

## RECOMMENDATIONS FOR INDIA SATCOM 2016

### PREAMBLE

#### BIF's ACTIVITIES IN SATCOM

Digital India , Make in India are schemes that have the roadmap for not just investments but also for creation of local jobs. Aligned to the same thoughts, Broadband India Forum ( BIF ) wishes to bring together the policy makers along with the well developed and rapidly innovating Satcom industry together to contribute to increase in FDI to the extent of few Billion Dollars and lead to creation of few hundreds of thousands of jobs and if adeptly managed & deployed can provide substantial impetus to the Bharat Net program, beyond its current mandate. There is potential to develop and to launch India' own satellite dedicated to serving the need of its broadband customers in rural India.

Satellite can serve for Emergency machine to machine applications including providing Emergency services on Cars. Connected Cars should also be considered in India with Technologies such as anti- fatigue devices which will help reduce accidents, and with systems that monitor drivers' vital functions - it will alert them to potential risks. Such driver assistance and safety systems will let the car take over driving during traffic jams and on the highway thereby ensuing safe driving. Satellite can also provide on-board Entertainment services on moving vehicles viz. Cars, Trains, Public Transport & even Aeroplanes at a fraction of the cost of alternate technologies and in a very reliable manner.

Besides, latest innovations in Satellite technology permits low-cost entertainment for Rural masses in India . Here instead of broadcasting live pictures in real time , we shall download content and multicast this relevant content viz. songs, movies, news clips, information, education lessons, land records etc and cache them in edge storage devices via Wifi hotspots to Smartphones/Tablets etc

To enable this, BIF recently organised an unique day long seminar titled India Satcom-2016 to focus on " **Broadband for all using Next Gen Satcom Technologies**" on **7th June, 2016**. This is the second International summit on Satcom , having conducted one last year in 2015 as well. The event was extremely well received by all and there was an attendance of almost 150 people including the delegates. The outcome of the engagement and dialogue with all the relevant stakeholders including the DOS, DOT, TRAI, and the industry etc is captured in the Recommendations below.

We are enclosing three articles on promoting Reforms in Satcom policy by BIF President - Mr. T.V. Ramachandran which have been published in leading business dailies, this year.

1. Digital India needs reforms in satellite communications

<http://www.financialexpress.com/article/fe-columnist/digital-india-needs-reforms-in-satellite-communications/186729/>

2. The great gig in the sky

<http://www.thehindubusinessline.com/opinion/the-great-gig-in-the-sky/article8366378.ece>

3. Satellite Communications can drive the broadband revolution

[http://www.business-standard.com/article/opinion/t-v-ramachandran-satellite-communications-can-drive-the-broadband-revolution-116042300748\\_1.html](http://www.business-standard.com/article/opinion/t-v-ramachandran-satellite-communications-can-drive-the-broadband-revolution-116042300748_1.html)

## **REGULATORY & POLICY ISSUES/CHALLENGES & SOLUTIONS**

### **ISSUE 1: Procurement of Capacity**

#### **Key Issues/Challenges:**

1. Unnecessary layering/canalising due to presence of ANTRIX
2. Bandwidth allocation takes 2-3 years
3. Insufficient bandwidth provided
4. Higher than market prices
5. Unable to serve market demand satisfactorily

#### **Recommended Solutions/Suggestions:**

1. Utilise existing capacity of 10Gbps ( List attached ) available over India
2. Permit/Allow VSAT operators to work directly with satellite operators
3. 'Single window ' and Time bound process for all VSAT and DTH operators' satellite capacity requests. All approvals/permissions/licenses to be granted within 90 days. If application for capacity is not processed in that period, VSAT & DTH operator shall be free to directly approach the pre-certified foreign Satellite Service Operator ( SSO )
4. The foreign Satellite Service Operator ( SSO ) will request DOS for approval . If no response is received within 90 days, it would be deemed to be automatically approved.
5. Existing 10Gb capacity over India must be utilised . This includes idle capacity from IPSTAR ( Thaicom ) HTS -Ku Satellite ( approx. 75% ) besides INTELSAT-Epic 33( HTS-Ku ) and INMARSAT-Express series

### **ISSUE 2: Extremely High Bandwidth price ( Cost/Mb )**

#### **Key Issues/Challenges:**

Price is almost ~284 times higher !! ( as compared to US market ) ( See Chart attached )

**Recommended Solutions/Suggestions:**

1. Amend TEC GR clause which restricts total throughput to a VSAT ( UL+DL )
2. Permit technology advancements/innovations which can help reduce the prices drastically. viz.
  - Permission to deploy/utilise High Throughput Satellites
  - Permission for use of Ka band
  - Permission to use LEOs, MEOs, etc ( NGSO -Non Geo Stationary Satellites)
  - VSATs of smaller aperture which also provide higher throughputs ( Amend TEC GR to permit advancements )
3. Permission to use Data Multicasting & Caching using Satcom for very cost ompetitive pricing for transfer of files ( videos )for education , local information & weather bulletins, low cost entertainment etc to rural areas

**ISSUE No. 3: Commercial bandwidth Contracts are for 3 years whereas Satellite life is for 15 years**

**Key issues/Challenges:**

1. All Contracts for supply of capacity between Antrix and Satellite Service Providers ( VSAT Service Providers ) are currently for a period of 3 years as against the satellite life of 12-15 years.

**Result:**

1. All Service providers are at a risk every 3 years to repoint their VSATs to a new satellite and configure to a new network design.
2. This process is disruptive, time consuming and inefficient
3. It leads to unnecessary increase in network costs and deployment costs
4. Gross under-utilisation of existing capacity

**Recommended Solutions/Suggestions:**

All Contracts between Satellite Operators ( BW suppliers) and Satellite Service Providers ( VSAT Service Providers ) should be for a minimum period of 12-15 years

#### **ISSUE NO. 4: Streamlining of Security Norms**

##### **Key Issues/Challenges**

1. Obstruction/Stumbling Block for international satellite operators to offer capacity
2. Security Norms are not Transparent, ambiguous and lack clarity and reason.
3. Gaps in understanding of technology advancements and approaches viz. use of ' virtual gateway ' for lawful interception, etc

##### **Result**

Most international satellite operators offer capacity to India as a last resort after meeting the needs of other countries

##### **Recommended Solutions/Suggestions**

1. Security Norms for International Satellite Operators to offer capacity out of India should be made transparent.
2. Norms similar to the ones in the UL license for Access/NLD/ILD Service providers may be permitted

#### **ISSUE NO: 5 Streamline the License & Regulatory Process for VNOs using Satellite Capacity**

##### **Key Challenges:**

1. VNO using unutilised DTH capacity is not permitted
2. VNO-VSAT is not permitted B2C but only for B2B applications.

##### **Recommended Solutions/Suggestions:**



1. VNO-DTH may be permitted
2. VNO-VSAT permit B2C services

## **SUMMARY OF RECOMMENDATIONS**

1. Allow TSP/VSAT/DTH operators direct access to Foreign/International Satellite Operators
2. Do away with the process of Antrix based mediation for capacity allocation & assignment as it is anti-competitive to procure capacity through a competitor
3. ' Single window ' and Time bound process for all VSAT and DTH operators' satellite capacity requests/approvals/permissions/licenses within 90 days
4. Foreign Satellite Service Operator will request DOS for approval . If no response is received within 90 days, it would be deemed to be approved.
5. Existing 10Gb capacity over India must be utilised
6. Permission to use Data Multicasting & Caching using Satcom
7. Permission for VNO-DTH & VNO-VSAT for B2C services ( in addition to B2B )
8. Liberalisation & Reforms likely to attract FDI in Satcom
9. Permission to install satellite equipment in cars to provide emergency/disaster recovery services .
10. Streamline Security Norms for all Operators to follow UL security norms
11. Open Sky Policy .
12. Reduction in bandwidth costs and taxation to facilitate Satcom broadband to the masses.

### **ABOUT BIF**

We at Broadband India Forum ( BIF ) respectfully wish to take the liberty of introducing ourselves who are working exclusively for enhancing the broadband potential of the country . The Vision of BIF is to be a thought leader and a credible and effective voice of the Indian broadband industry to help propel the nation to achieve the ambitious vision of our Hon'ble PM of Digital India. To achieve this, BIF is working to facilitate the expeditious advancement of affordable and high speed broadband throughout the country on a technology neutral basis through the development of the entire broadband eco-system on a holistic and inclusive basis. The Forum comprises of several members from all parts of the eco-system



viz. technology providers, telecom operators, Internet service providers, Cable TV operators, Value added service providers and seasoned industry professionals who are familiar with different technologies, operations , regulation & policies including business models and business cases.

The organisation's Senior Leadership Team comprises of some reknowned and respected professionals from both industry and government . Mr. Shyamal Ghosh -former Secretary-Telecom & IT and first Administrator of the USO Fund is the Chairman Emeritus of the Broadband India Forum. Mr. M.F.Farooqui, IAS (Retd), immediate past Secretary- Telecom of the Govt. of India is the current Chairman and Mr. T.V. Ramachandran, former DG, COAI and former Resident Director (Regulatory Affairs & Govt.Relations), Vodafone India is the President of the Association. The other notable stalwarts who lend their knowledge and acumen to BIF include Mr. Vimal Wakhlu-CMD, TCIL, Mr. Ravi Gandhi-Chief Regulatory Officer, Bharti Airtel, Mr. TR Dua -DG, TAIPA who are its current Vice Presidents. Mr.Manoj Misra, Head Regulatory, Vodafone India Ltd and former Senior TRAI Official, is the Treasurer. Besides, Mr. P.K. Garg, former Wireless Adviser and Member, Radio Regulatory Board, ITU-R is associated as an Adviser to some of the Expert Committees of BIF.

The organisation has set upon itself the onerous task to respectfully steer, guide and assist on a clearly technology neutral basis the Government policies and regulatory functions to significantly improve the availability as well as offtake of ubiquitous broadband services in the entire country so that India can take its rightful position of pride in the global broadband arena.

We have been working towards the promotion of " Open Sky policy ", Satcom liberalisation and for ushering in new Satcom reforms including innovations. We believe that this will help enable usher in the much needed Satcom revolution in India through the upcoming National Space Policy which is on the anvil.