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(Advisor, NSL-I)

Telecom Regulatory Authority of India

Mahanagar Doorsanchar Bhawan,

Jawahar Lal Nehru Marg,

New Delhi-110 002

Ref : TRAI Consultation Paper No. 7/2015 dated 27th November 2015.

Subject : IP based interconnection.

Dear Sir,

This is in reference to the above captioned TRAI consultation note proposing an amendment to clause 27.3 of the Unified License to provide for interconnection between two licensees with IP based networks. TRAI has also proposed to effect similar amendment in relevant clauses of other license agreements as well.

Further, TRAI has stated that the proposed amendment has occasioned in the light of facts that:

- The License provides for TDM interconnection and TDM & IP interconnection and there is no explicit clause to permit interconnection between two IP networks.
- DoT in its letter dated 10th November 2015 has asked for removal of all restrictions for interconnection at IP level.

TRAI had carried a consultation paper on "Migration to IP Based networks" in June 2014 and had taken cognizance of issues relating to IP based networks, including interconnection, numbering, QoS aspects, security monitoring requirements, wholesale interconnection costs & charges, etc. The majority of the industry had suggested against any mandate for IP interconnection or any change in the interconnection regime.

We understand that in the light of industry's submissions, the Authority has concluded the said matter in the right direction by not enforcing any mandate. Revisiting this subject matter would tantamount to repeating the exercise of reviewing a subject which has already been constructively/effectively dealt with and closed in the recent past.

Further, we submit that the existent license condition 27.3 is sufficient as it duly recognizes and provides for interconnection of PSTN/PLMN Services both on TDM and IP networks. The clause allows licensees to interconnect on both circuits switched or IP networks, while giving them the discretion to either deploy TDM or IP for interconnection. In view of the same, any change / amendment in the licensing conditions amendment is not necessary and is uncalled for.

Without prejudice to the above submissions, if TRAI still intends to amend the Licensing clause 27.3, we suggest that the same can be done to provide greater clarity for facilitating IP based interconnection. Having said that, we believe that the amendment proposed by TRAI is not outlined appropriately and it needs to be rearticulated to ensure the following:

- (i) It captures the genuine underlying intent that interconnection of IP networks of Telecom Service Providers is for exchange of Voice/SMS Services in PSTN/PLMN.
- (ii) It will not override or is in derogation to the prevailing licensing condition as contained in the respective authorizations for NLD/ILD/ISP/VSAT under UL. The clause 27.3 falls under Part -1 of the Unified License containing generic provisions and terms & conditions specific to various services (like Access, the Internet, NLD, ILD, GMPCS, PMRTS, VSAT etc.) are contained in the respective chapters/authorizations. The amendment must expressly stipulate that the special provisions of a service license shall override, and the amendment to Clause 27.3 shall not be in derogation of the terms & conditions of the service license / authorisation.
- (iii) Interconnection between PSTN/PLMN and public switched packet data network (PSPDN) is not permitted under any licensee except UL (AS) which is also currently not feasible to implement due to the absence of required ecosystem in terms of QoS, numbering scheme, security/LI requirements. The amendment should therefore be confined to direct interconnection of switched IP PSTN/PLMN networks and disallow exchange of Internet traffic.
- (iv) The amendment is operative within the prevailing interconnection framework, i.e. the existing regulations on IUC, Port Charges, etc. will remain as is.
- (v) The technology neutral approach of the license should continue irrespective of the technology at the point of interconnection.
- (vi) It is aligned with TRAI's continual approach which allows self-evolution of technology considering the dynamic nature of industry in terms of the technological advancements.
- (vii) It continues to provide flexibility to the TSPs by permitting them to interconnect over technologies at their own instance and subject to mutual agreements between the interconnecting licensees.
- (viii) It does not mandate a technology for interconnection as any such forced migration to IP based interconnection would not only usurp existing investments but would also require the TSPs to make fresh investments.
- (ix) It factors and holds the extant interconnect regulation/principal which prescribes the cost of interconnection to be borne by the Seeker due to any change in the provider's network while accommodating interconnection on the technology insisted by seeker.

Therefore, while considering any amendment to the License, it is thus utmost critical, that the same should rest on the above listed existing tenets/premises of licensing and interconnection

framework. In consonance with the reasons/justifications elaborated above, we tender the revised clause 27.3 of Unified License to read as under:

Clause (UL)	Existing Clause	Clause Proposed by TRAI	Clause Proposed by Airtel
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>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.</p> <p>For inter-networking between circuit switched and IP switched based network for exchange of PSTN/PLMN traffic, the Licensee shall install Media Gateway Switch.</p> <p>Interconnection between networks of different Licensees for carrying IP switched traffic for Voice Services in PSTN/PLMN shall be as per the mutually agreed protocols.</p> <p>Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues.</p>
New Clause		<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>	<p>Clause 27.3.1 is not required</p>

Further, TRAI has also cited to make similar amendment in other license agreements. In case TRAI intends to do so, the same may also be attuned in accordance with the revised clause suggested above.

Thanking You.

Yours sincerely
For **Bharti Airtel Limited**



Ravi P Gandhi
Chief Regulatory Officer