

TELIKOM LIMITED

Submission: Comments on the 60 GHz Band Plan

Telikom thanks and appreciated NICTA for the opportunity to comment on the Draft 60 GHz Band Plan for Fixed Wireless Applications. Telikom considers that broadband data services especially mobile broadband services in concentrated areas can be greatly enhanced with the utilization of the licensed 60 GHz band as proposed by NICTA.

1. Telikom notes that, in the Introduction of the Draft 60 GHz Band Plan Consultation paper (“**the Draft Paper**”), NICTA proposes to open spectrum in the 57 – 71 GHz band for Fixed Wireless applications.

Recommendation:

Telikom recommends that NICTA develop a comprehensive plan for spectrum management of the 60GHz band including any appropriate/consequential changes to current guidelines on licensing and or authorization of the use of particular frequency bands including the ‘unlicensed bands’.

2. Telikom notes that, in the Introduction of the Draft Paper, NICTA seeks views of interested stakeholders on the usage of 60GHz spectrum in PNG.

Recommendation:

Telikom advises that the planned 60 GHz band should be allocated as a ‘primary’ allocation for the 5G Mobile services within PNG. A reason for this is that data usage in concentrated areas such as in public buildings or complexes/campuses will encourage broadband service operators to utilize the band to cater for high capacity data usage demands.

ALLOCATION IN THE 60 GHZ BAND

3. Telikom notes that, on Allocation in the 60 GHz Band of the Draft Paper, NICTA recommends to deploy the upper part of the 60GHz (66-71GHz) as a regulated band.

Telikom agrees with NICTA’s recommendation to license the upper band of 60GHz (66-71GHz).

Recommendation

Furthermore, Telikom recommends that, for the proposed unlicensed lower band of 60GHz, guidelines must be set by NICTA for all licensed operators to limit interference.

CHANNELING PLAN

4. Telikom notes that, in the Channeling Plan of the Draft 60 GHz Band Plan Consultation paper, NICTA states CEPT recommendation ECC/REC/ (09)011 that provides a number of flexible options for high point-to-point fixed wireless services in 60GHz band.

Recommendation:

Recommendation ECC/REC/(09)011 by CEPT recommends that monitoring and enforcement mechanisms should be put in place to ensure compliance with technical requirements and prevent harmful interference. Telikom supports this recommendation.

Interference reduces service throughput rate and must be monitored stringently.

5. Telkom notes that, in the Channeling Plan of the Draft Paper, NICTA indicates that 2160 MHz channel bandwidth is required for single channels and bonding of single channels are allowed.

Recommendation:

Telkom agrees with NICTA for 2160 MHz channel bandwidth of 60GHz.

Telkom further agrees with NICTA that Channels 1-4 should be unlicensed and Channels 5 and 6 should be licensed.

Telkom recommends that bandwidth allocation per licensed channels 5 and 6 should be evenly distributed. No one operator should have all its allocated bandwidth in channel 6.

PRINCIPLES OF ASSIGNMENT

6. Telkom notes that, in the Principles of Assignment of the Draft Paper, NICTA authorizes that any use of that licensed portion of 60GHz is subject to conditions in the operator Licensing Regulation, 2010 and Radio Spectrum Regulation, 2010.

Recommendation:

Telkom agrees with NICTA that all the recommended licensed portion of 60GHz spectrum must be available for use by all licensed operators.

7. Telkom further notes that, in the Principles of Assignment of the Draft Paper, NICTA advises that Spectrum License is needed for the operation of a device or devices within a defined spectrum space (geographic area).

Recommendation:

Telkom proposes to NICTA to consider that 60GHz must be deployed by licensed operator in specific geographical areas such as populated urban areas, main provincial towns only, and specific special mining, agricultural and SEZ areas. The reason is to enhance and promote broadband services in these populated areas.

SUMMARY

When considering allowing operators to use the 60GHz frequency band for both licensed and unlicensed use, NICTA must take into account several factors, including:

- **Interference:** NICTA must ensure that the use of the 60GHz frequency band does not cause harmful interference with other wireless services operating in the same or adjacent frequency bands.
- **Spectrum availability:** NICTA must assess the availability of spectrum in the 60GHz band and determine whether there is enough spectrum to accommodate both licensed and unlicensed use.

- **Technical requirements:** NICTA must establish technical requirements for equipment that will operate in the 60GHz band to ensure that it meets certain standards for performance, reliability, and safety.
- **Market demand:** NICTA must determine the level of market demand for the use of the 60GHz band and assess whether there are sufficient incentives for operators to invest in the necessary infrastructure. In addition, due to high bandwidth demand in 5G to meet the throughput requirements, special conditions must be set to spectrum fees.
- **Economic considerations:** The 60GHz has the potential to enable operators to bridge the digital divide. The regulator must consider the economic impact of allowing operators to use the 60GHz band for both licensed and unlicensed use, including the potential benefits and costs to consumers, businesses, and the wider economy.
- **International harmonization:** NICTA must take into account international harmonization efforts to ensure that the use of the 60GHz band is consistent with global standards and practices.

Overall, NICTA must balance these considerations to ensure that the use of the 60GHz band is both technically feasible and economically viable, while also protecting other wireless services from harmful interference