To:
Shri Akhilesh Kumar Trivedi
Advisor (Networks, Spectrum and Licensing)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg, New Delhi- 110002

Subject: SIA-India Counter Comments to TRAI Consultation Paper on Telecommunication Infrastructure Sharing, Spectrum Sharing, and Spectrum Leasing

Dear Sir,

We note with grave concern the proposal of Authorised Shared Access (ASA) of Spectrum that we have opposed in our earlier submission to the consultation paper. We have also noted that some of the access service providers have supported it in their submission, and understandably so because the proposal is to make available an additional spectrum to the access service providers at the cost of other services which are also national priorities.
The whole idea is supported by the growing usage of spectrum in mobile networks, while at the same time disregarding the fact that current allocations of the spectrum to other users, be it in government, defence or private sector will also see increased usage over a period.

1. The current usage is not a benchmark of the utility of the spectrum for a given purpose as some of the usage infrastructure takes years to build, unlike the faster buildout of the access networks. In one of the comments submitted by a stakeholder, the example of spectrum allocated to railways or defence is cited. Are we to assume that the railway network is static and will not see additional rollout or are we to assume that the access networks hold a higher priority over the defence needs that are being developed at a pace of budget allocation and may take a few years for wider deployment? Similarly, satellites have a multiyear process from plan to the orbital placement and this period cannot be assumed that the satellite spectrum is unused so should be earmarked for future access network expansion.
Future network growth is happening across various services including government, defence and satellite segments that have a significant stake in the national economy besides access networks. Allocating spectrum without allowing for flexibility or future expansion for multiple services can limit the ability of these services to use that spectrum in the future. This can create bottlenecks, limiting the ability of government and businesses to innovate and deploy new services and harming the interests of users who may be deprived of new and innovative services. Therefore, it is crucial for the government to consider the future needs of the market and allocate the spectrum in a way that allows for flexibility and expansion of other services besides the limited focus on access networks alone.

2. On the other hand, it is imperative to lay out norms of optimal usage by the access service providers for efficient use of the existing assigned spectrum. The latest techniques of DSS, spectrum refarming and network densification need to be enforced before any additional spectrum is identified for access network licensees.

3. There is also a whole swath of FR2 frequencies that are not efficiently utilised in the access networks and the access network providers need to first saturate the usage of these assigned frequencies. The usage of these frequencies and the deployment of advanced technology should be mandated for access networks as a precondition to any future spectrum identification.

4. In one of the submissions by a stakeholder to Q13 it is proposed that “any spectrum in any frequency band can be used to deploy any technology”. WRC considers multiple aspects of such studies to arrive at optimum spectrum allocations for various services including satellite and IMT. The C- and Ku-bands are the most extensively utilised for commercial FSS services, while the Ka-band is seeing rapid uptake and hefty new investments because the technological advances have helped the industry to unleash the full potential of available large bandwidths for high-capacity systems. As C- and Ku-band continue to become more saturated, most new broadband and other satellites will deploy Ka-band technology in the coming years. Therefore, it is vital that sustainable future growth for both GEO and non-GEO satellite systems in Ka-band is ensured.

5. Satellite operators already share these frequencies amongst themselves by entering carefully assessed coordination agreements, employing precise orbital spacing, coordination and using directional antennas to avoid creating interference with each other. Satellite operators have developed a functional framework to effectively utilise the same frequencies covering the globe for efficient spectrum usage.

6. To avoid interference issues, the government must conduct a study with a thorough analysis of the spectrum needs of all the services that will be using the spectrum and carefully plan and allocate frequencies to minimise the risk of interference. Proper technical rules and standards should also be established and enforced to ensure all users of the spectrum comply with best practices.

In conclusion, it is crucial to take a measured and thoughtful approach to spectrum allocation to minimize risks and ensure efficient and effective use of this limited resource. Proper interference study, planning, analysis, and coordination with all stakeholders can help avoid these risks and ensure that the allocated spectrum is used in the best interest of all. Before discussing dynamic allocation, the critical gaps and failures in the process and policies for efficiently allocating spectrum, including sharing, must be addressed.

The proposed Authorised Shared Access (ASA) regime allowing access service providers to use already allocated spectrum without conducting in-depth studies of service-based spectrum requirements, technology enhancements for efficient use of allocated spectrum, co-existence, and interference, is opposed by SIA-India.

Yours sincerely

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