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TCI TELECOMMUNICATIONS COMMISSION



Digicel

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Advance copy by email to consultations@tcitelecommission.tc.

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Dear Sir/Madam,

Re: Submissions in response to the Commission's queries.

(1) PN 2015 -3 Andrew's Communications Ltd. _ Application for Spectrum

The Commission has invited the public to generally comment on Andrew's Communications Ltd's (Trading as People's Telecoms Company Ltd) application for assignment of spectrum in the 2.5GHz Band. Digicel does not expressly oppose Andrew Communications Ltd's application, however, we are concerned at the amount of spectrum being sought by the applicant and would recommend that the Commission exercises caution when considering any application on 2.5 GHz band as the same has primarily been allocated for cellular mobile broadband services by the ITU. As the Commission may be aware, the Federal Communications Commission (FCC) rearranged the band in 2004 in an effort to make it more suitable for cellular mobile broadband services.

Digicel submits that the application for Andrew Communication Limited should be considered in line with the ITU's recommendation and only after the Commission's Consultation for Assignment of Spectrum in the 2.5GHz band is concluded. Digicel responds as hereunder with regard to that Consultation for Assignment.

(2) PN 2015-7 - Assignment of Spectrum in the 2.5GHz Band

Digicel welcomes this opportunity to comment on the proposed policy for spectrum allocation in the 2.5GHz band.

As an overarching position we would express that there is a need for regional alignment of spectrum planning. This aligned approach is more likely to result in lower process for end-user



device arising from scale efficiencies and lower operator costs for similar reasons. This mirrors the positions outlined by the Commission in the Consultation document.

Given the significant volume of inbound roamers to the region and the revenues that accrue to both the private and public sectors from these roamers where there is a choice there is also an incentive to align local allocations with the largest source market(s) for these roamers. In the case of the region this is North America (US and Canada).



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Spectrum allocations underpin long term infrastructure investment and are difficult to unpick once made. Radio spectrum is a scarce national resource and may be considered a public good. In light of this, while short term demand and/or usage may yield perceived gains in the short term, in the longer term they may act a “blocks” to the effective and efficient deployment of services which yield overall greater and more sustainable consumer and economic benefits. For this reason in general we also favour comparative allocation mechanisms with a medium to long term assessment horizon.

We note in particular the Commission’s proposal to award an optimum amount of spectrum, and that the exact definition of what criteria might be used to determine what is optimum have not been consulted on as part of this consultation. We can only assume that the Commission envisages a second round of consultation should it decide to proceed with the “optimum award” approach in order to fully define the criteria.

Given that this second stage appears to have been already contemplated there would be only limited procedural delay in conduction a combined consultation which also assessed the parameters for a comparative award process.

Our responses to the individual consultation questions are set out below. Should the Commission require additional clarification or expansion on any of our responses we are more than happy to provide this.

Question 1:

Do you agree that the 2.5GHz spectrum should be channelized based on TDD/IMT technology with channels of 5, 10, 15 and 20MHz bandwidth each?

Digicel supports the Commission’s proposal to use an approach based on TDD/IMT. However we believe that block size of 20MHz is more appropriate for operators intending to use mobile based LTE technology. Given the primary designation of the band for International Mobile Telecommunications [emphasis added] we believe that this should be given some weight by the Commission in making a decision.



Question 2:

Do you agree with the proposal that service providers may use technology of their choice in delivering broadband wireless services within the band?

While in general we support the concept of technology neutrality we would point out the LTE is likely to be the preferred technology for operators going forward. This, coupled with the primary designation for IMT means that choices regarding channelisation etc. within the band should be weighted towards the requirements of LTE to the extent that other technologies are consistent with the LTE requirements we do not see an objective reason to preclude these technologies.

Question 3:

(1) What is your need for additional spectrum for commercial mobile services applications and how much spectrum do you require?

At this time our network and service evolution plans would require 1 x 60 MHz for LTE TDD in the 2.6 GHz band.

Question 3:

(2) What deployment timelines are being considered?

At this time we would envisage deploying mobile LTE technology in this band commencing in 2016.

Question 3:

(3) What types of applications/uses are envisaged?

At this time we foresee using of this spectrum for mobile and fixed wireless broadband.

Question 3:

(4) How much of your anticipated spectrum needs be addressed by having access to the 2.5GHz Band?

Having access to this spectrum would allow for the expansion of existing broadband services and will support broadband services on mobile devices going forward as these devices become capable of supporting these frequencies.



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Question 4:

Do you agree with the Commission's proposal that providers be awarded an optimum amount of spectrum for provision of services in the TCI? If you disagree, please provide a framework for the Commission to determine the amount of spectrum bandwidth to award to potential licensees

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It is not clear what criteria are proposed to determine what is an "optimum" amount of spectrum. For example awarding one operator an "optimum" amount of spectrum to implement a particular network solution could squeeze out other operators or inhibit an "optimum" allocation to them. At high levels of network capacity requirement "fixed" broadband might be more efficiently delivered using "fixed" infrastructure rather than an excess use of spectrum within a band primarily intended for International **Mobile** Telecommunications. In this regard Digicel believes that in assessing "optimum" should assess any applicant's ability in the medium to long term to meet high levels of user end user demand for fixed broadband using "fixed" network resources. Similarly the Commission should assess the extent to which an applicant intends to use any allocation for its primary designated use.

As the Commission points out in its Consultation: *"China, Japan and the USA, have recently rearranged the 2.5GHz Band in their jurisdictions using the Band Plan (Band 41) for LTE Advance broadband services. This deployment has the potential of making equipment more affordable and furthering the proliferation of broadband mobile devices, such as smartphones and tablets, that operate in the 2.5GHz Band";*

and that

"Because of the recent arrangement of 2.5GHz spectrum in the United States, it is possible, perhaps likely, that over the coming years, telecommunications providers within our region will develop and deploy new equipment designed to operate within the 2.5GHz for IMT services set by ITU."

In the context of the Commission's own analysis, which Digicel agrees with, Digicel submits that "optimum" allocations are those which favour operators proposing to credibly deploy mobile services in the band. Disproportionately large, long term, allocations to operators proposing to deploy "fixed" only services which will effectively sterilise the use of tranches of this band by domestic mobile users and by inbound roamers cannot be considered optimum.

Question 5:

(1) Do public safety agencies need spectrum for broadband applications?



At this time Digicel cannot identify any requirements for public safety agencies to build separate broadband networks using spectrum in this band.

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Question 5:

(2) How much and for what type of applications?

Please see response to Question 5(1)

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Question 5:

(3) What are the anticipated deployment plans and possible constraints in implementing these applications?

Please see response to Question 5(1)

Question 5:

(4) Is there suitable spectrum other than 2.5GHz spectrum to meet these broadband requirements?

Given the relative propagation characteristics of both the 2.5GHz band and the 700MHz band we believe that even if such a requirement could be identified it would be more appropriate to consider reserving Band 14 in the 700 MHz band for this purpose.

Question 6:

In the case of the 2.5GHz spectrum do you think that the traditional first-come, first-served method of assigning spectrum is appropriate, or would it be preferable to use a comparative selection method?

Digicel considers that a simple "first come, first served" approach would not allow be compatible with the proposal put forward by the Commission to award an "optimum" amount of spectrum. This is because any assessment of the "optimum" amount of spectrum would require assessing whether any short term proposed usage for the requested allocation would be compatible with the long term efficient and effective use of the spectrum.



An award which only looked at a single operator’s short term requirements would only yield an outcome which was optimum for that single operator and would almost certainly yield sub-optimal outcomes for consumers and other spectrum users in the medium to long term. It is unlikely to meet regulatory policy objectives. In particular the primary designation of the band for mobile telecommunications would require an assessment of whether it was optimum to make a substantial or longer term allocation to fixed only use.

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In light of these considerations Digicel believes that a comparative allocation process is required in order to meet spectrum management policy objectives. The exact design of any process could include measures to discourage regulatory gaming.

Question 7:

Do you agree that the 2.5GHz price be set at the price of the non-prime spectrum of the 700 MHz Band (4.3¢ Mhz/ pop)? If not, what pricing do you propose?

Given the relative propagation characteristics of radio frequencies at 700MHz compared to 2.5GHz where, as the Commission points out in its Consultation “...lower frequency bands provide better penetration and coverage than higher frequency bands...” Digicel believes that allocations in the 2.5GHz band should be priced at a significant discount to frequencies in the 700MHz band. This approach is consistent with the technical characteristics and consequent commercial realities that the Commission itself has set out.

Question 8:

Do you consider that it is appropriate to reserve any channels of the 2.5 GHz Band for future use?

Digicel is of the view that if there is sufficient justified demand for spectrum in this band at this time then the entire band should be allocated to meet this demand. To do otherwise would inhibit technology and service deployment for some unquantified potential future benefit.

Yours Sincerely,

Erik Staaf

CEO