

Telecom Regulatory Authority of India



The Indian Telecom Services
Performance Indicators April – June 2005

September 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 **April-June 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 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 Jan-Mar 2005. Information for the quarter ending June 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. 26191998 and e-mail: traio9@bol.net.in.

(ii) Quarterly Results at a Glance

Performance Indicators of Telecom Services for QE Jun 2005

A. Growth of Fixed & Mobile Services:-

	QE Jun 2004	QE Dec 2004	QE Mar 2005 (FY 2004-05)	QE Jun 2005	%age growth over Jun 2004 (12 months)	%age growth over Dec 2004 (6 months)	%age growth over Mar 2005 (3 months)
1) Subscriber's Base (in millions)							
i) Fixed Line including WLL(F)	43.51	44.87	46.19	46.85	7.68	4.41	1.43
ii) Mobile (GSM + CDMA)	37.76	48.01	52.22	57.37	51.93	19.49	9.86
Gross Total	81.27	92.88	98.41	104.22	28.24	12.21	5.90
2) Traffic (MOU) (minutes of use/ sub/month)							
i) Mobile (GSM)		327	344	*			
3) ARPU (Rs./sub/ month)							
i) Mobile (GSM)		399	394	*			
4) Teledensity							
Population in million (Estimated)	1070	1077	1080	1085			
i) Fixed including WLL(F)	4.07	4.17	4.28	4.32	6.19	3.64	0.96
ii) Mobile (GSM + CDMA)	3.53	4.46	4.84	5.29	49.83	18.61	9.36
Gross Total	7.60	8.62	9.11	9.61	26.47	11.38	5.42

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

B. Growth of Internet Services:-

	QE Jun 2004	QE Dec 2004	QE Mar 2005 (FY 2004-05)	QE Jun 2005	%age growth over Jun 2004 (12 months)	%age growth over Dec 2004 (6 months)	%age growth over Mar 2005 (3 months)
1) Subscriber's Base (in million)							
i) Internet	3.64	5.45	5.55	5.89	61.81	8.07	6.13
ii) Broadband Connections (>=256 Kbps)		0.047	0.183	0.399		748.94	118.03
2) Minutes of Use (MOU/ subs/month)		275	305	300		9.09	-1.64
3) ARPU (Internet) (Rs/subs/month)		167	220	200		19.76	-9.09

C. Performance of service providers during the quarter: -

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

1) Basic Service Providers	QE Jun 2004	QE Dec 2004	QE Mar 2005 (FY 2004-05)	QE Jun 2005	%age growth over Jun 2004 (12 months)	%age growth over Dec 2004 (6 months)	%age growth over Mar 2005 (3 months)
BSNL	36.03	36.49	37.04	36.80	2.14	0.84	-0.65
MTNL	4.54	4.08	4.06	3.95	-13.00	-3.07	-2.71
Tata/ Hughes	1.32	2.00	2.58	3.07	132.58	53.19	18.99
Bharti	0.70	0.80	0.86	0.93	32.86	15.67	8.14
Reliance	0.68	1.18	1.31	1.72		45.52	31.30
HFCL	0.14	0.18	0.19	0.21	50.00	15.38	10.53
Shyam	0.099	0.13	0.15	0.17	71.72	30.77	13.33
Total	43.51	44.87	46.19	46.85	7.68	4.41	1.43

(II) Mobile Services Subscriber Base (in Million)

Service Providers	QE Jun 2004	QE Dec 2004	QE Mar 2005 (FY 2004-05)	QE Jun 2005	%age growth over Jun 2004 (12 months)	%age growth over Dec 2004 (6 months)	%age growth over Mar 2005 (3 months)
Reliance	8.18	10.15	10.45	11.65	42.42	14.82	11.48
Bharti	7.67	9.83	10.98	12.26	59.84	24.77	11.66
BSNL	6.17	8.90	9.90	10.69	73.26	20.18	7.99
Hutch	5.77	7.18	7.79	8.44	46.27	17.57	8.34
Idea	2.95	4.70	5.07	5.55	88.14	18.19	9.47
BPL Group	2.15	2.47	2.58	2.63	22.33	6.56	1.94
Others	1.17	1.65	1.76	1.87	59.83	13.54	6.25
Spice	1.30	1.50	1.44	1.47	13.08	-1.80	2.08
Escotel	1.09				-100.00		
Tata/ Hughes	0.71	0.81	1.09	1.43	101.41	77.42	31.19
MTNL	0.54	0.78	1.08	1.29	138.89	66.24	19.44
HFCL	0.034	0.05	0.05	0.06	76.47	22.45	20.00
Shyam	0.027	0.03	0.03	0.03	11.11	15.38	0.00
Total	37.76	48.01	52.22	57.37	51.93	19.49	9.86

Chapter One

PERFORMANCE OF FIXED SERVICES

Subscribers Base nearly touches 47 million

1.1 SUBSCRIBERS BASE: -

1.1.1 As on 30th June 2005 and the Fixed lines were provided by 5 licensed private operators in addition to incumbents BSNL and MTNL. During the quarter M/s Bharti Telesonic Ltd has started their services in AP and Kerala circles. List of Fixed Service provider's along with their area of operation is given in Table 1:

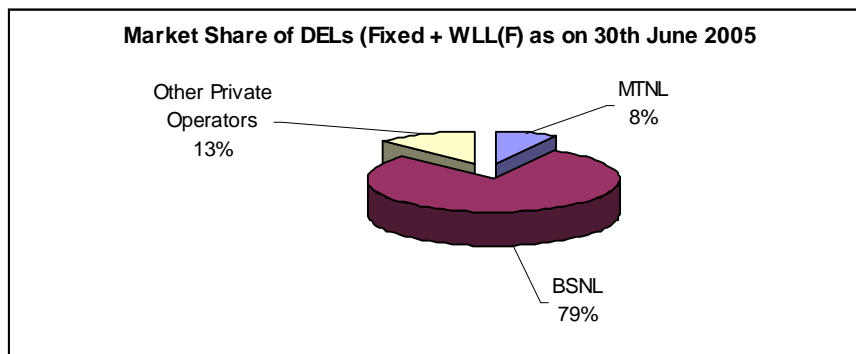
Table 1

S.No.	Name of the Service Provider	Area of Operation
1	BSNL	All India (Except Delhi & Mumbai)
2	MTNL	Delhi & Mumbai
3	Bharti Telesonic 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 Infocomm.Ltd.	AP, Bihar, Delhi, Gujarat, Haryana, HP, Karnataka, Kerala, MP, Maharashtra, Mumbai Orissa, Punjab, Rajasthan, TN, Chennai, UP(E), UP(W), West Bengal, Kolkata

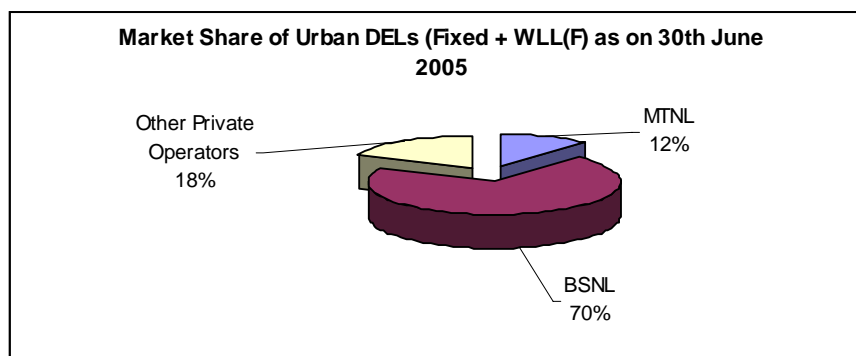
The information in this report is based on the data provided by the Fixed Service Providers. The operator-wise subscriber base is given in Table 1.1.

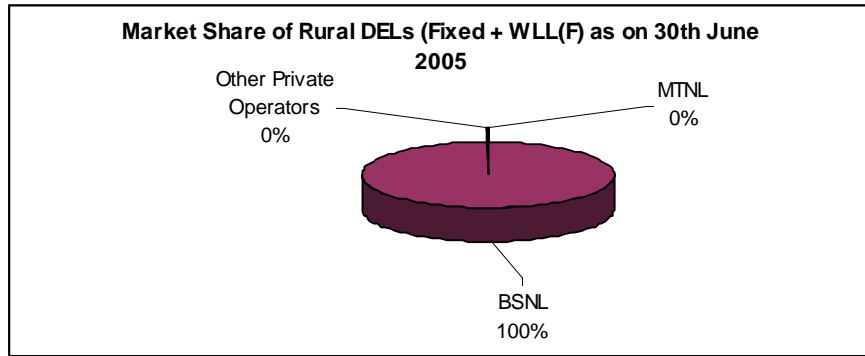
1.1.2 Market Share of DELs

As on 30th June 2005, the total subscriber base of Fixed lines including WLL (F) stood at 46.9 million. The incumbents BSNL and MTNL have 79% and 8% market share respectively in the subscriber base, while all the five private operators have 13% share. In the current quarter the share of private operators have increased by 3% and the share of BSNL & MTNL has declined by 2% and increased by 1% respectively.



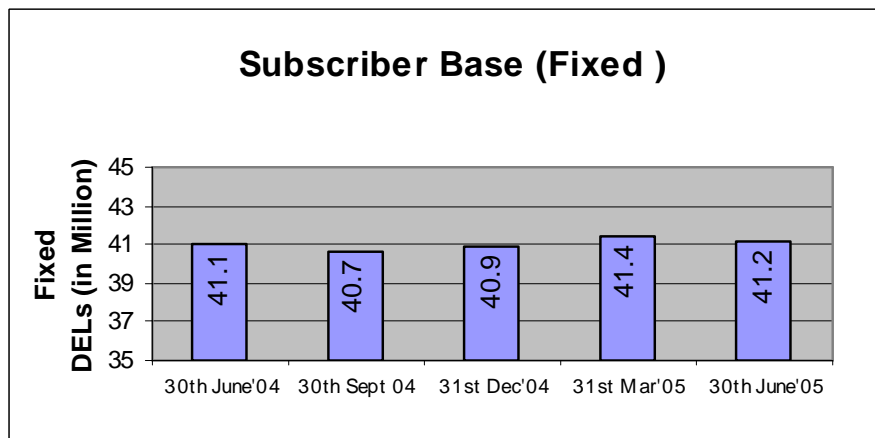
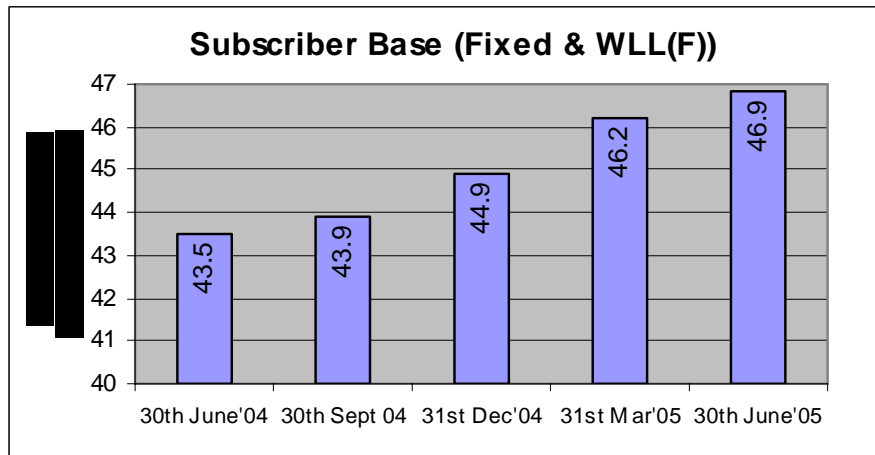
As on 30th June 2005 total urban DELs are 33.28 million and rural DELs are 13.57 million. The market share of Fixed Service Providers in Urban DELs and Rural DELs is depicted in the charts below:

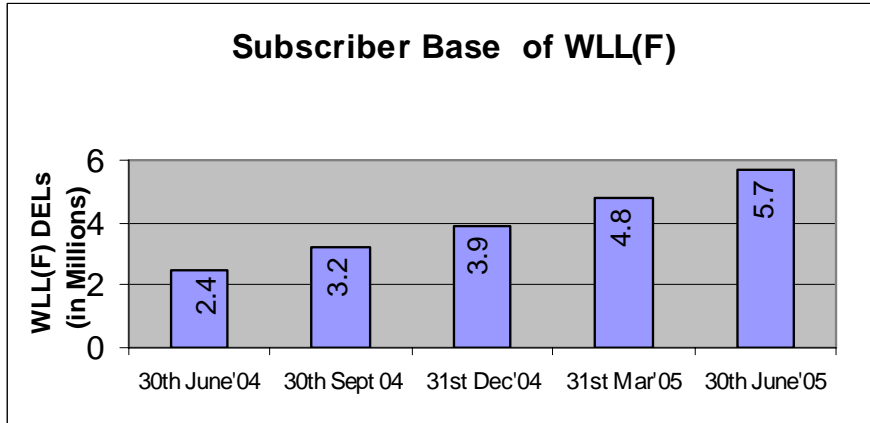




1.1.3 Subscriber Base of Fixed & WLL(F) for last five quarters

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

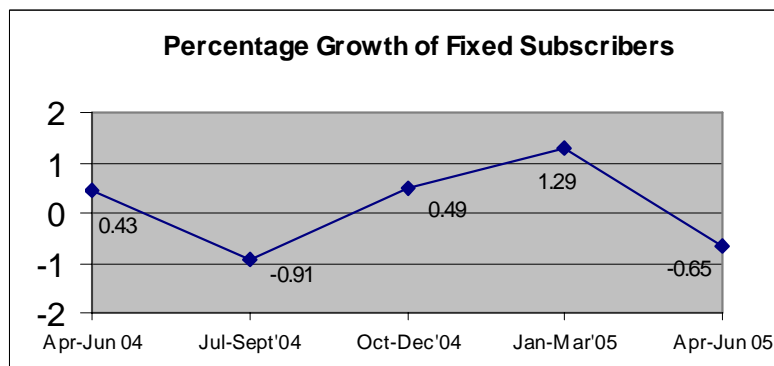
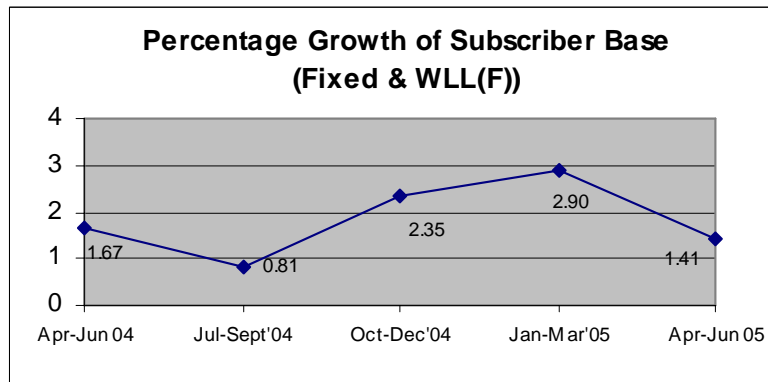


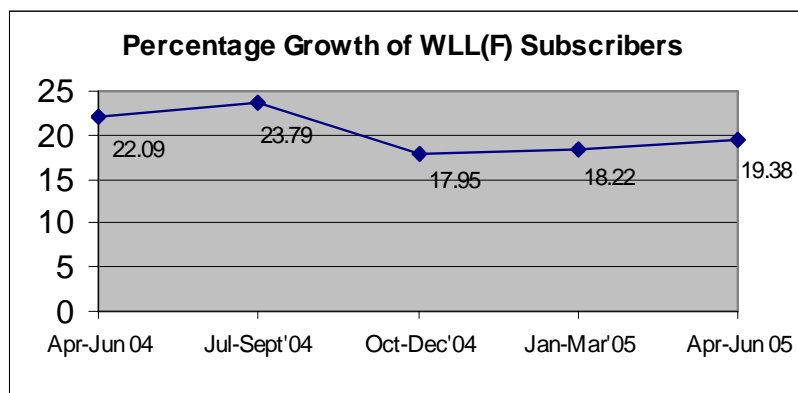


1.1.4 Growth of DELs

The Fixed Service sector has registered a growth of 6,50,863 lines during the quarter from 1st April 2005 to 30th June 2005. The actual number of DELs has increased from 4,62,00,279 as on 31st March 2005 to 4,68,51,142 as on 30th June 2005. The overall percentage of growth in subscriber base during the Quarter is 1.41%.

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

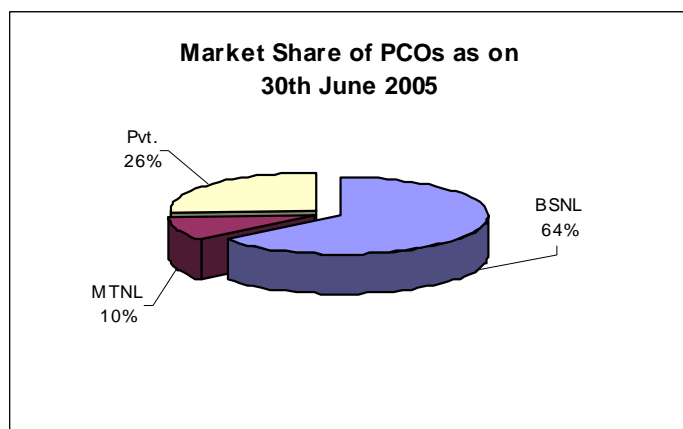




1.2 Other Performance Indicators: -

1.2.1 Public Call Offices:

During the current quarter 1,77,836 new PCOs have been added. Total number of PCOs in the country as on 30th June 2005 is 29,49,068. The contribution of BSNL is 18,92,373 i.e. 64% of the total PCOs. The contribution of MTNL and other private operators is 2,82,886 (10 %) and 7,73,809 (26%) 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 31st March 2005 there were 5,30,616 VPTs in the country whereas by the end of this quarter, the total number of VPTs has marginally increased to 5,30,667. Thus 51 VPTs have been added during the current quarter. The total number of villages left uncovered, as on 30th June, 2005 are 76,824. BSNL has added only 14 VPTs during the quarter. Among the private operators Tata Teleservices Ltd (AP) has added 63 VPTs whereas there was a decrease of 26 VPTs in HFCL during this quarter.

Operator-wise details of village public telephones as on 30th June 2005 and achievement during the quarter is available at **Table 1.3**.

Chapter Two

Performance of Mobile Services

Subscriber Base crosses 57 million

PART A

2.0 Details of service providers: - The list of all the mobile service providers along with their licensed service area is following: -

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 Raj, NE
3	Reliance Telecom/Infocomm/Reliable Internet Services Ltd	All India (23)		All India except NE & AS
		Reliance Infocomm (21)	Assam & NE	
		Reliance Telecom. (7) MP, WB, HP, Bihar, Orissa, Assam & NE	Delhi, Mumbai, Chennai, Kolkata, MH, Gujarat, AP, KTK, TN, Kerala, PB, Haryana, UP (W), UP (E), & Rajasthan, J&K	
		Reliable Internet Services Ltd (1) Kolkata	All India except Kolkata	
4	Tata Teleservices	All India (20) except (AS, NE & J&K)	AS, NE & J&K	All India except (AS, NE & J&K)
5	Hutch	Delhi, Mumbai, Chennai, Kolkata, Guj, AP, KTK, Punjab, HR, UP-W, UP-E, Raj & WB (13)	MH, KR, TN, MP, HP, BR, OR, AS, NE & J&K	UP-W, WB
6	IDEA	Delhi, MH, Guj, AP, KR, HR, UP-W, MP (8)	Mumbai, Chennai, Kolkata, KTK, TN, Punjab, UP-E, Raj, WB, HP, Bihar, Orissa, Assam, NE & J&K	--
7	BPL	Mumbai, MH, TN, KR (4)	All India except (Mumbai, MH, TN, KR)	--
8	Aircel Cellular	Chennai, TN (2)	All India except (Chennai, TN)	--
9	Spice Communications	KTK, Punjab (2)	All India except (KTK, Punjab)	Punjab
10	HFCL	Punjab (1)	All India except Punjab	Punjab
11	Shyam Telelink	Rajasthan (1)	All India except Rajasthan	Rajasthan
12	Escorts Communications	UP-E, Raj, HP (3)	All India except (UP-E, Raj, HP)	---
13	Dishnet Wireless Ltd	WB, HP, BR, OR, AS, NE & J&K (7)	All India except (WB, HP, BR, OR, AS, NE & J&K)	WB, HP, BR, OR, AS, NE & J&K

Note: 1. Reliance Telecom for all his circles & Spice, Karnataka has applied for Unified Licence.

Note: 2 Reliance Infocomm in J&K, Escorts Communications & Dishnet Wireless Ltd is yet to start his services.

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 reached the 57.37 million subscribers mark (GSM 44.94 million & CDMA 12.43 million) for the quarter ending 30th June 2005.

2.1.2 Addition in Subscribers Base

The subscriber's base stood at 57.37 million for the current quarter as against 52.21 million for the preceding quarter. Around 5.16 million subscribers were added in this quarter.

2.1.3 Growth Rate

The growth rate for this quarter is 9.86% (9.44% in GSM and 12.43% in CDMA) as against 8.75% (9.80% in GSM and 5.08% in CDMA) for the quarter ending March 2005. M/s Bharti remains 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 June 05 (in millions)	Market Share	Technology Used
Bharti Grp	12.26	21.4	GSM
Reliance Grp	11.65	20.3	GSM & CDMA
BSNL	10.69	18.6	GSM & CDMA
Hutchison Grp	8.44	14.7	GSM
IDEA Grp	5.55	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 June 2005 among Metros, Circles A to C is given in Table 2.3.

2.1.5 Change in Market Structure

M/s Bharti, M/s Reliance and BSNL/MTNL have license to offer mobile services in all 23 service area. The largest operator, M/s Bharti is offering services in all the 23 service areas. M/s Reliance is presently offering services in all service areas except J&K circle. BSNL is also offering services in all its 21 circles. M/s Tata Teleservices is offering services in all its licensed 20 service areas. During this quarter, M/s Tata Teleservices started its services in Kerala Circle.

PART B

2.2 Minimum Effective Charge:

Tariff Trends in GSM Service (April to June 2005)

- Ø Many GSM service providers have launched recharge coupons for low-end prepaid subscribers with a denomination value of about Rs. 200 and validity of one month. This offers a talktime of about Rs. 50 translating into about 30 Local (Intra-circle) MOUs available.
 - Launch of this recharge coupon has increased the affordability of Mobile services and at the same time the service providers are enjoying higher revenue realization per outgoing minute of about Rs. 6.67.
 - This can be seen as a win-win situation. For customer, monthly subscription to mobile services have become more affordable and for the service provider this will attract new low-usage customers but with higher revenue realization per minute.
- Ø Several GSM service providers launched postpaid plans with free airtime equivalent to fixed monthly charges with the title “Zero Rental” or under similar nomenclature. Guidelines have been issued to the service providers to ensure transparency while offering & marketing plans of this nature.
- Ø Lowest Tariffs available in the market (for local outgoing usage) as of June-05 for GSM services

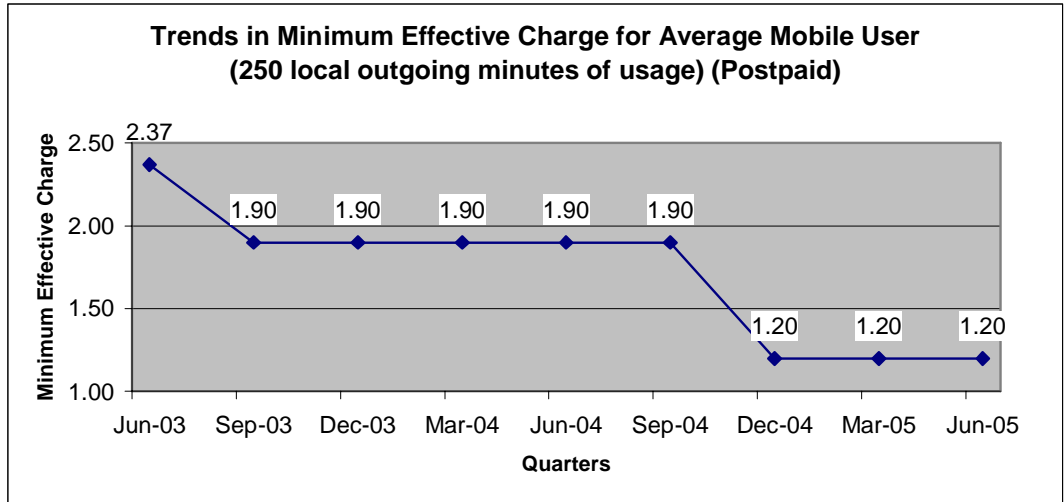
Effective charge represents the actual payout by a user with a defined traffic pattern. Total outgoing traffic have been distributed between fixed, own-Mobile & other mobile based on the information furnished by the GSM Service providers in the quarterly report.

- Postpaid Service

Effective charge has been calculated for a monthly local usage of 250 outgoing minutes. Around 500 postpaid tariff plans in the country were analyzed to arrive at the lowest effective charge per minute. The lowest available effective charge per minute is Rs. 1.20

- Prepaid Service

Majority of the prepaid subscribers are using the Rs.300 or lower recharge coupon and hence the tariffs applicable for these recharge coupons (or its minor variants) have been taken as the representative tariffs for the prepaid service. On analysis of about 130 prepaid tariff plans, it is found that the lowest effective charge per minute is Rs. 1.50.



Chapter Three

Performance of Internet Services

Subscribers base have reached approximately 5.9 million
Broadband makes headway

3.1 Service Providers & Subscribers Base: -

For the quarter ending June 2005, 168 Internet Service Providers were operational. Bharat Sanchar Nigam Ltd (BSNL) has retained its top position and reported a subscriber base of 20.17 Lakhs against 18.39 Lakhs during the last quarter. Mahanagar Telephone Nigam Limited (MTNL) has retained second position with a subscriber's base of 11.11 Lakhs against 10.12 Lakhs subscribers during the last quarter. M/s Sify Limited is still on the third position with a subscriber base of 8.46 lakhs as against 8.11 lakhs. M/s Videsh Sanchar Nigam Limited is at fourth position with subscriber base of 6.41 lakhs. Reliance Communications Infrastructure Ltd. reported a subscriber base of 2.84 Lakhs and remained at fifth place during the quarter ending 30th June 2005 (Ref Table 3.1).

The reported subscriber base has touched 58.92 lakhs as on quarter ending 30th June 2005 as compared to 55.54 lakhs during the preceding quarter registering an increase of 6.08 % during the quarter.

3.2 Internet Telephony: -

The Internet Telephony was permitted to Internet service providers 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 39.1 million, as compared to 41.52 million for the last quarter.

3.3 Market Share: -

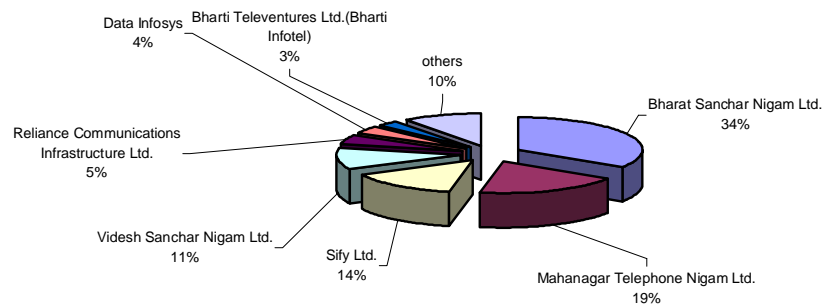
The growth trend indicates a considerable growth in market share of PSU owned ISPs, during the quarter PSU owned PSUs have already surpassed the market share of private ISPs and retained 53.09 % market share.

The market share of top 5 ISPs is as under:

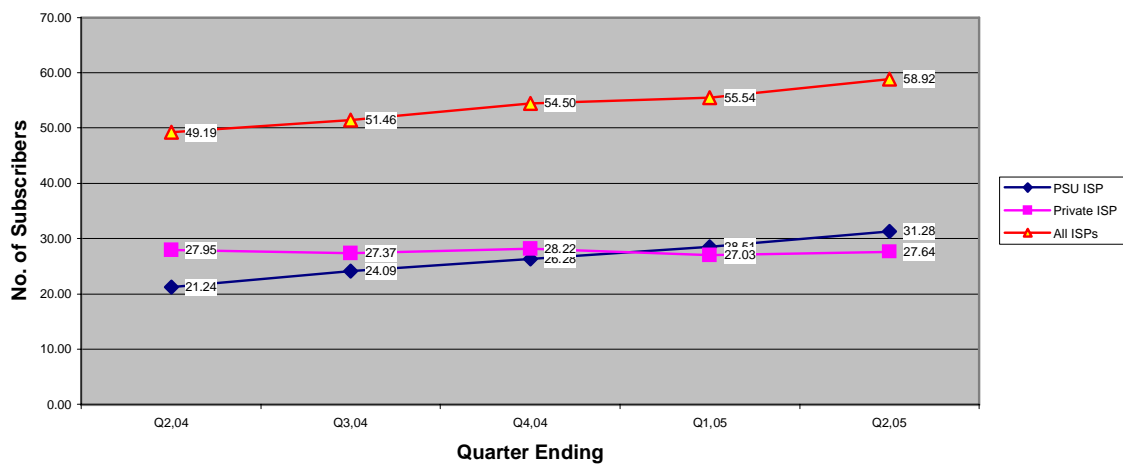
ISP	Share in %
Bharat Sanchar Nigam Ltd.	34.24
Mahanagar Telephone Nigam Ltd.	18.85
Sify Ltd.	14.36
Videsh Sanchar Nigam Ltd.	10.88
Reliance Communications Infrastructure Ltd.	4.82

Among PSU owned ISPs; M/s BSNL has reported a subscriber's base of 20.17 Lakhs during the quarter ending 30th June 2005 as against 18.39 Lakhs during the previous quarter registering an increase of 9.69 %. M/s MTNL has reported a subscriber base of 11.11 Lakhs against the subscriber base of 10.12 Lakhs reported during the previous quarter, registering an increase of 9.74 %.

Subscriber Base



Growth Trends



3.4 Leased Lines Connectivity: -

The numbers of Leased Lines connections reached 11,547 during the quarter.

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

There are reported to be 9172 Cyber Cafes during the quarter ending June 2005.

3.6 Broadband Connectivity (>=256 Kbps)

The number of Broadband subscribers (with a download speed of 256 Kbps or more) is 3,99,253 out of which 66,040 are DSL subscribers. The growth during the quarter was order of 118% over previous quarter.

3.7 Minutes Of Use (MOU)per subscriber: -

As reported by 34 ISPs the average minutes of use per subscriber/ month is approximately 300 minutes.

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

A total of approx. Rs 540 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 200.

3.9 International connectivity: -

The bandwidth owned by various IGSP for their ISP operations and Leased lines is reported to be 8.9 GB for downlinking and 8.8 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 12 service providers of Public Mobile Radio Trunked Services have submitted their reports in this quarter.

4.1.1 Performance during the Quarter Ending 30th June 2005:

- Ø The subscriber base of PMRTS increased from 26330 in Mar 2005 to 26467 in June 2005 registering a marginal growth rate of 0.52%.
- Ø Delhi, Mumbai, Bangalore and Chennai together account for 72.06% of market share of the total subscribers. Delhi leads the tally with the market share of 8737 subscribers followed by Bangalore, Mumbai and Chennai with the market share of 4145, 3718 and 2471 subscribers respectively.
- Ø Procall Limited leads the tally of subscribers with a subscriber base of 8023 followed by Arvind Mills and QuickCalls India Pvt. Ltd. with a subscriber base of 6758 and 3541 respectively. Arya Offshore Service Pvt. Ltd., United Liner Agencies of India (P) Ltd., Smartalk Pvt. Ltd., Quick call, Jet-Aui Skylin Transport Pvt. Ltd. and Procall Ltd. have registered a negative growth rate of 8.90%, 6.21%, 5.47%, 3.09%, 2.96% and 1.21% respectively. M/s German Express Shipping Agency (I) Pvt. Ltd. has increased their subscribers base with the highest growth rate of 39.40%.
- Ø M/s Mobilcom India 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 30th June 2005:

- Ø VSAT services are being provided by 9 VSAT service providers.
- Ø M/s Telstra Vishesh has not submitted their report in this quarter, so the figure of last quarter has been taken.
- Ø In the present quarter, there was an addition of 2252 new subscribers. The total number of subscribers increased from 38303 in Mar 2005 to 40555 in Jun 2005, registering a growth of 5.88% as against the

growth rate of 5.75% in quarter ending Mar 2005. HCL Comnet remained the market leader with 14129 VSAT subscribers followed by Hughes Escorts Communications Ltd. (HECL) with 12454, Bharti BT with 6134 and Comsat Max with 4540 VSAT subscribers respectively.

- Ø M/s HCL Comnet added the maximum number of new connections 677 with a percentage growth rate of 5.03%.
- Ø M/s ITI and GNFC are having the negative growth of 3.92%, and 3.85% respectively in this quarter.

The number of subscribers of each service providers along with the Market Share in terms of Percentage of Subscribers as on 30th June 2005 is given in Table 4.2.

Chapter Five

Quality of Service (QoS) Performance

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

Based on Quality of Service Parameters reported by all the Basic Service Operators for the quarter ending June 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”.**
48 out of 75 Licensees have not met the QoS benchmark for this parameter. The performance of MTNL (Mumbai) and BSNL (AP, BR, MH, Assam, Jharkhand, KR, KOLKATA, NE-I, UP – w and WB) is (47.41%), 58.66%, 32.89%, 59.81%, 47.81%, 20.82%, 58.86%, 55.40%, 48.06%, 51.91%, and 28.23% respectively which is way below the TRAI stipulated 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 except (Bharti – MP & Chhattisgarh, TATA – MH & UP-East) have met the TRAI stipulated benchmark of <3 for this parameter.
- (3) **Percentage of faults repaired by next working day (should be >90%)**
Only 05 out of 26 circles of BSNL have not met the TRAI’s QoS benchmark on “Fault Repair by next working day”. MTNL (Delhi & Mumbai) has failed to meet the specified QoS benchmarks.
M/s Tata Teleservices (DL, MH, Mumbai) and all the private operators have met the QoS stipulated benchmark of >90% for this parameter.
- (4) **Mean Time to repair (MTTR) (should be <8hrs.)**
Only 8 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 Teleservices** (AP, PB, Raj, TN, HR, HP, KR, Kolkata, OR, UP-E, UP-W and WB) 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 M/s Bharat Sanchar Nigam Limited. M/s MTNL and all the private operators except Tata (GJ & Raj) and Reliance (GJ, TN, KTK, Chennai, Kolkata, UP-E & WB) have met the TRAI stipulated benchmark.

(6) **Call Completion Rate in local network (should be >65%)**

17 out of 26 service areas of BSNL and MTNL (Delhi and Mumbai) have not met the OoS benchmark.

Among the private Operators except Tata (UP-E) and Bharti (MP, HR, KTK) have achieved the desired QoS benchmark. M/s Tata Teleservice have not reported their performance for this parameter of their Kolkata, OR and WB service areas.

(7) **Metering and Billing credibility (Not more than 0.1% of bills should be disputed over a billing cycle)**

Only 2 out of 26 service areas of BSNL namely MP and NE-II have not met the overall QOS benchmark on disputed bills. M/s MTNL (Delhi) has not met the benchmark for this parameter.

Among the Private Operators M/s Tata Teleservices all circles (except Raj & KR), Bharti (Delhi, KTK, HR) and M/s Reliance (Mumbai) have not met the TRAI's 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 (BR, MH, Mumbai) 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 (Delhi & Mumbai) has not met the benchmark.

Among the private operators only Tata (Delhi, BR, PB, Raj, HR, KTK, HP, UP-W) and Bharti (DL, TN and HR) 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 (PB, HR, WB) and Bharti (Delhi, TN, HR, KTK) have not met the QoS benchmark.

M/s Reliance Infocomm has reported 100% promptness in their all 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 (PB, TN, HP, AS) & MTNL (Delhi & Mumbai) have failed to meet the QoS benchmark.

Among the private Operators M/s Reliance Infocomm Limited, Shyam (RAJ) and Tata (DL, BR, PB, HR, Chennai, HP, Kolkata, OR, UP-E and WB) are within TRAI's benchmark limits.

5.2 Quality of Service performance of Cellular Mobile Service Providers for quarter ending 30th June 2005: -

- a) This report covers performance of 82 GSM Cellular Mobile operators and 40 CDMA service operators vis-à-vis the QoS benchmarks prescribed by TRAI.
- b) M/s Tata Teleservices (CDMA – 12 service areas), M/s Bharti Tele-ventures Limited (Assam & NE) and M/s Hutchison Essar South Limited, West Bengal 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 107 to 122 in this quarter.

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	Benchmarks	No. of operators Meeting the benchmarks			
			Quarter ending June, 2005		Quarter ending March, 2005	
			Out of 122 (Nos.)	Out of 122(%)	Out of 107 (Nos.)	Out of 107 (%age)
1.	No. of faults (per 100 subscribers per month)	<1	109	89.34%	97	90.65%
2	Faults cleared within 24 hrs	100.00%	83	68.03%	82	76.64%
3	Accumulated down time of community isolation	<24 hrs	94	77.04%	79	73.83%
4	Call Success Rate (within licensee's own network)	>99%	100	81.97%	84	78.50%
5	Service Access Delay	Between 9 to 20 Sec	122	100.00%	107	100.00%
6	Call Drop Rate	<3.0%	120	98.36%	106	99.07%
7	% of connection with good voice quality	>95%	117	95.90%	102	95.33%
8	Complaints per 100 bills issued	<0.1%	94	77.05%	85	79.44%
9	% of complaints resolved with 4 weeks	100.00%	116	95.08%	102	95.33%
10	Period of all refunds/payment due to customers from the date of resolution of complaints as in (9) above	<4 weeks	112	91.80%	103	96.26%

5.2.1 The analysis of PMR of 122 Cellular licensees in 23 service areas is as under:

- i) From the table, it is observed that there has not been significant change in the performance in this quarter as compared to the previous quarter.**
- ii) No. of faults (per 100 subscribers)** for Bharti Tele-ventures (UP – E, Assam & NE) are 2.30%, 5.53% and 6.50% respectively, which is way beyond the stipulated TRAI benchmark of <1%.
- iii) For the parameter “Fault cleared within 24 hrs”** the performance of BSNL (UP – E, Kolkatta) and TATA - (WB, UP-W, UP-E, KR, OR, Kolkatta, AP, TN, HR, PB, GJ, Raj, KTK) are (74%, 88%) and (6.00%, 38%, 39%, 39%, 43%, 48%, 57%, 58%, 75.60%, 79%, 84%, 84%, 85.4%) respectively, which is much below the stipulated benchmark of 100%.
- iv) 22 Operators** are not meeting the benchmark of >99.00% for the parameter of “**Call Success Rate (CSR)**”. CSR for BSNL (TN, OR, Raj) is 88.00%, 88.00%, 89.00 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%**) and Reliance Telecom (NE – **3.74%**).
- vii) %age of connections with good voice quality-** Only Five operators (BSNL–KR, PB, HP, BR and OR) are not meeting the benchmark for this

parameter. The performance of BSNL – Kerala is 88.00%, which is much below the benchmarks of >95%.

viii) **No. of Complaints per 100 bills issued** for Bharti Tele-ventures (KR, AS, NE) are 1.03%, 2.70%, and 1.90% 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.

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 has not provided the data for 3rd attempt for Delhi circle, 2nd and 3rd attempts for Mumbai circle.

Reliance Communications Infrastructure Ltd. has not provided the data for 3rd attempt, Broadband Pacenet (I) Pvt. Ltd., Fascal 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, Asianet Satellite Communications Ltd. and WWW communications Ltd., other ISPs are able to achieve this benchmark but MTNL, Broadband Pacenet (I) Pvt. Ltd., Fascal 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. Two ISPs (VSNL and BG Broadband 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, 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	30 th June 2005		
			Urban	Rural	Total
1	BSNL	All India (except Delhi & Mumbai)	23265152	13536210	36801362
2	MTNL	Delhi & Mumbai	3953841	0	3953841
3	Bharti Telesonic Ltd	AP, MP, Delhi, Haryana, TN, Chennai, Karnataka, Kerala, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	934503	0	934503
4	Tata Teleservices Ltd	Maharastra, 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	3058992	10310	3069302
5	HFCL Infotel Ltd	Punjab	207076	668	207744
6	Shyam Telelink Ltd	Rajasthan	157322	8112	165434
7	Reliance Infocomm. Ltd	AP, Bihar, Delhi, Gujarat, Haryana, HP, KN, Kerala, MP, MH, Mumbai, Orissa, Punjab, Rajasthan, TN Chennai UP(E), UP(W), WB, Kolkata	1707521	11435	1718956
Grand Total			33284407	13566735	46851142

Table 1.2

Details of Public Call Offices (PCO)

S.No	Service Providers	Area of Operation	PCOs as on 30.06.05	PCOs added during the quarter ending 30.06.05
1	BSNL	All India	1892373	21105
2	MTNL	Delhi & Mumbai	282886	3110
3	Bharti	AP,MP, Delhi, Haryana, TN , Chennai, Kerala,Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	126635	3287
4	HFCL	Punjab	34968	3666
5	TATA	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	176836	40020
6	Reliance	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	408441	105783
7	STL	Rajasthan	26929	865
	TOTAL		2949068	177836

* Source - Operators

Table 1.3

Details of Village Public Telephones (VPT)

S.No	Service Providers	Area of Operation	VPTs as on 30.6.05	Achievement during the Qtr. ending 30.6.05
1	BSNL	All India	518815	14
2	MTNL	Delhi & Mumbai	0	0
3	Bharti	MP, Delhi, Haryana, TN , Chennai, Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	0	0
4	HFCL	Punjab	668	-26
5	TATA	Maharastra, 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	4059	63
6	Reliance	AP, Bihar, Delhi, Gujarat, Haryana, HP, KN, Kerala, MP, Maharashtra, Mumbai Orissa, Punjab, Rajasthan, TN, Chennai, UP(E), UP(W), WB, Kolkata	4115	0
7	STL	Rajasthan	3010	0
		TOTAL	530667	51

* Source - Operators

Table 2.1

Subscriber Base of Mobile operators

Mobile service providers and their market share			
Mobile Group	Subscribers as on June, 05 (in millions)	Market Share (in %age)	Technology Used
Bharti Grp	12.26	21.4	GSM
Reliance Grp	11.65	20.3	GSM & CDMA
BSNL	10.69	18.6	GSM & CDMA
Hutchison Grp	8.44	14.7	GSM
IDEA Grp	5.55	9.7	GSM
BPL Grp	2.63	4.6	GSM
Spice Grp	1.47	2.6	GSM
Aircel Grp	1.86	3.2	GSM
Tata Teleservices	1.43	2.5	CDMA
MTNL	1.29	2.3	GSM & CDMA
HFCL	0.06	0.1	CDMA
Shyam Telelink	0.03	0.0	CDMA
Total Subscribers	57.37	100	GSM & CDMA

* Source - Operators

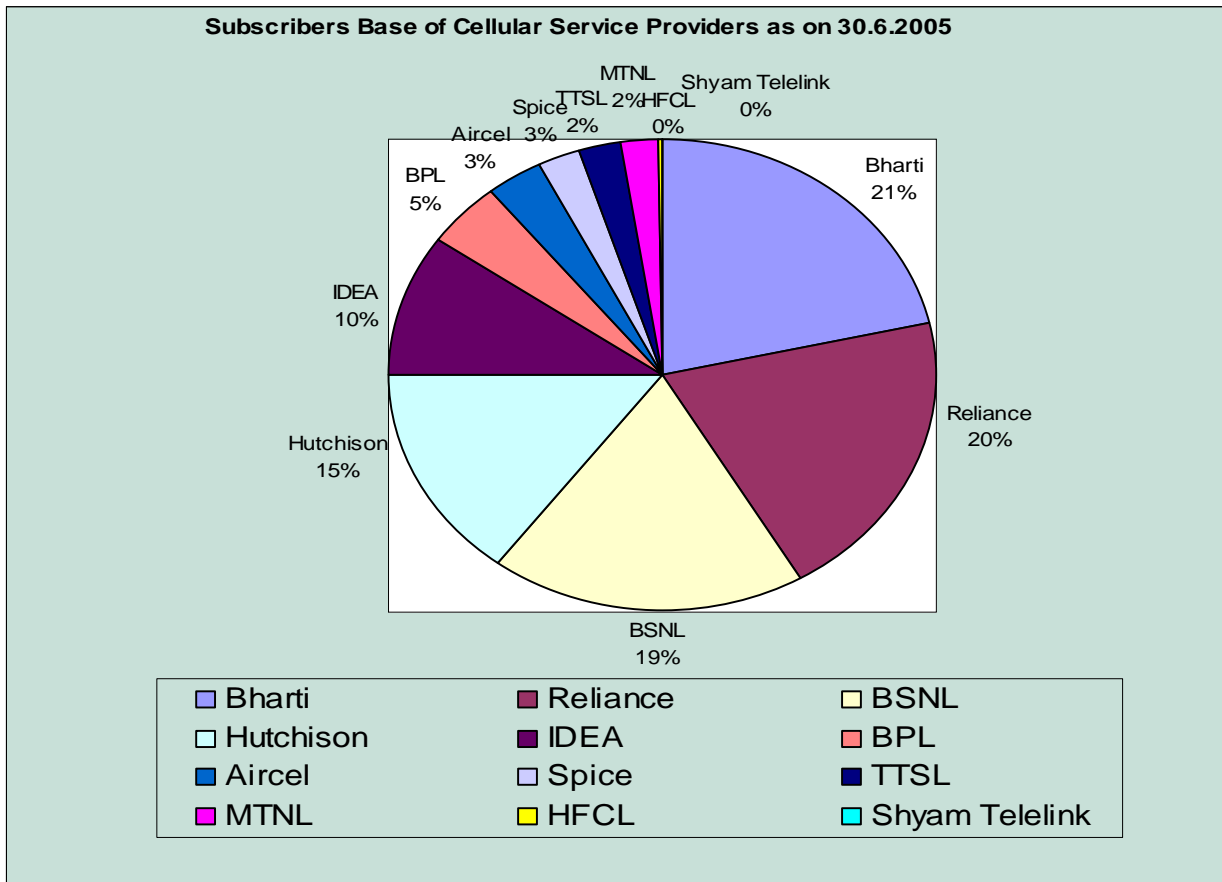


Table 2.2

Market Share of Mobile (GSM + CDMA) Service Providers

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

Cellular Group	No of Subscribers (in million)	Market Share
Bharti	12.26	27.3
BSNL	10.25	22.8
Hutchison Group	8.44	18.8
Idea Group	5.55	12.4
BPL	2.63	5.9
Spice Group	1.47	3.3
Reliance	1.36	3.0
MTNL	1.11	2.5
Aircel Group	1.86	4.1
Total	44.94	100

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

CDMA Group	No of Subscribers (in million)	Market Share
Reliance Infocomm	10.29	82.79
Tata Teleservices	1.43	11.53
BSNL	0.44	3.54
MTNL	0.18	1.44
HFCL	0.06	0.47
Shyam Telelink	0.03	0.23
Total	12.43	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	15.54 million	27.08%
Circles 'A'	20.58 million	35.88%
Circles 'B'	17.83 million	31.08%
Circles 'C'	3.41 million	5.96%

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

	Sept, 04	Dec.'04	Mar, 05	June, 05
Metros	12.65	13.83	14.59	15.54
A' Circle	15.8	17.33	18.84	20.58
B' Circle	12.6	14.51	15.91	17.83
C' Circle	1.94	2.35	2.87	3.41

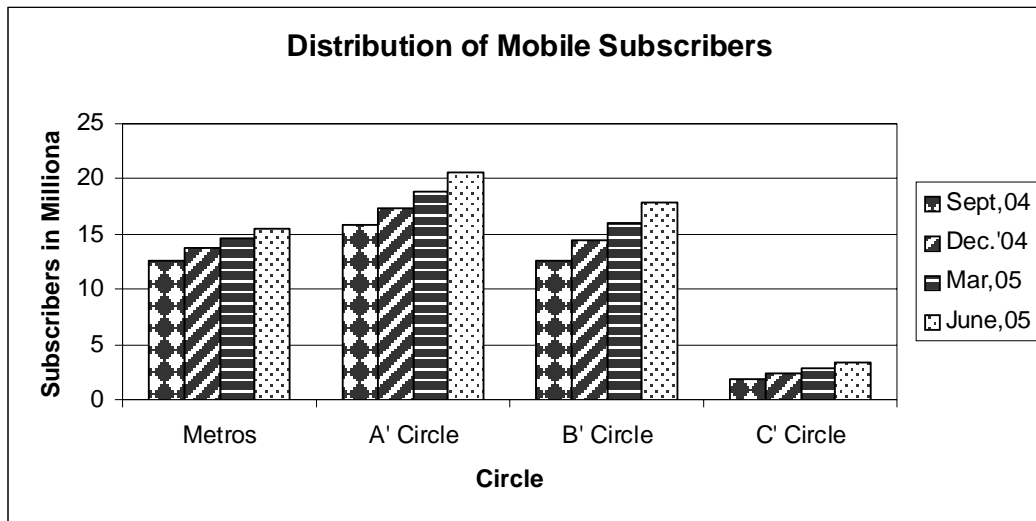


Table 3.1

Subscribers Base of Internet Services

S. No.	Name of ISP	Category	Area of Operation	Mar-05	Jun-05	% Growth
1	Bharat Sanchar Nigam Ltd.	A	All India	1839185	2017405	9.69
2	Mahanagar Telephone Nigam Ltd.	B	Mumbai & Delhi	1012041	1110623	9.74
3	Sify Ltd.	A	All India	811965	846147	4.21
4	Videsh Sanchar Nigam Ltd.	A	All India	702629	641251	-8.74
5	Reliance Communications Infrastructure Ltd.	A	All India	246832	283920	15.03
6	Data Infosys	A	All India	222413	230939	3.83
7	Bharti Televentures Ltd.(Bharti Infotel)	A	All India	129387	155342	20.06
8	Iqara Telecom India Pvt. Ltd. (BG Broadband)	A	All India	86366	95680	10.78
9	Shyam Internet Service Pvt. Ltd.	A	All India	48091	49259	2.43
10	HCL Infinet Ltd.	A	All India	44435	42875	-3.51
11	Hathway Cable & Data Pvt Ltd.	A	All India	40920	40920	0.00
12	Sab Industires Ltd. (Sab Infotech)	B	Punjab, Karnal & Dharamshala	31829	31176	-2.05
13	ICENET.NET Ltd.	B	Gujrat	27688	28399	2.57
14	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	A	All India	24195	23979	-0.89
15	Broadband Pacenet (I) Pvt. Ltd.	B	Mumbai	22457	21106	-6.02
16	Asianet Sattelite Communications Ltd.	B	Kerala	17842	20929	17.30
17	Fascel Ltd.	B	Gujarat	18001	18001	0.00
18	HFCL Infotel Ltd.	B	Punjab	14147	16854	19.13
19	Emmsons Infotech Ltd.	B	Punjab	15200	15200	0.00
20	WWW Communications Ltd.	B	Delhi	14172	14680	3.58
21	Exatt Technologies Pvt. Ltd.	B	Mumbai	11694	11694	0.00
22	Hughes Escorts Communications Ltd.	A	All India	9114	10382	13.91
23	CMC Ltd.	A	All India	10000	10000	0.00
24	Seven Star Dot Com Pvt. Ltd.	B	Khar(w), Jogeshwari (w)	7913	9013	13.90
25	Rolta India Ltd.	B	Mumbai	8978	8446	-5.93
26	West Bengal Electronics Industry Development Corporation Ltd.	B	Calcutta	4700	7580	61.28
27	S. S. net Com Pvt Ltd.	B	North East	7366	7366	0.00
28	Trak Online Net India	A	All India	6636	6636	0.00
29	Spectra Net Ltd	A	All India	5755	6628	15.17
30	Primus Telecommunications India Ltd.	A	All India	6557	6557	0.00
31	Indian Research Manifestation Labs Pvt. Ltd.	B	Gujrat	5524	5524	0.00

32	In 2 Cable.com(India) pvt. Ltd.	A	All India	6258	5506	-12.02
33	RPG Infotech Ltd. (Sprint RPG India)	A	All India	5430	5430	0.00
34	Forum Infotech (P) Ltd.	C	Srinagar SSA	5050	5050	0.00
35	Space Online (P) Ltd.	B	Gujarat	4788	4788	0.00
36	Ortel Communications Ltd.	C	Cuttack, Bhubaneshwar, Rourkela	3500	4156	18.74
37	E-Comm Opportunities Pvt. Ltd.	B	Gujrat	3598	3912	8.73
38	Blazenet Pvt. Ltd.	B	Gujrat	3244	3244	0.00
39	Southern Online Bio Technologies Ltd.	B	Andhra Pradesh	3705	3105	-16.19
40	Narmada Cyberzone Pvt. Ltd.	B	Gujrat	2918	2918	0.00
41	Siti Cable Network (Zee Interactive Multimedia Ltd.)	A	All India	1802	2700	49.83
42	Sixth Sense Informatics Pvt. Ltd.	B	Mumbai	2600	2600	0.00
43	Trikon Electronics	B	Mumbai	2544	2544	0.00
44	Digital 2 Virtual ISP Private Ltd.	C	vadodara	2457	2457	0.00
45	Kelnet Communication Services (P) Ltd.	C	Trivendrum	2416	2416	0.00
46	City Online Services Pvt. Ltd.	B	Andhra Pradesh & Karnataka	2205	2209	0.18
47	Vasnet Communications Pvt. Ltd.	C	Mangalore SSA	1675	2194	30.99
48	Rajesh Multichannel Pvt. Ltd.	B	Mumbai	1981	1981	0.00
49	Descon Ltd.	B&C	Kolkata, West Bengal	1329	1695	27.54
50	Tawi e.com	C	Jammu Tawi	1476	1611	9.15
51	Ankhnet Information Pvt. Ltd.	B	Mumbai	1838	1555	-15.40
52	Value Heathcare Ltd.	B	Mumbai	644	1478	129.50
53	Jain Info net Pvt Ltd.	B	Rajasthan	1431	1431	0.00
54	Hathway Bhawani Cable & Datacom	B	Mumbai	1418	1420	0.14
55	Spectrum softech Solutions	C	Ernakulam SSA	1180	1268	7.46
56	iPath India Pvt. Ltd.	C	Ernakulam	1384	1262	-8.82
57	ERNET India Ltd.	A	All India	1202	1202	0.00
58	Swiftmail Communications Ltd.	A	All India	1124	1114	-0.89
59	Jindal Online.com Ltd.	B	Gujrat	1301	1025	-21.21
60	Pacific Internet India	A	All India	1073	1012	-5.68
61	Broadlane Network Pvt. Ltd.	C	Kalyan SSA	1496	970	-35.16
62	Mylai Karpagamba Information System Pvt. Ltd.	B	Chennai	1333	964	-27.68
63	Broadlyne Infoservices Pvt. Ltd.	B	Mumbai	900	900	0.00
64	Comsat Max Ltd.	A	All India	873	873	0.00
65	Tata Internet Services Ltd.	A	All India	2479	873	-64.78
66	Websurf Pvt. Ltd.	C	Kalyan SSA	791	791	0.00
67	Ice Network (P) Ltd.	B	Bangalore	785	785	0.00
68	Dishnet Wireless Ltd.	A	All India	1072	763	-28.82
69	Primenet Global Ltd.	A	All India	1050	721	-31.33
70	Speed Online.net Pvt. Ltd.	C	Rajkot	785	716	-8.79
71	Micky Online Pvt. Ltd.	C	Moradabad, Nainital	673	673	0.00
72	Bhasinsoft India Ltd.	B	Karnataka	671	641	-4.47
73	Kappa Infotech Pvt Ltd.	C	Kota SSA	593	593	0.00

74	Sanchar Telenetwork Pvt. Ltd.	C	Bhavnagar SSA	575	575	0.00
75	Uclix Computer's Pvt. Ltd.	C	Jodhpur	525	525	0.00
76	Online Media Solutions Ltd.	B	Andhra Pradesh	500	500	0.00
77	My Guru Online	B	Andhra Pradesh	495	495	0.00
78	Atria Convergence Technologies Pvt. Ltd.	B	Karnataka	462	462	0.00
79	Bohra Prastisthan Pvt. Ltd.	C	Udaipur SSA	686	456	-33.53
80	Bhaskar Multinet Pvt. Ltd.	C	Jaipur SSA	454	454	0.00
81	Growth Compusoft Exports Ltd.	B	Gujrat	444	444	0.00
82	CJ Online Pvt. Ltd.	C	Ghaziabad SSA	342	441	28.95
83	deLaila Industry Pvt. Ltd.	C	Srinagar SSA	440	440	0.00
84	Silicon Mountains (I) Ltd.	B	Maharashtra	425	425	0.00
85	C-Tel Solutions Pvt. Ltd.	C	Gurgaon SSA	422	422	0.00
86	SpaceCom Broadband Network Ltd.	B	Delhi	366	366	0.00
87	ISP Solutions India Pvt. Ltd.	C	Coimbatore SSA	363	360	-0.83
88	Antriksh Technologies Pvt. Ltd.	C	Jammu SSA	455	354	-22.20
89	Rajasthan Telematics Ltd.	B	Rajasthan	350	350	0.00
90	Quest Consultancy Pvt. Ltd.	C	Valsad	356	345	-3.09
91	Gateway Systems Pvt. Ltd.	A	All India	580	310	-46.55
92	Emtici Engineering Ltd.	C	Khera SSA	305	305	0.00
93	Lee & Nee Softwares (Exports) Ltd.	C	Bhuvaneshwar	356	303	-14.89
94	Alliance Broadband Services Pvt. Ltd.	B	Kolkata	290	290	0.00
95	n-Logue Communications(P) Ltd	A	All India	268	268	0.00
96	GUJ Info Petro Ltd.(GIPL)	A	All India	293	262	-10.58
97	NetMagic Solutions (P) Ltd.	B	Mumbai	234	248	5.98
98	CJM Consultancy Services Pvt. Ltd.	B&C	Delhi, Ghaziabad	255	236	-7.45
99	Mac Info Pvt. Ltd.	B	Hydrabad	220	230	4.55
100	Starnet Online Services Ltd.	C	Visakha patnam SSA	216	216	0.00
101	Bhupati Hotels Pvt. Ltd.	C	Visakhapatnam	219	213	-2.74
102	Rida Communications Pvt. Ltd.	C	Aligarh	227	212	-6.61
103	Trans Virtual Pvt. Ltd.	C	Guwahati	196	196	0.00
104	Karuturi Networks Limited	B	Karnataka	24	195	712.50
105	Digital Nagpur Online Pvt. Ltd.	C	Nagpur	186	186	0.00
106	Opto Networks Pvt.Ltd.	C	Ghaziabad, Meerut SSA	200	185	-7.50
107	Planet Internet Satellite Pvt. Ltd.	C	Nadiad SSA	181	181	0.00
108	del DSL Internet Pvt. Ltd.	B&C	Delhi, Ghaziabad, Gurgaon	198	174	-12.12
109	Q Tel Comtech Ltd.	C	Gurgaon	154	154	0.00
110	North East Online Services Pvt. Ltd.	C	Guwahati	142	142	0.00
111	i2i Enterprise Ltd.	A	All India	121	121	0.00
112	Cable Combine Communication Pvt. Ltd.	C	Siliguri	116	116	0.00
113	Worldcom Communications Pvt. Ltd.	A	All India	110	110	0.00
114	Estel Communications Pvt. Ltd.	A	All India	129	107	-17.05
115	Viraj Telecom Ltd.	B	Karnataka	105	105	0.00
116	Mynet Services India Pvt. Ltd.	C	Salem	103	94	-8.74
117	Reach Network India Pvt. Ltd.	A	All India	101	91	-9.90

118	Manipal Ecommerce Ltd. (Manipal Control Data Electronic Commerce Ltd.)	B	Karnataka	108	83	-23.15
119	Sanyog Networks Pvt. Ltd.	C	Tripura	80	80	0.00
120	Centre for Development of Advanced Computing, C-DAC (Electronics Research and Development Centre of India (ER&DC))	C	Ghaziabad	74	74	0.00
121	GTL Ltd.	A	All India	266	73	-72.56
122	Swastik netvision telecom pvt. Ltd.	B	Gujrat	87	73	-16.09
123	Instant Cable Network Pvt. Ltd.	C	Gurgaon SSA	72	72	0.00
124	Saravana Cables Pvt. Ltd.	c	Trichirapalli SSA	68	68	0.00
125	Tulip IT Service Ltd.	B	Kerala	68	68	0.00
126	Surevin Internet Services Ltd	C	Ghaziabad SSA	85	65	-23.53
127	L&T Finance Ltd. (L&T Netcom Ltd.)	A	All India	59	59	0.00
128	Dialnet Communications Ltd.	B	Delhi	60	54	-10.00
129	Czars Oleoresin Pvt. Ltd.	C	Gulbarga	70	51	-27.14
130	Direct Internet Pvt. Ltd.	B	Delhi	46	46	0.00
131	Aksh Broadband Ltd.	C	Jaipur SSA	45	45	0.00
132	Tata Power Broadband Company Ltd.	B	Mumbai	44	44	0.00
133	Indian Quotations Systems Pvt. Ltd.	B	Mumbai	32	32	0.00
134	Vebtel Obconic Internet Protocol Pvt. Ltd.	B	Andhra Pradesh	15	30	100.00
135	Pioneer Online Service Pvt. Ltd.	B	Andhra Pradesh	275	27	-90.18
136	RailTel Corporation of India Ltd.	A	All India	27	27	0.00
137	Chandra net Pvt. Ltd.	B	Gujrat	25	25	0.00
138	Access Online Pvt. Ltd.	B	Mumbai	37	22	-40.54
139	IOL Broadband Ltd. (India Online Network Ltd.)	B	Mumbai	22	22	0.00
140	Nettlinx Ltd.	B	Andhra Pradesh	34	22	-35.29
141	PBC Venture Ltd. (earlier Chemical & Metallurgical Design Co. Ltd..0)	B	Delhi	23	22	-4.35
142	Gujrat Narmada Valley Fertilizer Co. Ltd. (GNFC)	A	All India	20	20	0.00
143	Essel Shyam Communication Ltd,	A	All India	18	18	0.00
144	World Phone Internet services (P) Ltd.	A	All India	17	17	0.00
145	Astro Network India Pvt. Ltd.	A	All India	16	16	0.00
146	Arun Girija Communications Pvt Ltd.	C	Patna SSA	22	15	-31.82
147	Nachiket (I) Management Services (P) Ltd. (Diksha Cyber City)	C	Sri Ganganagar	13	13	0.00
148	Kushagra Telecom Pvt Ltd.	C	Ghaziabad SSA	12	11	-8.33
149	Uttar Pradesh Network Pvt. Ltd.	B	Uttar Pradesh (E&W)	10	10	0.00
150	Samkhya Networks (P) Ltd.	C	Gurgaon	9	9	0.00
151	Astra Infonets Pvt. Ltd.	B	Hydrabad	11	8	-27.27
152	A-Team Information Technology Ltd.	C	Erode	8	8	0.00
153	Software Technology Park of India (STPI)	A	All India	8	8	0.00
154	Cyquator Technologies Ltd.	A	All India	8	7	-12.50
155	Akaansha Infotainment Pvt. Ltd.	C	Kamrup SSA	6	6	0.00
156	Giga Solutions Pvt. Ltd.	B	Maharashtra	5	5	0.00

157	Haryana Cybernet Pvt. Ltd.	B	Haryana	5	5	0.00
158	Infomagic Services Pvt. Ltd.	B	mumbai	5	5	0.00
159	Kerala communication Network Pvt. Ltd.	B	Kerala	5	5	0.00
160	Punjab Cybernet pvt. Ltd.	B	Punjab	5	5	0.00
161	Godrej Infotech Ltd.	B	Mumbai	4	4	0.00
162	Shreedhar Infosys Ltd.	C	Varanasi SSA	6	4	-33.33
163	Compucom (I) Ltd.	C	Jaipur SSA	3	3	0.00
164	Surana Telecom Ltd.	B	Andhra Pradesh	3	3	0.00
165	Tandem Infotech Pvt. Ltd.,	C	Trivandrum	3	3	0.00
166	Bharti Aquanet Ltd.	A	All India	1	1	0.00
167	Gujrat State Petroleum Corp Ltd.	B	Gujrat	1	1	0.00
168	Reliance Engineering Associates Pvt. Ltd. (Broadband Solutions)	A	All India	1	1	0.00
	Total			5554297	5892116	6.08

Table 4.1

Subscriber Base of Public Mobile Radio Trunking Service (PMRTS)

Total number of operators:

13

Number of operators who have submitted reports: 12

Sr. No.	Name of the Service Provider	Operative Area	Subscriber Base as on 31-03-2005	Subscriber Base as on 30-06-2005
1	Aryadoot Transport Pvt Limited	Vishakhapatnam	1030	1059
2	Jet-Aiu Skyline Transport Pvt Ltd.	Indore	372	361
3	Container Movement (Bombay) Transport Pvt Ltd.	Delhi	5	5
4	Arya Offshore Services Pvt Ltd.	Mumbai	818	530
		Chennai	677	832
Total			1495	1362
5	German Express Shipping Agency (India) Pvt Ltd. (Hapag Llyod)	Navi Mumbai (Belapur)	338	636
		Delhi	497	528
Total			835	1164
6	United Liner Agencies of India (Pvt) Ltd	Delhi	776	647
		Jamnagar	0	
		Calcutta	1044	1044
Total			1820	1707
7	Procall Limited	Delhi	6957	6836
		Jaipur	288	314
		Gurgaon	661	651
		Faridabad	215	222
Total			8121	8023
8	The Arvind Mills Ltd.	Delhi	742	655
		Faridabad	1	1
		Mumbai	1412	1398
		Vashi	46	46
		Ahmedabad	292	266
		Baroda	389	364
		Surat	936	1014
		Chennai	1142	1209
	Bangalore	1560	1805	
Total			6520	6758

9	Smartalk Pvt Limited	Pune	741	712
		Vashi	329	286
		Mumbai	338	333
	Total		1408	1331
10	QuickCalls India Pvt. Limited	Bangalore	1974	2088
		Hyderabad	1103	1123
		Chennai	577	430
	Total		3654	3541
11	Bhilwara Telenet Services Pvt Limited	Mumbai	735	821
		Delhi	0	0
	Total		735	821
12	Mobilkom India Limited*	New Delhi	66	66
		Shimla	17	17
		Dhanbad	0	0
	Total		83	83
13	India Satcom Ltd.	Bangalore	252	
	Grand Total		26330	26467

* 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	31.03.2005	31.06.2005	%ageMarket Share (%)
1	Hughes	12012	12454	31.36
2	HCL Comnet	13452	14129	35.12
3	Comsat Max	4453	4540	11.63
4	Bharti BT	5581	6134	14.57
5	Essel Shyam	1652	2073	4.31
6	Tata Services	949	1024	2.48
7	Telstra Vishesh*	127	127	0.33
8	ITI	51	49	0.13
9	GNFC	26	25	0.07
	Total	38303	40555	100.00

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

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

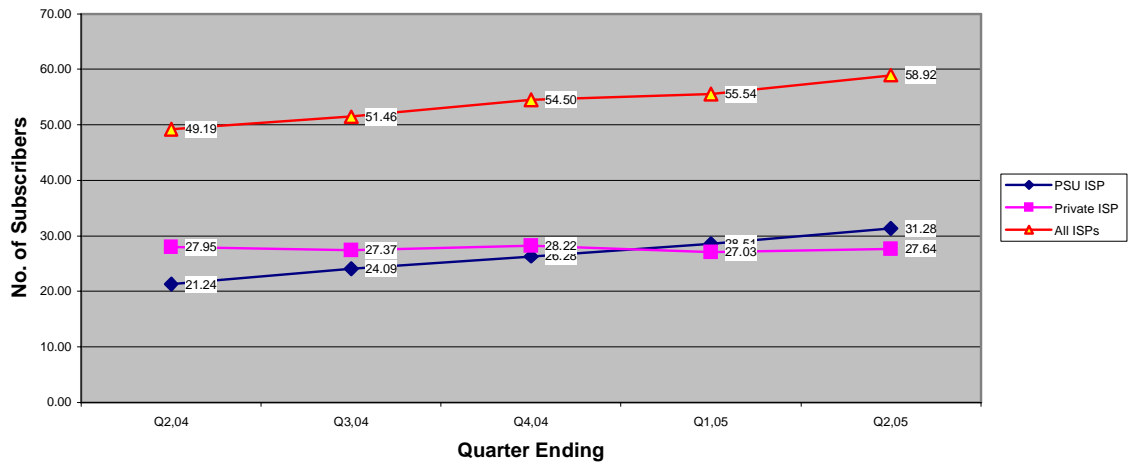
Circle	Operators		
	Mobile		Fixed
	Cellular	Unified	
Delhi	Hutch	Reliance Infocomm	MTNL
	MTNL	Tata Teleservices	
	Idea Cellular	Bharti Televentures Ltd	
Mumbai	BPL	Reliance Infocomm	MTNL
	Hutch	Tata Teleservices	
	MTNL	Bharti Televentures Ltd	
Chennai	Aircel Cellular	Reliance Infocomm	BSNL
	BSNL	Tata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

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

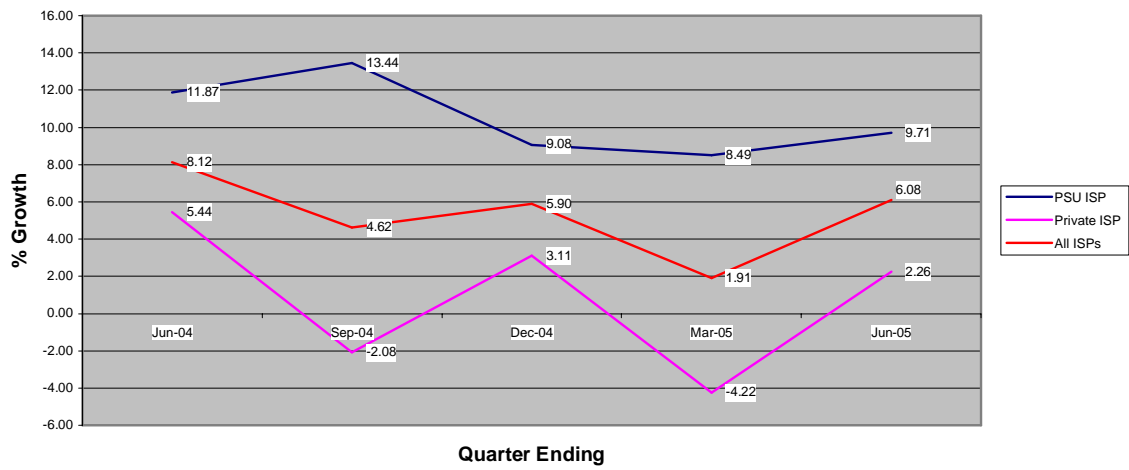
		Bharti Televentures Ltd.	
		Dishnet Wireless Ltd.	
Assam	BSNL	Dishnet Wireless Ltd.	BSNL
	Reliance Telecom	Bharti Televentures Ltd.	
	Reliance Telecom	Dishnet Wireless Ltd.	BSNL
	BSNL		
North East	Bharti Hexacom Ltd.		
	BSNL	Dishnet Wireless Ltd.	BSNL
Jammu & Kashmir		Bharti Televentures Ltd.	
		Reliance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

Growth Pattern of Internet Subscribers

Growth Trends



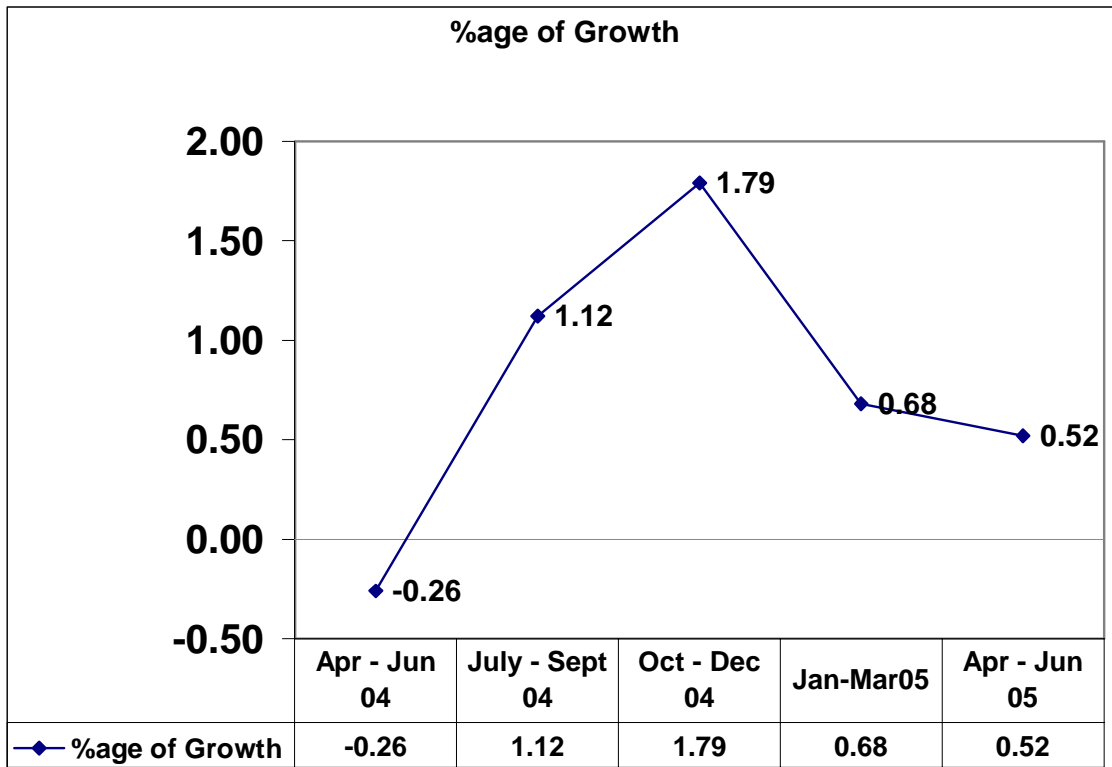
Growth Rate Trends



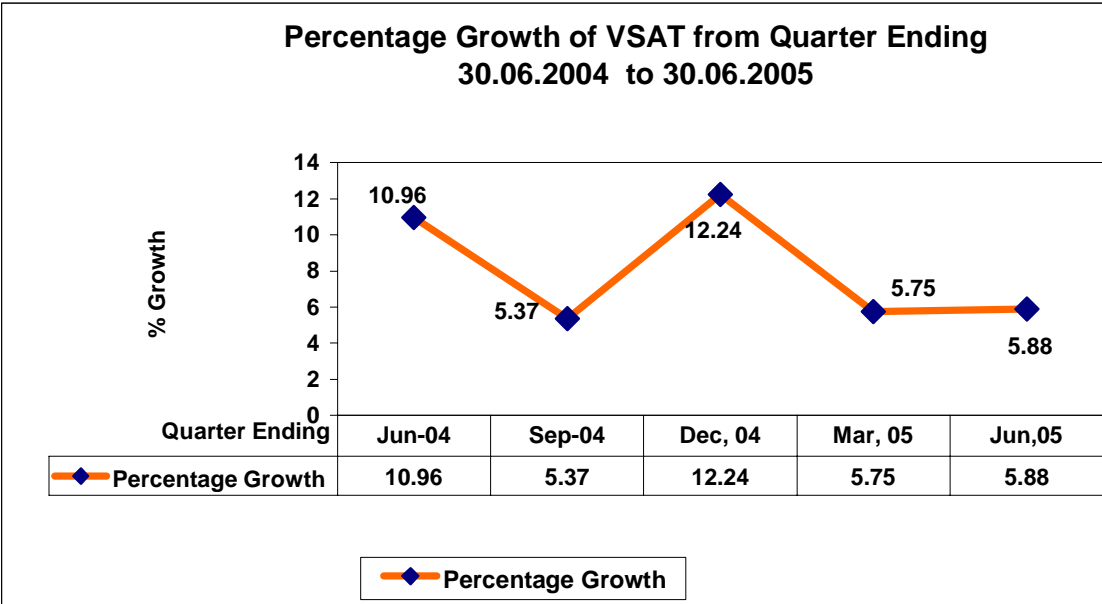
List of Internet Telephony Service Providers

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	Netlinx 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	Vebtel 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



Annex 5.1

Quality of Service Performance for Fixed Services

Service Area	Service Providers	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 (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%							<8 hrs	Urgent calls: <1 hr				Ordinary calls: <2 hr	95% of requests			<1%		
				(Month-1)	(Month-2)	(Month-3)											<3 days	< 24 hrs	< 24hrs	(Month-1)	(Month-2)	(Month-3)
ANDRA PRADESH	BSNL	58.66	6.17	85.30	83.40	81.51	17.00	NA	52.00%	0.05	98.32	89.75	0.00	NA	NA	16.20	16.61	17.86				
	RELIANCE	100.00	0.00	100.00	100.00	100.00	1.50	0.000	66.96%	0.09	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00				
	TATA	96.59	2.70	79.01	28.24	23.82	23.40	0.002	55.03%	0.26	N/App	N/App	88.39	100.00	98.84	3.81	30.15	12.70				
BIHAR	BSNL	32.89	9.17	89.66	44.18	94.17	13.00	NA	40.00%	0.03	80.75	58.21	0.00	NA	NA	4.06	2.47	3.77				
	TATA	100.00	0.77	85.78	87.05	87.60	3.50	0.002	52.62%	0.95	N/Ap	N/Ap	100.00	46.48	100.00	0.00	0.00	0.00				
	RELIANCE	100.00	0.00	100.00	100.00	100.00	3.40	0.002	66.50%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00				
DELHI	MTNL	89.40	13.37	88.30	88.13	81.53	10.67	0.000	47.00%	0.12	70.17	73.79	82.54	87.75	56.81	20.03	19.83	19.43				
	RELIANCE	100.00	0.00	100.00	100.00	100.00	1.90	0.002	67.07%	0.09	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00				
	BHARTI	89.62	2.45	98.96	98.93	96.68	5.25	0.001	53.02%	0.17	73.49	Nil	21.50	49.22	85.05	5.67	6.58	6.51				
	TATA	97.69	0.01	100.00	100.00	100.00	7.80	0.000	48.91%	0.50	N/App	N/App	77.89	43.70	99.00	0.00	0.00	0.00				
GUJARAT	BSNL	79.63	5.95	96.96	96.84	96.40	8.00	NA	62.00%	0.06	83.60	83.76	0.00	NA	NA	8.86	8.53	8.42				
	RELIANCE	100.00	0.00	100.00	100.00	100.00	2.20	0.005	66.93%	0.07	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00				
	TATA	97.93	0.43	88.58	83.38	79.38	4.80	0.007	50.03%	0.40	N/App	N/App	81.36	100.00	99.83	11.42	16.40	10.78				
MP & CHATTISGARH	BSNL(MP)	89.01	5.36	96.60	96.80	96.70	7.00	NA	69.00%	0.12	89.79	78.21	0.00	NA	NA	2.09	3.20	2.35				
	BSNL(Chattisgarh)	81.85	10.27	83.89	66.35	81.48	13.00	NA	64.00%	0.04	98.76	99.88	0.00	NA	NA	2.52	3.60	4.58				
	RELIANCE	100.00	0.00	100.00	100.00	100.00	3.20	0.002	66.80%	0.08	N/App	N/App	100.00	NA	NA	0.00	0.00	0.00				
	TATA	97.12	0.26	92.02	7.99	84.99	4.00	0.0046	49.40%	0.94	N/Ap	N/Ap	84.15	100.00	99.08	7.41	8.05	7.14				

	BHARTI	97.99	4.27	96.30	96.21	93.21	6.20	0.000	63.90%	0.01	79.03	Nil	54.93	100.00	97.47	2.11	1.78	1.82
MAHARASHTRA	BSNL	59.81	7.17	91.91	88.37	93.09	11.00	NA	55.00%	0.03	84.98	79.83	0.00	NA	NA	4.75	4.51	5.44
	RELIANCE	100.00	0.00	100.00	100.00	100.00	3.10	0.002	67.29%	0.07	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
	TATA	0.00	3.94	99.32	99.85	99.71	3.10	0.001	63.24%	0.23	100.00	N/App	99.62	100.00	99.97	3.41	3.06	3.03
PUNJAB	BSNL	98.61	8.09	95.17	95.41	94.66	16.00	NA	65.00%	0.04	88.38	92.11	0.00	NA	NA	0.91	0.90	0.85
	RELIANCE	100.00	0.00	100.00	100.00	100.00	2.50	0.002	67.00%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
	TATA	100.00	0.47	85.76	88.11	77.32	26.40	0.0023	50.00%	0.76	N/Ap	N/Ap	92.92	3.65	84.71	0.00	0.00	0.00
	HFCL	97.35	1.59	98.74	96.32	96.92	5.66	0.000	74.51%	0.09	N/App	N/App	84.89	97.17	98.11	2.35	3.75	2.87
RAJASTHAN	BSNL	79.93	9.19	90.80	88.42	91.21	12.00	NA	55.00%	0.01	88.65	93.48	0.00	NA	NA	2.60	2.70	2.57
	RELIANCE	100.00	0.00	100.00	100.00	100.00	2.30	0.002	66.49%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
	TATA	87.88	1.14	31.99	63.95	87.63	15.30	0.039	48.69%	0.08	N/App	N/App	71.67	59.83	96.20	4.90	9.98	8.60
	SHYAM	95.72	2.97	92.97	92.81	92.77	5.10	0.001	68.00%	0.09	Nil	79.79	59.83	100.00	95.73	0.96	0.97	0.99
TAMILNADU	BSNL	96.19	4.52	92.13	93.57	97.05	9.00	NA	72.00%	0.05	96.83	95.96	0.00	NA	NA	0.64	0.62	0.62
	RELIANCE	100.00	0.00	100.00	100.00	100.00	2.80	0.005	67.17%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
	BHARTI	91.07	2.29	98.56	99.53	98.94	2.90	0.002	66.00%	0.09	73.50	Nil	28.74	74.15	84.08	1.83	1.89	2.21
	TATA	89.92	0.99	44.67	9.51	14.27	30.90	0.000	52.37%	0.17	N/App	N/App	35.59	97.92	95.66	0.10	2.76	1.14
HARYANA	BSNL	88.67	8.31	91.41	91.28	91.91	10.00	NA	71.00%	0.05	70.44	92.48	0.00	NA	NA	4.65	4.47	4.86
	RELIANCE	100.00	0.00	100.00	100.00	100.00	1.70	0.002	66.47%	0.09	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
	TATA	100.00	0.51	82.76	81.08	94.52	15.70	0.026	37.30%	0.15	N/Ap	N/Ap	93.72	0.75	83.36	0.00	0.00	0.00
	BHARTI	94.51	2.01	97.53	97.72	94.60	8.01	0.001	58.93%	0.21	73.49	Nil	25.39	45.52	77.61	3.63	5.05	6.07
KARNATAKA	BSNL	63.26	7.19	92.57	92.30	92.38	4.00	NA	57.00%	0.05	98.86	93.69	0.00	NA	NA	7.38	7.86	7.50
	RELIANCE	100.00	0.00	100.00	100.00	100.00	3.00	0.005	67.25%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
	BHARTI	90.37	1.96	99.70	98.59	98.48	3.26	0.000	58.87%	0.20	Nil	63.11	34.94	95.98	95.00	5.86	4.55	4.57
	TATA	98.43	0.93	76.49	36.00	27.00	2.60	0.001	55.17%	0.56	N/App	N/App	81.07	88.30	98.97	16.15	11.28	8.07

Operator not meeting the prescribed benchmark

NA

Not available

N/App

= Not Applicable

Service Area	Service Provider	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 (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%							a) Junction between local exchange (2/1000)	>65%				<0.1%,	Urgent calls: <1 hr	Ordinary calls: <2 hr	95% of requests			<1%		
				(Month-1)	(Month-2)	(Month-3)													<8 hrs	< 3 days	< 24 hours	< 24hours	(Month-1)	(Month-2)
A&N	BSNL, A & N	77.15	12.05	92.73	93.22	93.93	14.00	NA	48.00%	0.07	54.55	76.18	0.00	NA	NA	11.88	11.04	6.55						
Assam	BSNL, Assam	47.81	8.18	96.97	96.96	96.21	24.00	NA	43.00%	0.08	85.96	74.39	0.00	NA	NA	0.96	0.95	0.81						
Chennai	BSNL	91.45	6.51	90.50	91.60	93.48	18.00	NA	76.00%	0.09	81.74	79.48	0.00	NA	NA	10.85	9.85	11.24						
	Reliance	100.00	0.00	100.00	100.00	100.00	1.10	0.005	67.73%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00						
	TATA	95.15	1.19	41.60	3.18	14.04	32.40	0.00	58.92%	0.12	N/App	N/App	37.30	98.00	97.18	0.36	3.83	0.93						
HP	TATA	100.00	0.32	80.00	75.00	90.91	9.70	0.002	39.41%	0.13	N/Ap	N/Ap	60.61	20.51	99.80	0.00	0.00	0.00						
	BSNL	99.53	9.61	94.37	95.12	94.54	6.00	NA	57.00%	0.05	86.36	86.67	0.00	NA	NA	0.48	0.54	0.57						
	RELIANCE	100.00	0.08	100.00	100.00	100.00	2.30	0.002	67.25%	0.03	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00						
Jhar khand	BSNL, JKH	20.82	8.32	92.98	93.60	92.10	20.00	NA	44.00%	0.06	98.86	93.69	0.00	NA	NA	1.41	1.23	1.19						
J&K	BSNL, J & K	60.03	12.94	94.96	89.66	93.23	9.00	NA	33.00%	0.07	73.74	57.95	0.00	NA	NA	1.11	1.07	0.56						
Kerala	TATA	97.34	2.34	92.02	7.99	84.99	14.50	NA	0.00%	0.01	N/Ap	N/Ap	46.79	0.00	95.58	0.77	1.51	17.00						
	BSNL	58.86	8.61	85.76	88.26	81.15	18.00	NA	67.00%	0.02	99.57	95.78	0.00	NA	NA	9.82	9.40	10.49						
	RELIANCE	100.00	0.00	100.00	100.00	14.00	1.90	0.002	66.93%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00						
Kolkata	TATA	89.31	0.65	13.00	8.00	14.00	24.00	NA	0.00%	0.71	N/Ap	N/Ap	25.78	100.41	100.00	0.21	0.17	0.09						

	RELIANCE	100.00	0.00	100.00	100.00	100.00	1.60	0.005	66.80%	0.09	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
	BSNL	55.40	4.81	89.04	91.23	89.04	12.00	NA	51.00%	0.07	70.93	80.98	0.00	NA	NA	5.25	5.63	5.25
Mumbai	TATA	0.00	2.99	99.38	99.09	99.25	3.20	0.002	63.55%	0.60	72.85	N/App	98.52	0.00	99.72	3.82	3.34	3.04
	RELIANCE	100.00	0.00	100.00	100.00	100.00	3.10	0	67.76%	0.25	0.00	0.00	100.00	100.00	100.00	0.00	0.00	0.00
	MTNL	47.41	9.47	86.74	87.29	84.77	23.13	0.0007	53.66%	0.08	80.11	80.20	34.48	76.06	63.56	14.23	16.36	15.61
NE-I	BSNL, NE-I	48.06	5.67	68.57	93.39	92.85	35.00	NA	52.00%	0.07	90.25	84.97	0.00	NA	NA	6.00	5.64	5.31
NE-II	BSNL, NE-II	85.85	4.97	94.50	91.18	90.24	4.00	NA	55.00%	0.14	78.77	70.05	0.00	NA	NA	2.37	2.22	2.67
Orissa	TATA	94.49	0.51	100.00	42.86	52.38	32.53	NA	0.00%	0.21	N/Ap	N/Ap	94.96	100.00	100.00	0.00	0.00	0.00
	BSNL	100.00	6.65	92.54	92.57	91.41	10.00	NA	51.00%	0.10	94.90	91.12	0.00	NA	NA	1.24	1.24	1.68
	RELIANCE	100.00	0.00	100.00	100.00	100.00	4.50	0	99.34%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
UP-E	BSNL	95.15	6.22	98.21	98.76	96.80	8.00	NA	65.00%	0.01	97.42	92.87	0.00	NA	NA	1.03	1.06	0.96
	TATA	90.65	3.88	88.77	31.61	84.66	21.30	NA	99.53%	0.60	N/Ap	N/Ap	57.69	100.00	99.46	0.00	0.00	0.00
	RELIANCE	100.00	0.00	100.00	100.00	100.00	4.30	0.005	66.46%	0.09	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
UP-W	BSNL	51.91	9.19	95.00	94.69	877.23	6.00	NA	62.00%	0.06	93.27	93.52	0.00	NA	NA	2.99	2.50	24.97
	TATA	91.10	2.71	54.74	23.94	36.27	17.90	0.00	40.00%	0.53	N/Ap	N/Ap	81.99	0.35	98.43	15.23	14.48	12.42
	RELIANCE	100.00	0.00	100.00	100.00	100.00	4.20	0.002	66.41%	0.08	N/App	N/App	100.00	100.00	100.00	0.00	0.00	0.00
Uttaranchal	BSNL, UTTRL	62.74	9.46	94.55	91.41	97.61	4.00	NA	65.00%	0.01	97.42	92.87	0.00	NA	NA	1.71	1.73	1.92
West Bengal	TATA	96.94	1.56	97.92	59.76	28.99	43.20	NA	0.00%	0.36	N/Ap	N/Ap	0.00	100.00	45.73	0.00	0.00	0.00
	BSNL	28.23	7.11	87.93	91.21	91.05	19.00	NA	67.00%	0.04	82.73	90.44	0.00	NA	NA	1.69	1.61	1.62
	RELIANCE	100.00	0.00	100.00	100.00	100.00	3.00	0.005	66.27%	0.09	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

Details QoS Parameters for Cellular Services as reported by CMSPs for the quarter ending 30th June, 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	Accumulated down time of community isolation	Call Success Rate (within licensee's 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%	<.1%	100%	<4 weeks
	'A' Circle										
	Maharashtra										
1	BPL Cellular	1.23%	98.00%	99.14 hrs	99.02%	5 sec	1.30%	98.82%	0.100%	100.00%	30 Days
2	IDEA Cellular	0.00%	100.00%	15.36 hrs	99.02%	12.83 sec	1.47%	97.51%	0.994%	100.00%	30 Days
3	BSNL	0.00%	93.00%	97 hrs	93.54%	2 sec	1.20%	97.00%	0.030%	100.00%	30 Days
4	Bharti Cellular	0.48%	100.00%	23.24 hrs	99.24%	9.24 sec	0.90%	95.80%	0.100%	100.00%	30 Days
5	Relaince Info (CDMA)	0.03%	100.00%	61 hrs	98.94%	5 sec	1.02%	99.18%	0.070%	100.00%	30 Days
6	Tata, MH -CDMA	0.24%	98.51%	19.34 hrs	99.71%	11 sec	0.56%	97.33%	0.100%	98.67%	30 Days
	Gujarat										
7	Hutch	0.05%	100.00%	22.27 hrs	100.00%	15.43 sec	0.96%	96.30%	0.039%	100.00%	15 Days
8	IDEA Cellular	0.02%	100.00%	2.03 hrs	99.01%	15.65 sec	1.53%	97.76%	0.08%	100.00%	14 Days

9	BSNL	1.40%	99.00%	Nil	99.00%	2 sec	1.00%	NA	0.090%	100.00%	30 Days
10	Bharti Cellular	0.08%	100.00%	17.33 hrs	99.80%	11.79 sec	0.80%	97.03%	0.051%	100.00%	15 Days
11	Relaince Info (CDMA)	0.04%	100.00%	84 hrs	99.05%	5 sec	0.80%	99.24%	0.080%	100.00%	30 Days
12	Tata -CDMA	0.43%	84.00%	3.45 hrs	99.73%	4.3 sec	0.59%	97.45%	0.400%	100.00%	30 Days
	Andhara Pradesh										
13	IDEA Cellular	0.38%	100.00%	5.55 hrs	99.97%	9.63 sec	0.56%	98.99%	0.380%	100.00%	2 Days
14	Bharti Mobile	0.00%	100.00%	179.82 hrs	98.40%	14.61 sec	0.97%	99.04%	0.050%	100.00%	30 Days
15	BSNL, AP	0.25%	99.00%	Nil	98.00%	6 sec	1.60%	98.00%	0.030%	96.00%	1 Day
16	Hutchison Essar	0.39%	100.00%	18 hrs	99.26%	5 sec	1.06%	97.00%	0.060%	100.00%	7 Days
17	Relaince Info (CDMA)	0.02%	100.00%	92 hrs	99.05%	5 sec	0.74%	99.96%	0.090%	100.00%	30 Days
18	Tata -CDMA	1.55%	57.00%	15.55 hrs	99.00%	5.5 sec	0.47%	96.54%	0.300%	100.00%	30 Days
	Karnataka										
19	Bharti Mobile	0.02%	100.00%	22.3 hrs	99.47%	14.61 sec	1.35%	96.40%	0.001%	100.00%	30 Days
20	Spice Comm.	0.07%	100.00%	1.2 hrs	99.85%	9 sec	1.42%	99.70%	0.045%	100.00%	7 Days
21	BSNL	0.40%	100.00%	9.5 hrs	99.00%	1.2 sec	NA	NA	0.000%	100.00%	7 Days
22	Hutchison Essar	0.77%	100.00%	15.61 hrs	99.92%	17.78 sec	1.15%	97.70%	0.340%	100.00%	3 Days
23	Relaince Info (CDMA)	0.02%	100.00%	60 hrs	98.88%	4 sec	0.75%	99.77%	0.080%	100.00%	30 Days
24	Tata -CDMA	0.01%	85.40%	1.49 hrs	99.04%	8.98 sec	1.17%	96.00%	0.510%	100.00%	30 Days
	Tamil Nadu										
25	BPL Cellular	0.50%	100.00%	33.58 hrs	99.02%	9 sec	1.11%	99.80%	0.150%	100.00%	30 Days
26	Aircel	0.01%	100.00%	18.8 hrs	98.10%	11.08 sec	1.66%	95.70%	0.030%	100.00%	30 Days
27	BSNL	0.05%	100.00%	Nil	88.00%	7.66 sec	1.27%	95.40%	0.000%	100.00%	Nil
28	Bharti Cellular	0.07%	100.00%	20 hrs	99.46%	13.44 sec	0.79%	98.16%	0.080%	100.00%	30 Days
29	Relaince Info (CDMA)	0.02%	100.00%	52 hrs	99.05%	5 sec	0.71%	100.00%	0.090%	100.00%	30 Days

30	Tata -CDMA	0.17%	58.00%	5.31 hrs	99.68%	10.75 sec	1.06%	96.53%	0.170%	100.00%	30 Days
	B' Circle										
	Kerala										
31	IDEA-Escotel Mobile	0.30%	100.00%	18.45 hrs	99.87%	14.88 sec	2.21%	97.33%	0.270%	100.00%	30 Days
32	BPL Cellular	0.01%	100.00%	20.08 hrs	99.11%	13 sec	1.24%	99.15%	0.001%	100.00%	30 Days
33	BSNL	1.00%	96.00%	295 hrs	98.00%	14 sec	1.60%	88.00%	0.300%	100.00%	30 Days
34	Bharti Cellular	1.07%	100.00%	15 hrs	99.53%	12.59 sec	1.22%	99.96%	1.030%	100.00%	45 Days
35	Tata - CDMA	1.92%	39.00%	0 hrs	99.31%	9.57 sec	0.25%	96.51%	0.030%	100.00%	30 Days
36	Relaince Info (CDMA)	0.02%	100.00%	0 hrs	99.05%	5 sec	0.78%	99.66%	0.080%	100.00%	30 Days
	Punjab										
37	Spice Comm.	0.10%	100.00%	2.9 hrs	95.58%	7.2 sec	1.39%	96.60%	0.010%	100.00%	21 Days
38	Bharti Mobile	0.02%	100.00%	8.38 hrs	99.45%	10 sec	1.44%	99.83%	0.070%	100.00%	1 Day
39	Hutch	0.48%	100.00%	Nil	99.12%	10 sec	1.23%	99.97%	0.081%	100.00%	1 Day
40	BSNL	0.00%	98.00%	30.02 hrs	99.00%	4 sec	0.80%	94.74%	0.010%	100.00%	NA
41	Tata- CDMA	0.02%	79.00%	7.19 hrs	99.91%	6 sec	0.91%	96.14%	0.020%	100.00%	30 Days
42	Relaince Info (CDMA)	0.02%	100.00%	37 hrs	99.05%	5 sec	0.84%	99.42%	0.080%	100.00%	30 Days
	Haryana										
43	IDEA-Escotel Mobile	0.05%	100.00%	6 hrs	99.98%	14.20 sec	0.65%	99.43%	0.060%	100.00%	35 Days
44	Hutch-Aircel Digilink	0.93%	100.00%	6.45 hrs.	99.92%	9.2 sec	1.62%	98.40%	0.090%	100.00%	30 Days
45	BSNL	0.10%	100.00%	14.10 hrs	97.00%	9 sec	2.80%	96.00%	0.090%	100.00%	30 Days
46	Bharti Cellular	0.07%	100.00%	2.63 hrs	99.40%	10 sec	1.57%	99.75%	0.090%	100.00%	1 Day
47	TATA - CDMA	0.01%	75.60%	0.19 hrs	99.70%	6.5 sec	1.14%	96.84%	0.000%	100.00%	30 Days
48	Relaince Info (CDMA)	0.05%	100.00%	140 hrs	99.06%	5 sec	1.29%	99.57%	0.080%	100.00%	30 Days
	UP - W										
49	Hutch Essar	1.00%	100.00%	Nil	99.60%	10 sec	2.10%	96.00%	0.026%	100.00%	3 Days

50	IDEA	0.10%	100.00%	3.59 hrs	99.86%	11.53 sec	1.88%	97.40%	0.510%	100.00%	30 Days
51	BSNL	0.69%	98.00%	Nil	100.00%	18 sec	2.97%	99.00%	0.020%	100.00%	7 Days
52	Bharti Cellular	0.37%	100.00%	11.75 hrs	99.30%	9 sec	1.43%	95.86%	0.070%	100.00%	30 Days
53	Tata - CDMA	0.00%	38.00%	19.1 hrs	99.20%	9.5 sec	0.77%	96.33%	0.420%	100.00%	30 Days
54	Relaince Info (CDMA)	0.25%	100.00%	92 hrs	99.05%	5 sec	1.07%	99.32%	0.090%	100.00%	30 Days
	UP -E										
55	Bharti Cellular	2.30%	96.00%	0 hrs	97.00%	16.1 sec	1.73%	97.00%	0.360%	99.20%	35 Days
56	Hutch -AD	0.53%	100.00%	Nil	99.96%	8.5 sec	1.76%	95.24%	0.030%	100.00%	21 Days
57	BSNL	0.50%	74.00%	2 hrs	97.00%	11 sec	2.60%	95.00%	0.100%	100.00%	30 Days
58	Relaince Info (CDMA)	0.03%	100.00%	54 hrs	99.05%	5 sec	1.27%	99.09%	0.090%	100.00%	30 Days
59	Tata - CDMA	0.03%	39.00%	7.24 hrs	99.50%	16.37 sec	0.50%	97.50%	0.550%	100.00%	30 Days
	Rajasthan										
60	Hutch-Aircel Diglink	0.27%	100.00%	3.96 hrs.	100.00%	9.37 sec	1.54%	96.23%	0.090%	100.00%	21 Days
61	BSNL	0.40%	94.00%	16.1 hrs	89.00%	5.7 sec	2.00%	95.00%	0.100%	99.00%	30 Days
62	Bharti - Hexacom	1.37%	NA	8.36 hrs	99.26%	10 sec	1.54%	99.00%	0.009%	100.00%	1 Day
63	Relaince Info (CDMA)	0.04%	100.00%	72 hrs	99.05%	5 sec	1.16%	99.39%	0.080%	100.00%	30 Days
64	Tata - CDMA	0.50%	84.00%	14.26 hrs	99.55%	8.97 sec	0.96%	97.67%	0.100%	100.00%	30 Days
	Madhya Pradesh										
65	IDEA Cellular	0.21%	100.00%	3.15 hrs	99.08%	12.29 sec	1.73%	99.17%	0.100%	100.00%	30 Days
66	Reliance	0.00%	100.00%	17.27 hrs	100.00%	8.11 sec	2.90%	95.99%	0.030%	100.00%	1 Day
67	BSNL	0.70%	99.00%	Nil	99.00%	2.7 sec	1.20%	95.00%	0.010%	100.00%	30 Days
68	Bharti Cellular	0.08%	100.00%	15.35 hrs	99.63%	7 sec	0.52%	98.30%	0.095%	100.00%	30 Days
69	Relaince Info (CDMA)	0.03%	100.00%	84 hrs	99.05%	5 sec	1.14%	99.81%	0.080%	100.00%	30 Days
70	Tata - CDMA	0.68%	91.00%	0.15 hrs	99.00%	1.3 sec	0.71%	97.80%	0.900%	100.00%	31 Days

	West Bengal										
71	Bharti	0.24%	100.00%	0 hrs	98.75%	7.1 sec	1.67%	97.82%	0.580%	100.00%	1 Day
72	Relaince Info (CDMA)	0.04%	100.00%	54 hrs	99.04%	5 sec	1.28%	96.71%	0.030%	100.00%	30 Days
73	Reliance Tel (GSM)	0.09%	100.00%	3.58 hrs	99.00%	9.39	2.54%	97.29%	Nil	NA	NA
74	BSNL	0.60%	100.00%	Nil	99.00%	5.44 sec	1.61%	99.00%	0.000%	100.00%	Nil
75	Tata - CDMA	0.20%	6.00%	23.1 hrs	99.27%	8.63 sec	1.33%	95.38%	0.430%	100.00%	30 Days
76	Hutchission Essar	0.96%	100.00%	13.49 hrs.	99.09%	7 sec	1.66%	95.68%	0.080%	100.00%	3 Days
	C' Circle										
	Himachal Pradesh										
77	Bharti Telenet	0.07%	100.00%	4.6 hrs	99.30%	10 sec	1.70%	99.88%	0.001%	100.00%	1 Day
78	Reliance Tel (GSM)	0.04%	100.00%	8.15 hrs	100.00%	6.55 sec	2.18%	99.30%	0.000%	100.00%	10 Days
79	BSNL	0.30%	99.00%	Nil	98.00%	5.7 sec	2.70%	94.00%	0.080%	100.00%	Nil
80	Relaince Info (CDMA)	Nil	NA	138 hrs	99.00%	5 sec	0.53%	97.17%	0.000%	NA	NA
81	Tata - CDMA	0.00%	100.00%	0.15 hrs	99.00%	8 sec	1.13%	95.11%	0.000%	100.00%	30 Days
	Bihar										
82	Relaince Info (CDMA)	0.03%	100.00%	70 hrs	99.06%	5 sec	1.23%	99.26%	0.080%	100.00%	30 Days
83	BSNL	0.10%	95.00%	8 hrs	99.00%	8 sec	2.96%	90.50%	0.230%	89.97%	42 Days
84	Reliance Tel (GSM)	0.17%	100.00%	17.08 hrs	99.00%	8.41 sec	1.95%	98.90%	0.000%	100.00%	30 Days
85	Tata - CDMA	1.17%	100.00%	21.40 hrs	99.12%	8.3 sec	0.52%	97.37%	0.740%	100.00%	30 Days
86	Bharti Cellular	0.34%	99.00%	4.38 hrs	99.23%	6.11 sec	1.13%	98.25%	0.200%	100.00%	30 Days
	Orissa										
87	Reliance Tel (GSM)	0.10%	100.00%	30.43 hrs	100.00%	7.33 sec	2.32%	99.66%	0.000%	100.00%	NA
88	BSNL	0.19%	91.00%	43 hrs	88.00%	9 sec	2.18%	93.00%	0.001%	100.00%	1 Day
89	Bharti	0.45%	98.13%	0 hrs	98.86%	4.9 sec	1.12%	99.08%	0.050%	100.00%	30 Days
90	Reliance Inf (CDMA)	0.01%	100.00%	74 hrs	99.05%	6 sec	0.88%	99.78%	0.080%		31 Days

91	Tata - CDMA	0.84%	43.00%	18.49 hrs	99.51%	6.5 sec	0.62%	96.03%	0.320%	100.00%	30 Days
	Assam										
92	Bharti	5.53%	99.96%	116.5 hrs	93.64%	8.3 sec	1.89%	98.10%	2.700%	100.00%	50 Days
93	BSNL, AS	0.30%	100.00%	Nil	99.00%	10 sec	3.60%	96.00%	0.010%	100.00%	NA
94	Reliance Tel (GSM)	0.03%	100.00%	25 hrs	99.00%	9.60 sec	1.21%	95.37%	0.030%	100.00%	NA
	J & K										
95	BSNL	0.90%	99.00%	23 hrs	99.00%	12 sec	2.00%	97.00%	0.100%	100.00%	21 Days
96	Bhrati	1.88%	99.10%	261 hrs	98.70%	11 sec	2.70%	98.80%	0.070%	100.00%	1 Day
	NE										
97	BSNL	1.40%	99.00%	5 hrs	99.00%	14 sec	2.30%	97.00%	0.000%	100.00%	21 Days
98	Reliance Tel (GSM)	Nil	Nil	Nil	99.00%	9.70 sec	3.74%	98.54%	Nil	Nil	Nil
99	Bharti	6.50%	100.00%	0 hrs	97.02%	7.4 sec	1.30%	98.40%	1.900%	100.00%	50 Days
	METRO										
	Delhi										
100	Bharti Cellular	0.51%	100.00%	Nil	99.23%	15.86 sec	1.47%	95.03%	0.071%	100.00%	30 Days
101	Hutchison Essar	0.81%	100.00%	Nil	99.99%	8.64 sec	1.09%	96.02%	0.006%	100.00%	4 Days
102	MTNL	1.20%	100.00%	0 hrs	99.46%	13.5 sec	1.05%	95.02%	0.090%	100.00%	30 Days
103	IDEA Cellular	0.37%	100.00%	Nil	99.98%	7 sec	0.58%	98.23%	0.056%	100.00%	30 Days
104	Reliance Inf (CDMA)	0.04%	100.00%	0 hrs	99.05%	5 sec	0.89%	99.17%	0.090%	100.00%	30 Days
105	Tata -CDMA	0.00%	100.00%	0 hrs	99.90%	5.41 sec	0.62%	97.50%	0.500%	100.00%	30 Days
	Mumbai										
106	BPL Mobile	0.24%	100.00%	21.5 hrs	99.43%	10.32 sec	1.72%	98.95%	0.100%	100.00%	40 Days
107	Hutchison Max	0.61%	100.00%	Nil	99.43%	8.5 sec	1.59%	96.12%	0.005%	100.00%	3 Days
108	MTNL	0.00%	100.00%	Nil	99.10%	14 sec	1.42%	96.00%	0.085%	100.00%	30 Days
109	Bharti Cellular	0.04%	100.00%	0 hrs	99.25%	9 sec	0.92%	97.00%	0.060%	100.00%	Nil
110	Reliance Inf (CDMA)	0.04%	100.00%	0 hrs	99.07%	5 sec	1.07%	99.92%	0.070%	100.00%	30 Days
111	Tata -CDMA	0.24%	98.38%	6.15 hrs	99.84%	11 sec	0.36%	97.53%	0.510%	100.00%	31 Days

Chennai											
112	Aircel Cellular Ltd	0.30%	99.90%	0 hrs	100.00%	12.4 sec	0.91%	95.20%	0.100%	100.00%	30 Days
113	Bharti Mobinet	0.06%	100.00%	0 hrs	99.74%	12.72	0.58%	96.81%	0.070%	100.00%	30 Days
114	Hutchison Essar	0.07%	100.00%	Nil	99.55%	9 sec	0.90%	98.44%	0.020%	100.00%	2 Days
115	BSNL	0.20%	100.00%	Nil	98.00%	12 sec	1.03%	100.00%	0.100%	100.00%	1 Day
116	Reliance Inf (CDMA)	0.02%	100.00%	49 hrs	99.05%	5 sec	0.59%	99.95%	0.090%	100.00%	30 Days
117	Tata-CDMA	0.18%	95.00%	0 hrs	99.54%	14.9 sec	0.72%	95.80%	0.100%	100.00%	30 Days
Kolkata											
118	Bharti Mobinet	0.32%	100.00%	0 hrs	99.67%	7.1 sec	1.20%	97.82%	0.090%	100.00%	27 Days
119	Hutchison	0.14%	100.00%	Nil	99.88%	18 sec	0.78%	96.13%	0.080%	100.00%	6 Days
120	BSNL	0.20%	88.00%	Nil	93.00%	7sec	1.33%	97.00%	0.200%	99.00%	30 Days
121	Reliance Inf (CDMA)	0.04%	100.00%	13 hrs	99.06%	5 sec	1.17%	98.58%	0.090%	100.00%	30 Days
122	Tata - CDMA	0.79%	48.00%	20.20 hrs	99.41%	10.2 sec	0.53%	95.17%	0.350%	100.00%	30 Days

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 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	94	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	-	-	-	0.005	10-15 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	0.002	<45 mins	
6	Data Infosys	3-5 min	25-30 sec	90	95	99	30 min	1:100	15 min	
7	Bharti Infotel Ltd.	5 min (online)	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 Inffinet Ltd.	4 min	34 sec	99.0	99.3	99.4	37 min	1:200	17-19 hrs	
11	Sab Infotech	<6 hrs	<30 sec	90	95	100	<30 min	0 in 100	>1 hr	
12	Icenet.net Limited	2 hrs	20 sec	85	95	100	Never	1:100	-	
13	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	Nil	25 sec	98.56	100	N.A.	-	1:1000	1 hr	
14	Broadband Pacenet (I) Pvt. Ltd.	-	-	-	-	-	-	-	3 hrs	
15	Asianet Satellite Communications Ltd.	Immediate	10 sec	98	99	100	<1 Hr	1 in 500	3 Hrs 15 mins	
16	Fascel Ltd.*	-	-	-	-	-	-	-	-	
17	HFCL Infotel Ltd.	1.5 min (online)	30 sec	98.2	99.2	100	Nil	0.85 in 100	7.88 min	
18	WWW Communications Ltd.	4-5 mins	20-35 sec	87	96	99	85 min	-	10-15 min	
19	Hughes*	-	-	-	-	-	-	-	148.5 min	
20	Rolta India Ltd.	15 mins (online)	28 sec	84.5	91.3	99	Nil	0 in 100	4 min 26 sec	

*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.