National Information and Communications Technology Authority

BACKGROUND
3500 MHz BAND

Papua New Guinea

The 3.5 GHz (3 400 – 3 600 MHz) range (also known as C-band) is a core radio frequency spectrum band that has been identified as the basis for the first implementations of 5G globally. This spectrum is at a balancing point between coverage and capacity that provides the perfect environment for the earliest 5G connectivity. Planning of these frequencies has taken place over multiple WRC cycles since WRC 15 and work on harmonisation continues today. However, in recent years since 2021, the 3.5 GHz range's status as the principal 5G launch band has become clear globally and this has driven a wider ecosystem, increased device diversity, and enhanced competition.

The correct assignment of the 3.5 GHz range will allow wide contiguous channels of 80-100 MHz per operator to be used which will maximise network performance while minimising consumer costs. 5G networks are also reaching into mmWave for the highest capacity and will use lower frequencies to provide greater coverage.

The 3.5 GHz band has a primary allocation for Fixed and Mobile services in PNG. With the identification of this band as a core radio frequency spectrum band for 5G deployment in the Asia and Pacific region, PNG will now look at the possibility of deploying 5G services in the 3.5 GHz band.

This consultation is particularly critical for PNG due to reliance on C-band Fixed Satellite Service (FSS), which will be operating adjacent to IMT. C-band satellites have been providing services to businesses, governments and consumers for over 50 years and continue to be a critical enabler of socio-economic development around the world.

Hence NICTA invites stakeholders and interested parties to provide necessary feedback and responses to the 3.5 GHz Band Plan.