



## Connected Health Industry Forum

### Standards Working Group

**Date:** Friday December 18th  
**Time:** 9.00 am – 12.00 pm  
**Venue:** Willeston Conference Centre  
Wellington

### Attendees

<b>Organisation</b>	<b>Name</b>
Connected Health (Ministry of Health)	Mikel Huth Lauree Rickard Steve Martin
Nspire	Brian Meads James Broadbridge
Health IT Cluster	Dougal McKechnie
FX Networks	Jamie Baddeley
Telecom	Kevin Mason
TelstraClear	Graham Elmes
Kordia	Jenny Davis Crowley Norman Vialle
DIA	Colin Wallis
Milner Consulting	Murray Milner

### Apologies

<b>Organisation</b>	<b>Name</b>
Healthlink	Tom Bowden
Vivid Solutions	Warren Hurst
Datacraft	Phil Goodwin
Connected Health (Ministry of Health)	Simon Strombom
Microsoft	Paul Claxton
Smartlinx3	David Haynes

## Topics Discussed

1. NNI specification discussion of document draft v.0.91b
2. Presentation of DIA project “Requirements for telco standards in interoperability scenarios for NZ government”

## Discussion

NNI specification discussions

- V0.91b of the NNI specification incorporates the feedback from the Industry Forum members over the last 6 months, including the input from the mini workshops.

## Background

An update was provided by Murray Milner regarding the objective of the newly established National Health IT Board.

- The Chairman of the National Health Board was recently briefed on the Connected Health programme and has advised that Connected Health is seen as a key platform to support the health sector strategies, especially the increasing devolution of services to the primary and community sectors.
- DHBs especially in the Midland and Northern regions are incorporating the architectural framework and using it to develop a specific service oriented architecture for their regions.
- The Ministry of Health is committed to delivering the core services, like NNI (Points of Interconnection – POI), and are working through the issues of design and service management.
- The Connected Health Project Board and governance structures have changed to include increased representation from across the sector including DHBs.

## NNI specification V0.91b Draft.

James Broadbridge explained the changes since v0.41:

- Agreed that 3 POI (NNI) are being established in Auckland (tbc), Wellington (likely AT&T house) and Christchurch (tbc)
- Input from industry is needed within the next 3 months to finalise the sites,
- Need to ensure that access to a number of service providers is available, including dark fiber providers
- Measurements for QoS are now included in the revised specification,
- Connected Health IPv4 address space will be provided by the Ministry,
- Concept of “transit-TSP” is very important to implement CH to connect to all 3 POI (this has been discussed in the sub-working groups with the telco providers)

Kevin Mason and Jamie Baddeley suggested reviewing all terms and definitions used in the document, e.g.

- define Layer 3 aware
- define public network (internet)

- define routing policies
- define TSP “X”, “Y”, etc

All detailed specifications have to be clearly named and specified.

Discussion was held regarding “Hot potato” routing as the preferred routing method. Kevin Mason informed that the industry has agreed to “cold potato” routing rather than “hot potato” routing which was preferred by the NZ TCF members. Reason behind that approach is that the commercial model suggests transparent charges in the “cold potato” routing model. Murray Milner confirmed that Health intends to go with the preferred industry model and will adapt to any changes to a different model in the future.

Connected Health POI (points of interconnection) should consist of:

- switch
- router
- secure cabinet
- owned by Connected Health
- enable access by different TSP’s

Jamie Baddeley noted some inconsistencies between the UNI budgets and the NNI budgets for performance. Health is over-dimensioning the NNI links. This should be reviewed; otherwise the specifications could create very expensive interconnection points, with costs born by the Ministry. Suggestion is to adjust NNI budgets to better reflect real life specifications.

All NNI performance is managed by specific service levels provided to the end customer and reflects the expected end-to-end performance.

A note should be added to clarify “responsibility”. A VPN from a lower level UNI needs to ensure that credentials are provided by the TSP (via an application). Health should define this access via the “Authentication & Security Framework”.

In the UNI document some changes will be made to:

- simplify the table “availability / time period” for NNI’s only
- define “AVAILABILITY” e.g. PING – if response = available (current industry practice) OR Full measure of Jitter / Latency / Packet loss (current FX Network practice)
- availability should be tested against several options
- those “availability” specifications should be drafted – circulated – feedback incorporated – defined
- performance is measured END – END (Any transit is included within this measurement)

Jamie suggested measuring the Jitter budget with current standard of 20ms. Definition of Jitter is currently better defined in the ITU standards and Kevin Mason will supply the latest definition to the working group.

TSP transit budget has to be re-worded to include “.. between sender .... and receiver...” and measured within a 30 day period.

One way packet loss for any NNI performance should be 0.5% = Best Effort. Any situation of “abnormal” operational conditions should be clearly defined.

Mandatory accreditation requirements within a Connected Health community should state:

- Abides by the TCF Code of Practice only.

### **Admission Control for CH QoS**

There is currently no standard for “Admission Control” for TSP’s defined. SIP is currently the only protocol which can be controlled from a central policy server. SIP can only be managed at an application level – not at a network level.

### **Considerations**

The following considerations have to be followed up:

Topic	Consideration	Notes
Complete document	Review and define terms and definitions	
Routing	Alignment with industry best practice regarding “HOT” or “COLD” potato routing in a CH network	
NNI	Agree to final locations of initial 3 NNI	
UNI and NNI budgets	Review (and adjust) budgets in UNI and NNI documents to align to each other	UNI doc currently for HISO endorsement
Service Management and QoS	Mission control not defined for TSP’s. CH needs definitions and sets clear expectations.	

### **DIA presentation**

Presentation of DIA project “Requirements for telco standards in interoperability scenarios for NZ government” by Colin Wallis. DIA is keen to engage the telco industry to discuss requirements for involvement of government in the telco standard space in NZ.

DIA will follow up with members of the Forum to start engagement in January 2010.

### Next steps

Action item	Assigned to	Target date
Kevin Mason distributes ITU 1541	Kevin Mason	30/01/10
Health updates NNI doc and distributes for further comment	Mikel Huth/ Health IT Cluster	30/01/10
Arrange next workshop	Mikel Huth/ Health IT Cluster	28/02/10

**Next meeting 25/02/10 (to be confirmed)**