



CONCLUSIONS AND RECOMMENDATIONS OF INDIA SATCOM FORUM

Preamble:

India Satcom Forum views Satellite Communications as a very useful strategic resource for the upliftment of the society and to give a boost to the economy. For a vast country like India, with many parts having difficult terrain for terrestrial communications, satellite services can play a very crucial role. The SatCom Policy 1997 has been kept dormant for long and needs a review to look in to emerging demands of the industry and the country as a whole. Security of the country is no doubt of paramount importance but undue caution towards addressing apparent and not-so-apparent security concerns, has resulted in stifling the growth of the sector precluding it to play its rightful role in the economy, safety, security and disaster management of the country. Thus, India has squandered a great opportunity of building the most ubiquitous satellite network in the world.

Unlike the developed world which had the benefit of adequate availability of near ubiquitous wired infrastructure and thus could realize a purposeful mix of wired and wireless networks, including cable and satellite networks, which have driven their growth and governance, India with meagre wired network infrastructure and also a fast growing but urban-centric wireless infrastructure, now needs to beat the time and fully exploit dormant satellite resources to the hilt and deploy the same in conjunction with long haul optical fiber of NOFN and wireless in the access to achieve broadband for all and reach the intractable and remote corners of the country at a fast pace to meet the demands of the Digital India mission by 2020.

To unleash the power of satellite communication, India needs to revisit its Satcom policy to use this dormant resource for both immediate economic gains and strategic advantage. An intelligently controlled and yet open sky policy, inviting foreign & private sector investment, coupled with in-built fool proof safety and security mechanism, can have an unbelievable force multiplier effect on the economic growth of the country. An umbrella of satellites over the Indian skies is also serving the connectivity needs of SAARC Region as envisaged by the Hon'ble Prime Minister recently. Besides, there is a need to productively harness these resources to provide ubiquitous broadband connectivity on a sustainable basis thereby laying the platform for Digital India for the benefit of the masses. **A liberal Satcom policy would help achieve this objective expeditiously and also bring about wider participation by global service providers creating competition and lowering of tariffs thus increasing the much needed affordability and bringing about penetration of broadband in rural areas.**

The India SatCom Forum (ISF) was launched at the "India SatCom 2015" on 16 January 2015 at New Delhi as a focused group to deal with the diligently & meticulously summarised recommendations that emerged out of the day long deliberations contributed by all the resource persons comprising notable dignitaries from the Ministry of Communication & IT, Ministry of Information & Broadcasting, Telecom Regulatory Authority of India and more than 100 distinguished professionals from the satellite communication, telecom & broadcasting industry.



The Key Recommendations of India Satcom Forum are;

1. **“Single Window “clearance for all approvals/licenses in time bound manner.** It has been noticed that the number of approvals required before the licence is granted takes a unusually long time and this uncertainty of timelines and lack of clarity in decision making leads to dissuading of the foreign investors and impeding commercial services. **Single window clearance should be adopted like SACFA Clearance, with immediate effect.**
2. **Opening of Indian satellite space to all international satellite operators with in-built, fail-safe safety & security measures satisfying security requirement of the country.** . This intern allows the VSAT operators, broadcasters/DTH/HITs operators to buy C, KU band capacity directly from domestic and international satellite operators at their choice. Meanwhile, Indian satellites may be continued to be accorded preferential treatment Joint ventures between foreign satellite operators with Indian entities could also be explored.
3. **Opening of Ku-BSS band:** The Ku-BSS band is allocated for satellite service in the Indian National Frequency Allocation Plan (NFAP) but currently not authorized for such use within India. Due to the already saturated use of the Ku band FSS frequencies over India, satellite operators, including ISRO, will need to move to the use of the Ku-BSS band in order to cater to the increasing demand for additional channels by the DTH providers as well as to release some of the Ku band FSS for use by two way communications like VSAT and other essential services This will promote the opportunity for both VSAT and DTH operators to expand and further develop their business for the benefit of the citizens of India
4. **Establishment of the converged regulator to deal with satellite, broadcasting, telecom and IT applications for commercial use and separation of the satellite Licensing & Regulatory functionality from ISRO/DOS.** This is in line with the best international practices of developing & developed nations. This entails review of the inter-dependencies between Department of Space, ISRO & Antrix so as to avoid and not create any further “conflicts of interest “.
5. **Creation of a National Satellite Network (NSN) in the form of a public-private partnership based body on the same lines as National Optical Fibre Network (NOFN).** This would serve those areas where fibre is not feasible to reach or is cost prohibitive and would provide high speed internet connectivity to those Gram Panchayats/Villages in hilly & remote terrains. Both NSN & NOFN could run concurrently as this would;
 - a) Enable faster deployment of Broadband into the GPs /Villages;
 - b) Could be used later for providing backhaul when NOFN's fibre reaches the GP/Village; and
 - c) For providing broadband on-the-move to commuters using public transport. This will help India fulfil the dream of its Hon'ble Prime Minister by rolling out Digital India faster and well before the targeted date of providing broadband to all by 2020.



6. **Regulation of High Throughput Satellites (HTS) in the Ka band** will be a pre-requisite to bring down costs as well as provide high capacity to cater to demand for new broadband applications viz. OTT overlay, Ultra HD TV, etc.
7. **Regulation for use of LEO (Low Earth Orbiting Satellites) and MEOs (Medium Earth Orbiting Satellites)**. Given that LEO and MEO systems require investments of the order of billions of dollars, a good way to kick-start these services would be to invite and encourage foreign satellite companies to set up landing stations in the Indian market. This would enable the country to benefit by way of new applications based on high bandwidth, low latency satellite beams from global LEO/MEO systems like O3b, OneWeb and others.
8. **Permission for Data Multicasting /Internet Broadcasting via Satellites**. The role of Internet in our lives and the transformation that it has brought about is widely understood and appreciated. It is also known that barely 6-7% of the population today are broadband enabled. As per NTP 2012, we have to get to approx. 45% broadband penetration by 2020. While most of the fibre, cable & wireless technologies are urban & semi-urban centric, satellite is the only viable alternative for broadband/internet penetration in rural & remote areas. **Satellite can enable availability of broadband, TV broadcasting & for Internet/data broadcasting for rural and remote consumers in the fastest and most cost-effective manner. Permitting data multicasting along with caching at the edge, off-line Internet browsing revolution can be created thereby transforming the lives of the masses.**
9. The new Satcom Policy should encourage Indian companies to set up **Indian Satellite System (ISS)** The ISS shall by definition enjoy the preferential treatment as accorded to INSAT system. Considering the requirement of large investments, joint ventures with foreign satellite operators and entities should be permitted and facilitated. The ISS not only complements the efforts of ISRO & Antrix in bringing more capacity for various users, but also shall help bring down the cost due to competition and innovation. It should be noted that ISS operators don't use any natural resources of the country, but they secure valuable spectrum for the country at their own cost from the international orbit and spectrum pool allocated by ITU as per ITU Radio Regulations.

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