaging with Standards Communities both internationally and within Australia for many years, and has developed a competency to successfully engage these standards development organisations supporting the assessment, profiling and use of standards within NEHTA Solutions. This engagement has seen alignment strategy in the Standards Australia IT-014 Work Program to support NEHTA's key deliverables, including the PCEHR.

The PCEHR Standards Review, identified a number of standards that were relevant to the PCEHR, and a subset of these standards require development participation in order to accelerate their development and alignment to the conditions that presently exist in Australia in relation to eHealth adoption programs.

NEHTA has collaborated with Standards Australia and the IT14 Work Group to ensure the standards identified for development can be prioritised and a harmonised and appropriately integrated work program can commence, ensuring the best use of the skilled and limited resources that can support the design of the PCEHR.

In addition an agreement is being sought that ensures all parties understand what form of the Standard, in terms of its development level, will be available throughout the PCEHR Work Program timeframes. There are three key stages to the Standards development process, and these are outlined briefly below:

- Committee Draft for Comment (an immature draft used within the individual committee establishing the key areas of the standard/specification)
- Draft for Public Comment (a mature draft used by the individual committees to seek input from all stakeholders)
- Draft for Ballot (specification or standard)(Final stage prior to publication)

As indicated an agreement is being sought that would see PCEHR Specifications progressed to the second level supporting implementations and early adoption of the standard/specification and feedback into the development process.

It is the intention of these groups to support key prioritised development activities, supporting PCEHR deliverables and timelines, and to provide a level of certainty to the market in terms of approach, inclusive and collaborative development and aligned outcomes.

### 3 Standards Recommendations

The following section provides a summary analysis of the standards selected and recommended for use in delivering the PCEHR System. As per the table below, there are a total of 145 Standards publications identified within the review, of specific applicability to the PCEHR system.

|             | New Standard / Specification | Update / Revision | Profile Existing | Engage / Adapt | Adopt |     |
|-------------|------------------------------|-------------------|------------------|----------------|-------|-----|
| Required    | 37                           | 2                 | 2                | 3              | 17    | 61  |
| Recommended | 8                            | 2                 | 18               | 4              | 18    | 50  |
| Informative | 0                            | 0                 | 4                | 10             | 20    | 34  |
|             | 45                           | 4                 | 24               | 17             | 55    | 145 |

Table 1 - Standards Summary

#### 3.1 Relevance to the PCEHR System

The Standards Review identified the three following categories, to be used as guidance to the appropriate relevance of the each Standard, to the PCEHR System

- **Required:** Standards identified as 'Required' will be necessary for adoption within the implementation of the PCEHR. Conformance to this standard will be used as a basis for assessment and acceptance of participation.
- **Recommended:** Adoption of the Standard is recommended and proposals which adopt and implement solutions conformant with this standard will be considered favourably.
- **Informative:** The Standard is provided for information and guidance only. Implementers and adopters of the PCEHR System are advised to consider this Standard when formulating their designs.

#### 3.2 Level of involvement required

The level of involvement / participation recommended for each Standard varies depending upon the gap fit of its appropriateness to the PCEHR.

- **New Standard / Specification:** A new Standard, or Specification is required in order to deliver the PCEHR system
- **Update / Revision:** Existing Standards may require revision or update in order to elevate its suitability for the PCEHR System

- **Engage / Adapt:** Existing Standards may be adapted for use in the design and development of the PCEHR System
- **Profile Existing:** An existing standard has been identified as appropriate for use, however this standard will require profiling in order to narrow or increase the specificity required for the PCEHR. Profiling is the act of scoping which elements of the Standard will be used in the solution and extending the standard where it does not define elements suitable to requirements.
- **Adopt:** The Standard is appropriate for use in its current form. Validation of appropriate adoption is required.

## 4 Standards Matrix

The Standards Matrix outlines the key standards with their associated classification. Additional working meetings are planned to continue work with the Standards Consortium and Standards Australia to ensure each standards development activity is prioritised to support PCEHR and Lead Implementation and a collective understanding of the necessary form of each standards can be agreed.

| PCEHR Design Sub-Component    | Design Component Role | Standard / Specification   | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|-------------------------------|-----------------------|--|--|---------------------------|----------------------|------------------------|------------------|-----------|
| <b>Requirements from HLSA</b> |                       |  |  |                           |                      |                        |                  |           |
| Provider Portal               | Web UI                | Health Insite Minimum Publishing Standards                             | <p>These standards are well known to Government agencies but perhaps not so well known to private providers, except perhaps W3C Accessibility.</p> <p>The web site below includes a range of topic specific Minimum Publishing Standards</p> <p>See <a href="http://www.healthinsite.gov.au">http://www.healthinsite.gov.au</a></p>  | Required                  | Adopt                | N/A                    |                  | DOHA      |
| Provider Portal               | Web UI                | HB 306 User interface requirements for the presentation of health data | <p>This document provides information and guidance based on the considerable research undertaken and is not currently suited to strict compliance. However it is in review at ISO where it is intended to produce documents against which compliance can be measured. The window of opportunity to review this work, leverage expertise across a global community and strengthen it with conformance criteria is now open.</p> <p>See <a href="http://www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at">www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at</a></p> | Informative               | Update/Revision      | N/A                    | IT14/1/5, NEHTA  | SA, ISO   |
| Provider Portal               | Mobile UI             | W3C Mobile Web Best Practices 1.0: Basic Guidelines                    | See <a href="http://www.w3.org/tr/mobile-bp/">www.w3.org/tr/mobile-bp/</a>   | Recommended               | Adopt                | N/A                    |                  | W3C       |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification   | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|--|--|---------------------------|----------------------|------------------------|------------------|-----------|
| Provider Portal            | Mobile UI             | W3C Mobile Web Application Best Practices  | See <a href="http://www.w3.org/tr/mwabp/">www.w3.org/tr/mwabp/</a>   | Recommended               | Adopt                | N/A                    |                  | W3C       |
| Provider Portal            | UI                    | AS2828 Health records - Part 2 Digitised (Scanned) Record Requirements (as profiled for PCEHR) | <p>This documents indicates requirements for storage, indexing retrieval and presentation of health record information in digitized record systems. It includes information which could be used for conformance assessment. Also recommend developing Part 3 on electronic (as opposed to digitised (scanned) records)</p> <p>In ballot, awaiting public comments.</p> <p>See <a href="http://www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at">www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at</a></p> | Informative               | Engage/Adapt         | IT14/2                 | IT14/2, NEHTA    | SA        |
| Provider Portal            | Interface Consumer    | Cross Enterprise Document Sharing (XDS.b)  | <p>This is the internal interface between the Portal Infrastructure and the repository services.</p> <p>See <a href="http://wiki.ihe.net/index.php?title=xds.b_implementation">http://wiki.ihe.net/index.php?title=xds.b_implementation</a></p>  | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| Provider Portal            | Interface Consumer    | Resource Location and Update Service (RLUS)  | <p>NEHTA to work with NIP Provider to develop the interface specification</p> <p>See <a href="http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf</a></p>   | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| Consumer Portal            | Web UI                | Health Insite Minimum Publishing Standards   | <p>These standards are well known to Government agencies but perhaps not so well known to private providers, except perhaps W3C Accessibility.</p> <p>The web site below includes a range of topic specific Minimum Publishing Standards</p> <p>See <a href="http://www.healthinsite.gov.au">http://www.healthinsite.gov.au</a></p>  | Required                  | Adopt                | N/A                    |                  | DOHA      |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification   | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|--|---|---------------------------|----------------------|------------------------|------------------|-----------|
| Consumer Portal            | Web UI                | HB 306 User interface requirements for the presentation of health data                         | <p>This document provides information and guidance based on the considerable research undertaken and is not currently suited to strict compliance. However it is in review at ISO where it is intended to produce documents against which compliance can be measured. The window of opportunity to review this work, leverage expertise across a global community and strengthen it with conformance criteria is now open.</p> <p>See<br/> <a href="http://www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at">www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at</a></p> | Informative               | Update/Revision      | N/A                    | IT14/1/5, NEHTA  | SA, ISO   |
| Consumer Portal            | Mobile UI             | W3C Mobile Web Best Practices 1.0: Basic Guidelines  | See <a href="http://www.w3.org/tr/mobile-bp/">www.w3.org/tr/mobile-bp/</a>  | Recommended               | Adopt                | N/A                    |                  | W3C       |
| Consumer Portal            | Mobile UI             | W3C Mobile Web Application Best Practices  | See <a href="http://www.w3.org/tr/mwabp/">www.w3.org/tr/mwabp/</a>  | Recommended               | Adopt                | N/A                    |                  | W3C       |
| Consumer Portal            | UI                    | AS2828 Health records - Part 2 Digitised (Scanned) Record Requirements (as profiled for PCEHR) | <p>This documents indicates requirements for storage, indexing retrieval and presentation of health record information in digitized record systems. It includes information which could be used for conformance assessment. Also recommend developing Part 3 on electronic (as opposed to digitised (scanned) records)</p> <p>In ballot, awaiting public comments.</p> <p>See<br/> <a href="http://www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at">www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at</a></p>   | Informative               | Engage/Adapt         | IT14/2                 | IT14/2, NEHTA    | SA        |

| PCEHR Design Sub-Component     | Design Component Role | Standard / Specification                          | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|--------------------------------|-----------------------|---|---|---------------------------|----------------------|------------------------|------------------|-----------|
| Consumer Portal                | Interface Consumer    | Cross Enterprise Document Sharing (XDS.b)         | This is the internal interface between the Portal Infrastructure and the repository services.<br><br>See <a href="http://wiki.ihe.net/index.php?title=xds.b_implementation">http://wiki.ihe.net/index.php?title=xds.b_implementation</a>  | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| Consumer Portal                | Interface Consumer    | Resource Location and Update Service (RLUS)       | NEHTA to work with NIP Provider to develop the interface specification<br><br>See <a href="http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf</a> | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| Secure Token Service           | Authenticator         | OASIS XACML 2.0                                   | V3.0 under development. Version 2 available.<br><br>See <a href="http://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf">http://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf</a>   | Required                  | Adopt                | N/A                    |                  | OASIS     |
| Secure Token Service           | Token Assertion       | Security Assertion Markup Language 2.0 (SAML 2.0) | Likely to require interoperability with the NASH service.<br><br>STS is for provision of acceptable assertions for providing and managing consumer identity authentication<br><br>See <a href="http://saml.xml.org/saml-specifications">http://saml.xml.org/saml-specifications</a>   | Required                  | Profile Existing     | NEHTA & NIP            |                  | OASIS     |
| Portal Infrastructure Services | Internal Component    | OASIS WSRPv2.0: Web Services for Remote Portlets  | See <a href="http://docs.oasis-open.org/wsrp/v2/wsrp-2.0-spec.html">docs.oasis-open.org/wsrp/v2/wsrp-2.0-spec.html</a>  | Required                  | Adopt                | N/A                    |                  | OASIS     |

| PCEHR Design Sub-Component              | Design Component Role | Standard / Specification                    | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher                   |
|---|-----------------------|---|--|---------------------------|----------------------|------------------------|------------------|-----------------------------|
| Portal Infrastructure Services          | Internal Component    | Java JSR 168 & JSR 268                      | JSR - 000168 Portlet Specification (final Release ) see <a href="http://jcp.org/aboutjava/communityprocess/final/jsr168">jcp.org/aboutjava/communityprocess/final/jsr168</a><br><br>JSR - 000286 Portlet Specification 2.0 (Final Release) see: <a href="http://jcp.org/aboutjava/communityprocess/final/jsr286">jcp.org/aboutjava/communityprocess/final/jsr286</a> | Required                  | Adopt                | N/A                    |                  | Sun Developer Network (SDN) |
| Document Query and Management Interface | External Interface    | Cross Enterprise Document Sharing (XDS.b)   | Profiling exercise needs to be completed in order to localise the implementation<br>See: <a href="http://wiki.ihe.net/index.php?title=xds.b_implementation">http://wiki.ihe.net/index.php?title=xds.b_implementation</a>   | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA                          |
| Document Query and Management Interface | External Interface    | Resource Location and Update Service (RLUS) | NEHTA to work with NIP Provider to develop the interface specification<br>See: <a href="http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf</a>                             | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA                          |
| Individual Authentication Service       | Authenticator         | OASIS XACML 2.0                             | V3.0 under development. Version 2 available at<br><br><a href="http://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf">http://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf</a>  | Recommended               | Adopt                | N/A                    |                  | OASIS                       |

| PCEHR Design Sub-Component      | Design Component Role | Standard / Specification  | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|---------------------------------|-----------------------|---|--|---------------------------|----------------------|------------------------|------------------|-----------|
| Provider Authentication Service | Authenticator         | ISO/TS 22600 Parts 1-3 Privilege management & access control (PMAC)                               | Part 1: See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=36337">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=36337</a><br><br>Part 2 See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=40930">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=40930</a><br><br>Part 3 See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=45376">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=45376</a> | Informative               | Adopt                | N/A                    |                  | ISO       |
| Provider Authentication Service | Authenticator         | OASIS XACML 2.0   | V3.0 under development. Version 2 available at <a href="http://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf">http://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf</a>   | Recommended               | Adopt                | N/A                    |                  | OASIS     |
| PCEHR Core Services             | Security              | ISO/IEC 27000-series security management  | As applied through NESAF. See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=41933">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=41933</a>   | Recommended               | Adopt                | N/A                    |                  | ISO/IEC   |
| PCEHR Core Services             | Security              | ISO 27799:2008 Health Informatics - Information security management in health using ISO/IEC 27002 | As applied through NESAF. See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=41298">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=41298</a>   | Recommended               | Adopt                | N/A                    |                  | ISO       |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification   | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|--|---|---------------------------|----------------------|------------------------|------------------|-----------|
| PCEHR Core Services        | Security              | ISO 17090-1:2008 Parts 1-3: Health informatics - Public key infrastructure | As applied through NESAF, NASH.<br><br>Part 1: See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=39845">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=39845</a><br><br>Part 2: See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=39846">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=39846</a><br><br>Part 3: See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=39847">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=39847</a> | Recommended               | Adopt                | N/A                    |                  | ISO       |
| PCEHR Core Services        | WS Interfaces         | AS 5820 eHealth Web Services Profile (upgrade of ATS 5820-2010)            | Existing ATS to be upgraded to full AS and include any agreed updates needed for PCEHR . Should provide basis for conformity assessment.<br><br>See <a href="http://infostore.saiglobal.com/store/details.aspx?productid=1391033">infostore.saiglobal.com/store/details.aspx?productid=1391033</a>  | Required                  | Update/Revision      | NEHTA                  | IT14/6           | SA        |
| PCEHR Core Services        | WS Interfaces         | AS 5821 eHealth XML secured payload profile (upgrade of ATS 5821-2010)     | Existing ATS to be upgraded to full AS and include any agreed updates needed for PCEHR . Should provide basis for conformity assessment.<br><br>See <a href="http://infostore.saiglobal.com/store/details.aspx?productid=1391034">infostore.saiglobal.com/store/details.aspx?productid=1391034</a>  | Required                  | Update/Revision      | NEHTA                  | IT14/6           | SA        |
| PCEHR Core Services        | WS Interfaces         | AS 5822 eHealth XML SMD profile (upgrade of ATS 5822-2010)                 | Existing ATS to be upgraded to full AS and include any agreed updates needed for PCEHR . Should provide basis for conformity assessment.<br><br>See   | Informative               | Update/Revision      | NEHTA                  | IT14/6           | SA        |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification                                 | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|--|--|---------------------------|----------------------|------------------------|------------------|-----------|
|                            |                       |  | infostore.saiglobal.com/store/details.aspx?productid=1391035   |                           |                      |                        |                  |           |
| PCEHR Core Services        | WS Interfaces         | W3C SOAP Version 1.2                                     | Part 0 - Primer:<br>See <a href="http://www.w3.org/tr/soap12-part0/">www.w3.org/tr/soap12-part0/</a><br><br>Part 1 Messaging Framework:<br>See <a href="http://www.w3.org/tr/soap12-part1/">www.w3.org/tr/soap12-part1/</a><br><br>Part 2 - Adjunct:<br>See <a href="http://www.w3.org/tr/soap12-Part2/">www.w3.org/tr/soap12-Part2/</a> | Required                  | Adopt                | N/A                    |                  | W3C       |
| PCEHR Core Services        | WS Interfaces         | W3C Web Services Description Language (WSDL) Version 2.0 | Part 0 - Primer:<br>See <a href="http://www.w3.org/tr/wsdl20-primer/">www.w3.org/tr/wsdl20-primer/</a><br><br>Part 1 Core Language:<br>See <a href="http://www.w3.org/tr/wsdl20/">www.w3.org/tr/wsdl20/</a><br><br>Part 2 - Adjuncts:<br>See <a href="http://www.w3.org/tr/wsdl20-adjuncts/">www.w3.org/tr/wsdl20-adjuncts/</a>          | Required                  | Adopt                | N/A                    |                  | W3C       |
| PCEHR Core Services        | WS Interfaces         | W3C Web Services Policy 1.5                              | See <a href="http://www.w3.org/2002/ws/policy/">www.w3.org/2002/ws/policy/</a>   | Required                  | Adopt                | N/A                    |                  | W3C       |
| PCEHR Core Services        | WS Interfaces         | OASIS WS-Security 1.1: SOAP Message Security 1.1         | See <a href="http://www.oasis-open.org/committees/download.php/16790/ws-s-v1.1-spec-os-soapmessagesecurity.pdf">www.oasis-open.org/committees/download.php/16790/ws-s-v1.1-spec-os-soapmessagesecurity.pdf</a>   | Required                  | Adopt                | N/A                    |                  | OASIS     |
| PCEHR Core Services        | WS Interfaces         | OASIS WS-Security Policy 1.3                             | See <a href="http://docs.oasis-open.org/ws-sx/ws-securitypolicy/200802">docs.oasis-open.org/ws-sx/ws-securitypolicy/200802</a>   | Required                  | Adopt                | N/A                    |                  | OASIS     |
| PCEHR Core Services        | WS Interfaces         | OASIS WS-I Basic Profile Version 2.0                     | See <a href="http://www.ws-i.org/profiles/basicprofile-2.0-2010-11-09.html">www.ws-i.org/profiles/basicprofile-2.0-2010-11-09.html</a>   | Required                  | Adopt                | N/A                    |                  | OASIS     |
| PCEHR Core Services        | WS Interfaces         | IETF/RFC 1305 Network Time Protocol                      | See <a href="http://tools.ietf.org/pdf/rfc1305.pdf">tools.ietf.org/pdf/rfc1305.pdf</a>   | Required                  | Adopt                | N/A                    |                  | IETF      |

| PCEHR Design Sub-Component       | Design Component Role | Standard / Specification   | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher         |
|----------------------------------|-----------------------|--|--|---------------------------|----------------------|------------------------|------------------|-------------------|
| Audit Log                        | Data Store            | ISO/DIS 27789 Audit trails for electronic health records           | As applied through NESAF   | Informative               | Adopt                | N/A                    |                  | ISO               |
| Audit Log                        | Internal Interface    | IHE Audit Trail and Node Authentication (ATNA) Integration Profile | Consider if IHE XDS.b is used<br><br>See <a href="http://wiki.ihe.net/index.php?title=audit_trail_and_node_authentication">wiki.ihe.net/index.php?title=audit_trail_and_node_authentication</a>  | Recommended               | Profile Existing     | NEHTA & NIP            |                  | IHE               |
| Conformant Repository Interfaces | External Interface    | Cross Enterprise Document Sharing (XDS.b)                          | Profiling exercise needs to be completed in order to localise the implementation<br><br>See <a href="http://wiki.ihe.net/index.php?title=xds.b_implementation">http://wiki.ihe.net/index.php?title=xds.b_implementation</a>  | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA                |
| Conformant Repository Interfaces | External Interface    | Resource Location and Update Service (RLUS)                        | NEHTA to work with NIP Provider to develop the interface specification.<br><br>See <a href="http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf</a> | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA                |
| National Repositories            | Data store            | PHR-S FM - HL7 Personal Health Record Systems Functional Model     | As applied through a PCEHR functional profile to be developed.<br><br>See <a href="http://www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip">www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip</a>   | Informative               | Adopt                | N/A                    |                  | HL7 International |
| National Repositories            | Data store            | PHR-S FM - Australian PCEHR profile                                | As applied through a PCEHR functional profile to be developed.<br><br>See <a href="http://www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip">www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip</a>   | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/9           | SA                |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification  | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher         |
|----------------------------|-----------------------|---|--|---------------------------|----------------------|------------------------|------------------|-------------------|
| National Repositories      | Data store            | ISO 18308:2011 Health informatics - Requirements for an electronic health record architecture | As applied through a PCEHR functional profile to be developed.<br><br>See Part 1<br><a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=52823">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=52823</a>   | Informative               | Profile Existing     | NEHTA                  | IT14/9           | SA                |
| National Repositories      | Data store            | Cross Enterprise Document Sharing (XDS.b)   | See <a href="http://www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip">www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip</a>   | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA                |
| National Repositories      | Data store            | Resource Location and Update Service (RLUS)   | NEHTA to work with NIP Provider to develop the interface specification.<br><br>See <a href="http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf</a> | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA                |
| Conformant Repositories    | Data store            | PHR-S FM - HL7 Personal Health Record Systems Functional Model                                | As applied through a PCEHR functional profile to be developed.<br><br>See <a href="http://www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip">www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip</a>   | Informative               | Profile Existing     | NEHTA & NIP            |                  | HL7 International |
| Conformant Repositories    | Data store            | PHR-S FM - Australian PCEHR profile   | As applied through a PCEHR functional profile to be developed.<br><br>See <a href="http://www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip">www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip</a>   | Recommended               | Profile Existing     | NEHTA & NIP            |                  | SA                |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification  | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|---|---|---------------------------|----------------------|------------------------|------------------|-----------|
| Conformant Repositories    | Data store            | ISO 18308:2011 Health informatics - Requirements for an electronic health record architecture | As applied through a PCEHR functional profile to be developed.<br><br>See Part 1<br><a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=52823">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=52823</a>  | Informative               | Profile Existing     | NEHTA                  |                  | SA        |
| Conformant Repositories    | Data store            | Cross Enterprise Document Sharing (XDS.b)   | Profiling exercise needs to be completed in order to localise the implementation<br><br>See<br><a href="http://wiki.ihe.net/index.php?title=xds.b_implementation">http://wiki.ihe.net/index.php?title=xds.b_implementation</a>  | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| Conformant Repositories    | Data store            | Resource Location and Update Service (RLUS)   | NEHTA to work with NIP Provider to develop the interface specification.<br><br>See<br><a href="http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf</a> | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| Report Service             | Internal Component    | ISO/TS 25237:2008 Health informatics - Pseudonymisation                                       | See<br><a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42807">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42807</a> and emerging Australian adoption.   | Informative               | Adopt                | N/A                    |                  | SA        |
| View Interfaces            | Data Renderer         | Health Insite Minimum Publishing Standards  | These standards are well known to Government agencies but perhaps not so well known to private providers, except perhaps W3C Accessibility.<br>The web site below includes a range of topic specific Minimum Publishing Standards.<br><br>See <a href="http://www.healthinsite.gov.au">http://www.healthinsite.gov.au</a>                       | Required                  | Adopt                | N/A                    |                  | DOHA      |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification   | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|--|---|---------------------------|----------------------|------------------------|------------------|-----------|
| View Interfaces            | Data Renderer         | HB 306 User interface requirements for the presentation of health data                         | <p>This document provides information and guidance based on the considerable research undertaken and is not currently suited to strict compliance. However it is in review at ISO where it is intended to produce documents against which compliance can be measured. The window of opportunity to review this work, leverage expertise across a global community and strengthen it with conformance criteria is now open.</p> <p>See<br/> <a href="http://www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at">www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at</a></p> | Informative               | Update/Revision      | N/A                    | IT14/1/5, NEHTA  | SA, ISO   |
| View Interfaces            | Data Renderer         | AS2828 Health records - Part 2 Digitised (Scanned) Record Requirements (as profiled for PCEHR) | <p>This documents indicates requirements for storage, indexing retrieval and presentation of health record information in digitized record systems. It includes information which could be used for conformance assessment. Also recommend developing Part 3 on electronic (as opposed to digitised (scanned) records)</p> <p>In ballot, awaiting public comments.</p> <p>See<br/> <a href="http://www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at">www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at</a></p>   | Informative               | Engage/Adapt         | IT14/2                 | IT14/2, NEHTA    | SA        |
| View Interfaces            | Data Renderer         | IHE Retrieve Information for Display (RID) Integration Profile.                                | <p>Provides read-only access to patient-centric clinical information that is located outside the user's current application. Supports access to existing persistent documents in well-known presentation formats such as CDA (Level 1), PDF, JPEG, etc.</p> <p>See:<br/> <a href="http://www.ihe.net/technical_framework/upload/ihe_it">www.ihe.net/technical_framework/upload/ihe_it</a></p>   | Informative               | Adopt                | N/A                    |                  | IHE       |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification  | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher         |
|----------------------------|-----------------------|---|---|---------------------------|----------------------|------------------------|------------------|-------------------|
|                            |                       |   | i_tf_rev7-0_Vol2a_ft_2010-08-10.pdf   |                           |                      |                        |                  |                   |
| Template Service           | Data Dictionary       | ISO/IEC 11179-series Information Technology - Metadata registries   | Consider for Foundation Service<br>See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=35343">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=35343</a>         | Required                  | Adopt                | N/A                    |                  | ISO               |
| NHSPD                      | Service Directory     | HL7 Healthcare, Community Services and Provider Directory   | Consider for Foundation Service.<br>See <a href="http://hssp-provider-services-directory.wikispaces.com/home">http://hssp-provider-services-directory.wikispaces.com/home</a> for draft.  | Recommended               | Engage/Adapt         | NEHTA                  | IT14/1/1         | HL7 International |
| NHSPD                      | Service Directory     | ISO/TS 21091:2005 Directory Services for security, communication and identification of professionals and patients | Consider for Foundation Service<br>See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=35647">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=35647</a>         | Informative               | Engage/Adapt         | NEHTA                  | IT14/1/1         | SA                |
| NHSPD                      | Service Directory     | IHE Healthcare Provider Directory (HPD) profile. (IHE HPD)  | Consider for Foundation Service<br>See <a href="http://www.iht.net/technical_framework/upload/IHE_i ti_suppl_hpd_rev1-1_ti_2010-08-10.pdf">www.iht.net/technical_framework/upload/IHE_i ti_suppl_hpd_rev1-1_ti_2010-08-10.pdf</a> | Informative               | Engage/Adapt         | N/A                    |                  | IHE               |

| PCEHR Design Sub-Component | Design Component Role   | Standard / Specification   | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher         |
|----------------------------|-------------------------|--|---|---------------------------|----------------------|------------------------|------------------|-------------------|
| Clinical Documents - all   | PCEHR Document          | ANSI/HL7 CDA R2-2005 Clinical Document Architecture, Release 2, 2005<br>Equiv to ISO/HL7 27932: 2009   | Develop Australian profile based on NEHTA work - to set down basic rules for consistent mapping from logical models across NEHTA and national eHealth standards program.<br><br>See<br><a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_details.htm?csnumber=44429">www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_details.htm?csnumber=44429</a> | Required                  | Profile Existing     | NEHTA & NIP            |                  | SA                |
| Clinical Documents - all   | PCEHR Document          | HL7 CCD 2007 HL7 Implementation Guide: CDA Release 2 – Continuity of Care Document (CCD): A CDA implementation of ASTM E2369-05 Standard Specification for Continuity of Care Record© (CCR) which may be used in lieu of ASTM ADJE2369 | CCD is recommended as a primary source of mappings for CDA exchange specification.<br><br>See<br><a href="http://www.hl7.org/documentcenter/private/standard/cda/R2/cda_R2_normativewebedition2010.zip">www.hl7.org/documentcenter/private/standard/cda/R2/cda_R2_normativewebedition2010.zip</a>   | Informative               | Adopt                | N/A                    |                  | HL7 International |
| Clinical Documents - all   | PCEHR Document          | Guidelines and rules for expressing logical eHealth models as exchange specifications (recommended)  | Review recommended NEHTA and IT-014 evolve the process for expressing logical models as implementable exchange specifications into a documented process with quality management that can be consistently scaled across NEHTA and the IT-014 work. Should address CDA (mainly) and HL7v2 (to extent applicable).   | Recommended               | New Standard/Spec    | NEHTA                  | IT14/6           | SA                |
| Clinical Documents - all   | PCEHR Doc - terminology | SNOMED CT-AU   |   | Required                  | Adopt                | N/A                    |                  | NEHTA             |
| Clinical Documents - all   | PCEHR Doc - terminology | AMT  |   | Required                  | Adopt                | N/A                    |                  | NEHTA             |

| PCEHR Design Sub-Component | Design Component Role       | Standard / Specification   | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------------|--|---|---------------------------|----------------------|------------------------|------------------|-----------|
| Clinical Documents - all   | PCEHR Doc - terminology use | Implementation of Clinical Terminology in Local Systems  | Guidelines on use of common clinical coding in PCEHR entries (recommended by review)<br><br>Development recommended as essential transition measure pending eventual widespread adoption of SNOMED. Considering ICD10, ICPC2, possibly DOCLE etc. | Recommended               | Engage/Adapt         | NEHTA                  | IT14/2           | SA        |
| Clinical Documents - all   | PCEHR Doc - terminology use | IHTSDO SNOMED CT editorial guide   | IHTSDO work in progress. Require finalisation/development.  | Informative               | Engage/Adapt         | NEHTA                  |                  | NEHTA     |
| Clinical Documents - all   | PCEHR Doc - terminology use | Australian Medicines Terminology editorial rules   | Work in progress. Require finalisation/development.   | Informative               | Engage/Adapt         | NEHTA                  |                  | NEHTA     |
| Clinical Documents - all   | PCEHR Doc - terminology use | IHTSDO – Quality Assurance Framework   | Requires NEHTA adaption and publication.  | Informative               | Engage/Adapt         | NEHTA                  |                  | NEHTA     |
| Clinical Documents - all   | PCEHR Doc - terminology use | Principles and guidelines for the maintenance of terminological systems (ISO/DTR 12975)                                      | Work in progress. Require finalisation/development. Draft is available through Standards Australia IT14/2 committee.  | Informative               | Engage/Adapt         | NEHTA                  | IT14/2           | ISO       |
| Clinical Documents - all   | PCEHR Doc - terminology use | Principles and guidelines for the measurement of conformance in the implementation of terminological systems (ISO/DTR 12310) | Work in progress or not yet started. Require finalisation/development.  | Informative               | Engage/Adapt         | NEHTA                  | IT14/2           | ISO       |
| Clinical Documents - all   | PCEHR Doc - terminology use | HB 303-2007 Guidelines for the use of abbreviations, acronyms and local terms in electronic health communications            | ISO published but under review.<br><br>See:<br><a href="http://infostore.saiglobal.com/store/details.aspx?docn=AS0733784208at">infostore.saiglobal.com/store/details.aspx?docn=AS0733784208at</a>   | Informative               | Engage/Adapt         | N/A                    |                  | SA / ISO  |

| PCEHR Design Sub-Component  | Design Component Role       | Standard / Specification                                     | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher         |
|-----------------------------|-----------------------------|--|---|---------------------------|----------------------|------------------------|------------------|-------------------|
| Clinical Documents - all    | PCEHR Doc - terminology use | Core principles and properties of HL7v3 Models               | Work in progress or not yet started. Require finalisation/development.<br><br>See: <a href="http://wiki.hl7.org/images/d/dc/coreprinciples_V005h.pdf">wiki.hl7.org/images/d/dc/coreprinciples_V005h.pdf</a>                             | Informative               | Adopt                | N/A                    | IT14/2, NEHTA    | HL7 International |
| Clinical Documents - all    | PCEHR Doc - terminology use | HL7 Common Terminology Services, Release 2                   | DSTU in collaboration with OMG.<br><br>See <a href="http://www.hl7.org/documentcenter/public/standards/dstu/2009may/v3_cts_r2_dstu_2009oct.pdf">www.hl7.org/documentcenter/public/standards/dstu/2009may/v3_cts_r2_dstu_2009oct.pdf</a> | Informative               | Engage/Adapt         | NEHTA                  |                  | HL7 / OMG         |
| Clinical Documents - all    | PCEHR Doc - terminology use | Mapping of Terminologies to Classifications (ISO/PDTR 13200) | Completed initial ballot and in preparation for final ballot at ISO in October 2011 - draft available through IT14/2  | Informative               | Engage/Adapt         | NEHTA                  | IT14/2           | ISO               |
| Shared Health Summary (SHS) | PCEHR Document              | ATS SHS - Logical info model (IT14 proposed #61)             | Development of Specification / Standard Required  | Required                  | New Standard/Spec    | NEHTA & NIP            | IT14/1/4         | SA                |
| Shared Health Summary (SHS) | PCEHR Document              | ATS SHS - CDA exchange spec (IT14 proposed #60)              | Development of Specification / Standard Required  | Required                  | New Standard/Spec    | NEHTA & NIP            | IT14/1/4         | SA                |
| Shared Health Summary (SHS) | PCEHR Document              | ATS SHS - Aus eHealth conformance profile & Schematron (tbd) | Development of Specification / Standard Required  | Required                  | New Standard/Spec    | NEHTA                  | IT14/1/4         | SA                |
| Shared Health Summary (SHS) | PCEHR Document              | ATS SHS - Aus eHealth rendering & XSLT (tbd)                 | Development of Specification / Standard Required  | Required                  | New Standard/Spec    | NEHTA                  | IT14/1/4         | SA                |
| Event Summary (ES)          | PCEHR Document              | ATS ES - Logical info model (IT14 proposed #59)              | Development of Specification / Standard Required  | Required                  | New Standard/Spec    | NEHTA & NIP            | IT14/1/4         | SA                |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification                                    | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|---|--|---------------------------|----------------------|------------------------|------------------|-----------|
| Event Summary (ES)         | PCEHR Document        | ATS ES - CDA exchange spec (proposed IT14 #16)              | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Event Summary (ES)         | PCEHR Document        | ATS ES - Aus eHealth conformance profile & Schematron (tbd) | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Event Summary (ES)         | PCEHR Document        | ATS ES - Aus eHealth rendering & XSLT (tbd)                 | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Discharge Summary (DS)     | PCEHR Document        | ATS DS - Logical info model (IT14 proj 100212)              | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Discharge Summary (DS)     | PCEHR Document        | ATS DS - CDA exchange spec (IT14 proj 200211)               | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Discharge Summary (DS)     | PCEHR Document        | ATS DS - HL7v2 exchange spec (IT14 proj 100505)             | Development of Specification / Standard Required | Required                  | Engage/Ad apt        | NEHTA & NIP            | IT14/1/4         | SA        |
| Discharge Summary (DS)     | PCEHR Document        | ATS DS - Aus eHealth conformance profile & Schematron (tbd) | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Discharge Summary (DS)     | PCEHR Document        | ATS DS - Aus eHealth rendering & XSLT (tbd)                 | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Referral                   | PCEHR Document        | ATS eReferral - Logical info model (IT14 proj 100504)       | Development of Specification / Standard Required | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |

| PCEHR Design Sub-Component   | Design Component Role | Standard / Specification                                     | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|------------------------------|-----------------------|--|--|---------------------------|----------------------|------------------------|------------------|-----------|
| Referral                     | PCEHR Document        | ATS eReferral - CDA exchange spec (IT14 proj 100095)         | Development of Specification / Standard Required                               | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Referral                     | PCEHR Document        | ATS eReferral - HL7v2 exchange spec (IT14 proj 100213)       | Development of Specification / Standard Required                               | Required                  | Engage/Ad apt        | NEHTA & NIP            | IT14/1/4         | SA        |
| Referral                     | PCEHR Document        | ATS eReferral - Aus eHealth conformance profile & Schematron | Development of Specification / Standard Required                               | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Referral                     | PCEHR Document        | ATS eReferral - Aus eHealth rendering & XSLT                 | Development of Specification / Standard Required                               | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Specialist Letter (eSL)      | PCEHR Document        | ATS eSL - Logical info model (IT14 proposal #57)             | Development of Specification / Standard Required                               | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Specialist Letter (eSL)      | PCEHR Document        | ATS eSL - CDA exchange spec (tbd - recommended)              | Development of Specification / Standard Required                               | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Specialist Letter (eSL)      | PCEHR Document        | ATS eSL - Aus eHealth conformance profile & Schematron (tbd) | Development of Specification / Standard Required                               | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Specialist Letter (eSL)      | PCEHR Document        | ATS eSL - Aus eHealth rendering & XSLT (tbd)                 | Development of Specification / Standard Required                               | Required                  | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Path Result Report (PathRep) | PCEHR Document        | ATS PathRep - Logical info model (recommended)               | Very important but needs to integrate with existing v2 and diagnostics stream. | Recommended               | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Path Result Report (PathRep) | PCEHR Document        | ATS PathRep - CDA exchange spec (recommended)                | Development required -depends on strategy & logical model                      | Recommended               | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |

| PCEHR Design Sub-Component   | Design Component Role | Standard / Specification   | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|------------------------------|-----------------------|--|--|---------------------------|----------------------|------------------------|------------------|-----------|
|                              |                       |  |  |                           |                      |                        |                  |           |
| Path Result Report (PathRep) | PCEHR Document        | AS 4700.2 Implementation of HL7 (v2) - Pathology & diagnostic imaging (diagnostics)                      | Need to consider how existing HL7 V2 will be handled. Suggest an integration guide.<br><br>See <a href="http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784674AT">http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784674AT</a> | Informative               | Adopt                | N/A                    |                  | SA        |
| Path Result Report (PathRep) | PCEHR Document        | Path results - specification on use of existing (HL7v2 and other) reporting formats in PCEHR entries     | Need to consider how existing HL7 V2 will be handled. Suggest an integration guide.  | Required                  | New Standard/Spec    | NEHTA & NIP            | IT14/1/4         | SA        |
| Path Result Report (PathRep) | PCEHR Document        | HB 262-2008 Guidelines for pathology messaging between pathology providers and health service providers. | See <a href="http://infostore.saiglobal.com/store/Details.aspx?DocN=AS057576624522">http://infostore.saiglobal.com/store/Details.aspx?DocN=AS057576624522</a>  | Informative               | Adopt                | N/A                    |                  | SA        |
| Path Result Report (PathRep) | PCEHR Document        | DR ATS Representation of structured anatomical pathology reports in HL7v2 messages (IT14 proj 100540).   | Need to consider how existing HL7 V2 will be handled. Based on RCPA protocols. Harmonisation with PCEHR work desirable   | Required                  | Engage/Adapt         | NEHTA & NIP            | IT14/1/4         | SA        |
| Imaging Result Report (IRR)  | PCEHR Document        | ATS IRR - Logical info model (recommended)   | Development required - suggest to follow pathology   | Recommended               | New Standard/Spec    | NEHTA                  | IT14/1/4         | SA        |
| Imaging Result Report (IRR)  | PCEHR Document        | ATS IRR - CDA exchange spec (recommended)  | Development required - depends on strategy & logical model   | Recommended               | New Standard/Spec    | NEHTA                  | IT14/1/4         | SA        |

| PCEHR Design Sub-Component  | Design Component Role    | Standard / Specification   | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|-----------------------------|--------------------------|--|--|---------------------------|----------------------|------------------------|------------------|-----------|
| Imaging Result Report (IRR) | PCEHR Document           | ATS IRR - Aus eHealth conformance profile & schema (tbd)   | Development required.  | Recommended               | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Imaging Result Report (IRR) | PCEHR Document           | ATS IRR - Aus eHealth rendering & XSLT (tbd)   | Development required.  | Recommended               | New Standard/S pec   | NEHTA                  | IT14/1/4         | SA        |
| Imaging Result Report (IRR) | PCEHR Document / Message | AS 4700.2 Implementation of HL7 (v2) - Pathology & diagnostic imaging (diagnostics)                                | Need to consider how existing HL7 V2 will be handled. Suggest an integration guide.<br><br>See <a href="http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784674AT">http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784674AT</a> | Informative               | Adopt                | N/A                    |                  | SA        |
| Imaging Result Report (IRR) | PCEHR Document           | Diagnostic imaging - specification on use of existing (HL7v2, DICOM and other) reporting formats in PCEHR entries. | Need to consider how existing HL7 V2 will be handled. Suggest an integration guide.  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/6/5         | SA        |
| Imaging Result Report (IRR) | Image Content            | DICOM (ISO 12052:2006)   | Future use issue.<br><br>See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=43218">http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=43218</a>                                   | Recommended               | Adopt                | N/A                    |                  | ISO       |
| Imaging Result Report (IRR) | Image Access             | ISO 17432:2004 ... Web access to DICOM persistent objects (WADO)   | Future use issue.<br><br>See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=38361">http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=38361</a>                                   | Informative               | Adopt                | N/A                    |                  | ISO       |
| Imaging Result Report (IRR) | Image Access             | ISO/CD 12974 Messages and Communication - Web Access to DICOM persistent objects by means of Web services          | Future use issue<br>Document in draft, contact Standards Australia for a copy  | Recommended               | Adopt                | N/A                    |                  | ISO       |

| PCEHR Design Sub-Component         | Design Component Role | Standard / Specification  | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|------------------------------------|-----------------------|---|---|---------------------------|----------------------|------------------------|------------------|-----------|
|                                    |                       | (in preparation).   |   |                           |                      |                        |                  |           |
| Consumer Entered Information (CEI) | PCEHR Document        | ATS CEI logical information model (tbd)   | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Consumer Entered Information (CEI) | PCEHR Document        | ATS CEI CDA exchange specification (tbd)  | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Consumer Entered Information (CEI) | PCEHR Document        | ATS CEI - Aus eHealth conformance profile & schema (tbd)                                  | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Consumer Entered Information (CEI) | PCEHR Document        | ATS CEI- Aus eHealth rendering & XSLT (tbd)   | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Advanced Care Directives (AdvDir)  | PCEHR Document        | ATS AdvDir logical information model (tbd)  | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Advanced Care Directives (AdvDir)  | PCEHR Document        | ATS AdvDir CDA exchange specification (tbd)   | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Advanced Care Directives (AdvDir)  | PCEHR Document        | ATS AdvDir - Aus eHealth conformance profile & schema (tbd)                               | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Advanced Care Directives (AdvDir)  | PCEHR Document        | ATS AdvDir- Aus eHealth rendering & XSLT (tbd)  | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Dispense                           | PCEHR Document        | ATS 4700.3.1 (fast track) Platform independent (logical) information model to support ETP | Already well advanced - PCEHR requirements and workflows need to be discussed with ETP and IT-014.<br>In committee contact Standards Australia. | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1           | SA        |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification   | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|--|---|---------------------------|----------------------|------------------------|------------------|-----------|
| Dispense                   | PCEHR Document        | ATS 4700.3.4 (fast track) Dispense record CDA implementation guide         | Already well advanced - PCEHR requirements and workflows need to be discussed with ETP and IT-014.<br>In committee contact Standards Australia. | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1           | SA        |
| Dispense                   | PCEHR Document        | ATS 4700.3.5 (fast track) Prescription CDA implementation guide            | Already well advanced - PCEHR requirements and workflows need to be discussed with ETP and IT-014.<br>In committee contact Standards Australia. | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1           | SA        |
| Dispense                   | PCEHR Document        | ATS Dispense - Aus eHealth conformance profile & schema.                   | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1           | SA        |
| Dispense                   | PCEHR Document        | ATS Dispense - Aus eHealth rendering & XSLT                                | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1           | SA        |
| Consolidated View          | View Generation       | Logical model for consolidated view output (to be determined)              | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |
| Consolidated View          | View Generation       | CDA exchange specification for consolidated view output (to be determined) | Development of Specification / Standard Required  | Required                  | New Standard/S pec   | NEHTA & NIP            | IT14/1/4         | SA        |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification   | Notes  | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|----------------------------|-----------------------|--|--|---------------------------|----------------------|------------------------|------------------|-----------|
| Consolidated View          | View Generation       | HB 307 Guide to the principles and desirable features of clinical decision support systems + PCEHR profile | For information and guidance based on the considerable research undertaken rather than strict compliance. The window of opportunity to review this work, leverage expertise across a global community and strengthen it with conformance criteria is now open.<br><br>See<br><a href="http://infostore.saiglobal.com/store/Details.aspx?ProductID=568929">http://infostore.saiglobal.com/store/Details.aspx?ProductID=568929</a>       | Recommended               | Engage/Adapt         | NEHTA                  |                  | SA / ISO  |
| Consolidated View          | View Generation - UI  | HB 306 User interface requirements for the presentation of health data                                     | For information and guidance based on the considerable research undertaken rather than strict compliance. The window of opportunity to review this work, leverage expertise across a global community and strengthen it with conformance criteria is now open.<br><br>See<br><a href="http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784844AT">http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784844AT</a> | Informative               | Update/Revision      | IT14/1/5               |                  | SA / ISO  |
| Consolidated View          | View Generation - UI  | Health Insite Minimum Publishing Standards   | These standards are well known to Government agencies but perhaps not so well known to private providers   | Required                  | Adopt                | N/A                    |                  | DOHA      |
| External CIS System        | UI                    | HB 306 User interface requirements for the presentation of health data                                     | For information and guidance based on the considerable research undertaken rather than strict compliance. The window of opportunity to review this work, leverage expertise across a global community and strengthen it with conformance criteria is now open.<br><br>See<br><a href="http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784844AT">http://infostore.saiglobal.com/store/Details.aspx?DocN=AS0733784844AT</a> | Informative               | Update/Revision      | IT14/1/5               |                  | SA / ISO  |

| PCEHR Design Sub-Component | Design Component Role | Standard / Specification   | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher         |
|----------------------------|-----------------------|--|---|---------------------------|----------------------|------------------------|------------------|-------------------|
| External CIS System        | Functionality         | EHR-S FM - HL7 Electronic Health Record Systems Functional Model (& ISO 10781)                   | As applied through a PCEHR functional profile to be developed.<br><br>See <a href="http://www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip">www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip</a>  | Recommended               | Adopt                | N/A                    |                  | HL7 International |
| External CIS System        | Functionality         | EHR-S FM - Australian profile for PCEHR-compliant provider systems                               | As applied through a PCEHR functional profile to be developed.<br><br>See <a href="http://www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip">www.hl7.org/documentcenter/ballot/2008may/downloads/EHR_phrsfm_R1_D2_2008may.zip</a>  | Recommended               | Profile Existing     | NEHTA & NIP            |                  | SA                |
| External CIS System        | UI                    | AS2828 Health records - Part 2 Digitised (Scanned) Record Requirements (as profiled for PCEHR)   | This documents indicates requirements for storage, indexing retrieval and presentation of health record information in digitized record systems. It includes information which could be used for conformance assessment. Also recommend developing Part 3 on electronic (as opposed to digitised (scanned) records)<br><br>In ballot, awaiting public comments.<br><br>See <a href="http://www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at">www.infostore.saiglobal.com/store/details.aspx?docn=AS0733784844at</a> | Informative               | Engage/Adapt         | IT14/2                 | IT14/2, NEHTA    | SA                |
| External CIS System        | Clinical terminology  | Standards document on implementation of Clinical Terminology in Local Systems (IT14 project #13) | This work is intended to identify best practice for the implementation of terminology into local information systems, it includes the reason why terminologies are used, the skills required to support terminology implementation both clinically and technically and the system requirements for safe long term use of clinical terminology in clinical information systems.  | Recommended               | Engage/Adapt         | NEHTA                  | IT14/2           | SA                |

| PCEHR Design Sub-Component                                       | Design Component Role     | Standard / Specification                    | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|--|---------------------------|---|---|---------------------------|----------------------|------------------------|------------------|-----------|
| External CIS System  | Interface Consumer        | Cross Enterprise Document Sharing (XDS.b)   | This is the internal interface between the Portal Infrastructure and the repository services.<br><br>See:<br><a href="http://wiki.ihe.net/index.php?title=xds.b_implementation">http://wiki.ihe.net/index.php?title=xds.b_implementation</a>  | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| External CIS System  | Interface Consumer        | Resource Location and Update Service (RLUS) | NEHTA to work with NIP Provider to develop the interface specification.<br><br>See<br><a href="http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf">http://www.hl7.org/documentcenter/public/standards/dstu/2006sep/support_pool_v3_RLUS_R1_D1_2006sep_20061220112743.pdf</a> | Recommended               | Profile Existing     | NEHTA & NIP            | IT14/6           | SA        |
| <b>Systems Integration</b>                                       |                           |   |   |                           |                      |                        |                  |           |
| SI Services  | Quality management system | ISO 9000 or equivalent                      | See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42180">http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42180</a>   | Recommended               | Adopt                | N/A                    |                  | ISO       |
| SI Services  | Project mgt framework     | PRINCE2, PMI-PMBOK, SE-CMMI or equivalent   |   | Recommended               | Adopt                | N/A                    |                  |           |
| <b>Operations &amp; Call Centre Bundles (NFR / outside HLSA)</b> |                           |   |   |                           |                      |                        |                  |           |
| PCEHR Operations   | Services management       | ISO/IEC 20000                               | See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=51988">http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=51988</a>   | Recommended               | Adopt                | N/A                    |                  | ISO       |
| PCEHR Operations   | Services management       | ITILv3, CoBIT 4.1, CMMI-SVC or similar      |   | Recommended               | Adopt                | N/A                    |                  |           |
| PCEHR Operations   | Quality management system | ISO 9000 or equivalent                      | See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42180">http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42180</a>   | Recommended               | Adopt                | N/A                    |                  | ISO       |

| PCEHR Design Sub-Component           | Design Component Role              | Standard / Specification  | Notes   | Relevance to PCEHR System | Work Effort Required | Drafter Responsibility | Involved Parties | Publisher |
|--------------------------------------|------------------------------------|---|---|---------------------------|----------------------|------------------------|------------------|-----------|
| PCEHR Operations                     | Software asset mgt                 | ISO/IEC 19770 Software asset management   | See <a href="http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=53670">http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=53670</a>   | Recommended               | Adopt                | N/A                    |                  | ISO       |
| <b>Other Related Standards</b>       |                                    |   |   |                           |                      |                        |                  |           |
| PCEHR Security                       | Security Framework                 | Migration of NESAF into update of HB174   | There is considerable value in shared approach to security and access control.<br><br>See <a href="http://infostore.saiglobal.com/store/Details.aspx?ProductID=568742">http://infostore.saiglobal.com/store/Details.aspx?ProductID=568742</a>   | Recommended               | Update/Revision      | NEHTA                  | IT14/4           | SA        |
| PCEHR/eHealth Architecture Framework | eHealth Interoperability Framework | eHealth interoperability architecture - standards framework (recommended to build on and update the NEHTA Interoperability Framework) | Report recommended that IT-014 and NEHTA collaborate on developing this. To cover: architectural framework for eHealth informatics standards, processes and quality criteria for: requirements specs, logical models and DCMs; deriving exchange specifications; profiling standards; mapping rules; platform-specific rules); and a definitive vocabulary for the various artefacts.   | Recommended               | Update/Revision      | NEHTA                  | IT14/9           | SA        |
| PCEHR/eHealth Architecture Framework | eHealth Interoperability Framework | Australian Standard guide on consistent use of health informatics datatypes (IT14 Project #63)  | Guidance on the consistent use and mapping of HL7 Datatypes R1 and ISO 20190 datatypes (and other data types) in the development of logical models, exchange specifications and wire formats, with a view to having consistent datatypes across national eHealth implementations and a smooth transition to CDA R3, when it becomes available. The NEHTA Profile of the ISO 21090 specification (NEHTA 2010e) should be used as a starting point for this work. | Recommended               | New Standard/Spec    | NEHTA                  | IT14/9           | SA        |