

Ref No: RP/ FY 19- 20/062

Dated: 4<sup>th</sup> July, 2019

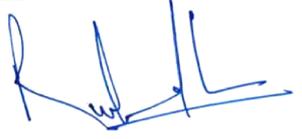
To,  
Shri S. K. Singhal,  
Advisor (BB&PA)  
Telecom Regulatory Authority of India,  
Mahanagar Door Sanchar Bhawan,  
Jawahar Lal Nehru Marg, Old Minto Road,  
New Delhi- 110002

**Subject: Consultation Paper on 'Review of the Regulatory Framework for Interconnection**

Dear Sir,

This is with reference to your above mentioned consultation paper. In this regard, please find enclosed our response for your kind consideration.

Thanking You,  
Yours Sincerely,  
For **Bharti Airtel Limited**,



**Ravi P Gandhi**  
**Chief Regulatory Officer**  
Encl: a.a.

**RESPONSE TO CONSULTATION PAPER ON REVIEW OF THE REGULATORY  
FRAMEWORK FOR INTERCONNECTION DATED 30TH MAY, 2019**

**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 justification.**

**&**

**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.**

**Bharti Airtel's Response:**

The interconnection hierarchy as captured in Tables 1, 2, 3 and 4 of Annexure -1 of the Consultation Paper is only being followed by Public Sector TSPs i.e. BSNL/MTNL for providing interconnection to Private TSPs. While multiple switches may be used for provision of services within the entire licensed service area, the interconnection among all Private TSPs (except BSNL/MTNL) for PSTN- PSTN and PSTN-PLMN is limited to a couple of locations depending on traffic and redundancy requirements.

Once an interconnection point has been decided between two Private TSPs in the licensed service area, the responsibility of carriage within their own network belongs to the respective TSPs and no further carriage charges other than IUC (as applicable) are to be paid by the originating service provider.

We, therefore, are of the view that due flexibility has been provided to the interconnecting operators for interconnecting PSTN to PSTN networks at a few locations as per mutual agreement.

However, in the absence of a mandate to have PSTN to PSTN interconnect only at a limited number of locations, say 3-4 locations in the licensed service area, BSNL/MTNL does not agree to this arrangement. This forces the private TSPs, intending to launch fixed line services in an SDCA, to seek interconnection with BSNL/ MTNL at the SDCA/ LDCC level. This is despite the fact that most of the times BSNL faces constraint in providing interconnection at SDCA/ LDCC level due to non-availability of ports or when the intra SDCA traffic is so abysmally low that it does not justify having separate point of interconnection. Not only is the connectivity for inter SDCA traffic within the LDCA is mandated at LDCC, BSNL also charges transit charge despite declaring LDCC as the point of interconnection, which itself is not justified.

To further augment our submission, we would like to submit as below:

- The Network architecture including the interconnection ought to be such that the services are launched with optimal requirement of PoIs.
- Simplification of interconnection regime for fixed line networks will help in the growth of fixed line broadband connections enhancing and facilitating the interests of both the service providers and consumers. Therefore, availability of effective and expeditious interconnection will play an important role in the growth of the fixed line telecommunication services' sector.
- Presently, the complex requirement of having interconnection at SDCA level has resulted in the decline of wire-line customers. Such requirement acts as a deterrent for launching of fixed line services in towns where requiring SDCA level interconnections with BSNL/MTNL are mandatory.
- It is worthwhile to mention that as of March 2019, the fixed line subscriber base at 22 mn was just 1.8% of the total subscriber base. This means that a large number of PoIs established by any fixed line operator will handle an insignificant percentage of the total telephony traffic thereby leading to an inefficient utilization of resources.
- A highly decentralized interconnection model based on mandatory SDCA Level Interconnection is not in the best interest of service providers as it leads to increased cost of operations resulting in increased price for the end customer.
- The present requirement of establishment of PoIs at SDCA Level requires a high maintenance of the PoI infrastructure and due to the large number of PoIs, these POIs are generally prone to become faulty, out of service, etc. for various reasons such as supply failure, cable/fiber cut, utility issue or E1 port Issue, etc.
- 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 done away with. In view of this, it is worthwhile to simplify the present interconnection framework for fixed line networks.
- The complex nature of present structure of PSTN-PSTN point of interconnection at SDCA Level is not required keeping in view the existing tariffs because the boundaries defining these tariffs in the earlier regime have been eliminated. The days are gone when one SDCC to another SDCC calls were treated and charged as long-distance calls. Earlier, there were other regulatory challenges in expanding the scope of fixed line telecom services like Access Deficit Charges (ADC) and distance-based carriage charges etc. Such hurdles have

already been removed by the Authority in the present day. Today, similar to mobile tariffs, the tariffs for wireline are also same for an entire circle (treated as local call).

- BSNL itself has migrated its TDM based switches to IP based packet switched core network and hence mandating interconnection at SDCA/ LDCC level is more of a compulsion to the private TSPs rather than achieving any other benefit from such an arrangement. Even otherwise, for efficient utilization of resources, there should not be more than 3-4 points of interconnection in the licensed service area considering traffic and redundancy requirements. The connectivity at few locations, preferably 3-4, in the licensed service area is adequate for establishment of all type of calls and is enough to take care of PSTN-PSTN traffic (being relatively limited as compared to Wireless services' traffic).

For the aforesaid reasons, there is an urgent need to do away with any multi-layered or complex levels of handover of traffic as the RIO guidelines designed in 2002 were largely structured to accommodate the hierarchical technical network of BSNL/MTNL.

Now, with the paradigm shift in technology and abysmally low percentage of fixed line traffic, it is essential that the point of interconnection for PSTN-PSTN with BSNL/ MTNL be mandated/ limited to a finite number in a licensed service area. BSNL/ MTNL may be asked to declare their point of interconnection for PSTN-PSTN traffic and further carriage in their network should be their responsibility. Also, there should be no further carriage charges associated with the same as in case of PSTN-PSTN connectivity between private TSPs.

In view of above, it is recommended that TRAI should consider mandating point of interconnection for PSTN-PSTN traffic at maximum 3-4 locations in a licensed service area.

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

#### **Bharti Airtel's Response:**

##### **1. NLD-PSTN & PLMN-PSTN Interconnection**

While the Authority has only raised the issue with regards PSTN-PSTN traffic, it is worthwhile to mention that the arguments as mentioned in response to Q1 and Q2 also holds true for NLD-PSTN and PTMN-PSTN traffic. The Authority should do away with the archaic requirements like interconnecting at SDCA/ Level II Tax Levels for the aforesaid traffic and consider mandating a maximum of 3-4 locations in a licensed service area. Further, there should not be any transit / carriage charge payable by the TSPs in this regard.

It is recommended that the fixed line operator declare their point of interconnection within the circle and the NLD/ PLMN service provider should terminate the traffic at these designated locations. Further carriage into their network shall be the responsibility

of the fixed line operator. This will simplify the interconnection between NLD/ mobile and fixed line operators and would also enable Fixed Number Portability in future.

## **2. Move towards One Nation One License:**

While the submissions above require Authority's intervention on an immediate basis, the Authority should also consider a future scenario wherein this entire licensed service area wise interconnection/licensing regime is transformed to one nation one license.

With almost all access service providers using their captive NLD network, modern switches having large capacities should be able to sufficiently cater to multiple LSAs and IP POIs having large capacities. The requirement to have Point of Interconnection within the licensed service area can be done away with to facilitate simplified connectivity and move towards One Nation One License.