

# COMMON DUCT POLICY

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TRAI

# TRAI'S CONCERN



- Infrastructure sharing in Mobile towers has been successful in rapid network expansion
- How to replicate sharing for wired broadband expansion ?

**Solution** → **Sharing of infrastructure cost by service providers**

# TRAI'S ACTION



- Partnership with the Jharkhand Government to pilot Common Duct Policy project
- City of Deogarh selected for this pilot project

# WHAT DOES THE PROJECT ENVISAGE

- All major roads leading to market places, offices, educational and health institution to be ducted
- A service provider will just have to take on lease the micro-duct for his cable
- The owner of duct infrastructure will maintain the duct

# DIVIDEND OF THE PROJECT

- Considerable cost savings, as the cost will be divided among service providers
- No need of frequent RoW permissions
- Frequent digging in the city will be avoided

# ABOUT DEOGHAR CITY...

- ▣ Area – 337 sq. km
- ▣ Population – 2.03 lakhs (2011 census)
- ▣ No. of wards – 36
  - ▣ Average area per ward – 9.36 sq. km
  - ▣ Average population per ward – 5650
- ▣ **List of Institutions**
  - ▣ Govt. offices - 18
  - ▣ Educational Inst. - 14
  - ▣ Hospitals - 6
  - ▣ Banks - 27
  - ▣ Others - 20
- ▣ **Total road network ~ 252 km.**



# EXISTING TELECOM INFRASTRUCTURE IN DEOGHAR

S.No	Operator Name	No. of Subscribers	Wireline BB	Optical Fibre(KM)	No. of BTS (2G &3G)	No. of Microwave
1	AIRCEL	42576		Nil	13	14
2	AIRTEL	71558		38	25	23
3	BSNL	100000	728	33	30	4
4	IDEA	22058		Nil	20	23
5	RCOM	15000		17.5	10	6
6	TATA TELESERVICES	28121		32	17 & 7 CDMA	26
7	TELENOR	10000		Leased Media (MPLS)	22	NIL
• Total Vodafone subscribers in Deoghar - 3.08 lakhs		18545		12.5	27	30

- Only BSNL has 728 wireline BB connections [ $> 512$  kbps]
- Total OFC km - 133 km
- Some operators are sharing other operator's fiber/infra-structure .
- The duct laid by TSP's currently is the simple duct (40/33 mm) and is mainly along the circular road

# INPUTS IN FEASIBILITY REPORT---1/2

- Study and gather the data w.r.t the existing broadband penetration in Deoghar
- Demand assessment for citizen/business/govt/ smart cities/ surveillance etc.
- Interaction with various TSP's to understand their requirements for cable laying
- Interaction with various stakeholders (like Municipal Corporation etc) to assess the present infra structure of ducts/OFC available





# INPUT IN FEASIBILITY REPORT---2/2

- Planning the duct route for the city
- Preparation of technical specifications and infra structure dimensioning
- Estimation of CAPEX and OPEX
- Identifying the Business Model for the above project
- Devising the implementation strategy
- Cost Benefit Analysis in various scenarios



# BANDWIDTH DEMAND ASSUMPTIONS

- **Smart City requirements**
  - ❑ Security and surveillance
  - ❑ Smart metering and energy management
  - ❑ Smart transport
  - ❑ Incubation and skill development centers
- **Digital India initiative**
  - ❑ Broadband highways
  - ❑ Public internet access program
  - ❑ Universal access to Mobile connectivity



# OFC DUCT LAYING REQUIREMENT

**All institutions, offices, households shall be covered with OFC cable travelling along**

- Primary Road – 80 km
- Secondary Road – 60 km
- Tertiary Road – 112 km
- Crossings
  - Primary – 50
  - Secondary – 25
  - Tertiary – 40

**Existing No. of offices/institutions on**

- Primary roads – 32
- Secondary roads – 20
- Tertiary roads – 10

# EXISTING STATUS OF PROJECT

- Jharkhand government has issued an EOI in December 2016.
- Fresh EOI is being issued.

# WAY FORWARD

- The evaluation of EOI will decide the possible implementation models.
- Government of Jharkhand will issue RFP for the implementation of the ducting project.
- Service Providers will take on lease the micro-duct capacity from the owner of the ducts/ State Government.
- Ducts will be maintained by the owner of duct.
- **No RoW permission shall be granted for the ducted routes.**



**THANK  
YOU**

