

# Mobile Coverage Programme Discussion Paper

## Submission Cover Sheet

### Submission Information

This cover sheet should be attached to submissions made to the Department of Communications in relation to the Mobile Coverage Programme Discussion Paper.

#### Contact Details

Name of respondent: **Jeffe Aronson**

Name of organisation:

Phone:

Email:

Website (if applicable):

Date: April 28, 2104

#### Confidentiality and privacy

All submissions and comments, or parts thereof, will be treated as non-confidential information unless specifically requested, and acceptable reasons should accompany each request. Email disclaimers will not be considered sufficient confidentiality requests.

Respondents lodging a submission should be aware that submissions (excluding any information agreed to be treated as confidential information) will be made publicly available, including on the Department of Communications' website. Submissions and comments will be subject to freedom of information provisions. Despite a submission being identified as confidential or sensitive, submissions may be disclosed where authorised or required by law, or for the purpose of parliamentary processes.

Do you want all or parts of the submission to be treated as confidential? **X No**

*If yes, identify below which parts of the submission are to be treated as confidential (and provide a reason):*

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If the submission contains personal information of any third party individual, indicate on this Submission Cover Sheet if that third party individual has not consented to the publication of his or her personal information:

#### Submission Instructions

Submissions are to be made by **5:00pm (AEST) Friday 28 February 2014**.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text-based formats via the email address [mobilecoverage@communications.gov.au](mailto:mobilecoverage@communications.gov.au)

Alternatively, submissions can be sent to the postal address below (to arrive by the due date):

The Manager  
Mobile Coverage Programme  
Department of Communications  
GPO Box 2154  
CANBERRA ACT 2615

All submissions lodged will be acknowledged by the Department of Communications by email (or by letter if no email is provided). Respondents lodging a submission who do not receive acknowledgement of their submission should contact the Department. Submissions which are not acknowledged by the Department as being received may not be considered. Respondents should be aware that emails greater than 10Mb may not be successfully delivered.

## **To Whom It May Concern, Regarding the Mobile Coverage Programme:**

I believe our area of Anglers Rest, Victoria meets the criteria required for both components of the programme. We have poor 3g mobile coverage, which consistently drops out due to everyday local and tourist use. While the quality is adequate when we do have coverage, frequent loss of signal during daily peak times, as well as during local events or holidays, makes it very unstable a substantial amount of the time. As this area is a major tourist attraction, tourism is greatly affected.

- The Omeo Highway and Great Alpine Road are major transport routes, in fact the only routes, for logging, tourism, motorbikes, campers, and travelers going from the Bairnsdale/Princes highway/Victorian coastal area over the mountains to Albury-Wodonga and New South Wales.
- These roads are a major tourist route for caravans, campers, motorcyclists and bicyclists using the Bogong High Plains road, Omeo Highway, Great Alpine Highway, and off-roaders, hikers, and fishermen visiting one of Australia's largest national Parks: The Victorian Alps, and two popular ski areas: Mt. Hotham and Falls Creek. Many of these tourists have said they would stay an extra day or two if there was adequate mobile coverage.
- We are prone to natural disasters (the '03 fires destroyed 2.5 million acres surrounding us).
- We have unique coverage problems, including being a very small and spread-out community, amongst mountains and valleys that block signals from the Omeo tower, and having had the experience of losing our land lines during emergencies such as the '03 fires (see note\*), with no backup mobile coverage, as well as frequent loss due to lightning, and random digging and dozing.

Travelers and families on holidays represent a huge seasonal increase in demand. Programme information includes a question regarding how to assess tourism load criteria. I would note that a lot of the high-season tourists in our area do not utilize typical accommodation, but rather camp out or live in their caravans outside of caravan parks, as well as travel through on several very popular motorcycle loops through the mountains. It would be difficult to count these user's demands using your criteria of motels/sites/rooms/cabins, or caravan parks, because these travelers often use the Alpine National Park campgrounds.

Based on the information provided herein, I implore you to consider our communities for this programme.

## **Our Personal Experience:**

We love living on the property we bought in 2000. We built a self-sufficient home on twelve acres, powered by a micro-hydro in the Bundara river, plus solar. Obviously, it was our choice to live remotely, thus our responsibility to deal with the challenges as well as the benefits. One of the challenges in a remote area of course is how to make a living. Other challenges include bush fires (we stayed and defended our property during the huge fires of '03\*).

People living in bushfire-prone areas have a responsibility to prepare well, and we believe that our lives were saved due to our efforts and expenses. We remain prepared should it happen again, but unlike the last time, hope to have some way to communicate with the outside world should it recur (see note).

In regards to making a living, my wife managed the kitchen at the local pub (the Blue Duck) for the first few years of construction of our property, and I guided Australian rivers and taught river rescue. As a result of the '03 fires, tourists, bikers, fishermen and river holiday-ers were dramatically reduced. Also, the emotions surrounding such a close call and living in such a blackened and devastated area convinced us to expand our horizons, if only temporarily. Since then, my wife has landed a well-paying job elsewhere, and after years of hard work has finally achieved a position within the company to allow her to work remotely. This allowed us to return home to Anglers Rest. She is probably one of the few locals who is thus able to bring in a fairly good, stable income via the internet, which is not related to local farming or tourism. Having a stable, reliable broadband internet service is a critical component of her job, but it also could attract others, thus significantly adding to the local economy and tax base.

As a result, we have spent several thousand dollars and a great deal of time over the last couple of years investigating our broadband service options, installing hardware, contacting technicians for help, and upgrading our home for Telstra's mobile coverage, which remains our only option other than satellite. Since VOIP, or Voice Over Internet Protocol, does not work on satellite internet due to latency (echo) issues, it is not an option, so our only choice was to go with Telstra Wireless broadband. Thankfully the signal reaches us in the Bundara valley, even if very spotty.

We require their largest plan, which costs us nearly \$200 a month. It seems quite a few other locals have done the same, though with less expensive plans, while still others rely on satellite. Those on satellite do not need VOIP or Skype calls, and are content with basic email and web browsing. However several do also run businesses on satellite broadband. In either case, this is income that otherwise would not be possible, which boosts the local economy. Prior to internet service here, the only options for income in our area were to farm, to drive the half-hour to Omeo to work in one of a tiny handful of small shops, work for the local pub or the one or two other businesses offering accommodation, or to have other sources of income or be retired. All of these occupations are worthy of our respect and require hard work and dedication, however, we are not all cut with the same cloth, and with the advent of the internet, rural opportunities and horizons become endless.

Not only could we have more contact with friends and family in the outside world, but we could also do our research online, check weather and fire warnings, save hundreds in petrol costs and hours of time via online banking and bill paying, buy or sell

all sorts of goods and services from food to construction materials, and from Doctor's visits to property rates, and, of course to do business. The local businesses that I am aware of that now exist online include: a wool shop, an eBay seller, a high-end lodge, horse rides, and millions of dollars in sales for a world-wide tourism agency specializing in river trips. None of these businesses could exist without the internet, and we are just the beginning, the tip of the iceberg. Already we add literally tens of thousands of dollars to the tiny local economy, and this could easily become millions. As long as we have the internet.

Unfortunately, our challenge is consistent, reliable service. This does not yet exist.

First of all, calling Telstra for help with a fault results in hours of hold time, countless call transfers and having to repeat the same information over and over. Numerous call center representatives simply put the blame for the problem on you. If one has a great deal of extra free time, or is persistent enough to get the call elevated, even then the representative is mostly customer relations rather than technical help and based in Malaysia or some other overseas call center. Either way, once again you are required to repeat the same information. Finally, after many wasted hours, at level 2 you might get some relief, or not. The same thing has been happening for months, to numerous households in various areas using different equipment.

In any case, the ultimate answer is always the same: we're in a remote mountain area, and are extremely unlikely to get our own tower, which is apparently the only solution. Most people I know have given this frustrating occupation up.

### **Technical information:**

We have had a Yagi antenna attached to our roof for three years. Through last year it was on a temporary base during testing of heights and directions. During that time our Ping time was in the 50 to 70 milliseconds (ms) range, download speeds ranged from .35 to .75 megabits per second (mbps), and uploads from .2 to .4 mbps. Not very fast, but workable, even with my wife's VOIP phone and controlling her computer in California via VPN (Virtual Private Network). The Received Signal Code Power (RSCP) was around -98, which is usually classed as no signal, but clearly was working for us when there was no congestion. Last year we installed the Yagi permanently, with a thicker cable that reduced interference. This improved RSCP to -92 to -96. Our Pings still averaged around 50-70 ms, downloads improved to a range of .75 to 1.4 mbps, and uploads from .4 to .6 mbps. However, we would lose service daily, during times of day correlated to heavy use: 7 am until 10 am, 4 pm until 9 pm, weekends all day, and during holidays and local festivals. Up until last year these interruptions to work were difficult but manageable. However this last year (June 2013 until present), the interruptions have become much more frequent, and resulted in frequent total losses of signal over and above major slowdowns. This seems to be directly tied to greater local use of smartphones. As a result, [REDACTED] from Telstra Countrywide, who has been a great help to many of the people in our area, got an upgrade to the Omeo tower (on Mt. Sam), to accommodate the best 3g pipeline possible\*\*. Unfortunately, this has not cured the bad reception due to

congestion. The good news is that when we are getting reception, we now get good PING times of 40 to 50 ms, and have increased download and upload speeds to 4.5 mbps and .6 or .7 mbps respectively. Our RSCP ranges from -90 to -96, and our quality (EC/IO) usually ranges from -9 to -11, all just fine. The problem is that our service now completely goes out during the heavy use times noted above.

For example, there were an estimated 3,000 people at last weekend's Cattleman's Festival at Hinnomunjie. People we talked to at the event said they were unable to get emails on their smartphones, and many were even unable to make a voice call. Considering the fires we endured back in 2003, one can imagine what is likely to happen next time there's a fire. While in those days most people only used their phones for voice calls or texting, smartphones have changed the world, and even during off-peak times people often leave FaceBook and email open on their phones (even when asleep), and kids will often watch YouTube videos, or listen to internet music or radio at all hours. This means constant and exponentially growing usage, even if the local population doesn't change. We had no internet whatsoever for the entire three day festival. Even during "normal" times, my wife has resorted to waking up and starting work at 2 a.m. I'm not sure how long she can keep that up. She also had to use up 3 days of her holiday time at work due to this recent outage.

My understanding is that our modem starts dropping data packets when there is heavy local usage, because we are so far away (10.5 kilometers). The tower sees us as a bad connection, and shuts us down to concentrate more power to the closer voice users, forcing us to constantly run upstairs to reboot the modem. Apparently this tricks the tower into thinking we're a new user. During extreme usage like during the Cattlemen's festival, this didn't work for more than a few seconds at a time before shutting us down again. I asked a Telstra level 2 technician about a modem that wouldn't drop packets as easily, but he explained Australian standards meant we wouldn't find one. I also asked if there was a way to program the tower to keep a certain level of service to one or two specific tower cells, but apparently that was also not possible.

## **Conclusion:**

Everyone we've talked to that is using wireless is having the same problem. It seems that when the use in Omeo rises, the signal simply no longer reaches the Anglers Rest area. As more Omeo people get smart phones, and when there's a lot of tourists, visitors, motorcyclers, campers, firefighters, etcetera, we're out of luck. We want more tourism and tree-changers to improve the economy, but like more road damage or accidents, this also brings its challenges.

The only possibility seems to be a closer, greenfield, solar-powered tower. With little or no coverage in an extremely remote area like ours, where we have a lot of motorbike accidents, car breakdowns, catastrophic fires, festivals, campers, etc., it seems there is a real need, despite the small permanent population. With good broadband a lot of us could make an alternative living. Also, others would consider moving here if they could keep their jobs and work remotely. If the dozen or so local households currently trying to utilize what limited mobile wireless broadband service we have could make even a small income, even just that could potentially add

millions to the local economy. Just as critically, many tourists have stated they would have stayed longer, adding greatly to the local economy, if they could just connect.

\*'03 Fires Note: See video: <http://www.youtube.com/watch?v=kAMjSBak7I>.

We completely lost our land lines during the '03 fires, and also lost mobile coverage due not only to the huge increase of local people trying desperately to get through to emergency services, but also due to the huge influx of emergency personnel and their communications needs. Since all roads in and out were closed due to downed trees, we were completely cut off from help, services, food and escape for days.

Just after the conflagration passed over our heads, I had to drive over ten kilometers back towards Omeo, chain-sawing smoking, downed trees the entire way, in order to get a mobile signal and contact emergency services. I don't think anyone would think this safe or acceptable. Emergency crews now have mini cell towers that can be dropped in a fire area during an emergency, however they only have a very small footprint, and will not work in our mountainous area.

\*\* Apparently, even though 4g has higher speeds, it has a shorter range because of its higher spectrum, and thus wouldn't work for the 3 little communities of Anglers Rest, Shannonvale, and Glen Wills.

We have heard that Telstra is purchasing analog TV spectrum for a newer generation 4g with lower spectrum, which translates to longer distance reception. But it is in the planning stages and years away.