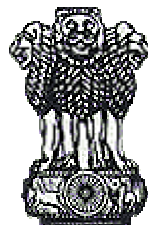


Telecom Regulatory Authority of India



The Indian Telecom Services
Performance Indicators Jan-Mar'05

June 2005

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(i) INTRODUCTION

- 1.1 This report provides an update on the growth trends for the telecom services for the period **January-March 2005**. It presents a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts as an update over the previous reports, which pertained to financial years 2002-2003, 2003-2004 and three quarters of financial year 2004-05. Due to the Unified Access Service Regime, the details under mobile services combine both GSM & CDMA. The Fixed Service details also include WLL (F) and Village Public Telephones (VPT). The summary of the growth pattern of Fixed, Mobile and Internet services in form of 'Quarterly results at a Glance' is given at the beginning of this compilation.
- 1.2 The information on revenue and usage for GSM services given under Part B of Chapter 3 of compilation and the related tables pertaining to the period Oct-Dec 2004. Information for the quarter ending March 2005, provided by the service providers are under scrutiny and will be published in the next issues of Indian Telecom Services Performance Indicators
- 1.3 The information for this report has been collected from various telecom operators and service providers. TRAI collects performance-oriented data from various service providers on a quarterly basis to monitor the growth trend in the sector and to decide upon pro-active and suo motto measures to fuel the growth of the telecom services in the country. The data provided in this report is purely provisional and subject to change. TRAI regularly conducts review of its data collection programme to ensure that its processes remains appropriate/relevant in the rapidly growing telecom sector and are consistent with changing regulatory framework.
- 1.4 This quarterly report is available on the TRAI website (www.traigov.in) and is updated on quarterly basis. Any suggestions pertaining to this may please be addressed to S. N. Gupta, Advisor (CN), TRAI; Tel. 26167914, Fax. 26103294 and e-mail: traigov@bol.net.in.

(ii) Quarterly Results at a Glance

Performance Indicators of Telecom Services for QE Mar'05 (FY 2004-05)

A. Growth of Fixed & Mobile Services:-

	FY 2003-04	QE Sept 2004	QE Dec 2004	QE Mar'05 (FY 2004-05)	%age growth over Dec 2004 (3 months)	%age growth over Sept 2004 (6 months)	%age growth over FY 2004 (12 months)
1) Subscriber's Base (in millions)							
i) Fixed Line including WLL(F)	42.84	43.87	44.87	46.19	2.94	5.29	7.82
ii) Mobile (GSM + CDMA)	33.69	42.99	48.01	52.22	8.76	21.47	55.00
Gross Total	76.53	86.86	92.88	98.41	5.95	13.30	28.59
2) Traffic (MOU) (minutes of use/ sub/month)							
i) Mobile (GSM)	322	302	325	*			
3) ARPU (Rs./sub/ month)							
i) Mobile (GSM)	436	404	398	*			
ii) Mobile (CDMA)	382	*	*	*			
4) Teledensity							
Population in million (Estimated)	1067	1073	1077	1080	0.28	0.65	1.22
i) Fixed including WLL(F)	4.01	4.09	4.17	4.28	2.66	4.61	6.52
ii) Mobile (GSM + CDMA)	3.16	4.01	4.46	4.84	8.46	20.68	53.13
Gross Total	7.17	8.10	8.62	9.11	5.66	12.56	27.04

* Revenue usage data made available by service providers for quarter ending March 2005 is under scrutiny and certain clarifications are awaited from service providers

B. Growth of Internet Services:-

	FY 2003-04	QE Sept 2004	QE Dec 2004	QE Mar'05 (FY 2004-05)	%age growth over Dec 2004 (3 months)	%age growth over Sept 2004 (6 months)	%age growth over FY 2004 (12 months)
1) Subscriber's Base (in million)							
i) Internet	4.55	5.14	5.45	5.55	1.83	7.98	21.98
ii) High Speed Internet Connection (<256 Kbps)	0.19	0.31	0.65	0.696	7.08	124.52	266.32
ii) Broadband Connections (>=256 Kbps)	--	--	0.047	0.183	289.36	--	--
2) Minutes of Use (MOU/ subs/month)							
	400	320	275	305	10.91	-4.69	-23.75
3) ARPU (Rs/subs/month)							
	406	280	167	220	31.74	-21.43	-45.81

C. Performance of service providers during the quarter: -

(I) Fixed Line including WLL(F) Subscribers Base(in Million)

1) Basic Service Providers	FY 2003-04	QE Sept 2004	QE Dec 2004	QE Mar'05 (FY 2004-05)	%age growth over Dec 2004 (3 months)	%age growth over Sept 2004 (6 months)	%age growth over FY 2004 (12 months)
BSNL	36.11	36.15	36.49	37.04	1.50	2.46	2.58
MTNL	4.38	4.12	4.08	4.06	-0.37	-1.46	-7.31
Tata/ Hughes	1.00	1.64	2.00	2.58	28.74	57.32	158.00
Bharti	0.64	0.77	0.80	0.86	6.97	11.69	34.38
Reliance	0.50	0.92	1.18	1.31	10.83	42.39	162.00
HFCL	0.12	0.16	0.18	0.19	4.40	18.75	58.33
Shyam	0.09	0.108	0.13	0.15	15.38	38.89	66.67
Total	42.84	43.87	44.87	46.19	2.94	5.29	7.82

(II) Mobile Services Subscriber Base (in Million)

Service Providers	FY 2003-04	QE Sept 2004	QE Dec 2004	QE Mar'05 (FY 2004-05)	%age growth over Dec 2004 (3 months)	%age growth over Sept 2004 (6 months)	%age growth over FY 2004 (12 months)
Reliance	7.26	9.04	10.15	10.45	3.00	15.60	43.94
Bharti	6.50	8.70	9.83	10.98	11.74	26.21	68.92
BSNL	5.53	7.96	8.90	9.90	11.29	24.36	79.01
Hutch	5.15	6.37	7.18	7.79	8.51	22.29	51.26
Idea	2.73	4.36	4.70	5.07	7.96	16.28	85.71
BPL Group	1.88	2.34	2.47	2.58	4.54	10.26	37.23
Others	1.29	1.47	1.65	1.76	6.86	19.73	36.43
Spice	1.21	1.42	1.50	1.44	-3.81	1.41	19.01
Escotel	0.99						
Tata/ Hughes	0.63	0.69	0.81	1.09	35.24	57.97	73.02
MTNL	0.46	0.57	0.78	1.08	39.18	89.47	134.78
HFCL	0.03	0.043	0.05	0.05	2.04	16.28	66.67
Shyam	0.03	0.027	0.03	0.03	15.38	11.11	0.00
Total	33.69	42.99	48.01	52.22	8.76	21.47	55.00

Chapter One

PERFORMANCE OF FIXED SERVICES

Subscribers Base crosses 46 million

1.1 SUBSCRIBERS BASE: -

1.1.1 As on 31st March 2005, the Fixed lines were provided by 5 licensed private operators in addition to incumbents BSNL and MTNL. During the quarter M/s Tata Teleservices has started their services in Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata circles, M/s Bharti also started their service in Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata circles. List of Fixed Service provider's along with their area of operation is given in Table 1:

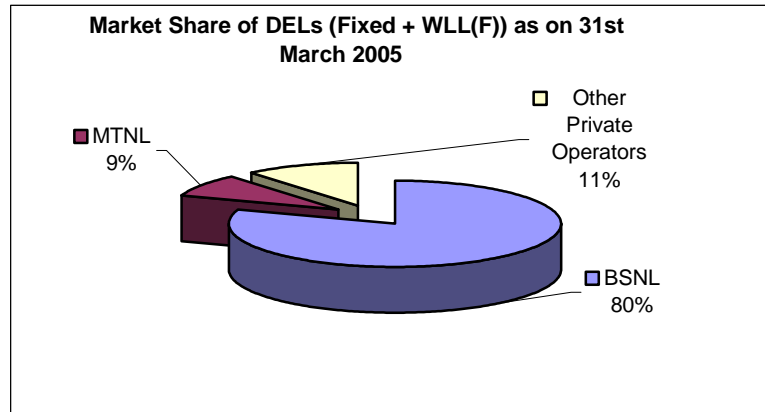
Table 1

S.No.	Name of the Service Provider	Area of Operation
1	BSNL	All India (Except Delhi & Mumbai)
2	MTNL	Delhi & Mumbai
3	Bharti Telenet Ltd	MP, Delhi, Haryana, Tamil Nadu, Chennai, Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata
4	Tata Teleservices Ltd	Maharashtra, Andhra Pradesh, Tamil Nadu, 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
5	HFCL Infotel Ltd	Punjab
6	Shyam Telelink Ltd	Rajasthan
7	Reliance Infocomm.Ltd.	Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, MP, Maharashtra, Mumbai Orissa, Punjab, Rajasthan, Tamil Nadu, Chennai, UP(E), UP(W), West Bengal, Kolkata

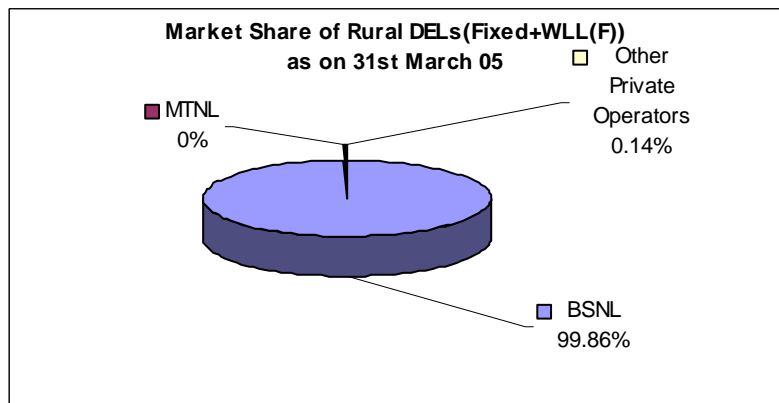
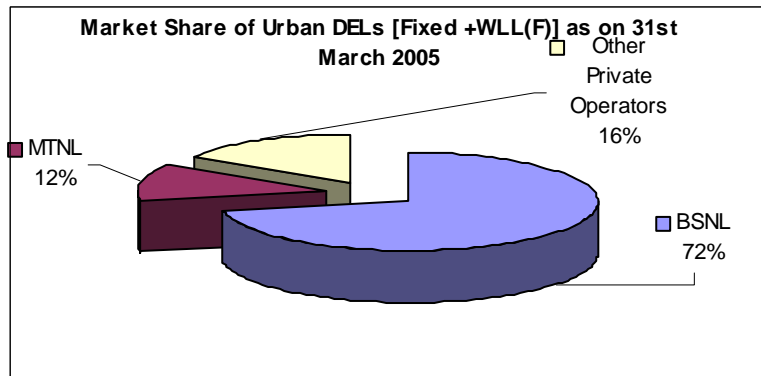
The information in this report is based on the data provided by the Fixed Service Providers. The operator-wise subscriber base is given in Table 1.1.

1.1.2 Market Share of DELs

As on 31st March 2005, the total subscriber base of Fixed lines including WLL (F) stood at 46.2 million. The incumbents BSNL and MTNL have 80% and 9% market share respectively in the subscriber base, while all the five private operators have 11% share. In the current quarter the share of private operators have increased by 1% and the share of BSNL has declined by 1% whereas the share of MTNL remains the same.

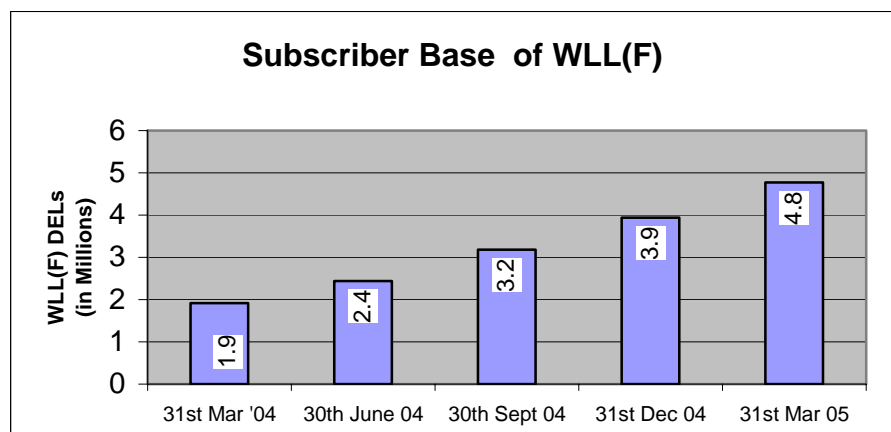
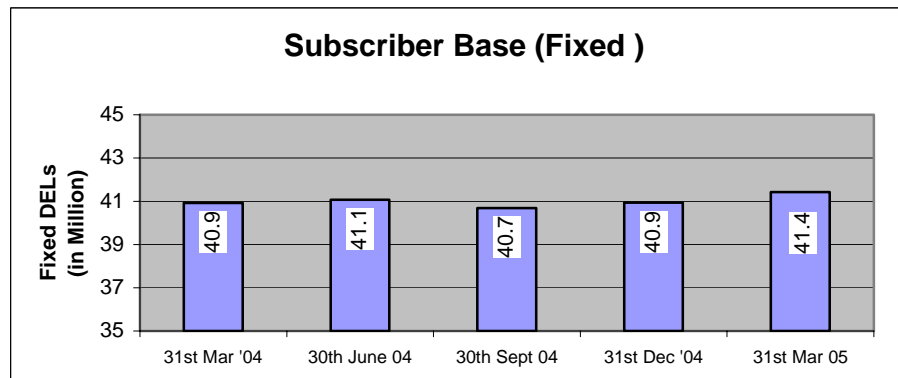
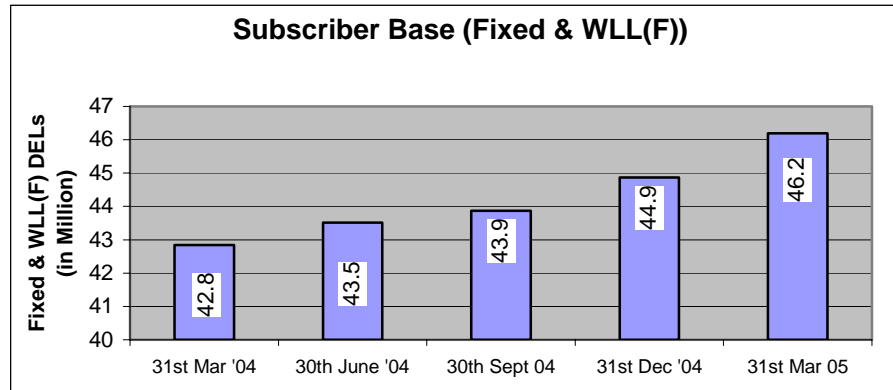


As on 31st March 2005 total urban DELs are 32.74 million and rural DELs are 13.45 million. The market share of Fixed Service Providers in Urban DELs and Rural DELs is depicted in the chart below:



1.1.3 Subscriber Base of Fixed & WLL(F) for last five quarters

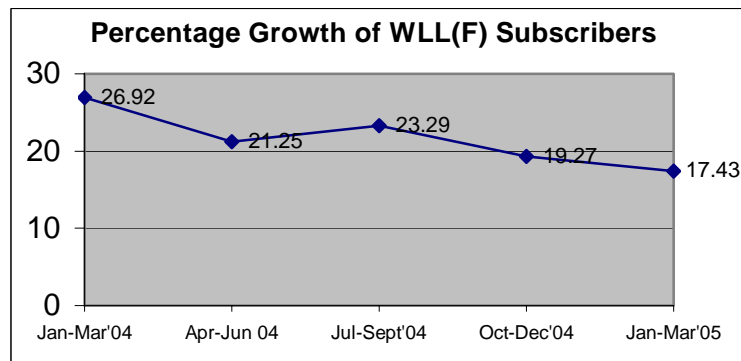
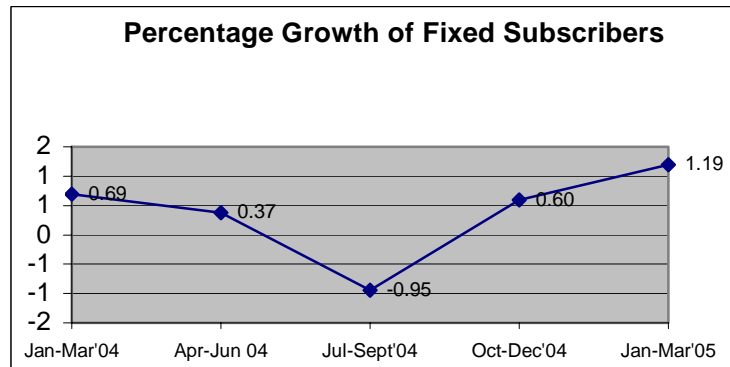
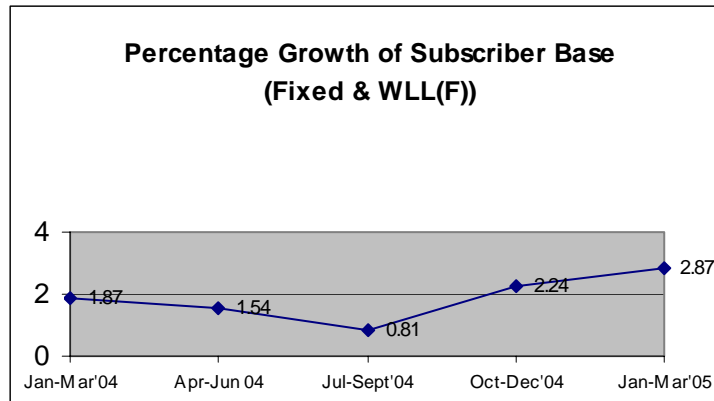
The subscriber base of the Fixed service sector for last five quarters is depicted in the bar chart below:



1.1.4 Growth of DELs

The Fixed Service sector has registered a growth of 13,25,918 lines during the Quarter from January 2005 to March 2005. The actual number of DELs has increased from 4,48,72,107 as on 31th Dec. 2004 to 4,61,98,025 as on 31st March 2005. The overall percentage growth in subscriber base during the Quarter is 2.87%.

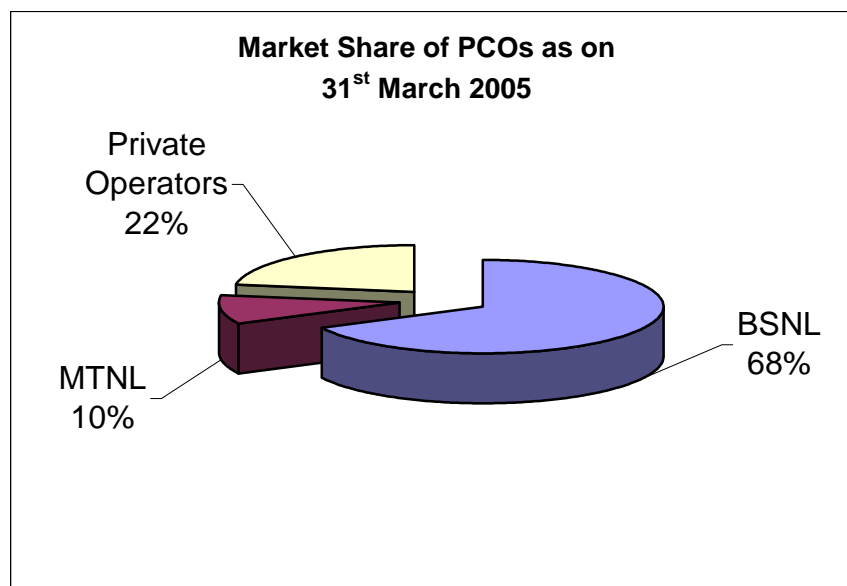
Average percentage growth rate of Fixed Wireline and WLL(F) Subscribers



1.2 Other Performance Indicators: -

1.2.1 Public Call Offices:

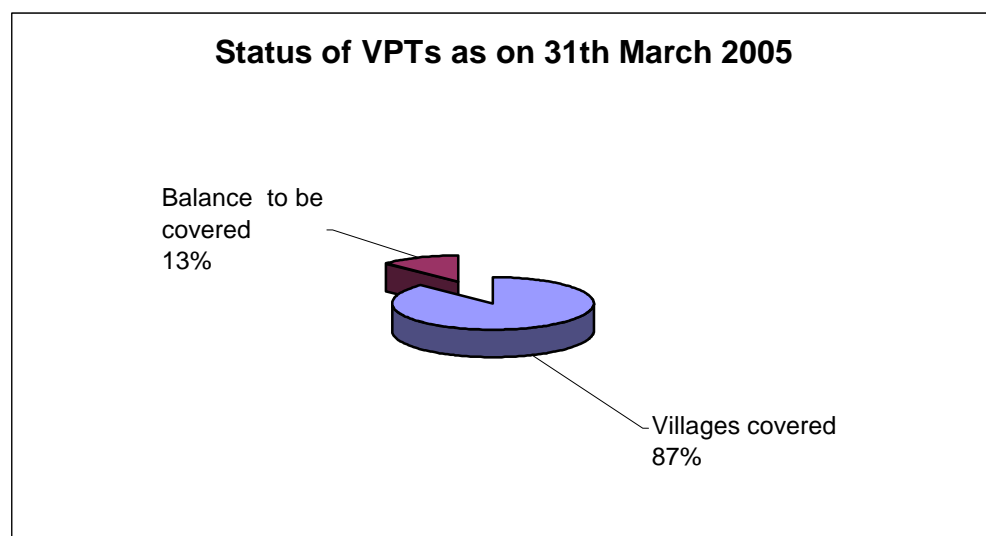
During the current quarter 2,39,820 new PCOs have been added. Total number of PCOs in the country as on 31st March 2005 is 27,71,132. The contribution of BSNL is 18,71,268 i.e. 68% of the total PCOs. The contribution of MTNL and other private operators is 2,79,776 (10 %) and 6,20,088 (22%) respectively.



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:

There are 6,07,491 villages in India. During the quarter ending 30th December 2004 there were 5,25, 272 VPTs in the country whereas by the end of this quarter, the total number of VPTs has marginally increased to 5,30,616. Thus 5,344 VPTs have been added during the current quarter. The total number of villages left uncovered, as on 31st March, 2005 are 76,875. BSNL has added 6,172 VPTs during the quarter whereas there was a decrease of 191 VPTs of MTNL, 607 VPTs of Bharti and 31 VPTs of HFCL during this quarter.



Operator-wise details of village public telephones as on 31st March 2005 and achievement during the quarter is available at **Table 1.3**.

Chapter Two

Performance of Mobile Services

Subscriber Base crosses 52 million

PART A

2.0 Details of service providers: - Following operators were providing mobile service including GSM & CDMA in the respective service areas: -

Sl. No.	Service Provider	Services started	No. of Circles
1	BSNL	Chennai, Kolkata, Maharashtra, Gujarat, AP, KTK, TN, KR, Punjab, HR, UP-W, UP-E, Raj, MP, WB, HP, Bihar, Orissa, Assam, NE, J&K	21
2	Bharti	All India	23
3	Reliance	Delhi, Mumbai, Chennai, Kolkata, MH, Guj, AP, KTK, TN, KR, Punjab, HR, UP-W, UP-E, Raj, MP, WB, HP, Bihar, Orissa, Assam, NE	22
4	Tata Teleservices	Delhi, Mumbai, Chennai, Kolkata, MH, Guj, AP, KTK, TN, Punjab, HR, UP-W, UP-E, Raj, MP, WB, HP, Bihar, Orissa	19
5	Hutch	Delhi, Mumbai, Chennai, Kolkata, Guj, AP, KTK, Punjab, HR, UP-W, UP-E, Raj & WB	13
6	IDEA	Delhi, MH, Guj, AP, KR, HR, UP-W, MP	8
7	BPL	Mumbai, MH, TN, KR	4
8	Aircel Cellular	Chennai, TN	2
9	MTNL	Delhi, Mumbai	2
10	Spice Communications	KTK, Punjab	2
11	HFCL	Punjab	1
12	Shyam Telelink	Rajasthan	1

Circle-wise details of Cellular, Fixed & Unified Access Service providers at the end of the quarter are given at Annex 2.1. All the service areas of the country have mobile operators ranging from 3 to 7.

2.1 Growth of Subscribers Base: -

2.1.1 Subscribers Base

The Mobile (GSM and CDMA) Industry has crossed the 52.2 million subscribers mark (GSM 41.07 million & CDMA 11.14 million) at the end of quarter ending 31st March 2005.

2.1.2 Addition in Subscribers Base

The subscriber's base stood at 52.2 million for the quarter ending March 2005 as against 48 million for the quarter ending December 2004. It added 4.2 million subscribers in this quarter.

2.1.3 Growth Rate

The growth for this quarter is 8.76% as against 11.67% for the quarter ending December 2004. M/s Bharti is the largest mobile operator followed by M/s Reliance and M/s BSNL.

2.1.4 Company wise Market Share:

- a) The Subscriber Base of different Mobile operators is given in Table 2.1. The top five Mobile operators on the basis of market share are as under: -

Cellular Group	Subscribers on March, 05	Market Share	Technology Used
Bharti Grp	10,984,280	21.0	GSM
Reliance Grp	10,446,053	20.0	GSM & CDMA
BSNL	9,899,425	19.0	GSM & CDMA
Hutchison Grp	7,797,720	14.9	GSM
IDEA Grp	5,069,693	9.7	GSM

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 Mobile (GSM) service as on March 2005 among Metros, Circles A to C is given in Table 2.3.

2.1.5 Change in Market Structure

M/s Bharti Cellular Ltd has started its services in Bihar, Assam and North-East. Now they are providing services in 23 circles in All India. M/s Reliable Internet has started its services in Kolkatta circle. M/s Tata Teleservices has started its services in all its licensed areas. M/s BSNL started services as CDMA operator in North-East circle. The name of M/s Hutch Essar Telecom Limited has changed into Hutchison Essar Mobile Limited.

PART B

[Information in the part pertains to October-December 2004 for GSM services]

2.2 GSM Services Trends: -

2.2.1 Highlights:

- Share of prepaid subscribers in total mobile (GSM) subscriber base is 73.6% at the end of December 2004, as compared to 74.5% at the end of September 2004.
- Growth rate of postpaid segment (13.88%) has been almost double than that of prepaid segment (9.74%).
- All India ARPU for Mobile service (GSM) for the quarter ending December 2004 is Rs. 398 showing a marginal decrease of 1.5% from Rs.404 for the quarter ending Sept-04.
- All India postpaid ARPU at Rs. 672 per month is more than double the all India prepaid ARPU of Rs. 302 per month.
- BSNL/MTNL recorded a lower ARPU per month (Rs. 372) than that of private GSM service providers (Rs. 406).
- Average MOU per subscriber per month for Mobile service (GSM) for the quarter ending December 2004 is 325 as compared to 302 per month during the quarter ending Sept-04, recording an increase of about 7.6%.
- On an average a mobile (GSM) subscriber makes 119 minutes of outgoing calls, sends 31 SMS and receives incoming calls for 206 minutes in a month.
- The ratio of incoming – outgoing calls in Mobile (GSM) traffic is 63:37 during the quarter ending Dec-04 as against 64:36 during the quarter ending Sept-04. The proportion of outgoing usage has been increasing slowly and steadily.
- Overall proportion of roaming revenue to the total revenue for GSM operators for the quarter ending Dec-04 is 14.16% as against 12.08% in the quarter ending Sept-04.
- Distribution of outgoing minutes between local, NLD & ILD is 78.68%, 20.33% and 0.98% respectively.
- Mobile to Mobile local traffic accounts for 74% of the local traffic; on an average 53% of the traffic terminates within network of the same operator.

2.2.2 ARPU – GSM Service

The all India blended ARPU per month for Mobile Service (GSM) has marginally gone down from Rs. 404 in the quarter ending Sept-04 to Rs. 398 in the quarter ending Dec-04. The lowest blended ARPU is in Circle B (Rs. 339) and the highest is in Metro (Rs. 472). The all India ARPU per month for postpaid segment has experienced a decline of 4.95% from Rs. 707 in the quarter ending Sept-04 to Rs. 672 in the quarter ending Dec-04. On the other hand, ARPU per month for prepaid segment has shown a marginal increase of 1% from Rs. 299 in the quarter ending Sept-04 to Rs. 302 in the quarter ending Dec-04. Postpaid ARPU has been 2.22 times that of prepaid ARPU in the quarter ending Dec-04, as against 2.37 times

during the previous quarter i.e. Sept-04. BSNL/MTNL recorded an ARPU of Rs. 372 per month for the quarter ending Dec-04, which is lower than that of private GSM service providers (406). This is perhaps a direct reflection of the sharp cut in tariffs effected by BSNL/MTNL in September/October 2004. Highest ARPU is seen in Metros both for postpaid as well as prepaid segment.

The details are at Annex 2.2.

2.2.3 Composition of Revenue of GSM Service Providers

Details for Composition of Revenue of GSM Service Providers are given at Annex. 2.2.

2.2.4 Usage Pattern in GSM Service

Minutes of Use (MOU) per subscriber has increased from 302 in quarter ending Sept-04 to 325 in quarter ending Dec-04, thereby showing an increase of about 7.6%. The incoming-outgoing minutes ratio is 63:37. For postpaid alone, ratio of incoming-outgoing minutes is 57:43 and for prepaid segment it is 69:31. The outgoing and incoming MOU per subscriber has been highest in Circle C, 156 & 272 minutes respectively and the lowest usage has been in Circle B, 107 & 163 minutes respectively. The highest number of outgoing messages has been seen in Circle A (40 per subscriber month), followed by Metros (35). Highest MOUs (Outgoing + incoming) per subscriber for postpaid as well as prepaid segment is in Circle C at 663 and 295 respectively. (Annex 2.2).

2.2.5 Revenue per Minute (RPM) – GSM Service

Revenue realization per minute [Net Revenue/ total MOU(I/C + O/G)]
[in Rs.]

Circle	Revenue Realized Per minute in Postpaid	Revenue Realized Per minute in Prepaid	Blended Revenue realized per minute
Circle A	1.01	1.19	1.10
Circle B	1.06	1.39	1.25
Circle C	0.90	1.16	1.01
Metro	1.38	1.45	1.40
All India	1.13	1.32	1.23

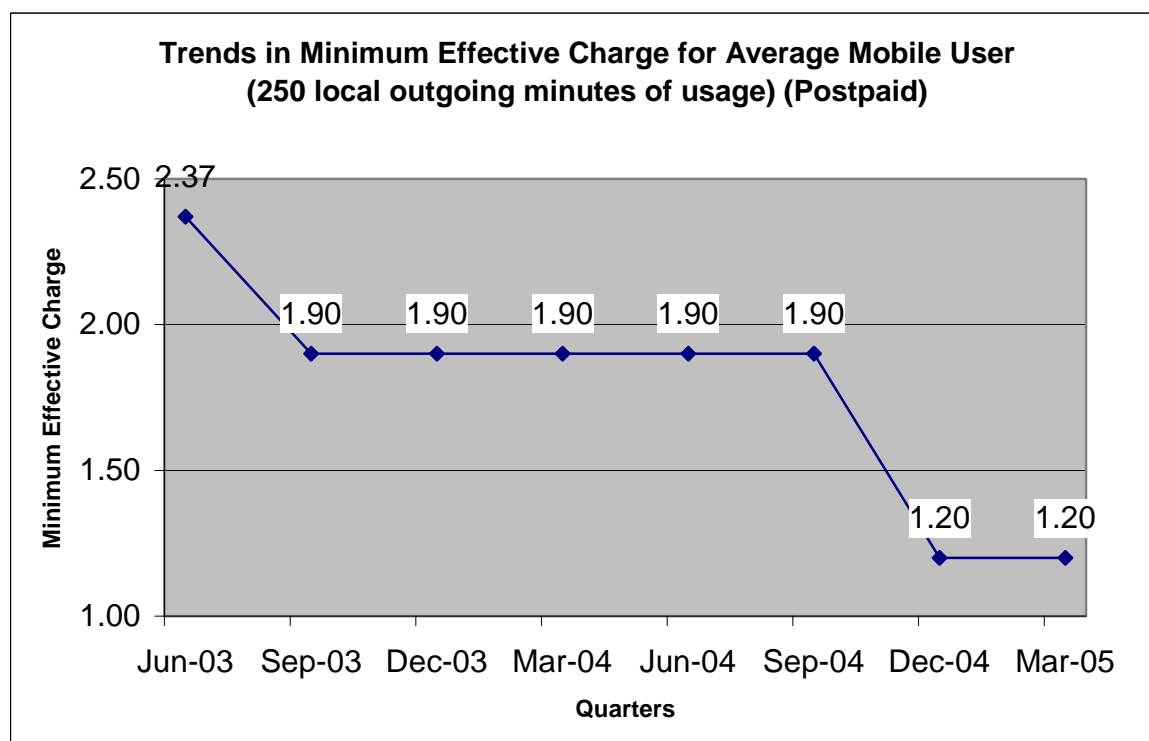
The all India blended RPM for Mobile Service (GSM) for the quarter has declined by about 9% from 1.35 in the quarter ending Sept-04 to 1.23 in the quarter ending Dec-04.

2.2.6 Minimum Effective Charge:

Trend in Minimum Effective Charge per minute for fully mobile services including CDMA:

Minimum effective charge reflects the actual pay out by an average user with a total outgoing usage of 250 local minutes per month. During the quarter ending March 2005, no change in the minimum effective charge for mobile services and it remained at the level of Rs. 1.20 / min. Assumptions used to work out minimum effective charge are as follows:

1. Total outgoing traffic has been distributed between fixed and mobile based on the market share of the networks prevailed at the end of the respective quarter upto Sep-04. From Dec-04 onwards, the traffic information furnished by the Mobile (GSM) operators as a part of quarterly revenue report have been used.
2. Charges payable by the subscriber on account of rental, local call charges, and CLIP are included. Free call allowance has also been considered.
3. Service tax and other levies are excluded.
4. Average holding time is taken as 1 minute
5. 30% of the usage has been attributed to on-net calls, wherever concessional rates for such calls are provided
6. Charges have been calculated for outgoing usage only since incoming calls are free due to CPP w.e.f. 1.5.03



Chapter Three

Performance of Internet Services

Subscribers base crosses 5.5 million mark
Broadband makes headway

3.1 Service Providers & Subscribers Base: -

For the quarter ending March 2005, 172 Internet Service Providers were operational. Bharat Sanchar Nigam Ltd (BSNL) has retained its top position and reported a subscriber base of 18.39 Lakhs against 16.79 Lakhs during the last quarter. Mahanagar Telephone Nigam Limited (MTNL) has retained second position with a subscriber's base of 10.12 Lakhs against 9.49 Lakhs subscribers during the last quarter. M/s Sify Limited has moved up to third position with a subscriber base of 8.11 lakhs as against 7.72 lakhs. M/s Videsh Sanchar Nigam Limited has slipped down to fourth position with subscriber base of 7.02 lakhs. Reliance Communications Infrastructure Ltd. reported a subscriber base of 2.46 Lakhs and remained at fifth place during the quarter ending 31st March 2005. (Ref Table 3.1).

The reported subscriber base has touched 55.54 lakhs as on quarter ending 31st March 2005 as compared to 54.50 lakhs during the preceding quarter registering an increase of 1.91 % during the quarter.

3.2 Internet Telephony: -

The Internet Telephony was thrown open for Internet service provider's w.e.f 1st April'02. DOT has given permission to 121 ISPs to offer Internet Telephony services as on March,2005, and as per the report submitted to TRAI, 51 ISPs have started Internet Telephony services, the list of which is enclosed at Annex 3.2. Total minutes of the usage for Internet Telephony during the quarter were 41.52 million, as compared to 43 million for the last quarter.

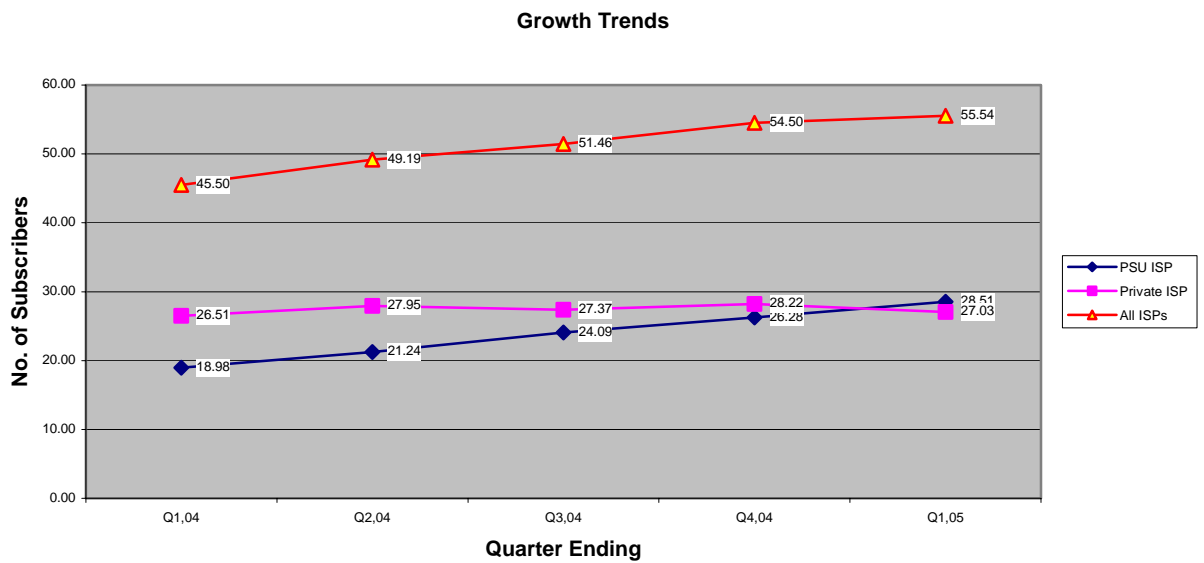
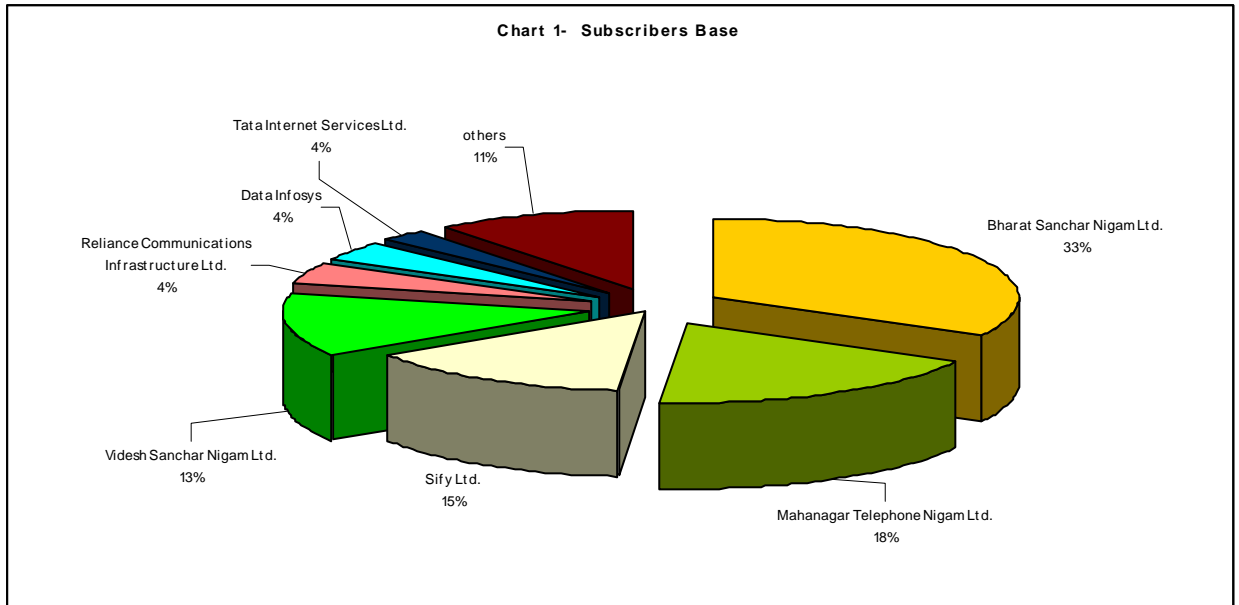
3.3 Market Share: -

The subscriber base has touched 55.54 lakhs as on quarter ending 31st March,2005 as compared to 54.50 lakhs during the preceding quarter registering an increase of 1.91 % during the quarter.

The market share of top 5 ISPs is as under:

ISP	Share in %
Bharat Sanchar Nigam Ltd.	33.11
Mahanagar Telephone Nigam Ltd.	18.22
Sify Ltd.	14.62
Videsh Sanchar Nigam Ltd.	12.65
Reliance Communications Infrastructure Ltd.	4.44

Among PSU owned ISPs; M/s BSNL has reported a subscriber's base of 18.39 Lakhs during the quarter ending 31st March, 2005 as against 16.79 Lakhs during the previous quarter registering an increase of 9.52 %. M/s MTNL has reported a subscriber base of 10.12 Lakhs against the subscriber base of 9.49 Lakhs reported during the previous quarter, registering an increase of 6.63 %.



3.4 Leased Lines Connectivity: -

The numbers of Leased Lines connections reached 12,204 during the quarter as compared to 12,195 during last quarter.

3.5 Cyber Cafes/Community Internet Centres (CIC): -

There are reported to be 8791 Cyber Cafes during the quarter ending March,2005, out of which 7879 have been franchised by the ISPs and 912 are non-franchised.

3.6 High Speed Internet Connectivity: -

The number of subscribers accessing Internet through 'Always-On' High Speed connections (less than 256 Kbps) during the quarter reached 6,96,370.

3.7 Broadband Connectivity (>=256 Kbps)

The number of Broadband subscribers with a download speed of 256 kbps or more, as reported by ISPs, was 1,82,987 at the end of 31st March,2005 as compared to 46,638 of 31st December,2004, thus registering a growth of 292% over the previous quarter.

3.8 Minutes Of Use (MOU)per subscriber: -

As reported by 39 ISPs the average minutes of use per subscriber/ month is approximately 305 minutes.

3.9 Average Revenue Per User (ARPU) for ISPs: -

A total of approx. Rs 357 crores revenue has been reported during the quarter. The average revenue per user (ARPU) per month for Internet usage was of the order of Rs 220.

3.10 International connectivity: -

The bandwidth owned by various IGSP for their ISP operations and Leased lines is reported to be 6.5 GB for downlinking and 6.4 GB for uplinking.

Chapter Four

Performance of Other Value Added Services

Growth trend continues

4.1 Public Mobile Radio Trunked Service (PMRTS): -

Out of 13, only 11 service providers of Public Mobile Radio Trunked Services have submitted their reports in this quarter.

4.1.1 Performance during the Quarter Ending 31st March 2005:

- The subscriber base of PMRTS increased from 26153 in Dec 2004 to 26330 in March, 2005 registering a marginal growth rate of 0.68%.
- Delhi, Mumbai, Bangalore and Chennai together account for 71.65% of market share of the total subscribers. Delhi leads the tally with the market share of 9043 subscribers followed by Bangalore, Mumbai and Chennai with the market share of 3786, 3641 and 2396 subscribers respectively.
- Procall Limited leads the tally of subscribers with a subscriber base of 8121 followed by Arvind Mills and QuickCalls India Pvt. Ltd. with a subscriber base of 6520 and 3654 respectively. Smartalk Pvt. Limited, Arya Offshore Service Pvt. Ltd., Hapag Liyod, The Arvind Mills Ltd., Aryadoot Transport Pvt. Ltd. and Quick call have registered a negative growth rate of 8.99%, 5.02%, 4.57%, 0.93%, 0.29% and 0.25% respectively. M/s Bhilwara Telenet Services Pvt. Ltd. has increased their subscribers base with the highest growth rate of 25.21%.
- M/s Mobilcom India Ltd. and India Satcom Ltd. have not submitted their report 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 9 VSAT service providers.

4.2.1 Performance during the quarter ending 31st March 2005:

- VSAT services are being provided by 9 VSAT service providers.
- M/s Telstra Vishesh has not submitted their report in this quarter, so the figure of last quarter has been taken.
- M/s RPG Satellite Communications Pvt. Ltd. have surrendered their license and the license of M/s HFCL has been cancelled by DOT.

- In the present quarter, there was an addition of 2182 new subscribers. The total number of subscribers increased from 36221 in Dec, 2004 to 38330 in March, 2005, registering a growth of 5.75% as against the growth rate of 12.24% in quarter ending Dec, 2004. HCL Comnet remained the market leader with 13452 VSAT subscribers followed by Hughes Escorts Communications Ltd. (HECL) with 12012, Bharti BT with 5581 and Comsat Max with 4453 VSAT subscribers respectively.
- M/s HCL Comnet added the maximum number of new connections 1369 with a percentage growth rate of 11.33%. M/s Essel Shyam and M/s ITI Ltd. are having the negative growth of 22.95%, and 3.77% respectively in this quarter.

The number of subscribers of each service providers from quarter ending December 2003 to September 2004 along with the Market Share in terms of Percentage of Subscribers as on 31st March 2005 is given in Table 4.2.

4.3 Radio Paging: -

As on date there are 10 service providers with paging service licensees for 61 service areas.

4.3.1 Performance during the Quarter Ending 31st December 2004:

- ❖ The total subscriber base decreased from 43320 in Sept, 2004 to 28028 in December 2004 registering a negative growth of 35.30%.
- ❖ The subscriber base of all the service providers except M/s RPG Paging Services Limited decreased in this quarter. M/s RPG Paging Service has retained the same subscribers base in this quarter as was in previous quarter.
- ❖ In the present quarter Netherlands India Communications Ltd. has not submitted their report.
- ❖ M/s Page Point Services India Limited remained the market leader with 17387 subscribers in this quarter.
- ❖ M/s DSS Mobile Communications has decreased from 7580 to 2963, the highest fall in subscribers base in this quarter with a negative growth rate of 60.91%.

The number of subscribers of each service providers from quarter ending June 2004 to December 2004 along with the growth rate in terms of Percentage of Subscribers as on 31.12.2004 is given in Table 4.3.

Chapter Five

Quality of Service (QoS) Performance

5.1 Quality of Service performance of Basic Service Operators for the quarter ending March 2005: -

Based on Quality of Service Parameters reported by all the Basic Service Operators for the quarter ending March 2005, the information on QoS performance is attached to this report as Annex 5.1.

From perusal of the report (Annex 5.1) following points emerge: -

(1) **Provision of telephone within 7 days for exchange areas declared “ On Demand”.**

41 out of 63 service providers have not met the QoS benchmark for this parameter. The performance of MTNL (Mumbai) and BSNL (Andhra Pradesh, Bihar, Maharashtra, Jharkhand, J&K, Kerala, Kolkata, North-East-I, North-East-II, UP –E, UP – W and West Bengal) is (56.97%), 51.28%, 51.74%, 52.24%, 19.87%, 22.15%, 43.83%, 48.97%, 45.34%, 52.32%, 26.83%, 57.76% and 37.90% respectively against the benchmark of 100%.

M/s Reliance Infocom Limited (all circles) has reported 100% promptness for this parameter.

(2) **Fault incidences per month per 100 telephones (should be less than 3 Faults per 100 phones per month)**

BSNL and MTNL have not met the stipulated QoS benchmark for this parameter in all their circles.

All the private operators have met the TRAI stipulated benchmark of <3 faults per month per 100 telephone connections.

(3) **Percentage of faults repaired by next working day (should be >90%)**

16 out of 26 circles of BSNL have met the TRAI's QoS benchmark on “Fault Repair by next working day”. MTNL (Delhi & Mumbai) has failed to meet the specified QoS benchmarks.

All the private operators except Tata Teleservices (AP) have met the QoS stipulated benchmark of >90% for this parameter.

(4) **Mean Time to repair (MTTR) (should be <8hrs.)**

Only 9 out of 26 circles of BSNL have met the benchmark. MTNL (Delhi & Mumbai) have failed to meet the benchmark.

Among the private service operators only Tata (AP) have not met the QoS benchmark.

(5) **Grade of Service for junction between local exchanges (should be < 0.002)**

The Figure of **Grade of Service** not reported by BSNL. M/s MTNL and all the private operators (except Tata, Gujrat) have met the TRAI stipulated benchmark.

- (6) **Call Completion Rate in local network (should be >65%)**
 16 out of 26 service areas of BSNL and MTNL (Delhi and Mumbai) have not met the OoS benchmark.
 Among the private Operators HFCL (PB), Shyam Telelink (Rajasthan), Tata (Gujrat), Bharti (Tamil Nadu) & Reliance (except Bihar, Rajasthan, Haryana, Orissa, UP-E, UP –W, West Bengal) have achieved the desired QoS benchmark.
- (7) **Metering and Billing credibility (Not more than 0.1% of bills should be disputed over a billing cycle)**
 Only 3 out of 26 service areas of BSNL namely Chennai, NE-II and J & K have not met the overall QOS benchmark on disputed bills. MTNL (Mumbai and Delhi) has met the benchmark for this parameter.
 Among the Private Operators M/s TATA (except Gujrat), Bharti (Delhi, Karnataka, Tamil Nadu), HFCL, Punjab and M/s Reliance (Himachal Pradesh) have not met the QoS benchmark of <0.1%.
- (8) **Operator assisted Trunk Calls (Urgent calls should be answered within 1 hr and Ordinary calls within 2 Hrs.)**
 BSNL, MTNL and all applicable Private Operators have failed to meet the benchmark in all the circles.
- (9) **Customer Care: Promptness in attending 95% of customers requests (Benchmarks for Shifts, Closures and providing additional facilities are <3 days, <24 hours and <24hours respectively)**
- (i) Shifts:-**
 M/s BSNL has 0.00% performance for this parameter against the TRAI stipulated benchmark of 95% of requests. MTNL (Delhi, Mumbai) have also failed to meet the requirement on Customer care.
 Among the private operators Shyam Telelink, Rajasthan, Tata (Gujrat, Maharashtra, Tamil Nadu, Karnataka & Chennai) and M/s Reliance Infocom (all circles) have met the QOS benchmark on Customer Care (Shifts).
- (ii) Closures:-**
 As regards 'Closures' these figures are not available for BSNL for all circles. M/s MTNL (Mumbai) has not met the benchmark.
 Among the private operators only Tata, Delhi and Bharti (Delhi and Haryana) have not met the stipulated benchmark.
- (iii) Additional Facility:-**
 BSNL has not reported the figure for additional facility. MTNL (Delhi & Mumbai) have failed to meet the QOS benchmark. Tata, Delhi and Bharti (Delhi, Tamil Nadu, Haryana) have not met the QoS benchmark.
- M/s Reliance Infocomm has reported 100% and All the private operators except Bharti (Delhi, Tamil Nadu, Haryana) and Tata, Delhi above 95% promptness in their circles for attending customer requests regarding **shifts, closures and additional facilities**.

(10) **Percentage of repeat faults (should be <1%)**

In case of Repeat faults, BSNL in all circles (except in Tamil Nadu, Himachal Pradesh, J&K) & MTNL (Delhi & Mumbai) have failed to meet the QOS benchmark.

Among the private Operators M/s Reliance Infocom Limited, Shyam (Rajasthan) and Tata (Delhi, Tamil Nadu, Chennai) are within TRAI's benchmark limits.

5.2 Quality of Service performance of Cellular Mobile Service Providers for quarter ending 31st March 2005: -

- a) This report covers 107 Cellular Mobile Service Operators, which includes 28 CDMA service operators.
- b) M/s Reliance Infocom (CDMA – 20 service areas) and M/s Bharti Cellular Limited (Bihar & Orissa) have submitted their first performance monitoring reports in this quarter . Thus, the number of service providers who have reported their QOS performance has increased from 85 to 107 in this quarter.
- c) This report covers (i) 9 companies/group of companies having 30 licenses providing their service in 5 “A” category circles (ii) 7 companies/group of companies having 37 licenses for providing their service in 8 “B” category circles. (iii) Three companies/group of companies having 18 licensees for providing their service in 6 “C” category circles and (iv) 8 companies/group of companies having 22 licenses for providing their services in 4 metros. Thus there are 107 licenses covered in this report for 23 service areas

The summary of status of the service providers who have met the benchmarks in this quarter as compared to previous quarter is given in the following table:

Sr. No.	Parameters	Bench- marks	No. of operators Meeting the benchmarks			
			Quarter ending Mar, 2005		Quarter ending December, 2004	
			Out of 107 (Nos.)	Out of 107 (%)	Out of 85 (Nos.)	Out of 85 (%age)
1.	No. of faults (per 100 subscribers per month)	<1	97	90.65%	74	87.06%
2	Faults cleared within 24 hrs	100.00%	82	76.64%	59	69.41%
3	Accumulated down time of community isolation	<24 hrs	79	73.83%	74	87.06%
4	Call Success Rate (within licensee's own network)	>99%	84	78.50%	62	72.94%
5	Service Access Delay	Between 9 to 20	107	100.00%	85	100.00%
6	Call Drop Rate	<3.0%	106	99.07%	85	100.00%
7	% of connection with good voice quality	>95%	102	95.33%	80	94.12%
8	Complaints per 100 bills issued	<0.1%	85	79.44%	64	75.29%
9	% of complaints resolved with 4 weeks	100.00%	102	95.33%	81	95.29%
10	Period of all refunds/payment due to customers from the date of resolution of complaints as in (9) above	<4 weeks	103	96.26%	78	91.76%

5.2.1 The analysis of PMR of 107 Cellular licensees in 23 service areas is as under: -

- i) From the table, it is observed that there has been an improvement in the performance in this quarter as compared to the previous quarter.**
- ii) No. of faults (per 100 subscribers) for Tata – CDMA (Karnataka) and Bharti (UP-E, J & K) are 2.07% 3.00% and 2.00% respectively, which is way beyond the stipulated TRAI benchmark of <1%.**
- iii) For the parameter “Fault cleared within 24 hrs” the performance of BSNL (Orissa) and TATA - CDMA (Andhra Pradesh) are 88.00% and 64.00% respectively, which is much below the stipulated benchmark of 100%.**
- iv) 23 Operators are not meeting the benchmark of >99.00% for the parameter of “Call Success Rate (CSR)”. CSR for BSNL**

(Maharashtra, Tamil Nadu, UP-W, Orissa) is 88.00%, 88.00%, 88.00%, 84.00% respectively, which is much below the benchmark of 99.00%.

- v) All the Service Providers have met the benchmark of the Parameters for **“Service Access Delay”**.
- vi) **“Call Drop Rate”** - All the service providers have met the benchmark of this parameter except BSNL (Assam – **3.60%**).
- vii) **%age of connections with good voice quality-** Only Five operators are not meeting the benchmark for this parameter. The performance of MTNL – Delhi is 56.80%, which is way below the benchmarks of >95%.
- viii) **No. of Complaints per 100 bills issued** for BSNL (Maharashtra, Kerala, Chennai & Kolkata) are 1.20%, 1.70%, 1.10% and 2.30% respectively, which is way beyond the benchmark of 0.1%.

5.2.2 Details of Quality of service:

Detail of performance related to fault incidence and repair, network performance and billing complaints are available at Annex 5.2

5.3 Quality of Service Performance of Internet Service Providers: -

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 are able to meet the benchmarks, barring one or two cases.

5.3.2 The observations on QOS Benchmarks is as follows:

5.3.2.1 Service Activation Time:

All the ISPs have met the benchmark of 6 hrs. ISPs (Tata Teleservices Maharashtra Ltd., Broadband Pacenet (I) Pvt. Ltd., Hughes) have not provided the data.

5.3.2.2 Time to Access:

ISPs are required to achieve the benchmark 30 sec. Except HCL Infinet; all other ISPs have met this target in this quarter. Two ISPs Broadband Pacenet (I) Pvt. Ltd. and Hughes have not provided the data. MTNL has not provided the data for 3rd attempt for Delhi circle, 2nd and 3rd attempts for Mumbai circle.

5.3.2.3 Probability of Accessing the ISP Node:

ISPs are required to maintain the parameter of 80% for the first attempt, 90% for the second attempt and 99% for the third attempt. All the ISPs are able to meet this benchmark. MTNL (for both Delhi and Mumbai), Reliance Communications Infrastructure Ltd., Broadband Pacenet (I) Pvt. Ltd. and Hughes have not provided us the data.

5.3.2.4 ISP Node unavailability:

ISP Nodes unavailability should not exceed 30 minutes in a month. Except HCL Infinet and WWW communications Ltd., other ISPs are able to achieve this benchmark but MTNL, Broadband Pacenet (I) Pvt. Ltd. and Hughes have not provided us the data.

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. Three ISPs (VSNL, Reliance Communications Infrastructure Ltd. and BG Broadband India Pvt. Ltd.) has informed that the information regarding the above mentioned benchmark can not be provided as the BSO has not given the information to them, WWW Communications has not provided the data as per the prescribed format. Broadband Pacenet (I) Pvt. Ltd. and Hughes have not provided the data.

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.

Table 1.1

Subscriber Base of Fixed Services

Sr. No.	Fixed Service Operators	Area of Operation	31 st March 2005		
			Urban	Rural	Total
1	BSNL	All India (except Delhi & Mumbai)	23601383	13434142	37035525
2	MTNL	Delhi & Mumbai	4066919	0	4066919
3	Bharti Telenet Ltd	Madhya Pradesh, Delhi, Haryana, Tamil Nadu, Chennai, Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	857008	0	857008
4	Tata Teleservices Ltd	Maharashtra, Andhra Pradesh, Tamil Nadu, 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	2574730	1744	2576474
5	HFCL Infotel 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	193533	694	194227
6	Shyam Telelink Ltd	Rajasthan	149022	8051	157073
7	Reliance Infocomm. Ltd	Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu, Chennai, UP(E), UP(W), WB, Kolkata	1302008	8791	1310799
Grand Total			32744603	13453422	46198025

Table 1.2

Details of Public Call Offices (PCO)

S. No	Service Providers	Area of Operation	PCOs as on 31.03.2005	PCOs added during the quarter ending 31.03.2005
1	BSNL	All India (except Delhi & Mumbai)	1871268	86625
2	MTNL	Delhi & Mumbai	279776	8067
3	Bharti Telenet Ltd	MP, Delhi, Haryana, Tamil Nadu including Chennai, Karnataka	123348	20456
4	HFCL Infotel Ltd	Punjab	31202	1311
5	Tata Teleservices Ltd	Maharashtra, Mumbai, Andhra Pradesh, Tamil Nadu, Chennai, Gujarat, Karnataka, Delhi	136816	41827
6	Reliance Infocomm. Ltd	AP, Bihar, Delhi, Gujarat, Haryana, HP, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu, Chennai, UP(E),UP(W),West Bengal, Kolkata	302658	72116
7	Shyam Telelink Ltd	Rajasthan	26064	9418
	TOTAL		2771132	239820

* Source - Operators

Table 1.3

Details of Village Public Telephones (VPT)

S.No	Service Providers	Area of Operation	VPTs as on 31.03.2005	Achievement during the Qtr. ending 31.03.2005
1	BSNL	All India (except Delhi & Mumbai)	518801	6172
2	MTNL	Delhi & Mumbai	0	-191
3	Bharti	Madhya Pradesh, Delhi, Haryana, Tamil Nadu including Chennai, Karnataka	0	-607
4	HFCL Infotel Ltd	Punjab	691	-31
5	Tata Teleservices Ltd	Maharashtra, Andhra Pradesh, Tamil Nadu, Chennai, Karnataka, Gujarat, Delhi	3996	0
6	Reliance Infocomm Ltd	Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu, Chennai, UP(E),UP(W), West Bengal, Kolkata	4115	1
7	Shyam Telelink Ltd	Rajasthan	3010	0
	TOTAL		530616	5344

* Source - Operators

* VPTs figures shown above are also included in Rural DELs shown in Table 1.1

Table 2.1

Subscriber Base of Mobile operators

Mobile Groups and their market share			
Cellular Group	Subscribers on March, 05	Market Share	Technology Used
Bharti Grp	10,984,280	21.0	GSM
Reliance Grp	10,446,053	20.0	GSM & CDMA
BSNL	9,899,425	19.0	GSM & CDMA
Hutchison Grp	7,797,720	14.9	GSM
IDEA Grp	5,069,693	9.7	GSM
BPL Grp	2,575,387	4.9	GSM
Spice Grp	1,438,824	2.8	GSM
Aircel Grp	1,755,350	3.4	GSM
Tata Teleservices	1,089,500	2.1	CDMA
MTNL	1,078,143	2.1	GSM & CDMA
HFCL	53,163	0.1	CDMA
Shyam Telelink	27,663	0.1	CDMA
Total Subscribers	52,215,201	100	GSM & CDMA

* Source - Operators

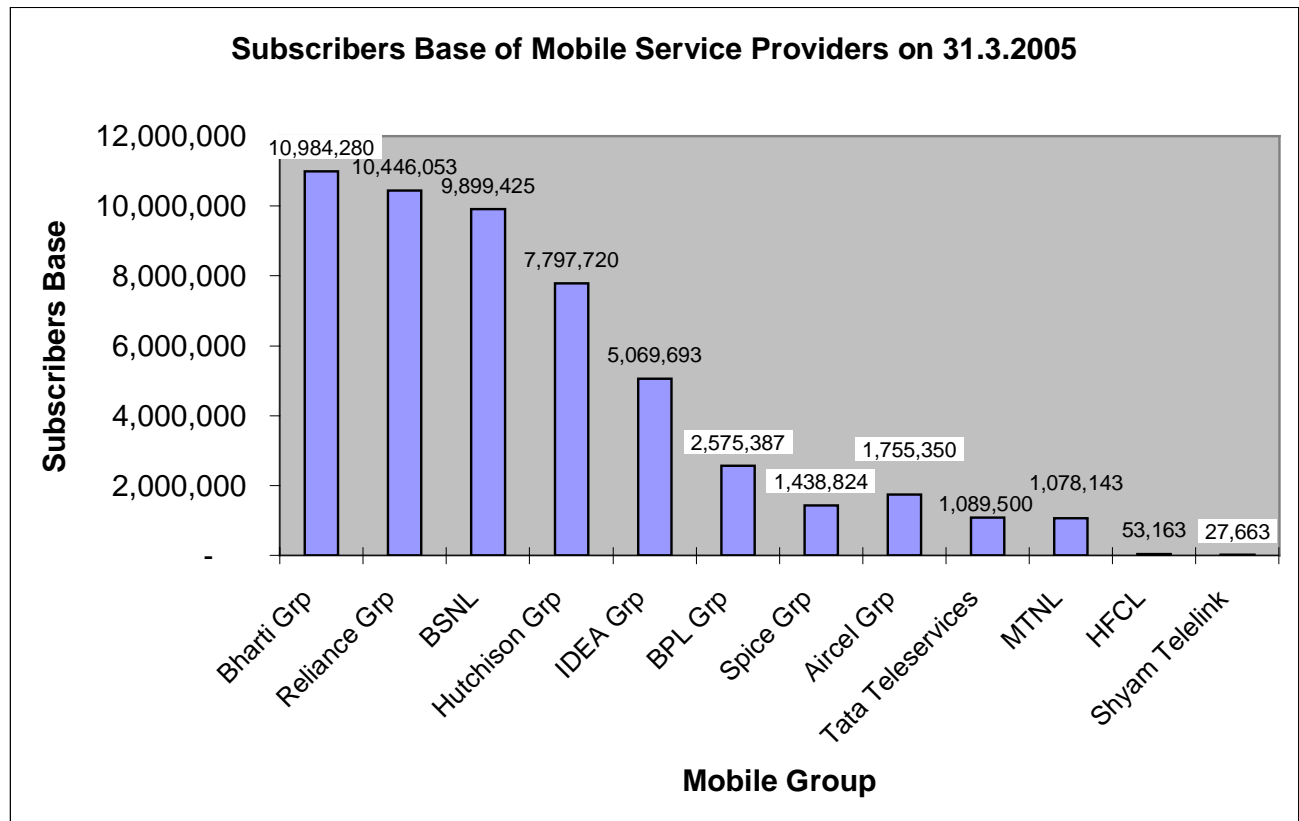


Table 2.2

Market Share of Mobile (GSM + CDMA) Service Providers

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

Cellular Group	No of Subscribers	Market Share
Bharti Group	10,984,280	26.7
BSNL	9,447,357	23.0
Hutchison Group	7,797,720	19.0
Idea Group	5,069,693	12.3
BPL	2,575,387	6.3
Spice Group	1,438,824	3.5
Reliance	1,115,965	2.7
MTNL	881,696	2.1
Others - Aircel Group	1,755,350	4.3
Total	41,066,272	100

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

CDMA Group	No of Subscribers	Market Share
Reliance Infocomm	9,330,088	83.69
Tata Teleservices	1,089,500	9.77
BSNL	452,068	4.05
MTNL	196,447	1.76
HFCL	53,163	0.48
Shyam Telelink	27,663	0.25
Total	11,148,929	100

Table 2.3

Growth Pattern in Mobile (GSM) Subscriber Base

Mobile (GSM) Subscribers Base

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

<u>Circle</u>	<u>No. of Subscribers</u>	<u>Market Share</u>
Metros	14.59 million	27.93%
Circles 'A'	18.84 million	36.09%
Circles 'B'	15.91 million	30.48%
Circles 'C'	2.87 million	5.50%

The market share distribution among Metros, Circle A, Circle B & Circle C for the four quarters is as under:

	June' 04	Sept, 04	Dec.'04	Mar, 05
Metros	11.53	12.65	13.83	14.59
A' Circle	13.86	15.8	17.33	18.84
B' Circle	10.84	12.6	14.51	15.91
C' Circle	1.53	1.94	2.35	2.87

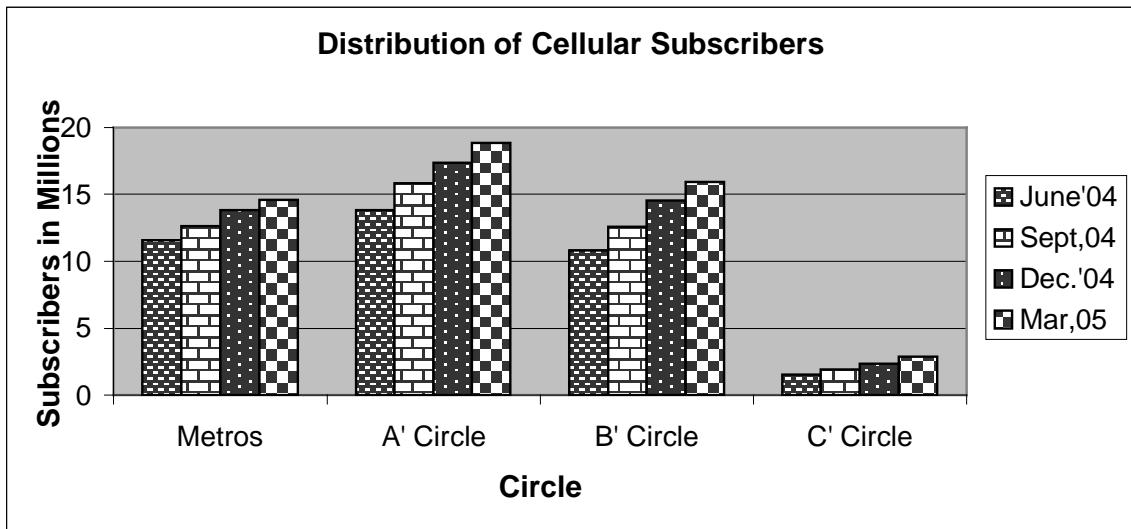


Table 3.1

Subscribers Base of Internet Services

S. NO	Name of ISP	Category	Area of Operation	Dec-04	Mar,05	% Growth
1	Bharat Sanchar Nigam Ltd.	A	All India	1678617	1839185	9.57
2	Mahanagar Telephone Nigam Ltd.	B	Mumbai & Delhi	949405	1012041	6.60
3	Sify Ltd.	A	All India	771787	811965	5.21
4	Videsh Sanchar Nigam Ltd.	A	All India	935426	702629	-24.89
5	Reliance Communications Infrastructure Ltd.	A	All India	219212	246832	12.60
6	Data Infosys	A	All India	248397	222413	-10.46
7	Bharti Infotel Ltd.	A	All India	104166	129387	24.21
8	Iqara Telecom India Pvt. Ltd. (BG Broadband)	A	All India	75275	86366	14.73
9	Shyam Internet Service Pvt. Ltd.	A	All India	45247	48091	6.29
10	HCL Infinet Ltd.	A	All India	45577	44435	-2.51
11	Hathway Cable & Data Pvt Ltd.	A	All India	35240	40920	16.12
12	Sab Industires Ltd. (Sab Infotech)	B	Punjab, Karnal & Dharamshala	33937	31829	-6.21
13	Icenet.net Ltd.	B	Gujrat	29597	27688	-6.45
14	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	A	All India	21563	24195	12.21
15	Broadband Pacenet (I) Pvt. Ltd.	B	Mumbai	10933	22457	105.41
16	Fascel Ltd.	B	Gujarat	18001	18001	0.00
17	Asianet Sattelite Communications Ltd.	B	Kerala	14410	17842	23.82
18	Emmsons Infotech Ltd.	B	Punjab		15200	
19	WWW Communications Ltd.	B	Delhi	15140	14172	-6.39
20	HFCL Infotel Ltd.	B	Punjab	12888	14147	9.77
21	Exatt Technologies Pvt. Ltd.	B	Mumbai		11694	
22	CMC Ltd.	A	All India	2	10000	
23	Hughes Escorts Communications Ltd.	A	All India	9175	9114	-0.66
24	Rolta India Ltd.	B	Mumbai	10410	8978	-13.76
25	Seven Star Dot Com Pvt. Ltd.	B	Khar(w), Jogeshwari (w)	7018	7913	12.75
26	S. S. net Com Pvt Ltd.	B	North East	7169	7366	2.75
27	Trak Online Net India	A	All India	16506	6636	-59.80
28	Primus Telecommunications India Ltd.	A	All India	7826	6557	-16.22
29	In 2 Cable.com(India) pvt. Ltd.	A	All India	5802	6258	7.86
30	Spectra Net Ltd	A	All India	3587	5755	60.44
31	Indian Research Manifestation Labs Pvt. Ltd.	B	Gujrat		5524	
32	RPG Infotech Ltd. (Sprint RPG India)	A	All India	5248	5430	3.47
33	Forum Infotech (P) Ltd.	C	Srinagar SSA	2882	5050	75.23

34	Space Online (P) Ltd.	B	Gujarat	4788	4788	0.00
35	West Bengal Electronics Industry Development Corporation Ltd.	B	Calcutta	3215	4700	46.19
36	Southern Online Bio Technologies Ltd.	B	Andhra Pradesh	3592	3705	3.15
37	E-Comm Opportunities Pvt. Ltd.	B	Gujrat	3124	3598	15.17
38	Blazenet Pvt. Ltd.	B	Gujrat	3244	3244	0.00
39	Narmada Cyberzone Pvt. Ltd.	B	Gujrat	3036	2918	-3.89
40	Sixth Sense Informatics Pvt. Ltd.	B	Mumbai		2600	
41	Trikon Electronics	B	Mumbai	2244	2544	13.37
42	Tata Internet Services Ltd.	A	All India	2967	2479	-16.45
43	Digital 2 Virtual ISP Private Ltd.	C	vadodara	2457	2457	0.00
44	Kelnet Communication Services (P) Ltd.	C	Trivendrum	1715	2416	40.87
45	City Online Services Pvt. Ltd.	B	Andhra Pradesh & Karnataka	2203	2205	0.09
46	Ortel Communications Ltd.	C	Bhubaneshwar	625	3500	460.00
47	Rajesh Multichannel Pvt. Ltd.	B	Mumbai		1981	
48	Ankhnet Information Pvt. Ltd.	B	Mumbai	1946	1838	-5.55
49	Siti Cable Network (Zee Interactive Multimedia Ltd.)	A	All India	1210	1802	48.93
50	Vasnet Communications Pvt. Ltd.	C	Mangalore SSA	1675	1675	0.00
51	Broadlane Network Pvt. Ltd.	C	Kalyan SSA	878	1496	70.39
52	Tawi e.com	C	Jammu Tawi	1881	1476	-21.53
53	Jain Info net Pvt Ltd.	B	Rajasthan	1947	1431	-26.50
54	Hathway Bhawani Cable & Datacom	B	Mumbai	1247	1418	13.71
55	iPath India Pvt. Ltd.	C	Ernakulam	1515	1384	-8.65
56	Mylai Karpagamba Information System Pvt. Ltd.	B	Chennai	1306	1333	2.07
57	Descon Ltd.	B&C	Kolkata, West Bengal	1717	1329	-22.60
58	Jindal Online.com Ltd.	B	Gujrat		1301	
59	ERNET India Ltd.	A	All India	921	1202	30.51
60	Spectrum softech Solutions	C	Ernakulam SSA	1060	1180	11.32
61	Swiftmail Communications Ltd.	A	All India	1376	1124	-18.31
62	Pacific Internet India	A	All India	1140	1073	-5.88
63	Dishnet Wireless Ltd.	A	All India	27	1072	3870.37
64	Primenet Global Ltd.	A	All India	1477	1050	-28.91
65	Broadlyne Infoservices Pvt. Ltd.	B	Mumbai		900	
66	Comsat Max Ltd.	A	All India	948	873	-7.91
67	Websurf Pvt. Ltd.	C	Kalyan SSA	35	791	2160.00
68	Ice Network (P) Ltd.	B	Bangalore	15	785	5133.33
69	Speed Online.net Pvt. Ltd.	C	Rajkot	797	785	-1.51
70	Bohra Prastisthan Pvt. Ltd.	C	Udaipur SSA	691	686	-0.72
71	Micky Online Pvt. Ltd.	C	Moradabad, Nainital	673	673	0.00
72	Bhasinsoft India Ltd.	B	Karnataka	719	671	-6.68
73	Value Heathcare Ltd.	B	Mumbai	654	644	-1.53
74	Kappa Infotech Pvt Ltd.	C	Kota SSA	594	593	-0.17
75	Gateway Systems Pvt. Ltd.	A	All India	376	580	54.26
76	Sanchar Telenetwork Pvt. Ltd.	C	Bhavnagar SSA	283	575	103.18
77	Uclix Computer's Pvt. Ltd.	C	Jodhpur		525	
78	Online Media Solutions Ltd.	B	Andhra Pradesh	500	500	0.00
79	My Guru Online	B	Andhra Pradesh	329	495	50.46
80	Atria Convergence Technologies Pvt. Ltd.	B	Karnataka	479	462	-3.55

81	Antriksh Technologies Pvt. Ltd.	C	Jammu SSA	473	455	-3.81
82	Bhaskar Multinet Pvt. Ltd.	C	Jaipur SSA	465	454	-2.37
83	Growth Compusoft Exports Ltd.	B	Gujrat	488	444	-9.02
84	deLaila Industry Pvt. Ltd.	C	Srinagar SSA		440	
85	Silicon Mountains (I) Ltd.	B	Maharashtra	409	425	3.91
86	C-Tel Solutions Pvt. Ltd.	C	Gurgaon SSA		422	
87	SpaceCom Broadband Network Ltd.	B	Delhi	292	366	25.34
88	ISP Solutions India Pvt. Ltd.	C	Coimbatore SSA	365	363	-0.55
89	Lee & Nee Softwares (Exports) Ltd.	C	Bhuvaneshwar	366	356	-2.73
90	Quest Consultancy Pvt. Ltd.	C	Valsad	362	356	-1.66
91	Rajasthan Telematics Ltd.	B	Rajasthan	325	350	7.69
92	CJ Online Pvt. Ltd.	C	Ghaziabad SSA	380	342	-10.00
93	Emtici Engineering Ltd.	C	Khera SSA	207	305	47.34
94	GUJ Info Petro Ltd.(GIPL)	A	All India	291	293	0.69
95	Alliance Broadband Services Pvt. Ltd.	B	Kolkata		290	
96	Pioneer Online Service Pvt. Ltd.	B	Andhra Pradesh	1480	275	-81.42
97	n-Logue Communications(P) Ltd	A	All India	266	268	0.75
98	GTL Ltd.	A	All India	1028	266	-74.12
99	CJM Consultancy Services Pvt. Ltd.	B	Delhi	249	255	2.41
100	NetMagic Solutions (P) Ltd.	B	Mumbai	220	234	6.36
101	Rida Communications Pvt. Ltd.	C	Aligarh	153	227	48.37
102	Mac Info Pvt. Ltd.	B	Hydrabad	270	220	-18.52
103	Bhupati Hotels Pvt. Ltd.	C	Visakhapatnam	219	219	0.00
104	Starnet Online Services Ltd.	C	Visakha patnam SSA	154	216	40.26
105	Opto Networks Pvt.Ltd.	C	Ghaziabad, Meerut SSA	280	200	-28.57
106	del DSL Internet Pvt. Ltd.	B	Delhi, Ghaziabad, Gurgaon	177	198	11.86
107	Trans Virtual Pvt. Ltd.	C	Guwahati	150	196	30.67
108	Digital Nagpur Online Pvt. Ltd.	C	Nagpur	304	186	-38.82
109	Planet Internet Satellite Pvt. Ltd.	C	Nadiad SSA	187	181	-3.21
110	Q Tel Comtech Ltd.	C	Gurgaon		154	
111	North East Online Services Pvt. Ltd.	C	Guwahati	142	142	0.00
112	Estel Communications Pvt. Ltd.	A	All India	120	129	7.50
113	i2i Enterprise Ltd.	A	All India	121	121	0.00
114	Cable Combine Communication Pvt. Ltd.	C	Siliguri		116	
115	Worldcom Communications Pvt. Ltd.	A	All India		110	
116	Manipal Ecommerce Ltd.	B	Karnataka	124	108	-12.90
117	Viraj Telecom Ltd.	B	Karnataka	502	105	-79.08
118	Mynet Services India Pvt. Ltd.	C	Salem	143	103	-27.97
119	Reach Network India Pvt. Ltd.	A	All India	105	101	-3.81
120	Swastik netvision telecom Pvt. Ltd.	B	Gujrat	164	87	-46.95
121	Surevin Internet Services Ltd	C	Ghaziabad SSA	102	85	-16.67
122	Sanyog Networks Pvt. Ltd.	C	Tripura		80	
123	Centre for Development of Advanced Computing, C-DAC	C	Ghaziabad	76	74	-2.63
124	Instant Cable Network Pvt. Ltd.	C	Gurgaon SSA		72	
125	Czars Oleoresin Pvt. Ltd.	C	Gulbarga	33	70	112.12
126	Saravana Cables Pvt. Ltd.	c	Trichirapalli SSA		68	
127	Tulip IT Service Ltd.	B	Kerala		68	
128	Dialnet Communications Ltd.	B	Delhi	63	60	-4.76
129	L&T Finance Ltd. (L&T Netcom Ltd.)	A	All India	58	59	1.72
130	Srishi Open systems Pvt Ltd.	C	Trivendrum	112	57	-49.11
131	Direct Internet Pvt. Ltd.	B	Delhi	46	46	0.00

132	Aksh Broadband Ltd.	C	Jaipur SSA	90	45	-50.00
133	Tata Power Broadband Company Ltd.	B	Mumbai	33	44	33.33
134	Access Online Pvt. Ltd.	B	Mumbai	37	37	0.00
135	Nettlinx Ltd.	B	Andhra Pradesh	23	34	47.83
136	Indian Quotations Systems Pvt. Ltd.	B	Mumbai	32	32	0.00
137	RailTel Corporation of India Ltd.	A	All India		27	
138	Chandra net Pvt. Ltd.	B	Gujrat	140	25	-82.14
139	Karuturi Networks Limited	B	Karnataka	20	24	20.00
140	PBC Venture Ltd.	B	Delhi	22	23	4.55
141	Arun Girija Communications Pvt Ltd.	C	Patna SSA	31	22	-29.03
142	IOL Broadband Ltd. (India Online Network Ltd.)	B	Mumbai	721	22	-96.95
143	Gujrat Narmada Valley Fertilizer Co. Ltd. (GNFC)	A	All India	21	20	-4.76
144	Essel Shyam Communication Ltd,	A	All India	18	18	0.00
145	World Phone Internet services (P) Ltd.	A	All India	15	17	13.33
146	Astro Network India Pvt. Ltd.	A	All India	13	16	23.08
147	Vebtel Obconic Internet Protocol Pvt. Ltd.	B	Andhra Pradesh	0	15	
148	Nachiket (I) Management Services (P) Ltd. (Diksha Cyber City)	C	Sri Ganganagar	237	13	-94.51
149	Kushagra Telecom Pvt Ltd.	C	Ghaziabad SSA		12	
150	Astra Infonets Pvt. Ltd.	B	Hydrabad	11	11	0.00
151	Uttar Pradesh Network Pvt. Ltd.	B	Uttar Pradesh (E&W)	10	10	0.00
152	Samkhya Networks (P) Ltd.	C	Gurgaon	9	9	0.00
153	A-Team Information Technology Ltd.	C	Erode	125	8	-93.60
154	Cyquator Technologies Ltd.	A	All India	8	8	0.00
155	Software Technology Park of India	A	All India	8	8	0.00
156	Akaansha Infotainment Pvt. Ltd.	C	Kamrup SSA		6	
157	Shreedhar Infosys Ltd.	C	Varanasi SSA	11	6	-45.45
158	Giga Solutions Pvt. Ltd.	B	Maharashtra	5	5	0.00
159	Haryana Cybernet Pvt. Ltd.	B	Haryana	5	5	0.00
160	Infomagic Services Pvt. Ltd.	B	mumbai	5	5	0.00
161	Kerala communication Network Pvt. Ltd.	B	Kerala	5	5	0.00
162	Punjab Cybernet pvt. Ltd.	B	Punjab	5	5	0.00
163	Godrej Infotech Ltd.	B	Mumbai	2	4	100.00
164	Compucom (I) Ltd.	C	Jaipur SSA	3	3	0.00
165	Surana Telecom Ltd.	B	Andhra Pradesh	3	3	0.00
166	Tandem Infotech Pvt. Ltd.,	C	Trivandrum	3	3	0.00
167	Bharti Aquanet Ltd.	A	All India	2	1	-50.00
168	Gujrat State Petroleum Corp Ltd.	B	Gujrat	1	1	0.00
169	Reliance Engineering Associates Pvt. Ltd. (Broadband Solutions)	A	All India	1	1	0.00
170	Apna Telelink Pvt LTD	C	Jalandhar SSA	0	0	
171	HCL Comnet	A	All India	2588	0	-100.00
172	Nelco Ltd.	A	All India	0	0	
	Total			5450213	5554297	1.91

Table 4.1

Subscriber Base of Public Mobile Radio Trunking Service (PMRTS)

Total number of operators: 13

Number of operators who have submitted reports: 11

Sr. No.	Name of the Service Provider	Operative Area	Subscriber Base as on 31-12-2004	Subscriber Base as on 31-03-2005
1	Aryadoot Transport Pvt Limited	Vishakhapatnam	1033	1030
2	Jet-Aiu Skyline Transport Pvt Ltd.	Indore	362	372
3	Container Movement (Bombay) Transport Pvt Ltd.	Delhi	5	5
4	Arya Offshore Services Pvt Ltd.	Mumbai	815	818
		Chennai	759	677
Total			1574	1495
5	Hapag Llyod (German Express Shipping Agency (India) Pvt Ltd.	Navi Mumbai (Belapur)	376	338
		Delhi	499	497
Total			875	835
6	United Liner Agencies of India (Pvt) Ltd	Delhi	765	776
		Jamnagar	0	0
		Calcutta	910	1044
Total			1675	1820
7	Procall Limited	Delhi	6788	6957
		Jaipur	275	288
		Gurgaon	220	661
		Faridabad	633	215
Total			7916	8121
8	The Arvind Mills Ltd.	Delhi	803	742
		Faridabad	1	1
		Mumbai	1402	1412
		Vashi	46	46
		Ahmedabad	306	292
		Baroda	485	389
		Surat	918	936
		Chennai	1059	1142
		Bangalore	4561	1560
Total			6581	6520

9	Smartalk Pvt Limited	Pune	699	741
		Vashi	410	329
		Mumbai	438	338
	Total		1547	1408
10	QuickCalls India Pvt. Limited	Bangalore	1872	1974
		Hyderabad	1123	1103
		Chennai	668	577
	Total		3663	3654
11	Bhilwara Telenet Services Pvt Limited	Mumbai	587	735
		Delhi	0	0
	Total		587	735
12	Mobilkom India Limited*	New Delhi	66	66
		Shimla	17	17
		Dhanbad	0	0
	Total		83	83
13	India Satcom Ltd.	Bangalore	252	252
	Grand Total		26153	26330

* Service Providers have not reported the data so the last quarter figures have been retained.

Table 4.2

Subscriber Base of VSAT Service Providers

S.No.	Service Provider	30.6.2004	30.9.2004	31.12.2004	31.03.2005	%ageMarket Share (%)
1	Hughes	9955	10137	11458	12012	31.36
2	HCL Comnet	9581	10283	12083	13452	35.12
3	Comsat Max	4085	4175	4221	4453	11.63
4	Bharti BT	4053	4472	5179	5581	14.57
5	Essel Shyam	2066	2144	2187	1652	4.31
6	Tata Services	503	700	792	949	2.48
7	Telstra Vishesh*	159	135	127	127	0.33
8	RPG Satellite Comm. Pvt. Ltd.	79	75	75	License surrendered	License surrendered
9	HFCL	67	71	64	License Cancelled by DoT	License Cancelled by DoT
10	ITI	53	53	53	51	0.13
11	GNFC	26	26	25	26	0.07
	Total	30627	32271	36264	38303	100.00

* Service Providers not reported their data in this quarter, the figure of last quarter has been retained.

Table 4.3

Subscriber Base of Radio Paging Service Providers

S.No	Name of the Service Provider	Operative Area	June 2004	Sept, 2004	Dec, 2004	Growth Rate in %age
1	DSS Mobile Comm Ltd	Ahmedabad	11609	7580	2963	-60.91029
2		Bangalore				
3		Calcutta				
4		Delhi				
5		Hyderabad				
6		Kanpur				
7		Lucknow				
8		Madras				
9		Mumbai				
10		Pune				
11	Page Point Services (India) Limited	Mumbai	26109	23979	17387	-27.490721
12		Bangalore				
13		Hyderabad				
14		Pune				
15	Microwave Communications Ltd (Pagelink)	Bombay	8958	5246	3363	-35.894014
16		Calcutta				
17		Vadodara				
18		Ahmedabad				
19		Surat				
20		Rajkot				
21	Delhi					
22	RPG Paging Services Limited	Ahmedabad	6497	1216	1216	0
23		Delhi				
24		Chennai				
25	Modi Korea Telecommunications Ltd.	Chennai	3171	2619	1215	-53.608247
26		Chandigarh				
27		Calcutta				
28		Indore				
29		Lucknow				
30		Kanpur				
31		Jaipur				
32		Varanasi				
33	Matrix Paging	Mumbai	522	389	365	-6.1696658
34		Surat				
35		Rajkot				
36		Pune				
37		Vadodara				

38	ABC Communications	Delhi	1127	955	869	-9.0052356
39		Amritsar				
40		Chandigarh				
41		Jaipur				
42		Kanpur				
43		Ludhiana				
44		Varanasi				
45	Telesistem(I)	Bangalore	2663	858	248	-71.095571
46		Chennai				
47		Coimbatore				
48		Ernakulam				
49		Madurai				
50		Trivandrum				
51	Easy Call	Bhopal	650	478	402	-15.899582
52		Calcutta				
53		Indore				
54		Nagpur				
55		Vishakapatnam				
56		Patna				
57		Hyderabad				
58	NICE	Srinagar	Not Reported	Not Reported	Not Reported	
59		Jammu				
60		Assam				
61		Nagpur				
	Total Subscriber Base		61306	43320	28028	-35.3

Details of Fixed 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, Fixed & Unified Access Service Providers

Circle	Operators		
	Mobile		Fixed
	Cellular	Unified	
Delhi	Hutch	Reliance Infocomm	MTNL
	MTNL	Tata Teleservices	Bharti Telenet
	Idea Cellular	Bharti Cellular Ltd	
Mumbai	BPL	Reliance Infocomm	MTNL
	Hutch	Tata Teleservices	
	MTNL	Bharti Cellular Ltd	
Chennai	Aircel Cellular	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	Bharti Telenet
	Hutchison South	Bharti Cellular Ltd	
Kolkata	Hutchison East	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Reliable Internet Services Ltd.	Bharti Cellular Ltd	
Maharashtra	BPL	Reliance Infocomm	BSNL
	Idea Cellular	Tata Teleservices	
	BSNL	Bharti Cellular Ltd	
Gujarat	Fascel (Hutch)	Reliance Infocomm	BSNL
	Idea Cellular	Tata Teleservices	
	BSNL	Bharti Cellular Ltd	
Andhra Pradesh	Idea Cellular	Reliance Infocomm	BSNL
	Hutchison South	Tata Teleservices	
	BSNL	Bharti Mobile Ltd.	
Karnataka	Spice Communications	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	Bharti Telenet
	Hutch South	Bharti Mobile Ltd.	
Tamilnadu	BPL	Reliance Infocomm	BSNL
	Aircel	Tata Teleservices	Bharti Telenet
	BSNL	Bharti Cellular Ltd	
Kerala	Idea Communications	Reliance Infocomm	BSNL
	BPL	Tata Teleservices	
	BSNL	Bharti Cellular Ltd	
Punjab	BSNL	Reliance Infocomm	BSNL
	Hutchinson South	HFCL Infocom	
		Tata Teleservices	

		Bharti Mobile Ltd.	
		Spice Communications	
Haryana	Idea Communications	Reliance Infocomm	BSNL
	ADIL (Hutch)	Tata Teleservices	Bharti Telenet
	BSNL	Bharti Cellular Ltd.	
Uttar Pradesh(W)	Idea Communications	Reliance Infocomm	BSNL
	BSNL	Huchinson Essar South Ltd.	
		Tata Teleservices	
		Bharti Cellular Ltd.	
Uttar Pradesh(E)	ADIL (Hutch)	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Escorts Communications	Bharti Cellular Ltd.	
Rajasthan	ADIL (Hutch)	Reliance Infocomm	BSNL
	Bharti Ltd.	Tata Teleservices	
	BSNL	Shyam Telelink	
	Escorts Communications		
Madhya Pradesh	Idea	Reliance Infocomm	BSNL
	BSNL	Bharti Infotel Ltd.	Bharti Telenet
	Reliance Telecom	Tata Teleservices	
		Bharti Cellular Ltd.	
WB&A&N	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
		Bharti Cellular Ltd.	
		Huchinson Essar South Ltd.	
		Dishnet Wireless Ltd.	
Himachal Pradesh	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
	Escorts Communications	Dishnet Wireless Ltd.	
		Bharti Cellular	
Bihar	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
		Bharti Cellular Ltd.	
		Dishnet Wireless Ltd.	
Orissa	BSNL	Reliance Infocomm	BSNL

	Reliance Telecom	Tata Teleservices	
		Bharti Cellular Ltd.	
		Dishnet Wireless Ltd.	
Assam	BSNL	Dishnet Wireless Ltd.	BSNL
	Reliance Telecom	Bharti Televentures Ltd.	
	Reliance Telecom	Dishnet Wireless Ltd.	BSNL
	BSNL		
North East	Bharti Hexacom Ltd.		
	BSNL	Dishnet Wireless Ltd.	BSNL
Jammu & Kashmir		Bharti Cellular	
		Reliance Infocomm	

Trends in ARPU, Composition of Revenue & usage pattern (MOU)

a) ARPU (per month during Dec'04) - Cellular service (Rs.)

Circle	Postpaid	Prepaid	Blended ARPU
Circle A	608	300	388
Circle B	565	277	339
Circle C	612	323	417
Metro	866	330	472
All India	672	302	398
All private CMSPs	711	300	406
BSNL/MTNL	554	307	372

b) Composition of Revenue for Cellular Service Providers (%): Postpaid cellular Service

Item	Sep-04	Dec-04
Rental Revenue	28.50%	31.78%
Revenue from Call charges (usage)	45.55%	41.16%
Revenue from Roaming	12.20%	14.16%
Revenue from SMS	5.43%	5.45%
Other Revenues *	8.32%	7.45%
Total	100%	100%

* Includes revenue from other value added services, installation etc.

c) Usage Pattern in Cellular Services

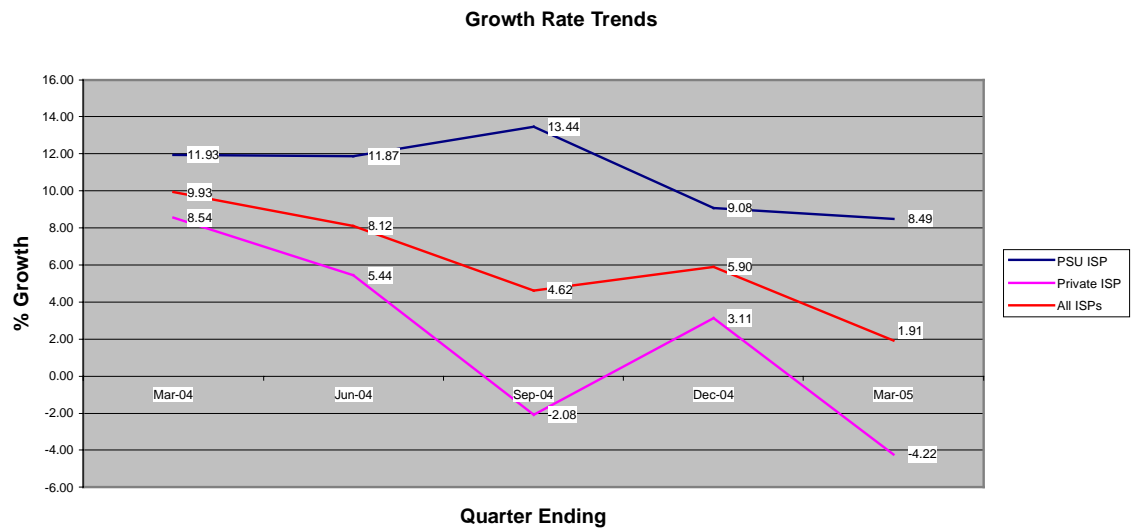
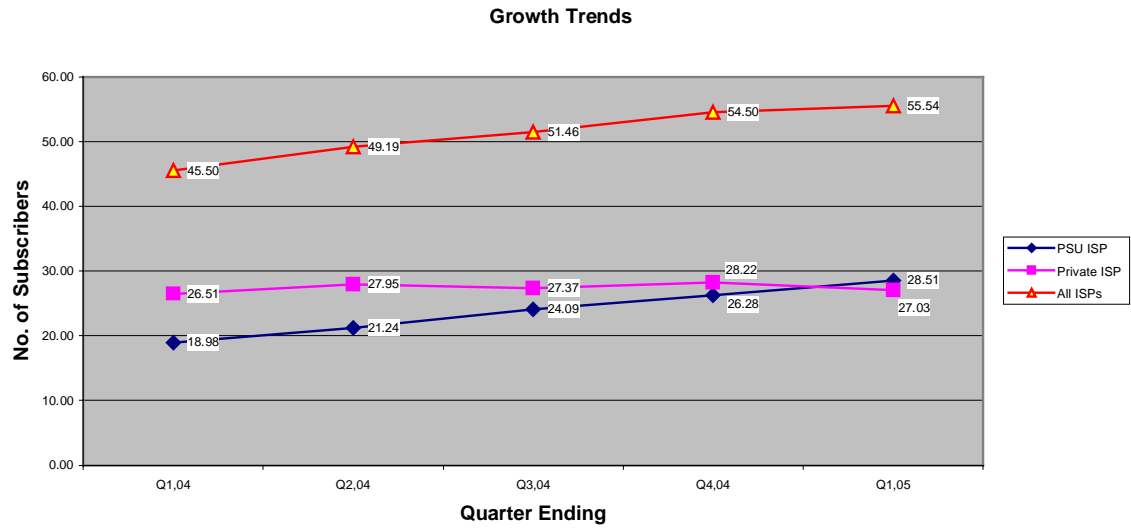
MOU & SMS (per subscriber per month) in Mobile Service (GSM)

Circle	Postpaid				Prepaid			
	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Circle A	38	254	347	601	41	80	172	252
Circle B	30	248	285	532	13	69	130	199
Circle C	36	259	404	663	17	97	197	295
Metro	46	259	371	630	31	58	169	227
All India	38	254	341	595	28	71	158	229

BLENDED [Postpaid + Prepaid]

Circle	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Circle A	40	130	222	352
Circle B	17	107	163	270
Circle C	24	156	272	428
Metro	35	112	224	336
All India	31	119	206	325

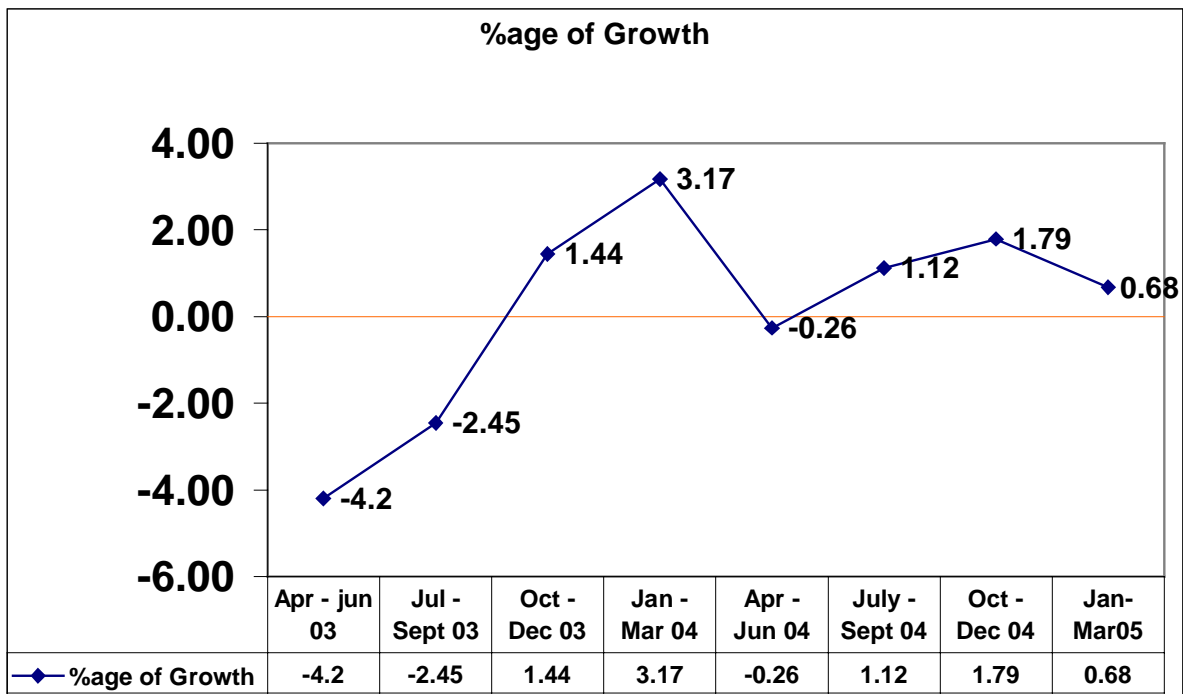
Growth Pattern of Internet Subscribers



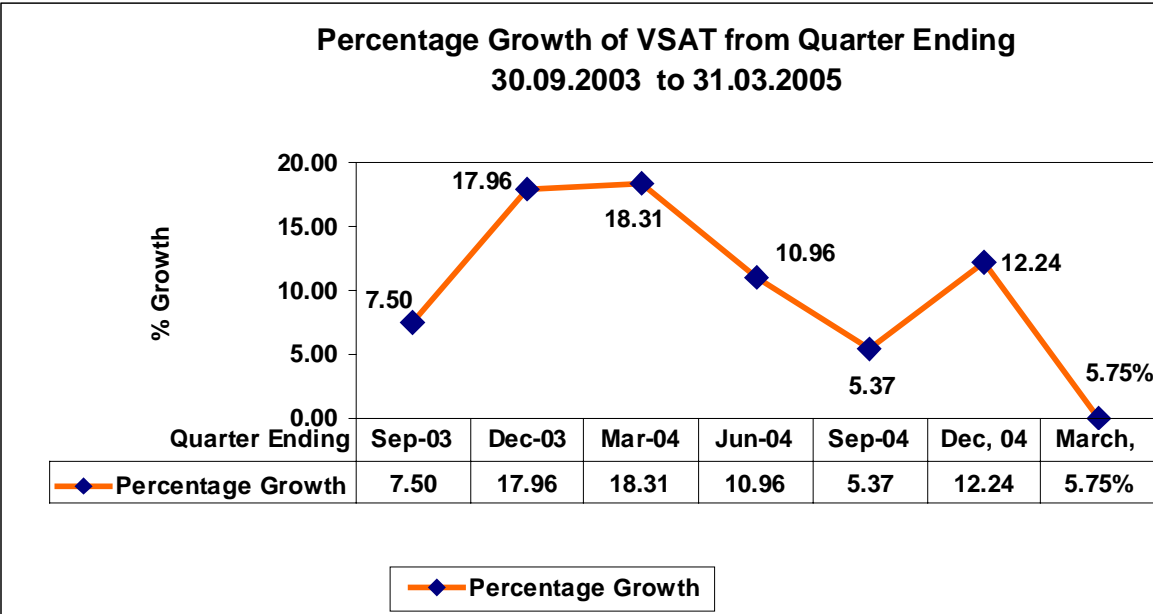
List of Internet Telephony Service Providers

S. No.	Name of ISPs
1	Apna Telelink Pvt. Ltd.
2	Asianet Satellite Communications Ltd.
3	BG Broadband India Pvt. Ltd.
4	Bharti Broadband Network Ltd.
5	BSNL
6	City Online Services Pvt. Ltd.
7	Data Infosys Ltd.
8	Data Link Impex Pvt. Ltd.
9	Digital2Virtual SP Pvt. Ltd.
10	Estel Communications Pvt. Ltd.
11	Gateway Systems (I) Pvt. Ltd.
12	Growth Compusoft Exports Ltd.
13	GTL Limited
14	Hathway Cable & Datacom Pvt. Ltd.
15	HCL Infinet Ltd.
16	Icenet.net Limited
17	In2Cable.Com (India) Ltd
18	iServe India Solutions Pvt. Ltd.
19	Jain Infonet Pvt. Ltd.
20	Karuturi Networks Ltd.
21	Mahanagar Telephone Nigam Limited
22	Narmada Cyberzone Pvt. Ltd.
23	NetMagic Solutions (P) Ltd.
24	Nettlinx Ltd.
25	Online Media Solution Ltd.
26	Opto network Pvt. Ltd.
27	Ortel Communications Ltd.
28	PBC Venutres Ltd.
29	Primus Telecommunication India Ltd.
30	Rolta India Limited
31	SAB Infotech Pvt. Ltd.
32	Seven Star Dot Com
33	Sify Ltd.
34	Southern Online Services Ltd.
35	Surana Telecom Ltd.
36	Swiftmail Communications Ltd.
37	Trak Online Net India Pvt.Ltd
38	Trikon electronics Pvt. Ltd.
39	Value Healthcare Ltd.
40	VSNL
41	Wilnet Communications Pvt. Ltd.
42	World Phone Internet Services (P) Ltd.
43	Swastik Netvision Telecom Pvt. Ltd.
44	Pioneer Online Pvt. Ltd.
45	Speed Online.net Pvt. Ltd.
46	Bharti Infotel Ltd.
47	Mylai Karpagambal Information Systems Pvt. Ltd.
48	DelDSL Internet Pvt. Ltd.
49	Vebtcl Obconic Internet Protocol Pvt. Ltd.
50	Growth Compusoft Exports Ltd.
51	Tata Teleservices (Maharashtra) Ltd.

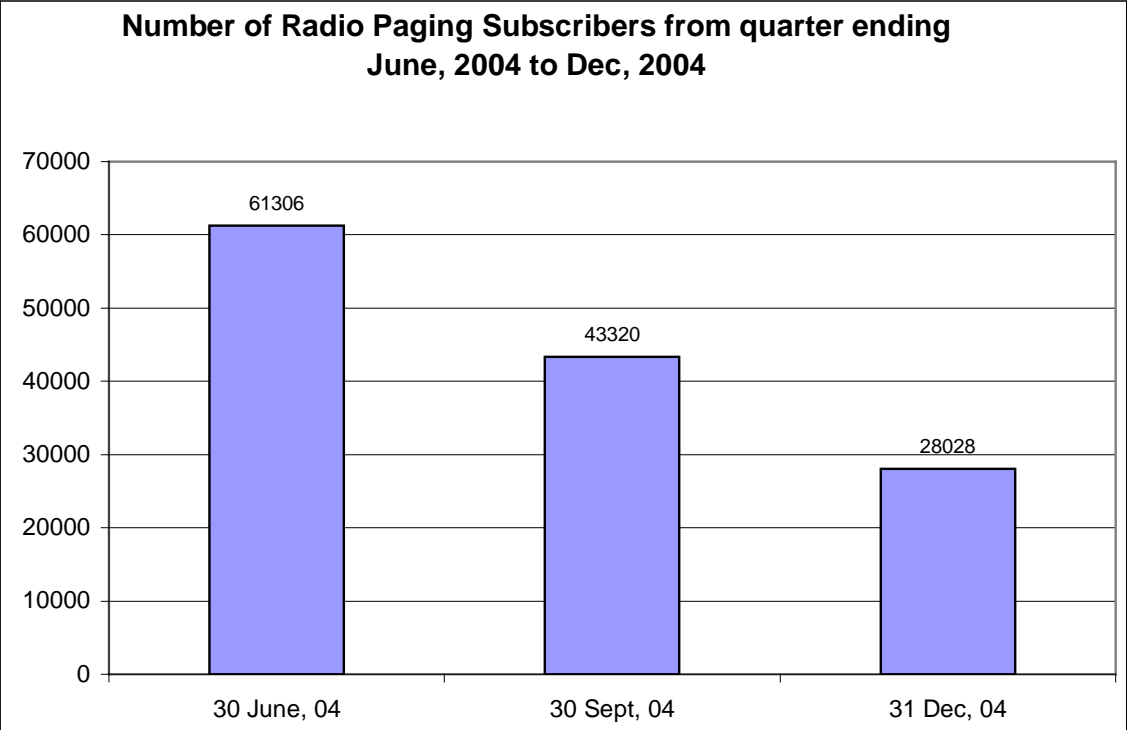
Growth Rate of PMRTS subscribers



Growth Rate of VSAT Subscribers



Growth Rate of Radio Paging Subscribers



Quality of Service Performance for Fixed Services

Performance Monitoring Report of Quality of Service of Basic Service for the Quarter ending March, 2005

QoS Parameters		New connections after registration of demand*	Fault incidences per 100/sub/mth)	Fault repair by next working day			Mean Time to Repair (MTR)	Grade of service (calls per thousand)	Call completion rate in local network	Metering & billing credibility- % of bills disputed	Operator Assisted Trunk calls (% answered within time norm)		Shifts	Closures	Additional facility	Percentage of repeat faults			
				>90%							Urgent calls: <1 hr	Ordinary calls: <2 hr				95% of requests			<1%
S. No	Service Area	Service Providers	100% in < 7days	<3	(Month-1)	(Month-2)	(Month-3)	<8 hrs	(2/1000)	>65%	<0.1%,	<1 hr	<2 hr	<3 days	< 24 hrs	< 24hrs	(Month-1)	(Month-2)	(Month-3)
1	ANDRA PRADESH	BSNL	51.28	5.66	89.40	90.57	89.52	15.00	NA	53.00%	0.05	94.53	89.88	0.00	NA	NA	18.53	20.24	17.62
		RELIANCE	100.00	0.00	100.00	100.00	100.00	3.10	0.002	69.86%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		TATA	94.95	0.94	92.46	89.43	82.31	11.46	0.001	52.97%	0.41	N/App	N/App	88.99	100.00	98.85	2.81	3.00	3.89
2	BIHAR	BSNL	51.74	4.92	89.88	90.41	89.68	12.00	NA	34.00%	0.05	81.67	65.42	0.00	NA	NA	3.88	4.20	4.42
		RELIANCE	100.00	0.00	100.00	100.00	100.00	3.80	0.002	58.91%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
3	DELHI	MTNL	96.02	15.49	84.90	86.77	87.98	10.80	0.000	46.00%	0.05	71.75	73.38	85.43	95.85	68.46	14.39	14.92	15.15
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.40	0.002	66.70%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		BHARTI	90.01	2.12	98.74	98.20	98.76	4.24	0.001	52.99%	0.21	76.07	Nil	7.47	25.10	54.40	5.24	5.81	6.35
		TATA	97.38	0.01	100.00	100.00	100.00	2.30	0.000	61.00%	0.26	N/App	N/App	77.41	33.39	86.26	0.00	0.00	0.00
4	GUJARAT	BSNL	72.74	5.48	96.96	97.42	97.18	8.00	NA	62.00%	0.06	85.44	116.18	0.00	NA	NA	8.42	7.60	8.13
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.30	0.002	69.12%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		TATA	99.00	0.38	98.65	97.73	98.63	2.20	0.033	69.68%	0.01	N/App	N/App	98.76	100.00	99.76	4.33	2.68	1.90
5	MP & CHATTISGARH	BSNL(MP)	76.84	5.71	95.90	97.45	96.60	7.00	NA	70.00%	0.10	89.56	8.35	0.00	NA	NA	1.84	1.67	2.02
		BSNL(Chattisgarh)	80.78	10.57	86.81	82.11	79.51	11.00	NA	65.00%	0.05	99.62	99.89	0.00	NA	NA	2.29	3.25	2.42
		RELIANCE	100.00	0.00	100.00	100.00	100.00	1.80	0.002	68.44%	0.07	N/App	N/App	100.00	NA	NA	0.00	0.00	0.00
		BHARTI	98.30	2.97	95.10	94.69	95.62	6.20	0.000	64.20%	0.06	84.00	Nil	59.90	100.00	95.47	1.41	1.28	2.02

6	MAHARASHTRA	BSNL	52.24	4.82	89.09	89.89	89.63	11.00	NA	58.00%	0.04	83.59	87.88	0.00	NA	NA	4.20	3.93	4.34
		RELIANCE	100.00	0.00	100.00	100.00	100.00	1.50	0.002	68.47%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		TATA	NA	1.34	99.31	99.00	99.12	2.98	0.002	64.42%	0.70	N/App	N/App	99.62	100.00	99.95	4.38	4.03	3.67
7	PUNJAB	BSNL	97.78	8.26	94.70	95.55	95.93	11.00	NA	65.00%	0.05	75.74	91.92	0.00	NA	NA	0.95	0.97	0.92
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.30	0.002	66.06%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		HFCL	97.75	2.04	97.00	97.48	95.26	5.22	0.000	74.10%	0.11	N/App	N/App	82.22	95.42	98.27	3.39	3.00	3.02
8	RAJASTHAN	BSNL	66.36	9.05	85.21	85.36	85.13	12.00	NA	51.00%	0.04	82.91	91.34	0.00	NA	NA	3.39	2.61	2.48
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.50	0.002	55.68%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		SHYAM	96.90	2.96	95.34	93.22	94.21	5.10	0.001	67.00%	0.09	Nil	78.58	95.17	100.00	95.45	0.86	0.95	0.90
9	TAMILNADU	BSNL	78.86	4.22	97.25	97.37	97.08	7.00	NA	73.00%	0.03	98.68	98.70	0.00	NA	NA	0.89	0.56	0.65
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.40	0.002	71.04%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		BHARTI	90.15	1.88	99.04	98.94	98.63	2.25	0.002	69.65%	0.15	68.10	Nil	52.84	100.00	93.90	1.78	1.40	1.82
		TATA	83.14	0.15	95.86	92.47	100.00	2.05	0.002	47.72%	0.15	N/App	N/App	95.04	97.69	99.12	0.69	0.00	0.00
10	HARYANA	BSNL	82.58	8.63	91.89	92.62	93.02	11.00	NA	69.00%	0.06	46.54	92.62	0.00	NA	NA	4.52	4.52	4.55
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.20	0.002	62.70%	0.07	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		BHARTI	90.45	1.66	96.89	98.04	97.03	7.83	0.001	60.67%	0.02	85.55	Nil	4.73	66.35	55.33	2.27	4.20	4.75
11	KARNATAKA	BSNL	66.12	5.70	94.56	94.90	93.62	4.00	NA	56.00%	0.04	94.98	95.77	0.00	NA	NA	5.85	6.58	5.97
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.40	0.002	72.76%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		BHARTI	94.84	1.74	99.57	99.62	98.91	2.77	0.000	57.53%	0.19	Nil	63.59	59.08	98.05	95.00	7.71	5.81	5.03
		TATA	98.63	0.23	96.72	99.71	99.74	1.27	0.000	54.86%	0.40	N/App	N/App	99.81	97.31	98.09	3.28	4.57	3.84

Operator not meeting the prescribed benchmark

NA

Not available

N/App = Not Applicable

QoS Parameters			New connections after registration of demand*	Fault incidences per 100/sub/mth)	Fault repair by next working day			Mean Time to Repair (MTTR)	Grade of service between local exchange (calls per thousand)	Call completion rate in local network metering & billing credibility- % of bills disputed	Operator Assisted Trunk calls (% answered within time norm)		Shifts	Closures	Additional facility	Percentage of repeat faults			
S. No	Service Area	Service Provider			100% in < 7days	<3	>90%				<8 hrs	>65%				<0.1%	Urgent calls: <1 hr	Ordinary calls: <2 hr	95% of requests
					(Month-1)	(Month-2)	(Month-3)		(2/1000)				< 3 days	< 24 hours	< 24hours	(Month-1)	(Month-2)	(Month-3)	
12	A&N	BSNL	69.72	13.56	85.98	88.82	84.80	14.00	NA	43.00%	0.07	80.12	97.16	0.00	NA	NA	9.36	7.32	6.45
13	Assam	BSNL	67.38	8.99	96.89	97.08	96.76	24.00	NA	67.00%	0.08	56.53	74.60	0.00	NA	NA	1.11	1.05	0.86
14	Chennai	BSNL	88.90	6.61	95.81	94.16	90.90	17.00	NA	76.00%	0.10	84.19	82.73	0.00	NA	NA	5.69	6.28	7.76
		Reliance	100.00	0.00	100.00	100.00	100.00	3.10	0.002	73.38%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		TATA	78.16	0.05	94.91	94.91	97.95	1.53	0.00	59.05%	0.12	N/App	N/App	96.02	97.46	99.37	0.20	18.26	0.51
15	HP	BSNL	81.60	10.51	95.49	93.40	93.76	6.00	NA	58.00%	0.06	69.24	77.74	0.00	NA	NA	0.55	0.63	0.60
		RELIANCE	100.00	0.12	100.00	100.00	100.00	5.10	0.002	72.76%	0.78	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
16	Jhar khand	BSNL	19.87	8.27	91.45	92.25	92.16	17.00	NA	31.00%	0.05	94.98	95.77	0.00	NA	NA	1.78	1.44	1.38
17	J&K	BSNL	22.15	13.92	92.52	90.11	93.31	10.00	NA	29.00%	0.14	59.55	68.59	0.00	NA	NA	2.74	0.82	0.93
18	Kerala	BSNL	43.83	6.63	89.69	89.60	90.96	15.00	NA	68.00%	0.02	99.72	69.40	0.00	NA	NA	7.76	8.61	7.80
		RELIANCE	100.00	0.00	100.00	100.00	100.00	1.10	0.002	70.21%	0.07	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
19	Kolkata	RELIANCE	100.00	0.00	100.00	100.00	100.00	2.40	0.002	66.24%	0.09	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		BSNL	48.97	4.31	91.34	91.20	91.34	12.00	NA	52.00%	0.07	70.42	80.36	0.00	NA	NA	5.97	5.86	5.97
20	Mumbai	TATA	NA	0.95	99.20	99.34	99.25	2.88	0.002	64.37%	0.88	N/App	N/App	93.46	100.00	96.18	4.27	3.92	3.67

		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.40	0.002	74.51%	0.06	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
		MTNL	56.97	8.09	90.30	88.78	89.80	20.47	0.0003	54.21%	0.09	80.03	83.08	33.72	77.90	66.87	14.96	14.99	13.99
21	NE-I	BSNL	45.34	4.72	56.91	61.76	60.04	23.00	NA	51.00%	0.07	87.80	83.02	0.00	NA	NA	8.31	6.85	5.94
22	NE-II	BSNL	52.32	5.79	92.36	94.10	93.66	4.00	NA	51.00%	0.15	71.38	70.34	0.00	NA	NA	2.52	4.02	4.21
23	Orissa	BSNL	97.38	9.53	90.16	91.43	91.19	10.00	NA	53.00%	0.10	63.02	95.35	0.00	NA	NA	1.30	1.23	1.32
		RELIANCE	100.00	0.00	100.00	100.00	100.00	8.60	0.002	54.90%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
24	UP-E	BSNL	26.83	4.40	98.44	98.52	98.61	8.00	NA	65.00%	0.01	92.18	92.81	0.00	NA	NA	1.26	1.12	1.09
		RELIANCE	100.00	0.00	100.00	100.00	100.00	5.60	0.002	52.97%	0.07	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
25	UP-W	BSNL	57.76	9.08	95.44	95.22	94.31	6.00	NA	71.00%	0.03	67.35	94.80	0.00	NA	NA	2.92	2.51	2.70
		RELIANCE	100.00	0.00	100.00	100.00	100.00	3.90	0.002	54.72%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
26	Uttaranchal	BSNL	84.02	9.37	91.96	95.10	94.15	6.00	NA	65.00%	0.01	92.18	92.81	0.00	NA	NA	0.94	1.54	1.41
27	West Bengal	BSNL	37.90	6.89	84.62	88.33	85.80	20.00	NA	61.00%	0.04	83.89	89.63	0.00	NA	NA	1.44	2.23	2.40
		RELIANCE	100.00	0.00	100.00	100.00	100.00	2.60	0.002	53.18%	0.07	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00

Operator not meeting the prescribed benchmark

NA Not available

N/App = Not applicable

Annex 5.2

Quality of Service Performance for Mobile (GSM) Services

Annex - I (Page 1)

Details QoS Parameters for Cellular Services as reported by CMSPs for the quarter ending 31st March, 2005

Sr. No.	Name of the service providers	Fault Incidence & Repair			Network Performance				Billing Complaints		
		(i)	(ii)	(iii)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)
		No. of faults (per 100 subscribers)	Faults cleared within 24 hrs	Accoumulated down time of community isolation	Call Success Rate (within licencees own network)	Service Access Delay	Call Drop Rate	% of connection with good voice quality	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									
		<1%	100%	<24 hrs	>99%	9 to 20 sec	<3%	>95%	<0.1%	100%	<4 weeks
	'A' Circle										
	Maharashtra										
1	BPL Cellular	1.17%	98.00%	58.60	98.69%	11.21	1.32%	98.09%	0.100%	100.00%	30 Days
2	IDEA Cellular	0.01%	100.00%	45.38	96.40%	13.45	1.40%	98.39%	0.405%	100.00%	30 Days
3	BSNL	0.20%	90.00%	98.00	88.00%	2.00	1.20%	96.00%	1.200%	100.00%	30 Days
4	Bharti Cellular	0.39%	100.00%	22.33	99.01%	9.35	0.92%	96.50%	0.100%	100.00%	30 Days
5	Reliance - CDMA	0.08%	100.00%	56.00	99.04%	10.00	0.61%	98.02%	0.090%	100.00%	30 Days
6	Tata, MH -CDMA	0.16%	98.00%	13.56	99.58%	12.00	0.55%	97.17%	0.003%	100.00%	NA
	Gujarat										
7	Hutch	0.02%	100.00%	20.53	99.99%	14.55	1.00%	96.40%	0.028%	100.00%	7 Days
8	IDEA Cellular	0.01%	100.00%	10.50	98.66%	14.14	1.38%	97.52%	0.080%	100.00%	30 Days
9	BSNL	0.10%	99.00%	Nil	99.00%	2.00	1.00%	NA	0.100%	100.00%	7 Days


10	Bharti Cellular	0.10%	100.00%	17.57	99.75%	12.80	0.25%	96.94%	0.050%	100.00%	14 D
11	Reliance - CDMA	0.08%	100.00%	116.00	99.05%	5.00	0.62%	99.41%	0.050%	100.00%	30 Days
12	Tata -CDMA	0.87%	99.00%	4.18	99.77%	8.60	0.49%	96.77%	0.010%	100.00%	30 Days
Andhara Pradesh											
13	IDEA Cellular	0.32%	100.00%	26.44	99.98%	9.56	0.51%	98.53%	0.390%	100.00%	2 Days
14	Bharti Mobile	0.02%	100.00%	139.00	98.80%	12.00	0.88%	98.10%	0.050%	100.00%	NA
15	BSNL, AP	0.30%	95.00%	Nil	98.00%	6.00	1.60%	98.00%	0.000%	100.00%	immediate
16	Hutchison Essar	0.37%	100.00%	18.00	99.04%	5.00	1.04%	98.00%	0.090%	100.00%	30 Days
17	Reliance - CDMA	0.06%	100.00%	59.00	99.05%	10.00	0.56%	99.97%	0.070%	100.00%	30 Days
18	Tata -CDMA	1.09%	64.00%	15.35	99.83%	5.53	0.51%	97.55%	0.310%	100.00%	30 Days
Karnataka											
19	Bharti Mobile	0.04%	100.00%	97.13	99.05%	7.00	1.50%	96.20%	0.005%	100.00%	30 Days
20	Spice Comm.	0.15%	100.00%	1.20	99.72%	9.00	1.26%	99.71%	0.020%	100.00%	7 Days
21	BSNL	0.50%	100.00%	12.00	94.00%	12.00	1.30%	98.00%	0.020%	100.00%	30 Days
22	Hutchison Essar	0.75%	100.00%	15.00	99.90%	17.00	1.29%	97.60%	0.018%	100.00%	30 Days
23	Reliance- CDMA	0.06%	100.00%	62.00	99.05%	5.00	0.58%	99.35%	0.090%	100.00%	30 Days
24	Tata -CDMA	2.07%	98.58%	21.46	99.30%	8.77	1.04%	96.33%	0.240%	100.00%	30 Days
Tamil Nadu											
25	BPL Cellular	0.52%	100.00%	140.57	98.96%	9.50	1.35%	99.81%	0.170%	100.00%	30 Days
26	Aircel	0.01%	100.00%	18.27	99.02%	11.06	1.69%	95.70%	0.110%	100.00%	28 Days
27	BSNL	0.10%	100.00%	Nil	88.00%	9.00	1.10%	95.00%	0.000%	100.00%	immediate
28	Bharti Cellular	0.07%	98.11%	20.00	98.36%	12.24	0.81%	98.39%	0.080%	100.00%	30 Days
29	Reliance - CDMA	0.04%	100.00%	67.00	99.05%	5.00	0.56%	100.00%	0.060%	100.00%	31 Days
30	Tata -CDMA	0.02%	100.00%	0.48	99.48%	5.40	1.03%	95.53%	0.090%	100.00%	30 Days
B' Circle											
Kerala											
31	IDEA-Escotel Mobile	0.23%	100.00%	13.08	99.82%	14.00	1.93%	98.15%	0.180%	100.00%	30 Days

32	BPL Cellular	0.00%	100.00%	15.28	99.19%	20.00	1.27%	99.45%	0.001%	100.00%	30 Days
33	BSNL	1.10%	96.00%	209.00	96.00%	12.00	1.40%	95.00%	1.700%	100.00%	30 Days
34	Bharti Cellular	0.05%	97.52%	21.00	99.41%	15.34	1.38%	98.70%	0.050%	100.00%	30 Days
35	Reliance - CDMA	0.05%	100.00%	33.00	99.05%	5.00	0.76%	100.00%	0.060%	100.00%	30 Days
	Punjab										
36	Spice Comm.	0.20%	100.00%	6.85	99.12%	4.20	1.55%	98.30%	0.035%	100.00%	30 Days
37	Bharti Mobile	0.02%	100.00%	4.68	99.60%	9.00	1.63%	99.80%	0.080%	100.00%	1 Day
38	Hutch	0.63%	100.00%	Nil	99.41%	10.00	1.22%	98.98%	0.082%	100.00%	1 Day
39	BSNL	0.00%	98.25%	23.00	98.66%	3.78	1.19%	90.32%	0.000%	100.00%	30 Days
40	Reliance - CDMA	0.08%	100.00%	100.00	99.05%	6.00	0.73%	99.32%	0.060%	100.00%	30 Days
	Haryana										
41	IDEA-Escotel Mobile	0.15%	100.00%	10.40	99.95%	14.27	0.77%	99.41%	0.080%	100.00%	35 Days
42	Hutch-Aircel Digilink	0.95%	100.00%	3.15	99.75%	9.20	1.72%	98.50%	0.090%	100.00%	30 Days
43	BSNL	0.30%	100.00%	20.00	97.00%	9.00	2.80%	97.00%	0.070%	100.00%	7 Days
44	Bharti Cellular	0.09%	100.00%	2.20	99.70%	8.00	1.59%	99.80%	0.070%	100.00%	1 Day
45	Reliance - CDMA	0.15%	100.00%	70.00	99.06%	5.00	0.91%	99.02%	0.050%	100.00%	30 Days
	UP - W										
46	Hutch Essar	1.00%	100.00%	Nil	96.00%	10.00	1.40%	96.00%	0.024%	100.00%	3 Days
47	IDEA	0.08%	100.00%	16.04	99.89%	11.50	1.92%	97.00%	0.390%	100.00%	30 Days
48	BSNL	0.60%	98.00%	Nil	88.00%	9.00	1.10%	95.00%	0.000%	100.00%	immediate
49	Bharti Cellular	0.76%	100.00%	16.08	99.63%	9.00	1.67%	95.94%	0.020%	100.00%	30 Days
50	Reliance- CDMA	0.07%	100.00%	53.00	99.05%	5.00	0.85%	99.66%	0.080%	100.00%	30 Days
	UP - E										
51	Bharti Cellular	3.00%	98.00%	0.00	95.00%	9.50	NA	96.00%	0.200%	99.00%	45 Days
52	Hutch -AD	0.52%	100.00%	Nil	99.45%	9.00	1.61%	98.00%	0.020%	100.00%	21 Days
53	BSNL	1.80%	100.00%	2.00	97.00%	13.00	2.80%	96.00%	0.100%	100.00%	30 Days

54	Reliance - CDMA	0.06%	100.00%	42.00	99.05%	5.00	0.87%	99.13%	0.090%	100.00%	30 Days
	Rajasthan										
55	Hutch-Aircel Diglink	0.14%	100.00%	1.05	100.00%	9.00	1.40%	95.99%	0.090%	100.00%	21 Days
56	BSNL	0.40%	97.00%	38.00	95.00%	6.00	1.80%	92.00%	0.500%	93.00%	30 Days
57	Bharti - Hexacom	0.70%	100.00%	7.50	99.80%	9.00	1.50%	99.00%	0.080%	100.00%	1 Day
58	Reliance - CDMA	0.09%	100.00%	100.00	99.05%	5.00	0.67%	99.74%	0.040%	100.00%	30 Days
	Madhya Pradesh										
59	IDEA Cellular	0.19%	100.00%	5.50	99.03%	12.33	1.23%	99.19%	0.260%	100.00%	30 Days
60	Reliance	0.00%	100.00%	13.18	100.00%	8.06	2.84%	97.89%	0.040%	100.00%	1 Day
61	BSNL	0.80%	97.00%	Nil	99.00%	3.00	1.30%	95.00%	0.040%	100.00%	30 Days
62	Bharti Cellular	0.08%	100.00%	16.06	99.51%	13.00	0.58%	98.00%	0.092%	100.00%	30 Days
63	Reliance - CDMA	0.11%	100.00%	133.00	99.05%	13.00	0.78%	99.80%	0.050%	100.00%	30 Days
	West Bengal										
64	Bharti	0.01%	100.00%	1.00	98.29%	6.90	1.69%	97.00%	0.180%	100.00%	30 Days
65	Reliance	0.08%	100.00%	57.54	99.00%	9.44	2.63%	99.79%	Nil	NA	NA
66	BSNL	0.60%	100.00%	Nil	99.00%	6.00	1.70%	99.00%	0.000%	100.00%	immediate
67	Reliance - CDMA	0.08%	100.00%	53.00	99.04%	5.00	0.99%	97.92%	0.100%	100.00%	30 Days
	C' Circle										
	Himachal Pradesh										
68	Bharti Telenet	0.01%	100.00%	4.26	99.57%	9.00	1.93%	99.91%	0.060%	100.00%	1 Day
69	Reliance	0.02%	100.00%	6.40	100.00%	6.61	2.33%	99.62%	0.000%	100.00%	10 Days
70	BSNL	0.30%	97.00%	1.00	98.00%	6.00	2.50%	95.00%	0.090%	100.00%	immediate
71	Reliance - CDMA	Nil	100.00%	0.00	99.00%	4.00	0.64%	99.89%	0.190%	100.00%	30 Days
	Bihar										
72	Reliance	0.11%	100.00%	19.32	99.00%	8.35	1.98%	98.88%	0.000%	100.00%	7 Days
73	BSNL	0.40%	96.00%	87.00	99.00%	9.00	2.10%	92.00%	0.200%	90.00%	42 Days
74	Reliance - CDMA	0.14%	100.00%	43.00	99.06%	5.00	1.49%	99.26%	0.090%	100.00%	30 Days

75	Bharti Cellular	0.12%	100.00%	4.00	99.53%	5.33	1.03%	99.66%	0.200%	100.00%	Nil
	Orissa										
76	Reliance	0.10%	100.00%	14.36	99.17%	7.27	2.47%	99.76%	0.050%	100.00%	NA
77	BSNL	0.10%	88.00%	83.00	84.00%	9.00	1.90%	93.00%	0.100%	100.00%	immediate
78	Bharti	0.43%	98.17%	Nil	100.00%	7.40	0.00%	98.92%	0.050%	100.00%	30 Days
79	Reliance - CDMA	0.07%	100.00%	48.00	99.05%	5.00	1.06%	99.86%	0.070%	100.00%	30 Days
	Assam										
80	BSNL, AS	0.30%	100.00%	3.00	99.00%	12.00	3.60%	95.00%	0.010%	100.00%	immediate
81	Reliance, AS	0.02%	100.00%	13.40	99.00%	9.70	1.22%	96.18%	0.010%	100.00%	NA
	J & K										
82	BSNL	1.90%	100.00%	23.00	99.00%	12.00	2.00%	97.00%	0.100%	100.00%	21 Days
83	Bhrati	2.00%	99.70%	3.78	99.00%	9.00	2.80%	98.50%	0.050%	100.00%	1 Day
	NE										
84	BSNL	1.40%	100.00%	12.00	99.00%	14.00	2.00%	98.00%	0.000%	100.00%	21 Days
85	Reliance	Nil	Nil	Nil	99.00%	9.74	2.56%	95.07%	Nil	Nil	Nil
	METRO										
	Delhi										
86	Bharti Cellular	0.38%	100.00%	Nil	99.11%	10.00	1.58%	95.68%	0.059%	100.00%	30 Days
87	Hutchison Essar	0.63%	100.00%	Nil	99.41%	10.00	1.22%	98.98%	0.082%	100.00%	immediate
88	MTNL	1.99%	100.00%	0.00	99.50%	13.00	1.04%	56.80%	0.070%	100.00%	30 Days
89	IDEA Cellular	0.37%	100.00%	Nil	99.98%	7.00	0.63%	97.15%	0.090%	100.00%	30 Days
90	Tata -CDMA	0.10%	100.00%	3.15	99.90%	5.16	0.51%	95.30%	0.080%	100.00%	30 Days
91	Reliance - CDMA	0.12%	100.00%	0.00	99.05%	5.00	0.81%	98.71%	0.050%	100.00%	30 Days
	Mumbai										
92	BPL Mobile	0.27%	100.00%	63.53	99.45%	11.34	1.83%	98.72%	0.100%	100.00%	40 Days
93	Hutchison Max	0.59%	100.00%	Nil	99.58%	9.00	1.50%	97.70%	0.002%	100.00%	3 Days
94	MTNL	0.00%	100.00%	Nil	99.20%	14.00	1.41%	95.30%	0.060%	100.00%	30 Days

95	Bharti Cellular	0.04%	100.00%	0.00	100.00%	9.00	1.21%	97.00%	0.020%	100.00%	7 Days
96	Reliance - CDMA	0.16%	100.00%	0.00	99.07%	5.00	0.87%	99.94%	0.040%	100.00%	30 Days
97	Tata -CDMA	0.16%	99.00%	3.08	99.82%	12.00	0.30%	97.39%	0.620%	94.53%	
	Chennai										
98	Aircel Cellular Ltd	0.11%	99.20%	Nil	100.00%	12.00	0.84%	95.00%	0.200%	100.00%	30 Days
99	Bharti Mobinet	0.04%	98.26%	0.00	99.78%	12.67	0.51%	96.98%	0.090%	100.00%	30 Days
100	Hutchison Essar	0.07%	100.00%	Nil	99.60%	9.00	0.72%	98.78%	0.060%	100.00%	30 Days
101	BSNL	0.00%	100.00%	Nil	99.00%	12.00	0.90%	100.00%	1.100%	100.00%	immediate
102	Reliance - CDMA	0.04%	100.00%	0.00	99.05%	5.00	0.85%	99.55%	0.090%	100.00%	30 Days
103	Tata-CDMA	0.03%	99.00%	0.00	99.41%	6.55	0.76%	95.50%	0.110%	100.00%	30 Days
	Kolkata										
104	Bharti Mobinet	0.00%	100.00%	0.00	98.41%	7.30	1.22%	98.96%	0.100%	100.00%	NA
105	Hutchison	0.14%	100.00%	Nil	99.93%	12.00	0.87%	97.05%	0.080%	100.00%	30 Days
106	BSNL	0.20%	92.00%	Nil	93.00%	7.00	0.90%	97.00%	2.300%	99.00%	30 Days
107	Reliance - CDMA	0.06%	100.00%	0.00	99.06%	5.00	0.89%	98.84%	0.070%	100.00%	30 Days

 Operators not meeting the benchmark
NA Data not available

Annex 5.3

Quality of Service Performance for ISPs

S. No.	Name of the Service Provider	Service Activation time	Time to Access	Access Portability in 1 st attempt (in %)	Access Portability in 2 nd attempt (in %)	Access Portability in 3rd 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	93	98	100	Nil	1:100	0-4 hrs	
2	MTNL	Delhi	Immediate	30 sec	99.67	99.99	-	-	0.01	5 min
		Mumbai	Immediate	26 sec	100	-	-	-	0.002	15 min
3	Sify Ltd.	3 mins	30 sec	90	95	99	20 min	0.005	4 hrs	
4	VSNL	2-4 hrs	30 sec	80	90	99	Nil	Not provided by BSO	10-15 min	
5	Reliance Communications Infrastructure	Online	<25 sec	98	100	-	Nil	Not provided by BSO	Within 3 days	
6	Data Infosys	3-5 min	25-30 sec	90	95	99	30 min	1:100	15 min	
7	Bharti Infotel Ltd.	5 min	30-35 sec	98.4	99	100	Nil	1:100	2 hrs	
8	Iqara Telecom India Pvt. Ltd. (BG Broadband)	2 min (Online)	20 sec	98	99	100	Nil	Not provided by BSO	24-48 hrs	
9	Shyam Internet Services Pvt. Ltd.	30 min	30 sec	98	99	99.99	30 min	1%	2 hrs	
10	HCL Infinet Ltd.	4 min	32 sec	99.2	99.1	99.4	40 min	1:200	17-19 hrs	
11	Hathway Cable & Datacom Pvt. Ltd.*	-	-	-	-	-	-	-	-	
12	Sab Infotech	<6 hrs	<30 sec	90	95	100	<30 min	0 in 100	>1 hr	
13	Icenet.net Limited	2 hrs	20 sec	85	95	100	Never	1:100	-	
14	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	-	25 sec	98.54	100	N.A.	Nil	1:1000	1 hr	
15	Broadband Pacenet (I) Pvt. Ltd.	-	-	-	-	-	-	-	3 hrs	
16	Fascel Ltd.*	-	-	-	-	-	-	-	-	
17	Asianet Satellite Communications Ltd.	Immediate	10 sec	98	99	100	<1 Hr	1 in 500	3 Hrs 30 mins	
18	WWW Communications Ltd.	4-5 mins	20-35 sec	87	96	99	92 min	-	10-15 min	
19	HFCL Infotel Ltd.	1.5 min	30 sec	98.2	99.2	100	Nil	0.85 in 100	9.30 min	
20	Hughes	-	-	-	-	-	-	-	148.5 min	

*are not providing Internet Access on Dial Up. Internet Access on Mobile is provided via WAP Setup but they have been included in Top 20 on the basis of Total Number of Subscribers.

The parameters, which are below the benchmarks, are indicated in the bold. 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.