

**Table 1.1****Subscriber Base of Wireline Services**

<b>Operator-wise details of Fixed (Wirelines) Subscriber Base</b>					
<b>Sr. No.</b>	<b>Wireline service operators</b>	<b>Area of Operation</b>	<b>31st March 07</b>		
			<b>Wireline (Fixed)</b>		
			<b>Urban</b>	<b>Rural</b>	<b>Total</b>
1	BSNL	All India	21189527	12549077	<b>33738604</b>
2	MTNL	Delhi & Mumbai	3725146	0	<b>3725146</b>
3	Bharti Airtel Ltd	Andhra Pradesh, Chennai, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Punjab, Rajasthan, Tamil Nadu, UP(E),UP(W) including Uttaranchal and West Bengal.	1871387	0	<b>1871387</b>
4	Tata Teleservices (Maharashtra) Ltd	Maharashtra & Mumbai	295852	30	<b>295882</b>
5	Tata Teleservices Ltd	Andhra Pradesh, Bihar, Chennai, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, UP(E), UP(W) including Uttaranchal and West Bengal	231374	0	<b>231374</b>
6	HFCL Infotel Ltd	Punjab	168646	0	<b>168646</b>
7	Shyam Telelink Ltd	Rajasthan	141198	12996	<b>154194</b>
8	Reliance Communications Ltd	Andhra Pradesh, Bihar, Chennai, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu, UP (E), UP (W) and West Bengal	567892	287	<b>568179</b>
<b>Grand Total</b>			<b>28191022</b>	<b>12562390</b>	<b>40753412</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 31.03.07</b>	<b>PCOs added during the quarter ending 31.03.07</b>
1	BSNL	All India	2109383	17235
2	MTNL	Delhi & Mumbai	260077	-1841
3	Bharti Airtel Ltd.	AP,MP, Delhi, Haryana, TN , Chennai, Kerala,Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, U.P. (W) including Uttaranchal, West Bengal and Kolkata	222948	-3843
4	HFCL Infotel Ltd.	Punjab	42978	-1557
5	TATA Teleservices Ltd.	Maharashtra, Mumbai ,AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	1262386	83343
6	Reliance Communications Ltd.	Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	1607866	151892
7	Shyam Telelink Ltd.	Rajasthan	41698	0
	<b>TOTAL</b>		<b>5547336</b>	<b>245229</b>

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

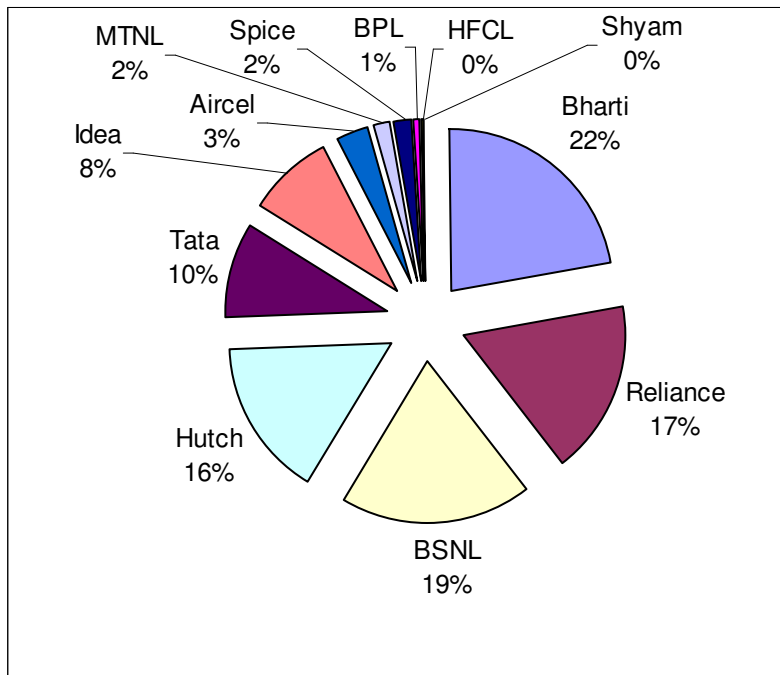
<b>S.No</b>	<b>Service Providers</b>	<b>Area of Operation</b>	<b>VPTs as on 31.03.07</b>	<b>Achievement during the Qtr. ending 31.03.07</b>
1	BSNL	All India	552633	7567
2	MTNL	Delhi & Mumbai	0	0
3	Bharti Airtel Ltd.	MP, Delhi, Haryana, TN, Chennai, Karnataka, Gujarat, Punjab, Maharashtra, Mumbai, UP(W) including Uttaranchal, West Bengal and Kolkata	0	0
4	HFCL Infotel Ltd.	Punjab	417	-60
5	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Mumbai	2542	0
6	TATA Teleservices Ltd.	AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	1358	0
7	Reliance Communications Ltd.	AP, Bihar, Delhi, Gujarat, Haryana, HP, Karnataka, Kerala, MP, Maharashtra, Mumbai Orissa, Punjab, Rajasthan, TN, Chennai, UP(E), UP(W), West Bengal and Kolkata	4115	0
8	Shyam Telelink Ltd.	Rajasthan	3010	0
<b>TOTAL</b>			<b>564075</b>	<b>7507</b>

**Table 2.1**

**Subscriber Base of Wireless Operators**

<b>Wireless Group (with no. of circles)</b>	<b>Subscribers as on Mar-07 (in Millions)</b>	<b>Rural Subscribers (in millions)</b>	<b>Percentage of rural subscribers</b>	<b>Market Share (in %age)</b>	<b>Technology Used</b>
Bharti (23)	37.14	6.77	18.23	22.49%	GSM & CDMA
BSNL (21)	30.98	9.48	30.60	18.77%	GSM & CDMA
Reliance (23)	28.01	4.05	14.48	16.96%	GSM & CDMA
Hutchison (16)	26.44	6.89	26.05	16.01%	GSM
TTSL (20)	16.02	0.95	5.91	9.70%	CDMA
IDEA (11)	14.01	3.01	21.45	8.50%	GSM
Aircel (9)	5.51	1.66	30.13	3.34%	GSM
MTNL (2)	2.94	0.00	0.00	1.78%	GSM & CDMA
Spice (2)	2.73	0.33	12.11	1.65%	GSM
BPL (1)	1.07	0.00	0.00	0.65%	GSM
HFCL (1)	0.15	0.00	1.73	0.09%	CDMA
Shyam Telelink (1)	0.10	0.00	1.86	0.06%	CDMA
<b>Total Subscribers</b>	<b>165.11</b>	<b>33.14</b>	<b>20.07</b>	<b>100.00%</b>	

**Market Share of Cellular Service Providers as on 31.3.07**



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

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

Cellular Groups and their market share		
GSM Group	No of Subscribers (in Millions)	Market Share (in %age)
Bharti	37.14	30.83
BSNL	27.43	22.77
Hutchison	26.44	21.95
Idea	14.01	11.63
Aircel	5.51	4.57
MTNL	2.75	2.28
Spice	2.73	2.27
Reliance	3.39	2.81
BPL	1.07	0.89
<b>Total</b>	<b>120.47</b>	<b>100</b>

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

Company Name	No of Subscribers (in Millions)	Market Share (in %age)
Reliance Infocomm	24.62	55.15
Tata Teleservices	16.02	35.89
BSNL	3.55	7.95
MTNL	0.2	0.45
HFCL	0.15	0.34
Shyam Telelink	0.1	0.22
<b>Total</b>	<b>44.64</b>	<b>100</b>

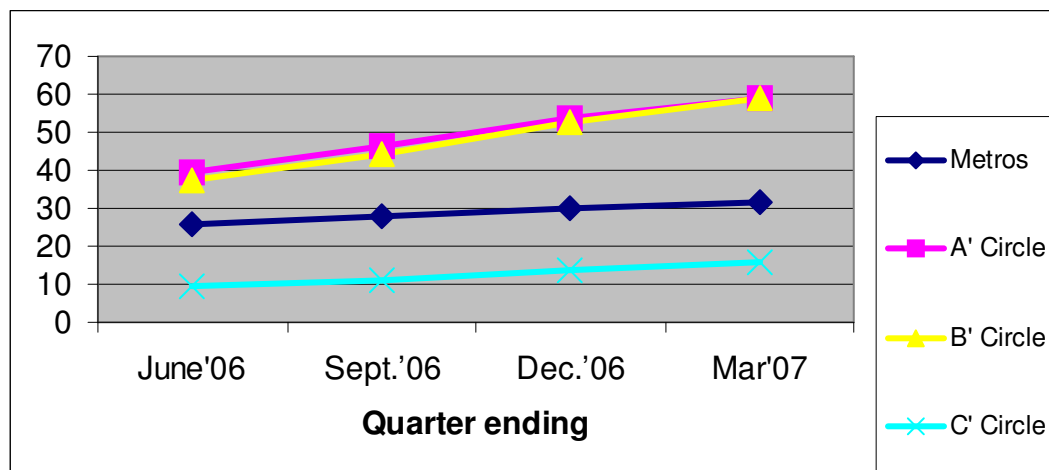
**Table 2.3****Growth Pattern of Wireless Subscribers Base****Wireless Subscriber Base :**

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

<b>Circle</b>	<b>No. of Subscribers</b>	<b>Market Share</b>
Metros	31.63 million	19.15%
Circles 'A'	58.93 million	35.69%
Circles 'B'	58.81 million	35.62%
Circles 'C'	15.74 million	9.54%
<b>Total</b>	<b>165.11 million</b>	<b>100%</b>

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>June'06</b>	<b>Sept.'06</b>	<b>Dec.'06</b>	<b>Mar'07</b>	<b>% Growth in Mar'07</b>
		Figures (in millions)				
Metros	4	25.76	27.85	30.20	31.63	4.73
A' Circle	5	39.65	46.25	53.50	58.93	10.16
B' Circle	8	37.20	44.25	52.45	58.81	12.14
C' Circle	6	9.52	11.18	13.48	15.74	16.80

**Growth Trend of Wireless Subscribers**

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

<b>S.No.</b>	<b>Name of the Service Provider</b>	<b>Category</b>	<b>Geographical area of operation</b>	<b>Dec-06</b>	<b>Mar-07</b>	<b>% Growth</b>
1	Bharat Sanchar Nigam Ltd.	A	All India	3811852	4191173	9.95
2	Mahanagar Telephone Nigam Ltd.	B	Delhi & Mumbai	1658000	1762842	6.32
3	Sify Ltd.	A	All India	805940	823777	2.21
4	Bharti Airtel Ltd. (Bharti Televentures Ltd.)	A	All India	597665	633872	6.06
5	Reliance Communications Infrastructure Limited	A	All India	540068	562161	4.09
6	Videsh Sanchar Nigam Ltd.	A	All India	457481	483511	5.69
7	Data Infosys Ltd.	A	All India	102910	198927	93.30
8	YOU Telecom India Pvt. Ltd.	A	All India	134620	141282	4.95
9	Hathway Cable & Datacom Pvt. Ltd.	A	All India	108369	122504	13.04
10	HCL Infinet Ltd.	A	All India	41976	42015	0.09
11	Asianet Satellite Communications Ltd.	B	Kerala	38765	40938	5.61
12	HFCL Infotel Ltd.	B	Punjab Telecom Circle	30700	33606	9.47
13	Shyam Internet Services Ltd	B	Rajasthan	25409	25505	0.38
14	Icenet.net Limited	B	Gujarat	27381	20642	-24.61
15	Punj Lloyd (Spectra Net Ltd.)	A	All India	14763	19894	34.76
16	Hughes Communications India Ltd.	A	All India	16937	18200	7.46
17	Fascel Ltd.	B	Gujarat	18001	18001	0.00
18	Beam Cable System Pvt. Ltd.	B	Hyderabad	0	17744	
19	WWW Communications Ltd.	B	Delhi	15408	15291	-0.76
20	Broadband Pacenet (I) Pvt. Ltd.	B	Mumbai	13445	12263	-8.79
21	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	A	All India	26338	11124	-57.76
22	DIL Internet Ltd.(Primus Telecommunications)	A	All India	9881	10186	3.09
23	Alliance Broadband Services Pvt. Ltd.	B	Kolkata	6128	7175	17.09
24	West Bengal Electronics Industry Development Corp. Ltd.	B	Kolkata, WB	6576	6610	0.52
25	In2cable (I) Ltd.	A	All India	5435	5643	3.83
26	Trikon Electronics Pvt. Ltd.	B	Mumbai	5119	5340	4.32
27	Trak Online Net India Pvt.Ltd	A	All India	4631	4518	-2.44
28	Swiftmail Communications Ltd.	A	All India	3211	3850	19.90
29	Rajesh Multi Channel Pvt. Ltd.	B	Mumbai	3591	3497	-2.62
30	Blazenet Ltd.	B	Gujarat	3249	3249	0.00
31	HCL Comnet Systems & Services Ltd.	A	All India	2647	2647	0.00
32	Digital2Virtual ISP Pvt. Ltd.	B	Gujarat	2425	2178	-10.19
33	Geo City Network Solutions Pvt. Ltd.	B	Delhi	2130	2129	-0.05
34	Hathway Bhawani Cabletel & Datacom Pvt. Ltd.	B	Mumbai	1674	1779	6.27
35	Value Healthcare Ltd.	B	Mumbai	1733	1769	2.08

36	Sab Industires Ltd. (Sab Infotech)	B,C	Punjab, Karnal, Ambala	1207	1144	-5.22
37	Bhupati Hotels Pvt. Ltd.	C	Visakhapatnam	1084	1084	0.00
38	n-Lounge Communications Pvt. Ltd.	A	TN, AP, KTK, Maharashtra, MP, Rajasthan, Gujarat	1061	1061	0.00
39	Broadlane Networks Pvt. Ltd.	C	Dombivli, Maharastra	841	962	14.39
40	ERNET India	A	All India	927	922	-0.54
41	Sanchar Telenetwork Pvt. Ltd.	C	Bhavnagar SSA	0	846	
42	CJM Consultancy Services Pvt. Ltd.	B	Delhi	660	727	10.15
43	Tulip IT Services Ltd.	A	All India	676	688	1.78
44	iPath India Pvt. Ltd.	C	Ernakulam SSA	736	684	-7.07
45	Dishnet Wireless Ltd.	A	All India	696	596	-14.37
46	Myguru Online ltd.	B	Andhra Pradesh	0	564	
47	Southern Online Bio Technologies Ltd.	B	Andhra Pradesh	739	546	-26.12
48	ISP Solutions India Pvt. Ltd.	C	Coimbatore SSA	0	538	
49	Micky Online Pvt Ltd.	C	Moradabad	0	450	
50	Rida Communication Pvt. Ltd.	C	Aligarh SSA	383	378	-1.31
51	NetMagic Solutions(P) Ltd.	B	Mumbai	338	373	10.36
52	Bohra Pratisthan Pvt. Ltd.	C	Udaipur SSA	533	358	-32.83
53	i2i Enterprise Ltd.	A	All India	301	304	1.00
54	Primenet Global Ltd.	A	All India	273	263	-3.66
55	Spectrum Softech Solutions Pvt. Ltd.	C	Ernakulam SSA	348	224	-35.63
56	Bhiwani Communications Pvt. Ltd.	C	Rohtak	0	216	
57	Vainavi Industries Ltd. (MAC Info Pvt. Ltd.)	B	Andhra Pradesh	236	205	-13.14
58	Atria Convergence Technologies Pvt. Ltd.	B	Karnataka	252	188	-25.40
59	Karuturi Networks Ltd.	B	Karnataka	181	188	3.87
60	Verizon Communications India Pvt. Ltd.	A	All India	176	182	3.41
61	Descon Ltd.	B&C	Kolkata & Burdwan District	197	162	-17.77
62	Bhaskar Multinet Ltd.	C	Jaipur	185	152	-17.84
63	Mynet Services India Pvt. Ltd.	C	Tamil Nadu SSA	134	140	4.48
64	Reach Network India Pvt. Ltd.	A	All India	122	130	6.56
65	CJ Online Pvt. Ltd.	C	Ghaziabad	148	118	-20.27
66	Gateway Systems (I) Ltd.	A	All India	127	110	-13.39
67	Guj Info Petro Ltd. (GIPL)	A	Gujarat	0	105	
68	Estel Communications Pvt. Ltd.	A	All India	91	98	7.69
69	Tata Internet Services Ltd.	A	All India	252	84	-66.67
70	Harisree Cable Net Pvt. Ltd.	C	Kanpur SSA	0	65	
71	Swastik Netvisiion Telecom P. Ltd.	B	Gujarat	53	51	-3.77
72	Nextgen Communications Ltd (RPG Infotech Ltd. (Sprint RPG India))	A	All India	2175	48	-97.79
73	PBC Ventures Ltd.(Chemical & Metallurgical Design Co. Ltd.)	B	Delhi	34	31	-8.82
74	Conjoinix Technologies Pvt Ltd	C	J&K, Chandigarh	30	30	0.00
75	L&T Finance Ltd. (L&T Netcom Ltd.)	A	All India	25	25	0.00
76	Direct Internet Ltd.	B&C	Delhi, Gurgaon, Noida	24	24	0.00
77	Nelco	A	All India	8	24	200.00
78	Centre for Development of Advanced Computing, C-DAC	C	Ghaziabad SSA	20	18	-10.00

79	Virtela India Pvt. Ltd.	B&C	Mumbai, Bangalore, Gurgaon	16	17	6.25
80	Astro Network India Pvt. Ltd.	A	Hyderabad	0	14	
81	Opto Network Pvt. Ltd.	C	SSA Ghaziabad	18	14	-22.22
82	GTL Ltd.	A	All India	8	8	0.00
83	Cyquator Technologies Ltd.	B	Mumbai, Navi Mumbai	7	7	0.00
84	Godrej Infotech Ltd.	B	Mumbai	7	7	0.00
85	Kerala State Electronics Development Corp. Ltd. (Keltron)	C	Thiruvananthapura m	0	6	
86	Gujrat Narmada Valley Fertilizer Co. Ltd. (GNFC)	A	All India	5	4	-20.00
87	Surana Telecom Ltd.	B	AP	3	3	0.00
88	Compucom (I) Pvt. Ltd.	C	Jaipur	2	2	0.00
89	Gujarat State Petroleum Corporation Ltd. (GSPC)	B	Gujarat	0	1	
90	Apna Telelink Ltd.	C	Jalandhar	0	0	
91	Rolta India Ltd.	B	Mumbai	1070	0	-100.00
92	VSNL Broadband Ltd.	A	Mumbai & Pune	0	0	
	<b>Total</b>			<b>8581730</b>	<b>9271031</b>	<b>8.03</b>

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

<b>Sl.</b>	<b>Name of the Service Provider</b>	<b>Subscriber Base as on 31-12-06</b>	<b>Subscriber Base as on 31-03-07</b>	<b>%age growth rate</b>	<b>%age Market Share</b>
1	The Arvind Mills Ltd.	9234	9675	4.78	30.71
2	Procall Ltd.	8273	8129	-1.74	25.81
3	QuickCalls India Pvt. Ltd.	4224	4572	8.24	14.51
4	United Liner Agencies of India (Pvt) Ltd	1920	1932	0.63	6.13
5	Smartalk Pvt Ltd.	1518	1631	7.44	5.18
6	Aryadoot Transport Pvt Ltd.	1508	1536	1.86	4.88
7	Arya Offshore Services Pvt Ltd.	1244	1263	1.53	4.01
8	Bhilwara Telenet Services Pvt Ltd.	1140	1158	1.58	3.68
9	German Express Shipping Agency (India) Pvt Ltd. (Hapag Llyod)	916	880	-3.93	2.79
10	Jet-Air Skyline Transport Pvt Ltd.	414	436	5.31	1.38
11	India Satcom Ltd.	274	284	3.65	0.90
12	Container Movement (Bombay) Transport Pvt Ltd.	5	5	0.00	0.02
	<b>Total</b>	<b>30670</b>	<b>31501</b>	<b>2.71</b>	<b>100.00</b>

**Table 4.2****Subscriber Base of VSAT Service Providers**

<b>Sr. No.</b>	<b>Name of Service Provider</b>	<b>Quarter ending</b>		<b>%age growth rate</b>	<b>%age Market Share</b>
		<b>Dec, 2006</b>	<b>Mar, 2007</b>		
1	Hughes Communications Ltd.	19077	20317	6.49	33.41
2	HCL Comnet	19376	20250	4.51	33.30
3	Bharti Tele-venture Limited	8518	8917	4.68	14.66
4	Bharti Broadband	4803	4862	1.23	8.00
5	Essel Shyam	2514	2441	-2.90	4.01
6	Tatanet Services (Tata Services)	3869	3969	2.58	6.53
7	ITI	49	49	0.00	0.08
8	GNFC	20	6	-70.00	0.01
	<b>Total</b>	<b>58226</b>	<b>60811</b>	<b>4.44</b>	<b>100.00</b>

**Table 6.1(a)**

**Range (Minimum and Maximum) of number of channels  
Pay, FTA, Local regularly carried on network as at the end  
of quarter ending 31st March', 2006 and quarter ending  
31st March 2007**

Range	Pay channels		FTA channels		Local Channels		Total	
	Oct - Dec'06	Jan - Mar'07	Oct - Dec'06	Jan - Mar'07	Oct - Dec'06	Jan - Mar'07	Oct - Dec'06	Jan - Mar'07
Maximum	79	128	153	134	9	7	241	254
Minimum	33	30	33	33	2	1	86	71
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 the number of channels (analogue and /or digital) reported across different networks of different reporting service providers having different combinations of pay, FTA and Local channels. Therefore, the sum of number of pay / FTA/Local channels column will not add up to the 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  
31<sup>st</sup> March 2007**

As Reported for the Quarter Ending March 2007							
Mode	Range	Pay Channels		FTA Channels		Local Channels	
		Oct- Dec' 06	Jan- Mar'07	Oct- Dec' 06	Jan- Mar'07	Oct- Dec' 06	Jan- Mar'07
Analogue	Max	54	56	75	73	9	7
	Min	30	30	23	25	1	2
Digital	Max	74	94	93	94	3	4
	Min	13	2	17	5	1	1
Analogue cum Digital (simulcast)	Max	53	35	37	39	3	2
	Min	33	25	11	2	1	1

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

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

<b>Sl.</b>	<b>Name of the Channel</b>	<b>Name of Broadcaster /Distributor</b>	<b>New Pay Channel</b>
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	NDTV Profit	Set Discovery P Ltd	New Pay Channel
19	ZEE SPORTS	ZEE Turner Ltd	New pay Channel
20	Adithya Music (\$)	M/s Channel Plus	New Pay Channel

21	Teja News <b>(\$)</b>	M/s Channel Plus	New Pay Channel
22	Times Now <b>(\$)</b>	M/s Times Global Broadcasting Company Ltd	New pay channel
23	SET PIX	M/s Set Discovery Private Limited	New Pay Channel
24	NEO Sports	M/s Nimbus Sports Broadcast Private Limited	New Pay Channel
25	NEO Sports Plus	M/s Nimbus Sports Broadcast Private Limited	New Pay Channel
26	TCN Turner Classic Movies	M/s Turner International India Pvt Ltd	New Pay Channel
27	Boomerang	M/s Turner International India Pvt Ltd	New 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

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

<b>Sl.</b>	<b>Name of the Channel</b>	<b>Name of Broadcaster /Distributor</b>	<b>FTA Channel turned Pay</b>
1	UDAYA TV	Sun Network	FTA to Pay Channel
2	Ushe TV	Sun Network	FTA to Pay Channel
3	Udaya News	Sun Network	FTA to Pay Channel
4	MTV	Set Discovery P Ltd	FTA to Pay Channel
5	NDTV 24X7	Set Discovery P Ltd	FTA to Pay Channel
6	SAB TV	Set Discovery P Ltd	FTA to Pay Channel
7	ETV <b>(\$)</b>	Ms Ushodaya Enterprises Limited	FTA to Pay Channel
8	ETV 2 <b>(\$)</b>	Ms Ushodaya Enterprises Limited	FTA to Pay Channel
9	DAN Cinema	M/s Dan Television Private Limited	FTA to Pay Channel
10	DAN Music	M/s Dan Television Private Limited	FTA to Pay Channel
11	DAN Tamil OZHI	M/s Dan Television Private Limited	FTA to Pay Channel
12	EURO News	M/s Dan Television Private Limited	FTA to Pay Channel

13	TRACE TV	M/s Dan Television Private Limited	FTA to Pay Channel
14	BBC World	M/s BBC Worldwide India Private Limited	FTA to Pay Channel
15	Zee Kanada	M/s Zee Turner Limited	FTA to Pay Channel
16	Zee Telegue	M/s Zee Turner Limited	FTA to Pay Channel
17	Play TV	M/s Zee Turner Limited	FTA to Pay Channel
18	ETC Punjabi	M/s Zee Turner Limited	FTA to Pay Channel
19	ETC	M/s Zee Turner Limited	FTA to Pay Channel
20	Zee Music	M/s Zee Turner Limited	FTA to Pay Channel
21	Zee Jagran	M/s Zee Turner Limited	FTA to Pay Channel
22	Zee Smile	M/s Zee Turner Limited	FTA to Pay Channel
23	24 Ghante	M/s Zee Turner Limited	FTA to Pay Channel
24	Sahara One	M/s Sahara India TV Network	FTA to Pay Channel
25	Filmy	M/s Sahara India TV Network	FTA to Pay Channel
26	CNN IBN	M/s Global Broadcast News Limited	FTA to Pay Channel
27	SUN TV	M/s Sun TV Limited	FTA to Pay Channel
28	Udaya Movies	M/s Udaya TV Private Limited	FTA to Pay Channel
29	Udaya Vathegalu	M/s Udaya TV Private Limited	FTA to Pay Channel
30	Gemini Music	M/s Gemini TV Private Limited	FTA to Pay Channel
31	Gemini News	M/s Gemini TV Private Limited	FTA to Pay Channel
32	Gemini Cable Vision	M/s Gemini TV Private Limited	FTA to Pay Channel
33	ETV-Kanada	M/s Ushodaya Enterprises Ltd	FTA to Pay Channel
34	ETV-Oriya	M/s Ushodaya Enterprises Ltd	FTA to Pay Channel
35	ETV-Bangla	M/s Ushodaya Enterprises Ltd	FTA to Pay Channel

- Note:-
1. The distribution of Nick, Ten Sports and HBO changed hands and were pay channels as on 26.12.03.
  2. \$ Not as Pay channels in Chennai

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

	<b>Quarter ending 31<sup>st</sup> December, 2006</b>	<b>Quarter ending 31<sup>st</sup> March, 2007</b>
No of service providers Reporting	18	24
No of Radio Stations Reported for the quarter	55	64
Revenue from Advertisements / Air Time Sales (Rs Crores)	97.34	94.15

**Source:** FM Radio Service Providers

**Table 6.4**

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

	<b>up to 31.12.2006</b>	<b>Up to 31.03.2007</b>
Total No. of Applications Received	101	125
No of Licenses issued	37	38
No of Stations Operational	20	20

**Source:** Ministry of Information & Broadcasting

**Table 6.5**

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

	<b>up to 31.12.2006</b>	<b>Up to 31.03.2007</b>
Total No. of Applications Received	7	8
No of Licenses issued	3	3
No of Letters of Intent Issued	1	1
No of Applications rejected	2	2
No of Applications under consideration	1	2

**Source:** Ministry of Information & Broadcasting

## Annex 2.1

### List of Cellular, Wireline & Unified Access Service Providers

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

		Bharti Airtel Ltd.	
		Aircel Ltd.	
Tamilnadu	BPL	Reliance Infocomm	BSNL
	Aircel	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	
Kerala	Idea Communications	Reliance Infocomm	BSNL
	BPL (Hutch)	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	
		Dishnet Wireless Ltd.	
Punjab	BSNL	Reliance Infocomm	BSNL
	Hutchinson South	HFCL Infocom	
		Tata Teleservices	
		Bharti Airtel Ltd.	
		Spice Communications	
	Dishnet Wireless Ltd.		
Haryana	Idea Communications	Reliance Infocomm	BSNL
	ADIL (Hutch)	Tata Teleservices	
	BSNL	Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
Uttar Pradesh(W)	Idea Communications	Reliance Infocomm	BSNL
	BSNL	Huchinson Essar South Ltd.	
		Tata Teleservices	
		Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
Uttar Pradesh(E)	ADIL (Hutch)	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	IDEA Telecommunications	Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
Rajasthan	ADIL (Hutch)	Reliance Infocomm	BSNL
	Bharti Hexacom Ltd.	Tata Teleservices	
	BSNL	Shyam Telelink	
	IDEA Telecommunications		
Madhya Pradesh	Idea	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Reliance Telecom	Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	

WB&A&N	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
		Bharti Airtel Ltd.	
		Huchinson Essar South Ltd.	
		Dishnet Wireless Ltd.	
Himachal Pradesh	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
	IDEA Telecommunications	Dishnet Wireless Ltd.	
		Bharti Airtel Ltd.	
		Essar Spacetel Pvt. Ltd.	
Bihar	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
		Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
		Essar Spacetel Pvt. Ltd.	
		Aditya Birla Telecom Ltd.	
Orissa	BSNL	Reliance Infocomm	BSNL
	Reliance Telecom	Tata Teleservices	
		Bharti Airtel Ltd.	
		Dishnet Wireless Ltd.	
		Essar Spacetel Pvt. Ltd.	
Assam	BSNL	Dishnet Wireless Ltd.	BSNL
	Reliance Telecom	Bharti Airtel Ltd.	
		Essar Spacetel Pvt. Ltd.	
North East	Reliance Telecom	Dishnet Wireless Ltd.	BSNL
	BSNL	Essar Spacetel Pvt. Ltd.	
	Bharti Hexacom Ltd.		
Jammu & Kashmir	BSNL	Dishnet Wireless Ltd.	BSNL
		Bharti Airtel Ltd.	
		Reliance Infocomm	
		Essar Spacetel Pvt. Ltd.	

## Annex 2.2

### Usage Pattern for GSM

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

Circle	Postpaid				Prepaid			
	O/G MOU	I/C MOU	Total MOU	O/G SMS	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	555	655	1210	63	173	220	393	53
Circle B	546	481	1027	47	188	209	397	21
Circle C	461	463	924	42	171	213	384	15
<b>Metro</b>	453	478	932	57	139	196	335	49
<b>All India</b>	<b>511</b>	<b>539</b>	<b>1050</b>	<b>55</b>	<b>173</b>	<b>211</b>	<b>384</b>	<b>36</b>

BLENDED [Postpaid + Prepaid]

Circle	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	223	276	499	54
Circle B	219	232	451	23
Circle C	205	243	448	18
<b>Metro</b>	211	261	471	51
<b>All India</b>	<b>217</b>	<b>254</b>	<b>471</b>	<b>39</b>

Table b: Composition of outgoing minutes of use

Circle	Local (Intra-circle)	NLD (Inter-circle)	ILD
Circle A	89.16%	10.37%	0.46%
Circle B	89.12%	10.35%	0.53%
Circle C	85.52%	14.26%	0.22%
<b>Metro</b>	76.70%	22.38%	0.91%
<b>All India</b>	<b>86.54%</b>	<b>12.92%</b>	<b>0.54%</b>

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

Circle	To Fixed	To Mobile	To On network (Mobile)
Circle A	10%	90%	50%
Circle B	12%	88%	57%
Circle C	11%	89%	63%
<b>Metro</b>	9%	91%	45%
All India	<b>11%</b>	<b>89%</b>	<b>53%</b>

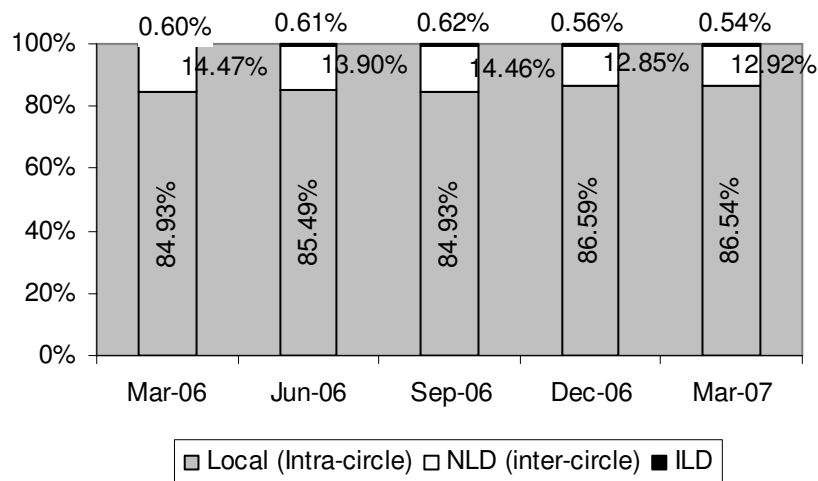
Table d: Composition of outgoing NLD (inter-circle) minutes of use

Circle	To Fixed	To Mobile
Circle A	17%	83%
Circle B	16%	84%
Circle C	19%	81%
Metro	16%	84%
<b>All India</b>	<b>17%</b>	<b>83%</b>

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

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

Chart: Composition of outgoing MOUs



## Annex 2.3

### Usage Pattern – CDMA

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

Circle	Postpaid				Prepaid			
	O/G MOU	I/C MOU	Total MOU	O/G SMS	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	512	380	892	32	162	233	395	29
<b>Circle B</b>	554	327	881	26	213	230	443	18
<b>Circle C</b>	601	391	992	19	256	267	524	14
<b>Metro</b>	554	371	925	30	149	201	350	26
<b>All India</b>	<b>540</b>	<b>362</b>	<b>902</b>	<b>29</b>	<b>183</b>	<b>227</b>	<b>410</b>	<b>24</b>

Circle	Blended			
	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	206	251	457	30
Circle B	248	240	487	19
Circle C	275	274	549	14
Metro	218	230	448	27
<b>All India</b>	<b>227</b>	<b>244</b>	<b>471</b>	<b>24</b>

Table b: Composition of outgoing minutes of use

Circle	Local (Intra-circle)	NLD (Inter-Circle)	ILD
Circle A	89.60%	10.25%	0.15%
Circle B	88.55%	11.12%	0.33%
Circle C	88.97%	10.96%	0.07%
Metro	82.18%	17.63%	0.19%
<b>All India</b>	<b>87.49%</b>	<b>12.29%</b>	<b>0.22%</b>

Table c: Outgoing MOUs per subscriber per month

<b>Circle</b>	<b>Local (Intra-circle)</b>	<b>NLD (Inter-Circle)</b>	<b>ILD</b>
Circle A	185	21	0.3
Circle B	219	28	0.8
Circle C	244	30	0.2
Metro	179	38	0.4
<b>All India</b>	<b>199</b>	<b>28</b>	<b>0.5</b>

Table d: Composition of outgoing Local (Intra-circle) minutes of use based on terminating network.

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>	<b>To Own Network (Mobile)</b>
Circle A	9%	91%	54%
Circle B	8%	92%	68%
Circle C	8%	92%	61%
Metro	9%	91%	63%
<b>All India</b>	<b>8%</b>	<b>92%</b>	<b>62%</b>

Table e: Composition of Outgoing NLD (Inter-Circle) minutes of use based on terminating network.

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>
Circle A	18%	82%
Circle B	7%	93%
Circle C	10%	90%
Metro	9%	91%
<b>All India</b>	<b>11%</b>	<b>89%</b>

Table f: Composition of Total outgoing minutes of use (excl. ILD) based on terminating network.

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>
Circle A	10%	90%
Circle B	9%	91%
Circle C	9%	91%
Metro	10%	90%
<b>All India</b>	<b>9%</b>	<b>91%</b>

## Annex 2.4

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

#### I GSM

Table a: Average Subscriber Outgo Per Minute

[Rs. Per min]

	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended</b>
Circle A	0.96	1.18	1.11
Circle B	0.81	1.10	1.04
Circle C	1.08	1.34	1.27
Metros	1.18	1.56	1.37
<b>All India</b>	<b>1.00</b>	<b>1.22</b>	<b>1.15</b>

\* Outgo includes both Rental and call charges

#### II CDMA

Table b: Average Subscriber Outgo Per Minute

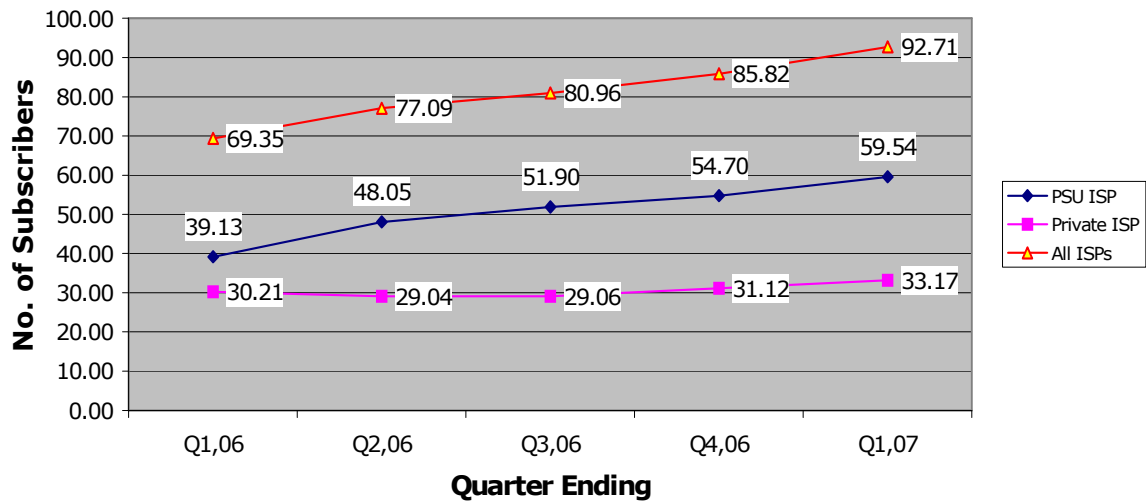
<b>Category</b>	<b>Prepaid</b>	<b>Postpaid</b>	<b>Blended</b>
Category - A	0.79	0.85	0.81
Category - B	0.70	0.71	0.70
Category - C	0.69	0.72	0.69
Metro	1.01	1.08	1.04
<b>All India</b>	<b>0.78</b>	<b>0.88</b>	<b>0.81</b>

\* Outgo includes both Rental and call charges

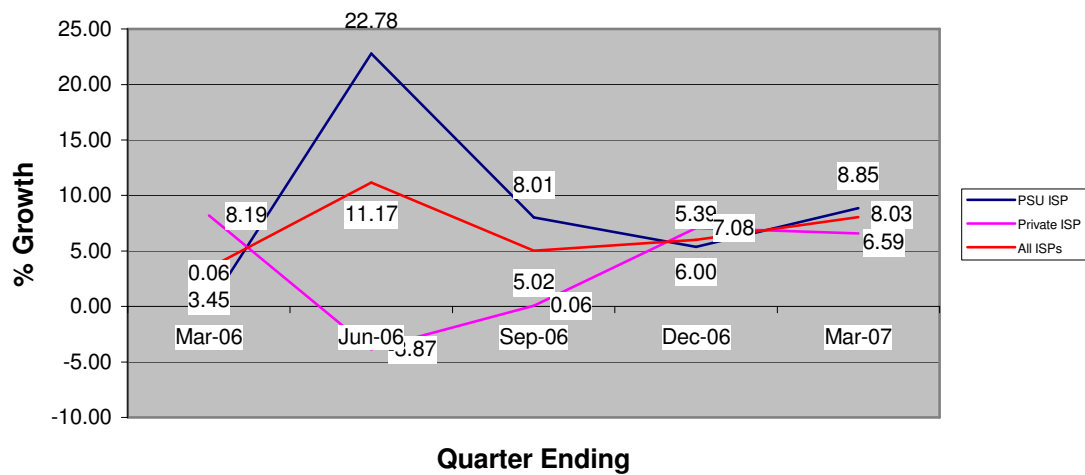
## Annex 3.1

### Growth Pattern of Internet Subscribers

#### Growth Trends



#### Growth Trends-II

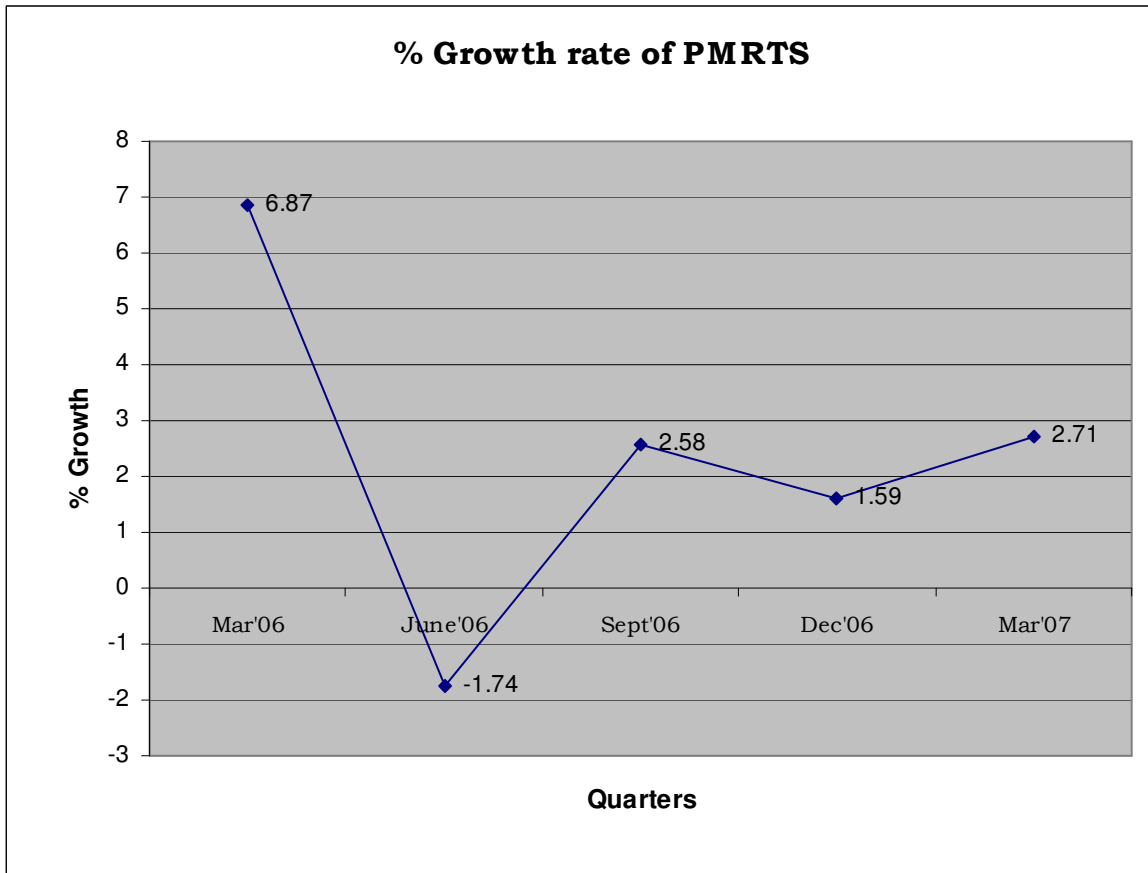


## Annex 3.2

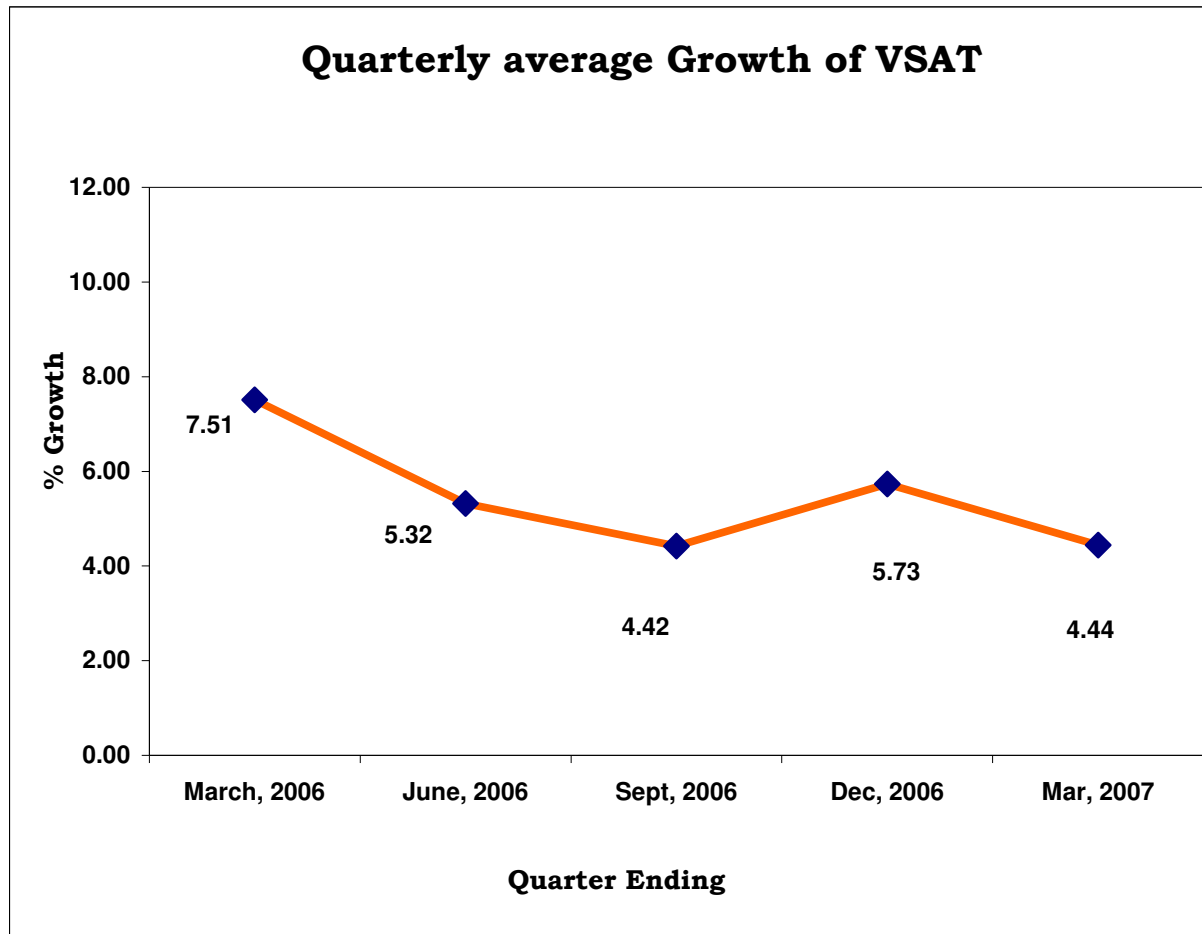
### List of Internet Telephony Service Providers

<b>Sl.</b>	<b>Name of ISP</b>
1	Apna Telelink Ltd.
2	Asianet Satellite Communications Ltd.
3	Bharti Airtel Ltd. (Bharti Televentures Ltd.)
4	Broadband Pacenet (I) Pvt. Ltd.
5	CJ Online Pvt. Ltd.
6	Data Infosys Ltd.
7	Digital2Virtual ISP Pvt. Ltd.
8	DIL Internet Ltd.(Primus Telecommunications)
9	Dishnet Wireless Ltd.
10	Estel Communications Pvt. Ltd.
11	HCL Infinet Ltd.
12	Icenet.net Limited
13	In2cable (I) Ltd.
14	Mahanagar Telephone Nigam Ltd.
15	NetMagic Solutions(P) Ltd.
16	Opto Network Pvt. Ltd.
17	PBC Ventures Ltd.(Chemical & Metallurgical Design Co. Ltd.)
18	Sify Ltd.
19	Southern Online Bio Technologies Ltd.
20	Swastik Netvisiion Telecom P. Ltd.
21	Trak Online Net India Pvt.Ltd
22	Trikon Electronics Pvt. Ltd.
23	Value Healthcare Ltd.
24	Videsh Sanchar Nigam Ltd.
25	YOU Telecom India Pvt. Ltd.

**Growth Rate of PMRTS subscribers**



**Growth Rate of VSAT Subscribers**



## Annex 5.1

### Quality of Service (QOS) Performance for Basic (Wireline) 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			
			100% in < 7days	<5	>90%	For faults pending > 3 days to >15 days	<8 hrs	a) Junction between local exchange (2/1000)	>55%	<0.1%,	100% within 60 days	< 3 days	< 24 hours	< 24 hours	%age of calls answered (electronically)		%age of calls answered by operator (voice to voice)	
																Within 20 sec = 80%	within 40 sec = 95%	Within 60 sec = 80%
1	ANDRA PRADESH	BSNL	75.88	2.93	90.16	0	12.50	NA	57.93%	0.01	100.00	76.60	66.70	70.33	100.00	100.00	53.00	89.00
		RELIANCE	77.95	2.80	100.00	10	4.59	0.0300	NA	0.07	100.00	95.65	96.47	98.70	100.00	100.00	94.00	99.00
		BHARTI	86.76	2.00	94.12	14	3.14	0.0000	51.00%	0.30	48.67	55.81	11.60	95.39	NA	NA	98.00	99.00
		TATA	84.08	3.54	70.56	370	13.20	0.0000	47.51%	0.04	100.00	53.54	100.00	82.60	100.00	100.00	95.00	97.00
2	BIHAR	BSNL	21.47	5.86	81.46	315	10.50	NA	65.00%	0.03	100.00	100.00	97.06	95.18	NA	NA	NA	NA
		TATA	100.00	Nil	Nil	0	NA	NA	NA	0.00	Nil	Nil	Nil	Nil	92.00	92.00	84.00	84.00

		<b>RELIANCE</b>	0.00	Nil	Nil	0	NA	0.2300	NA	Nil	100.00	Nil	Nil	Nil	100.00	100.00	94.00	100.00
3	<b>DELHI</b>	<b>MTNL</b>	98.97	12.67	92.21	16081	9.27	0.0000	49.00%	0.05	100.00	87.26	86.06	61.63	100.00	100.00	81.40	96.40
		<b>RELIANCE</b>	27.17	0.72	100.00	12	4.44	0.0000	NA	0.08	100.00	96.94	96.11	98.58	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	99.17	4.07	98.60	277	10.00	0.0004	53.00%	0.01	6.89	97.62	8.25	97.79	NA	NA	85.37	90.48
		<b>TATA</b>	91.25	0.91	100.00	0	9.60	0.0000	54.26%	0.25	100.00	100.00	95.92	88.10	100.00	100.00	57.00	64.00
4	<b>GUJARAT</b>	<b>BSNL</b>	96.44	5.88	93.44	109	10.90	NA	63.00%	0.10	100.00	71.02	94.96	96.93	100.00	100.00	100.00	100.00
		<b>RELIANCE</b>	95.11	3.18	100.00	12	5.01	0.0900	NA	0.09	100.00	96.15	96.16	99.66	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	100.00	0.05	11.75	18	3.00	0.0004	55.73%	0.08	99.33	46.04	100.00	99.78	NA	NA	39.44	66.12
		<b>TATA</b>	92.69	0.87	81.91	7	9.70	0.0000	51.99%	0.08	100.00	100.00	100.00	100.00	100.00	100.00	87.00	91.00
5	<b>MP &amp; CHATTISGARH</b>	<b>BSNL(MP)</b>	95.85	4.41	95.53	0	5.70	NA	70.00%	0.03	100.00	100.00	99.48	97.68	90.00	95.00	90.00	99.00
		<b>BSNL(Chattisgarh)</b>	96.88	7.54	87.71	2	11.80	NA	65.00%	0.01	100.00	91.27	60.95	100.00	100.00	100.00	90.00	95.00
		<b>RELIANCE</b>	68.52	2.81	100.00	2	4.72	0.0100	NA	0.07	100.00	87.23	NA	NA	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	95.16	5.00	95.48	122	9.00	0.0900	49.20%	0.02	10.07	44.30	99.23	99.38	100.00	100.00	93.04	100.00
6	<b>MAHARASHTRA</b>	<b>BSNL</b>	80.21	6.47	91.19	14420	9.00	NA	54.00%	0.01	100.00	84.72	91.50	92.99	100.00	100.00	100.00	100.00
		<b>RELIANCE</b>	50.61	0.11	100.00	6	5.63	0.1100	NA	0.06	100.00	98.39	95.61	98.96	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	61.84	2.93	94.99	31	3.60	0.0006	55.28%	0.10	99.67	29.85	100.00	99.32	NA	NA	42.53	67.58
		<b>TATA</b>	89.97	1.13	98.88	22	6.00	0.0200	58.00%	0.19	99.00	90.34	90.34	91.16	100.00	100.00	92.00	95.00
7	<b>PUNJAB</b>	<b>BSNL</b>	97.89	9.67	86.42	0	15.80	NA	62.00%	0.01	100.00	97.07	99.56	99.38	100.00	100.00	NA	NA
		<b>RELIANCE</b>	85.15	4.38	100.00	8	4.42	0.0500	NA	0.05	100.00	100.00	98.13	99.96	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	97.24	2.62	98.07	101	12.80	0.0003	53.00%	0.02	8.75	93.49	28.51	99.27	NA	NA	85.37	90.48
		<b>TATA</b>	100.00	Nil	Nil	0	NA	NA	86.50%	0.00	NA	Nil	Nil	Nil	100.00	100.00	92.00	95.00

		<b>HFCL</b>	95.36	1.00	98.96	NA	4.89	0.0002	55.89%	0.09	100.00	96.47	100.00	98.81	100.00	100.00	84.00	97.00
8	<b>RAJASTHAN</b>	<b>BSNL</b>	74.66	7.14	91.09	0	8.20	NA	49.00%	0.01	100.00	97.56	98.60	96.78	86.00	96.00	90.00	95.00
		<b>RELIANCE</b>	53.44	2.62	100.00	0	7.80	0.3900	NA	0.00	100.00	100.00	99.41	99.04	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	95.10	5.43	98.71	29	9.60	0.0003	53.00%	0.05	2.90	73.20	16.67	99.06	NA	NA	85.37	90.48
		<b>SHYAM</b>	97.50	2.84	92.62	NA	4.80	0.0010	88.00%	0.10	90.00	96.11	100.00	96.18	NA	NA	87.00	NA
9	<b>TAMILNADU</b>	<b>BSNL</b>	100.00	2.79	96.96	0	5.60	NA	78.00%	0.01	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
		<b>RELIANCE</b>	72.48	0.79	100.00	13	6.60	0.1300	NA	0.03	100.00	100.00	99.30	99.83	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	99.21	2.57	99.78	6	5.29	0.0000	54.00%	0.05	99.33	88.98	0.00	99.07	90.36	93.39	93.37	95.93
		<b>TATA</b>	100.00	0.00	Nil	0	5.29	0.0000	61.02%	Nil	100.00	Nil	Nil	100.00	100.00	100.00	89.00	93.00
10	<b>HARYANA</b>	<b>BSNL</b>	98.68	6.19	93.98	654	7.80	NA	73.00%	0.01	100.00	99.89	98.66	98.43	100.00	100.00	80.00	100.00
		<b>RELIANCE</b>	36.30	Nil	NA	0	NA	0.0900	NA	0.00	100.00	Nil	Nil	100.00	100.00	100.00	94.00	100.00
		<b>TATA</b>	100.00	Nil	Nil	0	0.00	NA	NA	0.00	NA	Nil	Nil	Nil	100.00	100.00	91.00	94.00
		<b>BHARTI</b>	98.13	9.09	99.27	19	10.70	0.0003	53.00%	0.10	4.57	97.99	22.58	95.00	NA	NA	85.37	90.48
11	<b>KARNATAKA</b>	<b>BSNL</b>	98.74	5.26	92.04	3658	12.40	NA	63.00%	0.03	100.00	93.92	96.41	97.40	100.00	100.00	100.00	100.00
		<b>RELIANCE</b>	36.82	0.80	100.00	6	4.62	0.5700	NA	0.05	100.00	100.00	98.78	98.75	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	94.52	1.00	97.77	258	3.21	0.0001	60.00%	0.04	99.95	97.08	52.52	98.75	98.46	99.11	88.50	93.53
		<b>TATA</b>	89.20	0.04	100.00	0	4.30	0.0000	48.76%	0.08	100.00	100.00	100.00	100.00	100.00	100.00	88.00	92.00
12	<b>A&amp;N</b>	<b>BSNL</b>	90.05	5.75	66.90	0	3.90	NA	44.00%	0.06	100.00	32.50	100.00	100.00	NA	NA	NA	NA
13	<b>ASSAM</b>	<b>BSNL</b>	38.86	7.62	75.43	99	11.20	NA	50.00%	0.06	100.00	100.00	88.01	66.75	96.00	100.00	86.00	99.00
14	<b>CHENNAI</b>	<b>BSNL</b>	97.57	3.55	94.10	0	10.10	NA	80.00%	0.01	100.00	96.64	100.00	100.00	100.00	100.00	98.00	99.00
		<b>RELIANCE</b>	80.11	1.96	99.87	0	4.50	0.0600	NA	0.03	100.00	96.04	97.99	99.56	100.00	100.00	94.00	100.00

		<b>BHARTI</b>	97.23	2.00	99.62	43	6.51	0.0003	56.00%	0.13	81.33	76.33	0.00	98.89	90.36	93.39	93.37	95.93
		<b>TATA</b>	81.28	0.00	Nil	0	0.00	0.0000	63.52%	Nil	100.00	100.00	100.00	100.00	100.00	100.00	90.00	94.00
15	<b>H P</b>	<b>RELIANCE</b>	89.93	Nil	NA	0	NA	4.0300	NA	0.00	100.00	Nil	Nil	Nil	100.00	100.00	94.00	100.00
		<b>BSNL</b>	100.00	9.17	90.63	1642	7.30	NA	65.00%	0.02	100.00	Nil	87.70	93.17	NA	NA	NA	NA
16	<b>JHARKHAND</b>	<b>BSNL</b>	97.38	5.14	88.69	0	12.50	NA	52.00%	0.12	NA	90.54	96.45	99.62	NA	NA	NA	NA
17	<b>J &amp; K</b>	<b>BSNL</b>	Nil	8.52	85.40	0	6.50	NA	50.96%	0.08	NA	Nil	99.37	98.75	NA	NA	NA	NA
		<b>BSNL</b>	95.44	5.83	89.85	3024	11.10	NA	71.00%	0.02	100.00	91.34	97.34	97.13	100.00	100.00	73.00	100.00
18	<b>KERALA</b>	<b>BHARTI</b>	77.18	3.57	98.52	2	2.61	0.0001	57.00%	0.20	100.00	75.79	0.00	99.28	NA	NA	96.08	98.62
		<b>TATA</b>	92.11	Nil	Nil	0	0.00	NA	62.05%	0.00	100.00	Nil	Nil	Nil	100.00	100.00	88.00	92.00
		<b>RELIANCE</b>	87.30	0.47	100.00	0	4.67	0.1400	NA	0.02	100.00	66.67	95.80	98.91	100.00	100.00	94.00	100.00
		<b>BHARTI</b>	88.84	4.86	87.16	126	39.40	0.0000	53.00%	0.04	0.00	6.52	18.57	97.97	85.37	90.48	85.37	90.48
19	<b>KOLKATA</b>	<b>RELIANCE</b>	69.42	0.93	100.00	25	4.72	0.0000	NA	0.09	100.00	86.89	96.81	92.87	100.00	100.00	94.00	100.00
		<b>TATA</b>	75.11	Nil	Nil	0	0.00	NA	52.88%	0.00	NA	Nil	Nil	100.00	90.00	90.00	72.00	72.00
		<b>BSNL</b>	99.55	3.60	93.76	3486	9.40	NA	60.00%	0.03	100.00	96.80	99.40	61.71	100.00	100.00	NA	NA
		<b>TATA</b>	70.54	1.12	97.83	164	6.17	0.0000	58.00%	0.50	99.58	94.18	Nil	94.72	100.00	100.00	73.00	78.00
20	<b>MUMBAI</b>	<b>BHARTI</b>	94.38	1.97	95.14	27	2.61	0.0000	56.00%	0.13	99.33	56.92	100.00	99.89	NA	NA	44.48	68.87
		<b>RELIANCE</b>	20.21	0.72	100.00	10	4.34	0.0000	NA	0.06	100.00	47.02	95.87	99.49	100.00	100.00	94.00	100.00
		<b>MTNL</b>	63.05	7.84	84.41	101675	19.61	0.0006	55.56%	0.07	100.00	33.88	49.69	57.61	99.83	100.00	85.60	89.73
21	<b>NE-I</b>	<b>BSNL</b>	45.99	4.77	81.82	2831	30.30	NA	58.00%	0.07	100.00	68.81	100.00	92.20	NA	NA	NA	NA
22	<b>NE-II</b>	<b>BSNL</b>	95.03	4.21	92.61	1211	14.90	NA	60.00%	0.05	100.00	100.00	100.00	98.71	89.00	99.00	NA	NA
		<b>BSNL</b>	62.08	5.25	90.82	6740	7.70	NA	56.00%	0.03	100.00	100.00	NA	NA	NA	NA	NA	NA
23	<b>ORISSA</b>	<b>RELIANCE</b>	32.93	Nil	NA	0	NA	0.0100	NA	0.00	100.00	Nil	Nil	Nil	100.00	100.00	94.00	95.50

24	UP-E	<b>BSNL</b>	100.00	6.58	92.10	11877	7.10	NA	72.00%	0.01	100.00	99.60	94.85	98.12	100.00	100.00	98.00	99.00
		<b>BHARTI</b>	96.48	11.97	91.72	177	20.40	0.0000	53.00%	0.03	0.19	84.68	19.80	97.57	NA	NA	85.37	90.48
		<b>RELIANCE</b>	87.98	4.71	100.00	21	4.27	0.1100	NA	0.06	100.00	96.97	97.63	98.86	100.00	100.00	94.00	100.00
25	UP-W	<b>BSNL</b>	91.58	7.91	91.02	0	8.50	NA	58.00%	0.02	100.00	58.18	99.21	99.21	100.00	100.00	91.00	94.00
		<b>BHARTI</b>	96.97	9.90	88.75	158	27.96	0.0000	53.00%	0.06	4.31	89.57	21.71	97.98	NA	NA	85.37	90.48
		<b>RELIANCE</b>	53.22	Nil	NA	0	NA	1.1700	NA	0.00	100.00	Nil	Nil	Nil	100.00	100.00	94.00	100.00
26	UTTRANCHAL	<b>BSNL</b>	61.90	7.12	93.12	9	7.00	NA	72.00%	0.01	100.00	95.45	98.73	98.67	37.00	100.00	NA	NA
27	WEST BENGAL	<b>BSNL</b>	65.43	7.97	89.17	730	14.30	NA	65.00%	0.04	100.00	100.00	99.76	100.00	92.00	92.00	97.00	99.00
		<b>RELIANCE</b>	8.06	Nil	NA	0	NA	1.1700	NA	0.00	100.00	Nil	Nil	Nil	100.00	100.00	94.00	100.00

Operator not meeting the prescribed benchmark

NA = Data not available

## Annex 5.2

### Quality of Service Performance for Cellular Mobile Services

Sl. No.	Name of Licensees & Service area	Parameters																	
		(A) Network Performance									(B) Customer help lines				(C) Billing Complaints				
		(i)	(ii)	(iii)	(iv)						(v)	(vi)	(i)			(i)	(ii)	(iii)	
		Accumulated 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 (iii) above	
		Benchmarks																	
		<24 hrs	>95%	Between 9 to 20 seconds depending upon number of paging attempts (Average of 10 seconds)	(i) SDCCCH / 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	Hutch Essar	1.57	99.94%	14.05	0.77%	0.75%	0.75%	1.19%	1.30%	1.31%	1.20%	98.67%	100.00%	100.00%	100.00%	100.00%	0.039%	100.00%	15 days
2	IDEA Cellular	1.37	98.79%	9.16	0.49%	0.49%	0.50%	0.81%	0.79%	0.98%	1.22%	99.23%	98.00%	98.00%	92.27%	95.84%	0.052%	100.00%	30 days
3	BSNL	0.00	97.30%	8.60	0.70%	0.70%	0.70%	1.40%	1.30%	1.30%	1.30%	97.50%	100.00%	100.00%	64.00%	70.00%	0.009%	100.00%	30 days
4	Bharti Airtel Limited	21.83	97.12%	18.84	0.79%	0.91%	0.86%	0.90%	0.53%	0.62%	1.13%	98.27%	99.92%	99.96%	95.33%	97.86%	0.080%	100.00%	30 days
5	Reliance Comm	0.77	99.54%	3.60	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.83%	99.27%	99.50%	99.50%	71.51%	78.97%	0.080%	100.00%	30 days
6	Tata Teleservices	15.92	98.14%	0.00	N/Ap	N/Ap	N/Ap	1.96%	0.58%	0.60%	NA	97.31%	100.00%	100.00%	92.00%	95.33%	0.150%	100.00%	30 days
	<b>ii Gujarat</b>																		
7	Hutch Essar	11.48	98.22%	9.73	0.10%	0.12%	0.12%	0.45%	0.57%	0.51%	1.02%	97.99%	100.00%	100.00%	92.31%	98.95%	0.082%	100.00%	15 days
8	IDEA Cellular	3.15	98.66%	13.29	0.96%	0.97%	0.97%	0.47%	0.76%	0.51%	1.79%	97.47%	86.00%	98.66%	98.66%	98.78%	0.073%	100.00%	30 days
9	BSNL	0.00	99.20%	2.23	0.40%	0.50%	0.50%	1.50%	1.40%	1.70%	1.02%	95.00%	100.00%	100.00%	80.00%	96.00%	0.040%	100.00%	Nil
10	Bharti Airtel Limited	0.00	93.15%	11.25	0.79%	0.41%	0.55%	0.85%	0.47%	0.40%	1.18%	98.15%	99.98%	100.00%	97.46%	98.98%	0.100%	100.00%	30 days
11	Reliance Comm	0.30	99.46%	3.94	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.86%	99.73%	99.50%	99.50%	71.51%	78.97%	0.080%	100.00%	30 days
12	Tata Teleservices	8.29	98.76%	5.70	N/Ap	N/Ap	N/Ap	0.08%	0.08%	0.09%	0.41%	97.49%	100.00%	100.00%	84.90%	87.70%	0.100%	100.00%	30 days
	<b>iii Andhra Pradesh</b>																		
13	IDEA Cellular	0.00	99.98%	7.00	0.20%	0.24%	0.20%	1.20%	1.25%	1.04%	0.61%	99.50%	100.00%	100.00%	82.00%	95.00%	0.040%	100.00%	30 days
14	Bharti Airtel Limited	8.10	98.07%	12.00	0.94%	0.32%	1.42%	1.90%	0.29%	1.61%	0.73%	99.21%	100.00%	100.00%	97.00%	98.00%	0.010%	100.00%	30 days
15	BSNL	15.20	98.24%	7.10	0.60%	0.70%	0.70%	2.70%	3.20%	3.20%	1.48%	98.27%	100.00%	100.00%	11.00%	13.00%	0.010%	100.00%	1 day
16	Hutch Essar	18.00	97.43%	9.00	0.18%	0.17%	0.18%	0.29%	0.20%	0.20%	1.53%	98.00%	100.00%	100.00%	94.18%	97.82%	0.027%	100.00%	15 days
17	Reliance Comm	0.35	99.55%	3.80	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.62%	99.86%	99.50%	99.50%	71.51%	78.97%	0.080%	100.00%	30 days
18	Tata Teleservices	13.20	98.26%	6.17	N/Ap	N/Ap	N/Ap	0.32%	0.86%	0.91%	0.50%	96.08%	100.00%	100.00%	94.60%	96.60%	0.040%	100.00%	30 days

<b>iv</b>	<b>Karnataka</b>																			
19	Bharti Airtel Limited	5.71	99.45%	7.90	1.20%	1.59%	0.95%	1.67%	2.00%	1.39%	1.34%	86.08%	97.34%	97.35%	94.29%	95.13%	0.000%	100.00%	30 days	
20	Spice Comm.	19.16	98.66%	8.37	NA	NA	0.64%	NA	NA	1.21%	1.31%	99.08%	100.00%	100.00%	94.30%	99.75%	0.018%	100.00%	30 days	
21	BSNL	6.24	97.10%	5.39	1.00%	0.90%	0.80%	1.80%	1.90%	1.80%	1.05%	97.53%	100.00%	100.00%	59.83%	65.83%	0.080%	100.00%	07 days	
22	Hutch Essar	20.51	98.31%	10.23	0.13%	0.11%	0.11%	1.56%	1.45%	1.44%	1.93%	95.36%	100.00%	100.00%	97.32%	98.20%	0.044%	100.00%	15 days	
23	Reliance Comm	0.37	99.46%	3.86	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.61%	100.00%	99.50%	99.50%	71.51%	78.97%	0.080%	100.00%	30 days	
24	Tata Teleservices	13.07	97.63%	9.70	N/A	N/A	N/A	0.63%	0.58%	0.13%	0.82%	96.53%	100.00%	100.00%	85.40%	86.50%	0.070%	100.00%	30 days	
<b>v</b>	<b>Tamil Nadu</b>																			
25	Hutch Essar	19.15	99.03%	12.32	0.13%	0.15%	0.16%	1.82%	1.84%	1.87%	1.16%	99.60%	100.00%	100.00%	96.83%	98.33%	0.006%	100.00%	15 days	
26	Aircel	NA	97.32%	11.21	0.24%	0.23%	0.14%	1.89%	1.94%	2.08%	0.77%	89.49%	NA	NA	NA	NA	0.030%	100.00%	30 days	
27	BSNL	0.00	95.06%	9.51	0.90%	0.90%	0.90%	2.00%	1.90%	1.90%	1.09%	96.57%	100.00%	100.00%	90.00%	97.00%	0.000%	100.00%	Nil	
28	Bharti Airtel Limited	0.00	99.51%	6.14	0.24%	0.42%	0.24%	0.14%	0.25%	0.15%	1.42%	95.61%	99.00%	99.00%	98.90%	98.90%	0.090%	100.00%	30 days	
29	Reliance Comm	0.39	99.53%	4.02	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.96%	99.50%	99.05%	99.50%	71.51%	78.97%	0.080%	100.00%	30 days	
30	Tata Teleservices	13.30	99.78%	12.60	N/A	N/A	N/A	0.49%	0.84%	0.90%	0.85%	95.97%	100.00%	100.00%	93.60%	95.60%	0.030%	100.00%	30 days	
	<b>B Circle</b>																			
<b>vi</b>	<b>Kerala</b>																			
31	IDEA Cellular	18.56	99.21%	13.30	0.42%	0.47%	0.48%	1.92%	1.88%	1.82%	0.71%	99.13%	98.00%	100.00%	92.00%	96.00%	0.072%	100.00%	30 days	
32	Hutch Essar	16.20	96.11%	14.02	0.64%	0.68%	0.11%	0.74%	1.30%	1.44%	1.58%	98.78%	100.00%	100.00%	95.29%	99.92%	0.083%	100.00%	15 days	
33	BSNL	11.17	99.25%	4.40	0.20%	0.20%	0.20%	1.70%	1.70%	2.30%	1.49%	98.08%	99.50%	99.63%	60.32%	67.43%	0.000%	100.00%	30 days	
34	Bharti Airtel Limited	15.53	99.44%	15.35	0.20%	0.41%	0.48%	0.20%	0.15%	0.14%	1.14%	98.89%	100.00%	100.00%	96.00%	97.33%	0.060%	100.00%	30 days	
35	Tata Teleservices	0.00	99.93%	17.70	N/A	N/A	N/A	0.00%	0.00%	0.00%	0.53%	97.67%	100.00%	100.00%	95.30%	96.30%	0.030%	100.00%	30 days	
36	Reliance Comm	0.19	99.36%	4.05	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69%	99.27%	99.50%	99.50%	71.51%	78.97%	0.070%	100.00%	30 days	
<b>vii</b>	<b>Punjab</b>																			
37	Spice Comm.	5.80	97.52%	10.54	0.24%	0.21%	0.24%	1.61%	1.57%	1.55%	1.54%	96.70%	100.00%	100.00%	82.00%	95.00%	0.010%	100.00%	07 days	
38	HFCL - CDMA	4.53	96.78%	13.10	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.64%	98.25%	100.00%	100.00%	98.00%	98.00%	0.000%	NA	30 days	
39	Bharti Airtel Limited	5.47	99.38%	3.18	0.82%	0.16%	0.11%	0.19%	0.18%	0.09%	1.74%	99.59%	99.46%	99.75%	90.91%	95.74%	0.090%	100.00%	30 days	
40	Hutch Essar	10.58	99.16%	10.00	0.04%	0.05%	0.06%	0.07%	0.07%	0.08%	1.48%	98.00%	99.87%	99.88%	82.55%	96.50%	0.030%	100.00%	15 days	
41	BSNL	1.15	98.52%	3.74	0.10%	0.10%	0.10%	1.10%	0.90%	0.90%	2.36%	100.00%	94.00%	96.00%	93.00%	98.00%	0.000%	100.00%	30 days	
42	Reliance Comm	0.28	99.51%	4.03	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.93%	99.79%	99.50%	99.50%	71.51%	78.97%	0.090%	100.00%	30 days	
43	Tata Teleservices	0.00	98.56%	12.00	N/A	N/A	N/A	0.00%	0.00%	0.00%	0.78%	98.17%	100.00%	100.00%	83.60%	84.90%	0.100%	100.00%	30 days	

<b>viii</b>	<b>Haryana</b>																			
44	IDEA Cellular	11.34	99.97%	9.84	0.49%	0.45%	0.45%	0.71%	0.58%	0.60%	0.83%	99.41%	100.00%	100.00%	94.00%	98.00%	0.046%	100.00%	30 days	
45	Hutch Essar	4.10	99.96%	10.00	0.05%	0.07%	0.12%	1.34%	1.19%	1.42%	1.93%	95.36%	100.00%	100.00%	84.41%	96.87%	0.071%	100.00%	15 days	
46	BSNL	1.11	96.00%	4.10	0.90%	0.90%	0.90%	1.90%	1.90%	1.90%	2.80%	96.70%	100.00%	100.00%	80.00%	95.00%	0.010%	100.00%	30 days	
47	Bharti Airtel Limited	12.96	99.51%	2.90	0.39%	0.05%	0.11%	0.12%	0.10%	0.07%	1.53%	98.61%	99.92%	99.98%	91.00%	95.00%	0.070%	100.00%	30 days	
48	Reliance Comm	0.34	99.43%	4.25	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	99.00%	99.50%	99.50%	71.51%	78.97%	0.080%	100.00%	30 days	
49	Tata Teleservices	7.17	96.95%	15.00	N/Ap	N/Ap	N/Ap	0.04%	0.06%	0.08%	1.29%	99.83%	100.00%	100.00%	80.50%	81.40%	0.100%	100.00%	30 days	
<b>ix</b>	<b>UP - W</b>																			
50	Hutch Essar	0.00	99.86%	9.50	0.63%	0.38%	0.59%	1.65%	1.88%	1.48%	2.18%	95.46%	99.81%	98.82%	91.03%	98.72%	0.062%	100.00%	15 days	
51	IDEA Cellular	14.46	99.70%	11.97	0.90%	0.92%	0.92%	1.87%	1.85%	1.33%	1.38%	96.93%	100.00%	100.00%	88.00%	96.00%	0.072%	100.00%	30 days	
52	BSNL	0.00	98.06%	10.10	0.60%	0.90%	0.70%	1.40%	1.80%	1.60%	1.97%	97.14%	85.00%	96.20%	89.00%	94.50%	0.003%	100.00%	07 days	
53	Bharti Airtel Limited	23.10	98.28%	14.00	0.62%	0.47%	0.92%	0.23%	0.68%	0.89%	1.51%	96.47%	95.00%	95.00%	86.00%	90.00%	0.140%	100.00%	30 days	
54	Reliance Comm	0.42	99.60%	3.98	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.88%	99.47%	99.50%	99.50%	71.51%	78.97%	0.080%	100.00%	30 days	
55	Tata Teleservices	5.17	97.46%	13.60	N/Ap	N/Ap	N/Ap	0.05%	0.06%	0.08%	1.24%	98.90%	100.00%	100.00%	95.20%	96.80%	0.040%	100.00%	30 days	
<b>x</b>	<b>UP - E</b>																			
56	Bharti Airtel Limited	8.00	97.98%	9.66	0.39%	0.31%	0.39%	0.96%	0.86%	0.72%	1.60%	95.56%	99.97%	99.99%	92.59%	93.62%	0.130%	100.00%	30 days	
57	Hutch Essar	0.00	97.26%	9.00	0.25%	0.23%	0.20%	1.36%	1.32%	1.35%	1.93%	95.36%	99.90%	99.90%	83.60%	96.80%	0.003%	100.00%	15 days	
58	IDEA Cellular	2.15	97.90%	12.00	0.56%	0.51%	0.57%	1.82%	1.95%	1.92%	1.17%	99.00%	85.00%	95.00%	82.00%	95.00%	0.043%	100.00%	30 days	
59	BSNL	18.00	96.00%	13.00	0.80%	0.80%	0.70%	1.80%	1.70%	1.90%	2.60%	96.00%	86.00%	97.00%	84.00%	96.00%	0.100%	100.00%	30 days	
60	Reliance Comm	0.59	99.45%	4.30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.03%	99.29%	99.50%	99.50%	71.51%	78.97%	0.090%	100.00%	30 days	
61	Tata Teleservices	8.48	96.76%	9.60	N/Ap	N/Ap	N/Ap	0.00%	0.05%	0.05%	0.66%	98.50%	100.00%	100.00%	96.00%	96.70%	0.050%	100.00%	30 days	
<b>xi</b>	<b>Rajasthan</b>																			
62	Hutch Essar	22.29	96.20%	9.87	0.80%	0.94%	0.96%	1.67%	1.71%	1.81%	1.54%	96.46%	99.68%	99.83%	99.15%	99.64%	0.093%	100.00%	15 days	
63	BSNL	20.50	97.40%	5.70	0.40%	0.50%	0.40%	1.50%	1.60%	1.30%	2.90%	97.40%	99.90%	100.00%	87.20%	96.20%	0.060%	100.00%	30 days	
64	IDEA Cellular	22.58	99.30%	10.12	0.93%	0.87%	0.55%	1.09%	1.65%	0.32%	1.38%	99.34%	NA	NA	82.00%	95.00%	2.150%	91.00%	30 days	
65	Bharti Airtel Limited	23.10	98.66%	9.00	1.00%	1.05%	0.95%	0.96%	1.14%	1.98%	17.43%	97.22%	99.96%	100.00%	97.86%	98.76%	0.120%	100.00%	30 days	
66	Reliance Comm	0.57	99.46%	4.05	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.98%	99.35%	99.50%	99.50%	71.51%	78.97%	0.070%	100.00%	30 days	
67	Tata Teleservices	3.32	97.52%	4.30	N/Ap	N/Ap	N/Ap	0.61%	0.42%	0.29%	0.95%	98.40%	100.00%	100.00%	90.50%	96.20%	0.070%	100.00%	30 days	
68	Shyam Telelink Ltd	8.35	98.68%	6.00	NA	NA	0.88%	NA	NA	1.88%	0.62%	98.00%	NA	NA	87.00%	87.00%	0.090%	100.00%	27 days	
<b>xii</b>	<b>Madhya Pradesh</b>																			
69	IDEA Cellular	17.22	97.76%	8.31	0.73%	0.71%	0.68%	1.39%	1.20%	1.19%	1.41%	99.13%	100.00%	100.00%	98.34%	99.89%	0.008%	100.00%	30 days	
70	Reliance Telecom	22.32	100.00%	7.72	0.22%	0.24%	0.21%	2.32%	3.09%	2.90%	1.41%	95.34%	100.00%	100.00%	100.00%	100.00%	0.010%	100.00%	01 day	
71	BSNL	2.13	95.44%	9.64	0.30%	0.20%	0.40%	1.30%	1.10%	1.40%	1.68%	97.20%	100.00%	100.00%	64.00%	70.00%	0.006%	100.00%	21 days	
72	Bharti Airtel Limited	22.56	98.92%	10.23	0.91%	0.98%	0.89%	1.53%	1.45%	1.18%	1.09%	96.42%	99.97%	99.98%	99.20%	99.53%	0.010%	100.00%	30 days	
73	Reliance Comm	0.41	99.44%	4.19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.06%	98.92%	99.50%	99.50%	71.51%	78.97%	0.070%	100.00%	30 days	
74	Tata Teleservices	1.28	97.57%	9.40	N/Ap	N/Ap	N/Ap	0.00%	0.00%	0.00%	0.82%	99.07%	100.00%	100.00%	94.30%	97.30%	0.080%	100.00%	30 days	

<b>xiii</b>	<b>West Bengal</b>																			
75	Bharti Airtel Limited	0.00	95.45%	7.00	0.77%	1.75%	2.91%	1.82%	1.98%	1.95%	1.85%	100.00%	100.00%	100.00%	87.00%	90.00%	0.130%	100.00%	30 days	
76	Reliance Telecom	9.50	99.00%	8.59	0.91%	0.96%	0.90%	10.91%	7.00%	5.00%	1.73%	99.12%	NA	NA	100.00%	100.00%	0.000%	100.00%	Nil	
77	BSNL	0.00	96.10%	7.50	0.80%	0.80%	0.80%	1.70%	1.70%	1.70%	2.17%	96.70%	87.00%	97.00%	83.00%	97.00%	0.000%	100.00%	01 day	
78	Tata Teleservices	15.52	96.87%	13.70	N/Ap	N/Ap	N/Ap	0.72%	0.52%	0.92%	1.12%	97.96%	96.00%	96.00%	85.90%	86.70%	0.070%	100.00%	30 days	
79	Reliance Comm	0.11	99.44%	4.01	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.10%	99.81%	99.50%	99.50%	71.51%	78.97%	0.060%	100.00%	30 days	
80	Hutch Essar	0.00	99.96%	14.50	0.53%	0.46%	0.64%	0.82%	0.86%	0.82%	1.50%	96.00%	100.00%	100.00%	81.81%	96.31%	0.078%	100.00%	15 days	
81	Dishnet	0.00	98.63%	8.00	0.99%	0.99%	0.99%	0.97%	0.98%	0.92%	0.74%	99.67%	88.00%	88.00%	98.00%	98.00%	0.000%	N/Ap	N/Ap	
	<b>C Circle</b>																			
<b>xiv</b>	<b>Himachal Pradesh</b>																			
82	Bharti Airtel Limited	13.27	98.93%	3.04	0.39%	0.37%	0.12%	0.33%	1.01%	0.10%	1.60%	97.81%	99.61%	99.86%	96.30%	98.00%	0.020%	100.00%	30 days	
83	IDEA Cellular	14.00	99.28%	9.50	0.17%	0.52%	0.78%	0.53%	1.08%	1.51%	1.23%	99.32%	Nil	Nil	98.00%	100.00%	0.026	100.00%	30 days	
84	Reliance Telecom	7.37	98.70%	7.78	0.59%	0.72%	0.64%	4.37%	3.00%	2.90%	1.97%	97.42%	NA	NA	98.00%	100.00%	Nil	N/Ap	N/Ap	
85	BSNL	0.00	97.30%	5.70	0.50%	0.60%	0.70%	1.90%	1.80%	1.90%	2.10%	97.30%	99.00%	99.20%	80.80%	95.60%	0.000%	100.00%	01 day	
86	Reliance Comm	0.21	99.50%	4.23	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.90%	99.75%	99.50%	99.50%	71.51%	78.97%	0.020%	100.00%	30 days	
87	Tata Teleservices	9.43	98.48%	4.00	N/Ap	N/Ap	N/Ap	0.01%	0.02%	0.01%	0.76%	98.35%	100.00%	100.00%	97.00%	98.00%	0.060%	100.00%	30 days	
88	Dishnet	0.00	98.42%	8.00	0.92%	0.97%	0.97%	0.88%	0.96%	0.95%	0.80%	99.70%	100.00%	100.00%	100.00%	100.00%	Nil	N/Ap	N/Ap	
<b>xv</b>	<b>Bihar</b>																			
89	Reliance Telecom	10.90	97.00%	7.47	0.77%	0.98%	1.23%	5.16%	5.00%	5.36%	1.57%	99.14%	NA	NA	NA	100.00%	0.000%	100.00%	Nil	
90	BSNL	19.00	98.50%	11.00	0.50%	0.40%	0.40%	1.00%	0.80%	0.70%	1.20%	98.00%	89.00%	95.00%	87.00%	97.00%	0.000%	100.00%	30 days	
91	Reliance Comm	0.30	99.48%	3.90	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.82%	99.60%	99.50%	99.50%	71.51%	78.97%	0.070%	100.00%	30 days	
92	Bharti Airtel Limited	15.52	91.10%	16.00	4.70%	5.69%	2.43%	2.42%	1.78%	1.68%	3.10%	95.50%	100.00%	100.00%	94.70%	95.74%	0.100%	96.00%	30 days	
93	Tata Teleservices	18.13	97.54%	11.30	N/Ap	N/Ap	N/Ap	0.86%	0.98%	1.11%	0.88%	97.10%	98.50%	98.50%	86.10%	88.00%	0.060%	100.00%	30 days	
94	Dishnet	0.00	98.32%	8.00	0.88%	0.95%	0.98%	0.89%	0.93%	0.96%	0.70%	99.70%	100.00%	100.00%	100.00%	100.00%	Nil	N/Ap	N/Ap	
<b>xvi</b>	<b>Orissa</b>																			
95	Reliance Telecom	28.28	98.89%	7.39	0.91%	0.62%	0.37%	2.80%	2.80%	2.75%	1.99%	96.50%	NA	NA	95.67%	100.00%	0.000%	100.00%	Nil	
96	BSNL	13.00	98.00%	12.00	1.00%	1.00%	1.00%	1.90%	2.00%	1.90%	1.95%	98.00%	97.00%	98.00%	94.00%	98.00%	0.040%	100.00%	Nil	
97	Bharti Airtel Limited	0.00	97.52%	8.10	2.26%	2.55%	1.14%	1.81%	0.87%	0.60%	0.84%	96.92%	99.00%	98.00%	96.00%	98.00%	0.020%	100.00%	30 days	
98	Reliance Comm	0.61	99.58%	4.05	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.93%	99.67%	99.50%	99.50%	71.51%	78.97%	0.070%	100.00%	30 days	
99	Tata Teleservices	0.00	98.13%	11.90	N/Ap	N/Ap	N/Ap	0.52%	0.38%	0.11%	1.03%	97.72%	98.50%	98.50%	92.60%	93.90%	0.050%	100.00%	30 days	
100	Dishnet	0.00	99.01%	8.00	0.99%	1.00%	0.98%	0.98%	0.92%	0.96%	0.83%	99.70%	94.00%	94.00%	95.00%	95.00%	0.000%	N/Ap	N/Ap	



## Annex 5.3

### Quality of Service Performance for ISPs

S. No.	Name of the Service Provider	Service Activation time	Time to Access	Access Probability in 1 <sup>st</sup> attempt (in %)	Access Probability in 2 <sup>nd</sup> attempt (in %)	Access Probability 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	92	95	100	Nil	1:100	0-4 hrs	
2	MTNL	Delhi	Online	30 sec	99.69	99.99	-	Nil	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	Bharti Airtel Ltd. (Bharti Televentures Ltd.)	5 min (online)	<b>30-35 sec</b>	99.8	100	100	Nil	1:100	2 hrs	
5	Reliance Communications Infrastructure Ltd.	Online	<25 sec	98	100	-	-	-	<45 mins	
6	VSNL	2-4 hrs	30 sec	80	90	99	Nil	Not provided by BSO	10-15 min	
7	YOU Telecom India Pvt. Ltd. (BG Broadband)	2 min (Online)	20 sec	98	99	100	Nil	Not provided by BSO	23 hrs	
8	Data Infosys	2-3 min	20-25 sec	95	97	99	30 min	1:100	15 min	
9	Hathway Cable & Data Pvt. Ltd.*	-	-	-	-	-	-	-	-	
10	HCL Infonet Ltd.	3 min	24 sec	99.5	99.3	99.2	27 min	2:200	17-19 hrs	
11	IceNet.Net.Ltd.	2 hrs	20 sec	85	95	100	Nil	1:100	1 hr	
12	HFCL Infotel Ltd.	-	30 sec	98.2	99.2	100	Nil	0.85 in 100	2.44 Min	
13	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	Nil	25 sec	99	-	Nil	N.R.	1:1000	1 hr	
14	Shyam Internet Services Pvt. Ltd.	5 min	20 sec	98.5	99.5	99.99	15 min	1%	1.5 hrs	
15	Asianet Satellite Communications Ltd.	Immediate	10 sec	98	99	100	<b>&lt;1 Hr</b>	1 in 500	2:15 Hrs	
16	Fascel Ltd.*	-	-	-	-	-	-	-	-	
17	Hughes Escorts Communications Ltd.*	-	-	-	-	-	-	-	148.5 min	
18	WWW Communications Ltd.	4-5 mins	<b>20-35 sec</b>	87	96	99	<b>150 min</b>	-	10-15 min	
19	Spectra Net Ltd.*	-	-	-	-	-	-	-	3 hrs	
20	Broadband Pacenet (I) Pvt. Ltd.*	-	-	-	-	-	-	-	3 hrs	

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

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



