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Ministry of Economic Development  
PO Box 1473  
Wellington

Attention: Mr Reg Hammond

## **Woosh Response to Broadband Infrastructure Funding Proposals**

### **Background**

Woosh Wireless Limited is generally very supportive of the proposals and criteria contained in the Ministry of Economic Development's (MED) documentation for carrying out applications to the Broadband Investment Fund (BIF).

As a commercial enterprise we believe Government's current plans to allocate funding to assist in speeding up the roll out process for more accessible broadband at minimum proscribed capability and speed are a necessary and welcome boost to New Zealanders' expectations on broadband services.

As a general observation on the criteria it is Woosh's view – despite a passing reference to other technologies including wireless - that the BIF process as outlined, has a rather narrow focus on fibre optic technology.

Our view is that wireless technology based on a WiMax platform has an equally significant role to play in enhancing broadband services in New Zealand and should be given far greater consideration for assistance under BIF than appears to be the case now.

For example the entire Urban Criteria and discussion is focused on ducting and provision of dark fibre with little apparent thought given to the delivery of service.

In the Rural Criteria it seems to be a given that fibre is the best option for provision of rural services without consideration of any alternative for areas of difficult geographical access or consideration of provision of services beyond the last mile in rural locations.

The stated aim of the BIF process is for parity between urban and rural services. That is an unlikely outcome, in the shorter term – up to five years – if the focus remains on creating extensive national fibre optic networks to service rural communities.

While wireless networks and particularly WiMax-based platforms have not so far figured in discussions in New Zealand it should be noted that WiMax networks are

currently being rolled out in 260 locations in 110 countries around the world at an estimated investment level exceeding US\$30 billion.

Major international operators such as Nextel/Sprint down to network providers in developing nations are using this technology. Both the US and French militaries are also considering it for their frontline operations. It is mature, proven and readily applicable to the New Zealand market.

There are four other points Woosh would make as general comments on the process:

1. Applications must be closed as there is very specific commercial information likely to be contained in any application that has the potential to undermine competitive positions in the provision of services to end users. We feel this is particularly the case when comparing pricing structures between technologies.
2. There needs to be greater clarity on where the funding is assigned. It remains unclear to Woosh if the funding will be assigned to a local authority to then work with a broadband provider, or is it allocated directly to the broadband provider.
3. A decision on the regulations surrounding co-location agreements is vital to the success of the initiative.
4. The Resource Management Act needs to be given a clear set of consistent guidelines and criteria for local bodies to consider when reviewing applications from broadband providers. Consistent application of the Act by local authorities should also be accompanied by a mandated process to speed up timing of consideration and therefore implementation.

### **Urban Criteria**

As noted earlier Woosh's most significant issue with the criteria for BIF assistance in urban areas is the omission of a role for wireless technology, especially in leveraging the benefits provided by fibre networks further into the community.

There appears to be a "fibre myopia" in the provisions that prevents looking beyond the provision of ducting and dark fibre.

Of course the actual provision of the infrastructure is vital to achieve the enhanced economic benefits the industry and Government believes can come from high-speed, high capacity and capability fibre networks.

Infrastructure development – the focus for BIF – will get fibre to major users and to a node on a residential street. But what about reach and applications beyond that point?

Woosh believes more consideration needs and can be given under BIF assistance to the end-user applications and community benefits that are also attached to the provision of such infrastructure networks in an urban setting.

Cost is the most significant constraint on greater community uptake of broadband access and services.

In urban situations wireless needs to be considered for funding assistance in order to create the added value of mobility and portability. Wireless technology on a WiMax

platform can be the last mile option that is introduced much quicker and at considerably less cost than fibre to the home.

### **Rural Criteria**

Perhaps the greatest potential for wireless is in the rural setting.

WiMax-based platforms have a maximum capability of up to 40kms coverage providing there is direct line of sight in truly rural areas.

For example a co-location arrangement on the existing site on the hills above Te Aroha would potentially provide broadband access to most of the rural towns of the Waikato. Gisborne is also an example of a relatively isolated location in terms of existing infrastructure where wireless may well provide a quicker answer to the problems of accessibility.

That gives rise to the argument on the necessity for fibre at all if wireless broadband can provide speeds and capability to match likely demand in these areas. A WiMax-based platform can provide rural users with parity of service and cost to their urban counterparts.

To provide the 96% coverage that Woosh has in Southland would cost around \$10,000 per home for a fibre optic network compared with around \$300 per home now.

There will also always remain pockets of New Zealand that are geographically impossible to reach and will require satellite services for broadband access.

However, Woosh is currently finalising plans for a comprehensive 500-site plan that will provide good quality WiMax based wireless access to 76% of all New Zealanders. Construction of such a network provides coverage to all rural centres with a population of more than 5,000 and is feasible within two years.

With assistance from BIF it is feasible to reach the majority of the remaining 24% of rural dwelling New Zealanders within just another two years.

Our responses to the questions raised in the MED document on Rural Criteria are:

1. We agree with the proposed outcome of the Rural Fund providing it is used to give assistance in funding to give broadband access to areas of the country that would be otherwise be uneconomic to offer such coverage and services.
2. Voice over Internet Protocols (VOiP) are already available on services of 1Mb i.e. Southland; and would be part of any future service providing this level of capability.
3. Distance is an issue for both cost and coverage in rural areas and there may be some locations where it is unrealistic to provide parity with urban services. That should be recognised and as noted earlier there will be areas of New Zealand where satellite is the only option available. However if 1Mb is set as the minimum standard for parity between urban and rural users then wireless broadband is a viable option.

4. With the exception of businesses and applications requiring the movement of excessively large amounts of data, wireless/mobile solutions can provide the required levels of broadband services. As an example more than 100 schools in Southland subscribe to the existing Woosh Wireless network and wireless, having already evolved into WiMax, will continue its evolution over the next 5-10 years. Wireless is also a far more economic solution than fibre optic cable in these rural settings.
5. Woosh believes open access to infrastructure is appropriate but only at a commercial return. Providing infrastructure represents a major up-front cost to the commercial sector with typically long time frames before generating a commercial return. We accept there is obviously Government assistance available in creating such a network in previously inaccessible areas but there would still need to be acceptance of an agreed commercial return for the commercial operator willing to take the initial risk.
6. Flexibility is a given for Woosh. We would not see a need for percentage weightings on certain criteria nor do we believe it is desirable.
7. Our view is that if an applicant has the resources and capability to provide a scale of coverage that won't otherwise exist, then why limit the available assistance? The proposed \$500,000 cap will lead to a piecemeal and ad hoc approach to providing rural services. Such a cap would encourage providers to compete and cherry pick areas that will provide a larger market and more ready return on their portion of the investment. That appears detrimental to the overall goals of the BIF initiative.
8. Woosh does not have a view on a specific level of assistance to applicants to the fund. If funding or other assistance is available we'd utilise it but we don't see it as a required part of the process.
9. The proposed timeline for applications is ample.
10. This timing creates no issues for our own internal planning.

Queries regarding this submission should be forwarded to:

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