



# InternetNZ

UFB, RBI and Mobile blackspot  
Registrations of Interest

## **InternetNZ**

This submission is from InternetNZ.

InternetNZ is a membership-based not-for-profit organisation and is the designated manager for the .nz country code top level domain.

Our vision is of a better world through a better Internet. We advance that through our mission: to promote the Internet's benefits and uses, and protect its potential. We advocate the on-going development of an open and uncaptureable Internet, available to all New Zealanders. We are a non-partisan voice Internet and related telecommunications public and technical policy issues on behalf of the Internet Community in New Zealand – both users and the Industry as a whole.

This submission is based on InternetNZ's policy principles, specifically those principles that the Internet should be open and "uncaptureable"; that Internet markets should be competitive and that the Internet should be accessible by and inclusive of everyone.

InternetNZ thanks the Ministry for the opportunity to make this submission.

## **Executive Summary**

InternetNZ is strongly supportive of the Government's efforts to improve broadband and mobile communications, in both urban and rural areas.

The proposals to extend the Ultra-Fast Broadband Initiative (UFB) and improve coverage of mobile blackspots should go ahead but with some amendments to improve efficiency. The focus should be to improve competition between suppliers rather than between local authorities. This would improve efficiency and reduce compliance costs on local authorities.

We raise several issues regarding the Rural Broadband Initiative (RBI) for the government and officials to consider.

The purpose of the input in this submission is to assist officials and Ministers in getting the best outcome for the limited funds available for these projects, which whatever the implementation issues are, we support in principle as important ways to help ensure all New Zealanders can gain ready access to the Internet.

## **Background**

There are three projects: the RBI extension, the UFB extension and mobile blackspots. They are all being dealt with together under the RoI process which is in two parts the RoI for Supply (this will be of interest to existing UFB/RBI and Mobile operators such as Vodafone, Chorus and LFCs and also of interest to other operators such as fixed wireless providers) and the RoI for Support (this will be largely of interest to local authorities or possibly community groups who are keen to contribute to improving broadband in their community).

The overall objective is to get the greatest possible broadband coverage for the specified amount of government funding (between \$152M and \$210M for UFB, \$100M for RBI and \$50M for mobile blackspots).

There will be three components to the funding:

- the government's contribution – primarily the money identified above;
- the suppliers' contribution – primarily the lowest cost deployment for an area determined by competitive tender;

- the community support contribution - a combination of reducing costs for suppliers by for example speeding up resource consents or allowing access and use of community assets such as poles or road reserve, guaranteed demand or possibly financial contribution from communities.

## **Process**

There are two stages in the RoI process. The first stage is an opportunity for anybody to ask questions or seek clarification about the RoI processes (by 29 May 2015). The second stage is the registration of interest (by 3 July 2015). The Information provided in response to the Support RoI will be passed to potential suppliers (identified from the Supply RoI) in mid-August following which Request for Proposals (RFP) will be released to suppliers. The RFPs will be evaluated and towns and suppliers selected by Mid Oct/Nov. Contract negotiations will commence in December.

Both RoI documents are heavily couched in discussion document terms i.e. at this point in time comments are being solicited and those comments may lead to subsequent changes.

## **InternetNZ Involvement**

InternetNZ will not be participating in these projects beyond the initial questioning phase as it is neither a supplier nor a supporter (as defined by the RoI documents).

Our primary interest is as a voice for the Internet, including for end users or consumers. As such, we (along with all New Zealanders) have an interest in seeing the Government's objectives are being met and delivering the best possible use of taxpayers' money. \$150m of the sum is to be funded by the Telecommunications Development Levy which is paid by users of telecommunications networks, and the remainder of the funding will come from the Future Investment Fund.

Our secondary interest is ensuring that a good competitive telecommunications environment is maintained. This might clash with the primary interest as at first glance it would seem that the structure of the UFB and Mobile Blackspot projects will tilt the playing field heavily towards incumbent providers who will have significant scale advantages, but that be a price that has to be paid to deliver the overall outcome.

Our participation in the formal RFI process is therefore likely to be limited to the questions in this submission.

## **The Three Projects**

### **Mobile Black Spots**

We consider that this component is almost certainly going to be limited to existing mobile operators especially Spark and Vodafone – similar requirements to the RBI for co-location will apply and it is likely that 2 Degrees and wireless operators will choose to co-locate (or roam) on Spark or Vodafone towers.

### **Questions**

Should the definition of Mobile Blackspot be more detailed? For example: is a blackspot of say 100 meters less relevant than a blackspot of 200 meters? Is a blackspot "provider dependant"? In other words, if it is a blackspot on the Vodafone network but not on the Spark network or vice versa does it count as a black spot? Will the blackspot be removed or reduced by deployment of 700 MHz or other spectrum? Can the blackspot be removed/reduced by relocating or increasing the height of existing towers? To what degree will commitments made under the RBI 1, 700 MHz auction and potentially RBI2 resolve blackspot issues?

Presumably these and other questions are more easily answered by the two major operators than by local authorities or communities – wouldn't it be better for the two operators to identify where total blackspots are and how much they will require to remove/reduce them. For example a two-step process where they first cooperate in identifying total blackspots and then compete to cover them. This alternative might also remove any issues surrounding the unclear overlap between government funded initiatives such as UFB2, RBI1, RBI2 and the 700MHz deployment commitments.

## **UFB2**

The UFB2 appears to be specifically focused upon those towns which were on the fringes of UFB1. 35 towns were mentioned during the general election and are repeated in the RoI. As such isn't it likely all the additional government money will go to existing LFCs and Chorus to extend to these towns? That is - there might be a few in the current list that might fall out and a few outside the list that might have a chance of squeezing in.

For the UFB the bulk of territorial authority involvement is going to be around attempting to extend beyond 80%. Territorial authority assistance comes in 5 forms:

- Consents - territorial authorities have option of helping by reducing operator costs through easing resource consents etc. Much of this is already likely to happen anyway, albeit possibly in a longer timeframe, through the proposed amendments to the environmental standards released in March.
- ID of infrastructure - territorial authorities to make existing infrastructure/land access available (to reduce operator costs).
- Uptake and awareness - commitments to broadband promotion, marketing and uptake (possibly including guaranteed demand). This would seem to be particularly fraught with uncertainty and may demand significant compliance cost with little certainty of a favourable outcome.
- Co-investment - additional territorial authority funding into the project in order to extend UFB beyond the 80% mark in a town/area. The downside here seems to be that the territorial authorities can put additional money in via CFH and have no choice who the operator will be (it will almost certainly be the existing operator in that area). The positive is that the investment will be on the same terms as CFH - which is effectively the equivalent of providing an interest free loan.
- Direct investment - again this is predominantly to increase the UFB beyond the 80% mark by putting investment into an operator directly. This only seems to make sense if territorial authorities put money into the existing operator in their area. The possible exception to this might be in the margins. For example a small town on the margins of the existing North-Power area will currently be supplied by Chorus copper. It is possible (but unlikely) that Chorus might choose to compete against Northpower for this small town.

It's likely that this element will boil down to those territorial authorities that already have investment in LFCs (Enable, North Power, possibly UltraFast) may be tempted to put additional investment in and essentially negotiate directly with their own operator to extend beyond the 80% in their own region.

## Questions and Possible Alternatives

Is the focus on competition between suppliers and between local authorities going to be effective?

Given the 35 most likely towns to be covered by the increase to 80% have largely already been determined should that be made clearer to avoid unnecessary compliance or bid costs for other towns?

All other things being equal is it not likely that specific cost factors associated with supply and network design will dominate decisions; for example, the cost to Northpower to supply Kaikohe (population 4380, included in the current list) may be significantly more than the cost to Chorus of supplying Balclutha (population 4060 and outside the current list).

There are also questions about the population of towns and what the actual UFB coverage might be within those towns. Some small towns may be reasonably densely populated with a reasonable number of standard connections others are thinly populated, with few standard connections, making fibre deployment more expensive and uptake less likely.

Finally, the difference in population between towns at the bottom of the list is marginal and potentially subject to change depending upon local economic factors. For example the difference in population between Westport (in the list) and Balclutha (outside the list) is 50 people.

The only people who will have detailed knowledge of the cost factors that will likely dominate decision are Chorus and LFCs. The Government has already listed 35 towns as likely candidates. Wouldn't it be simpler, much more efficient and avoid unnecessary costs if the Government extended the list to say 50 or 60 towns and asked the suppliers to provide quotations for cost and population coverage for those towns? The line could then be simply drawn at a point where the available funding was of maximum benefit. This would maximise competition between suppliers but minimise competition between local authorities. If any territorial authority involved refused to comply with resource consent or reasonable access requirements they could be removed from the list and the next town elevated. Options for local authorities to invest in suppliers in their region in order to reduce the supplier's costs will be unaffected.

## RBI2

The RBI2 is likely to be the most contentious area to evaluate and potentially the most expensive to supply with the smallest returns, because of the extended areas and smaller population base involved. It is also the area where potentially small wireless operators might be able to compete in providing a service to a local community.

Compounding this problem is anecdotal information that we have to hand that the first tranche of the RBI has not necessarily met the expectations of rural users and that the underlying policy and standards, particularly the 5 Mbps standard, are insufficient. This could be an expectations mismatch (people thought they would get UFB style broadband but they are getting the RBI service) or it could be a delivery issue – we do not have information available to be certain.

Issues identified by InternetNZ members<sup>1</sup> in respect of the proposed approach, and the experience of RBI1, include the following (which we provide for information of officials, not with an assessment of the accuracy of such feedback):

- the current RBI mobile service is configured to provide mobile voice services rather than broadband;

---

<sup>1</sup> This is a small sample of less than 20 members; nevertheless the views expressed were consistent and indicative that a more detailed evaluation is required.

- the 5Mbps service may meet the minimum standard specified but the expectation was that for large portions of the day much better than the minimum defined service would be available;
- areas that had expectations of coverage have not been covered or have poor coverage due to topography or other interference problems;
- data caps and other costs make the mobile broadband service expensive.

A potential problem that RBI 2 is likely to encounter is that rural local authorities are generally very large – they may have a town that is covered under the UFB and other areas that are already covered by RBI1.

We are aware that MBIE have produced a data set for territorial authorities to identify a community or communities in its district that are a coverage blackspot and that may benefit from an expanded RBI programme. For full disclosure, we should note that MBIE have asked NZRS, a subsidiary of InternetNZ, to make this data available to territorial authorities through the NZRS Data Service. That data set could be very valuable as a cornerstone of an evaluation of RBI 1. Having used the data set to identify potential communities that are uncovered or insufficiently covered it is difficult to see on what basis a territorial authority would or could choose one of its communities over another and what indication the territorial authority/community would have about the likely cost.

The potential areas of territorial authority involvement are the same as for UFB2 although beyond the generic consents process and ID of suitable infrastructure it is unlikely that there will be support for territorial authority investment or demand aggregation.

The criteria upon which the Government will consider areas are:

- quality broadband infrastructure is unavailable (i.e. less than 5Mbps);
- unmet demand for broadband is high; and
- potential for social and economic benefits in the area.

The second and third criteria are particularly subjective and the first is likely to be unreliable across a large area. In regard to the second, in our view it should not be assumed that local authorities' submissions detailing demand side requirements will be an adequate substitute for a proper evaluation.

There has been some discussion of whether a review of RBI1 should be done before RBI2 is finalised and commenced. InternetNZ does not take a position on this question. We can see that:

- the possible benefits of a review by officials that looked at the outcomes of RBI1 and to see whether there are lessons that would help make RBI1 more effective;
- that officials in their monitoring of RBI1 may have already taken heed of lessons learned in designing RBI2;
- that the government has made a clear commitment to RBI2 – a commitment we support in its ambition of increased investment in rural broadband infrastructure;
- the increasing importance of improved broadband capacity and the desirability of rolling out RBI2 as quickly as possible; and
- that a review of RBI1 could delay the rollout of RBI2.

If a review of value could be conducted in a timeframe that would not delay matters, and would provide information to help improve RBI2, then doing so would seem reasonable.

If the government is of the view that it has taken looked for and absorbed lessons from and progress of RBI1 and is confident in proceeding with RBI2, then that would also seem reasonable.

InternetNZ doesn't have a view either way on this question - it is a matter for the government.

### **Questions**

Should an evaluation of the underlying policy and standards for rural broadband and telecommunications be undertaken, as discussed immediately above?

We note that the review of the TSO undertaken in 2013 has not been published - does that review give any insight into the requirements for rural broadband (and if so, will its findings be made public)?

How are the rural communities that will benefit from this initiative going to be identified and how will fair decisions between communities be made when decision criteria are so subjective? The basis of the UFB2 project is relatively clear; it is predominantly a matter of the greatest population coverage for the available funding. In contrast the RBI2 initiative has no such objective measures.

Mobile or wireless networks which are likely to make up much of the RBI2 initiative are not population based they work on a basis of the geographic coverage from a cell site or wireless tower. Communities do not neatly fit into coverage areas, in a rural area a well-placed cell site might cover a number of disparate communities but exclude other communities close by that are shadowed. Some communities or parts of communities may be served by Chorus copper services which could be more efficiently upgraded to meet the minimum threshold - however rural communities often value mobility for other reasons. How are these factors taken into account?

The size of the communities that are being considered are very small, they do not have access to (or potentially knowledge of) the coverage/blackspot mapping data set, their means of applying will be dependent upon their local authorities which otherwise have little responsibility for telecommunications services. How are applications from different local authorities going to be weighted to take account of significant variances on subjective criteria?

The 5mbps standard is highly variable depending upon distance from copper cabinet or wireless tower, time of day, interference and other users. Decision criteria such as unmet demand and potential for social and economic benefit are particularly difficult to measure. It is likely in such circumstances that the process will be extremely inefficient and costly and potentially unfair. How can this inefficiency and potential unfairness be ameliorated?

As with the UFB and mobile blackspot initiatives the best source of information on coverage and costs of supply are likely to be suppliers and in most cases they are likely to be potential competitors for funding but they also face difficulties. Chorus can identify individual customers while mobile and wireless operators can only identify coverage areas and the number of potential customers in those areas. The quality and consistency of service and the demand for these different services is highly variable - how can such variance be moderated?

There are two components that suppliers have to take into account when bidding the government subsidy and the revenue earned from providing the service - should the price of the

RBI service be regulated? In a similar vein, should a successful supplier be required to assume the TSO obligations?

### **Possible Alternatives that could be Considered**

We appreciate the Government's commitment to improving rural broadband and the difficulties it faces in balancing competing priorities within a limited budget. There are a range of alternative approaches that could be considered, though the evidence base for decision-making isn't fully visible to us (and the review matter discussed above could in part be resolved by whether any possible findings would help with this matter).

Some alternatives might have better defined and objective measures that are easier to evaluate. Others might ensure that the greater part of the funding went towards providing service rather than administration and compliance costs. Different alternatives would possibly suit different communities but all would benefit from wider consultation – particularly consultation directed at the relevant communities.

We consider the following alternatives could be considered:

**Demand side driven initiatives.** These for example might require a community to apply for say a 50% contribution towards the cost of providing a service. This would incentivise the community to choose the most cost effective and responsive supplier in their location. The community would be responsible for contracting the supplier.

**A broadband TSO supplier of last resort.** Require Chorus (the current TSO supplier) or another supplier to provide a minimum 5mbps service to the current TSO catchment in return for the \$100M – they could choose to sub-contract mobile or wireless providers to do this for them.

**Supply side competition.** Solicit bids from Chorus, Spark and Vodafone (and possibly a consortium of wireless providers) for what exactly they would provide in return for the \$100m.

### **Digital Enablement Plans (DEP)**

These plans are to be developed by territorial authorities. They are not explicitly part of the RFI process, alternatives are permissible, but a DEP would seem to be advantageous to any bid made by a territorial authority by for example identifying potential social and economic benefits. Completion of a DEP will not guarantee a territorial authority bid will be successful and in many respects DEPs can be regarded as a separate exercise. The output of a DEP is an outline of 2 – 3 feasible projects for community enablement and 2-3 for business growth in the first year – none of the examples of projects identified include UFB or RBI bids.

One concern we have about connecting DEPs with the RFI process is that DEPs will almost certainly identify (and possibly generate) demand that a minimum 5 Mbps service is unable to meet. This isn't to say that DEPs are not valuable in their own right. The major benefit of completing a DEP for a district is likely to be raising awareness of the benefits of digital enablement among the community and identification of how the community can best contribute to its own digital enablement. The downside is that they may cost a significant sum to complete and will raise community expectations that the territorial authority will then have to deal with.



## **Conclusion**

We offer this input in good faith to assist officials and Ministers come to the best possible set of decisions regarding the implementation of RBI2, UFB2 and mobile black spots commitments.

We are happy to expand on any matters if that is of assistance.

For InternetNZ

Andrew Cushen

Work Programme Director

[andrew@internetz.net.nz](mailto:andrew@internetz.net.nz)

1.