

## **Microsoft Response to TRAI CP on ‘Ease of doing Business in Telecom’**

### **EXECUTIVE SUMMARY**

Microsoft welcomes the opportunity to provide its views in response to TRAI's Consultation Paper (CP) on "Ease of doing Business in Telecom". Over the past year and a half, TRAI has floated many Consultation Papers (CPs) on various important telecom topics. This openness of TRAI is encouraging for the entire ecosystem as TRAI tries to modify and modernize India's telecom regulations. While the CP process is indeed welcome, one thing which stands out is the fact, that TRAI continues to adopt the mindset, frameworks and technologies of yesteryears. Unless a fundamental shift in this approach takes place, TRAI/DOTs efforts to change India's telecom regulatory framework and make India conducive for doing telecom business will flounder, notwithstanding innovative companies (inside and outside of India) ready to serve the huge and, currently underserved, Indian market.

Let us start with the name itself, which conveys a lot. Telecom Regulatory Authority of India (TRAI) was formed to take care of the regulatory issues and disputes of the telecom players. Unfortunately, it seems its charter is not to ensure the greatest public good using telecom as an instrument. Its charter is to regulate, not to empower; its charter is to take care of telecom incumbents and not new entrants, competitors and those offering low-cost and innovative productivity tools. However, there is no reason that TRAI cannot fulfill its objectives to protect incumbent operators while also serving the public good. TRAI can ensure that public interest is best served by focusing on the 21<sup>st</sup> Century communications services that incumbents can, should, and do provide – that is, high-speed broadband services that are increasingly in demand in India due to the growing possibilities brought to Indian businesses and consumers by app developers the world over. TRAI needs to send a strong signal to its stakeholders by renaming itself as Infocom Enablement Commission or something like that. The various CPs of TRAI clearly signal that TRAI is not in step with the latest technological, business and regulatory developments taking place across the world.

Furthermore, if any entity wants to invest in India, the licensing rules are not clear and do not take into account the realities of modern technology, the convergence between voice and data, or the presence of newer business models that provide better services at lower prices to the customers. Details are given in the note below.

In terms of DOT's dealing with this 21<sup>st</sup> Century ecosystem, this too needs a complete rejig and a change in mindset. For instance, Microsoft was involved in applying for a license that would have enabled it to conduct trials on TV White Spaces technology. For over six months, we chased the staff of the WPC (Wireless Planning and Coordination) to get a license that allowed us to a trial for a mere three months. By the time the license was granted to Microsoft, the project team had been disbanded. It is difficult to comprehend why the WPC needs so many months for processing an application. Similarly, application for OSP registration to enable the launch of a

simple call center can take months, including debates about matters that often seem to be “form over substance.” If applications take months to process, how can there be innovation and IP creation? There has to be a drastic change in the business-friendly orientation of DOT.

DOT and TRAI may well like to emulate the model being followed by a sister Ministry, i.e., MEITY (Ministry of Electronics and Information Technology). MEITY has many Section-25 companies and many PMUs (Project Management Units). The best talent from the Corporate sector is brought into MEITY on a task basis and a lot of good policy work is being done. These PMUs act as an effective interface between the private and the government sector in various areas. As against this, the policy making in DOT is entirely dependent on cadre officials, who may not have the international exposure required.

The triple whammy of (a) lack of clarity in regulations, (b) snail pace of processing applications and (c) draconian enforcement, at times without giving the affected party sufficient notice, has caused several small entrepreneurs working on communication technologies to leave India and set up shop in Singapore and USA. While this is the situation for smaller enterprises, in the case of large enterprises, non-traditional investments in telecommunications is simply not forthcoming. Investment in telecom infrastructure which is badly required for India is not happening, thus forcing the Government to invest in projects like Bharat Net.

In several areas of policy making, DOTs point of view is antiquated. For instance in M2M, DOT is still talking in terms of data localization. This is a complete anachronism in modern times. Companies like Microsoft who have their data centers in India are not affected by this policy. But having data localization mandates will cause other countries to impose similar restrictions. This will badly impact India’s technology and BPO industry.

There is a lot which DOT and TRAI can and must do. It is very encouraging that the first step in this regard has been taken.

The attached note highlights how modifying/ updating the telecom regulations can help Startup India, Make in India and Digital India.

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Today, in India, truly unified communications services are not achievable because India's telecom licensing rules do not fully accommodate IP-based technologies. Unified communications include VoIP to VoIP calling; real-time video communications; VoIP to PSTN calling;<sup>1</sup> and conferencing/bridging services that allow participants to join a conference call via a telephone on the PSTN or via an IP-enabled device connected to the Internet or conferencing using the cloud based technologies. Indian companies, large and small, are prevented from making this suite of communications capabilities available to Indian consumers and businesses due to (i) a lack of clarity in the current licensing regime; and (ii) an onerous licensing regime that is not proportionate to the types of services provided. This impacts the entire ecosystem: (i) Large corporations are not willing to invest in India in the VOIP sector or cloud based technology sector, (ii) Indian entrepreneurs are not able to set up businesses in India leading to their migration to other countries like Singapore and USA, and (iii) Indian small and medium enterprises are not able to take advantage of the suite of cheap Unified Communications products available to enable them to scale up. Modifying/ updating the telecom regulations can help Startup India, Make in India and Digital India.

- 1. Requirement:** Clearly specify that PC to PC VOIP<sup>2</sup> may be provided/used in India without any form of license. (i.e.) Remove it from the definition of Internet Telephony

**Rationale:** The current telecom regulations are not clear with respect to the above. A reading of the rules (clause 2.1(ii) of the Unified License-ISP license<sup>3</sup> and clause 2.1(a)(i)<sup>4</sup> of the Unified License-Access Service) suggests that only ISP and Unified Access license holders can offer PC to PC VOIP.

**Benefits:**

Currently the offerings of many international and domestic VOIP players are available over the internet. Millions of people including the government are using this. While smaller companies can afford to operate in the grey area of regulation, big corporations are uncomfortable in operating in a regulatory vacuum. Hence investments to make India specific VOIP products are not flowing in nor are Indian entrepreneurs creating India specific products. Pure VOIP products would be able to advertise, consumers will get more choices,

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<sup>1</sup> By "VoIP to PSTN Calling" we mean communications between a user of an app on an IP-enabled device that is connected to the internet and a user that is on a PSTN network (i.e., not on the internet).

<sup>2</sup> By "PC to PC VoIP" we mean VoIP communications between two IP-enabled devices, i.e., two devices that are connected to the internet and running an app or Internet-based service that enables the users to communicate.

<sup>3</sup> UL – ISP license at page 64:- 2.1(ii) The Licensee may provide Internet Telephony through Public Internet by the use of Personal Computers (PC) or IP based Customer Premises Equipment (CPE) connecting only the following:

- a) PC to PC; within or outside India
- b) PC / a device / Adapter conforming to TEC or International Standard in India to PSTN/PLMN abroad.
- c) Any device / Adapter conforming to TEC or International Standard connected to ISP node with static IP address to similar device / Adapter; within or outside India.

Explanation: Internet Telephony is a different service in its scope, nature and kind from real time voice service as offered by other licensees like Basic Service Licensees, Cellular Mobile Telephone Service (CMTS) Licensees, Unified Access Service (UAS) Licensees, Unified Licensee (Access Service), Unified Licensee with authorization for access services.

<sup>4</sup> UL – Access Service license at page 45:- 2.1(a)(i) ...The Licensee can also provide Internet Telephony, Internet Services including IPTV, Broadband Services and triple play i.e voice, video and data...

communication will become cheaper and ubiquitous, even in underserved rural areas as VOIP communication does not hog too much of bandwidth. Bharat Net will be better utilized.

**Implementation:** DOT merely needs to bring out a notification clarifying the above and issuing amendments to the licensing terms.

- 2. Requirement:** Change the definition of Internet Telephony to clearly permit VoIP to PSTN calling, whether wholly within India or from India to phone numbers outside of India.

**Rationale:** Internet Telephony definition in the ISP license clearly forbids Intra India PC to PSTN calling (clause 2.1(ii) of the Unified License-ISP license). Furthermore, the term 'Internet telephony Network' is not defined in the license, policy or regulations. It may also be noted that in clause 2.1(a)(v), of the Unified License – Access Service, interconnection between leased circuit and PSTN/ Internet Telephony network is prohibited. Thus, these licensing restrictions create barriers to providing such calling services. This creates problems for software companies to develop products, creates huge regulatory expense on Call Centers and large enterprises for checking the Location Based Routing (LBR) and Logical Partitioning (LP) of any communication software deployed, problems for entrepreneurs in developing VOIP based communication solutions.

**Benefits:** All the above segments of the ecosystem will be enormously benefited. Telcos will be benefitted by a significant number of PC to PSTN calls landing to them and increasing their revenues.

**Implementation:** It has been suggested that currently it is theoretically possible to have a Unified License – Access Service authorization<sup>5</sup> and offer this PC to PSTN calling service to both India and international phone numbers. However due to the limitations mentioned above, and the lack of regulatory clarity, these services have not taken off in India. DoT may therefore like to clarify by issuing a notification/ amendment to the license terms that interconnection between IP to PSTN networks and calls from PC/devices to India PSTN phone numbers will be permitted.

- 3. Requirement:** Change the definition of "Internet Telephony" so it encompasses only two way VOIP to PSTN calling, whether to phone numbers in India or phone numbers outside of India. This is a service that replicates the traditional calling services of TSPs by assigning the user a phone number and then allowing the user to make *and* receive calls to/from the PSTN (whether in India or outside of India).

**Rationale:** Complete two-way VOIP to PSTN is a feature which is being rolled out in all advanced countries. India is lagging behind in this regard. This is true convergence.

**Benefits:** Consumers have more choice of services, Consumers need not have a multiplicity of devices to communicate and can communicate irrespective of which platform the receiver is based on, software innovation on the communication platform can take place, value added services like big data, analytics etc can be added onto the services.

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<sup>5</sup> Clause 2.1(a)(i) of the UL – Access Service license at page 45

**Implementation:** This is true internet telephony. The definition of Internet Telephony should be confined only to this use case. As this type of Internet Telephony can replace a traditional PSTN, this can be subject to a license and other obligations similar to those imposed on a regular telco, thus creating a level playing field.

For PC to PSTN calling services that are merely one-way – e.g., that provide only outbound calls to the PSTN (without the concomitant ability to receive calls back from the PSTN) – the DoT should either leave such calling services wholly outside the scope of its licensing obligations or, at most, provide a licensing system of ultra light regulation, similar to the OSP registration regime or the Infrastructure Provider regime. The total revenues from this calling feature will not be huge. Requiring a large licensing fee and compliance with traditional telephony obligations and other onerous licensing conditions will only benefit the large players and will kill innovation and the smaller players.

#### **4. Requirement:** Allow IP to PSTN bridging and cloud telephony in India

**Rationale:** The traditional way in which PBX or Conferencing used to operate has been rendered almost obsolete by new technology. Today there are cloud based conferencing solutions available which allow an infinite scaling up and scaling down based on demand without any requirement of hardware upgradation or wiring. Restriction on interconnection between IP and PSTN networks will hinder effective usage of cloud based audio conferencing services. Further the requirement that if telecom resources are procured from more than one service provider then outgoing call facility shall be through only one service provider<sup>6</sup> is out-dated and needs revision especially in light of the present technological advancements.

**Benefits:** Cloud based telephony solutions are being offered by many small Indian enterprises who in turn are providing services to small businesses. The scalability, flexibility and value added services possible on cloud telephony is simply impossible in the PSTN world.

**Implementation:** The current Audiotex license regime has not factored in the existence of cloud based solutions. This license needs to be modified to allow PBX functionality in the cloud, and the mixing of IP to PSTN traffic on infrastructure located in India. Licensing conditions should not be onerous to drive away potential applicants.

#### **5. New Definition of Internet Telephony**

In the light of the above, internet telephony should be defined as follows: "a Voice over Internet Protocol ("VoIP") service, provided over the public internet or a managed IP network, that:

- 1) enables real-time, two-way voice communications from IP-compatible devices that must be connected to broadband; and
- 2) permits subscribers to receive calls from and initiate calls to E.164 telephone numbers, whether Indian phone numbers or international phone numbers."

(All other types of VoIP calling – whether on the Internet or managed IP networks – should be clearly deemed allowed, without a telecom license, to ensure that these new and innovative services are available to India's businesses and consumers)

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<sup>6</sup> Clause 22.1 – Audiotex License - In case Voice Mail/Audiotex Services licensee takes resources for the operation of the services from more than one telecom service provider, the dial out facility will not be permitted. In case the resources are taken by the Voice Mail/Audiotex Service licensee from only one service provider the dial out facility will be permissible. However, for VMS licensee the dial out facility shall not be permitted.