



# Digital Infrastructure Readiness : Challenges and Role of States/UTs



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# Digital Communications

*A Critical Social Infrastructure*

**10% increase in Internet Usage**

3.3% increase in India's GDP vs 1.3% Global



Hence, India uniquely placed to reap **Digital Dividends**

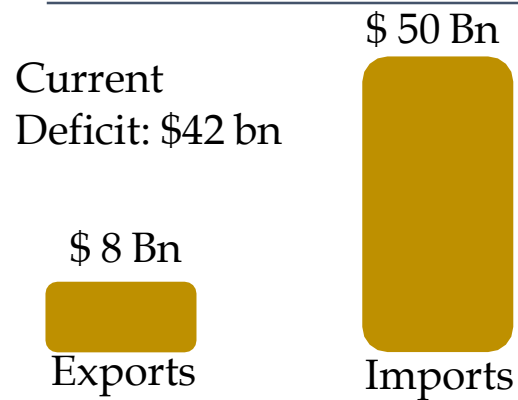
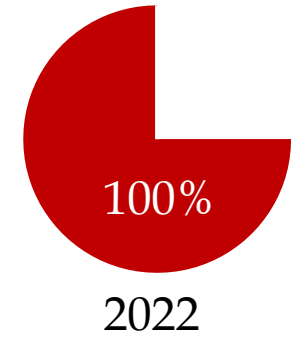
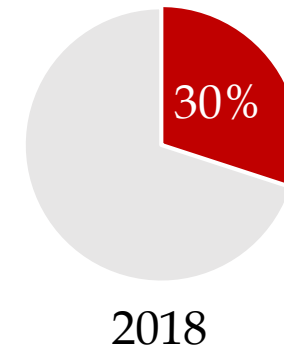
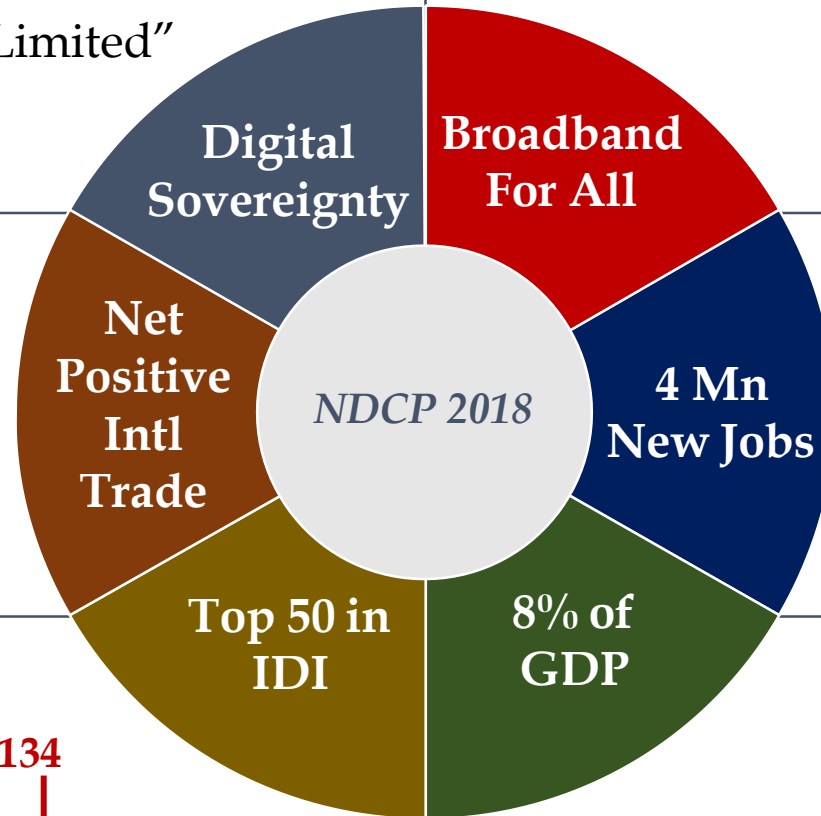
Source: ICKIER Study

# NDCP-2018 – Strategic Objectives

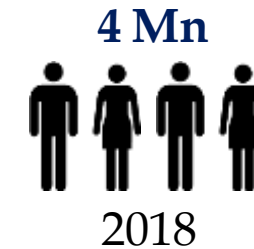
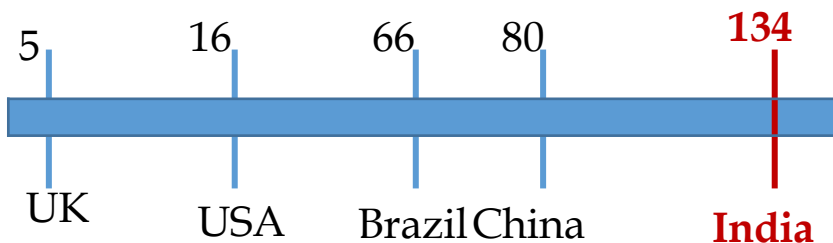
## *Ambitious, yet Achievable*



Currently  
India ranked  
as "Limited"

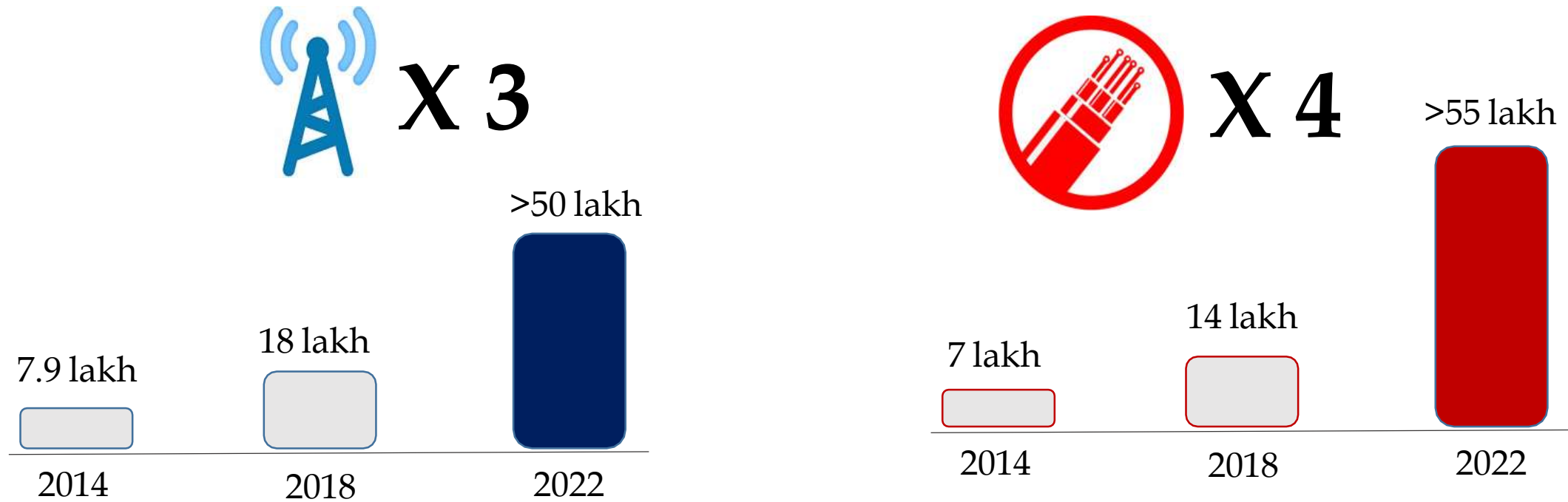


2017 Standing



Current Global  
Average  
**4.5%**

# NDCP 2018 Targets



**Right of Way (RoW) - the Biggest Bottleneck**

# NDCP 2018 – The Mission

1

## **Connect India**

Creating Robust Digital Communications Infrastructure

2

## **Propel India**

Make in India and export telecom equipment & create jobs

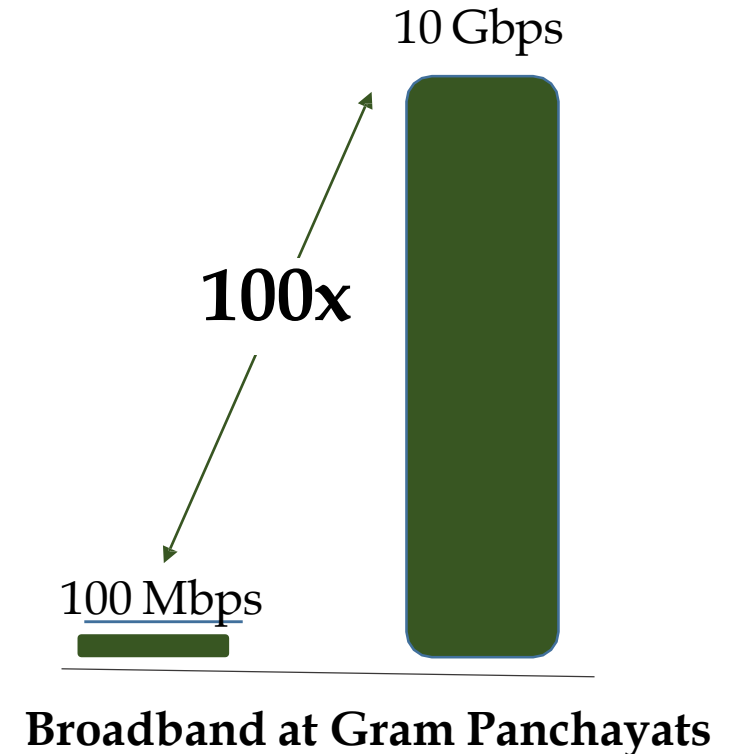
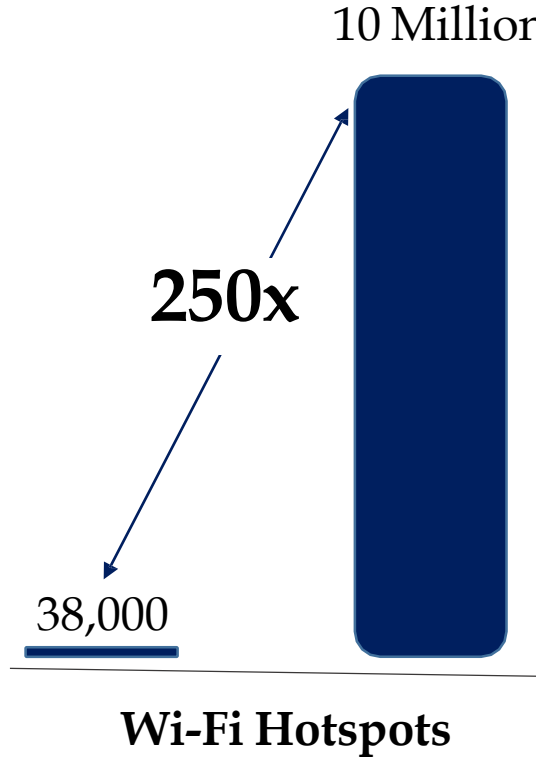
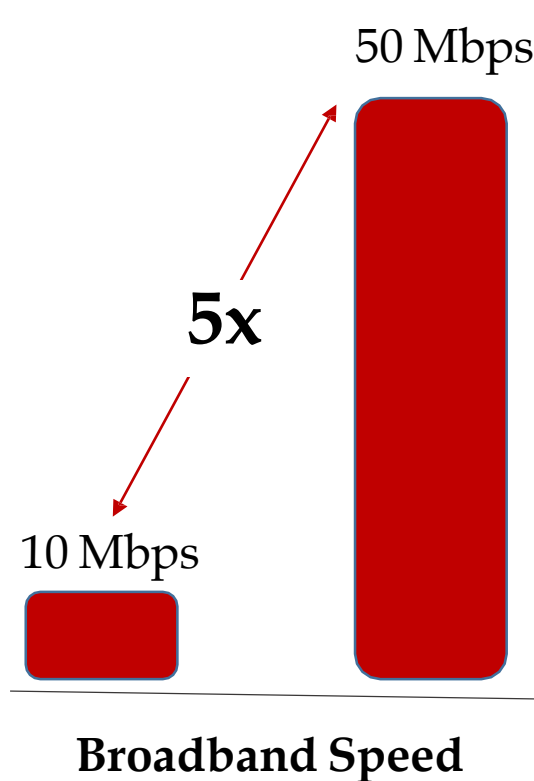
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## **Secure India**

Ensuring Digital Sovereignty, Safety and Security of Digital Communications

# NDCP Goals – Connect India

## National Broadband Mission



# NDCP Goals – Propel India

Enable \$100 Billion Investments

**4 Mn**  
Additional Jobs



Make in India-\$21Bn  
Telecom Equipment



Reskill 1 Mn  
Manpower



# NDCP Goals – Secure India

## Digital Sovereignty

**Data Protection**

**Public Protection  
& Disaster  
Management**

**Security Testing  
Facilities**

# National Broadband Mission

Launched on 17<sup>th</sup> Dec 2019

1

Broadband for All

2

Incremental Optical Fiber

Additional 30 Lakh KMs

3

Increase Tower Density & Fiberization of towers

0.4 to 1.0 towers per 1000 Population, 70% towers to be Fiberized

# National Broadband Mission

4

Digital Fiber Map for the country

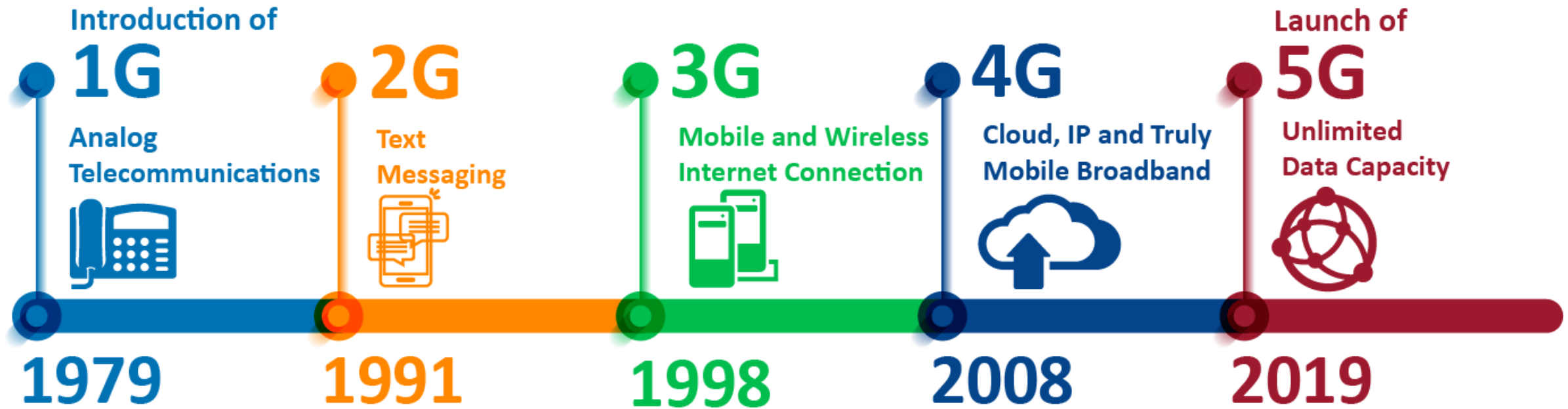
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Investment of USD 100 Bn

6

Broadband Readiness Index  
States have a major role to play

# The Evolution of 5G



# This is the future of 5G



# THE CONNECTED COMMUNITY



# 5G SPECTRUM

## Existing Mobile Spectrum

## New Mobile Spectrum

### Coverage & Capacity

### Capacity

Below 1 GHz

1-6 GHz

30 GHz

mmWave band

100 GHz

TV

WiFi

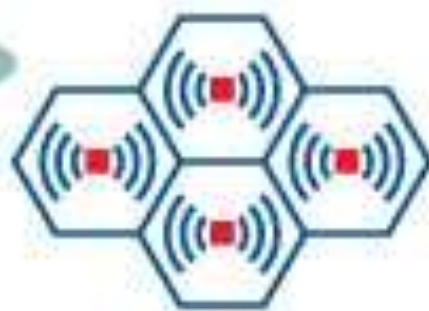
WiFi

Fixed links and Satellite

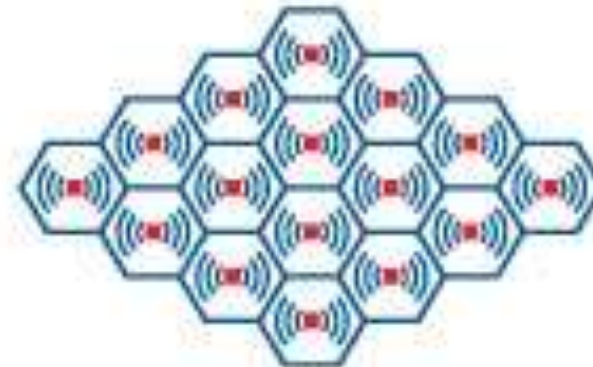
Existing Mobile



Macro cells



Macro and small cells



Small cells



# Telecom Tower Fiberization



**US, China, Japan – 75-80%**



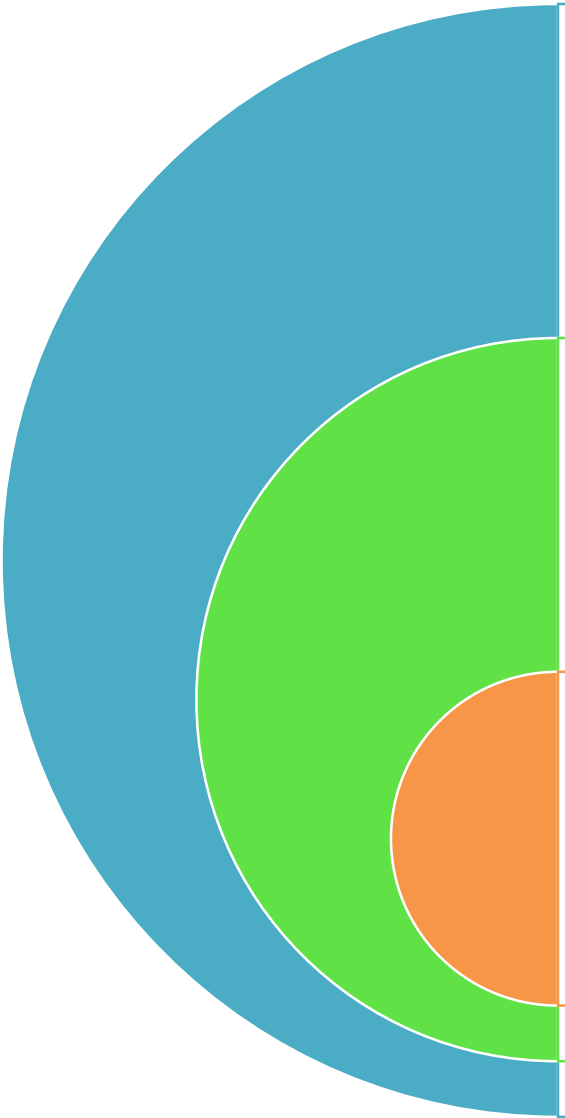
**South Korea– 65-70%**



**India – 22%**

Telecom is an essential infrastructure and needs to be given same importance as other essential infrastructure such as water, power, roads etc.

# RoW Rules, 2016



The Indian Telegraph (**Right of Way**) Rules, 2016  
notified on 15th Nov. 2016

**Appropriate authority** exercise the powers permitting for establishment and maintenance of underground or over ground telegraph infrastructure by any licensee

**Appropriate authority** means the Central Government, respective State Governments, local authority or such authority, body, company or institution

# Salient Features of RoW Rules 2016

RoW permissions to be granted in 60 days; else permission is deemed to be granted



Levy of one time fee to meet administrative expenses for processing applications for Right of Way



Rs 1,000/- per km for OFC and Rs 10,000 per application for towers



Levy of only restoration charges in case of underground telegraph Infrastructure



Compensation for the value of the immovable property in case of over ground telegraph infrastructure

# Role of the States / UTs under RoW Rules

Designate Nodal officer by every appropriate authority - Rule 4(1)



Develop electronic application process - Rule 4(2)



There may be a single electronic application process for all appropriate authorities under the control of State / UT



Nominate Dispute Resolution Officers - Rule 14(2)



Promulgate state level RoW policies in line with GoI RoW Rules 2016

# Issues due to non-implementation of RoW Rules

Delays in issuing permissions due to lack of Online Single window clearance

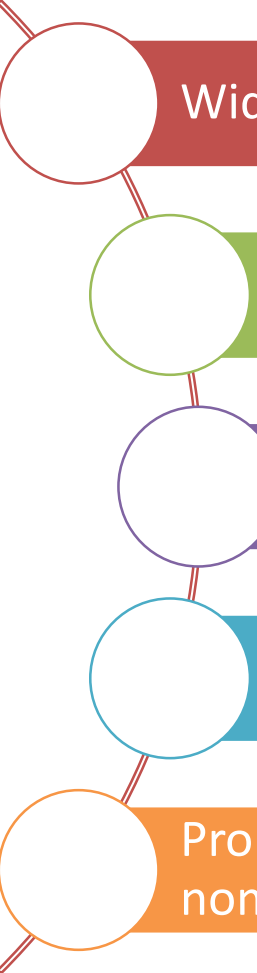
Lack of clarity at all levels of Government regarding documents required

Multiple Policies with multiple levies (charges), procedures in the States

Coercive actions/ sealings of Mobile towers due to lack of clarity of the Policy and procedures to be followed

Non- availability of Government Land & Buildings for installation of Mobile Towers as procedure for same are not included in existing policies

# Way Ahead



Wide dissemination of the Rules to all authorities engaged in granting RoW permission

Appointment of Nodal Officer in various authorities

Development of an electronic application process

Appointment of a Secretary level officer for Dispute Resolution in States/UTs, wherever still not appointed

Promulgate state level RoW policies in line with RoW Rules 2016 i.e. uniform state policy with one-time nominal fee, single-window clearance in a time-bound manner etc.

# Way Ahead



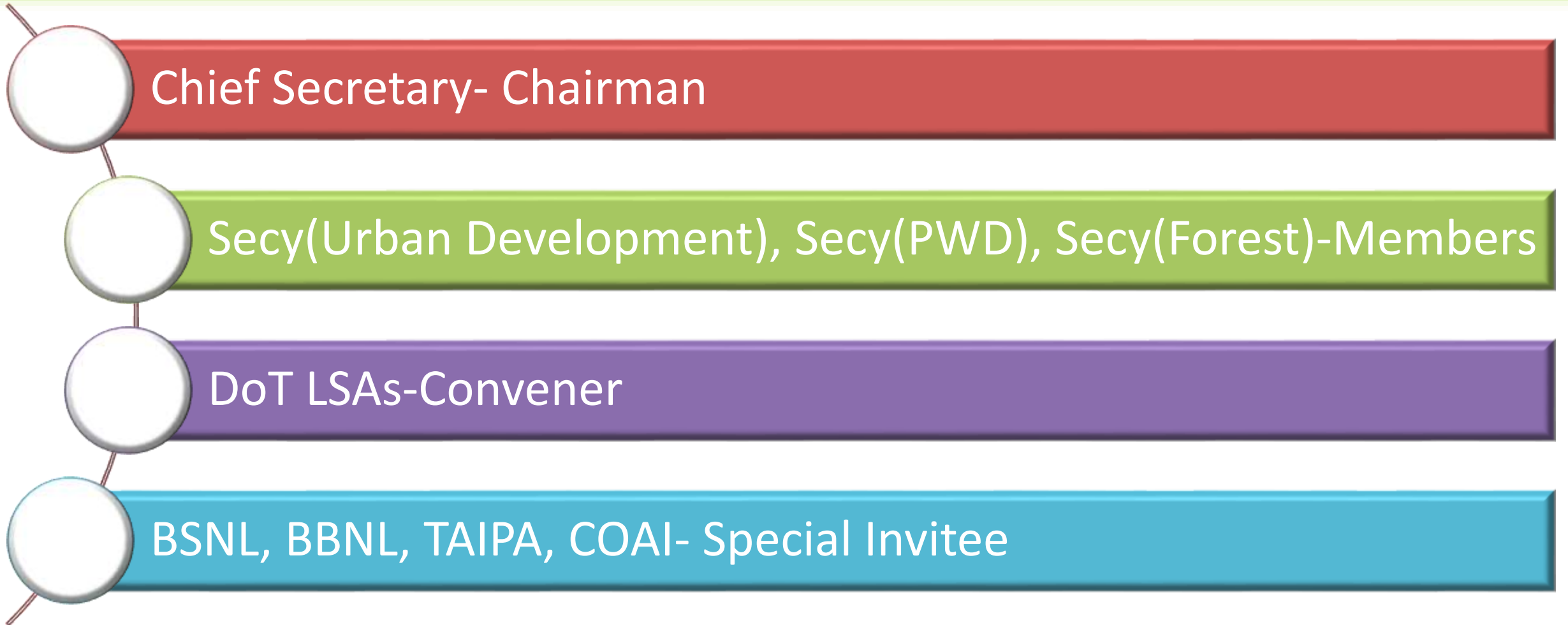
Aligning the policy of granting permission for setting up mobile towers with RoW Rules, 2016

Wherever feasible provide Government Land & Buildings for installation of Mobile towers

Electricity connections to be provided on priority preferably at industrial tariffs

To ensure security of Telecom Infrastructure

# State Broadband Committee



A vertical line on the left side of the slide has four white circles attached to it. Each circle is connected to a horizontal bar of a different color, which contains text. The colors of the bars from top to bottom are red, green, purple, and blue.

Chief Secretary- Chairman

Secy(Urban Development), Secy(PWD), Secy(Forest)-Members

DoT LSAs-Convener

BSNL, BBNL, TAIPA, COAI- Special Invitee

**Thank You**