Universal Service Obligation Review
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GENERAL RESPONSE

The Telecommunications Universal Service Obligation (USO) was established by the Commonwealth Government to provide standard fixed voice telephone services, public telephones and disability related services to all Australians, by then Telecom Australia, then a wholly government owned department, which is now Telstra. Since that time telecommunications technology and capacity has significantly changed and the rise of the Internet has seen a requirement for data, in addition to voice services.

There are a number of related issues including the following:

1. The ageing Telstra Rural and Remote Customer Access Network.
2. The retention of the Rural and Remote CAN for voice for NBN Satellite customers.
3. Constantly increasing requirement for data download and higher data speeds.
4. The need for equivalence of service between metropolitan and country areas.
5. While mobile phone coverage is increasing it is not, and likely to be, universal.

I will detail these issues below:

1. If one looks ahead to 2030, it is highly unlikely that copper and radio concentrator infrastructure that currently comprise the rural and remote Customer Access Network (CAN) will still be in service. The copper network will be over 50 years old and the HCRC networks will be over 30 years old. The copper network is already being abandoned by Telstra as services are migrated to NBN and fixed mobile services used to permanently replace faulty copper. The HCRC network is being cannibalised for spares as the HCRC product is past end-of-life. This must be considered by the review.

2. While the ageing copper network is being decommissioned wherever NBN FTTP or Fixed Wireless is being deployed, it is being retained for FTTN and for the rural and remote CAN to provide voice services where NBN Satellite is being deployed.

3. The USO for fixed voice and 64Kb/s data was established when dialup data was the typical access to the internet. It must be amended to reflect the increasing requirement for data download and higher data speeds.

4. Since the advent of ADSL there has been a growing divide between the data speeds provided over telecommunication services available to cities and towns, compared to rural and remote areas. The data speeds available to rural and remote customers should be the same as those to cities and towns at an equivalent price.

5. Mobile coverage is increasing, but it is not universal, and is not likely to be. Also the data speeds and voice quality provided over mobile networks can vary markedly compared to fixed services, even in metropolitan areas, depending on congestion, topography and distance from the base station.

Technology Options to provide the USO (Fixed) telecommunications service

There is no such thing as technology-neutrality or technology-agnosticism. The physical technology deployed to a customer dictates the quality and capability of services that can be provided to that customer.

It is strongly recommended that the Productivity Commission have a vision of what the Australian rural and remote network should "physically look like" in 2030 whilst making any recommendations regarding the USO.

A brief analysis of the technology options available to provide a telecommunications service follows.

Satellite

All geostationary satellite services are subject to high latency, weather effects, and sunspot activity which make NBN Satellite a substandard service compared to other fixed services. Hence NBN Satellite should not be considered as a candidate for providing fixed services to all but the most remote of locations, typically islands and other extremely remote locations.

Copper

Limited range of high speed data, typically 1km for a 100Mb/s VDSL service. It is also prone to faults and lightning damage in rural and remote areas.

Fixed Wireless (WIMAX)

Limited range of high speed data. Also affected by topography, trees and other structures.

Mobile (2G, 3G and LTE)

Data speeds provided over mobile networks can vary markedly compared to fixed services, even in metropolitan areas, depending on congestion, topography and distance from the base station. Mobile telephone voice quality can also vary significantly. Hence Mobile is not a suitable technology for a fixed telecommunications service.

Optical Fibre

100+km range of high speed data. Not prone to lightning damage or less prone to faults than copper. Less likelihood of congestion. Scalable to very high data speeds.

Recommendation for standard fixed telecommunications service

In my professional opinion, optical fibre should be the long term preferred physical technology to replace the rural and remote CAN, to deliver fixed telecommunications services to all but the extremely remote locations.

The question is whether who should fund this, who should own this, and how much should the customers contribute, to deliver the optical fibre to all fixed services in Australia will take a number of years, probably 15 years.

RESPONSES TO THE TERMS OF REFERENCE

1. What objectives are appropriate for a universal service obligation arrangement or its equivalent:

The objective should be as follows:

a. Provision of voice telecommunications service either switched or VoIP conforming to International standards.

b. Provision of a universal data service with minimum 25Mb/s download/5Mb/s upload, with future capability to download at 100Mb/s or greater.

c. Emergency calling and location identification.

2. What would be the scope of the services needed to be provided to achieve those objectives:

a. Telstra should be phased out as the provider of USO (fixed) services. Payphones should no longer be subsidised, as they are outdated and little-used product..

b.. NBN should be the preferred last resort supplier. Optical fibre should be the preferred technology to deliver fixed services. Other carriers should be encouraged to build open access optical fibre networks that can be used by NBN.

c. Emergency 000 call centres should be transferred to each state's Police Service or Fire and Rescue Service. Similarly, Disability Services (National Relay Service) should be transferred to a Disability Service department (state or federal).

3. Whether particular sections of the Australian community have differing needs to which additional Government intervention should be directed e.g. low income, rural and regional.

a) Rural and remote areas require intervention.

b) Rural areas should be provided with an optical fibre to the boundary service as a fixed service as a minimum. However, the property owner should be fully liable for all costs to provide the service within their property boundary. A subsidised, NBN resold fixed mobile telephone service can be provided as an interim fixed service where there is mobile coverage, but only after the customer has paid for or installed the all telecommunications pipe on their property for their future fibre service.

c) Metropolitan areas and Regional areas (towns and cities) should be provided with a NBN Fibre to the pit service as a minimum fixed service. The property owner should be liable for all costs to provide the service within their property boundary. The customer should fund all communications pipe within the property, similarly to other utilities such as water and underground power.

4. Who should bear cost or regulatory burdens from those interventions, if any:

The savings from not providing the on-property section of all fixed telecommunications services are significant and can be redirected to provision of rural services over optical fibre.

One transition model that will provide Telstra (and other carriers) with alternative income is use of Telstra fixed mobile in lieu of copper or radio. The cost savings of not maintaining copper and possibly HCRC can be passed back to Government. These savings could be diverted to Mobile Blackspot Funding in more remote areas to provide interim fixed services in addition to Mobile coverage.

5. The optimal funding model(s)

NBN should fund the cost of providing fibre to the pit and fibre to the pit for rural and remote customers, and factor these into their charging model.

Detailed modelling would need to be done to determine the cost of delivering fibre (with customer funding the on-property component) versus current NBN wireless or satellite technologies to determine the level of cross-subsidisation required. Ideally the cross-subsidisation should be minimised.

SUMMARY

The USO is not just about a last resort supplier of fixed voice services. It is about the standard of fixed telecommunications services to be provided to all of rural and remote Australia.

If the government does not provide mechanisms to provide equivalence of service to all rural and remote Australians, it will have failed rural and remote Australia.