



New Zealand IPv6 Task Force State of the Nation

August 2011

The IPv6 Taskforce is an industry group working to promote the adoption of IPv6 in New Zealand

Trustees:

Murray Milner, Dean Pemberton,
Vikram Kumar

Convenors:

Murray Milner
Dean Pemberton (technical)

Secretariat:

InternetNZ

Funding Partners:

InternetNZ
FX Networks
Microsoft
InspireNet
Prophecy Networks

Members

Alcatel Lucent	Development
Allied Telesis	NZi3
Auldhouse	NZICT
Brainstrust	NZDF (New Zealand
Canterbury Development	Defence Force)
Corporation	NZRS (New Zealand
Catalyst	Registry Services)
Cisco Systems	Orcon
Department of Internal	Prophecy Networks
Affairs	REANNZ
FX Networks	Tech Mahindra
Gen-i	Telecom New Zealand
Huawei	Telecommunications
IBM	Carriers Forum
InternetNZ	TelstraClear
InspireNet	TUANZ
Juniper Networks	Voco
Kordia	Vodafone New Zealand
Microsoft	WorldxChange
Ministry of Economic	



The current situation

– based on surveys, engagement with Government, enterprise, industry groups and participation in local and international events



Summary

- IPv6 Awareness sufficient – now a diminishing return on investment
- Govt. sector adoption response seems slow? – Not a great engagement to date but we anticipate that there is work going on behind the scenes.
- ISP/Carrier sector mobilising.. but are key players moving fast enough?
- Consumer/WAN CPE seems to be a constraint?
- Increasing industry support for IPv6 Task Force initiatives
- IPv6 Task Force online and social media presence maturing
- Commercial training capability maturing and ad-hoc low cost courses available.

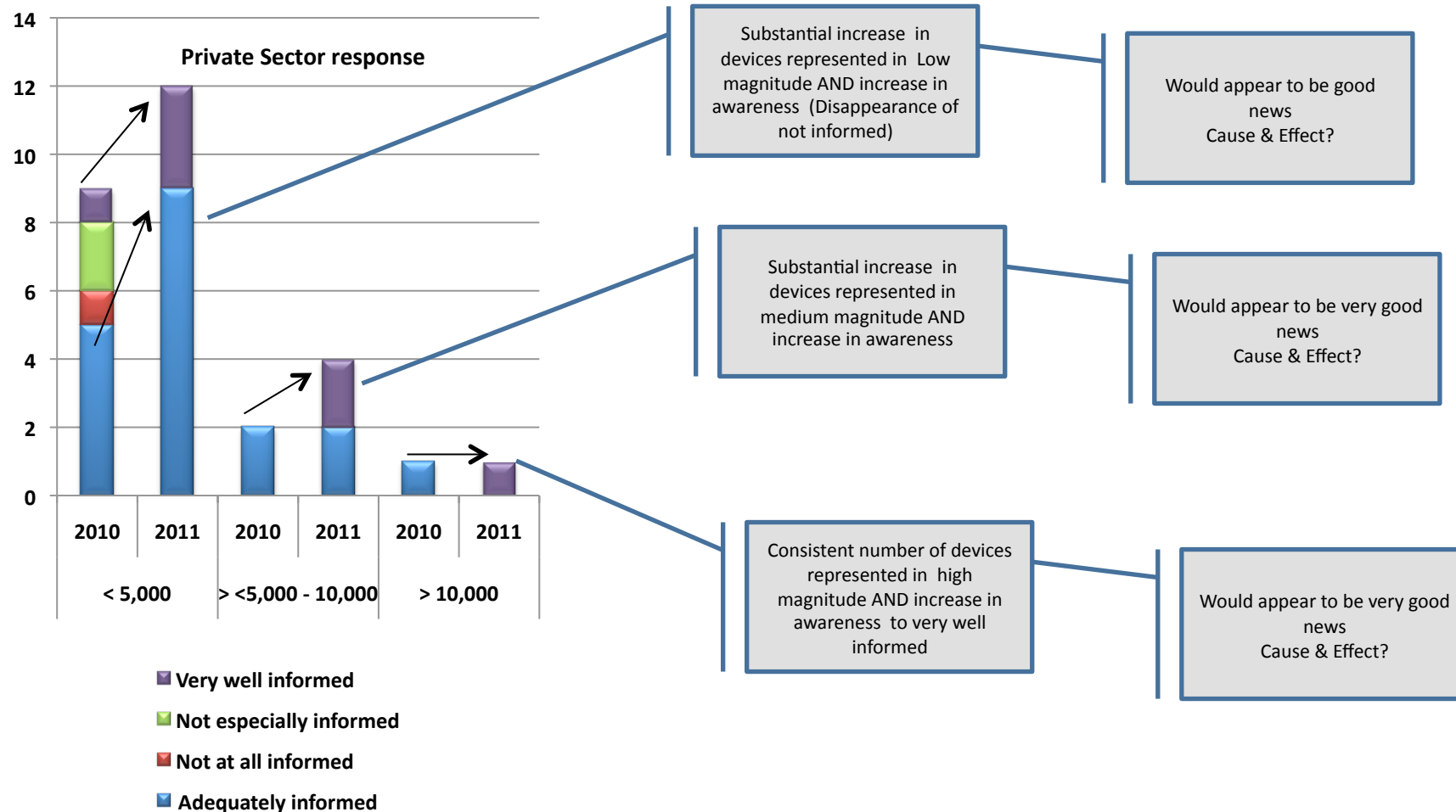


Awareness

Category	Assessment	Evidence/comments
Central Govt	Adequate	Statistics from Task Force CIO survey.
Local Govt	Adequate	Statistics from Task Force CIO survey. Engagement with ALGIM & pathfinder.
Corporate	Adequate	Statistics from Task Force CIO survey
SME's	Med-Low	ISP/Carrier survey indicate indicates low level of awareness
Consumers	Low – but low impact	Main stream TV featured IPv6 related news on 4 occasions (World IPv6 Day, APNIC address expiry, Follow on from news story in Australia) – Consumers reliant on ISP/Service providers for information.
Vendors - Networking	Adequate	
Vendors - CPE	Adequate	
System Integrators	Adequate	
ISP's / Carriers	Adequate	On-going survey & benchmarking proposed

Supplementary analysis of Private response

Positive move in awareness

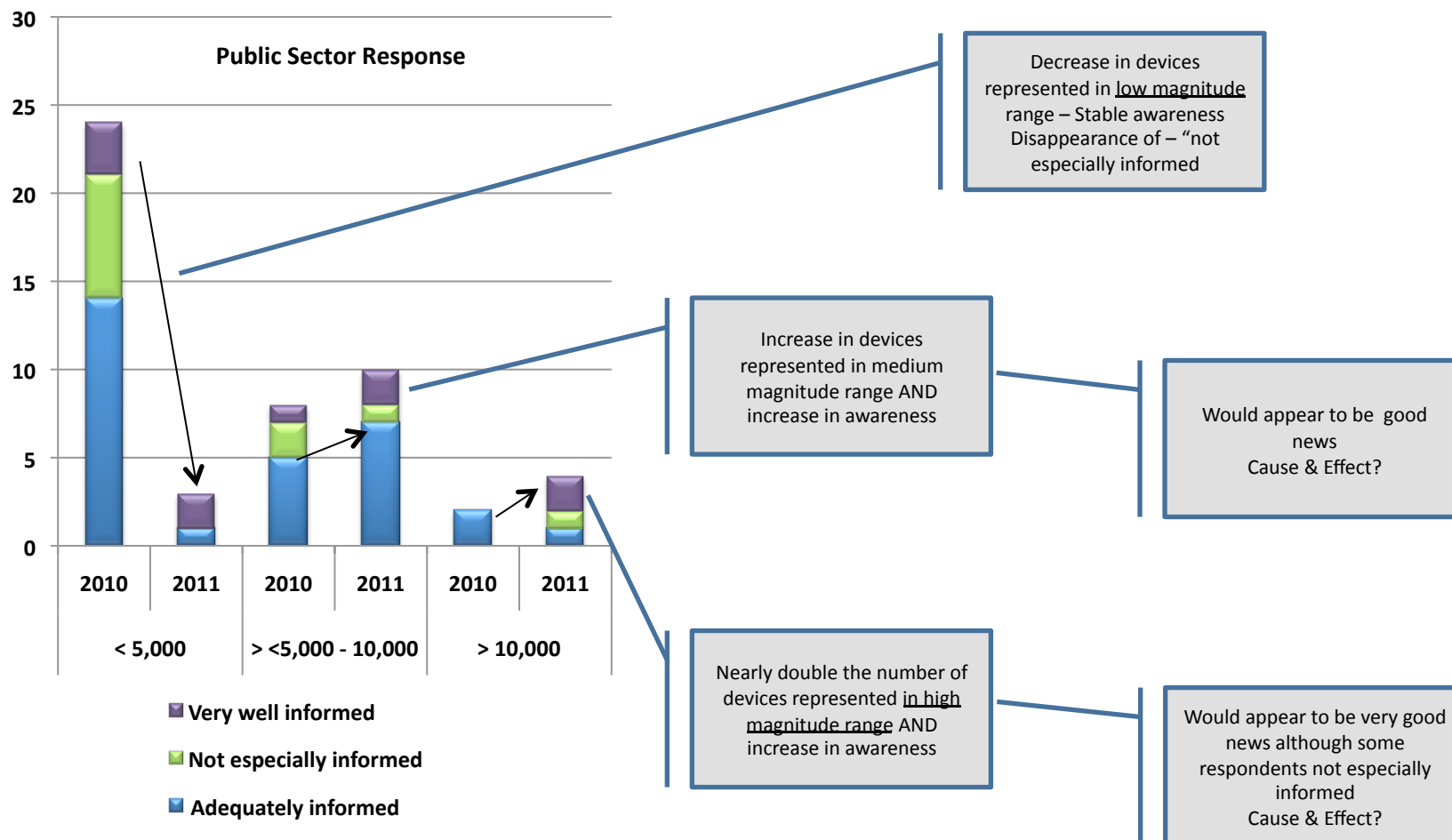


Substantial increase in the devices represented and improved awareness levels



Supplementary analysis of Public sector response

Positive movement and growth in sector



Similar number of devices represented, but in larger organisations - with increased awareness levels

Adoption / Capability (Supply side) – Strategy, Planning & Procurement

Category	Assessment	Evidence/comments
ISP's / Carriers	Adequate	OSS systems may be lagging
Vendors - Networking	Adequate	OSS systems may be lagging
Vendors - CPE	Lagging	ISP/Carrier survey indicate this group may be lagging – Task Force to engage consumer advocacy groups to progress issue.
System Integrators	Adequate	Internal training and skills development may be lagging. Proposal being considered as to how the Task Force can gain more insight into progress.

Adoption (Demand side) – Strategy, Planning & Procurement

Category	Assessment	Evidence/comments
Central Govt	Limited visibility	Anecdotally, progress being made however a diminished number of respondents in 2011 CIO survey . Task Force proactively engaging Q4 2011
Local Govt	Good progress	Tauranga City council making progress and ALGIM* involvement - scaling up.
Corporate	Adequate	Significant evidence in Top 100 CIO survey that organisations are planning for and ramping up web site transitions
SME's	Med-Low	Low visibility of this group.
Consumers	None	Early adopters are experimenting

*ALGIM - Association of Local Government Information Management



Adoption examples – Activity / web sites

[Skip to content]

ipv6.govt.nz

Kāwanatanga o Aotearoa
New Zealand Government

INTERNAL AFFAIRS
Te Tari Toiwhenua

Home | Key Findings | Govt IPv6 Sites | Resources | Contact Us

New Zealand Government Agencies and IPv6

This pilot website is part of an initial piece of work conducted by the Department of Internal Affairs, Government Technology Services into IPv6. The purpose is to demonstrate and show leadership on how NZ government web sites can be accessible to the IPv6 Internet.

In particular, we looked at what challenges or risks Government Agencies could face if they did nothing about IPv6. A key business risk identified by DIA is by doing nothing, users of New Zealand Government websites both national and international, would eventually be at risk of not being able to access government public websites.

IPv6.govt.nz has been built as "Dual Stack" which means we are allowing both IPv4 and IPv6 users to access this site natively.

What is IPv6?

The Internet predominately uses IPv4 addressing protocol to find and connect a web user to a web page. Due to the growth of the Internet it is expected there will not be enough IPv4 addressing and it is anticipated that unallocated IPv4 addressing will run out during 2011. IPv6 is the replacement protocol for the Internet which has virtually unlimited addressing.

What is Dual Stack?

Dual stack is where you add IPv6 to where you already have IPv4. This allows both IPv4 and IPv6 clients access to your websites natively i.e. without a transition mechanism such as tunnels, NAT, 6to4 etc.

It is anticipated that due to the global growth of mobile and Internet usage, there will eventually be IPv6 only users. If you IPv6 enable your web presence, all those users will still be able to access your on-line Internet services.

Links

- New Zealand IPv6 Task Force
- New Zealand Government Web Standards
- New Zealand Government Open Data

IPv6 Connectivity

IPv6

.govt.nz DNS is now IPv6 ready for NZ Government websites

IPv4 Exhaustion Counter

This counter displays how many unallocated IPv4 addresses there are remaining.

IPv4 Exhaustion Counter
Wholesale Exhaustion (IPv4)
K-day and Reserved Blocks (Remaining / %)
AFNIC May 04, 2014 2.1
APNIC Apr 15, 2014 0.87
ASIN Apr 16, 2014 4.37
LACNIC Mar 22, 2014 2.82
RIPE NCC Feb 28, 2012 2.88
@netg2011 via IPv6

newzealand.govt.nz

Contact us
Accessibility

Privacy policy
Copyright

IPv4/IPv6 meter
IPv4
IPv6
BTEC Inc.

Tauranga Moana Our Place
Tauranga Tangata Our People

You are here: Home

type your search here

Apply/Order Online
Pay Online
Report a Problem

News

Council A-Z

What's On
Maps
Property and Rates
Jobs

QUICK CARD
the quick way to Route K

For more info...
Start Stop Previous Next

Steinway Showcase
Published: Friday, 26 Aug 2011 14:00 by Tauranga City Council
Saturday 10 September 7:30pm, Baycourt Centennial Theatre.

Our City Views - 25 August 2011
Published: Thursday, 25 Aug 2011 10:00 by Tauranga City Council
TECT Arena at Bayspark public open day on Saturday 3 September from 12pm to 3pm

WEEKLY BULLETIN
Published: Monday, 22 Aug 2011 08:00 by Tauranga City Council
A bullet point list of news and updates from around Council for the week beginning 19 August 2011

Phone 511 7000 Email

Local Weather Local Camera

Copyright © Tauranga City Council | Terms of Use | Site Map



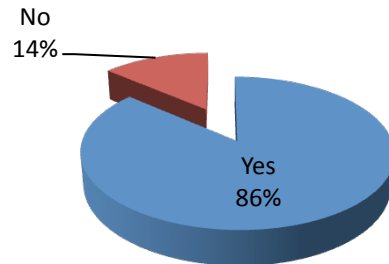
ISP/Carrier Survey – (No 1, June 2011)

- Anecdotal work is going on behind the scenes, but there is a reluctance to go public
- 41% of organisations say they currently provide IPv6-enabled products and services, with a further 25% indicating they will provide IPv6-enabled products and services within the next 12 months. (In total 66% by mid 2012.)
- 73% have a test environment now , with remainder likely to follow in within 6 months
- 73% have or are evaluating CPE.
- Consumer CPE providers appear to be behind Enterprise providers, but some respondents claim WAN CPE is not readily available as yet.
- 91% of respondents said they do not currently provide FAQ's or support for residential customers – which is consistent with respondents not yet providing residential services and many claim that CPE is not reliable and at economic price point yet.

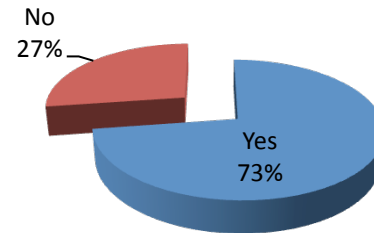


ISP / Carrier – Survey results

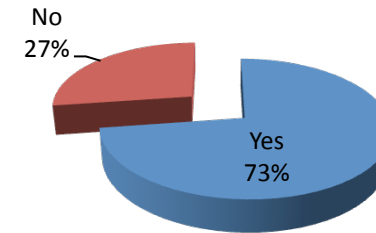
Has your organisation been allocated an IPv6 address range?



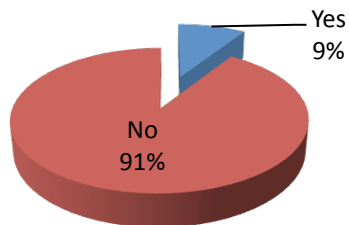
Does your organisation have an IPv6 test environment?



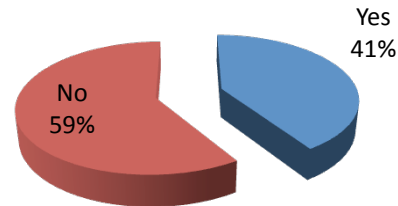
Has your organisation evaluated IPv6 support and features in CPE?



Does your organisation provide resources such as FAQs, knowledge base articles and similar for residential customers needing advice on IPv6?



Does your organisation currently provide IPv6-enabled products and services?



Does your organisation have the capability to provide business customers with IPv6 planning information?



World IPv6 Day in NZ

– what happened?



World IPv6 Day

New Zealand Summary

Task Force Media release.

Interview on NZ Tech Podcast

Significant announcements by Gen I and Telstra Clear.

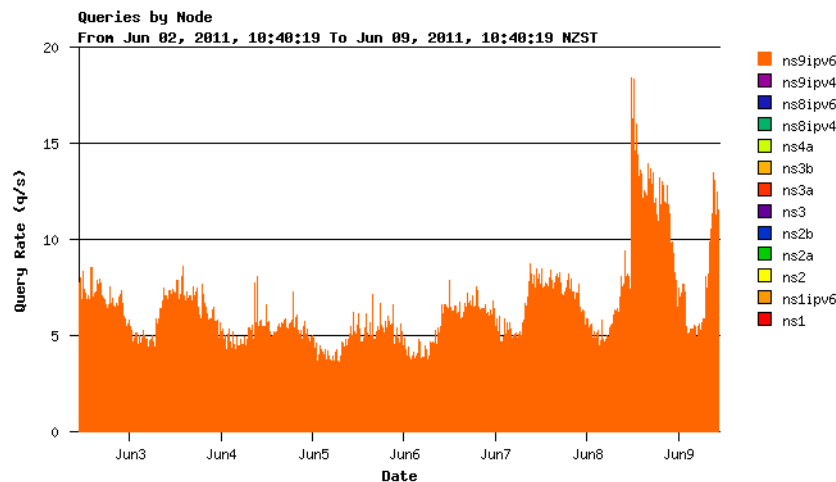
Considerable Twitter activity on the days leading up to – and on World IPv6 Day



World IPv6 Day – Stats / Comments



www.ipv6.org



Queries on nz name server 2

Social Media

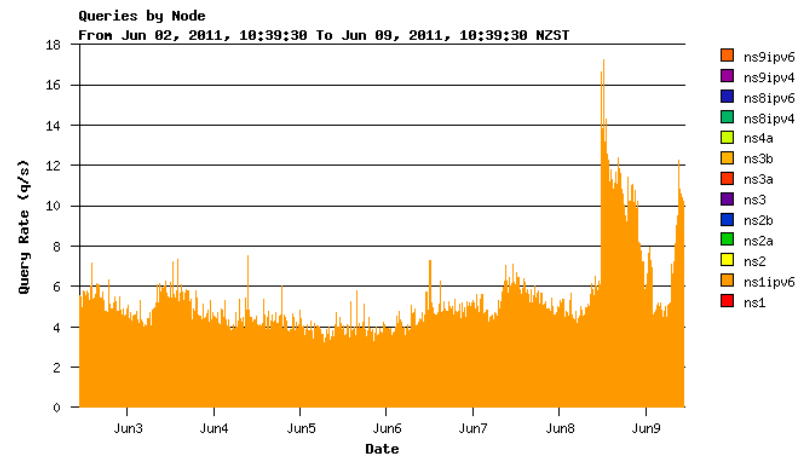
Considerable Twitter activity on the days leading up to – and on World IPv6 Day

Mainstream Media

Task Force Media release by Dean.

Interview on NZ Tech Podcast

Significant announcements by Gen I and Telstra Clear.



Queries on nz name server 1



The future

– scenario 1 and our action plan

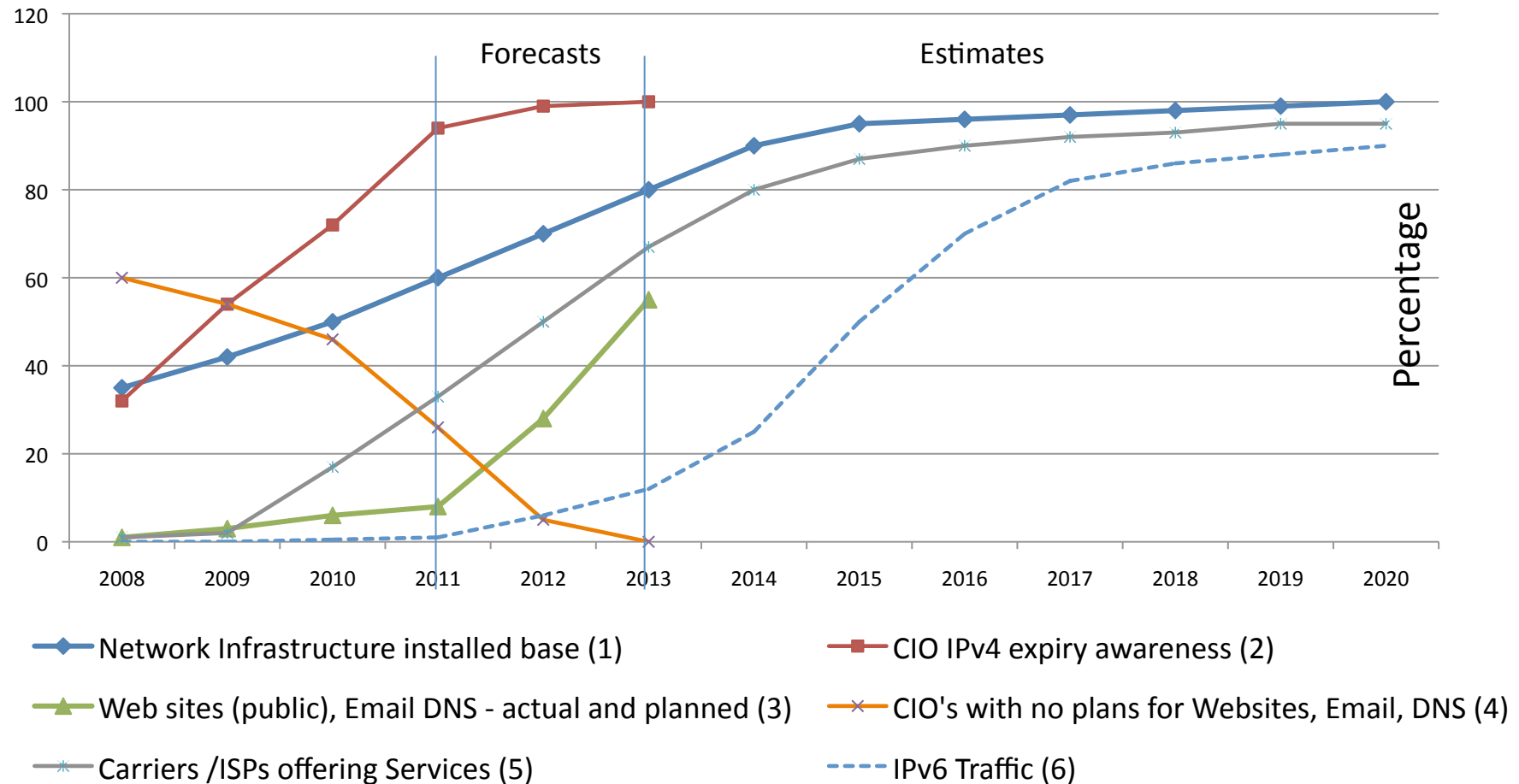


Future IPv6 Phases

- Awareness
- Capability
- Deployment
- Adoption



Adoption Scenario 1 - Our starter for discussion



1. Estimate (approx. 10% refresh per annum,)
2. Top 100 CIO survey
3. Top 100 CIO Survey

4. Top 100 CIO Survey
5. New Zealand statistics dept.(2011 & 12 to be confirmed)
6. International traffic growth forecast



Task Force activity (Plans & Programmes)

Category	Comment
Surveys / Benchmarking	2011 Top 100 CIO completed (third year) 2011 ISP/Carrier Survey completed June (Next survey date ?) Industry benchmarking – Proposal being developed.
Online and Social Media	Web site, Service Provider Directory, Training, News, Events
Govt. sector liaison	Task Fork ramping up engagement and support program
Training	Commercial IPv6 Courses available
Event attendance & Planned events	Aust. & NZ Internet awards (ANZIA), Australian IPv6 summit, ALGIM conference and NZ IPv6 Hui (s)
Pathfinder support	Tauranga City Council – Case study in progress
Collaborations	After 5's – other support required for TCL, TUANZ, ALGIM
Consumer CPE	Engaging consumer advocacy groups
System Integrators	Investigating options for case studies and stimulating progress.

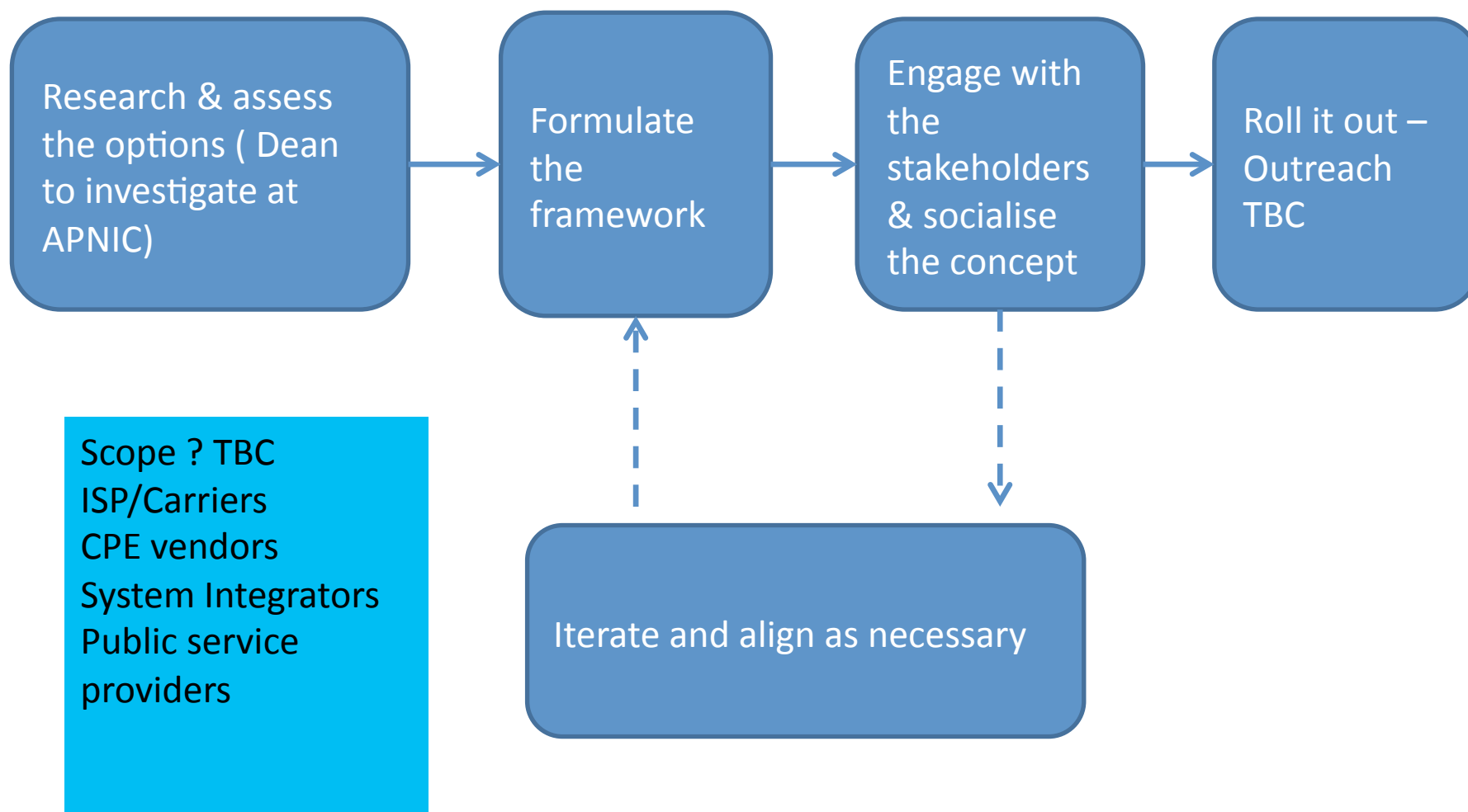
Industry group support & activity (Plans & Programmes)

Category	Comment
NZ IPv6 Task Force	Programme funded by Internet NZ and enterprise sponsors. Funded program to 31 March 2012
InternetNZ	Sponsorship of Task Force, NetHui event, Funding of Govt
TUANZ	Potential partner for after 5 events
ALGIM*	White paper collaboration in progress Conference presentation
NZICT	Confirmed support – further scope TBC
TCF	IPv6 will impact a number of work programmes
APNIC / APIIPv6 TF	Provides valuable access and exposure to international progress, information and developments.

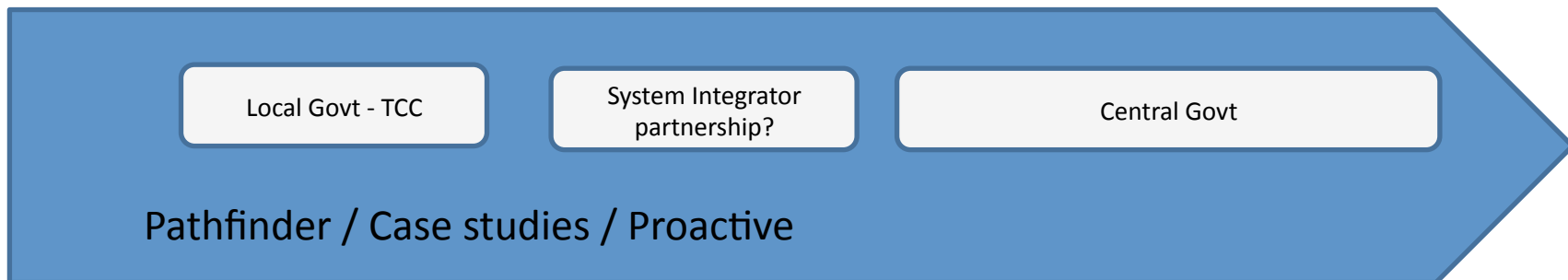
ALGIM - Association of Local Government Information Management



Proposal to Benchmark adoption progress in NZ



Actions per work stream – interdependencies?



Further questions?

1. To what extent should we be encouraging Govt ? – (Eg Procurement guidelines, Citizen overseas access ?)
2. Can we get buy-in to an industry backed timeline ?
3. Can we get buy-in to a Govt backed timeline ?
4. Can we rely on market forces alone ?
5. Impact of Govt spectrum clearance & timing of LTE , 4G on IPv6 adoption in NZ ?
6. Carrier OSS may not be capable inside a year – impact on Service availability ?
7. Timing and impact of M2M & mobile device growth

