

**Practice Incentives Program eHealth Incentive
Requirement 1 – Secure Messaging Capability**

**Technical Workshop #6 – Meeting Summary
Sydney, 6 August 2009**

1. Overview

The 6th Technical Workshop on Secure Messaging was held at the Stamford Plaza at Sydney Airport from 9.30am to 4.30pm on Thursday, 6 August 2009. NEHTA jointly hosted the workshop with MSIA. Representatives from 16 organisations from the medical software industry attended.

Presentations are available on the NEHTA Website at <http://www.nehta.gov.au/pip> under the *Documents & Presentations* link.

2. Introduction and Welcome

Tina Connell-Clark (NEHTA), Vince McCauley (MSIA)

Tina and Vince jointly chaired the workshop and welcomed participants.

2.1. General Update

Vince thanked the members of the Tech Sub-Committee for their efforts.

Microsoft and iSoft send their apologies. Both parties remain committed to the process.

Vince outlined the MSIA participation in the NEHTA Stakeholder Reference Forum (SRF). The SRF shapes the strategy for NEHTA.

Vince noted that the IHE Connect-a-thon for Pathology and Radiology took place last week.

A NEHTA Strategy meeting is being held on 27 August 2009, which will clash with the Working Group. Some of the NEHTA staff will be unable to attend the Working Group session on this date.

3. General Update

John McMillan (NEHTA), Paul Burnham (NEHTA)

3.1. Health Identifiers

The presentation by the NEHTA National Infrastructure Services on the Health Identifiers will not be possible on the 27 August 2009 meeting. Instead it will be rescheduled to the 16 September 2009 meeting.

3.2. Accelerate Adoption of Secure Messaging

Once the specifications have reached consensus, NEHTA undertook to provide the following assistance to Vendors to accelerate adoption:

- NEHTA will undertake to supply Secure Messaging sample code;
- NEHTA Reference Platform will be available for Vendors to trial (sandpit environment) the Secure Messaging specifications.

3.3. HIC 2009

An update on PIP eHealth Incentive for Secure Messaging will be provided at HIC '09 conference on Wed 19 Aug 2009. Paul Burnham (NEHTA) and Bridget Kirkham (MSIA) are currently planned to jointly present at HIC '09.

3.4. Collaboration Portal

The new Terms of Use for the Collaboration Portal are currently with the NEHTA CFO for approval.

4. Update from Technical Sub-Committee

Andrew Berry (NEHTA) and Glen Kleidon (LRS Health)

Andrew and Glen provided an update from the Technical Sub-Committee workshop that occurred 4-5 August 2009.

4.1. Web Services Profile

The Web Services Profile v3.1 was reviewed and it was supported and accepted. It was noted that Medical Objects had a preference for using REST.

4.2. XSP vs S/MIME for Payload Encryption

The XML Secured Payload profile v1.2 was reviewed and it was supported and accepted.

Summary of recommendation: S/MIME is mandatory, XSP is recommended but not mandatory. The S/MIME option is provided for backward compatibility with existing systems, and it is expected that XSP will be the preferred mechanism for new systems.

Whether S/MIME or XSP Is deployed will be determined by an Endpoint Location Service.

There is remaining work to define the S/MIME options.

4.3. Transport Authentication & Billing

Technical Sub-Committee decided to separate Transport Authentication from Billing issues. They complement each other but are to be kept separate.

Billing would be handled by putting additional information into the SOAP message. Extra billing details are optional but noted that there may be refusal by the receiver if they are not included.

4.4. Transport Authentication

Options for transport authentication were discussed, they included S/MIME, Transport Layer Security (TLS) and WS-Security.

S/MIME was rejected as an option for transport security because it did not fit into the SOAP Web Services stack. Options remaining are TLS and WS-Security.

TLS was easier to code and requires less overheads, however it is harder to deploy into different network environments (eg firewall and organisational policy issues).

WS-Security is harder to code but more robust and easier to deploy. Simpler for network issues such as proxy and firewalls. If NEHTA could provide a sample WS-Security implementation it could reduce the costs for vendors.

4.5. Endpoint Location Service

The Endpoint Location Service (ELS) architecture was presented by Mark Briggs (NEHTA) at the Sub-Committee. General agreement that the model and functionality of ELS is fine. However, there were a number of related issues beyond ELS that need to be worked through (e.g. the details of identifiers, certificates, deployment, bootstrapping, and maintenance).

Issues surrounding the certificate reference were also raised: that it is unique so that it can be efficiently retrieve and cached, and also revocation can be efficiently checked.

There will be a number of business issues to be discussed in the Working Group surrounding the costs of developing and deploying UDDI vs ELS. May be high costs for UDDI and not a good fit for smaller companies.

Federated model of ELS was supported, should only have one entry in UHI pointing to an ELS. Discussion occurred on bootstrapping issue with using UHI and how it is deployed and federated.

Discussion on how business information is put in and out of the ELS and impact on jurisdictions needs to be addressed. UHI currently supports one ELS entry per Practice.

Decoupling of ELS from UHI required due to different timings.

ELS interaction and Certificate interaction, maybe a Certificate reference is required (secured).

To support deployment before UHI numbers are available, Medicare RA numbers and domain names are proposed as interim identifiers. The Medicare RA numbers are issued by Medicare Australia along with Medicare certificates. The domain name will be used by those that are not able to get a Medicare certificate (and hence cannot use a Medicare RA number). The CDD specification and the ELS allows the use of different types of identifiers and certificates.

Bootstrap issuing. UHI is a Provider directory, how do we find the ELS when UHI isn't available? UHI only currently supports one ELS entry per Practice and change to the ELS in the UHI might be time consuming.

The current ELS specification does not specify any particular deployment model. This was a deliberate design decision, so that it allowed different deployment models. The deployment model is a business decision, not a technical issue.

The Working Group was comfortable to using a single interim master ELS to locate the actual ELS to use. This is an interim solution, but since it uses the same ELS interface it is easier to implement in the client. Providers will have to publish their entries for each provider organisation up into this master ELS.

Currently there is discussion about the use of UDDI. This might change this model slightly or simply add to it.

The ELS will have further discussion within the Technical Sub-Committee.

4.6. Billing for Connectivity between Intermediaries

Billing mechanisms and interconnectivity approaches were discussed.

There are many billing models, and the mechanism defined cannot seek to restrict them. It might be access based or message based. It might involve a single vendor or multiple vendors. It might be sender pays or receiver pays.

If payment for delivery to the final destination is required, then there would need to be a mechanism to ensure that the different intermediary parties can get responses indicating that it has been delivered to the final destination. The preferred solution at this stage is to make transport responses return back on the same route.

It was generally agreed that the first step is to know which vendor network the sender is connecting to. Once a vendor has been identified, the sender will enable a rate-card to be obtained from that vendor (from another mechanism). The vendor field in the current ELS can serve this purpose. Since a second source is required for this, the design does not need to overload the ELS with detailed billing information.

The second step is to define what goes into the message headers. The token should not just reflect who to charge, but it could also indicate if there is sufficient funds to perform the action. The token indicates the rate being used. The token may or may not be signed—it depends on if the receiving vendor wants it to be signed or not (and this is something the rate-card can implement). There will need to be ways to indicate what tokens are needed in the rate-card. The token is optional, since some vendors might not want to charge for receipt.

It was agreed that the rate-card itself does not need to be standardised by this Working Group. The rate card is negotiated out of band. A placeholder is needed for it, but the details can be private. There must not be any mandatory feature that is not specified.

The tokens, however, do need to be standardised.

Non-repudiation of some form might be required for billing. Transport responses should not be using the ELS to determine where to send them. The subcommittee will work out the details.

It was debated whether the transport responses need to go back through all the intermediaries (even when they weren't interested in them) or just to the ones that requested it.

Option for a Billing rejection to occur when operating between organisations.

4.7.S/MIME and XSP

S/MIME requires more investigation, tasks within Tech Sub-Committee have been allocated.

S/MIME is seen as easy to implement and quick to get going.

S/MIME is supported but intention to migrate to XSP.

ELS will state whether S/MIME or XSP is available.

XSP C library from NEHTA will be available soon as 'sample code'.

4.8. Open Source

Topic of Open Source and Sample Code was discussed and tabled. Working group could potentially take the NEHTA sample code as a start and adapt/enhance.

4.9. Non-Repudiation

Related to billing, but need to know that the Transport Acknowledgements will come back via the same route.

Option to request multiple acknowledgements on the routing. Final recipient could advise all of the Reply To's to let them know what occurred.

4.10. Thanks

Andrew Berry was thanked by Glen & Lars for the work and direction he has provided in the Technical Sub-Committee.

4.11. Billing Models (continued)

Discussion occurred on handling transactions between different networks. Details should be placed in Header of Messages without impacting business interoperability.

Need to know costs and commercial models.

Models where Practice software may act as an agent at the desktop but may partner with messaging vendors.

May choose intermediary based on ELS entry. Choice of transport to a Practice may be outlined in the ELS.

5. Compliance, Conformance and Accreditation (CCA)

David Manfield (NEHTA), John Gottschalk (NEHTA) and Dwight Gunning (NEHTA)

5.1. CCA Team and Roles

The CCA team presented the NEHTA approach to CCA and the processes.

Test scenarios will be submitted to Standards Australia with the Secure Messaging specifications. The Test scenarios will be an appendix to the specifications.

Test Cases (detailed level) will also be provided but they are separate to the Standards Australia process and timelines for Sept 2009.

The Working Group expressed that conformance testing was desired, but were concerned about the costs involved. This is especially of concern when products are updated and might require re-testing, and if the specification or tests get updated.

When we have agreed what tests and testing process is desirable, then we should look at the cost and address the question about how the costs should be met.

It was agreed that conformance should end up with a certification logo so that buyers can easily know what they are getting.

A range of issues were discussed surrounding both conformance of vendor products and how that differs from the separate issue of how practices are expected to comply.

It's up to the group to recommend to DoHA what the Compliance should be for the PIP eHealth Incentive requirement for Secure Messaging.

It was generally agreed that there needed to be a third party (not NEHTA) involved in testing. Also it was agreed that a test harness developed by a third party (possibly NEHTA) was a good idea worth investigating. Some suggested that physical testing rather than remote testing was required. However, it all still depends on the costs involved. A balance on doing the right level of conformance testing and achieving the maximum benefit is required.

The CCA was invited to attend the next Technical Subcommittee meeting, if they believe the agenda would be of value to them (some objections from members of the Technical Subcommittee were tabled on CCA attending these meetings). CCA will not be actively participating in the TSC, but just there as observers to be informed about the specification and how it relates to CCA.

It was requested that there be an efficient feedback mechanism for the test cases. So if problems with the tests or interoperability issues are discovered they can be fed back to update the testing.

NEHTA outlined a proposed Register of Products and Suppliers. There may be multiple roles and levels of conformance.

Concern was raised with the Incentive only requiring a Practice to have one Vendor that conforms with the Secure Messaging specifications (even though they may have other products doing Secure Messaging).

Options on CCA that were presented

- Self Assessment
- Test Harness.
- Third-party audited self-assessment
- Third-party test laboratory

Support on the following

- 3rd party testing tools and harness is supported. Third party test laboratory is also supported by most.
- There needs to be a means for recognition of successful conformance testing which may make use of a certification mark.
- Cost and Effort remains the key consideration

6. Wrap Up

Tina Connell-Clark (NEHTA), Vince McCauley (MSIA)

Technical Sub-Committee:

- Two key issues: S/MIME and Transport Authentication. An S/MIME Profile will be required. These items will be handled by the Tech Sub-Committee.
- Web Services Profile, CDD, XSP Profile are the focus areas for delivery to Standards Australia for Sept 2009 with the Test Scenarios.
- ELS or UDDI Profile are decoupled from the CDD specification.
- MSIA outlined that they are having a round table industry discussion on 7 October 2009.

- Senior level update to industry on what is happening with the Secure Messaging consultation should occur. October/November was discussed (tba).

7. Future meetings

Tina Connell-Clark (NEHTA), Vince McCauley (MSIA)

It was agreed to have the following:

- Technical Subcommittee: 26 August 2009
- Workshop: 27 August 2009
- Technical Subcommittee: 15 September 2009
- Workshop: 16 September 2009
- Workshop: 30 September 2009 (Reserved)
- Industry Briefing (tba)

8. Closure

Meeting closed at 4:30pm

Appendix A: Attendance list

Organisation	Individual	Role
ACCS	Ben Miller	Documentations Support
AHML	Jane Gilbert	
Argus Connect International	Phil Cameron	
CSN Technology Pty Ltd	Brett Avery	
eClinic	Gavan Lim-Joon	Chief Technical Officer
Global Health	Katie Nelson	Hospital Systems
HealthLink	Lars Becker	Manager Strategic Projects Product Manager Messaging
HCN	Staffan Flodin	
Key Trust Group	Chris Lynton-Moll	
Medical-Objects	Jared Davison	Senior Software Engineer
MSIA	Bridget Kirkham	CEO
MSIA	Vince McCauley	President
NEHTA	Andrew Berry	Solution Architect, Secure Messaging
NEHTA	Andrew Shrosbree	Integration Architect, Secure Messaging
NEHTA	David Manfield	Manager, CCA
NEHTA	Dwight Gunning	CCA
NEHTA	Hoylen Sue	Technical Architect, Secure Messaging
NEHTA	John Gottschalk	CCA
NEHTA	John McMillan	Manager, Secure Messaging
NEHTA	Paul Burnham	Manager, Reference Platform
NEHTA	Tina Connell-Clark	Manager, Standards
Pen Computer Systems	Tarkan Shahho	Technical Services Manager
Rouesnel Software	Eric Rouesnel	
Smart Health Solutions	Larry Singer	
Sonic Healthcare	Bryan Jones	
Stat Health	Cameron Jaffrey	

Appendix B: Summary of Actions

No	Item	Owner	Comments	Date Action
1.	Terms of Reference for workshop is required	Tina, MSIA	Tabled and requires minor amendments before acceptance.	
2.	Portal conditions of use	John McMillan	Determine a suitable conditions of use for the collaboration portal. Paul and Bridget have reviewed a draft of terms and submitted to NEHTA engagement team. Looks acceptable.	
3.	Milestones for the Working Group	Membership	Develop a list of milestones for the Working Group.	

Note that previous closed items have been removed, refer to previous minutes.