



Consultation Paper No. 3/2006

Last date for submission of comments by stakeholders: 25.1.2006

## **Telecom Regulatory Authority of India**

### **Consultation Paper**

**On**

**Differential Tariffs for On-network calls.**

**NEW DELHI**

**13<sup>th</sup> January 2006**

## Preface

Telecom Regulatory Authority of India is empowered to fix tariffs for telecommunication services under Section 11 (2) of TRAI Act, 1997, as amended by TRAI (Amendment) Act, 2000. Keeping in view the intensity of competition in access market in general and in the mobile segment in particular, the Authority has deregulated the tariff regime during the last few years. Excepting the tariffs applicable for fixed line services in rural areas, and for national roaming in the cellular mobile services, the tariff in voice telephony is forborne. However, the tariffs offered by the service providers in this space have to be consistent with the principles laid down in this regard which include the principle of Non-Discrimination, Non-Predation, IUC compliance etc.

This Consultation Paper is about the interpretation of the principle of Non-Discrimination as applicable to tariff for telecommunication services. In 2004, the Authority reviewed the manner in which the principle of Non-Discrimination was being interpreted and allowed the operators to have differential call charges for On-Net and Off-Net calls. It is more than a year since that review was made which resulted in the 33<sup>rd</sup> Amendment to TTO dated 8.12.2004. Since then the market has witnessed a variety of differential tariffs offered by the operators. Some operators have requested the Authority to clearly specify as to what would constitute On-Net work calls for the purpose of application of differential call charges and whether differential tariffs for on-network calls should continue to be permitted.

Key developments that impinge upon competition in the telecommunication services (voice telephony) during the last one year have been traced and are dealt in separate Chapters in this Consultation

Paper. Of particular importance is the analysis based on the data relating to relative market shares of all the operators at the circle level as well as at the All India level at two different points of time i.e. November, 2004 and November, 2005.

All Stakeholders are invited to participate in this consultation process by providing their comments on the issues raised in the Consultation Paper with empirical evidence etc. followed by participation in the Open House Discussions which would be held sometime in February, 2006.

The paper has already been placed on TRAI's Web site ([www.traigov.in](http://www.traigov.in)). Written submissions containing specific comments on the issues raised may be furnished to Secretary, TRAI by **25.1.2006**. Submissions in electronic form would be appreciated. For further clarifications, Shri M.Kannan, Economic Adviser, TRAI may be contacted on Telephone No.26160752, Fax. No.26103294 or email [trail8@bol.net.in](mailto:trail8@bol.net.in).

(Pradip Baijal)  
Chairman, TRAI

## TABLE OF CONTENTS

### CHAPTERS

### Page No(s)

Chapter 1	Introduction	1-2
Chapter 2	Background on the principle of non-discrimination	3-7
Chapter 3	Developments subsequent to 33 <sup>rd</sup> Amendment to TTO dated 8/12/2004.	8-11
Chapter 4	Differential tariff for on-network calls.	12-13
Chapter 5	Issues for Consultation	14-17
Annexure 1	Authority Guidelines dated 20/5/2003	18-20
Annexure 2	TRAI letter dated 24/5/2004	21
Annexure 3	33 <sup>rd</sup> Amendment to TTO dated 8/12/2004	22-25
Annexure 4	Operator-wise Access market share (Fixed + Mobile) – All India	26
Annexure 5	Circle-wise analysis of Concentration Ratio (HHI)	27
Annexure 6	Circle Wise Access Market Share	28-31

## **CHAPTER 1**

### **Introduction:**

1.1 In exercise of the powers conferred upon it under Telecom Regulatory Authority of India (TRAI) Act, 1997, TRAI has been issuing Tariff Orders specifying tariff and regulatory principles involving tariff for telecommunication services. The principle of non-discrimination in telecom tariff was envisaged and ensured since the inception of Telecommunication Tariff Order (TTO), 1999. Clause 10 of TTO states “*No service provider shall in any manner, discriminate between subscribers of the same class and such classification of subscribers shall not be arbitrary.*”

1.2 The interpretation of what would constitute discrimination among a class of subscribers has undergone change over a period of time. As per the 33<sup>rd</sup> Amendment to the Tariff Order, the Authority, while reviewing the interpretation of the principle of non-discrimination allowed the operators to have differential call charges for on-net and off-net calls. However, the definition and scope of ‘on-net’ calls for the purpose of applicability of differential tariff were not clarified in the 33<sup>rd</sup> Amendment to TTO.

1.3 It is more than year since 33<sup>rd</sup> Amendment was notified. There are a large variety of differential call rates prevailing in the market today. These are explained in detail in Chapter 2 of this paper. The Authority is in the process of further reviewing the interpretation of the principle of non-discrimination based on the developments subsequent to the notification of 33<sup>rd</sup> Amendment. This Consultation Paper is intended to solicit comments and views of stakeholders on various aspects relating to the principle of non-discrimination with a specific focus on the scope of the definition of “on-network” and whether differential tariffs should continue to be permitted.

## **CHAPTER 2**

### **Background on the principle of non-discrimination.**

2.1 The principle of non-discrimination was envisaged and ensured since the inception of TTO. Clause 10 of TTO notified in March 1999 states " *No service provider shall in any manner, discriminate between subscribers of the same class and such classification of subscribers shall not be arbitrary*".

2.2 What the above provision suggests is that no different treatment shall be made in the matter of tariff for subscribers belonging to one 'class'. This would imply that differential treatment is permissible for subscribers if they belong to different 'classes'. The important point is to ensure that classification of subscribers for the purpose of application of tariff is not arbitrary. The interpretation of the principle of non-discrimination would, therefore, depend on the basis on which a valid class can be formed. For example, till May 2003 subscribers making calls to own network (example Airtel to Airtel) was considered as a valid class and therefore, a concessional rate for such calls was not treated as discriminatory. This interpretation has undergone a change thereafter as described below.

### **Guidelines issued by TRAI in May 2003:-**

2.3 With the implementation of the IUC Regime effective from 1/5/2003, the Authority issued Guidelines (copy enclosed at **Annexure 1**) which inter-alia clarified that differential rates for calls terminated within the network would amount to discrimination. As per this clarification, different tariffs should not be charged for calls within the

network and outside it when the calls are to the same service. For example, if a call is from a fixed line subscriber, the tariff should be the same for a call to another fixed line irrespective of whose fixed line subscriber receives the call. Similarly, tariff for a call to cellular mobile should be the same irrespective of which service provider owns that subscriber.

### **Consultation on Closed User Group (CUG) and Virtual Private Network (VPN) Schemes**

2.4 The CUG/VPN schemes essentially involved differential call charges for calls to the members of the group who are subscribers of the same network. In this consultation process, opinion of the stakeholders was sought inter-alia, on the issue whether differential tariff for calls within the network should continue to be treated as discriminatory. The response of the stakeholders on the Consultation Paper on CUG/VPN schemes was over-whelmingly against the interpretation of non-discriminatory tariff as given in the Guidelines of TRAI dated 20/5/2003 which inter-alia had clarified that differential tariffs for calls terminated within the same network would amount to discrimination. Most of the stakeholders were in favour of relaxing the interpretation of discriminatory tariff so as to allow differential call charges within the network. At the same time some stakeholders suggested that inter-circle differential tariff should not be permitted. This was on the ground that such differential tariff, if permitted, may give discriminatory advantage to operators with multiple circle presence viz-a-viz an operator with single circle presence. This would also give an advantage to vertically integrated operators with own NLD backbone enabling them to offer lower tariff.

### **Guidelines issued by TRAI on 24/5/2004.**

2.5 The Authority took note of the responses of the stakeholders to the above Consultation Paper. The evidence on trends in retail tariff published by the Authority suggested that there was intense competition in the mobile segment. The Authority also felt that the concerns relating to inadequate competition would be substantially abated with Unified Access Regime and Unified Licensing Regime. It was also found that in many countries of the world, differential tariffs for on-net and off-net calls were not disallowed. Further, the emergence of tariff schemes like Friends and Family, CUG/VPN tariff plans with in-built provision for differential tariffs in the market indicated that such differential tariffs are consumer friendly. In this background and in the context of response of the stakeholders to the Consultation Paper mentioned above, the Authority decided to forbear in the matter of non-discrimination with respect to tariffs. This decision of the Authority was conveyed to all service providers through a letter dated 24/5/2004 Copy at **Annexure 2**). In this letter it was also stated that the Authority would continue to monitor the developments in the market following this decision and may at any time review and modify these Guidelines.

### **33<sup>rd</sup> Amendment to TTO.**

2.6 In the 33<sup>rd</sup> Amendment to TTO notified on 8/12/2004 the Authority discussed various aspects of the principles of non-discrimination in retail tariff (copy at **Annexure 3**) conveyed vide letter dated 24/5/2004. This Amendment, gave formal effect to the Authority's earlier decision to permit differential call charges for on-network calls. However, instances of any differential tariff structure assuming the nature of anti-competitive conduct continued to be an issue of regulatory concern.

2.7 The position emerging with the issue of 33<sup>rd</sup> Tariff Amendment Order with reference to the principle of non-discrimination and classification of subscribers for the purpose of tariff fixation is consolidated below:

i) The definition of the principle of non-discrimination remains unchanged as appearing in Clause 2 (k) of TTO 1999.

ii) No service provider shall, in any manner, discriminate between subscribers of the same class and such classification of subscribers shall not be arbitrary. This position as stated in Clause 10 of TTO remains unchanged.

iii) It shall be permissible for operators to provide differential call charges for off net and on net calls.

iv) Whenever differential tariffs are offered it shall be the responsibility of the operators to define in a transparent and unambiguous manner the eligibility criteria for availing such differential tariff. The Authority would consider such criteria to assess their consistency with the provisions of TTO relating to non-arbitrary classification of subscribers.

v) Any differential tariff assuming the nature of vertical price squeeze will not be permitted.

2.8 The 33<sup>rd</sup> Amendment seeks to convey that the regulatory role with respect to retail tariffs has been changed to one where intervention by the Regulator shall be in exceptional circumstances. The exceptional circumstance is that of Vertical Price Squeeze which is a specific case of anti-competitive conduct. In this changed regime operators are at liberty to provide any differential retail tariff after identifying the eligibility criteria for availing such differential tariff. Once the eligibility criteria for

differential tariff are specified, it becomes tariff for a 'class' of subscribers which is permissible. The criteria for classification would continue to be put to test to ensure that it is not arbitrary.

## CHAPTER 3

### **Developments subsequent to 33<sup>rd</sup> Amendment to TTO.**

#### **Responses received from stakeholders.**

3.1 Subsequent to issue of 33<sup>rd</sup> Amendment, few operators and Associations had submitted comments relating to differential call charges for on-network calls. While some operators supported the provisions of 33<sup>rd</sup> Amendment, others expressed the view that on-net calls should construe to mean the service provider's network within its service area. According to them, inter-circle calls were to be treated as off-net calls for the purpose of differential tariff. The standalone operators were generally against permitting differential on-net call charges, particularly differential inter-circle call charges.

3.2 Recently a stand-alone service provider approached the Authority requesting for a review of Regulatory Guidelines on pricing of on-net calls. According to this operator, the regulatory position permitting differential call charges favors the integrated and large operators. The representation further states that differential on-net/off-net pricing, squeezes out a small operator and thus, it does not really help in challenging a larger operator. They have also pointed out that if unrestricted differential call charges particularly on inter-circle level continue to be allowed, the same may threaten the survival of single/small operators. The operator's main concern was that stand-alone operators will loose out to larger integrated operators if differential tariffs are allowed to be offered by operators for on-net and off-net calls. The operator had cited a theoretical result that because of the size advantage (network externality) a large integrated operator with 98% market share will eliminate a small operator with 2% market share.

## **Empirical Evidence**

3.3 In the process of examining the above suggestions of the stand alone operator, an assessment of the trend in the market share of each operator was compared at two different points of time, one as on 30/11/2004 (prior to 33<sup>rd</sup> Amendment) and another on 31/11/2005 (**Annexures 4, 5 & 6**). This was done to make an assessment as to whether differential on-net pricing has indeed affected the market share of stand-alone operators. The results flowing from that analysis are given below:

- At the All India level, 5 stand-alone operators have gained in terms of market share (measured in terms of subscriber base) during the period under analysis. Few other standalone operators have lost some of their market shares during the said period (see **Annexure 4**).
- At the All India level, integrated operators viz: Reliance, Bharti and Tata Teleservices have increased their respective market shares in the Access segment while the share of BSNL, another All India operator, has reduced.
- The pattern of change varies from Circle to Circle. For example, Punjab Circle the market share of HFCL, a stand-alone operator, has registered an increase from 3.91% in November 2004 to 4.33% in November 2005. Similarly another standalone mobile operator viz. Hutch in the same circle has increased its market share from 2.58% to 7.41% during the period under review. On the other hand, integrated operators like Reliance and BSNL have lost market shares in Punjab circle during the same period. Spice, a standalone player has also lost some market share in Punjab Circle during the period under review (see **Annexure 6**).

- The circle-wise HHI was examined for the two periods of time both in respect of unified access (fixed + mobile) and in respect of mobile alone and the results are given in **Annexure 5**. In the case of unified access analysis, the concentration measure has fallen in all circles and in the case of mobile segment also, the HHI has fallen in all circles. Declining HHI is suggestive of increasing competition which is evident in all circles as far as access market is concerned.

3.4 Empirical evidence discussed above does not lead to the conclusion that large operators will have an undue advantage over the small operators in the market place in the matter of acquiring subscribers. It has also to be seen whether integrated operators are likely to have an undue competitive advantage over the service provision by a standalone player. For purposes of settlement between operators i.e. NLDO and Access provider, Interconnect Usage Charge Regulation has been determined by the Authority. This is a cost based IUC Regulation which is to be mandatorily adopted by NLDO's whether the backbone facility is used for carrying the inter-circle traffic of their own customers in Access segment or that of other Access providers. Recent developments in the policy regime reducing entry barriers inter-alia for NLD market augur well for competition in the long distance segment.

#### **Regulatory Interventions on differential tariff.**

3.5 Subsequent to TRAI's letter dated 24/5/2004 conveying the decision of the Authority to forbear in the matter of non-discrimination with respect to tariffs, the Authority was not objecting to network based differential tariffs. However, recently there was an occasion to consider the scope of such differential tariff in the case of tariff plan submitted by some GSM Mobile Operators. In this case differential lower call charges

were proposed for calls terminated in private GSM networks. Calls terminated in other GSM networks of PSUs carried higher charges. It was claimed that the lower call charges for private GSM calls are essentially targeted at promoting minutes of usage within the ever increasing private mobile user base. Classification of subscribers based on the above rationale as provided by the SP was considered to be arbitrary and the relevant tariffs were disallowed.

3.6 BSNL's tariff plan for their fixed line subscribers in SDCAs adjoining Delhi offering differential call charges i.e. lower call charges to calls terminated in MTNL network and higher call charges to call terminated in fixed networks/FWT and UASP (F) and WLL (M) other than MTNL was intervened recently by the Authority on the ground that such differential tariff to selective networks are discriminatory.

## CHAPTER 4

### **Differential tariff for on-network calls.**

4.1           Currently we have in the market the following types of differential tariffs:

i) Same Area – Same Service: Differential call charges within on network of the same service in the same licensed area. Example – Airtel, Delhi subscriber calling another Airtel, Delhi subscriber may carry lower rates as distinct from the same subscriber calling other GSM subscribers of Delhi. The strict definition of ‘on-network’ would imply that differential call charges would be permissible only for intra-circle calls and that too for calls terminating in the same service owned by an operator.

ii) Same Area – All Service: A service provider having multiple licenses offering differential lower call charges in respect of calls terminated in its different networks owned by it (wireline, GSM, CDMA) etc. in the same license area. Example - Airtel, BSNL and MTNL have such differential call charges. This would be a situation where the on-network would also include all the services i.e. fixed or mobile owned by a company in a licensed service area.

iii) All Areas – Same Service: A service provider offering differential tariffs in respect of calls to same service network owned by them in other service areas. Example – A GSM mobile operator of Delhi service area may have a lower differential charge for calls terminated in GSM Mobile network owned by it in Mumbai. This type of differential call charges would be permissible only if the concept of on-net is extended beyond a licensed service area. In this situation, the only restriction would be that

the calls should be terminated within the same service operated by the company across the country.

iv) All Areas – All Services: Service Providers offering different tariffs in respect of different networks (fixed, GSM, CDMA etc.) owned by them in other service areas. Example – Several operators having license to provide multiple services across the country have such differential tariffs. This type of tariffs would be permissible in a situation where the concept of on-net is given a wider interpretation to include all services i.e. whether fixed or mobile owned by a company or its affiliates/subsidiaries in any of the licensed service areas across the country.

v) Differential Tariffs within the service: While the differential call charges described in i) to iv) is based on the concept of ‘on-network’ there is yet another differential tariff which is within the same service. Today mobile service is being provided by operators using GSM technology and CDMA technology. Several operators have specified differential call charges depending on whether the calls are terminated in a GSM mobile network or CDMA mobile network.

## **CHAPTER 5**

### **Issues for Consultation.**

#### **5.1 Issue I. Differential on-network call charges.**

**Background:** Since May 2004 the Authority has permitted differential 'on-network' calls. Most operators today have specified lower call charges for its subscribers in respect of calls terminated in its own network. Some stand-alone service providers have raised apprehension that such differential tariffs would have undue and unfair advantage to the large and integrated operators.

**Question1 : Whether differential on-network call charges shall be continued to be permitted ? Please substantiate your views with reasons.**

#### **5.2 Issue II. Definition of the term 'on-network' for the purpose of differential call charges.**

**Background:** The network based differential tariffs that are currently prevalent in the market have been explained in Chapter 4 of this Paper. Generally, the term 'on network' would imply the network of the same operator either within or outside the same service or within or outside the same service area. However, a further wider interpretation of 'on-network' would imply that network of multiple operators can also possibly be construed as 'on-network' for the purpose of applicability of differential tariff. The definition of 'on-network' for the purpose of differential tariff could be such as to permit one or more of the following possible situations:

- a) Same Area-Same Service – Same Operator:- Example – A mobile operator of Delhi Service area providing differential call charges for calls terminating in its own mobile network in Delhi.
- b) Same Area-Same Service – Multiple Operator:- Example – A mobile operator of Delhi providing differential call charges for calls terminating in its own mobile network in Delhi and/or the mobile network of other selected operators in Delhi.
- c) Same Area-All Services – Same Operator:- Example – A service provider having multiple licenses providing differential call charges in respect of calls terminated in the different networks (fixed or mobile) owned by it in that service area.
- d) Same Area-All Services – Multiple Operators:- Example – A service provider having multiple licenses providing differential call charges in respect of calls terminating in its own networks (fixed or mobile) and/or the networks (fixed or mobile) of other selected operators in that service area.
- e) All Areas-Same Service – Same Operator:- Example – A service provider having licences to operate in more than one service area offering differential tariffs in respect of calls to the same service network owned by it in other service areas.
- f) All Areas-Same Service – Multiple Operators:- Example – A service provider having licences to operate in more than one service area providing differential call charges in respect of calls terminated in its own networks across the country and/or that of networks (fixed or mobile) of other selected operators in any service area.
- g) All Areas-All Services - Same Operator:- Example - A service provider having licence to provide service in more than one service area offering differential tariff for calls terminated in its different service networks (mobile or fixed) owned by it in other service areas.

- h) All Area-All Services – Multiple Operators:- Example – A service provider having licence to provide service in more than one service area providing differential call charges, in respect of calls terminated in its own networks (fixed or mobile) and/or that of networks (fixed or mobile) of other selected operators in any service area across the country.

**Summary:**

- I) The situations explained in a) to d) imply a definition of ‘on-network’ limited to intra-circle calls. Whereas e) to h) refer to inter-circle calls.
- II) a), c), e) and g) refer to ‘on-network’ involving the same operator whereas b), d), f) & h) involve multiple operators.
- III) a), b), e) and f) refer to intra service call scenarios whereas c), d), g) and h) refer to inter-service call scenarios.

**Question 2: What should be the appropriate definition for the term ‘on-network’ for the purpose of applicability of differential call charges ? Please give reasons for your answer.**

**5.3 Issue III.** Differential Call charges within a service.

**Background:** Currently many operators provide differential call charges for calls terminated in GSM and CDMA mobile networks. Some argue that there shall not be differential tariff for mobile service using CDMA and GSM technology. The Unified Access Licensing Regime allows fully mobile services under both the technologies. IUC charges and ADC applicable are identical for both GSM and CDMA terminated calls. A contrary view also exists according to which uniform charges for GSM

and CDMA terminated calls need not be mandated. Currently both the services compete with each other in terms of subscriber numbers.

**Question 3 : Whether differential call charges for calls terminated within a service but different technologies should be treated as discriminatory tariff? If so, give reasons.**

**Operator-wise Access Market Share (Fixed +Mobile) - All India**

	[As on 30th November 2004]		[As on 30th November 2005]	
	<b>Subscriber base</b>	<b>Market share</b>	<b>Subscriber base</b>	<b>Market share</b>
Reliance	10,819,963	11.95%	16,173,136	13.95%
Bharti	10,204,314	11.27%	16,561,699	14.28%
BSNL	44,990,443	49.68%	50,619,819	43.65%
Hutch	6,858,342	7.57%	10,682,514	9.21%
Tata	2,536,558	2.80%	7,128,326	6.15%
Idea	4,513,666	4.98%	6,210,172	5.36%
BPL	2,440,797	2.70%	2,868,143	2.47%
Aircel	1,561,535	1.72%	2,209,617	1.91%
Spice	1,485,791	1.64%	1,553,571	1.34%
MTNL	4,779,104	5.28%	1,443,346	1.24%
STL	148,325	0.16%	194,646	0.17%
HFCL	220,267	0.24%	294,900	0.25%
Dishnet	-	0.00%	28,959	0.02%

Note: Provisional data as reported by operators.

**Annexure 5**

**Circle-wise analysis of Concentration Ratio (HHI)**

Category	Circle	Fixed + Mobile		Mobile	
		[As on 30th November 2004]	[As on 30th November 2005]	[As on 30th November 2004]	[As on 30th November 2005]
		HHI	HHI	HHI	HHI
A	A.P.	3650	2676	1994	1892
A	Gujarat	3242	2622	2248	2122
A	Karnataka	3443	2793	2229	2213
A	Maharashtra	3846	3090	2168	1936
A	T.N.	4004	3262	2389	2317
B	Haryana	4397	3429	2169	1927
B	Kerala	5103	4365	2125	2120
B	M.P.	3777	3134	2900	2729
B	Punjab	2747	2204	2802	2350
B	Rajasthan	4709	3483	2498	2372
B	U.P.(E)	4710	3689	3065	2719
B	U.P.(W)	4519	3075	2584	2016
B	W.B. & AN	6985	4299	3864	2448
C	HP	6165	4937	4581	4038
C	Bihar	6580	4270	5060	3298
C	Orissa	7012	4634	5060	3153
C	Assam	8029	5694	5347	3575
C	North East	9211	7767	6514	5098
C	J& K	7891	6435	5760	5381
M	Delhi	2056	1944	2314	2002
M	Mumbai	2206	1788	2225	1962
M	Chennai	2435	2300	2007	1980
M	Kolkata	3419	2654	2708	2363

**HHI: Herfindahl-Hirschman Index**

A commonly accepted measure of market concentration. The HHI number can range from close to zero to 10,000. The closer a market is to being a monopoly, the higher the market's concentration (and the lower its competition).

Access Market Share

Service provider	Category	Circle	[As on 30th November 2004]		[As on 30 <sup>th</sup> November 2005]	
			Fixed + Mobile		Fixed + Mobile	
			Subscriber base	Market share	Subscriber base	Market share
IDEA	A	AP	526768	7.49%	798497	8.83%
Bharti	A	AP	821110	11.68%	1353549	14.97%
Hutch	A	AP	341106	4.85%	648222	7.17%
BSNL	A	AP	4002496	56.95%	4064219	44.95%
Reliance	A	AP	822628	11.70%	1309939	14.49%
Tata	A	AP	514214	7.32%	866502	9.58%
Hutch	A	Gujarat	1124967	17.81%	1612838	19.97%
IDEA	A	Gujarat	549774	8.70%	824984	10.22%
Bharti	A	Gujarat	379997	6.02%	659892	8.17%
BSNL	A	Gujarat	3257180	51.57%	3497911	43.32%
Reliance	A	Gujarat	734046	11.62%	903202	11.18%
Tata	A	Gujarat	269859	4.27%	576651	7.14%
Bharti	A	Karnataka	1224558	19.37%	1860461	22.40%
Spice	A	Karnataka	338704	5.36%	318538	3.84%
Hutch	A	Karnataka	480263	7.60%	848256	10.21%
BSNL	A	Karnataka	3384478	53.52%	3699094	44.54%
Reliance	A	Karnataka	631814	9.99%	945633	11.39%
Tata	A	Karnataka	263575	4.17%	632439	7.62%
BPL	A	MH	512197	6.44%	665642	6.60%
IDEA	A	MH	1203472	15.13%	1457193	14.44%
Bharti	A	MH	576376	7.24%	1001208	9.92%
BSNL	A	MH	4651977	58.47%	5108230	50.62%
Reliance	A	MH	779173	9.79%	1122972	11.13%
Tata	A	MH	232720	2.93%	735364	7.29%
BPL	A	TN	382657	6.34%	457247	5.87%
Aircel	A	TN	1076258	17.83%	1550038	19.91%
Bharti	A	TN	390050	6.46%	731004	9.39%
BSNL	A	TN	3587203	59.44%	3998260	51.36%
Reliance	A	TN	496677	8.23%	739418	9.50%
Tata	A	TN	102003	1.69%	309551	3.98%

## Annexure 6 (Contd.)

Access Market Share (Contd.)

Service provider	Category	Circle	[As on 30th November 2004]		[As on 30 <sup>th</sup> November 2005]	
			Fixed + Mobile		Fixed + Mobile	
			Subscriber base	Market share	Subscriber base	Market share
IDEA	B	Haryana	147292	6.67%	249825	8.39%
Hutch	B	Haryana	128174	5.81%	298613	10.03%
Bharti	B	Haryana	324090	14.68%	383717	12.89%
BSNL	B	Haryana	1398189	63.35%	1624980	54.60%
Reliance	B	Haryana	209228	9.48%	280143	9.41%
Tata	B	Haryana		0.00%	138946	4.67%
IDEA	B	Kerala	535610	9.30%	740180	10.08%
BPL	B	Kerala	366508	6.36%	423196	5.76%
Bharti	B	Kerala	332953	5.78%	485932	6.62%
BSNL	B	Kerala	4018654	69.75%	4679116	63.73%
Reliance	B	Kerala	507814	8.81%	785195	10.69%
Tata	B	Kerala		0.00%	228097	3.11%
IDEA	B	MP	447444	13.14%	583208	12.56%
Reliance	B	MP	597618	17.55%	1087041	23.41%
Bharti	B	MP	460326	13.52%	613312	13.21%
BSNL	B	MP	1900428	55.80%	2198849	47.35%
Tata	B	MP		0.00%	161800	3.48%
Spice	B	Punjab	1147087	20.34%	1235033	18.12%
Bharti	B	Punjab	1210169	21.46%	1528894	22.43%
BSNL	B	Punjab	2361211	41.88%	2356230	34.57%
Hutch	B	Punjab	145747	2.58%	505021	7.41%
HFCL	B	Punjab	220267	3.91%	294900	4.33%
Reliance	B	Punjab	554123	9.83%	647884	9.51%
Tata	B	Punjab		0.00%	247762	3.64%
Hutch	B	Rajasthan	272697	8.06%	490743	9.90%
Bharti	B	Rajasthan	383815	11.34%	773426	15.61%
BSNL	B	Rajasthan	2244916	66.32%	2692520	54.34%
Reliance	B	Rajasthan	335141	9.90%	626148	12.64%
STL	B	Rajasthan	148325	4.38%	194646	3.93%
Tata	B	Rajasthan		0.00%	177125	3.57%
Hutch	B	UP(E)	733665	19.47%	1088102	19.03%
BSNL	B	UP(E)	2435328	64.62%	3145775	55.02%
Bharti	B	UP(E)	157910	4.19%	461799	8.08%
Reliance	B	UP(E)	441843	11.72%	860860	15.06%
Tata	B	UP(E)		0.00%	161434	2.82%

## Annexure 6 (Contd.)

Access Market Share (Contd.)

			[As on 30th November 2004]				[As on 30th November 2005]	
			Fixed + Mobile				Fixed + Mobile	
Service provider	Category	Circle	Subscriber base	Market share	Subscriber base	Market share		
IDEA	B	UP(W)	534938	15.60%	768051	15.62%		
Bharti	B	UP(W)	334327	9.75%	508049	10.33%		
Reliance	B	UP(W)	331125	9.66%	615881	12.53%		
Tata	B	UP(W)		0.00%	170685	3.47%		
BSNL	B	UP(W)	2191341	63.92%	2452543	49.88%		
Hutch	B	UP(W)	36333	1.06%	401336	8.16%		
Reliance	B	WB & AN	249559	13.08%	451593	15.94%		
Tata	B	WB & AN		0.00%	72739	2.57%		
BSNL	B	WB & AN	1573107	82.47%	1757137	62.04%		
Bharti	B	WB & AN	61671	3.23%	249964	8.82%		
Hutch	B	WB & AN	23055	1.21%	300092	10.59%		
Dishnet	B	WB & AN		0.00%	962	0.03%		
Bharti	C	HP	167737	21.66%	305459	27.92%		
Reliance	C	HP	22680	2.93%	70403	6.44%		
BSNL	C	HP	584168	75.42%	701611	64.14%		
Tata	C	HP		0.00%	16416	1.50%		
Reliance	C	Bihar	514528	21.81%	884779	23.81%		
Tata	C	Bihar	1398	0.06%	90731	2.44%		
BSNL	C	Bihar	1842877	78.13%	2192387	58.99%		
Bharti	C	Bihar		0.00%	548753	14.76%		
Reliance	C	Orissa	244710	18.28%	378911	19.29%		
BSNL	C	Orissa	1093939	81.72%	1250406	63.67%		
Bharti	C	Orissa		0.00%	279140	14.21%		
Dishnet	C	Orissa		0.00%	9697	0.49%		
Tata	C	Orissa		0.00%	45639	2.32%		
Reliance	C	Assam	82344	11.08%	179989	16.82%		
BSNL	C	Assam	660777	88.92%	780642	72.94%		
Bharti	C	Assam		0.00%	101674	9.50%		
Dishnet	C	Assam		0.00%	7905	0.74%		
Reliance	C	North East	18500	4.11%	50404	8.19%		
Bharti	C	North East		0.00%	14885	2.42%		
BSNL	C	North East	431212	95.89%	539694	87.70%		
Dishnet	C	North East		0.00%	10395	1.69%		
BSNL	C	J& K	436865	88.02%	692799	76.78%		
Bharti	C	J& K	59461	11.98%	209468	23.22%		

## Annexure 6 (Contd.)

Access Market Share (Contd.)

Service provider	Category	Circle	[As on 30th November 2004]		[As on 30th November 2005]	
			Fixed + Mobile		Fixed + Mobile	
			Subscriber base	Market share	Subscriber base	Market share
Bharti	M	Delhi	1679410	22.83%	2186046	27.46%
Hutch	M	Delhi	1362043	18.52%	1678591	21.08%
MTNL	M	Delhi	2105440	28.62%	659948	8.29%
IDEA	M	Delhi	568368	7.73%	788234	9.90%
Reliance	M	Delhi	1236548	16.81%	1605222	20.16%
Tata	M	Delhi	404298	5.50%	1043338	13.10%
BPL	M	Mumbai	1179435	15.86%	1322058	18.64%
Hutch	M	Mumbai	1384493	18.62%	1715280	24.19%
Bharti	M	Mumbai	633870	8.52%	1038542	14.64%
MTNL	M	Mumbai	2673664	35.95%	783398	11.05%
Reliance	M	Mumbai	1025712	13.79%	1360525	19.18%
Tata	M	Mumbai	539733	7.26%	872005	12.30%
Aircel	M	Chennai	485277	14.78%	659579	16.45%
Bharti	M	Chennai	576579	17.56%	725747	18.10%
Hutch	M	Chennai	223184	6.80%	325228	8.11%
BSNL	M	Chennai	1320497	40.22%	1512938	37.74%
Reliance	M	Chennai	469177	14.29%	517140	12.90%
Tata	M	Chennai	208758	6.36%	268176	6.69%
Bharti	M	Kolkata	429905	13.60%	540778	13.36%
Hutch	M	Kolkata	602615	19.06%	770192	19.03%
BSNL	M	Kolkata	1613600	51.05%	1674478	41.36%
Reliance	M	Kolkata	514975	16.29%	749854	18.52%
Tata	M	Kolkata		0.00%	312926	7.73%

Note: Provisional data as reported by operators.