

VIL/LT/19-20/160  
4<sup>th</sup> July 2019

**Telecom Regulatory Authority of India**  
Mahanagar Doorsanchar Bhawan  
Jawahar Lal Nehru Marg,  
New Delhi-110002

**Kind Attention:** Shri S.K. Singhal, Advisor (BB&PA)  
**Subject:** Consultation Paper on Review of Regulatory Framework for Interconnection dated 30<sup>th</sup> May 2019

Dear Sir,

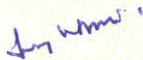
This is with reference to the consultation paper on Review of Regulatory Framework for Interconnection issued by the Authority on 30<sup>th</sup> May 2019.

Please find attached our comments on the questions raised in the captioned consultation paper.

We hope our submissions will merit your kind consideration.

Thanking you

Yours faithfully,  
For **Vodafone India Limited**



**Sundeep Kathuria**  
EVP- Regulatory Affairs (TRAI, Policy & Enterprise)

**VIL's Response to TRAI Consultation Paper on "Review of the Regulatory Framework for Interconnection" dated 30<sup>th</sup> May 2019**

**Preliminary Submissions:**

1. This consultation paper dwells on a very limited scope of PSTN-to-PSTN level of interconnection, whereas the Authority's earlier consultation paper dated 21.10.2016 on the same subject had raised the larger issue of what should be the levels of interconnection, in entirety. The Authority's TIR, 2018, is also issued in entirety and is not limited to PSTN-to-PSTN interconnection. Accordingly, the scope of this consultation should not remain limited to only PSTN-to-PSTN level of interconnection, but should include in its purview, all levels of interconnection including inter-alia, Mobile-to-PSTN and NLD-to-PSTN levels of interconnection.
2. We submit our comments to the consultation paper covering all levels of interconnection including inter-alia, PSTN-to-PSTN, Mobile-to-PSTN and NLD-to-PSTN level of interconnections on which we are providing our specific comments.
3. The existing levels of interconnection for PSTN/Mobile-to-PSTN/Mobile, NLD/ILD-to-PSTN/Mobile, and Mobile-to-Mobile, amongst private telecom service providers (TSPs) are mutually agreed and are not multi-layered, hierarchical or complex (based on the type of traffic), unlike the interconnection arrangements that exist with public sector TSPs since the opening of the telecom sector to private TSPs, which were based on the legacy hierarchical technical networks of BSNL and MTNL.
4. There is an urgent need to modify the levels of interconnections between private TSPs and public sector TSPs to bring in efficiencies in interconnection and ease of network operations for the interconnecting parties. The legacy hierarchical networks of the public sector TSPs have undergone changes which make it feasible to interconnect at fewer points of interconnection.
5. Interconnection between private TSPs and public sector TSPs should be at LSA (licensed service area) level, instead of at L1/L2 TAX/SDCA locations. There can be few locations (max. upto 4) within the LSA which can be mandated for PSTN-to-PSTN, Mobile-to-PSTN, and NLDO-to-PSTN interconnectivity (both intra-circle and inter-circle)– the count of the locations can be based on the size of the LSA, quantum of traffic being exchanged between the interconnecting TSPs and the level of redundancy required between the interconnecting TSPs.
6. There should not be any transit carriage/intra-circle carriage charges applicable on private TSPs for handing over of PSTN-to-PSTN, Mobile-to-PSTN, and NLDO-to-PSTN traffic to public sector TSPs on the LSA level interconnections. Private access service based TSPs typically interconnect their GMSCs/GCSs/MSS for all kinds of access traffic (fixed/mobile) within a service area and internally transit the traffic to relevant MSCs/switches. Likewise, private NLDOs/ILDs interconnect with GMSCs/GCSs/MSS of private access service based TSPs. The cost of internally transiting the traffic to relevant MSCs/switches is borne by the terminating TSPs.

7. As a futuristic requirement, the Authority should consider doing away with mandatory LSA based interconnection requirements for TSPs who have pan-India access licenses. . TRAI may recommend to DoT for the change in the Licence conditions in this regard.

**Issue wise Response:**

**Q1. Whether the flexibility be provided to interconnecting operators for interconnecting PSTN to PSTN networks at SDCC/Level II TAX (SSA)/Level I TAX (LSA) levels as per their mutual agreements? If no, then justify your comments with reasons.**

A1. Amongst private telecom service providers (TSPs), the interconnection of PSTN-to-PSTN, PSTN-to-mobile and vice-versa, Mobile-to-mobile, NLD-to-PSTN/Mobile and vice-versa networks is established at mutually agreed points/locations which typically vary from 1 to 4, depending upon the size of the telecom circle, quantum of traffic being exchanged between the interconnecting TSPs and the level of redundancy required between the interconnecting TSPs. However, the public sector TSPs insist on a multi-layered and hierarchical connectivity viz.

- PSTN-to-PSTN and NLD-to-PSTN interconnection at SDCC/SDCA level (for intra-circle traffic) and at L2 TAX level for PSTN-to-PSTN inter-circle traffic
- Mobile-to-PSTN interconnection at SDCC/SDCA level (for metros) and at Level 2 TAX level (for other locations) for within the same LDCA traffic and at L1 TAX level for outside the LDCA traffic

These levels of interconnection with the public sector TSPs have been in existence since the opening up of the telecom sector to private operator participation and the public sector TSPs have not been forthcoming in agreeing to a mutually agreed interconnection framework and interconnect agreements, to the extent that private TSPs are still continuing with non-reciprocal interconnect arrangements vis-à-vis the public sector TSPs.

Thus, the public sector TSPs must be mandated to establish interconnection either at mutually agreed points or at regulatory mandated points of interconnection with the private TSPs, since the existing multi-layered and hierarchical levels of interconnection results in increased infrastructure build up and maintenance costs and also leads to inefficient utilization of resources at both interconnecting TSPs' ends, given that fixed line subscriber base and associated traffic is minimal in the country.

**Q2. In case of no mutual agreement between the operators, what should be the level of interconnection for interconnecting PSTN to PSTN networks be mandated in the Regulations.**

A2. Interconnection between private TSPs and public sector TSPs should be at LSA (licensed service area) level, instead of at L1/L2 TAX/SDCA locations. There can be few locations (varying between 1 to 4) within the LSA which can be mandated/designated for PSTN-to-PSTN, Mobile-to-PSTN, and NLDO-to-PSTN interconnectivity (both intra-circle and inter-circle). This will reduce the mutual infrastructure build-up costs between the interconnecting TSPs and thus result in lesser O&M costs of infrastructure and more efficient utilization of resources at both interconnecting TSPs' ends. No transit carriage/intra-circle carriage charges should be allowed to be levied by the public sector TSPs on the private TSPs for handing over traffic at the designated POI locations.

**Q3. Any other issue you would like to bring to the attention of the Authority.**

A3. No transit carriage/intra-circle carriage charges should be levied by the public sector TSPs on the private TSPs for handing over traffic at the designated LDCA locations. Any cost, if incurred, on account

of transit and intra-circle carriage charge in the network of the terminating operator should be subsumed into the termination charge for all TSPs and these should be made applicable reciprocally between the public sector TSPs and the private TSPs.

The cost of establishing interconnection should be borne by the respective interconnecting TSPs for their own outgoing traffic, in line with the TIR, 2018.

4<sup>th</sup> July 2019

New Delhi