





# 1st Annual Conference of ISPs National Broadband Mission 12.06.2023

Neeraj Kumar

**Mission Director & DDG** 

**National Broadband Mission (NBM)** 

## **Summary**



About National Broadband Mission

Centralized Right of Way (RoW) Portal - GatiShakti Sanchar -RoW
 Pending Applications & Policy

PM GatiShakti National Master Plan Platform

Call Before u Dig' (CBuD) Mobile app





National Broadband Mission was launched on 17th December, 2019

## Vision





To fast-track growth of digital communications infrastructure

To bridge the digital divide

To facilitate digital empowerment and inclusion

To provide affordable and universal access of broadband for all

## Stakeholder



## **Implementation Structure**



1

Governing Council for Broadband

Chaired by Hon'ble Minister, Telecom

2

Broadband Steering Committee

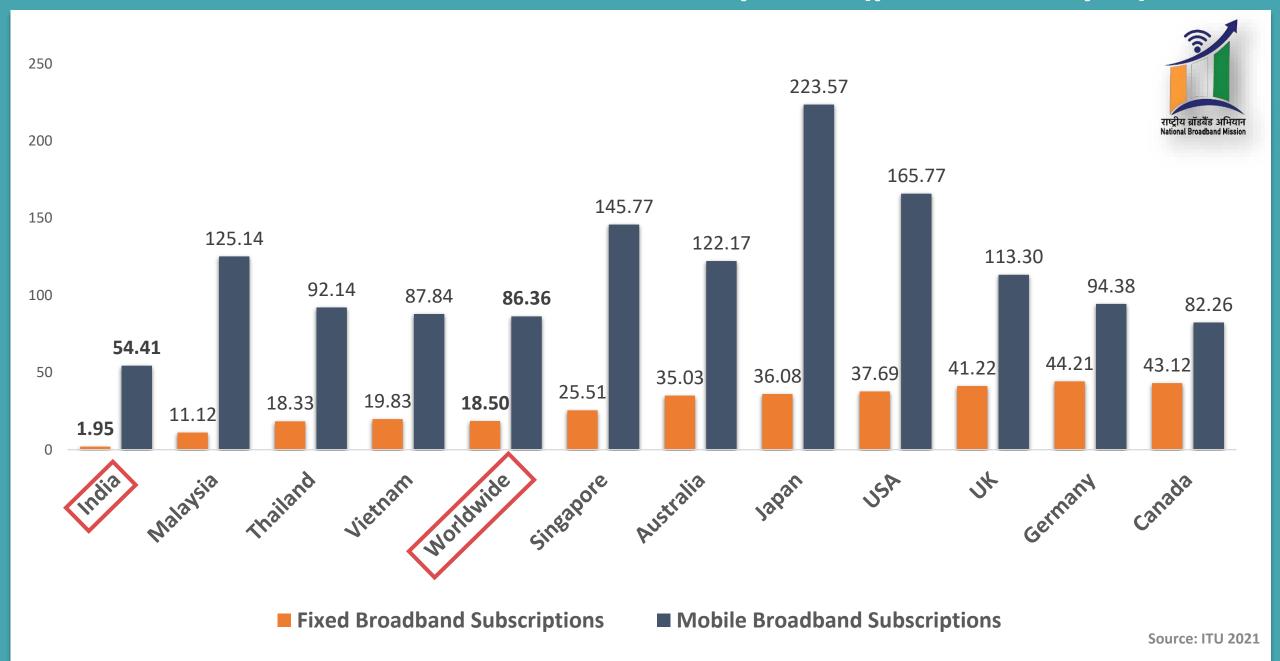
Chaired by Secretary, Telecom

3

• State Broadband Committee

Chaired by Chief Secretary

## Fixed & Mobile Broadband Subscriptions (per 100 People)



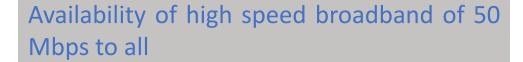
## National Broadband Mission – Deliverables





#### **DELIVERABLES**

Broadband access to all villages by 2022



Accelerate fiberisation, including of Telecom Towers & Mapping of Fiber

**Enhance Connectivity & Quality of Service** (QoS)

Facilitate Rollout of 5G & Strengthen 4G

Promote Make in India



#### **STRATEGIES**



USOF projects incl 4G saturation





FTTH proliferation



Bharatnet expansion & Tower fiberisation

4G saturation and 5G rollout

QoS Mission by TRAI and DOT

5G launched and being monitored

4G saturation under progress

PLI & Design Linked PLI

PMI









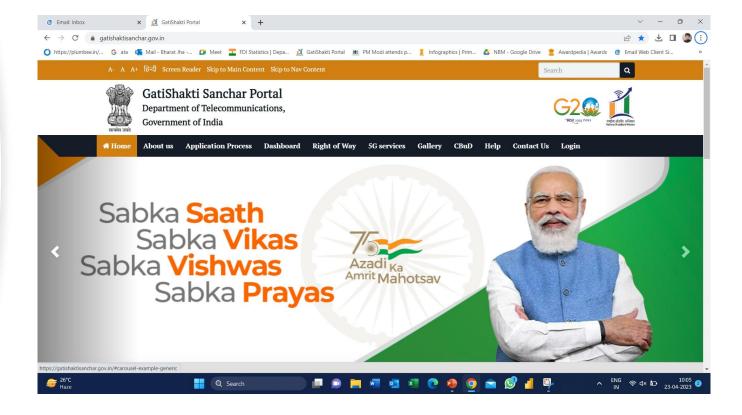
## **Annual Implementation Plan**



KPI	1-year (FY 2020-21)	2-year (FY 2021-22)	3-year (FY 2022-23)	4-year (FY 2023-24)	Status	5-year (FY 2024-25)
Broadband Connectivity to Villages (%)	50%	60%	100%	-	<b>93.21%</b> 31.03.2023	-
*Availability of broadband Speeds (Mbps)	4	10	25	30	Mobile BB- <b>36.35</b> Fixed BB- <b>51.12</b> 30.04.2023	50
Fiberization (Lakh KMs) Cumulative	24	27	30	40	37.26 Lakh 31.03.2023	50
Towers (in lakhs) Cumulative	7	8	10	12	7.60 Lakh 31.05.2023	15
Fiberization of Telecom Towers (%) Cumulative	35	45	55	65	<b>38.06</b> % 31.03.2023	70
Mapping of Fiber Cumulative	10%	40%	60%	80%	83% (Govt. PSUs) (08.06.2023)	100%

<sup>\*</sup>https://www.speedtest.net/global-index/india

# Centralised Right of Way (RoW) Portal GatiShakti Sanchar



## Centralised RoW Portal – GatiShakti Sanchar portal (1/6)



#### **Single Window System For RoW Permissions**



- Single Platform for applying RoW permissions (<a href="www.gatishaktisanchar.gov.in">www.gatishaktisanchar.gov.in</a>) created to transparently process the RoW applications and monitoring the pendencies in real time
- Launched on 14<sup>th</sup> May 2022 by Hon'ble Minister of Communications
- 36 States/UTs & 4 Central Min. (Railways, MoRTH, MoD, MoEFCC)
- Dashboard for monitoring of pending cases across India

## **Centralized RoW Portal (2/6)**



## Features of GatiShakti Sanchar Portal



GatiShakti Sanchar Portal Department of Telecommunications, Government of India



Dashboard

Right of Way 5G services

#### **Single Portal**

A Centralized Portal integrated with all the state portal. Provides a mechanism access RoW portal of any state.

#### **Effective Monitoring**

Report of all states is available. District wise Status can be tracked. Report include total number of **Application** Received, Approved, Rejected & Pending

#### **Orders and Circular**

Orders, Policies and Circular of all states are available on a single platform

## **Centralized RoW Portal (3/6)**



## **GatiShakti Sanchar Portal -Advantage for TSPs/ISPs**

Telecom Service Provides, ISPs and other establishments who need to obtain RoW permissions from State Government are immensely benefitting because it is facilitating in:

- Applying for RoW permission for any state of India at one place
- Centralized tracking of applications disposal status
- Automated alerts on application processing updates
- Centralized help desk availability (0755-2700802, email -support@gatishaktisanchar.gov.in)
- Faster approval of applications since pendency being monitored by DoT
- Faster rollout of services like 5G, Fiberization of Towers, Broadband connectivity to Citizens/Institutions

## **Centralized RoW Portal (4/6)**



## **GatiShakti Sanchar Portal-Advantage for Govt.-Central & State**

- Another step in the direction of facilitating 'Ease of Doing business
- Quick approvals will lead to:
  - laying of more OFC and thus may accelerate Fiberization
  - Increasing Tower density, and will enhance connectivity and improve Quality of Service
  - Increased fiberization of Telecom towers, thus better Broadband speeds
- Increased fiberization of Telecom towers, thus **better Broadband speeds &** Broadband will reach all villages.
- Institutions like hospitals, police stations, panchayat offices, schools and colleges, anganwadis etc. will get broadband connectivity.
- Availability of Broadband will facilitate the delivery of e-Governance services such as e-Health, e-education, e-commerce, cashless transactions etc. in rural areas.

## **Centralized RoW Portal (5/6)**



## **GatiShakti Sanchar Portal-Advantage for Citizens**

- With better broadband connectivity Citizens can:
- Easily access Government services
- Search for information online
- Undertake cashless transactions
- Participate in Nation building in rural areas
- Read online latest news.
- Become politically aware
- Read about farming techniques
- Sell their produce online, sell their handicrafts online
- Read about products
- Services and jobs available in nearby cities
- Buy household necessities online
- Access various Government services being provided online through various websites and Mobile Apps viz.
   BHIM, UMANG, Digi Locker etc.

## GatiShakti Sanchar Portal - Dashboard for effective monitoring (6/6



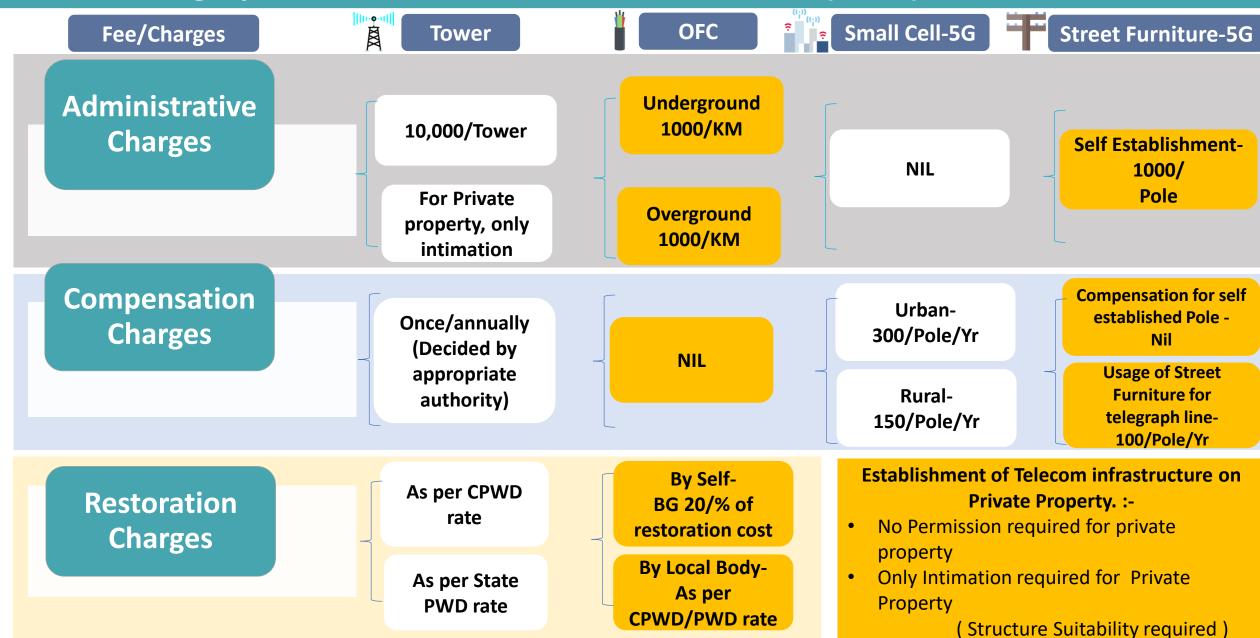


## Right of Way(RoW) Policy Status



S. No.	Telecom Infrastructure- Underground OFC/ Aerial OFC/ Poles		Policy Adopted/ implemented by States/ UTs
1	Underground Opticle Fibre Cable	<ul><li>One time fee- INR 1000/km</li><li>No Compensation</li></ul>	All states/ UTs adopted except Delhi and Kerala
2	Aerial Opticle Fibre Cable	<ul> <li>One time fee- INR 1000/km</li> <li>No Compensation</li> </ul>	Adopted by 17 states/ UTs of Assam, Chandigarh, DDNH, Goa, Gujarat, J&K, Ladakh, Lakshdweep, Maharashtra, Manipur, Puducherry, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, West Bengal (INR 5,000 and 10,000/km)
3	Pole	<ul> <li>Establishment of Pole-1000 (one-time), with no compensation to be charged</li> <li>Usage of Pole for installation of Telegraph Line (Aerial OFC)- INR 100/Annum</li> </ul>	Adopted by 16 States/ UTs of Andhra Pradesh, Assam, Chandigarh, Goa, Jammu and Kashmir, Ladakh, Lakshadweep, Maharashtra, Manipur, Puducherry, Rajasthan, Sikkim, Tripura, Uttarakhand, West Bengal and Jharkhand

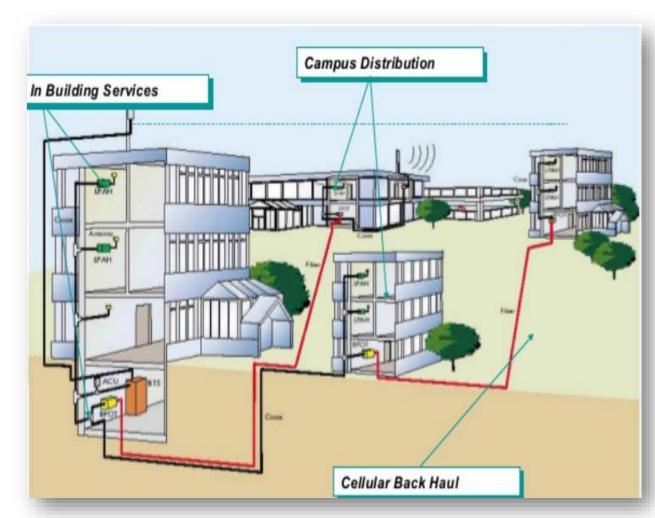
## Indian Telegraph ROW Rules, 2016 and Amendment(2022) For Faster 5G Rollout



## Addendum To Model Building Bye-Laws, 2016



- MoHUA has issued an addendum to Model Building Bye-Laws, 2016 on "In-building Access by Telecom Service provider"
- It aims for creation of common telecom Infrastructure & IBS, Making cities smarter through In- Building (IBS) and Gated Buildings Solutions (GBS)
- States/UTs may incorporate addendum in the States bye laws- will help reduce wire clutter in residential colonies



12 states/ UTs (Andhra Pradesh, Assam, Goa, Jammu and Kashmir, Jharkhand, Kerala, Maharashtra, Manipur, Punjab, Rajasthan, Uttarakhand and Puducherry) incorporated provisions of addendum to Model Building Bye-laws, 2016 published by MoHUA in March-2022





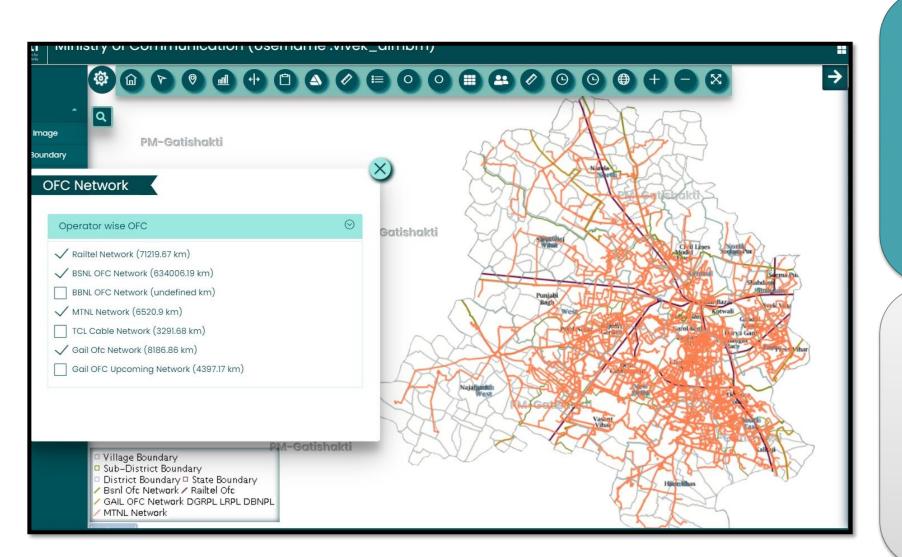
## DoT - PM GatiShakti NMP

https://nmp.pmgatishakti.gov.in/telecom/login

## **Telecom Data Mapping OFC**







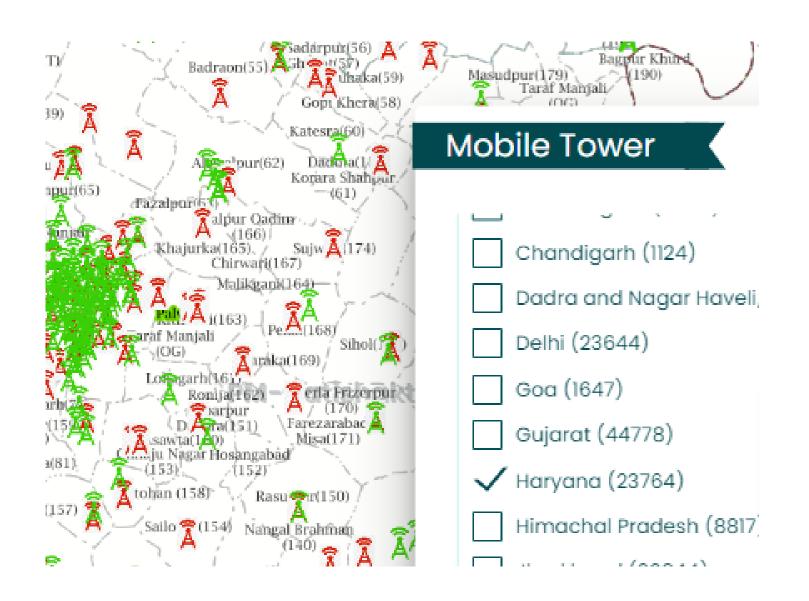
(~11.5 lakh RKM from PSUs of Railtel/BSNL/ BBNL/ MTNL/ TCL/ GAIL mapped)

~ 21000 RKM OFC laid by Telangana, Jharkhand, AP, Kerela and Rajasthan states government institutions has been mapped and laid by other state government institutions is being mapped progressively.

## **Telecom Data Mapping Towers/BTSs**







Fiberized Mobile Tower

Non-fiberized Mobile Tower

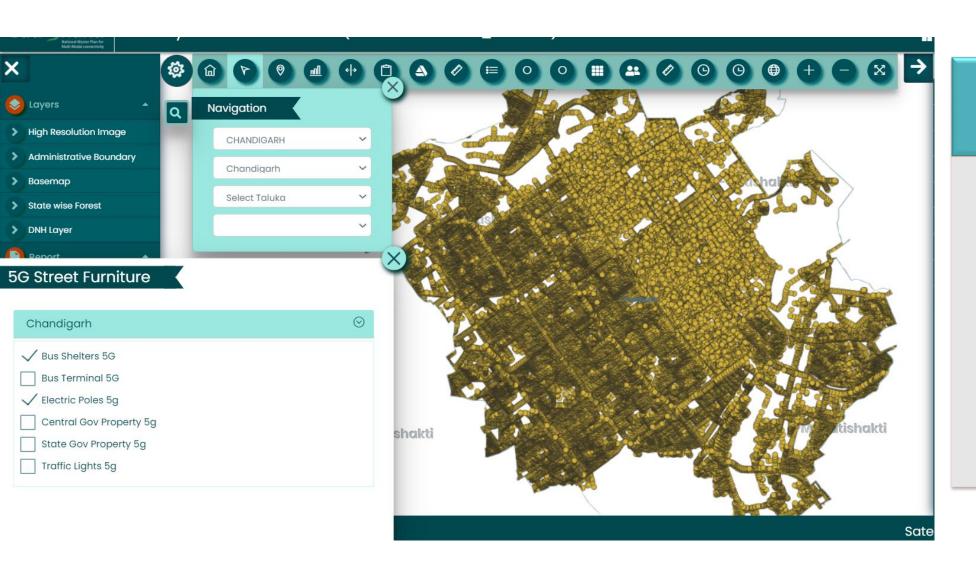
Towers (with BTSs of different operators)
State wise - Fiberized & non-fiberized
(Microwave or Satellite)

7.3 lakh towers and23.5 lakh BTS mapped

## **Telecom Data Mapping – Street Furniture**







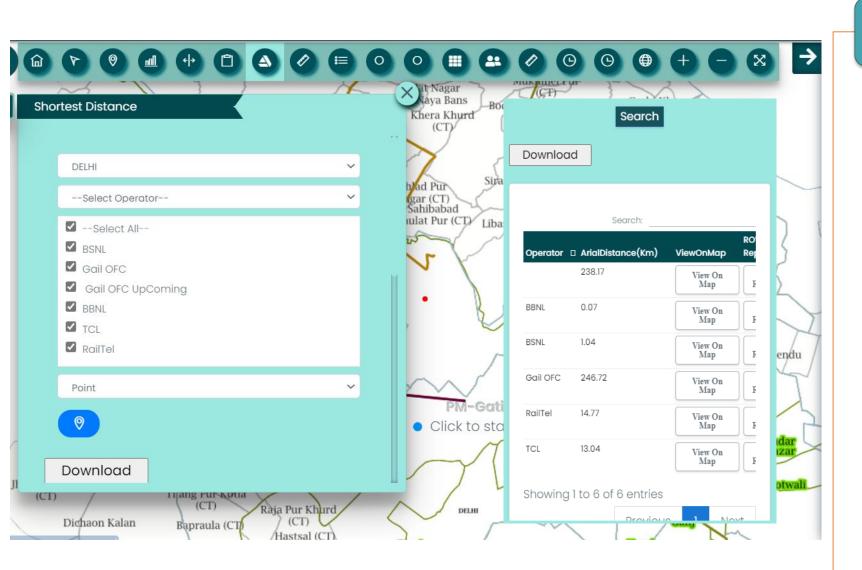
# Street furniture – for 5G roll out

Street furniture
 of Chandigarh
 UT already
 mapped and
 other states are
 being asked to
 map in DoT
 defined format.

## PM GatiShakti NMP-Tools Developed (1/3) GatiShakti







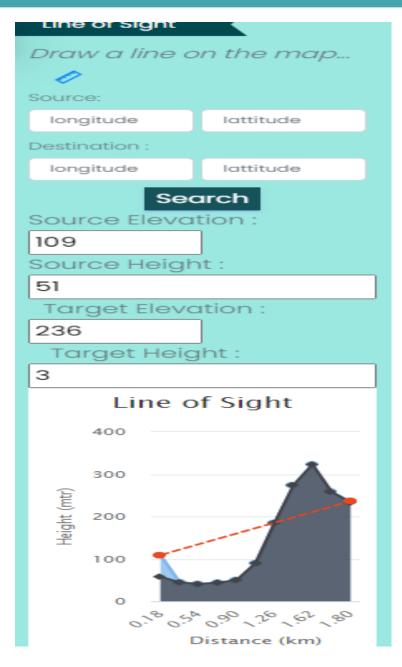
#### SHORTEST DISTANCE TOOL

- Find shortest distance of OFC from the point of interest (use case fiberization of Towers/ Public institutions)
- Select point of interest on map or by entering latitude & longitude
- Find distance for one or all operators.
- Find distance by road as well as aerial
- Find RoW information along the route
- Download the information of distances calculated

## PM GatiShakti NMP-Tools Developed (2/3) GatiShakti







#### LINE OF SIGHT TOOL

Find height of towers required at 2 points of interest to bring them in Line of Sight

Select points of interest on map or by entering latitude & longitude

Dynamically change height of any point(s) and see the results

Easy to use graphical interface

## PM GatiShakti NMP Platform: 4G Saturation GatiShakti





#### 4G saturation in 25000 uncovered villages uses NMP for planning of the project for:



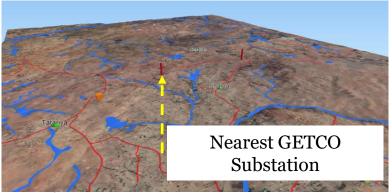
Distance of nearest available roads



**Availability of land for installation (7558)** 



Distance of available OFC from the proposed sites (32,000 Rkm), at 8681 places LoS for Micro Wave purposes identified



Distance of nearest available electric supply installation (at 6560 places Electricity connection was identified)

## **Optical Fiber laid by ISPs**





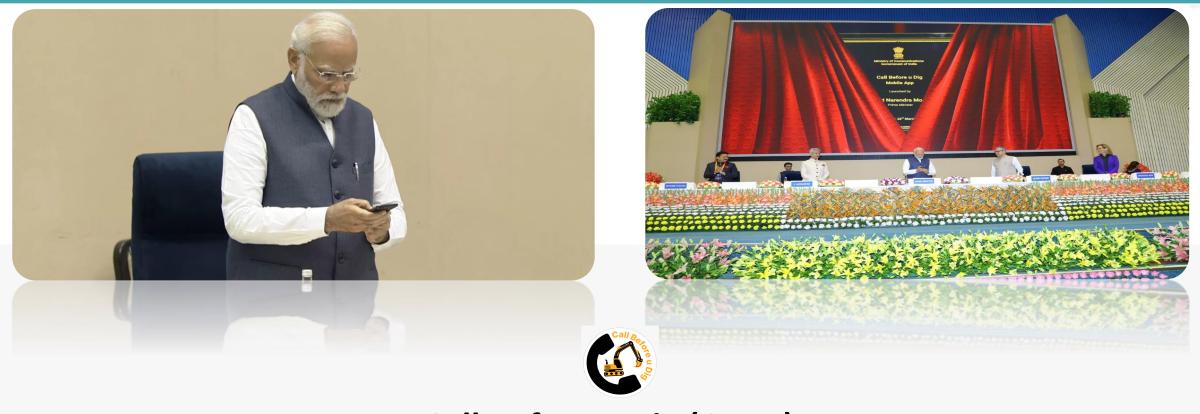
- All the ISPs are requested to provide data on their <u>optical fiber laid</u>. Data can be submitted in <u>KML</u> (Keyhole Markup Language) format or <u>shape files</u> or even excels files having the following attributes:
  - **✓** Operator
  - ✓ TSP(from whom backhaul bandwidth is taken)
  - ✓ Installed on date
  - ✓ No. of cores
  - ✓ No. of cores utilized
  - ✓ Type of OFC(overhead, underground or OPGW)
  - ✓ Contact person(for sale/FTTH connection)
  - ✓ Remarks(if any)
- Further the ISPs are also requested to provide details of OLTs(optical line terminal) & ONTs(optical network terminal), if any, with these attributes:
  - **√** Type
  - **√** Latitude
  - **√** Longitude
  - ✓ TSP(from whom backhaul bandwidth is taken)
  - ✓ Installed on date
  - ✓ Remarks(if any)
- The objective is to map the optical fiber/network elements on the **PM GatiShakti NMP platform** so that the same can be used for other operators to fiberization mobile towers and provide FTTH connections in rural/remote areas. Hence a **business opportunity** for ISPs.



# Call Before u Dig (CBuD) Mobile App

## 'Call Before u Dig' (CBuD) mobile application





Call Before u Dig (CBuD)
Mobile App

Launched by Hon'ble Prime Minister, on 22<sup>nd</sup> March 2023



## Features-Call Before U Dig (CBuD)





Mobile App working on android & ios



Diggers can know the contact details of utility asset owners for coordination before start of digging



Utility Owners – can know about imminent digging activity near their utility assets & can interact with diggers.



Diggers/utility asset owners will be given alerts via SMS, email and in-app notification and will also have the facility of 'Call Before U Dig'.



Help desk no. (0755-2700802) will be for supporting the users as to how to use the App. email id-support@gatishaktisanchar.gov.in

## **CBuD Advantages-Ease of Doing Business**





#### **State Govt.**

- Many utilities can be saved from unwanted cuts and wasteful expenses for restoration
- Lowers tax losses to Govt.



#### **Utility Asset Owners**

- Lowering of costs, saving of petrol (FOREX) as less need of physical surveys for securing assets
- Scheduled digging information in advance
- Lesser damage of underground assets



#### **Digging Agencies**

- Digger can submit all the required information to all the utility asset owners at one place. No need to spend time in finding contact details of different utility providers
- Free advice from asset owners, to save underlying assets
- Will save from subsequent penalties/disputes



#### Citizen

Lesser breakdowns mean less inconvenience

## **CBuD-Actions to be taken**





**As Excavators** - Railways, MoD, MoRTH(NHAI), MoPNG & ISPs to mandate all their excavating agencies/ contractors to do any type of excavation only after prior intimation through CBuD app



As Utility asset owners - Preconfigure contact details of in-charges of utilities (district wise) in CBuD to get notification of excavation in their areas

## **CBuD-Activities to be taken**





सी.जी.-डी.एल.-अ.-03012023-241640 CG-DL-E-03012023-241640

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)

PART II—Section 3—Sub-section (i) प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

सं. 05] No. 05] नई दिल्ली, मंगलनार, जननरी 3, 2023/पौष 13, 1944 NEW DELHI, TUESDAY, JANUARY 3, 2023/ PAUSHA 13, 1944

संचार मंत्रालय

(दूरसंचार विभाग)

अधिसूचना

नई दिल्ली, 3 जनवरी, 2023

सा.का.नि. 06(अ).— केन्द्रीय सरकार, भारतीय तार अधिनियम, 1885 (1885 का 13) की धारा 7 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, निम्नलिखित नियम बनाती है, अर्थात्:-

- 1. संक्षिप्त नाम और प्रारंभ:- (1) इन नियमों का संक्षिप्त नाम भारतीय तार (अवसंरचना सुरक्षा) नियम, 2022 है।
  - (2) ये राजपत्र में प्रकाशन की तारीख को प्रवृत्त होंगे।
- 2. परिभाषाएं- (1) इन नियमों में, जब तक कि संदर्भ से अन्यथा अपेक्षित न हों,
- (क) "अधिनियम" से भारतीय तार अधिनियम, 1885 (1885 का 13) अभिप्रेत है;
- (ख) "सामान्य पोर्टल" से इन नियमों के प्रयोजनों के लिए केन्द्रीय सरकार द्वारा विकसित और अधिसूचित पोर्टल या मोबाइल फ्रोन उपयोजन अभिप्रेत है;
- (ग) "अनुक्षितधारी" से अधिनियम की धारा 4 की उप-धारा (1) के अधीन अनुक्षित धारण करने वाला कोई व्यक्तिः अभिग्रेत है;
- (घ) "सूचना" से सामान्य पोर्टल के माध्यम से प्रस्तुत की गई खुदाई या उत्खनन संबंधी पूर्व सूचना अभिप्रेत है,25 GL2023

THE GAZETTE OF INDIA: EXTRAORDINARY

[PART II-SEC. 3(i)]

- (ड.) "तार अवसंरचना" में तार या तार लाइन और पोस्ट शामिल हैं;
- (2) उन शब्दों और पदों के जो प्रयुक्त हैं और परिभाषित नहीं हैं किन्तु अधिनियम में परिभाषित हैं वही अर्थ होगा जो अधिनियम में है।
- 3. किसी संपत्ति की खुदाई या उत्खनन के विधिक अधिकार का प्रयोग करने की प्रक्रिया (1) कोई व्यक्ति जो किसी संपत्ति के अधिकार के विधिक अधिकार से खुदाई या उत्खनन की इच्छा इस प्रकार से रखता हो जिससे कि अधिनियम के उपवेधों के अनुसार सम्यक रूप से स्थापित की गई तार अवसंपन्ना यो टेलीग्राफिक संचार को रुकावट डालने या वाधित करने की संभावना हो, तो वह व्यक्ति ऐसे अधिकार का प्रयोग करने से पूर्व इस प्रकार की खुदाई या उत्खनन की सुचना, सामान्य पोर्टल के माध्यम से प्रस्तुत करके अन्जापिधारी को सुचना देगा।
- (2) उप-नियम (1) के अधीन सूचना में विधिक अधिकार का उपयोग करने वाले व्यक्ति का नाम और पता, एजेंसी का व्यौरा, पता, खुदाई शुरू करने की तारीख और समय, खुदाई का विवरण और स्थान तथा इस प्रकार की खुदाई या उत्खनन करने के कारण शामिल किए जाएंगे।
- (3) अनुज्ञप्तिधारी उप-नियम (1) के अधीन सूचना प्रस्तुत करने पर संपत्ति से संबंद्ध किसी भी अनुज्ञप्तिधारी द्वारा स्वामित्व वाली या नियंत्रित या तार अवसंरचना का ब्यौरा सामान्य पोर्टल के माध्यम से यथा शीष्ठ उपलब्ध कराएगा जिसका प्रयोग वह तार अवसंरचना को अति पहुँचाए विना समन्वय के लिए पूर्वावधानी उपायों के साथ-साथ अधिकार के विधिक प्रयोग के लिए करना चाहता है।
- (4) खुदाई या उत्खनन के विधिक अधिकार का प्रयोग करने वाला व्यक्ति, उप-नियम (3) के अनुसार अनुज्ञप्तिधारी द्वारा किए गए पूर्वावधानी उपायों पर उपयुक्त कार्रवाई करेगा।
- (5) यदि कोई अनुज्ञप्तिधारी अधिनियम की धारा 19(क) के अनुसार विहित समय के भीतर व्यौरा उपलब्ध नहीं कराता है तो खुटाई या उत्खनन के विधिक अधिकार प्राप्त व्यक्ति इसके पश्चात संपत्ति की खुटाई या उत्खनन करने के लिए स्वतंत्र होगा।
- 4. नियम के उपवंधों के उल्लंघन के लिए नुकसानी प्रभार (1) कोई व्यक्ति, जिसने किसी संपत्ति की बुदाई या उत्खनन के विधिक अधिकार का प्रयोग इस ढंग से किया हो, जिससे अधिनियम के उपवंधों के अनुसार विधिवत रखे गए तार अवसंरचना के बुनियादी ढांचे को नुकसान होता है, वह तार प्राधिकारी को नुकसानी प्रभार का भुगतान करने के लिए उत्तरदायी होगा।
- (2) उप-नियम (1) के अधीन नुकसानी प्रभार की गणना ऐसे खर्चों के आधार पर की जाएगी जैसा नुकसानी के प्रत्यावर्तन में उपगत किया जाए।

[फा. सं. 2-16/2022- नीति] आनंद सिंह, संयुक्त सचिव

#### MINISTRY OF COMMUNICATIONS

(Department of Telecommunications)

#### NOTIFICATION

New Delhi, the 3rd January, 2023

G.S.R. 06(E).— In exercise of the powers conferred by section 7 of the Indian Telegraph Act, 1885 (13 of 1885), the Central Government hereby makes the following rules, namely: -

1 Short title and commencement (1) There will may be called the Indian Telegraph (Infractments)

DoT has come out with **notification dated 3rd Jan 2023** reg. **safety of Telecom assets** which mandates use of a common portal/app (CBuD) and prescribes procedure of giving notices etc. for digging and applicable damages in case of damage to telegraph property.

## **5G Capacity Building Conference for All States/UTs**



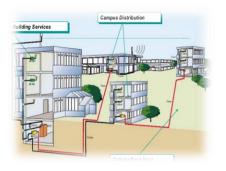


5G Use Cases & presentation/ demo by Start Ups



Call Before u Dig (CBuD)

Mobile Application



Model Building Bye-Laws, 2016 (Provision for in-building solutions) issued by MoHUA



Status of mapping of street furniture for 5G rollout



Activating 5G form on State's RoW Online Portal and RoW applications Pendency



State initiatives for 5G rollout



5G Rollout Plans of TSPs and expectations from States

## Takeaways for ISPs – symbiotic relationship with TSP



#### **RoW** issues

- RoW rates/policies in all States/ UTs available on GatiShakti Sanchar Portal View it regularly
- Interact with DoT LSA officials, to facilitate resolution of pending RoW applications or RoW charges

#### PM GatiShakti NMP Platform

- Use it to know available OFC for backhaul connectivity at any location (Lat.-Long.)
- Map your OFC/assets on NMP, so that to share it commercially with other ISPs/TSPs
- Approach DoT LSA to get details from NMP

#### **CBuD**

- Get the assets owner user creation for 'Call Before u Dig' Mobile app
- Use CBuD before starting any digging to avoid penalties and to save assets of others

#### **5G** network related products

Work with start-ups.. Viz. AMANTYA for 5G network related pro



#### For Business Enquiries:

connect@amantyatech.com

#### For Partnership Enquiries:

partners@amantyatech.com

**L** +1 (781) 408 7457

**4** +91 798 257 3857



## Request Suggestions to take the Mission Forward

Neeraj Kumar- DDG & Mission Director, NBM 98682 18069 md@broadbandmission.gov.in

Ganesh Bakade, Director, NBM-9868103831 <a href="mailto:dir2@broadbandmission.gov.in">dir2@broadbandmission.gov.in</a> (RoW Portal & CBuD)

Amit Kumar Chauhan, Director, NBM, 9869002302 dir1@broadbandmission.gov.in\_( RoW, 5G Launch)

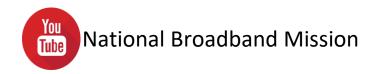
Himanshu Sharma, Director, NBM-9560957924 <a href="mailto:dir1@broadbandmission.gov.in">dir1@broadbandmission.gov.in</a> (PM GatiShakti NMP)

## **Thank You**





nationalbroadbandmission







national broad band mission

