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Subject: "ISPAI Response to Consultation Paper on Review of the Regulatory Framework for Interconnection

Dear Sir,

We congratulate the Authority to have come out with the consultation paper on the matter captioned above and sincere thanks for proving us the opportunity to submit our response on this matter.

We have enclosed our comprehensive response for your consideration. We believe that the Authority would consider our response in positive perspective and incorporate our concerns on the subject matter.

Looking forward for your favourable consideration.

Thanking you,

With Best Regards,
For Internet Service Providers Association of India

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ISPAI Response to Consultation Paper on Review of the Regulatory Framework for Interconnection

Q1: Which amongst the following is the best option to ensure fair, reasonable and non-discriminatory terms and conditions of interconnection agreement between telecom service providers (TSPs), in view of the technological, market, licensing, regulatory and legal developments in the telecommunication services sector in India since 2002?

(i) To amend the Telecommunication Interconnection (Reference Interconnection Offer) Regulation, 2002 taking into consideration the technological, market, licensing, regulatory and legal changes since the year 2002;

(ii) To prescribe a Standard Interconnection Agreement, which must be entered into between interconnecting TSPs, in case they are unable to mutually agree on terms and conditions of interconnection agreement between themselves in a specified time-frame;

(iii) To prescribe only the broad guidelines based on fair, reasonable and non-discriminatory principles and leave the details of the interconnection agreement to be mutually decided by the interconnecting TSPs in a time-bound manner; or

(iv) Any other method.

Please provide justification in support of your response.

ISPAI Response:

In our view there is a need to prescribe both the broad guidelines based on fair, reasonable and non-discriminatory principles as well as prescribe a Standard Interconnection Agreement, which must be entered into between interconnecting TSPs, in case they are unable to mutually agree on terms and conditions of interconnection agreement between themselves in a specified time-frame. The broad guidelines will provide guiding force to the interconnecting TSPs negotiating the terms and conditions of interconnection agreement and in case of failure of negotiations the prescription of standard interconnection agreement would ensure the fall back option for entering the interconnection agreement in a time bound manner. It is our submission that standard interconnection agreement as well as broad guidelines should be evolved through consultation process which would then become the benchmark for all TSPs.

Q2: Whether existing interconnection agreements should also be allowed to be migrated to the new framework which will come out as a result of this consultation process?

ISPAI Response:

The existing interconnection agreements should be allowed to be migrated to the new framework which will come out as a result of this consultation process in case any one of the interconnecting TSPs requests the other interconnecting TSP for the same. It shall not be open for any TSPs to refuse migration to the new framework and existing interconnection agreements should be allowed to continue only if both the interconnecting TSPs agree for the same.

Q3: What should be the time-frame for entering into interconnection agreement when a new TSP with a valid telecom license places a request for interconnection to an existing TSP?

ISPAI Response:

In our view, a timeframe of ninety (90) days from the date a new TSP with a valid telecom license places a request for interconnection to an existing TSP should be prescribed.

Q4: Which details should a new TSP furnish while placing request for entering into interconnection agreement? Please provide detailed justification in support of your response.

ISPAI Response:

While placing the request for entering into interconnection agreement following details should be furnished by the new TSP:

1. Copy of the license
2. KYC documents of the seeker
3. Details of Point of presence including Switching nodes.
4. Services proposed to be provided
5. Proposed connectivity & interconnecting technology
6. Details of transport media
7. Capacity sought along with appropriate justification
8. Tentative date by which the capacity is required.

Q5: Should an interconnection agreement between TSPs continue to operate if an interconnecting TSP acquires a new license upon expiry of an old license? Alternatively, should fresh agreements be entered into upon specific request of either party to the interconnection?

ISPAI Response:

Interconnection agreement between TSPs is legally based on the valid licenses held by the interconnecting TSPs. In case of expiry of the license of either of the interconnecting TSPs, the existing interconnection agreement would not remain legally valid unless both the interconnecting TSPs agree for the same and record the same in form of addenda to the existing interconnection agreement.

In case both the interconnecting TSPs do not agree for continuation of the existing interconnection agreement when license of either of the interconnecting TSPs expires and a new license is obtained, in such an eventuality fresh interconnection agreement needs to be negotiated and entered in to by the interconnecting TSPs.

Q6: Whether it is appropriate to mandate only those TSPs who hold significant market power (SMP) in a licensed service area to publish their Reference Interconnect Offers (RIOs)? If yes, what should be the criteria for reckoning a TSP as SMP? If no, what could be the other approaches to streamline the process of interconnection in a fair, reasonable and non-discriminatory manner?

ISPAI Response:

Please see our response to Question No. 1 where we have recommended prescription of both the broad guidelines (based on fair, reasonable and non-discriminatory principles) as well as a Standard Interconnection Agreement, which must be entered into between interconnecting TSPs, in case they are unable to mutually agree on terms and conditions of interconnection agreement between themselves in a specified time-frame. In our view, if the aforesaid recommendation is accepted it would obviate the need for asymmetric regulation of only SMP TSPs at the same time achieving the objective of streamlining the process of interconnection in a fair, reasonable and non-discriminatory manner.

Further, the concept of the SMP should be done away with and the scope of the Regulation should be widened to include all operators licensed under Section 4 for providing PSTN services. The intent of the Interconnection regulation should be to enable compliance with License conditions of mandatory interconnection. This purpose will only be effectively achieved if the regulation is uniformly applied to all licensed operators.

Q7: Whether there is a need to continue with the present concept of interconnection seeker/ interconnection provider? If yes, what should be the criteria?

ISPAI Response:

In our view there is no need to continue with the present concept of interconnection seeker/ interconnection provider. The interconnection framework should be such that it should enable the PoIs without any disadvantage or discrimination to either party and should be based on reciprocal arrangement. Interconnection provision is mutually beneficial arrangement for the interconnecting parties and as such there should not be any concept of interconnection seeker or provider and both the interconnecting parties should bear their own cost for provision of interconnection whereas the cost of the interconnection link between the two networks should be shared by the interconnecting operators. In case any operator insists for recovering the cost of interconnection including port charges, co-location charges, cost of interconnection set up, these costs in that case should be applicable on a reciprocal basis on both the operators.

Q8: Whether there is any need to review the level of interconnection as mentioned in the Guidelines annexed to the Telecommunication Interconnection (Reference Interconnection Offer) Regulation, 2002? If yes, please suggest changes along with justification.

ISPAI Response:

In our view there is a need to review the level of interconnection which was finalized vide TRAI determination dated 08.01.2001 and subsequent guidelines contained in the RIO Regulation of 2002.

The said levels of PoIs need to be simplified. There should not be 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 and should be done away with. As majority of the Access Networks in India continue to use TDM or circuit switched technology while the NLD backbones deployed by most of the NLDOs are based on NGN – IP technology, the interfacing medium of NLDOs provides a suitable technological way of enabling interconnectionsbetween IP and TDM. Thus it is recommended that by handing over all traffic to NLDOs is the best mechanism to facilitate the interconnections between the Circuit Switched and Internet telephony based Packet Switched networks.

Q9: In case interconnection for Inter-circle calls to fixed-line network continues to remain at Short Distance Charging Area (SDCA), should alternate level of interconnection be specified in cases of technical non-feasibility (TNF) at SDCA level?

ISPAI Response:

We agree that alternate level of interconnection should be specified. While the alternate level of interconnection may be specified at LDCA level, the issue of carriage charges for calls from LDCA to SDCA would arise as the fixed line operator would then be required to carry the call from LDCA to SDCA on its network. In case the POI is not feasible at the SDCA due to technical inability (non-feasibility) of the fixed line operator's network, then the fixed line operator may designate LDCA switch as the designated point of interconnection. The interconnecting operator should hand over the call at designated point and post this no carriage charges would be payable to the fixed line operator. Alternatively, if the POI at the SDCA is feasible but the interconnecting operator wants to interconnect at LDCA in order to have fewer POIs then appropriate cost based carriage charges would become payable to the fixed line operator.

Q10: What should be the framework to ensure timely provisioning/ augmentation of E1 ports? Please provide full framework with timelines including the following aspects:

(a) Minimum number of E1 ports for start of service;

(b) Maximum time period for issuance of demand note by the interconnection provider;

(c) Maximum time period for payment for demanded E1 ports by the interconnection seeker;

(d) Intimation of provisioning of requested E1 ports by interconnection provider;

(e) Space allocation for collocation of transmission equipment;

(f) Maximum time period for establishment of transmission links by the interconnection seeker;

(g) Maximum time period for acceptance testing;

(h) Maximum time period for issuance of final commissioning letter by the interconnection provider; and

(i) Maximum time period for start of traffic in the POI after provisioning/ augmentation of E1 ports for which payment has already been made.

ISPAI Response:

Following is suggestion from our side

a) Minimum number of E1 ports for start of service: 2E1s

The number of E1s ports to be validated based on mutually accepted projection of traffic to meet the GOS as per TRAI recommendations subject to a minimum of 2 E1. For example if the

projections of traffic required is 15E1s to be provisioned the PoIs should be made with 15E1s unless technically not feasible and this provisioning of E1s to be reviewed after 6 months.

Criteria to align the initial demand of ports can be created by analyzing the quarterly traffic trends of various categories of circles and services as follows:

For each category of circle Cat- A, B, C or Metro per POI average no of E1s interconnected between operators for local, intra circle, inter circle and ILD inbound traffic can be computed based on data available with Authority. This average E1 per service per circle category can be notified by the Authority as the initial minimum number of E1s required to start service. Subsequent augmentations then should be administered based on the projections of traffic.

(b) Maximum time period for issuance of demand note by the interconnection provider:

30days

(c) Maximum time period for payment for demanded E1 ports by the interconnection seeker:

30 days

(d) Intimation of provisioning of requested E1 ports by interconnection provider:

15 days

(e) Space allocation for collocation of transmission equipment:

60 days

(f) Maximum time period for establishment of transmission links by the interconnection seeker:

60 days

(g) Maximum time period for acceptance testing:

15days

(h) Maximum time period for issuance of final commissioning letter by the interconnection provider: 7 days

(i) Maximum time period for start of traffic in the POI after provisioning/ augmentation of E1 ports for which payment has already been made:

7 days post successful acceptance testing

Q11: Whether augmentation of ports be allowed at higher levels such as STM-1 in place of E1?

ISPAI Response:

This should be permitted subject to mutual agreement between the interconnecting TSPs.

Q12: What should be the criteria to ensure that inflated demand for ports is not made by interconnection seeker?

AND

Q13: In case the interconnection seeker agrees to bear the total cost of equipment required for augmentation in advance, should the interconnection provider give the requested ports irrespective of volume of traffic at POI?

ISPAI Response:

The demand for ports by the new TSP should depend upon its projection of traffic as the same not only requires augmentation in the interconnection equipment but also in the access network. The uptake of the services and the rate of growth would determine the actual requirement so at the initial stage a minimum provisioning can be done with a provision for rapid mark up in the interconnection capacities in case traffic ramp up happens as per the new TSPs projection. Please refer to our response to Q 10 (a) where we have submitted a rationale to arrive at initial POI capacity which can be circulated as guidelines by the Authority to enable the initial POI which may allow for taking care of inflationary demand of ports at the start of service. In conjunction to the same however, the parties should also be mandated to follow the timeline as submitted here in to ensure that in case of traffic volumes exceeding the average pattern the subscribers are not inconvenienced due to lack of POI capacity.

Further, an inflated demand for ports may lead to actual traffic being less than the projections, leading to wasteful investments or actual traffic highly imbalanced due to promotional offers.Therefore, it is recommended that the demand for the number of ports should be technically and commercially justified and the calculation for the same should be mutually agreed upon between the seeker and the provider.

In case the interconnection seeker agrees to bear the total cost of equipment required for augmentation in advance including the ports, the interconnection provider should give the requested ports irrespective of volume of traffic at POI.

Q14: Should separate time periods for provisioning of ports be prescribed for (i) fixed-line networks and (ii) mobile/ IP networks?

ISPAI Response:

In our view there is no rationale for prescribing separate time periods for provisioning of ports for fixed line or mobile networks as interconnection happens on the core network..

Q15: Whether financial disincentive should be imposed on TSPs for-

(a) not entering into interconnection agreement within a stipulated timeframe;

(b) not providing initial POI;

(c) not augmenting POI within stipulated timeframe;

(d) for violation of any clause prescribed in the regulations.

If yes, what should be the amount of such financial disincentives?

ISPAI Response:

While it may be desirable to impose Financial disincentive in consonance and accordance with the provisions of TRAI Act, on TSP deliberately engaging in delays in specially not entering into interconnect agreement or not providing the initial POI, however, It may be extremely hard to determine the exact reasons of delay in case of interconnection being sought and being denied by one party to the other. The aspect of delay needs to be addressed on the basis of determining finite and reasonable time required to administer the actions of signing interconnection agreements, providing initial POI and allowing augmentations.

For signing interconnection agreements, we have submitted our view in response to the Q3, in case parties are not able to mutually agree and sign interconnect agreements, the authority should mandate implementation of standard interconnection agreement between the parties and the parties should file the signed standard interconnection agreement copy within 15 days of the expiry of 90 days period to the Authority complying with the reporting requirements. In absence of which the Authority may take action as deem fit including imposing a financial penalty on the defaulting party.

Similar guidelines for initial POI, augmentation and violation of regulations should be implemented to dissuade operators from inordinately delaying genuine interconnection requirements.

The penalties imposed for non –compliance should be in line with the provisions of the TRAI Act .and should also take into account loss of business revenue for the period the interconnection was denied /delayed. Further, the provider cannot be unilaterally held responsible as interconnection involves two networks. Any action for non-compliance should only be on the defaulting party, after proper investigation.

Q16: Whether there is a need to have bank guarantee in the interconnection agreement? If yes, what should be the basis for the determining the amount of the bank guarantee?

ISPAI Response:

No, there is no requirement of seeking bank guarantee in the interconnection agreement. Ideally each party is getting benefitted by interconnection as the traffic impacts customers of both sides hence providing adequate capacity should be ensured within the ambit of regulations without implementing a bank guarantee mechanism. Our submission would be to seek Authority's attention to demand revoke of any such practice of bank guarantees being sought by existing operators including by way of modifying the interconnection agreements signed between the parties if required.

Q17: What should be the method to settle Interconnection Usage Charges and how should the delayed payment between TSPs be handled?

ISPAI Response:

The interconnect agreements have provision consequent to delayed payments accordingly it should be left to the operators to mutually settle the delay in payment issues. In case the payments for some particular IUC dues have been inordinately delayed (6 months beyond the due dates) and it can be justified by the aggrieved party that the delay is not due to some genuine technical issue or dispute being raised between the operators, Authority may setup guidelines of interest recovery from the defaulting operators on the due payments.

Q18: Whether interconnection and interconnection agreement should be service-specific or service-agnostic (i.e. a TSP can send any type of traffic on a point of interconnection which is allowed under the terms and conditions of the license given to it)? What are the advantages/ disadvantages of having service specific POIs when the TSPs are equipped with call data record (CDR) based billing systems?

ISPAI Response:

The present regime of interconnection and interconnection agreement is service specific. dismantling the present interconnection regime at this stage when NGN environment has not fully evolved in the PSTN of the country and where the licensing of the service on individual basis still exists is not desirable or advisable.

In addition the Interconnect Usage Charges are dependent on the nature of traffic. The termination charges for International Inbound traffic currently determined are not cost based.

With this anomaly of termination charges between domestic calls and international inbound calls where the international termination charges have been determined at Rs 0.53 per minute its not rational to combine the interconnects.

While the service providers have CDRs to manage the billing however a single interconnect with all traffic streams merged into the same will create complexity in settlements.

Q19: If POIs are merged together, what methods of discovery, prevention and penalization of any traffic manipulation by TSPs (whereby higher IUC traffic is recorded as lower IUC traffic in the CDR of the originating TSP) should be put in place?

ISPAI Response:

Please see our response to Question No. 18 above.

Q20: Which policy and regulatory measures are required to be taken to encourage TSPs to migrate to Interconnection at IP level? What should be the terms and conditions for inter-connection at IP level?

ISPAI Response:

In view of TRAI's earlier recommendations, the licenses have already been amended to allow for IP interconnection among the operators along with circuit-switched based interconnection.

We believe that the choice of technology for interconnection should be left to mutual negotiations between the operators. An operator's choice of technology depends upon the prevailing technological ecosystem, which is changing very dynamically. All over the world, regulators have moved towards technology neutrality. In India, technology neutrality is enshrined in the NTP-2012/NTP-99 and the existing UAS/CMTS/UL Licenses. The mandatory deployment of a particular technology would be **contrary to the principles enshrined in the National Telecom Policy and license agreements**. Therefore, IP interconnection should be left to mutual agreements between operators.

Q21: Whether there is a need to establish a framework for Interconnect Exchange to eliminate bilateral interconnection issues?

ISPAI Response:

Since the interconnection regime in India has evolved on a bilateral basis, there is no immediate need to establish the framework of interconnect exchange at this late stage as it would not serve any useful purpose.

However it may be relevant to see that in case Authority and Licensor deem fit that Internet telephony is allowed interconnection with PSTN, the enablement can be easily accomplished through NLDOs.

Q22: Is there any need for a separate framework for Interconnect Exchanges in view of the fact that the new NLDO authorization permits transit traffic to be carried over by NLDO?

ISPAI Response:

As indicated in response to Q21, we are of the view that there is no need to establish a framework for Interconnect Exchange.

The authorization to the NLDO to permit transit traffic to be carried by it in a way enables every NLDO to act as a transit service provider or an interconnect exchange, hence there is no separate need to implement an interconnect exchange. The Authority if deem fit may evaluate recommending provision to allow NLDOs to transit all traffic including local, intra circle, inter-circle and whether PSTN/PLMN or IP originated without any restrictions which will facilitate optimum utilization of interconnection resources and networks deployed within the country and enable facilitation of Quality of service for the end customer.

Q23: Whether access providers should be allowed to transit intra-circle calls?

ISPAI Response:

Access Providers are not entitled to handle intra circle inter operator traffic as an transit service provider. Please do also refer to our response to Q22, NLDOs have already invested in creating interconnection network with all Access providers and it may be optimum to enable NLDOs to transit all traffic including local, intra circle, inter-circle and whether PSTN/PLMN or IP originated without any restrictions.

Q24: Under what circumstances, a TSP can disconnect POIs? What procedure should be followed before disconnection of POI?

ISPAI Response:

The disconnection of POI should only be administered in case of the licensee operator shutting down service or the shutting down the relevant POP or based on mutual agreement or due to breach of interconnection agreement. There seems to be no other situation which can be comprehended for allowing disconnection of POIs. Procedure for disconnection would be that at least a month of advance notice period should be provided during which the other operator has time to ramp up traffic to justify his stand for retention of capacity.

In no case TSP's should be allowed to disconnect PoIs unilaterally. We feel any provision to allow for disconnection of POIs unilaterally will lead to avoidable dispute. The Authority should continue with already defined Grade of Service parameters which allow for the utilization of POIs to be monitored and augmentation/decommissioning of capacities being negotiated between the operators. Any disputes in this regards can be arbitered by TDSAT or the Authority within the ambit of the laws stipulated.

Q25: Is there a need to have a coordination committee to facilitate effective and expeditious interconnection between TSPs? If yes, who should be the members of the co-ordination committee? What should be the overall operating framework for the committee?

ISPAI Response:

We do not feel there is requirement of coordination committee. It should be left to mutual discussions between the interconnecting operators with provisions and guidelines as being submitted vide this consultation response being implemented. In case of exceptional interconnection issue arising, the option of approaching TDSAT is available for the operators.

Q26: Is there any other relevant issue which should be considered in the present consultation on the review of regulatory framework for Interconnection?

ISPAI Response:

The Authority needs to evaluate the alignment of IUC with the evolving technology especially if the IP – PSTN/PLMN interconnection regime is allowed. This calls for a vision of a futuristic framework which allows for the duality of existing PSTN/PLMN architecture to be sustained and at the same time enabling the advancement of IP interconnections. In this reference we shall like to submit that our response to the consultation paper on internet telephony may please be read in response to this question where the issues arising due to evolution of technology have been dealt with in detail.

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