



# Telecom Sector: Issues and Challenges

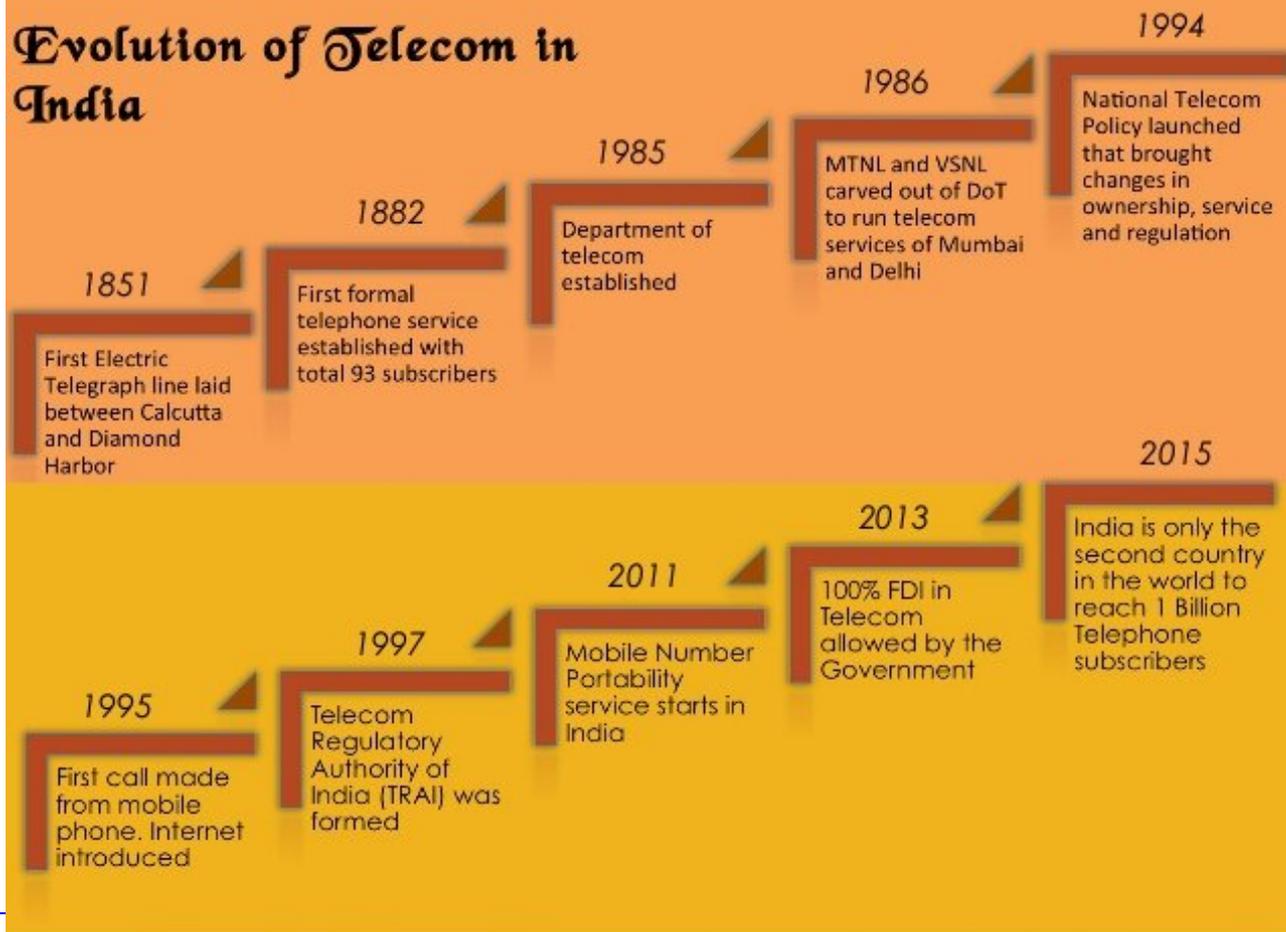
## Introduction

- India is currently the world's second-largest telecommunications market with a subscriber base of 1.20 billion and has registered strong growth in the past decade and a half.
- Contribution of mobile phone industry as a part of gross domestic product (GDP) of the country in 2014 has been to the tune of US\$ 400 billion.
- According to a report prepared by the Groupe Speciale Mobile Association (GSMA), as of January 2019, India has witnessed a 165% growth in app downloads in the past two years.
- Based on the data available from GSMA, this sector will create close to 4 million additional jobs by 2020.
- Tele-density of Indian telecom industry (wireless plus wire line) has grown from a low of 3.60% in March 2001 to 84% in March 2016.
- **Telecom is the second highest revenue earner for the government, after income tax:** The sector is expected to contribute as much as 90% of the government's non-tax revenue. Digital India programme is also almost completely dependent on the telecom sector.
- The liberal and reformist policies of the Government of India have been instrumental along with strong consumer demand in the rapid growth in the Indian telecom sector. The deregulation of Foreign Direct Investment (FDI) norms has made the sector one of the fastest growing and a top five employment opportunity generator in the country.

## Evolution of the Telecom Sector in India

- Indian telecom sector is **more than 165 years old.**
- **Telecommunications was first introduced in India in 1851** when the first operational land lines were laid by the government near Kolkata (then Calcutta), although telephone services were formally introduced in India much later in 1881.
- Further, in 1883, telephone services were merged with the postal system. **In 1947, after India attained independence, all foreign telecommunication companies were nationalised to form the Posts, Telephone and Telegraph (PTT),** a body that was governed by the Ministry of Communication.
- **The Indian telecom sector was entirely under government ownership until 1984,** when the private sector was allowed in telecommunication equipment manufacturing only.
- The government concretised its earlier efforts towards developing R&D in the sector by setting up an autonomous body - **Centre for Development of Telematics (C-DOT) in 1984** to develop state-of-the-art telecommunication technology to meet the growing needs of the Indian telecommunication network.
- The actual evolution of the industry started after the **Government separated the Department of Post and Telegraph in 1985 by setting up the Department of Posts and the Department of Telecommunications (DoT).**

# Evolution of Telecom in India



## Issues and Challenges of Telecom Sector

- **High Right-of-Way (ROW) cost:** Sometimes, state governments charge a huge amount for permitting the laying of fiber, etc.
- **Lack of fixed line penetration:** India has very little penetration of fixed-line in its network whereas most of the developed countries have a very high penetration of fixed lines (telephone line that traveled through a metal wire or optical fiber as part of a nationwide telephone network).
  - Only around 25% of Towers in India are connected with fibre networks, whereas in developed nations, it is in excess of 70%.
  - 5G Network requires towers to be connected to with very high-speed systems. Those high speeds are not possible on the present radio systems.
- **Declining Average Revenue Per User (ARPU):** ARPU decline now is sharp and steady, which, combined with falling profits and in some cases serious losses, is prompting the Indian telecom industry to look at consolidation as the only way to boost revenues.
  - Recently, the Supreme Court allowed the government's plea to recover adjusted gross revenue of about Rs 92,000 crore from telcos, that further adds to their stress.
- **Limited Spectrum Availability:** Available spectrum is less than 40% as compared to European nations and 50% as compared to China.
- **Low Broadband Penetration:** Low broadband penetration in the country is a matter of concern. As per white paper presented on broadband at the last International Telecommunication Union (ITU), **broadband penetration in India is only 7%.**
- Over the Top (OTT) applications such as WhatsApp, OLA and so on do not need permission or a pact with a telecommunications company. This hampers the revenue of telecommunication service providers.
- **Huge fluctuations in the duties on Telecom Equipment** which contribute to connecting the whole system from the central server to the consumer.
- **Timeframe of policy execution:** Government have withdrawn a lot of things to benefit telecom sector but by the time it gets executed to the market, it becomes too late.

- **Lack of Telecom Infrastructure in Semi-rural and Rural areas:** Service providers have to incur huge initial fixed cost to enter semi-rural and rural areas.
- **Pressure on Margins Due to Stiff Competition:** With competition heating up post entry of Reliance Jio, other telecom players are feeling the heat of substantial drop in tariff rates both for voice and data (more significant for data subscribers).

## Steps Taken by the Government

- A new [National Digital Communications Policy - 2018 \(NDCP-2018\)](#) was unveiled in Oct 2018, to replace National Telecom Policy-2012, to cater to the modern needs of the digital communications sector of India. The policy aims to attract USD 100 billion worth of investments and generate 4 million jobs in the sector by 2022.
- Telecom Commission was re-designated as the "**Digital Communications Commission**".
- In 2017, Department of Telecom (DoT) came up with a gazette notification, advising the state governments to give quicker ROW permission and charge very little amount to service providers. Though, only some states responded.
- The government has provided benefits to telecom sector by withdrawing some duties.
- The government has fast-tracked reforms in the telecom sector and continues to be proactive in providing room for growth for telecom companies.
- The Department of Information Technology intends to **set up over 1 million internet-enabled common service centres across India** as per the [National e-Governance Plan](#).
- FDI cap in the telecom sector has been increased to 100% from 74%. Out of 100%, 49% will be done through automatic route and the rest will be done through the FIPB approval route.
  - FDI of up to 100% is permitted for infrastructure providers offering dark fibre, electronic mail and voice mail.
- The Government of India has introduced Digital India programme under which all the sectors such as healthcare, retail, etc. will be connected through the internet.

## Suggestions

- **NDCP-2018 advocates:-**
  - Establishment of a **National Digital Grid** by creating a National Fibre Authority;
  - Establishing **Common Service Ducts and utility corridors** in all new city and highway road projects;
  - Creating a **collaborative institutional mechanism** between Centre, States and Local Bodies for Common Rights of Way, standardization of costs and timelines;
  - **Removal of barriers to approvals;** and
  - Facilitating development of **Open Access Next Generation Networks**.
- **Explore the option of revenue sharing agreement** between Internet players and telecommunication companies.
- **Outsourcing non-core functions** such as network maintenance, IT operations and customer service.
- **Divestment of tower assets** into separate companies will enable curb costs and focus on core operations.
- **Introduce new and efficient technologies** such as M2M (technology that enables networked devices to exchange information and perform actions without the manual assistance of humans) and cloud computing.
- **Benefits of industry status** in line with other infrastructure sectors in the country to be implemented.
- **Penetration of rural markets** (72% of population staying in rural areas) will be the key growth driver.
- The government should **increase the network area through optical fibre** instead of copper which is expensive. This is necessary to ensure last mile connectivity.
- The government needs to prepare a ground for **easy right-of-way permissions** and lower cost of right-of-ways.
- It is time to go for a **generational shift** to ensure that **current tariff is financially viable** for service providers.
- Telecom Operators should leverage on the talent pool in the country which is bringing in a lot of **new innovations in AI, blockchain technology** etc.

- **New Infrastructure on shareable basis** just like the way telecom service providers share the cost of towers is need of the hour.
- The government should spend more on R&D and create an environment that makes India capable of manufacturing and exporting hardware components like mobile handsets, CCTV Cameras, touch screen monitors etc.

## Conclusion

- The telecom sector in India has to deal with various challenges like maintaining the sufficient spectrum, adoption of new technologies faster to be able to use the new features and techniques to serve the customers with better and feature rich service.
- A proactive and facilitatory government role regarding telecom sector is the need of the hour given the huge opportunities provided by the sector.
- Independent and statutory body, **Telecom Regulatory Authority of India** (TRAI) has an important role to play as a watchdog of the sector. A more proactive and timely Dispute Resolution by **TDSAT** (Telecom Disputes Settlement and Appellate Tribunal) is the need of the hour.

[\*For Mind Map\*](#)

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