

# 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

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**Date:** 28.2.14

#### 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? **Yes**  **No**

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

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.



Broadband Today Alliance (Broadband Alliance Inc.)  
PO BOX 288  
NAMBOUR QLD 4560

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

Dear Phil

RE: Mobile Coverage Programme Submission

The Broadband Today Alliance would like to commend the Federal Government in the development of the Mobile Coverage Programme. Enhanced coverage, competition and capacity of the three current mobile networks in Australia are an essential requirement to provide a platform for future digital economic prosperity and ensure Australia retains competitiveness internationally for future generations.

Please find enclosed the BTA submission.

Thank you for the opportunity to provide comment to this important initiative. If the Department wishes to discuss any of these matters further please do not hesitate to contact me.

Yours faithfully

A handwritten signature in black ink that reads 'M Whereat'.

Michael Whereat  
President Broadband Today Alliance Broadband Alliance Inc.

[Redacted]

[Redacted]

W. [www.broadbandtoday.com.au](http://www.broadbandtoday.com.au)

About the Broadband Today Alliance:

The Broadband Today Alliance (BTA) is a collaborative alliance of local government, RDA and Regional Organisations of Councils' (ROCs) built on the premise of sharing information and advocating for the resources to assist the localised transition to a digital economy. Over 135 local governments are represented with over 8 million Australians represented across all states and Territories.

The BTA is an officer level organisation and, in its current form, has been in existence for over two years and prior to that for a further 2 years as the South East Queensland Broadband and Digital Economy Working Group aligned under the Council of Mayors SEQ. In response to interest from other local governments and regional organisations such as RDA's, the group has grown to become a national organisation with members from all states and territories.

## BTA submission

### Mobile Coverage Programme

1. Would an appropriate minimum quality standard be that base stations must provide high-speed 4G LTE mobile broadband data communication services and also high quality 3G mobile voice and broadband data services? If this is not an appropriate minimum quality standard, what is?

- **The BTA believes that an appropriate minimum quality standard of 3G mobile voice and broadband data services should be applied only for remote areas where new coverage is being implemented. For all other areas where Programme funds are being utilised for new base stations, 4G LTE and 3G mobile voice and broadband as a minimum quality standard should be applied.**
- **In a strategic context for future scenarios post the Mobile Coverage Programme, the BTA support the ability for Carriers and or the Federal Government to implement an appropriate minimum quality standard based on a ratified mobile network technology roadmap, whilst keeping open consideration of alternative technologies other than current 3G / 4G LTE platforms.**

2. What are the most appropriate indicators that could be used to specify the minimum quality standards that should apply to the mobile services being provided through the programme? For instance, should it be a minimum received service signal indication (RSSI) in decibel-milliwatts (dBm)? A similar approach was adopted recently in the UK where a comparable programme specified a minimum RSSI for 3G voice and basic data service of -85dBm on roads and -75dBm in community areas (outside premises).

- **The BTA supports that the end user experience is the same importance as signal strength.**
- **In regards to Signal Strength metrics, the BTA supports received service signal indication (RSSI) as the minimum quality standard metric for 3G / GSM services. Further the BTA suggests that Referenced Signal Received Power (RSRP) and Reference Signal Received Quality (RSRQ) be the minimum quality standards for 4G LTE services.**

3. Does delivery option 2 for the \$80 million Mobile Network Expansion component raise any additional issues that need to be considered?

- **The BTA supports the objective of mandatory local input based on user demand to the 'list' of base station locations. The Commonwealth should provide an open mechanism to capture input to this list before the Programme is opened for application submissions.**
- **The BTA believes that local regions should be recognised via the ability to contribute to the overall package and aggregate dollar value of the national programme via various in kind support mechanisms instead of cash only.**

- **Suggested local government in kind support could include**
  - Civil works for site access
  - Peppercorn lease arrangements
  - Assistance with coordination of power
  - Streamlining of planning approval / development assessment process
  - Initiatives that drive 'demand' and uptake of resultant services
- **The BTA suggests that early engagement with local councils and or community is essential for optimal programme success. Programme contract provisions should include a directive for MNOs to undertake this engagement. This engagement should also include the dissemination of predictive coverage modelling for all new sites being proposed under the Mobile Coverage Programme.**
- **The BTA believes any utilisation of Public Funds should drive increased competition as well as coverage outcomes. Success should not be measured solely by 'new' square kilometre voice signal coverage increase but also take into account upcoming Machine to Machine (m2m) requirements. In essence the delivery of both data and voice is essential. If enhanced delivery can be achieved by more cost effective means, this should be implemented.**
- **The BTA believes that the definition of 'black spots' should also include areas where there is low signal strength coverage but also a low level of user experience relating to data transmission performance resulting in near unusable data service on the ground.**

4. Could options 3(a) or 3(b) for the \$80 million Mobile Network Expansion Project be delivered in conjunction with options 1 or 2 to enable network infrastructure providers to compete with MNOs?

- **The BTA believes the Programme funding allocation is not large enough for a combination of the delivery options to deliver a benefit for programme outcomes and resultant end users.**

5. Should bidders be able to propose to incorporate the use of base stations owned by NBN Co as part of their bid?

- **The BTA believes that this is an absolutely essential element to achieve optimal programme success.**

6. Should a joint bid (between a specialist network infrastructure provider and a MNO) be permitted? Should it be encouraged?

- **The BTA believes this should be permitted and encouraged where it increases the total funding pool and end user outcomes whilst adhering to the coverage, competitor and capacity objectives already outlined.**

7. Is it realistic to expect specialist network infrastructure providers to provide backhaul (recognising that they would presumably need to contract with a third party to provide this)?

- **N/A**

8. Is option 3(b) suitable for Australia's regional mobile market?

- **The BTA suggests that option 3(b) is suitable for all areas where there is current market failure. Government subsidy initiatives such as this Programme or a Government owned wholesale only mobile network is required to address this situation. However the current environment is unlikely to support the suitability of option 3(b) due to the non-alignment of regulatory and market forces.**

9. What are the appropriate specifications for a base station to be able to accommodate at least two other MNOs?

- **Appropriate specifications include sufficient base station height, structure strength, power supply and back haul transmission to support multiple MNOs. Supportive planning approval conditions are also essential to achieve this outcome.**

10. Will the proposed open access provisions be sufficient to encourage other MNOs to use the base stations to provide mobile services?

- **While Mobile Network investment is driven solely by commercial factors, it is unlikely that additional MNOs will be encouraged by the open access provisions outlined. Unless the Regulatory environment is revised, additional investment in 'edge' areas of viability will be very difficult to seed without billions of dollars of government subsidy. Perhaps simple initiatives such as reduced or waived ACMA licence fees could be applied in these edge areas of viability.**
- **The BTA believes that the Programme will require MNO contractual pre-commitment to ensure MNOs will use the base stations implemented under the programme.**

11. Should MNOs be required to pre-commit to/co-invest in the base stations for which they wish to share infrastructure?

- **Yes but will require an overarching regulatory environment that ensures that this will occur.**

12. What is the estimated additional cost of requiring all new base stations to meet the open access requirements?

- **N/A**

13. Should the proposed open access provisions be applicable to base stations funded under the \$20 million component, or should there be scope to exclude some base stations from these requirements?

- **The only scope there should be to exclude some base stations from open access requirements should be for new sites in remote areas where there is currently no coverage. However even in these remote areas, strong consideration should be undertaken not to create a precedent of avoiding the creation of mobile network competition and choice with the usage of public funds.**

14. What are the most appropriate models/benchmarks for establishing access and backhaul pricing, and for reflecting in that pricing the value of the public funding received by the owner of the facilities (such that access seekers receive an appropriate discount from the market price for access to the facility)?

- **The BTA believes a lower price for backhaul would improve the economics of both fixed and mobile broadband coverage expansion and assist in delivering higher quality mobile and fixed broadband services to regional Australia. The ACCC should institute a pricing regime for declared transmission services which will deliver true cost-based prices.**

15. Do the proposed assessment criteria achieve the right balance to deliver the best value for money outcomes?

- **The BTA is concerned that the following provisions have not been included in the Proposed assessment Criteria:**
  - **Local government / regional / local community input provisions**
  - **No competition outcome (where applicable) provisions**
  - **No capacity improvement measurement (where applicable) provisions**

16. Should the proposed assessment criteria be weighted, and if so, how?

- **Irrespective of any weightings that could be applied to the assessment criteria, the programs overarching objectives need to be demonstrably achieved for all base station sites implemented. This includes genuine competition, capacity, coverage and public value proposition.**

17. Is there a more effective means of assessing seasonal demand than proposed in criterion 3(c)?

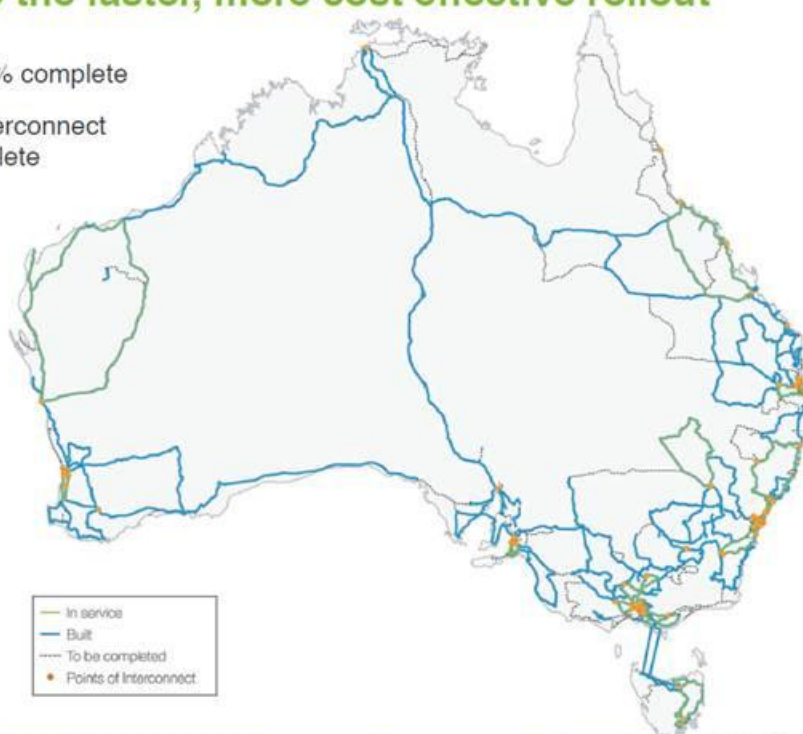
- **The BTA suggests additional assessment metrics could include:**
  - **Vehicle movements**
  - **Emergency / disaster statistics**
  - **Conference / Festivals calendar and attendance numbers**

18. To what extent would the use of the NBN fixed wireless network result in improved mobile coverage outcomes in regional Australia?

- The BTA believes the use of the NBN fixed wireless network will result in improvements to mobile coverage outcomes in regional Australia. NBN fixed wireless towers should be utilised where possible in any new sites funded by the Mobile Coverage programme. The use of NBN Co transit fibre where available as backhaul for new programme sites would be beneficial and should be utilised.

## Moving to the faster, more cost effective rollout

- Transit = 60% complete
- Points of Interconnect = 80% complete



Map: NBN Co Transit as at 21 February 2014

<http://www.nbnco.com.au/content/dam/nbnco/documents/Half-Year-Results-Presentation-PDF.pdf>

- The NBN Co fibre local and distribution network as an additional source of backhaul transmission should be utilised where possible in any new sites funded by the Mobile Coverage programme.
- The BTA believes the re-use of all applicable NBN Co infrastructure will result in improvements to mobile coverage outcomes in regional Australia.
- In relation to NBN Transit Backhaul:
  - NBN Co controlled joints on transit backhaul could provide wider geographic access for potential new tower cell sites
  - NBN Co should develop a mobile backhaul wholesale product incorporating NBN Co transit to provide wider geographic access and an additional diverse revenue stream.



- **NBN Co as a Wholesale Mobile Bitstream (Layer 2) provider:**
  - **The BTA believes there is a strategic opportunity for NBN Co to develop a wholesale mobile bitstream (layer 2) service capability. This is an opportunity to provide a wholesale infrastructure to introduce mobile network operator and mobile virtual network operator competition to the 93 to 97 percentile population who have patchy choice of competing MNOs at best. A technology upgrade to NBN fixed wireless LTE infrastructure should be investigated to see if a wholesale mobile bitstream service can be developed. This will also open up additional revenue streams to NBN co.**
- **In relation to the NBN Co Local and Distribution Network:**
  - **Utilisation of NBN Co fibre distribution network as additional source of mobile backhaul could assist new tower site deployment, small cell deployment and WiFi deployment to assist network optimisation practices such as network traffic hand-off or offload and augment patchy mobile networks in small towns.**
- **NBN Co Satellite as Backhaul:**
  - **The BTA believes that the feasibility of using NBN Co Satellite as mobile back haul in remote areas of Australia should be investigated. If feasibility is assessed as viable this will be an additional revenue stream to NBN Co and provide the mechanism to introduce competitive choice of mobile services to remote Australia.**

19. How best can a greater role for NBN Co improve competition and choice for consumers in regional Australia?

- **As above**
- **NBN Co can improve competition and choice in Regional Australia by opening up access to increased network capacity in places where there is only minimal network access levels presently.**

20. In addition to base station location, design and backhaul access, what other considerations would NBN Co need to take into account if it were to also support mobile coverage and competition benefits as part of its mandate?

- **Require greater engagement with MNOs**
- **Require additional internal NBN Co expertise**
- **Technical aspects such as Transmission point capacity, backhaul and Point of Interconnect architecture are also likely additional considerations for NBN Co.**

21. How can early engagement between NBN Co and MNOs be facilitated in the design of each base station? Is there a role here for the Australian Mobile Telecommunications Association (AMTA)?

- **The BTA believes that it may be beneficial for a third party to 'broker' the early engagement between NBN Co and MNOs. However what may be even more important is the early involvement of local stakeholders including the local council to include in the engagement process along with NBN Co and the MNOs.**



22. How can the Mobile Coverage Programme best complement any role that the NBN fixed wireless service plays in improving mobile coverage and competition?

- **By including the measures outlined above within the Programme provisions.**

## Conclusion

### How should the funds be allocated?

- The BTA doesn't support option 1 as the delivery mechanism
- The BTA supports either or both Option 2 and Option 3 as the delivery mechanism to achieve specific operating principles and outcomes including equivalent open access, increased competition and choice.
- The BTA also believes that merit should be given to any proposals under the programme that utilise innovative infrastructure platforms such as small cells / carrier WiFi / Sat Sleeves / carrier grade microwave / wireless mesh networks that may drive programme investment dollars further due to lower cost deployments.
- The BTA believes that the definition of 'black spots' should also include areas where there is low signal strength coverage but also a low level of user experience relating to data transmission performance resulting in near unusable data service on the ground

### How should co-investment be encouraged?

- The BTA believes that unless the current Regulatory environment is revised, additional investment in 'edge' areas of viability will be very difficult to seed without billions of dollars of government subsidy. Perhaps simple initiatives such as reduced or waived ACMA licence fees could be applied in these edge areas of viability.

### How should sites be chosen?

- The BTA supports the objective of mandatory local input to the 'list' of base station locations. The Commonwealth should provide an open mechanism to capture input to this list before the Programme is opened for application submissions.

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