

**Submission to the Digital Development Group
Ministry of Economic Development**

In the matter of

Draft Digital Strategy 2.0

**From Auckland City Council
Economic Development Group**

23 May 2008

A) General comments

Based on current Council policy, Auckland City Council Economic Development Officers' welcome the opportunity to comment on the Draft Digital Strategy 2.0.

Auckland City Council is very supportive of the general thrust of this document and shares the view that an innovative digital strategy should underpin and drive many of the transformational activities required for New Zealand to compete effectively in the global digital economy. Auckland City Council however is concerned at the apparent focus on tactical activities, in this document, without a strong set of overall strategies. It is our view that, in the current form, this draft strategy has the appearance of a group of independent loosely related initiatives and programmes without an overarching strategy and approach. Additionally, many of the initiatives listed appear to be a summary of existing business as usual actions, which essentially are underway irrespective of the digital strategy development. In this respect it is noted that the Draft Digital Strategy 2.0 sets out 39 actions, over half (20) of which are planned for 2008. This suggests insufficient focus has been placed on developing actions for the intermediate and longer terms. This also emphasizes the need for a coherent digital vision for the longer term with at least a 10 year horizon. The absence in the draft digital strategy of an overarching strategy and associated coordination, leverage and oversight has impact at both the strategy and implementation levels.

This strategy does not discuss implications of linkages between the four identified enablers relying on covering their importance in isolation. The strategy should provide coordinated oversight of these four components; otherwise there is a danger that enablers will be viewed as unrelated. Their interdependences and the resultant impact on actions and deliverables should be addressed in order to provide a more complete strategy. Accordingly, we believe for effectiveness this strategy should be reformulated into an integrated plan with goals, objectives, proposed actions, deliverables and linkages between those items.

To be effective, the development of such a long term vision needs to be done on a consultative basis and will need to be adequately funded. Although in its current form some of the short term actions may well contribute to the long term action formulation, we are concerned that sufficient funding and the appropriate mandate is required for the desired long term vision to evolve. In our view, the digital strategy needs to provide clarity around the overall strategies, which in turn should drive the actions and deliverables, not vice versa.

While we understand the intent of the Digital Strategy governance structure is to provide the mechanism to link and coordinate what are often independent digital initiatives being taken over a number of areas, we are concerned that coordination and linkage of initiatives is not readily apparent in this draft strategy. With this in mind, Auckland City Council is supportive of the recent government decision to establish the overarching forum which is intended to facilitate coordination and collaboration between government

and non-government organizations on initiatives related to the Digital Strategy. It is noted that this new group will essentially take over the existing activities of groups such as the Digital Strategy Advisory Group and HiGrowth. It is Auckland City Council's view that this forum needs to be representative of all stakeholders from central government, local government, industry, investors, developers, community groups and users.

Coordination and oversight is also important at the implementation level. It is suggested that the overarching forum may need to set up a focused task or steering group to be charged with progressing delivery of the digital strategy and with representation across the four enabler areas as well as across central government, local government, business and residential users, providers and community groups.

Auckland City Council also supports the establishment of development units, as set out both under, "actions point (c)" on page 6 and "other comments (b)" on page 16 of this submission. These incubators will develop the partnerships, actions and demand development to deliver digital strategy benefits in the regions. They will also develop the body of knowledge required to leverage new found expertise into the geographic areas. Without such groups focused on implementing the digital strategy and on evaluating progress towards the strategy goals, achievements may not be maximized and initiatives may become ad hoc adventures with limited effectiveness.

B) Responses to Submission Form questions

(Please note that Auckland City Council responses are shown in italic font under each question copied from the MED Submission Form).

ON CONNECTION 1) What do you think of the new connection goal - is it ambitious enough?

The goal "of widespread availability of fast and affordable broadband meeting the needs of New Zealanders" is not specific therefore it is not possible to comment on whether it is ambitious enough. While we agree with the "LONG-TERM VISION OF FIBRE-TO-THE-HOME" AND THAT "THE ECONOMICS FOR THIS TO OCCUR IN THE SHORT TERM ARE SIMPLY TOO CHALLENGING" we consider that there would be merit in specifying additional goals. We recommend that this is expressed in terms of a specific infrastructure such as availability of FTTP in urban areas by say 2012, FTTH in all urban centres and FTTN to all rural areas by say 2016. Such targets would provide a realistic and measurable challenge for all parties to achieve in terms of broadband deployment.

The two intermediate targets specified in draft digital strategy 2.0 of:

(1) "...DEPLOYMENT OF FTTN, ... SO THAT BY 2012, 80 PER CENT OF

USERS CAN ACCESS BROADBAND CONNECTIONS OF AT LEAST 20MBPS AND 90 PER CENT HAVE ACCESS TO BROADBAND CONNECTIONS OF AT LEAST 10MBPS” and

(2) “HAVING OPEN-ACCESS URBAN FIBRE LOOPS OPERATING IN 15 CITIES AND TOWNS BY 2012, TO SUPPORT THE HIGH BANDWIDTH NEEDS OF LARGE BUSINESSES, AND MUNICIPALITIES, UNIVERSITIES, SCHOOLS AND HOSPITALS (MUSH ENTITIES)”

ignore the needs of the SME and startup ventures. These entities are fundamental to the development of a vibrant digital economy and while it is only likely to be a minor percentage that require high speed broadband (via FTTP) in the short term (i.e. within no more than 2 years) it is essential that we cater for these requirements. A strategy around this aspect is needed.

The target of 20 Mbps to 80% of users and 10 Mbps to 90% of users by 2012 appears to be couched in terms of what is achievable by current ADSL technologies over copper and does not therefore recognize that many of our OECD competitors are planning for speeds and coverage well beyond those targets. Put another way, without a stretch target New Zealand is likely to fall even further behind in the OECD rankings. A target date of 2010 for the above speeds and reach is in our view appropriate, with by 2012 an extended target desirable.

To emphasize the need for stretch targets, it should be noted that in one application, the Auckland City Council provides data services access at all its public libraries with a capacity of up to 3 Mbps. Already, this capacity is being outstripped by usage and it is estimated that real demand for this public facility currently equates to around 10 Mbps even with restrictions placed on the duration of user sessions. On this experience alone, a target of 20Mbps by 2012 does not represent a stretch target.

If the wider economic and developmental goals are to be reached then the overall goal for broadband penetration must be for New Zealand to be within the top 10 OECD countries by 2012 at least.

2) What other key priorities in this focus area (if any) would you like to see considered?

The key priority for connectivity is to focus on those areas where benefits can be realized. As noted above there will be a subset of SME (operating in the digital economy) that need to

have FTTP to allow those entities to compete and grow on the international market. While the economics of a large scale rollout of FTTH is challenging in the short term, strategies and plans are needed to enable deployment of FTTP into key areas such as business parks and commercial centres. In addition a mix of technological solutions to the last mile problem should be considered such as wireless. With this in mind, priority over the next 2 - 3 years should be given to not only FTTN but also build outs of FTTP for selected areas.

In addition to connecting businesses and MUSH, establishments on route fibre loops should also be used to provide back-haul interconnections for wireless broadband hotspot systems that have been established by local authorities, large and small businesses and 2nd and 3rd tier service providers.

3) How well do the identified challenges and actions contribute to achieving the priorities?

Auckland City Council agrees that additional investment is required in the four key infrastructure gaps identified in the Draft Strategy. However, a fifth area that also requires new investment and needs to be added is finding economical solutions for the last mile. Without a commitment to resolving the last mile issue, even if the other key infrastructure gaps are addressed, broadband capability will be tantalizingly close to users but for most will remain just out of reach.

With regard to connection actions shown in Section 3.3, while all the listed actions are of value, their likely impact and effectiveness depend upon the detail of each action. Those of particular interest to Auckland City Council are:

- a) Accelerating broadband investment – especially if funding for municipal projects is to be included.*
- b) Encouraging competition in the wireless market – although the utility of 70/80 GHz band for broadband provision is yet to be proven.*
- c) Improving access to the transport corridor – providing that the rights of local authorities are safeguarded.*
- d) Adopting national environmental standards for telecommunications services – caution is required in any wholesale review of the RMA since regional differences may be justifiable and may not constitute inconsistencies.*
- e) Promoting “broadband friendly councils” – central government assistance needs to go further than preparing*

guidelines. The application of incentives is likely to be a more productive way of promoting the deployment of broadband infrastructure.

- 4) What other specific challenges and actions (if any) do you think should be considered? By whom and by when?

Auckland City Council sees the following additional challenges:

- a) *Solving the last mile high bandwidth connectivity challenge; recognizing that there are different challenges for the two main parts: local loop and service lead.*
- b) *Cost effectiveness of fibre and customer termination equipment.*
- c) *Scale of user acceptance, especially by residential users, of the benefits of broadband. This includes a willingness to invest in connection costs, termination equipment, and network cabling.*
- d) *Understanding the impact of current network design methodologies on innovation and development of competitive service provision utilizing existing networks.*
- e) *Inefficiency and overbuild resulting from the Industry operating on a vertically integrated basis.*
- f) *Timely and effective response to competition barriers and anti competitive behaviour that constrains market development.*

Actions to address these challenges include:

- a) *Understand the issues, develop and implement technology measures that will address last mile connectivity.*
- b) *Investigation into alternate technologies to solve high bandwidth connectivity issues in short / medium term.*
- c) *Development of incubators that focus on delivery of connection, confidence, content and collaboration initiatives into targeted regional areas and leverages this knowledge between incubators and into the regions.*
- d) *A stakeholder working group (Industry, user groups, central government and local government) responsible for development of network last mile design guidelines that foster competition between providers.*
- e) *Understand the drivers and develop actions that will persuade the industry to co-operate at the infrastructure level (particularly trenching and ducting), rather than overbuild.*
- f) *Repositioning Councils as the natural owners of telecommunications duct infrastructure just as applies for*

roads and directly or indirectly for sewerage and storm water assets. This has particular applicability for new subdivisions and for up-grading of facilities including undergrounding in existing residential areas.

- g) Identify key drivers that enable or conversely constrain competition. Monitor these drivers and implement appropriate interventions with urgency.*
- h) Ensure Commerce Commission has a mandate and process that enables the desired market outcomes to be achieved in a timely manner.*

ON CONFIDENCE 5) What do you think of the new confidence goal - is it ambitious enough?

Although laudable in general terms, the new goal of up-skilling the digital capability of New Zealanders is not sufficiently targeted and therefore is not measurable. Specific targets and actions that could be added include:

- a) Adoption of changed business models such as the outsourcing of centralized functions.*
- b) Levels of participation in secondary and tertiary level programmes on digital literacy and proficiency.*
- c) Achievement of digital proficiency levels by key age groups against international benchmarks.*
- d) Reduction in shortages of skilled ICT personnel.*
- e) Telecommute work-from-home hours as targets.*
- f) Access hours spent on remote or at-a-distance ICT learning and training schemes.*

It is important that once confidence targets are agreed and they are given a baseline measure so that performance and achievement can be monitored.

6) What other key priorities in this focus area (if any) would you like to see considered?

Other demand side activities that need to be undertaken with clear objectives and measures in place include:

- a) Basic and in-service training in ICT skills for teachers to facilitate teaching of the curriculum at primary and secondary levels.*
- b) Increased availability of ICT courses and targeted promotion of ICT employment opportunities for key age groups.*
- c) Availability of tailored ICT courses relevant to special interest sectors, for example the SME sector.*

d) *National provision of at-a-distance ICT learning schemes including use of municipal public library networks (for example, linking Aotearoa New Zealand network with other public libraries).*

7) How well do the identified challenges and actions contribute to achieving the priorities?

In terms of ICT confidence goals, the Auckland City Council is both a consumer and a facilitator. As a large municipal organization the Council has an on-going requirement for well trained and highly competent ICT practitioners while via its library services the Council is already a provider of ICT training and learning services to the community. Further developments in this area will be dependent upon adequate funding via central government sources.

Auckland City is already a part of the Aotearoa New Zealand Peoples Network but an error of fact in the Digital Strategy needs to be corrected. Access to the Peoples Network is not “free” as stated in the Digital Strategy document. Auckland City Council like other local body councils is in fact paying for the access that is provided to the Peoples Network. The annual cost for Auckland City is approximately \$135,000 per year. Access may seem to be at no charge to the end users but currently local government is paying for this.

A further example of the use of the library based network services is in the area of e-democracy. In particular, citizens of Auckland City can access a facility which enables them to lodge on-line submissions they wish to make on Council or other community issues. This facility could also be used for on-line consultations on issues of public interest.

The actions outlined in the Draft Strategy on security issues are of fundamental importance to safe use of ICT services. Users must be afforded the knowledge that they are operating in a safe environment, that their privacy is assured and that their communications are secure, irrespective of whether the broadband network is being used for business, private, commercial or recreational purposes.

Accordingly, Auckland City Council supports the measures being taken on security issues. The Council also supports adequate funding of the groups within NZ Police and Internal Affairs responsible for monitoring and detecting un-safe

activities on the Internet likely to impact on New Zealanders.

8) What other specific challenges and actions (if any) do you think should be considered? By whom and by when?

Auckland City Council sees the following additional challenges:

- a) Rapid pace of change in the industry, could lead to a skill deficit for teachers or difficulties in the maintenance of teaching expertise currency.*
- b) Importance of maintaining a technology agnostic approach in ICT skills development and teaching.*
- c) Lack of technical training in ICT.*
- d) Difficulties for sector innovators or micro businesses to access capital funds or grow their businesses.*
- e) Lack of breadth and therefore competition in the service provider part of the market.*

Actions to address these challenges could be:

- a) Develop and implement ICT skill training and update program for teachers to enable them to teach the curriculum.*
- b) Develop ICT / technical certification course and apprentice programmes.*
- c) Develop and implement skills training or mentoring programme to enable sector innovators to grow their businesses and obtain access to capital funds.*

These actions should be undertaken as part of the existing mandate of the relevant central or local authority.

ON CONTENT

9) What do you think of the new content goal - is it ambitious enough?

The general concepts are fine but the goal is not clearly stated or specific enough for any comment to be made on how ambitious it is.

On the one hand, it is difficult to understand exactly what the new content goal is, while paradoxically, on the other hand, it is difficult to take exception to what is stated. It is important that a well defined goal is stated along with associated strategies and objectives.

Consideration should also be given to the scope of the

“Content” enabler. Should it encompass a wider range of aspects and capabilities that enable the digital economy? For example, should content include applications and marketing programmes relevant to the digital economy?

10) What other key priorities in this focus area (if any) would you like to see considered?

It is noted that from a content perspective the Draft Digital Strategy 2.0 mentions that benefits would be gained for New Zealand by providing access to world-class on-line government services and open access to publicly funded research. However, little is offered in support for these claims in the content section, as most of the examples and actions quoted relate to recent changes affecting broadcasting activities within New Zealand. The result is perhaps too strong an emphasis on television broadcasting content in this draft strategy. While the changes to the broadcasting industry that will result from the conversion from analogue to digital television are important in their own right, from the perspective of developing “Content” as an enabler the Digital Strategy should encompass much more.

The need to encourage content developers and to facilitate the production, presentation and delivery capabilities of the industry and service providers should also be emphasized. The fostering of industry clusters and establishment of content specific incubators could provide an effective means to encourage and grow this very important segment of the digital economy.

Likely benefits of public good in terms of cultural identity, cross-cultural awareness and increased sense of community pride on the one hand and economic gains from increased exposure of New Zealand products and services in overseas markets on the other mean that investments in promoting digital content will be well rewarded.

The Auckland City Council is disappointed that no mention is made in the Draft Digital Strategy 2.0 of the important area of digitalization of archival records. From a nation-wide perspective there are 3 tiers to digitalization as follows:

- a) Tier 1 at the national level for Te Papa and national archives.*
- b) Tier 2 including Auckland City Council, the Hocken Collections Library at the University of Otago and the music*

archive at the University of Auckland all of which hold records that have been recognized as being of national significance.

- c) *Tier 3 for remaining library records, local community archives and photographs.*

Currently, government funding is allocated to Tier 1 purposes only. Auckland City Council is of the view that contestable funding is required for Tier 2 because the national significance of these heritage collections has been accepted.

As a further example of the linkage between content and the digital strategy, note should be taken of an initiative underway between the Auckland City Council library and the Chinese Association in Auckland. In this project, the Chinese community has been encouraged to make use of the library's digital facilities to up-load photographs, videos and audio text to assist in capturing their history. In this way, encouraging a community group to tell their stories in their own way is helping to preserve the New Zealand historical record and to enrich cross-cultural understanding and appreciation.

- 11) *How well do the identified challenges and actions contribute to achieving the priorities?*

The key to reaching the content goal is to drive demand side activity. This inevitably requires funding and it is not clear from the Draft Strategy whether sufficient funding has been budgeted for this area.

Placing a high priority on growing businesses with competitive advantage relies on picking winners. This can disadvantage small and micro businesses that have potential to be major winners but which all too often go unnoticed or worse are discounted in any grant award scheme. A better approach may be to focus on industry sectors to foster the right set of environmental conditions under which the true winners can flourish. This would also have the advantage of enabling innovators to concentrate their activities in the most productive areas.

- 12) *What other specific challenges and actions (if any) do you think should be considered? By whom and by when?*

Business and industry innovation is linked directly to research and development activities and the money so spent. Without

doubt, industry innovation is desirable but it needs to be coupled with go-to-market strategies, otherwise the full benefits of the innovation will not be realized. In addition, there can be a lack of focus on achieving speed to market results when R & D activities are driven by pursuit of academic ideals and are only loosely coupled to business drivers in the marketplace.

There are clear roles for government in facilitating and coordinating R & D activities. From a funding perspective, the provision of incentives for investment in R & D especially in the tax treatment of R & D expenditure have long been recognized overseas as a way for governments to encourage business innovation. Also, while businesses at all levels need access to R & D, small businesses having less financial resources available to them, therefore need help in gaining ready access to external R & D organizations. This is a further area where government can play a significant role, through the Crown owned research organizations, by improving processes for access to R & D and by facilitating better coordination of research activities on a national basis.

Central and local Government also have a role to play in conjunction with other private sector entities to encourage growth for SME and new ventures in the digital content sector by way of initiatives such as industry clusters, innovation centres and incubators.

Auckland City Council would also like to see Action 5.5 extended beyond actions focused just on business to include users and other stakeholders especially local government. It is obvious that all businesses require services from local government. However, it should also be noted that local government has a role to play in the digital provision of information and in the presentation of services, which can affect the overall productivity of the nation.

ON COLLABORATION 13) How important do you think collaboration across sectors is to achieving our digital potential?

The scope of the broadband challenge demands collaboration across all sectors. Collaboration is vital to realizing our broadband potential and must be inclusive if it is to be successful. It must involve in appropriate ways representatives of Maori, communities, business (all sectors), researchers, local government and central government. Additionally, it is important to include users, investors and regulators where they

are required to act independently of government.

14) Apart from the ones already identified, what other collaboration partners or sectors (if any) are vital to achieving our digital potential?

Recognizing that broadband needs and the approach to broadband provisioning differs markedly between local government authorities, representation from the local government sector needs to be on a council-by-council basis in order to ensure effective capture of knowledge and development of opportunities.

15) What unique contribution do you see for Māori, for communities, for business groups, for local government, for researchers or for other contributors you identify as having a key role?

Auckland City Council has the following views:

- a) For New Zealand to effectively and efficiently achieve our digital potential, the unique perspective and input of all stakeholders is required.*
- b) This input must not be dealt with in forums that only are set up to obtain the perspective of one stakeholder group, as doing so will not result in the most robust and widest solution that enrolls all stakeholders.*
- c) All stakeholders must work together to determine the solution; users, user representatives, central government, local government, industry and investors. Although logistically more difficult, buy in and momentum will only be obtained by getting all these parties collectively enrolled in dialogue and development of the objectives, actions and timelines.*

16) What would you like to see the overarching sector forum focus its work programme on?

Auckland City Council supports the establishment of the Sector Forum but is of the view that there is insufficient representation at the local government level.

The primary focus of the Forum should be on the connection and collaboration domains within the context of the end-to-end solution. This implies a coordination type role in the remaining

domains of confidence and content. The Forum needs to develop a clear road map as to how the national Digital Strategy deliverables are to be achieved. It also has a role in identifying and helping remove barriers to the implementation of the Digital Strategy. Finally, the Forum should be given the mandate to determine baseline measures and a benchmarking process so that progress with the Digital Strategy can be monitored and reported.

ON ACHIEVING OUR DIGITAL POTENTIAL 17) Using digital technology, what contribution will you make to improving our productivity (achieving a creative, knowledge-based, high-income economy)?

Auckland City Council has recognised broadband as a critical enabler of productivity, growth and economic transformation. It has also recognised that New Zealand had traditionally been poorly served in the deployment of affordable high-speed broadband infrastructure and services. In the Council's view, without a broadband-based digital strategy, Auckland and New Zealand will be left behind by other nations who have embraced broadband and are seeking to attain the economic and social benefits this technology affords. Accordingly, the Council has established the following broadband digital vision:

“That by 2010 Auckland City is an acknowledged smart city where all residents and businesses have cost effective access to broadband and understand the benefits this will provide” and “that by 2010 businesses in Auckland City will have access to gigabit Ethernet services.”

18) Using digital technology, what contribution will you make to enriching and valuing New Zealand communities and cultures, and promoting our unique national identity?

Auckland City Council under its broadband digital vision has initiated specific projects. Already under consideration or in the planning stages are:

- a) A broadband WiFi network for public open spaces in the Auckland CBD and fringe areas.*
- b) Development of urban fibre connectivity to underserved areas, particularly Auckland isthmus.*
- c) Investigation of last mile and service lead solutions.*
- d) Investigation of broadband located near residential areas and serviced by a fibre loop for high speed broadband*

connectivity.

- e) *Initiatives to build and develop service provider and demand depth.*

Future consideration will also be given to community group web-site hosting and interconnection of broadband wireless hotspots with emerging MUSH fibre loops.

- 19) *Using digital technology, what contribution will you make to achieving sustainable growth as a nation?*

Auckland City Council will:

- a) *Understand and represent the broadband needs of Auckland City Council residents and businesses at stakeholder forums.*
- b) *Undertake programmes that facilitate the delivery of broadband to residents and businesses.*
- c) *Undertake activities that model the potential of true broadband and enhance its acceptance.*
- d) *Focus on ensuring the economic benefits derived from true broadband are delivered to residents and businesses in Auckland City.*

- 20) *What contribution do you think others need to make to achieve our digital potential?*

Roles and contributions will need to be determined once stakeholders have worked together to determine the objectives and actions. This activity should involve users, user representatives, central government, local government, community groups, industry and investors.

OTHER COMMENTS Do you have any further suggestions or comments?

Auckland City Council believes there are three other areas that require activity and funding consideration:

- a. *Last mile / service lead: Sufficient budget resources need to be reserved for all digital initiatives of merit. Presently, the initiatives attracting the most substantial budgets appear to be those projects involving urban fibre loops. Although commendable, these projects do not include solving last mile or service lead issues, which also need to be addressed as soon as possible.*

- b. Establishment of regional broadband development units: The current focus of expenditure does not enable the development of demand generation initiatives that are tied to infrastructure deployment. In order to ensure social and economic gains are realized, due attention must also be given to demand side development. In Auckland City Council's view, funded broadband development units need to be established in each region to enable this development to be progressed in a timely manner. These organizations would collaborate and leverage learning nationwide, expediting, through knowledge and commercial means, the realization of broadband benefits.*
- c. Facilitating knowledge transfer: There must be recognition of the need to formalize and fund knowledge transfer between initiatives in order to maximise effectiveness and efficiency of effort.*