Agenda for a meeting of the InternetNZ Council

Friday, 17 August 2012

Level 9 Grand Arcade Tower, 16 Willis St, Wellington

Start	Item	Person
10.00am	**Council alone time**	Frank March
10.15am	**Apologies** **Declaration of Councillor interests** **Agenda consideration - in committee items** **Consent agenda item** a. Ratification of minutes: 18 May 2012 b. President's report c. Evote ratification	Frank March
10.20am	**Matters arising from the minutes** Outstanding action points from previous meeting	Frank March
10.30am	**Strategic discussion** - Membership engagement options - IPv6 future - Cybersecurity investigations	Vikram Kumar
11.30am	**Strategic discussion** Communications strategy	Ocean Design
12.00pm	**Presentation of Fellows certificate**	Frank March Donna Hiser
12.05pm	**Lunch**	
12.35pm	**Strategic discussion** Service development	Jay Daley
1.20pm	**Group strategic** .kiwi.nz recommendation	Joy Liddicoat Debbie Monahan
1.35pm	**Subsidiary operational** DNCL first quarter report .nz first quarter report NZRS first quarter report NZRS fourth quarter report NZRS Statement of Direction and Goals	Joy Liddicoat Debbie Monahan Richard Currey Jay Daley
1.50pm	**Group financials** First quarter consolidated financial statements	Frank March
1.55pm	**External relations** Bidding for international conferences	Keith Davidson
2.10pm	**2020 Communications Trust update**	Neil James
2.20pm	**Break**	

2.35pm	**InternetNZ operational report** CE's report Christchurch funding round update InternetNZ policy principles Financial report to June 2012 Membership update	Vikram Kumar
3.15pm	**World Internet Project Partnership**	Philippa Smith Sharon Harvey
3.45pm	**Investment Committee** Approval of committee Terms of Reference	Dave Moskovitz Lance Wiggs Donald Clark
3.55pm	**Grants Committee** Grants report	Frank March
4.05pm	**Other business** Meeting feedback Membership privacy policy	Frank March
5.00pm	**Meeting ends**	

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10.00am	**Council alone time**	Frank March
10.15am	**Apologies** **Declaration of Councillor interests** **Agenda consideration - in committee items** **Consent agenda item** *THAT the minutes of the meeting held on 18 May 2012 be received and adopted as a true and correct record, and* *THAT the following reports be received:* a. Ratification of minutes: 18 May 2012 b. President's report c. Evote ratification	Frank March
10.20am	**Matters arising from the minutes** Outstanding action points from previous meeting	Frank March
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1.35pm	**Subsidiary operational** DNCL first quarter report .nz first quarter report NZRS first quarter report NZRS fourth quarter report NZRS Statement of Direction and Goals *THAT the DNCL first quarter report be received.* *THAT the .nz first quarter report be received.* *THAT the NZRS first quarter report be received.* *THAT NZRS Statement of Directions and Goals be received.*	Joy Liddicoat Debbie Monahan Richard Currey Jay Daley
1.50pm	**Group financials** First quarter consolidated financial statements *THAT the first quarter consolidated group financial statements be received.*	Frank March

1.55pm	**External relations** Bidding for international conferences *THAT InternetNZ remains committed to its obligations of desiring hosting of international meetings that can be seen to benefit the local Internet community.* *THAT InternetNZ bids to host the 2015 APRICOT meeting in Auckland.* *THAT InternetNZ commences discussions with REANNZ to assess the possibility of contiguously hosting APAN 2015.*	Keith Davidson
2.10pm	**2020 Communications Trust update**	Neil James
2.20pm	**Break**	
2.35pm	**InternetNZ operational report** CE's report Christchurch funding round update InternetNZ policy principles Financial report to June 2012 Membership update *THAT Council receives the CE's Report.* *THAT Council approves the policy principles as InternetNZ's position.* *THAT Council notes the financial report to 30 June 2012.* *THAT Council notes that the expected reduction of $249,000 in InternetNZ's cash flow due to lower projected dividends from NZRS.* *THAT the new members be approved.*	Vikram Kumar
3.15pm	**World Internet Project Partnership**	Philippa Smith Sharon Harvey
3.45pm	**Investment Committee** Approval of committee Terms of Reference *THAT the InternetNZ Investment Committee Terms of Reference be accepted.*	Dave Moskovitz Lance Wiggs Donald Clark
3.55pm	**Grants Committee** Grants report *THAT Council note the decisions made regarding grants funding requests since the last Council meeting.*	Frank March
4.05pm	**Other business** Meeting feedback Membership privacy policy	Frank March
5.00pm	**Meeting ends**	

REGISTER OF INTERESTS
6 August 2012

FOR INFORMATION

INTERNETNZ COUNCILLOR REGISTER OF INTERESTS

Officers and Councillors are required to register any interests, commercial, political or organisational, which they believe may be relevant to the perception of their conduct as a Councillor or Officer. Officers and Councillors are, however, still required to declare a Conflict of Interest, or an Interest, and have that recorded in the Minutes.

Officers and Councillors receive the following annual honoraria:

Honoraria

President - $18,000
Vice President - $11,250
Councillor - $9,000

Name: Frank March

Position: President, InternetNZ
Term: AGM 2012 - AGM 2015
Declaration Date: 21 March 2007, updated 25 July 2011

Interests:

- Holds two .nz domain name registrations
- Member of NZ Association of Scientists
- Employed by the NZ Government (Ministry of Economic Development), consequently:
- NZ representative on the Governmental Advisory Committee of ICANN
- Technical advisor to the Trans Pacific Partnership negotiators for the Telecommunications and Ecommerce Chapters
- Member of IPv6 Steering Group and administration team
- Member of the Institute of Directors
- Officer's Honorarium for InternetNZ

Name: Jamie Baddeley

Position: Vice President, InternetNZ
Term: AGM 2012 - AGM 2015
Declaration Date: 28 August 2007, updated 17 October 2011

Interests:

- Employee, FX Networks Ltd
- FX Networks are the ISP for both InternetNZ and NZRS
- Owner and Director of Viewpoint Consulting Ltd
- Viewpoint Consulting Ltd is a shareholder of FX Networks Ltd
- Registrant of vpc.co.nz, is.org.nz, internetstandards.org.nz
- Member of the New Zealand IPv6 Steering Group
- NZNOG Trustee
- Officer's Honorarium for InternetNZ

Name: Donald Clark

Position: Councillor, InternetNZ
Term: AGM 2011 - AGM 2014
Declaration Date: 20 April 2009, updated 18 August 2011

Interests:

- Holds several .nz domain name registrations
- Contracted by InternetNZ to support New Zealand IPv6 Task Force
- Councillor's Honorarium for InternetNZ
- Submitter and funder of application for the .kiwi.nz 2LD

Name: Michael Foley

Position: Councillor, InternetNZ
Term: AGM 2012 - AGM 2013
Declaration Date: 25 August 2007, updated 27 September 2011

Interests:

- Director of Voco Limited
- Director of Domain Name Commission Ltd
- Domain Name Commission Director's fees
- Holder of .nz domain names
- Member of Advisory Group for Enternet Online Limited (EOL)
- Councillor's Honorarium for InternetNZ

Name: Neil James

Position: Councillor, InternetNZ
Term: AGM 2010 - AGM 2013
Declaration Date: 28 August 2008, updated 22 November 2011

Interests:

- Member of Identity and Access Management for Education and Research (IMAGER)
- Supporting fibre development in the Dunedin region
- Fellow of NZCS
- Councillor's Honorarium for InternetNZ

Name: Hamish MacEwan

Position: Councillor, InternetNZ
Term: AGM 2012 - AGM 2015
Declaration Date: 24 August 2007; updated 27 September 2011

Interests:

- Self employed Open ICT consultant
- Registrant of sundry .nz domains
- Councillor's Honorarium for InternetNZ

Name: Brenda Wallace

Position: Councillor, InternetNZ
Term: AGM 2012 - AGM 2015

Interests:

- Full time contractor at Weta Digital
- Member of Green Party of Aotearoa New Zealand
- A gazillion .nz domain names.

Name: Jonny Martin

Position: Councillor, InternetNZ
Term: AGM 2010 - AGM 2013
Declaration Date: 28 August 2007, updated 6 March 2009

Interests:

- Employee of Packet Clearing House
- Shareholder of FX Networks Ltd
- Director of the Asia Pacific Internet Association (APIA)
- Member of NZNOG and APRICOT organising committees
- Holds a number of .nz and .net domain names
- Councillor's Honorarium for InternetNZ

Name: Nat Torkington

Position: Councillor, InternetNZ
Term: AGM 2011 - AGM 2014
Declaration Date: 1 October 2009, updated 17 October 2011

Interests:

- Kiwi Foo Conference organiser
- Member of the advisory board to the Government Information Systems group within the Department of Internal Affairs
- Member of the Industry Advisory Board of the Auckland Bioengineering Institute
- Founder of Open New Zealand
- Sits on the Library Information Advisory Commission
- Blogger for O'Reilly Media
- Past consultant for Telecom New Zealand on innovation, and may continue to do so in the future
- Advisor to the American cloud computing startup Opscode
- Advisor to Spotlight Reports, NZ-based web startup
- Director, Silverstripe
- Director, He Hononga Software Ltd.
- .nz, .com, .org, .cn, .us, .me domain registrant
- Advisor to PHP Fog
- Advisor to 77 Pieces
- Director, GNAT Limited
- Councillor's Honorarium for InternetNZ

Name: Michael Wallmannsberger

Position: Councillor, InternetNZ
Term: AGM 2011 - AGM 2014
Declaration Date: 31 July 2006, updated 7 January 2011

Interests:

- Employee of ASB Bank Limited
- Member of the New Zealand Labour Party.
- .nz domain name registrant
- Member of the Standards Council
- Shareholder/Director, Wallmannsberger Ltd
- Director of .nz Registry Services
- Councillor's Honorarium for InternetNZ

Name: Lance Wiggs

Position: Councillor, InternetNZ
Term: AGM 2010 - AGM 2013
Declaration Date: 9 August 2010, updated 28 June 2012

Interests:

- Beneficiary shareholder of Pacific Fibre Limited
- Owner and director of LanceWiggs Consulting
- Director and shareholder in several NZ companies operating online and which are owners of several .co.nz domain names
- Director of Cadimage Limited, Graphisoft New Zealand Limited
- Director of Cadimage Group Limited and associated companies
- Director of Powerkiwi Limited
- Director of Safeplus Limited
- Director of News Crowd Limited
- Director of Define Instruments Limited
- Director of Lingopal Limited (Australia)
- Shareholder and advisor to Valuecruncher Limited
- Shareholder and advisor to Authentic Tours Limited
- Member of the Institute of Directors
- Shareholder and advisor to Vend Limited
- Consulting to ASB
- Councillor's Honorarium for InternetNZ
- Member of NZCS / Institute of IT Professionals

Name: Dave Moskovitz
Position: Councillor, InternetNZ
Term: AGM 2011 - AGM 2014
Declaration Date: 9 August 2010

Interests:

- Registrant of .nz, .com, .org domains
- **Board memberships:**
- Think Tank Consulting Limited (Chair)
- WebFund Limited (Chair)
- Golden Ticket Limited (Chair)
- WebFund Golden Ticket Holdings Limited
- WebFund Smartshow Holdings Limited
- **Shareholdings (all of the above, plus):**
- Ponoko Limited
- Celsias Limited
- 8interactive Limited
- Numerous publicly listed companies
- Admin Innovations Limited (through WebFund)
- DIYFather Limited (through WebFund)
- Smartshow Limited (through WebFund)
- **Non-profit Leadership:**
- Trustee, Think Tank Charitable Trust
- Board member, AngelHQ Establishment Board
- Treasurer, Wellington Progressive Jewish Congregation
- Councillor, Wellington Regional Jewish Council
- Co-Chair, Wellington Council of Christians and Jews
- **Other memberships:**
- New Zealand Open Source Society
- Institute of Directors in New Zealand
- Springboard
- Royal Society
- Councillor's Honorarium for InternetNZ

COUNCIL MEETING
18 May 2012

MINUTES OF COUNCIL MEETING

Status:	Draft
Present:	Frank March (President), Jamie Baddeley (Vice President), Don Christie, Donald Clark, Michael Foley, Neil James, Hamish MacEwan, Dave Moskovitz, Nat Torkington, Michael Wallmannsberger, Lance Wiggs
Apologies:	Jonny Martin
In Attendance:	Vikram Kumar (Chief Executive), Susi Cosimo (Manager), Jordan Carter (minute taker), Joy Liddicoat (DNCL Chair), David Farrar (DNCL Director), Debbie Monahan (Domain Name Commissioner), Richard Currey (NZRS Chair), Jay Daley (NZRS CE).
Meeting Opened:	The President formally opened the meeting at 12.54pm.

1. Apologies
Jonny Martin's apology was accepted.

2. Declaration of Councillors interests
Councillors were reminded to provide written confirmation of any changes to the register to office@internetnz.net.nz.

Donald Clark drew attention to his disclosure of interest as an applicant for the new second level domain .kiwi.nz.

3. Agenda consideration – in committee items
The in-committee agenda items were agreed.

4. DNCL Item – in committee
The Council meeting went into committee at 12.58pm and discussed an in-committee item from DNCL. The Council exited committee at 1.47pm

5. DNCL Reports
Joy noted the reports for January, February and March 2012 had been circulated to the Council.

Frank asked a question from the March report to clarify the zone push issue discussed in the report. Debbie noted it was an issue with NZRS and was now normal. Don asked about the TLD principles paper and the extent of consultation with DNCL. Debbie explained she had been involved with its preparation and DNCL is supportive of the principles developed. Dave noted that the fourth quarter spend was above trend. Debbie explained that this had resulted from a bunching of a number of different costs.

Joy noted that DNCL is considering how best to do the quarterly reporting in future, including how to work with NZRS on this. This remains under consideration.

Frank thanked the DNCL team for their work.

6. NZRS Fourth Quarter Report

Richard Currey asked if there were any questions regarding the report as presented. Frank noted the matter of the office break-in, and Jay explained what happened and the new security measures that have been put in place since. Vikram noted that there were break-ins at other offices at the same time.

Frank thanked the NZRS team for their work.

7. DNCL/NZRS: Domain Name Fee

The Council went into Committee at 1.58pm to discuss the joint paper. The Council moved out of Committee at 2.02pm.

RN 22/12: THAT the .nz domain name fee remain at $1.25 per domain name per month.

President / Vice President

CARRIED U

RN 23/12: THAT there not be the formal communication strategy to advise registrars and the Internet community of the fee remaining at its current level.

President / Vice President

CARRIED U

The DNCL and NZRS teams left the meeting at 2.05pm.

The meeting took a brief break at 2.06pm, and continued at 2.08pm.

Crs MacEwan, Torkington and Wallmannsberger left the meeting briefly, and returned at 2.10pm.

8. Consent agenda item

Michael Foley spoke briefly to his report. ICANN operates in ways that are not easily understood by newcomers. He observed a real succession risk exists for InternetNZ given the importance and time needed to develop relationships. This raises questions about plans for continued international engagement by InternetNZ and its subsidiaries, both in ICANN as well as other global Internet community issues.

The Council discussed this from a number of perspectives. There was a suggestion of setting up a small Working Group of Council and other relevant people to consider this.

Frank also discussed aspects of his report, including participation by the New Zealand Government in the ITU's reforms of International Telecommunication Regulations (ITRs).

RN 24/12: THAT the Council establish a working group to consider InternetNZ's long term international relationships and involvement in international Internet governance.

Cr Foley / Cr Christie

CARRIED U

Members of the Working Group to include: Michael Foley, Frank March, Keith Davidson, Vikram Kumar, Donald Clark, Don Christie.

Michael Foley additionally noted the need for InternetNZ to be aware of and respond to introduction of new Top Level Domain Names.

Dave noted there were some other observations requiring further follow-up arising from Michael Foley's report. Frank noted that the report was as a DNCL director and that DNCL will be following up the items in it.

A suggestion was made that Keith be asked to present a paper on what InternetNZ might practically seek to achieve in the ITRs reforms process.

RN 25/12: THAT the minutes of the meetings held on 17 February 2012 and 23 March 2012 be received and adopted as a true and correct record, and THAT the following reports be received:

a. Ratification of minutes: 17 February 2012 and 23 March 2012
b. President's report
c. DNCL monthly reports for January, February and March and fourth quarter report
d. NZRS fourth quarter report
e. Evote ratification

President / Vice President
CARRIED U

There have been nine e-votes conducted since the last Council Meeting:

Evote:		**For:**	**Against:**	**Abstain:**
28022012	THAT the application from Open Parallel for $10,000 to be a sponsor of the Multicore World 2012 conference be declined.	Donald Clark Michael Foley Jonny Martin Hamish MacEwan Frank March Neil James Jamie Baddeley Dave Moskovitz Michael Wallmannsberger Nathan Torkington		Don Christie

Evote:		For:	Against:	Abstain:
120320121	THAT the Statement of Expectations for the Domain Name Commission Limited for the financial year 2012/13 as attached be adopted.	Jamie Baddeley Don Christie Donald Clark Michael Foley Hamish MacEwan Frank March Jonny Martin Neil James Dave Moskovitz Nat Torkington Michael Wallmannsberger Lance Wiggs		
120320122	THAT the Statement of Expectations for the New Zealand Domain Name Registry Limited trading as .nz Registry Services (NZRS) for the financial year 2012/13 as attached be adopted.	Jamie Baddeley Don Christie Donald Clark Michael Foley Hamish MacEwan Frank March Jonny Martin Neil James Dave Moskovitz Nat Torkington Michael Wallmannsberger Lance Wiggs		
290320121	THAT to aid in the re-build of Christchurch, the Digital Archiving Joint Project be funded $125,000 out of InternetNZ's reserves.	Don Christie Frank March Neil James Hamish MacEwan Donald Clark Dave Moskovitz Jamie Baddeley Michael Wallmannsberger Jonny Martin Nathan Torkington Michael Foley		
290320122	THAT to aid in the re-build of Christchurch, the Computers in Homes Mobile Stepping Up project be funded $125,000 out of InternetNZ's reserves.	Don Christie Frank March Neil James Hamish MacEwan Donald Clark Dave Moskovitz Jamie Baddeley Michael Wallmannsberger Jonny Martin Nathan Torkington Michael Foley		

Evote:		For:	Against:	Abstain:
290320123	THAT to aid in the re-build of Christchurch, the Sydenham / Lyttelton Free Wireless project be funded $37,000 out of InternetNZ's reserves.	Don Christie Frank March Neil James Hamish MacEwan Donald Clark Dave Moskovitz Jamie Baddeley Michael Wallmannsberger Jonny Martin Nathan Torkington Michael Foley		
290320124	THAT to aid in the re-build of Christchurch, the GCSN Schools Videoconferencing project be funded $85,000 out of InternetNZ's reserves.	Don Christie Frank March Neil James Hamish MacEwan Donald Clarkv Jamie Baddeley Michael Wallmannsberger Jonny Martin Nathan Torkington Michael Foley		
290320125	THAT to aid in the re-build of Christchurch, a sum of $63,000 be set aside from InternetNZ's reserves towards funding future wireless projects, pending further investigation.	Don Christie Frank March Neil James Hamish MacEwan Donald Clark Dave Moskovitz Jamie Baddeley Michael Wallmannsberger Jonny Martin Nathan Torkington Michael Foley		
03042012	THAT the application from Auckland University of Technology for $15,000 to support a research study to investigate people's subjective well-being based on online and offline time use and associated affective experiences be approved.	Michael Foley Frank March Hamish MacEwan Lance Wiggs Neil James Dave Moskovitz Michael Wallmannsberger Jonny Martin	Donald Clark Nathan Torkington	Don Christie

9. Investment Policy Sub-Committee

Dave Moskovitz spoke to the report presented to Council and thanked other Council members who contributed to the work at various stages.

Don Christie noted his concern about over-committing InternetNZ's funds which won't be able to be freed up easily. He suggested investing a lower proportion, say 20% of funds available.

Lance noted that InternetNZ can instruct the fund managers to keep a specified percentage of the invested funds liquid for quick access. Dave noted that currently all funds are invested in trading banks and investing by an external specialist could actually reduce the risk.

Periodic review of the invested funds was discussed. It was noted that a 6 monthly review is suitable with regular monthly reporting.

RN 26/12: That Council approves the investment policy (goals, Statement of Investment Policies and Objectives, and governance framework).

RN 27/12: That Council form an investment sub-committee, consisting of a chair and two members.

RN 28/12: That Council requests the sub-committee to develop a charter that encompasses the investment mandate and other key points made in this paper at the next council meeting.

RN 29/12: That Council requests the Chief Executive, working with the investment working group and then the investment sub-committee when formed, to run a tender process as set out in the document and to make a fund manager selection and investment recommendation to Council for the next meeting in August.

RN 30/12: That Council approve in principle the initial investment of up to $1m and a follow-on investment of $1m subject to the approval of fund manager, formation of an Investment committee, and (for the follow-on investment) of an acceptable 6 month review to Council.

Cr Moskovitz / Cr Wiggs
Against: Cr Christie
CARRIED

RN 31/12: That Council appoint Crs Moskovitz, Wiggs and Clark as members of the investment sub-committee.

President / Cr MacEwan
CARRIED U

It was noted that the investment sub-committee will meet and discuss its charter and elect a chair.

The meeting broke at 2.44pm and returned at 2.57pm.

10. Matters arising from the minutes

AP 25/10: Status is stalled for the foreseeable future.
AP 31/10: To be raised at the August meeting.

AP 06/11: Susi to draft a letter for the President to send to the NZRS Board to request them to commission an independent review of their Business Continuity Plan at reasonable cost.

AP 63/11: President will develop a paper for the next Council meeting.

AP 65/11: President reported on steps taken to implement this Action Point. A report is expected in October.

AP 67/11: The Action Point is to be marked as 'for review in one year (May 2013)'.

The Council went into committee at 3.15pm and resumed at 3.26pm.

There was a discussion about better involvement of Maori; greater involvement in developing policy and governance; and the efforts to get tangata whenua involved with NetHui 2012. The issue of Council representation and engagement with Maori needs further work.

11. Grants Committee

Frank noted two items arising from the Grants Committee, these being the decisions regarding grants since the previous meeting and the overall report for 2011/12. Frank noted that Council members were free to enter into a discussion about a specific grant even after an evote for the same had been raised.

RN 32/12: THAT Council notes the decisions regarding grants funding requests since the last Council meeting.

President / Cr Christie

CARRIED U

RN 33/12: THAT Council notes the report on InternetNZ Grants for the financial year 2011/2012.

President / Cr Christie

CARRIED U

The President brought some material to the Council's attention, arising from the latest meeting of the Grants Committee, regarding a discussion about the objects of the Society. There was a discussion of the proposed wording.

RN 34/12: THAT recognising that it is ultimately up to Council to decide whether a particular initiative falls within the objects of InternetNZ's Constitution, the Grants Committee is directed by Council that, in addition to the Objects, the following may also be taken into account in considering whether an application meets the required criteria:

(a) The applicant is a non-profit organisation; and

(b) The applicant is proposing a novel use of the Internet that enables organisations, professionals and individuals to more effectively collaborate, cooperate, communicate and innovate in their respective fields of interest; and

(c) The outcome will be of service to the community.

These selection criteria notwithstanding, the applications accepted will align with and support the Objects of the society.

President / Cr Torkington

CARRIED U

RN 35/12: THAT the Grants Committee recommendation of not adding a new Object as an amendment to the InternetNZ Constitution is accepted.

President / Cr Torkington
CARRIED U

12. Audit and Risk Committee

Neil James briefed the Council on upcoming meetings of the Committee and the proposal to add a section to the Constitution regarding Councillor indemnity. The 5 June meeting of the Committee will prepare proposed wording to give effect to the change, and members will put it forward for consideration as a constitutional amendment.

13. 2020 Communications Trust update

Neil James noted the written report presented in the Council papers which was comprehensive. He highlighted key points including the Stepping Up programme work and the inclusion of KiwiSkills among the Trust's activities (adopted from NZCS). A brochure on this was circulated to those present at the meeting. A half-yearly printed report on the Computers in Homes programme was also circulated. The demise of fixed phone lines was noted – only 63% of Computers in Homes families have fixed lines, and this change has been giving impetus to efforts to find wireless Internet solutions.

Neil also questioned how giving effect to the "strategic partnership" can be done, and what it means in practice. He noted that developing a 'shared vision' is outstanding. Frank noted this is ad hoc.

Frank asked Neil to pass on to the Trust the Council's thanks for the quality of the report, and noted that the material presented more meets the aims of the earlier grant made by InternetNZ to the Trust. Council believes that such continued progress consistently will create greater mutual understanding and trust.

14. Legal and Policy Funding Round

Frank thanked Campbell Gardiner for a clear paper. Vikram noted a question from Nat about ownership of the outcomes. He clarified that it's about open public access reiterated and reports as well as any data collected will be published under a Creative Commons license.

Jamie questioned the desirability of focusing grant rounds on particular sectors to progress issues that might be considered to be "operational". Vikram clarified that people applying for grants wanted more useful guidance about the kinds of work InternetNZ would like to see progressed. Applicants could select one of the suggested research areas or propose their own.

RN 36/12: THAT Council approves the parameters outlined in the paper to initiate the $100,000 competitive bidding Policy & Legal Funding Round from the approved 2012/13 grants budget.

Cr Torkington / Cr Wiggs
CARRIED U

15. InternetNZ Operational Report

Vikram invited questions from the Council members. Nat noted that the report set out a great deal of work being done by the organisation.

Lance requested further information about the scope of work for the economic studies commissioned by InternetNZ. Jordan noted that the aim is a literature review approach to find applicable studies to identify the impact the Internet has had on the economy, but that the aim

has not been to take steps towards extensive modelling of the Internet's impact on the economy. Vikram noted that the papers will be released at NetHui.

The unfavourable decision about InternetNZ's bid to host APRICOT 2014 was noted. It was felt that the consequence of Council's decision to limit liability was not adequately addressed when that decision was made. Vikram noted that Keith will give a full briefing on this at the next Council meeting.

Several Council members felt that InternetNZ's website is poor. Lance recommended there is value in working with a small agency to develop a communications strategy. Council agreed that a refreshed InternetNZ website should follow from developing a strategic communications strategy.

RN 37/12: That the Chief Executive progresses the development of a broad communications strategy for InternetNZ, in conjunction with external assistance as required, and with an expectation that the web presence is significantly improved within six months.

Cr Wiggs / Cr Wallmannsberger

CARRIED U

AP 06/12: The CE to progresses the development of a broad communications strategy for InternetNZ, in conjunction with external assistance as required, and with an expectation that the web presence is significantly improved within six months.

On the financial report, Vikram noted the operational under-spend continued till the end of the last financial year. Activity is at a higher level this year.

RN 38/12: THAT Council notes the financial report to 31 March 2012.

President / Vice President

CARRIED U

RN 39/12: THAT Council receive the CE's report.

President / Vice President

CARRIED U

Frank noted the paper regarding NetHui and invited discussion. It was noted that there was an expectation amongst some Council members that following this year's NetHui in Auckland, the next national conference will be held in some other city. Dave noted his preference to have one regional NetHui and then, following a review, make a decision about holding more regional NetHui conferences.

RN 40/12: THAT Council approves holding a national NetHui annually.

Cr Wiggs / Cr Torkington

Against: Cr MacEwan

CARRIED

RN 41/12: That the national NetHui alternates between Auckland and Wellington.

President / Cr MacEwan

Against: Cr Wiggs

CARRIED

RN 42/12: THAT Council approves holding a NetHui regional event in the South Island prior to the end of 2012.

President / Cr MacEwan
CARRIED U

Frank introduced the paper on TLD principles and noted that it has been widely consulted upon, with support from both subsidiaries. Michael Wallmannsberger queried whether the principle of a split between registries and registrars is a fundamental or a second-order one. Vikram noted that the intention of the principles was to create a default position and require deviations to be fully thought through and explained. The principles are based on current thinking and could evolve in the future.

Council members noted the desirability of making the principles widely visible on the websites of InternetNZ and DNCL.

RN 43/12: THAT Council approves the following high-level TLD principles as InternetNZ's position:

1. Domain name markets should be competitive.
2. Choice for registrants should be maintained and expanded.
3. Domain registrations should be first come, first served.
4. Parties to domain registrations should be on a level playing field.
5. Registrant data should be public.
6. Registry / Registrar operations within a TLD should be split.
7. TLD policy should be determined by open multi-stakeholder processes.

President / Cr Torkington
CARRIED U

Frank noted that the matters covered in the changes to privacy policy and the Councillor role description give effect to earlier Council discussions. It was agreed that members would be informed of the changes and that no opt-out option is to be provided.

RN 44/12: THAT the members' privacy policy be amended to read (additions in italics): "The details of members who opt-out of having their names published will only be available to staff of InternetNZ. *Details of all members will also be available to Council members for the purpose as stated under '2. Use of Information' above.*"

President / Cr James
CARRIED U

RN 45/12: THAT the Councillor role description be amended so as to add the following bullet point: "ensure that members' personal information provided to them is kept confidential and used only for the purposes stated in the members' privacy policy. Specifically, and without diluting the scope of this provision, Councillors are not to use members' personal information for personal gain including for business or electoral purposes."

President / Cr James
CARRIED U

AP 07/12: CE to draft a message for the President to send to members on the changes to the privacy policy.

16. Other Business

Frank noted arising from his report on members of subsidiaries Boards, in consultation with the respective Chairs, his intention was to re-appoint the incumbents. He noted there would be one vacancy on the NZRS Board. He will be circulating a recommendation for e-vote to fill this vacancy on completion of the process.

Frank also advised his intention to repeat the Council self-evaluation process with Campbell's assistance and publish the results as was done last year. He will circulate for discussion the process and invite suggestions for any changes.

Frank reported that he had sought suggestions from members for appointing new Fellows. Keith has been asked to administer the process.

Crs Christie and Foley left the meeting at 4.47pm.

Susi reported that in the view of the AGM being held in Auckland this year, she will find an Auckland-based scrutineer and seek appointment of the person by e-vote.

It was noted that the date and details of the Group Strategy Day will be discussed on the mailing list.

It was agreed that the October 2012 Council meeting date be changed. The meeting will move from 12 October 2012 to 19 October 2012.

AGM: This is on Thursday 12 July 2012 at NetHui 2012.

AP 08/12: Susi to circulate the change of the October meeting date to the Council, and start a discussion on the date and details of the Group Strategy Day on the mailing list.

RN 46/12: THAT the new members are approved.

President / Cr MacEwan

CARRIED U

Next Meeting: The next scheduled Council meeting is on 17th August 2012.

Meeting Closed: The meeting closed at 4.54pm.

Signed as a true and correct record:

_____

Frank March, President, CHAIR

Action Point Register

	Action	Who	Status	Due by	Comment
December 2010					
AP 25/10	President to discuss with Liz Dengate Thrush Foundation further options for InternetNZ to honour the memory of the late Liz Dengate Thrush.	Frank March	No further progress	March 2011 Council meeting	Status is stalled for the foreseeable future.
AP 31/10	The CE to discuss the identified inconsistencies in the InternetNZ Governance Policies with the CEs of NZRS and DNCL and report back to Council at the March 2011 meeting with possible solutions.	CE	On Hold	August 2012 Council meeting	To be discussed at the August Council meeting
March 2011					
AP 06/11	The CE to ask a business continuity planning expert to look at current plans across the Group by the June 2011 Council meeting.	CE	Complete	August Council meeting	Susi to draft a letter for the President to send to the NZRS Board to request them to commission an independent review of their Business Continuity Plan at reasonable cost. *— Susi sent the draft letter to Frank on 12 June*
December 2011					
AP 63/11	President to prepare a paper for the next Council meeting on the process for the President to be directed to act on behalf of Council as well as any delegations to the President thereof.	President	In progress	August Council meeting	President will develop a paper for the next Council meeting.
AP 65/11	The President to commence the process for a review of Director's remuneration and provide an update at the February Council meeting.	President	In progress	October Council meeting	President reported on steps taken to implement this Action Point. A report is expected in October.
AP 67/11	InternetNZ to consider becoming a member of the Maori Internet Society and encourage the Maori Internet Society to become a member of InternetNZ.	InternetNZ	In progress	February Council meeting	The Action Point is to be marked as '**for review in one year (May 2013)**'.

Action Point Register

	Action	Who	Status	Due by	Comment
			May 2012		
AP 06/12	The CE to progresses the development of a broad communications strategy for InternetNZ, in conjunction with external assistance as required, and with an expectation that the web presence is significantly improved within six months.	CE	Complete	August 2012	Ocean Design has been commissioned, and have completed the strategy. This will be presented at the Augus Council meeting.
AP 07/12	CE to draft a message for the President to send to members on the changes to the privacy policy.	CE	Complete	August 2012	
AP 08/12	Susi to circulate the change of the October meeting date to the Council, and start a discussion on the date and details of the Group Strategy Day on the mailing list.	Susi Cosimo	Complete	August 2012	

InternetNZ

President's Report
7 August 2012

FOR INFORMATION

President's Report to August 2012 Council Meeting

Author: Frank March

Status of paper: Final

Welcome to InternetNZ Council to Brenda Wallace and congratulations to her, and to Michel Foley and Hamish MacEwan for their re-election. My thanks and best wishes to Don Christie for his work over the past three years. And also of course congratulations to Jamie Baddeley on being re-elected as Vice President unopposed.

NetHui 2012 was a great success. It was always going to be hard to top the 2011 event but this year did manage to address some of the few criticisms levelled at the inaugural NetHui, especially the need to have more focus on cultural issues and disabled access. I would like to congratulate and thank Vikram and his team for another great piece of work. The decision to hold the 2012 AGM during NetHui was well justified by the high level of attendance of both existing and new (and some non-) members and it was very satisfying to have 11 members of Council there as well.

A major preoccupation at the moment from the viewpoint of both my day job and as President is with international work in four areas that curiously enough seem to overlap extensively.

ICANN/GAC

My report from the Prague GAC meeting is attached, and is mainly concerned with gTLD issues, although the other issues I am dealing with also preoccupy the GAC. One matter not covered in the report is the intention to hold a so-called "high level GAC meeting" at the next ICANN meeting in Toronto. This has arisen from a recommendation of the Accountability and Review Team report on ICANN and seeks to engender a high profile for, and better understanding of, the work of the GAC and of ICANN with governments. The meeting will take place on Monday 15 October as part of the ICANN meeting and will be open. It is hoped that at least some countries will be represented at the ministerial level.

WCIT and revision of the International Telecommunications Regulations

A copy of the revision proposals is available on the ITU website at http://www.itu.int/en/wcit-12/Pages/public.aspx. There is misinformation around that only Wikileaks has this text. That is dangerously wrong as other texts in circulation are well out of date. I am currently preparing a review of the proposals for consultation purposes. I expect that Keith Davidson will be able to attend the WCIT meeting in Dubai in December where the new ITRs will be negotiated as a member of the New Zealand delegation. Given the degree of international dissention over the proposals there is a good chance that the outcome of the WCIT will be a stalemate.

APEC TEL and TPP negotiations

Suffice to say that there are echoes of some of the issues from the above areas in these fora as well.

Finally, watch out for the World Telecommunications and Information Forum being organized by the ITU in May 2013. It will be a blast.

Report from ICANN/GAC Meeting
and
Associated Discussions

Prague, June 2012

Frank March

The 44th ICANN meeting was held from 23-29 June in Prague, Czech Republic. I attended with full financial support from InternetNZ (through Domain Name Commission Ltd (DCNL)), and leave to attend from the Ministry of Economic Development.

This report will be also be provided to the DCNL Board and to the InternetNZ Council.

I attended the meeting of the Governmental Advisory Committee (GAC) on Saturday to Thursday, 23-29 March, as well as a meeting of the Framework of Interpretation Working Group.

Governmental Advisory Committee

The GAC Communiqué from the June 2012 meeting may be found at
https://gacweb.icann.org/display/gacweb/Governmental+Advisory+Committe

1. *ICANN's contract oversight of the domain name market*

   The GAC received a presentation from the Registrar Constituency of the GNSO on the gTLD market from which raised a number of puzzling and concerning issues. There are roughly 1000 ICANN accredited registrars but somewhere between 5000 and 8000 resellers who have no contractual relationships with ICANN. Around 50% of all gTLDs are sold by resellers. Perhaps the most worrying issue here was that the registrars themselves did not want to acknowledge that these are really concerning statistics. Nor for that matter does there seem to be too much concern on the part of ICANN that so large a proportion of the DN space is serviced by entities with which ICANN has no relationship of any kind

2. *New gTLD issues*

   It was apparent from both formal and informal discussions with members of the ICANN Board that there were serious misunderstandings between the Board and ICANN Staff over the botched new gTLD programme, including the shambles over the 'digital archery' initiative which now appears to have been dropped. It seems in the light of actual experience that batching of applications may not be necessary and other processes can be used to prioritise both assessment of applications and processing of new entrants to the Root.

   There are three issues likely to be of concern to the GAC about the new gTLD applications.

   (i) Geographical indicators that also correspond with global trademarks; examples include .patagonia and .amazon. Both of these are matters of concern to South American countries;

   (ii) Applications for very large numbers of generic names by large US-based corporate such as Google and Amazon. Examples are .kids by Google and .book by Amazon;

   (iii) Applications for strings which could imply some type of special status for holders of names in those TLDs. Examples are .bank and .fin.

It is not at all clear how the GAC will deal with these beyond the Early Warning period. The GAC expects to provide EW feedback shortly after the Toronto meeting but does not expect to provide advice to the Board of concerns about applications before April 2013.

Although it is not clear what position New Zealand should take, these issues will be of considerable interest to some, perhaps most, GAC members. The three areas above will raise quite different types of concern. The geographical names are relatively straightforward; national concerns are readily apparent. The generic names are likely to be examined from the point of view of the planned use. Some governments are likely to take a dim view of large US corporates taking such names out of circulation especially where there is a risk that they might be auctioned off at a later time. There will be concerns about security and fraudulent use with strings such as .bank.

Finally, there will be some contentious strings (possibly .gay, for example) although there is no indication of what these are likely to be at this stage.

Members of the GAC also expressed concern at the huge imbalance between the number of North American applications (especially US-based) and the rest of the world, with only 14 applications lodged from South America and 17 from Africa.

Framework of Interpretation Working Group

I attended a meeting of this group in Prague as a member of the GAC. I coordinated the GAC response to the FoIWG draft report on Significantly Interested Parties. The main concern is that the FOIWG has not taken the GAC Principles for Delegation and Redelegation of ccTLDs adequately into account. In the GAC's view, in terms of a national debate or consultation on the ccTLD, the relevant government is first among equals.

Next ICANN/GAC meeting

The next GAC meeting will be held in Toronto, Canada in October 2012 in conjunction with the 45th ICANN Meeting.

EVOTE RATIFICATION

Author: Susi Cosimo

There have been twelve e-votes conducted since the last Council Meeting:

Evote:		For:	Against:	Abstain:
22052012	THAT the application from Victoria University of Wellington for $7,000 to part fund a research project entitled "Understanding TCP Synchronisation over the Internet" be approved.	Dave Moskovitz Hamish MacEwan Michael Foley Michael Wallmannsberger Nat Torkington Donald Clark Jamie Baddeley Neil James Frank March Jonny Martin		
29052012	THAT the application from Victoria University of Wellington for $7,000 to part fund a research project entitled "Understanding TCP Synchronisation over the Internet" be approved.	Jamie Baddeley Jonny Martin Michael Wallmannsberger Don Christie Donald Clark Michael Foley Frank March Dave Moskovitz Hamish MacEwan Lance Wiggs		

Evote:		For:	Against:	Abstain:
05062012	Noting that the only two Committee members present are noted as related parties in the InternetNZ 2011/12 accounts and noting that the management report in relation to the InternetNZ 2011/12 accounts does not raise any issues about related parties that Council agree to the recommendation of the Audit & Risk Committee to receive and approve the 2011/12 year end consolidated group financials.	Donald Clark Lance Wiggs Frank March Nathan Torkington Don Christie Jamie Baddeley Hamish MacEwan Michael Foley Michael Wallmannsberger Jonny Martin		
130520121	THAT Maureen Milburn be appointed the 2012 InternetNZ election scrutineer.	Dave Moskovitz Frank March Donald Clark Hamish MacEwan Jonny Martin Nathan Torkington Michael Foley Don Christie Lance Wiggs Jamie Baddeley Michael Wallmannsberger		
130520122	THAT the grants request from the Special Needs Educational Resource Library Charitable Trust for $8,867.47 to provide their clientele with workshops on using the Internet be declined.	Jamie Baddeley Frank March Dave Moskovitz Jonny Martin Hamish MacEwan Donald Clark Michael Foley Don Christie Lance Wiggs Michael Wallmannsberger		

Evote:		For:	Against:	Abstain:
20062012	THAT Mark Vivian be appointed to the NZRS Board for a one year term.	Dave Moskovitz Michael Foley Michael Wallmannsberger Donald Clark Don Christie Nathan Torkington Hamish MacEwan Jamie Baddeley Lance Wiggs Frank March Jonny Martin		
260620121	THAT Donna Hiser be approved as a Fellow of InternetNZ.	Nathan Torkington Donald Clark Michael Foley Dave Moskovitz Don Christie Hamish MacEwan Jonny Martin Lance Wiggs Frank March Jamie Baddeley		
260620122	THAT Dean Pemberton be approved as a Fellow of InternetNZ.	Nathan Torkington Donald Clark Michael Foley Dave Moskovitz Don Christie Hamish MacEwan Jonny Martin Lance Wiggs Frank March Jamie Baddeley		
27062012	THAT InternetNZ becomes a member of TUANZ.	Donald Clark Michael Wallmannsberger Jamie Baddeley Jonny Martin Dave Moskovitz Don Christie Michael Foley Lance Wiggs Frank March Hamish MacEwan		

Evote:		For:	Against:	Abstain:
290620121	THAT the grants request from Yes to Youth Trust for $35,000 be declined.	Michael Wallmannsberger Jamie Baddeley Michael Foley Don Christie Hamish MacEwan Dave Moskovitz Donald Clark Nathan Torkington Lance Wiggs Jonny Martin		
290620122	THAT the grants request from Kiwicon Heavy Industries for $10,000 be approved.	Jamie Baddeley Michael Wallmannsberger Michael Foley Don Christie Hamish MacEwan Dave Moskovitz Donald Clark Nathan Torkington Lance Wiggs Jonny Martin Frank March		
24072012	THAT the request from Catalyst.net for platinum sponsorship of this year's New Zealand Open Source Awards for $15,000 be approved.	Nathan Torkington Frank March Jonny Martin Lance Wiggs Brenda Wallace Hamish MacEwan Michael Foley Michael Wallmannsberger Neil James Donald Clark Jamie Baddeley		Dave Moskovitz

Recommendation: THAT the e-votes be ratified.

August 2012

Council
InternetNZ

Application for a new second level domain - .kiwi.nz

Background

An application for a new second level domain (2LD) was received in May 2012. As part of the published process, an initial check of the application was undertaken and, following checks to ensure the application complied with the policy requirements, the application was released for public comment. A copy of the application is enclosed as Appendix 2.

The consultation period was for the minimum time specified in the policy of 25 working days. This meant submissions were open from 23 April 2012 through to 29 May 2012. A total of 14 submissions were received with 6 clearly opposed, 7 clearly in favour and one that favoured the creation of new space within .nz but questioned the timing of the application given recent events around the .kiwi gTLD issue. The submissions received are provided in Appendix 1.

Under the Second Level Domains Policy (http://dnc.org.nz/content/secondleveldomains.html) the following process is followed for the creation of a new, open second level domain:

1. Applications are received with the required $1,000 application fee
2. DNCL evaluates the application to ensure it complies with the policy requirements
3. A public consultation is undertaken for a minimum of 25 working days
4. The DNCL Board evaluates whether the application meets the required criteria of the policy, taking into account the comments received during the public consultation period
5. If the Board considers the application meets the requirements of the policy, a recommendation will be made to the InternetNZ Council for the creation of the second level domain
6. The InternetNZ Council will make a final decision on whether the name can be created following a recommendation from DNCL
7. Council will also consider the threshold that will apply to the provisional registration period before the second level domain is confirmed.

DNCL can confirm that steps 1 through 4 have been completed according to the published policy.

This paper contains the recommendation referred to in Step 5 above, and the recommendations at the end of the paper reflect the final two steps that are the responsibility of the InternetNZ Council to make the final decision on.

Criteria for a new Second Level Domain

Clause 5.4 of the current Second Level Domains (2LD) Policy states that the criteria for a new 2LD are that the 2LD:

- Represents an identifiable, significant community of interest; where:
    - 'significant' can mean either quantitatively or qualitatively; and
    - the community of interest can be defined in a clear written statement.
- Represents an on-going and long-lived community of interest.
- Does not conflict with, duplicate or cause confusion about, any existing 2LD and is a useful addition to the current DNS hierarchy.
- Uses a name to represent the domain that is an obvious derivative of a word that properly describes the community of interest, e.g. .org.nz for organisation, or a complete word, e.g. .maori.nz.
- Does not bring the .nz domain name space into disrepute.

DNCL's evaluation of the application

The DNCL Board evaluated the application against the required criteria. It was agreed by the Board that each of the five requirements needed to be met in order to fulfil the standard defined in the policy.

Comments received were discussed under each of the requirements of the policy and the views expressed by the submitters, together with the comments from the Board Directors, considered.

There were a couple of issues of particular note in the submissions.

One was that reference was made in some submissions to the overlap with .gen and .co, however, clause 3.4 of the 2LD policy states:

> "3.4 Communities of interest should not overlap. This means that minimum ambiguity should exist between different 2LDs. Overlap with generic 2LDs such as **.gen**.nz or **.co**.nz is not material to the application for a new 2LD."

This clause clearly recognises that it would not be possible to create a new second level domain without it overlapping .co.nz and .gen.nz, given their generic nature. Submissions were received saying that there was a conflict with .gen.nz, and that .kiwi.nz would serve the same community as .co.nz but this is not a factor as the policy itself says that such an overlap is not material to the application.

Another topic expressed in some comments was around potential confusion but no detail was provided as to how that confusion might arise. Where the potential confusion is around .kiwi, (the potential gTLD that is not yet confirmed), it is not relevant for the consideration of the .kiwi.nz application as it is important to note that the 2LD policy is explicit in that it is only confusion or duplication with 'any existing 2LD' that is relevant.

There was unanimous agreement by the DNCL Board that the requirements had been met. As stated in clause 5.10 of the 2LD policy:

> "5.10 Once the consultation period is complete, and taking public input into account, the assumption is that the application for the 2LD will in principle be allowed, provided the criteria set out in clause 5.4 are met. "

and clause 3.2 of the 2LD policy:

> "Under normal circumstances if a group of individuals or organisations can demonstrate that they both meet the criteria set out in this policy that define a community of interest and they meet all of the conditions that may be imposed under this policy, then they can reasonably expect to be able to create a 2LD to reflect their community of interest."

the policy is explicit that, under normal circumstances, if an applicant meets the criteria then they can reasonably expect their 2LD to be created. Therefore, with DNCL confirming the application met the criteria, the Board agreed its recommendation to Council should be that .kiwi.nz be created.

Note: Some of the submissions raised issues that were outside of the scope of the Second Level Domains Policy. Though there might be some merit in some aspects of these, they were not a matter for DNCL and the consideration of the .kiwi.nz application. The Second Level Domains Policy is quite clear in respect of the process to be followed should an application for a new second level domain be received. DNCL has no control over the timing of a new application, nor the discretion to consider matters outside of its published policy. This application is being processed according to the policy and though comments outside of the policy are noted, they cannot be considered as part of the decision making process.

Threshold of registrations during provisional registration period

Clause 5.12 of the Second Level Domains Policy states:

> "For unmoderated 2LDs, a provisional registration period will be opened where persons interested in registering a domain name under the 2LD can list their proposed domain name under the proposed 2LD. This will be used to test public interest. If the threshold of provisional registrations is met, the application will be adopted and the 2LD will be added. The proposed threshold, taking into account the potential size of the community of interest, will be agreed in conjunction with the applicant."

In their application, the applicant predicted that .kiwi.nz would end up being bigger than .geek.nz. It was put it to the applicant that this would indicate that the level of registrations for the initial month should also be higher than that of .geek.nz which would mean a figure for the threshold greater than 492, which .geek.nz achieved in the first month of registrations.

There is, however, a significant difference between the policy that applied at the time .geek.nz was created and the current policy that applies to how .kiwi.nz names can be registered initially.

This is the first open second level domain to be created under the current policy and so the first to have a threshold set for it to be created. People are going to have to 'take a punt' and register a domain name that they may not be able to retain if the threshold isn't met. There is also specifically no provision for refunds by the registry if it is not created. This, therefore, is an untested process at a time when economic conditions are not as favourable as they were in late 2003 when .geek.nz was created.

These factors were considered in the discussions with the applicant. It was agreed that the comments made by the applicant, combined with the community being defined as New Zealanders who identify with themselves as 'kiwi', meant that the number should be set reasonably high and above that achieved by .geek.nz in its first month of registrations.

The figure of 500 registrations for the provisional registrations period was the number agreed with the applicant and is the number recommended to Council that should apply to .kiwi.nz should it proceed to that stage.

InternetNZ Council's role

Clauses 5.11 and B2.8 of the 2LD Policy reference the fact that the InternetNZ Council will make a final decision on the creation of the new second level domain, following a recommendation from DNCL.

The respective roles of DNCL and InternetNZ Council are set out clearly in the policy. DNCL can confirm that they have followed each of the steps required of them to this point in full accordance of the policy.

DNCL's recommendation to Council is that the .kiwi.nz second level domain be created. Council's role is clearly their own responsibility and they are not bound by the recommendation made by DNCL.

However, it is likely that any decision made could be subject to judicial review. InternetNZ is required to abide by administrative law principles that require that their decision is fair and comply with the rules of natural justice. A decision maker must base its decision on material that, as a matter of reason, has some "probative value".

Therefore, if Council intends to reject DNCL's recommendation, it would be required to either base its decision on relevant material that was not considered by DNCL or make a finding that DNCL had wrongly applied the criteria when making its recommendations.

Recommendations

It is recommended that the InternetNZ Council:

1. Approve the creation of a new .nz Second Level Domain

2. Agree a threshold of 500 registrations will apply to the provisional one month registrations period before the creation of .kiwi.nz is confirmed and the domain declared active

Joy Liddicoat
Chair, DNCL

Submission From	Comments
Dale Smith	I support this 2ld application. I will consider buying one for personal use, as I did with geek.nz.
From: Robin Dickie, Webdrive Ltd	I do not consider .kiwi.nz to offer any significant benefit to the .NZ namespace - unless it was to directly replace geek.nz and gen.nz; as they are arguably even less useful. Whilst there is no doubt about the position of "Kiwi" in New Zealand's lexicon, as a domain name it offers little other than to further dilute the .NZ namespace with another superfluous 2LD that serves no defined purpose.
From: Keith Davidson, InternetNZ Fellow	I would like to register my support for the opening of the new second level .kiwi.nz. The discussions and interest generated over new gTLDs and the use of the word "kiwi" within the DNS indicates there already is significant community interest and support in this as a further expansion of the .nz domain name. I believe there will be considerably more interest in .kiwi.nz than there is in .geek.nz and .maori.nz, and each of those names serves a specific segmented community need. I would perceive that the main attraction for .kiwi.nz registrations will come from the ex-pat New Zealanders. Secondarily, anyone who is struggling to find a fit within the existing 2nd levels may find .kiwi.nz useful for their purposes. There is no conflict or duplication or confusion between .kiwi.nz and any other existing TLDs. There is nothing I can see that would bring the .nz name into disrepute, to any extent greater than existing domain names at the 3rd level might be perceived by some to be bringing .nz into disrepute. The application puts the case for .kiwi.nz clearly and unequivocally and appears to me to be solidly based on serving a segment of the local Internet community, and I would tend to be more optimistic in thinking there could easily be 5,000+ names registered in this 2nd level. The name adds a uniquely identifiable flavour to the .nz domain name, and the application has my full support.

Dot Kiwi Ltd **From:** Tim Johnston	Dot Kiwi Ltd strongly opposes the <.kiwi.nz> 2LD application. Dot Kiwi Limited ("DKL") is a New Zealand registered company, set up to apply for the Top Level Domain <.kiwi> and was formed in 2011. DKL has applied to register <.kiwi> as a gTLD under the current ICANN Top Level Domain expansion programme. DKL's application for the <.kiwi> gTLD was known to the applicant for the <.kiwi.nz> 2LD at the time of the 2LD application. This 2LD application follows a detailed discussion on the InternetNZ members list concerning whether or not InternetNZ should apply to register <.kiwi> as a Top Level Domain. InternetNZ decided not to apply. Dot Kiwi Ltd is opposed to the <.kiwi.nz> 2LD application due to the following: 1. The word "kiwi" does not represent a substantially different community or sub-set of the community the ccTLD represents. The New Zealand community is currently represented by <.nz>, the Kiwi community is not segregated or have significant differentiating factors from that of the community of New Zealand. A <.kiwi.nz> 2LD creates duplicate representation of the same community. 2. A <.kiwi.nz> 2LD overlaps with the purposes of the existing generic 2LD <.gen.nz>. The <.gen.nz> 2LD is intended for "Individuals and other organisations not covered elsewhere". The Kiwi community is comprehensively represented by all existing 2LDs and indeed, as per above point 1, represented by the TLD itself. As such, a <.kiwi.nz> 2LD is not a useful addition to the current DNS hierarchy. 3. The role and purpose of a <.kiwi.nz> 2LD would create confusion for prospective registrants and users of domain names in New Zealand. The word "Kiwi" in the context of identity has the same definition as "New Zealand(er)", as such <.kiwi.nz> provides no distinction or specialisation at the second level. This will be a significant factor for user and registrant confusion. 4. Due to above points 1, 2 and 3, a <.kiwi.nz> 2LD unnecessarily dilutes the <.nz> namespace and brings into question the very purpose of a hierarchical and policy driven 2LD structure that is defined by distinct communities of interest. This results in bringing the <.nz> domain name space into disrepute and is highly undesirable. 5. The <.kiwi.nz> proposal defines the required community of interest very loosely. The proposal has failed to define what it means to "be Kiwi" and consequently does not indicate who would identify with or be represented by the proposed 2LD. At best, the definition indicates that "being Kiwi" is equal to "being a New Zealander", which as stated above creates nothing other than an overlap with existing 2LDs and the TLD itself. It is not clear that the proposed definition meets the 2LD Policy requirement. 6. Per section 3.2 of Part A in the 2LD policy, Dot Kiwi Ltd believes that the Domain Name Commission has not received the <.kiwi.nz> 2LD application "Under normal circumstances". As such, special consideration should be given to external factors relating to the <.kiwi.nz> 2LD application. Dot Kiwi Ltd have been publically open and clear about its application to ICANN for the <.kiwi> gTLD. The green paper developed by InternetNZ on the matter of a possible <.kiwi> gTLD stated: *"We note that there will be a dotKiwi as there is at least one company that intends to bid for it."* It is inevitable that there will be a <.kiwi> gTLD specifically targeted to the New Zealand population and domain name market. Given

Dot Kiwi Ltd **From:** Tim Johnston (continued from previous page)	this pending situation, it would seem obvious that a <.kiwi.nz> 2LD would significantly add to <.nz> 2LD confusion widely across the Internet community in New Zealand. A <.kiwi.nz> 2LD and a <.kiwi> TLD will be extremely confusing. Historically speaking, there has never been a TLD other than the <.nz> ccTLD that is intended for and directly marketed to the New Zealand Internet community. Therefore, drawing comparisons to pseudo gTLDs such as <.co> (with extremely minor market penetration within NZ) and concluding that <.kiwi> will result in the same outcome is irresponsible and shortsighted. In summary, Dot Kiwi Ltd considers that the <.kiwi.nz> 2LD application: · Will cause confusion with other existing 2LDs. · Will overlap (duplicate) in purpose with other existing 2LDs. · Will overlap with communities represented by all other 2LDs and by the ccTLD itself. · Is not a useful addition to the current DNS hierarchy. · Does not meet policy requirements to sufficiently define the community of interest it is intended to serve. · Brings the <.nz> domain name space into disrepute. · Is not received by the DNC "Under normal circumstances" and should be reviewed accordingly. On the basis of the above, Dot Kiwi Ltd urges the Domain Name Commission to provide a responsible recommendation to the InternetNZ Council by recommending that the application be declined.
From: Nathan Ward	I strongly oppose this 2ld. I believe that names registered under this 2ld will come to mirror the .co.nz namespace - and where it does not, it will be used for abuse by people grabbing .kiwi.nz names that already exist in .co.nz - unless all .co.nz registrants automatically get .kiwi.nz at the same time. "Kiwi" is implied and by "NZ", introducing it in to the name is unnecessary duplication. I would not even support this if it were a moderated 2ld that required that only individuals could register - people may start to expect it, then rely on it, then be confused when there are 2+ people with the same name. Other than a money making exercise (to which I am opposed), .kiwi.nz seems a waste of time and energy.

From: Reg Hammond	In my opinion the request for 2nd level domain .kiwi.nz meets all the necessary criteria and should be approved.
From: Don Gould	In general I support the creation of a new name space - .kiwi.nz In my view, historically, the more products and services that are pushed into the Internet space the more the space evolves. .org.nz or .net.nz or .co.nz? While I understand that the concept of the name space framework was to provide sub setting of function, I think application has shown many instances of more than one very valid organisation needing a domain name with the same name, so one uses .x.nz while the other uses .y.nz. This suggests to me that there will be a need for more name spaces in the future. There will be a need for both .kiwi.nz and .kiwi in order to serve the needs/desires of the New Zealand community. Re: http://dnc.org.nz/content/kiwi.nz_dot_kiwi_ltd.html I have to wonder if the .kiwi.nz application is in some way an effort to under mine the commercial interests of DotKiwi Ltd's .kiwi application. I have to wonder if INZ having decided not to bid for .kiwi, the DNC is now being used as a vehicle undermine the .kiwi efforts of DotKiwi Ltd. Reviewing, http://internetnz.net.nz/about-us, it would seem to me to be inappropriate for the DNC to be used in this way even if the policy requirements for a 2LD have been met. As such, I suggest that the council needs to consider this question. Reviewing http://dnc.org.nz/content/03_historical_stats.html it would seem there is a very limited market for the "Kiwi" name space and .kiwi.nz could undermine the .kiwi efforts. Again, I support the creation of any new name space, however I do think the council should give consideration to the timing of this name space request, at this time.

From: Brandon Wilcox, Evolve Marketing Ltd	I support the creation of a new, open, second level domain (2LD) - .kiwi.nz. Given that it is not possible to register a name at the top level of the .nz name space, i.e. myname.nz, there are currently no .nz 2LDs that define the "Kiwi/New Zealander" community of interest. Current 2LDs identify different types of organisation (companies, schools, government, iwi, etc), or sub-sets of the New Zealand population (maori, geek, etc) or the generic, catch-all, miscellaneous category of .gen.nz, but not people wanting to identify with being Kiwis or New Zealanders. Therefore, I see .kiwi.nz as serving a community of interest that is not currently being served, i.e. there is no overlap or duplication with any existing 2LDs. Some might say that the word "Kiwi" in the context of identity has the same definition as "New Zealander" and that <.kiwi.nz> therefore creates duplicate representation of the same community. This is an irrelevant argument because it is not possible to register a name at the top level, as stated above. Therefore, the only way to serve the substantial "New Zealander" community of interest is to create a "New Zealander" 2LD under the nz TLD. I can think of no better way to do this than .kiwi.nz. Furthermore, "kiwi" and "nz" are so different as to eliminate any chance of confusion. In fact, the two combined strengthen the identification of the community of interest and therefore reduce any chance of confusion. What would be confusing would be something like .kiwi.us etc which would provoke a 'WTF' type response, or .kiwi as a TLD which might make people think of kiwifruit or shoe polish. But when combined with nz, i.e. <.kiwi.nz> the confusion is removed and the meaning is crystal clear. In short, I believe .kiwi.nz is a useful addition to the .nz name space and serves a substantial community of interest not currently being served.
Automotive Employment NZ Ltd **From:** Russell Phillips	**<u>Strong opposition to the Kiwi.nz 2LD application.</u>** Introducing a new second level domain this time under the guise of Kiwi.NZ will cause significant issues for New Zealand business owners. The combination of intellectual property protection and opportunistic companies out to make a quick buck has to stop and better management of domains policed. Until this occurs introducing an additional 2LD should be out of the question. When recently attempting to register a company name which had been registered by a person seeking to make a quick buck we were forced to pay $4600.00 for the domain name we needed without the person who owned the domain ever having used it. The “reseller” had simply brought it for resale and made a killing doing so. The end result was we incurred a bill we should not have had to pay and this resulted in us deferring the employment of a new staff member for several months.

Automotive Employment NZ Ltd **From:** Russell Phillips (continued from previous page)	Had the kiwi.nz domain existed this would not have solved the problem, the domain either has credibility or it does not and just like geek.nz or gen.nz kiwi.nz is just yet another variant that undermines the respect of the .nz domains and causes headaches for New Zealand business owners. Far from needing yet another 2LD what is required is fair management of the existing domains.
From: Neil Stockbridge, Metaname	I support the application for a <.kiwi.nz> 2LD. <.kiwi.nz> represents an identifiable, significant community of interest because the overwhelming majority of New Zealanders identify with being "kiwi". Other registries offer <.me.tld> or equivalent so that individuals may claim their place on the Internet. <.kiwi.nz> would result in far more registrations than <.me.nz>. As others have said, <.geek.nz> and <.gen.nz> just aren't up to scratch. I work for a domain name registrar yet I don't even know what <.gen.nz> is for. Regarding the longevity of the community, the original application sums it up perfectly. Being "kiwi" isn't going to go out fashion. <.kiwi.nz> would not conflict with, duplicate or cause confusion about any existing 2LD and would be a useful addition to the current DNS hierarchy because as argued by others, <.gen.nz> is little used and <.geek.nz> represents a small subset of <.kiwi.nz>. Whilst personal presences on the Internet were once the preserve of geeks, today's .nz space is extensively used by non-geek individuals and this trend will only continue. We have surprisingly many names registered by individuals using the <.co.nz> 2LD. johndoe.co.nz, joepublic.co.nz and so on. If anything, <.co.nz> is causing confusion because kiwis are crying out for a personal identity on the Internet. <.kiwi.nz> is a label for which the community of interest is immediately identifiable by New Zealanders. No label could be better. Clearly <.kiwi.nz> will not bring the .nz domain name space in to disrepute any more than any web site or name registration under an existing 2LD could do so. In summary, I support the application for a <.kiwi.nz> 2LD because there is no reason not to and because kiwi individuals are currently unable to have a place in the .nz space unless they are a geek or a "gen".
From: Don Stokes Knossos Networks Ltd	I wish to support the application for creating kiwi.nz, and in doing so offer the following observations: 1. The word "Kiwi" connotes NZ culture, the things that make NZ unique. Thus there is a significant community of interest in those who wish to identify with such culture, be it personally, or to identify products and services with a NZ cultural flavour. 2. I note that precedent for such identity-based second level domain names has already been established with the geek.nz domain.

From: Don Stokes Knossos Networks Ltd (Continued from previous page)	3. There is some interest in the proposed "kiwi" top-level domain. I believe that while the NZ hierarchy does not have to fully mirror the TLD range of names, the reality is that to some degree it does for names of interest to the NZ community. Kiwi.nz would provide an alternative for registrants that might feel that "kiwi" reflects their identity or business, but also wish to have the protections offered by the NZ domain registration environment, protections that are not available under the ICANN model. 4. I believe the claims in the application are all, to within reasonable measure, accurate.
From: Bruce Clement	Submission of Bruce Clement to the Domain Name Commission Limited (DNC) and to Internet New Zealand Incorporated (InternetNZ) on the proposal to create the unmoderated second level domain name (2LD) kiwi.nz. Thank you for the opportunity to comment on the proposed .kiwi.nz 2LD. According to my blogger.com profile[1] I self describe as “a Proud Kiwi” (This was filled in some years back and not in response to this application). I am an ordinary member of InternetNZ. I have a significant number of domain names already registered including one matching my surname, clement.co.nz, and am unlikely to want to register a personal .kiwi.nz domain name for myself. According to the policy[2] the criteria for the creation of a new 2LD in the .nz space are: • (5.4.1) Represents an identifiable, significant community of interest; where: ◦ (1.a) significant' can mean either quantitatively or qualitatively; and ◦ (1.b) the community of interest can be defined in a clear written statement • (5.4.2) Represents an on-going and long-lived community of interest • (5.4.3) Does not conflict with, duplicate or cause confusion about, any existing 2LD, and is a useful addition to the current DNS hierarchy • (4) Uses a name to represent the domain that is an obvious derivative of a word that properly describes the community of interest or a complete word. • (5) Does not bring the .nz domain name space in disrepute According to Wikipedia [3] “the term Kiwi is used all over the world as the colloquial demonym for New Zealanders.” [...] “The kiwi as a symbol first appeared in the late 19th century in New Zealand regimental badges. It was later featured in the badges of the South Canterbury Battalion in 1886 and the Hastings Rifle Volunteers in 1887. Soon after, the kiwi appeared in many military badges, and in 1906 when Kiwi Shoe Polish was widely sold in the UK and the US the symbol became more widely known. “During the First World War, the name "kiwi" for New Zealand soldiers came into general use, and a giant kiwi (now known as the Bulford Kiwi), was carved on the chalk hill above Sling Camp in England. Use has now spread so that now all New Zealanders overseas and at home are commonly referred to as "kiwis". “The kiwi has since become the most well-known national symbol for New Zealand, and the bird is prominent in the coat of arms, crests and badges of many New Zealand cities, clubs and organisations; at the national level, the red silhouette of a kiwi is in the center of the roundel of the Royal New Zealand Air Force” This shows that “Kiwi” is both an identifiable term for New Zealand people (Requirements 5.4.1, 5.4.1.b, and 5.4.4) and has been used as such for a significant time (Requirement 5.4.2). As the people of New Zealand are a nation of 4.4 million people [4] I believe that this term for New Zealand people can only be seen as representing a significant community of interest quantitatively thus meeting

From: Bruce Clement (continued from previous page)	requirement 5.4.1.1. I have not heard any suggestion that its use as such is likely to diminish in the foreseeable future. Requirement 5.4.3 is "Does not conflict with, duplicate or cause confusion about, any existing 2LD, and is a useful addition to the current DNS hierarchy" Answering first "Does not conflict with, duplicate or cause confusion about, any existing 2LD" The existing 2LDs are Moderated: ..cri.nz, .govt.nz, .health.nz, .iwi.nz, .mil.nz, .parliament.nz and possibly .bank.nz. Unmoderated: .ac.nz, .co.nz, .geek.nz, .gen.nz, .maori.nz/.māori.nz, .net.nz and .school.nz .kiwi.nz is for people such as myself who self describe as kiwis. No other current 2LD fully represents this community of interest. Some have suggested that .geek.nz represents all New Zealanders, I would dispute this claim for two reasons. First, according to the definition of .geek.nz [2] it is "*For people who are concentrative, technically skilled and imaginative who are generally adept with computers*" which describes a minority of New Zealanders and secondly the word "Geek" has negative connotations for many people and I can not believe that more than a small minority of Kiwis would accept a description of themselves as "geeks". I would imagine that the majority would react negatively to having such a label applied to them. As mentioned above, I self describe as a "Proud Kiwi". I also proudly self describe as a "Human", as a "Geek", as a "Man" and as a "Cyclist" a but see these as five very different parts of my self image. I would imagine that other people who self describe both as "Geeks" and as "Kiwis" draw a similar line between those aspects. As explained below, .geek.nz receives less than 0.3% of the registrations that .co.nz receives while in the United Kingdom and Australia, two nations we often compare ourselves to, the equivalent 2LDs .me.uk and .id.au receive 1% and 0.6% respectively of the relevant commercial 2LDs. This suggests that a personal 2LD would be a very different thing to .geek.nz with between 2 and 3 times the registration rate. Another preposterous claim that has been made during this consultation is that .kiwi.nz overlaps with .gen.nz. According to the current 2LD document[2], .gen.nz is "*Individuals and other organisations not covered elsewhere*" in other words it is the default 2LD for when there is no 2LD for the community of interest involved. This means that by definition .gen.nz overlaps with nearly any proposed 2LD until such time as that 2LD is created. Once that happens the perceived overlap would be resolved by .gen.nz's own definition no longer including it. If .gen.nz were to be accepted as blocking the creation of 2LDs then we would never be able to create new 2LDs. As we have successfully created .health.nz, .geek.nz and .iwi.nz since .gen.nz was created it is obvious that it can not be considered as blocking the creation of other 2LDs. Some people have claimed that the existence of a "kiwi" Top Level Domain name (TLD) outside of the .nz space creates such an overlap. This point of the policy is specifically about "any existing 2LD" and as a TLD is not a 2LD, TLDs should not be seen as creating a block on creating new 2LDs in the .nz space. If TLDs could block the creation of 2LDs, we could not have .net.nz (.net), .org.nz (.org), .co.nz (.co) or .ac.nz (.ac). In any case there is, at time of writing, no .kiwi TLD, merely a proposal that one be created. The final part of the question that needs to be considered is that the proposed 2LD "Does not bring the .nz domain name space in disrepute". As reported above "the term Kiwi is used all over the world as the colloquial demonym for New Zealanders" including by Kiwis. I fail to see how any reasonable person could conclude that creating a 2LD for New Zealanders using a term that we use for ourselves can be seen as bringing the .nz domain name space into disrepute. .nz domains are subject to New Zealand law and disputes about them are resolved either according to the DNC's DRS procedures or by New Zealand courts where in both cases rules of fairness and due process apply while the new ICANN TLDs will be required to be

From: Bruce Clement (continued from previous page)	subject to US laws and courts and to the UDRP including allowing plaintiffs to engage in jurisdiction shopping and other unfair practices. It has been suggested that creating .kiwi.nz given the proposed existence of the TLD ".kiwi" would bring .nz into disrepute (presumably by association with .kiwi, UDRP and elected judges). As .kiwi.nz gives New Zealand registrants the option to remain under New Zealand law and have their disputes resolved according to due process, I would argue that the opposite applies and the creation of .kiwi.nz would bring the .nz domain name space into even better repute. Some people have claimed that to protect their trademarks they would feel obliged to register the .kiwi.nz matching their existing .co.nz domain name. If they believe this, they disagree with 99.72% of .co.nz registrants. The logic behind this statement is that according to the DNC statistics[5] at the end of April 2012 there were 417,188 .co.nz domain names registered and only 1148 .geek.nz domain names (0.28% of the .co.nz number). When considering if .kiwi.nz would have a significant community of interest it is useful to ask the question "What would the likely uptake of .kiwi.nz be?" It is difficult to predict the future, and the uptake will depend to an extent on how heavily the new 2LD is promoted but some useful comparisons can be drawn from 2LDs with a similar purpose in similar countries and from the uptake of .geek.nz, the previous unmoderated .nz 2LD created. According to the DNC newsletters from September 2003[6] and October 2003[7], .geek.nz became available in August 2003 and received 492 registrations in August 2003 with a further 102 in September 2003 (less one expiry) meaning that by the end of its second month there were 593 .geek.nz domains, slightly under half the number existing now some nine years later. In the most recent DNC statistics there were only 6 more .geek.nz domains registered at the end of the month compared to the start (registrations less expired domains), 0.21% of the change in .co.nz registrations. The Nominet statistics [8] show that their equivalent .me.uk receives registrations at about 1% of the rate of .co.uk. The Australian statistics [9] aren't quite as easy to compare to the .nz statistics but show that .id.au receives registrations at about 0.62% of the .com.au 2LD. Taking these comparisons together I feel we would likely receive a few hundred registrations in the first month of availability with an ongoing increase of between 17 (0.62% of .co.nz) and 28 (1% of .co.nz) per month. If we conservatively assume 400 registrations in the first month of availability, with .geek.nz increasing at the same 6 per month it achieved in April 2012[5] then 28 registrations per month would see .kiwi.nz having more registered domain names than .geek.nz after 36 months while 17 registrations per month would see .kiwi.nz becoming larger than .geek.nz after 71 months. Thus answering the second half of Requirement 5.4.3 "*is a useful addition to the current DNS hierarchy*" According to section 3.2 of the policy[2] "*Under normal circumstances if a group of individuals or organisations can demonstrate that they both meet the criteria set out in this policy that define a community of interest and they meet all of the conditions that may be imposed under this policy,* ***then they can reasonably expect to be able to create a 2LD to reflect their community of interest****.* [emphasis mine]" I believe that this requirement has been met and Kiwis can reasonably expect to be able to create a 2LD to reflect our community of interest. For the above reasons I support the creation of .kiwi.nz and recommend it to the DNC and to the InternetNZ council.

From: Bruce Clement (continued from previous page)	Bruce Clement Auckland New Zealand 29 May 2012 References: [1] http://www.blogger.com/profile/00484243389651191571 My Blogspot profile [2] http://dnc.org.nz/content/second_level_domains.pdf Domain Name Commission / InternetNZ: Second Level Domains policy. [3] http://en.wikipedia.org/wiki/Kiwi Wikipedia page "Kiwi" [4] http://www.stats.govt.nz/tools_and_services/tools/population_clock.aspx Statistics New Zealand: Estimated resident population of New Zealand [5] http://dnc.org.nz/content/2012-04_stats.html Domain Name Commission: monthly statistics April 2012 [6] http://dnc.org.nz/content/september_03_newsletter.pdf Domain Name Commission: newsletter September 2003 [7] http://dnc.org.nz/content/october_03_newsletter.pdf Domain Name Commission newsletter October 2003 [8] http://www.nominet.org.uk/intelligence/statistics/registration/registrationsarchive/ Nominet: .uk registration statistics [9] http://www.ausregistry.com.au/domains/domain-reports Aus Registry: .au registration statistics.
From: New Zealand Maori Internet Society Karaitiana Taiuru	New Zealand Maori Internet Society We the New Zealand Māori Internet Society are opposed to the application of .kiwi.nz .kiwi.nz will cause confusion within the other existing 2LDs and force people to register extra domains to protect their online branding and cultural rights. The proposal in our opinion does not clearly define who the community of interest are, nor how they are different to the Community of Interest of any other 2LD in .nz thus only creating pollution and confusion in .nz
From: Karaitiana Taiuru, .iwi.nz Moderator	As the .iwi.nz moderator, I am opposed to the .kiwi.nz application as it will cause confusion with the .iwi.nz Community of Interest and likely cause the COI to be forced to register their current domain names in the .kiwi.nz area due to the similarity in the names. It is further likely that the .iwi.nz COI will be forced to register a number of other names with .kiwi.nz in order to protect their cultural and Indigenous Property Rights. This was proven with the introduction when a businessman registered a myriad of Iwi names for the purpose of resale and cybersquatting. I am also concerned that historically there has been great interest in the word Kiwi being associated with .iwi.nz and with the likelihood of typo squatters in the .kiwi.nz domain.

APPLICATION FOR UNMODERATED 2LD

1. Applicant Details

Name: Donald Clark
Address: [Provided]
Email address: [Provided]
Phone number [Provided]

CONFLICT STATEMENT:

Please note that whilst this application is made by me as a Member, I am currently a Councilor and member of the Audit & Risk Committee for the Society. I have informed the President and my fellow Councilors of this application and have asked that I be recused from all discussion related to it; and voting in the event that this matter comes before Council. Council is experienced at handling matters where specific Councilors have conflicts and I do not anticipate any procedural or ethical issues. However, you should confirm this with the President.

2. The 2LD extension applied for:

.kiwi.nz

3. Define the community of interest for the new 2LD:

The Community of Interest is clear – it is people (and organisations) that associate themselves with being Kiwi. (Note this is not about the shoe-polish brand, or the fruit, but about Kiwis as a colloquial term for New Zealanders.)

The InternetNZ community has just been through one of the most extensive and engaging consultations in its history regarding whether the Society should bid for the <.kiwi> gTLD.

Whilst the Society has determined not to bid on the gTLD, one thing that the consultation process revealed is that there is a significant resonance and identification in the community with the concept of being “kiwi”. And that people want to make “kiwi” part of their online identity.

Accordingly, we **must** provide our local Internet community with the **choice** of a kiwi domain name that resides in “our home”; that is governed under the policies and processes admired around the world; that is subject to New Zealand law.

The Internet continues to evolve and today more and more people are online, creating content and looking for a safe anchor point for themselves on the Internet. <.kiwi.nz> will provide a point of identity for individuals that don’t want to be a <.name> or a <.me>.

Given the obvious demand for <.kiwi> we need, indeed we are obliged, to provide <.kiwi.nz>.

4. Explain how your proposed 2LD meets the criteria set out in clause 5.4 of the 2LD policy:

Criteria One: Community of Interest

The case for domain names that cater for the individual is well made, eg <.name>, <.me>. New Zealand has no equivalent for people wishing to identify online as being a Kiwi. The

recent extensive consultation with the Society's membership demonstrated a clear, impassioned and widespread community demand for the concept of being a Kiwi – and yet the demand has no fulfillment in our .nz ccTLD. This is not a fair situation for the local Internet community.

The Community of Interest is clear – it is people (and organisations) that associate themselves with being Kiwi.

I am applying for <.kiwi.nz> so that all Kiwis will have a safe, trusted, local place to call their own.

Criteria Two: Ongoing and long-lived community

As long as New Zealanders identify themselves as Kiwis there will be a demand for <.kiwi.nz>. The concept of being a Kiwi is so engrained into our culture and self-identity that it is hard for any sane person today to imagine the term disappearing in the next 50 or 100 years.

It's impossible to claim that terms last forever. But <.kiwi.nz> has got to be a pretty safe bet in this regards.

Criteria Three: No Conflicts or confusion with existing 2LDs.

<.kiwi.nz> is clearly distinct and distinguishable in the existing .nz 2LD.

No existing 2LDs target the community identified above. The only other current 2LDs that could arguably said to target the individual are <.geek.nz> and <.gen.nz>.

As the application for <.geek.nz> pointed out – their community is a clearly a highly specific one – Geeks and Geek culture. There is a minimal intersect between this community and the much larger and more general community that identifies with being a Kiwi.

As for <.gen.nz>, I would simply echo and amplify the arguments set forth in the successful application for <.geek.nz>. I'd be very surprised is more than 5% of the general public have ever used a <.gen.nz> address, and that an even smaller number would identify with it, and that an even smaller number still would want to pay to make it part of their online identity.

<.gen.nz> is the 2LD equivalent of "other" or "misc" in your filing system. As such, it isn't really a Community of Interest at all.

Criteria Four: Clearly descriptive

"Kiwi is the nickname used internationally for people from New Zealand, as well as being a relatively common self-reference. The name derives from the kiwi, a flightless bird, which is native to, and the national symbol of, New Zealand. The usage is not offensive, being treated with pride and endearment as a uniquely recognisable term for the people of New Zealand."

http://en.wikipedia.org/wiki/Kiwi_(people)

Criteria Five: Not bringing .nz into Disrepute

No,<.kiwi.nz> doesn't do this.

5. Provide your best estimate of the size of the community of interest and your opinion of the potential number of registrations for the new 2LD. Include rationale to support your figures.

Demand would likely be significantly higher than other minor current 2LDs - the rather anaemic and lifeless non-descript backwater that is <.gen.nz>, the fun specialist community around <.geek.nz>.

It would be fair to estimate that at least three times the number of people taking out <.geek.nz> domains would take-up <.kiwi.nz> domains given its much wider appeal. This would result in a domain size approximately the same size as <.school.nz>, or approximately 3,000 to 4,000 after several years.

It is likely that there will be an element of existing registrants simply registering their existing 3LD under <.kiwi.nz>. However, given the ever lower barriers to entry for the general pubic to make use of a personalized domain names, it is likely that <.kiwi.nz> will appeal to a new set of registrants – and therefore will not be perceived as “another tax” on existing registrants.

I would argue that as this would be an un-moderated 2LD, actual demand might end up being significantly higher that this estimate.

August 2012

Dr Frank March
President
InternetNZ

Dear Frank

First Quarter 2012/13 Financial report

As discussed, DNCL are now reporting .nz activities in a joint Quarterly report with NZRS. This change means that there is not a lot else that DNCL needs to comment on separately from that shared .nz report. It was agreed by DNCL and NZRS however, that the financial reporting should remain separate. As Council are aware, the DNCL financials are not complicated and so I have included the Profit and Loss Statement in this letter. If Council requires any further information please let me know so I can include it in future reports.

Profit and Loss Statement
For Quarter ending 30 June 2012

	April - June 2012			Year-to-Date		
	Actual	Budget	Variance	Actual	Budget	Variance
INCOME						
Management Fees	352,800	352,800	0	352,800	352,800	0
Authorisation Fees	3,000	2,250	750	3,000	2,250	750
DRS Complaint Fees	12,000	9,000	3,000	12,000	9,000	3,000
Other Income	870	0	870	870	0	870
Interest Income	480	3,000	(2,520)	480	3,000	(2,520)
Total Income	**369,149**	**367,050**	**2,099**	**369,149**	**367,050**	**2,099**
EXPENSES						
Staff and Office Costs	158,530	184,535	26,005	158,530	184,535	26,005
Professional Services and Communications	16,450	54,000	37,550	16,450	54,000	37,550
Dispute Resolution Services	8,482	17,525	9,043	8,482	17,525	9,043
DNCL and DNC activities	27,870	48,772	20,902	27,870	48,772	20,902
International	61,378	47,001	(14,377)	61,378	47,001	(14,377)
Total Expenditure	**272,709**	**351,833**	**79,124**	**272,709**	**351,833**	**79,124**
Net Profit/Loss	**96,441**	**15,217**	**81,224**	**96,441**	**15,217**	**81,224**

The Board of DNCL recommends that the Council of InternetNZ receives this report. Please do not hesitate to contact me if you have any questions.

Yours sincerely

Joy Liddicoat

Joy Liddicoat
Chair, DNCL

.nz Quarterly Report
First Quarter ended 30 June 2012

Introduction

This is the first 'joint' .nz quarterly report – a combined DNCL/NZRS document replacing the reports previously received by the InternetNZ Council from the two subsidiaries. The intention is that this report also replaces the monthly DNCL reports produced to date. Though not all the detail produced in these reports is reproduced here, the information that is not is publicly available and updated monthly at http://dnc.org.nz/statistics and http://dnc.org.nz/newsletters. Council is asked for feedback on this report and what changes, if any, Council would like to see for future reports. It is the intention of DNCL and NZRS to continue to provide a joint report to prevent the ongoing duplication of .nz information. There is nothing in this report that is confidential.

1. Environment

a) New gTLDs

The approaching introduction of many new gTLDs is still the major potential change to the environment in which .nz operates.

InternetNZ Council decided in April not to proceed with an application for .kiwi after an extensive evaluation. NZRS and DNCL CEs and selected Board Directors provided substantial contributions to this project. This leaves the way clear for DNCL and NZRS to engage on gTLD issues with the intent of spreading the principles behind .nz and the best practice in how it is structured and operated as widely as possible. There are two key developments in that regard:

- The NZRS and DNCL CEs met with the CEO of Dot Kiwi Limited, the applicant for .kiwi, at the ICANN meeting in Prague in June. Discussions were held about ways .nz could work together with .kiwi should it be created, as it would mean there would be two TLD registries located in New Zealand. It is expected the further meetings will be held, particularly in respect of assisting with detailed policy development as it is in everyone's interest to ensure .kiwi operates in a pro-registrant manner that benefits New Zealanders.

- InternetNZ, closely assisted by NZRS and DNCL, has developed a set of TLD Principles that set out a framework for InternetNZ's engagement with the TLD environment. They are consistent with the objects of InternetNZ and the policy and principles of .nz and are intended to be of use in making decisions about our involvement and contribution to a range of issues. NZRS, DNCL and InternetNZ's International Director, Keith Davidson, have begun the process of promoting these principles and will continue with an in-depth discussion on the TLD Principles from the perspective of the three organisations at the upcoming ICANN meeting in Toronto in October.

The impact of new gTLDs on .nz growth is not known. It may be positive in that the promotion of new top level names raises the awareness of domain names generally, or it could be that people decide against .nz given the greater choice.

b) Security

Security has been an important topic over the quarter in both technical and policy environments. DNCL have also held a number of meetings with a number of law enforcement agencies and have discussed ways of contributing to training investigators in various aspects of domain name information to assist their work.

Pressure on registries and registrars to take down names on request of Law Enforcement is an ongoing issue that is now being discussed at international meetings like ICANN. The .nz position is that an appropriate court order is required for us to take any action.

This quarter, after consulting with registrars, amendments were made to the Authorisation Agreement to clarify actions and responsibilities around the receipt by registrars of domain name take down notices. The changes included clarifying that an appropriate court order was required for the take down of a .nz domain name, and also that any notices received should be referred to the Domain Name Commission so that DNCL can take any required action and also assume liability for any action / non-action.

2. Activities

a) DNSSEC

This quarter marked the DNSSEC deployment of five of the eight open second level domains: .geek.nz, .ac.nz, .gen.nz, .maori.nz/.māori.nz and .school.nz. The remaining open second levels, and the moderated domains, are planned for deployment over the next quarter.

DNCL and NZRS finalised the criteria and application form for the *DNSSEC Friendly* status and the *Handles DS Records* status. Two registrars have so far completed the requirements to be identified as offering these services. This is now indicated by the inclusion of additional columns to indicate this status in the table at http://dnc.org.nz/registrars.

The implementation of DNSSEC has been preceded by the development of policy relating to the transfer of signed named which was put in place late last year, prior to the commencement of the technical rollout. Encouraging registrars to offer DNSSEC services is an area that NZRS and DNCL continue to work on. There is a range of information available at http://dnc.org.nz/dnssec and http:// http://nzrs.net.nz/dns/DNSSEC.

Promoting DNSSEC amongst registrars, and the ongoing development of DNSSEC resources, are planned for the second quarter.

b) .nz Promotion and Marketing

NZRS and DNCL are working together on initiatives to raise the awareness, profile and 'attractiveness' of .nz. DNCL has recently updated the videos used to illustrate the use of .nz domain names and NZRS are in the process of recruiting a Channel and Marketing Manager to develop strong relationships with the registrars and to also work with DNCL to develop a range of marketing and awareness initiatives.

It is expected that the NZRS recruitment of a Channel and Marketing Manager will be completed in the second quarter and that more work can be planned in respect of the marketing and promotion of .nz.

c) Registrations at the Second Level proposal

DNCL started its most important consultation since that done for implementing a dispute resolution service back in 2005. The latest consultation has the potential to significantly change the landscape of the .nz domain name space as it involves a proposal to allow registrations of .nz domains at the second level. Given the importance of the consultation, over

2,000 emails and letters were sent to a wide range of people and organisations to encourage their participation by making a submission. Interest in this topic saw over 40 submissions received in the first couple of days, the most received by DNCL for any previous consultation.

The second quarter will see this consultation continue as the four month period for submissions closes 27 September 2012. As part of the consultation, public meetings are planned for Dunedin, Christchurch, Auckland and Wellington along with an online session enabling remote access.

NZRS are not actively involved in this initiative at this time. Should a decision be made to proceed there will be significant work for the registry to prepare the required changes which will be reflected in any future timetable if required.

d) .kiwi.nz

Under the current Second Level Domains Policy, applications for new second level domains (2LD) can be received at any time. In April an application for a new, open 2LD name was received – for .kiwi.nz. The process specified in the policy was followed with a public consultation period being held and submissions received taken into account by the DNCL Board when they were considering whether the application met the criteria specified in the policy for a new 2LD to be created. At the Board meeting in June, the DNCL Board found that the application did meet the requirements and a recommendation that .kiwi.nz be created will be written and submitted to the InternetNZ Council for a final decision at their August meeting.

e) SRS Architectural review

NZRS continued their architectural review of the SRS with extensive planning around switching from our own database replication system to a modern, off-the-shelf replication product. This project will continue for the rest of the year.

f) Infrastructure

In the second quarter, NZRS will be beginning some key infrastructure projects:

- Replacement of the test platform
- Upgrade of the tape backup solution
- Disaster recovery for office servers

g) International Engagement

- NZRS staff attended the June CENTR meeting in Frankfurt.

- DNCL staff attended the June APTLD meeting in Moscow

- DNCL and NZRS staff attended the ICANN meeting in Prague in June. The engagement they undertook there included:

    - Chairing a workshop on the state of open source DNS server software and the future plans of the developers.

    - Helped to gain ccNSO Council agreement to a plan to change the ccNSO Technical Day to an all-of-ICANN technical stream as this day is now attended by many from the gTLD arena in the absence of a technical session of their own. The ccNSO Council agreed to a recommendation to liaise with other parts of ICANN to create a three day cross-ICANN technical stream.

h) Other

DNCL monitors the comparison between the .nz wholesale fee and the retail prices charged by

registrars. A summary of this has been produced and is available at http://dnc.org.nz/content/Wholesale_with_CPI_column_2012.pdf. It sets out the figures for each of the four different levels of the .nz wholesale fee and shows that drops in the wholesale fee have had a positive impact on the retail prices.

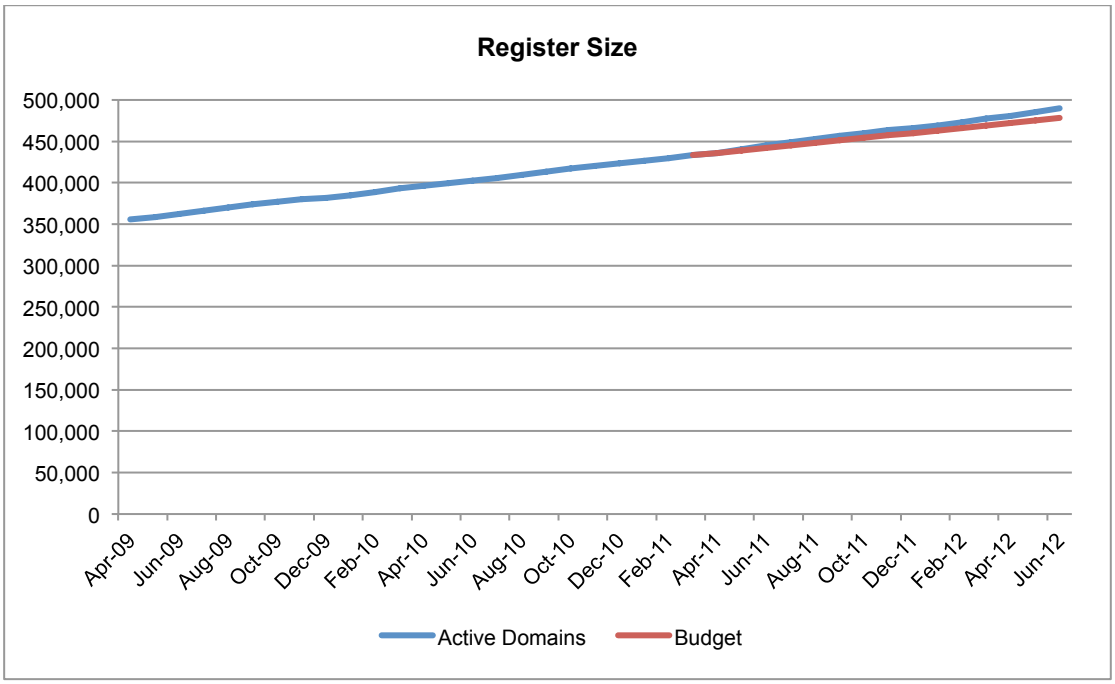
DNCL also monitors and collects information relating to other ccTLDs. Of the approximately 50 we regularly monitor:

- 17 other ccTLD registries have dropped their fees sometime over the last 6 years
- .nz is in the upper quartile for domain names per capita
- .nz is in the lower quartile for wholesale fee rate

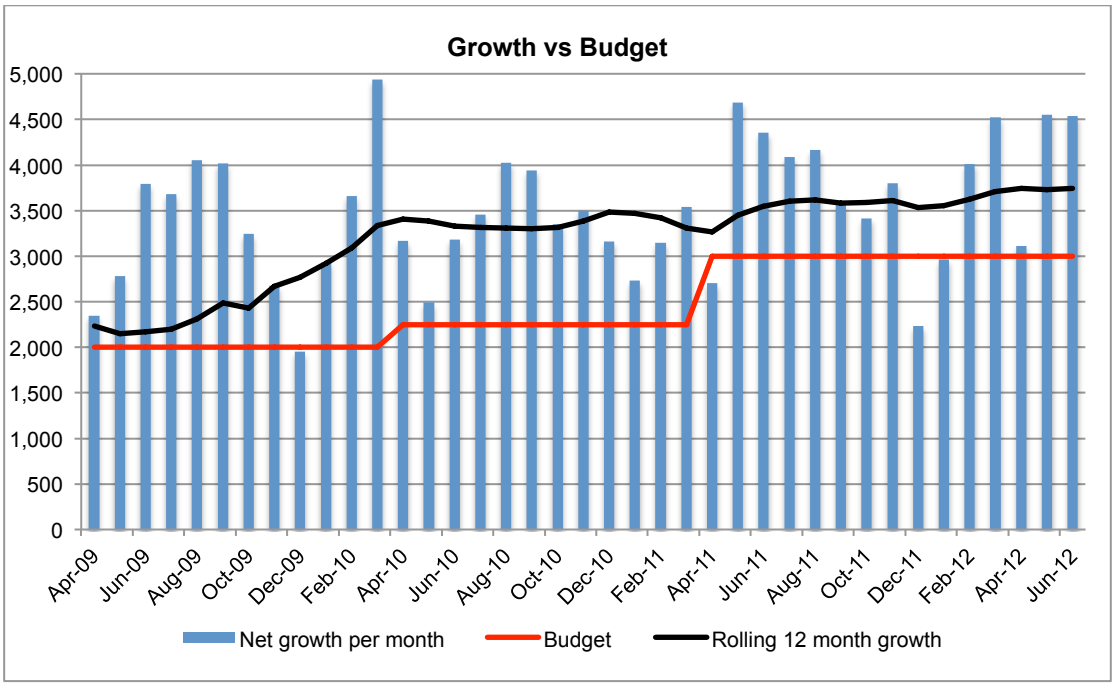
3. Statistics

a) Domain Names

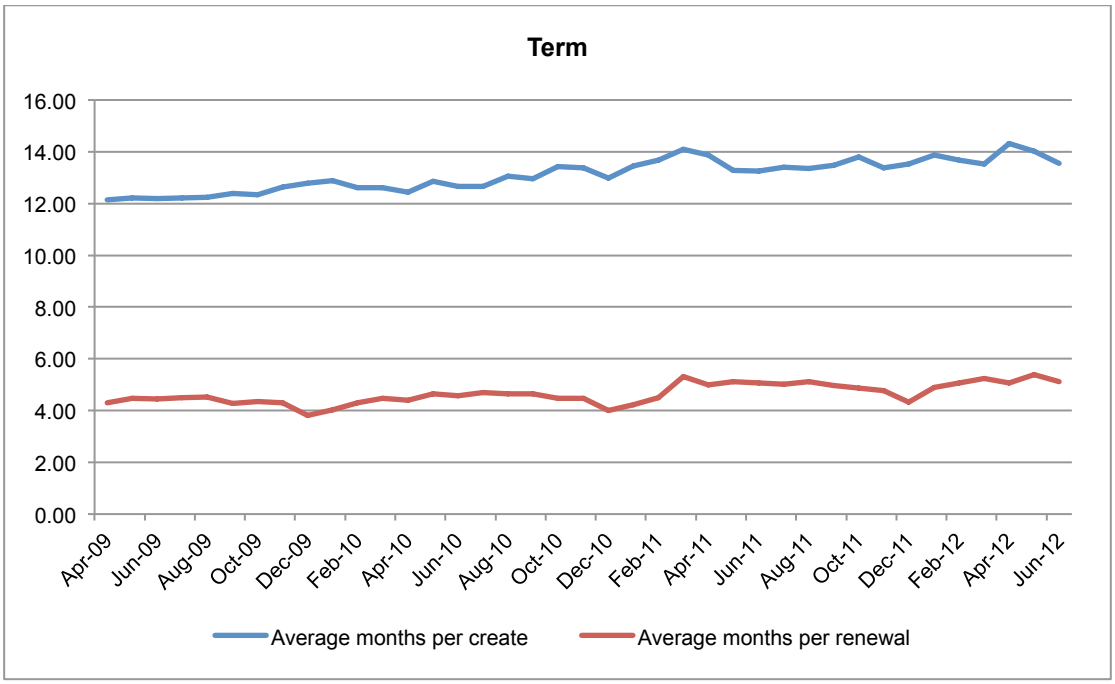
The size of the register against NZRS budgeted growth is shown in the chart below:



The actual growth against NZRS budgeted growth is shown in the chart below:



The average term (average number of months a domain is registered/renewed for) is shown in the chart below:



The breakdown of domain name growth by second level domain is noted in the table below:

	30 Apr 12	31 May 12	30 Jun 12
.ac	1,929	1,944	1,946
.co	417,188	421,084	425,194
.cri	14	14	14
.geek	1,148	1,174	1,191
.gen	1,381	1,401	1,412
.govt	1,117	1,126	1,113
.health	147	147	148
.iwi	79	78	79
.maori	691	926	956
.mil	34	34	34
.net	27,229	27,410	27,642
.org	26,552	26,723	26,853
.parliament	9	9	9
.school	3,285	3,288	3,304
Total	**480,803**	**485,358**	**489,895**
Growth over previous month	**3,115**	**4,555**	**4,537**
Variance against NZRS budget	**115**	**1,555**	**1,537**

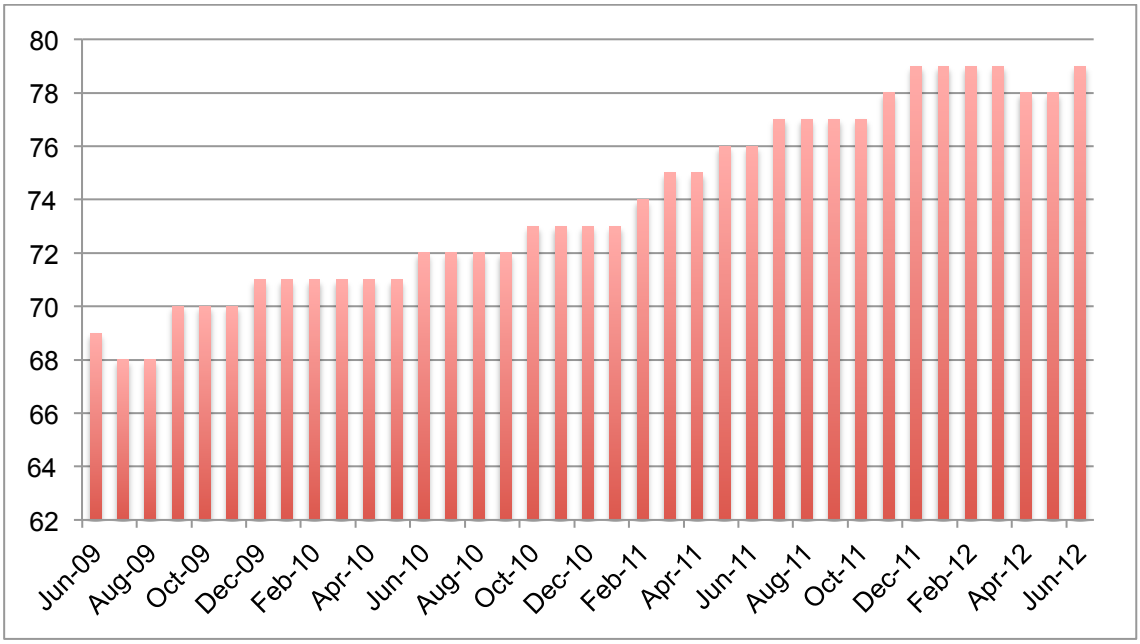
Over the quarter, .nz domain names have increased from 477,688 to 489,895, a net increase of 12,207 or 2.55%. This compares with a growth of 11,746 (2.7%) in the same quarter last year. The increase in the number of .maori.nz registrations is largely explained by an Australian based registrar offering them for $1 a year for a period.

b) Registrars

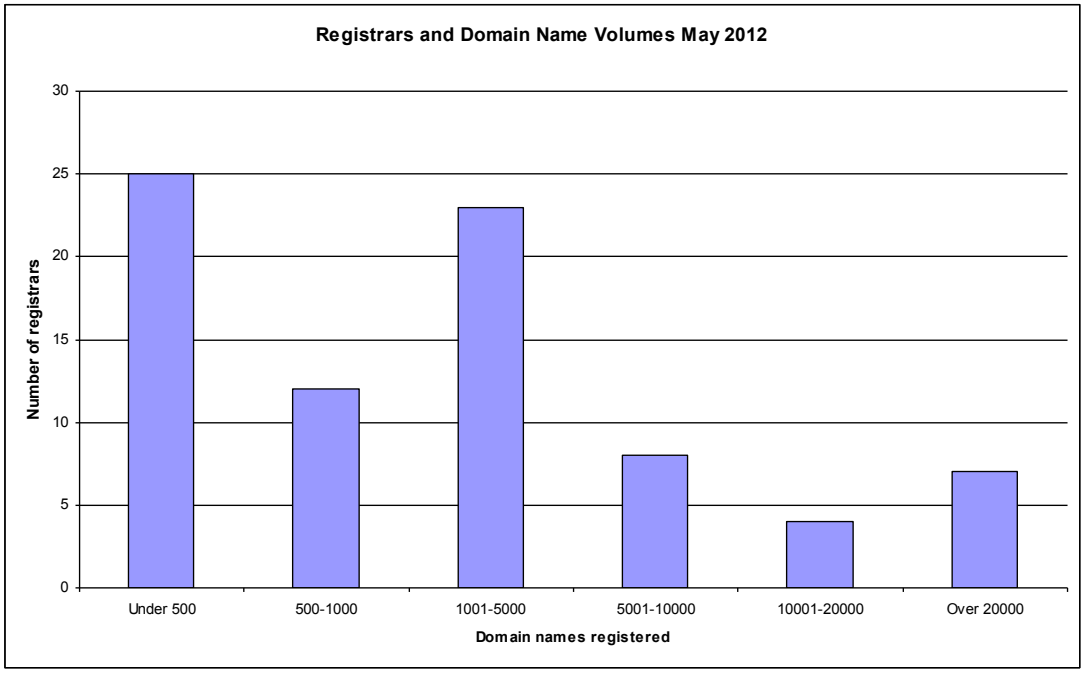
Registrars authorised	83
Registrars connected	78

Number connected during the quarter: 1
Number authorised during the quarter: Nil
Number de-authorised during the quarter: 1

At the end of the quarter there were 79 authorised registrars in production (including the DNC registrar). The following chart shows the change in the number of registrar over the last three years:



The following chart shows the spread of registrars across the level of domain name registrations:



Two new registrar representatives, Mark Goldfinch and Kim Lowton, were elected to the

Registry Advisory Group (RAG). They join Quintin Russ, Lee Miller, Maria Brosnan and Glen Eustace.

c) Registry Performance

SLA targets achieved for April, May and June 2012.

SRS, DNS and Whois availability is noted in the table below:

System	**SLA %**	Apr-12	May-12	Jun-12
SRS	99.90%	100.00	100.00	100.00
DNS	100%	100.00	100.00	100.00
Whois	99.90%	100.00	100.00	100.00

Joy Liddicoat
Chair, DNCL

Richard Currey
Chair, NZRS

31 July 2012

Frank March
President
InternetNZ
PO Box 11 881
Wellington

Dear Frank

Re: 1st Quarter 2012 – 2013 Report

We enclose our first quarterly report of the 2012 - 2013 year; the quarter ended 30th June 2012. The report, which I submit on behalf of the Board, consists of the summarised management accounts and a commentary on financial, operational, and strategic issues in relation to the company's performance. There is nothing in the report that we regard as confidential.

This report meets the requirement of the Reporting Policy incorporated in the July 2008 INZ - NZRS Operating Agreement.

1. Financial

Enclosed are Statements of:

- Financial performance; and
- Financial position

These statements are based on our management accounts for the quarter.

The net profit before tax of $698,403 for the quarter was 17.1% above the budgeted $596,254.

Domain name growth was above budget for the quarter (actual 12,207 versus budgeted 9,000). April's net growth was at 3,115, May's net growth at 4,555 and June's net growth at 4,537. Actual domain name fee income for the quarter was above budget by $45,029 (actual $1,870,255 versus budgeted $1,825,226).

Expenses for the quarter were $63,203 below budget (actual $1,246,255 versus budgeted $1,309,458) due mainly to timing and the strong NZ dollar.

Pre-paid domain name fees (deferred income) were above budget at the end of the quarter (actual of $5,518,756 against the budgeted $5,507,448).

The company's liquidity ratio was met.

2. .nz

All reporting on .nz can now be found in our joint report with DNCL.

3. Other Key Strategic and Operational Activities

a) Audit and Risk

Our first annual audit with the new auditors was undertaken and was professional and extremely thorough.

b) Company development

We held a Board and CE strategy weekend in May. The INZ President and the DNCL Chair also attended.

4. Service development

Our main focus in the quarter in this area will be on a pair of initiatives previously advised to InternetNZ in a confidential briefing paper.

Please do not hesitate to contact me if you have any queries.

Yours sincerely

Richard Currey
Chair

New Zealand Domain Name Registry Limited
Financial Statements
For the Quarter Ended 30th June 2012

Prepared By

Curtis McLean Limited
Chartered Accountants
Wellington NZ

New Zealand Domain Name Registry Limited
Exclusion of Liability Statement
For the Quarter Ended 30th June 2012

We have compiled the Financial Statements comprising Statement of Financial Performance, Statement of Movements in Equity and Statement of Financial Position of New Zealand Domain Name Registry Limited for the period ended 30th June 2012.

A compilation is limited primarily to the collection, classification and summarisation of financial information supplied by the client. A compilation does not involve the verification of that information.

We have not carried out an audit or review engagement of the Financial Statements and therefore neither we nor any of our employees accept any responsibility for the accuracy of the material from which the Financial Statements have been prepared. Further, the Financial Statements have been prepared at the request of and for the purpose of the client only and neither we nor any of our employees accept any responsibility on any ground whatsoever, including liability in negligence, to any other person.

Curtis McLean Limited
Chartered Accountants
Wellington NZ

New Zealand Domain Name Registry Limited
Statement of Financial Performance
For the Quarter Ended 30th June 2012

	This Quarter			Year to Date			Full Year	
	Actual	Budget	Variance	Actual	Budget	Variance	Budget	Last Year
Registry Fees	1,870,255	1,825,226	45,029	1,870,255	1,825,226	45,029	7,486,406	7,086,371
Less Direct Expenses								
DNC Management Fee	352,800	352,800	-	352,800	352,800	-	1,411,200	1,260,000
DNS Expenses	145,509	162,868	(17,359)	145,509	162,868	(17,359)	651,481	562,041
SRS Expenses	134,875	136,898	(2,023)	134,875	136,898	(2,023)	547,585	521,137
Other IT	62,653	47,236	15,417	62,653	47,236	15,417	176,745	172,329
Total Direct Expenses	695,837	699,802	(3,965)	695,837	699,802	(3,965)	2,787,011	2,515,507
Gross Profit	1,174,418	1,125,424	48,994	1,174,418	1,125,424	48,994	4,699,395	4,570,864
Less Other Expenses								
Depreciation & Amortisation	164,711	173,436	(8,725)	164,711	173,436	(8,725)	728,852	637,986
Overhead Expenses	385,707	436,220	(50,513)	385,708	436,220	(50,512)	1,594,887	1,260,104
Total Other Expenses	550,418	609,656	(59,238)	550,419	609,656	(59,237)	2,323,739	1,898,090
	624,000	515,768	108,232	623,999	515,768	108,231	2,375,656	2,672,774
Plus: Other Income								
Interest	74,403	80,486	(6,083)	74,403	80,486	(6,083)	294,751	347,504
Rental Lease Incentives Income	-	-	-	-	-	-	-	10,909
Net Profit Before Tax	698,403	596,254	102,149	698,402	596,254	102,148	2,670,407	3,031,187
Provision For Tax	-	-	-	-	-	-	-	-
Net Profit (Loss)	698,403	596,254	102,149	698,402	596,254	102,148	2,670,407	3,031,187

New Zealand Domain Name Registry Limited
Statement of Movements in Equity
For the Quarter Ended 30th June 2012

	This Year to Date		Last Year Full Year
Share Capital			
Opening Share Capital	30,000		30,000
Share Capital as at 30th June 2012		30,000	30,000
Retained Earnings			
Opening Retained Earnings	3,953,994		4,247,806
Plus: Net Tax Paid Profit (Loss) for Year	698,400		3,031,188
Less: Dividend Declared	400,000		3,324,999
Retained Earnings as at 30th June 2012		4,252,394	3,953,995
Equity as at 30th June 2012		$4,282,394	$3,983,995

New Zealand Domain Name Registry Limited
Statement of Financial Position
As At 30th June 2012

	End of Quarter				End of Year	
	Actual	Budget	Variance	LY Actual	Budget	LY Actual
Equity						
Share Capital	30,000	30,000	-	30,000	30,000	30,000
Retained Earnings	4,252,394	4,150,248	102,146	4,953,279	2,795,481	3,953,995
Total Equity	4,282,394	4,180,248	102,146	4,983,279	2,825,481	3,983,995
Liabilities:						
Creditors & Accruals	249,011	377,545	(128,535)	281,453	436,066	342,629
Deferred Income - Registry Fees	5,518,756	5,507,448	11,308	5,288,287	5,998,486	5,356,466
Total Liabitities	5,767,767	5,884,993	(117,227)	5,569,740	6,434,552	5,699,095
Funds Employed	10,050,161	10,065,241	(15,081)	10,553,019	9,260,033	9,683,090
Represented By:						
Current Assets						
Funds Held	8,220,810	8,189,816	30,994	8,729,851	7,267,170	7,864,330
Debtors & Prepayments	1,033,287	964,803	68,484	983,312	1,007,657	944,702
	9,254,097	9,154,619	99,478	9,713,163	8,274,827	8,809,032
Non Current Assets						
Fixed Assets	796,064	910,622	(114,559)	839,856	985,206	874,058
Total Non Current Assets	796,064	910,622	(114,559)	839,856	985,206	874,058
Total Assets	10,050,161	10,065,241	(15,081)	10,553,019	9,260,033	9,683,090

New Zealand Domain Name Registry Limited
Statement of Cash Flows
For the Quarter Ended 30 June 2012

	This Quarter			Year to Date				Full Year	
	Actual	Budget	Variance	Actual	Budget	Variance	Last Year (YTD)	Budget	LY Actual
Cash Flows From Operating Activities									
Cash Was Provided From:									
Registry Fees Received	2,242,335	2,245,078	-2,743	2,242,335	2,245,078	-2,743	2,159,672	9,277,275	8,193,008
Other Receipts	40,506	87,947	-47,441	40,506	87,947	-47,441	96,004	302,212	365,449
	2,282,842	2,333,025	-50,183	2,282,842	2,333,025	-50,183	2,255,675	9,579,487	8,558,457
Cash Was Distributed To:									
Payments to Suppliers and Employees	1,209,162	1,309,003	-99,841	1,209,162	1,309,003	-99,841	1,156,678	4,931,267	4,258,929
Net Taxation Paid (Refunded)	0	0	0	0	0	0	0	0	7,461
Net Dividend Paid	400,000	400,000	0	400,000	400,000	0	0	3,828,920	3,324,999
Net GST Paid	108,531	137,535	-29,004	108,531	137,535	-29,004	104,099	530,959	310,146
	1,717,693	1,846,538	-128,845	1,717,693	1,846,538	-128,845	1,260,777	9,291,146	7,901,534
Net Cashflows from Operating	565,149	486,487	78,662	565,149	486,487	78,662	994,898	288,341	656,922
Cash Flows from Financing Activities									
Cash was Provided From:									
Share Capital	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
Cash was Distributed To:									
Repayment of Redeemable Preference Shares							0		-
Inland Revenue Use of Money Interest	0	0	0	0	0	0	0	0	0
Net Cash flows from Financing	0	0	0	0	0	0	0	0	-
Cash Flows from Investing Activities									
Cash was Provided From:									
Fitout Contribution	0	0	0	0	0	0	0	0	0
Cash was Distributed To:									
Purchase of Fixed Assets & Formation Expenses	208,667	161,000	47,668	208,667	161,000	47,667	171,909	885,500	699,454
Net Cash flows from Investing Activities	-208,667	-161,000	-47,668	-208,667	-161,000	-47,667	-171,909	-885,500	-699,454
Net Increase (Decrease) in Cash Held	356,481	325,487	30,994	356,481	325,487	30,994	822,990	-597,159	-42,532
Plus Opening Cash Balance	7,864,329	7,864,329	-0	7,864,329	7,864,329	-0	7,906,861	7,864,329	7,906,861
Closing Cash Carried Forward	8,220,810	8,189,816	30,994	8,220,810	8,189,816	30,994	8,729,851	7,267,170	7,864,330
Closing Cash Comprises									
ASB Bank Cheque Account	237,854	-	-	237,855	-	-	735,242	7,267,170	523,059
ASB Bank Call Account	1,843,094	-	-	1,843,094	-	-	707,949	0	690,936
Term Deposits	6,139,861	-	-	6,139,861	-	-	7,286,660	0	6,650,335
Total Cash Held	8,220,810	8,189,816	30,994	8,220,810	8,189,816	30,994	8,729,851	7,267,170	7,864,330

Paper for the 17 August 2012 Council meeting

FOR INFORMATION

The NZRS fourth quarter report was received by Council in May, however the financials were not submitted (by accident) for circulation.

Please find the fourth quarter financials included in this set of minutes for your reference.

10 May 2012

Frank March
President
InternetNZ
PO Box 11 881
Wellington

Dear Frank

Re: 4th Quarter 2011 – 2012 Report

We enclose our fourth quarterly report of the 2011 - 2012 year, the quarter ended 31st March 2012. The report, which I submit on behalf of the Board, consists of the summarised management accounts and a commentary on financial, operational, and strategic issues in relation to the company's performance. There is nothing in the report that we regard as confidential.

This report meets the requirement of the Reporting Policy incorporated in the July 2008 INZ - NZRS Operating Agreement.

1. Financial

Enclosed are Statements of:

- Financial performance; and
- Financial position

These statements are based on our management accounts for the quarter.

The net profit before tax of $883,352 for the quarter was 40.8% above the budgeted $627,051.

Domain name growth was above budget for the quarter (actual 11,496 versus budgeted 9,000). January's net growth was at 2,962, February's net growth at 4,012 and March's net growth at 4,522. Actual domain name fee income for the quarter was above budget by $48,782 (actual $1,825,592 versus budgeted $1,776,810).

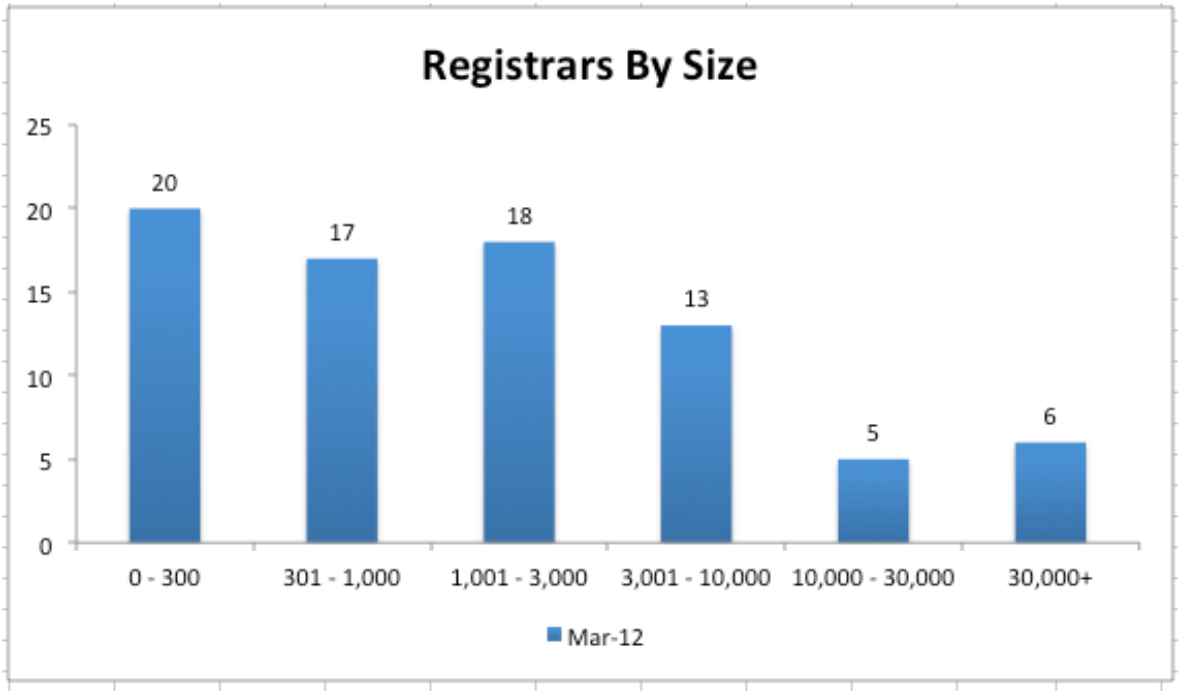
Expenses for the quarter were $173,070 below budget (actual $1,059,319 versus budgeted $1,232,389).

The company's liquidity ratio was met.

2. Operational

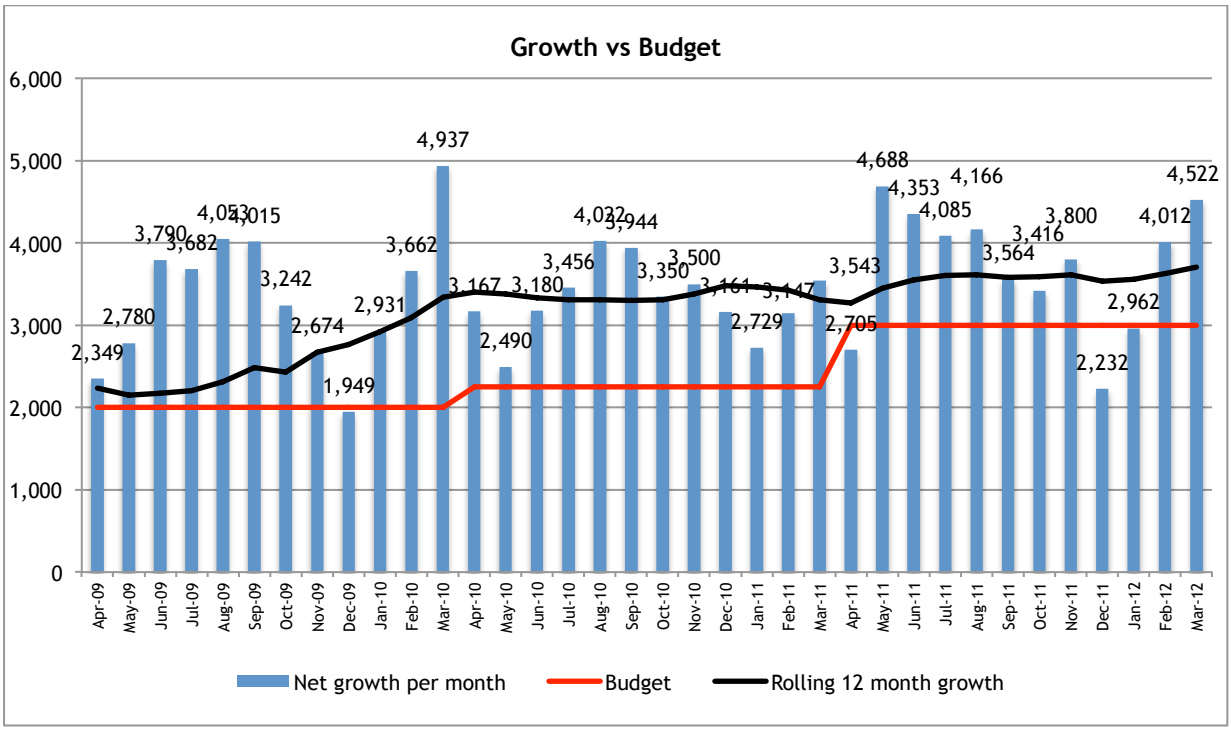
a) Registrars

At the end of the quarter there were 79 authorised registrars in production. The following chart shows the spread of registrars across the level of domain name registrations:



b) Domain name growth

The actual growth against budgeted growth is shown in the table below:



The breakdown of domain name growth by second level domain is noted in the table below:

	31 Jan 12	29 Feb 12	31 Mar 12
.ac	1,914	1,921	1,934
.co	406,827	410,365	414,389
.cri	13	13	13
.geek	1,124	1,138	1,142
.gen	1,385	1,394	1,386
.govt	1,107	1,111	1,114
.health	145	145	145
.iwi	77	78	78
.maori	660	666	678
.mil	33	33	33
.net	26,465	26,746	27,023
.org	26,159	26,300	26,475
.parliament	8	8	8
.school	3,237	3,248	3,270
Total	**469,154**	**473,166**	**477,688**
Growth over previous month	**2,962**	**4,012**	**4,522**
Variance against budget	**-38**	**1012**	**1522**

c) System availability

SRS, DNS and Whois availability is noted in the table below:

System	SLA %	Jan 12	Feb 12	Mar 12
SRS	99.90%	99.99	99.96	100.00
DNS	100%	100.00	100.00	100.00
Whois	99.90%	100.00	100.00	100.00

3. Other Key Strategic and Operational Activities

a) Project programme

In this quarter we worked on a number of major capital projects:

- With the DNSSEC project we discovered an anomaly in the representation of the keys in the zones. Although we had only one confirmed report of this causing problems we chose to change the representation to solve that, which meant implementing an entirely new key change process with IANA. This was successful and the rollout of DNSSEC to second levels will restart in the next quarter.
- All five production DNS sites in Lower Hutt, Christchurch and Auckland had successful hardware upgrades during March. This is part of our ongoing scheduled upgrade cycle to ensure that production equipment is well supported and in good condition.
- The SRS architectural review continues with a successful replacement of the messaging system and back-end catch-up functionality that keeps the distributed servers synchronised. This enables faster catch-up and so reduces the risk of data loss.
- The SRS network hardware upgrade has been completed. This provides separation of the internal and external networks at the Wellington and Albany sites, with dedicated capacity for each and no single point of failure.
- The operating system on all production servers was upgraded to the latest major release.

b) Audit and Risk

Following the unusual office break-in we commissioned a security firm to conduct a sweep of the public areas that found no evidence of tampering or installation of surveillance devices. We have now installed cameras and video recording equipment that monitors the stairwell and lift door out of hours.

We conducted a scheduled test of our satellite backup equipment and purchased additional equipment following that.

c) Business development

Our CE dedicated significant time to the dotString WG that concluded in this quarter.

d) Support of InternetNZ policy work

Our CE contributed to the work on the recently finalised TLD principles.

e) International engagement

The DNS Specialist attended two conferences focusing on DNS research, the DNS-OARC conference and SATIN.

The DNS Specialist presented on two topics, a technical report on the .NZ DNSKEY correction process, and a methodology and tool for DNS benchmarking that he developed during the DNSSEC project. The latter sparked great interest, and DNS operators are now discussing the principles that should drive those measurements.

4. Outlook: Strategic Issues and Key Operational Activities

Key activities for the first quarter of the 2012 - 2013 financial year include:

a) .nz development

We will be recruiting a Commercial Manager who will manage our registrar sales channel and provide them the support to increase their sales of .nz.

b) Project programme

This will focus on the following main projects:

- DNSSEC rollout
- SRS review
- Replacement of a test platform
- Upgrade of tape backup solution

c) Business development

Our main focus in the quarter in this area will be on a pair of initiatives previously advised to InternetNZ in a confidential briefing paper.

Please do not hesitate to contact me if you have any queries.

Yours sincerely

Richard Currey
Chair

New Zealand Domain Name Registry Limited
Financial Statements
For the Quarter Ended 31st March 2012

Prepared By

Curtis McLean Limited
Chartered Accountants
Wellington NZ

New Zealand Domain Name Registry Limited
Exclusion of Liability Statement
For the Quarter Ended 31st March 2012

We have compiled the Financial Statements comprising Statement of Financial Performance, Statement of Movements in Equity and Statement of Financial Position of New Zealand Domain Name Registry Limited for the period ended 31st March 2012.

A compilation is limited primarily to the collection, classification and summarisation of financial information supplied by the client. A compilation does not involve the verification of that information.

We have not carried out an audit or review engagement of the Financial Statements and therefore neither we nor any of our employees accept any responsibility for the accuracy of the material from which the Financial Statements have been prepared. Further, the Financial Statements have been prepared at the request of and for the purpose of the client only and neither we nor any of our employees accept any responsibility on any ground whatsoever, including liability in negligence, to any other person.

Curtis McLean Limited
Chartered Accountants
Wellington NZ

New Zealand Domain Name Registry Limited
Statement of Financial Performance
For the Quarter Ended 31st March 2012

	This Quarter			Year to Date			Full Year	
	Actual	Budget	Variance	Actual	Budget	Variance	Budget	Last Year
Registry Fees	1,825,592	1,776,810	48,782	7,086,371	6,965,195	121,176	6,965,195	7,151,664
Less Direct Expenses								
DNC Management Fee	315,000	317,073	(2,073)	1,260,000	1,268,294	(8,294)	1,268,294	1,207,899
DNS Expenses	148,716	158,444	(9,728)	562,041	633,771	(71,730)	633,771	498,899
SRS Expenses	79,500	128,575	(49,075)	521,137	514,295	6,842	514,295	485,810
Other IT	32,467	42,033	(9,566)	172,329	172,081	248	172,081	142,654
Total Direct Expenses	575,683	646,125	(70,442)	2,515,507	2,588,441	(72,934)	2,588,441	2,335,262
Gross Profit	1,249,909	1,130,685	119,224	4,570,864	4,376,754	194,110	4,376,754	4,816,402
Less Other Expenses								
Depreciation & Amortisation	182,744	236,521	(53,777)	637,986	757,090	(119,104)	757,090	355,363
Overhead Expenses	300,892	349,743	(48,851)	1,269,042	1,416,009	(146,967)	1,416,009	1,150,761
Total Other Expenses	483,636	586,264	(102,628)	1,907,028	2,173,099	(266,071)	2,173,099	1,506,124
	766,273	544,421	221,852	2,663,836	2,203,655	460,181	2,203,655	3,310,278
Plus: Other Income								
Interest	117,079	82,630	34,449	387,983	333,412	54,571	333,412	398,105
Rental Lease Incentives Income	-	-	-	-	-	-	-	1,388
Profit on Fixed Asset Disposal	-	-	-	-	-	-	-	699
Net Profit Before Tax	883,352	627,051	256,301	3,051,819	2,537,067	514,752	2,537,067	3,710,470
Provision For Tax	-	-	-	-	-	-	-	-
Net Profit (Loss)	883,352	627,051	256,301	3,051,819	2,537,067	514,752	2,537,067	3,710,470

New Zealand Domain Name Registry Limited
Statement of Movements in Equity
For the Quarter Ended 31st March 2012

	This Year to Date		Last Year Full Year
Share Capital			
Opening Share Capital	30,000		30,000
Share Capital as at 31st March 2012		30,000	30,000
Retained Earnings			
Opening Retained Earnings	4,247,805		5,547,336
Plus: Net Tax Paid Profit (Loss) for Year	3,051,819		3,710,470
Less: Dividend Declared	3,324,999		5,010,000
Retained Earnings as at 31st March 2012		3,974,625	4,247,806
Equity as at 31st March 2012		$4,004,625	$4,277,806

New Zealand Domain Name Registry Limited
Statement of Financial Position
As At 31st March 2012

	End of Quarter				End of Year	
	Actual	Budget	Variance	LY Actual	Budget	LY Actual
Equity						
Share Capital	30,000	30,000	-	30,000	30,000	30,000
Retained Earnings	3,974,625	4,059,873	(85,248)	4,247,805	4,059,873	4,247,806
Total Equity	4,004,625	4,089,873	(85,248)	4,277,805	4,089,873	4,277,806
Liabilities:						
Creditors & Accruals	362,477	417,075	(54,599)	319,567	417,075	319,567
Deferred Income - Registry Fees	5,356,466	5,579,294	(222,828)	5,146,926	5,579,294	5,146,926
Total Liabitities	5,718,943	5,996,369	(277,427)	5,466,493	5,996,369	5,466,493
Funds Employed	9,723,568	10,086,242	(362,675)	9,744,298	10,086,242	9,744,299
Represented By:						
Current Assets						
Funds Held	7,864,329	8,225,765	(361,436)	7,906,860	8,225,765	7,906,861
Debtors & Prepayments	985,181	935,339	49,842	995,210	935,339	995,210
	8,849,510	9,161,104	(311,594)	8,902,070	9,161,104	8,902,071
Non Current Assets						
Fixed Assets	874,058	925,138	(51,081)	842,228	925,138	842,228
Total Non Current Assets	874,058	925,138	(51,081)	842,228	925,138	842,228
Total Assets	9,723,568	10,086,242	(362,675)	9,744,298	10,086,242	9,744,299

New Zealand Domain Name Registry Limited
Statement of Cash Flows
For the Quarter Ended 31 March 2012

	This Quarter			Year to Date				Full Year	
	Actual	Budget	Variance	Actual	Budget	Variance	Last Year (YTD)	Budget	LY Actual
Cash Flows From Operating Activities									
Cash Was Provided From:									
Registry Fees Received	1,877,653	2,176,796	-299,143	8,193,008	8,567,068	-374,060	7,955,601	8,567,068	7,955,601
Other Receipts	70,606	82,630	-12,024	365,449	333,412	32,037	396,641	333,412	396,641
	1,948,258	2,259,426	-311,168	8,558,456	8,900,480	-342,024	8,352,242	8,900,480	8,352,242
Cash Was Distributed To:									
Payments to Suppliers and Employees	997,323	1,114,920	-117,597	4,258,929	4,508,657	-249,728	3,786,682	4,508,657	3,786,682
Net Taxation Paid (Refunded)	-0	0	-0	7,461	0	7,461	-533	0	(533)
Net Dividend Paid	908,333	908,334	-1	3,324,999	2,725,000	599,999	5,010,000	2,725,000	5,010,000
Net GST Paid	90,844	88,152	2,692	310,146	462,419	-152,273	329,314	462,419	329,314
	1,996,499	2,111,406	-114,907	7,901,534	7,696,076	205,458	9,125,463	7,696,076	9,125,463
Net Cashflows from Operating	-48,241	148,020	-196,261	656,922	1,204,404	-547,482	-773,221	1,204,404	(773,221)
Cash Flows from Financing Activities									
Cash was Provided From:									
Share Capital	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
Cash was Distributed To:									
Repayment of Redeemable Preference Shares							0		-
Inland Revenue Use of Money Interest	0	0	0	0	0	0	0	0	0
Net Cash flows from Financing	0	0	0	0	0	0	0	0	-
Cash Flows from Investing Activities									
Cash was Provided From:									
Fitout Contribution	0	0	0	0	0	0	0	0	0
Cash was Distributed To:									
Purchase of Fixed Assets & Formation Expenses	148,259	241,500	-93,241	699,454	885,500	-186,046	852,861	885,500	852,861
Net Cash flows from Investing Activities	-148,259	-241,500	93,241	-699,454	-885,500	186,046	-852,861	-885,500	-852,861
Net Increase (Decrease) in Cash Held	-196,500	-93,480	-103,020	-42,532	318,904	-361,436	-1,626,082	318,904	-1,626,082
Plus Opening Cash Balance	8,060,829	8,319,245	-258,416	7,906,861	7,906,861	0	9,532,943	7,906,861	9,532,943
Closing Cash Carried Forward	7,864,329	8,225,765	-361,436	7,864,329	8,225,765	-361,436	7,906,861	8,225,765	7,906,861
Closing Cash Comprises									
ASB Bank Cheque Account	523,059	-	-	523,059	-	-	708,256	0	708,256
ASB Bank Call Account	690,936	-	-	690,936	-	-	6,754	0	6,754
Term Deposits	6,650,335	-	-	6,650,335	-	-	7,191,851	0	7,191,851
Total Cash Held	7,864,329	8,225,765	-361,436	7,864,329	8,225,765	-361,436	7,906,861	8,225,765	7,906,861

8 June 2012

Frank March
President
InternetNZ
PO Box 11881
Wellington

Dear Frank

Re: NZDNRL – Statement of Direction and Goals

As outlined in a letter to you in November 2011, NZRS noted it would provide to InternetNZ as shareholder, its final Statement of Direction and Goals, incorporating any changes arising at year-end. These changes have now been included in the enclosed Statement of Direction and Goals for the 3-year period 2012 - 2013 through 2014 - 2015.

In line with our policy of openness and transparency, we welcome the publication of this statement and do not require it to be treated as confidential.

I will be available to attend the InternetNZ Council meeting in August and respond to any comments or answer any questions that Council may have on the Statement of Direction and Goals.

Yours sincerely

Richard Currey
Chairman

Statement of Direction and Goals

(incorporating strategy, key performance indicators and 3-year budgets)

for the 3 Years 2012 - 2013 to 2014 - 2015

May 2012

NZRS Statement of Direction and Goals

Contents

Introduction

This NZRS Statement of Direction and Goals has been prepared under the Planning and Reporting framework adopted by InternetNZ Council following the 2007 InternetNZ Structural Review. That framework provides for this Statement of Direction and Goals to include strategic direction, key performance indicators and 3-year budgets.

We have been provided with the InternetNZ Statement of Expectations and so have used that as a key input to the company's planning processes.

The Changed NZRS Operating Environment

The environment in which we operate is changing across a raft of fronts and our strategy for the coming year reflects that. There are several key factors that drive our strategy:

Global economic climate

The volatility of the global economy is now back to the level seen soon after the breaking of the global financial crisis in 2008. The European debt crisis is escalating week by week and threatens systemic chaos in the global finance markets. This is taking place against the backdrop of warnings from the IMF and OECD that a slowdown in global growth is underway and that the capacity of the global economy to mitigate this is significantly diminished since 2008. Of particular note is that the Asian economies, so far sheltered from the worst of the crisis, no longer seem as robust as they once did and NZ may not be shielded by them as it was in 2008.

Despite this uncertainty the level of registrations have improved since 2010-11 and has exceeded target. But as we saw in 2008, sentiment is quick to change and the short term impact of a financial crisis can be severe.

Impact of new gTLDs

With a timetable now set by ICANN for the acceptance and processing of bids to operate new gTLDs the global discussion is well underway on the likely impact of this upheaval to the DNS. For us, as with many other ccTLDs, the largest impact will be one of increased competition. While the choice for the average NZ consumer is currently limited to .nz and a handful of TLDs, this will change dramatically with the introduction of hundreds of new TLDs.

These new competitors will largely follow the same strategy of marketing a brand to create an affinity in the general public with their chosen string, while leaving the operations to outsourcing partners. Advertising of new gTLDs will become increasingly prevalent riding on the back of a novelty factor that will generate initial public interest. The TLDs that do not undertake marketing will struggle to be noticed in this new environment.

There will also be a change in the balance of power between registrars and registries. We, along with all other TLDs, will now be competing for shelf space in registrars' online shops when previously we had a shelf all to ourselves. Registrars will look at our pricing, marketing support, technical performance, customer support and development plans as never before as they take business decisions on which TLDs give them the best return on investment.

The inevitable implementation hiccups and later collapses of new gTLD registries as they fail to meet expectations will make the reputation of a TLD more important than ever. The decision factors for consumers will change over time from just their affinity with the string to include a view of their overall trust in the TLD. All the new TLDs will be actively developing a strong value proposition, though without the history of success that we can point to.

For NZRS this provides challenges and opportunities.

The greatest challenge is to develop and maintain a competitive market positioning for .nz through the implementation of a marketing strategy for .nz while respecting the constraints of our role as a wholesale provider that does not have direct contact with registrants. This marketing will need to coordinate with the promotional work that DNCL may undertake while respecting the constraints of their role as a regulator.

The greatest opportunity is for us to differentiate .nz from the competition on the quality of the .nz policy framework, our customer support, the reliability of service and the openness of our technology and processes.

Best practice in domain name registries

The domain name industry is a maturing market that has yet to develop formal benchmarks of quality assurance that can independently test for compliance with best practice. We have begun to take the lead within our industry to develop agreement on best practice and benchmarking, while in the interim relying on regular contact with international peers to enable informal assessment.

The implementation of DNSSEC, due for completion before the 2012-13 year, marks another milestone in the development of a best practice registry. We have had the benefit of learning from the tribulations of early adopters while also being at the forefront of innovation ourselves. Our DNSSEC Practice Statement was ground breaking for a registry of our size and the consultation that went into it was world leading for any registry of any size.

"Big data" is an emerging buzzword of the IT industry and relates to the benefits that can be derived by capturing, correlating and analysing vast quantities of data from large scale system. Our systems see unique data and from an exceptionally wide number of sources in comparison to our size. This provides us with notable opportunities to increase our data capture and analysis and to mix this with other data sets to provide entirely new insights and services.

Security

Internet security and the use of domain names in criminal activity remains a significant concern. The focus in the domain name community has returned to that of takedown at the registry, which brings with it many important policy issues for DNCL such as due process and proportionality. While that debate continues our focus will remain on the capture of data from the DNS and SRS and the development of technical policies and process for shared forensic data analysis.

NZ Internet infrastructure

We have noted previously that the current Internet infrastructure within NZ leads to sub-optimal DNS server placement and a higher level of external vulnerability than we would hope for. While we continue to aim to mitigate this through efforts to improve the interconnectivity available to us we are also now planning for how UFB will change this landscape and how our connectivity and service architecture will change as a result.

Local technical community engagement

Our consultation on our DNSSEC Practice Statement was part of a wider push on openness and transparency of our operations. This is increasingly important as the DNS becomes critical national infrastructure and providers come under increasing scrutiny. We aim to be a world leader with technical transparency, which when combined with our work on registry benchmarking, will enable independent verification of our status as a world-class registry.

NZRS Vision, Mission and Values

Vision:

> ***Excellence in registry management through superior service and the innovative application of technology.***

Mission:

> ***To provide robust, reliable registry services enabling people, entities and communities to access and gain increasing benefit from the internet.***

The Board, management and staff are committed to the following set of values in the way NZRS operates:

- ethical behaviour shown by professional practice with integrity
- excellence in service and systems through continuous improvement, technological innovation and understanding the customers
- independence of contribution, diversity of views
- commitment to leadership, innovation and an outward focus
- respect for fair competition in the market place through efficiency and transparency.

These values shape the culture of the company.

Strategic Goals

Our five strategic goals are to:

1. Deliver a world-class domain name service to registrars, their customers and all Internet users.
2. Deliver world-class registry services that continually improve.
3. Support InternetNZ through tangible contributions of income, governance and management resources, and expert knowledge.
4. Develop our services and technology within a long term evolutionary framework to meet the future needs of Internet users.
5. Deliver, in partnership with DNCL, a successful long-term strategy for .nz.

Key Priorities

To ensure an appropriate focus on strategic goals within the changed operating environment, NZRS's priorities for the planning period are:

- Continuing its strong focus on the company's core business of:
  - providing value for customers through a fast, robust, reliable, value for money service
  - respecting and protecting the rights and interests of the registrants
  - generating income to support the goals of the shareholder
  - utilising technology innovatively to provide a more cost effective, superior service
  - influencing the market and industry environment through partnerships with key stakeholders
  - keeping abreast of the market and industry developments in the technology sector to identify trends and growth opportunities
  - maintaining professional service-focused relationships.
- Deliver key projects (some of which carry on from 2011-12), which include:
  - Overhaul the SRS to ensure that it remains fit for purpose for the medium term and to streamline and optimise the performance, increasing security and making it easier and faster to add new features.
  - Significantly expand our data capture of DNS traffic and provide increased visibility to registrars of this data and analysis on the implications for them.
  - A complete replacement of the web based registration system offered to registrars.
- Develop and implement, in conjunction with DNCL, a comprehensive marketing strategy for .nz that includes:
  - A competitive market positioning and strengthened value proposition for .nz that highlights key attributes of .nz as a trusted TLD.
  - Active engagement and support of our current registrars and better information for potential new registrars, to maintain the 'shelf space' available to .nz.
  - The appointment of a new channel manager to build closer relationships with registrars, help develop the brand of .nz and increase sales of .nz by registrars.
- Continue our cycle of external audit and review of systems, processes and entities to ensure business continuity, adherence to best practice and to identify any problems:
  - Conduct our annual wide-ranging security review and implement the recommendations. This includes the commissioning of real-world penetration tests across our production systems.
  - Review all our internal policies and procedures, including the normal twice-yearly financial audits.
- Work closely with the NZ technical community to:
  - Increase the transparency of our technical policies and practices.
  - Understand the "big data" implications of our role and how best we can serve the community in their data needs.
  - Establish the optimal Internet connectivity for our DNS servers.
  - Improve the knowledge and understanding of DNS and the general level of DNS service provision.

- Leverage our involvement in the international communities of registries, protocol developers and other ccTLDs to:
  - Identify and pursue means of benchmarking performance with other registries.
  - Influence the development of registry protocols (such as the next version of EPP) in a direction that meets our needs.
  - In close cooperation with DNCL, share knowledge and experience of best practice in ccTLD management to help developing ccTLDs.
  - Identify best practice that we could or should be adopting.
  - Influence the development of global Internet policies for registries and ccTLDs, again in close cooperation with DNCL, to meet our needs and the needs of our local Internet community.
- Work as part of the whole InternetNZ group, on identifying the evolutionary trends and opportunities for ccTLDs and domain names, or other closely related business development opportunities, then progress those as projects within the scope of the agreed business development framework for the whole group. Areas of interest include:
  - Identity management
  - Network measurement
  - Big data
  - ENUM and numbering administration
  - Network time
  - DNS enabled cryptography

Key Performance Indicators and Budget Assumptions

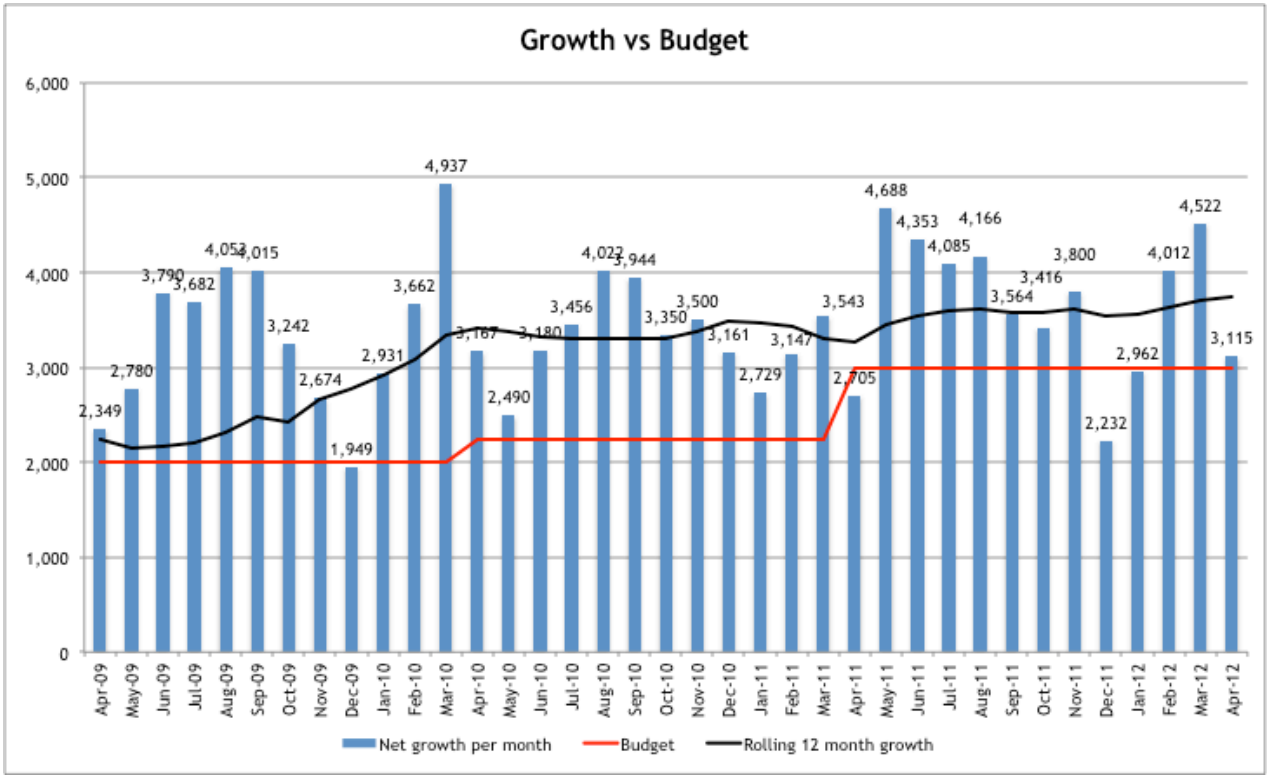
Domain name growth

There are two significant complexities when forecasting domain name growth:

1. Growth varies significantly from month to month and so is best understood using a rolling 12-month average, which is the measure we aim to track for budgeting purposes.

2. The InternetNZ group budget cycle requires growth forecasting in October for the following year beginning in April, when growth patterns may change by the start of the year.

The following chart shows growth against budget for the current part year of 2011-2012 and the previous years of 2009-2010 and 2010-2011, illustrating these points:



From analysis of current and past growth and the environmental factors detailed above, we forecast growth three years ahead, which is then incorporated into our budget. The following table shows our forecasts for the current and following three years:

Net growth	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Monthly budget	2,250	3,000	3,000	3,000	3,000
Monthly actuals	3,307	3,708	-	-	
Yearly total	39,689	44,505	36,000	36,000	36,000

Domain name income
In addition to the growth forecasts, the following assumptions have been used for budgeting domain name income:

Monthly domain fee	$1.25
Average domain Name term for names longer than 1 month	13.53 months
Names in register at 1 April 2012	477,688

The domain name fee is subject to a later recommendation to Council following the joint NZRS/DNCL fee setting process.

System availability
NZRS's key performance targets for SRS and DNS systems availability are based on the current Service Level Agreement (SLA) with DNCL, which contains a suite of availability and response times metrics. The company has consistently met the key metrics under the SLA and is committing to do so across this planning period.

NZRS's key performance targets based on the main availability metrics under the SLA are:

- DNS availability: 100%
- SRS availability: 99.9%
- WHOIS availability: 99.9%

The full set of operational KPIs are published in the monthly NZRS-DNCL newsletter and on the DNCL website.

General assumptions
The following general assumptions are made for budgeting purposes:

- All financial amounts noted in budget exclude GST.
- The current dividend policy remains in place.
- NZRS pays no income tax as a consequence of our charitable status, which in turn is dependent on the charitable status of InternetNZ.
- NZRS continues to pay a management fee to Domain Name Commission Ltd.

Financial key performance indicators
NZRS's financial performance indicators relate to each year's domain name fee revenue, net profit after tax, dividend to InternetNZ, retained earnings, capital expenditure and liquidity ratio maintenance. These are shown in the table below:

$'000s	Actual 2011 - 2012	Budget 2012 - 2013	Budget 2013 - 2014	Budget 2014 - 2015
Domain name fee revenue	7,086	7,486	7,999	8,517
Other income	346	295	312	346
DNCL fee	1,260	1,411	1,482	1,556
Expenses (excl DNCL)	3,153	3,700	3,908	4,201
Net Profit	2,031	2,670	2,922	3,106
Dividend	(3,325)	(3,829)	(2,765)	(3,164)
Retained earnings	(1,294)	(1,159)	157	(58)
Capital expenditure	840	840	840	882
Liquidity ratio (31-Mar)	125%	103%	104%	104%

Appendix 1 – Budgets for the 3 Years to 31st March 2015

New Zealand Domain Name Registry Limited
BUDGETED STATEMENT OF FINANCIAL PERFORMANCE

	12 - 13 $	13 - 14 $	14 - 15 $	Total $
INCOME				
Registry Fees	7,486,406	7,998,835	8,516,556	24,001,797
Interest Received	294,751	312,498	346,064	953,313
	7,781,157	8,311,333	8,862,620	24,955,110
DIRECT COSTS	2,787,011	2,923,573	3,066,957	8,777,541
GROSS PROFIT	4,994,146	5,387,760	5,795,663	16,177,569
OVERHEADS	1,594,887	1,617,238	1,693,213	4,905,338
OTHER COSTS	728,852	848,594	996,634	2,574,080
OPERATING PROFIT	2,670,407	2,921,928	3,105,816	8,698,151
NET PROFIT	2,670,407	2,921,928	3,105,816	8,698,151
INCOME TAX	-	-	-	-
PROFIT AFTER TAX	2,670,407	2,921,928	3,105,816	8,698,151
DIVIDEND ACCRUAL	(3,828,920)	(2,764,587)	(3,163,845)	(9,757,352)
RETAINED EARNINGS	(1,158,513)	157,341	(58,029)	(1,059,201)
CUMULATIVE	(1,158,513)	(1,001,172)	(1,059,201)	(1,059,201)

New Zealand Domain Name Registry Limited
BUDGETED STATEMENT OF FINANCIAL POSITION

	Opening	Mar-13	Mar-14	Mar-15
	$	$	$	$
FIXED ASSETS				
Software	2,018,143	2,378,143	2,738,143	3,116,143
Office Equipment	128,809	153,809	178,809	205,059
Computer Hardware	890,217	1,345,217	1,800,217	2,277,967
Accumulated Depreciation	-2,163,111	-2,891,963	-3,740,557	-4,737,191
	874,058	985,206	976,612	861,978
INTANGIBLE ASSETS				
TradeMarks	10,698	10,698	10,698	10,698
Accumulated Depreciation	-10,698	-10,698	-10,698	-10,698
	0	0	0	0
CURRENT ASSETS				
Bank	7,864,329	7,267,170	8,116,424	8,931,873
Trade Debtors	742,209	805,163	861,705	918,247
Prepayments	52,557	52,557	52,557	52,557
Interest Receivable	149,937	149,937	149,937	149,937
	8,809,032	8,274,827	9,180,623	10,052,614
CREDITORS DUE WITHIN ONE YEAR				
Trade Creditors	250,973	293,597	303,244	317,391
Other Creditors	53,627	104,439	115,062	124,430
Deferred Income	5,356,466	5,998,486	6,718,077	7,509,948
Holiday and Sick Leave Accrued	38,029	38,029	38,029	38,029
	5,699,095	6,434,551	7,174,412	7,989,798
NET CURRENT ASSETS	3,109,937	1,840,276	2,006,211	2,062,816
CREDITORS DUE AFTER ONE YEAR	0	0	0	0
TOTAL NET ASSETS	3,983,995	2,825,482	2,982,823	2,924,794
CAPITAL & RESERVES				
Share Capital	30,000	30,000	30,000	30,000
Reserves	3,953,995	2,795,482	2,952,823	2,894,794
	3,983,995	2,825,482	2,982,823	2,924,794
Liquidity (incl bus dev $400k)	125%	103%	104%	104%
Surplus Cash over Required Liquidity	1,593,920	214,587	313,845	302,150

New Zealand Domain Name Registry Limited
BUDGETED CASHFLOW

	12 - 13 $	13 - 14 $	14 - 15 $	Total $
RECEIPTS				
Income	9,277,275	9,969,647	10,648,149	29,895,071
Other Income	302,212	312,498	346,064	960,774
	9,579,487	10,282,145	10,994,213	30,855,845
PAYMENTS				
Invoiced Costs	250,973	-	-	250,973
Direct Costs	3,059,321	3,338,483	3,502,158	9,899,962
Overheads	1,620,973	1,721,468	1,802,671	5,145,112
Fixed Asset Purchases	885,500	966,000	1,010,275	2,861,775
Other Assets/Liab's Out	4,359,879	3,406,940	3,863,660	11,630,479
	10,176,646	9,432,891	10,178,764	29,788,301
NET CASH FLOW	(597,159)	849,254	815,449	1,067,544
OPENING BANK	7,864,329	7,267,170	8,116,424	7,864,329
CLOSING BANK	7,267,170	8,116,424	8,931,873	8,931,873

Internet New Zealand
Consolidated Financial Statements
For the Quarter Ended 30 June 2012

Internet New Zealand
Table of Contents
For the Quarter Ended 30 June 2012

Internet New Zealand
Exclusion of Liability Statement

We have compiled the Financial Statements comprising Statement of Financial Performance, Statement of Movements in Equity, Statement of Financial Position and Statement of Cash Flows of Internet New Zealand

A compilation is limited primarily to the collection, classification and summarisation of financial information supplied by the client. A compilation does not involve the verification of that information.

We have not carried out an audit or review engagement of the Financial Statements and therefore neither we nor any of our employees accept any responsibility for the accuracy of the material from which the Financial Statements have been prepared. Further, the Financial Statements have been prepared at the request of and for the purpose of the client only and neither we nor any of our employees accept any responsibility on any ground whatsoever, including liability in negligence, to any other person.

Curtis McLean Limited
Chartered Accountants
Wellington
2-Aug-12

Internet New Zealand
Consolidated Income Statement
For the Quarter Ended 30 June 2012

	Group		INZ		NZRS		DNCL	
	Qtr	YTD	Qtr	YTD	Qtr	YTD	Qtr	YTD
Income	1,891,708	1,891,708	56,958	56,958	1,870,255	1,870,255	367,800	367,800
Other Income	870	870	0	0	0	0	870	870
Dividends Received	0	0	400,000	400,000	0	0	0	0
Interest Received	84,279	84,279	9,396	9,396	74,403	74,403	480	480
Total Income	1,976,857	1,976,857	466,354	466,354	1,944,658	1,944,658	369,150	369,150
Less Expenses								
Direct Expenses	343,037	343,037	0	0	695,837	695,837	0	0
Other Expenses	1,733,887	1,733,887	961,265	961,265	550,418	550,418	272,709	272,709
Total Expenses	2,076,924	2,076,924	961,265	961,265	1,246,255	1,246,255	272,709	272,709
Net Profit (Loss) Before Tax	(100,067)	(100,067)	(494,911)	(494,911)	698,403	698,403	96,441	96,441
Less Provision for Tax	0	0	0	0	0	0	0	0
Net Profit (Loss) After Tax	(100,067)	(100,067)	(494,911)	(494,911)	698,403	698,403	96,441	96,441

Notes:

The income and expenditure lines for the individual entities do not add to the Group totals due to the following intra-group entries being eliminated:
1. SSU Fees paid by NZRS and DNCL to INZ
2. The DNCL fee paid by NZRS to DNCL
3. The dividend paid by NZRS to INZ

The Group year to date net profit is $400,000 (quarter also $400,000) less than the sum of the individual entities due to the dividend received by INZ from NZRS being removed from income while the payment by NZRS shows under their statement of movements in equity on page 3.

Internet New Zealand
Statement of Movements in Equity
For the Quarter Ended 30 June 2012

	Group		INZ		NZRS		DNCL	
	Qtr	YTD	Qtr	YTD	Qtr	YTD	Qtr	YTD
Opening Equity	9,480,263	9,480,263	5,490,565	5,490,565	3,953,994	3,953,994	35,704	35,704
Plus:								
Shares Subscribed	0	0	0	0	30,000	30,000	580,000	580,000
Net Profit (Loss) After Tax	(100,067)	(100,067)	(494,911)	(494,911)	698,403	698,403	96,441	96,441
Less:								
Dividend Paid	0	0	0	0	0	400,000	0	0
Closing Equity	9,380,196	9,380,196	4,995,654	4,995,654	4,682,397	4,282,397	712,145	712,145

Internet New Zealand
Balance Sheet
As at 30 June 2012

	Group	INZ	NZRS	DNCL
Current Assets				
Cash and Cash Equivalents	13,093,746	4,121,834	8,220,810	751,102
Other Current Assets	1,174,791	113,747	1,033,287	27,757
Total Current Assets	14,268,537	4,235,581	9,254,097	778,859
Property, Equipment & Software	1,090,021	288,480	796,064	5,477
Intangible Assets	0	0	0	0
Investments				
Shares and Loans	0	610,000	0	0
Total Assets	15,358,558	5,134,061	10,050,161	784,336
Less Liabilities:				
Deferred Income	5,518,756	0	5,518,756	0
Trade and Other Payables	459,606	138,407	249,008	72,191
Total Liabilities	5,978,362	138,407	5,767,764	72,191
Net Book Value of Assets	9,380,196	4,995,654	4,282,397	712,145
Represented By:				
Total Equity	9,380,196	4,995,654	4,282,397	712,145

Internet New Zealand
Statement of Cashflows
For the Quarter Ended 30 June 2012

	Group Qtr	YTD
Cash Flows From Operating Activities		
Cash was provided from:		
Receipts from customers	2,054,868	2,054,868
Interest Received	84,279	84,279
Total Received	2,139,147	2,139,147
Cash was distributed to:		
Payments to Suppliers and Employees	2,349,780	2,349,780
Total Payments	2,349,780	2,349,780
Net Flows From Operating Activities	(210,633)	-210,633
Cash Flows From Investing & Financing Activities		
Cash was distributed to:		
Purchase of Property, Equipment & Software	92,606	92,606
Advance to Hector's World	0	0
Net Cash Flows From Investing & Financing Activities	(92,606)	-92,606
Net Increase Decrease in Cash & Cash Equivalents	(303,239)	-303,239
Plus Opening Cash	13,396,984	13,396,984
Closing Cash Carried Forward	13,093,745	13,093,745
Closing Cash Comprises		
Cash & Cash Equivalents	13,093,746	13,093,746

Cash Flow Reconciliation

Net Profit (Loss) After Tax	(100,067)	(100,067)
Plus (Less) non cash items		
Depreciation	179,711	179,711
Subtotal	79,644	79,644
Movement in Working Capital		
(increase) decrease in receivables	(62,156)	(62,156)
increase (decrease) in payables	(390,411)	(390,411)
increase (decrease) in deferred income	162,290	162,290
Net Cash Flows From operations	(210,633)	(210,633)

InternetNZ

Council Report
8 August 2012
For Decision

Report to InternetNZ Council Meeting of 17 August 2012
Subject: InternetNZ Hosting of International Meetings

BACKGROUND

Historically InternetNZ has maintained a desire to host international Internet events in New Zealand, as part of its RFC1591 obligations to the local Internet community, enabling exposure to the global thought leaders associated with technologies and public policies related to the Internet.

To date, InternetNZ has hosted the following international events in NZ:

APTLD Wellington	November 2003	(25 from 15 countries)
{ APTLD Wellington	March 2006	(50 from 18 countries)
{ ICANN Wellington	March 2006	(700 from 82 countries)
APNIC Christchurch	August 2008	(237 from 33 countries)

Also REANNZ hosted the August 2008 APAN meeting in Queenstown, which had, by memory, around 250 to 300 participants.

The following list is of relevant international events:

Organisation	**Frequency**	**Participants**	**Net Hosting Cost**
APTLD	3 per year	100 participants	Circa $10,000
APNIC	2 per year	300 participants	Circa $20,000
APAN	2 per year	350 participants	Circa $100,000
APRICOT	1 per year	700 participants	Circa $100,000
ICANN	3 per year	1,500 – 2,000	Circa $150,000
IETF	3 per year	1,200	Circa $200,000
IGF	1 per year	2,000	Over $1 million

I would recommend that we do not seek to bid for any IGF event, as NZ does not have any facility capable of hosting this event, and in any case, our Government would need to be fully alongside in terms of its obligations to hosting foreign governments. And the cost of such an event would be significant, probably with more than $1 million cost on the local host.

I would also recommend that we do not seek to host an IETF meeting, as the number of participants now exceeds 1,200, and when we did bid to host IETF it was on the basis of under 1,000 participants, and even at that number it would have stretched the resources of NZ's largest convention centre (Sky City) in accommodating this number. Furthermore, for ICANN the numbers of participants has grown substantially in the past few years, especially since the interest of many additional people in new gTLDs. So while ICANN processes and costs are significantly simpler and cheaper since our hosting of the 2006 Wellington event, the growth in participation has essentially put this beyond our scope. So until there is a larger convention venue in NZ, it would seem logical to not seek to host IETF or ICANN events.

In addition to the above list, it may be possible to consider hosting an Asia Pacific Regional IGF meeting, but the express preference is that this annual event be hosted in a central Asian hub to enable ease of participation from throughout the region. It may also be possible to convene and host an inaugural Australasian, Oceania, or Pasifika IGF in New Zealand at some point in the future should such an event become practicable.

So in reality, in the near future, the only practical meetings for NZ to host would include APTLD, APNIC, APAN and APRICOT. It is worth noting that on occasion APRICOT and APAN have met at the same time and place.

Dealing with the organisations separately for meetings that InternetNZ could host:

APTLD
The Asia Pacific Top Level Domain Association (www.aptld.org) is the association comprising ccTLD managers from throughout the Asia Pacific region. Some 36 ccTLDs (from a potential of 72 ccTLDs) are members, and these member ccTLDs probably account for 95+% of ccTLD domain name registrations in the AP region. These meetings are quite technical by nature, and have very little information that would be of broad use to the local Internet community, although there are aspects that may be relevant to Registrars. On the other hand, there is a very low cost for hosting these meetings, and from time to time as part of its overall participation in APTLD, InternetNZ should consider hosting APTLD meetings

APNIC
The Asia Pacific Network Information Centre (www.apnic.net) is the Regional Internet Registry which delegates IP address space for the Asia Pacific region (a notably smaller AP region than that which APTLD covers). In 2008 InternetNZ hosted APNIC in Christchurch, and since then there has been increasing interest in APNIC from the local Internet community, partly because of the hosting of the meeting, but mainly due to IPv4 address exhaustion and IPv6 deployment being of increasing interest to NZ. Hosting these meetings is straightforward, and costs are predictable, with APNIC absorbing most of the costs. With InternetNZ being actively more engaged in IP address policies, it would make sense to occasionally host APNIC meetings in NZ. It should be remembered that APNIC and APTLD meet in conjunction with APRICOT each year.

APAN
The Asia Pacific Advanced Network group (www.apan.net) refers to both the organisation representing its members, and to the backbone network that connects the research and education networks of its member countries to each other and to other research networks around the world. Much of the agenda for these meetings is only of specific interest to advanced research and education topics, so has a somewhat limited scope for the local Internet community, although the Queenstown event did attract a reasonable participation from New Zealanders. It would probably not be sensible for InternetNZ to consider hosting an APAN meeting, but there may be some value in offering REANNZ some foundational sponsorship funding should REANNZ wish to host a future meeting in NZ. If InternetNZ were to secure the hosting of a future APRICOT meeting, it may add value to the APRICOT event by seeking to co-host APAN contiguously with the APRICOT event.

APRICOT
The Asia Pacific Regional Internet Conference on Operational Technologies (www.apricot.net) provides a forum for those key Internet technologists in the region to learn from their peers and other leaders in the Internet community from around the world. The annual ten day long summit consists of seminars, workshops, tutorials, conference sessions, birds-of-a-feather (BOFs), and other forums all with the goal of spreading and sharing the knowledge required to operate the Internet within the Asia Pacific region. An APRICOT meeting has the broadest applicability to the NZ Internet community, and would provide an experience like "NZNOG on steroids" for the local technical community. And as APRICOT events normally also include the Annual General Meetings of

both APNIC and APTLD, and can include jointly hosting APAN, this would be the premier event for InternetNZ to pursue for hosting in the future.

Previous InternetNZ bids for APRICOT

InternetNZ has twice before bid to host APRICOT meetings, firstly for the 2007 meeting (which was hosted by Indonesia) and secondly for the 2014 meeting (which will be hosted by Thailand). In both these instances, our competing bidders had bid at least three times to host an APRICOT, so perhaps perseverance is a partial necessity in being successful.

The two factors put forward by APRICOT organizers for the failure of our bid for 2014 was that the timing of the meeting, and the InternetNZ restriction on financing were not ideal. Regarding the timing, APRICOT signified their desire to have APRICOT 2014 at the "end of February or early March". However the Sky City Convention Centre was not available at any stage during February or early March 2014 due to other bookings, and we proposed 10th – 21st March for the timing of the event. With other significant international events of IETF (3rd – 7th March 2014) and ICANN (21st – 28 March 2014) it was going to create a very busy March for some participants, so while not directly impinging on other events, it was clearly not the most desirable date. The other contributing factor related to financing the event, and the Thailand bid had no funding limitations, whereas the InternetNZ bid included Councils requirement "that the contract and other arrangements limit InternetNZ liability to US$100,000". These two factors, along with the fact that Thailand had frequently previously bid for APRICOT meetings probably swung the balance away from NZ. I had thought that the fact that APRICOT 2013 will be in Singapore, and that this year's event in India had been to the west, that it would have been geographically most palatable for APRICOT to be in our corner of the region, but unfortunately this was not as compelling on the organizers as I had hoped.

Future Bids

Until expansion of convention centre facilities occurs in NZ, or the numbers of participants in the larger international events declines, the most significant event that InternetNZ could comfortably host would be an APRICOT event, which combines into the event the APNIC and APTLD meetings, and could possibly also include APAN, if REANNZ wished to participate in hosting. On the basis of persistence in bidding, it may be in our favour to place our 3rd bid to host an APRICOT in New Zealand. The RFP from APRICOT for the 2015 meeting is due to be published in the near future but (as I understand it) is not significantly different from the 2014 document.

I therefore put forward the following proposals:

1. ***THAT InternetNZ remains committed to its obligations of desiring hosting of international meetings that can be seen to benefit the local Internet community***

2. ***THAT InternetNZ bids to host the 2015 APRICOT meeting in Auckland***

3. ***THAT InternetNZ commences discussions with REANNZ to assess the possibility of contiguously hosting APAN 2015***

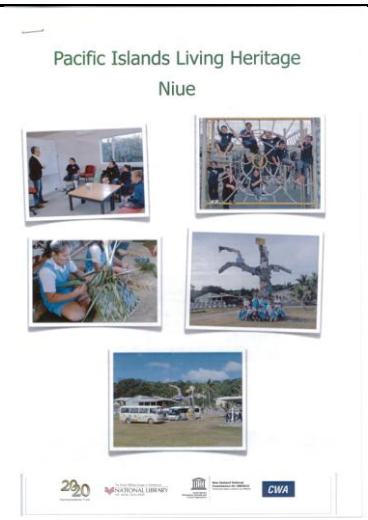
Keith Davidson
8 August 2012

InternetNZ

2020 Communications Trust

Towards a Strategic Partnership - Activity Update: August 2012

Computers in Homes (CiH)	We have completed our financial year 2011-12 CiH report and this is now in print. We have graduated 1569 families during the last 12 months against a funded target of 1500. We expect to have copies of the new report available at the Council meeting.  We were delighted with the exposure of CiH at NetHui. Everyone was impressed with Emma Smyth from Masterton who told her life story - from being abused as a child, to being kicked out of school and home, to drugs, to prison, to parenthood at the age of 17 and how she was able to turn her life around as a result of *Computers in Homes*. The standing ovation she received was a powerful endorsement of the importance of digital literacy. Her presentation, streamed by R2, is a must-see for anyone unsure of the benefits of CiH. Thank you to InternetNZ for making this possible. http://www.r2.co.nz/20120711/emma-s.htm Regional coordinators met in Wellington on 24-25 May for our quarterly CiH hui; the next meeting is scheduled to be held in Northland on 23-24 August. A new challenge we are addressing is the increasing number of families without a telephone line; in the last 12 months only 42% of CiH families had a telephone line at the time of graduation. We are addressing this by offering a naked DSL option as well as wireless options. We have also introduced an automatic payment system whereby families can start contributing to their internet costs from the start of the programme. This allows us to extend our support for 12 months and is expected to reduce the number of disconnects when the free internet comes to an end. This is providing to be very popular with nearly 100 families signed up in just two months. From 1 July 2012, we have welcomed the Dunedin Digital Office as a new CiH partner. This means that CiH delivery in Dunedin will be managed locally and integrated with other local digital initiatives. We have now entered the third year of our 3-year contract with government. We are mounting a major effort to expand the programme from July 2013. Our goal is to increase the number of families supported from 1500 per annum to 5000. Website: www.computersinhomes.org.nz
Stepping UP	 Fit-out of DORA, our mobile digital learning centre, largely funded by InternetNZ is progressing well. The interior has been refurbished we are hoping that wiring and external painting will be completed before the end of August. We are planning a launch event in Christchurch when the fit-out is completed. On 24 July, working in partnership with Hutt City Libraries, we launched an 8-week pilot of Stepping UP, delivered through three libraries – Hutt, Wainuiomata and Naenae. The series was fully booked two weeks before the programme started (80 registrants for 176 places); at launch date a further 45 people had registered to the waiting list, seeking to participate in a total of 106 places. We plan to extend this model to other regions. Website: www.steppingup.org.nz

Living Heritage		The UNESCO (NZ) funded Living Heritage initiative in Niue was completed in July. Two new sites have been added to the Living Heritage collection – one produced by Waterlea Primary School, an Auckland school with Niuean students, and Niue Primary School and Early Childhood Centre. Both sites can be viewed on the Living Heritage website. Website: www.livingheritage.org.nz
KiwiSkills	Sarah Lee (Acting KiwiSkills Manager) successfully managed the transition of KiwiSkills from NZCS (now IITP) to 2020 Trust and on 15 July 2012 Rebecca Magee returned from parental leave. KiwiSkills supported the recent Wanganui Tech Expo (20-22 July) and as a direct result we are expecting to sign up one or maybe two local providers. Our goal for the remainder of this year is to expand the geographic coverage of our training and testing partners, with an initial focus on areas where *Computers in Homes* and *Stepping UP* are operating. Website: www.kiwiskills.co.nz	KiwiSkills Computing skills for everyday Kiwis
Community Wireless	We are continuing to explore technical and commercial options for fast-tracking broadband access in low income communities, wherever possible leveraging school UFB/RBI infrastructure and low-cost wireless solutions. Our current focus is on Kaingaroa Forest (RBI) and Aranui High School (UFB). We are also collaborating with the Dunedin Digital Office in an InternetNZ-supported trial at Queens College in Dunedin.	
Digital Inclusion Headlight Seminar Series	We have successfully completed two seminars in the Headlight Series – the first on 7 June in Wellington (Barry Vercoe speaking on the One Laptop Per Child programme) and the second on 22 July as part of the Wanganui's Ultrafast Fibre TechEx (Don Christie and Laurence Millar). Both events have been recorded and can be viewed on the 2020 Trust's website. www.2020.org.nz A special Headlight Series publication *"Success in the Digital Economy"* was launched at the first seminar. Copies will be available at the Council meeting.	
Strategic Partnership	We have prepared a brief discussion paper with some reocmmended next steps to progress the development of a strategic partnership. The paper is attached to this report.	

Internet NZ / 2020 Communications Trust Strategic Partnership

Introduction

In October 2011, Internet NZ council decided:

> *RN 92/11: THAT Council intends to enter into a long-term strategic partnership with 2020 Communications Trust.*
>
> *RN 93/11: THAT Council approves funding of $50,000 to the 2020 Communications Trust in 2012/13 financial year. Funding in future years is subject to meeting the following key performance indicators:*
>
> *1) Focus is on current programs*
>
> *2) 2020 Communications Trust successfully demonstrates the organisational capacity to deliver current programmes;*
>
> *And THAT InternetNZ will provide support in achieving the above.*
>
> *RN 94/11: THAT Cr James is appointed to undertake the role of relationship management with the 2020 Communications Trust.*

This short paper describes the components of a strategic partnership, and the recommended next steps to operationalize the declared intent of Internet NZ (INZ) and 2020 Communications Trust (2020) to implement a strategic partnership. This paper has been prepared by 2020, and all the content is able to be adjusted based on INZ inputs.

About Strategic Partnerships

The reasons for establishing a strategic partnership include:

- Access to a wider base of skills, knowledge and experience and greater resources than either party can command separately
- Increased operational effectiveness
- Focus on core business and leverage from the contributions and brand of the other party
- Collaboration on larger and more complex projects and programs

The basic components of a strategic partnership are:

1. A shared vision
2. Mutual trust, respect and an agreement on why the parties need each other and why the partnership will deliver better results than working separately
3. Agreement of expectations, timelines, resources, performance, over an agreed time frame that enables both organisations to develop their own business plans
4. Established goals and objectives that are measurable
5. Regular reporting of progress and tracking of the agreed upon goals and objectives
6. Open and continuous communication between leadership teams
7. Other factors that can be developed within the overall partnership include
    - Business Process Re-engineering across both organisations
    - Management exchange between organisations
        - Plan for exit from strategic partnership if it is not delivering the expected results

The steps to establish a successful strategic partnership include

1. Identify the distinctive competencies and strengths of each partner
2. Develop clearly defined objectives for the partnership to reduce the risk of divergence or conflict between partners.
3. Determine and align decision rights
4. Develop an effective relationship management and reporting structure with a clear purpose to govern and manage the alliance.

Current relationship between Internet NZ and 2020 Communications Trust

Following the funding decision in October 2011, the following activities have been undertaken that provide a foundation for establishing a strategic partnership

- Operational reporting by 2020 to INZ council meetings, and regular meetings with relationship manager
- 2020 endorsement and participation in NetHui with particular emphasis on Digital literacy and education streams
- Information exchange on community wi-fi initiatives underway across NZ
- 2020 seminar series underway, jointly branded

Initial thoughts on what each party brings to the strategic partnership

Internet NZ	2020 Communications Trust
Respected brand and voice on digital issues Ability to fund programs Two successful national NetHui events Strong policy and advocacy capabilities	Proven track record in delivery digital literacy outcomes, and a strong brand National delivery network based in regional and local communities Good relationships with political leaders Strong operational delivery capability

Next steps

Working session to develop a 5 year statement of intent:

- Shared vision for digital literacy
- Confirm the distinctive competencies and strengths of each partner
- Agreement of expectations, timelines, resources, performance, over an agreed time frame that enables both organisations to develop their own business plans
- Established goals and objectives that are measurable
- Risks and Benefits of formalising a strategic partnership

InternetNZ

Paper for 17 August 2012 Council meeting

FOR DISCUSSION

CE's Report

Author: Vikram Kumar

Purpose of Paper: Report on operational progress since last Council meeting on 18 May 2012

A. Stretch Goals

1. Network Measurement

- A separate paper summarises the results of work so far on the Network Measurement Lab. This effort is now referred to as IME (Internet Measurement Ecosystem) to more accurately reflect the intent of the work.

2. Technical and Internet numbering policy

- Lead by Andy Linton and Dean Pemberton, there has been an increase in public discussion on a number of technical and Internet numbering policy issues. For example, Dean has catalysed discussion on the potential of sourcing international Internet traffic from Australia. This is also getting some interest from other APNIC members.

- Dean is leading public discussion of Internet numbering policy proposals likely to come up at APNIC34 in Cambodia this month. This has significantly increased the awareness, interest, and readiness of APNIC members in New Zealand.

  One proposal in particular has the potential to have a wide-reaching impact- Prop-103 to disestablish the APNIC policy development process. Dean has worked to develop a response to this proposal using the proposed InternetNZ policy principles as a framework. This type of use of the policy principles in the Internet numbering area has been valuable to the rest of the team in helping to fine tune them.

- The inaugural InTAC (Internet Technical Architecture Conference) was held on 10th July 2012, a day before NetHui 2012 and at the same venue. The conference successfully met its intent of addressing a range of Internet technical policy issues with the involvement of government, ISPs, LFCs, Chorus, and technologists. There were some valuable feedback and lessons learnt for a future conference.

  Compared to the target of 100 registrations, actual registrations were about 115. The anonymous post-conference survey was filled up by 39 people. Overall

perception of value averaged 3.7 (on a scale of 1 to 5) and all but 2 respondents thought that InTAC should be held again next year.

3. Conferences

- Contact has been made with a number of people in Dunedin to gauge support for holding a regional NetHui conference there. Significant local support and interest to assist have confirmed Dunedin as the location for a first regional NetHui conference, either towards the end of this calendar year or early next year.

4. Thought Leadership

- The major effort in this area is to strengthen ties with Universities and facilitate an independent group of people to promote Internet policy research. In turn, the central plank for this effort is the Policy & Legal Funding Round, detailed elsewhere.

B. Progress on proactive projects

1. Research

- The 2 organisations specialising in economic analysis- NZIER and Infometrics- contracted to advise on the best approach to quantifying the economic impact of the Internet from a New Zealand perspective have completed the work. Both reports are published at http://internetnz.net.nz/ecoresearch. The results were well covered in mainstream media and served as a discussion starter at NetHui 2012.

2. Telco and Internet regulatory policy

- We continue to monitor policy issues and identify any gaps as the rollout of the UFB and RBI proceeds. For example, the issues with connection charges that Chorus can impose under the UFB partnership has emerged as a significant hurdle for residential uptake. We also continue to monitor progress and uptake of both initiatives.

- The project to consider the lessons and implications for New Zealand of the converged regulation experience (telco and broadcasting) in comparable countries continues. This is expected to inform InternetNZ's position on regulation of competition, particularly in view of public discussions about content on UFB, the future of media, and Sky TV.

- InternetNZ contributed to the public discussion of the opportunities and challenges of international connectivity following the discontinuation of Pacific Fibre. This has strengthened the perception of the organisation as a neutral, informed commentator.

3. IPv6 implementation

- The contract with Donald Clark to support and speed up government's understanding and implementation of IPv6 in conjunction with the IPv6 Task Force has successfully concluded. Additionally, Donald created and organised measurement of key benchmarks that will continue to track the progress of IPv6.

- InternetNZ continues to provide project and secretariat support to the IPv6 Task Force. The Top 100 CIO Survey has been completed (for the third year running) and the second annual Carrier/ISP benchmarking survey is underway.

- The IPv6 Task Force has successfully met most of its objectives. It now proposes to 'ramp down' its efforts and be more reactive than proactive. A separate strategic discussion paper highlights key issues for InternetNZ to consider in this regard.

4. Domain names diversity

- The approved principles related to Top Level Domains have begun to be promoted internationally and is getting some attention. Keith Davidson raised these at the ICANN Prague meeting and was met with significant interest. They will now be on the next ICANN ccNSO agenda for more detailed discussion.

- Following comments from members as well as discussions with DNCL and NZRS, InternetNZ formulated and submitted a comment on the .book Top Level Domain to the At Large New gTLD Review Group https://community.icann.org/display/newgtldrg/.book+_OG on behalf of the Internet community. Concerns were raised on the grounds that an exclusive right over a gTLD of a truly generic name, without an obligation to open up registration of third level domain names to others, is contrary to the openness of the Internet and is anti-competitive. Further, it was noted that trademark policy does not favour granting exclusive rights to anyone over generic words.

5. Copyright

- Planning is underway with our partners, the New Zealand Centre of International Economic Law (NZCIEL) at the Victoria University of Wellington, for the first Copyright Conference, scheduled for 15th and 16th November this year. The theme for the conference is "Evolution and Equilibrium: copyright this century". A call for papers is to be issued shortly.

6. Conferences

- The second NetHui was successfully held from 11th to 13th July at SkyCity, Auckland. Building on last year's inaugural conference, NetHui has achieved the intended goal of being a community platform for Internet issues in New Zealand. There has been considerable feedback to improve next year's conference in Wellington. In an anonymous post-conference survey, to the question "Overall, what did you think of NetHui 2012?" on a scale of 1=poor to 5=excellent, 119 participants on averaged rated it 4.2. This is a very high satisfaction score for a conference.

Year	Registrations	Sponsors	Sponsorship received*
2011	484	10	$40,000
2012	601	15	$73,300

**Figures are excluding GST and do not include sponsorship in kind*

- Following on from InternetNZ's failed bid to host the 2014 APRICOT meeting, Keith will be discussing with Council the opportunities and requirements to bid for future international conferences as a separate agenda item.

7. Cybersecurity

- In conjunction with the NZ Internet Task Force (NZITF), Vikram has set up and is chairing the Botnet Working Group. Members of the working group are drawn from government, security specialists, ISPs, academics, and vendors. Two sub-groups have been set up, one each for the initial focus areas- drive-by malware and infected customers' devices.

- In the context of the end of US Government support for the victims of the DNSChanger virus attacks, InternetNZ proactively warned Kiwis about the issue and how to check for infection. This was widely reported and discussed in the mainstream media (newspapers, radio and TV).

- We are considering investigating two cybersecurity issues, one of which may also have implications for protecting privacy. A separate discussion paper is provided.

8. Supporting local governments

- Vikram met with Wellington Mayor Celia Wade-Brown to discuss potential ways of working together. Next year's NetHui will provide a major focus to these efforts, including finding ways to support the city's digital strategy.

9. Bridging the digital divides

- InternetNZ's main focus is to develop business models and address policy issues related to providing community wireless Internet in low socio-economic areas off the fibre being rolled out to schools under the UFB and RBI initiatives (internally referred to as "Project Oasis").

- In alignment with the efforts to support local governments and as a first step, we are supporting and actively participating in a pilot project led by the Digital Trust in Dunedin. This will involve about 20-25 families of Queen's High School getting subsidised wifi Internet. This project also involves Computers in Homes to provide additional support, in the form of hardware and training, to those families who don't have access devices.

10. Privacy

- Vikram developed a new framework to analyse and assess privacy issues in an Internet age, with a particular emphasis on the ways that the regulator, market, and technology interacts. This was presented at the Managing Digital Identity conference in Wellington.

11. Internet education and skills

- Mohawk Media has been commissioned to create an animated video explaining the concept and importance of an open Internet.

- InternetNZ is one of 40 organisations backing and sponsoring ICT-Connect http://www.ictconnect.org.nz/, led by the Institute of IT Professionals. This is New Zealand's national in-school programme which inspires and educates young people about future options in the ICT industry.

C. Core Operations

- Policy principles to guide the development of InternetNZ's work have been completed. This is detailed in a separate paper.

- The US Department of Commerce announced in early July that it had awarded a renewal of the IANA functions contract to ICANN. This was after ICANN's initial bid was not accepted. InternetNZ, with the support of NZRS and DNCL, had put in a submission in this regard a year ago which recommended changes to the IANA function. Our submission played a part in changes to some key areas in the revised contract, in particular separation of policy development from IANA operations.

- During June, Keith attended the APTLD members meeting in Moscow, where the dominant issue was APTLD membership in the future (since 307 of the new gTLD applications are from the Asia Pacific region and APTLD currently does not allow non-ccTLDs as full members). Keith went on to the ICANN Prague meeting, where issues and questions around the new gTLD process dominated the agenda.

  During July, Keith attended the Asia Pacific Regional IGF (Internet Governance Forum) meeting in Tokyo, reporting on NetHui, and participating as one of the organising committee members. Keith also attended his first meeting as a member of the ISOC Board in Vancouver from 2nd to 5th August.

- ANZIAs 2012 - this year's Australia and New Zealand Internet Awards in partnership with auDA will be held in Canberra on the evening of 10th October http://www.internetawards.co.nz. A total of 95 entries have been received, of which 13 are from New Zealand. Entries were encouraged both by direct contacts as well as web advertising. Judges for each category have been finalised, with one from New Zealand in each.

- InternetNZ continues to also support auDA to plan and organise their inaugural version of the IGF, on the back of our own successful NetHui. This conference will be held following the ANZIAs, on the 11th and 12th October in Canberra. InternetNZ staff will participate in the conference, including on a panel.

- Vikram and Susan met with Ministers Steven Joyce and Craig Foss on 15th August to discuss our concerns regarding the TPPA (Trans-Pacific Partnership Agreement) negotiations. Vikram also met the new Telecommunications Commissioner to welcome him to his new role and continuing cooperation between the organisations.

- After prompting a discussion with PAG, Vikram published an opinion piece in Computerworld on the potential impacts from the perspective of users and industry of the proposed Vodafone takeover of TelstraClear http://computerworld.co.nz/news.nsf/news/opinion-vodafone-plus-telstraclear-good-or-bad-for-you.

- The structural change to InternetNZ, whereby the Shared Services Unit was discontinued as a standalone business unit, was successfully completed. All InternetNZ staff now report to the Chief Executive in a flat structure.

- The annual society work involving the audited accounts, Annual Report, elections (both officers and Council members), constitutional changes, fellowships, and the Annual General Meeting were completed smoothly. InternetNZ staff thank former Council member Don Christie for his efforts and welcome new Council member Brenda Wallace.

- The (second) annual survey of members was undertaken, with results presented at the Annual General Meeting. This survey is run in-house and allows members to give their views anonymously.

- Ocean Design has been contracted to help develop a Communications Strategy for InternetNZ. They interviewed a number of members, Council members, subsidiaries, and staff for their views. Most of the interviews were conducted at NetHui. Ocean Design also conducted a brief communications audit. Details are being presented to Council as a separate agenda item.

- The $100,000 Policy & Legal Funding Round to promote Internet-related public-policy and legal research projects was launched on 2nd July. A verbal update on progress will be provided at the Council meeting.

- Submissions:

Date	To	Subject
15 June	Commerce Commission	Revised Draft Determination on Unbundled Copper Local Loop Service (UCLL)- cross submission
11 June	Commerce Commission	Draft report on the High Speed Broadband Demand Side Study
1 June	Commerce Commission	Revised Draft Determination on the Benchmarking Review of UCLL
21 May	Commerce Commission	Draft Information Disclosure Determinations 2012

The major issue in the UCLL submissions has been the pricing of Chorus' copper-based Internet services and the consequential impact on infrastructure-based competition. Many of InternetNZ's views and recommendations in its earlier submission on the Electronic Identity Verification Bill have been accepted.

D. Others

- We have organised the Fair Deal campaign fairdeal.net.nz to bring together the widespread concerns about the US' proposed Intellectual Property chapter in the TPPA negotiations, including copyright and software patents. The campaign was launched at NetHui 2012 by a number of panellists moderated by Russell Brown. The event and campaign as a whole has received significant press coverage.

There are 11 Fair Deal coalition members (InternetNZ, NZRise, Creative Freedom Foundation, Royal NZ Foundation for the Blind, TUANZ, Consumer, IITP, TradeMe, NZOSS, LIANZA, and Tech Liberty). International allies include Public Citizen, Public Knowledge, Open Media, and Electronic Frontier Foundation. So far, about 350 postcards have been "lodged" by visitors to the Fair Deal website.

- InternetNZ was subject to a cyber attack. Details of this will be provided verbally at the Council meeting.

- Campbell Gardiner assisted with the media communications and associated documents relating to the DNCL's 2nd level .nz consultation. In addition, he assisted with media communications relating to the launch of DNSSEC.

- Vikram participated in consultation and a workshop for a 'future state' of identity management in New Zealand. This work was commissioned by the Department of Internal Affairs. He also participated in a cloud conference in Auckland on 22nd May and a 'Peak Performance' workshop as an external stakeholder for the new MBIE (Ministry of Business, Innovation and Employment) on 25th May. He participated in a privacy roundtable on big data in Sydney on 8th August (organised by Microsoft).

  Vikram was a stakeholder interviewed for a new information regime being investigated by Inland Revenue. In addition, research inputs were provided to a privacy researcher at the Australian National University; a global open government research project; and a global research project on improving civil society participation in Internet issues.

- InternetNZ contributed to developing a best practice guide for use of social media in response to natural disasters and emergencies, led by the Wellington Civil Defence Emergency Management. This is published at http://www.gw.govt.nz/social-media.

- InternetNZ continues to participate in, and promote collaboration amongst, NGOs active in the ICT sector.

- We have become a member of TUANZ and paid our membership dues.

E. Personnel

- Richard Wood finished with the organisation on 13th July. His role has been split into 2 roles, an Events Lead and a Collaboration and Community Lead role, to provide more effort and resource to our working with the wider community. Recruitment for these roles is well advanced and is expected to be complete by the Council meeting.

- All staff participated in team development based on the TMI (Team Management Index) methodology run by an external specialist. This significantly improves team dynamics and working together. This was a first for staff who have joined in the last one year.

Recommendation

That Council **receives** the CE's Report.

Paper for 17 August 2012 Council meeting

FOR DECISION

Policy Principles

Author: Susan Chalmers

Purpose of Paper: Recommend approval of Policy Principles

InternetNZ is a principles-based organisation. The attached paper, *InternetNZ Policy Principles*, documents, for the first time, the policy principles that underpin our work. Publishing these principles helps ensure that InternetNZ's approach to Internet-related public and technical policy is transparent and predictable. Internally, the principles guide the development of policy positions and statements. Externally, they explain the basis of InternetNZ's views to our stakeholders and to the general public.

The principles are high-level and broadly applicable to the diverse subject matter addressed by InternetNZ. They reflect the spirit of InternetNZ's past work, relate to its present work and shall guide its future work.

Principles should be enduring, remaining relevant and applicable across environmental changes. They are open for review from time to time to ensure their continued suitability for InternetNZ. There may be occasions where some principles come into conflict with others. This will require consideration of their application in the specific circumstances under which they arise. In this regard, the goal of the principles, as a set, is to be maximally complementary.

In developing these principles, there was broad member consensus that their language should be consistent with that used in policy circles internationally. At the same time, the principles are unique to InternetNZ's local environment, vision and history. Accordingly, the principles attempt to communicate the core beliefs of InternetNZ in language consistent with international policy language. In doing so, a range of principle statements from various organisations both international and domestic were considered.

These principles have been tested and debated with InternetNZ members and their acceptability gained by consensus support.

Recommendation

That Council **approves** the policy principles as InternetNZ's position.

InternetNZ Policy Principles

Principles: Statements

1. The Internet should be open and uncaptureable.
2. Internet markets should be competitive.
3. Internet governance should be determined by open, multi-stakeholder processes.
4. Laws and policies should work with the architecture of the Internet, not against it.
5. Human rights should apply online.
6. The Internet should be accessible by and inclusive of everyone.
7. Technology changes quickly, so laws and policies should focus on activity.
8. The Internet is nationally important infrastructure, so it should be protected.

Principles: Detail

1. The Internet should be open and uncaptureable.

Openness has played an important role in the history of the Internet, and continues to play an important role today. "Open", in this context, has no single meaning. The word touches many Internet-related elements and philosophies. From the specific (e.g. open standards and open source software) to the abstract (e.g. freedom on the Net), "open" characterises the fundamental design and intent of the Internet. Openness, not closure, encourages competition, innovation, inclusion, accessibility and countless other socially and economically beneficial things. The Internet should be open for this reason.

The Internet should also be uncaptureable. If a single group established power over the Internet or a key part of it – if they captured it – then Internet users' online experiences may be affected by that group's decisions. Contrast this state of affairs with the ethos of collaborative standards-setting and the decentralised design that has been key to the Internet's success. No single entity, be it a State or any organisation, commercial or otherwise, should be able to capture the Internet. The Internet is for everyone.

2. Internet markets should be competitive.

Should market conditions prevent or inappropriately constrain consumer choice or innovation, then introducing appropriate regulation to foster competition is necessary. Well-regulated competitive markets prevail over those dominated by monopolies, or concentrations of power that behave like monopolies. People should be able to get - and to give - Internet access without facing unreasonable barriers. New Zealanders should be able to choose from a broad range of Internet services, applications and products offered by companies of all sizes at competitive prices.

3. Internet governance should occur through multi-stakeholder processes.

The multi-stakeholder model of Internet governance allows the whole of society to participate in fostering the development of the Internet. The multi-stakeholder process is democratic, open and transparent. It is enriched by the diversity of its participants, including the technical community, civil society, academia, government and the private sector. This model ensures that no one group captures the Internet and should therefore be preserved and promoted.

4. Laws should work with the architecture of the Internet, not against it.

The Internet challenges the conventional pace of the justice system; injuries in the digital realm can be quick to injure, but relatively slow to redress. All the same, when law and policy do not incorporate traditional notions of justice – like due process – they run the risk of being unfair and unbalanced. When Internet-related law and policy fails to comprehend and account for how the Internet works, they risks threatening its operation. Internet-related law and policy should be mindful of the architecture of the Internet, complementing it rather than working against it.

5. Human rights should apply online.

Online and offline, people should be able to exercise their fundamental human rights, such as the right to privacy and the right to freedom of opinion and expression. Everyone should respect these fundamental rights in the online environment. Nation States especially have an obligation to see that these rights are protected regardless of whether they are exercised in an online forum or on the street.

6. The Internet should be accessible by and inclusive of everyone.

The Internet is an essential social and economic infrastructure and is inextricably linked with our daily lives. This is true for some more than others - some people may choose not to use the Internet, while others do not have that choice. Given the importance of the Internet, every New Zealander should be able to access it and use it. An available, affordable and accessible Internet will provide immeasurable societal and economic benefits, from increased connectivity to important government services, to better access to knowledge, to providing business owners the opportunity to engage a global consumer base.

The Internet and the services built on it should be inclusive of everyone. Internet policy should foster digital inclusion, not sharpen digital divides.

7. Technology changes quickly, so law should focus on activity.

The pace of technology outstrips the pace of the legislative process. The challenge for legislators is to balance their deliberative process, necessary to make good law, with the fast pace of technological advancement. This state of affairs favours principles-based law over technology-specific law.

When law targets a specific technology, it will, sooner or later, become obsolete. Technology-specific laws also risk impeding the development of that technology in general, foreclosing possibilities for future innovation. To conserve legislative resources and avoid punishing legal uses of technology, law should focus on activity, not technology. The Internet may be used for legal activities or illegal activities and technology can be used for both good and bad. Therefore law targeting activity on the Internet should be directed at that activity, not at the means by which the activity is conducted.

8. The Internet is a nationally important infrastructure, so it should be protected.

The Internet is important infrastructure for New Zealand. As government departments and agencies, businesses, and society rely on the Internet, a high degree of resilience and smooth operation are paramount. The public and private sectors should work together to ensure that it remains that way.

Paper for 17 August 2012 Council meeting

FOR DISCUSSION

Financial Report to June 2012

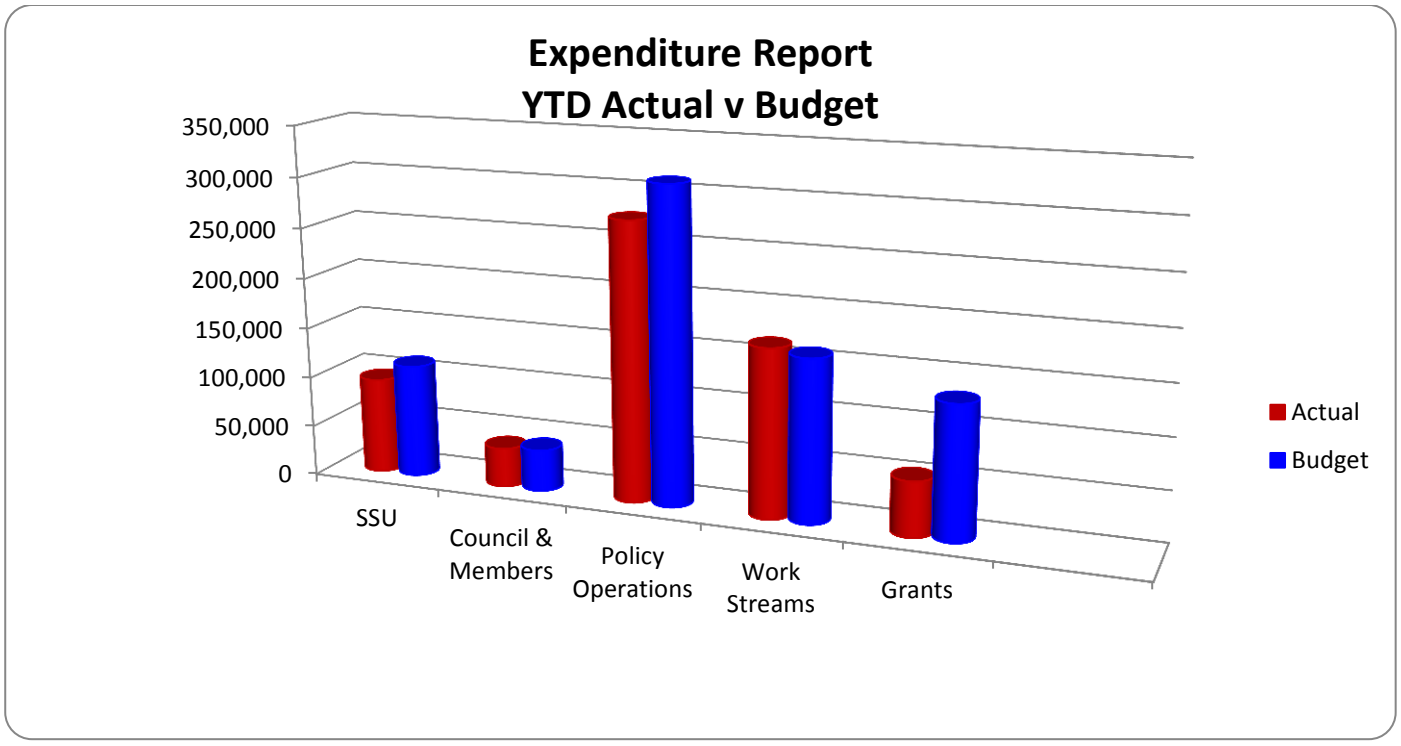
Author: Mary Tovey

Purpose of Paper: To provide an update on the financial performance of InternetNZ

Condensed Expenditure Report
Actual v Budget
As at 30 June 2012

	YTD Actual $	YTD Budget $	Variance $
SSU	*95,131	*112,505	-17,374
Council & Members	38,864	41,378	-2,514
INZ Operations	275,025	311,213	-36,188
Work Streams	165,953	159,900	6,053
Grants	54,291	131,250	-76,959
Total4	**629,264**	**756,246**	**-126,982**

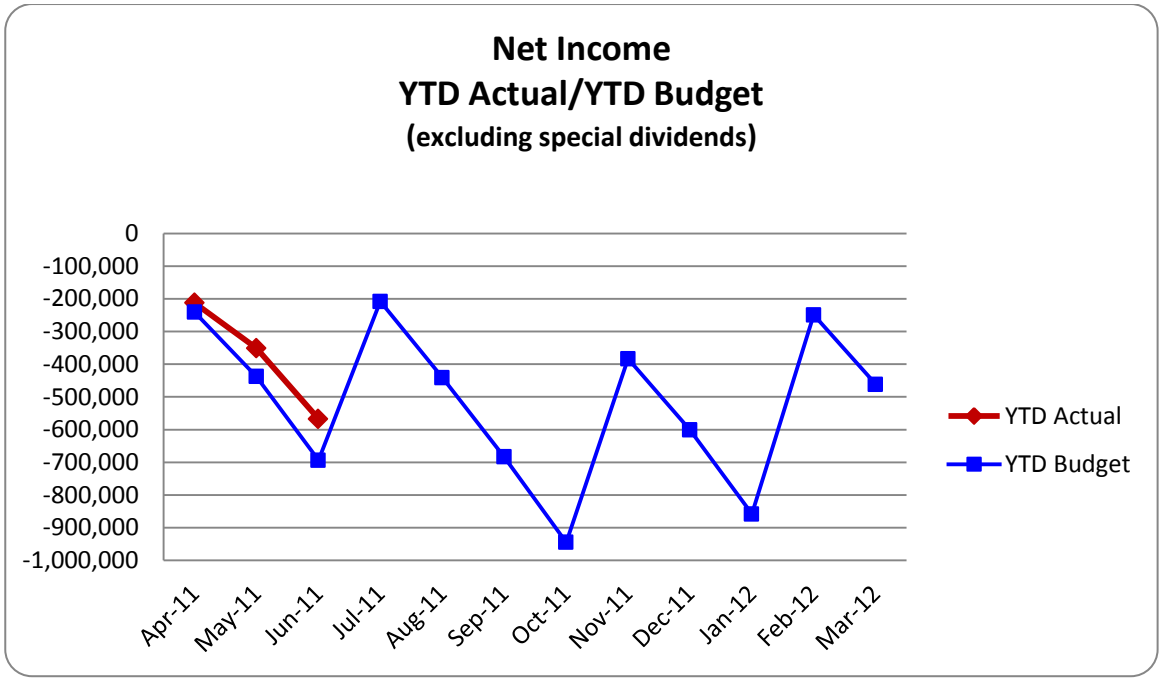
Note: the above table is expenditure only.
* Disestablished in May, consolidated into INZ Operations from 1 June



InternetNZ
Profit and Loss Statement
As at 30 June 2012

	Apr - Jun 12	Budget	$ Over Budget
Ordinary Income/Expense			
Income			
500 · Operating Income			
530 · SSU Recharge	50,505.00	50,506.00	-1.00
542 · Membership - Corporate	3,500.00	3,580.00	-80.00
546 · Membership - Individual	2,952.99	3,500.00	-547.01
Total 500 · Operating Income	56,957.99	57,586.00	-628.01
580 · Investment Income			
586 · Interest	5,083.11	5,000.00	83.11
Total 580 · Investment Income	5,083.11	5,000.00	83.11
Total Income	62,041.10	62,586.00	-544.90
Expense			
600 · Remuneration			
625 · Miscellaneous Staff Costs	69.97	999.00	-929.03
630 · Recruitment	7,410.68	9,499.00	-2,088.32
635 · Staff Training	4,195.12	2,000.00	2,195.12
651 · Wages & Salaries			
651-01 · Kiwi Saver - Employer Cont	3,880.20	5,847.00	-1,966.80
651 · Wages & Salaries - Other	142,561.79	168,641.00	-26,079.21
Total 651 · Wages & Salaries	146,441.99	174,488.00	-28,046.01
653 · Wages - Casual & Temporary	7,668.61	4,000.00	3,668.61
654 · Wages - Contractors	81,451.68	68,000.00	13,451.68
655 · Contracted Technical Services	8,396.02	10,000.00	-1,603.98
Total 600 · Remuneration	255,634.07	268,986.00	-13,351.93
800 · Operating Expenses			
801 · Accountancy Fees	2,967.50	6,000.00	-3,032.50
805 · Advertising & Marketing	5,370.25	3,249.00	2,121.25
809 · Bank Charges	374.66	401.00	-26.34
811 · Conferences	1,851.99	2,345.00	-493.01
813 · Consultants	1,575.00	3,988.00	-2,413.00
816 · Depreciation	15,000.00	15,000.00	0.00
817 · Domain Names	279.95	385.00	-105.05
820 · General Office Expenses	4,267.63	12,194.00	-7,926.37
822 · Governance Training	365.87	4,500.00	-4,134.13
824 · Honoraria	10,512.50	10,512.50	0.00
826 · Legal Fees	14,645.86	7,450.00	7,195.86
829 · Meeting Costs	2,283.48	3,304.00	-1,020.52
835 · Postages & Couriers	679.23	999.00	-319.77
851 · Repairs and Maintenance	1,370.26	1,999.00	-628.74
853 · R & M - Software	1,104.50	249.00	855.50
855 · Printing & Stationery	3,456.77	5,145.00	-1,688.23

857 · Sponsorship	54,291.00	131,250.00	-76,959.00
860 · Subscriptions	3,432.87	2,050.00	1,382.87
870 · Telecommunications	9,718.29	20,000.00	-10,281.71
872 · Travel & Accom - International	18,780.95	35,100.00	-16,319.05
873 · Travel & Accom - National	11,187.90	16,114.00	-4,926.10
885 · Web Site Updates & Hosting	577.00	2,000.00	-1,423.00
899 · Workstream	165,952.77	159,900.00	6,052.77
Total 800 · Operating Expenses	330,046.23	444,134.50	-114,088.27
900 · Overheads			
915 · Cleaning Costs	3,069.90	2,750.00	319.90
933 · Electricity	3,639.46	3,500.00	139.46
950 · Insurance	2,487.57	2,301.00	186.57
975 · Rent Paid	34,275.00	34,275.00	0.00
980 · Security	112.59	300.00	-187.41
Total 900 · Overheads	43,584.52	43,126.00	458.52
Total Expense	629,264.82	756,246.50	-126,981.68
Net Ordinary Income	-567,223.72	-693,660.50	126,436.78
Other Income/Expense			
Other Income			
1000 · Special Dividends			
1001 · Special Dividends Received	400,000.00	400,000.00	0.00
1010 · Special Dividends - Interest	4,313.21	2,000.00	2,313.21
Total 1000 · Special Dividends	404,313.21	402,000.00	2,313.21
Total Other Income	404,313.21	402,000.00	2,313.21
Other Expense			
1900 · Special Dividend Exp-Overhead			
1935 · Specl Div-Christchurch Funding	332,000.00	335,000.00	-3,000.00
Total 1900 · Special Dividend Exp-Overhead	332,000.00	335,000.00	-3,000.00
Total Other Expense	332,000.00	335,000.00	-3,000.00
Net Other Income	72,313.21	67,000.00	5,313.21
Net Income	**-494,910.51**	**-626,660.50**	**131,749.99**



Commentary to Accounts

InternetNZ received $400,000 as special dividend from NZRS. This was the business development funds held back from last financial year.

As at June 2012, InternetNZ made a loss of $567,224 against a budgeted loss of $693,661, reflecting an under-spend of $126,437 year to-date.

Expenditure Variances

Major areas of difference are:

- Remuneration is under budget by 13k, due to actual annual increases not meeting budgeted increases yet.
- Sponsorship expenditure is under budget by 77k due the budget being based on actual expenditure from last year, timing will rectify this.
- Operating costs are $37k under budget, excluding sponsorship, across telecommunications, international travel and general office expenses, due to an even spread factor being used for the budgets, and over time will come into line.

Other Expected Major Budget Variances

The budgeted net income figure (excluding special dividends) in the preceding chart, and budgeted and forecast figures used for the cash in bank information, were based on the dividend payments reported in NZRS's draft Statement of Direction and Goals (SoDG) dated 30 Nov 2011 of $3,677,631.The final SoDG received in June, reports dividend payments of $3,428,920 a reduction of $249k (6.8%). This will result in a reduction to InternetNZ's cash flow by the same amount. However this will affect the cash in excess of reserves but not materially affect operations.

There are currently no other known major budget variances expected.

InternetNZ
Balance Sheet
As at 30 June 2012

ASSETS	
Current Assets	
Cheque/Savings/Term Deposits	
Total Cheque/Savings/	1,336,623.89
Term Deposits-Special Dividends	
Total · Term Deposits-Special Dividends	2,784,809.88
Petty Cash	400.00
Total Cash	4,121,833.77
Other Current Assets	113,746.48
Total Other Current Assets	113,746.48
Total Current Assets	4,235,580.25
Fixed Assets	
Total Fixed Assets	288,479.74
Other Assets	
Ordinary Share Capital	30,000.00
Shares in DNCL	580,000.00
Loan - Hectors World Ltd	162,243.93
Impairment Prov Hector's World	-162,244.00
Total Other Assets	609,999.93
TOTAL ASSETS	**5,134,059.92**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
Total Accounts Payable	146,150.97
Other Current Liabilities	
Accruals	38,355.83
Lease Incentives	51,174.54
Tax Payable	-115,395.57
Payroll Liabilities	18,119.10
Total Other Current Liabilities	-7,746.10
Total Current Liabilities	138,404.87
Total Liabilities	138,404.87
Equity	
Retained Earnings	5,490,565.56
Net Income	-494,910.51
Total Equity	4,995,655.05
TOTAL LIABILITIES & EQUITY	**5,134,059.92**

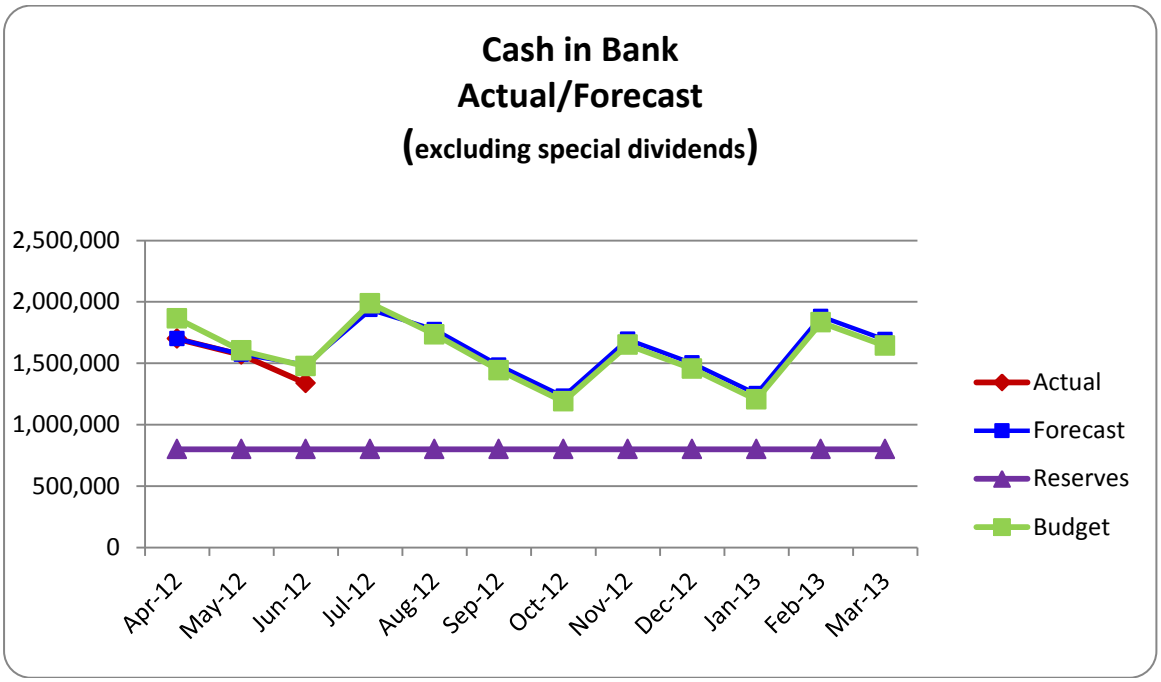
Special Dividend Investment Information

Date	Bank	Term	Amount
20/10/2010	ASB	24 months	389,989
15/04/2011	BNZ	12 months	413,907
07/11/2011	Kiwibank	24 months	621,909
02/12/2011	Kiwibank	24 months	250,000
16/01/2012	National	18 months	154,934
26/01/2012	National	12 months	554,071
25/05/2012	Westpac	12 months	400,000
Total $			**2,784,810**

Note: That $335,000 of special dividend funds were paid out to the rebuilding of Christchurch in April 2012.

InternetNZ Reserves Investment Information

Date	Bank	Term	Amount
25/02/2011	BNZ	18 months	500,000
07/02/2012	ANZ	12 months	181.390
30/03/2012	Westpac	60 days	341,984
Total $			**1,023,374**



Recommendation:

1. THAT Council **notes** the financial report to 30 June 2012.
2. THAT Council **notes** that the expected reduction of $249,000 in InternetNZ's cash flow due to lower projected dividends from NZRS.

InternetNZ

Cash Flow Forecast

	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Total
RECEIPTS	**Actual**	**Actual**	**Actual**	**Proj**	**Proj**	**Proj**	**Proj**	**Proj**	**Proj**	**Proj**	**Proj**	**Proj**	**Actual**
Invoiced Sales	709	26,982	36,540	19,090	20,393	20,391	20,393	20,392	20,392	20,392	20,393	20,391	246,458
Special Dividends	0	400,000	0	877,631	0	0	0	0	0	0	0	0	1,277,631
Sundry	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Dividends Interest	1,899	0	2,028	0	0	0	0	0	0	0	33,000	0	36,927
Dividends	0	0	0	800,000	0	0	0	800,000	0	0	800,000	0	2,400,000
Interest	0	386	0	2,000	13,000	500	500	500	500	500	500	10,000	28,386
Interest Received	325	3,863	896	2,688	4,328	4,858	4,182	4,445	4,785	4,232	4,706	5,257	44,565
Special Dividend Term Deposits	641,718	0	0	0	0	0	0	0	0	0	0	0	641,718
Sundry Payables	0	0	0	0	0	0	0	0	0	0	0	0	0
Prepayments	0	0	0	0	0	0	0	0	0	0	0	0	0
Accruals	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Receivable	0	1,758	2,534	0	0	0	0	0	0	0	0	0	4,292
GST	0	42,211	0	0	149,655	0	64,072	0	59,806	0	46,867	0	362,611
	644,651	475,200	41,998	1,701,409	187,376	25,749	89,147	825,337	85,483	25,124	905,466	35,648	5,042,588
PAYMENTS													
Invoiced Costs	652,608	152,685	222,094	146,151	292,971	262,357	280,196	308,086	223,898	201,277	216,033	170,754	3,129,110
ACC Levies	0	0	0	0	0	0	7,475	0	0	0	0	0	7,475
Salary & Wages	32,313	37,678	35,454	51,149	40,902	40,901	40,902	40,901	40,902	56,399	40,901	40,901	499,303
Special Dividend Term Deposits	0	400,000	0	877,631	0	0	0	0	0	0	0	0	1,277,631
Sundry Payables	0	0	0	0	0	0	0	0	0	0	0	0	0
Prepayments	0	0	0	0	0	0	0	0	0	0	0	0	0
Accruals	0	0	0	0	0	0	0	0	0	0	0	0	0
RWT	0	0	0	0	0	0	0	0	0	0	0	0	0
PAYE	5,741	15,461	12,401	26,458	17,367	12,812	12,812	12,812	12,812	18,492	18,491	12,812	178,471
GST	668	0	4,069	0	0	0	0	0	0	0	0	0	4,737
	691,330	605,824	274,018	1,101,389	351,240	316,070	341,385	361,799	277,612	276,168	275,425	224,467	5,096,727
NET CASH FLOW	-46,679	-130,624	-232,020	600,020	-163,864	-290,321	-252,238	463,538	-192,129	-251,044	630,041	-188,819	-54,139
OPENING BANK	1,746,181	1,699,502	1,568,878	1,336,858	1,936,878	1,773,014	1,482,693	1,230,455	1,693,993	1,501,864	1,250,820	1,880,861	1,746,181
CLOSING BANK	**1,699,502**	**1,568,878**	**1,336,858**	**1,936,878**	**1,773,014**	**1,482,693**	**1,230,455**	**1,693,993**	**1,501,864**	**1,250,820**	**1,880,861**	**1,692,042**	**1,692,042**

Bank Account Balances as per BS	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
NBNZ Savings	26,217	527,434	278,330									
NBNZ Current	211,455	17,630	34,714									
ANZ	181,390	181,390	181,390									
BNZ 150 Day Term	100,000	0	0									
BNZ Term Deposit	500,000	500,000	500,000									
Kiwibank Working Account	40	40	40									
National Bank Term Deposit	0	0	0									
ASB 90 Day	0	0	0									
Westpac	680,000	341,984	341,984									
Petty Cash	400	400	400									
	1,699,502	**1,568,878**	**1,336,858**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

MEMBERSHIP REPORT
7 August 2012

FOR DECISION

INTERNETNZ MEMBERSHIP REPORT

Status: Final

Author: Susi Cosimo

	August 2012	**May 2012**	**February 2012**
Fellows:	23	21	21
Individual:	212	164	193
Professional Individual:	65	51	61
Small Organisation:	25	16	27
Large Organisation:	6	6	8
Total Membership:	**331**	**258**	**310**

Also to note:

NetHui:
People were invited to show their interest in becoming an InternetNZ member when registering for NetHui. Out of the 158 registrants who sought information, 28 of them have joined.

Recommendation: THAT the new members be approved.

InternetNZ

Paper for 17 August 2012 Council meeting

FOR DISCUSSION

Network Measurement Lab Phase 1A Report

Author: Vikram Kumar

Purpose of Paper: Report on Network Measurement Lab progress

Context

Network measurement was identified in this year's business plan as a stretch goal, specifically:

- Measure network-level indicators and traffic flows as a way to provide evidence-based technical policy discussions and leadership.
- Identify and include existing sources of network measurement in the above.

Phase 1A

Harmonic was contracted to assist us in this work. Following scoping, it was decided to split the work into phases, with the first phase (1A) aimed at determining 'what' network measurement should aim to achieve. The approach used was to develop a 'strawman' for discussion so as to have a tangible starting point for widespread consultation.

The Phase 1A report is published at https://internetnz.net.nz/our-work/Lab. The following areas, in decreasing order of importance, were identified as both important for technical policy and architecture in New Zealand as well as benefitting if evidential data was made available:

- Peering/Transit
- Network Performance
- Network Security/Resilience
- Traffic Patterns
- Caches/CDNs
- Consumer Access

In addition, evidential data was required to:

- Collect and store raw data for issues that come up in the future but are not currently known or predictable.

- Address or confirm 'urban myths' that have arisen over the years and continue to be raised as 'facts'.

- Address how commercial datasets can co-exist with open data sets, noting that much evidential data already exists (but only a small fraction is open data).

Feedback

- The name 'Network Measurement Lab' was inaccurate as to our intention (which is to promote better evidence-based Internet technical architecture and policy; maximise use of current providers and platforms; and investing only where a metric isn't being measured or open data isn't available or a processing/analytical platform is lacking in some way). Accordingly, **the work is now referred to as IME (Internet Measurement Ecosystem).**

- Some Council members have expressed reservations based on both the process and content of the report.

- InternetNZ members have supported the initiative, some "strongly". One member, John Butt, was initially opposed to the work on the grounds that it would compete with his commercial services, TrueNet. Once the nature of the work was clarified, he identified opportunities for TrueNet to benefit from the work (specifically, the ability to analyse data that the organisation currently collects but is unable to process), and has confirmed support for the initiative.

- The report and InternetNZ's intentions were discussed in detail at InTAC. There was widespread support expressed for the work. Additionally, in the anonymous survey of participants post-conference, the 39 responses rated it an average of 3.8 on a scale of 1 to 5. There were no ratings of 1. A small number of respondents rated it 2 on the basis of a misunderstanding that it would compete commercially with existing data measurement sources and providers.

Additional Opportunities

Once public discussions on the 'strawman' started, it sparked ideas and suggestions on extending our efforts to promote and develop the ecosystem to achieve our primary aim as well as benefit the wider community. These include:

- There are many opportunities to incorporate existing measurement data from overseas organisations relevant to the New Zealand. In the same way, there are opportunities for New Zealand metrics to contribute to global metrics.

- There are many islands of proprietary data at an operational level. These are used to control and optimise commercial operations and are highly sensitive. However, similar to the National Broadband Map effort, it may be possible to get aggregated data by creating a value proposition and trust relationship with the data owners.

- There may be an opportunity to be a neutral, trusted certifier of commercial Internet services, e.g. the product disclosure specifications being developed currently by the TCF at the behest of government.

- Once the IME effort has a track record and delivers trusted metrics, there may be an opportunity to take on commissioned analysis. However, the commercial potential of the work is very low and in the long term. It cannot be a prime driver as it will inhibit building trusted relationships, undermining the potential of the IME as a whole.

Phase 1B

Results from the work so far have validated the approach being taken to develop the IME and get community buy-in. The following are the next set of questions that need to be answered:

- What are the gaps in open data that will require us to set up new measuring systems? These gaps are either because no one is measuring those aspects of Internet traffic flow or data that is not available openly for the community's re-use.

- What are the existing platforms that can meet, or can be easily extended to meet, our requirements of big data storage; computing power; and analysis and reporting tools? One of these is the existing/future platform from NZRS.

- From the above, what are the options for collecting missing open data and, if necessary, extending or building our own work platform?

Next Steps

These are still being discussed.

Recommendation

That Council **notes** the Internet Measurement Ecosystem's Phase 1A Report.

Phase 1A Report – NZ Internet Issues

Network Measurement Lab

Prepared by

Harmonic

for

Internet New Zealand

23 June, 2012

Contents

1 Executive Summary

Harmonic recently surveyed fourteen of New Zealand's most respected authorities on Internet related topics. The primary objectives of the survey were to understand current and upcoming Internet technology related issues in New Zealand and the need for substantive evidence to address them.

When it came to the important issues, the following topics ranked prominently:

- Peering and national transit
- Network performance
- Network resiliency and security
- Traffic patterns
- Commercial issues

While there were various viewpoints on the technical issues and their relative importance, there was complete consensus regarding the need for evidence to address them.

When it came to discussing future issues, the participants argued convincingly that while it is inherently difficult to predict the future, the availability of substantive data gathered over time, will help address future scenarios. Both present and future, a sound fact base would dramatically assist in addressing issues as they arise.

Most felt that users of Internet services in New Zealand suffered from unnecessary commercial and technical constraints. Many of these constraints have grown out of past practices which may now have been addressed, but many remain as "urban myths".

It was also noted that these constraints may be creating an inhibiting 'mindset' of the Internet's potential. There were anecdotal views of how such mindsets may negatively impact research and economic development activities associated with data intensive applications and the use of high speed networks.

As identified above, a common concern which supports the rationale for having trusted evidence, is the existence of unsubstantiated technical issues often promulgated via news articles, blogs and emails. The consensus view was that with substantive evidence, many of these issues would be put to bed and the emphasis would then shift to the real technical challenges facing the Internet. Or alternatively, some may be proven to be true, in which case they can be addressed in a rational manner.

Finally, when it came to identifying the potential components of a national network measurement lab, most respondents were familiar with the same organisations and tools. A common observation made during the survey was that if these organisations cooperated effectively, evidence could be gathered to resolve many technical issues.

In addition to the existing tools and organisations, innovative new network measurement technologies continue to emerge. There have been encouraging statements about the potential for New Zealand to not only prepare for the ultrafast broadband world with open, robust technical information, but to become a recognised leader in the field.

2 Introduction

New Zealanders have strong and varied viewpoints on matters related to the Internet. When considering complex technical issues, a smaller portion of New Zealanders understand the topics, but the divergence of opinion remains. This is understandable in many cases, as there is no robust evidence to help understand, and therefore debate and resolve the issues objectively. In many situations, the vacuum of evidence is surplanted with opinions, anecdotes and data taken out of context.

InternetNZ is interested in gaining a better understanding of these technical issues. Which are the most important issues? Which could be addressed with evidence that is lacking today?

Armed with this understanding, InternetNZ will explore the merits and potential elements of a Network Measurement Laboratory (NML) to achieve the following objective:

Create a Network Measurement Lab that provides evidence to support the important network policy and architecture decisions affecting New Zealand Internet users

It is envisaged that the focus of the NML would be to generate evidence that is quantitatively robust. It is also envisaged that the raw data required to generate the evidence would be gathered and stored over time to identify and measure trends and provide statistical confidence. The NML is not expected to provide qualitative assessments, such as market surveys or subjective viewpoints. It would be seeking hard facts to support discussion and resolution of the important technical issues facing the New Zealand Internet, today and into the future.

Vikram Kumar, CEO of InternetNZ commissioned Harmonic to examine the feasibility of establishing a NML and what important Internet related issues it could help resolve.

The study has been broken into two parts, Phase 1A and 1B.

- The goal of Phase 1A is to identify the key questions and issues relating to New Zealand Internet for which evidence is required to provide a greater understanding.
- Phase 1B will then examine potential options and make recommendations for a NML implementation that could resolve these issues.

This report provides the outcome of our Phase 1A survey, a qualified understanding of the key issues facing the New Zealand Internet. It also provides an initial review of network measurement capabilities that are already providing relevant Internet information.

3 Methodology

This section details the process by which Harmonic classified the key Internet issues and the need for supporting evidence to help resolve these.

3.1 Interviews

Over the month of May 2012, Harmonic carried out fourteen interviews with trusted Internet experts. These individuals were selected through discussions with Vikram Kumar of InternetNZ. Three of the

participants surveyed requested anonymity and their responses in Appendix 2 – Detailed Findings, are noted as such. The survey participants are listed in Table 1 below:

Interviewee(s)	Organisation
Andy Linton	InternetNZ
Jay Daley	NZRS
Steve Cotter	REANNZ
Jamie Baddeley	FX Networks
Don Stokes	Knossos Networks
Jamie Horrell	Marylebone Consulting
Dean Pemberton	Prophesy Networks
Jonathan Brewer	Telco2
Richard Nelson / Tony McGregor	WAND
Stuart Wilson	Endace
Murray Milner	Milner Consulting
3 participants requested anonymity	

Table 1 - Survey Participants

From each interviewee we sought the following information:

1. What are the technical, architectural and operational issues relating to the Internet in New Zealand?
2. What are the most critical issues based on the interviewee's ranking?
3. What data (if any) currently exists to support resolution of these issues and is it sufficiently robust for that purpose?

The complete list of Interview Questions can be found in Appendix 1. The information gained from these interviews has been used to determine the key Internet issues for which there is insufficient factual evidence and to make recommendations to InternetNZ. These are detailed in the rest of the report.

3.2 Issue Relevance – NML Benefit

Harmonic anticipated that a range of technical and non-technical issues would be raised during the interviews. While we expected some of the issues may not be good candidates for a Network Measurement Lab, it was important to document all of the issues raised. While some of the issues may not be directly resolved through evidence from a NML, there could be some indirect benefit provided. In some instances, there is unlikely to be any resolution from NML evidence. Therefore, we considered three overarching groups for the issues raised:

NML Benefit	Description
1 Direct Benefit	Issues that a NML could directly help resolve through some form of objective evidence. For instance, helping identify whether local Internet traffic is kept local.
2 Indirect Benefit	Issues that a NML may resolve through evidence, but indirectly. For instance, a detailed assessment of customer traffic profiles could influence ISP views on the need for datacaps.
3 No Benefit	Those issues where evidence from a NML is highly unlikely to provide either direct or indirect benefit. For instance, the issue of protecting Internet content copyright.

Table 2 - Classification of issues based on the benefit a Network Measurement Lab would have.

3.3 Issue Topic Categorisation

The issues were also placed into the following categories in order to highlight the areas relating to the Internet in New Zealand that our interviewees are most concerned with. These categories are used in the charts and tables found in Section 4 as well as for the section headings in Appendix 2.

Issue Topics	Description/Examples
Consumer Access	Issues relating to the 'last mile' access technologies which connect the consumer (household or business) to the aggregation points as well as other issues that directly affect consumers of Internet services.
Peering/Transit	Issues relating to the technologies and policies in place to get traffic from one point on the Internet to another.
Caches/CDNs	Issues surrounding technologies such as Caches and Content Delivery networks (CDNs) designed to bring content closer to consumers in an effort to improve performance.
Network Performance	Issues relating to network performance (latency, jitter, packet loss etc.) and performance bottle-necks.
Network Security/Resiliency	Issues relating to security (ability to prevent and protect against deliberate attacks) and resiliency (ability to recover from failures) in the New Zealand Internet.
Traffic Patterns	Issues relating to traffic flows and profiles on both fixed line and mobile networks.
Commercial	Issues related to price, cost and competition that affect consumers and suppliers of New Zealand Internet services. Note that issues placed in this category often overlap with others. For instance, the price of international capacity.
Other	Issues that don't belong in any of the categories above. Examples include mind-set and copyright.

Table 3 - Issue Topic Categorisation

4 Key Findings

The key survey findings are summarised below. For more detail see Appendices 2 and 3.

4.1 New Zealand Internet Issues

Each issue raised by an interviewee was placed into the topic category from Table 3 that seemed most fitting. The issue topics that each of the 14 interviewees (columns A – N) considered to be the most important are shown in Table 4 below. Person N (with no shaded cells) didn't raise any key issues as they felt the issues of the day will change as the Internet changes, but emphasised the need to gather the data to prepare for the future.

There was significant divergence of opinon on some topics. For example:

- Some interviewees feel that peering is virtually non-existent in New Zealand and that the big carriers need to peer more, while others think good progress is being made and that peering is becoming less of an issue.
- Most interviewees think very highly of caches and CDNs and describe these technologies as crucial to New Zealand, but others question the benefits.

Some believe there are ISPs regularly tromboning traffic overseas while others think it has been an insignificant practice for several years.

Substantive network measurement evidence would help people come to a shared and informed conclusion on each of these matters and others that arise in the future.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Consumer Access														
Peering/Transit														
Caches/CDN														
Network Performance														
Network Security/Resiliency														
Traffic Patterns														
Commercial														
Other														

Table 4 - Topics of interest to interviewees

Figure 1 below shows that a wide range of issues were raised, but most related to *Traffic Patterns*, *Peering/Transit* , *Network Performance*, and *Commercial*. *Network Performance* issues were ranked most highly, and incidentally, are the type of issues a Network Measurement Lab could address.

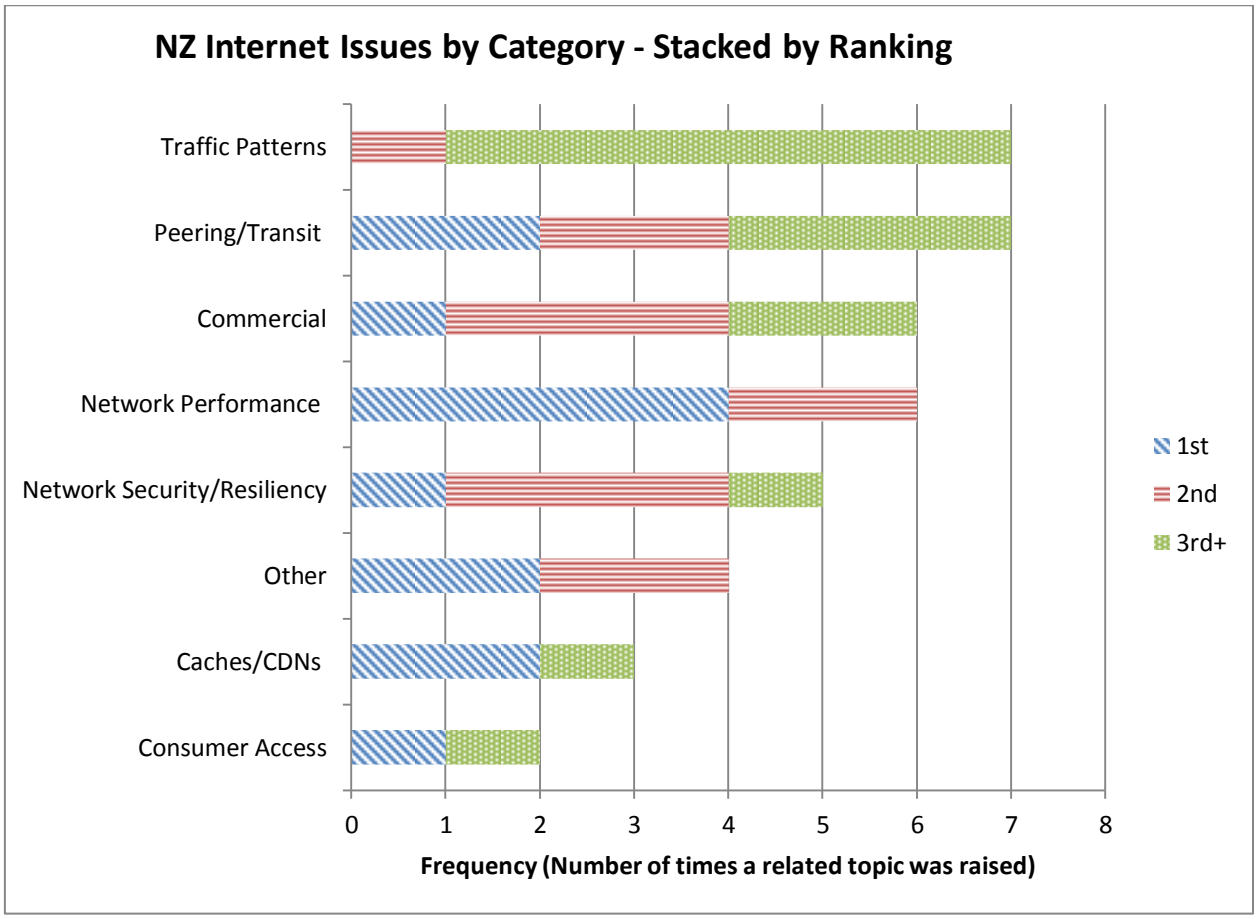


Figure 1 - New Zealand Internet Issues by Category (Stacked by Ranking)

Figure 2 below uses the same data as Figure 1, but it now indicates the level of benefit that could be provided by a Network Measurement Lab (Refer to Table 2 for an explanation of these). It can be seen that a Network Measurement Lab would provide the most direct benefit for issues relating to *Peering/Transit*, *Network Performance* and *Traffic Patterns*. As expected, issues in the *Other* and *Commercial* categories require more manual investigation (e.g. through surveys) and measurements from a Network Measurement Lab would not be useful in addressing these.

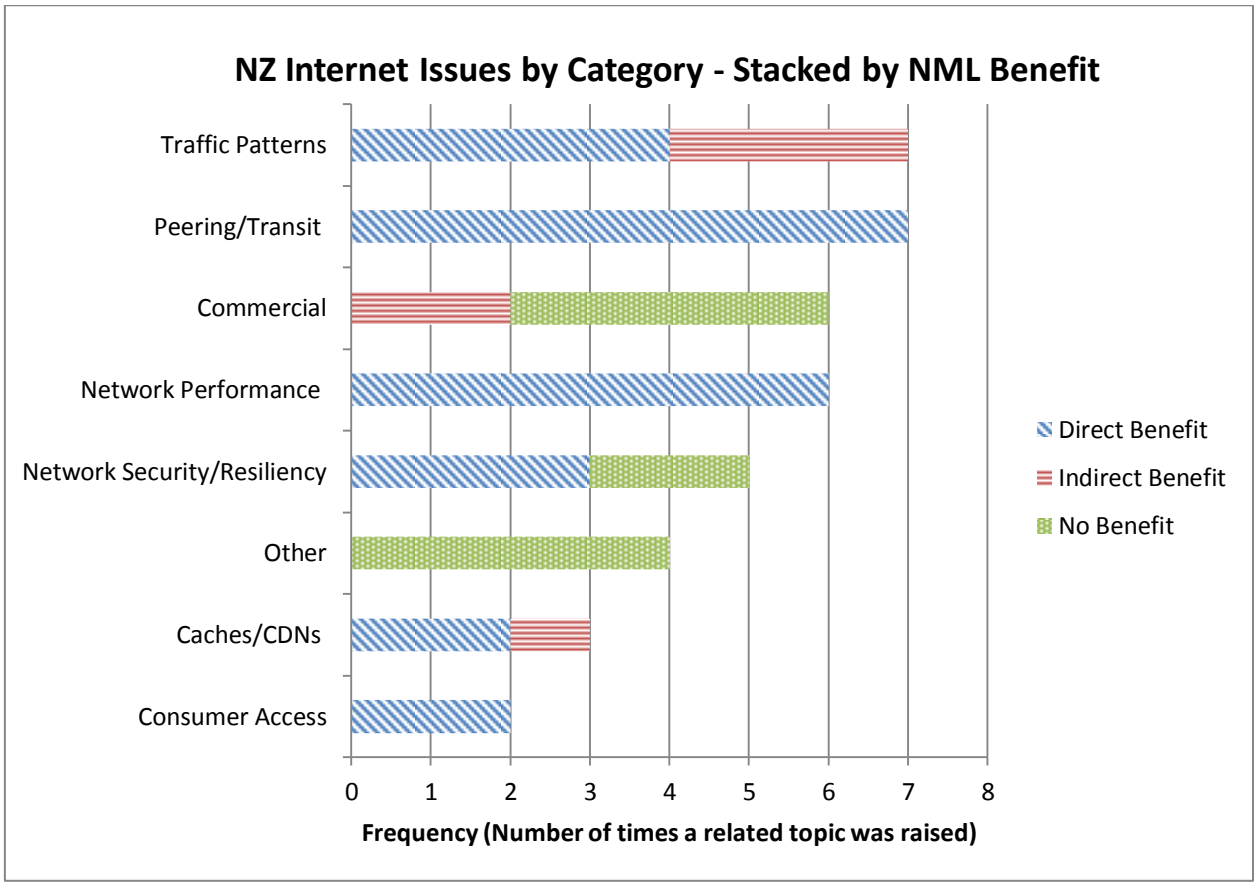


Figure 2 - New Zealand Internet Issues by Category (Stacked by NML Benefit)

A common theme identified through the interview process is that each of the issues that a Network Measurement Lab could *directly benefit* is lacking in evidence. It most cases, interviewees believe some evidence exists, but it is either not openly available for analysis or otherwise insufficient.

The interviewees suggested that supporting evidence is especially lacking for the following issues:

- Traffic flows in the New Zealand Internet (how much, where it goes, what path it takes to get there).
- The performance benefits of caches and CDNs in New Zealand.
- The resiliency of the New Zealand Internet when there are outages in key locations.
- The need for data caps to control congestion.
- Domestic traffic being tromboned overseas.

4.2 Key Themes

Throughout the interview process a number of key themes emerged. These are detailed in this section.

1. Keeping Local Traffic Local

Most people agree that Internet performance is at an optimal level when traffic only travels as far as it needs to. Is this actually happening in the New Zealand Internet? Note that keeping local traffic local is a recognised optimisation for good Internet design because it impacts positively on resiliency, application performance and reduced cost to provide service.

2. Identifying Bottle-necks

Most respondents were interested in understanding where Internet performance bottle-necks exist. Are they within the home network? In the access network? National transit? International transit? Will the performance of UFB's new access super-highway be constrained by goat tracks further upstream? Most saw value in gathering evidence to identify where the bottle-necks are and where they move over time.

3. Peering into Transit

There was consensus amongst respondents that New Zealand lacks knowledge of how networks are interconnected. A detailed peering / transit map was suggested several times. This may become particularly relevant with mobile Internet services as growth in demand continues and pressure mounts on the predominantly Auckland based peering arrangements in place today.

4. Urban Legends

Many respondents were frustrated with the time wasted unnecessarily debating urban myths that should be "put to bed". One example raised multiple times was the tromboning of traffic overseas. While this might have occurred in the past, many felt it was probably no longer an issue. Evidence to support the discussion objectively, and then resolve it, is long overdue.

5. Are Data Caps Stifling Growth?

Several respondents questioned whether data caps are necessary today and described the implications that they can have on New Zealand economic growth and user behaviour.

6. Bringing Content Closer to Consumers

There is general agreement that bringing content closer to consumers is a good thing. This is evidenced by the increasing proliferation of caches and Content Delivery Networks (CDNs) in New Zealand which are increasingly being used by ISPs. However, evidence would be useful to understand what performance benefits caches and CDNs actually bring, and whether they provide the expected benefits in practice and to ensure that there are no performance and commercial downsides.

7. Known Unknowns and Unknown Unknowns

Several respondents noted that while we may be familiar with current Internet issues, we do not know what the future issues will be. These respondents felt that building a repository of network measurement data now would help address these future questions. While net neutrality was not considered a problem for NZ currently for most respondents, gathering evidence could confirm that this is indeed the case.

8. The National Measurement Patchwork Quilt

Most respondents were aware of organisations across New Zealand, and the wider Internet, that undertake network measurement work. However, there was less understanding of what is actually being measured and where one can obtain the data. These respondents felt bringing the results

collected by the various organisations together would be constructive, as it would provide a cohesive view of network measurements and the raw data itself, in an open and accessible way.

9. Unveiling Pricing

Most respondents felt greater transparency is required for national and international capacity pricing. There were consistent reports of the commercial challenges smaller ISPs face in obtaining this information.

10. Be Mindful of Mindsets

Are NZ mindsets constrained by commercial and other constructs that do not exist overseas? If so, is this stifling the potential for innovation, economic growth and collaboration with other countries? This theme was directly identified by a small number of respondents, however, it was concerning to hear NZ may be steadily slipping behind other countries who are embracing faster networks, big data applications and data intensive science.

11. Upwardly Mobile

As people move towards mobile Internet devices (tablets, smart phones etc.) the mobile traffic profiles are changing, data usage is increasing and potentially converging with that of fixed line Internet connections. Some respondents believe this is a significant development for the NZ Internet and should be monitored. Some believe there are clear implications for mobile application performance and associated mobile data caps for mobile traffic.

4.3 Potential Applications of a Network Measurement Lab

Through discussions with the interviewees, we learned how a Network Measurement Lab might be used in collecting and analysing data relating to issues in the following categories.

Network Performance

Sample questions:

a) Where are the performance bottle-necks?
b) Are users getting the download/upload speeds that their ISP promises them? When does this not occur?
c) What is the theoretical performance of application X (given a fixed delay) versus actual performance at different times of the day?

This could consist of active measurements (latency, jitter, packet loss, traceroutes etc.) between a mesh of nodes as well as to fixed locations. The more nodes the better as the results can be aggregated to give overall performance characteristics as well as statistics by location, ISP etc.

Caches/CDNs

Sample questions:

a) Does my ISP cache Youtube content?
b) Do caches/CDNs offer a performance benefit? If so, how much?
c) How much of the International content that we consume is sourced from local caches/CDNs?

Through active measurements (file downloads) it is possible to assess the performance of cached versus uncached content to see what kind of benefit caches actually provide. In addition, passive measurements could be taken at CDN and Cache entry points to assess how often they are utilised and their savings in terms of the amount of traffic that transits international links.

Traffic Patterns

Sample questions:

a) Is <insert protocol here> becoming more common? E.g. IPv6, Bittorrent, HTTP for streaming video, RTP, etc.
b) What are New Zealand consumers using the Internet for?
c) Are traffic patterns changing? How are they changing?
d) Where are the points of traffic concentration within the New Zealand Internet?
e) Are these points of traffic concentration appropriate in terms of network performance?

Passive measurement (network traces or flow recording) can be used to analyse traffic flows and profiles on the New Zealand Internet. Ongoing measurements can show how these change over time (e.g. length, size, application protocol). Ideally passive probes would be planted in ISPs, though this is not easy due to the privacy issues that arise.

Network Security/Resiliency

Sample questions:

a) What will happen to the New Zealand Internet if the Sky Tower is hit by a substantial outage?
b) How resilient is the New Zealand peering infrastructure?
c) Where are the problem areas for both resilience and security within the New Zealand Internet?

While a NML can't completely address the issue of resiliency, a good first step is to know how much traffic is going where so that we have an idea of much traffic is affected when a failure (e.g. at APE) occurs. This could be achieved through passive measurements at key locations, particularly Internet Exchange Points (IXPs).

Peering/Transit

Sample questions:

a) How are ISPs and Content Providers in New Zealand connected?
b) Is tromboning of traffic occurring today?
c) What is the mix of domestic traffic versus international traffic?

A number of interviewees mentioned that a peering/transit map would be useful to see how ISPs/Content Providers are connected and Jon Brewer has made a good start towards this. This could be done on a larger scale with multiple active probes running traceroutes between one another and then collating the data.

4.4 Measurement Platforms Available Today

In most cases, there are already organisations collecting the required measurements and a NML could simply collate them. Table 5 below lists the potential measurement resources and organisations that were mentioned more than once by the interviewees. See Appendix 3 for more details of these.

Resource	Description	Times Mentioned
WAND	Network research group at the University of Waikato whose projects are mostly focused on network measurement. Of particular relevance are their Nettest and AMP projects.	7
Truenet	Measures NZ broadband performance through active measurements from user-located probes.	7
M-Lab	An open, distributed server platform for researchers to deploy Internet measurement tools. There is a M-Lab node here in New Zealand.	6
RIPE NCC	Run an active Internet measurement system called ATLAS with measurement nodes distributed around the globe, including New Zealand.	4
Epitiro	Experienced in Internet performance benchmarking and have multiple sites in NZ from which they make measurements.	3
CAIDA	Run an active measurement infrastructure called Archipelago (Ark) which includes a node in New Zealand.	2
UoA	Have a networking research group that does work in network measurement.	2
NZRS	Collect Internet measurement data by both locally and remotely monitoring the .nz name servers.	2
Jonathan Brewer	Runs the Inside Telecommunications blog in which he reports on measurements and investigations into the NZ telecommunications industry.	2

Table 5 - Network Measurement Resources

Others that received a mention include Geoff Huston and George Michaelson at APNIC, Endace, Harmonic and the IPv6 Taskforce.

5 Conclusions

The survey findings provide a consistent picture of the topics discussed across the fourteen experts surveyed. In terms of the technical issues raised, there are no real surprises. While there is some divergence of views on certain topics, that is always attributed to a lack of evidence upon which to build a qualified opinion.

There is complete consensus upon the need for trusted information to help address technical challenges impacting New Zealand Internet users. There is also consensus that this will become even more

important to New Zealanders as we enter the new UFB era of high bandwidth services. As well as the issues faced today, most expect new and unforeseen technical issues will arise. Many participants expressed concern that if left unattended, these issues may prevent New Zealand from realising the social and economic potential that UFB offers.

While there are organisations, capabilities and tools across the country that provide some of the required information, most surveyed experts did not know what was available, where it was stored and how to extract it.

There was clear support for the concept of a Network Measurement Lab that linked the various existing measurement capabilities and provided access to information on an open basis for interested parties. Most felt that such an organisation could play a valuable role in the future UFB era, helping address technical challenges and improving the experience of Internet users, as well as creating opportunities for innovation and economic development.

Some even expressed a view that New Zealand could become a recognised leader in the field of Internet network measurement if we approached the challenges with open minds and a collaborative spirit.

5.1 Next Steps

On Tuesday 10 July 2012 InternetNZ will present the findings of this report at the Internet Technical Architecture conference (InTAC) which is aimed at promoting technical discussions relating to the New Zealand Internet. The attendees will be given an opportunity to comment on what they feel the issues facing the Internet in New Zealand are and whether this report has captured them accurately.

Following this, Harmonic, in conjunction with InternetNZ will investigate and report on how the goals of creating subtantive Internet evidence, via some form of Network Measurement Lab could be achieved. This will involve:

a) Interviewing appropriate individuals/organisations who measure the New Zealand Internet in an effort to understand in detail what areas they have covered and where the gaps in measurement data are. This will likely include some of the interviewees from Phase 1A.
b) Assessing whether the Network Measurement Lab can simply collate the work of others or if there are clear gaps, what data needs to be collected?
c) Investigating other network measurement initiatives, tools and best practices.
d) Finally, make a recommendation as to how the Network Measurement Lab should be implemented as well as identifying the 'quick wins' – Internet measurements that the NML could collect with relative ease which would provide a valuable insight into some of the current issues. Examples of quick wins might include:
    - Construction of a detailed peering/transit map of the New Zealand Internet.
    - Collecting Internet performance data using a mesh of probes running active measurements between one another.

6 Glossary

Term	Definition
3G	A generation of standards for mobile phones and mobile telecommunication services fulfilling the IMT-2000 specifications by the International Telecommunication Union.
4G	Defined by the International Telecommunications Union as mobile systems with new capabilities that go beyond those of 3G. Such systems will provide access to a wide range of telecommunication services, supported by mobile and fixed networks that are increasingly packet-based.
Active Measurement	Refers to the process of measuring a network by injecting probes (packets) into the network.
Bottle-neck	The segment of a network path in which performance is lowest and has the most detrimental effect on the traffic that flows across it.
Caching	The storage of data closer to the end user, for use at a later time.
CDN	Content Delivery Network. A collection of servers distributed across multiple locations to deliver content more efficiently to users.
DNS/DNSSEC	Domain Name System. Translates domain names to IP addresses (among other things). DNSSEC is a set of security extensions to DNS.
IP	Internet protocol. IP is low-level network protocol that is used for the addressing and routing of packets through data networks. IPv6 is the replacement protocol for IPv4 which is currently the predominant IP version on the Internet.
ISP	Internet service provider. An organisation that provides access to the Internet.
IXP	Internet Exchange Point. Physical infrastructure through which ISPs and Content Providers exchange Internet traffic between their networks. Examples in New Zealand include the APE and WIX.
Jitter	A measure of the variance of latency.
KAREN	A national network run by REANNZ that provides high capacity, high-speed broadband connectivity between research, education and innovation organisations in New Zealand.
Latency	The amount of time delay between a network packet being sent and then received at the destination.
LFC	Local Fibre Company.
LTE	Long term evolution, a 4th generation mobile technology. Relative to 3rd generation wireless, the LTE specification enables 100 Mbps+ data transmission rates, increased system capacity and shorter transmission latency times.

Term	Definition
NAT	Network Address Translation. A mechanism which enables multiple hosts on a private network to share one or more public IP addresses.
Passive Measurement	Refers to the process of measuring a network, without creating or modifying any traffic on the network.
Peering/Transit	Peering is the exchange of zero-cost traffic between consenting parties, as opposed to transit which is the payment by a customer to a network provider to carry traffic over the provider's infrastructure.
P2P	Peer to peer is the exchange of information between devices or systems that are capable of operating as both a server (provider) of information and a client (consumer) of information.
POI	Point of interconnect. The geographical location where two networks interconnect and exchange traffic.
RBI	Rural Broadband Initiative. The government programme to develop enhanced broadband infrastructure in non-urban areas of New Zealand.
RF Overlay	A means of distributing television programming over fibre. The technology adds a third lambda or light wavelength to the two existing ones, which is used solely for transmitting television.
SME	Small and medium business. A business with 19 or fewer employees.
TCP	Transmission Control Protocol. An end to end transport layer protocol used by applications that require guaranteed delivery.
Traceroute	A means of tracing the network path that a packet takes to get from its source to destination.
Tromboning	When a traffic flow originates in New Zealand, leaves the country only to come back to New Zealand, adding a significant amount of latency in the process.
UFB	Ultra-fast broadband. A fibre-to-the-premises broadband service that provides downlink speeds of at least 100 Mbps (megabits per second) and uplink speeds of at least 50 Mbps.

Appendix 1 – Interview Script

Thank you for agreeing to participate in our survey.

Through these interviews with New Zealand Internet professionals we hope to learn and gain insight into the technical, architectural and operational issues that are most important to the success of the Internet in New Zealand. We are especially interested in learning those issues for which there is little supporting evidence (other than anecdotal) where an open measurement system would help to better understand them.

Individual comments or parts of the interview can be treated with anonymity. Please let us know during the interview which responses, if any, you would like to be treated this way. Also, please let us know if you would prefer that the interview is not recorded.

---

1. What do you understand to be the New Zealand Internet?

2. What are the key technical, architectural and operational issues relating to the Internet in New Zealand and its relationship to the rest of the world?

   Note: You might like to discuss issues in the area of peering, IP transit, international bandwidth, traffic flows and profiles (both fixed line and mobile), private and public cloud, caching, network neutrality, IPv6 and UFB/RBI.

   For each issue raised:

   a. What information needs to be collected to better understand the issue?

   b. Do you have any suggestions as to how we might measure and collect this data?

   c. Do you know of any New Zealand-based network facilities, organisations or individuals that could help in gathering evidence about this issue?

3. Can you rank the issues you raised based on their importance to you?

Appendix 2 – Detailed Findings

Appendix 2 provides further details of the survey findings. Each section contains the responses from participants on each of the Internet topics covered in the survey.

1 Peering/Transit

The topics of peering and national transit were of interest to most survey participants. While there were a range of views on whether peering and transit were in fact problems, most participants agreed factual evidence was required to understand the situation.

Jay Daley noted the importance of peering from an Internet performance perspective:

> *"The level of interconnection has an impact on the traffic route. Sub-optimal routes have a big impact on performance."*
>
> *"In other countries there are a small number of Internet Exchange Points (IXP)s where ISPs exchange most of their traffic. In New Zealand the ubiquity of fibre means that private peering can be more easily supported. There is less benefit to being a member of an IXP and less ISPs choose to do so."*

Jay then raised the following questions:

- How are ISPs in New Zealand connected?
- What route does traffic from one ISP to another take?
- What is the impact of non-optimal routes?
- What is the geographic nature of their connectivity?

> *"Ultimately we are after a New Zealand connectivity map."*

Jay mentioned Telecom's dominance and the way its services work has a big impact on how people are connected and how traffic flows.

He mentioned unsubstantiated rumours of ISPs 'pretending' to send national traffic overseas – i.e. traffic not leaving New Zealand but charged as international. He also mentioned unsubstantiated rumours of national traffic actually going overseas.

> *"Evidence could be gathered by measuring trace-routes and timing of traffic."*

Steve Cotter believes the New Zealand peering market is immature and under-developed.

> *"There is a mentality around; "if you want to connect to my network, you're going to have to pay something."*
>
> *"Settlement-free peering is where the Internet has gone. There is real value in open peering fabric."*

Steve mentioned he is hoping to do work in this area to show the value of peering.

A **participant requesting anonymity** noted the high costs of peering for small operators:

> *"Peering policy of the two largest providers Telecom and TelstraClear means that costs are higher for smaller operators and this has a flow-on to data caps.*

The participant hasn't seen any data that would validate cost savings quoted by others.

> *"The biggest missing data is the cost. As a result it is not possible to size the problem nor the opportunity for Telecom and TelstraClear to change their behaviours."*

> *"We don't have the evidence behind citing the problem [not peering] and citing the opportunity [peering]."*
>
> *"Telecom Wholesale offers a local peering service. It would be interesting to see the economics of that compared to national peering."*

The participant also mentioned Jonathan Brewer's Peering and Transit Map which is created from publicly available data. *"It is a good start."*

Jonathan Brewer also commented on the competitive situation.

> *"With the services that people are using today, the current state of peering isn't a problem. However with future technologies with large bandwidth requirements, national tromboning (e.g. DN -> AKL -> DN) will significantly affect performance."*
>
> *"We have a competition problem."*
>
> *"The two big guys have used their market power and position as resellers of Southern Cross cable to make it hard for anyone competitive to get access to their customers."*
>
> *"If you're on an alternative service provider, you can't get to a Telecom customer without going through international pricing."*

In terms of useful evidence for the future peering and transit discussions, Jon suggested the following:

> *"Use probes (such as the Truenet ones) to do trace routes to various networks. After aggregating this data we are able to say; "This is how traffic from X is getting to Y". We really need to know these things but we don't! "*

Tony McGregor and **Richard Nelson** believe peering is a major issue:

> *"New Zealand could benefit from more and better peering, especially with major international content providers. It benefits competition."*
>
> *"With UFB there will need to be more peering with Content Delivery Networks."*

Jamie Baddeley believes good progress is being made with peering and transit, despite the complaints by ISPs and content providers that peering doesn't exist in New Zealand.

> *"In 2010 Telecom New Zealand made some steps towards doing local peering: Partial peering on a settlement-free basis of their New Zealand residential customer base but not their enterprise or business customers."*
>
> *"Everyone bangs on about needing more peering but nobody's actually walking the talk."*

Jamie thinks that Telecom has at least taken a step forward and the rest of the industry now needs to step up. If they do, Telecom may then provide settlement free peering for SME and enterprise customers.

A participant requesting anonymity also commented that we have less of a problem with peering and transit than often claimed, but could do with evidence to support the discussion.

> *"We have less of a problem than we suspect but we need more evidence. There is not enough information about where data is going. "*
>
> *"There are claims that Telecom and Telstra Clear don't peer. These claims are false. They do peer, they just don't have an open peering policy. This is similar to the rest of the world where large ISPs don't provide free peering."*

The participant stated mandatory peering is not a desirable approach and government intervention in that area wouldn't be helpful. From a measurement perspective, the participant believes peering in New

Zealand needs to be properly benchmarked against international peering and suggested the following options:

Peer with the IXP route servers and analyse traffic routing:

- Measure/sample traffic flows at peering points.
- It would capture multi-lateral peering traffic but won't capture bi-lateral peering traffic?

The key topics to understand through measurement would be:

- How much traffic is staying on-shore?
- How much traffic is going across peering points?

Murray Milner is interested in how things are connected and whether the various players are sufficiently well interconnected to provide a theoretical performance which is good for everybody.

> *"The key question is where does the traffic flow? Does it stay local? Does it transit over parts of New Zealand? Does it go overseas?"*
>
> *"A heat-map of New Zealand relating to sinks and sources would be a very useful capability to have."*
>
> *"A peering/transit map that includes the big and small guys would also be useful."*

In UFB, the access network is fully defined (it wasn't previously). The rest of the network (including national and international transit) is not at all well defined currently.

Andy Linton also stated peering is not as much of an issue as it once was, but it is important to keep local traffic as local as possible, particularly in the future.

> *"With UFB it's important to keep local traffic local (no tromboning) not just to minimise latency but to also avoid reliance on other locations. Especially an issue when it comes to natural disasters and things. Smaller, regionalised IXPs could achieve this*."

Andy noted there is a lack of transparency when it comes to pricing for domestic and international transit.

> *"We really don't have any idea who's paying what. Sure, the Southern Cross lists prices on the site - But what's the real cost? It would be useful to plot pricing trends over time."*
>
> *"It is difficult to set up an ISP, when you need to sign an NDA or pay a bond before you can even start talking about buying International bandwidth from Southern Cross and pricing."*

Don Stokes discussed inefficient transit and mentioned why TelstraClear is no longer a 'big peerer.'

> *"A certain company used TelstraClear for national transit without paying for it. Their reaction was a decision not to peer with anybody without a commercial arrangement."*

Don touched on inefficient peering, noting:

> *"Increasingly, peering with TelstraClear and Telecom New Zealand is becoming less of an issue than it used to be."*
>
> *We really only have two main peering exchanges in New Zealand:*
>
> 1. *APE in the Sky Tower in Auckland (does have tentacles)*
> 2. *WIX in Wellington (more distributed)*
>
> *There should be more peering around the place but that doesn't mean every LFC POI should become a peering point. If there are too many peering points, we will have mayhem.*

There is need for more efficient transit, especially around things like CDNs, content providers and changes in content.

"If you are going to get the advantage of having 100 meg links into homes and you want to start doing media over that you need to get that content as close to those tails as possible and you have to do that at peering points."

Don believes the need to measure performance is in the following areas:

- To the major content providers
- To the major cache points (what's the performance of stuff out of those caches?)

Dean Pemberton noted it would be useful to measure the following traffic flows:

- The data flows that stay within an ISP.
- The data flows between ISPs.
- The data flows which leave the country for another destination.
- The data flows which leave the country and then come back to a New Zealand ISP (tromboning).

Keeping Local Traffic Local

Several survey participants mentioned their desire to see Internet traffic kept as local as possible. There were also some interesting suggestions on the topic of promoting New Zealand-based content.

Jamie Baddeley had a number of interesting comments and mentioned an OECD report[1] that identified a strong correlation between local inter-connection, availability of local content and the economics of Broadband.

"Presently traffic contributing to a volume cap is non-differentiated – every byte you send to New Zealand or to the World is rated the same. It would be good if we could rate data to/from New Zealand networks at a cheaper rate."

"However, it is hard for New Zealand consumers to tell what is the New Zealand Internet and what is not. A webpage that ends in '.nz' may be hosted off-shore. E.g. 'stuff.co.nz' may pull its ads from Sydney."

"There must be a way to easily identify what is New Zealand content to kiwis and what is not."

"If it's cheaper to connect to New Zealand stuff, then more people will connect to New Zealand stuff and people who are providing New Zealand stuff will get more visitors."

Jamie discussed the export / import rating differential and came up with a suggestion to help balance the information trade deficit.

"When providers buy international capacity they buy an equal amount of inbound and outbound capacity."

"Since New Zealand is a net-importer (or net-consumer), every ISP in the country has a whole heap of international outbound capacity that's not being used."

---

[1] The Relationship Between Local Content, Internet Development, and Access Prices

Report From: The Internet Society, OECD, United Nations Educational, Scientific and Cultural Organization

http://www.internetsociety.org/localcontent

> *"There are no incentives in place for the marketplace to take advantage of that capacity. It's sitting there doing nothing and gives high performance (e.g. latency) since it's not congested."*
>
> *"Why don't we stop rating outbound traffic? Why don't we make it free for kiwis so that they can have a platform to send digital product offshore?"*
>
> *"Information as to how much capacity ISPs are buying and how much they're using is generally confidential. Perhaps we could create utilisation graphs without a scale. You just need to know the relativity of inbound and outbound you don't have to know how big it is."*

On the topic of keeping local traffic local, **Murray Milner** stated:

> *"The more that we can keep local traffic local, the better results we will get. It's fundamental to the performance of the Internet."*
>
> *"It would be extremely useful to be able to show through measurement, whether or not this is happening and how its trending over time."*
>
> *"Long term tracking against the evolution of applications would be very useful."*

Tony McGregor and **Richard Nelson** of WAND stated UFB and latency benefits (for TCP performance) would help ensure local traffic was kept in New Zealand, or Australia.

Tromboning

Jamie Baddeley provided the following observations on the topic of tromboning traffic offshore:

> *"We've got continual anecdotal claims of New Zealand providers tromboning traffic offshore because of economic issues, performance issues etc. It's a load of rubbish. That hasn't happened for at least five years."*

Jamie believes there is no proof to support these claims.

> *"I'd really love to put to bed this claim that domestic operators are routing traffic offshore."*

In terms of measurement, Jamie suggested the following exercise:

> "*Could someone examine the New Zealand routing tables and determine which IP addresses are in New Zealand and which are not*."

Dean Pemberton doubts whether the incidence of Internet traffic tromboning offshore is that common. His stated 'gut' feel is that the situation is not nearly as bad as many people perceive it to be.

> *"Therefore it would be great to be able to prove whether or not tromboning overseas is occurring. Some traffic is leaving the country, going by some hugely expensive slow link and then coming straight back into the country."*

Murray Milner noted that in work he did in 2007, there was a strong suggestion that traffic did trombone internationally for many sources of data. At that stage, it was estimated that 93% of consumer traffic went off-shore and appeared to be rising.

> *"For instance, Radio New Zealand deliberately through commercial arrangements, put servers in the United States because they felt the international market was more important than the local market. This resulted in tromboning for New Zealand-based users."*

Murray doubts that tromboning happens anywhere near as much now.

> *"One reason is because the focus on CDNs, such as Akamai, has changed the picture."*
>
> *"Another reason was the Epitiro Commerce Commission comparison of ISP performance. As the results were made public, ISPs attempted to 'game' the system and improve their relative*

performance, particularly with latency. Use of local caching environments became more prevalent as a result."

2 Network Performance

The topic of network performance was important to most survey participants. There were largely consistent views on the problem of performance and its impact on Internet services. There was also a large degree of consistency concerning the need for measurement.

Tony McGregor and **Richard Nelson** of WAND felt network performance was an important issue, particularly understanding how much end user performance is limited by congestion at international rather than national transit.

"More end user connection performance statistics are required. There is little work done in this area. If the cost and performance is right the users will adopt the services."

They raise network performance issues for cloud-based services:

"Cloud has big latency implications (especially for clouds outside of New Zealand). Technically, latency is the biggest issue."

Steve Cotter noted issues surrounding a lack of transparency into actual network performance from a research network perspective.

"If you aren't actively monitoring and testing the network on a continual basis you're not going to be able to run it effectively. It is important to look at the network from an end-to-end perspective"

"The smallest technical issues (e.g. packet loss, misconfigured hosts) will dramatically affect the ability to move data."

"There is a lack of understanding of network performance on campuses. If R&D networks don't push this then who will?"

Andy Linton noted the importance of measuring consumer Internet performance.

"It is important to measure the performance (bandwidth, latency, jitter etc.) that consumers (home and business users) are getting. We can then compare it to the rest of the world."

"Their plan might say 'up to XXX Mbps' but what are they actually getting? That statement includes 0mbps!"

Andy felt it is important to undertake measurements to see whether ISPs are doing things fairly. He pointed out the recent Comcast throttling controversy[2] as an example.

Andy pointed out some options for performance measurement, and some of the related issues:

"A lot of testing (such as what Truenet does) is self-selecting. Often geeks take part – who have atypical usage profiles."

"It would be very useful to have RIPE Atlas probes (or something similar) in representative places."

Murray Milner believed the topic of network performance was of considerable importance.

[2] http://www.techspot.com/news/31076-fcc-rules-comcast-throttling-was-illegal.html

> *"What's the point of having UFB if you don't solve these other problems which are bottle-necks down the line."*

Ideally, Murray wants to end up in a situation where a user, no matter where in New Zealand they may be, could get to a destination using the lowest possible latency route.

He felt it would be interesting to look at the theoretical performance (given a fixed delay) of an application (such as Skype) versus actual performance at different times of the day.

Murray noted it is important to do both active and passive measurement and that with passive measurements, traffic must be anonymised and the trust issue barrier is a significant one.

> *"Measurement should include passive probes at appropriate places in the network, preferably at peering points and significant transit points where you could better assess the data flows. Active measurements are required to get an idea of end-to-end performance."*

3 Traffic Patterns

Stuart Wilson made some important observations concerning the change in traffic patterns:

> *"We're seeing traffic patterns change substantially with an increase in cellular traffic and mobile applications."*
>
> *"We're seeing both shorter flows (from applications periodically accessing servers) and longer flows (with vending machines establishing long connections with very low data rates)."*
>
> *"Whereas the number of flows/Gbps used to be around 100k flows, we now need to scale equipment in the core of cellular backhaul networks to handle 1m flows/Gbps."*
>
> *"This will become a real issue for anyone with stateful devices in-line in their systems (Firewalls, Proxies, Load balancers, etc). Network monitoring equipment will need to scale to meet this demand."*

Steve Cotter observed that since 2004, large science flows started to dominate reseach and education networks. In Berkeley they developed a protocol to reserve bandwidth end-to-end for the top science flows observed. He distinguished between commercial and research networks:

> *"Commercial Networks: Billions of small flows – typically web pages, emails, small video flows."*
>
> *"R&D Networks: Are typically dominated by a small number of very large flows – moving datasets of multiple terabit sizes over short periods of time."*
>
> *"We're seeing changes in traffic patterns."*

A **participant requesting anonymity** felt a traffic pattern issue would arise when UFB was launched as the customers would be prepared to pay for better products. The participant felt it would be good to understand the differences between traffic profiles in UFB and non-UFB areas.

Another **participant requesting anonymity** noted traffic patterns are becoming less bursty, more consistent and with a flatter traffic profile due to streaming.

> "*It would be interesting to analyse traffic flows. ISPs are protective over these profiles."*
>
> *"How much of New Zealand Internet traffic relates to television and video services and how is it trending?"*

Andy Linton mentioned he'd like to see some mapping of technology change:

> *"Measuring stuff like IPv6, bittorrent etc. It would be good to measure DNSSEC."*

IPv6

While most survey participants acknowledged IPv6, there were varying views about whether it represented an issue that required evidence to resolve, or whether measurements should be taken anyway.

Dean Pemberton noted the following:

> "*Measuring IPv6 is important. The IPv6 Taskforce has not found anyone who is willing or able to give them IPv6 flow data. Part of the reason could be that the netflow collectors that ISPs are using don't support IPv6.*
>
> *"With IPv6 there's an opportunity to capture data at the start of the curve."*

Andy Linton also supported the concept of IPv6 performance measurement at this early stage.

> *"It would be good to measure the growth of IPv6 (how much traffic there is, size of BGP routing tables etc.) especially from this early stage, and to benchmark how New Zealand is doing compared to other countries."*
>
> *"Is there a competitive advantage to New Zealand in getting the transition done sooner? Persisting with IPv4 could create opportunities for walled gardens to become more common. For instance, would you like access to my customers? Pay me to place a box behind my firewall".*
>
> *"There is a cost to go to IPv6 (particularly in people training) but there is going to be an increasing cost of staying with IPv4."*

Don Stokes noted:

> *"It [IPv6] is going to happen, but it is happening slowly because currently, there is no killer app. IPV6 basically has equal functionality to IPv4 (other than extended addressing)."*

Don believes the killer IPv6 application will be mobile:

- End user devices can connect directly to the Internet (no NAT) and address one another directly (peer to peer).
- He has heard of phones moving toward IPv6 only stacks.

From a measurement perspective, Don felt it would be worth knowing the growth of IPv6 traffic. However, he felt this may be very hard to measure, for instance, with 4G mobiles it may still be IPv4 traffic running over the Internet.

Jamie Baddeley felt New Zealand was doing well with IPv6 adoption:

> *"We are doing OK globally, probably ranked about 10th in the world. New Zealand is scoring a B+."*

Another similar suggestion was made **anonymously**:

> *"IPv6 is not expected to be an issue at this stage but it is going to happen. Some measurements are required to assess reliability, to determine that it's at least as reliable as IPv4."*

Jay Daley saw IPv6 as a lost opportunity and the merit in some measurement:

> *"IPv6 is a lost opportunity. It is now 'only' considered as a replacement for IPv4 so nothing new is being developed for IPv6."*
>
> *"It is important to know who is using IPv6 and for what purpose. How much IPv6 traffic is there and what does it consist of?"*

Tony McGregor and **Richard Nelson** of WAND also supported the view that more IPv6 statistics were required.

Steve Cotter felt IPv6 uptake was slow because there was no financial driver or killer application.

Jon Brewer suggested the first big IPv6 deployments will come from mobile carriers when they move to LTE or LTE advanced, stating:

> "*For mobile IP to work, IPv6 is needed*."

4 Caches/CDNs

Most survey participants commented that caches and CDNs were playing an increasingly important role in the delivery of Internet services in New Zealand.

Murray Milner held this view and thought it would be interesting to measure how extensive caching is:

> *"Is popular content downloaded across the international bandwidth one or many times?"*

Murray would also like to measure the local access to some of the large content caches, examining:

> *"Which ISPs are using particular caches (Akamai, Google etc) and which aren't."*
>
> *"The desired result would be to be able to say: Of the large CDN providers, if you are on XXX ISP, you have local access to this content."*
>
> *"Measure how much traffic is going to local caches (per ISP)."*

Don Stokes held a similar view of caching, CDNs and the need for measurement.

> *"There is need for more efficient transit, especially around things like CDNs, content providers and changes in content."*
>
> *"The majority of our traffic comes from overseas. That has to change. More content that is internationally sourced should be locally distributed. "If you are going to get the advantage of having 100 meg links into homes and you want to start doing media over that you need to get that content as close to those tails as possible and you have to do that at peering points."*
>
> *"It would be good to measure performance to the major content providers and to the major cache points (what's the performance of stuff out of those caches?)."*

Richard Nelson and Tony McGregor at **WAND** mentioned that we need to keep local content local and that TCP, under normal circumstances, may not sustain large transfer rates into the US.

A participant who requested anonymity noted the caching and CDN topic was tightly coupled with peering as content providers seek to secure customer approval. The participant stressed that caching and CDNs are very important to New Zealand.

> *"These are having a huge impact on the amount of traffic that goes overseas, especially the Google caches, and traffic flows around New Zealand. CDNs and caches are important to New Zealand because of TCP limitations."*

The participant mentioned that most ISPs now have access to a Google cache and they are confident that we will see more CDNs pop up in New Zealand.

Jon Brewer noted caching was extremely important, but warned:

> *"The Trans-Pacific Partnership (TPP) could break the ISPs ability to cache."*

Jamie Baddeley held a different perspective to those who responded to this topic, stating caching and CDNs were essentially a technology response to an economic problem, being the price of bandwith.

> *"It is useful when you need a low latency service. For consumers, there aren't that many services that require very very low latency."*

5 Network Security/Resiliency

The topics of network security and resiliency were considered critically important and good candidates for a Nework Measurement Lab.

Tony McGregor and **Richard Nelson** of WAND noted national network resiliency is an issue they are focussed on currently. They are concerned about the following topics:

- Understanding regular behaviour versus cyber attacks and natural disasters – such as an earthquake.
- Use of cloud services means dependence on network connection is much higher – resiliency and security both become critical.

Don Stokes expressed concern about the resiliency of peering infrastructure, particularly APE where so much peering happens and which he considers dangerously fragile.

> *"There have been incidents where the national and international peering have failed or become very close to failing and the situation is likely to become worse as traffic flows increase."*
>
> *"Even if we fell off of the world, we would still want our national capacity to continue to work but even that is threatened."*
>
> *"There was recently a fire in the Sky Tower and there have been power system failures."*
>
> *"Every time I hear people talk about the Sky Tower, I just get a really bad feeling. If the Sky Tower was taken out for a significant amount of time you would have a serious problem."*
>
> *"I think somebody should do a good solid threat analysis to the peering and communications infrastructure in Auckland, especially around the Sky Tower."*

Dean Pemberton noted that since the 2011 / 12 Christchurch earthquakes, a lot of companies have changed their network redundancy planning.

He agreed the topic of Internet network resiliency is in need of some robust analysis:

> *"It would be good to identify what the potential problem areas are."*
>
> *"How likely is it that a couple of small incidents are going to completely bisect the country?"*

Stuart Wilson expressed concern about Internet security in the areas of data breaches and that monitoring for such activity is necessary:

> *"Compliance to standards such as PCI is ramping up, and boards are coming under pressure to not just detect data loss, but to let their customers know of breaches."*
>
> *"Just look to overseas where attempts to cover up breaches have led to senior board member resignations and you can see this is becoming a real and present problem for companies world wide."*

Stuart also noted security issues surrounding mobile networks that could be addressed with robust analytical evidence:

> *"The increasing dependence upon cellular data (through 3G and 4G systems) is making cellular traffic analysis more important. Conventional analytics, and security tools for the IP space do not translate to the cellular space because static IP addresses are not used."*
>
> *"Attribution of security and network behaviour to the handset and/or user doesn't exist, so it's very difficult for cellular operators to apply common security and network management tools."*
>
> *"Security is an especially intractable problem as cellular network infrastructure is susceptible to DOS attacks from both the radio and internet interfaces."*

6 Consumer Access

Capability and Feature-set of Consumer Home Routers

Jay Daley raised questions about consumer home routers and their potential role in network performance, including:

- Do they support DNSSEC?
- How will home routers work with UFB/multicast?
- Do they support IPv6?
- What wireless speeds do they offer?

Rural Broadband Initiative (RBI)

Jon Brewer discussed the Vodafone RBI Product, noting the following performance targets:

- Committed Information Rate: 45kbps
- Peak download: 5mbps
- Peak upload: 512kbps

He felt strongly that work was needed to improve the RBI performance characteristics, stating:

> "*Right now the towers could support 700 simultaneous users during peak hour. But by 2016, with people using the average amount of bandwidth (39G a month) that tower will only support 208 simultaneous users*."
>
> "*The RBI product is in dire shape*."

Jon felt that useful evidence to support this topic would include:

- A comparison of pricing and product availability between UFB, ADSL and rural products. Survey all of the average plans.
- What Internet services are people using on their normal ADSL plans? How much traffic are they using in a month?

IP Addresses

Dean Pemberton noted the issue of IP addresses were being used for things they were never intended. For instance, people using IP addresses as a way to denote someone's geographic location, someone's entitlement or who someone is.

> *"An IP address is just a way to get a packet to the far end. We're putting far too much higher level importance on an an IP address and expecting the analogy to stretch that far."*

He provided an example of content restriction based on IP address. A user or organisation could change their IP address (not changing who or where they are) and lose the ability to get to some content.

> *"We are using IP addresses for something far more that they were ever meant to be used for."*
>
> *"They're just a tool, a post code, but when the post code starts to become everything about you then we've missed the point."*

Mobile Internet Services

Most survey participants believe mobile Internet services will become increasingly important to New Zealanders as the recent surge in demand for mobile data applications continues into the 4G era.

Dean Pemberton noted the mobile space is going to change a lot to converge with the fixed line space:

> *"People used to do very different things on their desktops than they did on their mobile phones. This is becoming blurred as more people use laptops, tablets and smart phones."*

> *"The usage over mobile and the usage over fixed line is going to look more and more similar so the caps will need to start converging as well."*

Dean would be very interested in measuring how mobile traffic profiles are changing, including both handset and network type usage.

Murray Milner noted the topology of the mobile network is determined by the Points of Interconnect (POIs) which only occur in very few places. This means that the concept of keeping local traffic local doesn't apply very well with the current mobile architectures.

Murray suspects that most of the traffic from Telecom or Vodafone gets dumped in Auckland.

> *"Currently, this is not seen as a big issue because mobile performance is determined more by the latency in the first mile (the access component). However, this will change with LTE, which gives far better access latency. This may possibly expose new bottlenecks."*

> *"It would be useful to have a mobile topology map."*

Tony McGregor and **Richard Nelson** of WAND felt there were not enough mobile operators to have a truly competitive environment and this was keeping prices too high.

They noted regulation had resulted in a big drop in mobile termination rates, which was a good move. Maybe more regulation could be beneficial for mobile Internet services.

When it came to evidence that could be gathered to support mobile Internet objectives they stated:

> *"It would be good to have network performance information available to consumers, particularly with the RBI roll-out."*

Jay Daley also felt New Zealanders are paying too much for mobile data compared to other countries and that some research into pricing in various countries would be beneficial. Jay also felt auctioning spectrum is not a good idea as it leads to companies overpaying, crippling their investment and ultimately delivering less to the end-user.

A participant requesting **anonymity** noted mobile Internet services had been limited by backhaul constraints which would change with the introduction of LTE.

7 Commercial

Data Caps

Several respondents noted that while some Service Providers consider data caps to be a tool for managing congestion, there is a lack of evidence to support this.

Jay Daley mentioned a report by France-based Diffraction Analysis[3] which analysed data caps and concluded that there is no (or a very limited) evidence of caps controlling congestion. Jay would like to see a similar study undertaken here in New Zealand, stating:

> "*You need to prove that data caps are a predatory pricing mechanism used by ISPs and that there is no way on Earth that they control congestion*."

Dean Pemberton noted data caps are a useful tool for managing user behaviour, but the need for them has changed.

[3] http://www.diffractionanalysis.com

> *"I don't think they've [data caps] kept pace with the way people use the Internet or the way the Internet is engineered."*
>
> "*Keeping the data caps the way they are is going to stifle growth*."

Dean made the point that not all traffic should be counted the same, i.e. no matter where it comes from or goes to. Take data sourced from local cache, versus data sourced from overseas for example.

Tony McGregor and **Richard Nelson** of WAND made the following comment concerning data caps:

> "*Data caps are a big issue. They are detrimental to innovation and the adoption of new services (especially high bandwidth services). They also make some services, like remote backups, unfeasible*."

On a slightly more optimistic note, **Murray Milner** made the following data cap observation:

> *"If there is sufficient caching and CDNs, then the limitations caused by data caps will go away through natural competition."*

One **survey participant who requested anonymity** considered New Zealand's data cap situation relative to other countries:

> *"New Zealand has a prevalence of data caps and they are low. OECD statistics show that New Zealand, Australia and Iceland are the countries that have the highest prevalence of data caps."*
>
> *"Plans for the NBN (in Australia) typically have data caps in the 100 – 200GB range whereas current UFB plans are in the 30 – 100GB range."*

Andy Linton provided the following observations on data caps:

> *"Is the reason we have data caps today simply because that's how it's always been? Why don't other countries have caps?"*
>
> *"It (data caps) won't help the use of the Internet for economic growth and the exchange of ideas."*
>
> *"However, there is some abuse by some consumers."*

He felt it would be interesting to examine the following related topics:

- What proportion of people opt for plans with speed slowdown versus per megabyte overage charges?
- How much of a data cap do people actually use?
- Zero-rated services – why are some things free?

Pricing

The cost of Internet services (for consumers) and transit (for ISPs) is considered an important issue by the majority of survey participants.

Jay Daley outlined what he considers are the two first order commercial issues:

1. **Cost of Internet access** – The cost is different to that of other countries, and Jay suspects it is much higher. Evidence could be gathered by comparing prices across countries.
2. **Differentiated cost structure** – national versus international bandwidth. No evidence for or against.
3. There needs to be more transparency around the pricing for **national** transit traffic. Transparency around the pricing of international transit is a little clearer now.

Don Stokes thinks that the cost of both national and international bandwidth lacks transparency and commented on the static nature of national capacity prices.

> "*International prices are dropping like a rock. What we're not seeing is that same free-fall nationally.*"
>
> *"There are three main systems nationally (Kordia might be considered half a system), TelstraClear, Telecom and FX Networks. All three of these are also retail providers. There's not a true wholesale market and we're not seeing genuine competition."*
>
> *"The pricing of national capacity is almost static. If you look at it in bits/sec/km the national pricing is far far higher than international. This is interesting, considering international bandwidth prices are dropping when Southern Cross is in such a dominant position."*

From a measurement perspective, Don would like to see some cost analysis done but recognises there are difficulties in doing so:

> *"Find out what people are paying for national capacity (price/bit). It's hard to get this information as they are surrounded by confidentiality agreements."*

Andy Linton also believes that price transparency is an issue for both national and international transit and mentioned that it would be useful to plot pricing trends over time:

> "We really don't have any idea who's paying what."

Murray Milner thinks that the pricing around international transit is clearer now but that there still needs to be more transparency around the pricing for national transit.

Jamie Baddeley believes that the cost of International bandwidth is becoming less of an issue as prices are plummeting and will eventually pass onto the consumer.

8 Other Issues

In this section, we include detailed findings from interview participants that are important, but cannot be supported with evidence from a Network Measurement Lab, either directly or indirectly.

Mindset / Policy

Steve Cotter raised the issue of the New Zealand Internet 'mindset'. Steve felt that the constrained way in which New Zealanders use the Internet is inhibiting our understanding of its possibilities, particularly in the research field.

> "*You don't have to worry about network performance if nobody is using it and that's the situation that I'm seeing now. We should be getting people to understand what's possible and then putting policies in place to encourage it.*"
>
> "*They (New Zealand researchers) didn't have a good understanding of what data intensive science was and how the Internet could be used to improve New Zealand's ability to be competitive in both science and industry. They really don't have the expertise in house to utilise the infrastructure that's already there let alone what's going to be built in the next couple of years."*
>
> *"University equivalents of the same size in the United States are using 100 x the amount of data as New Zealand."*
>
> *"The research world is really moving towards data intensive science. The amount of data this is being collected and shared is growing astronomically and if you aren't part of that you are just going to be left behind. The mind-set that bandwidth is scarce is really hindering New Zealand's ability to participate."*

Steve believes the New Zealand R&D community is a good five years behind the rest of the world in terms of the technology use of the network [KAREN] and mind-set.

> *"There is only 2 Gbps utilisation on KAREN, way under what you would expect from other countries."*
>
> *"Not many countries around the world have separated university and school networks like in New Zealand."*
>
> *"The Government can play a huge part in encouraging the uptake of these technologies."*
>
> *"There are inappropriate security policies on campuses that inhibit the movement of data. They are locking down their networks with the same tightness you would find in an enterprise network."*

Steve mentioned the drop in the international ranking of New Zealand universities in recent times could be attributed to the limitation of network technology in New Zealand. In particular he suggested that top researchers and academics around the world, are less likely to come here given that such a limitation could hinder research and scientific experiments.

Murray Milner also believed mind sets are playing an inhibiting role for New Zealand Internet users.

> *"If people will do things that will provide the best experience for them and if there are inhibitors to getting good performance over the Internet, then they won't do the things that have those inhibitors, they'll tend to other things."*
>
> *"In my mind the performance of the Internet is its own self-determinator of the way in which users will use it. Their mind-set will be set towards those things that they can do easily and conveniently and they'll avoid the things which are more challenging or expensive or don't work very well".*
>
> *"The end user experience is the thing that determines how people use the Internet. That means we may be stopping people from doing a whole lot of things that are very helpful and useful and both socially and economically beneficial because we've actually got performance issues that stop them from taking advantage of those things."*

A **participant requesting anonymity** agreed mindsets around constrained network capacity, or a 'scarcity' model might inhibit growth in UFB demand.

> *"At the end of the day it is about the product itself as people would pay for better products but telcos don't seem to get this."*

Architecting networks for particular services

Dean Pemberton thinks there's a real danger of only architecting a network to be good at delivering a particular service (e.g. video delivery) and not being open and flexible to support future (and unknown) services and uses:

> "Use it for that but don't architect it for that"
>
> "Networks should be architected for the known unknowns and the unknown unknowns."
>
> "The reason it [the Internet] did so well is because it wasn't created to do one job. It was always able to solve the next problem that they didn't know was coming up yet."

Organic Networks

Stuart Wilson believes that networks are becoming larger, older and more complex and that the result will be that they become less controlled, managed and understood.

The engineers who built the first systems are retiring which means any system design knowledge that's not written down will disappear.

"Sophisticated analytical tools to analyse network behaviour will become increasingly important to network operators in the future."

Defining the New Zealand Internet

Jamie Baddeley pointed out defining of the New Zealand Internet was becoming an issue.

"It's going to get harder to determine what is the New Zealand Internet and what is not."

"In 2011 some of the international providers started announcing Australian routes at the domestic peering exchanges. e.g. VOCUS routes at APE. This is likely to be an increasing trend."

"How do you determine whether networks are located onshore or not?"

"Could look at latency (e.g. there's 30 or so extra ms to Australia) but this isn't a very clean method."

Universal Service

Jonathan Brewer thinks that In New Zealand we need a change in the Universal Service definition to include access to reasonably priced broadband. He compared New Zealand with Europe:

- In Europe universal service includes broadband
- In New Zealand universal service is just telephone line with free local calling.

Copyright Monopolies (specifically SKY)

Don Stokes raised the issue of copyright, a particularly important topic as noted below:

"SKY TV is probably the single biggest threat to the Internet in New Zealand right now. This is something that effects the growth of the industry. At the moment SKY controls the distribution network."

Don described the situation as follows:

1. Sky Television operates on an exclusive arrangement with its content providers (geographic exclusive distribution).

   e.g. "*We are the exclusive providers of Game of Thrones for HBO in New Zealand. Nobody else can provide it*."

2. SKY TV does exclusive deals with its downstream providers (e.g. hotel operators)

   e.g. "*You can buy content from us that you can't get from anywhere else and you can't buy anybody elses*."

Don discussed the recent FYX episode, noting he suspected a letter from SKY saying something like "We have an exclusive agreement with those content providers. Stop doing that, you're breaching our copyright."

Don stated that addressing this situation requires:

1. Pressure needs to be brought on content providers in New Zealand to allow competition in providing that content.
2. The demand for exclusive contracts with downstream suppliers needs to stop.

Don suggested measurement would involve going around and asking content providers "Do you have exclusive agreements?" And, "What's the nature of your exclusive agreement?"

Social Divide

A **participant requesting anonymity** mentioned their concern about the number of New Zealanders without access to the net due to the cost of Internet access.

> *"These people often have poor credit and can't get a phone-line (and therefore DSL)."*
>
> *"The cost of the computer is not the problem, it's the cost of a connection!"*

9 Network Measurement Lab

All survey participants agreed that the collection of more evidence is needed to help address Internet issues.

A participant requesting anonymity had an agnostic view of the current Internet issues, but a clear view on the need for Internet measurements.

> *"It's really about what affects the end user, what enables or prevents them from doing what they want to be able to do with the Internet. The Internet changes over time and the issue of the day is going to change."*
>
> *"I don't think it's right to focus on particular technical issues of the day because maybe they'll be different tomorrow, maybe they'll be the same, but I think it's important to have a more overarching kind of approach asking:*
>
> - *What are we trying to do with the Internet?*
> - *What do the end users want to do?*
> - *What's preventing them from doing it or what's helping them to do it?*
>
> *Then we measure to see if that's actually true. I think it should be more about the process of deciding that list [of issues] and having it change every time and having that supported by some evidence."*

Another anonymous participant noted:

> "*The premise that we could find a rank for these things today and that would stay true for the next 12 months may not be right."*

After discussing Openflow, they also posed the question:

> "*If you've got additional technological change evolving, what is the point of diagnosing a very complex system now*?"

Dean Pemberton mentioned the need for an improved understanding of the available measurement capabilities, tools and facilities.

> *"There seems to be a lot of people doing network measurement but what's lacking is an ability to leverage all of that measurement into a coherent view. It will be about finding where the holes are."*
>
> *"It would be great to do passive measurements at ISPs and Content Providers (e.g. Trademe). It would be good to find a way for ISPs to provide a standard for the provision of data that was both New Zealand 'sanitised' and recognised internationally. ISPs provide the eyeballs and Content Providers provide the content."*
>
> *"It would be good to monitor the loops and other communities of interest outside of the ISPs."*

Stuart Wilson mentioned Endace's interest in establishing an Internet simulation lab.

> *"Universities conducting research into Internet behaviour and analytic techniques for security and management purposes, often spend most of their time anonomysing public data which is protected by privacy laws. By establishing a common lab, economies of scale would allow a single resource to be established for security, networks analytics research, training, and industry demonstration."*

> *"A specialist team would capture live traffic, and generate synonymous traffic, which replicates the live traffic and networks as closely as possible. These traffic sets could then be replayed in lab conditions to accurately simulate live networks but without the privacy issues. These common traffic sets could be used as benchmark test cases across Crown and commercial activity."*

Murray Milner mentioned a number of organisations who do network measurement. He commented that an understanding of the true capabilities, limitations and missing parts was required.

Murray noted that the biggest missing part is likely to be information around the flow of traffic which can only be found from passive probes. He is interested in understanding:

> *"The volume of traffic through a point versus the capacity at that point. How much congestion is occurring at various points in the day?"*

Jamie Baddeley believes that collectively these organisations are covering it all but that:

> *"Weaving that together as a cohesive and coherent plan is the bit that's missing."*

Andy Linton cautioned that we shouldn't forget about efforts outside of New Zealand looking in, such as RIPE Atlas.

> *"We want to bring anything related to Internet measurement in New Zealand together, in a way that's presentable and understandable. All data will be open and available for download."*

> *"In the short-term it [the Network Measurement Lab] might just govern and collate existing efforts. Later on it will also be involved in doing measurements and investigations. Will it provide recommendations too? Or just provide the stats? Who is the target audience? Consumers, network people?"*

A **participant who requested anonymity** talked about measurement approaches in general.

> *"Epitiro and Truenet give end to end measurements to a small set of destinations but these are limited and don't give an 'Internet Wide' perspective."*

The participant would like to see measurements that give a wider view of the Internet, particularly using more sources and destinations.

Richard Nelson and **Tony McGregor** of WAND noted a big challenge in gathering network data is privacy. Legislative change could enable a Government Department to collect and anonymise data off of the Internet.

They noted a combination of active and passive measurements is required and that it is not possible to get all the data needed with active probes.

In regards to a Network Measurement Lab they noted that:

> *"There are lots of past student projects, that a Measurement Lab could keep running. Universities don't often have the resources to maintain them, yet it is often very little work to keep them running."*

> *"There is data out there and there is a role for somebody to bring together the questions and the data that is there and to have a repository that organises it."*

Appendix 3 – Measurement Resources

1. Measurement Lab (M-Lab)

Measurement Lab (M-Lab) is an open platform of distributed servers (currently 48 in 15 locations) for researchers, to deploy tools to measure Internet performance through active measurements. One of these servers is hosted here in New Zealand by Victoria University of Wellington.

There are currently five measurement tools that make use of the M-Lab platform which can be used by users to measure their Internet connection speed, analyse application performance and run diagnostics among other things. These tools are all open source and all data collected by them is made publicly available.

The EETT in Greece has used M-Lab to help create a national broadband map, which features broadband connections and their performance characteristics. This is something that could be repeated here in New Zealand.

Figure 1 - M-Lab server locations

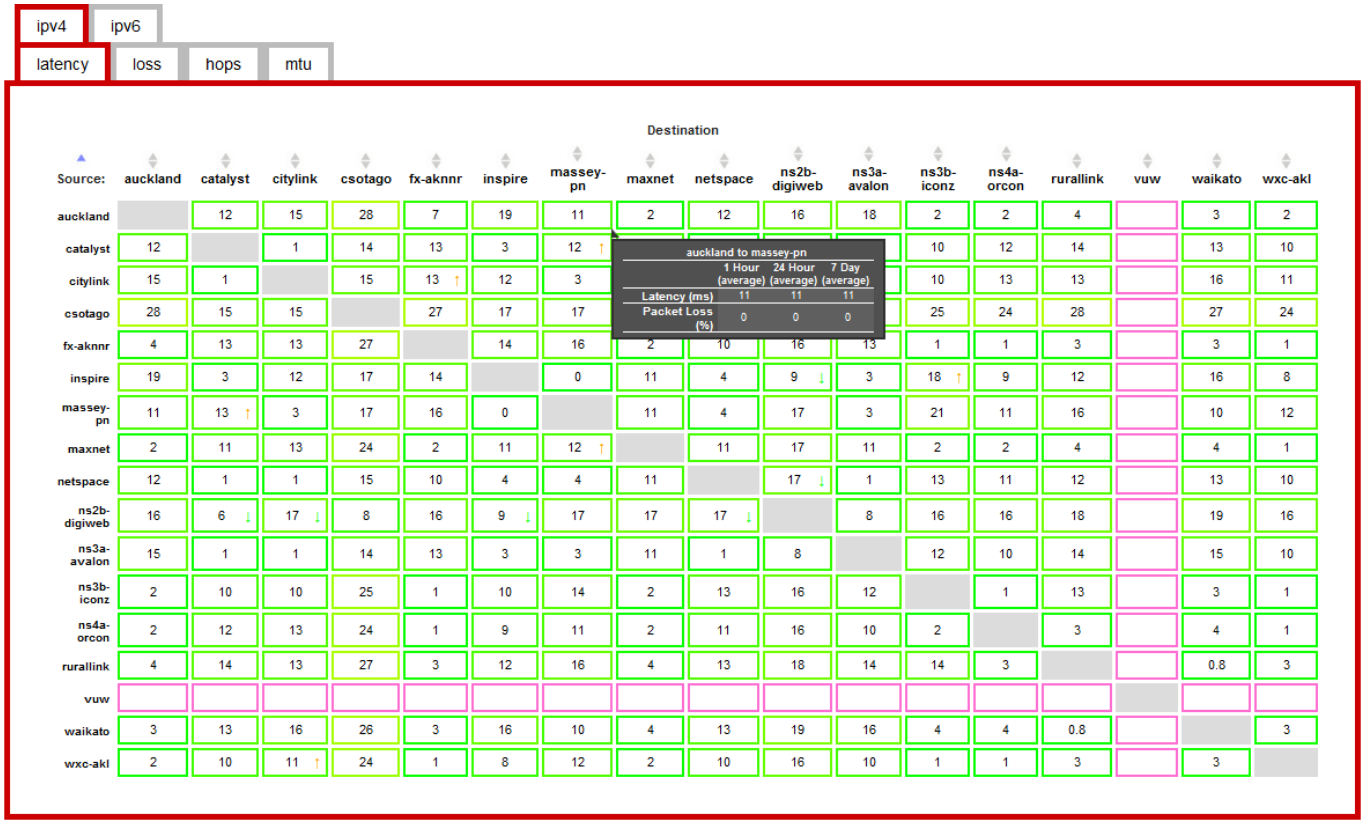
2. WAND

WAND is a research group at the University of Waikato Computer Science Department. They are involved with a range of computer networks projects mostly focused around network measurement. Their work includes collection of very long Internet trace sets (made publicly available through their WITS project), network analysis and software to support this and active and passive measurement systems.

AMP (Active Measurement Project) is a project designed to constantly perform active measurements between a mesh of specialist AMP monitors. These measurements are used to provide a view of long-term network performance in terms of latency, loss, jitters etc. There are currently 17 nodes in the New Zealand AMP mesh and

the performance between these can be viewed at http://erg.wand.net.nz/. WAND have an application with MSI that if approved, will see a series of improvements and enhancements added to AMP.

Nettest is a network measurement tool which passively monitors a user's connection to the Internet. It collects information about latency, throughput, packet reordering and more, and reports these back to a central server where the data is aggregated and graphed. Users can view their own connection statistics by logging into nettest.wand.net.nz, but presently there are not enough clients reporting data to be able to provide aggregate statistics (eg. by ISP or Location).



Source:	auckland	catalyst	citylink	csotago	fx-aknnr	inspire	massey-pn	maxnet	netspace	ns2b-digiweb	ns3a-avalon	ns3b-iconz	ns4a-orcon	rurallink	vuw	waikato	wxc-akl
auckland		12	15	28	7	19	11	2	12	16	18	2	2	4		3	2
catalyst	12		1	14	13	3	12 ↑					10	12	14		13	10
citylink	15	1		15	13 ↑	12	3					10	13	13		16	11
csotago	28	15	15		27	17	17					25	24	28		27	24
fx-aknnr	4	13	13	27		14	16	2	10	16	13	1	1	3		3	1
inspire	19	3	12	17	14		0	11	4	9 ↓	3	18 ↑	9	12		16	8
massey-pn	11	13 ↑	3	17	16	0		11	4	17	3	21	11	16		10	12
maxnet	2	11	13	24	2	11	12 ↑		11	17	11	2	2	4		4	1
netspace	12	1	1	15	10	4	4	11		17 ↓	1	13	11	12		13	10
ns2b-digiweb	16	6 ↓	17 ↓	8	16	9 ↓	17	17	17 ↓		8	16	16	18		19	16
ns3a-avalon	15	1	1	14	13	3	3	11	1	8		12	10	14		15	10
ns3b-iconz	2	10	10	25	1	10	14	2	13	16	12		1	13		3	1
ns4a-orcon	2	12	13	24	1	9	11	2	11	16	10	2		3		4	1
rurallink	4	14	13	27	3	12	16	4	13	18	14	14	3			0.8	3
vuw																	
waikato	3	13	16	26	3	16	10	4	13	19	16	4	4	0.8			3
wxc-akl	2	10	11 ↑	24	1	8	12	2	10	16	10	1	1	3		3	

Figure 2 - AMP Performance Matrix

3. CAIDA

Cooperative Association for Internet Data Analysis (CAIDA) investigate and measure the Internet. CAIDA uses their Archipelago (Ark) active measurement infrastructure to collect network measurement data which they make available to the research community. Ark is composed of 54 monitors located in 29 countries, including one in New Zealand. CAIDA collaborate with WAND at the University of Waikato and the network research group at the University of Auckland.

Figure 3 – Map showing Ark probe locations

4. Truenet

Truenet measures broadband performance of ISPs in New Zealand and have recently partnered with the Commerce Commission to do Internet performance measurements. They run active measurements from probes (a bridged router) in volunteer sites which send the results to Truenet servers. These measurements include file downloads, webpage loading times, latency jitter and packet loss to national and international destinations.

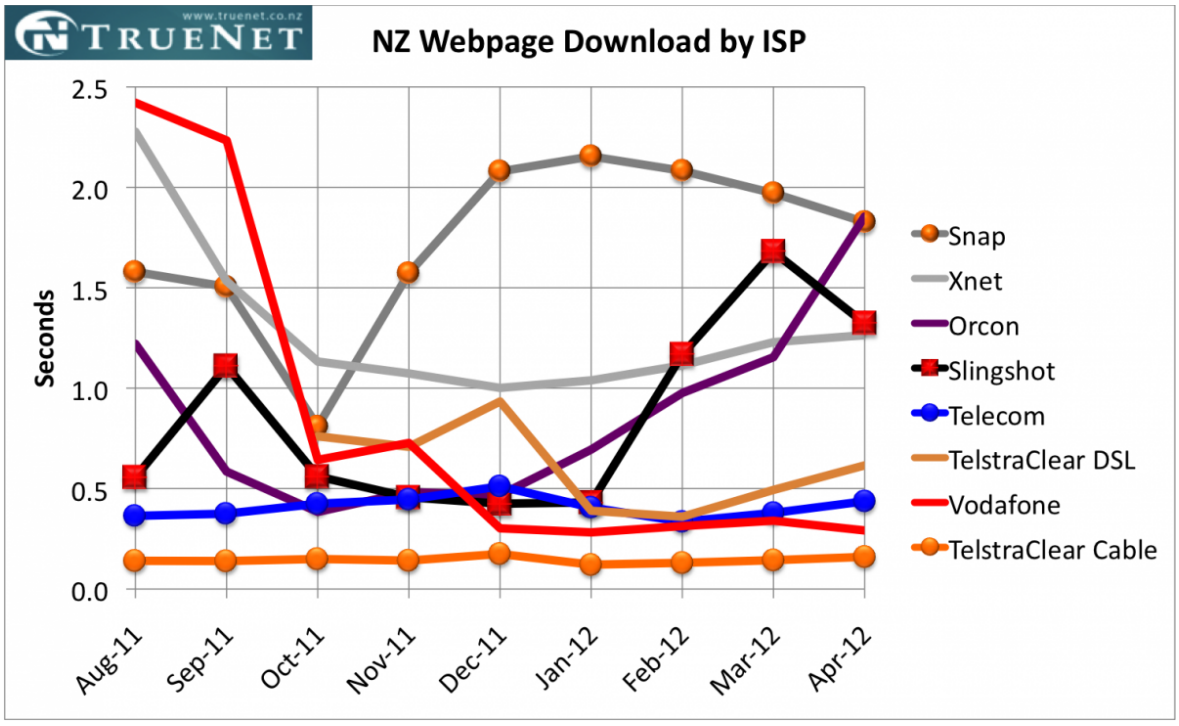


Figure 4 - Figure taken from Truenet's April Broadband Report

5. RIPE NCC

RIPE NCC is the Regional Internet Registry (RIR) for Europe, the Middle East and parts of Central Asia. In addition to providing Internet resource allocations, registration services and coordination activities, they are also involved in network measurement. RIPE NCC host the RIPE Data Repository which is a collection of datasets that is useful for Internet research, including multiple Internet trace sets and raw data relating to active measurements.

They also provide RIPE ATLAS, an active Internet measurement system that consists of hundreds of measurement probes (tiny hardware devices) distributed around the globe, including nine in New Zealand. Each probe is placed in a network, runs active measurements such as ping, traceroute and DNS queries and reports the results back to the RIPE collectors.

Figure 5 – Map of ATLAS probe locations. A sample probe can also be seen in the top-right.

6. Jonathan Brewer

Jonathan Brewer writes a blog called *Inside Telecommunications* (http://nztelco.com) in which he reports on interesting investigations and measurements he has made relating to the New Zealand Internet. Of particular interest is his Peering and Transit map which shows how each of the NZ ISPs are connected to one another. This is something that could be repeated on a larger scale, from many different New Zealand networks.

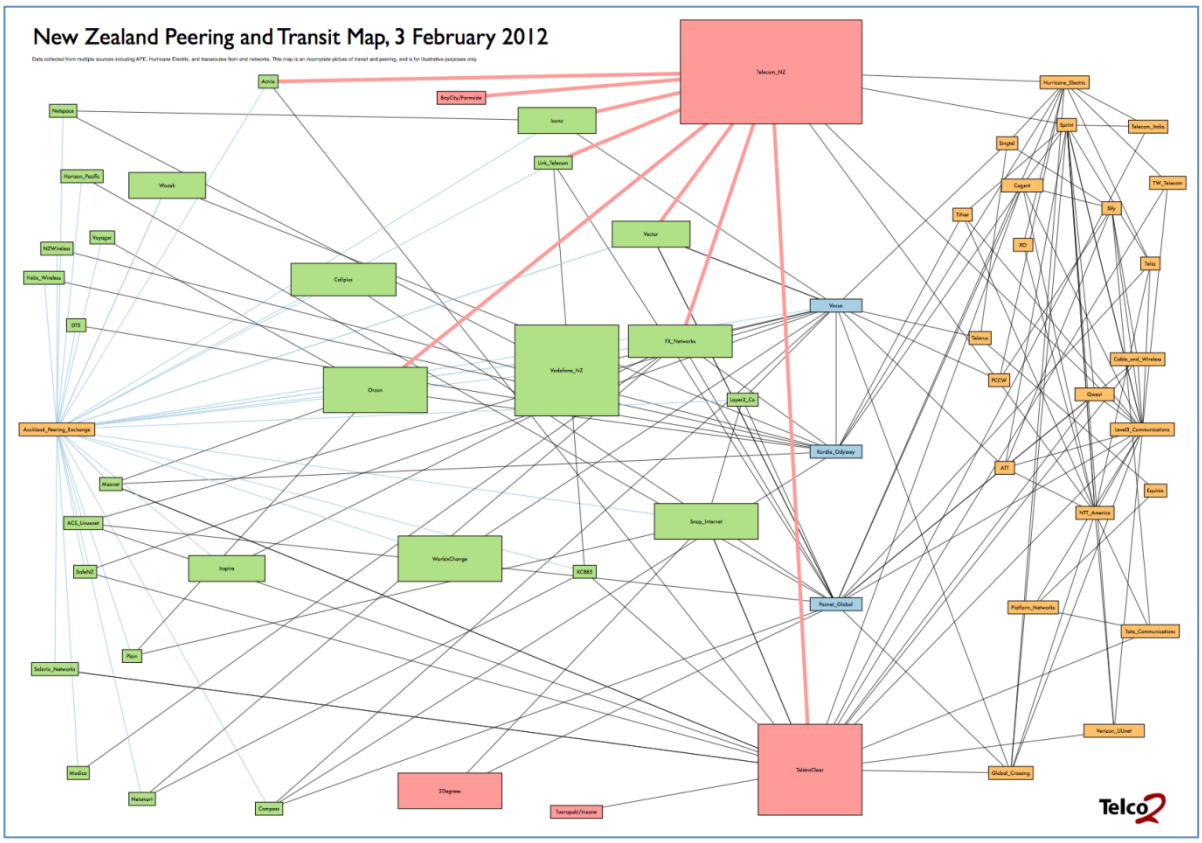


Figure 6 - Jon Brewer's Peering and Transit Map

7. Epitiro

Epitiro is a UK-based company with experience in Internet performance benchmarking. The Commerce Commission contracted Epitiro between 2008 and 2010 to provide data for their broadband quality reports. This task is now performed by Truenet. Epitiro have eleven sites across New Zealand from which they they measure 12 different ISPs every 15 minutes on a 24 hour basis. They collect statistics on a number of Internet parameters including DSL sync speed, cached and non-cached download speeds, latency, packet loss and jitter.

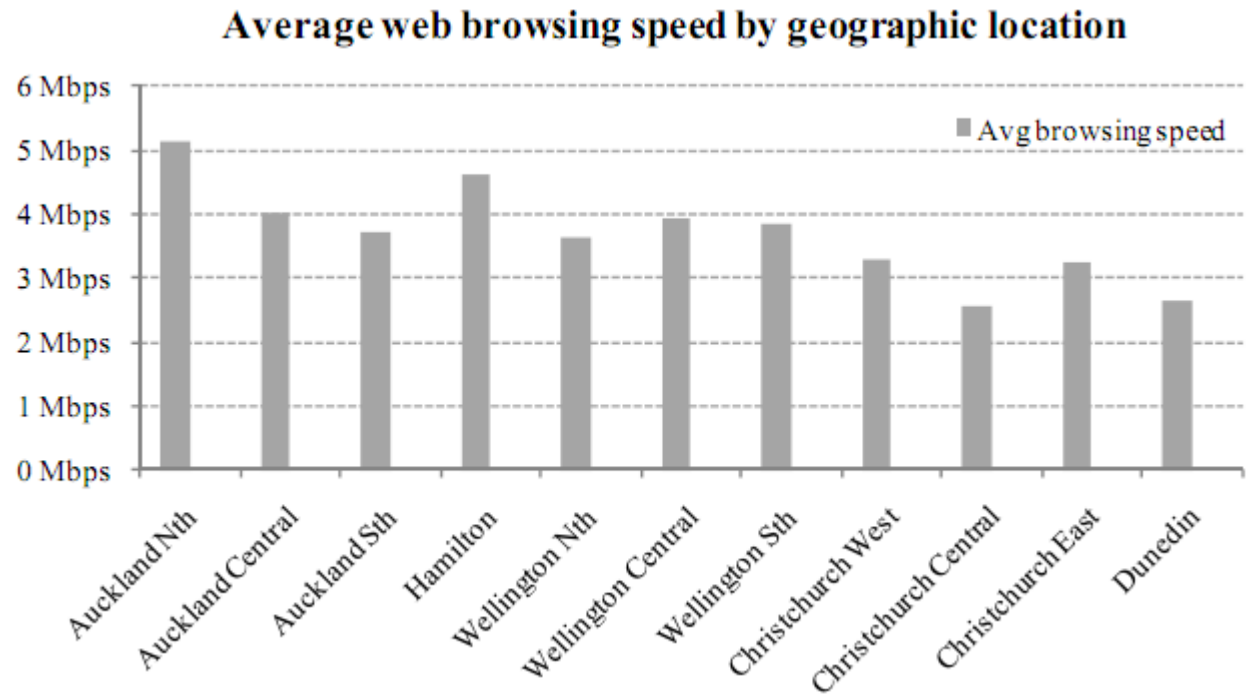


Figure 7 - Figure from the New Zealand Broadband Quality report for which Epitiro provided data collection services.

8. Other NZ Network Research Groups

While WAND is the best known of the New Zealand network research groups, most of the other universities also do work in this area. It would be worth talking to appropriate people from each of these to find out what they are currently working on and how they could contribute to a network measurement lab. The research group at the University of Auckland (especially the work done by Nevil Brownlee) was mentioned by a couple of interviewees.

The University of Auckland - http://www.cs.auckland.ac.nz/research/groups/sde/meas-index.php

Victoria University - http://ecs.victoria.ac.nz/Groups/NERG/NetworkEngineeringResearchGroup

University of Canterbury - http://www.cosc.canterbury.ac.nz/research/RG/NRG/

University of Otago - http://www.telecom.otago.ac.nz/research.htm

InternetNZ

Paper for 17 August 2012 Council meeting

FOR DECISION

Terms of Reference for the InternetNZ Investment Committee

Draft as at 24 July 2012

Constitution

The Investment Committee ("the Committee") is a committee of Council with the specific delegated powers as set out in this Terms of Reference.

Objectives

The purpose of the Committee is to assist the InternetNZ Council ("Council") in the effective discharge of its responsibilities for investing InternetNZ's Investable Assets (as defined in the Investment Policy.

Within the boundaries of this purpose, the Committee's scope is direct oversight of InternetNZ operations. In relation to the subsidiary organisations, it has the same scope as Council has as shareholder.

The Committee provides the opportunity for Councillors to dedicate specific time to investment related issues.

The Committee does not relieve any Councillors of their responsibilities for these matters.

Membership

The Committee shall consist of between three and five Councillors who have, between them, relevant skills and experience, including investment management, risk management and accounting. Council may decide to co-opt other Officers of the Society, Directors of its Subsidiaries or appoint an external independent person to the Committee should it wish, to ensure these skills are represented.

Council shall appoint members and a Chair ("the Chair") of the Committee and review these appointments annually at its first ordinary meeting after the Annual General Meeting of the Society.

Members of the Committee:

a. shall be Councillors, or other suitably qualified and representative persons as agreed by Council;
b. must be able to read and understand financial statements;
c. are not necessarily financial or accounting experts;
d. are not personally required to conduct accounting reviews or audits;
e. are entitled to rely on employees of the Society and professional advisers where they reasonably believe that the employee or adviser is reliable and competent and the reliance was made in good faith and after making an independent assessment of the information.

Any member who ceases to be a Councillor ceases to be a member of the Committee.

The InternetNZ President is not a member of the Committee ex-officio and is not eligible to be the Chair of the Committee.

Any policy of Council on conflicts of interest applies to the Committee. At its discretion, the Committee may exclude a Councillor who, in the Committee's view, has a conflict of interest with an item of business before the Committee or who is the subject of an investigation by the Committee from proceedings that are relevant to that conflict or investigation.

Attendance

The Committee shall, in consultation with the CE of InternetNZ, appoint a member of staff to act as Committee Secretary.

The CE of InternetNZ or his/her delegated staff member, and the Committee Secretary shall normally attend meetings of the Committee but shall not be members of the Committee. Other staff may be invited to attend meetings at the discretion of the Committee.

At its discretion, the Committee may choose to meet in whole or in part without staff or advisers present.

Councillors who are not members of the Committee shall have the right of attendance (except in the case of a conflict of interest, as determined by the Committee).

Meetings

The Committee shall meet at least twice each year but shall otherwise itself determine the frequency of its meetings.

Meetings of the Committee shall be scheduled by agreement with the Chair and with due regard to reasonable notice, the availability of Committee members and staff and so as to avoid unnecessary re-scheduling of meetings.

Any member of the Committee may request that a meeting of the Committee be convened.
A majority of Committee members, present in person or by using any technology, shall constitute a quorum.

Unless directed by the Chair, the Committee Secretary shall distribute an agenda and any related papers in advance of a meeting to:

a. Members of the Committee;
b. Councillors who are not members of the Committee; and
c. The CE of InternetNZ or his/her delegated staff member.

Minutes

The Committee Secretary shall prepare minutes of meetings and have them approved by the Chair.

Minutes of meetings shall be confirmed at the next meeting of the Committee.

Responsibilities

The Committee shall consider any matters it thinks relevant to the management of InternetNZ's investments.

The duties of the Committee are to:

Investment Parameters

a. Establish and recommend to Council suitable parameters for investing cash in excess of reserves.
b. Review and monitor the parameters over time to ensure they are meeting InternetNZ's objectives.

Investment management

c. Request proposals as required from professional Investment Managers to provide services to InternetNZ.
d. Recommend to Council approval of changes in Investment Manager services.
e. Monitor the performance of Investment Managers and make recommendations for any action.

Reporting to Council on the status of InternetNZ's investments is an operational responsibility of InternetNZ staff.

Council Policies

f. Review Council policies periodically to ensure compliance.
g. Review Council resolutions periodically to ensure consistency and compliance.

Other Matters

h. Consider any other matters referred by Council.

Authorities

The Investment Committee is an advisory body with no executive powers.

The Committee shall have the authority to seek any information it requires from any employee of the InternetNZ and from InternetNZ's accountants.

The Committee is authorised to obtain such independent professional advice as it considers necessary at the reasonable expense of InternetNZ.

The Committee is authorised to make reasonable arrangements as it considers necessary for travel, accommodation, meals and meeting facilities for members of the Committee, advisers to the Committee and staff at the reasonable expense of InternetNZ.

The Committee must exercise the powers delegated to it in accordance with any directions of Council.

The Committee can invite other parties to attend meetings from time to time as circumstances require.

The Committee may initiate special investigations as it sees fit in relation to matters set out in this Terms of Reference or as directed by Council, or the President.

Reporting

After each Committee meeting, the Chair shall report the Committee's findings and recommendations to Council.

Unless directed by the Chair, the minutes of all committee meetings shall be circulated to Councillors, the Chief Executive, and to such other persons as the Committee directs.

At its discretion, the Committee may from time-to-time choose to specify that parts of its proceedings are confidential and that the record of those proceedings is not to be included in the minutes of the Committee circulated to the Chief Executive, and such other persons. Except in the case of a conflict of interest, Councillors shall be entitled to have access to the confidential proceedings of the Committee by whatever means the Chair deems appropriate.

Communication

The Chief Executive, his/her delegated staff member, and the Society's accountants shall be responsible for drawing to the Committee's immediate attention any material matter that reflects a change in InternetNZ's cash in excess of reserves.

The committee shall maintain direct lines of communication with the, the Chief Executive, his/her delegated staff member, and with staff generally.

Review

This Terms of Reference document and the performance of the Committee shall be subject to annual review by Council.

InternetNZ

Paper for 17 August 2012 Council meeting

FOR DISCUSSION

Grants

Author: Vikram Kumar on behalf of the Grants Committee

Purpose of Paper: Inform Council about grants decisions made since the last Council meeting.

Decisions made by the Grants Committee since last Council meeting

Amount Requested	Applicant	Purpose	Decision	Amount Approved
$7,000	Dione Roma	Help fix bathroom	Withdrawn	
$10,000	Josephine Ohlson	Kick start small business	Withdrawn	
$7,000	Victoria University of Wellington	Summer scholarship for research "Understanding TCP Synchronisation over the Internet"	Approved	$7,000
$35,000	Yes to Youth Trust	Establish Community Technology Centre (CTC) in Castlecliff	Declined	
$2,291	Victoria University of Wellington	Fund student to present paper at PIMRC 2012	Approved	$2,291
$300-$700	50th Reunion - Hamilton Deaf Units	Encourage people to keep in touch and learn	Declined	
$10,000	Kiwicon Heavy Industries	Part fund Kiwicon 6 conference	Approved	$10,000
	Wellington East Girls' College	Part sponsor Silicon Valley trip	Declined	
$15,000	Catalyst.net (New Zealand Open Source Awards)	Platinum sponsorship of NZ Open Source Awards	Approved	$15,000

Amount Requested	Applicant	Purpose	Decision	Amount Approved
$5,000	Le'o 'oe Tapuaki (VOICE OF BLESSING)	Reach out to young people in the Tongan community	Declined	
$25,000	Research Trust, VUW	Develop a network of IPv6-enabled power usage meters	Pending	

Budget for 2012/13 financial year: $500,000

Balance of budget left: $137,959

(excludes amounts already committed and $100,000 for the Internet policy bidding round)

Recommendation:

That Council **note** the decisions made regarding grants funding requests since the last Council meeting.

ADMIN PAPER

FOR INFORMATION

COUNCIL MINUTE TERMINOLOGY

Agree "That Council agree…" this is usually followed with a specific decision, policy position or course of action.

Adopt "That the report be adopted." When Council adopts a report or paper, it is accepting that the contents of the document, including any recommendations, are agreed with and become the InternetNZ position and action plan.

Amend "That Council amend ……." This term is for a resolution that seeks to amend a proposed resolution, and should set out clearly what is to be deleted and what is to be added.

Receive "That Council receive…" This is a neutral term which captures for the record that a report, document, proposal etc has been noted by the Council. It does not imply that any recommendations in the proposal are to be acted on: that would require "adoption" as well.