

16th August 2024

Shri Akhilesh Kumar Trivedi Advisor (Networks, Spectrum and Licensing) Telecom Regulatory Authority of India

Subject: SpaceX and Starlink India Counter-Comments to TRAI Consultation Paper on the *"Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023"*

Dear Sir,

SpaceX and Starlink India thank the TRAI for the opportunity to provide counter-comments to the responses received on developing a framework for service authorisations under the Telecommunications Act, 2023.

SpaceX and Starlink India note that there appears overwhelming agreement across commentors in favour of (1) keeping the GMPCS and VSAT authorisations separate, (2) removing NOCC approval requirements for non-ISRO systems, (3) incorporating the GMPCS service under the Flight and Maritime Connectivity rules, (4) removing *Bharat Nidhi* fund obligations for satellite-based services, (5) allowing VNO ISPs to resell satellite-based broadband services, and (6) enabling the use of satellite ground infrastructure for serving users in other countries. We reiterate our previous recommendations alongside the rest of the industry on all of these items.

In this counter-comment submission, SpaceX and Starlink India strongly recommend <u>against</u> restricting satellite authorisations on the basis of spectrum bands. Some respondents misguidedly recommend redefining the GMPCS and VSAT authorisations on the basis of spectrum (MSS and FSS). They also recommend restricting the scope of the GMPCS license (a broad authorisation by design) while simultaneously expanding the scope of the VSAT CUG license (a limited authorisation by design). We submit that this would be a mistake and a regressive outcome for this consultation for several reasons –

- Licensing/authorisation frameworks should remain de-linked from spectrum. The Government of India's decision to de-link licensing with spectrum was fundamental to enabling technology-neutral progress within India's telecom sector. Restricting licenses by undoing this progress and relinking license/authorisations categories to only certain spectrum bands would be a step backwards in many respects.
- 2. Introducing restrictions into the GMPCS license/authorisation in order to justify relaxations in the VSAT license/authorisation is against the spirit and purpose of this consultation. The vast majority of comments that seek spectrum-based restrictions dividing the GMPCS and VSAT licenses are from operators that (1) currently hold VSAT and ISP licenses, and (2) do not hold GMPCS licenses.

These comments -

a. **Incorrectly characterise the scope of the GMPCS authorisation:** Some comments attempt to describe the GMPCS authorisation's terms as limited to voice communications, despite the text of the license as well as the TRAI's consultation paper clearly stating that *"[t]he GMPCS authorization permits*

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the authorised entity to provide, inter-alia, satellite-based telephony services and data services". Of course, the decision on whether to provide both voice and data services, or to only provide either service, rests with the authorised entity.

These comments also misunderstand or misrepresent the use of the term "mobile". Modern satellite user terminals – such as Starlink's – operate in the FSS band as both fixed terminals as well as Earth Stations in Motion (ESIM), and fit the definition in all respects. Next-generation satellite constellations, such as those that enable Starlink, are capable of continuous access to high-quality broadband at fixed locations as well as while used in moving vehicles (across land, over water, and in the air). In the case of Starlink's latest user terminals, the same terminal is technologically capable of enabling service in any of these situations

- b. Request <u>numerous</u> changes and relaxations to the current VSAT authorisation framework. These include expanding and modifying the scope of the license, changing the network topology conditions, removing CUG conditions, removing ISP authorisation requirements and associated security conditions etc., all in order to enable services that the TRAI has already identified as well within the scope of the GMPCS license the provision of "public" and "non-captive" Internet services.
- c. Recommend that only VSAT licensed operators have access to FSS spectrum. Despite there being absolutely no regulatory or technical reasons to do so, and even though use of the FSS band by both GMPCS and VSAT operators is both easy and feasible, these comments recommend restricting the GMPCS authorisation to only using MSS bands while seeking to maintain access to FSS bands exclusively for VSAT licensees.

In effect, every single one of these comments is requesting the TRAI to fundamentally modify the scope of the VSAT-CUG and ISP authorisations so that the VSAT authorisation can allow what the GMPCS authorisation already does – the provision of public internet via satellite.

- 3. The provision of satellite-based services for closed user group applications remains a real service that several comments ignore. Notably, both GMPCS licensees have submitted that these licenses were specifically obtained for satellite-based data-connectivity directly to customers, while the VSAT CUG license was sought for limited deployments.
- 4. The Access Services authorisation is the appropriate framework for IMT devices that are directly connected via satellite. Some comments misunderstand the nature of satellite-based services delivered directly to unmodified IMT devices as a means of supplemental coverage via NTN networks. On this, we reproduce our initial comments advising the TRAI against attempting to forcibly incorporate such services under the umbrella of existing satellite authorisation categories whether GMPCS or VSAT.

Such services are designed to be deployed in partnership with a terrestrial mobile network operator as a means of expanding that mobile operator's service to customers beyond the reach of their current terrestrial network. Such a service would operate using the mobile operator's licensed spectrum, allowing the operator's existing customers to take advantage of connectivity via satellite outside of terrestrial coverage using existing devices. We once again recommend that the TRAI examine what scope expansion, if any, would be appropriate for the existing **Access Services** authorisation in order to allow satellite-based connectivity directly to IMT devices. As the service will be made available using IMT spectrum in partnership with a mobile network operator, the Access Services framework is the most appropriate one to support it. Additionally, should an entity want to provide IMT services *exclusively* via satellite without a terrestrial operator as a partner, such an entity may seek Access Services authorisation, other appropriate permissions, and exclusive access to IMT spectrum at auction in order to do so.

While SpaceX and Starlink India support steps that favour Ease of Doing Business for VSAT licensees, it is clear that there is a present and obvious solution for many of the changes that some commentors seek in the VSAT license, which is to simply apply for the GMPCS authorisation instead.

As a result, we reiterate our previous recommendations, including that the **GMPCS** authorisation should be considered sufficient to provide all manner of satellite-based internet connectivity as this would -

- 1. Be consistent with both the scope of the license and the nature of next-generation satellite services.
- 2. Allow applicants to choose the scope of the services they wish to provide (all satellite-based services under a GMPCS authorisation, or limited services under a VSAT authorisation).
- 3. Ensure compatibility with spectrum assignment for satellite services under Section 4(4) and the First Schedule of the Telecommunications Act.
- 4. Not impose artificial restrictions on spectrum access by authorisation type. The separation of licensing and spectrum is ideal and should remain a technology agnostic framework.

Thank you and sincerely,

Parnil Urdhwareshe Director Starlink Satellite Communications Private Limited