

To
Shri Neeraj Mittal (IAS)
Secretary DoT & Chairman DCC
Sanchar Bhawan, 20, Ashoka Road,
New Delhi-110001

October 9, 2023
ITU-APT/L/2023-24/793

Subject: Suggestions for formulation of a new Policy for Spectrum Swapping

Dear Sir,

Spectrum is a finite natural resource, that needs to be utilized efficiently to provide the best service outcomes for consumers. Optimum Spectrum utilization of the assigned spectrum is key to ensure that the operators efficiently utilize their assigned spectrum. Non availability of needed access spectrum remains a barrier to improving the quality of mobile services to the consumers.

Last Telecom reforms of 2021 have been extremely successful in easing the regulatory framework for mobile operators in the country viz. moratorium period for spectrum deferred payouts, option of surrender of spectrum after 10 years, zero spectrum usage charge (SUC) for future auctions, removal of additional SUC on shared spectrum, conduct of annual auctions, relaxation of terms & conditions of payouts, and so on. These measures have given the necessary impetus to the industry. This is evident from the fact that India is witnessing one of the fastest 5G rollouts in the world, as per the recent report released by Ookla and India is second in the world regarding 5G users, having more than 100 million customers, after China.

In the same vein, it is essential that the Government should consider a more flexible spectrum allocation policy by prescribing new/additional spectrum allocation methods apart from spectrum auction and trading. This would improve the ease of doing business as well as ensure efficient utilization of spectrum. Having a new policy for spectrum swapping is crucial to support mobile services growth in India for several reasons:

1. **Spectrum Efficiency:** Spectrum is a finite and valuable resource. Spectrum swapping allows mobile service providers to optimize their spectrum holdings, ensuring that the available spectrum is used efficiently. By swapping or trading spectrum, operators can consolidate contiguous frequency bands, which can result in better network performance and capacity.
2. **Encourages Investment:** A spectrum swapping policy encourages operators to invest in network infrastructure and technology upgrades. When operators can acquire spectrum more strategically, they are more likely to invest in improving their services, expanding coverage, and deploying advanced technologies like 4G and 5G. This, in turn, leads to better quality of service for consumers.

3. **Promotes Competition:** Spectrum swapping can help level the playing field in the telecommunications market. Smaller or newer players may not have access to the same amount or quality of spectrum as established operators. Allowing spectrum swapping enables these operators to acquire spectrum that better suits their needs and competes more effectively in the market, fostering healthy competition.
4. **Spectrum Harmonization:** Spectrum swapping can lead to spectrum harmonization, where frequency bands are organized more cohesively across the industry. This harmonization can simplify device manufacturing and reduce the cost of network deployment, ultimately benefiting consumers by driving down costs.
5. **Rapid Technology Adoption:** As mobile technologies evolve, different spectrum bands become more suitable for specific applications. A spectrum swapping policy allows operators to adapt to changing technology requirements quickly. For example, as India prepares for the rollout of 5G, operators may need to swap or acquire new spectrum bands optimized for this technology.
6. **Maximizing Revenue for Government:** Spectrum auctions are a significant source of revenue for governments. A well-structured spectrum swapping policy can help ensure that spectrum remains in productive use and generates revenue through auctions and fees. It can also prevent spectrum hoarding by encouraging operators to relinquish unused or underutilized frequencies.
7. **Rural Connectivity:** Spectrum swapping can aid in extending mobile services to underserved and rural areas. By allowing operators to swap spectrum holdings, they can better align their resources with the need for broader coverage in less profitable or remote regions.

In conclusion, a new policy for spectrum swapping in India could lead to more efficient spectrum utilization, increased investment in mobile infrastructure, improved competition, and better services for consumers. It can also help the country stay at the forefront of mobile technology advancements, ultimately contributing to economic growth and digital inclusion.

We therefore propose that the **DoT should allow swapping of spectrum held by TSPs in one band with spectrum available with the Government in other bands**. Due to multiple factors, some of the existing spectrum holdings of the TSPs remain underutilized/stay idle in the spectrum pool of that TSP. In contrast, the same spectrum would be useful to other TSPs based on their business strategy. For better utilization of the spectrum and to ensure minimal spectrum remains idle, TSPs should be allowed to exchange their existing holding of auctioned spectrum in one band with the spectrum available with the Government in another band that fits the business strategy of the TSP. It will help TSPs to consolidate their spectrum holdings in the bands, where they needed the most, and to free up spectrum in the bands, where not using it efficiently, thereby improving the spectrum efficiency.

For example, one TSP may like to switch some part of its 1800 MHz spectrum holdings with 800/900 MHz spectrum band available with the Government based on its business requirement while being revenue neutral or positive. This can be done by paying the difference of amount, which can be calculated based on the last auction-determine price. If the auction determined price is more than one year old, then the prevailing market rates shall be determined by indexing the last auction price with interest as mentioned in the recent NIA

for spectrum auction. Some of the issues that may be raised in development of this policy are listed in the attachment, which may need further deliberations.

In summary, we request DoT to formulate a policy allowing TSPs to swap the existing spectrum in one band with another band that they need while being revenue neutral to revenue positive to the exchequer.

Warm Regards,

Bharat B Bhatia,

President, ITU-APT Foundation of India

Vice Chairman - Asia Pacific, World Wireless Research Forum (WWRF)

Chairman, ITU-R WP5D SWG IMT Applications

Chairman, AWG Task group on Wi-Fi and RLAN

Phone: +919810173737

CC:

1. **Chief Executive Officer, Niti Aayog**, Sansad Marg, New Delhi – 110001
2. **Secretary (DEA)**, R. No. 130, MoF, Department of Economic Affairs, New Delhi – 110001
3. **Secretary (MeitY)**, Electronics Niketan, 6, CGO Complex, Lodhi Road, New Delhi–110003
4. **Secretary (DIPP)**, DPIIT, Udyog Bhawan, New Delhi – 110011
5. **Member (F), DoT**, Sanchar Bhawan, New Delhi – 110001
6. **Member (T), DoT**, Sanchar Bhawan, New Delhi – 110001
7. **Member (S), DoT**, Sanchar Bhawan, New Delhi – 110001
8. **Wireless Advisor, DoT**, Sanchar Bhawan, New Delhi – 110001

Attachment 1

Issues that may need further deliberations

Issue	Possible option
How to equate quantum of spectrum	<ul style="list-style-type: none">- Keep swaps within similar bands only
Pricing of different bands will be different <ul style="list-style-type: none">- For example, 900 MHz band vs 1800 MHz or 700 MHz will be very different so how do you compare- E.g. During 2022 auctions, Delhi 700 MHz band was INR 509 Crs/MHz and 1800 MHz band was INR 270 Crs/MHz	<ul style="list-style-type: none">- you pay for extra delta if you are moving from a cheaper band to costlier band- if you are moving from a costlier spectrum to a cheaper band, you do not get any refund
How do you compare equivalent of TDD and FDD bands?	<ul style="list-style-type: none">- SWAP is permitted only between FDD bands
How do you compare propagation characteristics of different bands (e.g. 700 vs 26 GHz)	<ul style="list-style-type: none">- Do swap only for UHF bands
What happens to spectrum where original licenses are about to expire? i.e. duration of licenses	<ul style="list-style-type: none">- Lower duration may be applied