

A Presentation on the Growth of Telecom Sector in India and Challenges ahead

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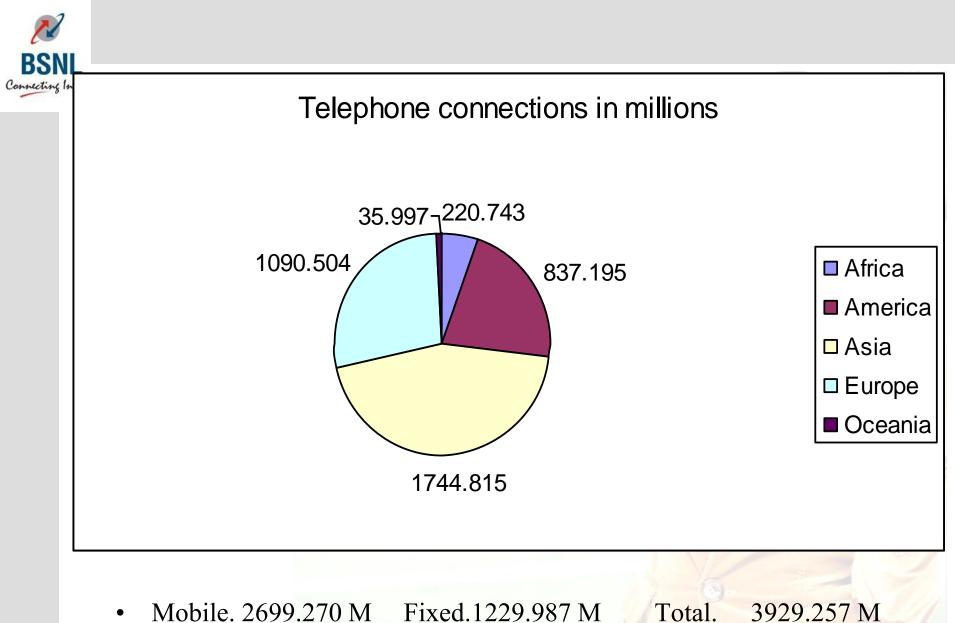


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- Growth of Telecom in India
- Role of BSNL
- Role Of TRAI and TDSAT
- Opportunities & Challenges



Global Telecom Scenario



• Population 6563.69 M

Total. 3929.257 M Teledensity. 60.02

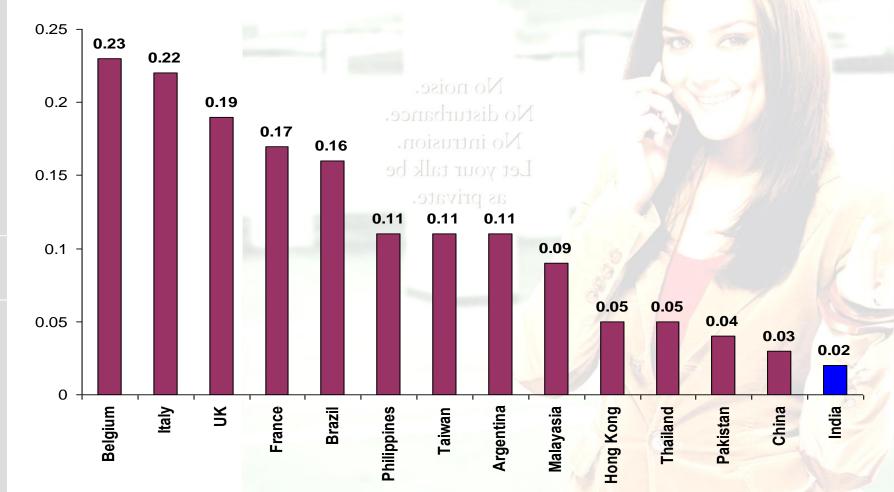


Countries with more than 100% Teledensity

- Africa Seychelles
- Americas Argentina, Aruba, Bahamas, Barbados, Canada, Jamaica, Puerto Rico, United States of America
- Asia- Japan, Korea (Rep.), Qatar, Singapore, Taiwan, UAE
- Europe- Andorra, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Greenland, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Russia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom
- Oceania- Australia, New Zealand



Mobile Tariffs in India one of the Lowest



USD



No noise. No disturbance. No intrusion. Let your talk be

Growth of Telecom in India



Growth of Telecom in India

• 1994 National Telecom Policy – 1994 announced Kolkata became the first metro to • Aug 1995 have a cellular network • 1997 Telecom Regulatory Authority of India was setup • 1999 Tariff rebalancing exercises gets initiated March 1999 National Telecom Policy – 99 announced



Growth of Telecom in India

- Aug 1999 License fee (revenue share) reduced from provisional 15% to 12%, 10% & 8% on Circle wise basis (A type, B type & C type circles)
- 2000 TRAI Act amended & separate tribunal proposed
- Jan 2001 TDSAT started functioning
- Jan 2001 Policy announced for additional licenses in Basic and Mobile Services
- Jan 2001 Limited mobility allowed to Basic Services (CDMA spectrum allotted to Basic Service Operators)

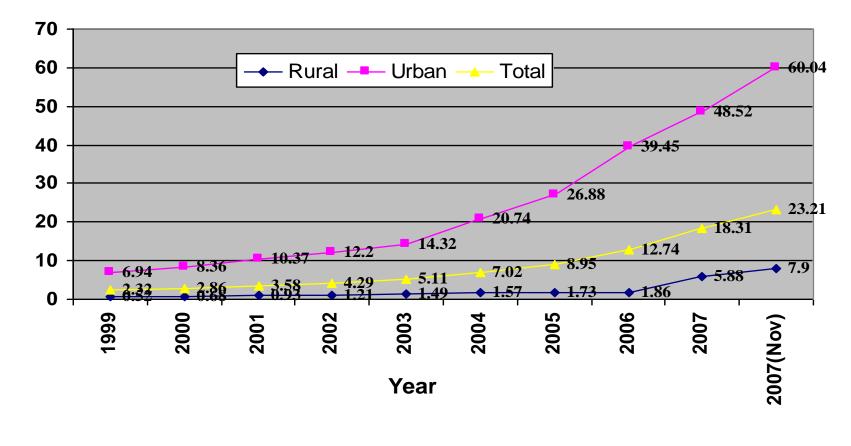


- Oct-2002 BSNL entered in to GSM cellular operation w.e.f 19th October, 2002. Made incoming call free & initiated tariff equalization process
 Tariff for GSM cellular mobiles reduced
- Nov 2003 Unified Access (Basic & Cellular) Service License (USAL) introduced as a first step towards Unified License Regime
- Technology neutral and allows provisioning any kind of service
- Apr 2004 License fee reduced by 2% across the board for all the access licenses.



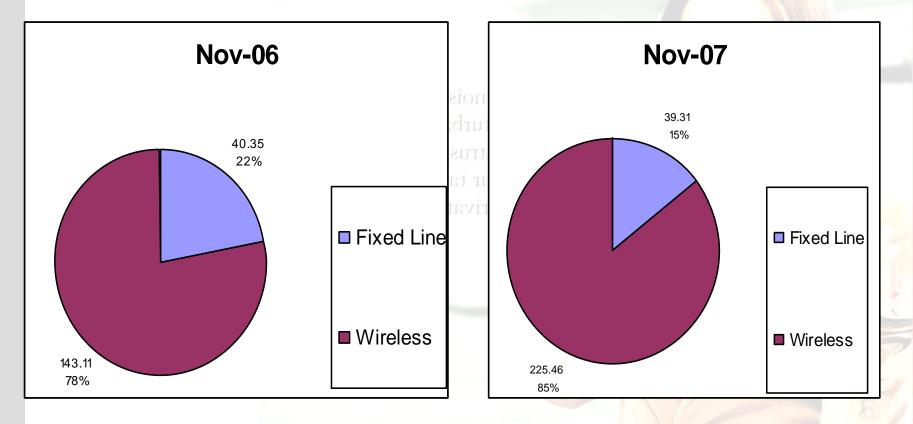
Teledensity-Rural & Urban

Teledensity





Mobile Services : Fuelling the growth



Total telephone connections as on November 2006: 183.46 million November 2007: 264.77 million



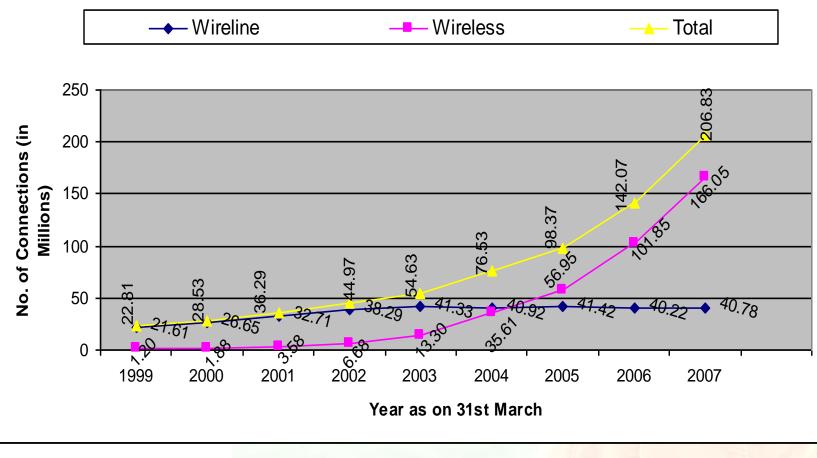
Subscribers (in millions)

Year	Fixed line including WLL(F)	Mobile (GSM+WL L(M)	Total	Tele density
March-97	14.54		ом 14.8	1.57
March-00	26.65	entrusion. 9.1 your talk be	28.55	2.81
March-01	32.71	3.58	36.29	3.52
March-02	38.33	6.54	44.87	4.28
March-03	41.48	13	54.48	5.1
March-04	42.84	33.69	76.53	7.04
March-05	46.19	52.22	98.41	9.11
March-06	50.18	90.14	140.32	12.8
March-07	48.87	157.96	206.83	18.46
Dec. 2007	43.3	226	269.3	24.04



Exponential Growth

Growth of Telephone Connections





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Role of

Bharat Sanchar Nigam Limited



Bharat Sanchar Nigam Limited

Company Profile (as on 31.12.2007)

- Corporatized on 1st October 2000
- Connects length and breadth of INDIA except Delhi & Mumbai
- 37516 Digital Exchanges with 29051 exchanges in rural areas on reliable media.



Services Offered

BSNL is an Integrated telecom service provider which provides all types of telecom services.

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as private.

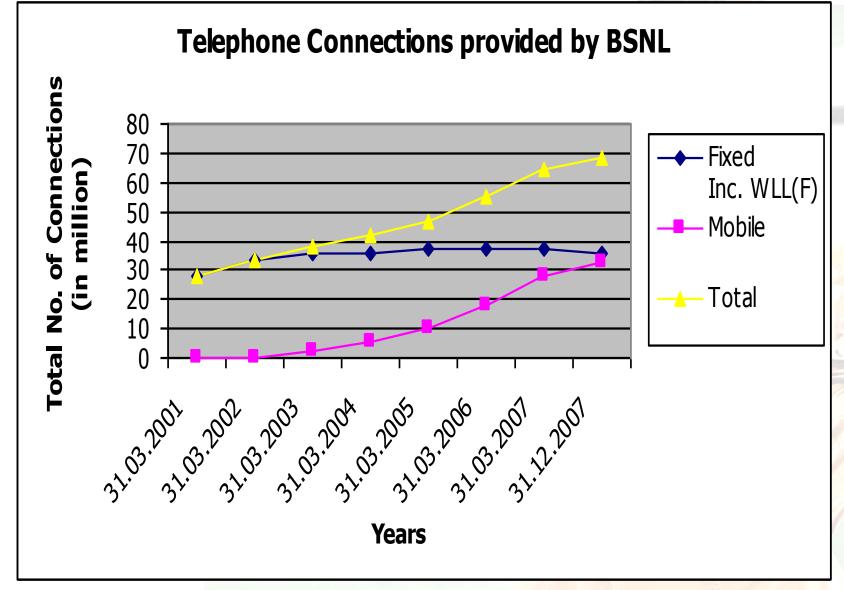
- > Wire Line Services
- CDMA WLL Limited Mobility Services
- > National Long Distance Services
- > International Long Distance Services
- > Broadband & Internet Services
- > IN Services viz. Prepaid calling card etc.



Telephone connection provided by BSNL (in Million)

Year	Fixed	Mobile	Total
31.03.2001	28.11	0 No noisd No disturba	28.11
31.03.2002	33.4	20.0 Let your tal	33.42
31.03.2003	35.93	2.26	38.19
31.03.2004	36.11	<mark>5.54</mark>	41.65
31.03.2005	37.04	9.9	46.93
31.03.2006	37.51	17.65	55.16
31.03.2007	36.92	27.8	64.72
31.12.2007	35.6	33	68.6







Present Status (as on 31.12.2007) Customer Base

- Wireline Customers
- WLL Customers
- GSM Customers
- Total Customers
- Broadband customers
- Internet Customers

in million : 31.72 : 4.09 : 32.71 : 68.51 : 1.45 : 3.35



Present Status (Contd...)

- Village Public Telephones (VPTs) : 5.18 Lakh
- Largest Transmission Network in the Country
 - OFC Network
 - M/W Network
 - Satellite Earth Stations
- : 5.29 Lakh RKMs
- : 0.50 Lakh RKMs
 - tions : 217 Numbers
- Internet Nodes operational at all District Headquarters.
- All wiredline connections enabled for Dial-up Internet Services.



Financial Achievement (Last 3 Years)

(In Rupees Crore)

S. #	Parameter	2004-05	2005-06	2006-07
1	Total Income	36090 i oV	40177	39517
2	Gross Profit	6183 q 26	8954	8933
3	Net Profit	10183	8940	7806
4	Sundry Debtors	3632	3455	3206
5	Capital Expenditure	10476	8892	8142
6	Net Fixed Assets	61769	60188	57934
7	EPS	15.75	15.3	13.95



BSNL's Milestones

- Set up on 1st October,2000
- Introduced cellular services on 19th October,2002 and has 32.7 million customers as on date
- Became market leader within 6 months, in its areas of operation
- Introduced limited mobility WLL services w.e.f. December 2000, and has 4 million customers as on date
- Introduced dial up internet facility w.e.f. December 2000
- Introduced CLI based internet facility w.e.f. December 2003
- 3.35 million Internet Customers with BSNL
- Introduced Broadband in the country w.e.f. 14.11.2005 and has 1.45 million customers



New Initiatives

WiMAX: Tender Invited for 1000 BTS at Rural Block HQs covering 25000 village communities centres

> IPTV

- Launched in Three Cities viz. Bangalore, Pune & Kolkata
- Agreement signed with Franchisees for another 50 Cities
- **> VOIP** EOI under Issue



Developmental Plans (2008-09)

- Expansion of 13.5 m GSM lines.
 Expansion of 3m Broadband.
 Expansion of 2 m WLL (CDMA) lines
- > Introduction of 200K IP Transit Switch.
- > Addition of 1206 K TDM TAX
- Addition of 200 IDRs Satellite System for Inaccessible Stations.



Role Of TRAI & TDSAT in Indian Telecom Growth

TRAI

- Setup in 1997
- Protection of Consumer Interest
- Nurture Conditions for Growth of Telecom in India
- Major Activities
 - Reduced levies on Operators.
 - Reduced upper limit in tariff (Local, STD & ISD) and other Interoperators tariffs.
 - Directives on number of network access service providers.
 - Policy guidelines on new services like 3G, WiMAX, Internet Telephony, Radio Paging, VSAT, etc.
 - Regular monitoring of Quality of Service parameters



Role Of TRAI & TDSAT in Indian Telecom Growth

TDSAT

- An integrated & comprehensive dispute settlement mechanism.
- Set up on 29th May 2000 & started hearing w.e.f. Jan 2001
- 83% cases disposed off from 2001 till 2007

TRAI & TDSAT provided healthy atmosphere for healthy growth of Telecom sector (Teledensity from 1.57 in 1997 to 24 in December 2007)



Opportunities & Challenges in 2008 and years to come



Opportunities

- Rural tele-density is less than 10%.
- Overall tele-density is only 24%.
- Broadband penetration is just 0.25%, hence vast scope.
- BPO business is growing fast: Telecom can ride on it.
- Value added services like M-Commerce, M-Marketing, Special Information, Ring tones, etc. offer venues of additional revenue.
- As globalization is increasing, more percentage of global business for Indian telecom.
- Technologies like NGN, 3G, WiMAX, will open up new frontier of business.



Challenges

- No. of operators are increasing per circle: hence more competition
- ARPUs are going down
- Cost/ Customer is very high in rural areas
- Spectrum a scare commodity
- Infrastructure readiness in rural
- PC prices are very high
- Availability of Contents in local language
- Availability of Contents for Rural Population
- International Bandwidth is costly
- Telecom Manufacturing in India.



Growth- the way ahead

- Network expansion
 - 250 million by 2007 Already achieved
 - 600 million by 2012
- Rural connectivity by yivitable of the second sec
 - 100 million by 2010
 - 200 million by 2012
- Broadband
 - 20 million broadband connections and 40 million internet connections to provide by 2010
 - Broadband connections to provide on demand across the country by 2012



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