COMMENTS OF THE SATELLITE ASSOCIATIONS

ON

TRAI CONSULTATION PAPER

ON

INPUTS FOR FORMULATION OF NATIONAL TELECOM POLICY – 2018

19 January 2018

1. Introduction

The Asia-Pacific Satellite Communications Council (ASPCC), CASBAA Ltd. (formerly the Cable and Satellite Broadcasting Association of Asia), the EMEA Satellite Operators' Association (ESOA) and the Global VSAT Forum (GVF) (together, the "Satellite Associations") welcome the opportunity to provide responses to the Telecom Regulatory Authority of India (TRAI) Consultation Paper seeking Inputs for Formulation of National Telecom Policy – 2018 (NTP-2018).[1] We very much support the process and objectives of TRAI's Consultation, and are committed to helping India achieve its goals.

APSCC is a non-profit international association representing all sectors of satellite and/or space-related industries, including private and public companies, government ministries and agencies, and academic and research entities. The overall objective of APSCC is to promote communications and broadcasting via satellite as well as outer space activities in the Asia-Pacific for the socioeconomic and cultural welfare of the region.[2]

CASBAA is the leading non-profit trade organization in the Asia-Pacific region seeking to promote multi-channel television via cable, satellite, broadband and wireless networks. CASBAA Ltd. represents around 100 Asia-focused corporations, which in turn serve more than 3 billion people and provide connections and content to more than 500 million households.[3]

GVF serves as the unified voice of the global satellite communications industry. It brings together organizations engaged in the delivery of advanced broadband and narrowband satellite services to consumers, and commercial and government enterprises worldwide.[4]

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[1] TRAI, *Consultation Paper on Inputs for Formulation of National Telecom Policy – 2018*, Consultation Paper No. 01/2018 (released 3 Jan. 2018).

[2] More information on APSCC can be found at www.apscc.or.kr

[3] More information on CASBAA can be found at www.casbaa.com

[4] More information on GVF can be found at www.gvf.org

ESOA is a non-profit organization established with the objective of serving and promoting the common interests of EMEA satellite operators. The Association is the reference point for the European, Middle Eastern and African satellite industry and today represents the interests of 34 members, including satellite operators who deliver information communication services across the globe as well as EMEA space industry stakeholders and space insurance brokers.[5]

APSCC, CASBAA, ESOA and GVF welcome the opportunity to respond to this Invitation for Expression of Interest.

2. The Role of Satellite in Achieving India's National Telecom Policy Goals

The Satellite Associations support the goals in the draft NTP-2018 of increasing rural tele-density and expanding broadband services throughout India. We are pleased that the TRAI's draft NTP-2018 specifically mentions "promoting use of satellites to provide telephony and broadband services in remote and inaccessible areas"[6] and "adopting a National Broadband Plan (NBP) for enabling access to at least 90% household using wireline, wireless *and satellite resources optimally*."[7]

We firmly believe that, for such goals to be achieved cost-effectively and in a timely manner, it will be necessary to incorporate satellite and satellite-based solutions into India's overall digital infrastructure strategy. Only by combining a mix of communications technologies (including satellites), and encouraging healthy competition among service providers (including in the last-mile) can the digital divide be bridged in a country as geographically large and diverse as India.

Satellites are used in many countries today to help extend terrestrial wireline and 2G, 3G and 4G mobile networks to places they would not otherwise reach. Satellites are also used to extend banking and other essential service networks into hard to reach places. Of course, satellites are ideal for connecting aircraft, ships and railways, which are often beyond the reach of terrestrial networks. Increasingly, satellites are also being used to deliver broadband access directly to individual households, not just in places inadequately served by terrestrial technologies, but also as a competitive alternative to such technologies.

Even in the context of future 5G broadband and "Internet-of-Things" (IOT) networks, satellites will need to play an essential role, if only to ensure that the benefits of 5G are not confined to the urban centres that already have broadband, but are extended to even the most remote communities in the country. There is also no question that satellites can play a role in supporting future Internet-of-Things (IoT) networks. Satellites already support the IoT networks today, such as global asset tracking and supervisory control and data acquisition (SCADA) networks, and can scale to support the IoT networks of the future.

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[5] More information on ESOA can be found at www.esoa.net
[6] *See* Consultation Paper, at 14 (Chapter II, Section E.(e)).
[7] *See* Consultation Paper, at 14 (Chapter II, Section F.(a)).

The case for incorporating satellite-based solutions for bridging the digital divide is growing ever stronger with deployment of the latest High Throughput Satellite (HTS) systems in both geostationary and non-geostationary orbits. These new HTS designs, which have been implemented in C-, Ku- and Ka-band frequencies around the world, are excellent solutions for helping India achieve the goals proposed in the draft NTP-2018. In this regard, the Satellite Associations are pleased to see that the draft NTP-2018 specifically mentions making available "new spectrum bands (such as the Ka band) for satellite-based commercial communications services."[8]

3. Recommendations

The Satellite Associations make three recommendations that would help achieve India's NTP-2018 goals more quickly and accelerate the growth of India's telecommunications sector.

(a) Consider greater use of foreign satellite capacity

The Satellite Associations would support the proposal in the draft NTP-2018 for a "Review of SATCOM policy for communications services keeping in view the international developments, and social & economic needs of the country." However, such a review would need to be conducted promptly and independently to ensure any resulting policy changes can have a meaningful impact on the achievement of the Digital India and the draft NTP-2018 objectives by 2022.

In order for India to achieve the draft NTP-2018 objectives by "end of calendar year 2022,"[9] a very large amount of satellite capacity will be necessary to support both direct and backhaul connectivity. India's Department of Space (DoS) and the Indian Satellite Research Organization (ISRO) can and will no doubt supply additional conventional and HTS capacity to help India achieve the goals of the draft NTP-2018. However, it is likely that even more bandwidth will be required for direct connectivity and terrestrial backhaul if India is to achieve the minimum objective of "900 million broadband connections at a minimum download speed of 2 Mbps"[10] by 2022. Also, additional capacity from foreign satellites will be needed to help provide connectivity to the rapidly growing Indian aeronautical and maritime markets.

In this regard, the Satellite Associations respectfully request that India seriously consider modifying its policies to enable greater use of foreign satellite capacity in order reach its NTP-2018 goals. Indeed, multiple foreign satellites with conventional and HTS capacity over India have recently come on-line, or will come on-line in the next couple of years, that can support India's broadband connectivity and infrastructure goals, including (for example): Inmarsat GX I-5, Intelsat IS-33e EPIC, the O3B constellation, SES-12, Telstar 18, and the future Inmarsat 6 generation of satellites. This foreign capacity can be combined *optimally* with INSAT capacity and the investments of the wireline and wireless sectors of the telecommunications industry to expand connectivity to all parts of the nation and to users on the move, including on aircraft and vessels.

[8] *See* Consultation Paper, at 14 (Chapter II, Section E.(e)(ii)).
[9] *See* Consultation Paper, at 11 (Chapter II, Section A., para. 10).
[10] *See* Consultation Paper, at 11 (Chapter II, Section C.(e)).

In the Satellite Associations' view, India should take this opportunity to tap into the extensive foreign investments that have already been made (or are currently being made) in competitive satellite capacity over India in order to achieve its national objectives sooner. Modifying India's policies to allow greater use of foreign satellites will also create additional incentives for more foreign investment into the Indian telecommunications sector, consistent with the draft objectives of the NTP-2018.[11]

(b) Adapt regulatory frameworks for convergence

The Satellite Associations also support the proposals for "restructuring the legal, licensing and regulatory frameworks for reaping the benefits of convergence"[12] and in principle "a converged regulator for ICT and Broadcasting sector."[13] This makes eminent sense at a time when digitalization is causing the services and technologies in both sectors to converge. A number of other countries, such as Australia (e.g. the Australian Communications & Media Authority) and Singapore (the Infocomm & Media Development Authority), have already taken steps to adapt their regulatory frameworks in anticipation of continuing digital convergence in these sectors.

Such a converged regulator could implement many of the streamlined approaches (such as "single-window" licensing) that are needed to improve the overall business climate in this industry. It could also bring significant administrative efficiency benefits. As it stands, the regulatory framework for telecommunications and broadcasting in India is among the most intricate and complicated in the world. For satellite-related services, for example, each of DoT, MIB, DoS/ISRO, and TRAI (and others) has a separate and distinct role to play in the licensing process. There is ample scope to restructure existing practices to give India a regulatory apparatus better suited to meet the challenges of its expanding role in the global broadcasting and telecommunications industries.

A converged regulator for both the ICT and broadcasting sectors will likely require an amalgamation of the existing regulatory expertise and experience from the different departments, rather than just a simple restructuring of TRAI, and will be an opportunity to create a truly independent body with a unique expertise. The "content" and "carrier" sides of the converging industry have very different characteristics and historical policy stances, at present. As has happened in Australia, Singapore, and Hong Kong, the new body must implement different laws and must take into account existing differences between the sectors, while adapting to convergence over time. The new regulator would also have to incorporate in its policy stances issues related to protecting the intellectual property which is the very bedrock of the broadcasting industry. It could be decided to place content and carriage regulation in distinct divisions, for example, and to give the "content" division an explicit mandate to support industry development and ensure IP protection is embodied in regulatory approaches. Staffing for that body should include IP experts who can deliberate on the issues affecting creative industries from an expert perspective. In any case, however the institution is structured, it will be necessary to

[11] *See* Consultation Paper, at 12 (Chapter II, Section D. ("Common strategies … to attract an investment of USD 100 billion in telecommunications sector …")
[12] *See* Consultation Paper, at 12 (Chapter II, Section D.(d)).
[13] *See* Consultation Paper, at 12 (Chapter II, Section D.(k)).

create a solid framework for advancing IP, and ensuring all parts of the institution accept and internalize that goal.

We believe that creation of a new, converged and independent regulator – that combines and draws on the expertise from the various existing departments – would be a good first step towards simplifying India's telecommunications and broadcasting framework to support greater private sector participation in both sectors.

More in general, with the ongoing convergence between terrestrial and satellite systems/fixed and mobile services and the overall telecommunication globalization processes, the satellite industry has a key role to play for the benefit of Indian customers. The adoption of a revised National Telecom Policy and associated regulatory framework will be an essential step in this context.

(c) Simplify licensing and regulatory regime for ICT and broadcasting

Along the same lines, the Satellite Associations support the proposals for revision of license fees[14] and "easing grant of licenses/ permissions processes for spectrum, wireless apparatus and SACFA clearance to improve efficiency, innovation and research"[15] and for "working towards One Nation – One License for services."[16] A more streamlined, flexible and predictable regulatory framework for telecommunications and broadcasting, under a converged regulator, would do much to attract more private investment into and growth of these sectors in India. Indeed, such an approach is essential if India is to find the "optimal" mix of public and private participation necessary to achieve its NTP-2018 goals and reduce unnecessary entry barriers[17]. Achieving those goals will require moving towards convergence between spectrum licensing for various technologies, and overcoming the existing segregation of licensing, registration and regulatory mechanisms in these areas to enhance affordability, increase access, improve delivery of multiple services and reduce cost. A general separation between network and service licenses[18] is also welcome, a lighter licensing framework is generally appropriate for some services, especially when part of an integrated international service provision framework.

With general reference to international aspects[19] and availability of globally harmonised spectrum[20], it is also important that the National Frequency Allocation Plan is regularly and appropriately updated to take into account WRC outcomes. Another important international aspect is the mutual recognition of licenses issued by other countries and the associated free circulation of duly licensed foreign visiting terminals, so that Indian terminals may benefit from the same treatment when abroad.

[14] *See* Consultation Paper, at 12 (Chapter II, Section D.(c)).
[15] *See* Consultation Paper, at 12 (Chapter II, Section D.(g)).
[16] *See* Consultation Paper, at 12 (Chapter II, Section D.(f)).
[17] *See* Consultation Paper, at 12 (Chapter II, Section D.(w)).
[18] *See* Consultation Paper, at 12 (Chapter II, Section D.(e and f)).
[19] *See* Consultation Paper, at 12 (Chapter II, Section D.(u)).
[20] *See* Consultation Paper, at 12 (Chapter II, Section D.(bb)).

The satellite associations also welcome the expeditious allocation of spectrum for demonstration and experimental purposes, which is a key aspect in the preliminary stages of adoption of new services [21]. As an additional consideration, novel spectrum licensing approaches, such as "blanket licenses" are well worth considering, in order to facilitate the licensing process for large numbers of mobile/ubiquitous user terminals.

4. Conclusions

The Satellite Associations and their members look forward to engaging further with the Government of India on the formulation and implementation of a new National Telecom Policy in 2018.

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[21] *See* Consultation Paper, at 12 (Chapter II, Section I.(b)).