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Sub: Consultation Note on IP Based Interconnection dated 27.11.2015

Ref: (i) Our letter dated 04.12.2015 seeking a copy of DoT letter dated 10.11.2015
(ii) TRAI letter dated 09.12.2015 sharing a copy of DoT letter dated 10.11.2015 and extending timeline for submission of comments

Dear Sir,

This is with reference to the Consultation Note proposing to amend Clause 27.3 of the Unified License to facilitate IP based interconnection between two licensees when both are having IP based network. Similar amendment is proposed to clauses in other relevant licenses as well.

We thank you for sharing a copy of the DoT letter dated 10.11.2015 mentioned in the Consultation Note. The DoT's letter observes 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*. It goes on to seek expected timeline for issuance of guidelines to address the same, in light of a concluded consultation on "*IP interconnection charges*". Preliminarily, we would like to state that TRAI has concluded a consultation on "*Migration to IP based networks*" in June-July 2014 which covered a wide range of issues relating to IP based networks including Interconnection, Numbering, QoS requirements, Security Monitoring requirements etc. and wholesale interconnection charge was one of the topics for consultation. **In this regard we would like to emphasize that the preponderance of opinion of TSPs was against mandating IP based interconnection or disturbing the prevalent MoU based IUC regime.**

However, we understand that a couple of TSPs continue to raise concerns that although the existing licensing framework allows interconnection between a circuit-switched network and an IP-switched network through the deployment of a Media Gateway (MGW), no standard has been laid down for interconnection between two IP-switched networks. In such a scenario, deployment of an MGW is superfluous as both sides are already operating PSTN/PLMN networks which are IP-based and therefore should logically be permitted to establish direct connectivity without the intervention of a MGW. Accordingly a short Consultation Note has been issued with the above intent and limited purpose that does not warrant a full-fledged consultation exercise as previously conducted for migration to IP based networks in June 2014.

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In light of the same, we are of the opinion that:

- Any migration to IP networks must be left to the discretion of TSPs, this being a business decision dependent on many factors like spectrum availability and use, individual rollouts, investment potential, business model, etc.
- The type of interconnection should also not be mandated; rather it should be left to bilateral agreements between TSPs. The license conditions mandate TSPs to provide interconnection to other eligible TSPs based on mutual agreements, subject to prevailing Orders/Regulations of TRAI. The licensing framework is technology agnostic subject to adherence to specified international / domestic technical standards. This basic tenet should be continued.
- We disagree with the view of some TSPs that the existing license conditions need to be amended to explicitly provide for IP based interconnection. It is our interpretation that the existing License already provides for interconnection of PSTN/PLMN services both on circuit-switched and IP networks.
- The license condition can at best be modified to make the type of interconnection technology neutral subject to mutually agreed arrangements amongst the interconnecting parties and international/domestic technical standards. This will meet the Regulator's purpose of ensuring that any regulatory/licensing impediments are removed and at the same time, TSPs are encouraged to naturally progress to any technological advancement on interconnection based on their technical readiness/feasibility and business plans.
- Lastly, the current interconnection regime measured in terms of the minutes of traffic should continue.

With regard to the script of the proposed amendment, we would like to make the following submissions:

1. The current regime permits Access (Basic, CMTS, UAS, Unified License (Access Service)), NLD and ILD licensees to exchange voice & SMS traffic of PSTN / PLMN networks by establishing direct Interconnection. The said PSTN / PLMN networks may be circuit switched or IP switched. In so far as one party is circuit switched, deployment of MGW is imperative. When both Parties are IP switched, the MGW may be dispensed with.
2. Secondly, interconnection between PSTN/PLMN and public switched packet data network (PSPDN) is not permitted to any licensee except UL (AS). Moreover, even though UL(AS) permits interconnection of Internet telephony network with PSTN/PLMN/GMPCS network, however the ecosystem for the same is not ready in terms of Numbering Scheme, QoS requirements, Security / LI requirements. Therefore till such framework is established, interconnection of Public Internet with PSTN/PLMN network is not practicable. Thus, it merits emphasis that the amendment does not in any manner entail exchange of Internet traffic and must be confined to direct interconnection of switched IP PSTN/PLMN networks.
3. We would also like to underscore that the amendment is being proposed to Clause 27.3 of the Unified License, which falls under Part -1 of the License which contains generic provisions. Whereas terms & conditions specific to various services (like Access, Internet, NLD, ILD, GMPCS, PMRTS, VSAT etc.) contained in the respective chapters will override the generic provisions. For instance, Clause 4.2 of Chapter IX of Unified License (which deals with Internet Services) does not permit Voice communication to and from a telephone connected to PSTN/PLMN and use of E.164 numbering. The said clause states that "***The Licensee shall have no connectivity with PSTN/PLMN/GMPCS networks in the country***". Therefore it is crucial that the amendment proposed by TRAI expressly stipulates 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.

4. In light of the aforesaid, we therefore propose that the amendment be re-phrased as follows:

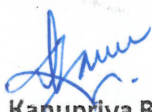
27.3 Interconnection between the networks of different Licensees for carrying circuit switched traffic shall be as per national standards of CCS No.7 as amended from time to time by Telecom Engineering Centre (TEC) and also subject to technical feasibility and technical integrity of the Networks and shall be within the overall framework of interconnection regulations/ directions/ orders issued by the TRAI/ Licensor from time to time.

For interconnection of PSTN/PLMN networks for exchange of Voice and SMS traffic the Licensee shall install Media Gateway Switch for inter-networking between circuit switched and IP switched network, and in case both networks are IP based, interconnection is permitted subject to mutual agreement of both parties for interconnection of PSTN/PLMN networks for exchange of Voice and SMS traffic.

Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues.

5. We also note that TRAI has mentioned in para 6 of the Consultation Note that "**... .. Similar amendment to this effect is also proposed in relevant clause in other license agreements... ..**" We request that the proposed amendments to other licenses like CMTS, Basic etc. also be shared by TRAI for deliberation with all stakeholders, before making any recommendations to the Government.
6. The aforesaid amendment does not envisage any change to the existing framework of Interconnection and thereby no changes to the existing Regulations on IUC, Port Charges, etc.
7. The above is without prejudice to our submissions in the previous consultation on "Migration to IP based networks" in June 2014.

Yours sincerely
For **Vodafone India Limited**



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