

Consultation Paper No. 7/2015



TRAI

Telecom Regulatory Authority of India



**Consultation Note
on
IP Based Interconnection**

New Delhi

27.11.2015

Telecom Regulatory Authority of India
Mahanagar Door Sanchar Bhawan,
Jawahar Lal Nehru Marg,
Next to Dr. Zakir Hussain College,
New Delhi – 110002

Consultation note on IP BASED INTERCONNECTION

National Telecom Policy (NTP-2012) of Government of India, in one of its strategies, has visualized the move towards a Unified Licensing regime which would exploit benefits of convergence, spectrum liberalization and facilitation of delinking of licensing from delivery of services to the end users. NTP-2012 also lays emphasis on addressing the requirement of non-discriminatory interconnection including interconnection at IP level.

2. Currently, the status of telecom networks in India is a combination of the legacy circuit switched (TDM infrastructure) and packet switched (IP based switches) networks. However, it is clear that there is shift from the traditional Circuit Switched (CS) to Packet Switched (PS) environment. Major TSPs in India have already installed IP based core transport network for carrying voice and data traffic. In some cases, fixed line service providers have replaced their Tandem/Tax switches with NGN soft switches and interfaced with existing network through Media Gateway.

3. Unified License issued by DoT includes clause 27.3 which specifically deals with interconnection between the networks of different licensees for carrying circuit switched traffic. The clause provides for interconnection between a circuit switched network and an IP based network through a

Media Gateway Switch. However there is no explicit mention of an IP based interconnection between two licensees when both are having IP based network.

4. TRAI had earlier issued a Consultation Paper on "Migration to IP based network" on 30th June 2014 which was followed by an Open House Discussion on the subject held on 2nd December 2014. One of the issues in the consultation process pertained to inter-connection of an IP based network. Some telecom service providers have submitted that as the imminent transition towards IP technology is widely anticipated, it is essential to amend the license conditions to explicitly provide for IP technology based interconnection. Further, Department of Telecom, vide its letter no. 20-281/2010-AS-I Vol.9, dated 10.11.2015 regarding 'Regulation of IP interconnection charges' ; has mentioned that one of the issues of concern to the Telecom Industry is removal of restriction of Interconnection at IP level to ensure seamless IP interconnection.

5. Considering the above, it is felt that suitable recommendations may be issued to the licensor to incorporate a provision in all relevant Licenses to the effect that licensees may also interconnect over IP based networks or any other emerging/latest technology specified by the licensor subject to compliance of Regulations/Directions/Determinations etc. issued by TRAI on the subject from time to time. The key objective to seek the said amendments is to ensure that terms and conditions of interconnection, as

notified by TRAI, are in harmony with the terms and conditions of license agreement.

6. Keeping in view the above, it is proposed to amend the Clause 27.3 of the Unified License by incorporating the necessary provisions (**as per Annexure**) to facilitate IP based interconnection between service providers. Similar amendment to this effect is also proposed in relevant clause in other license agreements. Stakeholders are requested to furnish their written comments on the proposed amendment to the Unified License by 7.12.2015 and counter-comments by 14.12.2015 to the Advisor (Network, Spectrum & Licensing), TRAI. Comments would be posted on TRAI's website www.trai.gov.in. The comments may also be sent by e-mail to fn@traigov.in. For any clarification/information, Shri Arvind Kumar, Advisor (Network, Spectrum & Licensing), TRAI may be contacted at Tel.no. +91-11-23220209, Fax: +91-11-23230056.

ANNEXURE

Clause (UL)	Existing	Proposed Text
27.3	<p>Interconnection between the networks of different Licensees for carrying circuit switched traffic shall be as per national standards of CCS No.7 as amended from time to time by Telecom Engineering Centre (TEC) and also subject to technical feasibility and technical integrity of the Networks and shall be within the overall framework of interconnection regulations/ directions/ orders issued by the TRAI/ Licensor from time to time. For inter-networking between circuit switched and IP based network, the Licensee shall install Media Gateway Switch. Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues.</p>	<p>Interconnection between the networks of different Licensees for carrying circuit switched traffic shall be as per national standards of CCS No.7 as amended from time to time by Telecom Engineering Centre (TEC) and also subject to technical feasibility and technical integrity of the Networks and shall be within the overall framework of interconnection regulations/ directions/ orders issued by the TRAI/ Licensor from time to time. For inter-networking between circuit switched and IP based network, the Licensee shall install Media Gateway Switch. Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues.</p> <p>27.3.1 Interconnection between the IP based networks of different licenses for carrying IP traffic shall be within the overall framework of the interconnection regulation/ directions/orders issued by TRAI/Licensor from time to time.</p>