23 May 2019

The Manager

Economic Advisory Section

Spectrum Allocation Branch

Australian Communications and Media Authority

PO Box 13112

Law Courts PO, Melbourne VIC 8010

***Via email to: Economics.AdvisorySection@acma.gov.au***

**Re: Reconfiguring the 900 MHz band – options paper**

Dear Sir or Madam,

UbiquitiLink, Inc. appreciates the opportunity to submit a response to the Australian Communications and Media Authority’s “Reconfiguring the 900 MHz band: Options paper” ("Reconfiguring 900 MHz band").

UbiquitiLink has provided its views and comments in response to selected consultation questions raised by the Reconfiguring the 900 MHz band options paper that are of particular interest.

***Background on UbiquitiLink***

UbiquitiLink, Inc. is a US corporation located in the State of Virginia, incorporated on January 21, 2017. Its management team includes veterans of NASA, Nanoracks, Orbcomm, SpaceHab, Orbital, Fairchild, and Neustar.

UbiquitiLink is developing a last-mile ubiquitous communications solution for mobile phones and Internet of Things (IoT) utilizing a constellation of small satellites. UbiquitiLink satellites will effectively operate as high-altitude mobile towers. UbiquitiLink will provide mobile service everywhere around the globe, expanding coverage for standard mobile phones to the 90% of the planet that terrestrial towers can not economically afford to cover. The service will operate between 600 and 960 MHz, which includes the GSM 850 and GSM 900 cellular bands, using Low Earth Orbiting (LEO) nanosats. UbiquitiLink will operate as a global shared roaming provider and provide the UbiquitiLink service wholesale to MNOs and MVNOs who will provide a retail service to their mobile subscribers.

***UbiquitiLink responses to the Issues for Comment***

UbiquitiLink has the following specific comments on the issues-for-comment in the “Reconfiguring the 900 MHz band: Options paper”

**Q1. The ACMA identified a set of outcomes to be achieved from this process—are these the appropriate outcomes? Are there any other additional outcomes that should be included in this analysis?**

UbiquitiLink considers that the identification of 2x5 MHz in the 850 MHz expansion band for an Australia wide Public Safety Mobile Broadband (PSMB) service should be included in the list of outcomes.

The options paper refers to the Australian Government agreement to set aside this spectrum for PSMB capability, so this is an important outcome which should be included.

**Q2. Are the reform options presented in this paper appropriate, and are there any implementation issues that haven’t been identified?**

An important implementation issue that should be included is how an Australia-wide PSMB service can be affordably and efficiently implemented in the 850 MHz expansion band.

UbiquitiLink’s satellite service can provide complementary coverage to terrestrial cellular mobile services to affordably achieve the Australia-wide coverage requirement, and we can increase resilience of the overall network for Public Protection and Disaster Relief (PPDR) operations.

**Q3. Stakeholders raised concerns that the mid-2021 clearance date will result in consumer service discontinuity. Does the proposed mid-2024 clearance date provide enough time to create an alternative pathway for the deployment of services at risk?**

No comment.

**Q4. Can stakeholders provide up-to-date information on consumer migration to 4G compatible handsets, including estimates of the numbers of consumers yet to migrate, and information on the timing and speed of consumer migration?**

No comment.

**Q5. The encumbered auction option includes an approach whereby incumbent apparatus licences and spectrum licences would potentially ‘overlap’. Do stakeholders have any concerns with this proposed approach?**

No comment.

**Q6. Are there any issues associated with the hybrid option that raise any concerns for stakeholders?**

No comment.

**Q7. Are there any other mitigation techniques to consider that support reconfiguration of the band into 5 MHz configuration whilst mitigating risks to consumer services?**

No comment.

**Q8. The ACMA may progress reconfiguration of 900 MHz independently of the allocation of the 850 MHz expansion band. Would doing so change the view on the optimal approach to reconfiguration?**

UbiquitiLink considers it important to deal with the reconfiguration of the two bands together to achieve the stated objectives and policy goals, in particular the identification of spectrum in the 850 MHz expansion band for an Australia wide PSMB service.

**Q9. The ACMA is aware that due to public safety mobile broadband (PSMB) negotiations there is a request to set aside 2 x 5 MHz of spectrum for a PSMB network. While the lot location for this spectrum in the 850 MHz expansion band has not been identified, it is expected that the remaining blocks at the top or bottom of the band would be put to market. Do stakeholders have a view on the relative technical efficiency of the remaining blocks of spectrum for carrier services?**

UbiquitiLink considers that this will depend on how the blocks in the 850 MHz expansion band are configured. For a likely configuration of 4x5 MHz blocks in the 2x20 MHz expansion band segments, this could provide for an allocation of 2x5 MHz to each of the three MNO’s and also for 2x5 MHz for the PSMB.

The initial UbiquitiLink objective for Australia is to work with the Australian MNO’s to provide complementary satellite coverage to regional and remote areas of Australia and is able to support an Australia-wide Public Safety Mobile broadband (PSMB) service.

**Q10. The** [***Draft five-year spectrum outlook 2019–23***](https://www.acma.gov.au/theACMA/draft-five-year-spectrum-outlook-2019-23) **(FYSO) forward allocation scenarios outlined the feasibility of allocating the 850 MHz expansion band and 900 MHz band at the same time as 26 GHz band, which, at the time of publication of this paper, is expected to be in Q1/2 2020–21. Do stakeholders have a view on the timing of the proposed allocations?**

UbiquitiLink considers that the allocation of 850 MHz expansion band and the reconfiguration of the 900 MHz band should proceed as per the timing in the draft 2019-23 FYSO.

***For further information***

Please contact the undersigned if you need any clarification or additional information.

Your faithfully,

A insect on the ground

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James Alderdice

VP, Asia-Pacific

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