

# **Telecom Regulatory Authority of India**



## The Indian Telecom Services Performance Indicators April-June 2006

**October 2006**

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# CONTENTS

## **OBSERVATIONS: -**

	Page
Introduction	4
Executive Summary	5
Quarterly results at a glance	14
<b>Chapter One</b> : Performance of Fixed Service	16
<b>Chapter Two</b> : Performance of Mobile Service	20
<b>Chapter Three</b> : Performance of Internet Service	27
<b>Chapter Four</b> : Performance of Value Added Services	30
(i) PMRTS (ii) VSAT	
<b>Chapter Five</b> : Quality of Service (QoS) Performance	31
<b>Chapter Six</b> : Performance of Cable TV, DTH & Radio Broadcasting Services	38
<b>Chapter Seven</b> : Status of Telecom Services in Rural Area	40

## **TABLES:**

1.1	Subscribers Base of Fixed Services
1.2	Details of Public Call Offices (PCO)
1.3	Details of Village Public Telephones (VPT)
2.1	Subscriber Base of Mobile operators
2.2	Market Share of Mobile Service Providers
2.3	Growth pattern of Mobile Subscribers Base
3.1	Subscribers Base of Internet Service
4.1	Subscriber Base of Public Mobile Radio Trunking Service (PMRTS)
4.2	Subscriber Base of VSAT Service Providers
6.1	Range of number of channels Pay, FTA, Local regularly carried on Network
6.2	Information on New Pay Channels and Free to Air (FTA) channels converted into Pay Channels after 26.12.2003
6.3	Total Advertisement Revenue
6.4	No. of Applications/Letters of Intent/Licenses Issued in respect of DTH Service Provider
7.1	Rural Subscriber Base

## **ANNEXES:**

1.1	Details of Fixed Service Licenses issued to private operators
2.1	List of Cellular, Fixed & Unified Access Service Providers
2.2	Usage Pattern for GSM
2.3	Usage Pattern for CDMA
2.4	Revenue Realisation Per Minute (RPM) – GSM and CDMA

- 3.1 Growth Pattern of Internet subscribers
- 3.2 List of Internet Telephony Service Providers
- 4.1 Growth Rate of PMRTS subscribers
- 4.2 Growth Rate of VSAT Subscribers
- 5.1 Quality of Service Performance for Fixed Services
- 5.2 Quality of Service Performance for Mobile (GSM) Services
- 5.3 Quality of Service Performance for ISPs

## INTRODUCTION

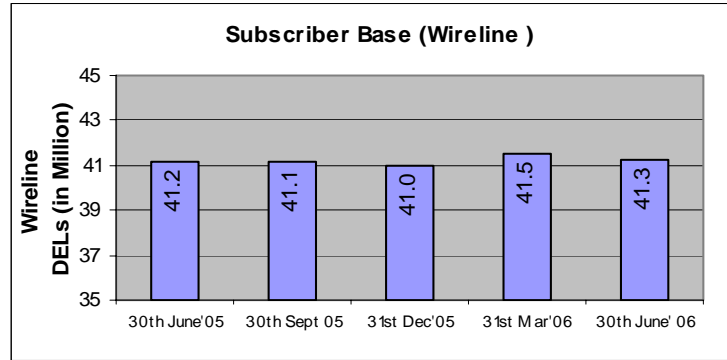
- 1.1 This report provides an update on the growth trends for the telecom services for the period **April – June 2006**. It presents a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts as an update over the previous reports. Due to the Unified Access Service Regime, the details under mobile services combine both GSM & CDMA. From this quarter onwards the mobile subscriber base includes GSM, CDMA, WLL(F) and WLL(M). QOS performances of various service providers have also been included in Chapter Five. This report also covers the performance of Cable TV, DTH & Radio Broadcast services in Chapter Six. In addition, status of Telecom Services in rural areas has been covered in Chapter Seven. The Executive Summary of various Telecom Services has been given in the beginning followed by ‘Quarterly results at a Glance’ of the growth pattern of Fixed, Mobile and Internet and Broadband services in tabular form.
- 1.2 The information for this report has been collected from various telecom service providers. TRAI collects performance-oriented data from various service providers on a quarterly basis to monitor the growth trend in the sector 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.
- 1.3 This quarterly report is available on the TRAI website ([www.traigov.in](http://www.traigov.in)) and is updated on quarterly basis. Any suggestions pertaining to this may please be addressed to S. K. Gupta, Advisor (CN), TRAI; Tel. 26167914, Fax. 26191998 and e-mail: [skgupta@traigov.in](mailto:skgupta@traigov.in)

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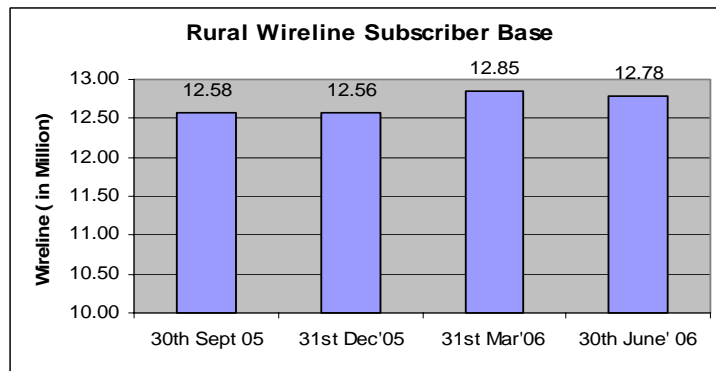
## Executive Summary

### A. Fixed Line Services

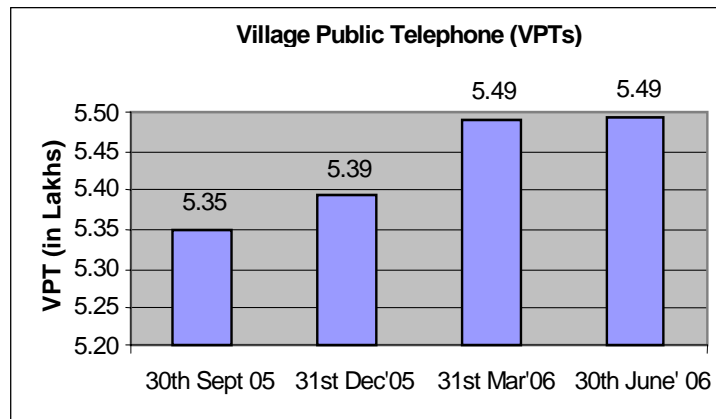
The subscribers of Fixed Service (Wireline) declined from 41.50 million to 41.27 million.



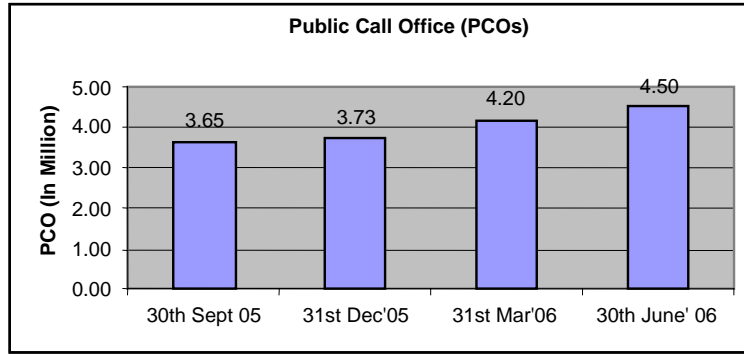
Rural Wireline Subscriber base also reduced from 12.85 million to 12.78 million in quarter ending June 2006.



Number of VPTs have been 5.49 million, same as in previous quarter



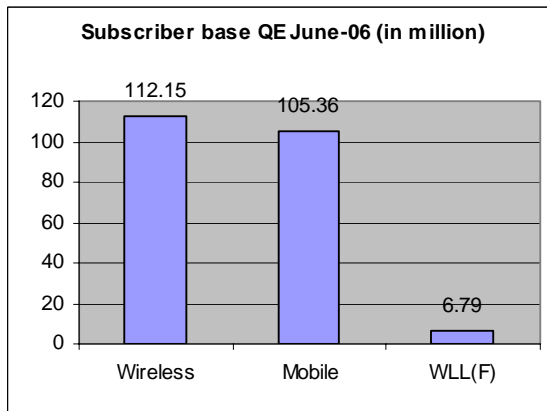
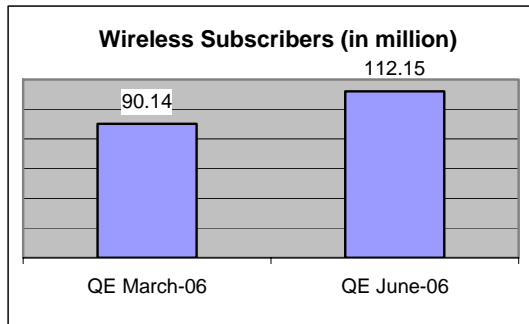
Number of Public Call Offices have increased to 4.50 million from 4.20 million in quarter ending June 2006.



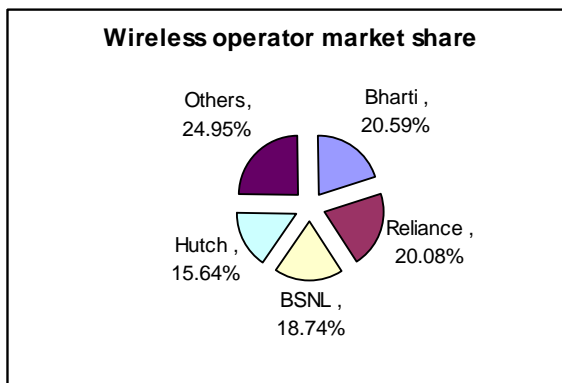
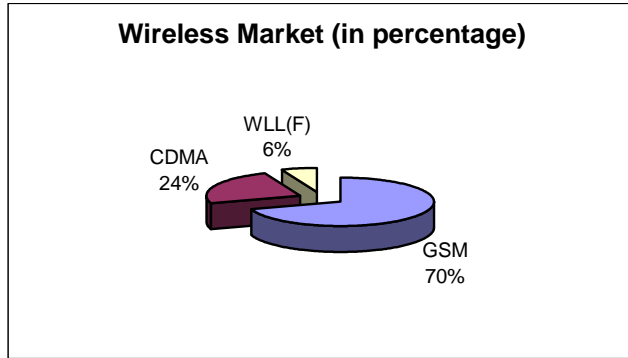
## B. Mobile Services

From this quarter onwards, the mobile subscriber base includes GSM, CDMA, WLL(F) and WLL(M) subscribers i.e. all the wireless subscribers. The subscribers of Wireless services {GSM + CDMA + WLL(F) + WLL(M)} increased from 90.14 million to 112.15 million during the above quarter registering a growth of 24.40%.

### (i) Subscriber Growth/Market Share

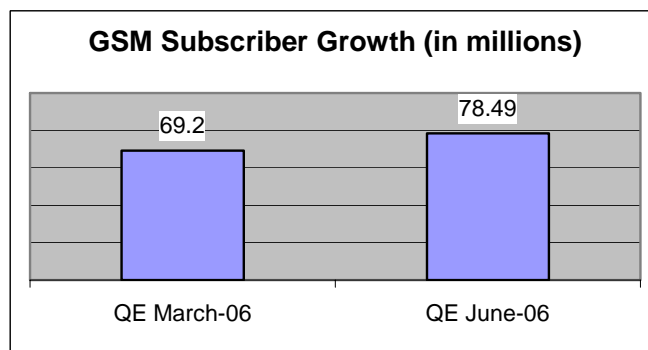


Wireless: GSM,CDMA & WLL-F  
 Mobile : GSM & CDMA



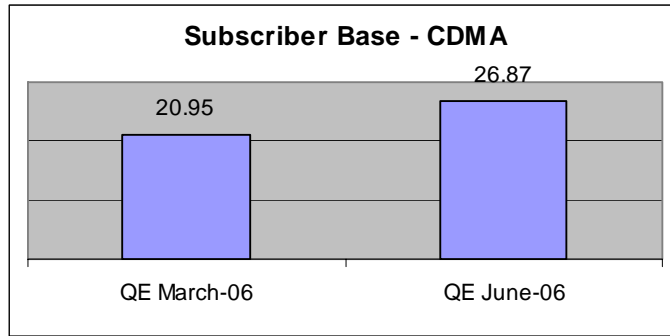
**(ii) GSM**

The number of GSM Subscribers have increased from 69.20 million to 78.49 million in the quarter ending June 2006.



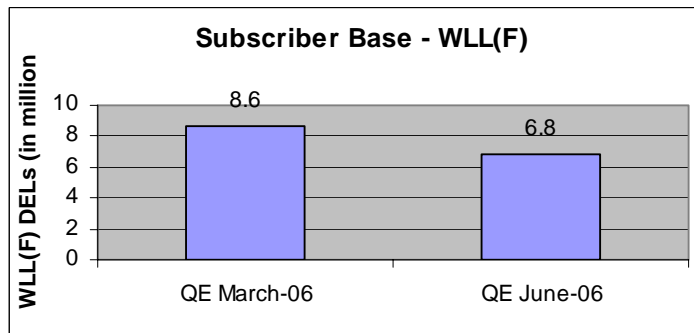
**(iii) CDMA**

The number of CDMA Subscribers have increased from 20.95 million to 26.87 million in the quarter ending June 2006.



**(iv) WLL(F)**

The number of WLL(F) Subscribers have decreased from 8.6 million to 6.8 million in the quarter ending June 2006 as operators have converted their WLL Subscribers into CDMA Mobile.



**(v) ARPU, MoU, etc.**

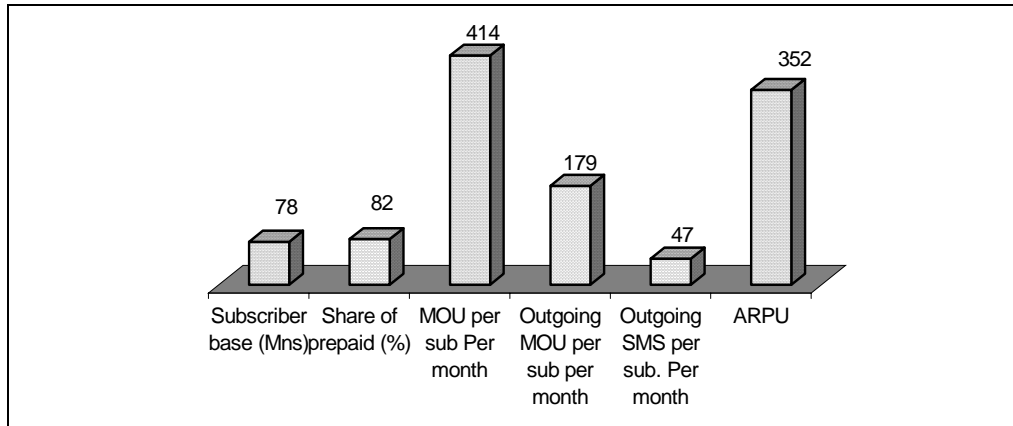
**(a) GSM**

The all India blended ARPU per month has declined by 3.9% from Rs. 366/- per month in the quarter ending Mar-06 to Rs. 352/- per month in the quarter ending June-06.

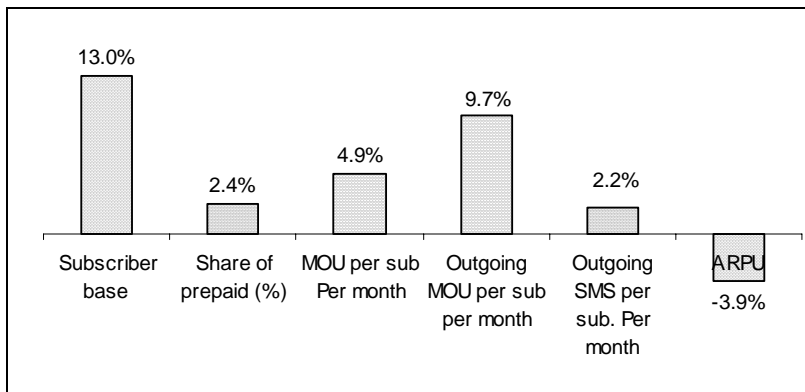
Minutes of Usage (MOU) per subscriber increased by 4.87% from 395 minutes in quarter ending Mar-06 to 414 minutes in quarter ending Jun-06.



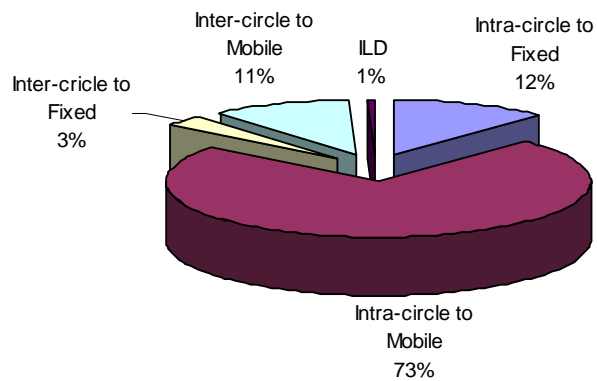
### Key Indicators for GSM



### Variation in Key Indicators over last quarter

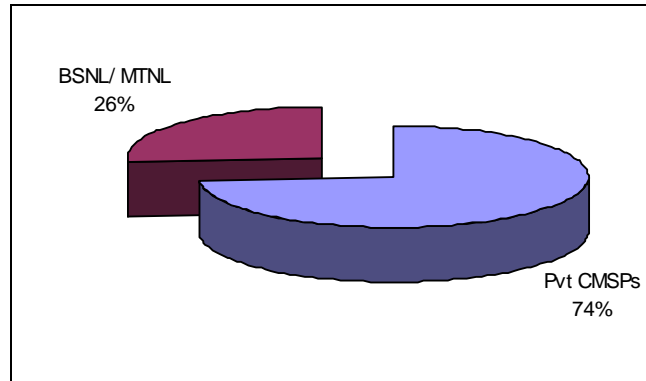


### GSM Mobile Originated Traffic - distribution by terminating network



## **Distribution of Market share between Pvt. CMSPs & PSUs (BSNL/MTNL)**

### **In terms of Subscriber base**



### **(b) CDMA**

All India ARPU for the quarter ending June 2006 is Rs. 228.

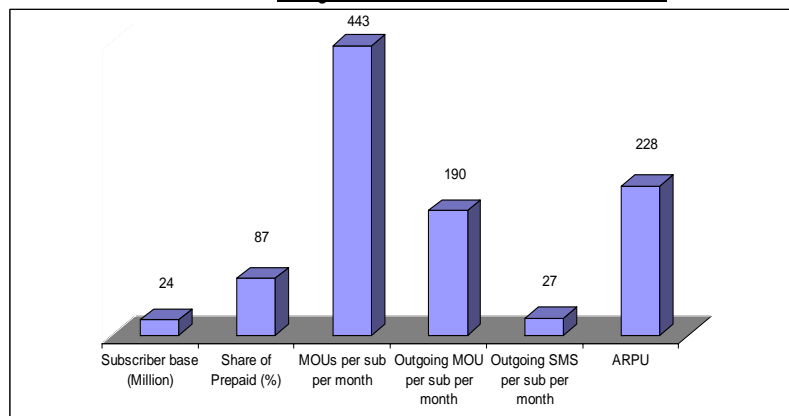
The lowest blended ARPU per month is in Circle B (Rs. 200/-) while the highest blended ARPU is in Metro (Rs. 271/-). Monthly ARPU in postpaid segment is Rs.534/- and for prepaid segment it is Rs.183/-. There is a huge difference between postpaid and prepaid ARPU. Postpaid ARPU has been 2.9 times that of prepaid ARPU. The gap is lowest in Circle C (2.27) times and highest in Metro (3.23) times.

Average MOU per subscriber per month for the quarter is 443 minutes per subscriber per month.

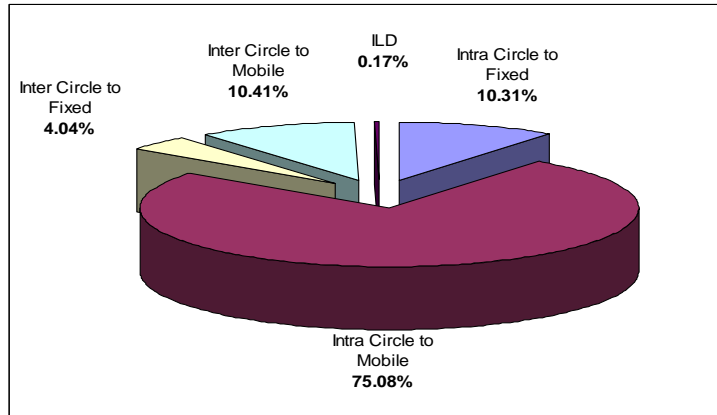
On an average a CDMA subscriber makes 190 minutes of outgoing calls, sends 27 SMS and receives incoming calls for 253 minutes in a month. The highest outgoing MOU is recorded for Circle C at 243 minutes per subscriber per month and the lowest outgoing MOU is seen with Metro at 179 minutes per subscriber per month.

The ratio of incoming – outgoing traffic is 57:43 in the quarter ending June 2006.

### **Key Indicators for CDMA**



**CDMA Mobile originated Traffic – distribution by terminating network.**



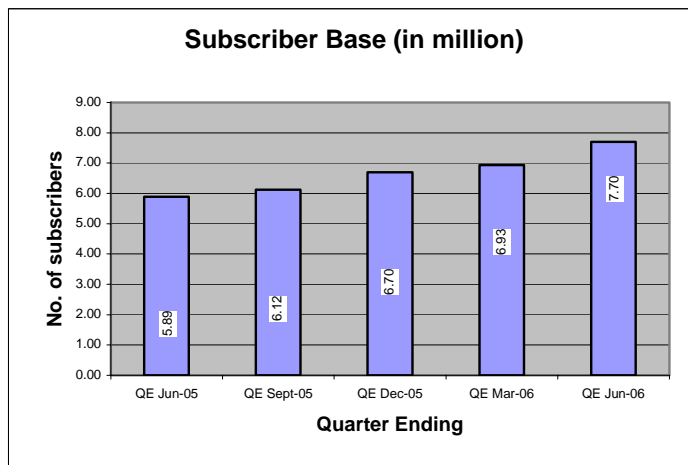
**C. Internet Services**

The Internet subscribers' base increased from 6.94 million at the end of March 2006 to 7.71 million during the quarter ending June 2006 thus registering a growth of about 11.10%.

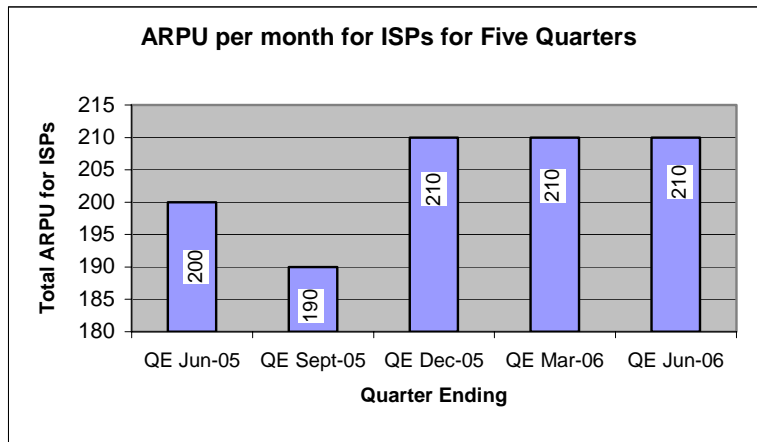
The number of Broadband subscribers (with a download speed of 256 Kbps or more) increased from 1.348 millions to 1.56 millions during the quarter ending June, 2005 registering a growth of 15.72% during the quarter.

The key indicators are presented below through bar charts.

**i) Subscribers Growth**



ii) **ARPU**



**D. Quality of Service**

**QOS Performance during the year**

**(a) Basic Services**

The performance of basic service operators improved in respect of “Mean Time to Repair (MTTR)”, “Metering and Billing Credibility”, “Closures”, and “Percentage of calls answered (electronically) within 20 sec” as compared to previous quarter and deteriorated in respect of parameters namely “New connections after registration of demand”, “Faults incidences”, “Faults repaired by next working day”, “Call Completion Rate” and “Percentage of calls answered by operators (voice to voice)”.

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

Sl. No.	Parameter	Bench Marks	% of service providers not meeting the benchmarks.	
			Q.E. March 2006	Q.E. June 2006
			<b>Out of 73</b>	<b>Out of 73</b>
1.	New connections after registration of demand	100% in 7 Days	90.41%	95.89%
2.	Fault incidences per 100/subs/month	<5	17.80%	43.84%
3.	Fault repaired by next working day	>90%	9.58%	24.66%
4.	Mean Time To Repair	< 8Hrs	38.35%	31.51%
5.	Metering & billing credibility - % of bills	< 0.1%	27.39%	15.07%

**(b) Cellular Mobile Service**

129 licensees have reported their performance in QOS parameters in 23 circles during the quarter ended 30<sup>th</sup> June 2006. It is seen that performance of the Cellular Mobile Service Providers has improved in this quarter as compared with previous quarter in respect of the parameters like “Call Set-Up Success Rate” , “Response time to the Customer for assistance” and “Percentage of calls answered electronically”. However, the performance has deteriorated in respect of “Service access delay”, “Percentage of calls answered by operators (voice to voice) within 60 sec” and “Billing related parameters”. All operators are able to meet the benchmark parameters like “Call Set-Up Success Rate”, “Call drop rate” and “Percentage of connections with good voice quality” during quarter ending June 2006.

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

Sl. No.	Parameter	Bench Marks	% of service providers not meeting the benchmarks .	
			Q.E.March,06	Q.E.June,06
			Out of 129	Out of 129
1.	Accumulated Downtime of Community Isolation	<24hrs	3.10%	3.88%
2.	Call Set-Up Success Rate	>95%	1.55%	Nil
3.	Service Access Delay	Between 9 to 20 Sec.	3.10%	6.98%
4.	Call Drop Rate	<3.0%	Nil	Nil
5.	Billing Complaints per 100 bills issued	<0.1%	12.40%	13.18%
6.	POI Congestion	<0.5%	This parameter has been introduced since July 2005 only. There has been gradual increase in the congestion level since then.	

## Quarterly Results at a Glance

### Performance Indicators of Telecom Services for QE June 2006

#### A. Growth of Fixed & Mobile Services:-

	QE Mar 2005	QE Jun 2005	QE Dec 2005	QE Mar 2006	QE Jun 2006	%age growth over Jun 2005 (12 months)	%age growth over Dec 2005 (6 months)	%age growth over Mar 2006 (3 months)
<b>1) Subscriber's Base (in millions)</b>								
i) Fixed Line	#46.19	#46.85	#48.84	#50.18	*41.27	-11.91	-15.50	-17.76
ii) Mobile (GSM + CDMA+WLL(F))	*52.22	*57.37	*75.94	*90.14	#112.15	95.49	47.68	24.42
<b>Gross Total</b>	<b>98.41</b>	<b>104.22</b>	<b>124.78</b>	<b>140.32</b>	<b>153.42</b>	<b>47.21</b>	<b>22.95</b>	<b>9.34</b>
<b>2) Traffic (MOU) (minutes of use/ sub/month) (combined for GSM &amp; CDMA)</b>								
Mobile : I) GSM	344	358	393	395	414	15.64	5.34	4.81
II) CDMA			462	550	443		-4.11	-19.45
<b>3) ARPU (Rs./sub/ month) (combined for GSM &amp; CDMA)</b>								
Mobile : I) GSM	394	381	362	366	352	-7.61	-2.76	-3.83
II) CDMA			256	256	228		-10.94	-10.94
<b>4) Teledensity</b>								
Population in million (Estimated)	1080	1085	1092	1096	1099	1.29	0.64	0.27
i) Fixed Line	#4.28	#4.32	#4.47	#4.58	*3.76	-13.03	-16.04	-17.98
ii) Mobile (GSM + CDMA+WLL(F))	*4.84	*5.29	*6.95	*8.22	#10.20	93.00	46.74	24.08
<b>Gross Total</b>	<b>9.11</b>	<b>9.61</b>	<b>11.43</b>	<b>12.80</b>	<b>13.96</b>	<b>45.33</b>	<b>22.17</b>	<b>9.04</b>

# Including WLL-F      \*Excluding WLL-F

#### B. Growth of Internet & Broadband Services:-

	QE Mar 2005	QE Jun 2005	QE Dec 2005	QE Mar 2006	QE Jun 2006	%age growth over Jun 2005 (12 months)	%age growth over Dec 2005 (6 months)	%age growth over Mar 2006 (3 months)
<b>1) Subscriber's Base (in million)</b>								
i) Internet	5.55	5.89	6.70	6.94	7.71	30.73	14.93	11.10
ii) <b>Broadband Connections (&gt;=256 Kbps download speed)</b>	0.183	0.399	0.903	1.348	1.557	290.23	72.43	15.50
<b>2) Minutes of Use (Dialup Internet) (MOU/ subs/month)</b>								
	305	300	189	175	190	-36.67	0.53	8.57
<b>3) ARPU (Dialup Internet) (Rs/subs/month)</b>								
	220	200	210	210	210	5.00	0.00	0.00

**C. Performance of service providers during the quarter: -**  
**(I) Fixed Line including WLL(F) Subscribers Base(in Million)**

<b>1) Basic Service Providers</b>	<b>QE Mar 2005#</b>	<b>QE Jun 2005#</b>	<b>QE Dec 2005#</b>	<b>QE Mar 2006 #</b>	<b>QE Jun 2006*</b>	<b>%age growth over Jun 2005 (12 months)</b>	<b>%age growth over Dec 2005 (6 months)</b>	<b>%age growth over Mar 2006 (3 months)</b>
BSNL	37.04	36.80	36.76	37.51	34.94	-5.05	-4.95	-6.85
MTNL	4.06	3.95	3.86	3.87	3.80	-3.80	-1.48	-1.81
Tata/ Hughes	2.58	3.07	4.04	4.02	0.42	-86.32	-89.60	-89.55
Bharti	0.86	0.93	1.20	1.35	1.48	59.14	23.44	9.63
Reliance	1.31	1.72	2.57	2.99	0.30	-82.56	-88.33	-89.98
HFCL	0.19	0.21	0.24	0.26	0.18	-14.29	-25.00	-30.77
Shyam	0.15	0.17	0.17	0.17	0.15	-11.76	-11.76	-13.79
<b>Total</b>	<b>46.19#</b>	<b>46.85#</b>	<b>48.84#</b>	<b>50.18#</b>	<b>41.27*</b>	<b>-11.91</b>	<b>-15.50</b>	<b>-17.76</b>

# including WLL-F Subscribers

\* excluding WLL-F Subscribers

**(II) Mobile Services Subscriber Base (in Million)**

<b>Service Providers</b>	<b>QE Mar 2005#</b>	<b>QE Jun 2005#</b>	<b>QE Dec 2005#</b>	<b>QE Mar 2006 #</b>	<b>QE Jun 2006*</b>	<b>%age growth over Jun 2005 (12 months)</b>	<b>%age growth over Dec 2005 (6 months)</b>	<b>%age growth over Mar 2006 (3 months)</b>
Bharti	10.98	12.26	16.33	19.58	23.09	88.34	41.40	17.93
Reliance	10.45	11.65	14.68	17.31	22.52	93.30	53.41	30.10
BSNL	9.90	10.69	14.83	17.65	21.02	96.63	41.74	19.09
Hutch	7.79	8.44	11.41	15.36	17.54	107.82	53.72	14.19
Tata/ Hughes	1.09	1.43	3.68	4.85	10.36	624.48	181.52	113.61
Idea	5.07	5.55	6.47	7.37	8.54	53.87	31.99	15.88
Aircel	1.76	1.87	2.28	2.61	3.20	71.12	40.35	22.61
MTNL	1.08	1.29	1.65	2.05	2.31	79.07	40.00	12.68
Spice	1.44	1.47	1.63	1.93	2.05	39.46	25.77	6.22
BPL Group	2.58	2.63	2.89	1.34	1.30	-50.57	-55.02	-2.99
HFCL	0.05	0.06	0.06	0.06	0.15	150.00	150.00	150.00
Shyam	0.03	0.03	0.03	0.03	0.06	100.00	100.00	100.00
<b>Total</b>	<b>52.21#</b>	<b>57.37#</b>	<b>75.94#</b>	<b>90.14#</b>	<b>112.15*</b>	<b>95.49</b>	<b>47.68</b>	<b>24.42</b>

# excluding WLL-F Subscribers

\* including WLL-F Subscribers

## Chapter One

### PERFORMANCE OF FIXED SERVICES

#### 1.1 Subscribers Base: -

1.1.1 As on 30th June 2006 the Fixed lines were provided by 5 licensed private operators in addition to incumbents BSNL and MTNL. List of Fixed Service providers along with their areas of operation is given in Table 1 below:

**Table 1**

<b>S.No.</b>	<b>Name of the Service Provider</b>	<b>Area of Operation</b>
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

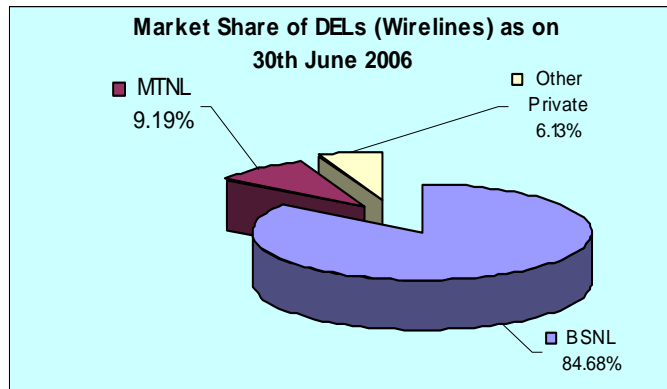


### 1.1.2 Market Share of DELs.

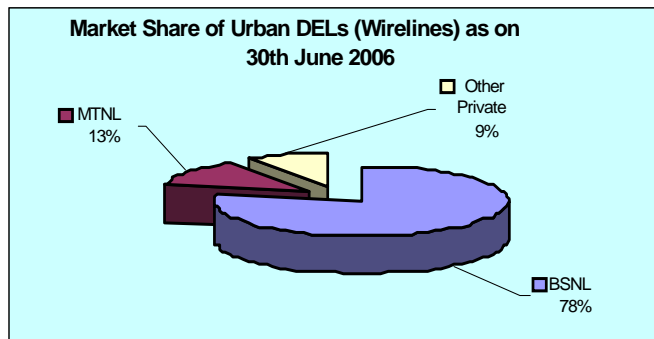
As on 30<sup>th</sup> June 2006, the total subscriber base of fixed lines stood at 41.27 million. The incumbents BSNL and MTNL have 84.68% and 9.19% market share respectively in the subscriber base, while all the five private operators together have 6.13% share.

As on 30<sup>th</sup> June 2006 the total Urban DELs are 33.18 million and Rural DELs are 14.88 million.

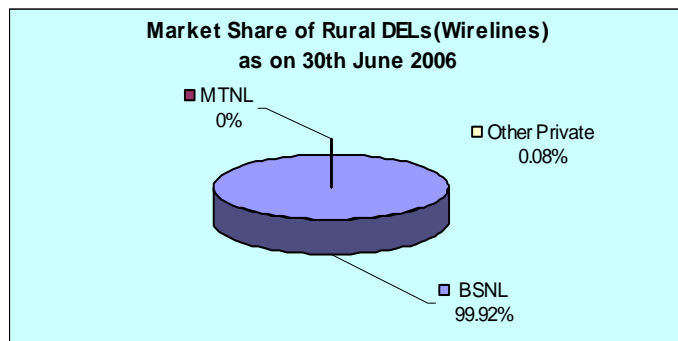
#### A. Distribution of Market share of Urban + Rural Wireline subscriber



#### B. Distribution of Market share of Urban Wireline subscriber



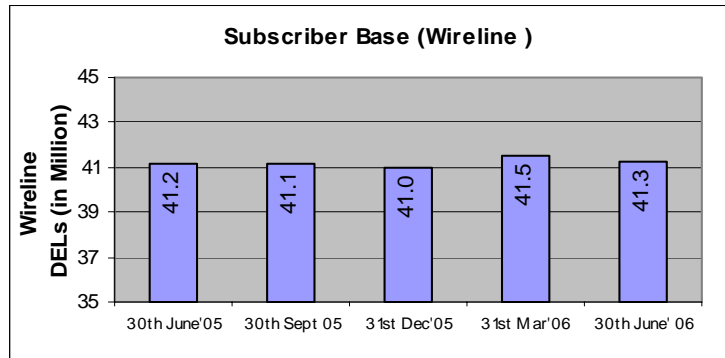
#### C. Distribution of Market share of Rural Wireline subscriber



### 1.1.3 Subscriber Base of Wireline for last five quarters

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

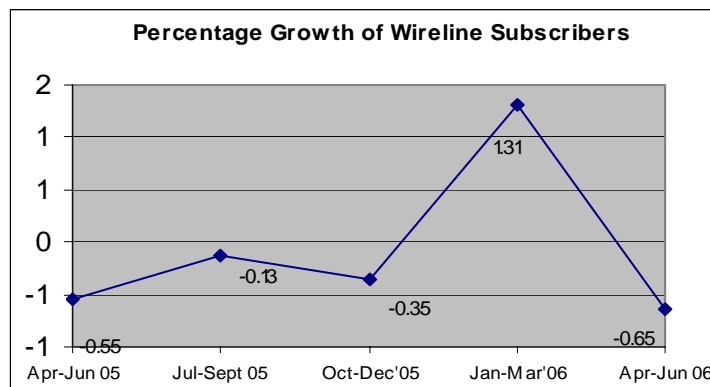
#### **Subscriber Base (Fixed)**



### 1.1.4 Growth of DELs

The Fixed Service sector (Wireline) has registered a decrease of 2,69,086 lines during the quarter from 1<sup>st</sup> April 2006 to 30<sup>th</sup> June 2006. The net number of DELs has decreased to 4,12,73,270 from 5,15,42,356 as on 30<sup>th</sup> June 2006. The overall percentage of decrease in subscriber base during the Quarter is 0.65%.

#### ***Average percentage growth rate of Fixed Line Subscribers.***

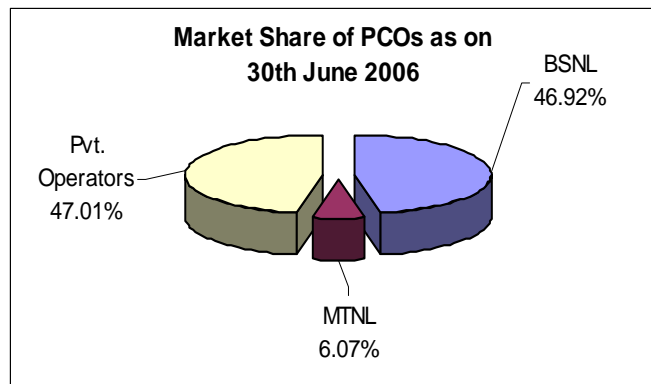


## 1.2 Other Performance Indicators: -

### 1.2.1 Public Call Offices:

During the current quarter 303,396 new PCOs have been added. Total number of PCOs in the country as on 30th June 2006 is 45,02,553. The share of BSNL in this is 21,12,703 i.e. 46.92% of the total PCOs. The share of MTNL and all the private operators is 273345 (6.07%) and 2116505 (47.01%) respectively.

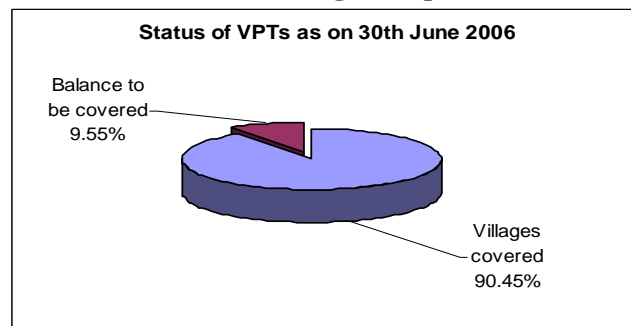
Operator-wise (BSNL/MTNL/Other Private Operators) market share of PCO is depicted in the chart below. Operator-wise details of PCOs is available at Table 1.2



### 1.2.2 Village Public Telephones (VPT):

There are 6,07,491 villages in India. At the end of quarter ending 31<sup>st</sup> March 2006 there were 5,48,843 VPTs in the country whereas by the end of this quarter, the total number of VPTs has increased to 5,49,476. Thus 633 VPTs have been added during the current quarter. BSNL has added 755 VPTs during the quarter. Among the five private operators there was a decrease of 122 VPTs during this quarter.

Circle-wise and Operator-wise details of village public telephones as on 30th June 2006 and achievement during the quarter are available at Table 1.3.



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## Chapter Two

### PERFORMANCE OF MOBILE SERVICES

Subscriber Base Growth touches 5 million per month

#### **PART A:**

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

SL. NO	Service Provider	Area for which licensed with No.	Area for which not licensed	UASL Service Licensed
1	BSNL/MTNL	All India (23)		
2	Bharti	All India (23)		All India except NE
3	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, MH, Guj, AP, KTK, TN, KR, Punjab, HR, UP-W, UP-E, Raj & WB (16)	MP, HP, BR, OR, AS, NE & J&K	UP-W, WB
6	Aircel	Chennai, TN WB, HP, BR, OR, AS, NE & J&K (9)	Delhi, Mumbai, Kolkata, MH, Guj, AP, KTK, Kerala, Punjab, Haryana, UP (W), UP (E), Raj. & MP (14)	WB, HP, BR, OR, AS, NE & J&K
7	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	--
8	Escorts Communications	UP-E, Raj, HP (3)	All India except (UP-E, Raj, HP)	---
9	Spice Communications	KTK, Punjab (2)	All India except (KTK, Punjab)	KTK, Punjab
10	BPL	Mumbai (1)	All India except (Mumbai)	--
11	HFCL	Punjab (1)	All India except Punjab	Punjab
12	Shyam Telelink	Rajasthan (1)	All India except Rajasthan	Rajasthan

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

Note: 2 M/s Aircel (Dishnet Wireless Ltd) is yet to start its services in HP & Bihar .

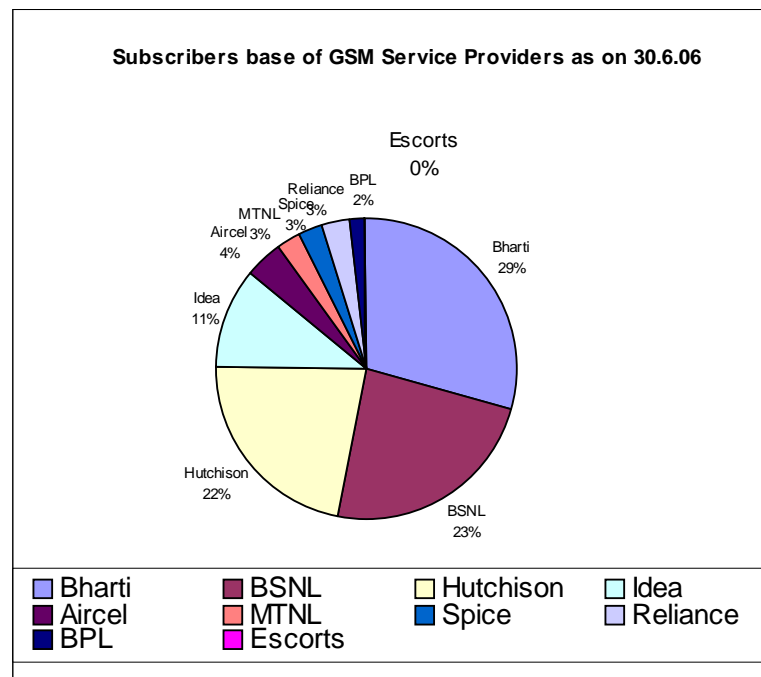
Circle-wise details of Cellular, Fixed & Unified Access Service providers at the end of the quarter are given at Annex 2.1. All the service areas of the country have mobile operators ranging from 4 to 7.

## 2.2 Growth of Subscribers Base: -

### 2.2.1 GSM sector

The GSM subscribers' base has reached 78.49 million in the quarter ending June 2006 as against 69.20 million at the end of the previous quarter. The quarterly growth for this quarter is 13.43%. M/s Bharti with 23.07-million subscriber base remains the largest GSM mobile operator followed by M/s BSNL, M/s Hutch and M/s Idea with subscribers base of 18.30 million, 17.54 million and 8.54 million respectively. The subscriber base of all the GSM operators except M/s BPL in Mumbai has increased.

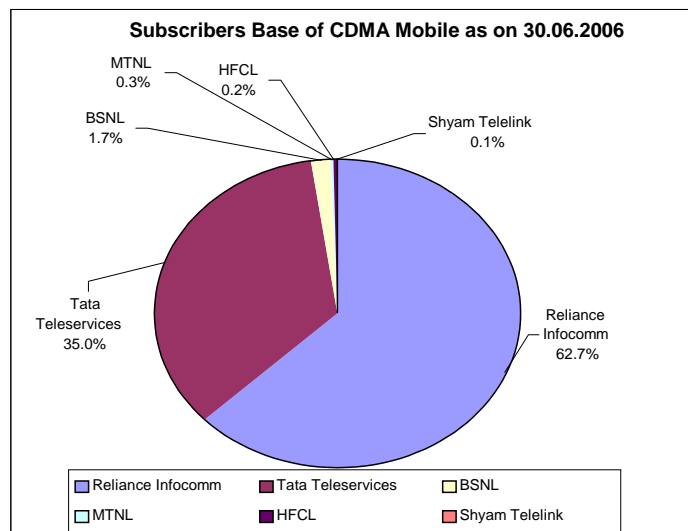
- GSM industry recorded 13.43% growth during the quarter and reached subscriber base of 78.49 million as compared to 69.20 million at the end of previous quarter.
- Private operators have 74% subscribers whereas Public sector Operators (BSNL & MTNL) have 26% subscribers in the GSM segment.
- Gujarat circle has registered the highest number of new subscribers (7.67 lakhs) in this quarter
- M/s BPL in Mumbai is the only GSM operator with negative growth rate (3.01%)



### 2.2.2 CDMA sector

The CDMA Mobile Subscribers Base has reached 26.87 million during the quarter ending June 2006 as against 20.94 million at the end of March 2006. The quarterly growth in this quarter is 28.33% as against 20.01% for the previous quarter. M/s Reliance remains the largest CDMA mobile operator followed by M/s Tata Teleservices and M/s BSNL with subscribers base of 20.21 million, 10.36 million and 2.72 million respectively.

- CDMA Mobile subscriber base recorded a growth of 28.33% during the quarter and reached subscriber base of 26.87 million as compared to 20.94 million at the end of previous quarter.
- M/s Reliance Infocomm continued to have the highest subscriber base with 63% market share followed by M/s TTSL with 35% as market share, while other players in CDMA Technology have the remaining 2% share.
- Delhi circle has registered the highest number of additional subscribers (7.97 lakhs)
- M/s MTNL & BSNL registered a negative subscriber growth in all circles (except WB, HP, NE & J&K).

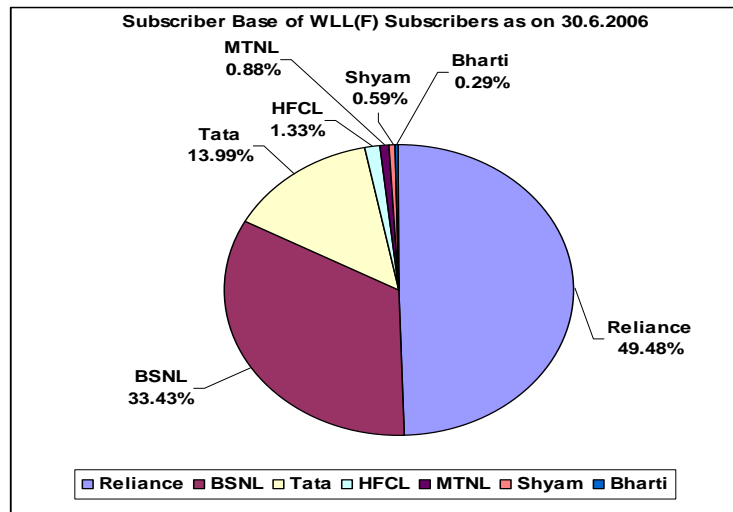


### 2.2.2 WLL (F)

The WLL(F) Subscribers Base has reached 6.78 million during the quarter ending June 2006 as against 8.63 million at the end of March 2006 thus recording the negative quarterly growth of -21.41% as against 10.13% for the previous quarter. This is because WLL(F) subscribers of service providers have been counted as Wireless (Mobile) subscribers. M/s Reliance remains the

largest WLL(F) operator followed by M/s BSNL and M/s Tata Teleservices with subscribers base of 3.36 million, 2.27 million and 0.95 million respectively.

- The WLL (F) subscribers have been considered as wireless (Mobile) subscribers in this quarterly report.
- M/s Reliance continued to be the biggest player with 50% market share followed by M/s Tata (33%) and M/s BSNL (14%). Other players in CDMA Technology have the remaining 3% market.
- UP-E circle has registered the highest number of new subscribers (0.25 lakhs)



### 2.2.3 Subscribers Base

The Wireless (GSM,CDMA,WLL(F) and WLL(M)) Industry has touched 112 million subscribers mark (GSM- 78.49 million , CDMA- 26.87 million and WLL(F)- 6.79 million) in the quarter ending 30<sup>th</sup> June 2006.

### 2.2.4 Addition in Subscribers Base

The subscriber's base stood at 112.15 million at the end of QE June 2006 as against 90.14 million (GSM+CDMA) for the QE March 2006. Around 22 million subscribers were added in this quarter.

### 2.2.5 Company wise Market Share:

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

<b>Sl. No.</b>	<b>Operator (with number of circle)</b>	<b>Subscribers Base</b>	<b>Market Share</b>
1	Bharti (23)	23.09 million	20.59%
2	Reliance (23)	22.52 million	20.08%
3	BSNL (21)	21.02 million	18.74%
4	Hutch (16)	17.54 million	15.64%
5	Tata Tel. Services Ltd.(TTSL)	10.36 million	9.24%

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 service as on June 2006 among Metros, Circles A to C is given in Table 2.3.

## **PART B : ARPU and MoU**

### **2.3 GSM**

#### **2.3.1 ARPU**

- The all India blended ARPU per month has declined by about 3.9% from Rs. 366 in the quarter ending Mar-06 to Rs. 352 in the quarter ending Jun-06.
- ARPU for postpaid service has grown by 2.4% from Rs. 628 in Mar-06 to Rs. 643 in Jun-06, whereas, prepaid ARPU declined by 3.9% from Rs.298 to Rs.286 during the same period.

#### **ARPU (Rs. per month during the quarter)**

<b>Circle</b>	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended ARPU</b>
Circle A	660	275	343
Circle B	511	286	319
Circle C	580	328	374
<b>Metro</b>	758	287	406
<b>All India</b>	<b>643</b>	<b>286</b>	<b>352</b>
<b>All private SPs</b>	686	273	345
<b>BSNL/MTNL</b>	544	324	370



### 2.3.2 Revenue Per Minute (RPM)

Revenue realization per minute for total usage [Incoming + Outgoing MOU] is given in Annex. 2.4

- The all India blended RPM for the quarter declined by 8.4%, from Rs. 0.93 in Mar-06 to Rs. 0.85 in June-06.

### 2.3.3 Usage Pattern

- MOU per subscriber increased by 4.87% from 395 minutes/month in quarter ending Mar-06 to 414 minutes/month in quarter ending Jun-06. Outgoing MOUs increased by 9.7% from 163 to 179 and incoming MOUs also increased marginally by 1.49% from 232 to 235.
- In Postpaid, total MOUs increased by 17.20% from 710 in Mar-06 to 832 in Jun-06. Corresponding increase in prepaid has been 2.34%, from 312 to 320.
- The higher growth rate of outgoing MOUs has resulted in a better incoming-outgoing minutes ratio of 57:43 as against 59:41 in the previous quarter. For postpaid, ratio of incoming-outgoing minutes is 53:47 and for prepaid segment, it is 59:41.

## 2.4 CDMA

### 2.4.1 ARPU

- All India ARPU for the quarter ending June 2006 is Rs. 228.
- The lowest blended ARPU per month is in Circle B (Rs. 200) while the highest blended ARPU is in Metro (Rs. 271).
- Monthly ARPU in postpaid segment is Rs.534 and for prepaid segment it is Rs.183.
- There is a huge difference between postpaid and prepaid ARPU. Postpaid ARPU has been 2.9 times that of prepaid ARPU. The gap is lowest in Circle C (2.27) times and highest in Metro (3.23) times.

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

<b>Circle</b>	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended ARPU</b>
Circle A	493	177	220
Circle B	451	173	200
Circle C	495	218	232
Metro	630	195	271
<b>All India</b>	<b>534</b>	<b>183</b>	<b>228</b>

### **2.4.2 Revenue Per Minute (RPM)**

The all India blended RPM for the quarter is Rs. 0.52. For postpaid alone, RPM is Rs. 0.65 as against Rs. 0.47 for prepaid service.

### **2.4.3 Usage Pattern**

- Average MOU per subscriber per month for the quarter is 443 minutes/month.
- On an average a CDMA subscriber makes 190 minutes of outgoing calls, sends 27 SMS and receives incoming calls for 253 minutes in a month. The highest outgoing MOU is recorded for Circle C at 243 per subscriber per month and the lowest outgoing MOU is seen with Metro at 179 per subscriber per month.
- The ratio of incoming – outgoing traffic is 57:43 in the quarter ending June 2006.
- Circle A at 437 minutes per month has recorded Lowest per subscriber usage for both outgoing and incoming calls.
- Metro at 179 minutes per month has recorded the Lowest per subscriber usage for Outgoing calls followed by Circle A at 184 per month.
- Circle B at 241 minutes per month has recorded the Lowest per subscriber usage for Incoming calls followed by Circle A at 253 per month.
- The highest number of SMS per subscriber is recorded in Metro (29 per subscriber per month), and lowest in Circle C (14 per subscriber per month).

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## Chapter Three

### PERFORMANCE OF INTERNET SERVICES

Internet Subscribers growth continues.

#### 3.1 Service Providers & Subscribers Base: -

153 Internet Service Providers were operational for the quarter ending June 2006. 7.71 million internet subscribers were reported in June 2006 end, indicates a growth of 11.10% in quarter ending June 2006.

Bharat Sanchar Nigam Ltd (BSNL) has retained its top position and reported a subscriber base of 33.20 Lakhs internet subscribers against 29.29 Lakhs internet subscribers during the last quarter. Mahanagar Telephone Nigam Limited (MTNL) has retained second position with a subscriber's base of 14.84 Lakhs internet subscribers against 9.84 Lakhs internet subscribers during the last quarter. M/s Sify Limited is at third position with subscriber base of 9.12 lakhs internet subscribers against 8.99 Lakhs internet subscribers during last quarter. M/s Videsh Sanchar Nigam Limited is on the fourth position with a subscriber base of 4.71 lakhs internet subscribers as against 5.56 lakhs internet subscribers. M/s Bharti Televentures reported a subscriber base of 4.42 Lakhs internet subscribers and is at fifth place during the quarter ending 31st March 2006 (Ref. Table 3.1).

#### 3.2 Internet Telephony: -

DOT has given permission to 121 ISPs to offer Internet Telephony services as on June 2006, and as per the report submitted to TRAI, 32 ISPs are offering Internet Telephony services, the list of which is enclosed at Annex 3.2. Total minutes of the use for Internet Telephony during the quarter were 78.38 million.

#### 3.3 Market Share: -

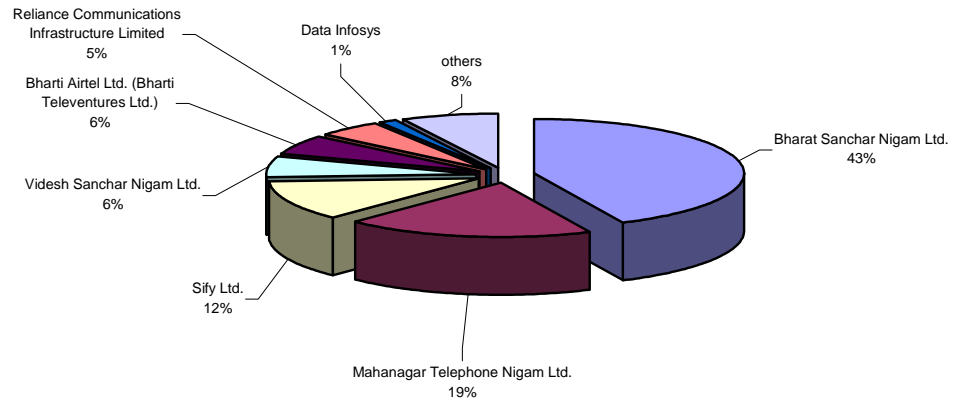
The growth trend indicates a considerable growth in market share of PSU owned ISPs. During the quarter PSU owned ISPs have captured 62.33% market share.

The market share of top 5 ISPs is as under:

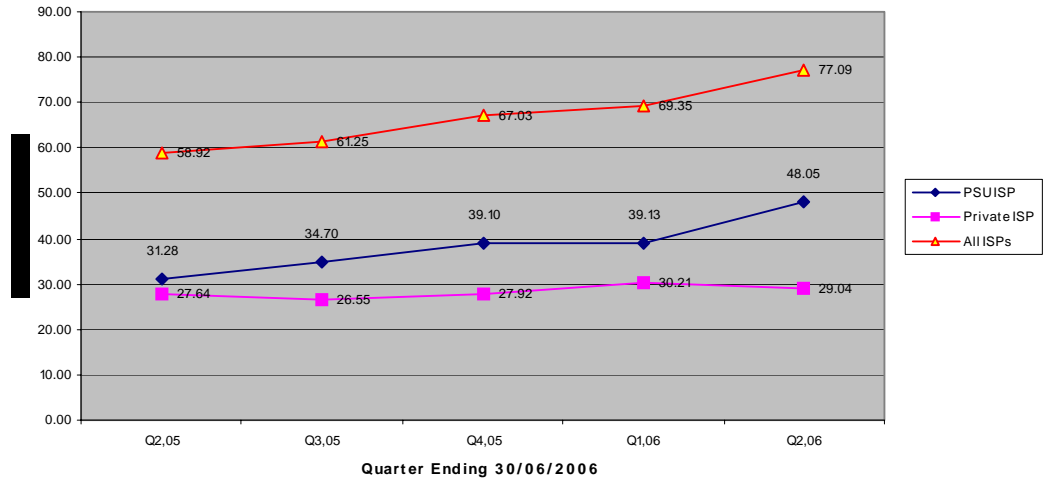
ISP	Share in %
Bharat Sanchar Nigam Ltd.	43.07
Mahanagar Telephone Nigam Ltd.	19.26
Sify Ltd.	11.83
Videsh Sanchar Nigam Ltd.	6.12
Bharti Televentures Ltd.(Bharti Infotel)	5.73

Among PSU owned ISPs; M/s BSNL has shown steady increase in the subscriber base and holding 43.7% of total subscriber base. MTNL is at second position and having a market share of 19.26%.

**Chart 1- Subscriber Base as on 30/06/06**



**Chart 4 - Growth Trends**



### 3.4 Leased Lines Connectivity: -

The numbers of Leased Line Internet connections remained at 16,195 during the quarter ending June 2006.

### **3.5 Broadband Connectivity (>=256 Kbps): -**

The number of Broadband subscribers (with a download speed of 256 Kbps or more) was 15.57 Lakhs out of which 12.95 Lakhs are DSL based subscribers. The growth during the quarter was 15 % over previous quarter.

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

As reported by 30 ISPs the average minutes of use per subscriber/month was approximately 190 minutes/month as compared to 175 minutes/month at the end of previous quarter.

### **3.7 Average Revenue Per User (ARPU) for ISPs: -**

The average revenue per user (ARPU) per month for dialup Internet usage was of the order of Rs 210/- which is same as that of previous quarter.

### **3.8 International connectivity: -**

The bandwidth owned by various IGSP for their ISP operations and Internet Leased lines is reported to be 14 GB for downlinking and 13 GB for uplinking.

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## Chapter Four

### PERFORMANCE OF VALUE ADDED SERVICES

#### 4.1 Public Mobile Radio Trunked Service (PMRTS): -

All the Service Providers of Public Mobile Radio Trunked Services have submitted their reports in this quarter.

##### 4.1.1 Performance during the Quarter Ending 30<sup>th</sup> June 2006:

- The subscriber base of PMRTS decreased from 29950 in March, 2006 to 29430 in June, 2006 registering a negative growth rate of 1.74%.
- Delhi, Mumbai, Bangalore and Chennai together account for 69.98% of market share of the total subscribers. Delhi leads the tally with the market share of 9135 subscribers followed by Bangalore, Mumbai and Chennai with the market share of 5219, 3382 and 2858 subscribers respectively.
- Procall Limited leads the tally of subscribers with a subscriber base of 8396 followed by Arvind Mills and QuickCalls India Pvt. Ltd. with a subscriber base of 7982 and 4287 respectively. Out of the 12 PMRTS operators only 3 have registered a positive growth rate namely M/s Aryadoot Transport Pvt. Ltd., M/s Jet-Aiu Skyline Transport Pvt. Ltd., and The Arvind Mills Ltd. M/s Aryadoot Transport Pvt. Ltd. has registered the highest growth rate of 3.54% 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 30<sup>th</sup> June 2006:

- In the present quarter, there was an addition of 2665 new subscribers. The total number of subscribers increased from 50074 in March, 2006 to 52739 in June, 2006, registering a growth of 5.32% as against the growth rate of 7.51% in the previous quarter. HCL Comnet remained the market leader with 17776 VSAT subscribers followed by Hughes Escorts Communications Ltd. with 17115, Bharti Tele-Ventures with 7508 and Bharti Broadband (earlier Comsat Max) with 4781 VSAT subscribers respectively.
- M/s Tata services added the maximum number of new connections 1446 with a percentage growth rate of 9.23.
- Essel Shyam and ITI have both reported a negative growth of 2.98% and 4.35% respectively.

The number of subscribers of each service providers along with the Market Share in terms of Percentage of Subscribers as on 30<sup>th</sup> June 2006 is given in Table 4.2.

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## Chapter Five

### QUALITY OF SERVICE (QOS) PERFORMANCE

#### 5.1 Quality of Service performance of Basic Service Operators : -

Based on Quality of Service Parameters reported by all the Basic Service Operators for the quarter ending June 2006, the information on QoS performance is attached to this report as Annex 5.1. The parameters Rent Rebate and Time taken for refund of deposits after closures are included in the PMR in this quarter first time.

The analysis of data indicates following trends : -

Sr. No.	Parameters	Benchmark	No. of operators not meeting the benchmarks			
			March, 2006		June, 2006	
			Out of 73 In Nos.	Out of 73 In Nos.	Out of 73 In Nos.	Out of 73 In Nos.
1	<b>New connections after registration of demand</b>	100% within 7 Days	66	90.41%	70	95.89%
<p><b>Key Findings</b> - Only three Licensees namely BSNL-TN &amp; Orissa and Tata – TN have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 3.32% to 99.47%. The performance of the licensees namely BSNL – (Bihar, Assam, J&amp;K, Uttranchal, West Bengal), MTNL – (Mumbai), Reliance (UP-W, WB), Tata (Maharashtra) and Bharti Airtel (Kolkata) is poor and below 60.00% against the benchmark of 100%.</p>						
2	<b>Fault incidences per 100 subs/month</b>	<5	13	17.81%	32	43.84%
<p><b>Key Findings</b> - 41 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 5.04 to 15.37. The performance of the licensees namely BSNL (Chhattisgarh, A&amp;N, J&amp;K), MTNL (Delhi) and Bharti Airtel (UP-W) is poor and above 10.00 against the benchmark of &lt;5.00 faults incidences per 100 subscr/per month</p>						
3	<b>Fault repaired by next working day</b>	>90%	07	9.59%	18	24.66%

	<p><b>Key Findings</b> - 55 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 0.95% to 89.00%. The performance of the licensees namely MTNL (Delhi &amp; Mumbai) and Bharti Airtel (Delhi, Punjab, Haryana) is poor and below 60.00% against the benchmark of &gt;90.00%.</p>					
<b>4</b>	<b>MTTR</b>	<8Hrs	28	38.36%	23	31.51%
	<p><b>Key Findings</b> - 50 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 8.302 hrs to 39.00 hrs. The performance of the licensees namely BSNL (AP, Punjab, A&amp;N, Chennai, Jharkhand, Kerala, NE-I, WB), MTNL (Mumbai) and Bharti Airtel (Punjab, UP-E) is poor and above 12 hrs against the benchmark of &lt;8.00 hrs.</p>					
<b>5</b>	<b>Grade of Service (Junction between local exchange)</b>	2/1000	19	26.03%	19	26.03%
	<p><b>Key Findings</b> - The Grade of Service is not being reported by BSNL stating that they have about 40,000 switches and measurement of GOS for each junction between exchanges would result in very huge data to be compiled. Some of the operators namely Tata - (AP, Chennai TN, Karnataka), Bharti - (Mumbai, UP-E, Gujarat, MP, MH, Punjab, Karnataka) and Reliance - (Mumbai, Delhi) have reported GOS as 0.00% which indicates that there is no congestion in their networks. Reliance has reported GOS ranging from 0.00 to 12.30. Further it is noted that where Reliance has reported 12.30 as GOS against the benchmark of 0.002, the Call completion rate in local network is much above the benchmark. In view of the veracity of the data, there is no concrete key finding.</p>					
<b>6</b>	<b>Call Completion Rate (in local network)</b>	>55%	20	27.40%	27	36.99%
	<p><b>Key Findings</b> - 46 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 30.42% to 54.99%. The performance of the licensees namely Reliance (MP &amp; Chhattisgarh, Rajasthan, Tamilnadu, Kolkata, UP-E, UP-W, WB) is poor and below 40.00% against the benchmark of &gt;55.00%.</p>					
<b>7</b>	<b>Metering &amp; billing credibility - % of bills</b>	<0.1%	20	27.40%	11	15.07%



	<b>Key Findings</b> - 62 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 0.142% to 5.09%. The performance of the licensees namely BSNL – (AP), Tata (Delhi, Maharashtra, Mumbai) and Bharti Airtel (AP, Punjab, Kerala, UP-E, UP-W) is poor and above 0.20% against the benchmark of <0.1.%.					
<b>8</b>	<b>Customer Care Service (95% of requests)</b>					
(i)	Shifts	<3 Days	41	56.16%	38	52.05%
	<b>Key Findings</b> - 35 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 0.00% to 94.15%. The performance of the licensees namely BSNL – (WB), MTNL (Mumbai), Tata (Mumbai), Reliance (MP, Raj, TN, Karnataka, Chennai, Mumbai and Bharti Airtel (Delhi, GJ, MP, MH, KR, Kolkata, UP-E) is poor and below 60.00% against the benchmark of 95% of the requests within 3 days.					
(ii)	Closures	<24 hrs.	43	58.90%	25	34.25%
	<b>Key Findings</b> - 48 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 35.75% to 94.44%. The performance of the licensees namely BSNL – (Punjab), MTNL (Mumbai), Reliance (Mumbai) and Bharti Airtel (UP-E) is poor and below 60.00% against the benchmark of 95% of the requests within 3 days.					
(iii)	Additional Facilities	<24 hrs.	25	34.25%	26	35.62%
	<b>Key Findings</b> - 47 Licensees have met the benchmark for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 17.22% to 93.77%. The performance of the licensees namely MTNL (Mumbai) and Bharti Airtel (TN & Chennai) is poor and below 60.00% against the benchmark of 95% of the requests within 3 days.					
<b>9</b>	<b>Response time to the customer for assistance</b>					
(i)	%age of calls answered (electronically)					
	Within 20 sec = 80%	80%	02	2.74%	0	0.00%
	within 40 sec = 95%	95%	01	1.37%	01	1.37%
	M/s BSNL in all circles and Bharti Airtel except AP, MP, TN, Chennai, Kolkata & KTK circles have not reported the data for this parameter.					
(ii)	%age of calls answered by operator (voice to voice)					
	Within 60 sec = 80%	80%	05	6.85%	06	8.22%
	within 90 sec = 95%	95%	07	9.59%	10	13.70%

	BSNL in all circles has not provided the data for this parameter and Bharti (Delhi, Haryana, UP-E) have not provided the data for %age of calls answered by operator within 90 sec.					
10.	<b>Time taken for refund of deposits after closures</b>	100% within 60 days	-	-	08	10.96%
<b>Key Findings</b> – BSNL has not reported the data for this parameter. The achievement level for the Licensees who have not met the benchmark for this parameter ranges from 5.00% to 99.70%. The performance of the licensees namely Bharti Airtel (MP) and Tata (Maharashtra) is poor and below 60.00% against the benchmark of 100.00% of within 60 days.						

## 5.2 Quality of Service performance of Cellular Mobile Service Providers for quarter ending 30<sup>th</sup> June 2006: -

This report covers performance of 88 GSM Cellular Mobile operators and 41 CDMA service operators vis-à-vis the QoS benchmarks prescribed by TRAI.

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 March, 2006		Quarter Ending June, 2006	
			Out Of 129 (Nos.)	Out Of 129 (%)	Out Of 129 (Nos.)	Out Of 129 (%)
1	Accumulated down time of Community isolation	<24 hrs	<b>125</b>	96.90%	<b>124</b>	96.12%
2	Call Set-Up Success Rate (Within Licensee's Own network)	>95%	<b>127</b>	98.45%	<b>129</b>	100.00%
3	Service access delay	Between 9 To 20 Sec	<b>125</b>	96.90%	<b>120</b>	93.02%
4	Blocked call rate (i) <b>SDCCH/paging channel congestion</b>	<1%	<b>119</b>	92.25%	<b>119</b>	92.25%
	(ii) <b>TCH Congestion</b>	<2%	<b>116</b>	89.92%	<b>114</b>	88.37%
5	Call drop rate	<3.0%	<b>129</b>	100.00%	<b>129</b>	100.00%
6	% of Connections with good voice quality	>95%	<b>129</b>	100.00%	<b>129</b>	100.00%
7	Response time to the customer for assistance (i) <b>%age of calls answered (electronically) within 20 seconds = 80%</b>	80%	<b>105</b>	81.40%	<b>126</b>	97.67%
	<b>%Age of calls answered (electronically) within 40 seconds = 95%</b>	95%	<b>102</b>	79.07%	<b>125</b>	96.90%
	<b>%Age of calls answered by operator (voice to voice); within 60 seconds = 80%</b>	80%	<b>97</b>	75.19%	<b>95</b>	73.64%
	<b>%Age of calls answered by operator (voice to voice); within 90 seconds = 95%</b>	95%	<b>79</b>	61.24%	<b>80</b>	62.02%
8	Complaints per 100 bills issued	<0.1%	<b>113</b>	87.60%	<b>112</b>	86.82%
9	% Of complaints resolved with 4 weeks	100%	<b>129</b>	100.00%	<b>124</b>	96.12%
10	Period of all Refunds/Payment due to Customers from the date of resolution of complaints As In (9) above	<4 Weeks	<b>128</b>	99.22%	<b>127</b>	98.45%

## 5.2.2 Details of Quality of service:

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

### Comparative POI Congestion level of Cellular Service Providers

Operators	March, 2006				May, 2006			
	>0.50%	>5.00%	>10.00%	>40.00%	>0.50%	>5.00%	>10.00%	>40.00%
Bharti Tele-ventures	194	146	118	51	185	124	88	40
Tata Teleservices	93	64	53	22	116	69	58	12
RIL	49	25	18	2	197	81	58	25
RTL	32	19	16	6	28	17	15	5
Idea	22	14	14	4	34	20	14	5
Hutch/BPL	39	25	20	11	28	18	18	6
Aircel Cellular	5	3	1	0	2	1	0	0
Spice Communication	2	1	1	0	0	0	0	0
Dishnet Wireless	19	12	5	0	25	20	20	3
MTNL	1	0	0	0	1	0	0	0
<b>Total</b>	<b>456</b>	<b>309</b>	<b>246</b>	<b>96</b>	<b>616</b>	<b>350</b>	<b>271</b>	<b>96</b>

## 5.3 Quality of Service Performance of Internet Service Providers for quarter ending 30<sup>th</sup> June 2006: -

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

### 5.3.2 The observations on QOS Benchmarks are as follows:

#### 5.3.2.1 Service Activation Time:

ISPs Hathway Cable & Datacom Pvt. Ltd., Tata Teleservices Maharashtra Ltd., HFCL Infotel Ltd., Fascal, Hughes, Broadband Pacenet (I) Pvt. Ltd. and Spectra Net Ltd. have not provided the data. Rest of the ISPs have met the benchmark of 6 hrs.

#### 5.3.2.2 Time to Access :

ISPs are required to achieve the benchmark 30 sec. The ISPs Hathway Cable & Datacom Pvt. Ltd., Fascal, Hughes, Broadband Pacenet (I) Pvt.

Ltd. and Spectra Net Ltd. have not provided the data, rest others have met this benchmarks.

#### **5.3.2.3 Protability 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.

Hathway Cable & Datacom Pvt. Ltd., Fascel Ltd., Hughes, Broadband Pacenet (I) Pvt. Ltd. and Spectra Net Ltd. have not provided the data.

#### **5.3.2.4 ISP Node Unavailability :**

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

MTNL, Hathway Cable & Datacom Pvt. Ltd., Tata Teleservices (Maharashtra) Ltd., Fascel Ltd., Hughes, Broadband Pacenet (I) Pvt. Ltd. and Spectra Net Ltd. 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.

Reliance Communications Infrastructure, Hathway Cable & Datacom Pvt. Ltd., Fascel, WWW Communications, Hughes, Broadband Pacenet (I) Pvt. Ltd. and Spectra Net Ltd. have not provided us 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. Hathway Cable & Datacom Pvt. Ltd., Fascel have not provided us the data

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## Chapter Six

### PERFORMANCE OF CABLE TV, DTH AND RADIO BROADCASTING SERVICES

6.1 This chapter contains:

- a) Range of number of channels carried regularly across cable Network(s) and cities where digital services are offered. The data is in respect to the quarter ending March 2006 and June 2006. **[6.1 (a) & 6.1(b)]**
- b) Details of new pay channels / FTA Channels converted to Pay after 26.12.2003 on the basis of reports received from broadcasters / distributors of TV Channels under clause 4 of the Tariff Order of 1.10.2004. **(Table 6.2)**
- d) Information on total Advertisement Revenue of FM Radio Stations who have given their reports. **(Table 6.3)**
- e) Details of no of applications, received, no of Licenses issues for DTH services. **(Table 6.4)**

#### 6.2 Highlights

##### A. Cable Television

a) Table 6.1 (a) & (b) gives an indication of maximum and minimum number of FTA, pay and Local channels, in Analogue and/or Digital mode, regularly carried during the quarter ending June' 2006 on cable TV networks which have been reported. Figures for the previous quarter as available (without any break up of analogue/digital). The gap between the ranges of maximum and minimum in a particular quarter may be due to different sizes of reporting network operating in different areas and in different economic clusters and variation between the quarter may be partly due to different networks reporting and the number of agencies reporting for the quarter. The maximum and minimum figures may not be of the same network or area reporting as the range indicated in bases on overall figures reported across different networks operating in different area of different service providers.

b) Table 6.2 gives information on New Pay Channels and Free to Air (FTA) channels converted into Pay Channels after 26.12.2003 indicates that there have been 36 new pay channels/ converted FTA Channels to pay that have been launched since 26.12.2003. This is based on information reported by broadcasters in terms of clause of 4 of the TRAI's Tariff Order of 1.10.2004 on broadcasting and cable services.

**B     Radio**

The total Advertisement Revenue up to the quarter March' 2006 and June 2006 of 6 FM Radio Service Providers who have given their reports are given in Table 6.3.

**C.    DTH Services**

It can be seen from Table 6.4 that besides the existing DTH player there could be four more players who may come into the market in the future. The entry of more number of DTH operators may signify effective competition to cable TV platform.

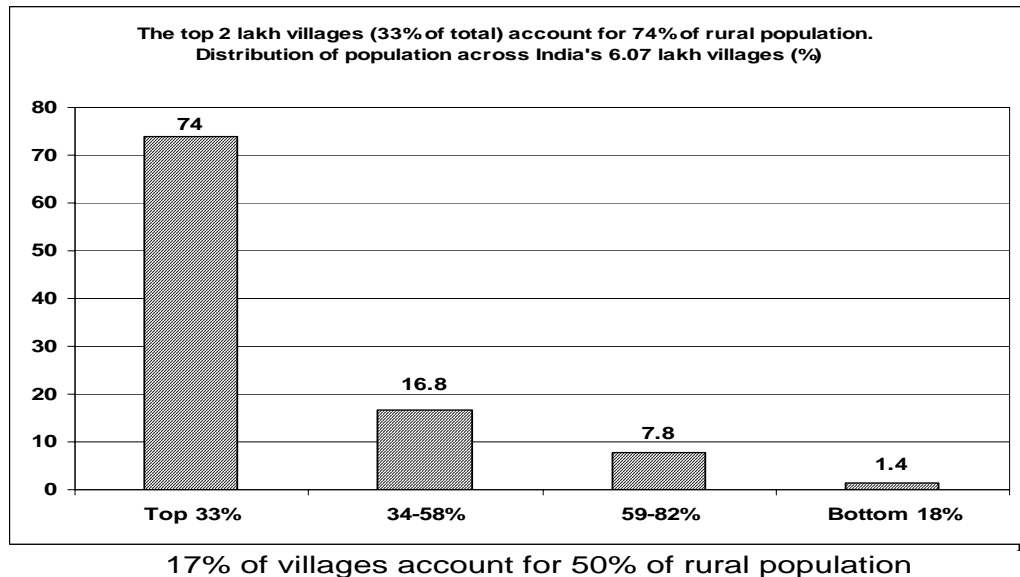
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## Chapter Seven

### STATUS OF TELECOM SERVICE IN RURAL AREAS

- 7.1 The growth of telecom services in rural areas has been attracting the attention of the Authority for the last 3-4 years. 71% of the total population lives in rural areas and just 29% in urban area. The economic and social health of rural India has a significant bearing on its economic growth and development. India has made significant progress in increasing its telecommunication access with national tele-density of around 14 at end of June 2006. However the gap between rural and urban tele-density is increasing. With the urban markets growing very fast, the operators have started realizing that time is ripe to tap other market segments i.e. rural and remotely located area. Government is giving significant weightage for expanding and sharing of infrastructures to provide affordable and quality telecom services in rural areas.
- 7.2 The demographic spread across the country is highly distributed.

### Distribution of population



### 7.3 Rural Fixed Line Subscribers:

The growth in fixed line subscribers in rural area is slow but steady. Detail of rural fixed line subscribers for the previous four years is given in the following table. The state-wise rural subscribers of each service provider are given at Table 7.1.



<b>Sr. No.</b>	<b>Year</b>	<b>Subscribers</b>
1	2003-04	12313643
2	2004-05	13455676
3	2005-06	14682181
4	2006-07 (June-2006)	14878808

### 7.3 Village Public Telephones:

The statement indicating the break-up of uncovered villages, number of VPTs to be provided on satellite and other technologies when Bharat Nirman Program was conceived is given below:-

<b>S.No.</b>	<b>Name of the Service Areas</b>	<b>Total No. of Uncovered Villages</b>	<b>VPTs to be Provided on Satellite Technology</b>	<b>VPTs to be provided on other Technology</b>
1.	Andhra Pradesh	1074	115	959
2.	Assam	8931	279	8652
3.	Jharkhand	1694	1694	0
4.	Gujarat	4144	0	4144
5.	H.P.	1002	275	727
6.	J&K	1755	465	1290
7.	M.P.	11894	443	11451
8.	Chattisgarh	5043	88	4955
9.	Maharashtra	6441	496	5945
10.	North East-I	2128	578	1550
11.	North East-II	1550	1289	261
12.	Orissa	4899	4899	0
13.	Rajasthan	12386	18	12368
14.	Uttaranchal	3881	3544	337
	<b>Total</b>	<b>66822</b>	<b>14183</b>	<b>52639</b>

Accordingly to recent data released by DOT, against the target of providing VPTs in 66,822 uncovered villages under the programme, 30251 villages have already been provided with VPTs as on August 31, 2006.” In the states like Madhya Pradesh, Gujarat, Assam, Rajasthan, Maharashtra and Himachal Pradesh, more than 50 percent of the targeted villages have been provided with VPTs.

Some villages are so remotely situated that provision of telephone services using conventional methods is almost impossible. Such identified villages are app.14183. It has been decided under Bharat Nirman Programme to connect these remotely located villages through

Digital Satellite Phone Terminals (DSPTs). In the states like Orissa and Jharkhand, 100 percent uncovered villages are envisaged to be provided with DSPTs. For expeditious rollout in some of these villages, existing wireless technology WLL (Wireless in Local Loop) is also being deployed.

#### 7.5 **USO Fund and its Implementation:**

The Universal Service Support Policy came into effect from 1.4.2002. The Indian Telegraph (Amendment) Act 2003 giving statutory status to the Universal Service Obligation Fund (USOF) was passed by both Houses of Parliament in December 2003. Deemed to have come into effect from 1st April 2002, the Fund is to be utilized exclusively for meeting the Universal Service Obligation. The Universal Service Levy is presently 5% of the Adjusted Gross Revenue (AGR) of all telecom service providers except the pure value added service providers like Internet, Voice Mail, E-Mail service providers etc. Credits to the Fund are through Parliamentary approvals. The balance to the credit of the Fund is not to lapse at the end of the financial year.

The Rules for administration of the Fund have also been notified on 26.3.2004. The Universal Service Obligation Fund is headed by the Administrator, USF. The Administrator is empowered to formulate procedures for implementation of the USO and disbursement of funds from the USOF. His office functions as an Attached office of the Department of Telecom, Ministry of Communications & IT.

As per the Rules, the following services shall be supported by the Fund, namely:-

##### (I) **Stream-I: Provision of Public Telecom and Information Services -**

(a) **Operation and Maintenance of Village Public Telephone in the revenue villages identified as per Census 1991 and Installation of Village Public Telephone in the additional revenue villages as per Census 2001.**- For installation of Village Public Telephone in the revenue villages, identified as per 1991 Census, only the Operating Expenses and Revenue shall be taken into account for determining the Net Cost. For the additional revenue villages identified as per 2001 Census, Capital Recovery in addition shall also be taken into account for determining the Net Cost: Provided that in the case of the Village Public Telephone which are still to be installed in the villages identified as per Census 1991, Capital Recovery shall also be taken into account while determining the Net Cost;

(b) **Provision of additional rural community phones in areas after achieving the target of one Village Public Telephone in every revenue village.**- Where in a village the population is more than 2000 and no public call office is existing, a second public phone shall be installed and

for the purposes of determining the Net Cost, Capital Recovery, Operating Expenses and Revenue shall be taken into account;

(c) **Replacement of Multi Access Radio Relay Technology Village Public Telephone installed before 1<sup>st</sup> day of April 2002.**- Capital Recovery, Operating Expenses and Revenue shall be taken into account for determining the Net Cost.

(d) **Up-gradation of a Public Telephone to Public Tele Information Centres.**- The data transmission facilities shall be provided within 5 Kms. of a village with a population exceeding 2000, preferably in those villages where post offices are located. The Capital Recovery only towards provision of customer premises equipment; namely, Computer, Uninterrupted Power Supply and Modem shall be taken into account. Operating Expenses and Revenue shall be taken into account to determine the Net Cost.

(e) **Installation of High Speed Public Telecom Information Centres** in a public place at Block Headquarters and in villages with a population exceeding 2000 shall be made in a phased manner. Capital Recovery towards customer premises equipment as in the case of Public Telecom Information Centres, and required access as well as Operating Expenses and Revenue shall be taken into account to determine the Net Cost. Unless otherwise specified by the Central Government, the Secondary Switching Area (SSA) shall be taken as a unit for the purpose of arriving at the Net Cost for activities specified in items (a) to (e) of stream I.

**(II) Stream-II – Provision of household telephones in rural and remote areas as may be determined by the Central Government from time to time:**

(a) For household Direct Exchange Lines installed prior to 1<sup>st</sup> day of April, 2002, the difference in rental actually charged from rural subscribers and rent prescribed by Telecom Regulatory Authority of India for such subscribers shall be reimbursed until such time the Access Deficit Charges prescribed by Telecom Regulatory Authority of India from time to time take into account such difference.

(b) For household Direct Exchange Lines installed after 1<sup>st</sup> day of April, 2002, Capital Recovery, Operational Expenses and Revenue shall be taken into account to determine the Net Cost.

For the remaining uncovered eligible 66,822 villages, agreements have been signed with M/s BSNL in November 2004 to provide VPTs in such villages by November 2007. The rollout plan for these VPTs is 20%, 40% and 40% respectively over a period of three years. 46,253 villages with population exceeding 2,000 and without a PCO facility are being provided with a Rural Community Phone (RCP). Agreements were signed with M/s BSNL and M/s Reliance Infocom Limited (RIL) in September 2004 to provide 24,794 and 21,459 RCPs respectively in these villages over a

period of three years i.e. by September 2007. The installations are eligible for both Capital and Operational expenses.

## 7.6 **INFRASTRUCTURE SUPPORT FOR CELLULAR MOBILE SERVICES :**

With the aim to provide rapid connectivity to all rural areas, inclusion of Cellular Mobile Services in the roll-out of rural household lines is being considered. The Cellular Mobile Services have an edge over the wire line or fixed wireless terminals because of faster roll-out and lower per line cost. A proposal is under active consideration of the Government to provide support for shareable infrastructure to the eligible access service providers and infrastructure service providers for providing cellular mobile services in rural and remote areas of the country. Consultations have been held with the Access Service Providers, Infrastructure Providers, Association of Telecom Service Providers and Manufacturers in this regard.

## 7.7 **Tariffs for Telecom Services in Rural Area**

TRAI acknowledged the requirement of addressing the special needs of rural customers by offering concessional tariffs by taking into account the affordability objectives of NTP 1999. TRAI fixed tariffs for Fixed Line subscribers in rural areas vide its TTO in 1999, in the form of a Standard Tariff Package

The Alternative Tariff Packages offered by Fixed Line Service providers in rural areas are compared with respect to the Standard Tariff Package mandated by TRAI in 1999 and further amended vide 28<sup>th</sup> Amendment to TTO, dated 5.11.2003. TRAI mandated Standard Tariff Package (STP), consists of monthly rental, number of free calls and call charges. STP has to be necessarily offered in respect of Fixed Line Service in rural areas by operators who offer Fixed Line Service in those areas. However, they are free to offer Alternative Tariff Package to suit the consumer's profile. The STP mandated by TRAI and the ATPs offered by BSNL, Reliance Infocomm Ltd., TATA Teleservices Ltd., Bharti Airtel Ltd., Shyam Tele Link Ltd. and HFCL who offer Fixed Line Services in rural areas are discussed in the following paragraphs.

## 7.8 **Standard Tariff Packages (STP)**

The features of standard tariff package mandated by the Authority which includes the monthly rental, tariff per metered call and free call specified in Standard Plan for rural areas is given below:-

Item	Tariff		
	Exchange capacity (No of lines)	For senior citizen Rs	Others Rs
	Upto 999	70	70

	1,000 to 29,999	120	120
	30,000 to 99,999	180	200
	1 lakh and above	250	280
Tariff per (Metered call unit)	First 300 mcus except for free calls	Rs 0.80	
	Metered call in excess of 300 metered calls	Rs 1.20	
Free calls		50	

### 7.9 Alternative Tariff Package (ATP)

Service providers are providing alternative tariff plans in addition to the standard tariff plan, mandated by TRAI, as above. Some of the alternative tariff plans are given below.

The highlights of ATP, offered by service providers in respect of Fixed Line Services in rural areas are as under :-

- All the service providers have offered one or more alternative tariff plans in addition to the STP of TRAI.
- It is interesting to note that the ATPs are much more attractive than the STP prescribed by TRAI. BSNL has also offered ATP which is cheaper than the STP prescribed by TRAI.
- The STP prescribed by TRAI has different rental level based on the capacity of the exchange. Some of the ATPs offered by service providers have uniform rental across all capacities.
- The free calls prescribed in the STP are 50 per month, whereas all the ATPs are having free calls more than this. One of the service provider has offered a monthly free call allowance of 150 calls.
- While the STP prescribes tariff at a lower rate of Rs. 0.80 for the first 300 MCUs and Rs. 1.20 beyond 300 MCUs. Some service providers have prescribed uniform rate of Rs. 0.80 per MCUs for all calls in their ATPs.
- TRAI has mandated STP for fixed line service only in rural areas. However, some of the service providers have offered tariff plans in fixed wireless service also (WLL-F).

**7.10 Rural Alternative Tariff Plans (ATPs) offered by various Service Providers for Fixed Line Services**

**A. BSNL**

<b>Item</b>	<b>Tariff</b>	
Monthly rental	Exchange capacity (No of lines)	Rs. Per month
	Upto 999	50
	1,000 to 29,999	110
	30,000 to 99,999	150
	1 lakh and above	150
Tariff per (Metered call unit)	First 300 mcus except for free calls	0.80
	Metered call in excess of 300 metered calls	Rs 1.20
Free calls		75

**B. Reliance**

<b>Item</b>	<b>Tariff</b>	
Monthly rental	Exchange capacity (No of lines)	Rs. Per month
	Upto 999	50
	1,000 to 29,999	110
	30,000 to 99,999	150
	1 lakh and above	150
Tariff per (Metered call unit)	First 300 mcus except for free calls	0.80
	Metered call in excess of 300 metered calls	Rs 1.20
Free calls		75

**C. Reliance**

<b>Item</b>	<b>Tariff</b>	
Monthly rental	Exchange capacity (No of lines)	Rs. Per month
	Upto 999	110
	1,000 to 29,999	110
	30,000 to 99,999	110
	1 lakh and above	110
Tariff per (Metered call unit)	First 300 mcus except for free calls	Rs.0.80
	Metered call in excess of 300 metered calls	Rs 0.80
Free calls		110

#### D. Tata Tele Services

Item	Tariff	
Monthly rental	Exchange capacity (No of lines)	Rs. Per month
	Upto 999	70
	1,000 to 29,999	70
	30,000 to 99,999	70
	1 lakh and above	70
Tariff per (Metered call unit)	First 300 mcus except for free calls	0.80
	Metered call in excess of 300 metered calls	Rs 1.20
Free calls		50

#### E. Bharti Airtel

Item	Tariff	
Monthly rental	Exchange capacity (No of lines)	Rs. Per month
	Upto 999	50
	1,000 to 29,999	110
	30,000 to 99,999	150
	1 lakh and above	210
Tariff per (Metered call unit)	First 300 mcus except for free calls	0.80
	Metered call in excess of 300 metered calls	Rs 1.20
Free calls		75

#### F. Shyam Telecom Limited

Item	Tariff	
Monthly rental	Exchange capacity (No of lines)	Rs. Per month
	Upto 999	110
	1,000 to 29,999	110
	30,000 to 99,999	110
	1 lakh and above	110
Tariff per (Metered call unit)	First 300 mcus except for free calls	Rs.0.80
	Metered call in excess of 300 metered calls	Rs 0.80
Free calls		150

#### G. HFCL

Item	Tariff	
Monthly rental	Exchange capacity (No of lines)	Rs. Per month
	Upto 999	50
	1,000 to 29,999	110
	30,000 to 99,999	150
	1 lakh and above	210
Tariff per (Metered call unit)	First 300 mcus except for free calls	0.80
	Metered call in excess of 300 metered calls	Rs 1.20
Free calls		75

## **7.11 Govt. ICT Initiatives**

### **1. National e-Governance Plan**

#### **A. Mission Mode Projects**

Recently Govt has unveiled the components of National e-Governance Plan (NeGP) covering 26 Mission Mode Projects (MMPs) and 8 support components to be implemented at the Central, State and Local Government Levels. The vision of the NeGP is to “Make all Government services accessible to the common man in his locality”.

The NeGP is estimated to cost over Rs. 23,000 crore in next 5 years. Major Government development programs like NREG scheme will be implemented on an e-governance format. States have the flexibility to add up to 5 state-specific projects. The entire effort involves 500 implementation agencies, 2 lakh sites and an estimated 70,000 man-years of effort.

The Department of Information Technology (DIT) is creating a common platform for the integrated delivery of services. This shared platform includes high speed networks for Data Connectivity, Data Centres, Call Centres, Common Access Points all over the country (including the remotest areas) and laying down standards that enable and ensure integration.

The citizens will have the benefits of Integrated & enhanced access to government services, clearly defined service levels, services at the doorstep with substantial rural outreach, increased efficiency, enhanced transparency, improved reliability, affordable cost, bridging the digital divide, etc. Some Mission Mode Projects (MMPs) such as Land Records, Transport, Registration, MCA-21, Income Tax, Central Excise, and Common Services Centre already have specific time limit for a complete roll out. These are scheduled to be completed in the next 6 – 12 months. Other services would become available progressively as per time schedules indicated or to be indicated by individual departments. All these services would be very relevant for all citizens particularly those living in rural areas.

#### **2. India’s Integrated Citizen Service Centre initiatives**

India has initiated timely action to be in front runners. India is effectively utilizing ICT for the welfare of citizens. The initiatives undertaken by Indian states in this regard are noteworthy. Networks are being developed across the county which shall be operational by 2007 end. The availability of contents and application to rural masses is likely to improve drastically.

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**Table 1.1****Subscriber Base of Fixed Services**

Sr. No.	Service Provider	Area of Operation	30th June 2006		
			Urban	Rural	Total
1	BSNL	All India	22176646	12771680	<b>34948326</b>
2	MTNL	Delhi & Mumbai	3793287	0	<b>3793287</b>
3	Bharti Telenet Ltd	AP,MP, Delhi, Haryana, TN , Chennai, Karnataka, Kerala, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	1483393	0	<b>1483393</b>
4	Tata Teleservices (Maharashtra ) Ltd	Maharashtra (Inc. Mumbai)	41624	0	<b>41624</b>
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	387258	0	<b>387258</b>
6	HFCL Infotel Ltd	Punjab	177053	0	<b>177053</b>
7	Shyam Telelink Ltd	Rajasthan	135328	10232	<b>145560</b>
8	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	296769	0	<b>296769</b>
<b>Grand Total</b>			<b>28491358</b>	<b>12781912</b>	<b>41273270</b>

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

<b>S.No</b>	<b>Service Providers</b>	<b>Area of Operation</b>	<b>PCOs as on 30.6.06</b>	<b>PCOs added during the quarter ending 30.6.06</b>
1	BSNL	All India	2112703	48529
2	MTNL	Delhi & Mumbai	273345	-5696
3	Bharti	AP,MP, Delhi, Haryana, TN , Chennai, Kerala,Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	223855	17934
4	HFCL	Punjab	44158	1285
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	692462	57000
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	1118388	173529
7	STL	Rajasthan	37642	10815
	<b>TOTAL</b>		<b>4502553</b>	<b>303396</b>

\* Source - Operators

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

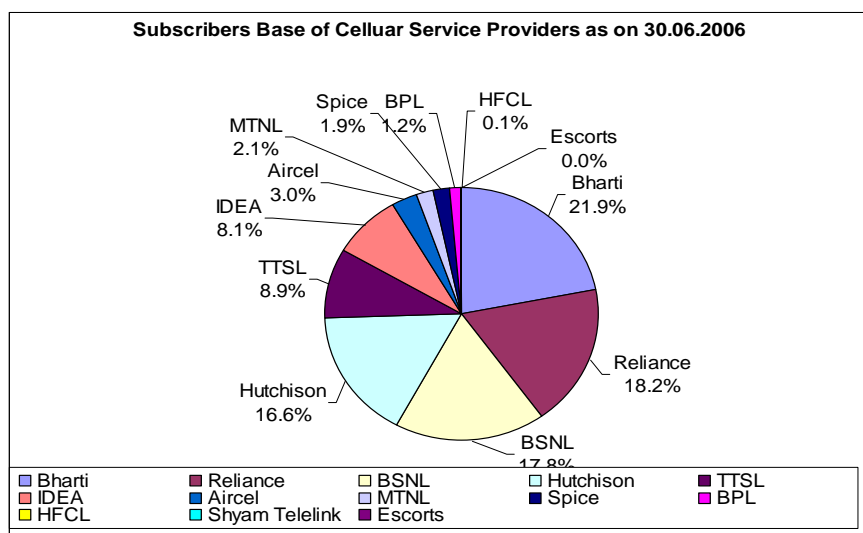
<b>S.No</b>	<b>Service Providers</b>	<b>Area of Operation</b>	<b>VPTs as on 30.6.06</b>	<b>Achievement during the Qtr. ending 30.6.06</b>
1	BSNL	All India	537609	755
2	MTNL	Delhi & Mumbai	0	0
3	Bharti	MP, Delhi, Haryana, TN , Chennai, Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	243	0
4	HFCL	Punjab	599	-16
5	TATA	Maharastra	2542	-106
6	TTL	AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	1358	0
7	Reliance	AP, Bihar, Delhi, Gujarat, Haryana, HP, KN, Kerala, MP, Maharashtra, Mumbai Orissa, Punjab, Rajasthan, TN, Chennai, UP(E),UP(W),WB, Kolkata	4115	0
8	STL	Rajasthan	3010	0
		<b>TOTAL</b>	<b>549476</b>	<b>633</b>

\* Source – Operators

**Table 2.1**

**Subscriber Base of Mobile operators**

Wireless Groups and their market share							
Wireless Group (with no. of circles)	Subscribers as on June-06 (in Millions)			Market Share (in %age)			Technology Used
	Mobile (GSM + CDMA)	WLL(F)	Wireless (Mobile+WLL(F))	Mobile (GSM + CDMA)	WLL(F)	Wireless (Mobile+WLL(F))	
Bharti (23)	23.07	0.02	23.09	21.90	0.29	20.59	GSM & CDMA
Reliance (23)	19.16	3.36	22.52	18.19	49.51	20.08	GSM & CDMA
BSNL (21)	18.75	2.27	21.02	17.80	33.45	18.74	GSM & CDMA
Hutchison (16)	17.54	-	17.54	16.65	0.00	15.64	GSM
TTSL (20)	9.41	0.95	10.36	8.93	14.00	9.24	CDMA
IDEA (8)	8.54	-	8.54	8.11	0.00	7.62	GSM
Aircel (9)	3.2	-	3.20	3.04	0.00	2.85	GSM
MTNL (2)	2.25	0.06	2.31	2.14	0.88	2.06	GSM & CDMA
Spice (2)	2.05	-	2.05	1.95	0.00	1.83	GSM
BPL (1)	1.3	-	1.30	1.23	0.00	1.16	GSM
HFCL (1)	0.06	0.09	0.15	0.06	1.33	0.13	CDMA
Shyam Telelink (1)	0.027	0.037	0.06	0.03	0.55	0.06	CDMA
Escorts (3)	0.002	-	0.00	0.00	0.00	0.00	GSM
<b>Total Subscribers</b>	<b>105.36</b>	<b>6.79</b>	<b>112.14</b>	<b>100.00</b>	<b>1100.00</b>	<b>100.00</b>	



**Table 2.2**

**Market Share of Mobile (GSM + CDMA) Service Providers**

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

<b>Cellular Groups and their market share</b>		
<b>GSM Group</b>	<b>No of Subscribers (in Millions)</b>	<b>Market Share (in %age)</b>
Bharti	23.07	29.39
BSNL	18.3	23.31
Hutchison	17.54	22.35
Idea	8.54	10.88
Aircel	3.2	4.08
MTNL	2.17	2.76
Spice	2.05	2.61
Reliance	2.32	2.96
BPL	1.3	1.66
Escorts	0.002	0.00
<b>Total</b>	<b>78.49</b>	100

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

<b>Company Name (No. of Circles)</b>	<b>No of Subscribers (in Millions)</b>	<b>Market Share (in %age)</b>
Reliance Infocomm(21)	16.84	62.67
Tata Teleservices(20)	9.41	35.02
BSNL(21)	0.45	1.68
MTNL(2)	0.08	0.30
HFCL(1)	0.06	0.22
Shyam Telelink(1)	0.03	0.11
<b>Total</b>	<b>26.87</b>	<b>100</b>

c) Subscriber Base and Market Share of different CDMA

<b>WLL(F) Group (No. of Circles)</b>	<b>No of Subscribers (in Millions)</b>	<b>Market Share (in %age)</b>
Reliance Infocomm (21)	3.36	49.48
BSNL (21)	2.27	33.43
Tata (20)	0.95	13.99
HFCL (1)	0.09	1.33
MTNL (2)	0.06	0.88
Shyam Telelink (1)	0.04	0.59
Bharti (1)	0.02	0.29
<b>Total</b>	<b>6.79</b>	<b>100</b>

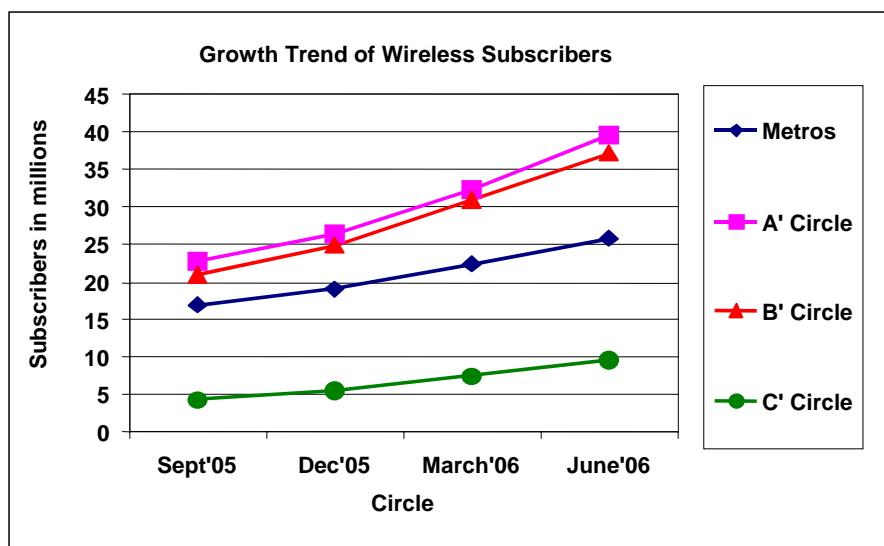
**Table 2.3****Growth Pattern in Mobile Subscriber Base**Mobile Subscriber Base :

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	25.76 million	22.96%
Circles 'A'	39.65 million	35.36%
Circles 'B'	37.20 million	33.19%
Circles 'C'	9.52 million	8.49%

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

<b>Category</b>	<b>No. of Service Areas</b>	<b>Sept'05</b>	<b>Dec'05</b>	<b>March'06</b>	<b>June'06</b>
<b>Figures (in millions)</b>					
Metros	4	16.91	19.04	22.43	25.76
A' Circle	5	22.81	26.46	32.33	39.65
B' Circle	8	21.01	24.88	30.87	37.20
C' Circle	6	4.34	5.56	7.41	9.52



**Table 3.1****Subscribers Base of Internet Services**

Sl. No.	Name of the ISP	Category	Area of Operation	Mar-06	Jun-06	%Growth
1	Bharat Sanchar Nigam Ltd.	A	All India	2929299	3320158	13.34
2	Mahanagar Telephone Nigam Ltd.	B	Delhi & Mumbai	984020	1484701	50.88
3	Sify Ltd.	A	All India	898708	912133	1.49
4	Videsh Sanchar Nigam Ltd.	A	All India	556227	471964	-15.15
5	Bharti Airtel Ltd. (Bharti Airtel Ltd.)	A	All India	392470	442020	12.63
6	Reliance Communications Infrastructure Limited	A	All India	359784	397016	10.35
7	Data Infosys	A	All India	245336	101229	-58.74
8	Iqara Telecoms India Pvt. Ltd.	A	All India	116851	122693	5.00
9	Hathway Cable & Datacom Pvt. Ltd.	A	All India	61986	68800	10.99
10	HCL Inffinet Ltd.	A	All India	42272	41906	-0.87
11	Icenet.net Limited	B	Gujarat	31209	33446	7.17
12	Asianet Satellite Communications Ltd.	B	Kerala	28605	31202	9.08
13	HFCL Infotel Ltd.	B	Punjab Telecom Circle	23589	26537	12.50
14	Shyam Internet Services Ltd	B	Rajasthan	24507	23884	-2.54
15	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	A	All India	24466	23861	-2.47
16	Fascel Ltd.	B	Gujarat	18001	18001	0.00
17	WWW Communications Ltd.	B	Delhi	15515	15623	0.70
18	Hughes Escorts Communications Ltd.	A	All India	13404	14840	10.71
19	Broadband Pacenet (I) Pvt. Ltd.	B	Mumbai	11478	11478	0.00
20	Spectra Net Ltd.	A	All India	9305	9946	6.89
21	Primus Telecommunications India Ltd.	A	All India	10012	9120	-8.91
22	Seven Star Dot Com Pvt. Ltd.	B	Khar(w), Jogeshwari (w)	9013	9013	0.00
23	S.S. Netcom Pvt. Ltd.	B	North East Circle	7833	7935	1.30

24	West Bengal Electronics Industry Development Corp. Ltd.	B	Kolkata	8030	6532	-18.66
25	Tulip IT Service Ltd.	B	Kerala	6000	6000	0.00
26	Ortel Communications Ltd.	C	Cuttack, Bhubaneswar, Rourkela	5461	5461	0.00
27	RPG Infotech Ltd. (Sprint RPG India)	A	All India	5430	5430	0.00
28	In2Cable.Com(India) Ltd	A	All India	5349	5167	-3.40
29	Forum Infotech (P) Ltd.	C	Srinagar SSA	5050	5050	0.00
30	Space Online (P) Ltd.	B	Gujarat	4788	4788	0.00
31	Trikon Electronics Pvt. Ltd.	B	Mumbai	4315	4575	6.03
32	Trak Online Net India Pvt.Ltd	A	All India	5375	4561	-15.14
33	Rolta India Limited	B	Mumbai	4512	3586	-20.52
34	Blazenet Pvt. Ltd.	B	Gujrat	3249	3249	0.00
35	Narmada Cyberzone Pvt. Ltd.	B	Gujrat	3262	3073	-5.79
36	Southern Online Bio Technologies Ltd.	B	Andhra Pradesh	3342	2942	-11.97
37	Sixth Sense Informatics Pvt. Ltd.	B	Mumbai	2600	2600	0.00
38	Siti Cable Network (Zee Interactive Multimedia Ltd.)	A	All India	2336	2336	0.00
39	Geocity Network Solutions Pvt. Ltd.	B	Delhi	2151	2274	5.72
40	City Online Services Ltd.	B	Andhra Pradesh & Karnataka	2263	2218	-1.99
41	Nextgen Communications Ltd	A	All India	0	2175	0.00
42	Value Healthcare Ltd.	B	Mumbai	1777	1773	-0.23
43	Descon Ltd.	B	West Bengal	1781	1719	-3.48
44	Sab Industires Ltd. (Sab Infotech)	B,C	Punjab, Karnal & Dharamshala	1770	1536	-13.22
45	Hathway Bhawani Cabletel & Datacom Pvt. Ltd.	B	Mumbai	1553	1532	-1.35
46	Jain Info net Pvt Ltd.	B	Rajasthan	1431	1431	0.00
47	Swiftmail Communications Ltd.	A	All India	1375	1354	-1.53
48	ERNET India	A	All India	1149	1188	3.39
49	Mylai Karpagamba Information System Pvt. Ltd.	B	Chennai	964	964	0.00
50	VasNet Communications Pvt Ltd	C	Mangalore	2502	921	-63.19
51	Broadlyne Infoservices Pvt. Ltd.	B	Mumbai	900	900	0.00
52	Broadlane Network Pvt. Ltd.	C	Kalyan SSA	898	898	0.00
53	iPath India Pvt. Ltd.	C	Ernakulam SSA	951	880	-7.47
54	Comsat Max Ltd.	A	All India	873	873	0.00



55	Pioneer Online Pvt. Ltd.	B	Andhra Pradesh	861	864	0.35
56	Dishnet Wireless Ltd.	A	All India	1115	789	-29.24
57	Ice Network (P) Ltd.	B	Bangalore	785	785	0.00
58	Pacific Internet India Pvt. Ltd.	A	Mumbai, Bangalore, Pune	858	782	-8.86
59	Speed Online.Net P.Ltd	C	Rajkot SSA	525	754	43.62
60	M/s Bhupathi Hotels Pvt. Ltd.	C	Vishakhapatnam	413	662	60.29
61	CJM Consultancy Services Pvt. Ltd.	B	Delhi	641	654	2.03
62	Kappa Infotech Pvt Ltd.	C	Kota SSA	593	593	0.00
63	Sanchar Telenetwork Pvt. Ltd.	C	Bhavnagar SSA	575	575	0.00
64	Bohra Pratisthan Pvt. Ltd.	C	Udaipur SSA	533	533	0.00
65	Uclix Computer's Pvt. Ltd.	C	Jodhpur	525	525	0.00
66	Quest Consultancy Pvt. Ltd.	C	Valsad SSA	503	512	1.79
67	Primenet Global Ltd.	A	All India	530	509	-3.96
68	My Guru Online	B	Andhra Pradesh	495	495	0.00
69	Bhaskar Multinet Pvt. Ltd.	C	Jaipur SSA	454	454	0.00
70	Micky Online Pvt Ltd.	C	Moradabad	450	450	0.00
71	Growth Compusoft Exports Ltd.	B	Gujrat	444	444	0.00
72	deLaila Industry Pvt. Ltd.	C	Srinagar SSA	440	440	0.00
73	Silicon Mountains (I) Ltd.	B	Maharashtra	425	425	0.00
74	C-Tel Solutions Pvt. Ltd.	C	Gurgaon SSA	422	422	0.00
75	Ankhnet Informations Pvt. Ltd.	B	Mumbai	1379	405	-70.63
76	Rida Communication Pvt. Ltd.	C	Aligarh SSA	330	370	12.12
77	SpaceCom Broadband Network Ltd.	B	Delhi	366	366	0.00
78	ISP Solutions India pvt. Ltd.	C	Coimbatore SSA	367	355	-3.27
79	Rajasthan Telematics Ltd.	B	Rajasthan	350	350	0.00
80	Karuturi Networks Ltd.	B	Bangalore	331	343	3.63
81	Spectrum Softech Solutions Pvt. Ltd.	C	Ernakulam SSA	923	339	-63.27
82	Emtici Engineering ltd.	C	Khera SSA	305	305	0.00
83	Lee & Nee Softwares (Exports) Ltd.	C	Bhuvaneshwar	303	303	0.00
84	Tata Internet Services Ltd.	A	All India	368	300	-18.48
85	Alliance Broadband Services Pvt. Ltd.	B	Kolkata	290	290	0.00
86	GUJ Info Petro Ltd.(GIPL)	A	All India	262	262	0.00
87	Vainavi Industries Ltd. (MAC Info Pvt. Ltd.)	B	Andhra Pradesh	230	250	8.70
88	Atria Convergence Technologies Pvt. Ltd.	B	Karnataka	298	231	-22.48
89	Starnet Online Services Ltd.	C	Visakha patnam SSA	216	216	0.00
90	Online Media Solutions Ltd.	B	AP	200	200	0.00
91	Trans Virtual Pvt. Ltd.	C	Guwahati	196	196	0.00
92	Jindal Online Com.Ltd	B	Gujarat	1025	195	-80.98

93	CJ Online Private Ltd.	C	Ghaziabad	168	194	15.48
94	Digital Nagpur Online Pvt. Ltd.	C	Nagpur	186	186	0.00
95	delDSL Internet Pvt. Ltd.	C	HR-Gurgaon	183	173	-5.46
96	Gateway Systems (I) Ltd.	A	All India	181	160	-11.60
97	Q Tel Comtech Ltd.	C	Gurgaon	154	154	0.00
98	North East Online Services Pvt. Ltd.	C	Guwahati	142	142	0.00
99	Planet Internet Satellite (VFN) Pvt. Ltd.	C	Nadiad Telecom Dist	144	129	-10.42
100	Tawi e.com	C	Jammu Tawi	119	119	0.00
101	Mynet Services India Pvt. Ltd.	C	Tamil Nadu SSA	74	116	56.76
102	Cable Combine Communication Pvt. Ltd.	C	Siliguri	116	116	0.00
103	n-Louge Communications Pvt. Ltd.	A	TN, AP, KTK, Maharashtra, MP, Rajasthan, Gujarat	59	114	93.22
104	Worldcom Communications Pvt. Ltd.	A	All India	110	110	0.00
105	Estel Communications Pvt. Ltd.	A	All India	107	108	0.93
106	Reach Network India Pvt. Ltd.	A	All India	105	105	0.00
107	Viraj Telecom Ltd.	B	Karnataka	105	105	0.00
108	Czars Oleoresin Pvt. Ltd.	C	Gulbarga	83	93	12.05
109	Aksh Broadband Ltd.	C	Jaipur SSA	85	85	0.00
110	E-Comm Opportunities Pvt. Ltd.	B	Gujrat	84	84	0.00
111	i2i Enterprise Ltd	A	Internet Services	214	80	-62.62
112	Sanyog Networks Pvt. Ltd.	C	Tripura	80	80	0.00
113	Instant Cable Network Pvt. Ltd.	C	Gurgaon SSA	72	72	0.00
114	Saravana Cables Pvt. Ltd.	c	Trichirapalli SSA	68	68	0.00
115	Manipal Ecommerce Ltd. (Manipal Control Data Electronic Commerce Ltd.)	B	Karnataka	61	61	0.00
116	L&T Finance Ltd. (L&T Netcom Ltd.)	A	All India	56	56	0.00
117	Swastik Netvisiion Telecom P.Ltd	B	Gujarat	38	44	15.79
118	Nettlinx Ltd.	B	Andhra Pradesh	36	38	5.56
119	PBC Ventures Ltd.	B	Delhi	23	34	47.83
120	NetMagic Solutions(P) Ltd.	B	Mumbai	280	34	-87.86
121	Opto Networks Pvt.Ltd.	C	Ghaziabad, Meerut SSA	34	34	0.00
122	Indian Quotations Systems Pvt. Ltd.	B	Mumbai	32	32	0.00
123	RailTel Corporation of India Ltd.	A	All India	27	27	0.00
124	Direct Internet Ltd.	B&C	Delhi, Gurgaon, Noida	46	26	-43.48

125	Chandra net Pvt. Ltd.	B	Gujrat	25	25	0.00
126	Virtela India Pvt. Ltd.	B	Mumbai, Bangalore	0	24	0.00
127	Access Online Pvt. Ltd.	B	Mumbai	22	22	0.00
128	IOL Broadband Ltd. (India Online Network Ltd.)	B	Mumbai	22	22	0.00
129	Conjoinix Technologies Pvt Ltd	C	304415N/ 764805E	17	21	23.53
130	Centre for Development of Advanced Computing	C	SSA Ghaziabad	20	19	-5.00
131	Essel Shyam Communication Ltd,	A	All India	18	18	0.00
132	Gujrat Narmada Valley Fertilizer Co. Ltd. (GNFC)	A	All over India	19	17	-10.53
133	World Phone Internet services (P) Ltd.	A	All India	17	17	0.00
134	Astro Network India Pvt. Ltd.	A	All India	16	16	0.00
135	Nachiket (I) Management Services (P) Ltd. (Diksha Cyber City)	C	Sri Ganganagar	13	13	0.00
136	Uttar Pradesh Network Pvt. Ltd.	B	Uttar Pradesh (E&W)	10	10	0.00
137	Samkhya Networks (P) Ltd.	C	Gurgaon	9	9	0.00
138	GTL Ltd.	A	All India	9	8	-11.11
139	A-Team Information Technology Ltd.	C	Erode	8	8	0.00
140	Software Technology Park of India (STPI)	A	All India	8	8	0.00
141	Akaansha Infotainment Pvt. Ltd.	C	Kamrup SSA	6	6	0.00
142	Astra Infonets Pvt. Ltd.	B	Hydrabad	6	6	0.00
143	Cyquator Technologies Ltd.	B	Mumbai, Navi Mumbai	8	5	-37.50
144	Godrej Infotech Ltd.	B	Mumbai	5	5	0.00
145	Web-Surf Pvt Ltd	C		791	4	-99.49
146	ABT Ltd.	C	Coimbatore	0	4	
147	Surana Telecom Ltd.	B	AP	0	3	
148	Compucom (I) Pvt. Ltd.	C	Jaipur	2	2	0.00
149	Apna Telelink Ltd.	C	Jalandhar	0	0	
150	Arun Girija Communications Pvt. Ltd.	C	Patna	4	0	-100.00
151	HCL Comnet Systems & Services Ltd.	A	All India	0	0	0.00
152	Nelco Ltd.	A	All India	0	0	0.00
153	VSNL Broadband Ltd.	A	Mumbai & Pune	0	0	0.00
154	Digital2Virtual ISP Pvt. Ltd.	B	Gujarat	5156	3589	-30.39
	<b>Total</b>			<b>6934575</b>	<b>7709295</b>	<b>11.10</b>

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

<b>Summary of reports received from PMRTS Operators</b>					
<b>Sr. No.</b>	<b>Name of the Service Provider</b>	<b>Subscriber Base as on 31-03-06</b>	<b>Subscriber Base as on 30-06-06</b>	<b>%age Growth in Subscribers</b>	<b>%age in Market Share</b>
1	Aryadoot Transport Pvt Limited	1271	1316	3.54	4.47
2	Jet-Aiu Skyline Transport Pvt Ltd.	391	397	1.53	1.35
3	Container Movement (Bombay) Transport Pvt Ltd.	5	5	0.00	0.02
4	Arya Offshore Services Pvt Ltd.	1455	1356	-6.80	4.61
5	German Express Shipping Agency (India) Pvt Ltd. (Hapag Llyod)	1123	1085	-3.38	3.69
6	United Liner Agencies of India (Pvt) Ltd	1997	1949	-2.40	6.62
7	Procall Limited	8525	8396	-1.51	28.53
8	The Arvind Mills Ltd.	7797	7982	2.37	27.12
9	Smartalk Pvt Limited	1562	1388	-11.14	4.72
10	QuickCall	4509	4287	-4.92	14.57
11	Bhilwara Telenet Services Pvt Limited	1064	1046	-1.69	3.55
12	India Satcom Ltd.	251	223	-11.16	0.76
	<b>Total</b>	<b>29950</b>	<b>29430</b>	<b>-1.74</b>	<b>100.00</b>

**Table 4.2**

**Subscriber Base of VSAT Service Providers**

**(i) Subscriber Base of VSAT Service Operators**

Sr. No.	Service Provider	Quarter ending			
		Sep-05	Dec-05	Mar-06	June-06
1	Hughes	13269	14267	15669	17115
2	HCL Comnet	14882	16192	17110	17776
3	Bharti Broadband (earlier Comsat Max)	4655	4661	4740	4781
4	Bharti Tele-Ventures (earlier Bharti Infotel)	6199	6929	7265	7508
5	Essel Shyam	2209	2486	2649	2570
6	Tata Services	1669	1969	2569	2918
7	Telstra Vishesh*	127	Not reported	Not reported	Not reported
8	ITI	49	49	49	49
9	GNFC	24	23	23	22
	<b>Total</b>	<b>43083</b>	<b>46577</b>	<b>50074</b>	<b>52739</b>

\* Service Providers not reported their data in this quarter.

**(ii) Growth Rate & Market Share of Subscriber Base**

Sr. No.	Name of Service Provider	Quarter ending		%age growth rate	%age Market Share
		Mar-06	June-06		
1	Tata Services	2569	2918	13.59	5.53
2	HCL Comnet	17110	17776	3.89	33.71
3	Essel Shyam	2649	2570	-2.98	4.87
4	Hughes	15669	17115	9.23	32.45
5	Bharti Tele-Ventures	7265	7508	3.34	14.24
6	Bharti Broadband	4740	4781	0.86	9.07
7	Telstra Vishesh*	0	0	0.00	0.00
8	GNFC	49	49	0.00	0.09
9	ITI	23	22	-4.35	0.04
	<b>Total</b>	<b>50074</b>	<b>52739</b>	<b>5.32</b>	<b>100.00</b>

\* Service Providers not reported their data in this quarter.

**Table 6.1(a)**

**Range (Minimum and Maximum) of number of channels Pay, FTA, Local regularly carried on network as at the end of quarter ending 31<sup>st</sup> December' 2005 and quarter ending 30<sup>th</sup> June' 2006**

Range	Pay channels		FTA channels		Local Channels		Total	
	Jan-Mar'06	Apr-Jun'06	Jan-Mar'06	Apr-Jun'06	Jan-Mar'06	Apr-Jun'06	Jan-Mar'06	Apr-Jun'06
Maximum	66	64	149	146	8	10	183	183
Minimum	34	33	34	38	2	2	80	80
No of Agencies / Service Providers Reporting							7	7
The digital service on the basis of reporting MSOs are offered in the cities of Delhi, Mumbai, Pune, Bangalore, Chennai and Kolkata								
Note: The figures of maximum and minimum are based on no of channels (analogue and /or digital) reported across different networks of different reporting service providers having different combinations of pay, FTA and Local channels. Therefore, the sum of number pay / FTA/Local channels column will not add to give figures in the total column.								

**Table 6.1 (b)**

**(Minimum and Maximum) of number of channels Pay, FTA, Local regularly carried under different modes (Analogue or Digital or Simulcast) during quarter ending 30<sup>th</sup> June' 2006**

As Reported for the Quarter Ending June' 2006							
Mode	Range	Pay Channels		FTA Channels		Local Channels	
		Jan-Mar' 06	Apr-Jun' 06	Jan-Mar' 06	Apr-Jun' 06	Jan-Mar' 06	Apr-Jun' 06
Analogue	Max	58	54	91	71	8	10
	Min	20	21	33	25	2	1
Digital	Max	59	62	95	95	4	3
	Min	12	11	17	16	1	1
Analogue cum Digital (simulcast)	Max	58	51	51	39	4	1
	Min	12	3	2	15	1	1

Note: The figures of maximum and minimum are based on no of channels (analogue and /or digital) reported across different networks of different reporting service providers having different combinations of pay, FTA and Local channels. Therefore, figures in various cells above across a particular row as a combination may not give indicating of size of network etc.

**Table 6.2**

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

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



		Private Limited	
33	DAN Tamil OZHI	M/s Dan Television Private Limited	FTA to Pay
34	EURO News	M/s Dan Television Private Limited	FTA to Pay
35	TRACE TV	M/s Dan Television Private Limited	FTA to Pay
36	SET PIX	M/s Set Discovery Private Limited	Pay Channel
37	BBC World	M/s BBC Worldwide India Private Limited	FTA to Pay
38	Zee Kanada	M/s Zee Turner Limited	FTA to Pay Channel
39	Zee Telegue	M/s Zee Turner Limited	FTA to Pay Channel
40	Play TV	M/s Zee Turner Limited	FTA to Pay Channel
41	ETC Punjabi	M/s Zee Turner Limited	FTA to Pay Channel
42	ETC	M/s Zee Turner Limited	FTA to Pay Channel
43	Zee Music	M/s Zee Turner Limited	FTA to Pay Channel
44	Zee Jagran	M/s Zee Turner Limited	FTA to Pay Channel
45	Zee Smile	M/s Zee Turner Limited	FTA to Pay Channel
46	24 Ghante	M/s Zee Turner Limited	FTA to Pay Channel
47	Sahara One	M/s Sahara India TV Network	FTA to Pay Channel
48	Filmy	M/s Sahara India TV Network	FTA to Pay Channel

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

**Table 6.3****The Total Advertisement Revenue**

**The total Advertisement Revenue up to the quarter ending with December' 2005 and March' 2006 of 5 FM Radio Service Providers**

	<b>Quarter ending 31<sup>st</sup> March, 2006 *</b>	<b>Quarter ending 30 June, 2006</b>
No of service providers Reporting	6	6
No of Radio Stations Reported for	17	21
Revenue from Advertisements / Air Time Sale (Rs Crores)	59.08	59.82

\* Figure include information received after the issue of Quarterly Report for March 2006

**Source:** FM Radio Service Providers

**Table 6.4****No. of Applications / Letters of Intent / Licenses Issues in respect of DTH Service Provider**

	<b>up to 30.06.2006</b>
Total No. of Applications Received	6
No of Licenses issued	2
No of Letters of Intent Issued	1
No of Applications rejected	1
No of Applications under consideration	2

**Source:** Ministry of Information & Broadcasting

**Table 7.1**

<b>RURAL SUBSCRIBER BASE</b>				
<b>S.No.</b>	<b>Name of the Circle/Service Area</b>	<b>Service Provider</b>	<b>No. of DELs as on 30th June 2006</b>	
			<b>Rural</b>	
			<b>Wireline</b>	<b>WLL(F)</b>
1	Andaman & Nicobar	<b>BSNL</b>	18860	615
2	Andhra Pradesh	<b>BSNL</b>	1239106	90838
		<b>TATA</b>	0	1358
		<b>Reliance</b>	0	2519
		<b>Bharti</b>	0	0
3	Assam	<b>BSNL</b>	139259	46500
		<b>TATA</b>	0	11223
5	Delhi	<b>Bharti</b>	0	0
		<b>MTNL</b>	0	0
		<b>TATA</b>	0	0
		<b>Reliance</b>	0	0
6	Gujarat	<b>BSNL</b>	824008	77800
		<b>Reliance</b>	0	1419
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	0
7	Haryana	<b>BSNL</b>	435296	48800
		<b>Bharti</b>	0	0
		<b>Reliance</b>	0	528
		<b>TATA</b>	0	12539
8	Himachal Pradesh	<b>BSNL</b>	376063	43284
		<b>Reliance</b>	0	0
		<b>TATA</b>	0	72
9	Jammu & Kashmir	<b>BSNL</b>	51757	21858
10	Karnataka	<b>BSNL</b>	843777	110309
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	10485
		<b>Reliance</b>	0	0
11	Kerala	<b>BSNL</b>	2458753	204525
		<b>Reliance</b>	0	7736
		<b>TATA</b>	0	3
		<b>Bharti</b>	0	0
12	Madhya Pradesh (Including Chattisgarh)	<b>BSNL</b>	356863	122825
		<b>Bharti</b>	0	0
		<b>Reliance</b>	0	0
		<b>TATA</b>	0	11695

13	<b>Maharashtra</b>	<b>BSNL&amp;</b>		
	<b>(including Mumbai)</b>	<b>MTNL</b>	1446637	159569
		<b>Reliance</b>	0	1198
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	2542
	Mumbai	<b>MTNL</b>	0	0
		<b>Reliance</b>	0	0
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	126
	Maharashtra (excluding Mumbai)	<b>BSNL</b>	1446637	159569
		<b>Reliance</b>	0	1198
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	2416
14	North East	<b>BSNL</b>	96048	30232
15	Orissa	<b>BSNL</b>	290464	91169
		<b>Reliance</b>	0	254
		<b>TATA</b>	0	0
16	Punjab	<b>BSNL</b>	787892	75611
		<b>HFCL</b>	0	0
		<b>Reliance</b>	0	0
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	22139
17	Rajasthan	<b>BSNL</b>	634032	148036
		<b>STL</b>	10232	482
		<b>Reliance</b>	0	0
		<b>TATA</b>	0	25252
18	<b>Tamil Nadu (including Chennai)</b>	<b>BSNL</b>	933668	219563
		<b>TATA</b>	0	0
		<b>Bharti</b>	0	0
		<b>Reliance</b>	0	0
	Chennai	<b>BSNL</b>	55088	17844
		<b>Reliance</b>	0	0
		<b>TATA</b>	0	0
		<b>Bharti</b>	0	0
	Tamil Nadu (excluding Chennai)	<b>BSNL</b>	878580	201719
		<b>TATA</b>	0	0
		<b>Bharti</b>	0	0
		<b>Reliance</b>	0	0
19	Uttar Pradesh (East)	<b>BSNL</b>	423892	133808
		<b>Reliance</b>	0	0
		<b>TATA</b>	0	20472
		<b>Bharti</b>	0	0
20	Uttar Pradesh (West)	<b>BSNL</b>	278154	80520

	(including Uttranchal)	<b>Reliance</b>	0	0
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	8739
	<b>West Bengal (including Kolkata)</b>	<b>BSNL</b>	631607	87456
		<b>Reliance</b>	0	0
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	0
	Kolkata	<b>BSNL</b>	0	0
		<b>Reliance</b>	0	0
		<b>Bharti</b>	0	0
		<b>TATA</b>	0	0
	West Bengal (excluding Kolkata)	<b>BSNL</b>	631607	87456
		<b>Reliance</b>	0	0
21		<b>TATA</b>	0	0
	<b>TOTAL</b>		<b>12781912</b>	<b>2096896</b>

## Annex 1.1

### Details of Fixed Service Licenses issued to private operators

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

## List of Cellular, Fixed &amp; Unified Access Service Providers

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



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

	BSNL		
	Bharti Hexacom Ltd.		
Jammu & Kashmir	BSNL	Dishnet Wireless Ltd.	BSNL
		Bharti Airtel Ltd.	
		Reliance Infocomm	

## Usage Pattern for GSM

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

Circle	Postpaid			Prepaid				
	O/G MOU	I/C MOU	Total MOU	O/G SMS	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	452	531	984	52	131	191	322	64
Circle B	352	394	746	43	142	178	320	34
Circle C	336	311	646	34	150	203	353	14
Metro	367	426	793	54	103	196	299	55
<b>All India</b>	<b>389</b>	<b>442</b>	<b>832</b>	<b>48</b>	<b>131</b>	<b>189</b>	<b>320</b>	<b>47</b>

Table b: BLENDED [Postpaid + Prepaid]

Circle	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	188	252	440	62
Circle B	172	210	382	36
Circle C	184	223	407	17
<b>Metro</b>	170	254	424	54
<b>All India</b>	<b>179</b>	<b>235</b>	<b>414</b>	<b>47</b>

Table c: Composition of outgoing minutes of use

Circle	Local (Intra-circle)	NLD (Inter-circle)	ILD
Circle A	89.90%	9.64%	0.46%
Circle B	86.73%	12.61%	0.66%
Circle C	84.36%	15.42%	0.22%
<b>Metro</b>	76.31%	22.69%	1.00%
<b>All India</b>	<b>85.49%</b>	<b>13.90%</b>	<b>0.61%</b>

Table e: Trends in outgoing MOUs per subscriber per month

<b>Circle</b>	<b>Local (Intra-circle)</b>	<b>NLD (Inter-circle)</b>	<b>ILD</b>
Jun-05	110	25	1
Sep-05	116	25	1
Dec-05	129	25	1
Mar-06	138	24	1
June06	153	25	1

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

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>	<b>To On network (Mobile)</b>
Circle A	13%	87%	48%
Circle B	16%	84%	51%
Circle C	16%	84%	61%
Metro	12%	88%	43%
<b>All India</b>	<b>14%</b>	<b>86%</b>	<b>50%</b>

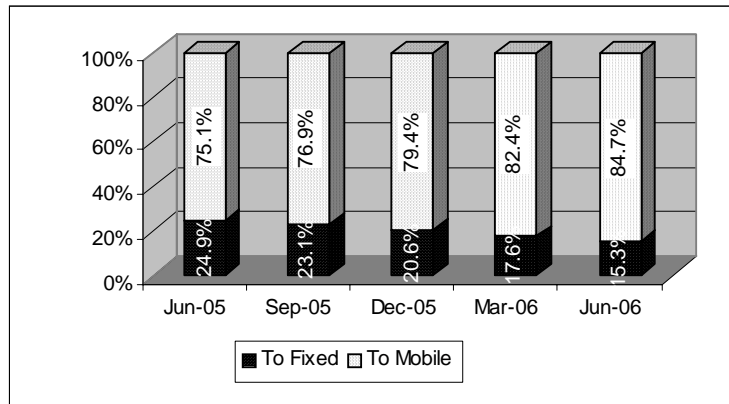
Table g: Composition of outgoing NLD (Inter-Circle) minutes of use

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>
Circle A	24%	76%
Circle B	24%	76%
Circle C	26%	74%
Metro	24%	76%
<b>All India</b>	<b>24%</b>	<b>76%</b>

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

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>
Circle A	14%	86%
Circle B	17%	83%
Circle C	18%	82%
Metro	14%	86%
<b>All India</b>	<b>15%</b>	<b>85%</b>

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



**Usage Pattern – CDMA**

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

Circle	Postpaid				Prepaid			
	O/G MOU	I/C MOU	Total MOU	O/G SMS	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	467	371	837	33	139	234	373	27
Circle B	483	391	874	27	167	224	392	25
Circle C	647	560	1208	18	222	259	480	14
Metro	405	349	754	36	131	245	376	28
<b>All India</b>	452	372	823	32	151	235	386	26

Table b: BLENDED [Postpaid + Prepaid]

Circle	Blended			
	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	184	253	437	28
Circle B	198	241	439	25
Circle C	243	274	518	14
Metro	179	263	442	29
<b>All India</b>	190	253	443	27

Table c: Composition of outgoing minutes of use

Circle	Local (Intra-circle)	NLD (Inter-Circle)	ILD
Circle A	87.0%	12.8%	0.2%
Circle B	86.2%	13.6%	0.1%
Circle C	88.3%	11.6%	0.1%
Metro	81.4%	18.3%	0.2%
All India	85.4%	14.4%	0.2%

Table d: Outgoing MOUs per subscriber per month

<b>Circle</b>	<b>Local (Intra-circle)</b>	<b>NLD (Inter-Circle)</b>	<b>ILD</b>
Circle A	160	24	0.33
Circle B	171	27	0.28
Circle C	215	28	0.17
Metro	146	33	0.37
<b>All India</b>	<b>163</b>	<b>28</b>	<b>0.32</b>

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

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>	<b>To Own Network (Mobile)</b>
Circle A	16%	84%	49%
Circle B	11%	89%	62%
Circle C	9%	91%	61%
Metro	9%	91%	63%
<b>All India</b>	<b>12%</b>	<b>88%</b>	<b>58%</b>

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

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>
Circle A	19%	81%
Circle B	14%	86%
Circle C	17%	83%
Metro	13%	87%
<b>All India</b>	<b>15%</b>	<b>85%</b>

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

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>
Circle A	18%	82%
Circle B	12%	88%
Circle C	13%	87%
Metro	11%	89%
<b>All India</b>	<b>14%</b>	<b>86%</b>



## Revenue Per Minute (RPM)

## I GSM

Table a: Revenue realization per minute for total usage [Incoming + Outgoing MOU]

[in Rs.]

<b>Circle</b>	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended</b>
Circle A	0.67	0.85	0.78
Circle B	0.69	0.89	0.83
Circle C	0.90	0.93	0.92
<b>Metro</b>	0.96	0.96	0.96
<b>All India</b>	<b>0.77</b>	<b>0.90</b>	<b>0.85</b>

## II CDMA

Table b: Revenue realization per minute for total usage Incoming + Outgoing

[In Rs.]

<b>Circle</b>	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended</b>
Circle A	0.59	0.47	0.50
Circle B	0.52	0.44	0.46
Circle C	0.41	0.45	0.45
Metro	0.84	0.52	0.61
<b>All India</b>	<b>0.65</b>	<b>0.47</b>	<b>0.52</b>

Growth Pattern of Internet Subscribers

Chart 4 - Growth Trends

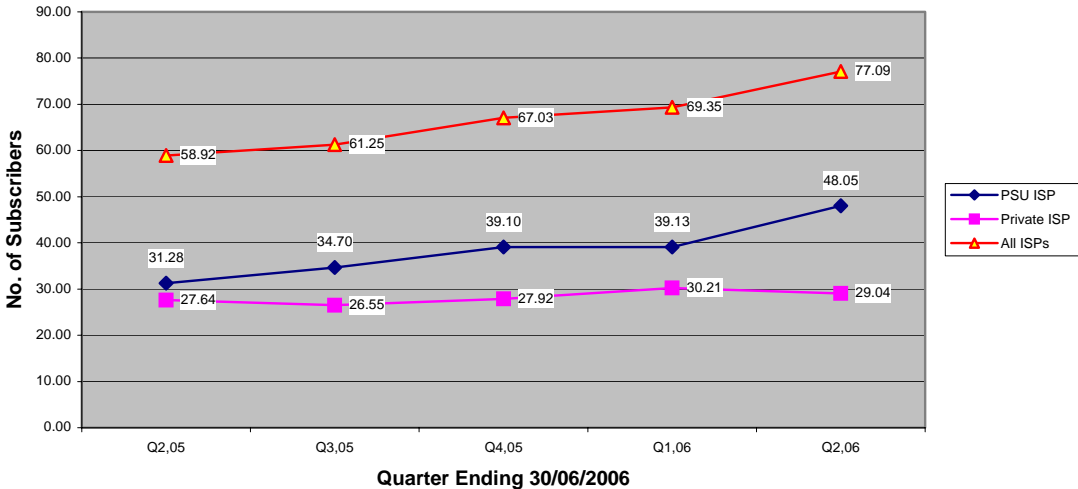
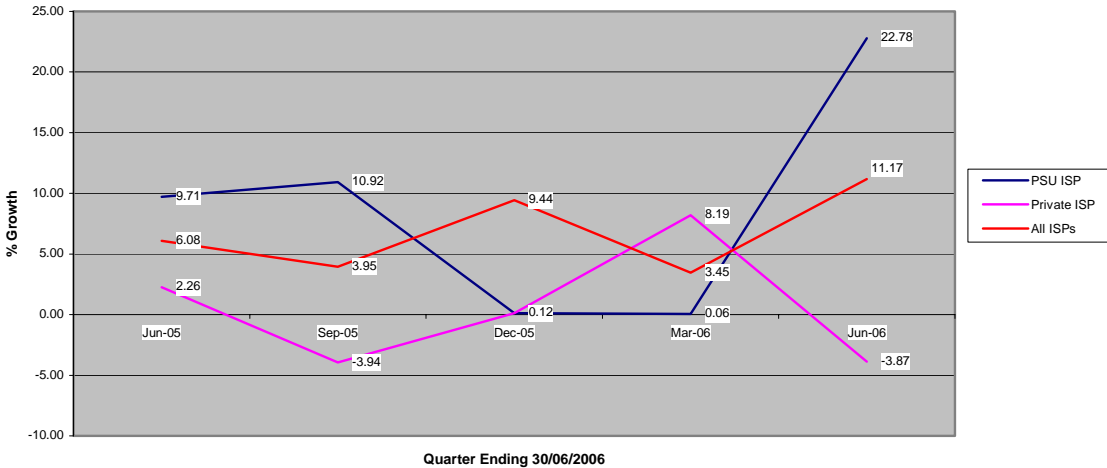


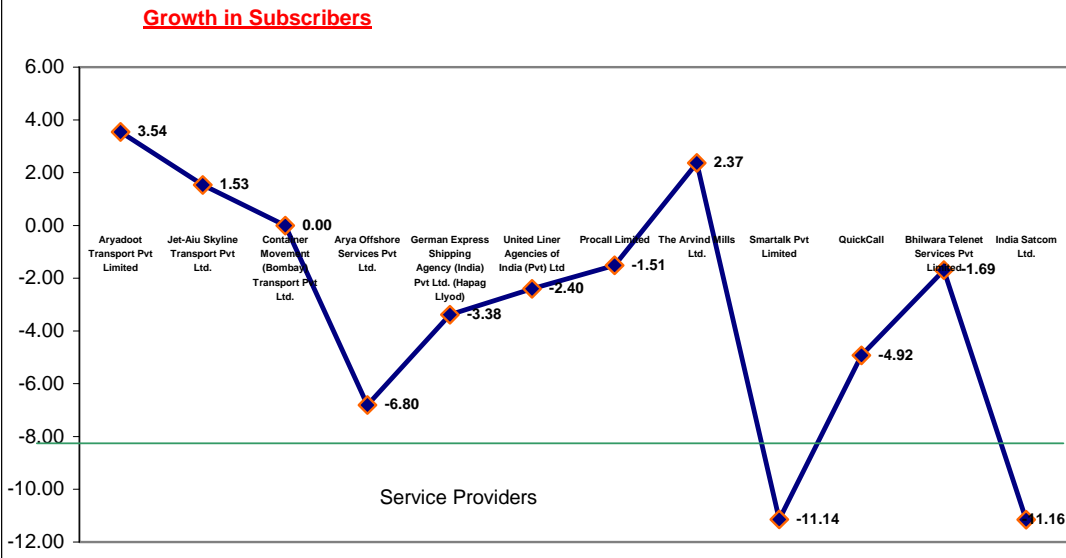
Chart 5 - Growth Trends-II



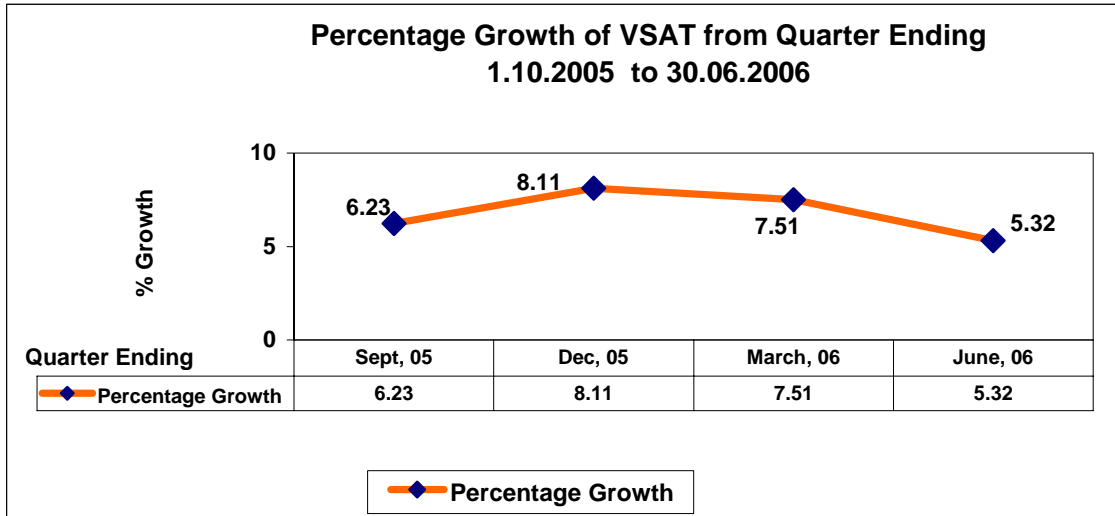
### List of Internet Telephony Service Providers

<b>S. No.</b>	<b>Name of ISP</b>
1	HCL Inffinet Ltd.
2	Icenet.net Limited
3	Broadband Pacenet (I) Pvt. Ltd.
4	CJ Online Private Ltd.
5	Southern Online Bio Technologies Ltd.
6	Mahanagar Telephone Nigam Ltd.
7	NetMagic Solutions(P) Ltd.
8	Value Healthcare Ltd.
9	Gateway Systems (I) Ltd.
10	In2Cable.Com(India) Ltd
11	Apna Telelink Ltd.
12	DelDSL Internet Pvt. Ltd.
13	Bharti Airtel Ltd.(Bharti Infotel)
14	Hathway Cable & Datacom Pvt. Ltd.
15	Bharat Sanchar Nigam Ltd.
16	Sify Ltd.
17	PBC Ventures Ltd.
18	Nettlinx Ltd.
19	Videsh Sanchar Nigam Ltd.
20	Iqara Telecom India Pvt. Ltd. (BG Broadband)
21	Trak Online Net India Pvt.Ltd
22	Data Infosys Ltd.
23	Primus Telecommunications India Ltd.
24	Manipal Ecommerce Ltd.
25	Estel Communications Pvt. Ltd.
26	Narmada Cyberzone Pvt. Ltd.
27	Trikon Electronics Pvt. Ltd.
28	Asianet Satellite Communications Ltd.
29	Pioneer Online Pvt. Ltd.
30	City Online Services Ltd.
31	Vehtel Obconic Internet Pvt. Ltd.
32	Mylai Karpagambal Information Systems (P) Ltd.

### Growth Rate of PMRTS subscribers



**Growth Rate of VSAT Subscribers**



**Annex 5.1**

**Quality of Service (QOS) Performance for Basic Services**

S. No	Service Area	Service Provider	New connections after registration of demand	Fault incidences per 100/sub/month	Fault repaired by next working day	Rent Rebate (Total no. of cases)	Mean Time to Repair (MTTR)	Grade of service (calls per thousand)	Call completion rate in local network	Metering & billing credibility - % of bills disputed	Time taken for refund of deposits after closures	Shifts	Closures	Additional facility	Response Time to the Customer for Assistance						
															95% of requests			%age of calls answered (electronically)		%age of calls answered by operator (voice to voice)	
															100% in < 7days	<5	>90%	For faults pending > 3 days to >15 days	<8 hrs	a) Junction between local exchange (2/1000)	>55%
12	A&N	BSNL	86.79	13.30	89.00	NA	13.00	NA	41.47%	0.09	NA	86.24	98.24	90.74	NA	NA	NA	NA			
13	ASSAM	BSNL	28.97	8.00	92.00	NA	4.00	NA	NA	0.07	NA	100.00	89.84	NA	NA	NA	NA	NA			
14	CHENNAI	BSNL	94.59	5.60	94.00	NA	12.30	NA	NA	0.02	NA	94.15	100.00	100.00	NA	NA	NA	NA			
		RELIANCE	89.32	1.56	84.82	1	6.50	0.0720	59.40%	0.00	100.00	20.18	98.61	99.37	100.00	100.00	94.33	100.00			
		BHARTI	86.64	3.85	99.94	NA	1.48	0.0020	65.00%	0.01	100.00	92.22	96.93	17.22	99.53	99.74	85.58	90.09			
		TATA	98.34	0.51	100.00	0	2.70	0.0000	66.11%	0.00	NA	Nil	100.00	Nil	100.00	100.00	98.00	99.00			
		RELIANCE	62.50	Nil	Nil	0	0.00	0.1920	NA	0.00	Nil	Nil	Nil	Nil	100.00	100.00	94.33	100.00			
15	H P	BSNL	98.22	9.00	92.00	NA	7.00	NA	NA	0.02	NA	90.56	88.01	93.56	NA	NA	NA	NA			
16	JHARKHAND	BSNL	97.67	8.00	94.00	NA	16.33	NA	NA	0.06	NA	96.49	98.76	97.28	NA	NA	NA	NA			
17	J & K	BSNL	16.28	10.60	84.00	NA	2.20	NA	NA	0.09	NA	Nil	81.27	83.99	NA	NA	NA	NA			
18	KERALA	BSNL	84.53	8.00	87.00	NA	15.00	NA	NA	0.02	NA	91.84	98.33	91.25	NA	NA	NA	NA			

		<b>BHARTI</b>	88.17	6.76	96.19	NA	2.65	NA	50.78%	0.44	100.00	18.74	100.00	81.46	NA	NA	NA	NA
		<b>RELIANCE</b>	90.88	1.96	100.00	0	2.55	0.3800	51.21%	0.04	100.00	75.68	91.67	98.26	100.00	100.00	94.33	100.00
19	<b>KOLKATA</b>	<b>BHARTI</b>	54.60	4.61	81.93	NA	5.51	0.0007	54.99%	0.05	100.00	50.00	73.69	91.61	93.43	100.00	93.43	100.00
		<b>RELIANCE</b>	86.36	2.04	94.29	3	5.24	2.8160	34.60%	0.05	100.00	74.42	93.14	99.19	100.00	100.00	94.33	100.00
		<b>BSNL</b>	97.23	5.00	90.42	NA	10.00	NA	NA	0.04	NA	96.73	99.54	99.14	NA	NA	NA	NA
20	<b>MUMBAI</b>	<b>TATA</b>	78.71	1.16	97.52	NA	4.44	0.0020	62.00%	0.39	88.00	58.72	100.00	NA	100.00	Nil	75.00	79.00
		<b>BHARTI</b>	65.30	4.33	81.67	NA	2.65	0.0000	54.86%	0.07	100.00	68.97	NA	82.63	NA	NA	100.00	Nil
		<b>RELIANCE</b>	87.78	1.49	98.24	0	4.82	0.0000	50.75%	0.06	100.00	36.00	35.75	99.44	100.00	100.00	94.33	100.00
		<b>MTNL</b>	37.56	9.70	23.02	40792	27.37	0.0004	53.24%	0.07	99.70	31.97	56.02	59.78	100.00	100.00	83.24	92.62
21	<b>NE-I</b>	<b>BSNL</b>	99.43	5.30	92.00	NA	39.10	NA	NA	0.08	NA	98.30	100.00	100.00	NA	NA	NA	NA
22	<b>NE-II</b>	<b>BSNL</b>	96.80	5.00	91.00	NA	11.70	NA	NA	0.08	NA	100.00	100.00	92.45	NA	NA	NA	NA
23	<b>ORISSA</b>	<b>BSNL</b>	100.00	6.00	93.00	NA	8.30	NA	NA	0.09	NA	100.00	88.41	82.95	NA	NA	NA	NA
		<b>RELIANCE</b>	82.06	Nil	Nil	0	0.00	11.8500	80.95%	0.00	NA	Nil	Nil	Nil	100.00	100.00	94.33	100.00
24	<b>UP-E</b>	<b>BSNL</b>	99.47	7.00	92.00	NA	7.00	NA	NA	0.01	NA	98.59	97.74	98.74	NA	NA	NA	NA
		<b>BHARTI</b>	82.70	6.99	68.90	NA	15.90	0.0000	53.71%	1.83	100.00	4.38	38.83	90.02	NA	NA	87.67	NA
		<b>RELIANCE</b>	79.27	0.00	98.54	0	3.22	0.0800	30.42%	0.09	100.00	75.51	98.57	99.73	100.00	100.00	94.33	100.00
25	<b>UP-W</b>	<b>BSNL</b>	86.38	9.00	90.00	NA	9.10	NA	NA	0.02	NA	98.20	96.94	97.33	NA	NA	NA	NA
		<b>BHARTI</b>	82.49	11.57	74.71	NA	10.01	0.1000	58.00%	5.09	100.00	92.73	69.79	96.11	NA	NA	85.69	100.00
		<b>RELIANCE</b>	54.94	Nil	Nil	0	0.00	4.3560	37.20%	0.00	100.00	Nil	Nil	100.00	100.00	100.00	94.33	100.00
26	<b>UTTRANCHAL</b>	<b>BSNL</b>	55.93	9.00	95.00	NA	8.70	NA	NA	0.01	NA	99.41	99.21	98.14	NA	NA	NA	NA
27	<b>WEST BENGAL</b>	<b>BSNL</b>	29.90	8.60	91.65	NA	16.70	NA	NA	0.03	NA	11.00	99.18	100.00	NA	NA	NA	NA
		<b>RELIANCE</b>	58.73	Nil	Nil	0	0.00	2.6070	34.60%	0.00	NIL	Nil	Nil	Nil	100.00	100.00	94.33	100.00

Operator not meeting the prescribed benchmark

NA = Data not available

**Annex 5.2**

**Quality of Service Performance for Mobile (GSM) Services**

Sr. No.	Service Providers	Parameters																	
		(A) Network Performance									(B) Customer help lines			(C) Billing Complaints					
		(i)	(ii)	(iii)	(iv)						(v)	(vi)	(i)		(i)	(ii)	(iii)		
		Accumulated down time of community isolation	Call Set-up Success Rate (within licensees own network)	Service Access Delay	Blocked Call Rate						Call Drop Rate	%age of connections with good voice quality	Response time to the customer for assistance		Complaints per 100 bills issued	% of complaints resolved within 4 weeks	Period of all refunds/ payment due to customers from the date of resolution of complaints as in (ii) above		
Benchmarks																			
<24 hrs	>95%	Between 9 to 20 seconds depending upon number of paging attempts (Average of 100 calls = <15 sec)	(i) SDCCH / Paging Channel Congestion <1%			(ii) TCH Congestion <2%			<3%	>95%	(i) %age of calls answered (electronically); within 20 seconds = 80%,	(i) %age of calls answered (electronically); within 40 seconds = 95%	(i) %age of calls answered by operator (voice to voice); within 60 seconds = 80%,	(i) %age of calls answered by operator (voice to voice); within 90 seconds = 95%,	<0.1%	100%	<4 weeks		
Month - 1	Month - 2		Month - 3	Month - 1	Month - 2	Month - 3													
	<b>'A' Circle</b>																		
<b>I</b>	<b>Maharashtra</b>																		
1	BPL Cellular (Hutch)	6.47	98.23%	15.56	1.36%	1.45%	0.98%	1.99%	1.99%	1.41%	1.20%	99.86%	100.00%	100.00%	99.98%	99.98%	0.009%	100.00%	15 days
2	IDEA Cellular	4.15	98.68%	9.92	0.98%	0.69%	0.71%	1.93%	1.46%	1.19%	1.44%	98.04%	100.00%	Nil	67.00%	76.00%	0.800%	100.00%	30 days
3	BSNL	20.00	98.74%	8.30	0.90%	0.90%	1.00%	1.80%	1.70%	1.80%	1.50%	98.00%	100.00%	100.00%	99.41%	99.92%	0.040%	100.00%	30 days
4	Bharti Airtel Limited	23.45	98.14%	8.34	0.84%	0.28%	0.28%	0.96%	0.49%	0.49%	1.01%	97.20%	96.65%	96.83%	93.77%	95.00%	0.100%	100.00%	30 days
5	Reliance Infocom	1.09	99.44%	4.30	0.00%	0.00%	0.00%	0.55%	0.46%	0.48%	0.85%	99.08%	99.50%	99.50%	79.46%	86.24%	0.080%	100.00%	30 days
6	Tata Teleservices MH	8.42	97.85%	18.00	No cong	No cong	No cong	0.01%	0.00%	0.39%	0.61%	96.24%	100.00%	Nil	89.00%	93.67%	0.500%	100.00%	NA
<b>ii</b>	<b>Gujarat</b>																		
7	Hutch - Fascel	19.43	98.03%	9.57	0.19%	0.17%	0.18%	0.87%	0.81%	0.88%	1.25%	98.40%	99.12%	100.00%	86.17%	95.52%	0.049%	100.00%	15 days
8	IDEA Cellular	1.59	98.67%	11.97	0.97%	0.97%	0.95%	0.60%	0.50%	0.75%	1.48%	97.82%	64.00%	93.00%	85.00%	94.00%	0.047%	100.00%	30 days



9	BSNL	0.00	99.50%	2.38	0.80%	0.50%	0.30%	0.70%	1.90%	2.00%	1.03%	98.00%	99.00%	99.00%	99.00%	99.00%	0.012%	100.00%	Nil
10	Bharti Airtel Limited	0.00	98.52%	11.85	0.19%	0.07%	0.16%	0.30%	0.13%	0.12%	1.01%	98.15%	100.00%	100.00%	93.90%	96.90%	0.120%	100.00%	07 days
11	Reliance Infocom	0.59	99.47%	4.06	0.00%	0.00%	0.00%	0.45%	0.48%	0.37%	0.76%	99.16%	99.50%	99.50%	79.46%	86.24%	0.060%	100.00%	30 days
12	Tata Teleservices	17.46	98.59%	5.00	No cong	No cong	No cong	0.00%	0.00%	0.01%	0.44%	98.05%	100.00%	100.00%	95.00%	98.00%	0.080%	100.00%	30 days
<b>iii Andhara Pradesh</b>																			
13	IDEA Cellular	0.00	99.98%	7.00	0.23%	0.21%	0.22%	1.23%	1.22%	1.20%	0.53%	98.42%	100.00%	Nil	92.00%	8.00%	0.470%	100.00%	30 days
14	Bharti Airtel Limited	42.00	98.16%	11.70	0.77%	0.86%	0.84%	1.82%	1.81%	1.89%	0.90%	99.77%	99.00%	99.00%	94.00%	97.00%	0.010%	100.00%	30 days
15	BSNL, AP	0.00	98.50%	6.00	0.90%	0.70%	0.70%	1.90%	2.00%	1.80%	1.52%	99.00%	100.00%	100.00%	65.50%	83.30%	0.010%	100.00%	01 day
16	Hutchison Essar S	18.00	99.64%	10.00	0.28%	0.45%	0.41%	0.35%	0.41%	0.44%	1.32%	98.00%	100.00%	100.00%	97.67%	99.00%	0.058%	100.00%	15 days
17	Reliance Infocom	0.66	99.49%	4.12	0.00%	0.00%	0.00%	0.45%	0.43%	0.32%	0.70%	99.86%	99.50%	99.50%	76.46%	86.24%	0.070%	100.00%	30 days
18	Tata Teleservices	17.14	98.14%	6.10	No cong	No cong	No cong	1.04%	0.76%	0.01%	0.47%	96.04%	100.00%	100.00%	79.00%	86.00%	0.070%	100.00%	30 days
<b>iv Karnataka</b>																			
19	Bharti Airtel Limited	21.78	99.11%	7.30	0.86%	0.81%	0.61%	1.80%	1.51%	0.89%	1.16%	98.86%	95.87%	95.88%	75.40%	79.17%	0.003%	100.00%	30 days
20	Spice Comm.	20.67	98.16%	8.46	NA	NA	1.61%	NA	NA	13.45%	1.53%	98.93%	NA	NA	91.80%	99.20%	0.016%	100.00%	30 days
21	BSNL	23.00	97.60%	13.00	0.60%	0.90%	0.60%	2.00%	1.60%	2.60%	1.00%	97.60%	100.00%	100.00%	65.50%	83.30%	0.070%	100.00%	07 days
22	Hutchison Essar S	4.10	98.38%	10.25	0.17%	0.18%	0.17%	1.61%	1.62%	1.66%	1.61%	98.49%	97.33%	99.00%	97.67%	97.67%	0.065%	100.00%	15 days
23	Reliance Infocom	0.57	99.53%	4.04	0.00%	0.00%	0.00%	0.46%	0.30%	0.69%	0.57%	99.57%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days
24	Tata Teleservices	23.10	97.14%	2.70	No cong	No cong	No cong	0.01%	0.70%	0.01%	1.16%	97.59%	100.00%	100.00%	91.00%	95.00%	0.100%	100.00%	30 days
<b>v Tamil Nadu</b>																			
25	BPL Cellular (Hutch)	17.92	99.52%	11.84	0.98%	0.95%	0.88%	1.74%	1.70%	1.67%	0.79%	99.95%	100.00%	100.00%	100.00%	100.00%	0.860%	100.00%	15 days
26	Aircel	21.51	98.12%	11.09	1.85%	1.78%	1.10%	1.81%	1.16%	1.30%	1.47%	96.12%	NA	NA	NA	NA	0.070%	100.00%	30 days
27	BSNL	0.00	95.66%	8.86	1.00%	1.00%	1.00%	2.00%	2.00%	2.00%	1.12%	96.25%	86.00%	98.00%	85.00%	95.00%	0.000%	100.00%	Nil
28	Bharti Airtel Limited	20.00	99.29%	13.80	0.67%	0.65%	0.57%	0.59%	0.76%	1.23%	0.92%	95.40%	99.95%	100.00%	95.00%	95.00%	0.070%	100.00%	30 days
29	Reliance Infocom	1.10	99.44%	4.13	0.00%	0.00%	0.00%	0.54%	0.51%	0.36%	0.83%	99.93%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days
30	Tata Teleservices	4.50	99.15%	10.36	No cong	No cong	No cong	0.19%	0.22%	0.40%	0.78%	97.69%	100.00%	100.00%	98.00%	99.00%	0.100%	100.00%	30 days
<b>B' Circle</b>																			
<b>vi Kerala</b>																			
31	IDEA-Escotel Mobile	20.45	99.66%	14.20	0.44%	0.49%	0.43%	1.29%	1.19%	1.64%	0.77%	98.50%	95.00%	100.00%	90.00%	95.00%	0.100%	100.00%	30 days
32	BPL Cellular (Hutch)	21.31	95.94%	16.81	0.85%	0.27%	0.27%	1.98%	0.16%	0.27%	1.52%	98.47%	100.00%	100.00%	100.00%	100.00%	0.012%	100.00%	15 days
33	BSNL	87.47	99.08%	11.20	0.40%	0.30%	0.40%	1.80%	1.90%	1.70%	1.04%	95.20%	94.91%	100.00%	90.00%	100.00%	0.000%	100.00%	30 days
34	Bharti Airtel Limited	10.28	99.42%	12.33	0.42%	0.23%	0.38%	0.16%	0.58%	0.31%	1.66%	98.64%	98.04%	98.05%	82.00%	86.00%	0.040%	100.00%	30 days
35	Tata Teleservices	0.00	99.93%	18.00	No cong	No cong	No cong	0.01%	0.00%	0.00%	0.54%	97.67%	100.00%	100.00%	92.00%	95.00%	0.060%	100.00%	30 days
36	Reliance Infocom	0.37	99.49%	3.98	0.00%	0.00%	0.00%	0.43%	0.42%	0.37%	0.82%	99.83%	99.50%	99.50%	79.46%	86.24%	0.060%	100.00%	30 days

<b>vii</b>	<b>Punjab</b>																			
37	Spice Comm.	20.50	96.44%	12.00	0.45%	0.39%	0.40%	2.98%	2.67%	2.12%	1.42%	97.00%	100.00%	100.00%	90.00%	96.00%	0.027%	100.00%	07 days	
38	HFCL - CDMA	9.13	97.63%	13.20	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.68%	98.86%	100.00%	100.00%	98.00%	98.00%	0.060%	NA	30 days	
39	Bharti Airtel Limited	16.13	99.15%	3.44	0.41%	0.40%	0.20%	0.34%	0.37%	0.25%	1.64%	98.70%	99.98%	99.99%	95.20%	97.08%	0.090%	100.00%	15 days	
40	Hutchission Essar South	3.10	99.31%	10.00	0.10%	0.06%	0.04%	0.25%	0.23%	0.12%	1.50%	98.87%	96.97%	97.20%	96.13%	99.10%	0.036%	100.00%	15 days	
41	BSNL	1.25	99.60%	3.82	0.00%	0.00%	0.00%	0.20%	0.20%	0.50%	1.50%	100.00%	84.50%	97.00%	83.50%	96.50%	0.010%	100.00%	30 days	
42	Reliance Infocom	0.71	99.58%	4.28	0.00%	0.00%	0.00%	0.32%	0.26%	0.44%	1.37%	99.71%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days	
43	Tata Teleservices	1.43	99.86%	7.83	No cong	No cong	No cong	0.01%	0.00%	0.00%	0.68%	96.99%	100.00%	100.00%	62.00%	76.00%	0.400%	100.00%	30 days	
<b>viii</b>	<b>Haryana</b>																			
44	IDEA-Escotel Mobile	9.10	99.97%	11.40	0.30%	0.48%	0.42%	1.05%	1.05%	1.36%	0.68%	99.44%	100.00%	Nil	69.00%	NA	0.050%	100.00%	30 days	
45	Hutch-Aircel Digilink	3.63	99.95%	9.40	0.02%	0.02%	0.02%	0.14%	0.26%	0.30%	1.69%	97.11%	100.00%	100.00%	82.55%	96.26%	0.088%	100.00%	15 days	
46	BSNL	8.43	97.30%	10.00	0.10%	0.20%	0.20%	1.40%	1.30%	1.80%	2.60%	100.00%	100.00%	100.00%	72.00%	88.00%	0.010%	100.00%	30 days	
47	Bharti Airtel Limited	18.76	99.33%	3.72	0.15%	0.23%	0.16%	0.16%	0.28%	0.40%	1.33%	98.14%	99.00%	99.00%	90.00%	94.00%	0.090%	100.00%	15 days	
48	Reliance Infocom	0.51	99.58%	4.40	0.00%	0.00%	0.00%	0.31%	1.02%	0.78%	0.96%	99.84%	99.50%	99.50%	79.46%	86.24%	0.080%	100.00%	30 days	
49	Tata Teleservices	23.50	99.87%	8.00	No cong	No cong	No cong	0.52%	0.87%	3.44%	0.85%	97.81%	100.00%	100.00%	57.00%	73.00%	0.270%	100.00%	30 days	
<b>ix</b>	<b>UP - W</b>																			
50	Hutchission Essar S	0.00	99.89%	9.00	0.24%	0.56%	0.48%	0.60%	0.70%	0.80%	1.97%	95.80%	98.75%	98.82%	95.18%	98.25%	0.090%	100.00%	15 days	
51	IDEA	4.56	98.83%	11.40	0.97%	0.98%	0.98%	2.13%	2.69%	2.35%	1.24%	97.74%	36.00%	NA	65.00%	NA	0.067%	100.00%	30 days	
52	BSNL	0.00	99.00%	14.00	0.90%	0.80%	1.00%	2.00%	2.00%	1.70%	2.90%	98.00%	90.00%	97.00%	80.00%	97.00%	0.009%	100.00%	07 days	
53	Bharti Airtel Limited	23.43	96.38%	14.30	0.65%	0.86%	0.62%	1.71%	0.92%	1.15%	1.58%	95.88%	99.95%	99.97%	93.00%	95.00%	0.100%	100.00%	30 days	
54	Reliance Infocom	0.96	99.42%	4.19	0.00%	0.00%	0.00%	0.62%	0.45%	0.31%	0.83%	98.96%	99.50%	99.50%	79.46%	86.24%	0.080%	100.00%	30 days	
55	Tata Teleservices	22.28	97.93%	18.33	No cong	No cong	No cong	0.00%	1.39%	0.02%	1.15%	96.50%	100.00%	100.00%	67.00%	82.00%	0.030%	100.00%	30 days	
<b>x</b>	<b>UP -E</b>																			
56	Bharti Airtel Limited	16.67	96.13%	14.30	0.78%	0.82%	0.41%	0.69%	1.43%	1.51%	1.58%	98.29%	99.77%	99.98%	91.56%	94.13%	0.120%	100.00%	30 days	
57	Hutch -ADIL	11.00	95.35%	9.00	0.26%	0.70%	1.20%	0.80%	2.16%	2.37%	2.03%	96.23%	98.75%	99.63%	84.93%	95.54%	0.470%	100.00%	15 days	
58	BSNL	21.00	98.00%	14.00	2.90%	0.70%	0.90%	3.40%	2.10%	1.80%	2.20%	97.00%	90.00%	97.00%	80.00%	97.00%	0.080%	100.00%	60 days	
59	Reliance Infocom	0.74	99.39%	4.33	0.00%	0.00%	0.00%	0.57%	0.56%	0.40%	0.97%	97.81%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days	
60	Tata Teleservices	4.59	97.62%	10.60	No cong	No cong	No cong	0.00%	0.54%	0.54%	0.88%	99.20%	100.00%	100.00%	60.00%	73.00%	0.100%	100.00%	30 days	
<b>xi</b>	<b>Rajasthan</b>																			
61	Hutch-Aircel Digilink	13.67	96.49%	9.78	1.38%	0.87%	0.89%	1.45%	1.60%	1.86%	2.69%	96.93%	99.51%	99.57%	81.10%	96.39%	0.092%	100.00%	15 days	
62	BSNL	19.28	96.50%	6.10	0.70%	0.30%	0.30%	6.00%	7.80%	3.60%	2.90%	97.50%	89.00%	97.00%	82.00%	96.00%	0.009%	100.00%	30 days	
63	Bharti - Hexacom	22.23	97.42%	8.00	0.59%	0.57%	0.63%	0.36%	0.36%	0.50%	1.48%	95.57%	99.98%	100.00%	94.57%	96.79%	0.040%	100.00%	30 days	
64	Reliance Infocom	0.82	99.44%	4.05	0.00%	0.00%	0.00%	0.47%	0.53%	0.48%	0.93%	99.67%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days	
65	Tata Teleservices	19.20	97.73%	4.90	No cong	No cong	No cong	0.02%	0.01%	0.32%	0.87%	97.72%	100.00%	100.00%	91.00%	95.00%	0.020%	100.00%	30 days	

<b>xii</b>	<b>Madhya Pradesh</b>																			
66	IDEA Cellular	17.42	98.27%	12.38	0.81%	0.77%	0.74%	1.38%	1.30%	1.09%	1.21%	99.10%	100.00%	100.00%	97.29%	99.23%	0.050%	100.00%	30 days	
67	Reliance Telecom	18.29	100.00%	7.80	0.50%	0.40%	0.50%	18.60%	20.20%	19.10%	1.70%	96.50%	NA	NA	100.00%	100.00%	0.010%	100.00%	30 days	
68	BSNL	6.80	99.50%	2.90	0.20%	0.20%	0.30%	1.50%	1.60%	1.10%	1.30%	98.00%	100.00%	100.00%	99.90%	99.90%	0.040%	100.00%	30 days	
69	Bharti Airtel Limited	23.06	98.78%	12.76	0.32%	0.01%	0.34%	1.17%	0.01%	0.89%	1.01%	96.12%	99.99%	99.99%	96.46%	98.55%	0.000%	100.00%	30 days	
70	Reliance Infocom	0.39	99.32%	4.17	0.00%	0.00%	0.00%	0.69%	0.68%	0.58%	0.97%	99.77%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days	
71	Tata Teleservices	1.25	99.95%	3.57	No cong	No cong	No cong	0.00%	0.00%	0.00%	0.77%	98.48%	100.00%	100.00%	88.00%	92.00%	0.100%	100.00%	30 days	
<b>xiii</b>	<b>West Bengal</b>																			
72	Bharti Airtel Limited	0.00	97.70%	9.00	0.97%	1.94%	1.74%	1.78%	1.57%	1.16%	1.73%	100.00%	98.40%	98.49%	95.19%	97.44%	0.040%	100.00%	01 day	
73	Reliance Telecom	4.30	99.00%	8.60	1.00%	0.90%	0.70%	13.10%	12.70%	13.10%	2.20%	99.10%	NA	NA	NA	100.00%	Nil	N/Ap	N/Ap	
74	BSNL	0.00	97.95%	6.28	0.30%	0.30%	0.30%	1.50%	0.50%	1.90%	2.36%	97.66%	87.00%	99.00%	81.00%	96.00%	0.070%	100.00%	01 day	
75	Tata Teleservices	2.80	99.17%	9.58	No cong	No cong	No cong	0.00%	0.01%	0.02%	1.23%	97.52%	99.00%	99.00%	92.00%	92.00%	0.060%	100.00%	30 days	
76	Reliance Infocom	0.84	99.39%	4.12	0.00%	0.00%	0.00%	0.56%	0.61%	0.48%	1.25%	97.94%	99.50%	99.50%	79.46%	86.24%	0.030%	100.00%	30 days	
77	Hutchission Essar S	11.19	99.14%	10.00	0.45%	0.47%	0.56%	0.85%	0.75%	0.88%	1.86%	98.12%	100.00%	100.00%	94.50%	98.75%	0.086%	100.00%	15 days	
78	Dishnet	0.00	99.42%	8.00	0.99%	0.97%	0.95%	0.98%	0.96%	0.94%	0.72%	99.70%	95.00%	98.00%	82.00%	95.00%	1.000%	100.00%	07 days	
	<b>C' Circle</b>																			
<b>xiv</b>	<b>Himachal Pradesh</b>																			
79	Bharti Airtel Limited	8.38	99.07%	3.23	0.19%	0.22%	0.16%	0.48%	0.48%	0.30%	1.50%	96.00%	99.00%	100.00%	100.00%	100.00%	0.050%	100.00%	15 days	
80	Reliance Telecom	8.50	99.00%	8.20	0.10%	0.10%	0.10%	1.30%	1.90%	1.80%	2.40%	98.90%	NA	NA	98.00%	100.00%	0.000%	N/Ap	N/Ap	
81	BSNL	2.00	97.50%	5.60	0.50%	0.50%	0.50%	1.70%	1.70%	1.80%	1.90%	97.50%	99.80%	99.90%	81.00%	95.00%	0.000%	Nil	Nil	
82	Reliance Infocom	0.71	99.56%	4.13	0.00%	0.00%	0.00%	0.32%	0.35%	0.27%	0.58%	99.43%	99.50%	99.50%	79.46%	86.24%	0.090%	100.00%	30 days	
83	Tata Teleservices	14.10	98.38%	12.00	No cong	No cong	No cong	0.00%	0.00%	0.00%	0.75%	97.58%	100.00%	100.00%	63.00%	76.00%	0.100%	100.00%	30 days	
<b>xv</b>	<b>Bihar</b>																			
84	Reliance Telecom	7.28	97.00%	8.20	1.30%	2.10%	1.90%	12.80%	14.50%	13.40%	1.70%	95.60%	NA	NA	NA	100.00%	0.000%	100.00%	30 days	
85	BSNL	6.30	98.10%	11.50	1.20%	1.20%	0.90%	2.40%	2.40%	1.90%	2.20%	97.00%	88.00%	97.00%	86.00%	96.00%	0.110%	99.92%	30 days	
86	Reliance Infocom	1.17	99.35%	4.32	0.00%	0.00%	0.00%	0.45%	0.43%	0.32%	0.70%	99.17%	99.50%	99.50%	79.46%	86.24%	0.080%	100.00%	30 days	
87	Bharti Airtel Limited	9.38	98.14%	12.00	2.86%	2.93%	2.20%	2.28%	1.56%	1.50%	1.94%	96.87%	87.00%	93.00%	94.00%	96.00%	0.100%	100.00%	30 days	
88	Tata Teleservices	0.38	96.72%	9.40	No cong	No cong	No cong	0.00%	0.00%	0.04%	0.76%	95.57%	99.00%	99.00%	90.00%	90.00%	0.040%	100.00%	30 days	
<b>xvi</b>	<b>Orissa</b>																			
89	Reliance Telecom	21.55	99.00%	7.40	0.00%	0.10%	0.30%	2.60%	3.80%	7.50%	1.70%	98.80%	NA	NA	90.00%	100.00%	Nil	N/Ap	N/Ap	
90	BSNL	0.00	95.96%	10.00	0.80%	0.90%	0.80%	1.80%	1.90%	1.90%	1.64%	97.33%	84.00%	98.00%	90.00%	98.00%	0.020%	100.00%	Nil	

91	Bharti Airtel Limited	0.00	98.53%	7.30	0.25%	0.79%	1.57%	0.62%	0.81%	0.96%	0.99%	97.70%	96.63%	98.13%	99.81%	99.90%	0.010%	100.00%	30 days
92	Reliance Infocom	0.74	99.61%	4.28	0.00%	0.00%	0.00%	0.36%	0.13%	0.35%	0.73%	99.46%	99.50%	99.50%	79.46%	86.24%	0.080%	100.00%	30 days
93	Tata Teleservices	0.00	97.67%	18.00	No cong	No cong	No cong	0.00%	0.00%	0.00%	0.93%	97.77%	99.00%	99.00%	94.00%	94.00%	0.020%	100.00%	30 days
94	Dishnet	0.00	99.56%	8.00	0.98%	0.99%	1.01%	1.20%	0.98%	0.95%	0.85%	99.70%	93.00%	96.00%	86.00%	94.00%	0.140%	100.00%	15 days
<b>xvii Assam</b>																			
95	Bharti Airtel Limited	31.00	95.85%	10.00	0.34%	0.28%	1.07%	0.49%	0.85%	1.28%	1.46%	95.62%	99.30%	99.00%	100.00%	100.00%	0.010%	99.00%	30 days
96	BSNL	1.00	98.00%	12.00	0.80%	0.70%	0.90%	1.70%	1.50%	1.80%	2.40%	96.00%	81.00%	97.00%	81.00%	95.00%	0.010%	100.00%	30 days
97	Reliance Telecom	26.58	96.00%	7.40	0.90%	0.80%	0.80%	5.10%	5.20%	5.30%	1.00%	96.10%	NA	NA	80.00%	95.00%	0.020%	100.00%	30 days
98	Dishnet	0.00	99.32%	8.00	0.71%	0.89%	0.95%	0.73%	0.89%	0.87%	0.57%	99.75%	94.00%	97.00%	86.00%	92.00%	0.010%	99.00%	14 days
<b>xviii J &amp; K</b>																			
99	BSNL	0.00	99.00%	10.00	0.90%	0.80%	0.90%	1.90%	1.60%	1.70%	1.80%	98.80%	91.00%	95.00%	86.00%	96.00%	0.009%	100.00%	21 days
100	Bharti Airtel Limited	8.48	99.10%	3.45	0.49%	0.48%	0.45%	0.39%	0.47%	0.49%	1.70%	97.00%	99.99%	100.00%	100.00%	100.00%	0.010%	100.00%	15 days
101	Dishnet	0.00	99.42%	8.00	0.94%	0.98%	0.99%	1.00%	1.04%	0.87%	0.78%	99.90%	100.00%	100.00%	100.00%	100.00%	0.050%	100.00%	10 days
<b>xix NE</b>																			
102	BSNL	15.00	95.20%	14.00	0.60%	0.70%	0.80%	1.40%	1.60%	1.70%	2.40%	96.00%	85.00%	97.00%	82.00%	96.00%	0.000%	100.00%	01 day
103	Bharti Airtel Limited	15.00	98.91%	9.00	0.11%	0.28%	0.93%	0.47%	0.85%	1.24%	0.82%	95.62%	99.00%	99.00%	100.00%	100.00%	0.380%	98.00%	21 days
104	Reliance Telecom	0.00	98.00%	7.60	2.20%	2.50%	2.50%	6.90%	8.10%	9.10%	2.50%	97.70%	NA	NA	95.00%	100.00%	0.100%	100.00%	30 days
105	Dishnet	0.00	98.76%	8.00	0.73%	0.74%	0.99%	0.73%	0.74%	0.90%	0.61%	99.00%	93.00%	95.00%	81.00%	93.00%	0.000%	100.00%	14 days
<b>METRO</b>																			
<b>xx Delhi</b>																			
106	Bharti Airtel Limited	0.00	98.95%	14.80	0.11%	0.15%	0.20%	0.13%	0.08%	0.05%	1.12%	97.08%	99.96%	99.90%	96.87%	98.13%	0.075%	100.00%	30 days
107	Hutchison Essar M Serv	0.00	98.81%	8.12	0.01%	0.01%	0.01%	0.04%	0.03%	0.04%	1.07%	97.79%	99.54%	99.23%	89.71%	95.63%	0.003%	100.00%	15 days
108	MTNL	0.00	95.25%	14.80	8.53%	11.73%	13.23%	3.41%	3.28%	3.21%	1.79%	95.43%	93.00%	95.00%	89.90%	95.20%	0.090%	100.00%	30 days
109	IDEA Cellular	0.00	99.98%	7.00	0.97%	0.78%	0.38%	1.67%	1.21%	1.48%	0.53%	98.42%	100.00%	Nil	92.00%	8.00%	0.470%	100.00%	30 days
110	Tata Teleservices	0.73	98.02%	10.90	No cong	No cong	No cong	0.19%	0.01%	0.18%	0.65%	96.60%	100.00%	100.00%	70.00%	77.00%	0.100%	100.00%	30 days
111	Reliance Infocom	0.00	99.43%	4.40	0.00%	0.00%	0.00%	0.56%	0.50%	0.46%	0.58%	99.08%	99.50%	99.50%	79.46%	86.24%	0.060%	100.00%	30 days
<b>xxi Mumbai</b>																			
112	BPL Mobile	30.42	99.41%	10.81	0.20%	0.14%	0.13%	1.45%	1.24%	1.23%	1.40%	99.16%	65.51%	NA	92.69%	95.21%	0.090%	100.00%	40 days
113	Hutchison Max Tel	0.00	99.59%	10.00	0.40%	0.41%	0.46%	1.78%	1.21%	1.48%	1.86%	95.60%	99.65%	99.68%	88.08%	95.15%	0.003%	100.00%	15 days
114	MTNL	0.00	96.21%	15.55	0.91%	0.99%	0.93%	1.83%	1.52%	1.98%	1.32%	96.04%	83.00%	96.00%	86.00%	97.00%	0.010%	100.00%	30 days
115	Bharti Airtel Limited	0.00	97.00%	3.16	0.59%	0.29%	0.33%	1.01%	0.49%	0.59%	1.09%	96.00%	99.91%	99.97%	99.57%	99.81%	0.020%	100.00%	09 days
116	Reliance Infocom	0.00	99.44%	3.84	0.00%	0.00%	0.00%	0.43%	0.60%	0.59%	0.80%	99.36%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days
117	Tata Teleservices	0.00	98.19%	18.00	No cong	No cong	No cong	NA	0.00%	0.31%	0.34%	95.14%	100.00%	Nil	87.47%	89.50%	0.260%	98.87%	NA
<b>xxii Chennai</b>																			

118	Aircel Cellular Ltd	0.00	99.00%	10.00	0.80%	1.10%	1.10%	2.80%	2.50%	1.70%	0.65%	96.20%	95.00%	100.00%	95.00%	100.00%	0.100%	100.00%	30 days
119	Bharti Airtel Limited	0.00	99.39%	13.73	0.15%	0.09%	0.18%	0.16%	0.23%	0.18%	0.60%	96.20%	99.96%	99.99%	92.00%	98.00%	0.080%	100.00%	30 days
120	Hutchison Essar S	0.00	99.40%	11.34	0.08%	0.05%	0.03%	1.10%	1.08%	0.95%	1.13%	98.40%	100.00%	100.00%	96.24%	98.79%	0.016%	100.00%	15 days
121	BSNL	0.00	98.00%	10.60	0.10%	0.10%	0.10%	1.20%	0.70%	0.70%	0.84%	100.00%	100.00%	100.00%	96.00%	100.00%	0.010%	100.00%	30 days
122	Reliance Infocom	0.00	99.53%	4.25	0.49%	0.00%	0.00%	0.37%	0.42%	0.35%	0.49%	99.90%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days
123	Tata Teleservices	0.00	99.93%	13.28	No cong	No cong	No cong	0.01%	0.01%	0.04%	0.54%	96.33%	100.00%	100.00%	98.00%	99.00%	0.160%	100.00%	30 days
<b>xxiii</b>	<b>Kolkata</b>																		
124	Bharti Airtel Limited	0.00	97.22%	7.00	0.75%	0.02%	0.41%	0.74%	1.19%	0.29%	1.62%	98.09%	89.13%	92.39%	97.79%	90.42%	NA	100.00%	NA
125	Hutchison Essar S	0.00	99.66%	16.00	0.22%	0.21%	0.28%	0.91%	0.60%	0.61%	0.74%	96.65%	100.00%	100.00%	94.80%	98.22%	0.059%	100.00%	15 days
126	BSNL	0.00	97.92%	10.00	0.70%	0.50%	1.06%	1.30%	1.00%	1.70%	0.64%	98.69%	86.70%	99.00%	82.00%	96.00%	0.120%	100.00%	30 days
127	Reliable Internet. Ser.	0.00	99.00%	8.30	0.01%	0.01%	0.09%	0.03%	0.22%	1.04%	1.00%	98.44%	NA	87.00%	98.20%	NA	0.000%	Nil	Nil
128	Tata Teleservices	0.00	97.11%	9.40	No cong	No cong	No cong	NA	0.80%	0.92%	0.82%	96.17%	99.00%	99.00%	92.00%	92.00%	0.050%	100.00%	30 days
129	Reliance Infocom	0.00	99.41%	3.87	0.00%	0.00%	0.00%	0.61%	0.51%	0.55%	0.63%	98.30%	99.50%	99.50%	79.46%	86.24%	0.070%	100.00%	30 days

Service Providers not meeting the benchmarks NA=Data not available N/Ap = Not Applicable

## 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 <sup>st</sup> attempt (in %)	Access Portability in 2 <sup>nd</sup> attempt (in %)	Access Portability in 3 <sup>rd</sup> attempt (in %)	ISP Node unavailability	Grade of Service (QoS)	Mean time to Restore of faults resulting as per subscriber complaints	
	<b>TRAI Benchmarks</b>	<b>6 hrs</b>	<b>30 sec</b>	<b>80</b>	<b>90</b>	<b>99</b>	<b>30 min</b>	<b>1 : 100</b>	<b>3 days</b>	
1	Bharat Sanchar Nigam Ltd.	0-4 hrs	15-30 sec	93	97	100	Nil	1:100	0-4 hrs	
2	MTNL	Delhi	Online	30 sec	99.67	99.99	-	-	0.01	5 min
		Mumbai	Immediate	26 sec	100	-	-	-	0.005	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	Bharti Airtel Ltd. (Bharti Airtel Ltd.)	5 min (online)	30-35 sec	99.8	100	100	Nil	1:100	2 hrs	
6	Reliance Communications Infrastructure Ltd.	Online	<25 sec	98	100	-	-	-	<45 mins	
7	Data Infosys	2-3 min	20-25 sec	95	97	99	30 min	1:100	15 min	
8	Iqara Telecom India Pvt. Ltd. (BG Broadband)	2 min (Online)	20 sec	98	99	100	Nil	Not provided by BSO	27.4 hrs	
9	Hathway Cable & Data Pvt. Ltd.*	-	-	-	-	-	-	-	-	
10	HCL Inffinet Ltd.	4 min	26 sec	99.4	99.2	99.5	26 min	1:200	17-19 hrs	
11	ICENET.NET Ltd.	2 hrs	20 sec	85	95	100	Nil	1:100	1 hr	
12	Asianet Satellite Communications Ltd.	Immediate	10 sec	98	99	100	<b>&lt;1 Hr</b>	1 in 500	2.05 Hrs	
13	HFCL Infotel Ltd.	-	30 sec	98.2	99.2	100	Nil	0.85 in 100	7.30 min	
14	Shyam Internet Services Pvt. Ltd.	5 min	20 sec	98.5	99.5	99.99	15 min	1%	1.5 hrs	
15	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	Nil	25 sec	99	-	Nil	-	1:1000	1 hr	
16	Fascel Ltd.*	-	-	-	-	-	-	-	-	
17	WWW Communications Ltd.	4-5 mins	20-35 sec	87	96	99	<b>190 min</b>	-	10-15 min	
18	Hughes Escorts Communications Ltd.*	-	-	-	-	-	-	-	148.5 min	
19	Broadband Pacenet (I) Pvt. Ltd.	-	-	-	-	-	-	-	3 hrs	
20	Spectra Net Ltd.	-	-	-	-	-	-	-	3 hrs	

\*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.