

17 December 2021

**Shri Syed Tausif Abbas,
Advisor (Networks, Spectrum and Licensing),
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg
New Delhi – 110 002**

Subject: Tata Communications Ltd. response to TRAI Consultation Paper on 'Licensing Framework for Establishing Satellite Earth Station Gateway'

Dear Sir,

This is with reference to the TRAI Consultation Paper No.06/2021 dated 15-11-2021 and Press Release no 56/2021 dated 13-12-2021 on aforementioned subject.

In this regard, please find enclosed herewith Tata Communication Limited's response to the Consultation Paper as Annexure -I for your kind perusal.

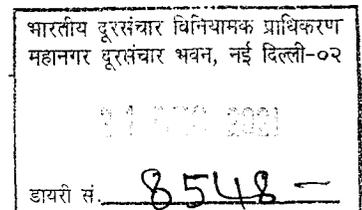
We request you to kindly consider our inputs while finalizing the recommendations and would be happy to provide any additional information, if required.

Thanking You,
Yours Sincerely,

For Tata Communications Limited,

**Praveen Sharma
Authorized Signatory**

Enclosure: As mentioned above



TATA COMMUNICATIONS

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Tata Communications Limited's response to TRAI Consultation Paper on 'Licensing Framework for Establishing Satellite Earth Station Gateway'

At the outset, we welcome the issuance of this Consultation Paper, as this comes at a time, when Broadband connectivity has become an essential service in the country and we believe that Satellite broadband services will also have a vital role in expansion of the broadband market going forward by connecting the unconnected places with internet, in addition to terrestrial broadband networks. Moreover, with a view to encourage the participation of private sector in the space communication sector, Department of Space (DoS) is also in the process of reviewing its policies, through Spacecom-2020 policy.

Before responding to the issues raised in the consultation paper, it is important to mention the factors which have been inhibiting the growth of satellite-based communication services. Despite India being recognized as one of the most advanced countries in the world in the space sector, it is a matter of concern that there is a very low usage of Satellite Technology to provide telecommunication services in India. One of the major reasons for the same is lack of affordability of satellite bandwidth, lengthy and complex processes of obtaining permissions for setting up of the Earth Station Gateways and Spectrum and absence of Open Sky Policy where service providers can directly engage with the Satellite Service providers instead of mandatorily going through the approval process from multiple Government agencies.

New satellite technologies like LEO and MEO are crucial for proliferation of broadband especially in remote and far-flung areas as well as low bit rate applications like IoT. There is a need for creating a conducive regulatory framework and single window system should be introduced for granting various approvals for using the satellite bandwidth by the licensed Telecom Service providers (TSPs), so that TSPs do not have to approach multiple Government Authorities for securing various approvals.

In view of above background, we are hereby providing our inputs on the issues raised in the Consultation Paper:

Q1. Whether there is a need to have a specific license for establishing satellite Earth Station Gateway in India for the purpose of providing satellite-based resources to service licensees? Do justify your answer.

TCL's Response:

Tata Communications supports the requirement to have a specific license for establishing satellite Earth Station Gateway in India for the purpose of providing satellite-based resources to service licensees. For new generation LEO/MEO system, the Gateway Earth stations are complex and typically capital intensive and may not be sustainable for many service licensees to establish individual Gateway Earth Station for provisioning and end-end delivery of services to end customers.

As per the current licensing regime, establishing Earth Station is linked with the service license, and there is no specific license for establishing Earth Station by satellite operators to provide satellite-based resources to the service licensee. However, with the advancement in the satellite technologies, new generation satellites like LEO/MEO satellites are currently getting operational. The infrastructure and architecture of these new generation system(s) are quite different from

conventional satellites. The operation of Earth Station has become more complex and dynamic, and it requires to be established and operated by the satellite operator itself. Be it MEO or LEO satellites, the satellite operators are establishing and operating their own Earth Stations in different geographies across the world. Hence, there is a need for India too to adopt the similar approach to keep up with this emerging requirement.

Q2. If yes, what kind of license/permission should be envisaged for establishing Satellite Earth Station Gateway in India? Do provide details with respect to the scope of the license and technical, operational, and financial obligations, including license fee, entry fee, bank guarantees, and NOCC charges, etc.

TCL's Response:

Tata Communications supports having a provision for a separate earth station license. Under this license, the entity should be allowed to set up permanent earth Stations, transportable earth stations, earth station network (VSAT Hub), NGSO earth stations, Non-Fixed Satellite Service (Non-FSS) earth station, receive only earth station, etc. The licensee should be allowed to set up any number of earth station antennas at a particular given location, particularly for NGSO earth station.

However, the Earth Station license alone should not confer any right to the Earth Station licensee for the provision of services to the end users. Instead, the service licensee intending to provide satellite-based services should be procuring the satellite transponder bandwidth from the satellite operator and connecting to it at the Earth Station established thereof.

Earth Station License should be treated as enabler for Service licensee who in turn would be provisioning and establishing end to end service/connectivity.

Q3. Whether such Earth Station license should be made available to the satellite operator or its subsidiary or any entity having a tieup with the satellite operator? Do justify your answer.

TCL's Response:

Tata Communications recommends allotting the earth station license to an Indian entity which may have tie-up with the satellite operator.

Q4. What mechanism/framework should be put in place to regulate the access to satellite transponder capacity and satellite-based resources of a Satellite operator/Earth Station licensee by the service licensees so as to get the resources in a time-bound, transparent, fair and non-discriminatory manner?

TCL's Response:

We are of the view that a mechanism should be devised to ensure transparent and non-discriminatory sharing of infrastructure created by the Satellite operator /Earth Station licensee providing access of satellite transponder capacity to service licensees.

An Earth Station licensee should transparently disclose its available satellite resources/transponder capacity to all the service licensees so that service licensees are aware

about which Earth Station licensees are having what amount of transponder capacity. Further, Earth Station licensee should not discriminate while allocating the satellite bandwidth to various service licensees.

Q5. Whether the Earth Station Licensee should be permitted to install baseband equipment also for providing satellite bandwidth to the service licensees as per need? Provide a detailed response.

TCL's Response:

Tata Communications recommends that the base band equipment for providing satellite capacity to service licensees should be installed by the service licensees as they have the spectrum assigned for satellite communications.

Q6. What amendments will be required to be made in the existing terms and conditions of the relevant service authorizations of Unified License, DTH License/Teleport permission to enable the service licensee to connect to the Satellite Earth Station Gateway established by Earth Station Licensee/Service Licensee, for obtaining and using the satellite transponder bandwidth and satellite-based resources? Do justify your answer.

TCL's Response:

Satellite communications will play a key role in connecting the unconnected places in India. There is a need to simplify processes, opening up the sky for satellite operators with collaboration of Indian telecom service providers. Necessary policy and regulatory framework should be executed at the earliest to facilitate the Satellite based services in India.

Tata Communications recommends amending existing terms and conditions of service licensees so that, in the situation of satellite earth station being established and operated by an Indian entity having earth station license, the service licensee intending to provide satellite-based services should be permitted to connect to such earth station facility for obtaining and using the satellite transponder bandwidth and satellite-based resources.

Also, the service licensees should continue to have their rights to establish the earth station for provision of service in case it is mutually agreed with the satellite operator.

Q7. Whether the sharing of Earth Station among the licensees (between proposed Earth Station licensee and Service Licensee; and among service licensees) should be permitted? Do provide the details with justification.

TCL's Response:

Tata Communications supports sharing of infrastructure of the Earth Station between Earth Station licensee, or between Service Licensee who owns the earth station infrastructure. However, there should be transparency in what and how the infrastructure is being shared. The ownership and responsibility of the licensee who owns the earth station infrastructure remains and cannot be transferred.

Q8. To whom should the frequency carriers be assigned: the Earth Station Licensee, or the Service Licensee, or whoever establishes the Satellite Earth Station? Do justify your answer.

TCL's Response:

We are of the view that assignment of spectrum should be continued under existing regime to the service licensees. If any Earth Station licensee wishes to seek spectrum, then such licensee should take the service license/authorization as per its operation of service.

Q9. What should be the methodology for the assignment of spectrum for establishing satellite Earth Station? Provide a detailed justification.

TCL's Response:

We submit that the current process of administrative allocation of non-IMT bands for satellite communications should continue. TRAI should recommend adopting the existing interim measure as spectrum allocation policy for satellite usage to clear the uncertainty amongst the licensees using the satellite bandwidth. The policy should also have the provision/timeline for spectrum allocation and should be integrated with the service license itself instead of case-to-case basis allocation.

The policy should also envisage provisions for providing replacement of spectrum in the event if some of the spectrum (already allotted to the licensee for satellite services) gets earmarked for other uses and government seeks surrender of such a spectrum. In view of the above, we suggest TRAI to kindly recommend DoT for having a spectrum allocation (administratively) policy for satellite-based services including provisions for spectrum replacement.

Q10. What should be the charging mechanism for the spectrum assigned to the satellite Earth Station licensee? Elaborate your answer with justification.

TCL's Response:

As mentioned in response to Q8 above, we recommend that assignment of spectrum should be continued under existing regime to the service licensees.

Q11. Give your comments on any related matter that is not covered in this Consultation Paper.

TCL's Response:

To further enhance proliferation of Satellite based services in the Indian market and improve competitiveness, we recommend policy framework to ensure that UL-VNO (GMPCS/ VSAT-CUG) be given fair access to service license operators (NSO) for satellite based services on equitable terms. Such regulations might mandate that:

- Satellite services licensees as NSOs be required to offer VNO relationships on fair terms without discrimination
- The pricing to the VNOs be at like levels for like volumes and terms of service, and
- That UL-VNO licensees be allowed to partner with multiple satellite service license holder NSOs without restriction.