



IAMAI Response to TRAI Consultation Paper on Inputs for Formulation of National Telecom Policy – 2018 Consultation Paper No. 01/2018

Background

The Internet and Mobile Association of India [IAMAI] has made a detailed submission to the DoT and TRAI on the National Telecom Policy 2018, as one of the stakeholders invited in the consultation process¹.

IAMAI is pleased to note that the consultation paper by TRAI resonates many of the asks raised in our original submission.

This response to the TRAI Consultancy paper is in addition to our original submission, and may be read in the context of the structure and contents of the present consultation paper in continuation of the original submission.

Innovative Policies for Comparative Advantage

The Consultation paper correctly identifies the need for digital transformation via adopting new technologies in M2M, IoT, 5G network, roadmap for Industry 4.0 and other such futuristic technologies. The need for better and affordable connectivity in the rural sectors too is rightly recognised. The various Strategies suggested in the Consultation paper refer to the need to adopt new technologies and Special Technology Zones for emerging technologies.

Economic and thereby social strengths of nations derive from their competitive advantages. Historically, countries have leveraged raw materials, technology, demographic dividend etc. to gain competitive advantage and forge ahead in economic growth. Any such economy gets the first mover's advantage before the model is replicated elsewhere, only to be unseated by the newer wave of innovation.

However, all major innovations require large investments and capacity for the industry to absorb innovation; a cycle already ingrained in developing economies given historical developments. It is very difficult for developing economies to create and sustain this virtuous circle and thus in the case of developing countries, the State has a big role in setting facilitating an ecosystem in which innovators can flourish.

India at present is uniquely suited to get into virtuous cycle of innovation through innovation in policy. The time has come to look beyond attracting FDI in new age manufacturing with already established technologies, and allow space for testing/experimenting with new emerging technologies. Allowing technology companies to experiment with new technologies within one's economic jurisdiction allows developing countries today get the first movers advantage on emerging technologies; such that once a new technology is successful to be

¹ IAMAI submission titled "Inputs on National Telecom Policy 2018", submitted on 21 November, 2017

implemented for large scale replication, the host country already has an advantage of location and expertise over it.

Success of establishing emerging technologies will allow for such technologies to be embedded in the wider business ecosystem in India; which in turn will spurt the growth of ancillary industries downstream once these technologies reach scales of manufacturing.

Innovative Policies for Tech Development will enable better use of technology, increased employment and enhanced productivity gains for the economy and also attract fresh inward investments thereby laying the foundation for the next generation manufacturing base in India.

Such policies are already being explored by other developing economies. Some of the global experiences that can be set as examples are:

Access Technologies: Some of the global experiences that can be replicated in India are:

- Sri Lanka has already signed a contract with Google to launch their Loon Project at a mass scale, with Indonesia being another example where 3 private sector partners to cover 17,000 islands.
- Dubai has a project under which an entity called Zero.1 is using urban LED street lighting for communications infrastructure.
- The UK government in 2012 announced the establishment of a 5G innovation centre at the University of Surrey.
- Japan formed a Visible Light Communication Consortium in 2004 experimenting with Free Space Optical Communication technology.

Drone Technology: Some of the global experiences that can be replicated in India are:

- Drones for emergency relief: Canada is trying the prototype drone service to deliver food and medical supplies to remote regions in times of emergency.
- Drones for civic monitoring: Singapore has recently launched drone experiment zones, where drones will be used for civic monitoring.
- Drone based crop monitoring: UAVs with near-infrared sensors are monitoring plants for pests and disease, being experimented across the world as in Uganda and recently Sri Lanka.

Strategies for 10 Billion IoT/M2M

Promoting IoT/M2M sector is a critical component for developing Smart Cities in India.

However, much of the innovation in this field is being done via experiments conducted by new age tech solution providers, not necessarily telecom service providers who are interested in the core business of telecommunications.

It is important that such service providers are given access to facilities like right of way, access to IP-I infrastructure or set up hubs without being burdened by unnecessary compliance burdens of ISPs/TSPs.

Therefore we suggest:

- Any form of licensing of M2M solution providers will only defeat the purpose as licensing will restrict the field to telecom service providers who may not be the main

service providers in the first place. Further, any such licensing regime may dissuade global service providers from offering new innovative technologies to Indian users.

- M2M is still in the process of development and its offtake is at a nascent stage. License fee/regulations will prevent smaller innovative solution providers from setting up business in India and prevent adoption of technology.
- More unlicensed bands of spectrum need to be opened up for M2M to prevent existing licensed bands from being blocked by M2M traffic. This is necessary not only for promotion of M2M but also for QoS of existing data and voice services. The Government should implement TRAI's recommendations for de-licensing of V-Band (57-64ghz), 6 Mhz of spectrum in 915-935 Mhz band and 1 Mhz of spectrum from the 867-868 band as noted in its several recommendations and consultations such as, Recommendations on "Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications" dated 5th September 2017 and in its Recommendations on 'Delivering Broadband quickly: What do we need to do?' dated 17th April 2015.
- Telecom rules and IP1 registration terms should be relaxed to allow non – licensed entities to own telecom equipment as well as procure dark fiber and access to captive telecom infrastructure.

Strategies for establishing India as a global hub for Data Communication

The entire IT/ITeS/Internet based sectors are transitioning to cloud based platforms/solutions. Newer innovations like Software as a Service (SaaS) are developing on the backbone of cloud platforms. Cloud technologies are today the base on which all enterprise solutions for B2B provisioning are based on; and adoption of cloud based solutions for B2C services too are on the rise.

Any forward-looking telecom policy needs to ensure the cloud ecosystem in the country is strengthened, empowered to innovate freely and allowed to operate with minimal regulatory interventions.

IAMAI suggests:

- The private and Public Cloud platforms must be left to free market mechanism. Market forces and global best practices will dictate the policies to be adopted by such entities.
- Mandatory data or server localization must be avoided as that would reduce competitiveness of the economy and drive away India's extensive ability to attract datacenter investments. The government should only impose such restrictions for critical government data or government cloud.
- Various types of Cloud Deployment models viz., Public, Private, Hybrid and Community Cloud exist and all such models need to be allowed to flourish.
- There is a need for CSPs to build, when possible, their own networks. Telecom networks are principally designed for voice or public data services, such as IP services. Allowing CSPs to buy dark fibre will help routing algorithms set up for least-cost



routing, not for routing that guarantees maximum speeds or minimum latency at all times.

Common Strategies to leapfrog India amongst top 50 nations in International rankings

Certain application services like cloud telephony have emerged in India that can benefit PSTN based services, provided such application providers are recognised duly for the type of services they provide

Cloud Telephony simply means Voice Communication services that are provided on a shared PSTN infrastructure and shared CTI application logic platforms on a pay-as-you-go model to end clients. Taking forward the progressive strategies already recognized for leapfrogging India in global rankings, IAMAI suggests:

- Services delivered on the top of already licensed access services should not be subjected to further licensing requirements.
- There should not be any restriction for an application services provider to build and operate on capacities of all available licensed Access Services Operators.
- The fees and levies for licensing under authorization to be made start-up friendly, so that financial terms do not cripple innovative entrepreneurs from entering this value chain and contributing to the overall furtherance of the Telephony applications adoption to bridge the digital divide.