



JT's Non-Confidential Response to
the JCRA's 5G spectrum award: Draft
Invitation to Tender (case T-064)

19th August 2022

1 Introduction

JT (Jersey) Limited (JT) welcomes this opportunity to comment on the Jersey Competition and Regulatory Authority's (JCRA's) draft Invitation to Tender ('Draft ITT'),¹ for 5G licensing in Jersey. This is a non-confidential response and can be published in full.

A 5G spectrum award process in Jersey and Guernsey was initiated in 2018 by the Channel Islands Competition and Regulatory Authority (CICRA), with the intention of awarding spectrum licences for both Bailiwicks. Due to the Covid-19 pandemic and concerns over national security guidelines relating to 5G equipment and suppliers, the original award process was placed on hold in 2020.

In February 2022, the JCRA restarted the process solely for the Bailiwick of Jersey, with a consultation to reassess interest and demand in 5G spectrum in two frequency bands: 700MHz and 3.5GHz.

Following the consultation, the JCRA has issued an Updated Statement of Intent² and a draft 5G spectrum award invitation to tender (ITT) ('Draft ITT'),³ both dated 28 June 2022.

JT previously provided responses to the JCRA's February 2022 consultation⁴ and to CIRCA,⁵ and is now pleased to provide comments on the Updated Statement of Intent and the Draft ITT. The response is structured as follows:

- Section 2 summarises JT's overall comments in relation to the Updated Statement of Intent and the Draft ITT
- Section 3 presents detailed responses to the questions outlined in the Draft ITT.

2 Summary of JT's comments

JT's primary concern regarding the Draft ITT relates to the limited initial spectrum offered in the 3.5GHz band as a result of the JCRA's proposed defragmentation process involving incumbent licensees. The JCRA's Updated Statement of Intent proposes that only 40MHz in the 3.5GHz band will be initially included in the three Full Service Spectrum packages due to the incumbent licensees, with the remaining 60MHz assigned following a

¹ JCRA consultation document No. JCRA 22/41, available at <https://www.jcra.je/media/598560/5g-spectrum-award-process-2022-draft-invitation-to-tender-consultation.pdf>

² JCRA consultation document No. JCRA 22/37, available at <https://www.jcra.je/media/598559/5g-spectrum-award-process-2022-updated-statement-of-intent.pdf>

³ JCRA consultation document No. JCRA 22/41, available at <https://www.jcra.je/media/598560/5g-spectrum-award-process-2022-draft-invitation-to-tender-consultation.pdf>

⁴ JT's non-confidential response to JCRA 5G spectrum award process, available at <https://www.jcra.je/media/598554/5g-spectrum-award-process-2022-consultation-response-jt.pdf>

⁵ JT responded to CICRA's draft statement of intent in May 2019, and CICRA's final statement of intent and a draft invitation to tender ('CICRA's Draft ITT') in December 2019. JT also stated its position at a 5G pre-summit arranged by CICRA in Jersey on 5 July 2018 and a 5G summit held in Guernsey on 26 November 2018.

defragmentation process that may take “at least five years to achieve”. This limited amount of spectrum in the early years of 5G launch would present a severe impediment to JT's ability to provide sufficient capacity for delivery of good-quality 5G. An assignment of 40MHz of 3.5GHz spectrum will not enable the provision of higher speed mobile broadband services, meaning that Jersey's citizens will see no change in service performance compared to today's 4G services. Given the delays to the licensing process meaning that Jersey is now some way behind the UK and other European nations in 5G availability, this lack of 3.5GHz spectrum in the initial phases of 5G launch will ultimately risk further decreasing the mobile service quality available to Jersey's citizens.

It is also not clear to us why the JCRA has proposed the assignment of 40MHz initially in the Full Service Spectrum packages, as there appear to be multiple alternative approaches that would enable larger initial assignments. Taking account of the current band plan, JT has identified four alternative approaches to the one proposed by the JCRA, in which more contiguous spectrum is made available to applicants sooner. We describe these alternatives in Section 3.3. Of the four alternatives we have identified, our recommended approach would be for the JCRA to offer three Full Service Spectrum packages of 100MHz in the 3.4–3.7GHz range. Early confirmation from the JCRA of the proposed composition of revised Full Service spectrum packages will avoid further equipment-procurement delays.

Furthermore, as per the original consultation on 5G spectrum in 2019 ('CICRA's Draft ITT'),⁶ JT proposes that applicants for a 5G spectrum assignment in the 3.5GHz band are required to return any existing spectrum holdings in this band, in order to facilitate the defragmentation and assignment of larger initial 5G assignments. We would also urge the JCRA to issue notices to any remaining incumbents requiring them to vacate the spectrum within one year.

With respect to the proposed timetable, JT recommends that the duration of Stage 3 is shortened, with the actual duration dependent on whether supplementary information (SI) is required to be submitted, or not. To give clarity to applicants on if SI will be required, it would be helpful if the JCRA can publish a list of successful applicants on completion of Stage 2 of the process. JT proposes four weeks without a requirement for SI, and ten weeks if SI is required. Furthermore, JT believes that Stage 5 does not need to be as long and will cause undue delay to the spectrum assignment process. Instead of the current 27-week duration, JT proposes that 3–4 weeks should be sufficient. A summary of JT's suggested amendments to the JCRA's proposed timetable is provided in Figure 1.

⁶ CICRA document number: CICRA19/60, available at <https://www.jcra.je/media/598138/5g-spectrum-award-draft-invitation-to-tender-document.pdf>

Figure 1: JT's proposed timetable [Source: Analysys Mason, 2022]

Stage	JCRA proposed duration (weeks)	JT proposed duration without SI requirement (weeks)	JT proposed duration with SI required (weeks)
Stage 2	2	2	2
Stage 3	8	4	10
Stage 4	4	4	4
Stage 5	7	3–4	3–4
Total	41	13–14	19–20

Regarding the tender contents, JT has four key comments:

- The timescale and level of 5G roll-out required in the applicant declaration should be more stringent to ensure that 5G is of good quality and widely available. We believe this is particularly important given the delay to 5G being available in Jersey, and to ensure that service availability can be accelerated to meet that of the UK and other European nations. JT proposes that the roll-out requirement is amended so that within three years, operators should have at least 50 macro sites with 700MHz 5G spectrum deployed, and at least 15 macro sites with 3.5GHz 5G spectrum deployed, or risk having their licence revoked.
- If JCRA opt for an approach which involves incremental assignment, then the incremental assignment should not be contingent on achieving a specified level of 5G roll out (i.e. when the spectrum is available equally to all applicants, it should be assigned).
- Clarification should be provided as to what technical, network deployment, commercial or financial plans would be needed as part of the required information (RI) component.

JT requests clarity on how the RI will be assessed for “completeness, consistency and credibility” in the comparative evaluation.

Finally, JT requests that the “5G” spectrum be allowed to be used for 2G/3G/4G services and vice versa to take advantage of mobile dynamic spectrum sharing technologies now available which offer greater efficiencies in the provision of mobile services.

3 Response to the questions outlined in the draft ITT

3.1 Question 1: Do you have any comments on the proposed 5G spectrum award tender and licensing process and timetable?

JT supports the five-stage tender and licensing process proposed by JCRA as outlined in paragraph 6.1 of the Draft ITT.

Stage 1 marks the start, with the opening of the 5G Licence ITT process to applicants. JT's only request regarding Stage 1 is that the date chosen by the JCRA to open the process is as early as possible. The reasoning is that any further delay to the process will have a detrimental effect on the services available to consumers, and may have a negative impact on the prospects for attracting new corporations and investment in Jersey. In alignment with the JCRA's stated strategic aims, the JCRA should ensure that the process avoids any further unjustified delay to mobile network operators' (MNOs') ability to provide the level of service expected by Jersey's inhabitants, meet growing traffic demand and attract new business to the island.

Stage 2 allows applicants two weeks to formally express their interest in participating in the process, and then submit and receive responses to clarifying questions. Clarification is needed on the exact timeline for submitting the clarifying questions: are applicants allowed to submit questions and receive responses as part of Stage 2, prior to submitting the formal application, or does the question and answer portion of the process only open after formal submission (i.e. effectively as part of Stage 3)? We also suggest that qualified applicants are published by the JCRA upon completion of Stage 2. As the vendor equipment might be frequency specific, announcing the number of qualified applicants after Stage 2, when combined with the knowledge of the specific spectrum packages, may allow operators to place their equipment order earlier than would be possible according to the JCRA's proposed timetable.

Stage 3 gives applicants eight weeks to prepare and submit their tenders, including SI. As the SI would only be considered by the JCRA if there are more than three qualified applicants, the SI could be rendered unnecessary in the event that no more than three qualified applicants are announced at the end of Stage 2. In the absence of a requirement for SI, JT believes that four weeks should be sufficient time for Stage 3 and if SI is required, then ten weeks should be sufficient. However, should more detailed information be required as part of the RI section than JT's proposed level of detail (see Section 3.3), additional time may be required for Stage 3.

Stage 4 provides the JCRA with four weeks to evaluate the tender submissions and announce successful applicants. JT agrees with the process and duration proposed by JCRA for Stage 4.

Stage 5 is the final stage in the process, and represents the gap between the JCRA announcing successful licence applicants and the issuing of spectrum licences by Ofcom. During this stage, the JCRA completes any "necessary local enabling activities". Paragraph 6.1 in the Draft ITT indicates that Stage 5 has a duration of 27 weeks, which JT considers to be a longer timeframe than appears necessary for this stage. Combined with the earlier stages (a total of 14 weeks), this would mean licences would not be issued until the middle of 2023, 41 weeks after the ITT process opens (scheduled for September 2022), which represents a significant, and in JT's opinion, unnecessary, delay to providing 5G in Jersey.

Based on previous Channel Islands spectrum licensing awards, we understand the process will be similar in that the JCRA will recommend licence awards to Ofcom, and Ofcom will then issue the spectrum licences. Our previous experience indicates that this could take around three to four weeks (depending on Ofcom's ability to respond). Given that the JCRA's proposed approach does not involve any immediate changes in the existing spectrum licences in the 3.4–3.8GHz band, JT does not believe the JCRA requires an additional 23–24 weeks to complete any necessary local enabling activities. Instead, JT proposes a total duration of three to four weeks for Stage 5, allowing licences to be issued in early 2023.

JT recognises that if an alternative initial assignment (see Section 3.3) were pursued, then an additional delay may be incurred, but the benefits to Jersey based on operators having a larger initial assignment would outweigh the costs of a slightly delayed assignment.

3.2 Question 2: Do you have any comments on the proposed 5G spectrum award ITT terms and conditions?

JT considers the proposed 5G spectrum award ITT terms and conditions to be reasonable. JT proposes adding an additional clause to Paragraph 7.3 to the effect that any applicants for 5G licences in the 3.5GHz band already holding spectrum in that band should relinquish any existing licences, in order to be issued with a new licence for 5G use. JT notes that there is a precedent for this in CICRA's Draft ITT which included the following condition: *“Operators with existing 3.4–3.8GHz spectrum who wish to continue offering services, will need to participate in the process in order to demonstrate that they are able to meet the minimum requirements. Such operators will then have replacement licences issued for their current holdings, or equivalent holdings (for example as single contiguous holding rather than ‘paired’ blocks)”*.⁷ JT would like to see a similar condition instated in the JCRA's ITT for the 3.5GHz assignment.

JT also notes that there is a precedent for this in CICRA's 2014 award of 4G licences in the 800MHz and 2600MHz bands, in which MNOs' participation was conditional on the return of a portion of their 900MHz spectrum holdings, and a commitment to the defragmentation and re-alignment of 900MHz and 1800MHz spectrum.⁸

JT proposes that a condition for current holdings to be released or replaced with 5G-equivalent ones replaces condition (e) of paragraph 8.2 of the Draft ITT which states that applicants agree to “work constructively (if required) with the Authority in support of the process to defragment the local 3.4–3.8GHz spectrum band”.

⁷ CICRA document number: CICRA19/60, available at <https://www.jcra.je/media/598138/5g-spectrum-award-draft-invitation-to-tender-document.pdf>

⁸ CICRA document No: CICRA 15/06, available at <https://www.jcra.je/media/3712/t1020gj-consultation-spectrum-awards-in-the-900-mhz-band.pdf>

3.3 Question 3: Do you have any comments on the proposed 5G spectrum award tender contents?

JT has a number of comments regarding the proposed 5G spectrum award tender contents, particularly with respect to paragraph 8.2 conditions (b), (c) and (d) of the Draft ITT, the proposed approach for incremental assignment of 5G spectrum, and paragraph 8.3 of the Draft ITT. JT agrees with all remaining paragraphs and conditions.

Paragraph 8.2 of the Draft ITT (conditions (b), (c) and (d))

Paragraph 8.2 condition (b) states that applicants must launch a service within five years of receiving a spectrum licence from Ofcom. It would be helpful if the JCRA can be more specific on what "launch a service" means. JT also considers the five-year period to be too long, noting that this permits licensees to delay 5G launch until the middle of 2028 (under the proposed schedule), to the detriment of consumers and businesses in Jersey.

Paragraph 8.2 condition (c) requires licensees to roll out at least ten "active 5G equipped base stations" before receiving an incremental assignment of 5G spectrum. Clarification is needed regarding whether roll out of 'active 5G' refers to deployment of the 700MHz band, the 3.5GHz band, or both. Similarly, clarification is needed regarding whether 'base station' refers to macro sites, small cells, or both. JT does not agree that incremental spectrum assignments should be conditional on the level of roll out. JT also believes that the requirement to roll out across only ten locations is too lenient, as this does not demonstrate commitment to providing the high-quality, island-wide coverage that will benefit the Jersey economy.

Consequently, JT proposes replacing Paragraph 8.2 conditions (b) and (c) with the following:

[Applicants agree:] That they will launch a service using the initial assignment of 5G spectrum and roll out at least 50 active 700MHz 5G-equipped macro sites and at least 15 active 3500MHz 5G-equipped macro sites within three years of receiving a spectrum licence from Ofcom, and that failure to meet this deadline may result in the Authority recommending that Ofcom withdraw the spectrum licence.

If the JCRA is unable to adopt JT's preferred alternative initial assignment approach, JT proposes that incremental assignments of 5G spectrum be made as and when there is equal incremental spectrum available to all licensees through a planned defragmentation process.

JT suggests that the licence conditions be amended to require the launch of 5G within three years in order to encourage earlier deployment, particularly in light of the delays already incurred in the process to date. JT notes that this should be easily achieved by MNOs, to the benefit of consumers, and will ensure the spectrum is used efficiently. JT's suggestion specifies a higher number of 700MHz 5G site deployments, as this is what would be required to provide high-quality, island-wide 5G coverage.

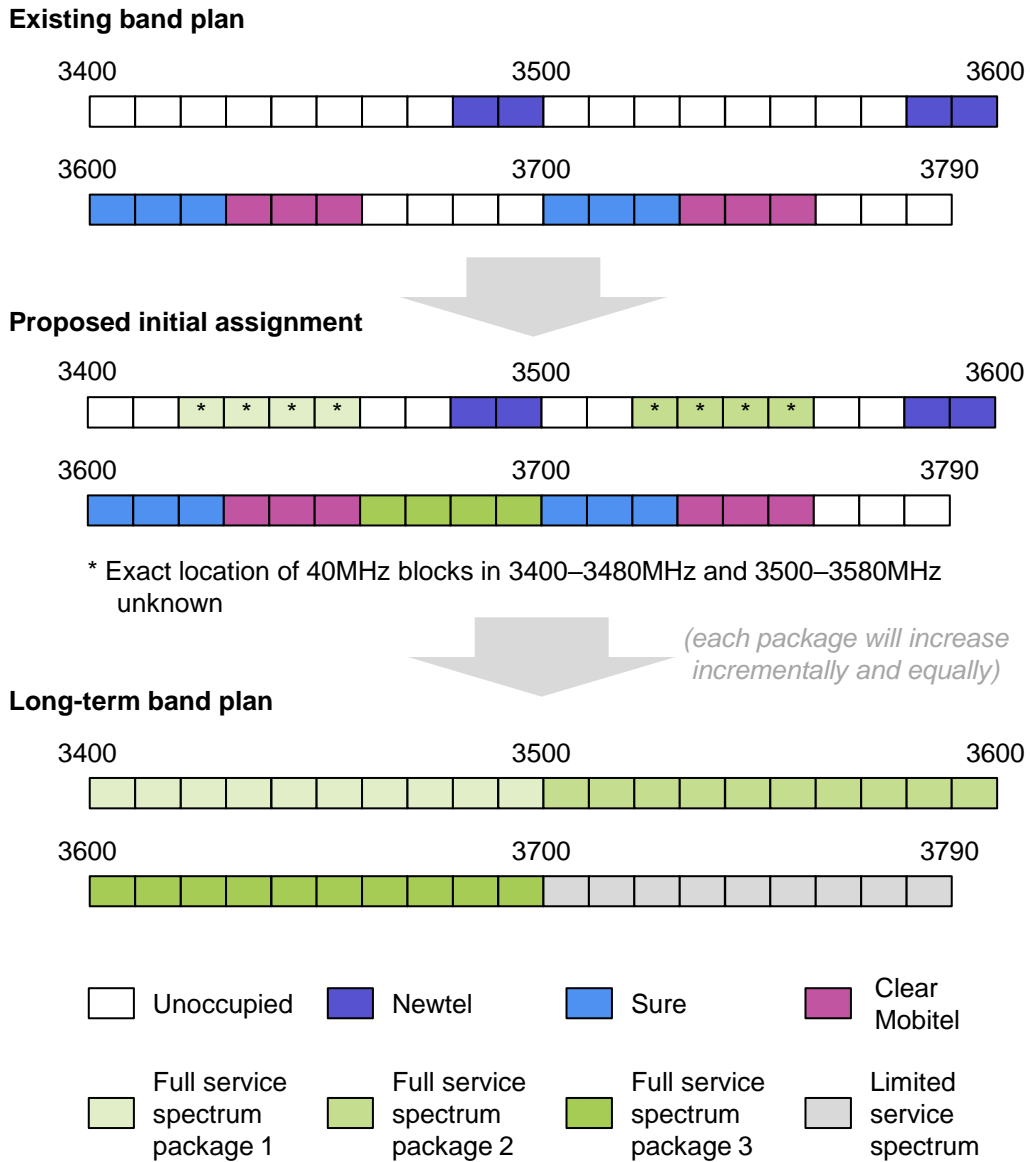
Paragraph 8.2 condition (d) refers to the JCRA's proposed approach for incremental assignment of 5G spectrum, which relies on a defragmentation process which "may take at least five years", with incremental spectrum allocated to licensees equally as it becomes available, conditional upon individual licensees meeting conditions (b) and (c).

Given JT's suggestion above, the "conditional upon individual licensees meeting conditions (b) and (c)" should be removed from condition (d).

JCRA's proposed approach for incremental assignment of 5G spectrum

According to the updated statement of intent, the JCRA proposes awarding up to three full-service spectrum packages intended for island-wide networks providing publicly available services for the maximum number of users. Each package will have an initial assignment of 40MHz contiguous spectrum in the 3.4–3.8GHz band, increasing incrementally and equally for all package holders to 100MHz, subject to effective defragmentation and suitable 5G roll-out. Figure 2 illustrates the current spectrum assignments in the 3.4–3.8GHz band in Jersey, and the JCRA's proposed short-term and long-term band plans. JT notes that it appears logical that the total full-service spectrum assignments for 5G licences will be three contiguous 100MHz assignments in the 3.4–3.7GHz range. This would be in line with the 5G spectrum assignments of other European nations, as well as following industry-recommended amounts for the contiguous 3.5GHz spectrum needed to deliver good-quality 5G.

Figure 2: Overview of JCRA's proposed spectrum assignment approach [Source: Analysys Mason, Ofcom, JCRA, 2022]



Under the JCRA's proposal, only a relatively small amount of 3.5GHz spectrum will be available for 5G initially, with the availability of additional spectrum potentially severely delayed (based on the indicated timescale, "may take at least five years").⁹ Despite the longstanding awareness of the need for defragmenting the 3.4–3.8GHz band, and a number of proposals for addressing incumbent use and legacy licences in the band, it is unfortunate that this issue has not been resolved.

⁹ In the UK 390MHz has been allocated for 5G use, and all operators have assignments of at least 80MHz. In the Isle of Man contiguous 100MHz blocks have been assigned to each of the three MNOs (3410–3510MHz, 3600–3700MHz and 3700–3800MHz). Across mainland Europe, the vast majority of countries that have assigned 3.5GHz spectrum for 5G use have awarded at least 80MHz of contiguous spectrum to each operator.

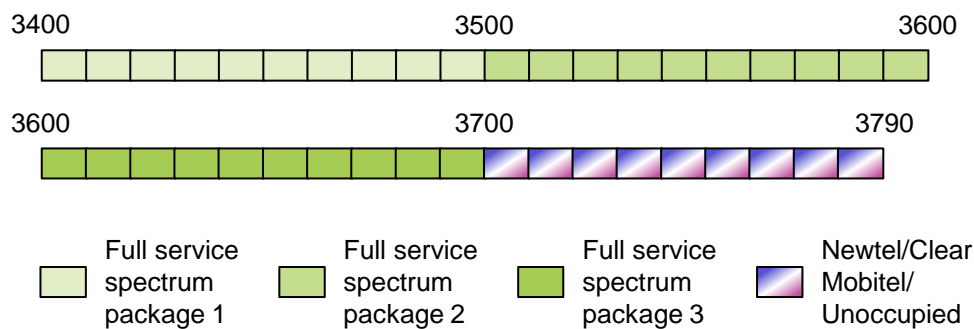
JT notes that CICRA's Draft ITT proposed that "operators with [an] existing 3.4–3.8GHz spectrum holding who do not participate in the process or who are unable to commit to the minimum requirements [...are issued a notice...] to vacate the relevant spectrum on the expiry of a 1-year notice period".¹⁰ Similarly, CICRA's Statement of Intent Paragraph 5.17 stated "If an operator with an existing 3.4–3.8GHz spectrum allocation is unwilling to commit to the minimum 5G licence conditions, it would need to vacate its spectrum on the expiry of a 1-year notice period".¹¹ JT would like to see such conditions reinstated.

Under the current proposals, the restriction of available bandwidth in the initial assignment (only 40MHz of 3.5GHz) would be a severe impediment to JT's ability to ease network congestion and provide good-quality 5G – ultimately disadvantaging Jersey's citizens, and causing performance, capacity and credibility issues for JT. JT does not consider this proposal acceptable; consequently, JT proposes four alternative initial assignment approaches (ranked in order of preference), in which more contiguous spectrum is made available to applicants sooner. We note that the long-term band plan remains the same as that proposed by JCRA in all four approaches.

JT's proposed alternative initial assignment 1

JT's preferred solution would be to re-farm/defragment immediately, enabling assignment of three contiguous 100MHz blocks in the 3.4–3.7GHz range, see Figure 3.

Figure 3: JT's proposed alternative initial allocation 1 [Source: Analysys Mason, 2022]



In this approach:

- Sure would be required to relinquish its current assignment of paired spectrum (which, in its current form, is not compatible with 5G deployment). As suggested in Section 3.2, JT believes that this should be a condition of Sure's application. JT understands that Sure is currently not using its spectrum and, as this is the case, we do not see a reason to wait "at least five years" for the spectrum to be returned. Additionally, Sure is

¹⁰ CICRA document number: CICRA19/60, available at <https://www.jcra.je/media/598138/5g-spectrum-award-draft-invitation-to-tender-document.pdf>

¹¹ CICRA document number: CICRA19/61, available at <https://www.jcra.je/media/598139/5g-spectrum-statement-of-intent.pdf>

interested in obtaining 3.4–3.8GHz spectrum in order to provide 5G. Given that Sure's current licence is for fixed wireless access (FWA), and its assignment is non-contiguous, a licence variation and defragmentation would be required in order for Sure to have a contiguous assignment of spectrum suitable for 5G. As such, Sure should be willing to return its current spectrum holding to the JCRA for reassignment as part of this process.

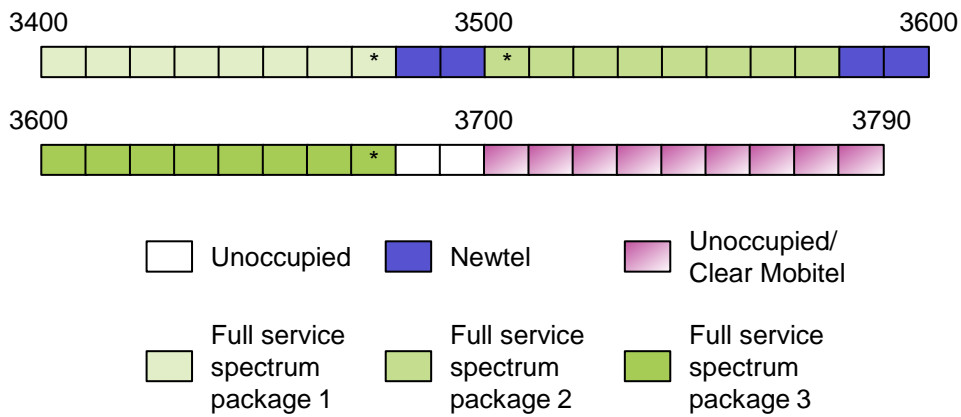
- Newtel would be moved to the upper portion of the band. The exact configuration that the upper band would take is unclear, but there is certainly space for Newtel's 2×20MHz to be located here. As Newtel is currently using its FWA spectrum, any solution must support its continued use, at least in the short term, and hence we note JCRA will need to engage with Newtel to understand its network and device capabilities in order to determine a viable alternative assignment. Again, JT advocates for a one-year notice period, as described in CICRA's Draft ITT.
- Clear Mobitel returns its current assignment, enabling 50MHz in the 3700–3790MHz range to be made available for Limited Service Spectrum Packages, or new entrants. As Clear Mobitel is not currently using its spectrum, we do not see a reason to wait "at least five years" for the spectrum to be returned. If Clear Mobitel intends to deliver 5G services, then it should be willing to co-operate as its current assignment is non-contiguous and only licensed for FWA. Alternatively, if Clear Mobitel does not voluntarily relinquish its spectrum, its FWA holdings could be shifted into the remaining 60MHz of the 3.7–3.8GHz band, provided that the top 10MHz (3790–3800MHz) is available, and contingent on requirements for guard bands with Newtel's holdings¹² (and the required separation between Clear Mobitel's uplink and downlink blocks).

JT's proposed alternative initial assignment 2

Figure 4 illustrates JT's second preferred alternative approach, which allows all three full-service spectrum packages to have an initial assignment of 80MHz (or 70MHz in the event that guard bands are required around Newtel's downlink spectrum).

¹² Regardless of the final configuration, as Newtel will continue to operate in the short term, JT would like to know what equipment Newtel uses in order to determine whether there may be interference and thus a need for a guard band, as this may influence which spectrum package JT prefers.

Figure 4: JT's proposed alternative initial assignment 2 [Source: Analysys Mason, 2022]



* Depends on if Newtel requires a guard band

In this approach:

- Newtel's current spectrum assignment remains unchanged (3480–3500MHz, 3580–3600MHz)
- Sure relinquishes its current holdings, on the basis that it is assumed Sure will be applying for a 5G licence in the 3.5GHz band
- either Clear Mobitel relinquishes its current holdings, or if it is not incentivised to do so, its blocks of spectrum are relocated into the 3700–3790MHz range.

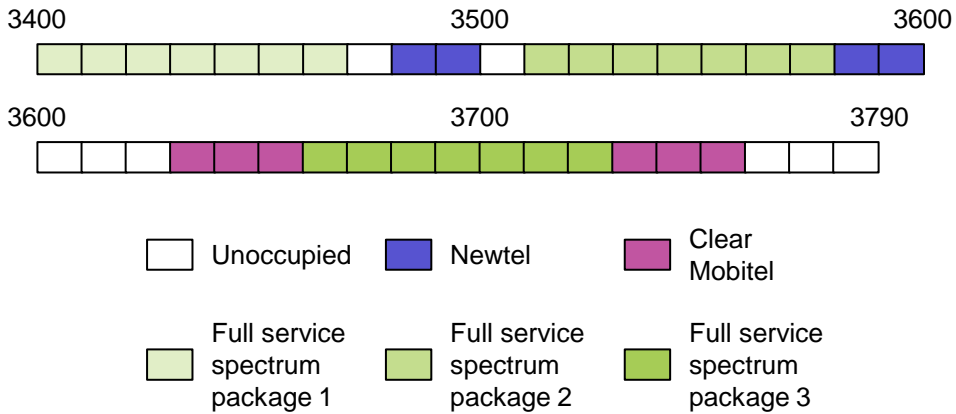
This approach is contingent on Clear Mobitel either voluntarily relinquishing its spectrum, or agreeing to change the location of its existing spectrum.

JT's proposed alternative initial assignment 3

If full relinquishment of Clear Mobitel's spectrum, or a relocation of its existing spectrum, is not possible, then JT's third preference alternative assignment would still allow all three full-service spectrum packages to receive an initial assignment of 70MHz. In this approach, as illustrated in Figure 5:

- Newtel's current spectrum assignment remains unchanged (3480–3500MHz, 3580–3600MHz)
- Sure relinquishes its current holdings, on the basis that it is assumed Sure will be applying for a 5G licence in the 3.5GHz band
- Clear Mobitel's assignment remains unchanged (3630–3660MHz, 3730–3760MHz).

Figure 5: JT's proposed alternative initial assignment 3 [Source: Analysys Mason, 2022]



Following the removal of Clear Mobitel in the defragmentation process, the third full service spectrum package will shift from 70MHz at 3660–3730MHz to 70MHz in the 3600–3700MHz range (and 100MHz, i.e. the full 3600–3700MHz range, once Newtel's spectrum has been moved).

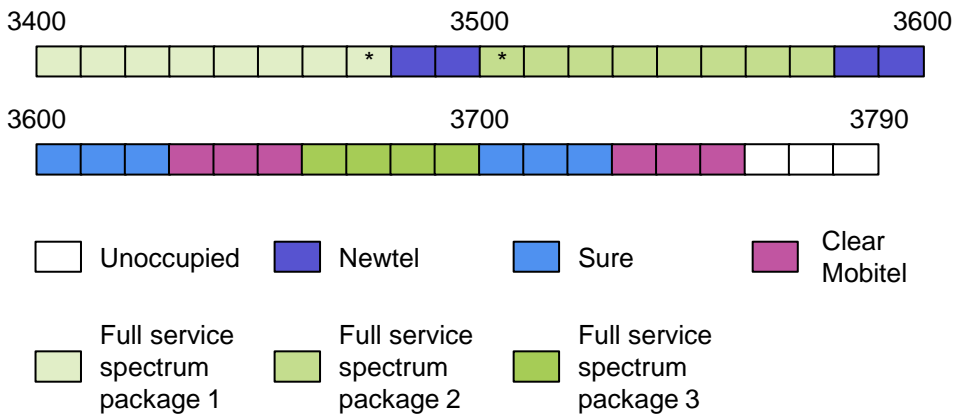
JT's proposed alternative initial assignment 4

Finally, if Sure does not relinquish its current spectrum holdings initially, then it would be possible for different block sizes to be made available to 5G applicants:

- two blocks of 80MHz between 3400–3480MHz and 3500–3580MHz (or 70MHz blocks between 3400–3470MHz and 3510–3580MHz in the event guard bands are required around Newtel's downlink spectrum)
- one block of 40MHz (3660–3700MHz).

This proposal is illustrated in Figure 6.

Figure 6: JT's proposed alternative initial assignment 4 [Source: Analysys Mason, 2022]



* Depends on if Newtel requires a guard band

Paragraph 8.3 of the Draft ITT

Paragraph 8.3 of the Draft ITT indicates that the only RI that applicants must submit is a demonstration that they possess or have access to (1) financial means and commitment to invest, (2) technical knowledge, (3) operational and commercial experience. This implies there is no requirement for any sort of technical, network deployment, commercial or financial plan (which was required for the 4G award). Clarification is needed as to whether this is indeed not required, noting that it makes a significant difference to the level of effort required in preparing the licence application. JT believes that it may be beneficial for applicants to submit certain details relating to network deployment plans, primarily as evidence of how the spectrum will be deployed. For instance, applicants should be required to submit the number of base stations on which they intend to install and activate 5G within 24 months of the licences being issued for each of the spectrum bands being considered (700MHz and 3.5GHz).

3.4 Question 4: Do you have any comments on the proposed 5G spectrum award tender evaluation and selection procedure?

Clarity is needed on how the comparative evaluation will be conducted, and, in particular, how the RI would be assessed for “completeness, consistency and credibility”.

According to Paragraph 9.4 of the Draft ITT, the SI is only required in the event of more than three applicants meeting the minimum requirements. As mentioned in Section 3.1, rather than the applicants spending considerable time preparing the SI, the JCRA should only request this information in the (unlikely) case that there are more than three qualified applicants. This would significantly reduce the work required by all parties in preparing their licence applications, enabling a quicker evaluation process leading to more rapid conclusion of the licensing process.