

Telecom Regulatory Authority of India

The Indian Telecom Services
Performance Indicators October - December 2006

17th April 2007

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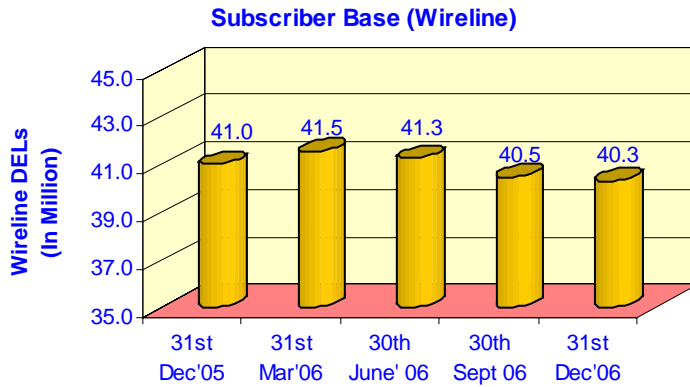
INTRODUCTION

- 1.1 This report provides an update on the growth trends for the telecom services in the country for the period **October-December 2006**. This is an update over the previous reports and presents a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts. Under the Unified Access Service Regime, the details under wireless services combine both GSM & CDMA. The wireless subscriber base includes GSM, CDMA, WLL(F) and WLL(M). QOS performances of various service providers have been included in Chapter Five. This report includes the performance of Cable TV, DTH & Radio Broadcast services in Chapter Six. The Executive Summary of various Telecom Services has been given in the beginning followed by 'Quarterly results at a Glance' showing the growth pattern of Wireline, Wireless, Internet and Broadband services.
- 1.2 The report has been compiled based on the information from various telecom service providers. TRAI collects performance-oriented data from various service providers on a quarterly basis to monitor the growth trend in the sector.
- 1.3 This quarterly report is also available on the TRAI website (www.trai.gov.in). Any suggestions pertaining to this may please be addressed to S. K. Gupta, Advisor (CN), TRAI; Tel. 23217914, Fax. 23211998 and e-mail: skgupta@traigov.in or guptask61@gmail.com

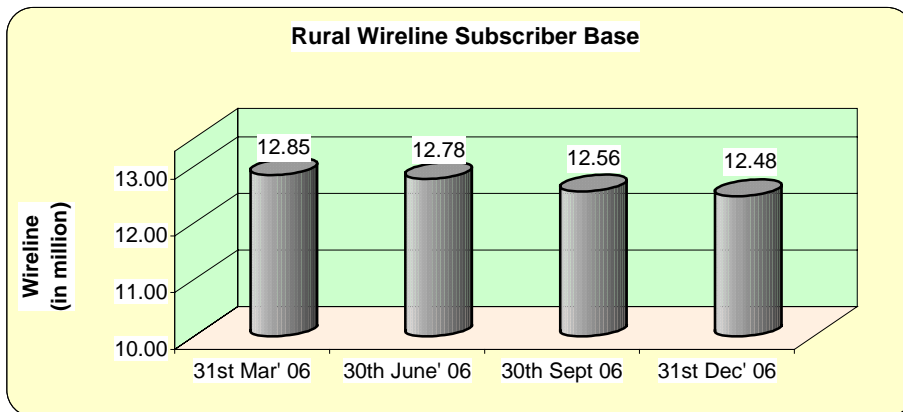
Executive Summary

A. Wireline Services

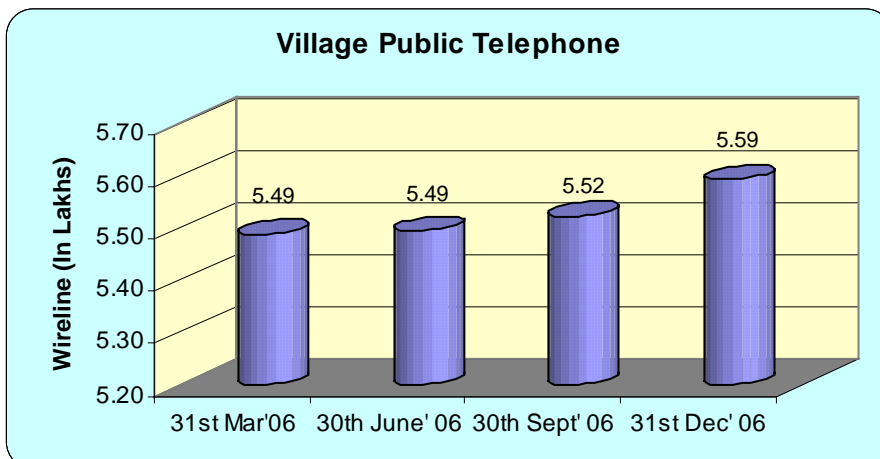
At the end of quarter ending December' 06 Wireline subscribers base is **40.3 Million.**



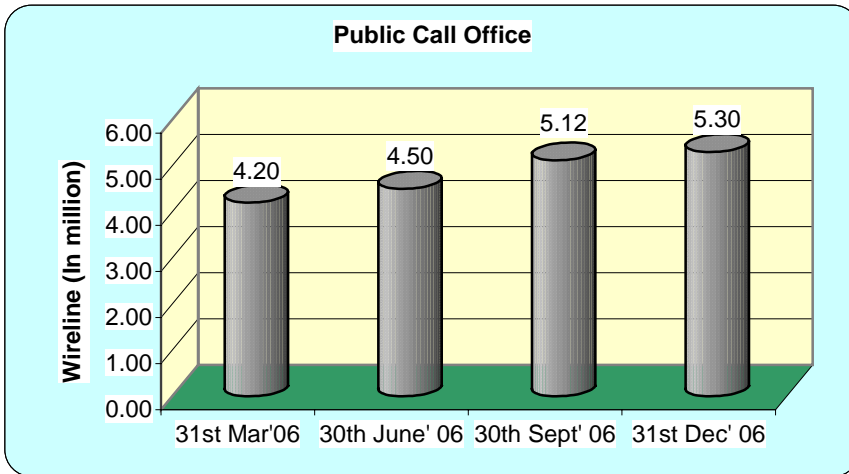
Rural Wireline Subscriber base also reduced from 12.56 million in quarter ending September 2006 to 12.48 in December 2006.



Number of VPTs has increased from 5.52 lakhs to 5.59 lakhs in quarter ending December 2006.



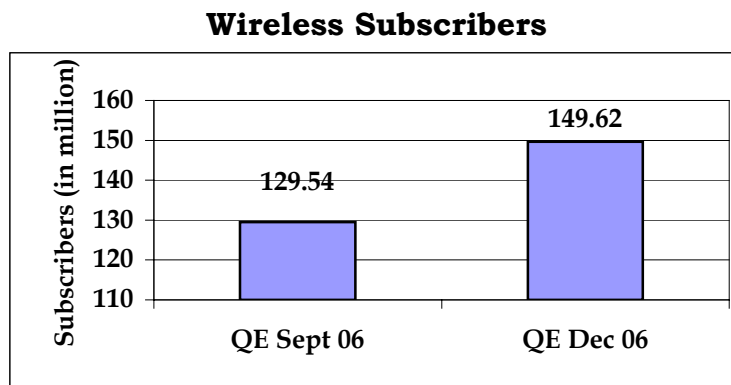
Number of Public Call Offices (PCOs) have increased from 5.12 million to 5.30 million in quarter ending December 2006.



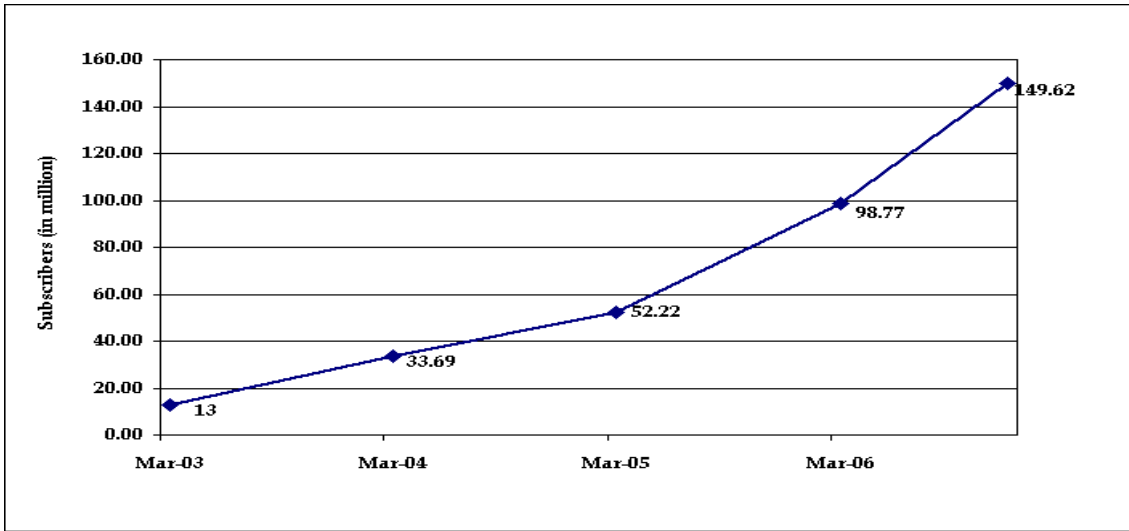
B. Wireless Services

As on 31.12.2006, the Wireless (Mobile and WLL (F)) Market has reached 149.62 million subscribers as against 129.54 million subscribers in the previous quarter. During this quarter 20.08 million subscribers were added, thus recording a growth of 15.50%. The total wireless subscriber base has grown from 75.94 million in December 2005 to 149.62 million in December 2006.

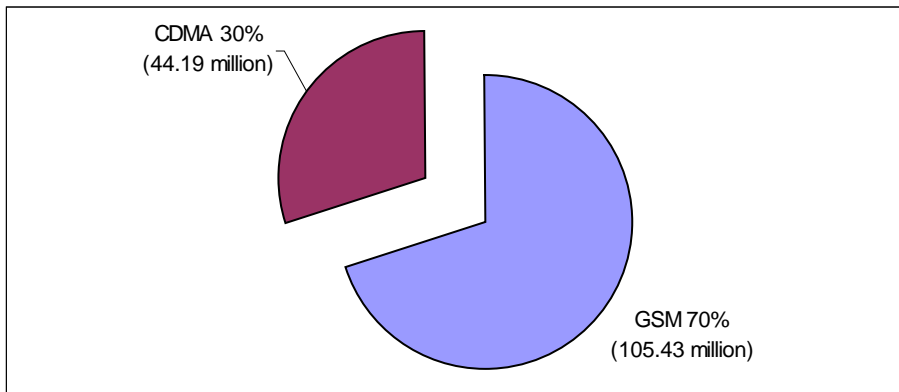
(i) Subscriber Growth/Market Share



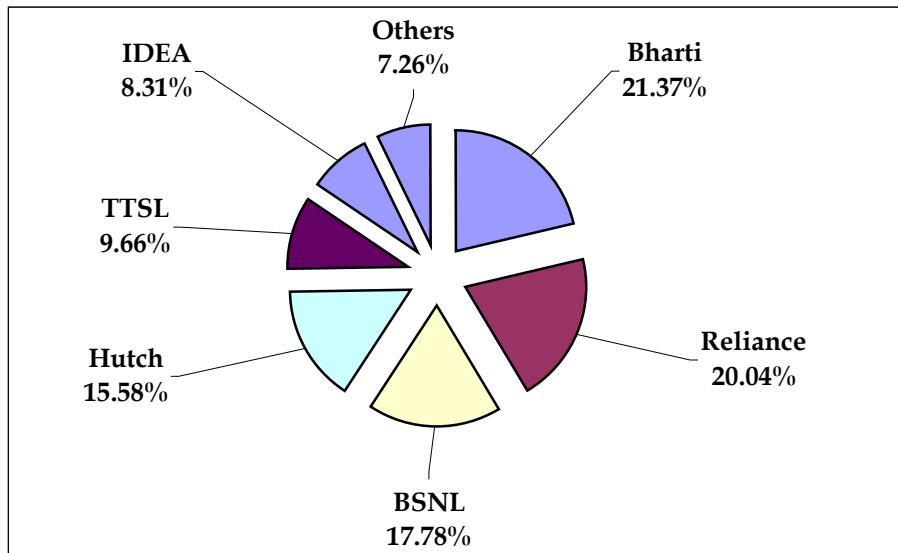
Total Subscriber Base (Wireless)



Technology-wise Wireless Market Share (QE Dec 2006)



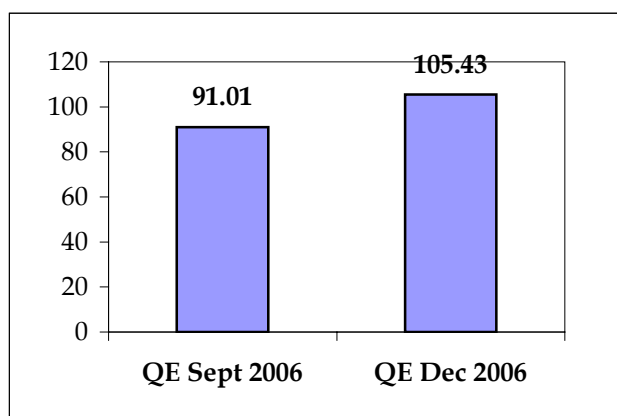
Wireless Operator Market Share (QE Dec 2006)



(ii) GSM

GSM industry recorded 15.84% growth during the quarter and reached subscriber base of 105.43 million at the end of December 2006.

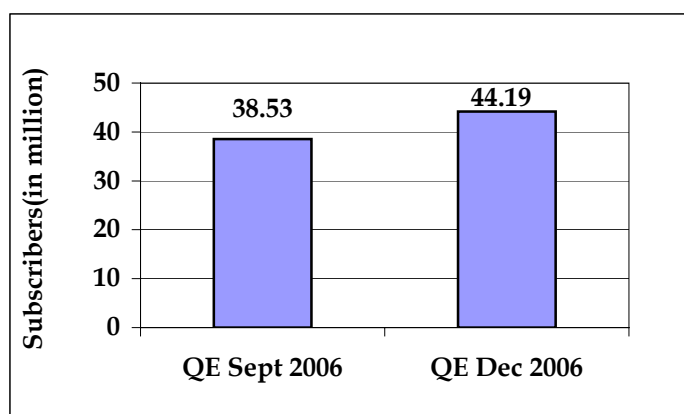
GSM Subscribers Growth (in million)



(iii) CDMA

CDMA subscriber base recorded a growth of 14.69% during the quarter and reached subscriber base of 44.19 million at the end of December 2006.

CDMA Subscriber Growth



(v) Average Revenue Per User (ARPU), Minutes of Usage (MoU), etc.

(a) GSM

All India blended ARPU (per month) for the quarter ending December 2006 is Rs. 316/- as against Rs. 337/- for the quarter ending September-2006.

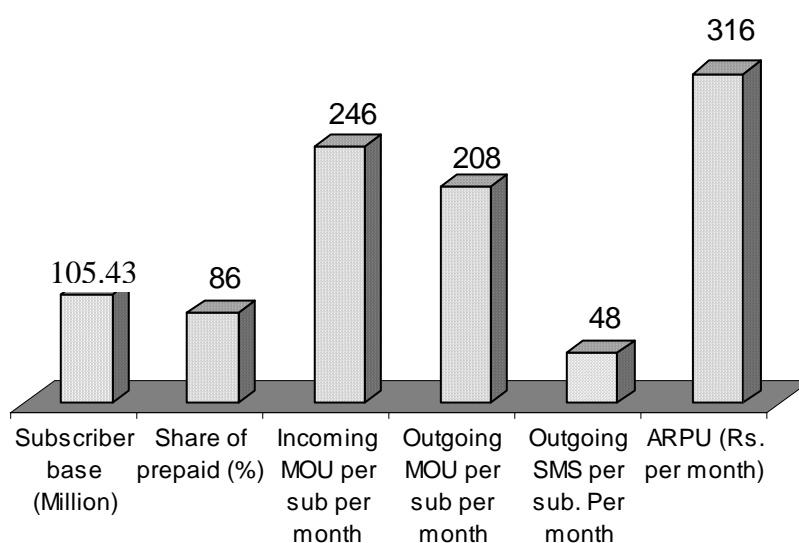
The lowest blended ARPU per month is in Circle B (Rs. 280/-) while the highest blended ARPU is in Metro (Rs. 393/-).

Monthly ARPU in postpaid segment is Rs. 632/- and for prepaid segment it is Rs. 262/-. The huge difference between postpaid and prepaid ARPU noted last

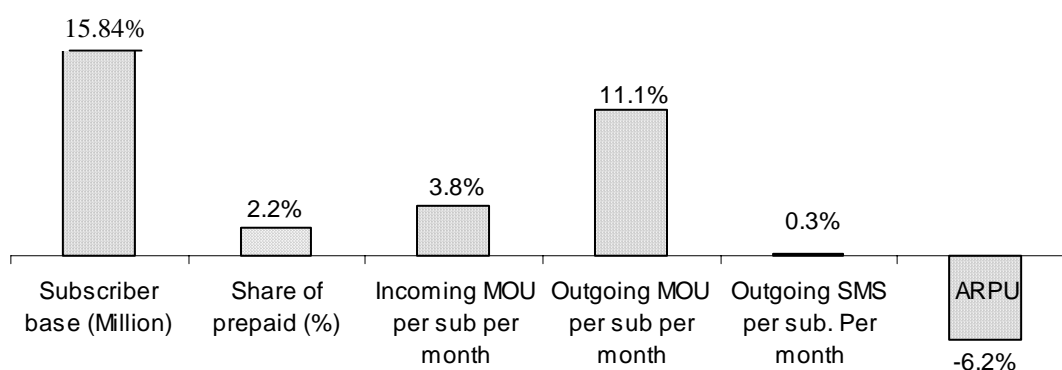
quarter continued to remain valid for this quarter as well. Postpaid ARPU has been 2.41 times that of prepaid ARPU. The gap is lowest in Circle B (1.93 times) and highest in Metro (2.70 times).

Average MOU per subscriber per month for the quarter is 454. On an average a GSM subscriber makes 208 minutes of outgoing calls, sends 48 SMS and receives incoming calls for 246 minutes in a month. The highest outgoing MOU is recorded for Circle B at 210 per subscriber per month and the lowest outgoing MOU is seen in Metro at 203 per subscriber per month. The ratio of incoming – outgoing traffic is 54:46 in the quarter ending December 2006.

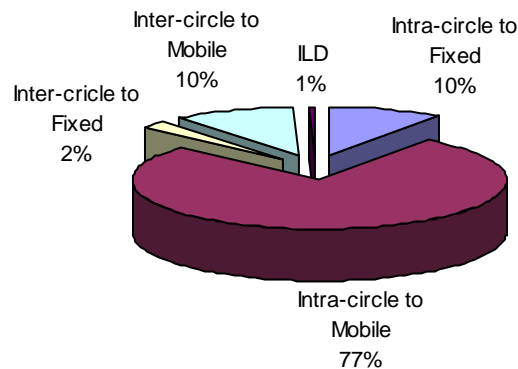
Key Indicators for GSM (QE Dec 2006)



Variation in Key Indicators over last quarter (in %)



GSM Mobile Originated Traffic - distribution by terminating network



(b) CDMA

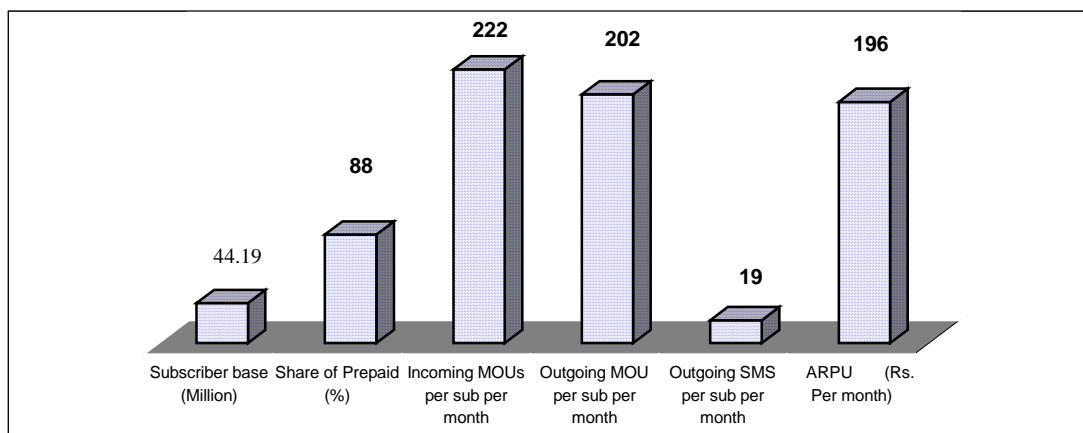
All India blended ARPU (per month) for the quarter ending December 2006 is Rs. 196/- as against Rs. 215/- for the quarter ending September-2006.

The lowest blended ARPU per month is in Circle B (Rs. 175/-) while the highest blended ARPU is in Metro (Rs. 241/-).

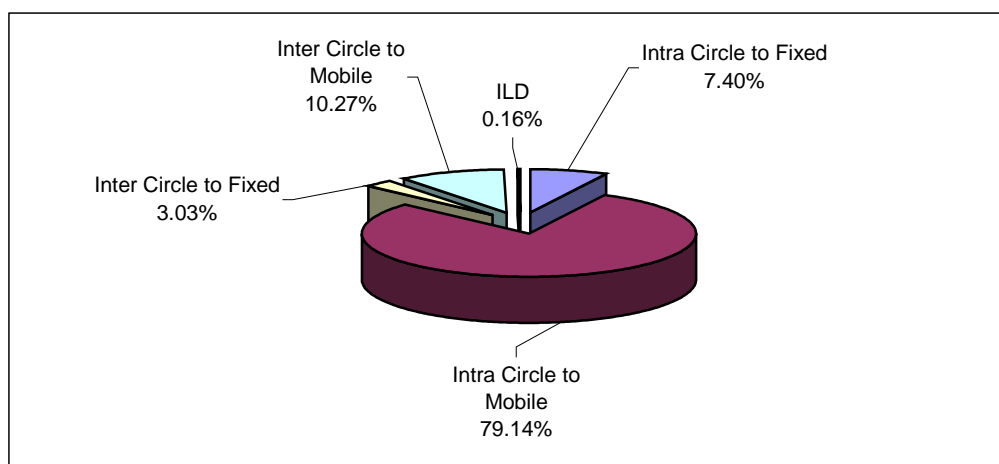
Monthly ARPU in postpaid segment is Rs. 456/- and for prepaid segment it is Rs. 159/-. The huge difference between postpaid and prepaid ARPU noted last quarter continued to remain valid for this quarter as well. Postpaid ARPU has been 2.87 times that of prepaid ARPU, which perhaps, could be attributed to declining importance of processing fee on recharge coupon/ voucher purchased by prepaid subscribers. The gap is lowest in Circle C (2.31) times and highest in Metro (3.03) times.

Average MOU per subscriber per month for the quarter is 424. On an average a CDMA subscriber makes 202 minutes of outgoing calls, sends 19 SMS and receives incoming calls for 222 minutes in a month. The highest outgoing MOU is recorded for Circle C at 240 per subscriber per month and the lowest outgoing MOU is seen in Circle A at 184 per subscriber per month. The ratio of incoming – outgoing traffic is 52:48 in the quarter ending December 2006.

Key Indicators for CDMA



CDMA Mobile originated Traffic – distribution by terminating network.

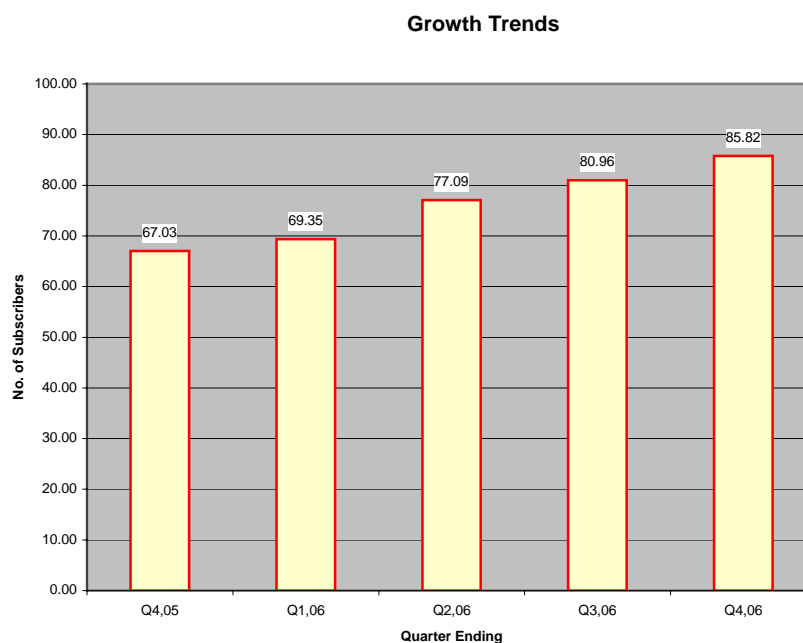


C. Internet Services

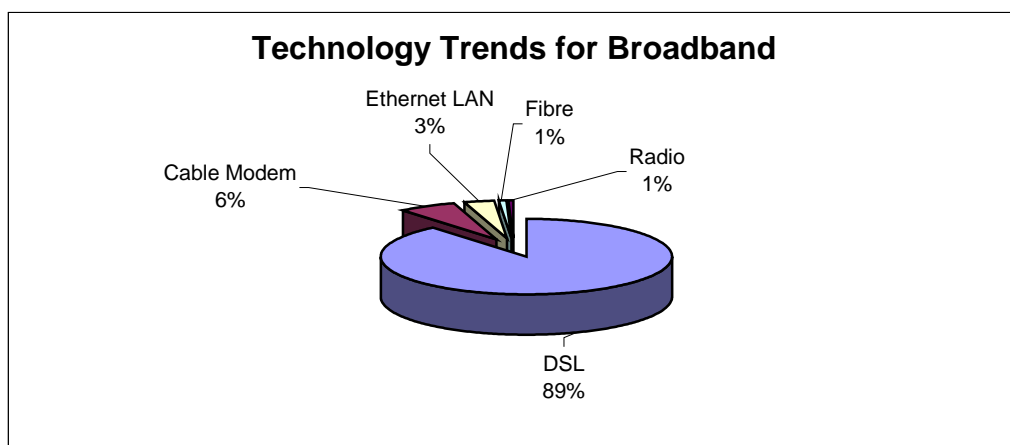
Internet subscribers stood at 85.82 lakhs for the quarter ending 31st Dec 2006 as compared to 80.96 lakhs during the preceding quarter registering an increase of 6.00%. The growth trend during the quarter is positive as compared with last quarter where it was 5.02%. The total Internet subscribers increased from 67.03 lakhs at the end of Dec 2005 to 85.82 lakhs at the end of Dec 2006 registering a growth of 28.03%.

The key indicators for Internet Services are presented below through bar charts.

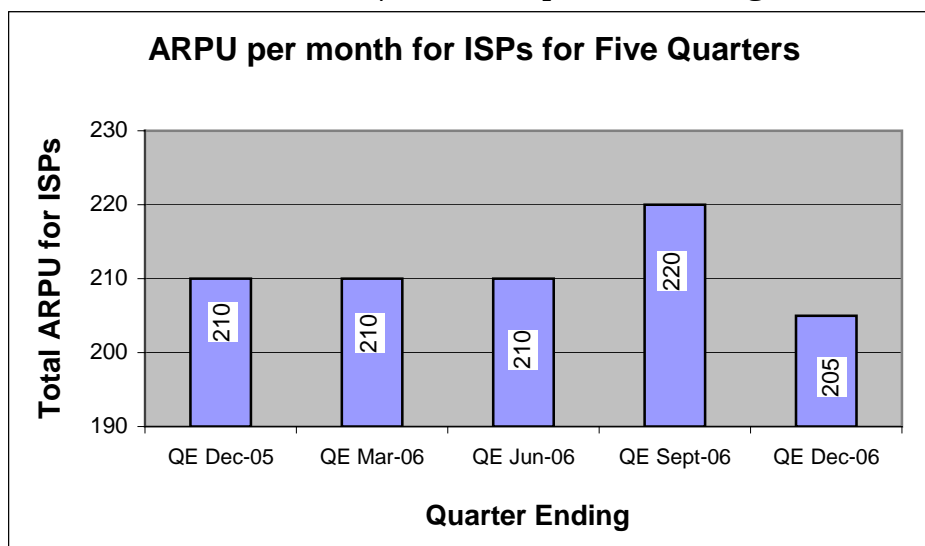
- i) **Internet Subscribers Growth** - There are 85.82 lakhs Internet Subscribers during quarter ending Dec 06.



- ii) **Broadband Subscriber Growth** - The number of Broadband subscribers as reported by ISPs was 20.54 Lakhs at the end of Dec 2006 as compared to 18.17 Lakhs at the end of Sept 2006, thus registering a growth of 13.04% over the previous quarter.
- iii) **Broadband Subscribers Share (Technology wise)** – The number of Broadband subscribers (with a download speed of 256 Kbps or more) was 20.54 Lakhs on 31st Dec'06. Out of these 1700053 are DSL based; 117846 Cable Modem; 63654 Ethernet LAN; 16833 Fibre and 10513 Radio customers.



- iv) **ARPU** – Average Revenue Per User per month for dialup Internet Subscribers is Rs. 205/- for the quarter ending Dec 06.



D. Quality of Service

QOS Performance during the year

(a) Basic Services

The performance of the Basic Service Providers has improved as compared to the previous quarter, in respect of parameters “Provision of Telephones (New connection after registration of demand), Faults incidences, Faults repaired by

next working day, Mean time to repair, Metering & Billing credibility and Customer Care Services related to Shifts, Closures & Additional Facilities”. However, the performance has deteriorated in this quarter, as compared to the previous quarter, in respect of “Call Completion Rate, Response time to the customer for assistance and Time taken for refunds of deposits”.

A comparison of performance of basic service providers in meeting the key benchmarks is given below:

Sl. No.	Parameter	Bench Marks	No. of operators not meeting the benchmarks	
			Sept, 2006	Dec, 2006
			Out of 73	Out of 79
1	Provision of Telephones after registration of demand	100% within 7 Days	93.15%	86.08%
2	Fault incidences per 100 subs/month	<5	43.84%	37.97%
3	Fault repaired by next working day	>90%	26.03%	22.78%
4	MTTR	<8Hrs	41.10%	34.18%
5	Metering & billing credibility - % of bills	<0.1%	21.92%	17.72%

(b) Cellular Mobile Service

133 licensees have reported their performance in QOS parameters in 23 circles during the quarter ended on 31st December 2006. 100% Cellular Mobile Service Providers have achieved the benchmark in respect of parameters Accumulated down time of community isolation, Call Set-up Success Rate, Call Drop Rate and %age of calls answered (electronically) within 20 sec. The performance relating to the parameters Service access delay, Blocked Call Rate, %age of connections with good voice quality, %age of call answered by operator (voice to voice) within 60 sec & within 90 sec and %age of complaints resolved within 4 weeks has improved in this quarter as compared to the previous quarter. However, the performance of the Service Providers has deteriorated in respect of performance relating to %age of calls answered (electronically) within 40 sec and Complaints per 100 bills issued.

The comparative statement of the key parameters is given in the following table:-

Sr. No.	Parameters	Bench-Marks	No. Of Operators Meeting The Benchmarks	
			QE Sept, 2006	QE Dec, 2006
			Out Of 129	Out Of 133
1	Accumulated down time of Community isolation	<24 hrs	97.67%	100.00%
2	Call Set-Up Success Rate (Within Licensee's Own network)	>95%	100.00%	100.00%
3	Service access delay	<15 Sec	96.12%	98.50%
4	Call drop rate	<3.0%	100.00%	100.00%
5	Complaints per 100 bills issued	<0.1%	93.02%	89.47%

Quarterly Results at a Glance
Performance Indicators of Telecom Services for QE December 2006

A. Growth of Wireline & Wireless Services:-

	QE Dec 2005	QE Mar 2006	QE Jun 2006	QE Sept 2006	QE Dec 2006	%age growth over Dec 2005 (12 months)	%age growth over Mar2006 (9 months)	%age growth over Jun 2006 (6 months)	%age growth over Sept 2006 (3 months)
1) Subscriber's Base (in millions)									
i) Wireline	48.84#	50.18#	41.27*	40.48*	40.30*	-17.49	-19.69	-2.35	-0.44
ii) Wireless	75.94*	90.14*	112.15#	129.54#	149.62#	97.02	65.99	33.41	15.50
Gross Total	124.78	140.32	153.42	170.02	189.92	52.20	35.35	23.79	11.70
2) Traffic (MOU) (minutes of use/ sub/month) (combined for GSM & CDMA)									
i) Mobile									
I. GSM	393	395	414	425	454	15.52	14.94	9.66	6.82
II. CDMA	462	550	443	413	424	-8.23	-22.91	-4.29	2.66
3) ARPU (Rs./sub/ month) (combined for GSM & CDMA)									
i) Mobile									
I. GSM	362	366	352	337	316	-12.71	-13.66	-10.23	-6.23
II. CDMA	256	256	228	215	196	-23.44	-23.44	-14.04	-8.84
4) Teledensity									
Population in million (Estimated)	1092	1096	1099	1103	1107				
i) Wireline	4.47	4.58	3.76	3.67	3.64	-18.60	-20.49	-3.06	-0.80
ii) Wireless	6.95	8.22	10.20	11.74	13.52	94.35	64.34	32.45	15.08
Gross Total	11.43	12.80	13.96	15.41	17.16	50.14	34.00	22.90	11.30

including WLL (F) and * excluding WLL (F)

B. Growth of Internet & Broadband Services:-

	QE Dec 2005	QE Mar 2006	QE Jun 2006	QE Sept 2006	QE Dec 2006	%age growth over Dec 2005 (12 months)	%age growth over Mar2006 (9 months)	%age growth over Jun 2006 (6 months)	%age growth over Sept 2006 (3 months)
1) Subscriber's Base (in million)									
i) Internet	6.70	6.94	7.71	8.10	8.58	28.06	23.63	11.30	5.98
ii) Broadband Connections (>=256 Kbps download speed)	0.903	1.348	1.567	1.817	2.054	127.46	52.37	31.08	13.04
2) Minutes of Use (Dialup Internet) (MOU/ subs/month)									
	189	175	190	185	190	0.53	8.57	0.00	2.70
3) ARPU (Dialup Internet) (Rs/ subs/month)									
	210	210	210	220	205	-2.38	-2.38	-2.38	-6.82

C. Performance of service providers during the quarter: -

(I) Wireline Subscribers Base(in Million)

I) Basic Service Providers	QE Dec 2005#	QE Mar 2006 #	QE Jun 2006*	QE Sept 2006*	QE Dec 2006*	%age growth over Dec 2005 (12 months)	%age growth over Mar2006 (9 months)	%age growth over Jun 2006 (6 months)	%age growth over Sept 2006 (3 months)
BSNL	36.76	37.51	34.94	33.97	33.58	-8.65	-10.48	-3.89	-1.15
MTNL	3.86	3.87	3.80	3.71	3.69	-4.40	-4.65	-2.89	-0.54
Tata/Hughes	4.04	4.02	0.42	0.46	0.48	-88.12	-88.06	14.29	4.35
Bharti	1.20	1.35	1.48	1.63	1.74	45.00	28.89	17.57	6.75
Reliance	2.57	2.99	0.30	0.39	0.49	-80.93	-83.63	63.33	25.64
HFCL	0.24	0.26	0.18	0.17	0.17	-29.17	-34.62	-5.56	0.00
Shyam	0.17	0.17	0.15	0.15	0.15	-11.76	-13.79	0.00	0.00
Total	48.84	50.18	41.27	40.48	40.30	-17.49	-19.69	-2.35	-0.44

including WLL (F) and * excluding WLL (F)

(II) Wireless Subscriber Base (in Million)

Service Providers	QE Dec 2005#	QE Mar 2006 #	QE Jun 2006*	QE Sept 2006*	QE Dec 2006*	%age growth over Dec 2005 (12 months)	%age growth over Mar2006 (9 months)	%age growth over Jun 2006 (6 months)	%age growth over Sept 2006 (3 months)
Reliance	14.68	17.31	22.52	25.98	29.98	104.25	73.22	33.14	15.41
Bharti	16.33	19.58	23.09	27.06	31.97	95.80	63.30	38.48	18.16
BSNL	14.83	17.65	21.02	23.70	26.60	79.37	50.71	26.55	12.24
Hutch	11.41	15.36	17.54	20.36	23.31	104.29	51.76	32.90	14.49
Idea	6.47	7.37	8.54	10.36	12.44	92.27	68.79	45.67	20.08
BPL Group	2.89	1.34	1.30	1.05	1.06	-63.32	-20.90	-18.46	0.95
Aircel	2.28	2.61	3.20	3.80	4.51	97.81	72.80	40.94	18.68
Spice	1.63	1.93	2.05	2.20	2.45	50.31	26.94	19.51	11.36
Tata/Hughes	3.68	4.85	10.36	12.38	14.45	292.66	197.94	39.48	16.72
MTNL	1.65	2.05	2.31	2.43	2.60	57.58	26.83	12.55	7.00
HFCL	0.06	0.06	0.15	0.15	0.15	150.00	150.00	0.00	0.00
Shyam	0.03	0.03	0.06	0.08	0.09	200.00	200.00	50.00	12.50
Total	75.94	90.14	112.15	129.54	149.62	97.02	65.98	33.41	15.50

including WLL (F) and * excluding WLL (F)

Chapter One

PERFORMANCE OF WIRELINE SERVICES

1.1 Subscribers Base: -

1.1.1 The Wireline services were provided by 5 licensed private operators in addition to incumbents BSNL and MTNL as on 31st December 2006. List of Wireline Service providers along with their areas of operation is given in Table 1 below:

Table 1

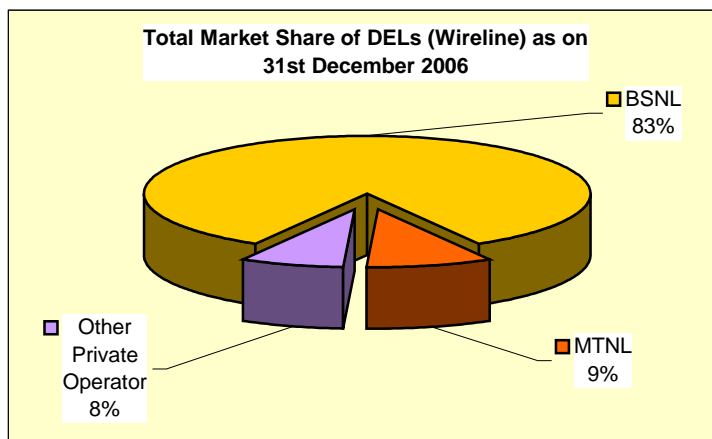
Sl. No.	Name of the Service Provider	Area of Operation
1	BSNL	All India except Delhi & Mumbai
2	MTNL	Delhi & Mumbai
3	Bharti Airtel Ltd	AP, MP, Delhi, Haryana, TN , Chennai, Karnataka, Kerala, Gujarat, Punjab, Maharashtra, Mumbai, UP(E),UP(W) including Uttaranchal, West Bengal and Kolkata
4	Tata Teleservices (Maharashtra) Ltd.	Maharashtra, Mumbai
5	Tata Teleservices Ltd.	AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata
6	HFCL Infotel Ltd	Punjab
7	Shyam Telelink Ltd	Rajasthan
8	Reliance Communications Ltd.	AP, Bihar, Delhi, Gujarat, Haryana, HP, Karnataka, Kerala, MP, Maharashtra, Mumbai Orissa, Punjab, Rajasthan, TN, Chennai, UP (E), UP (W), West Bengal, Kolkata

1.1.2 Market Share of DELs.

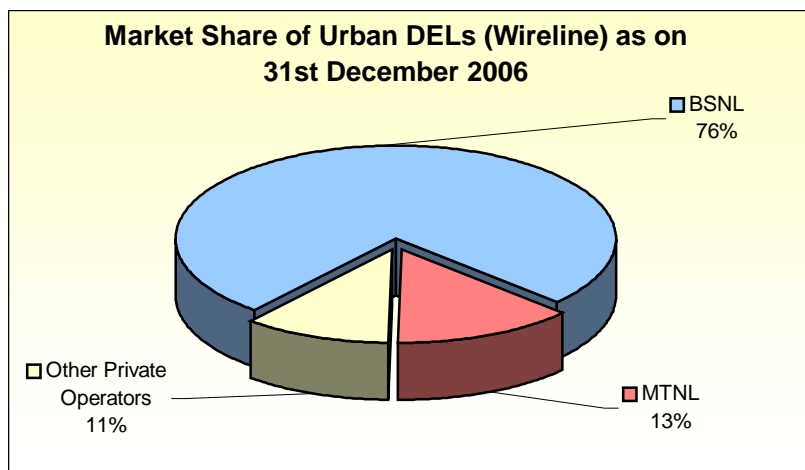
The total subscriber base of Wireline stood at 40.3 million as on 31st December 2006. The incumbents BSNL and MTNL have 83% and 9% market share respectively in the subscriber base, while all the five private operators together have 8% share. In the current quarter the wireline market share of private operators increased by 1% and that of BSNL decreased by 1%, as compare to

previous quarter wireline market share. As on 31st December 2006 the total Urban DELs are 27.84 million and Rural DELs are 12.46 million. The market share of Wireline Service Providers in Urban DELs and Rural DELs is depicted in the charts below:

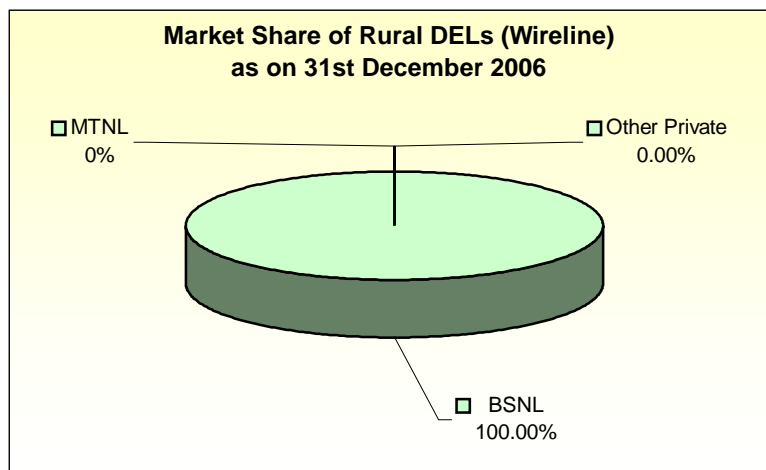
A. Distribution of Market share of Urban + Rural Wireline subscriber



B. Distribution of Market share of Urban Wireline subscriber

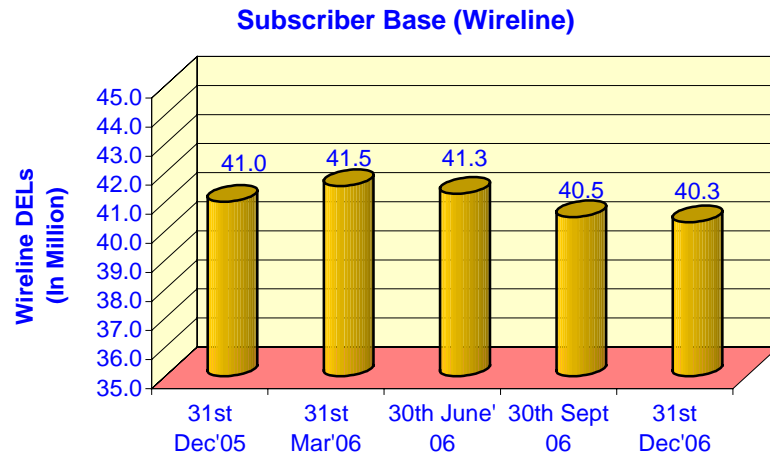


C. Distribution of Market share of Rural Wireline subscriber



1.1.3 Subscriber Base of Wireline for last five quarters

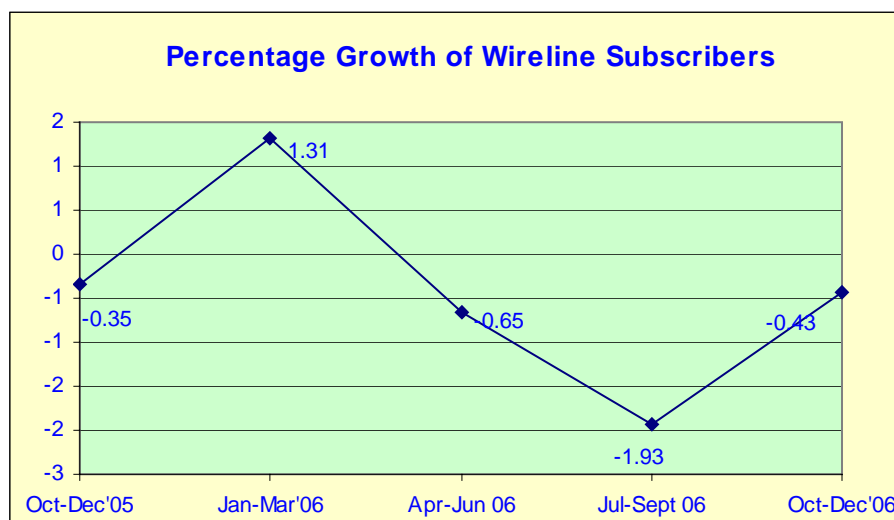
The subscriber base of the Wireline service sector for last five quarters is depicted below:



1.1.4 Growth of DELs

The Wireline Service sector has registered a decrease of 1,75,450 lines during the quarter from September'2006 to December'2006. The net number of DELs has decreased to 40.301 million from 40.477 million as on 31st December 2006. The overall percentage of decrease in subscriber base during the Quarter is 0.43%.

The reduction in the subscriber base of Wireline is mainly by the following operators. BSNL from 33.965 million to 33.577 million (3,88,825), MTNL from 3.716 million to 3.696 million, a decrease of 0.0199, HFCL Infotel Ltd. from 0.174 million to 0.173 million & Shyam Telelink Ltd from 0.1518 million to 0.1512 million. On the other hand some of the Service Providers such as M/s Bharti Airtel Ltd., Tata Teleservices Ltd. (TTL) and Reliance Communications Ltd. (RCL) have increased its Wireline subscriber base.

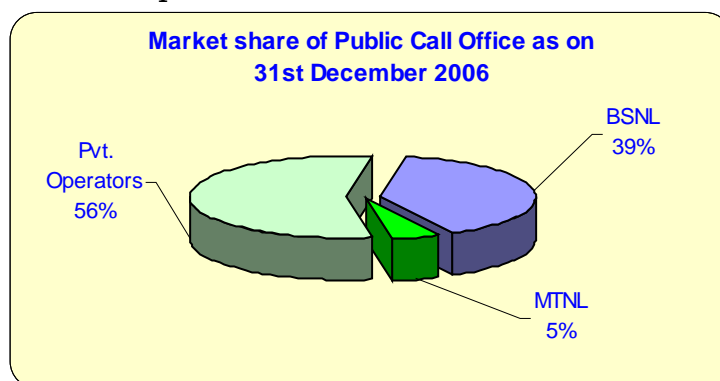


1.2 Other Performance Indicators: -

1.2.1 Public Call Offices:

During the current quarter 0.183 million new PCOs have been added. Total number of PCOs in the country as on 31st December 2006 is 5.302 million. The share of BSNL in this is 2.092 million i.e. 39% of the total PCOs. The share of MTNL and other private operators combined is 0.261 million (5%) and 2.948 million (56%) respectively.

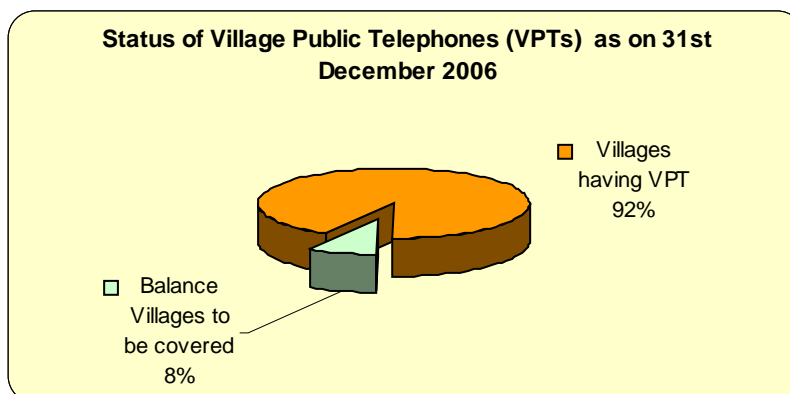
Operator-wise (BSNL/MTNL/Other Private Operators) market share of PCO is depicted in the chart below. Operator-wise details of PCOs is available at Table 1.2



1.2.2 Village Public Telephones (VPT):

There are 6,07,491 villages in India. During the previous quarter ending 30th September 2006 there were 5,52,309 VPTs in the country whereas by the end of this quarter i.e. 31st December 2006, the total number of VPTs has increased to 5,59,355. Thus 7046 VPTs have been added during the current quarter. BSNL has added 7091 VPTs during the quarter. Among the five private operators there was a decrease of 45 VPTs during this quarter. The total number of villages left uncovered, as on 31st December 2006 are 48,136. The status of VPT's is depicted in the chart below:-

Circle-wise and Operator-wise details of village public telephones as on 31st December 2006 and achievement during the quarter are available at Table 1.3.



Chapter Two

PERFORMANCE OF WIRELESS SERVICES

Subscriber Base Growth touches 149.62 million

PART A:

2.1 Details of service providers: - The list of all the Wireless service providers along with their licensed service area is as under: -

2.2

SLNO	Service Provider	Area for which licensed with No.	Area for which not licensed	UASL Service Licensed
1	BSNL/MTNL	All India (23)		
2	Bharti	All India (23)		All India except NE
3	Aircel Group	All India (23)		All India except Chennai & TN
4	Reliance Group	All India (23)		All India except NE & AS
	Reliance Infocomm	All India (except Assam & NE) (21)	Assam & NE	All India except NE & AS
	Reliance Telecom	MP, WB, HP, Bihar, Orissa, Assam & NE (7)	Delhi, Mumbai, Chennai, Kolkata, MH, Gujarat, AP, KTK, TN, Kerala, PB, Haryana, UP (W), UP (E), Rajasthan & J&K	
	Reliable Internet Services Ltd	Kolkata (1)	All India except Kolkata	
5	Hutch	All India (except MP) (22)	MP	UP-W, WB, HP, Bihar, Orissa, Assam, NE, J&K
6	Tata Teleservices	All India (except AS, NE & J&K) (20)	AS, NE & J&K	All India except (AS, NE & J&K)
7	IDEA	Delhi, Mumbai, MH, Guj, AP, KR, HR, UP-W, UP-E, Raj, MP, HP & Bihar (13)	Chennai, Kolkata, KTK, TN, Punjab, WB, Orissa, Assam, NE & J&K	Mumbai, Bihar
8	Spice Communications	KTK, Punjab (2)	All India except (KTK, Punjab)	KTK, Punjab
9	BPL	Mumbai (1)	All India except (Mumbai)	--
10	HFCL	Punjab (1)	All India except Punjab	Punjab
11	Shyam Telelink	Rajasthan (1)	All India except Rajasthan	Rajasthan

Note: 1. Reliance Telecom for all his circles has applied for Unified Licence.

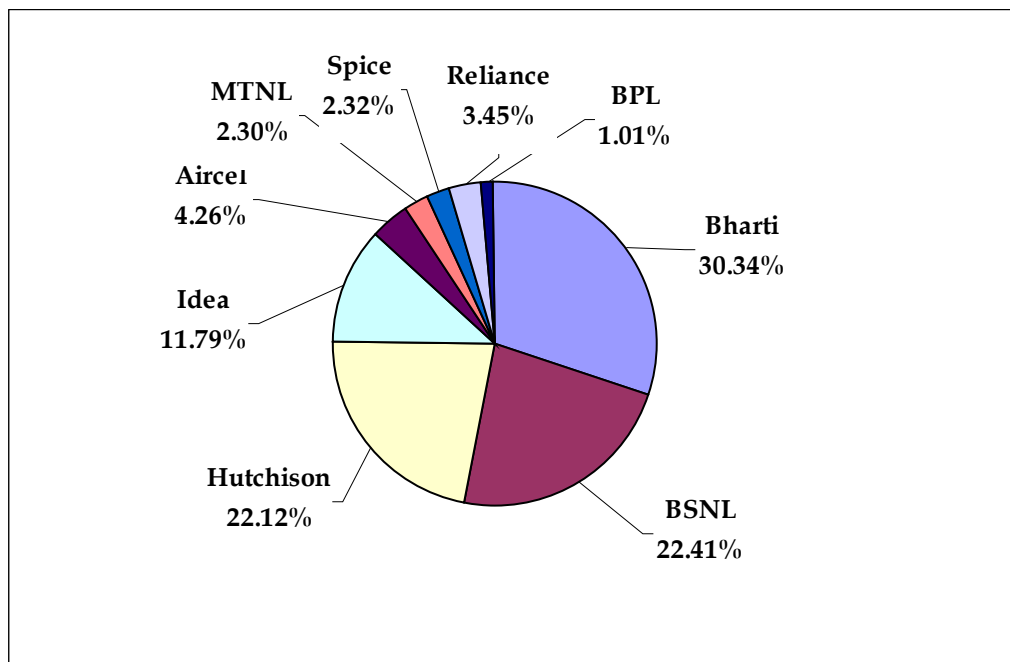
Circle-wise details of Cellular, Wireline & Unified Access Service providers at the end of the quarter are given at Annex 2.1. All the service areas of the country have Wireless operators ranging from 4 to 7.

2.2 Growth of Subscribers Base: -

2.2.1 GSM sector

- The GSM subscribers' base has reached 105.43 million in the quarter ending December 2006 as against 91.01 million at the end of the previous quarter registering a growth rate of 15.84%.
- The subscriber base of Bharti, BSNL, Hutch & Idea is more than 86% of the total GSM subscribers base.
- Private operators have 75% subscribers whereas Public sector Operators (BSNL & MTNL) have 25% subscribers in the GSM segment. It is mentioned that number of PSU licensee are 23 where are number of operational private operator licensee are 70. Department of Telecommunications has issued 22 new licensee to private operators in Dec, 06 and these new licenses have not commenced their services till now.

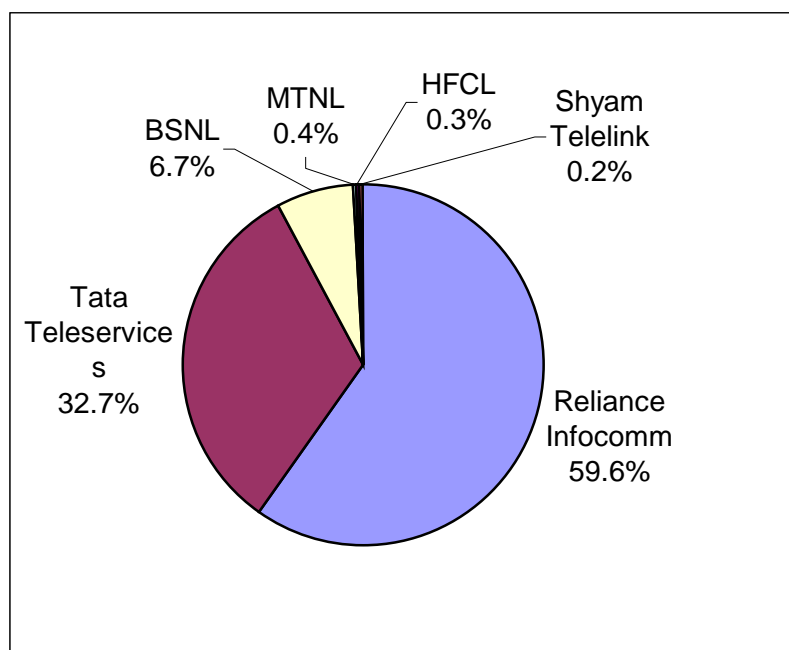
Operator-wise Market Share of GSM service providers as on 31.12.06



2.2.2 CDMA sector

- CDMA subscriber base recorded a growth of 14.69% during the quarter and reached subscriber base of 44.19 million.
- M/s Reliance Infocomm continued to have the highest subscriber base with 60% market share followed by M/s TTSL with 33% market share, while other players in CDMA Technology have the remaining 7%.
- Maharashtra circle has registered the highest number of additional subscribers (5.70 lakhs) during the quarter end December 2006
- Only BSNL in Kolkata has registered a negative subscriber growth.

Operator-wise Market Share of CDMA Wireless as on 31.12.06



2.2.3 Subscribers Base

As on 31.12.2006, total Wireless (Mobile and WLL (F)) Market has reached the 149.62 million subscribers mark as against 129.54 million subscribers in the previous quarter.

2.2.4 Addition in Subscribers Base

During this quarter 20.08 million subscribers were added. Thus recording a growth of 15.50%. The total wireless subscriber base has grown from 75.94 million in December 2005 to 149.62 million in December 2006.

2.2.5 Company wise Market Share

a) The Subscriber Base of different wireless operators is given in Table 2.1

The top six Wireless operators on the basis of market share are : -

SLNO	Operator (With number of Circle)	Subscribers Base as on Qtr Ending Dec 06	Market Share as on Quarter Ending Dec 06	Subscribers Base as on Quarter Ending Sept 06	Market Share as on Qtr Ending Sept 06
1	Bharti (23)	31.97 million	21.37%	27.06	20.89%
2	Reliance (23)	29.98 million	20.04%	25.98	20.06%
3	BSNL (21)	26.6 million	17.78%	23.7	18.30%
4	Hutch (16)	23.31 million	15.58%	20.36	15.72%
5	TTSL	14.45 million	9.66%	12.38	9.56%
6	Idea	12.44 million	8.31%	10.36	8.00%
7	Others	10.87 million	7.27%	9.71	7.47%

The details of operator-wise subscribers of GSM and CDMA are given in Table 2.2.

- b) Distribution of Subscriber base and market share of Wireless services as on December 2006 among Metros, Circles A to C is given in Table 2.3.

PART B : ARPU and MoU

2.3 GSM

2.3.1 Average Revenue Per User (ARPU)

- The all India blended ARPU per month has declined by 6.2% from Rs. 337/- in the quarter ending Sept-06 to Rs. 316/- in the quarter ending Dec-06.
- ARPU for postpaid service has declined by 1.7% from Rs. 643/- in Sep-06 to Rs. 632/- in Dec-06. Prepaid ARPU declined by 5.3% from Rs.277/- in Sept-06 to Rs.262/- in Dec-06.
- According to the revenue reports by the service providers, revenue, net of “pass through”, is about Rs. 9260 Crores in the quarter ending Dec-06 as against Rs. 8491 Crores in the Sept-06 quarter. Growth in revenue has been 9% as against 10% in the previous quarter.

ARPU (Rs. per month during the quarter)

Circle	Postpaid	Prepaid	Blended ARPU
Circle A	638	251	306
Circle B	495	256	280
Circle C	550	289	326
Metro	755	280	393
All India	632	262	316
All private SPs	671	254	314
BSNL/MTNL	528	286	324

2.3.2 Usage Pattern

- MOU per subscriber increased by 7% from 425 in quarter ending Sept-06 to 454 in quarter ending Dec-06. Outgoing MOUs continued to grow at 11.06% higher rate than incoming MOUs (3.82%).
- In Postpaid, total MOUs increased by 12.02% from 868 in Sept-06 to 972 in Dec-06. Corresponding increase in prepaid has been 8.5%, from 337 to 365.
- The continuing growth of outgoing MOUs has resulted in the proportion of outgoing minutes in total usage strengthening from 44% in Sept-06 to 46% in Dec-06. For postpaid, ratio of incoming-outgoing minutes is 52:48 and for prepaid segment, it is 55:45.

The related data may be referred in Annex. 2.2.

2.3.3 Average Subscriber outgo (rental + call charges) per minute

The tariff plans are of bundled nature and the trade-off is generally between monthly Fixed charges and Variable (call) charges. Annex 2.4 indicates the average outgo per outgoing minute i.e. Rental revenue + Airtime revenue per outgoing minute. This parameter can also be viewed as an indicator of average tariff per minute prevailing in the market from the subscribers' perspective.

The All India Average Subscriber Outgo per month declined from Rs. 1.45/- in September 2006 to Rs. 1.26/- in December 2006

2.4 CDMA

2.4.1 ARPU

- All India blended ARPU (per month) for the quarter ending December 2006 is Rs. 196/- as against Rs. 215/- for the quarter ending September-2006.
- The lowest blended ARPU per month is in Circle B (Rs. 175/-) while the highest blended ARPU is in Metro (Rs. 241/-).
- Monthly ARPU in postpaid segment is Rs.456/- and for prepaid segment it is Rs.159/-.
- The huge difference between postpaid and prepaid ARPU noted in last quarter continued to remain valid for this quarter as well. Postpaid ARPU has been 2.87 times that of prepaid ARPU, which perhaps, could be attributed to declining importance of processing fee on recharge coupon/ voucher purchased by prepaid subscribers. The gap is lowest in Circle C (2.31) times and highest in Metro (3.03) times.

ARPU (Rs. per month during the quarter) - CDMA

Circle	Postpaid	Prepaid	Blended ARPU
Circle A	426	148	183
Circle B	387	153	175
Circle C	427	185	196
Metro	539	178	241
All India	456	159	196

2.4.2 Usage Pattern

- Average MOU per subscriber per month for the quarter is 424.
- On an average a CDMA subscriber makes 202 minutes of outgoing calls, sends 19 SMS and receives incoming calls for 222 minutes in a month. The highest outgoing MOU is recorded for Circle C at 240 per subscriber per month and the lowest outgoing MOU is seen in Circle A at 184 per subscriber per month.
- The ratio of incoming – outgoing traffic is 52:48 in the quarter ending December 2006.
- Metro has recorded lowest per subscriber usage for both outgoing and incoming calls at 411 minutes per month.
- For Outgoing calls, circle A at 184 minutes per month has recorded the lowest per subscriber usage.
- For Incoming calls, circle B at 209 minutes per month has recorded the Lowest per subscriber usage.
- The highest number of SMS per subscriber is recorded in Circle A (23 per subscriber per month), and lowest in Circle C (9).

The related data may be referred in Annex. 2.3.

2.4.3 Average Subscriber Outgo (rental + call charges) Per Minute

Average Subscriber Outgo per minute (Rental Revenue + Airtime Revenue per outgoing minute) is given in Annex. 2.4.

The All India Average Subscriber Outgo per minute has declined from Rs. 1.05/- in September 06 to Rs. 0.86/- in December 06.

Chapter Three

PERFORMANCE OF INTERNET SERVICES

3.1 Service Providers & Subscribers Base: -

Total 85.82 lakhs Internet subscribers were reported in quarter ending December 2006, indicating a growth rate of 6.00% over last quarter.

Bharat Sanchar Nigam Ltd (BSNL) has retained its top position and reported a subscriber base of 38.12 Lakhs Internet subscribers against 35.49 Lakhs during the last quarter. Mahanagar Telephone Nigam Limited (MTNL) has retained second position with a subscriber's base of 16.58 Lakhs. M/s Sify Limited is third with subscriber base of 8.06 lakhs. (Ref. Table 3.1).

3.2 Internet Telephony: -

Department of Telecom (DOT) has granted permission to 128 ISPs to offer Internet Telephony services. As per the reports submitted to TRAI, 27 ISPs are offering Internet Telephony services, the list of which is enclosed at Annex 3.2. Total minutes of the use (MoU) for Internet Telephony during the quarter were 88.80 million.

3.3 Market Share: -

The growth trend indicates good market share of PSU owned ISPs. During the quarter PSU owned ISPs have captured 63.74% market share.

The market share of top 5 ISPs is as under:

ISP	Share in %
Bharat Sanchar Nigam Ltd.	44.42
Mahanagar Telephone Nigam Ltd.	19.32
Sify Ltd.	9.39
Bharti Airtel Ltd. (Bharti Televentures Ltd.)	6.96
Reliance Communications Infrastructure Limited	6.29

Among PSU owned ISPs; M/s BSNL has shown steady increase in the subscriber base and holding 44.42% of total subscriber base. MTNL is at second position and having a market share of 19.32%.

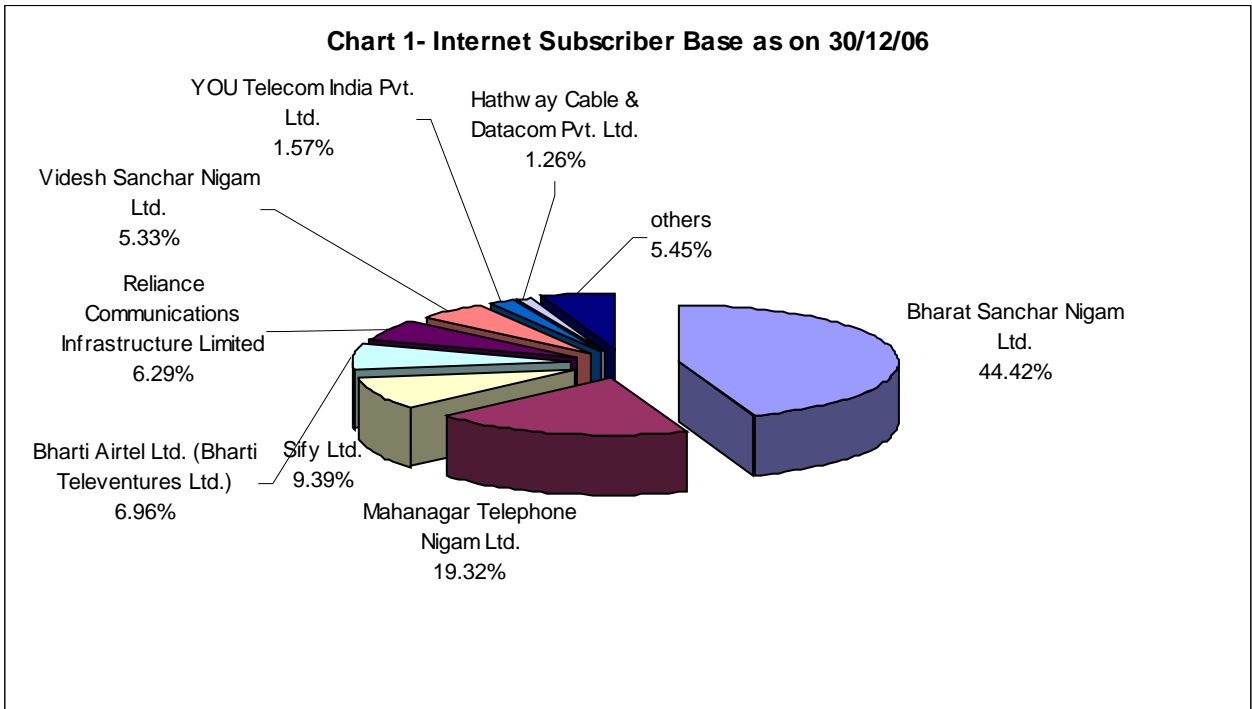
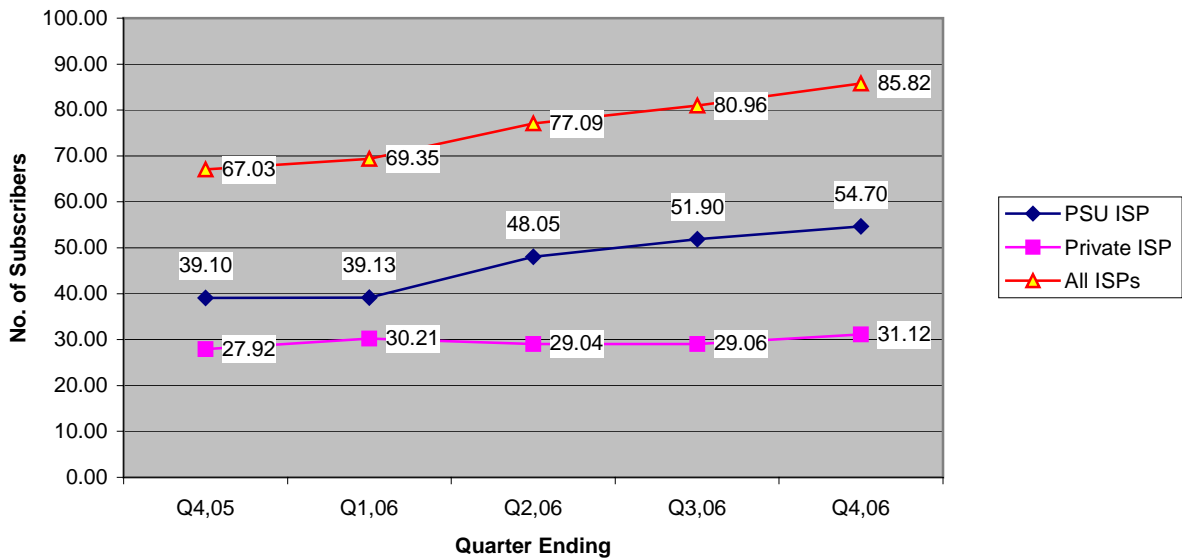


Chart 2 - Growth Trends



3.4 Leased Lines Connectivity:

The Internet leased line customer base as reported by ISPs stood at 18058 for the quarter ending December 2006 compared to 18876 of September'06 registering a decrease of 4.33%.

3.5 Broadband Connectivity (>=256 Kbps):

The number of Broadband subscribers (with a download speed of 256 Kbps or more) was 20.54 Lakhs on 31st Dec'06. Out of these 1700053 are DSL based; 117846

Cable Modem; 63654 Ethernet LAN; 16833 Fibre and 10513 Radio customers. The growth rate of broadband subscribers in this quarter is 13.04% while in the previous quarter it was of the order of 15.95%.

3.6 Minutes Of Use (MOU) per subscriber for Dialup Internet access:

For dialup access minutes of usage (MoU) per subscriber/month were approximately 190 minutes as against 185 minutes at the end of previous quarter registering an increase of 2.7 %.

3.7 Average Revenue Per User (ARPU) for ISPs:

The average revenue per user (ARPU) per month for dialup Internet subscribers was Rs. 205/- for the quarter ending Dec '06.

3.8 International connectivity:

The bandwidth owned by various IGSP for their ISP operations and Internet Leased lines is reported to be 14 GB for down-linking and 13 GB for up-linking.

Chapter Four

PERFORMANCE OF VALUE ADDED SERVICES

4.1 Public Mobile Radio Trunk Service (PMRTS): -

- The subscriber base of PMRTS increased from 30189 in Sept. 2006 to 30670 in December 2006 registering a growth rate of 1.59%.
- Delhi, Bangalore, Mumbai and Chennai together account for **72.05%** of market share of the total subscribers. Delhi leads the tally with the market share of 9114 subscribers followed by Bangalore, Mumbai and Chennai with the market share of 6075, 4121 and 2789 subscribers respectively.
- Arvind Mills Limited leads the tally of subscribers with a subscriber base of 9234 followed by Procall and Quick Calls India Pvt. Ltd. with a subscriber base of 8273 and 4224 respectively. Out of the 12 PMRTS operators only 5 have registered a positive growth rate namely M/s Aryadoot Transport Pvt. Ltd., Jet Aiu Skyline Transport, United Liner, Arvind Mills Ltd. and India Satcom. M/s India Satcom Ltd. has registered the highest growth rate of 15.13% in this quarter whereas M/s Arya Offshore Services, German Express Shipping Agency, Procall Ltd., Smartalk, Quick Call and Bhilwara Telenet Services have registered a negative growth rate in this quarter.

The subscriber base of service providers of PMRTS is given in Table 4.1.

4.2 VSAT services: -

- VSAT services are being provided by 8 VSAT Service Providers. Out of 8 only one namely, M/s Essel Shyam have not submitted their performance report in this quarter.
- In the present quarter, there was an addition of 3156 new subscribers. The total number of subscribers increased from 55070 in Sept 2006 to 58226 in December, 2006, registering a growth of 5.73% as against the growth rate of 4.42% in quarter ended September, 2006.
- M/s HCL Comnet remained the market leader with 19376 VSAT subscribers followed by Hughes Escorts Communications Ltd. (HECL) with 19077, Bharti Tele-ventures with 8518 and M/s Bharti Broadband Limited with 4803 VSAT subscribers respectively.
- DoT vide Letter no. 815-80-2007-DS dated 1.3.2007 have informed that the commercial CUG/VSAT license no.815-80/2001-LR dated 27.02.2003 has been transferred from M/s Tata Services Limited to Tatanet Services Limited.
- M/s Tatanet Services Limited added the maximum number of new connections, i.e. 801 with a percentage growth rate of 26.11%.
- M/s GNFC is having a negative growth rate of 9.09% in this quarter.

The number of subscribers of each service providers along with the Market Share in terms of Percentage of Subscribers as on 31st December 2006 is given in Table 4.2.

Chapter Five

QUALITY OF SERVICE (QOS) PERFORMANCE

5.1 Quality of Service performance of Basic Service Operators : -

Based on Quality of Service Parameters reported by all the Basic Service Operators for the quarter ending December 2006, the information on QoS performance is attached to this report as Annex 5.1.

The analysis of data indicates following trends : -

Sr. No.	Parameters	Benchmark	No. of operators not meeting the benchmarks			
			Sept, 2006		Dec, 2006	
			Out of 73 In Nos.	Out of 73 In %	Out of 79 In Nos.	Out of 79 In %
1	Provision of Telephones after registration of demand	100% within 7 Days	68	93.15%	68	86.08%
<p>Key Findings - Only Ten Licensees namely BSNL-(Chhattisgarh, TN, A& N, UP – W), Tata – (Bihar, TN, Punjab, Kerala, Kolkatta) and Bharti – (Gujarat) have met the benchmark, however M/s BSNL (Bihar) have not reported their performance for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 0.00% to 99.73%. The performance of the licensees namely BSNL – (Assam, West Bengal), Reliance (Bihar, Delhi, MP, Raj, HR, MH, KTK, Chennai, HP, Mumbai, Orissa, WB) and Tata (HR,) is poor and below 50.00% against the benchmark of 100%.The performance of Reliance (Bihar , HP) and TATA (HR) is extremely poor with achievement level 0.0%.</p>						
2	Fault incidences per 100 subs/month	<5	32	43.84%	30	37.97%
<p>Key Findings - 43 Licensees have met the benchmark for this parameter. M/s BSNL (Bihar), Reliance (HR, HP, OR, UP-W & WB) have not submitted their performance in this quarter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 5.10 to 11.72. The performance of the licensees namely MTNL (Delhi) is poor and above 10.00 against the benchmark of <5.00 faults incidences per 100 subs/month.</p>						
3	Fault repaired by next working day	>90%	19	26.03%	18	22.78%
<p>Key Findings - 54 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 51.13% to 89.00%.</p>						
4	MTTR	<8Hrs	30	41.10%	27	34.18%
<p>Key Findings - 39 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 8.10 hrs to 30.40 hrs. M/s Reliance (06 Circles), Tata (06 Circles) and BSNL (01 Circle) have not submitted their performance for this parameter in this quarter. The performance of the licensees namely BSNL (AP, Punjab, KTK, Assam, Jharkhand, NE-I & II, WB) and MTNL (Mumbai) is poor and above 12.00 hrs against the benchmark of <8.00 hrs.</p>						

Sr. No.	Parameters	Benchmark	No. of operators not meeting the benchmarks			
			Sept, 2006		Dec, 2006	
			Out of 73 In Nos.	Out of 73 In %	Out of 79 In Nos.	Out of 79 In %
5	Grade of Service (Junction between local exchange)	2/1000	20	27.40%	25	31.65%
<p>Key Findings – The Grade of Service is not being reported by BSNL stating that they have about 40,000 switches and measurement of GOS for each junction between exchanges would result in very huge data to be compiled. Some of the operators namely Tata – (Delhi, Gujarat, TN), Bharti – (AP, HR) and Reliance – (Delhi, Kolkatta, Mumbai, UP-E) have reported GOS as 0.00% which indicates that there is no congestion in their networks. Further it is noted that the operators where the GoS has been reported as 0.00% are having CCR below the benchmark. In view of the veracity of the data there is no concrete key finding.</p>						
6	Call Completion Rate (in local network)	>55%	19	26.03%	39	49.37%
<p>Key Findings –The 32 licensees have met the benchmark for this parameter. M/s BSNL (Bihar), Tata (Bihar, PB, HR, Kerala, Kolkatta), Shyam (RAJ) and Reliance (WB) have not provided their data for this parameter in this quarter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 24.78% to 54.66%. The performance of the licensees namely Reliance (AP – 37.69%, Bihar – 24.78%, TN – 33.33%, Raj – 37.92%, KTK – 36.60%,HP – 39.65%) and BSNL (A&N – 39.00%) is poor and below 40.00% against the benchmark of >55.00%.</p>						
7	Metering & billing credibility - % of bills	<0.1%	16	21.92%	14	17.72%
<p>Key Findings - 62 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 0.13% to 2.21%. The performance of the licensees namely Reliance (Orissa), Tata (Delhi, MH, Mumbai) and Bharti Airtel (MH, Kerala, Kolkatta, Mumbai, UP-E, UP - W) is poor and above 0.20% against the benchmark of <0.1%.</p>						
8	Customer Care Service (95% of requests)					
(i)	Shifts	<3 Days	37	50.68%	31	39.24%
<p>Key Findings - 46 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 0.00% to 94.57%. The performance of the licensees namely MTNL (Mumbai), and Bharti Airtel (AP, MP, Raj, KR, Kolkatta, UP-E) is poor and below 60.00% against the benchmark of 95.00% of the requests within 3 days. The performance of Bharti Airtel Raj – 8.82%, Kolkatta – 0.00%)is extremely poor.</p>						
Sr. No.	Parameters	Benchmark	No. of operators not meeting the benchmarks			
			Sept, 2006		Dec, 2006	
			Out of 73 In Nos.	Out of 73 In Nos.	Out of 79 In Nos.	Out of 79 In Nos.
(ii)	Closures	<24 hrs.	25	34.25%	21	26.58%
<p>Key Findings - 56 Licensees have met the benchmark for this parameter. M/s BSNL - Bihar and Orissa have not reported the data for this parameter in this quarter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 0.00% to 94.01%. The performance of the licensees namely MTNL (Mumbai), Tata (MH) and Bharti Airtel (AP, UP-W, KR) is poor and below 60.00% against the benchmark of 95% of the requests within 3 days. The performance of Bharti Airtel - AP & KR (0.00%) is extremely poor.</p>						

(iii)	Additional Facilities	<24 hrs.	24	32.88%	24	30.38%
	Key Findings - 53 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 54.00% to 94.00%. The performance of the licensees namely BSNL (AP, Kolkatta) and MTNL (Mumbai) is poor and below 60.00% against the benchmark of 95% of the requests within 3 days.					
9	Response time to the customer for assistance					
(i)	%age of calls answered (electronically)					
	Within 20 sec = 80%	80%	0	0.00%	1	1.27%
	within 40 sec = 95%	95%	01	1.37%	3	3.80%
	Only one operator namely, M/s BSNL (Uttranchal) have not achieved the benchmark for the parameter %age of calls answered (Electronically) within 20 sec and three operators Tata (Kolkatta)and BSNL (Uttranchal, West Bengal) have not achieved the TRAI's stipulated benchmark for the parameter of %age of calls answered (Electronically) within 40 sec .					
(ii)	%age of calls answered by operator (voice to voice)					
	Within 60 sec = 80%	80%	7	9.59%	8	10.13%
	within 90 sec = 95%	95%	16	21.92%	25	31.65%
	M/s BSNL (AP, BR, A&N, Assam, HP, Jharkhand, J&K, NE-I, Orissa, WB), Bharti Airtel (Delhi,) have not provided the data for this parameter.					
10.	Time taken for refund of deposits after closures	100% within 60 days	11	15.07%	14	17.72%
	Key Findings - BSNL (Bihar,J&K), Tata Teleservices (Punjab, TN, HR, Chennai, Mumbai) and Bharti Airtel (Raj, Kolkatta,) have not reported the data for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 3.86% to 98.00%. The performance of the licensees namely Bharti Airtel (AP, Delhi, MP, PB, HR, UP-E) is poor and below 60.00% against the benchmark of 100.00% of within 60 days.					

5.2 Quality of Service performance of Cellular Service Providers for quarter ending 31st December 2006: -

This report covers performance of 91 GSM Cellular operators and 42 CDMA service operators vis-à-vis the QoS benchmarks prescribed by TRAI. The summary of performance of service providers in meeting the benchmark in this quarter is given in the following table:

Sr. No.	Parameters	Bench-Marks	No. Of Operators Meeting The Benchmarks			
			Quarter Ending Sept, 2006		Quarter Ending Dec, 2006	
			Out Of 129 (Nos.)	Out Of 129 (%)	Out Of 133 (Nos.)	Out Of 133 (%)
1	Accumulated down time of Community isolation	<24 hrs	126	97.67%	133	100.00%
2	Call Set-Up Success Rate (Within Licensee's Own network)	>95%	129	100.00%	133	100.00%
3	Service access delay	<15 Sec	124	96.12%	131	98.50%
4	Blocked call rate (i) SDCCH/paging channel congestion	<1%	120	93.02%	125	93.98%
	(ii) TCH Congestion	<2%	117	90.70%	122	91.73%
5	Call drop rate	<3.0%	129	100.00%	133	100.00%
6	% of Connections with good voice quality	>95%	127	98.45%	131	98.50%
7	Response time to the customer for assistance %age of calls answered (electronically) within 20 seconds = 80%	80%	127	98.45%	133	100.00%
	%Age of calls answered (electronically) within 40 seconds = 95%	95%	126	97.67%	128	96.24%
	%Age of calls answered by operator (voice to voice); within 60 seconds = 80%	80%	93	72.09%	126	94.74%
	%Age of calls answered by operator (voice to voice); within 90 seconds = 95%	95%	74	57.36%	87	65.41%
8	Complaints per 100 bills issued	<0.1%	120	93.02%	119	89.47%
9	% Of complaints resolved with 4 weeks	100%	125	96.90%	132	99.25%
10	Period of all Refunds/Payment due to Customers from the date of resolution of complaints As In (9) above	<4 Weeks	128	99.22%	132	99.25%

5.2.2 Details of Quality of service:

Detail of performance related to Network Performance, Customer help line and billing complaints are available at Annex 5.2.

5.3 Quality of Service Performance of Internet Service Providers for quarter ending 31st December 2006: -

5.3.1 The annex 5.3 indicates the Quality of Service achieved by Top 20 ISPs during the quarter: It is observed that most of the ISPs were able to meet the benchmarks, barring one or two cases.

5.3.2 The observations on QOS Benchmarks are as follows:

5.3.2.1 Service Activation Time:

All the ISPs have met the benchmark of 6 hrs.

5.3.2.2 Time to Access:

All the ISPs have met the benchmark

5.3.2.3 Probability of Accessing the ISP Node:

ISPs are required to maintain the parameter of 80% access for the first attempt, 90% for the second attempt and 99% for the third attempt. All the ISPs are able to meet this benchmark.

5.3.2.4 ISP Node Unavailability:

ISP Nodes unavailability should not exceed 30 minutes in a month. Except Asianet Sattelite Communication Ltd. and WWW communications Ltd., other ISPs are able to achieve this benchmark. WWW Communications Ltd. has informed that the benchmark was not met due to breakage on the circuit.

5.3.2.5 Grade of Service:

ISPs are required to maintain the Grade of Service on the link connecting PSTN node to the ISP node as 1 in 100. Two ISPs (VSNL and YOU Telecom India Pvt. Ltd.) have informed that the information regarding the above mentioned benchmark can not be provided as the BSO has not given the information to them.

5.3.2.6 Mean Time to Restore (MTTR) :

As per clause 1.9 Schedule 'C' of ISP license, ISPs are required to rectify 90% of faults resulting due to subscriber complaints within 24 hours and 99% within three days.

All the ISPs have been rectifying the fault within stipulated period of three days.

Chapter Six

PERFORMANCE OF CABLE TV, DTH AND RADIO BROADCASTING SERVICES

6.1 This chapter contains:

- a) Range of number of channels Pay, FTA, Local regularly carried on network at the end of quarter ending 31st March', 2006 and quarter ending 31st December' 2006. Refer Table 6.1 (a) & 6.1(b).
- b) Details of new pay channels / FTA Channels converted into Pay Channels after 26.12.2003 are at Table 6.2. The table information on New Pay Channels and Free to Air (FTA) channels converted into Pay Channels after 26.12.2003 indicates that there are 36 new pay channels/ converted FTA Channels to pay that have been launched since 26.12.2003. This is based on information reported by broadcasters in terms of clause 4 of the TRAI's Tariff Order of 1.10.2004 on broadcasting and cable services
- c) Information on total Advertisement Revenue of FM Radio Stations is compiled in table 6.3.
- d) For detail of number of application received, letter of intent, number of Licence issued for community radio refer Table 6.4.
- e) Details of number of applications received, number of Licenses issued for DTH services refer Table 6.5.

6.2 Highlights

1.1 The figures of **Maximum and Minimum** are based on number of channels (analogue and /or digital) reported across different networks of different reporting service providers having different combinations of pay, FTA and Local channels. Therefore, the sum of number pay / FTA/Local channels column will not add to give figures in the total column.

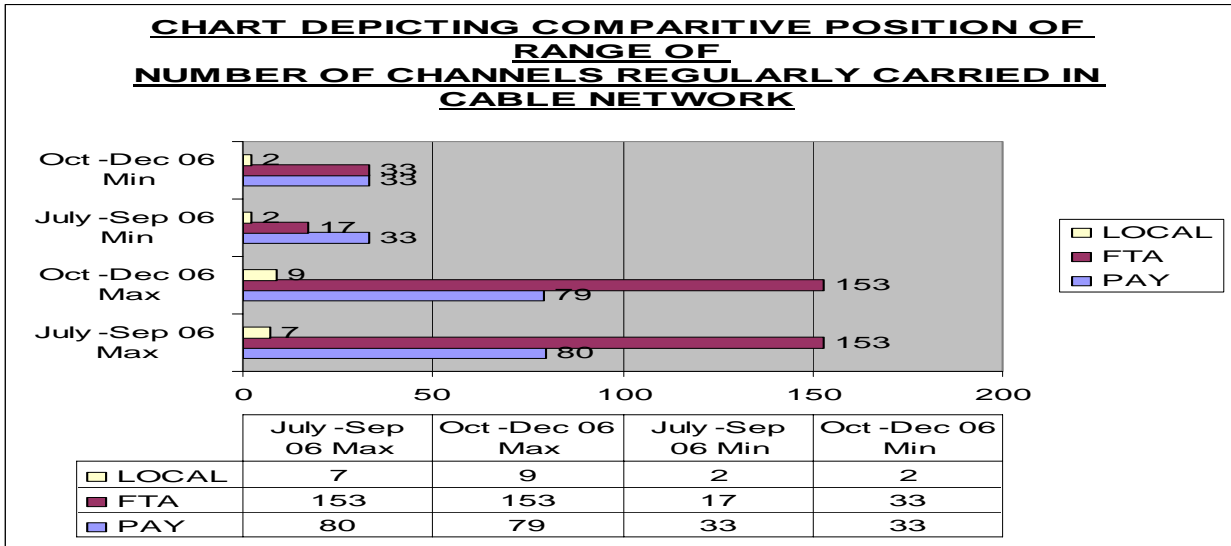
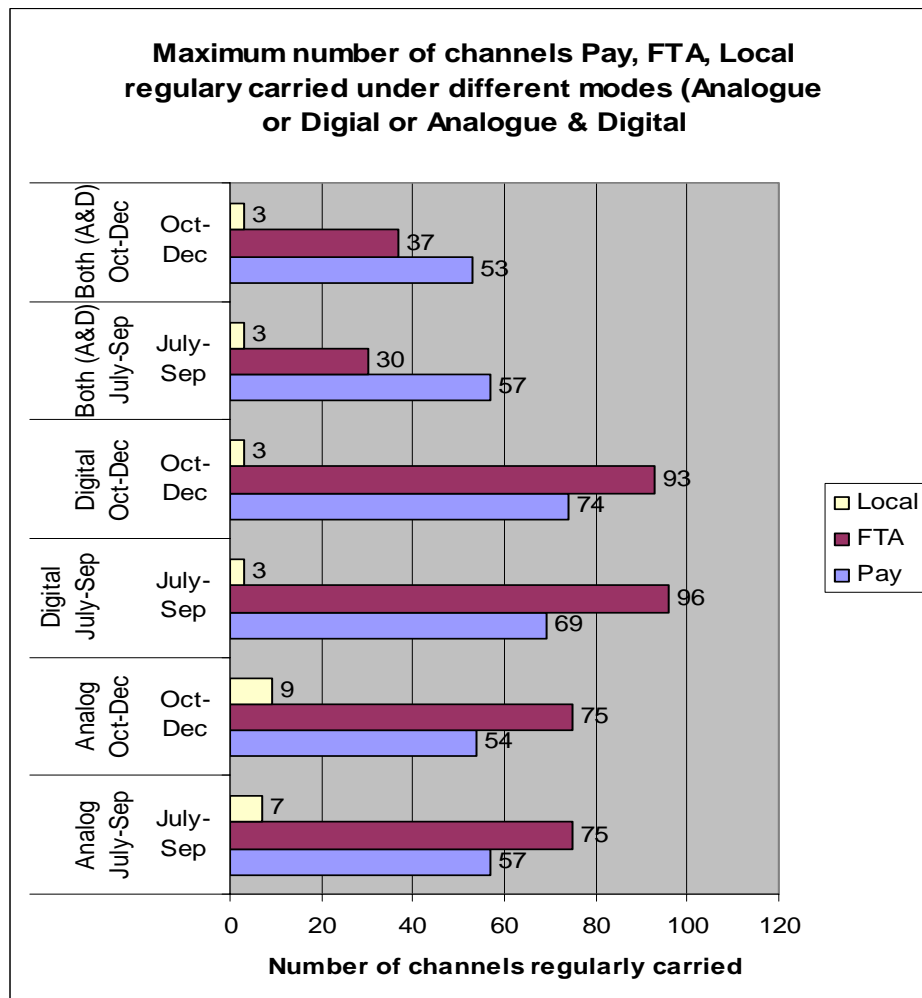


Chart No 1

1.2 The figures of **Maximum and Minimum** are based on number of channels (analogue and /or digital) reported across different networks of different reporting service providers having different combinations of pay, FTA and Local channels. Therefore, figures in various cells above across a particular row as a combination may not be indicative size of network etc.

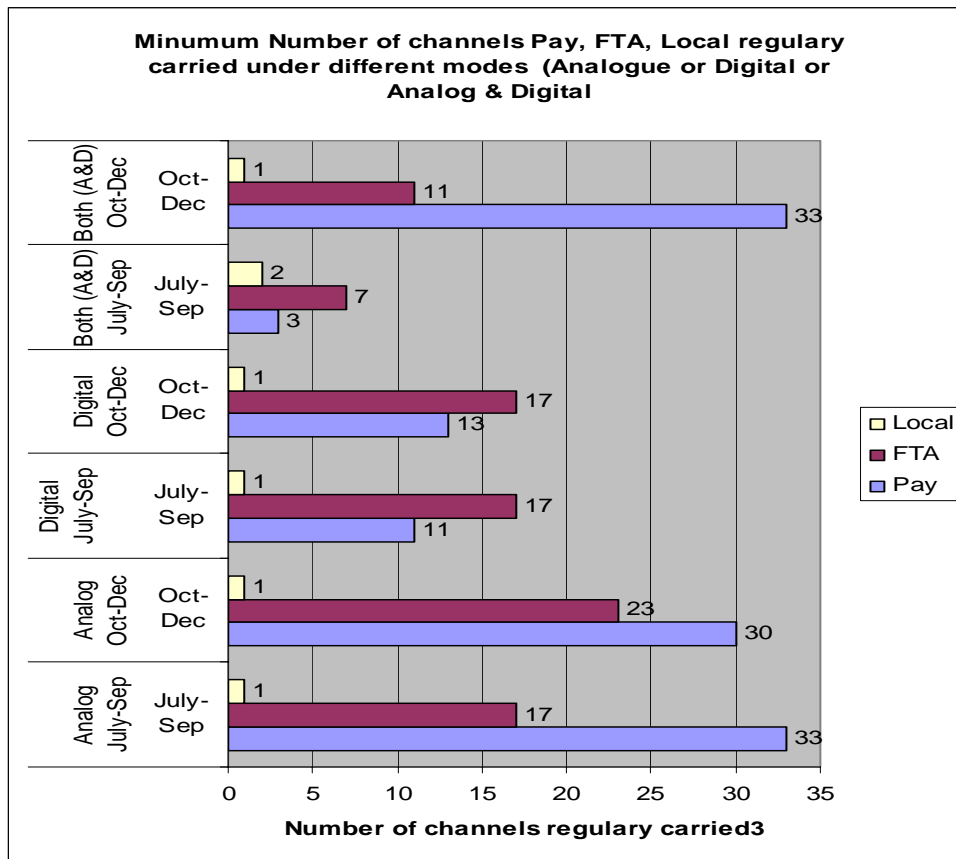
a)

**Chart No 2
(Maximum No of channels)**



b)

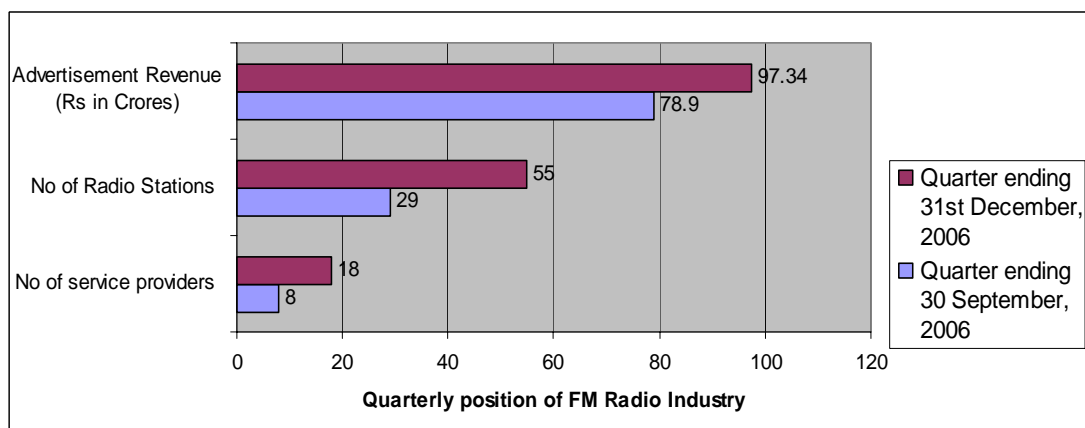
**Chart No 3
(Minimum Number of channels)**



1.3

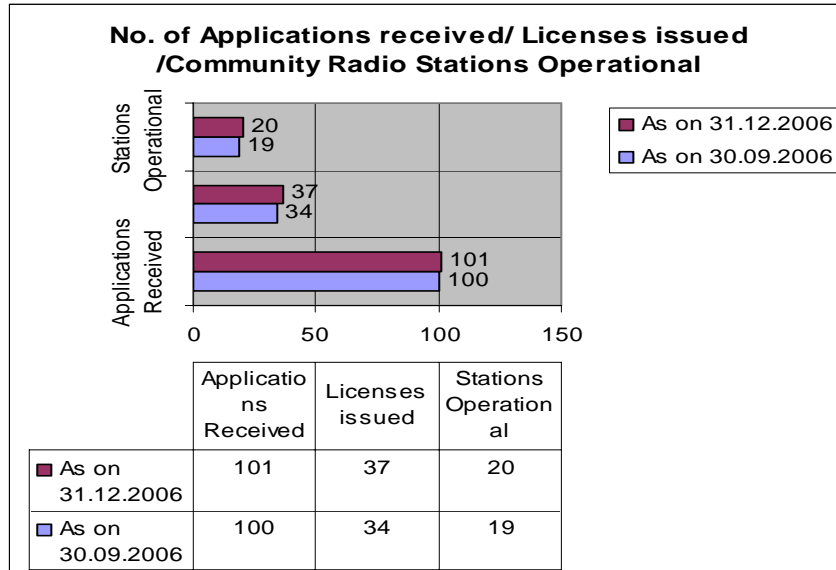
The total Advertisement Revenue in quarter ending September 2006 of 8 FM Radio Service Providers and December 2006 of 18 FM Radio Service Providers who have given their reports are given in the chart.

**Chart No 4
The Total Advertisement Revenue**



1.4 Details of number of applications received, number of Licenses issued for Community Radio Stations are given in the chart below:-

Chart No 5



1.5 Details of number of applications received, number of Licenses issued for DTH services are given in the chart below.

Chart 6

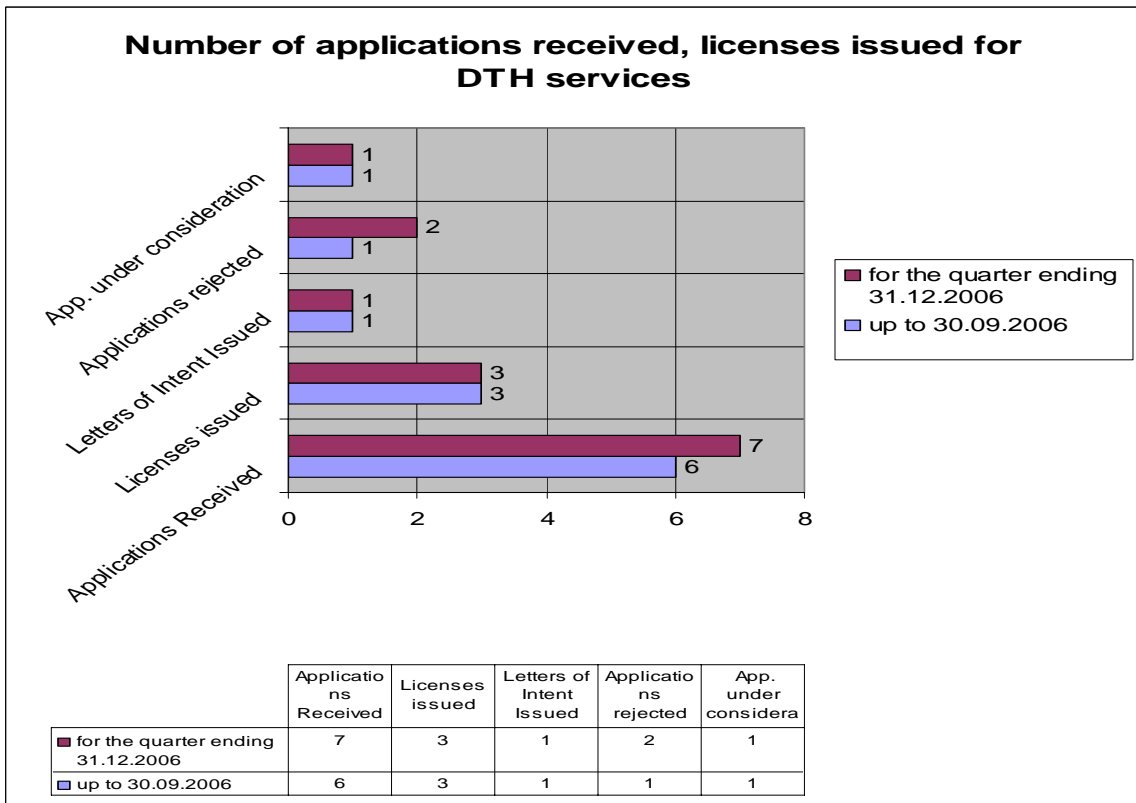


Table 1.1

Subscriber Base of Wireline Services

Operator-wise details of Wireline Subscriber Base					
Sr. No.	Wireline Service Operators	Area of Operation	31st December 2006		
			Wireline		
			Urban	Rural	Total
1	BSNL	All India except Delhi & Mumbai	21114441	12462656	33577097
2	MTNL	Delhi & Mumbai	3696078	0	3696078
3	Bharti Airtel Ltd	AP, MP, Delhi, Haryana, TN, Chennai, Karnataka, Kerala, Gujarat, Punjab, Maharashtra, Mumbai, UP(E), U.P(W) including Uttaranchal, West Bengal and Kolkata	1737799	0	1737799
4	Tata Teleservices (Maharashtra) Ltd	Maharashtra & Mumbai	266656	0	266656
5	Tata Teleservices Ltd	AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P.(E), U.P(W) including Uttaranchal, West Bengal and Kolkata	209774	0	209774
6	HFCL Infotel Ltd	Punjab	173352	0	173352
7	Shyam Telelink Ltd	Rajasthan	138721	12518	151239
8	Reliance Communications Ltd	AP, Bihar, Delhi, Gujarat, Haryana, HP, KN, Kerala, MP, MH, Mumbai, Orissa, Punjab, Rajasthan, TN Chennai, UP(E), UP(W), WB, Kolkata	489915	0	489915
Grand Total			27826736	12475174	40301910

Table 1.2**Details of Public Call Offices (PCO)**

S.No	Service Providers	Area of Operation	PCOs as on 31.12.06	PCOs added during the quarter ending 31.12.06
1	BSNL	All India Except Delhi & Mumbai	2092148	-10518
2	MTNL	Delhi & Mumbai	261918	-1543
3	Bharti Airtel Ltd.	AP, MP, Delhi, Haryana, TN , Chennai, Kerala, Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, UP(E), U.P(W) including Uttaranchal, West Bengal and Kolkata	226791	-6453
4	HFCL Infotel Ltd.	Punjab	44535	286
5	TATA Teleservices Ltd.	Maharashtra, Mumbai, AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P(E), U.P(W) including Uttaranchal, West Bengal and Kolkata	1179043	81239
6	Reliance Communications Ltd.	Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P(E), U.P(W) including Uttaranchal, West Bengal and Kolkata	1455974	120855
7	Shyam Telelink Ltd.	Rajasthan	41698	0
		TOTAL	5302107	183866

Table 1.3**Details of Village Public Telephones (VPT)**

S.No	Service Providers	Area of Operation	VPTs as on 31.12.06	Achievement during the Qtr. ending 31.12.06
1	BSNL	All India	547853	7091
2	MTNL	Delhi & Mumbai	0	0
3	Bharti Airtel Ltd.	MP, Delhi, Haryana, TN, Chennai, Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	0	0
4	HFCL Infotel Ltd.	Punjab	477	-45
5	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Mumbai	2542	0
6	TATA Teleservices Ltd.	AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	1358	0
7	Reliance Communications Ltd.	AP, Bihar, Delhi, Gujarat, Haryana, HP, KN, Kerala, MP, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, TN, Chennai, UP(E),UP(W),WB, Kolkata	4115	0
8	Shyam Telelink Ltd.	Rajasthan	3010	0
TOTAL			559355	7046

Table 2.1

Subscriber Base of Wireless Operators

Wireless Group (with no. of circles)	Subscribers as on Dec-06 (in Millions)	Market Share (in %age)	Technology Used
Bharti (23)	31.97	21.37	GSM & CDMA
Reliance (23)	29.98	20.04	GSM & CDMA
BSNL (21)	26.60	17.78	GSM & CDMA
Hutchison (16)	23.31	15.58	GSM
TTSL (20)	14.45	9.66	CDMA
IDEA (11)	12.44	8.31	GSM
Aircel (9)	4.51	3.01	GSM
MTNL (2)	2.60	1.74	GSM & CDMA
Spice (2)	2.45	1.64	GSM
BPL (1)	1.06	0.71	GSM
HFCL (1)	0.15	0.10	CDMA
Shyam Telelink (1)	0.09	0.06	CDMA
Total Subscribers	149.62	100.00	

Market Share of Wireless Operators as on 31.12.06

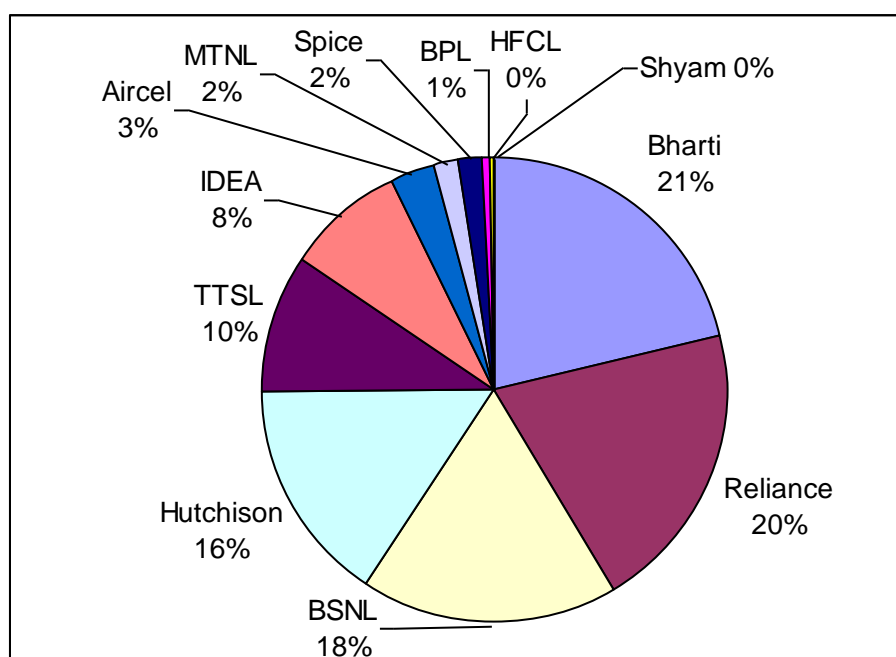


Table 2.2**Market Share of Wireless (GSM + CDMA) Operators**

a) The market share of different GSM Service Providers is given below:

Cellular Groups and their market share		
GSM Group	No of Subscribers (in Millions)	Market Share (in %age)
Bharti	31.97	30.32
BSNL	23.62	22.40
Hutchison	23.31	22.11
Idea	12.42	11.78
Aircel	4.49	4.26
MTNL	2.42	2.30
Spice	2.45	2.32
Reliance	3.64	3.45
BPL	1.06	1.01
Total	105.43	

b) The market share of different CDMA Service Providers is given below:

Company Name (No of Circles)	No of Subscribers (in Millions)	Market Share (in %age)
Reliance Infocomm (21)	26.34	59.61
Tata Teleservices (20)	14.45	32.70
BSNL (21)	2.98	6.74
MTNL (2)	0.18	0.41
HFCL (1)	0.15	0.34
Shyam Telelink (1)	0.09	0.20
Total	44.19	

Table 2.3**Growth Pattern of Wireless Subscribers Base**Wireless Subscriber Base :

The market share distribution among Metros & Circles A to C is given below:

Circle	No. of Subscribers	Market Share
Metros	30.20 million	20.18%
Circles 'A'	53.50 million	35.76%
Circles 'B'	52.45 million	35.06%
Circles 'C'	13.48 million	9.01%

The details of subscriber base in various categories of service areas for the last four quarters are given below:

Category	No. of Service Areas	March' 06	June'06	Sept.'06	Dec.'06	% Growth in Dec.'06
		Figures (in millions)				
Metros	4	22.43	25.76	27.85	30.20	8.41
A' Circle	5	32.33	39.65	46.25	53.50	15.68
B' Circle	8	30.87	37.20	44.25	52.45	18.52
C' Circle	6	7.41	9.52	11.18	13.48	18.39

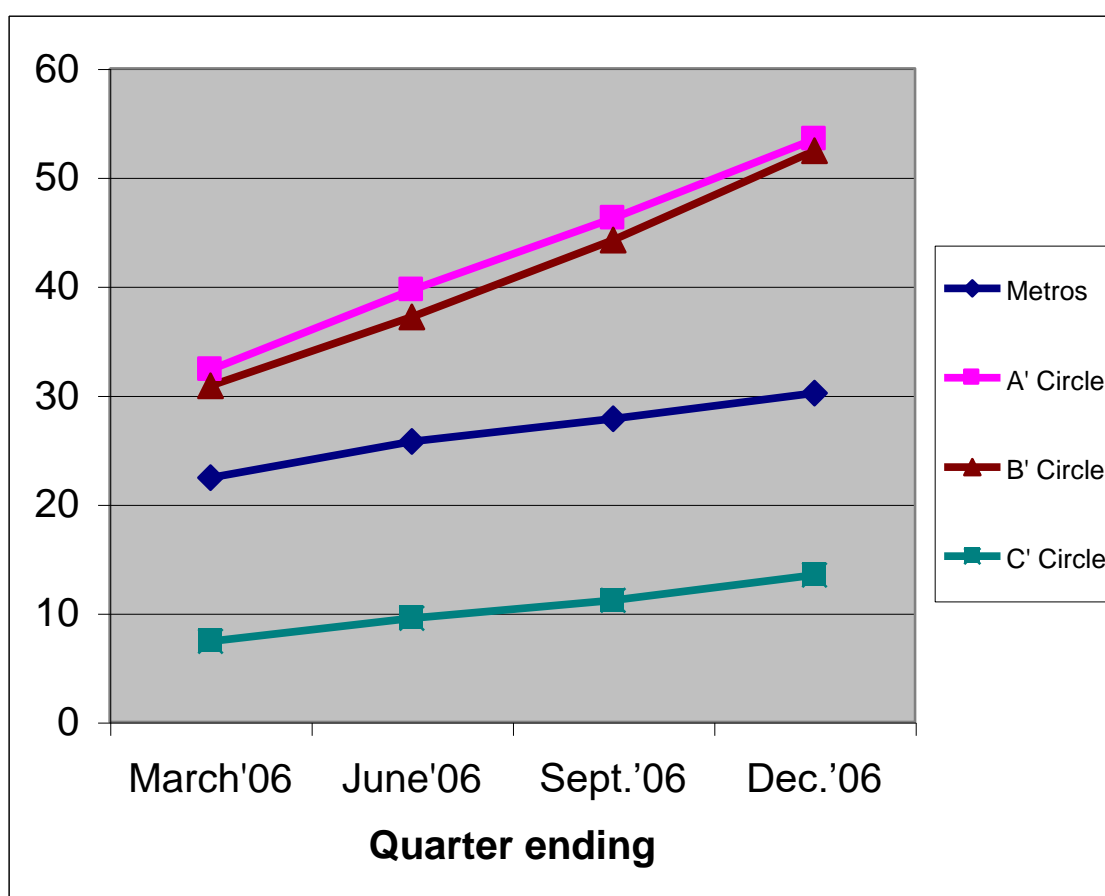
Growth trend of wireless subscribers

Table 3.1**Subscribers Base of Internet Services**

S.No.	Name of the Service Provider	Category	Geographical area of operation	Sep-06	Dec-06	% Growth
1	Bharat Sanchar Nigam Ltd.	A	All India	3549809	3811852	7.38
2	Mahanagar Telephone Nigam Ltd.	B	Delhi & Mumbai	1536256	1658000	7.92
3	Sify Ltd.	A	All India	868222	805940	-7.17
4	Bharti Airtel Ltd. (Bharti Televentures Ltd.)	A	All India	523841	597665	14.09
5	Reliance Communications Infrastructure Limited	A	All India	440486	540068	22.61
6	Videsh Sanchar Nigam Ltd.	A	All India	451388	457481	1.35
7	YOU Telecom India Pvt. Ltd.	A	All India	128293	134620	4.93
8	Hathway Cable & Datacom Pvt. Ltd.	A	All India	95102	108369	13.95
9	Data Infosys Ltd.	A	All India	103919	102910	-0.97
10	HCL Infinet Ltd.	A	All India	42071	41976	-0.23
11	Asianet Satellite Communications Ltd.	B	Kerala	35221	38765	10.06
12	HFCL Infotel Ltd.	B	Punjab Telecom Circle	31098	30700	-1.28
13	Icenet.net Limited	B	Gujarat	32770	27381	-16.44
14	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	A	All India	25703	26338	2.47
15	Shyam Internet Services Ltd	B	Rajasthan	24713	25409	2.82
16	Fascel Ltd.	B	Gujarat	18001	18001	0.00
17	Hughes Communications India Ltd.	A	All India	15732	16937	7.66
18	WWW Communications Ltd.	B	Delhi	14839	15408	3.83
19	Spectra Net Ltd.	A	All India	11989	14763	23.14
20	Broadband Pacenet (I) Pvt. Ltd.	B	Mumbai	11230	13445	19.72
21	Ortel Communications Ltd.	B	Orissa	12059	12059	0.00
22	DIL Internet Ltd. (Primus Telecommunications)	A	All India	9677	9881	2.11
23	West Bengal Electronics Industry Development Corp. Ltd.	B	Kolkata, West Bengal	6568	6576	0.12
24	Alliance Broadband Services Pvt. Ltd.	B	Kolkata	4996	6128	22.66
25	In2cable (I) Ltd.	A	All India	5275	5435	3.03
26	Trikon Electronics Pvt. Ltd.	B	Mumbai	4857	5119	5.39
27	Trak Online Net India Pvt.Ltd	A	All India	4779	4631	-3.10
28	Pioneer Online Pvt. Ltd.	B	Andhra Pradesh	894	4104	359.06
29	Rajesh Multinet Channel Pvt. Ltd.	B	Mumbai	3071	3591	16.93
30	Blazenet Ltd.	B	Gujarat	3949	3249	-17.73
31	Swiftmail Communications Ltd.	A	All India	3489	3211	-7.97
32	HCL Comnet Systems & Services Ltd.	A	All India	0	2647	
33	Digital2Virtual ISP Pvt. Ltd.	B	Gujarat	2724	2425	-10.98
34	Nextgen Communications Ltd	A	All India	2175	2175	0.00
35	Geo City Network Solutions Pvt. Ltd.	B	Delhi	2239	2130	-4.87
36	Value Healthcare Ltd.	B	Mumbai	3260	1733	-46.84
37	Hathway Bhawani Cabletel & Datacom Pvt. Ltd.	B	Mumbai	2226	1674	-24.80
38	City Online Services Ltd.	B	Andhra Pradesh & Karnataka	2027	1515	-25.26

39	Sab Industires Ltd. (Sab Infotech)	B,C	Punjab, Karnal, Dharmashalla, Ambala	1756	1207	-31.26
40	Bhupati Hotels Pvt. Ltd.	C	Visakhapatnam	1798	1084	-39.71
41	Rolta India Ltd.	B	Mumbai	2623	1070	-59.21
42	n-Louge Communications Pvt. Ltd.	A	Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, MP, Rajasthan, Gujarat	114	1061	830.70
43	ERNET India	A	All India	931	927	-0.43
44	Broadlane Networks Pvt. Ltd.	C	Dombivli, Maharashtra	2020	841	-58.37
45	Southern Online Bio Technologies Ltd.	B	Andhra Pradesh	2377	739	-68.91
46	iPath India Pvt. Ltd.	C	Ernakulam SSA	809	736	-9.02
47	Speed Online.net Pvt. Ltd.	C	SSA Rajkot	1160	715	-38.36
48	Dishnet Wireless Ltd.	A	All India	733	696	-5.05
49	Siti Cable Network Ltd.	A	All India		690	
50	Tulip IT Services Ltd.	A	All India	137	676	393.43
51	CJM Consultancy Services Pvt. Ltd.	B	Delhi	689	660	-4.21
52	Space Online Ltd.	B	Gujarat	441	647	46.71
53	S.S. Netcom Pvt. Ltd.	B	North East Circle	8130	572	-92.96
54	Bohra Pratisthan Pvt. Ltd.	C	Udaipur SSA		533	
55	Rida Communication Pvt. Ltd.	C	Aligarh SSA	544	383	-29.60
56	Spectrum Softech Solutions Pvt. Ltd.	C	Ernakulam SSA	346	348	0.58
57	NetMagic Solutions (P) Ltd.	B	Mumbai	300	338	12.67
58	i2i Enterprise Ltd.	A	All India	370	301	-18.65
59	Mylai Karpagambal Information Systems (P) Ltd.	B	Chennai	659	281	-57.36
60	Primenet Global Ltd.	A	All India	386	273	-29.27
61	Atria Convergence Technologies Pvt. Ltd.	B	Karnataka		252	
62	Tata Internet Services Ltd.	A	All India	263	252	-4.18
63	Vainavi Industries Ltd. (MAC Info Pvt. Ltd.)	B	Andhra Pradesh	500	236	-52.80
64	Descon Ltd.	B&C	West Bengal	1507	197	-86.93
65	Bhaskar Multinet Ltd.	C	Jaipur	435	185	-57.47
66	Karuturi Networks Ltd.	B	Karnataka	361	181	-49.86
67	Verizon Communications India Pvt. Ltd.	A	All India		176	
68	CJ Online Pvt. Ltd.	C	Ghaziabad	309	148	-52.10
69	Mynet Services India Pvt. Ltd.	C	Tamil Nadu SSA	227	134	-40.97
70	Gateway Systems (I) Ltd.	A	All India	163	127	-22.09
71	Reach Network India Pvt. Ltd.	A	All India	116	122	5.17
72	Online Media Solutions Ltd.	B	AP	360	100	-72.22
73	Estel Communications Pvt. Ltd.	A	All India	92	91	-1.09
74	Planet Internet Satellite (VVN) Pvt. Ltd.	C	Nadiad Telecom Dist	109	79	-27.52
75	Bharti Broadband Ltd.	A	All India		62	
76	Swastik Netvision Telecom P. Ltd	B	Gujarat	37	53	43.24
77	Nettlinx Ltd.	B	Andhra Pradesh	48	39	-18.75
78	PBC Ventures Ltd.	B	Delhi		34	
79	Conjoinix Technologies Pvt Ltd	C		24	30	25.00
80	L&T Finance Ltd. (L&T Netcom Ltd.)	A	All India	58	25	-56.90
81	Direct Internet Ltd.	B&C	Delhi, Gurgaon, Noida	44	24	-45.45
82	Centre for Development of Advanced Computing	C	SSA Ghaziabad	24	20	-16.67
83	Opto Network Pvt. Ltd.	C	SSA Ghaziabad	26	18	-30.77
84	Virtela India Pvt. Ltd.	B	Mumbai, Bangalore, Gurgaon	22	16	-27.27

85	GTL Ltd.	A	All India	9	8	-11.11
86	Nelco Ltd.	A	All India		8	
87	Cyquator Technologies Ltd.	B	Mumbai, Navi Mumbai	6	7	16.67
88	Godrej Infotech Ltd.	B	Mumbai	5	7	40.00
89	Gujrat Narmada Valley Fertilizer Co. Ltd. (GNFC)	A	All India	12	5	-58.33
90	Surana Telecom Ltd.	B	Andhra Pradesh	3	3	0.00
91	Compucom (I) Pvt. Ltd.	C	Jaipur	2	2	0.00
92	Apna Telelink Ltd.	C	Jalandhar	0	0	
93	Astro Network India Pvt. Ltd.		Hyderabad	16	0	-100.00
94	Bhiwani Communications Pvt. Ltd.	C	Rohtak		0	
95	VSNL Broadband Ltd.	A	Mumbai & Pune	0	0	
	Total			8096093	8581730	6.00

Table 4.1**Subscriber Base of Public Mobile Radio Trunking Services (PMRTS)**

Summary of reports received from PMRTS Operators			
Sl. No.	Name of the Service Provider	Subscriber Base as on 30-09-06	Subscriber Base as on 31-12-06
1	Aryadoot Transport Pvt Ltd.	1387	1508
2	Jet-Air Skyline Transport Pvt Ltd.	393	414
3	Container Movement (Bombay) Transport Pvt Ltd.	5	5
4	Arya Offshore Services Pvt Ltd.	1303	1244
5	German Express Shipping Agency (India) Pvt Ltd. (Hapag Llyod)	1055	916
6	United Liner Agencies of India (Pvt) Ltd	1868	1920
7	Procall Ltd.	8341	8273
8	The Arvind Mills Ltd.	8408	9234
9	Smartalk Pvt Ltd.	1568	1518
10	QuickCalls India Pvt. Ltd.	4476	4224
11	Bhilwara Telenet Services Pvt Ltd.	1147	1140
12	India Satcom Ltd.	238	274
	Total	30189	30670

Table 4.2**Subscriber Base of VSAT Service Providers****Subscriber Base, Growth Rate & Market Share of VSAT Service Providers**

Sr. No.	Name of Service Provider	Quarter ending		%age growth rate	%age Market Share
		Sept, 2006	Dec, 2006		
1	HCL Comnet	18631	19376	4.00	33.28
2	Hughes Communications Ltd.	18022	19077	5.85	32.76
3	Bharti Tele-venture Limited	7966	8518	6.93	14.63
4	Bharti Broadband	4798	4803	0.10	8.25
5	Essel Shyam *	2514	2514	0.00	4.32
6	Tatanet Services (Tata Services)	3068	3869	26.11	6.65
7	ITI	49	49	0.00	0.08
8	GNFC	22	20	-9.09	0.03
	Total	55070	58226	5.73	100.00

**Service Provider not reported their data in this quarter; the figure of last quarter has been retained*

Table 6.1(a)

Range (Minimum and Maximum) of number of channels Pay, FTA, Local regularly carried on network as at the end of quarter ending 31st March', 2006 and quarter ending 31st December' 2006

Range	Pay channels		FTA channels		Local Channels		Total	
	July - Sep' 06	Oct - Dec'06	July - Sep' 06	Oct - Dec'06	July - Sep' 06	Oct - Dec'06	July - Sep' 06	Oct - Dec'06
Maximum	80	79	153	153	7	9	241	241
Minimum	33	33	17	33	2	2	74	86
No of Agencies / Service Providers Reporting							7	7
The digital service on the basis of reporting MSOs are offered in the cities of Delhi, Mumbai, Pune, Bangalore, Chennai and Kolkata								
Note: The figures of maximum and minimum are based on no of channels (analogue and /or digital) reported across different networks of different reporting service providers having different combinations of pay, FTA and Local channels. Therefore, the sum of number pay / FTA/Local channels column will not add to give figures in the total column.								

Table 6.1 (b)

Minimum and Maximum of number of channels Pay, FTA, Local regularly carried under different modes (Analogue or Digital or Simulcast) during quarter ending 31st December 2006

As Reported for the Quarter Ending December 2006							
Mode	Range	Pay Channels		FTA Channels		Local Channels	
		July-Sep' 06	Oct-Dec' 06	July-Sep' 06	Oct-Dec' 06	July-Sep' 06	Oct-Dec' 06
Analogue	Max	57	54	75	75	7	9
	Min	33	30	17	23	1	1
Digital	Max	69	74	96	93	3	3
	Min	11	13	17	17	1	1
Analogue cum Digital (simulcast)	Max	57	53	30	37	3	3
	Min	3	33	7	11	2	1
<p>Note: The figures of maximum and minimum are based on no of channels (analogue and /or digital) reported across different networks of different reporting service providers having different combinations of pay, FTA and Local channels. Therefore, figures in various cells above across a particular row as a combination may not give indicating of size of network etc.</p>							

Table 6.2**Information on New Pay Channels and Free to Air (FTA) channels converted into Pay Channels after 26.12.2003**

S.No	Name of the Channel	Name of Broadcaster /Distributor	Whether New Pay Channel or FTA Channel turned Pay
1	ZOOM	Bennett, Coleman & Co	New Pay Channel
2	Hangama TV	Star India P Ltd	New Pay channel
3	Animax India	Set Discovery P Ltd	New Pay channel
4	Discovery – Travel & Living	Set Discovery P Ltd	New Pay channel
5	Star One	Star India P Ltd	New Pay channel
6	VH 1	Zee Turner Ltd	New Pay channel
7	Pogo \$	Zee Turner Ltd	New Pay channel
8	ESPN Plus	ESPN Software India Private Limited	New Pay channel
9	Toon Disney	Star India P Ltd	New Pay channel
10	Disney Channel	Star India P Ltd	New Pay channel
11	Zee Action (Action Cinema)	Zee Turner Ltd	New Pay channel
12	Zee Premier (Premier Cinema)	Zee Turner Ltd	New Pay channel
13	Zee Classic (Classic Cinema)	Zee Turner Ltd	New Pay channel
14	Zee Select (MX)	Zee Turner Ltd	New Pay channel
15	Awaaz	Zee Turner Ltd	New Pay channel
16	Zee Business News	Zee Turner Ltd	New Pay channel
17	Channel [V] International	Star India P Ltd	New Pay channel
18	UDAYA TV	Sun Network	FTA to Pay
19	Ushe TV	Sun Network	FTA to Pay
20	Udaya News	Sun Network	FTA to Pay
21	MTV	Set Discovery P Ltd	FTA to Pay
22	NDTV Profit	Set Discovery P Ltd	New Pay Channel
23	NDTV 24X7	Set Discovery P Ltd	FTA to Pay
24	ZEE SPORTS	ZEE Turner Ltd	New pay Channel
25	SAB TV	Set Discovery P Ltd	FTA to Pay
26	Adithya Music \$	M/s Channel Plus	New Pay Channel
27	Teja News \$	M/s Channel Plus	New Pay Channel
28	ETV \$	Ms Ushodaya Enterprises Limited	FTA to Pay
29	ETV 2 \$	Ms Ushodaya Enterprises Limited	FTA to Pay
30	Times Now \$	M/s Times Global Broadcasting Company Ltd	New pay channel
31	DAN Cinema	M/s Dan Television Private Limited	FTA to Pay
32	DAN Music	M/s Dan Television Private Limited	FTA to Pay
33	DAN Tamil OZHI	M/s Dan Television Private Limited	FTA to Pay
34	EURO News	M/s Dan Television Private Limited	FTA to Pay
35	TRACE TV	M/s Dan Television Private Limited	FTA to Pay
36	SET PIX	M/s Set Discovery Private Limited	Pay Channel
37	BBC World	M/s BBC Worldwide India Private Limited	FTA to Pay
38	Zee Kanada	M/s Zee Turner Limited	FTA to Pay Channel
39	Zee Telegue	M/s Zee Turner Limited	FTA to Pay Channel
40	Play TV	M/s Zee Turner Limited	FTA to Pay Channel

41	ETC Punjabi	M/s Zee Turner Limited	FTA to Pay Channel
42	ETC	M/s Zee Turner Limited	FTA to Pay Channel
43	Zee Music	M/s Zee Turner Limited	FTA to Pay Channel
44	Zee Jagran	M/s Zee Turner Limited	FTA to Pay Channel
45	Zee Smile	M/s Zee Turner Limited	FTA to Pay Channel
46	24 Ghante	M/s Zee Turner Limited	FTA to Pay Channel
47	Sahara One	M/s Sahara India TV Network	FTA to Pay Channel
48	Filmy	M/s Sahara India TV Network	FTA to Pay Channel
50	CNN IBN	M/s Global Broadcast News Limited	FTA to Pay Channel
49	NEO Sports	M/s Nimbus Sports Broadcast Private Limited	New Pay Channel
51	NEO Sports Plus	M/s Nimbus Sports Broadcast Private Limited	New Pay Channel
52	SUN TV	M/s Sun TV Limited	FTA to Pay Channel
53	Udaya Movies	M/s Udaya TV Private Limited	FTA to Pay Channel
54	Udaya Vathegalu	M/s Udaya TV Private Limited	FTA to Pay Channel
55	Gemini Music	M/s Gemini TV Private Limited	FTA to Pay Channel
56	Gemini News	M/s Gemini TV Private Limited	FTA to Pay Channel
57	Gemini Cable Vision	M/s Gemini TV Private Limited	FTA to Pay Channel
58	ETV-Kanada	M/s Ushodaya Enterprises Ltd	FTA to Pay Channel
59	ETV-Oriya	M/s Ushodaya Enterprises Ltd	FTA to Pay Channel
60	ETV-Bangla	M/s Ushodaya Enterprises Ltd	FTA to Pay Channel

- Note:-
1. The distribution of Nick, Ten Sports and HBO changed hands and were pay channels as on 26.12.03.
 2. In respect of S.No's 11-14, the names in brackets are the new names
 3. \$ Not as Pay channels in Chennai

Total Advertisement Revenue

	Quarter ending 30 September, 2006	Quarter ending 31st December, 2006
No of service providers Reported	8	18
No of Radio Stations Reported for	29	55
Revenue from Advertisements / Air Time Sale (Rs Crores)	78.9	97.34

Source: FM Radio Service Providers

**No. of Applications / Letters of Intent / Licenses Issued in respect
of Community Radio**

	Up to 30.09.2006	up to 31.12.2006
Total No. of Applications Received	100	101
No of Licenses issued	34	37
No of Stations Operational	19	20

Source: Ministry of Information & Broadcasting

Table 6.5**Number of Applications received / Letters of Intent issued / Licenses Issued in respect of DTH Service Provider**

	Up to 30.09.2006	Up to 31.12.2006
Total No. of Applications Received	6	7
No of Licenses issued	3	3
No of Letters of Intent Issued	1	1
No of Applications rejected	1	2
No of Applications under consideration	1	1

Source: Ministry of Information & Broadcasting

Details of Wireline Service Licenses issued to private operators

Service Provider	Service Area	DoT. Letter. Reference No.	License No.	Date
Bharti	M P		17-12/95-BS-II	28.02.1997
HFCL	Punjab	10-10-2003-BS-II / Vol-II	17-15/95-BSII/Punjab	07.11.1997
Tata	Maharashtra including Mumbai	10-10-2003-BS-II	17-11/95-BS-II	30.09.1997
Shyam	Rajasthan	10-10-2003-BS-II / Vol-II	17-16/95-BS-II/Rajasthan	04.03.1998
Tata	A P	10-10-2003-BS-II	17-1/95-BS-II/Andra Pradesh	04.11.1997
Tata	TN	10-10-2003-BS-II	18-61/2001-BS-II	31.08.2001
Tata	Karnataka	10-10-2003-BS-II	18-59/2001-BS-II	31.08.2001
Tata	Delhi	10-10-2003-BS-II	18-57/2001-BS-II/Delhi	31.08.2001
Tata	Gujarat	10-10-2003-BS-II	18-58/2001-BS-II	31.08.2001
Reliance	Bihar	10-10-2003-BS-II / Vol-II	18-113/2001-BS-II	20.07.2001
Reliance	Delhi	10-10-2003-BS-II / Vol-II	18-32/2001-BS-II	20.07.2001
Reliance	Gujarat	10-10-2003-BS-II / Vol-II	17-6/95-BS-II	18.03.1997
Reliance	Haryana	10-10-2003-BS-II / Vol-II	18-30/2001-BS-II	20.07.2001
Reliance	HP	10-10-2003-BS-II / Vol-II	18-116/2001-BS-II	20.07.2001
Reliance	Karnataka	10-10-2003-BS-II / Vol-II	18-35/2001-BS-II	20.07.2001
Reliance	Kerala	10-10-2003-BS-II / Vol-II	18-38/2001-BS-II	20.07.2001
Reliance	MP	10-10-2003-BS-II / Vol-II	18-32/2001-BS-II	20.07.2001
Reliance	Maharashtra	10-10-2003-BS-II / Vol-II	18-36/2001-BS-II	20.07.2001
Reliance	Orissa	10-10-2003-BS-II / Vol-II	18-112/2001-BS-II	20.07.2001
Reliance	Punjab	10-10-2003-BS-II / Vol-II	18-31/2001-BS-II	20.07.2001
Reliance	Rajasthan	10-10-2003-BS-II / Vol-II	18-115/2001-BS-II	20.07.2001
Reliance	Tamil Nadu	10-10-2003-BS-II / Vol-II	18-29/2001-BS-II	20.07.2001
Reliance	UP(East)	10-10-2003-BS-II / Vol-II	18-34/2001-BS-II	20.07.2001
Reliance	UP(West)	10-10-2003-BS-II / Vol-II	18-39/2001-BS-II	20.07.2001

List of Cellular, Wireline & Unified Access Service Providers

Circle	Operators		
	Wireless		Wireline
	Cellular	Unified	
Delhi	Hutch	Reliance Infocomm	MTNL
	MTNL	Tata Teleservices	
	Idea Cellular	Bharti Airtel Ltd	
		Aircell Ltd.	
Mumbai	BPL	Reliance Infocomm	MTNL
	Hutch	Tata Teleservices	
	MTNL	Bharti Airtel Ltd	
		Aircell Ltd.	
		Idea Cellular	
Chennai	Aircel	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Hutchison South	Bharti Airtel Ltd	
Kolkata	Hutchison East	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Reliable Internet Services Ltd.	Bharti Airtel Ltd	
		Dishnet Wireless Ltd.	
Maharashtra	BPL (Hutch)	Reliance Infocomm	BSNL
	Idea Cellular	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	
		Aircell Ltd.	
Gujarat	Fascel (Hutch)	Reliance Infocomm	BSNL
	Idea Cellular	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	
		Aircell Ltd.	
Andhra Pradesh	Idea Cellular	Reliance Infocomm	BSNL
	Hutchison South	Tata Teleservices	
	BSNL	Bharti Airtel Ltd.	
		Aircell Ltd.	
Karnataka	BSNL	Spice Communications	
	Hutch South	Reliance Infocomm	BSNL
		Tata Teleservices	
		Bharti Airtel Ltd.	
		Aircell Ltd.	
Tamilnadu	BPL	Reliance Infocomm	BSNL
	Aircel	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	
Kerala	Idea Communications	Reliance Infocomm	BSNL
	BPL (Hutch)	Tata Teleservices	

	BSNL	Bharti Airtel Ltd	
		Dishnet Wireless Ltd.	
Punjab	BSNL	Reliance Infocomm	BSNL
	Hutchinson South	HFCL Infocom	
		Tata Teleservices	
		Bharti Airtel Ltd.	
		Spice Communications	
		Dishnet Wireless Ltd.	
Haryana	Idea Communications	Reliance Infocomm	BSNL
	ADIL (Hutch)	Tata Teleservices	
	BSNL	Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
Uttar Pradesh(W)	Idea Communications	Reliance Infocomm	BSNL
	BSNL	Huchinson Essar South Ltd.	
		Tata Teleservices	
		Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
Uttar Pradesh(E)	ADIL (Hutch)	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	IDEA Telecommunications	Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
Rajasthan	ADIL (Hutch)	Reliance Infocomm	BSNL
	Bharti Hexacom Ltd.	Tata Teleservices	
	BSNL	Shyam Telelink	
	IDEA Telecommunications		
Madhya Pradesh	Idea	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Reliance Telecom	Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
WB&A&N	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
		Bharti Airtel Ltd.	
		Huchinson Essar South Ltd.	
		Dishnet Wireless Ltd.	
Himachal Pradesh	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
	IDEA Telecommunications	Dishnet Wireless Ltd.	
		Bharti Airtel Ltd.	
		Essar Spacetel Pvt. Ltd.	
Bihar	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	

		Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
		Essar Spacotel Pvt. Ltd.	
		Aditya Birla Telecom Ltd.	
Orissa	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
		Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
		Essar Spacotel Pvt. Ltd.	
Assam	BSNL	Dishnet Wireless Ltd.	BSNL
	Reliance Telecom	Bharti Airtel Ltd.	
		Essar Spacotel Pvt. Ltd.	
North East	Reliance Telecom	Dishnet Wireless Ltd.	BSNL
	BSNL	Essar Spacotel Pvt. Ltd.	
	Bharti Hexacom Ltd.		
Jammu & Kashmir	BSNL	Dishnet Wireless Ltd.	BSNL
		Bharti Airtel Ltd.	
		Reliance Infocomm	
		Essar Spacotel Pvt. Ltd.	

Usage Pattern for GSM

Table a: MOU & SMS (per subscriber per month)

Circle	Postpaid				Prepaid			
	O/G MOU	I/C MOU	Total MOU	O/G SMS	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	528	586	1114	62	156	201	358	63
Circle B	449	477	925	47	183	197	380	30
Circle C	496	538	1034	82	159	203	361	19
Metro	395	443	837	54	143	210	353	61
All India	463	509	972	58	164	201	365	46

Table b: BLENDED [Postpaid + Prepaid]

Circle	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	209	256	465	63
Circle B	210	225	435	32
Circle C	206	249	455	27
Metro	203	265	468	60
All India	208	246	454	48

Table c: Composition of outgoing minutes of use

Circle	Local (Intra-circle)	NLD (Inter-circle)	ILD
Circle A	89.78%	9.74%	0.48%
Circle B	88.63%	10.84%	0.53%
Circle C	85.57%	14.25%	0.18%
Metro	77.46%	21.59%	0.95%
All India	86.59%	12.85%	0.56%

Table d: Composition of outgoing Local (Intra-circle) minutes of use

Circle	To Fixed	To Mobile	To On network (Mobile)
Circle A	10%	90%	51%
Circle B	13%	87%	55%
Circle C	12%	88%	65%
Metro	10%	90%	45%
All India	11%	89%	53%

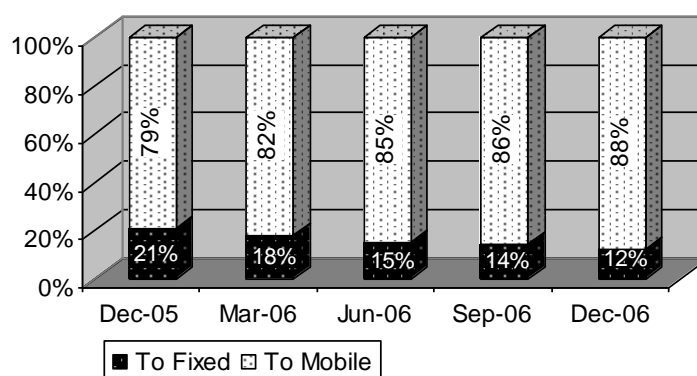
Table e: Composition of outgoing NLD (Inter-Circle) minutes of use

Circle	To Fixed	To Mobile
Circle A	19%	81%
Circle B	19%	81%
Circle C	21%	79%
Metro	19%	81%
All India	19%	81%

Table f: Composition of Total outgoing minutes of use (excl. ILD)

Circle	To Fixed	To Mobile
Circle A	11%	89%
Circle B	13%	87%
Circle C	13%	87%
Metro	12%	88%
All India	12%	88%

Chart : Trend in composition of total outgoing MOUs (excl. ILD)



Usage Pattern – CDMA

Table a: MOU & SMS (per subscriber per month)

Circle	Postpaid				Prepaid			
	O/G MOU	I/C MOU	Total MOU	O/G SMS	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	492	391	883	23	139	214	353	23
Circle B	557	369	926	11	182	193	375	14
Circle C	613	445	1058	8	222	235	457	9
Metro	478	340	818	19	138	187	325	22
All India	507	368	875	18	159	202	361	19

Table b: BLENDED [Postpaid + Prepaid]

Circle	Blended			
	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	184	236	420	23
Circle B	217	209	426	13
Circle C	240	244	484	9
Metro	197	214	411	21
All India	202	222	424	19

Table c: Composition of outgoing minutes of use

Circle	Local (Intra-circle)	NLD (Inter-Circle)	ILD
Circle A	88.2%	11.6%	0.2%
Circle B	87.7%	12.2%	0.1%
Circle C	86.1%	13.8%	0.1%
Metro	82.2%	17.6%	0.2%
All India	86.4%	13.4%	0.2%

Table d: Outgoing MOUs per subscriber per month

Circle	Local (Intra-circle)	NLD (Inter-Circle)	ILD
Circle A	162	21	0.28
Circle B	190	26	0.32
Circle C	207	33	0.17
Metro	162	35	0.39
All India	174	27	0.31

Table e: Composition of outgoing Local (Intra-circle) minutes of use

Circle	To Fixed	To Mobile	To Own Network (Mobile)
Circle A	9%	91%	57%
Circle B	8%	92%	67%
Circle C	7%	93%	63%
Metro	10%	90%	62%
All India	9%	91%	63%

Table f: Composition of Outgoing NLD (Inter-Circle) minutes of use

Circle	To Fixed	To Mobile
Circle A	22%	78%
Circle B	9%	91%
Circle C	11%	89%
Metro	11%	89%
All India	14%	86%

Table g: Composition of Total outgoing minutes of use (excl. ILD)

Circle	To Fixed	To Mobile
Circle A	12%	88%
Circle B	9%	91%
Circle C	9%	91%
Metro	11%	89%
All India	10%	90%

**Average Subscriber Outgo (Rental + Call Charges) Per Minute
(Rs. Per Minute)**

I GSM

Table a: Average Subscriber Outgo Per Minute

[Rs. Per min]

	Postpaid	Prepaid	Blended
Circle A	1.01	1.32	1.21
Circle B	0.96	1.20	1.15
Circle C	1.04	1.60	1.41
Metros	1.38	1.55	1.47
All India	1.10	1.33	1.26

* Outgo includes both Rental and call charges

II CDMA

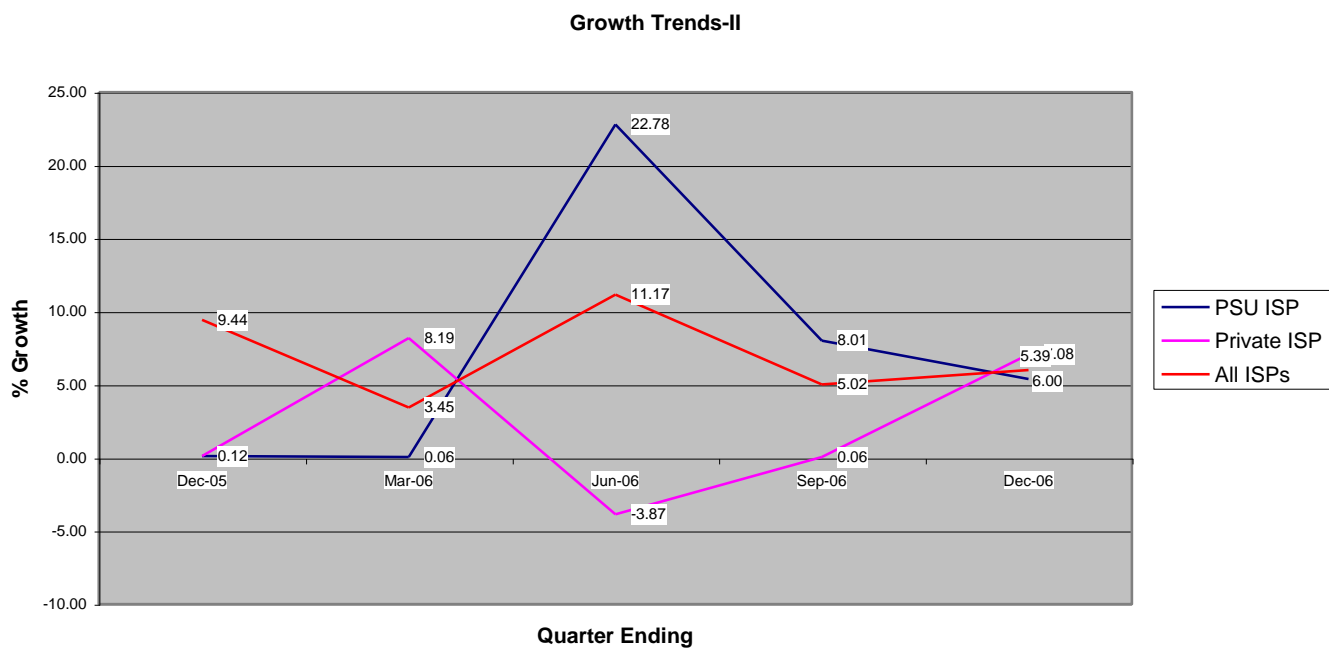
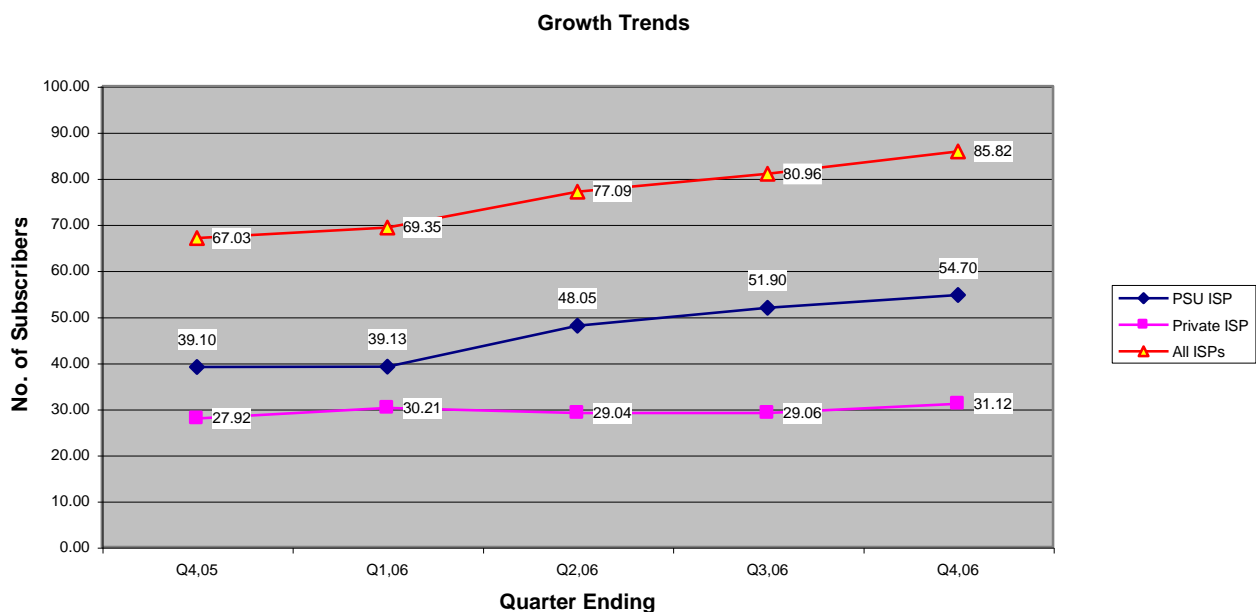
Table b: Average Subscriber Outgo Per Minute

Category	Prepaid	Postpaid	Blended
Category - A	0.83	0.88	0.85
Category - B	0.72	0.76	0.73
Category - C	0.74	0.83	0.75
Metro	1.08	1.15	1.11
All India	0.83	0.93	0.86

Note: Reliance (J&K) data has not been included, as there is data gaps and inconsistencies.

* Outgo includes both Rental and call charges

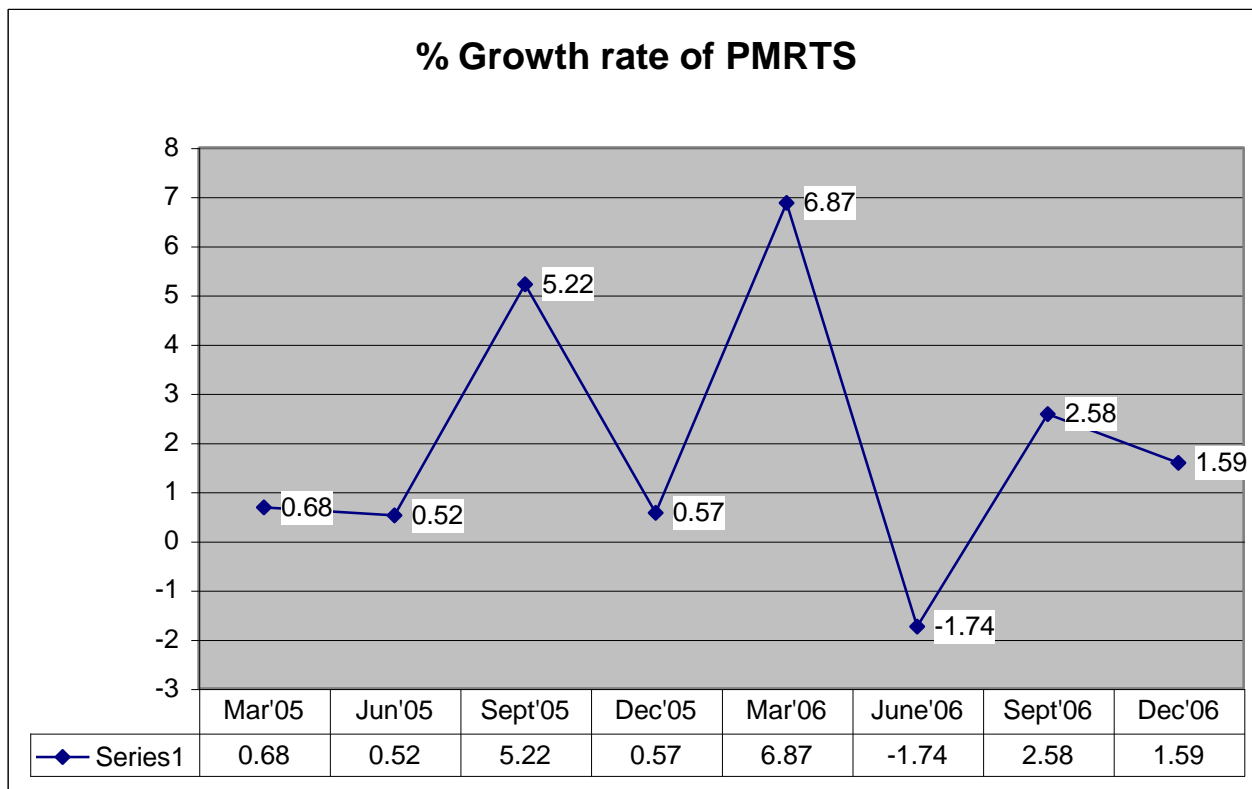
Growth Pattern of Internet Subscribers



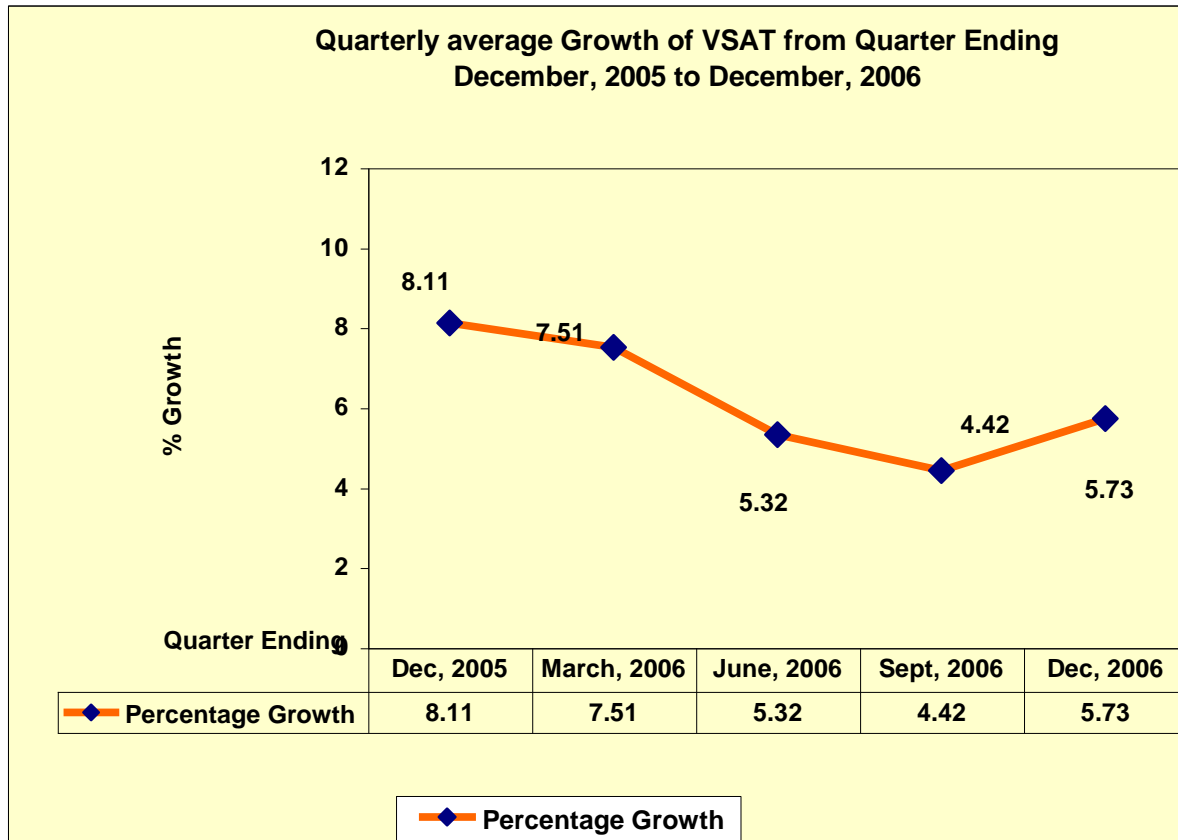
List of Internet Telephony Service Providers

S. No.	Name of ISP
1	Apna Telelink Ltd.
2	Asianet Satellite Communications Ltd.
3	Bharti Airtel Ltd. (Bharti Televentures Ltd.)
4	Broadband Pacenet (I) Pvt. Ltd.
5	City Online Services Ltd.
6	CJ Online Pvt. Ltd.
7	Data Infosys Ltd.
8	Digital2Virtual ISP Pvt. Ltd.
9	DIL Internet Ltd.
10	Dishnet Wireless Ltd.
11	Estel Communications Pvt. Ltd.
12	HCL Infinet Ltd.
13	Icenet.net Limited
14	In2cable (I) Ltd.
15	Mahanagar Telephone Nigam Ltd.
16	NetMagic Solutions(P) Ltd.
17	Nettlinx Ltd.
18	Opto Network Pvt. Ltd.
19	PBC Ventures Ltd.
20	Pioneer Online Pvt. Ltd.
21	Sify Ltd.
22	Southern Online Bio Technologies Ltd.
23	Swastik Netvisiion Telecom P.Ltd
24	Trak Online Net India Pvt.Ltd
25	Trikon Electronics Pvt. Ltd.
26	Videsh Sanchar Nigam Ltd.
27	YOU Telecom India Pvt. Ltd.

Growth Rate of PMRTS subscribers



Growth Rate of VSAT Subscribers



Annex 5.1


Quality of Service (QOS) Performance for Basic Services

S. No	Service Area	Service Provider	New connections after registration of demand	Fault incidences per 100 sub/month	Fault repaired by next working day	Rent Rebate (Total no. of cases)	Mean Time to Repair (MTTR)	Grade of service (calls per thousand)	Call completion rate in local network	Metering & billing credibility- % of bills disputed	Time taken for refund of deposits after closures	Shifts	Closures	Additional facility	Response Time to the Customer for Assistance						
															95% of requests			%age of calls answered (electronically)		%age of calls answered by operator (voice to voice)	
															100% in < 7days	<5	>90%	For faults pending > 3 days to >15 days	<8 hrs	a) Junction between local exchange (2/1000)	>55%
1	ANDRA PRADESH	BSNL	91.47	6.50	87.00	0	14.50	NA	57.00%	0.02	100.00	80.00	66.00	58.00	100.00	100.00	NA	NA			
		RELIANCE	64.61	3.05	100.00	7	4.61	10.4800	37.69%	0.08	100.00	100.00	97.33	98.37	100.00	100.00	92.50	95.00			
		BHARTI	89.80	5.46	94.17	27	2.86	0.0000	47.00%	0.03	26.67	34.14	0.00	93.54	NA	NA	97.67	98.33			
		TATA	89.00	4.50	70.91	1619	10.70	0.0030	46.39%	0.20	100.00	98.91	100.00	91.35	100.00	100.00	65.00	73.00			
2	BIHAR	BSNL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		TATA	Nil	0.00	Nil	0	NA	NA	NA	0.00	100.00	Nil	Nil	Nil	95.00	95.00	84.00	84.00			
		RELIANCE	0.00	0.00	NA	NA	NA	0.0100	24.78%	Nil	100.00	Nil	Nil	100.00	100.00	100.00	92.50	95.20			
3	DELHI	MTNL	99.60	11.72	94.06	9230	8.53	0.0001	49.00%	0.06	100.00	93.20	81.42	60.56	97.60	100.00	86.60	99.05			
		RELIANCE	18.49	0.59	100.00	4	4.32	0.0000	47.68%	0.06	100.00	96.43	96.87	96.88	100.00	100.00	95.50	95.50			
		BHARTI	99.73	4.16	99.50	345	6.10	0.1000	53.52%	0.03	41.77	95.66	79.18	96.45	NA	NA	100.00	NA			
		TATA	86.99	1.70	100.00	0	12.90	0.0000	50.68%	0.23	98.00	91.89	98.25	89.94	100.00	100.00	62.00	69.00			
4	GUJARAT	BSNL	95.59	5.80	95.00	128	9.60	NA	64.00%	0.04	100.00	83.00	97.00	98.00	100.00	100.00	100.00	100.00			
		RELIANCE	59.25	3.31	100.00	36	5.22	0.2500	53.27%	0.09	100.00	98.46	97.96	98.23	100.00	100.00	92.50	95.50			

		BHARTI	100.00	6.69	93.58	30	3.40	0.0004	55.73%	0.16	76.00	66.67	100.00	62.85	NA	NA	69.00	79.00
		TATA	94.96	1.30	87.25	4	8.16	0.0000	50.43%	0.13	100.00	91.55	100.00	87.92	100.00	100.00	90.00	94.00
5	MP & CHATTISGARH	BSNL(MP)	92.13	4.80	95.00	0	6.90	0.1000	68.00%	0.05	100.00	100.00	97.00	100.00	90.00	95.00	99.00	99.90
		BSNL(Chattisgarh)	100.00	9.60	92.00	0	11.70	NA	65.00%	0.01	100.00	94.00	82.00	69.00	100.00	100.00	90.00	95.00
		RELIANCE	48.07	3.33	95.70	1	2.12	0.0800	49.66%	0.04	100.00	100.00	97.00	100.00	100.00	100.00	92.50	95.50
		BHARTI	93.65	4.81	95.76	450	8.30	0.1000	50.00%	0.02	3.86	52.45	100.00	99.32	NA	NA	79.00	100.00
		BSNL	80.60	7.40	90.00	26330	9.40	NA	54.00%	0.02	100.00	85.00	90.00	95.00	100.00	100.00	100.00	100.00
6	MAHARASHTRA	RELIANCE	36.60	0.24	100.00	4	5.55	0.7800	41.25%	0.06	100.00	99.43	98.42	97.97	100.00	100.00	92.50	95.50
		BHARTI	61.29	3.46	88.46	42	6.10	0.0026	55.38%	0.22	87.36	70.11	100.00	73.31	NA	NA	69.44	78.85
		TATA	80.73	3.69	95.10	0	6.96	0.0020	59.00%	0.26	100.00	94.57	52.02	86.37	100.00	100.00	92.00	95.00
		BSNL	98.92	9.10	87.00	0	16.90	NA	61.00%	0.02	100.00	97.00	100.00	100.00	100.00	100.00	57.67	73.33
7	PUNJAB	RELIANCE	69.61	3.41	100.00	3	5.22	0.0300	50.25%	0.06	100.00	98.33	97.57	98.15	100.00	100.00	92.50	95.50
		BHARTI	92.95	4.50	88.54	NIL	4.09	0.0051	51.00%	0.06	55.89	86.99	91.13	84.41	NA	NA	87.82	92.66
		TATA	100.00	0.00	Nil	0	NA	NA	NA	0.00	NA	Nil	Nil	Nil	100.00	100.00	84.00	90.00
		HFCL	94.99	1.52	98.74	0	4.57	0.0002	55.49%	0.07	100.00	95.85	98.26	96.12	100.00	NA	86.00	98.00
		BSNL	82.01	7.70	89.00	218	9.40	NA	56.00%	0.02	100.00	94.00	98.00	88.00	100.00	100.00	100.00	100.00
8	RAJASTHAN	RELIANCE	47.88	3.33	100.00	0	5.59	0.0800	37.92%	0.00	100.00	Nil	92.39	98.57	100.00	100.00	92.50	95.50
		BHARTI	78.92	7.53	51.13	26	6.40	0.0035	50.00%	0.03	NA	8.82	84.62	73.54	NA	NA	88.00	93.00
		SHYAM	97.99	2.77	92.45	0	4.80	0.0010	NA	0.10	91.00	96.06	100.00	97.26	NA	NA	86.00	NA
		BSNL	100.00	3.30	95.00	0	6.10	NA	77.00%	0.02	100.00	100.00	100.00	99.00	99.78	99.78	97.47	98.04
9	TAMILNADU	RELIANCE	57.56	0.68	100.00	10	5.38	0.1100	33.33%	0.03	100.00	100.00	96.86	99.70	100.00	100.00	92.50	95.50
		BHARTI	94.74	2.37	99.89	5	5.29	0.0006	53.40%	0.01	94.68	89.12	83.85	98.63	99.72	99.84	90.49	93.11
		TATA	100.00	0.00	Nil	NA	NA	0.0000	60.65%	Nil	NA	Nil	Nil	Nil	100.00	100.00	94.00	97.00
		BSNL	98.53	6.70	93.00	410	8.00	NA	72.00%	0.02	100.00	100.00	99.00	98.00	100.00	100.00	80.00	100.00
10	HARYANA	RELIANCE	37.09	NA	NA	NA	NA	0.5000	45.01%	0.00	100.00	Nil	Nil	100.00	100.00	100.00	92.50	95.50

		TATA	0.00	0.00	Nil	0	NA	NA	NA	0.00	NA	Nil	Nil	Nil	100.00	100.00	84.00	90.00
		BHARTI	86.63	5.19	96.70	0	9.05	0.0000	52.00%	0.06	35.86	100.00	88.31	65.42	NA	NA	87.82	92.66
11	KARNATAKA	BSNL	95.45	6.40	90.00	0	14.60	NA	56.00%	0.04	100.00	91.00	96.00	93.00	100.00	100.00	99.59	99.83
		RELIANCE	21.17	0.49	100.00	0	4.21	0.1300	36.60%	0.05	100.00	71.08	97.51	98.01	100.00	100.00	92.50	95.50
		BHARTI	93.22	3.78	94.49	353	3.35	0.0464	59.00%	0.03	100.00	93.82	73.37	98.94	99.00	99.50	80.29	88.06
		TATA	90.14	1.80	100.00	0	7.00	0.0090	47.46%	0.10	100.00	76.70	100.00	95.94	100.00	100.00	93.00	96.00
12	A&N	BSNL	100.00	6.50	81.00	0	8.10	NA	39.00%	0.09	100.00	95.00	100.00	100.00	NA	NA	NA	NA
13	ASSAM	BSNL	38.73	7.70	89.00	90	14.70	NA	59.00%	0.06	100.00	NA	90.00	66.00	NA	NA	NA	NA
14	CHENNAI	BSNL	96.35	5.10	90.00	0	10.30	NA	73.00%	0.02	100.00	92.00	100.00	100.00	100.00	100.00	96.44	98.34
		RELIANCE	41.01	2.23	100.00	1	5.83	0.0400	52.73%	0.01	100.00	98.08	98.51	99.95	100.00	100.00	91.00	95.50
		BHARTI	93.90	5.78	99.34	179	8.29	0.0008	54.00%	0.02	95.67	80.00	94.01	98.07	99.72	99.84	90.49	93.11
		TATA	98.73	0.00	100.00	0	4.70	0.0030	46.39%	Nil	NA	Nil	Nil	Nil	100.00	100.00	94.00	97.00
15	H P	RELIANCE	0.00	NA	NA	NA	NA	1.4800	39.65%	0.00	100.00	Nil	Nil	Nil	100.00	100.00	92.50	95.00
		BSNL	98.55	9.50	93.00	1931	7.00	NA	64.00%	0.03	100.00	Nil	89.00	94.00	NA	NA	NA	NA
16	JHARKHAND	BSNL	99.03	6.30	89.00	90	14.20	NA	51.00%	0.14	100.00	95.00	96.00	98.00	NA	NA	NA	NA
17	J & K	BSNL	58.79	10.00	88.00	0	6.30	NA	51.00%	0.07	NA	Nil	100.00	99.00	NA	NA	NA	NA
18	KERALA	BSNL	95.56	7.80	88.00	781	13.50	NA	70.00%	0.02	100.00	79.00	99.00	97.00	100.00	100.00	86.67	100.00
		BHARTI	77.41	3.50	98.45	4	2.95	0.0010	56.00%	1.77	100.00	54.68	0.00	66.00	NA	NA	95.73	98.43
		TATA	100.00	0.00	Nil	0	NA	NA	NA	0.00	100.00	Nil	100.00	Nil	100.00	100.00	87.00	91.00
		RELIANCE	52.38	0.47	100.00	0	4.19	0.2400	59.53%	0.02	100.00	100.00	96.93	97.88	100.00	100.00	92.50	95.50
19	KOLKATA	BHARTI	78.41	4.83	81.14	321	11.23	0.0002	55.00%	1.10	NA	0.00	99.76	98.14	NA	NA	86.39	91.46
		RELIANCE	57.40	1.10	100.00	22	5.22	0.0000	50.21%	0.08	100.00	98.36	97.66	98.35	100.00	100.00	92.50	95.50
		TATA	100.00	0.00	Nil	0	NA	NA	NA	0.00	100.00	Nil	100.00	100.00	94.00	94.00	86.00	86.00
		BSNL	99.42	4.20	92.00	3501	10.50	NA	54.00%	0.10	100.00	95.00	100.00	54.00	100.00	100.00	100.00	100.00
20	MUMBAI	TATA	75.12	3.70	98.71	0	7.08	0.0020	59.00%	0.78	NA	85.68	100.00	98.99	100.00	100.00	67.00	72.00
		BHARTI	91.09	2.88	92.40	51	3.30	0.0004	55.76%	0.30	97.49	80.70	100.00	92.03	NA	NA	71.32	80.63

		RELIANCE	16.83	0.85	100.00	4	4.84	0.0000	54.66%	0.07	100.00	97.26	96.93	98.31	100.00	100.00	92.50	95.50
		MTNL	62.42	8.97	82.66	207796	19.28	0.0002	56.49%	0.07	100.00	31.05	55.45	58.49	98.67	100.00	87.22	90.54
21	NE-I	BSNL	54.57	5.70	88.00	1876	30.40	NA	58.00%	0.05	100.00	63.00	77.00	93.00	NA	NA	NA	NA
22	NE-II	BSNL	96.88	4.20	90.00	1027	14.60	NA	61.00%	0.05	100.00	100.00	100.00	97.00	87.77	98.83	89.00	98.00
23	ORISSA	BSNL	81.05	5.60	92.00	440	8.00	NA	81.00%	0.09	100.00	98.00	NA	NA	NA	NA	NA	NA
		RELIANCE	30.16	NA	NA	NA	NA	0.0040	45.30%	0.39	100.00	Nil	Nil	Nil	100.00	100.00	92.50	95.50
24	UP-E	BSNL	58.46	6.90	93.00	7683	7.10	NA	64.00%	0.04	100.00	96.00	95.00	98.00	100.00	100.00	91.00	92.33
		BHARTI	92.81	7.59	91.57	15	12.00	0.0186	44.86%	2.21	23.00	22.66	90.34	64.72	NA	NA	88.00	93.00
		RELIANCE	54.99	3.33	100.00	3	3.46	0.0000	44.60%	0.04	100.00	100.00	98.03	98.21	100.00	100.00	92.50	95.50
25	UP-W	BSNL	100.00	8.20	91.00	0	8.20	NA	61.00%	NA	100.00	100.00	99.00	96.00	100.00	100.00	91.00	92.33
		BHARTI	86.18	8.01	86.94	130	7.40	0.0016	48.00%	0.59	95.00	66.43	23.09	71.50	NA	NA	87.82	92.66
		RELIANCE	57.78	NA	NA	NA	NA	0.1400	41.66%	0.00	100.00	Nil	Nil	100.00	100.00	100.00	92.50	95.50
26	UTTRANCHA L	BSNL	90.71	7.90	94.00	2	7.20	NA	64.00%	0.04	100.00	96.00	97.00	98.00	31.00	81.00	88.33	100.00
27	WEST BENGAL	BSNL	20.36	7.70	85.00	565	20.10	NA	66.00%	0.04	100.00	100.00	100.00	100.00	88.87	92.43	NA	NA
		RELIANCE	34.35	NA	NA	NA	NA	1.2100	NA	0.00	100.00	Nil	Nil	100.00	100.00	100.00	92.50	95.50

 Operator not meeting the prescribed benchmark

NA = Data not available

Annex 5.2

Quality of Service Performance for Cellular Mobile Services

Sr. No.	Service Providers	Parameters																	
		(A) Network Performance									(B) Customer help lines						(C) Billing Complaints		
		(i)	(ii)	(iii)	(iv)						(v)	(vi)	(i)				(i)	(ii)	(iii)
		Accumulated down time of community isolation	Call Set-up Success Rate (within licensees own network)	Service Access Delay	Blocked Call Rate						Call Drop Rate	%age of connections with good voice quality	Response time to the customer for assistance				Complaints per 100 bills issued	% of complaints resolved within 4 weeks	Period of all refunds/ payment due to customers from the date of resolution of complaints as in (ii) above
Benchmarks																			
<24 hrs	>95%	Between 9 to 20 seconds depending upon number of paging attempts (Average of 100 calls = <15 sec)	(I) SDCCH / Paging Channel Congestion <1%			(ii) TCH Congestion <2%			<3%	>95%	(I) %age of calls answered (electronically) within 20 seconds = 80%,	(I) %age of calls answered (electronically) within 40 seconds = 95%	(I) %age of calls answered by operator (voice to voice); within 60 seconds = 80%,	(I) %age of calls answered by operator (voice to voice); within 90 seconds = 95%,	<0.1%	100%	<4 weeks		
			Month - 1	Month - 2	Month - 3	Month - 1	Month - 2	Month - 3											
	'A' Circle																		
I	Maharashtra																		
1	Hutch Essar	1.57	99.94%	14.05	0.77%	0.75%	0.75%	1.19%	1.30%	1.31%	1.20%	98.67%	100.00%	100.00%	100.00%	100.00%	0.047%	100.00%	15 days
2	IDEA Cellular	3.15	98.62%	9.41	0.57%	0.64%	0.60%	0.82%	0.98%	0.86%	1.30%	99.03%	99.13%	99.13%	81.00%	95.00%	0.245%	100.00%	30 days
3	BSNL	0.00	97.48%	8.24	0.70%	0.80%	0.70%	1.30%	1.30%	1.40%	1.43%	96.67%	100.00%	100.00%	99.78%	99.82%	0.022%	100.00%	30 days
4	Bharti Airtel Limited	22.20	99.16%	9.57	0.89%	0.37%	0.34%	0.97%	0.93%	0.84%	1.00%	95.89%	99.93%	99.98%	96.78%	98.78%	0.100%	100.00%	30 days
5	Reliance Comm	0.50	99.58%	4.09	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.91%	99.21%	99.50%	99.50%	86.90%	91.79%	0.080%	100.00%	30 days
6	Tata Teleservices	13.75	98.05%	13.00	0.00%	0.00%	0.00%	0.46%	0.00%	0.00%	0.56%	96.57%	100.00%	100.00%	92.00%	95.00%	0.300%	100.00%	NA

ii	Gujarat																			
7	Hutch Essar	14.55	98.22%	9.66	0.19%	0.14%	0.11%	0.96%	0.90%	0.67%	1.02%	97.94%	100.00%	100.00%	87.49%	96.69%	0.082%	100.00%	15 days	
8	IDEA Cellular	2.46	99.02%	13.32	0.94%	0.93%	0.94%	0.51%	0.62%	0.38%	1.80%	97.57%	82.00%	95.00%	85.00%	97.00%	0.052%	100.00%	30 days	
9	BSNL	0.00	99.30%	2.30	0.60%	0.70%	0.50%	1.70%	1.70%	1.60%	0.99%	95.00%	100.00%	100.00%	81.00%	95.00%	0.070%	100.00%	30 days	
10	Bharti Airtel Limited	0.00	95.33%	11.70	0.24%	0.22%	0.50%	0.15%	0.18%	0.23%	1.16%	98.51%	99.94%	99.98%	95.66%	98.19%	0.120%	100.00%	30 days	
11	Reliance Comm	0.49	99.54%	4.07	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.85%	99.15%	99.50%	99.50%	86.90%	91.79%	0.070%	100.00%	30 days	
12	Tata Teleservices	7.14	98.74%	5.16	0.00%	0.00%	0.00%	0.02%	0.04%	0.04%	0.42%	97.69%	100.00%	100.00%	91.00%	98.00%	0.200%	100.00%	30 days	
iii	Andhra Pradesh																			
13	IDEA Cellular	0.37	99.98%	7.00	0.23%	0.23%	0.23%	1.18%	1.18%	1.19%	0.62%	99.45%	100.00%	100.00%	80.30%	95.00%	0.040%	100.00%	30 days	
14	Bharti Airtel Limited	22.35	97.50%	12.00	0.83%	0.71%	1.00%	1.17%	1.40%	1.56%	0.79%	99.27%	98.00%	99.00%	94.00%	95.00%	0.010%	100.00%	30 days	
15	BSNL	12.32	97.60%	6.91	0.50%	0.20%	0.50%	2.50%	2.90%	2.50%	1.28%	98.43%	100.00%	100.00%	34.00%	40.00%	1.000%	100.00%	30 days	
16	Hutch Essar	20.00	99.79%	9.00	0.29%	0.27%	0.18%	0.35%	0.20%	0.27%	1.53%	98.00%	100.00%	100.00%	96.73%	98.30%	0.051%	100.00%	30 days	
17	Reliance Comm	0.41	99.58%	4.13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.65%	99.88%	99.50%	99.50%	86.90%	91.79%	0.070%	100.00%	30 days	
18	Tata Teleservices	2.53	98.26%	6.26	0.00%	0.00%	0.00%	0.18%	0.21%	0.21%	0.52%	96.02%	100.00%	100.00%	74.00%	81.00%	0.100%	100.00%	30 days	
iv	Karnataka																			
19	Bharti Airtel Limited	11.80	98.74%	5.02	0.98%	0.81%	0.93%	1.25%	1.27%	1.25%	1.42%	96.20%	98.27%	98.28%	88.48%	91.90%	0.010%	100.00%	30 days	
20	Spice Comm.	20.09	98.74%	8.40	NA	0.64%	0.64%	NA	1.94%	1.21%	1.31%	99.14%	100.00%	100.00%	94.00%	99.81%	0.018%	100.00%	07 days	
21	BSNL	5.57	97.06%	4.69	0.60%	0.70%	0.80%	1.60%	1.50%	1.60%	0.90%	98.07%	99.69%	100.00%	66.67%	73.67%	0.050%	100.00%	07 days	
22	Hutch Essar	22.61	98.31%	10.28	0.15%	0.14%	0.13%	1.67%	1.68%	1.65%	1.63%	98.37%	100.00%	100.00%	96.67%	98.33%	0.042%	100.00%	15 days	
23	Reliance Comm	0.49	99.41%	3.97	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.64%	99.00%	99.50%	99.50%	86.90%	91.79%	0.070%	100.00%	30 days	
24	Tata Teleservices	22.20	97.29%	3.00	0.00%	0.00%	0.00%	0.69%	0.35%	0.35%	0.93%	97.24%	100.00%	100.00%	97.00%	98.00%	0.100%	100.00%	30 days	
v	Tamil Nadu																			
25	Hutch Essar	20.52	99.59%	11.62	0.28%	0.31%	0.33%	1.78%	1.80%	1.85%	1.03%	99.75%	99.99%	99.99%	100.00%	100.00%	0.050%	100.00%	15 days	
26	Aircel	0.10	100.00%	23.00	0.16%	0.10%	0.19%	1.88%	1.64%	1.85%	0.84%	89.20%	NA	NA	NA	NA	0.020%	100.00%	01 day	

27	BSNL	0.00	95.24%	9.45	0.90%	0.90%	0.80%	1.90%	2.00%	2.00%	1.10%	96.00%	100.00%	100.00%	91.00%	96.00%	0.000%	100.00%	Nil
28	Bharti Airtel Limited	0.00	99.51%	4.26	0.30%	0.16%	0.28%	0.27%	0.18%	0.09%	1.42%	95.61%	99.95%	100.00%	95.00%	95.00%	0.080%	100.00%	30 days
29	Reliance Comm	0.44	99.56%	4.44	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	99.61%	99.50%	99.50%	86.90%	91.79%	0.070%	100.00%	30 days
30	Tata Teleservices	6.30	99.53%	10.77	0.00%	0.00%	0.00%	0.76%	0.34%	0.34%	0.87%	96.45%	100.00%	100.00%	95.00%	97.00%	0.100%	100.00%	30 days
	B' Circle																		
vi	Kerala																		
31	IDEA Cellular	21.57	99.78%	13.87	0.46%	0.48%	0.49%	1.16%	2.22%	1.44%	0.77%	99.03%	96.00%	99.00%	90.00%	94.00%	0.180%	100.00%	30 days
32	Hutch Essar	15.10	96.99%	14.27	0.97%	0.98%	0.79%	1.98%	1.98%	0.42%	1.58%	98.89%	100.00%	100.00%	90.04%	99.99%	0.081%	100.00%	15 days
33	BSNL	21.29	99.03%	4.26	0.60%	0.20%	0.20%	1.60%	2.20%	1.70%	1.47%	98.26%	99.33%	99.67%	80.42%	86.17%	0.000%	100.00%	30 days
34	Bharti Airtel Limited	14.00	99.45%	12.83	0.09%	0.11%	0.21%	0.14%	0.87%	0.33%	1.57%	98.36%	100.00%	100.00%	99.51%	99.76%	0.050%	100.00%	30 days
35	Tata Teleservices	0.00	99.93%	17.66	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.57%	96.00%	100.00%	100.00%	98.00%	98.00%	0.100%	100.00%	30 days
36	Reliance Comm	0.19	99.40%	4.07	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.76%	99.90%	99.50%	99.50%	86.90%	91.79%	0.080%	100.00%	30 days
vii	Punjab																		
37	Spice Comm.	5.70	97.45%	10.55	0.26%	0.25%	0.24%	1.65%	1.67%	1.59%	1.37%	96.80%	100.00%	100.00%	94.00%	96.00%	0.034%	100.00%	07 days
38	HFCL - CDMA	3.11	97.69%	13.10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.63%	98.78%	100.00%	100.00%	97.00%	97.00%	0.000%	100.00%	NA
39	Bharti Airtel Limited	4.10	99.13%	3.15	0.26%	0.70%	0.16%	0.31%	0.14%	0.05%	1.89%	99.70%	98.73%	99.99%	97.91%	98.99%	0.090%	100.00%	30 days
40	Hutch Essar	2.00	99.31%	10.00	0.09%	0.08%	0.06%	0.10%	0.09%	0.10%	1.45%	98.91%	98.99%	99.12%	95.12%	98.72%	0.027%	100.00%	15 days
41	BSNL	2.03	98.80%	3.70	0.10%	0.20%	0.20%	0.40%	1.80%	0.60%	1.47%	100.00%	96.70%	97.60%	93.30%	97.30%	0.050%	100.00%	30 days
42	Reliance Comm	0.13	99.66%	4.20	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.89%	99.55%	99.50%	99.50%	86.90%	91.79%	0.070%	100.00%	30 days
43	Tata Teleservices	0.00	98.41%	8.00	0.00%	0.00%	0.00%	0.00%	0.02%	0.02%	0.72%	98.39%	100.00%	100.00%	87.00%	90.00%	0.200%	100.00%	30 days
viii	Haryana																		
44	IDEA Cellular	6.00	99.97%	10.13	0.80%	0.50%	0.60%	1.26%	1.15%	0.90%	0.71%	99.31%	100.00%	100.00%	95.00%	98.00%	0.067%	100.00%	30 days
45	Hutch Essar	3.59	99.94%	10.00	0.11%	0.09%	0.06%	1.93%	1.94%	1.31%	1.95%	95.52%	100.00%	100.00%	85.20%	97.04%	0.089%	100.00%	15 days
46	BSNL	1.49	97.40%	4.10	0.20%	0.50%	0.50%	1.60%	1.80%	1.80%	2.60%	96.80%	100.00%	100.00%	80.00%	95.00%	0.010%	100.00%	30 days

47	Bharti Airtel Limited	20.30	99.20%	2.90	0.22%	0.56%	0.14%	0.77%	0.18%	0.16%	1.53%	98.42%	98.00%	98.00%	92.00%	95.00%	0.090%	100.00%	30 days
48	Reliance Comm	1.11	99.29%	4.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.91%	99.91%	99.50%	99.50%	86.90%	91.79%	0.070%	100.00%	30 days
49	Tata Teleservices	8.46	99.96%	8.00	0.00%	0.00%	0.00%	0.50%	0.10%	0.10%	1.04%	97.55%	100.00%	100.00%	86.00%	89.00%	0.100%	100.00%	30 days
ix	UP - W																		
50	Hutch Essar	0.00	99.85%	9.50	0.46%	0.66%	0.51%	0.64%	0.60%	0.50%	1.98%	96.00%	99.23%	99.23%	96.94%	98.99%	0.075%	100.00%	15 days
51	IDEA Cellular	8.58	99.66%	11.20	0.95%	0.83%	0.88%	1.93%	1.87%	1.86%	1.49%	97.20%	100.00%	100.00%	90.00%	95.00%	0.059%	100.00%	30 days
52	BSNL	0.00	99.00%	14.00	0.80%	0.90%	0.80%	1.40%	1.90%	1.30%	2.90%	98.00%	100.00%	100.00%	90.00%	98.00%	0.000%	NA	NA
53	Bharti Airtel Limited	21.60	99.10%	8.40	0.38%	0.57%	0.87%	0.91%	0.59%	1.30%	1.57%	96.13%	99.67%	99.74%	95.68%	96.72%	0.100%	100.00%	30 days
54	Reliance Comm	0.14	99.56%	4.23	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.83%	99.00%	99.50%	99.50%	86.90%	91.79%	0.080%	100.00%	30 days
55	Tata Teleservices	12.19	97.30%	13.77	0.00%	0.00%	0.00%	0.00%	0.42%	0.42%	1.41%	99.08%	100.00%	100.00%	88.00%	92.00%	0.100%	100.00%	30 days
x	UP - E																		
56	Bharti Airtel Limited	8.00	99.50%	6.39	0.15%	0.23%	0.27%	0.57%	0.48%	0.45%	1.91%	95.17%	99.71%	99.99%	95.01%	96.06%	0.210%	100.00%	30 days
57	Hutch Essar	0.00	96.82%	9.00	NA	NA	0.38%	NA	NA	1.58%	2.14%	96.61%	99.99%	99.99%	81.86%	95.09%	0.001%	100.00%	15 days
58	IDEA Cellular	0.00	98.40%	12.00	NA	0.52%	0.52%	NA	0.53%	1.95%	0.37%	99.00%	NA	NA	90.00%	95.00%	1.400%	100.00%	30 days
59	BSNL	19.00	97.00%	14.00	0.90%	0.80%	0.80%	1.90%	1.80%	1.70%	2.60%	97.00%	84.00%	98.00%	85.00%	96.00%	0.100%	100.00%	30 days
60	Reliance Comm	0.71	99.52%	4.35	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.94%	98.55%	99.50%	99.50%	86.90%	91.79%	0.050%	100.00%	30 days
61	Tata Teleservices	3.50	99.76%	9.29	0.00%	0.00%	0.00%	0.00%	0.09%	0.09%	0.19%	98.65%	100.00%	100.00%	91.00%	93.00%	0.200%	100.00%	30 days
xi	Rajasthan																		
62	Hutch Essar	23.16	97.33%	9.81	0.94%	0.89%	0.79%	1.89%	1.78%	1.67%	2.54%	96.77%	98.03%	98.18%	86.25%	97.09%	0.096%	100.00%	15 days
63	BSNL	22.14	97.50%	6.30	0.30%	0.30%	0.40%	1.60%	1.70%	1.60%	2.50%	97.20%	99.70%	100.00%	85.30%	96.30%	0.080%	100.00%	30 days
64	IDEA Cellular	22.10	98.42%	6.43	NA	0.23%	0.91%	NA	1.18%	1.54%	2.12%	98.11%	NA	NA	87.00%	92.00%	NA	NA	NA
65	Bharti Airtel Limited	23.20	98.16%	9.00	1.03%	0.67%	0.69%	1.95%	1.60%	1.70%	1.30%	98.31%	99.98%	99.99%	95.75%	97.22%	0.050%	100.00%	30 days
66	Reliance Comm	0.60	99.52%	4.16	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.90%	98.95%	99.50%	99.50%	86.90%	91.79%	0.060%	100.00%	30 days

67	Tata Teleservices	8.13	98.10%	4.00	0.00%	0.00%	0.00%	0.53%	0.01%	0.01%	0.89%	97.30%	100.00%	100.00%	92.00%	96.00%	0.100%	100.00%	30 days
68	Shyam Telelink Ltd	6.27	98.90%	6.00	NA	NA	0.87%	NA	NA	1.90%	0.87%	97.00%	NA	NA	86.00%	NA	0.090%	100.00%	NA
xii	Madhya Pradesh																		
69	IDEA Cellular	18.36	98.35%	0.62	0.66%	0.66%	1.58%	1.45%	1.41%	8.18%	1.20%	99.10%	100.00%	100.00%	98.53%	99.44%	0.014%	100.00%	30 days
70	Reliance Telecom	18.18	100.00%	7.66	0.40%	0.66%	0.21%	11.81%	9.73%	5.34%	1.56%	97.03%	NA	NA	100.00%	100.00%	0.010%	100.00%	1 day
71	BSNL	6.90	97.86%	9.80	0.30%	0.30%	0.30%	0.90%	0.90%	1.10%	1.88%	97.27%	100.00%	100.00%	99.89%	99.27%	0.010%	100.00%	21 days
72	Bharti Airtel Limited	22.60	96.99%	12.72	0.43%	0.69%	0.64%	1.73%	1.79%	1.01%	1.39%	96.40%	100.00%	100.00%	98.73%	99.31%	0.010%	100.00%	30 days
73	Reliance Comm	0.57	99.57%	4.19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.97%	99.38%	99.50%	99.50%	86.90%	91.79%	0.080%	100.00%	30 days
74	Tata Teleservices	1.00	98.11%	4.43	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.82%	99.07%	100.00%	100.00%	94.00%	99.00%	0.170%	100.00%	30 days
xiii	West Bengal																		
75	Bharti Airtel Limited	0.00	95.56%	9.00	3.15%	2.21%	2.30%	1.11%	1.95%	1.44%	1.75%	100.00%	89.99%	93.45%	86.00%	88.00%	0.120%	100.00%	30 days
76	Reliance Telecom	23.56	98.83%	8.59	1.50%	1.50%	0.92%	34.67%	20.83%	10.90%	1.90%	98.15%	NA	NA	100.00%	100.00%	0.000%	100.00%	01 day
77	BSNL	0.00	98.40%	5.94	0.80%	0.80%	0.80%	1.70%	1.60%	1.70%	2.55%	98.75%	91.00%	98.00%	82.00%	96.00%	0.050%	100.00%	7 days
78	Tata Teleservices	21.13	97.75%	14.03	0.00%	0.00%	0.00%	0.58%	0.70%	0.70%	1.32%	98.57%	94.00%	94.00%	82.00%	82.00%	0.100%	100.00%	30 days
79	Reliance Comm	0.90	99.59%	4.11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.19%	98.58%	99.50%	99.50%	86.90%	91.79%	0.050%	100.00%	30 days
80	Hutch Essar	0.00	99.97%	14.50	0.72%	0.68%	0.48%	0.86%	0.84%	0.76%	0.82%	96.00%	100.00%	100.00%	93.67%	98.76%	0.087%	100.00%	15 days
81	Dishnet	0.00	97.88%	8.00	0.97%	0.98%	0.95%	0.83%	0.98%	0.97%	0.67%	99.67%	88.00%	NA	97.00%	NA	0.070%	100.00%	30 days
	C' Circle																		
xiv	Himachal Pradesh																		
82	Bharti Airtel Limited	6.90	98.93%	3.07	0.25%	0.43%	0.16%	1.41%	0.15%	0.12%	1.83%	97.78%	98.30%	98.40%	99.50%	99.90%	0.020%	100.00%	30 days
83	IDEA Cellular	0.00	99.42%	9.80	0.03%	0.02%	0.20%	0.20%	0.97%	1.07%	1.36%	98.20%	NA	NA	95.00%	99.00%	NA	NA	NA
84	Reliance	7.25	98.30%	8.01	1.01%	1.00%	1.01%	7.18%	5.00%	4.37%	2.44%	96.45%	NA	NA	98.00%	100.00%	Nil	NA	NA

	Telecom																		
85	BSNL	2.80	97.40%	5.60	0.70%	0.80%	0.60%	1.70%	1.80%	1.90%	2.00%	97.30%	99.20%	99.40%	80.40%	95.20%	0.000%	NA	NA
86	Reliance Comm	0.77	99.15%	4.15	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.81%	99.33%	99.50%	99.50%	86.90%	91.79%	0.020%	100.00%	30 days
87	Tata Teleservices	3.40	98.34%	12.00	0.00%	0.00%	0.00%	0.02%	0.02%	0.02%	0.84%	97.47%	100.00%	100.00%	92.00%	93.00%	0.100%	100.00%	30 days
xv	Bihar																		
88	Reliance Telecom	18.47	98.00%	7.91	1.71%	4.89%	0.98%	17.47%	15.88%	5.67%	1.73%	93.79%	NA	NA	80.00%	95.00%	0.000%	NA	NA
89	BSNL	21.00	98.00%	10.50	0.80%	0.80%	0.70%	1.40%	1.50%	1.50%	1.50%	98.50%	88.00%	96.00%	88.00%	96.00%	0.050%	100.00%	30 days
90	Reliance Comm	0.71	99.64%	4.31	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.79%	99.05%	99.50%	99.50%	86.90%	91.79%	0.050%	100.00%	30 days
91	Bharti Airtel Limited	9.25	98.20%	13.00	7.55%	3.79%	3.91%	4.79%	2.22%	1.58%	1.90%	98.23%	93.70%	98.99%	92.20%	93.97%	0.070%	100.00%	30 days
92	Tata Teleservices	23.00	96.58%	12.53	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.65%	96.15%	95.00%	95.00%	84.00%	84.00%	0.100%	100.00%	30 days
xvi	Orissa																		
93	Reliance Telecom	6.01	99.17%	7.31	1.15%	0.66%	0.21%	19.33%	8.10%	2.78%	2.14%	99.06%	NA	NA	95.67%	100.00%	0.000%	100.00%	NA
94	BSNL	6.00	98.00%	11.00	1.00%	1.00%	0.90%	1.90%	2.00%	1.90%	1.86%	97.00%	97.00%	98.00%	96.00%	99.00%	0.030%	100.00%	Nil
95	Bharti Airtel Limited	0.00	98.10%	9.00	2.98%	1.99%	0.99%	1.57%	1.06%	1.15%	0.96%	96.80%	96.80%	100.00%	95.28%	97.41%	0.040%	100.00%	30 days
96	Reliance Comm	0.50	99.73%	4.42	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.88%	99.68%	99.50%	99.50%	86.90%	91.79%	0.090%	100.00%	30 days
97	Tata Teleservices	0.00	97.68%	13.00	0.00%	0.00%	0.00%	0.51%	0.42%	0.42%	1.12%	97.81%	95.00%	95.00%	83.00%	83.00%	0.100%	100.00%	30 days
98	Dishnet	0.00	98.51%	8.00	0.98%	0.99%	0.99%	0.99%	0.99%	0.99%	0.75%	99.70%	94.00%	NA	92.00%	NA	0.000%	100.00%	NA
xvii	Assam																		
99	Bharti Airtel Limited	2.06	96.80%	8.00	0.96%	0.66%	0.66%	0.91%	0.88%	0.90%	0.88%	96.00%	100.00%	100.00%	83.00%	97.00%	0.010%	100.00%	30 days
100	BSNL	3.25	98.00%	13.00	0.50%	0.90%	0.80%	1.80%	1.80%	1.80%	2.80%	98.00%	98.00%	100.00%	81.00%	95.00%	0.010%	100.00%	30 days
101	Reliance Telecom	12.80	96.70%	7.54	0.97%	0.46%	0.61%	4.70%	4.14%	3.63%	0.81%	95.10%	NA	NA	80.00%	95.00%	0.020%	100.00%	NA
102	Dishnet	0.00	98.19%	8.00	0.77%	0.80%	0.66%	0.75%	0.83%	0.75%	0.67%	99.75%	96.00%	NA	97.00%	NA	0.010%	100.00%	30 days
xviii	J & K																		
103	BSNL	0.00	98.00%	10.00	0.80%	0.90%	0.80%	1.80%	1.80%	1.80%	1.30%	98.00%	82.00%	95.00%	80.50%	96.00%	0.050%	100.00%	27 days
104	Bharti Airtel	14.50	98.70%	3.00	0.93%	0.35%	0.60%	0.48%	0.37%	0.73%	1.68%	96.82%	99.99%	100.00%	95.87%	97.85%	0.070%	100.00%	30 days

	Limited																			
105	Dishnet	0.00	97.61%	8.00	0.96%	0.80%	0.95%	0.99%	0.98%	1.00%	0.77%	99.80%	100.00%	100.00%	98.00%	NA	0.080%	100.00%	30 days	
xix	NE																			
106	BSNL	13.00	96.00%	13.00	0.40%	0.50%	0.80%	1.50%	1.40%	1.50%	2.00%	96.00%	84.00%	95.00%	86.00%	96.00%	0.000%	100.00%	30 days	
107	Bharti Airtel Limited	2.40	97.13%	8.00	0.91%	0.73%	0.93%	0.72%	0.72%	0.92%	1.20%	97.30%	98.00%	100.00%	100.00%	100.00%	0.010%	100.00%	30 days	
108	Reliance Telecom	0.00	98.00%	7.73	1.67%	1.00%	3.08%	7.30%	6.79%	7.79%	1.64%	96.92%	NA	NA	80.00%	95.00%	0.030%	100.00%	NA	
109	Dishnet	0.00	97.95%	8.00	0.77%	0.82%	0.82%	0.84%	0.88%	0.79%	0.65%	99.30%	100.00%	100.00%	100.00%	100.00%	0.000%	100.00%	NA	
	METRO																			
xx	Delhi																			
110	Bharti Airtel Limited	0.00	98.74%	13.70	0.31%	0.39%	0.28%	0.05%	0.08%	0.05%	1.29%	98.32%	99.98%	99.99%	95.99%	97.36%	0.080%	100.00%	30 days	
111	Hutch Essar	0.00	99.00%	8.04	0.01%	0.01%	0.01%	0.03%	0.03%	0.03%	1.19%	97.59%	99.71%	99.81%	78.77%	90.91%	0.070%	100.00%	15 days	
112	MTNL	0.00	95.50%	13.00	NA	1.63%	1.71%	NA	1.53%	1.43%	2.00%	96.09%	99.00%	99.00%	91.80%	94.40%	0.090%	100.00%	30 days	
113	IDEA Cellular	0.00	98.98%	8.00	0.58%	0.88%	0.71%	1.91%	1.86%	1.79%	0.70%	97.10%	100.00%	100.00%	92.00%	97.00%	0.004%	100.00%	30 days	
114	Tata Teleservices	0.00	98.10%	10.39	0.00%	0.00%	0.00%	0.15%	0.05%	0.05%	0.63%	96.01%	100.00%	100.00%	86.00%	90.00%	0.200%	100.00%	30 days	
115	Reliance Comm	0.00	99.78%	4.25	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.54%	99.09%	99.50%	99.50%	86.90%	91.79%	0.060%	100.00%	30 days	
xxi	Mumbai																			
116	BPL Mobile	1.52	99.36%	11.03	0.87%	0.33%	0.46%	3.13%	3.54%	3.22%	1.58%	98.94%	99.04%	NA	86.26%	89.77%	0.090%	100.00%	40 days	
117	Hutch Essar	0.00	98.10%	10.00	0.63%	0.80%	0.83%	1.47%	1.87%	1.57%	1.87%	95.58%	99.80%	99.76%	93.24%	97.40%	0.018%	100.00%	15 days	
118	MTNL	0.00	96.38%	10.00	0.85%	0.88%	0.91%	1.79%	1.89%	1.91%	1.86%	96.19%	83.00%	97.00%	84.00%	97.00%	0.048%	100.00%	30 days	
119	Bharti Airtel Limited	0.00	99.24%	2.90	0.36%	0.26%	0.43%	0.82%	0.72%	0.77%	1.10%	95.03%	99.97%	99.99%	96.86%	98.57%	0.020%	100.00%	30 days	
120	Reliance Comm	0.00	99.50%	3.88	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.76%	99.43%	99.50%	99.50%	86.90%	91.79%	0.080%	100.00%	30 days	
121	Tata Teleservices	14.53	98.49%	13.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.32%	95.89%	100.00%	100.00%	67.33%	72.33%	0.480%	97.96%	NA	
xxii	Chennai																			
122	Aircel Cellular Ltd	0.00	98.40%	13.50	1.00%	0.90%	0.30%	2.00%	1.90%	2.00%	0.77%	95.00%	95.00%	100.00%	84.00%	100.00%	0.100%	100.00%	30 days	
123	Bharti Airtel Limited	0.00	98.76%	14.44	0.23%	0.20%	0.25%	0.30%	0.41%	0.15%	0.52%	95.21%	99.96%	99.99%	92.00%	98.00%	0.090%	100.00%	30 days	
124	Hutch Essar	0.00	99.80%	11.11	0.03%	0.05%	0.06%	0.92%	0.99%	1.01%	0.95%	99.50%	100.00%	100.00%	98.82%	99.27%	0.023%	100.00%	15 days	

125	BSNL	0.00	98.70%	10.00	0.10%	0.20%	0.20%	1.10%	1.50%	1.20%	0.90%	100.00%	100.00%	100.00%	73.00%	80.00%	0.010%	100.00%	30 days
126	Reliance Comm	0.00	99.64%	3.85	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.49%	99.51%	99.50%	99.50%	86.90%	91.79%	0.060%	100.00%	30 days
127	Tata Teleservices	0.00	99.69%	13.17	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%	0.67%	96.19%	100.00%	100.00%	95.00%	97.00%	0.100%	100.00%	30 days
xxiii	Kolkatta																		
128	Bharti Airtel Limited	0.70	96.31%	9.00	0.20%	0.25%	0.32%	0.30%	0.29%	0.29%	1.00%	96.76%	93.34%	94.87%	85.49%	87.83%	0.010%	100.00%	30 days
129	Hutch Essar	0.00	99.87%	14.50	0.41%	0.38%	0.42%	0.52%	1.16%	1.44%	0.85%	97.83%	100.00%	100.00%	87.00%	97.76%	0.079%	100.00%	15 days
130	BSNL	0.00	96.60%	11.10	0.40%	0.70%	0.70%	1.70%	1.90%	1.70%	0.20%	98.70%	95.00%	99.00%	64.00%	78.00%	0.040%	100.00%	30 days
131	Reliable Internet. Ser.	0.00	99.33%	8.17	0.60%	0.80%	0.30%	2.80%	2.10%	0.40%	1.22%	98.40%	NA	94.30%	98.80%	NA	0.000%	NA	NA
132	Tata Teleservices	17.00	97.30%	8.73	0.00%	0.00%	0.00%	0.14%	0.07%	0.07%	0.63%	96.71%	94.00%	94.00%	87.00%	87.00%	0.100%	100.00%	30 days
133	Reliance Comm	0.00	99.52%	3.86	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.59%	99.32%	99.50%	99.50%	86.90%	91.79%	0.070%	100.00%	30 days
Service Providers not meeting the benchmarks NA=Data not available N/Ap = Not Applicable																			

Quality of Service Performance for ISPs

S. No.	Name of the Service Provider	Service Activation time	Time to Access	Access Probability in 1 st attempt (in %)	Access Probability in 2 nd attempt (in %)	Access Probability in 3 rd attempt (in %)	ISP Node unavailability	Grade of Service (QoS)	Mean time to Restore of faults resulting as per subscriber complaints	
	TRAI Benchmarks	6 hrs	30 sec	80	90	99	30 min	1 : 100	3 days	
1	Bharat Sanchar Nigam Ltd.	0-4 hrs	15-30 sec	90	95	100	Nil	1:100	0-4 hrs	
2	MTNL	Delhi	Online	30 sec	99.69	99.99		N.R.	0.01	5 min
		Mumbai	Immediate	26 sec	100			N.R.	0.005	15 min
3	Sify Ltd.	3 mins	30 sec	90	95	99	20 min	0.005	4 hrs	
4	Bharti Airtel Ltd. (Bharti Televentures Ltd.)	5 min (online)	30-35 sec	99.8	100	100	Nil	1:100	2 hrs	
5	Reliance Communications Infrastructure Ltd.	Online	<25 sec	98	100		N.R.	N.R.	<45 mins	
6	VSNL	2-4 hrs	30 sec	80	90	99	Nil	Not provided by BSO	10-15 min	
7	YOU Telecom India Pvt. Ltd. (BG Broadband)	2 min (Online)	20 sec	98	99	100	Nil	Not provided by BSO	28 hrs	
8	Hathway Cable & Datacom Pvt. Ltd.*	-	-	-	-	-	-	-	-	
9	Data Infosys	2-3 min	20-25 sec	95	97	99	30 min	1:100	15 min	
10	HCL Inffinet Ltd.	4 min	26 sec	99.4	99.2	99.5	26 min	1:200	17-19 hrs	
11	Asianet Satellite Communications Ltd.	Immediate	10 sec	98	99	100	<1 Hr	1 in 500	2:05 Hrs	
12	HFCL Infotel Ltd.	N.R.	30 sec	98.2	99.2	100	-	0.85 in 100	6.2 min	
13	IceNet.Net.Ltd.	2 hrs	20 sec	85	95	100	Nil	1:100	1 hr	
14	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	-	25 sec	99	Nil	Nil	N.R.	1:1000	1 hr	
15	Shyam Internet Services Pvt. Ltd.	5 min	20 sec	98.5	99.5	99.99	15 min	1%	1.5 hrs	
16	Fascal Ltd.*	-	-	-	-	-	-	-	-	
17	Hughes Escorts Communications Ltd.*	-	-	-	-	-	-	-	148.5 min	
18	WWW Communications Ltd.	4-5 mins	20-35 sec	87	96	99	190 min	N.R.	10-15 min	
19	Spectra Net Ltd.*	-	-	-	-	-	-	-	3 hrs	
20	Broadband Pacenet (I) Pvt. Ltd.*	-	-	-	-	-	-	-	3 hrs	

NOTE:

*are not providing Internet Access on Dial Up. The Internet Access is provided through Cable TV/OFC (Hathway Cable & Data Pvt. Ltd.), Mobile via WAP setup (Fascal Ltd), on VSAT (Hughes Escorts), OFC (Spectra Net Ltd), and Cable TV (Broadband Pacenet (I) Pvt. Ltd. These ISPs have been included in Top 20 on the basis of Total Number of Subscribers.

N.R. : Not Reported

The parameters, which are below the benchmarks, are indicated in the bold and shaded. Information regarding QoS of ISP has been received from all top 20 ISPs. It is observed that most of the ISPs are able to meet the benchmarks, barring one or two cases.