

# BIF RESPONSE TO TRAI CP ON 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 nondiscriminatory 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.

# **BIF RESPONSE:**

The Telecom Sector in the country has witnessed several economic, technical, licensing & regulatory changes since 2002 when the Telecommunication Interconnection Regulation 2002 (Reference Interconnect Offer) was formulated. Some of the changes are reflected below viz.

- -Changes have taken place in the telecom market from the earlier pure State Monopoly of Govt run Telecoms viz. Department of Telecommunication ( DOT ) to the entry of large number of private players making the market intensely competitive.
- -Emergence of Mobile Telephony as a primary means of communication & continuous decline in number of wireline subscribers in the last decade.
  - -Considerable increase in number of NLDOs/ILDOs
  - -Introduction of the Unified License Regime
- -Expiry of Telecom Licenses of some TSPs & consequential needs for renegotiation of interconnect agreements.



The above developments have altered nature & economics of telecom services sector & strategy of market players have influenced the scale & choice of investments in different types of technology & services.

However, what is to be borne in mind is that All interconnect agreements executed between TSPs have been based on mutual negotiations. Despite prescription of Model RIO, no standard template for interconnection agreement which should serve the needs of the entire telecom services sector has evolved so far. The RIO2002 defined SMP( Significant Market Power ) in terms of combined market share of all services offered by a TSP including Basic, Cellular, ILD & NLD. The sector has undergone significant changes since then.

Currently 7-10 TSPs are there in each LSA with sufficiently well distributed subscriber base. Approx. 2/3rd of the wireless subscriber base is held by 3 TSPs together with more or less equal distribution of subscribers. The Regulation requires publishing of RIO in respect of only SMPs. There is no provision in the existing regulation w.r.t interconnection, if both of them happen to be SMPs or non-SMPs. There is lack of clarity w.r.t TSPs who subsequently become SMPs/ cease to be SMP.

After careful review of all the changes and keeping in view the harmonious relationships that TSPs need to forge with other TSPs for smooth co-existence, BIF is of the considered opinion that Interconnection agreements must be left to the market forces and should be mutually negotiated & agreed within the overall framework of being fair, reasonable and non-discriminatory. There is probably no need to prescribe a standardised /reference Interconnection Offer in this regard. Having said that, it may suffice to say that the Regulator (TRAI) may be allowed to maintain a regulatory oversight over the process and only step in (post ante) in case of any issues arising out of any dispute between the TSPs to arrive at an agreement.

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?

#### **BIF RESPONSE**

Since we are not recommending any new framework, hence migration to any new framework is not required. We re-iterate that as long as their is fairness and reciprocity in terms and conditions of interconnection between all TSPs, the process of mutual negotiation and reconciliation must be permitted with regulatory oversight only.



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?

# **BIF RESPONSE**

Time Frame may be included in the existing Telecommunication Interconnection Regulation, 2002 so as to specify a reasonable time frame ( of say 90 days ) to ensure expeditious closure of interconnection agreements . This may be done as an amendment/modification in the existing RIO in the form of either a Regulation or as a Direction.

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.

## **BIF RESPONSE**

As stated earlier, BIF recommends that no prescription/recommendation be made to TSPs for entering into an Interconnection agreement. This should be mutually decided and negotiated.

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?

#### **BIF RESPONSE**

Interconnection agreements between two TSPs is a mutually negotiated and agreed matter in which the Regulator need not intervene. Whether due to change of license or otherwise, if there is no dispute between the interconnecting TSPs, the Regulator may adopt a hands off approach. In case either party ( TSP ) requires regulatory intervention , then the regulator may step in and advise accordingly. Either on specific request or otherwise due to change in license conditions ( due to onset of new license conditions ) , there may be a need to enter into new Interconnection Agreements

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?

# **BIF RESPONSE**

BIF is of the considered opinion that Interconnect Agreements should be mutually negotiated and agreed upon by both the sides. As long as there is no dispute, there is no need for either regulatory intervention or intrusion ( as described by one of the Public TSPs ). Therefore, there is no need to publish Reference /Standard Interconnect Offers ( RIOs) .

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

## **BIF RESPONSE**

As per Clause 12.3.2. of Model Reference Interconnection Offer (RIO), Two years post signing of initial Interconnection agreement, Interconnection seeker remains a seeker only for two years beyond which cost of Interconnection is shared between both the parties to the Interconnect. Though this is applicable to all agreements, however, it is not followed for agreements between Private & Public Sector TSPs. Since the issue of post two years of the interconnect agreement remains as to who shall bear the cost of additional resources is not stipulated in the RIO, hence there is a need to review the concept of Interconnection seeker and Interconnection provider specifically with regard to the time period from date of establishment of initial interconnection and when sharing of cost of additional resources should start.

The General Principle that should be followed is that each party (Interconnect seeker and Interconnect provider) should bear incremental costs incurred for additional ports required to meet the desired Quality of Service standards relating to its outgoing traffic to the other party.

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.

#### **BIF RESPONSE**



In view of the technology changes in the telecom services sector and migration of access networks to NGN or IP networks, several issues and challenges are required to be overcome in the NGN domain viz.

- Interconnection Parties-Who pays whom?
- Types of Interconnection- At what layer?
- Interconnection Products- For what?
- Basis for Interconnect Charging- Usage or capacity?
- Costing Methodology- Current or Forward looking costs?
- Interconnect Exchange- Common point of interconnect?

Interconnection in NGN domain leads to three main issues viz.

- How the inter-operator IP Networks and circuit switched networks with IP networks will Interconnect?
- How the Inter-working of Signalling between IP based networks and circuit based networks will happen?
- How the Settlement for IUC (Interconnect Usage Charge) will take place?

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?

#### **BIF RESPONSE**

Yes. Alternate levels of interconnection must be planned. However, the same need not be specified but left to the individual operators /TSPs themselves to be decided in their mutual agreements on interconnection.

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.

#### **BIF RESPONSE**

As stated earlier, BIF does not recommend any interconnect framework agreement for this purpose and recommends that the same be decided by the TSPs themselves.

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

## **BIF RESPONSE**

In general, BIF recommends that due to increasing traffic and in view of the changes in the telecom services sector along with gradual migration of access networks towards NGN/IP networks, interconnection at higher levels must be permitted. However, BIF is of the view that these should be decided by the TSPs themselves as a part of their mutual interconnection agreements and not prescribed by the Authority.

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

#### **BIF RESPONSE**

BIF is in favour of a hands-off approach in this matter and does not recommend prescription of any criteria to be laid down for what is seen to be a mutual agreement between the TSPs.



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?

# **BIF RESPONSE**

BIF is of the opinion that the matter be left to the discretion of the TSPs themselves and should not be prescribed by the Regulator.

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

## **BIF RESPONSE**

BIF is of the view that there should be no prescribed format /model offer for interconnection. However, as mentioned in Response to Q3 above, a period of 90 days should be prescribed for the incumbent to provide POIs from the date of clear request.

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

- (a) not entering into interconnection agreement within a stipulated time frame;
- (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?

#### **BIF RESPONSE**

Yes-Financial Disincentives should be there which may be imposed upon the Interconnection provider after the period of 90 days upon placing of request for PO by the interconnection seeker. Of course, this may be imposed after due diligence is done and it is clearly established that the said party is guilty of having violated the said period.

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?

# **BIF RESPONSE**



Normally a Bank Guarantee is not required if both sides have come to an agreement based on mutual negotiation. Bank Guarantee should be only to settle delays in IUC payments and should be made on net-off basis with clause for settlement for wrong/excess billing.

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

## **BIF RESPONSE**

The traditional method to settle IUC (Interconnect Usage Charges) is by submitting Bank Guarantees, year-upon-year which have provisions for penal interest on delayed IUC payments.

It is suggested that these bank guarantees should be made on net-off basis with clause for settlement of wrong/excess billing be made transparent, fair & equitable.

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

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?

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

Interconnect agreement is based on two distinct kinds of charging methods viz.

a) Charges for setting up of Interconnect Network ( Network level charges ) which include port charges, media charges, setup costs, etc . This is applicable but is technology agnostic. Depending on the media used ( OFC/Cu/SDH/PDH/DWDM/TDM or IP ) , only the charges vary. Therefore there can't be a standard agreement which covers all scenarios & hence need to mutually negotiated and agreed on a case by case basis



b) Interconnect Usage Charges ( service level charges ) viz Termination charges , Carriage Charges and Origination charges for various types of services viz. PSTN, SMS, Voice, Internet Telephony and others . These charges are dependent upon the prevailing Interconnect Usage Charge regime and the level of extant regulation.

Change in technology from TDM to NGN/IP may affect the Network level charges but does not affect the prevailing IUC regime. Since IUC charges need to be agreed separately for each service irrespective of the underlying technology, hence Service agnostic Interconnect Agreements are not possible.

Due to consolidation in the market and presence of matured interconnect agreements already existing among the operators coupled with the establishment and availability of very high capacity direct POIs between them, it is felt that Interconnect Exchange may not be required.