

GOVERNMENT OF KARNATAKA



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EXPRESSION OF INTEREST FOR
SELECTION OF NETWORK PROVIDER FOR CREATING A CITY-WIDE FIBRE
NETWORK FOR TUMAKURU ON PPP MODE

EoI No. TSCL/SPV/SCP/CR/07/2017-18
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1. Bid Data Sheet

Tender Reference	:
EoI Document Availability		Download from https://www.eproc.karnataka.gov.in
Last date and time for receipt of EoI through e-procurement	:	To view in e-Procurement portal.
Time and Date of opening of EoI	:	To view in e-Procurement portal.
Time and date of Proposal Presentation	:	To be intimated

2. Invitation for EOI

The Purchaser invites EOIs from prospective bidders ('Bidders') for the "SELECTION OF NETWORK PROVIDER FOR CREATING A CITY-WIDE FIBER NETWORK FOR TUMAKURU ON PPP MODE" that has been initiated. The Successful Bidder will carry out the scope of work in accordance with the specifications provided in a detailed Request for Proposal (RFP) document which will be released by the Purchaser subsequently.

Purchaser now seeks EOI from Bidders of repute for "Creating a City-wide Fiber Network for Tumakuru on PPP Mode" to create a city wide fiber network.

3. Introduction to the project

3.1. About Tumakuru

Tumakuru, the district headquarters of Tumakuru district in South East Karnataka, is an educational hub & industrial city spread over about 48 Square Kilometers, popularly known as the City of Education and the City of Coconuts. Tumakuru is in close proximity to the Karnataka State Capital, Bengaluru which is located just 70 km South-east of Tumakuru, which makes it an important node in the CBIC Corridor.

The following table summarizes some key facts about Tumakuru City.

Table 1: Facts about Tumakuru

Tumakuru City Population	305821 (2011 Census)
Area	48.21 Sq. Km.
Population Density	6300/km ²
Population	302,143
Population between age 19-29	1,22,000
Daily floating population	29,000
ABD Area	5.48 Sq. Km.
PAN City Area	42.73 Sq. Km
Number of Properties	93494
Number of Wards	35
Length of Roads	575 Km
Total Water Supply	46-47 MLD
Per Capita Water Supply	115 – 120 LPCD
Temperature	Summer: 32°C – 40°C Winter: 17°C – 30°C
Elevation	822m
Latitude	13.34°N 77.1°E
Distance from Bangalore	70 KM
Connectivity	Nearest Airport: Kempegowda International Airport, Bengaluru (86 KM) Nearest Railway Station: Tumakuru Railway Station Nearest Major Railway Station: Yeshwantpur Railway Station, Bangalore (63 KM)

Tumakuru can proudly boast of having 1 university, 2 medical colleges, 1 dental college, 5

engineering colleges, 38 Undergraduate and Postgraduate Colleges, 6 Polytechnic Colleges and 296 Schools (consisting of primary, upper primary, higher secondary and PU).

Tumkur University has the strength of 8000 on campus students. Under Tumkur University, there are 86 colleges out of which 20 are under Tumkur Municipal Corporation. Siddaganga Institute of Technology has a strength of 4500 on campus students. The Siddaganga Group has a total of 120 schools and colleges in Tumkur district out of which 50 are under Tumkur Municipal Corporation. Sri Siddhartha Institute of Technology has a strength of 3500 on campus students.

3.2. Industries in Tumakuru

The Government of India has identified NH4 as Chennai - Mumbai Industrial Corridor, which will be an area for economic growth in the coming decades. Tumakuru's close proximity to the state capital, Bengaluru makes it a very feasible and attractive location for industrial development due to lack of reasonably priced land in Bengaluru. The Indian Budget for year 2014-2015 held on the 10th of July 2014 had announced that Tumakuru is one of the cities in South India to be developed as a "Industrial Smart" city.

Owing to its proximity to Bengaluru, besides being the gateway to Karnataka and the infrastructure that it provides, Tumakuru has the potential to be the satellite city to decongest the state capital of Bengaluru. Tumakuru also has been identified as National Investment and Manufacturing Zone (NIMZ). NIMZ of approx. 13500 acres and the HAL Helicopter Manufacturing Facility (NrGubbi) with 610 acres will be developed as integrated industrial townships with state-of-the-art infrastructure and land use on the basis of zoning; clean and energy efficient technology; necessary social infrastructure; skill development facilities, etc., to provide a productive environment to persons transitioning from the primary sector to the secondary and tertiary sectors. The NIMZ will house all facilities such as dedicated industrial zones, residential zones, commercial zones, education zones, healthcare zones etc.

Existing Status of Industrial Areas in the District¹

#	Name of Ind. Area	Land Acquired (In hectare)	Land developed (In hectare)	No. of Plots	No. of Allotted Plots	No. of Units in Production
1	Antharasanahalli-I Phase	208.00	208.00	136	136	112
2	Antharasanahalli-II Phase	256.00	256.00	142	142	110
3	Sathyamangala	54.50	54.50	46	46	36
4	Hirehalli	160.86	160.86	101	101	89
5	Kunigal-I Phase	112.50	112.50	90	90	12
6	Kunigal-II Phase	57.91	57.91	50	50	55
7	Vasanthanarasapura-I Phase	782.22	782.22	260	260	05
	Total	1631.99	1631.99	825	825	419

Following developmental activities are proposed in near future:²

¹Source: Brief Industrial Profile of Tumakuru District, MSME - Development Institute, (Ministry of MSME, Govt. of India), 2016

²Source: Brief Industrial Profile of Tumakuru District, MSME - Development Institute, (Ministry of MSME, Govt. of India), 2016

- 7 industrial areas and 7 Industrial Estates
- Land Bank of 9,800 Acres
- Four Proposed Industrial Areas - Sira, Vasanthanarasapura, Tiptur and Kunigal
- Four Proposed Parks - Food Park, Auto Park, IT/BT and Textile Park
- Five Industrial Estates planned in Tumakuru, Tiptur, Kunigal, Pavagada&Madhugiri
- Proposed Drinking water scheme with an investment of US \$ 5.2 million (INR 25 crores)
- Proposed Tumakuru-Rayadurga Railway line
- Proposed Tumakuru – Davanagere Railway Line via Chitradurga
- Proposed Eight Lane road (Tumakuru-Honnava via Shivamogga)
- Proposed Helicopter Manufacturing Unit by HAL
- A Mega Food Park by Biyani's Future Ventures India Ltd (FVIL)
- Proposed Toyota Textile Park and Automobile Ancillary Park

The Karnataka Industrial Area Development Board (KIADB) is already in the process of land acquisition to the extent of 45 sq. kms (13500 acres). Of these, approximately 23 sq. kms is within the Tumakuru taluk and rest in Sira and Gubbi taluks. This is a very positive development. Thus, it is amply clear that the industrial sector in Tumakuru will receive significant push in the future from both the central government as well as the state government.

3.3. Smart Cities Mission

Tumakuru has been selected as one among the 100 Smart Cities to be developed in India under the Smart Cities Mission of the Government of India.

Tumakuru was selected through its proposal that aimed at “Transforming Tumakuru from a mere Edge City of Bengaluru to the Most Preferred Destination within the region with a strong focus on economic development and provision of enhanced Connectivity, High Quality of Life, Ecological Integration, and Inclusive Development”. Tumakuru’s Area-Based Development (ABD) proposal revolved around a retro-fitting of about 1400 Acres in the CBD area along with the Amanikere Lake to be an inclusive and thriving space catering to all user groups with the aim of decongesting the city Centre, upgrading the available infrastructure & services, and integrating the built space and the environment.

To implement the above projects, an SPV named Tumakuru Smart City Company Ltd (TSCL) has been incorporated.

3.4. About the Project

As part of creating a City-wide Fiber Network, TSCL intends to create a city-wide fiber backbone. A city-wide backbone will help in achieving:

- Enhanced digital inclusion across the city, and ensure connectivity and thus ensure that information reaches all sections of society
- Improve the city’s situational awareness
- Track vital data such as traffic, environment conditions, various utility parameter, etc. to

facilitate informed decision making

- Integrate emergency services such as fire, police, ambulance, etc. and facilitate better collaboration across departments
- Be adept with intelligent solutions for disaster management and city operations.
- Ensure access to and have better tracking of all electronic public services that the city administration delivers to its citizen

3.5. Project Objectives

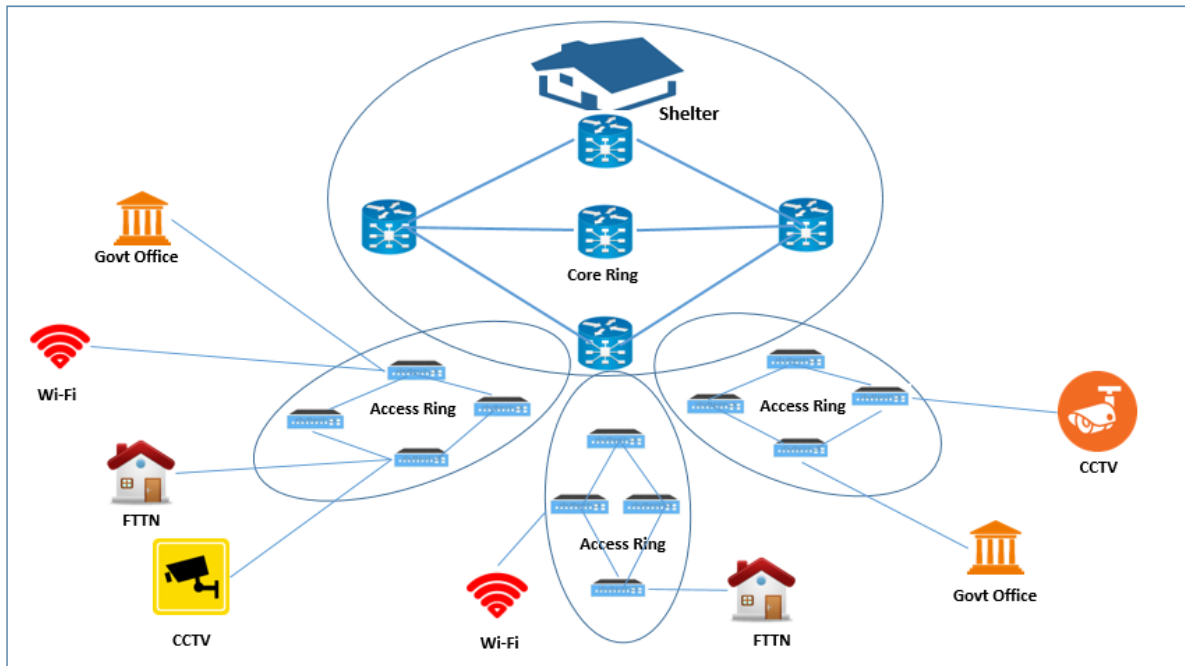
The project objectives broadly are as follows:

- To provide affordable and pervasive connectivity all across the city including peripheral areas
- To boost digital inclusion among departments and citizens
- To provide 24*7 network uninterrupted across offices, schools, parks and important establishments
- To establish a medium for quick data gathering from multiple sources and make faster decisions
- To enable the government to have advanced communication products/platforms and better security and surveillance systems
- To connect the existing and proposed industrial hubs (e.g. Vasanthanarasapura, etc.)

4. Scope of Work

Creating a City-wide Fiber Network in Tumakuru is an attempt to create Digital Government with the focus to provide enhanced citizen experience through improved connectivity across the city. TSCL desires to leverage this network to provide city-wide Fiber to the Home (FTTH) connectivity which will be useful in providing high bandwidth connectivity, meeting the present and future requirements. It will also help in bridging digital divide by enabling Internet access to all section of society.

To provide services in an uninterrupted and in effective manner, a robust network is to be deployed across Tumakuru City. This network must be scalable to meet all the network requirements for services envisaged currently, and in future. The scope of work includes Study, Design, Procurement, Supply, Installation, Commissioning and O&M of a city-wide Optical Fiber network with the associated active, passive components, civil, mechanical and power. The diagram below represents the indicative high level network architecture diagram of proposed Fiber Optic Network in Tumakuru City.



TSCL would use Leased Circuits & Internet Bandwidth for the city wide network under the Tumakuru Smart City Project.

4.1. Laying of Pre-Lubricated HDPE Telecom Ducts for the Core Ring and Access Ring to the proposed industrial hubs near Tumakuru

In order to avoid repeated digging of trenches for laying of cables / ducts within the city and to some peripheral areas, which is a safety hazard and an impediment to flow of traffic within city limits, TSCL is interested to lay, multiple permanently lubricated High Density Poly Ethylene (HDPE) telecom ducts for laying Optical Fibre along city municipal roads. It is proposed to create a corridor of Pre-lubricated HDPE Telecom Ducts of 6-7 cores/ ducts with all accessories for the entire Core Ring and the Access Ring to the proposed industrial hubs near Tumakuru, including but not limited to Vasanthanarasapura. Out of the 6-7 numbers of cores/ ducts, one will be used by the Network Provider for laying of fiber optic network and the rest shall be leased out to interested parties for a revenue generation.

4.2. Laying of Underground and Aerial distributed fiber optic network

Estimated length of distribution line to carry fiber optic cable across the City for creating the backbone is estimated to be around 200 KM (approx.) for the city wide network. This would comprise Core Ring and multiple Access Rings. The Core Ring is proposed to be placed underground along the pre-lubricated HDPE ducts. The Access Ring within the city is proposed to be laid aerially. The same network may also be extended to provide the FTTH services to citizen. The network infrastructure should also cater to adjacent industrial areas and estates like Vasanthanarasapura, where approx. 13800 acres have been acquired for industrial purposes.

The tentative areas of termination of Network would be Government offices, Schools, Bus stops, High density public spaces and Command Control Center. The areas to be covered are not limited

to the list above and may get extended based on Smart City requirements.

The bidder may consider using 2 layered Open-Access Network (OAN) Architecture for PPP feasibility or as required.

4.3. Dedicated Private Network and Internet for Smart City Operations

The network infrastructure needed for Smart City components will be procured and maintained by PPP the partner. The bandwidth and network infrastructure at different locations are being identified. The locations and bandwidth requirement at each location will be provided at a later date. The infrastructure should be flexible enough to be extended based on Smart City development plans across different parts of the city.

There should be fall back mechanism in case of primary network failure. The dedicated bandwidth required by Smart City should be made available as per the Agreement.

The network provider for Tumakuru Smart City shall provide dedicated network bandwidth of approx. 1 Gbps MPLS / ILL at Integrated City Management Control Center and all identified locations for smart element in the city. Successful bidder would be required to provide links at the desired locations as part of PPP engagement.

4.4. Creation of PoP at identified locations

As a part of project implementation, Point of Presence (PoP) would be created in the city. The objectives of the PoPs would be to enable the customers to have easy access to the network. These PoPs shall be created at locations in consultation with TSCL. It is envisaged that the following would form part of PoP infrastructure:

1. Passive fiber termination equipment
2. Electronic equipment and related infrastructure
3. Power provisioning including backup power
4. Access Control and Security through Surveillance

4.5. Provisioning of Wi-Fi Services

Project scope includes creation of Wi-Fi Hot Spots across city to provide internet service within approx. 100 meters' radius of installation location. Wi-Fi service will enable users to access broadband internet using their Wi-Fi appliances (i.e. Laptops, Tablets, Mobile Phones, and computers using Wi-Fi access point). The network provider shall be able to monetize the Wi-Fi Services through creation of Wi-Fi hotspots in public spaces where there is a demand for such services.

4.6. Central Infrastructure

Central IT infrastructure will be required to centrally Monitor, Control and Manage the city-wide network. This comprises establishment of Network Operations Centre (or using third party NOC as shared service), development and deployment of Operations Support System and Business Support Systems. The NOC of Network Provider may be utilized for Administration, Management, Controlling

and Monitoring the network.

4.7. Marketing & Retailing services

Project is envisaged with a vision to boost the digital inclusion within the city and in the industrial hubs. Thus, the project scope includes the marketing of various services like Triple play, premium Wi-Fi, FTTH etc. by utilizing the fiber backbone and through leasing of the remaining / available ducts created under this project for other telecom service providers.

4.8. Operation and Maintenance (O&M)

Project scope includes O&M for the period of 15 years. O&M would entail undertaking all activities to ensure uptime of the network as per agreed SLAs defined in subsequent section. This shall also apply to the entire supporting infrastructures such as NOC, NMS, BCP, etc. The O&M shall also entail ensuring timely upgrade of infrastructure (Active+Passive) to meet the changing demand scenarios.

4.9. Service Level Monitoring (SLA)

PPP partner shall provide access to their incident management application (Including mobile App) for raising incidents across different user communities like Smart City Operation Center, Line Departments etc. with all the necessary reports to monitor the SLA's.

4.10. Proposed Timelines

It is proposed to implement the project in phase manner connecting all identified locations within 15 months of project award. Based on demand, it is also envisaged that network will be used for various other services like FTTH, Triple play etc.

As part of EOIR response, Bidders are required to submit the phase wise Project implementation plan.

4.11. Service Level Agreement

The project envisages measurement of following SLA under the defined threshold levels in order to maintain quality service delivery. While defining the SLA following key parameters are considered:

S.No	Parameters	Measure
A	Network & Equipment Reliability	1. Mean time to repair (MTTR) 2. Availability (Network and Equipment)

S.No	Parameters	Measure
B	Service Reliability	1. QoS performance indices like packets loss, delay & jitter 2. Wi-Fi Services

S.No	Parameters	Measure
C	Active/Passive upgrade	1. The upgrade of infrastructure to be done within one year of technology upgrade available at state

Indicative SLAs in each category to be measured are as below:

Network & Equipment Reliability

SLA Category	Definition	SLA
Equipment Availability (EA)	EA formonth(%)= [Totalminutesin a month–Planned networkdowntime– Totaldown time(min) in a month]*100/[Totalminutes in a month]	>=99.99%
Network Availability (NA)	NA formonth(%)= [Totaltime(min)in a month]–[Planned networkdowntime]– [Totaldown time(min)in amonth	>=99.99%
	Fiber failure	<= 6hrs. per reported fiberfailure
	Network failure (Non-Fiber failure)	<= 30mins

Service Reliability

SLA Category	Definition	SLA
Unidirectional Delay / Latency	Qualityof service agreeduponforNetwork uptime and bandwidth	<= 20ms –40ms
Packet loss	Qualityof service agreeduponforNetwork uptime and bandwidth	<= 0.1%-1%
Jitter	Qualityof service agreeduponforNetwork uptime and bandwidth	<= 20ms –40ms
Wi-Fi Availability through Access Points(AP)	Downtime=NonAvailability/ workingof Aps at all locations Uptime%= {1- [Noof APhours not available/(TotalAPs *Totalhours ina quarter)]}*100	Upto>=99.5% uptimeinquarter

There should be a provision to use third party audit tool for SLA Monitoring and Management.

4.12. Proposed Business Model

Itisproposedtoimplementthisprojectunder PublicPrivatePartnership (PPP)between TSCLand selectedBidder.Thetablebelowshowsthe broad, illustrative role&responsibility ofPPPPartner (NP)organization with components as applicable:

S No	Component	Responsibility	Suggestion by Bidder
A	Study and Gap Analysis for proposed requirements in a PPP Model	NP	
i	Study of Control Center, ABD and PAN city network requirements	NP + TSCL	

S No	Component	Responsibility	Suggestion by Bidder
ii	Undertake changes required based on As-Is Gap Analysis Report	NP	
B	Pre-Lubricated HDPE Telecom Ducts		
	Preparation and Submission of QA/QC document for DUCT	NP	
	Finalization of laying methodology, installation & commissioning, QA and QC certification etc.	NP	
	Review and approval of drawings	TSCL	
	Procurement & Laying and Commissioning of HDPE Telecom Ducts incl. earthwork, backfilling, pit construction, etc.	NP	
B	Leased Circuit WAN (Internet & Intranet, Last Mile Connectivity)	NP	
i	Design the new WAN architecture under this project to meet the intended objectives and scope of the project	NP	
ii	Provisioning of connectivity, BIDDER shall also provide all the WAN equipment (Routers, MUX, VPN Concentrators, Modems, etc.) required under this engagement for the successful commissioning of the network.	NP	
iii	Last mile connectivity for the identified smart elements under the Smart City Project	NP	
C	Procurement of space as per design for city wide fiber optic network requirements in desired locations	NP + TSCL	
D	Passive Component (as applicable for type of Installation)		
i	Optical Fiber Cable (OFC) & Closure	NP	
ii	Protection	NP	
iii	Ducts, Double Walled Corrugated Duct & Rope	NP	
iv	Hand hole	NP	
v	Fiber Distribution Unit & Fiber Distribution Box	NP	
vi	Racks & Cabinets	NP	
vii	Shelter for PoPs	NP	
viii	Patch Cords	NP	
ix	Miscellaneous	NP	
E	Services (as applicable for type of Installation)		
i	Survey, Drawing & Liaisoning	NP	
ii	Open Trenching	NP	
iii	HDD including Duct pulling	NP	
iv	Debris Clearance	NP	
v	Pulling /back pulling of OFC 24F / 96F in HDPE Duct	NP	
vi	Laying off 40/33mm HDPE duct	NP	
vii	Laying / pulling / blowing of nylon rope 6mm diameter	NP	
viii	Installation of hand hole	NP	
ix	Restoration of Trench	NP	
x	OFC termination, splicing & Testing (loose tube cable)	NP	

S No	Component	Responsibility	Suggestion by Bidder
xi	OFC Protection	NP	
xii	Shelter, UPS & Accessories	NP	
xiii	FDB	NP	
xiv	Racks & Switches	NP	
xv	Miscellaneous	NP	
F	Active Components (as applicable for type of Installation)	NP	
i	Installation and Configuration and Maintenance of Virtual Private Networks between identified location to Control Center		
G	Upgrade of Active & Passive components	NP	
H	Solution in and provision of the network bandwidth	NP	
I	Network Operations Management & Network Security	NP	
J	Help Desk Management	NP	
*NP – Network Provider			

Note:

1. The above table is indicative in nature. TSCL shall invest for the components marked against it. TSCL may ask the NP to execute the same or may get it executed from third party.
2. In the EOI proposal Bidder is required to propose the suggestion or changes with respect to above roles and responsibilities with proper justification on the same.

4.13. Revenue Model for SI

It is proposed that selected Bidder will monetize the network and share the revenue with the TSCL. Various Revenue streams proposed are as below:

- Lease of Dark Fiber
- Wholesale Bandwidth Sale
- Triple Play Services (Data, Voice & Video) to Household
- Broadband Services to Corporate / Business / Industrial Parks
- Premium Wi-Fi Services & Wi-Fi Hotspots
- Advertisement on the poles erected by NP for access point
- Renting any additional / spare duct
- Sale of GIS Data & Services
- Surveillance as a Service
- Any other source

5. Instructions to Bidders

The TSCL, invites reputed firms to submit their proposals for the Selection of Network Provider for Creating a City-wide Fiber Network on PPP Mode, in accordance with conditions and manner

prescribed in this Expression of Interest (EOI) document.

EoI document can be downloaded from the website www.eproc.karnataka.gov.in upto the date and time mentioned in the EoI Notice.

5.1. Completeness of response

- a. Bidders are advised to study all instructions, forms, terms, requirements and other information in the EOI documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the EOI documents with full understanding of its implications.
- b. The response to this EOI should be full and complete in all respects. Failure to furnish all information required by the EOI documents or submission of a proposal not substantially responsive to the EOI documents in every respect will be at the Bidder's risk and may result in rejection of its proposal.

5.2. EOI proposal preparation costs & related issues

- a. The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by the Purchaser to facilitate the evaluation process, unless explicitly specified to the contrary.
- b. Purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- c. This EOI does not commit Purchaser to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award or for preparing this EOI, unless explicitly specified to the contrary.
- d. All materials submitted by the Bidders will become the property of Purchaser and may be returned completely at its sole discretion.

5.3. Bid Processing Fee

Each Bidder shall pay bid processing fee through any of the for e-Payment options only:

- a. Credit Card
- b. Direct Debit
- c. NET Banking
- d. National Electronic Funds Transfer (NEFT)
- e. Over the Counter (OTC) – designated ICICI Bank branches located across the country

Please note that payments submitted through cheque or demand draft shall not be accepted. Further details regarding e-Payment; please refer to e-Procurement website – www.eproc.karnataka.gov.in

5.4. EOI Validity Period

- a. The EOI validity period shall be 120 days from the date of opening of EOI.
- b. In exceptional circumstances, the TSCL may solicit the Bidder's consent for an extension of the period of EOI validity. Any such request by the TSCL and the response thereto shall be made in writing and such extension of Bid validity period by the Bidder should be unconditional. A Bidder may refuse TSCL's request for such extension. A Bidder accepting the request of TSCL shall not be permitted to modify its Bid.

5.5. Right to terminate the EOI process

- a. TSCL may terminate the EOI process at any time without assigning any reason. TSCL makes no commitments, express or implied that this process will result in a business transaction with anyone.
- b. This EOI does not constitute an offer by TSCL. The Bidder's participation in this process may result in TSCL short listing the Bidder to submit a complete technical and financial response at a later date.

5.6. Right to Accept or Reject Any Bid or All Bids

TSCL reserves the right to accept or reject any EOI offer and annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for TSCL's action.

5.7. Submission of Responses

The original bid shall be prepared and submitted in e-Procurement platform. The Bidder shall digitally sign and submit the proposal electronically through the unified e-Procurement platform: www.eproc.karnataka.gov.in

The completed bid must be submitted electronically in the e-Procurement platform on or before the due date for bid submission specified in the e-Procurement platform. The Tumakuru Smart City Limited will not be responsible for technical glitches in the desktop and internet connectivity services used by the Bidder.

5.8. Bid submission format

The entire proposal shall be strictly as per the formats specified in this EOI and any deviation may result in the rejection of the Bidder's EOI proposal.

5.9. Acceptance of Terms & Conditions

The Bidder will, by taking participation in the bidding process and submitting the bid documents, be deemed to have thoroughly read, studied and understood the bid documents including scope of work, the terms and conditions, instructions, etc. referred therein and the same are acceptable to

the Bidder.

5.10. Bid submission format

Following list is provided as the guideline for submitting various important documents along with the bid.

- Cover Letter
- Board Resolution/Power of Attorney executed by the Bidder authorizing the signing authority to sign/execute the proposal as a binding document and also execute all relevant agreements forming part of EOI
- Bidders' Particulars as per format given in EOI
- Certificate of Registration/Certificate of Incorporation
- Audited Financial statements and relevant certificates
- Copy of Work Order/Work Completion Certificate & Self Declaration
- Service Tax Registration and Income Tax Certificate
- Declaration regarding blacklisting in the given format
- Technical Proposal – Approach & Methodology, Estimated Customers, Revenues Model, etc.
- Any other document necessary for the bid proposal

Bidders shall furnish the required information on proposals in the enclosed format only. Any deviations in format may make the EOI liable for rejection.

5.11. Language of the Bid

The responses prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and TSCL, shall be written in English language. Any printed literature furnished by the Bidder in another language shall be accompanied by an English translation, in which case, for purposes of interpretation of the bid, the English translation shall govern.

If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidder.

5.12. Evaluation Process

- a. The Bidder must possess the technical know-how and the financial wherewithal that would be required to successfully provide the services sought by TSCL.
- b. The Bidder's bid must be complete in all respect, conform to all the requirements, terms and conditions and specifications as stipulated in the EOI document. The evaluation process of the EOI proposed to be adopted by TSCL is indicated under this clause. The purpose of this clause is only to provide the Bidder an idea of the evaluation process that TSCL may adopt. However, TSCL reserves the right to modify the evaluation process at any time during the EOI Evaluation process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidder of any such change.

- c. TSCL will examine the bids to determine whether they are complete, responsive and whether the bid format conforms to the EOI requirements. TSCL may waive any informality or nonconformity in a Bid which does not constitute a material deviation according to TSCL.
- d. Purchaser will constitute a committee to evaluate the responses of the Bidders in response to this EOI document (Proposal Evaluation Committee).
- e. The Proposal Evaluation Committee constituted by the Purchaser shall evaluate the responses to the EOI and all supporting documents & documentary evidence. Inability to submit requisite supporting documents or documentary evidence, may lead to rejection of the Bidder's EOI proposal.
- f. Each of the responses shall be evaluated to validate compliance of the Bidders according to the pre-qualification criteria, forms and the supporting documents specified in this EOI document.
- g. The decision of the Proposal Evaluation Committee in the evaluation of responses to the EOI shall be final. No correspondence will be entertained outside the evaluation process conducted by the Proposal Evaluation Committee.
- h. The Proposal Evaluation Committee may ask for meetings with the Bidders to evaluate its suitability for the assignment.
- i. The Proposal Evaluation Committee reserves the right to reject any or all proposals.

All the information provided for complying with the pre-qualification criteria will be evaluated. If required, TSCL may invite Bidders to make a presentation as part of the technical evaluation.

TSCL may require verbal/written clarifications from the Bidders to clarify ambiguities and uncertainties arising out of the evaluation of the bid documents. Evaluation shall be done based on the information provided in the proposal (& subsequent clarification, if any) and Clarifications / Answers given during the Presentation by the Bidders (if the presentations are held).

5.13. Consortiums

Bidder is required to submit the teaming details for Consortium as per below:

- Total No. of Consortium proposed:
- Scope of the Lead Bidder:
- Name of Consortium Partner 1:
- Scope of the Consortium Partner 1:
- Name of Consortium Partner 2:
- Scope of the Consortium Partner 2:

Note:

1. A Bidder cannot be a member of more than one bidding consortium. An individual firm applying as a single/lead Bidder cannot at the same time be the member of any other consortium.
2. The qualification criteria for Lead Bidder and consortium partners shall be part of RFP.

5.14. Failure to agree with the Terms & Conditions of the EOI

Failure of the Bidder to agree with the Terms & Conditions of the EOI shall constitute sufficient grounds for the annulment of selection.

6. Pre-Qualification Criteria

#	Basic requirement	Specific requirements	Documents required
1	Legal Entity	Bidder (all members of the consortium) must be a company in India registered under The Company's Act 2013	Certificate of incorporation / Registration
2	Business	Bidder/Consortium Partners should be in business of providing telecommunication infrastructure or internet service provider or bandwidth provisioning company for a minimum period of 5 years as on the date of Publication of this EOI.	Copy of the relevant and valid license
3	Net worth	Bidder (or holding company) should have a positive net worth in each of last five financial years i.e., FY 2016-17, FY 2015-16, FY 2014-15, FY 2013-14, and FY 2012-13	Certificate from the statutory auditor towards positive net worth of the company and Audited Financial Statements for the respective years
4	Technical capability	Bidder/ Lead Bidder (in case of Consortium) should have a. 100 km of own fiber network OR b. completed laying of at least 100 km of fiber network OR c. provided FTTH to at least 50,000 customers	Self-Declaration on company letter head along with proof of such implementation.
5	GST and Income Tax	Bidders should have GST and Income Tax registration in India	a. Copy of GST Registration Certificate b. Income Tax Return Certificate (ITR)
6	Blacklisting	Bidders should not have been blacklisted by Central Government or any State Government organization/department in India at the time of submission of the bid	Self-Declaration letter by Bidder
7	Power of attorney in favor of the lead member	In case of consortium, the members shall submit a power of attorney in favour of the lead member	Power of attorney
8	Quality / Information Security Certification	A. ISO 9001 B. ISO 27001	Copy of the Certificates

7. Technical Evaluation Criteria

Technical Evaluation of the bids would be carried out on four criteria as given below:

1. Bidder’s Competence (50%)
2. Solution Architecture (30%)
3. Presentation (20%)

#	Technical Evaluation Criteria	Technical Evaluation parameter	Max. Marks										
1	Bidder Competence – Turnover	<ul style="list-style-type: none"> • For every additional Rs. 50 crores of turnover, over and above the minimum requirement of INR 100 Crores, the bidder (lead bidder in case of consortium) will get additional marks as follows: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Turnover (in crores)</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>>= INR 250 Cr</td> <td>10</td> </tr> <tr> <td>>= INR 200 Cr and <INR250Cr</td> <td>9</td> </tr> <tr> <td>>= INR 150 Cr and <INR200Cr</td> <td>8</td> </tr> <tr> <td>>= INR 100 Cr and <INR150Cr</td> <td>7</td> </tr> </tbody> </table>	Turnover (in crores)	Marks	>= INR 250 Cr	10	>= INR 200 Cr and <INR250Cr	9	>= INR 150 Cr and <INR200Cr	8	>= INR 100 Cr and <INR150Cr	7	10
Turnover (in crores)	Marks												
>= INR 250 Cr	10												
>= INR 200 Cr and <INR250Cr	9												
>= INR 150 Cr and <INR200Cr	8												
>= INR 100 Cr and <INR150Cr	7												
2	Bidder Competence – OFC installation	<ul style="list-style-type: none"> • For every additional 100 km installation & commissioning of optical fibre network in India, over and above the minimum requirement of 1000 Km, the bidder will get additional marks as follows: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Length of OFC Network in India</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>=>1300 km of fibre optic network</td> <td>10</td> </tr> <tr> <td>=>1200 Km of fibre optic network and <1300 km of fibre optic network</td> <td>9</td> </tr> <tr> <td>=> 1100 Km of fibre optic network and <1200 km of fibre optic network</td> <td>8</td> </tr> <tr> <td>=> 1000 Km of fibre optic network and < 1100 km of fibre optic network</td> <td>7</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • The executed /completed project with respect to Fibre laying is defined as those projects where fibre has been installed & commissioned. The date of commissioned should be in last 7 years from date of issuance of this EoI. • Copy of Work order / Contract and Completion Certificate from client is required to be submitted • For on-going projects, client certificate must be attached. The project should have been in O&M for the period not less than 6 months. 	Length of OFC Network in India	Marks	=>1300 km of fibre optic network	10	=>1200 Km of fibre optic network and <1300 km of fibre optic network	9	=> 1100 Km of fibre optic network and <1200 km of fibre optic network	8	=> 1000 Km of fibre optic network and < 1100 km of fibre optic network	7	10
Length of OFC Network in India	Marks												
=>1300 km of fibre optic network	10												
=>1200 Km of fibre optic network and <1300 km of fibre optic network	9												
=> 1100 Km of fibre optic network and <1200 km of fibre optic network	8												
=> 1000 Km of fibre optic network and < 1100 km of fibre optic network	7												

#	Technical Evaluation Criteria	Technical Evaluation parameter	Max. Marks										
3	Bidder Competence – OFC Maintenance	<ul style="list-style-type: none"> If bidder (or any member of consortium) has executed or executing the maintenance of 100 km of optical fibre network in India in last 7 years from the date of issuance of this EoI then the bidder will get 7 marks For every additional 50 km in India, the bidder will get 1 marks, subject to a maximum of 10 marks. <table border="1"> <thead> <tr> <th>Length of OFC Network in India</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>=> 200 Km of fibre optic network</td> <td>10</td> </tr> <tr> <td>=> 150 Km of fibre optic network and < 200 km of fibre optic network</td> <td>9</td> </tr> <tr> <td>=> 100 Km of fibre optic network and < 150 km of fibre optic network</td> <td>8</td> </tr> <tr> <td>< 100 Km of fibre optic network</td> <td>7</td> </tr> </tbody> </table> <ul style="list-style-type: none"> For executed project, O&M of the project should have been completed in last 7 years from the date of issuance of this EoI. Copy of Work order / Contract and Completion Certificate from client is required to be submitted For on-going projects, client certificate must be attached. The project should have been in O&M for the period not less than 6 months. 	Length of OFC Network in India	Marks	=> 200 Km of fibre optic network	10	=> 150 Km of fibre optic network and < 200 km of fibre optic network	9	=> 100 Km of fibre optic network and < 150 km of fibre optic network	8	< 100 Km of fibre optic network	7	10
Length of OFC Network in India	Marks												
=> 200 Km of fibre optic network	10												
=> 150 Km of fibre optic network and < 200 km of fibre optic network	9												
=> 100 Km of fibre optic network and < 150 km of fibre optic network	8												
< 100 Km of fibre optic network	7												
4	Bidder Competence – WAN nodes	<ul style="list-style-type: none"> If bidder (Any member of consortium) has executed project(s) whereby 100 WAN nodes are connected and maintained with active/passive components in last 7 years in India from the date of issuance of this EoI then the bidder will get 7 marks. For every additional project(s) in India whereby 50 WAN nodes are connected and maintained with active/passive components in last 7 years, 1 mark will be allotted, subject to a maximum of 10 marks. <table border="1"> <thead> <tr> <th>Number of WAN Nodes</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>= > 250 WAN nodes</td> <td>10</td> </tr> <tr> <td>= 200 WAN nodes</td> <td>9</td> </tr> <tr> <td>= 150 WAN nodes</td> <td>8</td> </tr> <tr> <td>= 100 WAN nodes</td> <td>7</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Executed project(s) is defined as those projects where WAN nodes have been connected and gone live in last 7 years from the date of issuance of this EoI. Moreover, O&M should have been completed or on-going (minimum 6 months) in last 7 years from the date of issuance of this EoI. Copy of Work order / Contract and Completion 	Number of WAN Nodes	Marks	= > 250 WAN nodes	10	= 200 WAN nodes	9	= 150 WAN nodes	8	= 100 WAN nodes	7	10
Number of WAN Nodes	Marks												
= > 250 WAN nodes	10												
= 200 WAN nodes	9												
= 150 WAN nodes	8												
= 100 WAN nodes	7												

#	Technical Evaluation Criteria	Technical Evaluation parameter	Max. Marks												
		<p>Certificate from client is required to be submitted</p> <ul style="list-style-type: none"> For on-going projects, Certificate to this effect from the client on client's letter head is required. 													
5	Bidder Competence – Laying of HDPE Ducts	<ul style="list-style-type: none"> If bidder (Any member of consortium) has executed project(s) in which 100 Km. road length of HDPE Ducts have been installed and commissioned in last 7 years in India from the date of issuance of this EoI then the bidder will get 7 marks. For every additional 100 km installation & commissioning of HDPE in India, the bidder will get additional marks as follows: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Length of HDPE Ducts in India</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>=>300 km of HDPE Ducts</td> <td>10</td> </tr> <tr> <td>=> 200 Km of HDPE Ducts and <300 km of HDPE Ducts</td> <td>9</td> </tr> <tr> <td>> 100 Km of HDPE Ducts and < 200 km of HDPE Ducts</td> <td>8</td> </tr> <tr> <td>=< 100 Km road length of HDPE Ducts</td> <td>7</td> </tr> </tbody> </table> <ul style="list-style-type: none"> The executed /completed project with respect to HDPE Duct laying is defined as those projects where ducts has been installed & commissioned. The date of commission should be in last 7 years from date of issuance of this EoI. Copy of Work order / Contract and Completion Certificate from client is required to be submitted 	Length of HDPE Ducts in India	Marks	=>300 km of HDPE Ducts	10	=> 200 Km of HDPE Ducts and <300 km of HDPE Ducts	9	> 100 Km of HDPE Ducts and < 200 km of HDPE Ducts	8	=< 100 Km road length of HDPE Ducts	7	10		
Length of HDPE Ducts in India	Marks														
=>300 km of HDPE Ducts	10														
=> 200 Km of HDPE Ducts and <300 km of HDPE Ducts	9														
> 100 Km of HDPE Ducts and < 200 km of HDPE Ducts	8														
=< 100 Km road length of HDPE Ducts	7														
6	Solution Architecture / Business Model for PPP	<p>Overall solution architecture to develop the active / passive network as per TSCL requirements</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Functional Requirement Compliance Parameters</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>Network Architecture</td> <td>5</td> </tr> <tr> <td>Strategy to meet scalability requirements</td> <td>5</td> </tr> <tr> <td>Strategy to meet redundancy requirements</td> <td>5</td> </tr> <tr> <td>Centralized Monitoring Requirements</td> <td>5</td> </tr> <tr> <td>Proposed Business Model for PPP</td> <td>10</td> </tr> </tbody> </table>	Functional Requirement Compliance Parameters	Marks	Network Architecture	5	Strategy to meet scalability requirements	5	Strategy to meet redundancy requirements	5	Centralized Monitoring Requirements	5	Proposed Business Model for PPP	10	30
Functional Requirement Compliance Parameters	Marks														
Network Architecture	5														
Strategy to meet scalability requirements	5														
Strategy to meet redundancy requirements	5														
Centralized Monitoring Requirements	5														
Proposed Business Model for PPP	10														
7	Project Presentation	<p>Following parameters will be evaluated during presentation:</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Parameter</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>Understanding of requirements and completeness of proposed solution</td> <td>2.5</td> </tr> <tr> <td>Approach & Methodology for Implementation</td> <td>2.5</td> </tr> </tbody> </table>	Parameter	Marks	Understanding of requirements and completeness of proposed solution	2.5	Approach & Methodology for Implementation	2.5	20						
Parameter	Marks														
Understanding of requirements and completeness of proposed solution	2.5														
Approach & Methodology for Implementation	2.5														

#	Technical Evaluation Criteria	Technical Evaluation parameter		Max. Marks
		Solution Architecture specific to Tumakuru	5	
		Proposed Business Model	10	

Note:

- For all the criteria, bidder is required to submit supporting documents as mentioned.
- Bidder is required to submit Copy of Work order / Contract and Completion Certificate from client for the projects that have been submitted as part of the Technical evaluation

8. Appendix I: Bid submission forms

The Bidders are expected to respond to the EOI using the forms given in this section and all documents supporting pre-qualification / EOI criteria.

Proposal / pre-qualification bid shall comprise of following forms:

Form 1: Covering letter with correspondence details

Form 2: Bidder's Particulars

Form 3: Bidder's Financial Capacity

Form 4: Undertaking regarding Blacklisting

Form 5: General Information for the Technical Proposal

8.1. Form 1: Covering letter with correspondence details

<Location, Date>

To

The Managing Director & CEO

Tumakuru Smart City Limited,
 Mahalakshmi Arcade, 1st Floor, S.S. Puram Main Road, Coffee Board Colony,
 Tumakuru 572102; Telephone: 0816-2278190

Dear Sir,

Having examined the EOI, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the EOI for the **“Selection of Network Provider for Creating a Citywide Fiber Network on PPP Mode”**.

Our correspondence details with regard to this EOI are:

#	Information	Details
a.	Name of the Contact Person	<<Insert Name of Contact>>
b.	Address of the Contact Person	<<Insert Address>>
c.	Name, designation and contact, address of the person to whom, all references shall be made, regarding this EOI.	<<Insert Name of Contact>>
d.	Telephone number of the Contact Person.	<<Insert Phone No.>>
e.	Mobile number of the Contact Person	<<Insert Mobile No.>>
f.	Fax number of the Contact Person	<<Insert Fax No.>>
g.	Email ID of the Contact Person	<<Insert Email>>
h.	Corporate website URL	<<Insert Website URL>>

We are hereby submitting our Expression of Interest (EOI) in the e-Procurement Portal. We understand you are not bound to accept any proposal you receive.

We attach hereto our responses to pre-qualification requirements and technical proposals as required by the EOI. We confirm that the information contained in these responses or any part thereof, including the exhibits, and other documents and instruments delivered or to be delivered to TSCL, is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its short-listing process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process and legal action.

We agree for unconditional acceptance of all the terms and conditions set out in the EOI document and also agree to abide by this EOI response.

We agree that you are not bound to accept any EOI response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the EOI response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

For and on behalf of <<Legal name of bidding entity>>

<<Authorized Signatory's signature affixed with corporate Seal>>

Name:

8.2. Form 2: Bidder's Particulars

#	Information	Details
a.	Name and address of the bidding company	<<Insert Name of Contact>>
b.	Incorporation status of the firm (public limited / private limited, etc.)	<<Insert Address>>
c.	Year of establishment	<<Insert Name of Contact>>
d.	Date of registration	<<Insert Phone No.>>
e.	Registrar of Companies (ROC) reference no.	<<Insert Mobile No.>>
f.	Details of company registration	<<Insert Fax No.>>
g.	Details of registration with appropriate authorities for service tax	<<Insert Email>>
h.	Name, address, email, phone nos. and mobile number of contact person	<<Insert Website URL>>

8.3. Form 3: Bidder's Financial Capacity

#	Information	Details	
a.	Registration details under the Companies Act 2013		
b.	No. of years of operation in India		
c.	Location, address and contact details of Network Operating Center (NOC) if any		
d.	Locations, addresses and contact details of offices in India.		
		Year-1 (2014-15)	
		Year-2 (2015-16)	
		Year-3 (2016-17)	

Note: Please submit CA Certification for Turnover and Net Worth. Also attach the Audited Certified financial statements for the last three financial years; 2013-14, 2014-15 and 2015-16.

8.4. Form 4: Undertaking regarding Blacklisting

(To be submitted on a 100-rupee stamp paper) Date: DD/MM/YYYY

To

The Managing Director & CEO

Tumakuru Smart City Limited,
Mahalakshmi Arcade, 1st Floor, S.S. Puram Main Road, Coffee Board Colony,
Tumakuru 572102; Telephone: 0816-2278190

Sub: Declaration for not being debarred / black-listed by Central / any State Government department in India as on the date of submission of the bid

Dear Sir,

I/We, the undersigned, herewith declare that my/our company (name of the firm) has not been debarred/black-listed by Central/any State Government department in India as on the date of submission of the EOI.

Thanking you,

Yours faithfully,

Signature of Authorized Signatory (with official seal) Date:

Name:

Designation:

Address:

Telephone & Fax:

E-mail address:

8.5. Form 8: General Information for the Technical Proposal

Bidders have to submit a structured and organized technical proposal, which will be analyzed by TSCL for different compliances with regard to the requirements of the project. Each point listed below must be provided in detail with the necessary supporting documents and assumptions. Information to be included by the Bidders in their Technical Proposal is as follows:

1. Understanding of Project Scope – Bidders may also propose any additional scope which they deem necessary to achieve objectives set out for the project
2. Approach & Methodology for implementation & post-implementation period. Strategy to manage the proposed SLA requirements.
3. High level project plan with proper Timelines
4. Detailing of Project Risks & Mitigation Plan
5. Teaming details for Consortium
6. Illustrative business models
7. Valuable, pragmatic suggestions for the proposed PPP responsibility matrix as mentioned
8. Suggestions on the innovative revenue models and willingness to share the revenue with TSCL
9. Demand estimation under various revenue stream for project viability. This needs to be shared as per tables below

Table A: Revenue streams wise Demand Estimation

Revenue Stream	Demand Estimation (customers in numbers)						
	1st Yr	2nd Yr	3rd Yr	4th Yr	5th Yr	6th Yr...	15th Yr
Lease of Dark Fiber (Create Telecom Corridor)							
Wholesale Bandwidth Sale							
Triple Play Services (Data, Voice & Video) to							
Broadband Services to Corporate/ Business							
Premium Wi-Fi Services							
Advertisement on the poles erected by SI for access point							
Renting spare duct							

Note

1. Bidder to mention all relevant assumptions / parameters considered for calculation
2. Bidder may prepare separate table for each of revenue stream

Table B: Revenues from Various Monetization Option

Revenue Stream	Revenue Estimation (in INR)							
	1st Yr	2nd Yr	3rd Yr	4th Yr	5th Yr	6th Yr	15th Yr	N th Year
Lease of Dark Fiber (Create Telecom Corridor)								
Wholesale Bandwidth Sale								
Triple Play Services (Data, Voice)								
Broadband Services to Corporate/ Business								
Premium Wi-Fi Services								
Advertisement on the poles erected by SI for access point								
Renting spare duct								
Others								
Total Revenue per year								

Note

1. Please also mention all relevant assumptions / parameters considered for calculation
2. Bidder may prepare separate table for each of revenue stream