

**Ericsson's submission to the Australian
Communications and Media Authority's
(ACMA's) Proposed spectrum re-allocation
declaration for the 3.4 and 3.7 GHz bands –
IFC 10/2022 – consultation paper**

May 2022

Introduction

- Ericsson welcomes the opportunity to respond to the Australian Communications and Media Authority's (ACMA's) 'Proposed spectrum re-allocation declaration for the 3.4 GHz and 3.7 GHz bands - IFC 10/2022 Consultation' (**Consultation Paper**).
- Ericsson supports the submission made by the Australian Mobile Telecommunications Association (AMTA) in response to the Consultation Paper.
- Below is a 5G market update, an overview of Ericsson's position and further comments in response to selected issues raised in the Consultation Paper.

5G Market Update

- In Q4 2021, 5G reached 660 million subscriptions globally,¹ cementing 5G as the fastest deployed mobile technology generation to date.
- Between Q4 2020 and Q4 2021 mobile network data traffic grew 44 per cent.²
- Two hundred communications service providers have now launched commercial 5G services and at least twenty have launched 5G standalone (SA) networks.²
- In terms of forecasts,³ by the end of 2027:
 - there will be 4.4 billion 5G subscriptions, representing roughly half of all mobile subscriptions at that time.
 - video traffic will account for 79 per cent of all mobile data traffic, video traffic currently accounts for 69 per cent of all mobile data traffic.

Overview

- Ericsson agrees with the ACMA's view that there is an *"opportunity for a holistic assessment of arrangements across the broader 3400-4200 MHz band."*⁴
- Ericsson's response is provided from the perspective of a supplier to multiple operators in the Australian market who currently use, or intend to use, spectrum in the 3.4 - 4.0 GHz band.

¹ [Ericsson Mobility Report, Q4 2021 Update](#)

² [Ericsson Mobility Report, Q4 2021 Update](#)

³ [Ericsson Mobility Report November 2021](#)

⁴ Proposed spectrum re-allocation declaration for the 3.4 GHz and 3.7 GHz bands, Consultation Paper, pg. 12

- Ericsson strongly supports the adoption of 3GPP technologies in the 3.4 - 4.0 GHz band as critical to enable the further rollout of 5G in Australia.
- 5G has multiple use cases and a flexible frame structure.
- Not aligning the 3.4 - 4.0 GHz band with 3GPP will create a need for synchronisation with inflexible or limited non 3GPP technologies, which in turn will create delay, cost and complexity for both equipment suppliers and mobile network operators.
- Ericsson supports consideration of the following principles when determining future spectrum use in the 3.4-4.0 GHz band:
 - Aligning geographic regions for spectrum across the entire 3.4 - 4.0 GHz band.
 - Ensuring all licence expiry dates align so a future "spill and fill" could occur where geographic regions and boundaries are aligned and the need for inefficient guard bands limited. Such an approach will also reduce complexity, time and cost associated with managing such arrangements.
 - Contiguous spectrum should be allocated per license type ensuring minimal restricted use bands.
 - The spectrum available for a particular license type should be consistent across all geographic regions ensuring no dead zones exist on borders for different use cases, noting the exception to this is allocations in remote areas.
 - The ACMA should support band harmonisation if incumbent users need to be relocated in frequency.

Response to specific issues raised in the Consultation Paper

Planning arrangements in 3400–3575 MHz and 3700–3800 MHz

- While Ericsson does not preference one proposed option over another, we do see the benefits of contiguous spectrum for each license type that would be accommodated by the ACMA's preferred Option 3.
- Ericsson supports:
 - spectrum being made available for different licence types, but does not have insights into demand for different Aare Wide Licence (AWL) types.
 - AMTA's suggestion for further detail on how the Highest Value Use for allocation between different licence types is determined.
 - further mid band spectrum licence allocations for 5G. To that end, Ericsson does not support the proposal in the ACMA's preferred Option 3 to reduce the amount of Spectrum Licensed available spectrum in Major Regional Centres 1.

Urban Excise

- Ericsson supports the ACMA's preferred Option A to ensure licence type is consistent to the adjacent frequency range and across geographic regions (excluding remote areas).

Restricted Cell LA WBB (3950 – 4000 MHz)

- Ericsson supports the ACMA's decision to segment and reserve this spectrum for restricted cell LA WBB in the 3950 – 4000 MHz range.
- While the question of is 50MHz is enough, or too much, is yet to be answered, we note that the ecosystem in this frequency range is fragmented and currently skewed towards more devices supporting only up to 3980 MHz as per the North American spectrum plan. This situation may have an impact on use of the segmentation if it is reduced as it may not become a viable parcel.
- Ericsson supports the proposal for amateurs to no longer use spectrum in the 3400 – 3600 MHz, with the 3300 – 3400 MHz (as a secondary service) appropriate for amateur use.