

MICROSOFT CORPORATION COMMENTS

THE TELECOM REGULATORY AUTHORITY OF INDIA'S CONSULTATION

INTRODUCTION OF UL (VNO) FOR ACCESS SERVICE AUTHORIZATION FOR CATEGORY B LICENSE WITH DISTRICTS OF A STATE AS A SERVICE AREA

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In May 2016, the Telecom Regulatory Authority of India ("TRAI") announced that it would be implementing a new Virtual Network Operator ("VNO") license as part of the Unified License ("UL") regime, thereby ushering in the possibility of additional market players through a resale model. At that time, Microsoft – as a provider of applications and services that are not tethered to any particular telecommunications network – was encouraged that this was a sign India would be opening up its communications markets to new, innovative, IP-based, cloud-delivered, competitive services that would benefit consumers and businesses across India. The VNO scheme aims to significantly improve utilization of existing infrastructure, which can be used more efficiently – with additional services delivered to vast numbers of people across India -- only by the introduction of newer types of technology, newer business models and newer types of services. However, TRAI appears to be merely tweaking the regulatory framework and attempting to squeeze more from existing technologies, business models and services, while what is required is a fresh approach.

Embracing a resale marketplace was just the first step among many that are required to open the market to new and innovative services. And, addressing specific VNO issues related to Direct Inward Dialing ("DID") franchisees – a feature that dates back to 1994 (an almost three decade old concept) – is not the sort of issue on which we believe TRAI should be focused at this time. While DID may be still in use in some parts of India and may benefit from a more liberalized VNO structure that enables the use of DID on wireless networks, there are a number of other critical policy issues that have yet to be addressed since the last year's announcement that a VNO structure is available in India. Without addressing these issues, the TRAI's embrace of a resale model that will bring competition and innovation to India will not be realized.

Among the issues that TRAI should prioritize are the following:

- (i) Clarity on the provision of Voice over Internet Protocol ("VoIP") in India. Today, although widely available via software applications, there remains uncertainty regarding the regulatory status of VoIP. VoIP applications that enable communications between two users via the Internet (or a private, managed Internet Protocol ("IP") network) should be wholly outside the scope of the Department of Telecommunications ("DoT") definitions and regulations. Doing so would help bring India's telecom framework into step with the rest of the democratized world and, more importantly, encourage more innovation within India.

- (ii) Update the definition of “Internet Telephony” so that it clearly embraces the 21st Century’s telecommunications capabilities – that of VoIP to PSTN calling, whether to phone numbers inside or outside of India. The “Internet Telephony” definition in the ISP license -- which is the only place this particular definition exists today -- 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 that are developing new products and services, imposes huge regulatory expense on Call Centers and large enterprises that must check the Location Based Routing (LBR) and Logical Partitioning (LP) of any communication software deployed, and problems for entrepreneurs in developing VOIP based communication solutions.
- (iii) Adopt licensing rules that encourage and enable the deployment of two-way VoIP-to-PSTN calling services. These are innovative, competitive services that are widely available across the globe. Yet, India’s telecom regulations continue to choke the possibility of such innovation. Liberalizing India’s VoIP rules so that such service are possible, and regulated in a manner proportional to their network-agnostic architecture, will drive investment into India, bring consumers and businesses more options for communications capabilities, and help drive India’s telecommunications infrastructure more quickly into the 21st Century.
- (iv) Leave behind concepts like DID franchising and embrace cloud telephony in India. The traditional way in which PBX or Conferencing bridges 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. Restrictions on interconnection between IP and PSTN networks 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, is outdated and needs revision, especially in light of the present technological advancements.
- (v) Implement a VOIP VNO licensing framework that enables the deployment of VoIP-to-PSTN communications capabilities in India, delivered via the cloud. To encourage innovation and create competitive options – both of which will drive more demand for data networks and internet access – the licensing framework must be one that recognizes the differences between network-tethered VoIP services and those untethered from a particular network. For service providers without control over

the underlying network, there may be justifications for implementing slightly different rules for these VNO licensees.

- (vi) Another area where TRAI could bring about change is in the area of dramatically increasing access to broadband in far flung and underserved areas. We note that in its various consultation papers, while TRAI has recommended delicensing of additional spectrum bands, its recommendations have not been bold, out of the box nor have they gone far enough. Here again TRAI is out of step with the global trends. An innovative scheme for utilization of the prime but hardly used TV spectrum would have addressed multiple problems. Government could have earned more revenues, telcos could have used TV band in urban areas to take care of congestion and improving QoS, while in rural and far flung areas, where it does not make business sense for the telcos to invest, the VNO scheme could have been tweaked to enable rural entrepreneurs to offer cheap broadband using inexpensive WiFi or TV White Space equipment using a rural broadband PCO model.

We appreciate the TRAI's efforts in implementing the new VNO policy across the many types of licensed service providers in India. We ask that TRAI expeditiously consider the issues above, given the importance of reconciling India's telecommunications regulations with the realities of today's technologies.

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