



Telecom Regulatory Authority of India



**Consultation Paper
on
Revenue Sharing Arrangements
for
Calling Card Services**

New Delhi

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Stakeholders are requested to furnish their comments to the Advisor (Networks, Spectrum & Licensing), TRAI by 28th November, 2013 and counter comments by 06th December, 2013. Comments and Counter Comments would be posted on TRAI's website www.trai.gov.in. The comments/counter comments in electronic form may be sent by e-mail to fn@traigov.in or rkgtraigmail.com. For any clarification/information, Shri Arvind Kumar, Advisor (NSL) may be contacted at Tel. No. +91-11-23220209 Fax: +91-11-23230056.

Consultation Paper on Revenue Sharing Arrangements for Calling Card Services

A. Introduction

1. The objective of this paper is to discuss the various issues related to revenue sharing arrangements for Intelligent Network Based Calling Card Services. This Consultation Paper (CP) provides the relevant background information and discusses the need and methodology to determine the charges to be paid by the National Long Distance Operator (NLDO)/ International Long Distance Operator (ILDO) to the Access Providers for Calling Card Services.

B. Background

2. For the purpose of access service licenses (fixed line and cellular), the country has been divided into 22 License Service Areas (LSA), which are mostly co-terminus with state boundaries with certain exceptions. The intra-LSA traffic including the long-distance calls originating and terminating within the boundaries of the LSA can be carried by Access Providers themselves. However, this traffic can also be carried by NLDO with mutual agreement with the originating service provider. For carriage of inter-LSA traffic i.e. Long Distance traffic, originating in one LSA and terminating in another LSA, calls have to be routed through an NLDO.
3. International Long Distance (ILD) traffic from fixed and mobile networks is routed through the network of an NLDO to the ILD operators (ILDO) gateways for onward transmission to international networks. However, in situations where the Point of Presence (POP) of an ILDO and the switch of the Access Provider (GMSC/ Transit Switch) are located at the same station of Level -I TAX, the Access Provider can handover the calls to ILDO directly.

4. In the currently prevailing regime, a customer does not have the option to choose its long distance carrier. The customer depends on its Access Provider for NLD/ILD calls. And, it is the Access Provider which chooses the NLDO/ILDO to whom the call is handed over for further carriage based on mutual commercial agreements between them. In effect, the Access Provider decides for the subscriber. Therefore, at present there is no effective competition in the NLD/ILD tariffs offered to subscribers.
5. Global experience has shown that liberalization of telecom markets promotes greater investment in telecommunication networks. When the telecommunications segment is opened up to competition, both incumbents and new entrants invest more, innovate and offer new services at lower prices. Competition forces them to expand into hitherto unserved markets and earn profits on volume and service quality rather than through high margins. It is in this situation of a buyers' market that the customer gets the maximum benefit.
6. In 2000, the Government opened the national long distance sector to private participation. Prior to that only the Department of Telecommunications (DOT) was authorized to carry long distance calls. In order to enhance competition in the long distance sector, the Government requested TRAI in August, 2000 to issue the necessary regulation regarding Carrier Pre-Selection/Carrier Access Code (CPS/CAC), so that a subscriber could perform dynamic selection of an NLDO. After detailed deliberations, in 2001-2002, the Authority recommended Carrier Identification Codes for various NLDOs and issued directions to all the TSPs including NLDOs/ILDOs to implement carrier selection in the respective networks in phases.
7. The Direction issued by the Authority also stipulated that the system modification cost required to implement Carrier Selection will form part of system setup cost for providing interconnection between the Access Providers' network and that of the NLDO/ILDO and shall be borne by the latter.

8. The aforementioned direction could not be implemented due to various reasons including, *inter-alia*, a relaxation given by DoT to BSNL for the implementation of call-by-call selection or pre-selection in its network for a period of 12 months. The Authority wrote to the DoT and sought reasons for granting a special dispensation to BSNL and also asked for copies of letters BSNL addressed to DoT, on which basis the relaxation was granted. However, no reply was received from DoT even after various reminders.
9. Subsequently, MTNL estimated Rs. 732 crores as the setup costs for implementing this proposal and requested the Authority to intervene for payment of setup cost by the NLDO/ILDO. A Committee was also formed by DoT to determine the cost required for up-gradation in BSNL's network to be able to introduce carrier selection. This Committee estimated an amount of Rs.1968 crores. This cost was to be shared by NLDO/ILDO. However, no NLDO/ILDO was willing to share the same.
10. Some of the other difficulties raised by the TSPs at that time were as follows:
 - (i) Number of pre-selected carriers have implication on upgradation cost.
 - (ii) At that time, over 70% of the mobile users were pre paid users. Their billing was controlled by Access Providers for all types of calls i.e. local/STD/ISD. However in the scenario of CAC/CPS, if billing is done by NLD/ILD, then who would control the call to ensure that a call in process is terminated when the balance in customers account is reduced to nil. Even in case the billing is done by the Access Provider, the charging matrix in the IN platform has to be revised each time a new NLDO is added or a particular NLDO changes its tariff plan.
 - (iii) If an NLDO does not have presence in a particular SDCA, it would be difficult to ensure the completion.
 - (iv) STD/PCO pulse (16 KHz) has to be changed every time if tariff for a particular NLDO changes for a particular SDCA.
 - (v) Difficulty in the implementation of carrier selection in one case of a roaming subscriber.

11. On 27th November 2006, the Authority issued Intelligent Network Services in Multi Operator Multi Service Scenario Regulations, 2006 (13 of 2006). The broad purpose of these regulations was to ensure that subscribers of an Access Provider are able to access the Intelligent Network (IN) Services provided by any TSP. The regulations mandated all TSPs to provide interconnection to all other eligible service providers. As per these regulations, a TSP was required to enter into an arrangement/agreement with other TSPs within 90 days from the date of commencement of these regulations for providing intelligent network services to subscribers of other TSPs. The regulations envisaged quick implementation of at least Free Phone service and Virtual Calling Card (VCC) services.
12. These regulations also provided that in case any TSP failed to enter into agreements or arrangements within the stipulated time, it shall intimate to the Authority within fifteen days of such failure with complete details thereof, and, after examining such failure and details as furnished by the TSP, the Authority may specify the interconnection arrangement.
13. In compliance of the IN Regulations, most TSPs entered into mutual agreements for free phone services. However, on the request of some of the TSPs, the Authority specified Rs. 0.52 as the access charges to be paid to the originating access provider by the TSP who is providing Free Phone services and has not entered into agreement till the date of prescribing the charge. As per then License conditions, NLDO and ILDOs were not eligible for selling calling cards directly to consumers.
14. In May 2008, the Authority revisited the issue of Carrier Selection, and issued a Consultation Paper for comments from various stakeholders. A majority of the stakeholders were of the opinion that the traditional method of Carrier Selection was not relevant because of high implementation cost, poor cost-benefit outlook and technical and operational issues involved in its implementation. They were of the opinion that implementation of Carrier Selection through calling cards has a good option for both consumers and

service providers. They argued that the prime purpose of providing choice of Long Distance Operators and any consequential financial benefit to the consumer could also be achieved, without the accompanying problems, by allowing NLDOs and ILDOs to issue calling cards.

15. Considering the comments of the stakeholders, the Authority sent its recommendations on "Provision of Calling Cards by Long Distance Operators" to the Department of Telecommunications (DoT) on 20.8.2008. The Authority recommended that license conditions of the NLDO and ILDO may be amended to allow them to have direct access to consumers, through calling cards, for provision of national and international voice telephony services, respectively. Along with these recommendations, the Authority also carried out an amendment to the Direction dated 24th July, 2002, to the effect that Carrier Selection may not be implemented in the form proposed in that Direction.
16. The DoT accepted the recommendations of the Authority and carried out the necessary amendments in NLD and ILD Licenses as proposed by the Authority.
17. In terms of the Intelligent Network Services in Multi Operator Multi Service Scenario Regulations, 2006 (13 of 2006), a service provider is required to enter into arrangement/agreement with other service providers within 90 days of the issue of the regulations. However, there was no specific time frame in the regulations for the service providers who become eligible to provide IN services after the date of issue of the regulations.
18. An amendment to the IN regulations was therefore considered necessary in the consumers' interest, so that a TSP could enter into agreements with all other TSPs who are already providing IN based services or would start IN based services at a later date in a time-bound manner. Accordingly, a draft Amendment to the IN Regulations was issued by the Authority on 12.10.2010 for obtaining comments/ counter comments from the stakeholders.

19. After taking into account various comments of the stakeholders, the Authority issued 'Intelligent Network Services in Multi Operator and Multi Network Scenario (Amendment) Regulations, 2012 (17 of 2012)' on 18.09.2012. These regulations mandate that all eligible TSPs providing IN services shall enter into interconnection agreements with all Access Providers on such commercial and technical arrangements or agreements, as may be mutually agreed between them, and the same shall be entered into within ninety days from the date of commencement of the regulations.
20. In the Explanatory Memorandum to the aforementioned amendment, it was stated that the objective of the amendment was to facilitate agreements between the service providers in a time-bound manner and also to provide them full flexibility to enter into agreements on mutually agreed terms and conditions. As per regulations, in case a TSP fails to enter into agreements or arrangements within the stipulated time, it has to intimate the Authority within fifteen days of such failure with complete details thereof, and after examining such failure and details furnished by the TSP, the Authority would specify the interconnection arrangement, in accordance with sub-regulation (8) of regulation 10.

C. Status of implementation of Intelligent Network Regulations for Calling Cards

21. On 28.12.2012, TRAI asked all the NLDO/ILDOs for the status of compliance of the said regulations. It was observed that most TSPs had not entered into agreements for calling cards and there were large variations in the rates at which some TSPs had entered into interconnection agreements to provide long distance calling card service. Some of the large service providers had entered into an agreement with an access charge of Re. 1/min for STD and Rs. 5/min for ISD calls. On the other hand, some service providers had entered into an agreement with an access charge of Re. 0.20/min for both STD and ISD calling cards. Representations were also received in TRAI alleging cartelization by major operators by seeking higher access charges than prevailing tariffs for calling card services from smaller players.

D. Meeting with service providers on the status of implementation of Intelligent Network Regulations for Calling Cards

22. To understand the methodology and costs taken to arrive at the access charges for long distance calling card services and also to ascertain the reasons behind the delay in entering into interconnection agreements amongst the TSPs, meetings with various TSPs were held in TRAI on 08.05.2013, 09.05.2013, 14.05.2013, 21.05.2013 and 07.06.2013.
23. An integrated large TSP, which also have a substantial share of the NLD/ILD market, had entered into an agreement with some TSPs with access charges as Re. 1/- per minute for STD and Rs. 5/- per minute for ISD calls. When asked what was the justification in arriving at these access charges, the TSP responded that these were commercially negotiated. According to it, the calling card services are not a case of interconnection and it regards these services as if another operator is accessing its network. On the principle used to arrive at these access charges, it mentioned that these are on the basis of retail minus.
24. Another large TSP, who also entered into an agreement with Re. 1/- per minute for STD and Rs. 5/- per minute for ISD, was of the view that the issue of revenue share should be left for mutual negotiation between the TSPs. Regarding access charges offered for ISD calls, it explained that the average revenue realization from ISD calls is about Rs. 8.50 per minute out of which about Rs. 2.50 per minute goes to the foreign operator towards terminating the call in other countries, Rs. 1.00 can be assumed towards carriage of call and remaining Rs. 5.00/ minute is retained by the Access Provider. According to the Access Provider, the cost of carrying an ISD call should be distributed in proportion to the investment made by the operators. Since, the Access Provider is doing the major work of setting infrastructure and acquiring customers etc., it contributes about 90% of the investment; therefore it deserves to get the revenue share from the sale of Calling Cards in the same proportion. Regarding rates offered for STD calling cards, the TSP informed

that the basis for offering Re. 1/- is that one of the PSU charges 78 paisa as origination charge for toll free services.

25. These Access Providers further argued that as per the licence agreement of NLDO/ILDO, the origination services will remain with the Access Service Provider and NLDO/ILDO is entitled only to provide carriage. According to them, if the origination charge is treated as similar to termination charge or the origination sold to NLD/ILD is termed as access charge then it would be tantamount to unbundling which is not the intention of the license and nor was this ever discussed.
26. These Access Providers urged that the origination charges for Calling Card services should not be regulated. Nonetheless, in view of TRAI's concern, they assured to have a relook into the possibility of reducing rates for STD calls. They also mentioned that even if Authority proposes to prescribe these charges, it should be done on retail minus basis. Further, according to them, in case the Authority decides to prescribe origination charges for calling cards, the whole regime of Calling Party Pays (CPP) and Mobile Termination Charges (MTC) should also be relooked into.
27. Another Access Provider, who also offered Re. 1/- per minute for STD and Rs. 5/- per minute for ISD to others, was of the view that the market dynamics were different at the time the calling card was visualized 2 years back. Now the customer has a choice. If an NLDO can offer a better rate, as many of them are also Access Providers in many States, the customer can change its operator. The Access Provider was not willing to provide any justification for price of Re. 1/- fixed at this stage. However, according to it, they had fixed the initial cost for STD call as Re. 1/- and after gradually looking at the volume etc. it might reduce the rate.
28. Some of the TSPs requested the Authority to intervene and fix the rates for the benefit of everyone. One of the small TSPs submitted that they feel threatened by big operators and the agreements were signed without their

understanding of rates and how the same were arrived at by the larger operators. Another small TSP also submitted that they have to enter into a number of other agreements with these large TSPs for providing telecom services. Therefore, they have no choice except to accept the rates offered by these operators.

29. One of the TSPs also submitted that in the case of a calling card, a subscriber would dial 1800 xxxx xxx and the access provider would transparently pass this call to Service Switching Point (SSP) of the NLDO and would not be aware whether the subscriber has made an STD call or ISD call. Therefore, in its opinion, there was no point in having different access charges for STD and ISD calls. Moreover, if originating access charges for STD and ISD calls were different, integrated NLDO/ ILDO which is generally the case will have to provide two 1800 numbers, one for STD calls and another for ISD calls.
30. During the discussions some TSPs also submitted that there was no need to prescribe originating access charges for NLD calls as there is no business case for calling cards in India as tariffs for NLD calls are already quite low. STD tariffs are part of 'headline tariffs' offered by the service provider and the subscriber makes a considered choice when selecting a tariff plan. The subscriber also has the choice of porting its number in case its service provider is not offering attractive tariffs. However, there was a need to have a calling card for ILD calls as subscribers become captive once they choose a tariff plan. Since ILDOs cannot directly offer tariffs to a subscriber, they are not able to get the benefit of competition in the ILD segment.
31. The Authority reviewed the position of interconnect agreements entered into so far and the various submissions provided during the meetings and observed that, even after the lapse of considerable time (over a year) and repeated follow-up most TSPs had not entered into agreements for calling cards till date. The Authority is left with no option except to take the present position as a failure of mutual negotiation between service providers and invoke clause 10 (8) of the principal regulation i.e. Intelligent Network Service

in Multi Operator Multi Service Scenario Regulations 2006 (13 of 2006) which is reproduced below:

"In case any Basic Operator, Cellular Mobile Service Provider or Unified Access Service Provider fails to enter into agreements or arrangements within the stipulated time, they shall intimate within fifteen days of such failure to the Authority with complete details thereof and after examining such failure and details furnished by the service providers, the Authority shall specify the interconnection arrangement."

32. The Authority also noted that the main constraint in not entering into mutual agreements is the quantum of access charges to be paid to the originating access provider by the NLDO and ILDO. Therefore, the Authority has decided to initiate this consultation process for specifying the access charges to be paid to the originating Access Provider by the NLDO/ILDO who is providing a calling card service.

E. Further analysis

33. The Authority has analysed the agreements entered into between large integrated mobile service providers having a large share in the NLD and ILD sectors. These service providers have agreed/ offered to pay Re. 1/- per minute for an STD call and Rs. 5/- per minute for ISD calls as originating access charge to the Access Providers. From the tariffs prevalent in the market, the Authority observed that Access Providers are generally offering STD tariffs which are lower than Re. 1/minute to their consumers. In case of the calling card business, besides the originating access charges to be paid to the Access Providers, the NLDO will also incur expenditure in carrying the call from the originating point to the destination point and will also pay termination charge to the terminating service provider. Presently, the termination charge is Re. 0.20 per minute and the average carriage charge is in the range of Re 0.15 to Re. 0.65 per minute. Therefore, if an NLDO is required to pay access charges of Re. 1/- per minute in addition to the termination charge and expenditure on carriage, the tariff which can be offered by that NLDO through Calling Cards will not be commercially sustainable in the market and its service will be a non-starter. This will render

the entire business model for calling card unviable. By keeping high access charges, some of the TSPs are deliberately trying to kill the calling card business prematurely as it runs counter to their business interest.

34. In their submissions, some Access Providers were of the view that they are investing in building up their network, acquiring spectrum and subscribers. Therefore in case access charges are prescribed by TRAI, they should be compensated as per their investment. The Authority examined the revenue earned from various services by the Access Providers and it has been observed that the average share of revenue earned from STD call and ISD call is about 15% and 2% respectively of total revenue earned by them. Therefore, the above submission of the Access Providers is not tenable.
35. The Authority further observed that in the case of ISD calls, the Access Providers are on an average collecting about Rs 7.50 per minute from the subscribers. However, they are paying only Rs 3 to Rs 4 to the ILDO for carrying the call to the international destination. This payment to the ILDO includes apart from the cost of international carriage, the charge which the ILDO pays to the foreign carrier for terminating the call. It can be agreed that this high margin of around Rs. 4 per minute, which an Access Provider earns on ISD calls is the main reason why some of the integrated TSPs with a substantial share in the telecom sector are not in favour of introducing competition in the long distance sector through introduction of calling cards.
36. The Authority is fully conscious of the fact that ILD outgoing minutes are not increasing at the same rate as ILD incoming minutes. The ratio of incoming calls to outgoing calls has increased from three times to sixteen times over the last 7 years. The following table shows the year-wise incoming and outgoing ILD minutes.

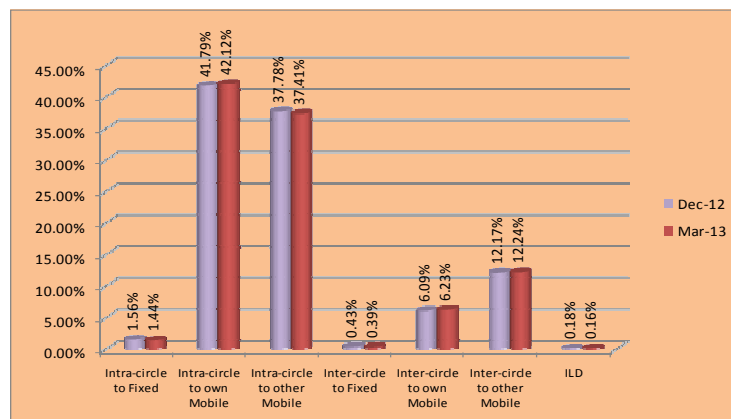
Table- 1
Year wise ILD Minutes (in Millions)

Year	Incoming Minutes	Outgoing Minutes	Total Minutes
2005-06	7,728	2,320	10,048
2006-07	10,757	3,528	14,285
2007-08	15,100	5,027	20,127
2008-09	21,418	6,905	28,323
2009-10	34,412	5,512	39,925
2010-11	49,145	4,711	53,856
2011-12	62,825	4,841	67,666
2012-13	76,354	4,633	80,987

In view of the above, the Authority is of the opinion that there is a need to take measures like facilitating introduction of calling cards so that consumers have a real choice by picking an ILD carrier which offers the most competitive tariff for ILD calls viz. irrespective of the customer's access provider, the customer can choose the ILD carrier by opting for the carrier's calling card.

37. Traffic distribution of GSM services shows that inter-circle (inter-LSA) calls are about 19% and ILD Calls are about 0.2% of total outgoing calls. The relevant chart from the Performance Indicator Report published by TRAI is reproduced below:

Figure- 1
Outgoing Traffic Pattern - GSM Service



38. The following table provides other components of revenue earned by Access Providers:

Table- 2
Composition of Revenue (%) - GSM Service

Item	QE Dec-12	QE Mar-13
Rental Revenue	18.79	18.12
Revenue from Calls	52.11	52.67
Revenue from SMS	5.84	5.29
Revenue from Roaming	8.99	8.72
Other Revenues *	14.28	15.20

* Other revenue includes revenue from other value added services, installation etc.

39. The Authority has also analysed average revenue realization per minute by the Access Provider and found that in the case of STD and ISD calls, the revenue realisation per minute is around Rs. 0.56 and Rs. 7.45 per minute (**Table-3**). From this revenue realization, the TSP is also required to pay national carriage charges and termination charges in case of an STD call, international settlement charges for ILD calls and termination charges in case of local calls.

Table- 3
Revenue per Minute- GSM Service

S. No.	Type of Call	No. of MOU per subscriber per month	Revenue per subscriber per month* (Rs.)	Revenue per minute (Rs./min)
1	Local Call	150	62.79	0.42
2	STD Call	35	19.74	0.56
3	ISD Call	0.3	2.23	7.45
4	Total Voice Calls	185.30	84.77	0.46

- * (i) 80% of the revenue per subscriber has been considered as revenue from voice calls (Local/STD/ISD)
(ii) Accordingly, 80% of rental revenue (Rs. 19.02 per subscriber per month) has been distributed between local/STD/ISD calls in proportion to their respective minutes.

40. The Authority further noted that some of the TSPs at various stage of consultation on Interconnection Usage Charges and on SMS termination charges quoted the following paras of the Hon'ble TDSAT judgment dated 29.09.2010 on Interconnection Usage Charges:

"...Its (TRAI's) jurisdiction being limited to determine the charges on cost based and work done principle....." [101(5)].

".....It is not in controversy that the service providers are required to be compensated for the resources used by other service providers." [114(12)].

41. The Authority further observed that as far as work done by the network of an Access Provider for handing over the call to NLDO/ILDO switch is concerned, it is equal to the work done by the network of terminating Access Provider. Therefore, as far as network cost is concerned there is hardly any difference between originating access charge and termination charge. In view of the foregoing, the Authority is of the view that apart from other methods for estimating the originating access charge, one option could also be that originating access charge for NLD and ILD calls is prescribed equal to termination charge. An alternative option could be to provide some markup over and above termination charge to compensate for common costs incurred by the Access Provider. However, this markup should be reasonable. These two methods would not create more 'price points' and would ensure the recovery of cost on the principle of work done.

42. Another issue which requires deliberations is whether a roaming subscriber, can use a calling card for making long distance calls. Presently, the long distance tariffs are decided by the home network and for all the long distance calls made by subscriber on national roaming, the home network and visitor network have a revenue share arrangement. However, in case the calls are made using a calling card, the tariff will be decided by the long distance operator and the network used to originate the call i.e. visited network will get the originating access charge from the long distance operator. Therefore, there does not seem to be any major issue in case a subscriber on national

roaming uses calling card for making long distance calls. However, in case a foreign subscriber when roaming in the country, uses calling card either for making calls within the country or for making international calls, there can be issues regarding charging for those calls.

Issues for Consultation

Stakeholders are requested to furnish their comments on the following:

- 1. Whether the access charges to be paid by NLDs/ ILDs to access provider for calling cards should be prescribed both for NLD and ILD calls or for ILD calls only?**
- 2. As the work done by the Access Provider is the same for NLD and ILD calls, should the originating access charges for NLD and ILD calls be the same or different?**
- 3. What method should be applied for prescribing originating access charge to the Access Provider? Please provide all details including data and calculation sheets, if any.**
- 4. Whether the access charges should be same for mobile and fixed line?**
- 5. What are the issues that need to be addressed to ensure calling cards are also used when a subscriber is roaming?**
- 6. What are the prevalent regulatory practices in other countries regarding access charges in case of calling cards?**
- 7. Any other relevant information related to subject along with all necessary details.**