E-city index, UFN and FTTP

Draft Report on a series of visits to European sites by Peter Macaulay in October 2006
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What I Learned

1   The NZ Digital Strategy is well known and respected in European ICT circles.
    1.1   Most people I met wished their government had similar foresight.

2   The e-city index is a unique tool and will deliver real benefits in the uptake and quality of ICT for NZ local authorities.
    2.1   The e-city index will support the delivery of the Digital Strategy evaluation
    2.2   The e-city index is the only set of tools of its type we have been able to find.

3   The e-city index has delivered excellent results in Scotland, and will do the same if properly introduced in New Zealand

4   The e-city programme has revealed three areas where technology makes a difference, which cut across all e-city themes:
    4.1   Collaboration: making it easier to cooperate and interact
    4.2   Pervasive technology: providing access to technology and using it to improve services
    4.3   Promotion of: the usage and skills in the city and the understanding that technology can enhance life choices

5   NZ lacks strong commercial initiatives to deliver broadband.
    5.1   the Broadband Challenge is pointed in the right direction, but needs to have strong commercial supporting initiatives
    5.2   The NZ UFNs will make a strong foundation for true open FTTP to blossom
    5.3   The products to foster demand must be in place for customers to come.
    5.4   Entertainment is the flagstone

6   Line companies are the key
    6.1   The combination of electricity and data network will deliver a viable commercial solution.
    6.2   We need to push lines companies to adopt the Vasteras or similar models now.
    6.3   The Vector & North Shore City BBC project is a sound start

7   Open networks allow secure and diverse network based solutions as well as significant local business opportunities,
    7.1   Local free access (unmetered) creates opportunity for video and other business
    7.2   Our BBC model has it right.

8   Incumbent Telcos are slow to see the reality of open FTTP, but will join in and deliver retail services as they see their opportunities in the conventional model dwindle.
    8.1   They are beginning to recognize that fibre from local providers is less expensive than their own.

9   There are many innovative ways to fund and lay fibre for UFNs and FTTP
    9.1   New Zealand has opportunities to adopt these or develop our own typically Kiwi solutions.

10   The European models are a better fit for NZ than the Asian or North American ones.

Recommended Actions

11   Internationally promote the NZ Digital Strategy to provide collateral to allow us to adopt good policies from other countries.
    11.1   Can we develop a Digital Strategy consulting unit? Making use of both our policy and operational skills.

12   Continue the introduction of the e-city index to local authorities.
    12.1   A pilot scheme is being developed at present.

13   Identify a local organisation and university to deliver the BusinessLab and St Andrew's components of the e-city index

14   Integrate the e-city index into the NZ Digital Strategy evaluation framework.

15   Press ahead with the NZ Fibre Fund, targeting an initial $250,000,000 with and end goal of $1,750,000,000 from a bank led partnership.
    15.1   Show how a split funding model with different streams of finance depending on the life of the asset will work

16   Encourage New Zealand electric lines companies to launch commercial open FTTP schemes using models working well in Europe.

17   Support the formation of a group like www.opennet.se to deliver

operational guidance to the network service delivery units

18   Liaise with service providers including TV companies, telcos, video distributors, music distributors, and ISPs to ensure products are available to generate demand for FTTP.

19   Promote community pressure for FTTP, by encouraging champions and neighbourhood meetings

20   Support innovative small FTTP suppliers to work with property developers in green and brown field developments

21   Pressure and incent lines companies to deliver FTTP trial schemes NOW.

22   Pressure network owners and possibly legislate to have all fibre networks with open access. Even though there will be initial resistance, it makes strong commercial sense

23   Promote understanding of the differences and benefits of DSL, FTTP, wireless and mobile solutions.

24   Educate Kiwis in the real benefits of real broadband

How it Came About

Following my visit the Fibre to the Home Forum in Tokyo from July 11-14 (funded by Ericsson) , and from discussions about the need to have some tools for cities to assess their progress in ICT adoption and delivery, I felt that I needed to learn more about the best models for New Zealand. A decision was made to visit some sites in Europe which in my view were exemplars of the models which seemed to be a good fit for NZ.
While working with Simon Riley of Next Generation Internet and Christine Makumbe of LGNZ, we identified the e-city index (http://www.e-city-index.com/) as the only contender to deliver a tool kit for local authorities to assess their ICT aspirations, measure progress, and develop direction.
It was a natural extension to my plans to include these visits into my plans to be in Europe in October. As there is no Digital Strategy or MED funding for this work, my company, The Number One IT Group underwrote the overall travel. Packerfront agreed to provide the London/Vienna/ Stockholm travel, and InternetNZ the London/St. Andrews leg.

The e-city Index

The Index was developed by Business Lab and St Andrews University on behalf of the six cities of Scotland.

The e-City Index provides a means of understanding how well technology is being used and is also used as a strategic planning and learning tool in the development of e-strategy. Basically, the e-City Index is a template against which a city or region measure its progress on all things 'e'.
The index covers four themes of city life –

- e-Government
- e-Community
- e-Business
- e-Learning

Each of these themes is divided into four dimensions. For example, the e-government template covers dimensions of:

- Democracy
- Services
- Procurement
- Promotion

How does it work?
There are two indicators for each dimension – one 'alpha' and one 'numeric'. The 'alpha' indicator measures the level of sophistication of Information and Communications Technologies (ICTs) in use within a city. The scale runs from A at the top to E at the bottom. In broad terms, the ratings represent:
A – Smart – seamless intelligent integration of virtual and physical worlds.
B – Networked – connectivity and sharing between multiple parties.
C – Interactive – transactional connectivity between at least two parties.
D – Interconnected – information exchange.
E – Connected – an electronic presence.

The 'numeric' indicator represents a measure of achievement across a city, as aresult of ICT solutions and initiatives. It is scored out of 100 on three sets of criteria:

- 'capacity' (20 points)
- 'use' (30 points)
- 'impact' (50 points).
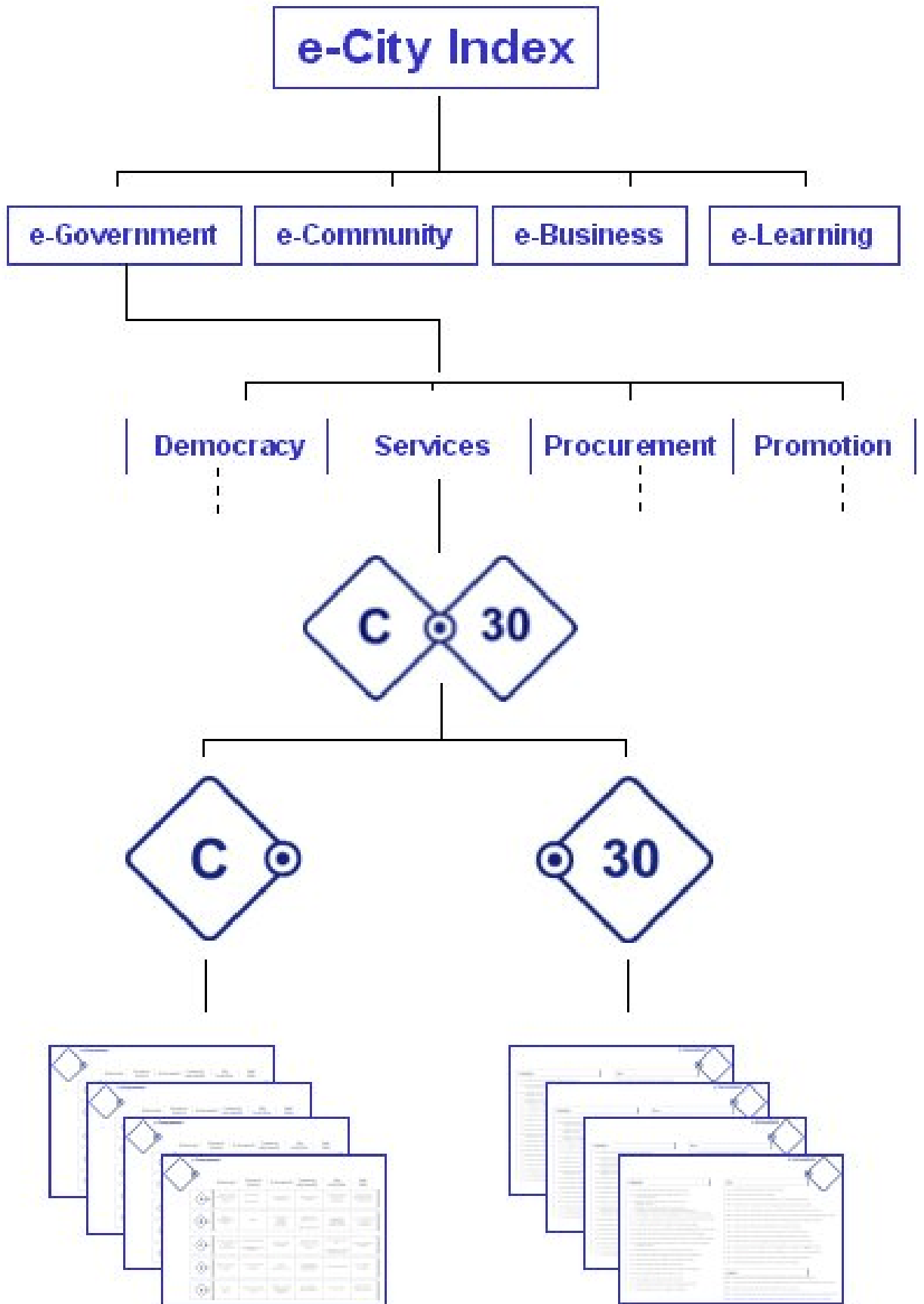
A score for both 'alpha' and 'numeric' indicators will therefore give a rating of both the sophistication of a city's ICTs and the extent to which the city capitalises on the technology. Examples might be:

- A : 90 – successfully deploying state-of-the-art ICT based solutions.
- D : 80 – deriving significant benefit from a fairly modest level of technology.
- B : 10 – deploying advanced ICT solutions, but is not achieving real benefit.

How can it be used?

The e-City Index should enable a city or region to plot where it currently sits and where it could feasibly be within a given timescale. It can then start to plan the journey from 'here' to 'there'.

For example, a city may conclude that it currently sits at C : 50 under e-Government.

It could determine that a rating of B : 70 is desirable, achievable and realistic within three years. The city can then undertake a process of strategic planning in order to increase both the level of technology deployed and the results that can be achieved with the improved technology.

Another example may be that a city currently sits at B : 40 under e-Learning. The city may believe that wider usage and further impacts should be achieved from its existing technology, before more state-of-the-art technology can be realistically considered. It could then undertake to move from a B : 40 rating to a B : 80 rating within three years.

Future Development

Technology and the environment in which we live is changing. The Index will be reviewed periodically to raise the level which constitutes state of the art and to introduce new and challenging quantitative targets for achievement.

The Visits

With the support of Packetfront (www.packetfront.com), I flew from London to visit Vienna and the Wienenergie (Wienstrom) Company (www.wienstrom.at). In Sweden afer visiting Packetfront in Stockholm, we drove to Vasteras, where we met with Robert Kjellberg of Malarenergie and Opennet.

Both cities have addressed the issue of broadband in similar ways, using slightly different models, but keeping to a strictly open plan, very similar to that defined for the BBC. Each has aspects where they show real leadership, and both are willing to share their knowledge. For example in Vienna they are pioneering the laying of fibre in sewers and other unused

underground assets using robots and other smart technology. In Vasteras, they have developed a commercial model which has even brought the incumbent telco in as a retailer in the Vasteras network.

InternetNZ supported my visit to St. Andrews University. The School of business under Prof. Peter McKiernan hosted my visit. The BusinessLab team of Gregor Rae and Heather Mason, did a superb job in putting together a strong agenda and bringing in team members from Glasgow, Perth and Dundee.

From all the sites visited and the suppliers, we have a real commitment to assist us in any ways they can, and willingness to review our plans, to spot the elephant traps.
I will be keeping in touch with the people I met, and look forward to welcoming them to New Zealand.
The Fibre to the Home Council in Europe and this region are willing to become more closely engaged withour work.

Summary

New Zealand has a superb Digital Strategy. New Zealand is failing to deliver the promises embedded in the document.
We must push to get strong commercial initiatives for all ICT, but especially broadband.
Supporting material is available from the author for the points raised in this report,

Pete's thoughts on what a real technology enabled future holds.

Ubiquitous broadband is leading to a wave of innovation unseen since the Industrial Revolution, and a rate of uptake we have never experienced in any aspect of life. We need to prepare our whole society for changes that we cannot predict clearly.
What we can see is a move back to village life. The new technology moves us away from mass gratification, into tailored settings fitted out just for one. More importantly it will cause the loss of many of the bad things the Industrial Revolution forced on society. For one example, a worker's time will not be the only thing they are paid for. Real vocation will rise again and people will respond to "the call"of a profession or trade. Reputations will be local, as will our villages, but our communities will be as wide or narrow as we choose. These changes are under way, yet we continue to mold our society to the old shape.
The Digital Strategy is the key to the first door. We have opened it and once we step through, a new strategy will be needed, and it won't be called digital.