



TELECOMMUNICATIONS  
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**Comments Submitted to the Telecom Regulatory Authority of India  
on Inputs for Formulation of National Telecom Policy - 2018  
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TIA represents approximately 250 manufacturers and suppliers of high-tech telecommunications networks and services here in the United States and around the world. TIA is also an ANSI-accredited standards development organization. Our members' products and services empower communications in many industries and markets, including healthcare, education, public safety, and transportation.

We appreciate the opportunity to submit comments on India's forthcoming National Telecom Policy (NTP) 2018. Our member companies are invested in India for the long term, and they benefit from the contributions of its talented and innovative engineers. As India's telecom market matures and expands, TIA members look forward to growing with it.

Through TIA member technologies, we hope to help India make progress toward goals outlined by the Telecom Regulatory Authority of India (TRAI) such as improving the quality of telecom service and expanding internet connectivity. Below, we offer comments on the following elements addressed in TRAI's consultation paper on the NTP:

- 1) Access to affordable ICT goods
- 2) Import substitution
- 3) Spectrum and licensing
- 4) Broadband deployment benchmarks
- 5) Alignment on digital trade policies
- 6) Satellite policy
- 7) Standard Essential Patents (SEPs)

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**1) Access to affordable ICT goods**

First, we would like to acknowledge the significant strides India has made in expanding wireless and digital access to its citizens. India's overall score in the 2017 ICT Development Index (its IDI value) from the International Telecommunications Union (ITU) rose nearly 15 percent from 2016<sup>1</sup>. According to the ITU, India was among a handful of countries that saw the biggest year-on-year improvements in citizens' ICT access,<sup>2</sup> based on the penetration of mobile cell phone subscriptions, households with a computer,

<sup>1</sup> *Measuring the Information Society 2017*, ITU, 31

<sup>2</sup> *Measuring the Information Society 2017*, ITU, 76

and other indicators. Yet India continues to lag in international rankings, and TRAI has outlined goals to improve India's rankings on connectivity, increase internet speeds and shrink the digital divide.

With the end of improving ICT access, we would encourage the government to review its policy on ICT duties.

Duties imposed by the Indian government in 2014 and 2017 are ill-considered from a trade perspective because they violate India's GATT schedule commitments. But perhaps more relevant to India's ICT policymakers is the likely negative effect on Digital India: By making products more expensive, such duties stand to undermine the government's goal of making ICT products and services more affordable and available.

It is well documented that high import tariffs can have a significant negative impact on telecom usage. According to UNCTAD, when Kenya exempted mobile handsets from a 16 per cent value-added tax in 2009, the uptake of new handsets tripled<sup>3</sup>.

Tanzania imposes significant taxes on mobile services, with a 17 per cent excise tax in addition to a value-added tax; the result is that its 3G adoption rates lag those of its peers. A GSMA study has estimated that removing the excise tax would boost 3G adoption by 800,000 subscriptions, resulting in \$115 million more in mobile investment.

Removing duties would help to keep India's ICT prices globally competitive, thereby improving citizens' access to ICT.

## **2) Import substitution**

We acknowledge the government's interest in developing India's ICT industry, as referred to in TRAI's consultation paper. Certainly, policymakers around the globe aim to boost domestic innovation as a means to enhance economic welfare and improve quality of life.

However, we question whether it is an appropriate strategy for a nation to seek self sufficiency in telecom equipment manufacturing – or indeed any area of ICT – given the complex and globalized nature of supply chains. Protectionist policies in the telecom arena are particularly likely to have unintended consequences for economic development. A 2016 consultation paper from NITI Aayog<sup>4</sup> observed: "Had [India] pursued import substitution in in this [telecommunications] sector and relied on the domestic industry to supply the bulk of the handsets, the [Indian] telecommunication revolution would have almost surely failed to materialize on the scale it did."

The same NITI Aayog paper noted that protectionist policies in other Indian sectors have not yielded favorable outcomes. For example, import substitution in India's auto industry had led to car prices up to 50 higher than the global average, while similar efforts in textiles have produced a clothing industry with exports lagging much smaller Bangladesh and Vietnam<sup>5</sup>.

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<sup>3</sup> *World Investment Report 2017: Investment and the Digital Economy*, The United Nations Conference on Trade and Development (UNCTAD), 213

<sup>4</sup> *Make in India Strategy for Electronic Products*, NITI Aayog, 16

<sup>5</sup> *Make in India*, NITI Aayog, 26

### 3) Spectrum and licensing

We applaud TRAI's expressed interest in ensuring the availability of adequate, contiguous and globally harmonized spectrum. By making more spectrum available for next-generation services, the government could clearly demonstrate its commitment to making it easier to do business in the ICT space, in turn helping to attract more foreign investment in India.

Indeed, spectrum is such a critical foundation for national networks that we would suggest allocating a detailed, stand-alone section within the NTP focused specifically on spectrum policy goals that would facilitate the next phase of ICT development in India.

To effectively promote the dynamic growth of communications technology, we believe a spectrum policy should be technology neutral and oriented towards flexible use (in other words, not be tied to particular wireless technology, such as LTE). In addition, as we have also noted in comments submitted to the U.S. government<sup>6</sup>, we think a national spectrum policy must reflect the following principles to allow the use of radio spectrum to evolve to meet changing demand and innovation:

- *Predictability.* To drive investment by commercial and government users alike, spectrum allocations need to be predictable. Identifying demand and changes in demand, understanding the pace of radio technology development by platform, and long-term planning are all essential parts of a spectrum policy that can provide predictability for both commercial and government users.
- *Flexibility.* For commercial allocations, flexible-use policies consistent with baseline technical rules that are technology-neutral have proven to be the best approach.
- *Efficiency.* Policies should encourage more efficient use of spectrum where technically and economically feasible.
- *Priority.* In cases where band sharing is technically and economically possible, policies must advance good engineering practice to best support an environment that protects those with superior spectrum rights from harmful interference.

Our members would be happy to provide more input on factors to consider in developing a spectrum policy that would not only promote faster networks but also facilitate progress in reducing latency, which will be critical for enabling next-generation applications such as autonomous vehicles or IoT.

Moving beyond spectrum, we strongly support the recommendations outlined in the TRAI paper to facilitate grants of telecom licenses and to review regulatory compliance costs in India for licensees, relative to international norms.

### 4) Broadband deployment benchmarks

On the issue of network speeds, we support the government's goal of seeking to provide data connectivity at a speed of at least 1 Gbps to all Gram Panchayats. This is consistent with the U.S. goal of 1 Gbps in fiber deployments to rural areas through anchor institutions such as schools and libraries.

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<sup>6</sup> Please see further TIA recommendations on spectrum policy in our comments filed to the White House Office of Science and Technology Policy, 2014, available here: <http://www.tiaonline.org/sites/default/files/pages/TIA%20OSTP%20Comments%203-20-2014.pdf>

However, we would invite the government to consider raising the other minimum standard speeds proposed in the NTP. The U.S. Federal Communications Commission (FCC) has set a minimum requirement of 25 Mbps for service to qualify as broadband internet, and American ICT manufacturers and service providers have been working to develop products and services in the wireless space that would meet this target. We suggest India may wish to consider raising its target for wireless service speed from 20 Mbps to align with the U.S. goal and help support India's goal of developing as a global communication hub.

In addition, we recommend India weigh the possibility of raising its minimum download speed for 900 million broadband connections from 2 Mbps to 3 Mbps. Until recently, 3 Mbps was considered to constitute broadband service in the U.S. Many U.S.-based DSL providers used 3 Mbps as a standard for minimum service plan offerings.

### **5) Alignment on digital trade policies**

One of many suggestions offered to boost India's global ICT standing is to improve international coordination. As India seeks to become more of a global communications hub, we would encourage the government to consider aligning with existing international frameworks in areas such as data privacy and protection and cybersecurity. For example, on data protection we would point to the APEC Cross-Border Privacy Rules as a useful model, while the U.S. NIST Cybersecurity Framework is a continually evolving and robust reference point for cybersecurity.

The TRAI paper notes that India is likely to implement a policy on cross-border data transfers. We would encourage the government to codify a commitment to unrestricted international data flows. This would not only support the continued growth of India's BPO sector, but is also likely to prove essential to the pursuit of another goal flagged in the paper – for India to become a global hub for remote management of telecommunications.

To further facilitate Indian leadership in global communications, we would urge the government to take a light-touch, flexible regulatory framework in the fast-growing IoT/M2M and cloud markets.

On a related note, we are concerned by the recommendation that the government create a licensing framework for IoT and M2M and cloud service providers. New license requirements for services that merely overlay existing traditional infrastructure will only serve to create needless bureaucratic and cost hurdles for ICT investors.

Meanwhile, India's efforts to develop its own telecom certification infrastructure, also referenced in the paper, mark a sharp departure from the path towards international alignment. Though final requirements for Indian certification are not yet clear, there is no question that India-specific tests would drive up the cost and create unnecessary compliance paperwork for telecom equipment vendors. Moreover, the new certification scheme would not provide any meaningful safety and security benefits, since equipment already undergoes testing in internationally accredited labs.

### **6) Satellite policy**

We support TRAI's recommendation that the government review its satellite communications policy, implement an open skies policy and promote the use of satellite service to offer telephony and broadband service in remote and inaccessible areas. We urge the government to open the satellite

market to private sector competition, which would enable access to advanced technologies at an affordable price, and encourage private investment, launch and operation of satellites.

We would encourage the government to rescind restrictive licensing and other barriers that have slowed satellite industry development.

### **7) Standard Essential Patents (SEPs)**

To promote ICT exports, TRAI's paper suggests the government consider "providing financial incentives for the development of Standard Essential Patents (SEPs) in the field of telecommunication services and systems."

Many governments seek to create environments where innovation can flourish, and we appreciate the value of state resources particularly in areas such as early-stage research where there may be less private sector investment.

However, the record shows that government funds allocated with the goal of generating specific technology results are often misallocated. There is a risk that financial incentives intended to promote SEPs could create unintended market distortions; they might allow government officials to "pick winners" whose products may not ultimately succeed in the market. Given that India already claims a highly competitive ICT market capable of rewarding innovation, we would urge the government to consider whether state incentives are the most cost-effective means of promoting ICT development.