30th May 2025

Director, Mobile Investments –
Roads & Resilience Communications Services & Consumer Division
Department of Infrastructure, Transport, Regional Development, Communications and the Arts
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Consultation on Program guidelines for the National Regional Roads Australia Mobile Program

OneWiFi & Infrastructure (OneWiFi) welcomes the opportunity to contribute to the consultation on the National Regional Roads Australia Mobile Program (RRAMP) guidelines on grant funding to increasing multi-carrier mobile coverage on regional highways and roads to improve safety, strengthen economic growth, improve social connectivity, and support regional development.

OneWiFi considers that the grant guidelines issued to participants for application of funding under the Mobile Blackspots Round 8 represent a good baseline for program guidelines for the RRAMP. Based on the considerations detailed in the consultation paper, we understand that the Department already has the Round 8 Guidelines in mind for RRAMP.

OneWiFi is firmly of the view that RRAMP funding should be strongly prioritised for the delivery of multi-operator services, either as new coverage or leveraging existing coverage.

To the extent RRAMP complements the Government's commitment to the Universal Outdoor Mobile Obligation (UOMO), OneWiFi considers UOMO would be facilitated through implementation of RRAMP infrastructure, and we also recommend that RRAMP sites should be made ready to support future PSMB services, noting that many of the emergency services users will need to traverse these highways and roads.

Threshold Questions

What is the need for terrestrial mobile coverage on regional and remote highways and major roads in the medium- and long-term?

Users of regional and remote highways are particularly vulnerable to the impact of poor connectivity in the event of a medical emergency or vehicle breakdown or for enhancing regional productivity. For instance, in a recent ABC article published, **Farmers call for policy reform across multiple sectors as productivity collapses** (ABC article), highlights the broader economic stakes:

"Often our productivity is held back by a lack of really good infrastructure... If farmers had adequate phone and internet access, they would contribute an extra $20 billion to the economy.".

Therefore, delaying addressing these issues results in economic and social loss.

Despite claimed mobile coverage along regional roads and highways by the MNOs, **the actual connectivity experience may vary significantly,** as the formal complaint by TPG to the ACCC regarding Telstra's coverage claims. Please refer Appendix A to this submission for an extract of a

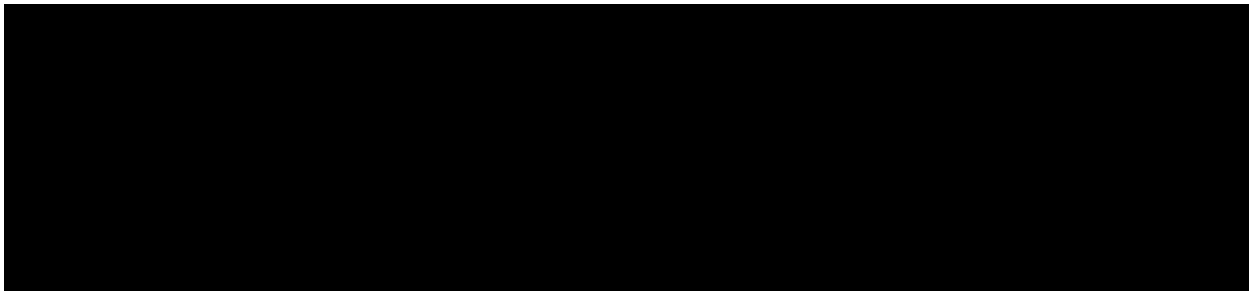
mobile coverage drive test conducted by OneWiFi along several regional NSW highways and roads in March 2025.

The level of coverage will depend on the different categories and the remoteness of roads. OneWiFi, fully recognises that in some cases, ubiquitous coverage may be impractical due to complexity and high cost of delivery.

To what extent will Low-Earth-Orbit Satellites (LEOSats) and direct-to-device (D2D) technology meet this need over the medium- and long-term?
We consider that terrestrial networks are preferred to deliver a superior customer experience, network management, and sovereign control compared to LEOSat. OneWiFi's view is that LEOSat D2D is a potential fallback in the absence of any other connectivity, given the appropriate technical setup, service levels, and commercial structure are met (i.e. a complementary service but not a substitute for terrestrial mobile networks). There remain concerns about affordability (and price unpredictability) of LEOSat services particularly for those living in remote areas who can least afford premium telecommunications services under a D2D model.

At this stage, we believe LEOSat D2D as the connectivity medium for addressing emergency situations still requires further assessment and considerations. There are limited or no service levels offered thus far which can be committed for LEOSat broadband services, and there is very little information to educate on what to expect for D2D when mobile handsets are not provided by the LEOSat operators. Hence, we do not consider that LEOSats can provide a viable solution for all Universal Outdoor Mobile Obligation (UOMO) use cases, to support the service levels likely to be required of a Universal text and voice service D2D in an affordable way that enables the obligation to be considered “Universal”. In addition, to the extent that UOMO might also require service to be delivered in vehicle, a satellite solution is unlikely to work effectively without vehicle external antenna.

However, we believe LEOSats, with the appropriate technical setup and service levels (enterprise or carrier grade), will have an important role in providing transmission for terrestrial mobile and Wi-Fi solutions in remote areas.



To what extent will coverage at locations proposed under the National RRAMP support existing customers, or attract new customers for MNOs?
Where new coverage is delivered, there will be opportunities to enhance consumer choice and service competition between MNOs. Greater competition will result in price differentiation and higher service standards to address affordability and gaps in service quality. The outcome is that any user of a mobile device will have universal connectivity along major highways and regional roads under Active Sharing.

Is there merit in the National RRAMP also funding Wi-Fi hotspots at strategic locations along highways and major roads (as per Recommendation 2 of the 2024 Regional Telecommunications Review Report)?

The proliferation of Wi-Fi Calling has enabled multi-carrier outcomes through a cost-effective, widely adopted, and proven wireless technology in areas where there is no mobile coverage, or highly cost-prohibitive to enable mobile coverage. Wi-Fi at appropriate roadside locations can provide free access to any mobile device users to access the internet, make calls, and access emergency services (e.g. calling 000). Accordingly, funding of Wi-Fi hotspots at strategic locations would be a sensible approach in providing universal connectivity at those locations. Wi-Fi can be deployed in areas with difficult terrain (e.g. hilly, road with many bends, tall vegetation) more cost effectively then mobile small cell in some cases, as well as being more power efficient to allow the use of renewable energy sources.

How can the Government best preference and prioritise active sharing through the design of the National RRAMP?
The grant funding should strongly incentivise active sharing (given most of these routes are 'thin' and commercially non-viable) by covering all capital and operating costs in the event that all MNOs participate. We believe funding should be predicated on active sharing solutions only (including Wi-Fi) and no grant funding should be made available for passive sharing. Passive sharing is uneconomical and does not deliver multi-carrier outcomes cost-effectively (as customers that traverse these routes subscribe to any one of the 3 national mobile networks and none should be precluded from the benefits of this initiative).

New Infrastructure

It is noted that many regional and remote roads do not have mobile coverage, or mobile coverage is patchy or inconsistent. Hence, there is a requirement for new infrastructure to enable mobile coverage for all 3 national MNOs along highways and roads. The scope of the funding will need to address the RAN, passive infrastructure, power, transmission, and also the ongoing costs. New infrastructures for regional roads and highways need to be considered as a 'logical cluster' to further minimise ongoing transmission costs and realise cost economies.

In addition to multi-carrier outcomes, new infrastructure along regional roads and highways can be multifunctional and leverage economies of scope. The Commonwealth may wish to consider the incorporation of other priority applications of benefit to regional communities, such as EV Charging and lighting, to further facilitate infrastructure and cost sharing by complementary use cases (i.e. safety).

PSMB should also be considered for Active Sharing or passive co-location on new infrastructure.

Upgrades of Existing Infrastructure

OneWiFi believes that existing infrastructure should be leveraged as much as possible to enable multi-operator coverage. There is no business case to duplicate infrastructure unless the existing assets are not fit-for-purpose, or the upgrade cost outweighs the cost of a new build.

Would these upgrades provide sufficient incentive for national MNOs to share existing infrastructure?
Existing infrastructure should be leveraged and shared as much as possible under RRAMP. Active Sharing on top of existing towers represent the most viable cost-effectively way to quickly enable multi-operator coverage along regional roads. The program should strongly encourage use of existing infrastructure over new build.

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Thirdly, there needs to be further integration opportunities between transmission electrical utilities and telecommunication infrastructure operators to share enabling infrastructure and ongoing activities to further reduce asset duplication. There are also economies of scope opportunities to co-develop safety and lighting, EV Charging, and telecom infrastructure. However, in many cases, these assets may not be fit-for-purpose (or perceived to be). Further assessment is required to determine the usefulness of utility assets for the scope of RRAMP.

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What other kinds of activities, infrastructure and costs support active sharing, and may be considered for funding?
OneWiFi believes that scope of Eligible Activities under MBSP are generally appropriate for RRAMP. Further emphasis needs to be placed on the concept of 'logical clusters' for regional roads and highways to reduce ongoing transmission costs.

Should proposals for new infrastructure providing services from Optus and TPG, that leverage Optus and TPG's MOCN deal, be considered eligible?

[redacted]

Are there market or technical issues that may impact the construction of new mobile coverage infrastructure, or infrastructure upgrades, on highways and major roads in regional and remote areas? If so, what are the impacts?
Many Roads and Highways pass through National Parks which introduce onerous planning

requirements and special considerations. These need to be made less stringent to maximise outcomes. The infrastructure will need to be at significant (having regard for the environment) heights to maximise coverage along the highways.

Multi-Carrier Coverage

How can the Government best facilitate cooperation between national MNOs during the application stage to ensure multi-carrier outcomes are proposed and delivered?
OneWiFi believes the grant funding model proposed under RRAMP would provide the required fundamental financial incentives if a higher proportion and longer time period of operating costs are covered. Given there is limited commercial viability for MNOs in these locations.

What alternatives are there for applicants to demonstrate, to Government, that multi-carrier outcomes will be delivered (as an alternative to sharing commercial agreements).
In the absence of a formal sharing commercial agreement or a Letter of Intent at the time of submission, simply make it a condition precedent, with a strict timeline in any contract formed with MNIP. By doing so, will prevent gaming by the MNOs, and MNOs with Equity in MNIPs, as Active Sharing is still developing as a model. Given that it is more difficult to get timely confirmation on interest and alignment with future plans from MNOs vs. Passive Sharing. The interplay for Active Sharing is inherently more complex and requires deeper engagement and involvement of different parts of the MNO, which drags out timelines for assessment and decisions.

Are there other market or technical issues that may impact the delivery of multi-carrier outcomes?
There is only a very limited set of technical items to work through to facilitate Active Sharing, to deliver a multi-carrier outcome. OneWiFi has been working closely with equipment vendors, MNOs, and LEOSat operators/partners to test, validate, and resolve minor technical issues. We believe the **technical issues will be fully addressed** in the integration phase.

We hope for a collaborative ecosystem in the near future to address the major coverage challenges in the most cost-effective and rational manner, by putting national and regional interests before self-interest. The approved Optus/TPG MOCN deal and the proposed Telstra/TPG network sharing arrangement have proven technical feasibility and also a willingness to embrace Active Sharing when it is convenient to do so.

OneWiFi further believes that Wi-Fi infrastructure to enable Wi-Fi Calling in strategic locations along

major highways and regional roads can be a viable option to complement Mobile Active Sharing. In some cases where it is cost prohibitive or situated in difficult terrain, long-range Wi-Fi hotspots with renewable power can deliver the desired multi-carrier outcomes, especially to remote Australia.

Eligible Roads

The National RRAMP aims to provide multi-carrier mobile coverage where currently there is no coverage, or coverage from only one provider. With this in mind: - are there any particular roads the Government should consider for eligibility; - are there any roads that are not considered viable for investment?

Of the 20-60 roads under consideration by the Commonwealth under RRAMP, OneWiFi believes the initial consultation should be with the State and Territories, and Local Councils to validate coverage issues, define the problem statement and use cases. We recommend the categorisation of:

- Major Highways – problem statement likely blackspots at selected locations by all MNOs or limited coverage by some of the MNOs
- Major Regional Roads – problem statement likely some coverage by Telstra with no coverage by Optus and TPG
- Small Regional Roads – problem statement likely limited coverage by Telstra with no coverage by Optus and TPG
- Remote Roads – problem statement likely no coverage by all MNOs

Given the categorisation and potential problem statements, submissions to address coverage issues should propose fit-for-purpose solutions (whether Mobile Active Sharing or Wi-Fi) that will deliver the greatest multi-carrier outcomes at the lowest cost.

Should applicants be permitted to propose solutions on roads that are not on the list of eligible roads, provided a good case can be made (for example, using published data from the National Audit of Mobile Coverage)?

OneWiFi believes that applicants should be able to propose roads not on the list if they can substantiate the claim of no coverage and/or received a written statement from the local community or Local Council to validate the claim.

Strategic Locations

In addition to the types of locations listed above, are there any other Strategic Locations which

could be considered?
OneWiFi believes the categories proposed by the Commonwealth to be comprehensive, and agrees the strategic locations should be on an Eligible list/database provided under the program. We assume the strategic locations have been reviewed by the relevant States and Territories prior to release.

Are there any other indicators which can be used to identify a Strategic Location, noting the policy intent of the National RRAMP (for example, distance from a population centre, tourism data, or correspondence from local residents / institutions)? eg servicing isolated GNAFs
OneWiFi believes the strategic locations should be identified and selected based on the demand, level of isolation and other environmental considerations related to an associated road or track.

Grant Funding

We are interested in your thoughts on the potential funding models:

- **To what extent will they incentivise multi-carrier solutions? –**
- **To what extent will they deliver the policy intent of the National RRAMP? -**
- **Are there any further costs which should be eligible for funding? -**
- **Would a grant of 50% of eligible operational expenses for five years incentivise national MNOs to allow other national MNOs onto their infrastructure? -**
- **Does the market incentivise use of MNIP's infrastructure?**

OneWiFi agrees with the option where 100% of the capital cost for MNIP-lead Active Sharing solutions that have 1-2 MNO commitment(s), where the MNIP can onboard another MNO at no additional cost.

[redacted]

OneWiFi believes that 75% funding for passive sharing does not provide the right incentives under RRAMP, to strongly advocate Active Sharing. Furthermore, the Commonwealth will be incurring 75% of the higher costs (under Passive) vs. Active Sharing or Wi-Fi to deliver an inferior outcome.

In most cases, regional highways and roads have limited commercial viability for MNOs other than as an extension to nearby townships. We believe 100% of operating cost need to be covered for a 10-year period. This will enable MNOs to deliver services to these transport corridors.

OneWiFi agrees with the proposed arrangement of no minimum or maximum size of grant funding.

Are there any risks or potential unintended outcomes associated with the proposed grant funding structures?

[redacted]

Operational Requirements

What should the minimum resilience requirements be for mobile infrastructure under the RRAMP?
OneWiFi believes the existing minimum resilience requirement of 12 hours of back-up power is satisfactory for Macro Mobile Active Sharing networks. In the case of Small Cells, 12 hours of power backup can be provisioned under Mobile Active Sharing as RAN and transmission are all shared to reduce the power infrastructure footprint and cost. It is also feasible for 12 hours of power backup for Wi-Fi solutions due to its low power draw.

Are there additional operating requirements that should be considered?
For regional and remote roads, there is the consideration of environmental factors (e.g. many regional roads are subject to flooding), information security, and also physical security. Highway coverage should be focused on coverage rather than capacity. Hence, 4G/5G should be delivered in low-band spectrum. OneWiFi would also like to reinforce that RRAMP will need to take strong consideration of 'logical clusters' in its assessment of operational requirements (e.g. shared transmission across multiple sites).

Yours faithfully,

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Appendix A – Extract from Mobile Coverage Drive Testing of Selected NSW Highways and Roads

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