

A STUDY ON TELECOM SERVICE IN INDIA

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Abstract

Telecom services in India began with the introduction of the telegraph. The Indian postal and telecom sectors are one of the world's oldest services. India's Telecom network is the second largest in the world by number of telephone users with 1109.67 million subscribers as on 31 December 2017. In this paper, the researcher deals with progress of Telecom service and Telecoms service providers in India.

Keywords: *Subscribers, Network, Service Providers, Telecom*

Introduction

Telecommunication is the transmission of signs, signals, messages, words, writings, images and sounds or information of any nature by wire, radio, optical or other electromagnetic systems. Telecom occurs when the exchange of information between communication participants includes the use of technology. The Telecommunication service includes the sector of information and communication technology. It is made up of all Telecommunications/ telephone companies and internet service providers and plays the crucial role in the evolution of mobile communications and the information society.

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Objectives

- Study the progress of Telecom service in India
- List out the Telecom services providers in India

Research Methodology

The research is based on descriptive and analytical study. The data collected for this study from books and websites

Tool for analysis: Percentage

Progress Of Telecom Service In India

India's Telecom network is the second largest in the world by number of telephone users (both wired and wireless). Major sectors of the Indian Telecom industry are telephone, internet and television broadcast Industry in the country which is in an ongoing process of transforming into next generation network, employs an extensive system of modern network elements such as digital telephone exchanges,

mobile switching centers, media gateways and signaling gateways at the core, interconnected by a wide variety of transmission systems using fibre-optics or Microwave radio relay networks. The access network, which connects the subscriber to the core, is highly diversified with different copper-pair, optic-fibre and wireless technologies. DTH, a relatively new broadcasting technology has attained significant popularity in the Television segment. The introduction of private FM has given a fillip to the radio broadcasting in India. Telecom in India has greatly been supported by the INSAT system of the country, one of the largest domestic satellite systems in the world. India possesses a diversified communications system, which links all parts of the country by telephone, Internet, radio, television and satellite. Indian telecom industry underwent a high pace of market liberalization and growth since the 1990s and now has become the world's most competitive and one of the fastest growing telecom markets.

Significant Progress of Telecom

Year	Mile Stones
1850	Electric telegraph line between Calcutta and Diamond Harbour
1882	Central telephone exchange started with 93 subscribers at Calcutta
1902	First wireless telegraph station established between Sugar Island and Sandhead.
1907/1913 - 1914	First Central Battery of telephones introduced in Kampur. First Automatic Exchange installed in Shimla.
1927	Radio-telegraph system between the UK and India, with Imperial Wireless Chain beam stations at Khadki and Daud. Inaugurated by Lord Irwin on 23 July by exchanging greetings with King George V.
1933	Radiotelephone system inaugurated between the UK and India.
1933	12 channel carrier system introduced.
1960	First subscriber trunk diallink route commissioned between Lucknow and Kanpur.
1975	First PCM system commissioned between Mumbai City and Andheri telephone exchanges.
1976	First digital microwave junction.
1979	First optical fibre system for local junction commissioned at Pune.
1980	First satellite earth station for domestic communications established at Sikandarabad, U.P.
1983	First analogue Stored Programme Control exchange for trunk lines commissioned at Mumbai.
1984	C-DOT established for indigenous development and production of digital exchanges.
1995	First mobile telephone service started on non-commercial basis on 15 August 1995 in Delhi.
1995	Internet introduced in India starting with Laxmi Nagar, Delhi 15 August 1995

Telecom Service Providers In India

Indian Telecom service comprises of following

1. Land line(wire line) Network
2. Mobile(wireless) Network
3. Internet

Land Line Network

A landline network (also known as land line,

land-line, main line, home phone, landline, fixed-line, and wire line) is a telephone network that uses a metal wire or optical fiber line for telephonic information transmission. In India, There are **EIGHT** Land Line service Providers. They are listed in Table 1

Table 1 Land Line service Providers and Subscribers

S. No.	Service Providers	Area of Operation	No. of Subscribers in Million	Percentage
1.	BSNL	All India except Delhi & Mumbai	12.47	53.57
2	AirTel	Telangana, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East and UP-West(excluding Uttarakhnad).	3.91	16.80
3	MTNL	Delhi & Mumbai	3.38	14.52
4	Tata	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chhattisgarh), Chhattisgarh, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), UP-East, UP-West (Excluding Uttarakhnad), West Bengal (Excluding Andaman & Nicobar) and Sikkim	1.86	7.99
5	Reliance	Andhra Pradesh (excluding Telangana), Telangana, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai & Goa), Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhnad) and West Bengal (Excluding Andaman & Nicobar)	1.14	4.90
6	Quadram	Punjab	0.25	1.07
7	Vodafone	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chhattisgarh), Maharashtra (excluding Mumbai & Goa), Goa, Mumbai, Meghalaya, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), UP East, UP West (Excluding Uttarakhnad), Uttarakhnad and West Bengal (Excluding Andaman & Nicobar)	0.20	0.86
8.	Aircel	Andhra Pradesh (excluding Telangana), Delhi, Gujarat, Karnataka, Kolkata, Maharashtra (Excluding Mumbai & Goa), Mumbai, Rajasthan, UP East, UP West (Excluding Uttarakhnad)	0.07	0.3
		Total	23.28	100

Source: TRAI Performance Report December, 2017

In Land Line service, BSNL has 53.57% of subscribers and broad area coverage compares that others.

Mobile (wireless) Network

A cellular network or mobile network is a communication network where the last link is wireless. The network is distributed over land areas called cells, each served by at least one fixed-location transceiver, but more normally three cell sites or base transceiver stations. In India, ten service providers play predominant role. Table 2 incorporated these details

Table 2 Mobile network Service Providers and Subscribers

S. No.	Service Provider	Area of Operation	No. of Subscribers in Million)	Percentage
1	Bharti Airtel	All India	290.11	24.85
2	Aircel Group	All India	84.93	7.28
3	Reliance	All India (except Assam & NE)	33.17	2.84
4	Vodafone (India) Ltd	All India	212.53	18.2
5	Tata Teleservices	All India except Assam, NE & J&K	36.69	3.14
6	Idea Cellular Ltd	All India	196.50	16.83
7	BSNL	All India (except Delhi & Mumbai)	107.92	9.21
8	MTNL	Delhi & Mumbai	3.58	0.31
9	Telenor Communications (India) Pvt. Ltd.	MI, Gujarat, AP, UP(W), UP(E), Bihar	41.91	3.60
10	Reliance Jio Infocom Ltd	All India	160.09	13.71
	Total		1167.43	100.00

Source: TRAI Performance Report December, 2017

In wireless network, 24.85% of subscribers use Bhrathi Airtel Network

Internet

The Internet is generally defined as a global network connecting millions of computers; More than 190 countries are linked into exchanges of data, news and opinions. In India, Internet service providers' details exhibit in Table 3

Table 3 Internet Service Providers and Subscribers

S.No	Service Providers	No. of Internet Subscribers in Millions)	Percentage
1	Reliance JIO	160.09	35.90
2	Bharti Airtel Limited	98.64	22.11
3	Vodafone	69.94	15.68
4	Idea Cellular	42.61	9.56
5	BSNL	32.18	7.21
6	Aircel	16.06	3.60
7	Telenor	9.44	2.12
8	Tata Teleservices	7.31	1.64
9	Reliance Communications	1.99	0.45
10	MTNL	1.86	0.42
11.	Others	5.83	1.31
	Total	445.95	100.00

Source: TRAI Performance Report December, 2017

JIO plays key role in internet service (35.9% of Subscribers use JIO network for internet service)

Apart from these, Telecommunications service provide value added services like Public Mobile Radio Trunk Services (PMRTS) and Very Small Aperture Terminal (VSAT)

Conclusion

“A bird without wings cannot fly; likewise a man without Telecom service cannot dwell”.

In India, 85.77% (Telecom subscribers 1109.67 millions; total population approximately 1388.23 million) of population use Telecom services. BSNL is a market leader in Landline network, Bhrathi Airtel play leading role in Mobile network and Reliance Jio has more number of subscribers in Internet service.

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