**Response to the TRAI Consultation Paper on
Review of the Regulatory Framework for Interconnection
30th May, 2019**

Summary Submissions:

1. Authority should do away with the archaic requirements like interconnecting at SDCA levels with the fixed networks of the PSUs and the interconnection at Level-II (LDCA level) or Level-I TAX.

2. Considering traffic and redundancy requirements, a finite number of POIs i.e. 3-4, at the circle level should be mandated for both PSTN to PSTN and Mobile to PSTN connectivity at the circle level.

3. Similarly, Point of Interconnection for NLDO-PSTN and Mobile-PSTN connectivity should also be reviewed and connectivity should be mandated at 3-4 locations in the licensed service area as recommended for PSTN-PSTN.

4. As a futuristic requirement, TRAI should consider doing away with licensed service area wise interconnection requirements. TRAI may recommend to DoT for the change in the Licence conditions in this regard.

5. There should not be any Transit Carriage Charge and TAX Transit Charge levied upon any of the TSPs once the traffic has been handed at the declared Point of Interconnect.

Q.1 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.
    And
Q.2 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.

COAI Response:

1. We believe that due flexibility has been provided to interconnecting operators for interconnecting PSTN to PSTN networks at 3-4 locations in the licensed service area. All private TSPs, other than BSNL/ MTNL, are interconnected to each other for PSTN-PSTN

connectivity at finite few locations, say 3-4, in the licensed service area. However, in the absence of a mandate to interconnect at finite few locations, in a licensed service area, BSNL/MTNL do not agree to this and ask the private operators to interconnect at SDCA/ LDCC Level. In this context, we would like to make the following suggestions:

2. **TRAI needs to prescribe/ mandate for ONLY few POI i.e. 3-4 at the circle level for PSTN to PSTN   connectivity**

   a. As has been noted by the Authority, for the purpose of routing of calls, the country has been divided into 22 LSAs, 322 LDCAs/ SSAs and 2645 SDCA. Accordingly, for entry of a new fixed line operator at all India level, more than 2645 POIs need to be established for local calls only, with each competing fixed line operator. This acts as a deterrent for new fixed line service providers.

   b. It is also pertinent to note that as of March 2019 the fixed-line subscriber base at 22 mn was just 1.8% of the total subscriber base. As a result, such a large number of POIs established by any fixed line operator handle only an insignificant percentage of total telephony traffic thereby leading an inefficient utilization of resources. This highly decentralized type of interconnection is also not in the interest of service providers as it increases the cost of operations.

   c. Further, with the advent of IP networks, the TDM based circuit switched networks are being replaced with IP based packet switched core networks. In case of IP based packet switched core networks, a single soft switch along with the required number of Access/Line Media Gateway (LMG) and Trunk Media Gateway (TMG) can replace large number of standalone TDM based switches. In fact, one soft switch may be sufficient to cater to the requirement of one or more than one LSAs. As a large number of LMGs and TMGs can be parented to a single Soft Switch, the requirement of a large number of standalone TDM switches can be avoided.

   d. Considering the above, it may be worthwhile to simplify the present interconnection framework for fixed-line networks to give the flexibility to interconnecting operators.

   e. Moreover the present interconnection hierarchy, as captured in Table1, 2, 3 and 4 of Annexure -1 of the TRAI Consultation paper, is only being followed by Public sector TSPs i.e. BSNL/MTNL. For all TSPs other than BSNL/ MTNL, a single switch is providing service in the whole licence service area and needs to be interconnected at only one location.

   f. The complex nature of Fixed-Fixed point of interconnection is also not required now keeping in view the existing tariffs. The days are gone when one SDCC to another SDCC calls were treated and charged as long-distance calls. There were other regulatory hurdles like Access Deficit Charges (ADC) and distance-based carriage charges etc. Such hurdles have already been removed by TRAI. Today, similar to mobile tariffs, the tariffs of wireline are also the same for whole circle (as local calls).

g. In view of the above, to continue with the existing points of interconnection is highly inefficient utilisation of resources. Hence, considering traffic and redundancy requirements, there is an urgent **need to mandate for ONLY a few POIs i.e. 3-4 at the circle level for PSTN-PSTN interconnection.**

3. **TRAI needs to prescribe/ mandate for ONLY few POIs i.e. 3-4 at the circle level for PLMN - PSTN connectivity as well:**

   a. We would like to submit that a similar approach needs to be adopted for the PLMN to PSTN connectivity as suggested for the PSTN to PSTN connectivity.

   b. At present, interconnection between PLMN (Mobile) to PSTN (Fixed) is at

   - Intra-circle Mobile to Fixed call is being handed over by mobile operator to basic operator at Level-II TAX.
   - Inter-circle Mobile to Fixed-line call is being handed over at SDCC Tandem to BSNL Fixed line.
   - Inter-circle mobile to mobile calls and intra-circle mobile to mobile calls are interconnected at the GMSC level.

   c. The abovementioned levels of interconnection were decided keeping in view the PSTN network hierarchy. This has resulted in around **350 POIs** for the PLMN to PSTN connectivity.

   d. There is need to reduce so many POIs in order to reduce cost and ensure efficient utilisation of resources. Thus, we suggest that TRAI should mandate PLMN-PSTN connectivity **be limited to ONLY few POIs i.e. 3-4 at the circle level.**

   e. At the same time, so as to provide flexibility in case of mobile network, POI at multiple locations in a service area may be permitted for better **redundancy** purpose **subject to mutual agreement** by both interconnecting parties**.**

4. **TRAI needs to prescribe/ mandate for ONLY a few POIs i.e. 3-4 at the circle level for NLDO- PSTN connectivity as well:**

   a. We are of the view that TRAI should mandate a similar provision for NLDO-PSTN connectivity as well.

   b. Similar to the PSTN to PSTN connectivity there should be only few POIs i.e. 3-4 at the circle level for the NLD to PSTN calls.

5. **Thus, the Authority should do away with the archaic requirements like interconnecting at SDCA levels with the fixed networks of the PSUs and should mandate interconnection at a few finite locations, i.e. 3-4, in a LSA for PSTN-PSTN, PLMN-PSTN and NLDO-PSTN connectivity.**

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

COAI Response:

1. **National Level rather than circle level connectivity:**

   a. We believe that in the near future, the option of One India One License may be considered by the Government. It is further submitted that almost all Access operators are using their captive NLD network. Considering the technical advancements, TRAI may consider doing away with service area-based POI requirement/ mandate

   b. We request TRAI to kindly consider this aspect and Recommend to DoT for any change in the Licence conditions to have National Level interconnection rather than at the circle level.

2. **No Transit Carriage Charge and TAX Transit Charge be levied by any TSP:**

   Transit Carriage Charge:

   a. As highlighted above there should be finite few POIs i.e. 3-4 in each circle for PSTN - PSTN, PLMN to PSTN and NLDO-PSTN connectivity.

   b. Accordingly, there should be no transit charges levied for carriage within the network of BSNL/MTNL (i.e. from L-I TAX to L-II TAX or from L-II TAX to SDCC Tandem). The private TSPs should be able to handover the traffic to BSNL network at one point and its should be the responsibility of BSNL/MTNL to carry the traffic to the destination within their network.

   c. Currently, BSNL does not provide direct POIs at SDCA and declare Level-2 TAX as the only point of termination for intra-circle calls from mobile to Fixed line of BSNL.

   d. Therefore, intra circle mobile calls made to BSNL Fixed Line subscribers are mandatorily required to be handed over by Access Providers /CMSPs at Level-2 TAX which is the declared termination point, from where it is carried by BSNL to SDCA in which the subscriber is located. BSNL has an exclusive monopoly on this carriage, thus making it a de facto termination charge.

   e. The licenses on the NLD operators have been amended to permit them to carry intra circle long distance calls *with mutual agreement with originating service provide.* Although the access providers are allowed to enter into agreements with NLDOs for carrying intra circle calls, the private cellular operators have not yet been able to take advantage of this facility and are forced to continue to handover their traffic to BSNL at Level-II TAX.

f. Consequently, the private operators have to pay a transit charge for the same.

g. Hence, we submit that in case of finite few POIs i.e. 3-4 in a circle, there **should not be any Transit Carriage Charge levied by BSNL/MTNL.**

TAX Transit Charge:

a. There may be case wherein a TSP may not be in a position to establish direct interconnection in one go with other TSPs and therefore there may be a need to allow transit connectivity in the interim. Only in such cases, Transit Charge should be applicable.

b. However, the Capacity building at the MSC / TAX and inability to provide the direct PoIs by BSNL/MTNL should not be transferred to the other TSP. Thus, in such cases there should not be any Transit Charges.

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