

RAILTEL CORPORATION OF INDIA LTD

(A GOVT. OF INDIA ENTERPRISE)

UNDER MINISTRY OF RAILWAYS

Registered Office:

Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi-110023

Regional Office (Western Region):

Western Railway Microwave Complex
Senapati Bapat Marg, Near Railway Sports Ground,
Mahalaxmi, Mumbai – 400013

Invitation for Expression of Interest Document for

“Selection of Concessionaire for Providing End to End Services for Monetization of PCSCCL City Network Infrastructure on ‘Revenue Sharing Model’”

EoI Reference No: RCIL/WR/MUMBAI/Mktg/22-23/05

Date: 22.09.2022

Expression of Interest – Notice

**RailTel Corporation of India Ltd
Western Railway Microwave Complex
Senapati Bapat Marg, Near Railway Sports Ground,
Mahalaxmi, Mumbai – 400013**

EoI Reference No: RCIL/WR/MUMBAI/Mktg/22-23/05 Dt: 22.09.2022

RailTel Corporation of India Ltd invites EoIs from RailTel's Empanelled Partners (referred to as 'Bidder') for the selection of suitable partner as Exclusive pre-bid teaming arrangement for work mentioned in the Scope of this EoI. The EoI copy is sent along with this EoI Notice. The technical and commercial bids shall be submitted through E-Mail in password protected sealed packets as separate PDF documents up to the end date & time mentioned below.

Sr No	Description	EoI Fees (Non Refundable)	EMD	End date & Time for Bid Submission
1	Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on 'Revenue Sharing Model'	INR 16,950/- + 18% GST	INR 50,00,000/-	26.09.2022 at 15.00hrs

The prospective Bidders should submit their suggestions/observations, if any, in writing/ email. Any modification of the EoI documents, which may become necessary as a result of suggestions/ observations, shall be made by RailTel exclusively through the issue of an addendum/corrigendum.

Prospective applicants are required to direct all communications related to this EoI, through the below mentioned Nominated Point of Contact persons:

1. Level 1

Contact Name : Sh. Viplovnath Mishra
Designation : Deputy General Manager/ Marketing
E-Mail Address : viplovmishra@railtelindia.com
Mobile No : +91- 9004444124

2. Level 2

Contact Name : Sh. Ravikant Prasad
Designation : General Manager/ Mumbai Territory
E-Mail Address : ravi@railtelindia.com
Mobile No : +91- 9004444109

NOTE: Every page of the submitted documents should be duly signed by the Authorized Signatory with Company seal.

<u>Table of Contents</u>	<u>Page No</u>
1. RailTel Introduction	4
2. Invitation of Bids	6
3. Prequalification Criteria and Instructions to Bidders (ITB)	7
4. Scope of Work	18
5. Payment Terms, Timelines & SLA	19
6. Annexure I: Instructions & Pre-Qualification Bid Formats	20
7. Annexure II: Instructions & Technical Bid Document Formats	24
8. Annexure III: Instructions & Commercial Bid Formats	26
9. Annexure IV: Complete EoI Examination & Nil Deviation Certificate	30
10. Annexure V: Back to Back Compliance	31
11. Annexure VI: Draft Non-Disclosure Agreement	32
12. Annexure VII: Performance Bank Guarantee Format	36
13. Annexure VIII: Contract Agreement	38
14. Annexure IX: Client RFP and Corrigendum's	39

रेलटेल
RAILTEL

1. RailTel – Introduction

RailTel Corporation of India Limited, a Public Sector Undertaking under the Ministry of Railways, Govt. of India, and is a national telecom service provider having NLD, IP2 and ISP licenses and IP1 registration and have built nation-wide optical fiber network. RailTel's objective is to create a nation-wide broadband telecom and multimedia network.

RailTel Corporation of India Limited (RailTel) an ISO 20000-1:2018, ISO/IEC 27001:20013 and CMMI Level-4 certified organization for its quality management systems, information security management systems, and service management systems, respectively. The Corporation was formed in Sept 2000 with the objectives to create nationwide Broadband Telecom and Multimedia Network in all parts of the country, to modernize Train Control Operation and Safety System of Indian Railways and to significantly contribute to realization of goals and objective of national telecom policy 2012. RailTel is a Public Sector Undertaking under the administrative control of Ministry of Railways, Govt. of India.

RailTel is building state of the art multimedia telecom network using SDH/DWDM based transmission systems and high end MPLS-IP routers. RailTel has extensive expertise in building telecom networks. Moreover, RailTel draws its manpower from signal and telecom branch of Indian Railway which has been in the business of construction, operation and maintenance of telecom systems for more than 50 years.

RailTel has created countrywide state of the art SDH/DWDM backbone optical transport network using latest technology. Presently, the optic fiber network of RailTel covers over 61000+ route kilometers and covers 6102+ railway stations across India. Our citywide access across the country is 21000+ kms.

RailTel's backbone Transport Network has been configured in multiple 'Self-Healing' Ring architectures which provide for redundancy by automatically redirecting and switching traffic from failed/ degraded routes for an uninterrupted service ensuring maximum up time and service reliability. The network supports multiple ring protection schemes. The network has been designed in such a way that full redundancy is available for bandwidth between any two points.

The whole network is managed by centralized network management system (NMS) and backup facilities located across India. RailTel has got unique advantage to offer the best quality service(QoS) from a single unified network with PAN India presence. This state of art network enables point and click provisioning of the bandwidth and other services from anywhere to anywhere in the country. It enables provisioning of traffic in any granularity from 2 MBPS to multiple of Gbps (n x Gbps) from its country wide strong backbone network.

RailTel has implemented and currently implementing projects of national importance. Few of the Projects are as follows:

Railway Station Wi-Fi project: RailTel has implemented Free Wi-Fi services at 6,102 + Railway stations.

Hospital Management Information System (HMIS): Indian Railways, with the objective of bringing hospital management on a single architecture to prevent pilferage and making operations seamless has entrusted RailTel with implementation of hospital management information system (HMIS). RailTel has implemented this integrated clinical information system across 699 health facilities of Indian Railways across India for improved hospital administration and patient healthcare.

National Optical Fiber Network (NOFN): Democratizing Information through Broadband to Panchayats. BBNL has allotted 11 states comprising of 36,000 panchayats to RailTel which includes the states of Gujarat, Daman & Diu, Dadar & Nagar Haveli in West, Tamil Nadu and Puducherry in South and Meghalaya, Mizoram, Tripura, Arunachal Pradesh, Manipur, Nagaland in North-East.

NE-I and NE-II under USOF: The program envisages to lay OFC cable (at least 24 F underground) and provide minimum 2.5 Gbps bandwidth capacity upgradeable up to 10 Gbps.

National Knowledge Network: National Knowledge Network (NKN) envisages connecting all higher centres of learning and research by bringing together all stakeholders from science, technology, higher education, healthcare, agriculture and governance to a common platform. RailTel have been selected as one of the implementing partner of the network by providing high capacity bandwidth pipes for the NKN project.

Enterprise Specific IT & ITES projects: RailTel has implemented numerous Telecom & IT related projects in the country for various customers across the spectrum incl. Govt/PSU, Enterprises Scope of Work.



2. Invitation of Bids

Project Objective

Through this EoI RailTel intends to select an Implementation Agency for Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on 'Revenue Sharing Model'.

Further, the rates received in this EoI would hold good for procurement of various components irrespective of the finalized locations.

Bid Document Notice

- Bidder agencies are advised to study this EoI document and subsequent references carefully before submitting their bids in response to the Bid Notice. Submission of a bid in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.
- This bid document is not transferable.
- Bidder (authorized signatory) shall submit their offer through packets including technical (including prequalification documents) and financial proposal.

The Bid Inviting Authority, of RailTel invites the bidders to submit their technical proposals and financial offers for the project of Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on 'Revenue Sharing Model' in accordance with conditions and manner prescribed in this EoI and subsequent references.



3. Prequalification Criteria and Instructions to Bidders (ITB)

Prequalification criteria

The qualification criteria laid within this document shall be met by the bidder, as a Single Firm. A bidder who submits more than one EoI shall be summarily disqualified. The 'Bidder', shall be primarily accountable for the supply, implementation, testing and maintenance of the entire scope of the project.

Sr No	Qualification Criteria	Documentary Evidence
1.	The bidder should be a company registered under Indian Companies Act, 1956 and 2013 or a Partnership Firm registered under Indian Partnership Act, 1932 or a Proprietorship firm or Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008.	Copy of Certificate of Incorporation signed by Authorized Signatory of the Bidder/ certified deed of partnership
2.	The Bidder or its parent firm should have cumulative annual turnover of at least INR 450 Crores over the last five financial years (i.e. 2017-18, 2018-19, 2019-20, 2020-21, 2021-2022)	Audited Profit & Loss Statements for last five financial years (2017-18, 2018-19, 2019-20, 2020-21, 2021-2022) from the certified chartered accountant clearly stating average turnover.
3.	Bidder should have positive net worth as on 31st March 2022.	Certificate from the Chartered Accountant clearly stating the net worth.
4.	The Bidder should have executed or currently executing project/s of below mentioned value in OFC cable laying and associated works in the last five financial years (i.e. 2017-18, 2018-19, 2019-20, 2020-21, 2021-2022) in India <ol style="list-style-type: none">1. At least one project with a value of Rs. 100 Cr OR2. At least two projects with a value of Rs. 50 Cr OR3. At least three projects with a value of Rs. 35 Cr	Copy of Work Order and/or Work Completion certificate of the project from respective client clearly stating the scope, current status (percentage completion) and the contact details of the authority.
5	The sole bidder should not be insolvent, in receivership or bankrupt as on the date of bid submission.	Self-declaration to be submitted on bidders letter head.

Sr No	Qualification Criteria	Documentary Evidence
6.	The Bidder should have valid documentary proof of GST registration number and PAN Card.	Copy of GST registration number and PAN card
7.	The Bidder should not have been blacklisted by any Central/State Government Organization or Department in India at the time of submission of the bid.	Declaration by the Bidder as per format given in the bid document

Instructions to Bidders (ITB)

Sr No	Information	Details
A. Introduction		
1.	Project Name	Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on 'Revenue Sharing Model'
2.	EoI Reference No	RCIL/WR/MUMBAI/Mktg/22-23/05
3.	Bid Type	Limited EoI (for empanelled partners only)
4.	EoI Fees (Non-Refundable)	INR 16,950 + 18% GST to be Paid by RTGS/NEFT/Net Banking
5.	Earnest Money Deposit (EMD)	INR 50,00,000/-
6.	EoI Fees & EMD Submission Due Date & Time	26.09.2022 up to 15.00Hrs
7.	Bank Details of RailTel for the EoI Fees & EMD to be submitted Online	Account Name: RailTel WR Collection Account Bank Name: Union Bank of India Branch Name: Mahalaxmi Branch Account Number: 317801010036605 IFSC Code: UBIN0531782 MICR Code: 400026031
8.	Performance Bank Guarantee as Performance Security	In accordance and back to back with the document referred in scope of work (Clause No 7.1.5 of PCSCL tender document referred in Scope of Work and its addendums/ corrigendums/ modifications). To be issued within one month from the date of the notice of award of the contract or prior to signing of the contract agreement whichever is earlier or as intimated in the work order issued by RailTel.

B. Preparation of Bids		
9.	Language of Bid	English
10.	Bid Validity Period	120 Calendar Days from the Date of Opening of Bid or back to back whichever is later.
11.	Performance Security Validity Period	Valid upto the entire contract period including defect liability period or payment of final bill whichever is later
C. Bid Presentation		
12.	Last date for submission of written queries for clarifications	23.09.2022 up to 15.00Hrs
13.	Query Submission	To be submitted via e-mail only. Kindly refer EoI notice for E-mail Address.
14.	Contact Person for clarification of Queries	Deputy General Manager/Marketing RailTel Corporation of India Ltd Western Railway Microwave Complex Senapati Bapat Marg, Near Railway Sports Ground, Mahalaxmi, Mumbai – 400013
15.	Contact Information	Contact No: +91-9004444124 E-mail: viplovmishra@railtelindia.com
16.	Last date (deadline) for receipt of proposals in response to EoI notice	26.09.2022 up to 15.00 Hrs E-Mail Address for Bid Submission: eoi.wr@railtelindia.com
17.	Place, Time and Date of opening of Technical proposals received in response to the EoI notice	26.09.2022 at 15.30 Hrs Address for Technical Opening: RailTel Corporation of India Ltd Western Railway Microwave Complex Senapati Bapat Marg, Near Railway Sports Ground, Mahalaxmi, Mumbai – 400013
18.	Place, Time and Date of opening of Financial proposals received in response to the EoI notice	Will be intimated post Technical Evaluation
19.	Overall evaluation and Final results of EoI	Will be sent through E-Mail to all Participants
D. Evaluation of Bids and Awarding of Contract		
20.	LOI Placement	Will be sent through E-Mail to winning party only
21.	Signing of Contract Agreement	30 days after placement of LOI

Bid Preparation Cost

The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in the conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of bid, in providing any additional information required by RailTel to facilitate the evaluation process,

and in negotiating a definitive Contract or all such activities related to the bid process. RailTel will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

This bid does not commit RailTel to award a contract. Further, no reimbursable cost may be incurred in anticipation of award. All materials submitted by the Bidder shall become the property of RailTel/ Stakeholders/ Partners/ Patrons and may be returned at its sole discretion.

Amendment of Bid Document

At any time before the deadline for submission of bids, RailTel, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the bid document by an amendment. All the amendments made in the document would be informed to all the participating bidders through email. RailTel also reserves the rights to amend the dates mentioned in this bid for bid process. It will be assumed that the amendments have been taken into account by the Bidder in its bid. In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, RailTel may, at its discretion, extend the last date for the receipt of Bids.

Rights to Terminate the Process

RailTel may terminate the bid process at any time and without assigning any reason. RailTel makes no commitments, express or implied, that this process will result in a business transaction with anyone.

This bid document does not constitute an offer by RailTel. The Bidder's participation in this process may result in RailTel selecting the Bidder to engage in further discussions and negotiations towards execution of a contract. The commencement of such negotiations does not, however, signify a commitment by RailTel to execute a contract or to continue negotiations. RailTel may terminate negotiations at any time without assigning any reason.

Earnest Money Deposit (EMD) and Refund

EMD is to be submitted as per ITB A Pt 5. EMD can be submitted through RTGS/NEFT/Net Banking on or before the deadline mentioned. In case a bid is submitted without the EMD as mentioned above then RailTel reserves the right to reject the bid without providing opportunity for any further correspondence to the Bidder concerned.

The EMD shall be denominated in Indian Rupees only. No interest shall be paid by RailTel towards the deposited EMD.

EMDs of all bidders barring first three lowest Bids shall be returned immediately after recommendation of bid committee without waiting for their request. EMD of 3rd lowest Bidder shall be returned on their written request after recommendation of bid committee. After returning EMD to these two bidders, for any reasons, if these bidders become eligible for contract as per the recommendation of bid Committee, they will not have any right to claim the contract. After issuing acceptance letter to the lowest Bidder, the EMD of 2nd lowest Bidder shall be returned immediately without waiting for request. EMD of the successful Bidder will be refunded after submission of Performance Bank Guarantee and compliance & completion of all contractual formalities.

The EMD may be forfeited in any of the following cases:

1. If a Bidder withdraws its bid or increases its quoted prices during the period of bid validity or its extended period, if any
2. In the case of a successful Bidder, if the Bidder fails to sign the Contract or to furnish Performance Bank Guarantee within specified time in accordance with the format given in this bid document
3. During the bid process, if a Bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization
4. During the bid process, if any information is found wrong / manipulated / hidden in the bid.

The decision of RailTel regarding forfeiture of the EMD and rejection of bid shall be final and shall not be called upon question under any circumstances. Unsuccessful bidder's EMD shall be returned to the unsuccessful bidder within 120 days from the date of opening of the Commercial bid. EMD of Successful bidder will be returned after the award of contract and submission of the performance Bank Guarantee and compliance & completion of all contractual formalities within specified time.

Language of Bids

The Application and all related correspondence and documents in relation to the Bidding Process shall be in English language. Supporting documents and printed literature furnished by the Applicant with the Application may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Applicant. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.



Documents comprising of Bids

Below table is provided as the guideline for submitting various important documents along with the bid. E-Mail subject will have EoI Reference No and description of EoI as subject line along with Company Name. It will contain two file attachments with headings Packet A & Packet B containing respective documents as mentioned in below table.

Sr No	Type of Envelope	Documents to be submitted
01	Pre-Qualification & Technical Bid Folder (Packet A)	<ul style="list-style-type: none">• Cover Letter• Board Resolution authorizing the Bidder to sign/ execute the bid as a binding document and also execute all relevant agreements forming part of bid or Power of Attorney executed by the Bidder in favor of the Principal Officer or the duly Authorized Representative, certifying him/her as an authorized signatory for the purpose of this bid(If not submitted would result in summary rejection of the offer)• Bidder's Particulars as per specified format• All the documentary evidence required as per pre-qualification criteria mentioned in 'Pre-Qualification Criteria' section of this bid• Declaration cum Indemnity Bond• Valid proofs of EoI Fees & EMD Submission (Snapshots of Bank Statement indicating Payment of the same)• Technical Bid in the format specified• Project Details• Other Documents (as per requirements of the bid)
02	Commercial Bid Folder (Packet B)	<ul style="list-style-type: none">• Price Bid Cover• Price Bid

Bidders shall furnish the required information on their Pre-Qualification, technical and financial bids in enclosed formats only. Any deviations in format may make the bid liable for rejection. Disclosure of Commercial information of the bid in Pre-Qualification or Technical Envelope shall be sufficient grounds for rejection of the bid.

Withdrawal of Bids

A Bidder wishing to withdraw its bid shall notify to RailTel by e-mail prior to the deadline prescribed for bid submission. The notice of withdrawal shall be addressed to RailTel at the address named in the Bid Data Sheet, and bear the Contract name, the <Title> and < Bid No.>, and the words "Bid Withdrawal Notice." Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a valid submitted bid.

No bid can be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period specified in the Bid Data Sheet. Withdrawal of a bid

during this interval may result in the forfeiture of the Bidder's EMD.

Evaluation Process

The evaluation process of the bid proposed to be adopted by RailTel is indicated in this section. The purpose of this section is to provide the Bidder an idea of the evaluation process that RailTel may adopt.

RailTel shall appoint a Bid Evaluation Committee (BEC) to scrutinize and evaluate the technical and commercial bids received. The BEC will examine the Bids to determine whether they are complete, responsive and whether the bid format conforms to the bid requirements. RailTel may waive any informality or non-conformity in a bid which does not constitute a material deviation according to RailTel.

The bid prices should not be mention in any part of the bid other than the Commercial Bid. Any attempt by a bidder to influence the bid evaluation process may result in the rejection of Bid and forfeiture of EMD.

Evaluation of Bids

1. Consortium is not permitted.
2. Sub-contracting is not permitted. However, the Bidder shall seek prior approval from RailTel for sub-contracting any work, if not already specified in the bid. Such sub-contracting shall not relieve the Bidder from any liability or obligation under the Contract. If approved, however the Bidder shall be solely responsible for the work carried out by subcontracting under the contract.
3. The Financial Bids of only those Bidders, who qualify in the Pre-Qualification & Technical stage, shall be considered and will be evaluated as per the evaluation criteria in this clause by the Bid Evaluation Committee (BEC).
4. The BEC may require verbal/written clarifications from the Bidders to clarify ambiguities and uncertainties arising out of the evaluation of the Bid documents (to be stated precisely as it should be in RailTel's interest).
5. RailTel reserves the right to further negotiate with the Bidders post the Price Opening with any of the Bidders



Opening of Technical Bid

1. RailTel shall open the Technical Bids in public, in the presence of Bidders' designated representatives and anyone who chooses to attend, at the address, and at the date and time specified.
2. Only bids that are opened and read out at the bid opening and whose EoI Fees& EMD has been paid shall be considered further.
3. All the bids shall be opened one at a time, reading out the name of the Bidder, submission of EoI Fees, and any other details as RailTel may consider appropriate.
4. RailTel shall prepare a record of the bid opening that shall include, at a minimum: the name of the Bidder and the presence or absence of EMD. The Bidders' representatives who are present shall be requested to sign the attendance sheet.
5. Authorization letter in the name of the person attending bid opening meeting needs to be submitted on the letterhead of the Bidder during bid opening.
6. Once the bids are opened each bid will be checked for pre-qualification and technical criteria.

Opening of Commercial Bid

1. The Commercial bids shall not be opened by RailTel until the evaluations of the Technical Bids have been completed.
2. After the technical evaluation is completed and RailTel has issued its no objection (if applicable), RailTel shall notify those Bidders whose proposals did not pass the technical evaluation or were considered as non-responsive to the Bid Document and scope of work, that their Financial Proposals will not be opened.
3. RailTel shall simultaneously notify in writing to bidders who have cleared the technical evaluation, the date, time and location for opening the Financial Proposals. The opening date would allow Bidders sufficient time to make arrangements for attending the opening. Bidders' attendance at the opening of Financial Proposals is optional.
4. RailTel shall prepare a record of the bid opening that shall include, at a minimum: the name of the Bidder and the bid Price, and any other details as RailTel may consider appropriate. The Bidders' representatives who are present shall be requested to sign the attendance sheet.
5. Financial Proposals shall be opened publicly in the presence of the Technically Qualified Bidders' representatives who choose to attend. The name of the Technically Qualified Bidders shall be read aloud.
6. Commercial Bids from bidders who have failed to qualify in evaluation of the technical bid will not be opened.
7. Only bids that are opened and read out at the bid opening shall be considered further.
8. Authorization letter in the name of the person attending bid opening needs to be submitted on the letterhead of the Bidder during bid opening.
9. The Commercial Bids will be evaluated by RailTel for completeness and accuracy.
10. Activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.

Rights to Accept/Reject any or all Bids

1. Notwithstanding anything contained in this EoI, RailTel reserves the right to accept or reject any Application and to annul the Bidding Process and reject all Applications/ Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore. In the event that the Authority rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidders to submit fresh Bids hereunder.
2. RailTel reserves the right to reject any Application and/ or Bid if:
 - a. at any time, a misrepresentation is made or uncovered, or
 - b. the Applicant does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Application.
3. In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof including the concession thereby granted by RailTel, that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made any misrepresentation or has given any incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Successful Bidder either by issue of the LOA (Letter of Approval) or entering into of the Agreement, and if the Bidder has already been issued the LOA or has entered into the Concession Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this EoI, be liable to be terminated, by a communication in writing by RailTel to the Bidder, without Bidder being liable in any manner whatsoever to the Bidder and without prejudice to any other right or remedy which RailTel may have under this EoI, the Bidding Documents, the Concession Agreement or under applicable law. RailTel reserves the right to verify all statements, information and documents submitted by the Bidder in response to the EoI. Any such verification or lack of such verification by RailTel shall not relieve Bidder of its obligations or liabilities hereunder nor will it affect any rights of RailTel there under.
4. The bid shall be rejected if the bidder-
 - a. Stipulates the validity period less than 120 days.
 - b. Stipulates own condition/conditions.

Amendment of Bid Document

At any time prior to the deadline for submission of Application, RailTel may, for any reason, whether at its own initiative or in response to clarifications requested by any Bidder, modify the EoI by the issuance of Addendum. Any Addendum thus issued will be sent in writing/ Fax/ Email to all those to whom EoI is issued by RailTel. In order to afford the Bidder a reasonable time for taking an Addendum into account, or for any other reason, RailTel may, in its sole discretion, extend the Submission Due Date.

Notifications of awards and Signing of Contract

Prior to the expiration of the period of bid validity, the Bidder will be notified in writing or by FAX/email that their bid has been accepted. At the time RailTel notifies the

successful Bidder that its bid has been accepted, RailTel will send the Bidders the proforma for Contract, incorporating all clauses/agreements between the parties. The successful Bidder shall sign and date the Contract and return it to RailTel. Draft Format of the contract has been included in the bid document.

Performance Bank Guarantee

The Bidder shall at his own expense, deposit with RailTel, an unconditional and irrevocable Performance Bank Guarantee (PBG) from nationalized banks as per the format given in this bid, payable on demand, for the due performance and fulfillment of the contract by the Bidder.

This Performance Bank Guarantee will be submitted within 30 days of the notification of award of the contract/ Letter of Acceptance (LOA) issuance whichever is earlier. If PBG is not submitted within this time frame a delayed PBG penalty will be attracted. Post 30 days and upto 60 days from date of notification of award of the contract/ Letter of Acceptance (LOA) issuance a penalty at 15% per annum interest of LOA amount will be levied as delayed PBG penalty and this penalty will be deducted from the Invoices & EMD of the Bidder. After these 60 days if PBG is not submitted then it will be assumed that the Bidder is not interested in submitting PBG and the Amount of PBG along with the delayed PBG penalty calculated will be retained from Invoices & EMD of the Bidder. Non submission of PBG can also lead to cancellation of contract and the decision with respect to whether, to retain the PBG Amount and penalty from Invoices & EMD or cancellation of contract, will be at the sole discretion of RailTel. In the event of cancellation of contract EMD will be forfeited. If PBG is retained from Invoices & EMD then the PBG Amount only and not the penalty attracted will be paid to the Bidder in such a case post the contract period plus three months (expected PBG validity date) are over after deducting any applicable deductions (eg: Poor service, etc).

This Performance Bank Guarantee will be in accordance and back to back with the document referred in scope of work (Clause No 7.1.5 of PCSCL tender document referred in Scope of Work and its addendums/ corrigendums/ modifications). All charges whatsoever such as premium, commission, etc. with respect to the Performance Bank Guarantee shall be borne by the Bidder. The Performance Bank Guarantee format can be found in this document.

The Performance Bank Guarantee may be discharged/ returned by RailTel upon being satisfied that there has been due performance of the obligations of the Bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee.

In the event of the Bidder being unable to service the contract for whatever reason, RailTel would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of RailTel under the Contract in the matter, the proceeds of the PBG shall be payable to RailTel as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. RailTel shall notify the Bidder in writing of the exercise of its right to receive such compensation within 30 days, indicating the contractual obligation(s) for which the Bidder is in default.

The 30days' notice period shall be considered as the 'Cure Period' to facilitate the Implementation Agency to cure the breach. The PBG shall be invoked only if the breach is solely attributable to the bidder and the bidder fails to rectify the breach within the 'Cure

Period’.

RailTel shall also be entitled to make recoveries from the Bidder’s bills, performance bank guarantee, or from any other amount due to the Bidder, the equivalent value of any payment made to the Bidder due to inadvertence, error, collusion, misconstruction or misstatement.

Failure to agree with the Terms and Conditions of the Bid/Contract

Failure of the Bidder to agree with the Terms and Conditions of the bid/Contract shall constitute sufficient grounds for the annulment of the award of contract, in which event the contract may be awarded to the next most responsive Bidder (i.e. H2 Bidder). In such a case, RailTel shall invoke the PBG of the most responsive Bidder (i.e. H1 Bidder).

Terms and Conditions of the Bid

Bidder is required to go through thoroughly the complete EoI document, for all the terms and conditions to be adhered by the successful Bidder during Project Implementation and Post implementation period.



4. Scope of Work:

Project Objective

RailTel wishes to engage an agency (referred to as “Service Provider”, Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on ‘Revenue Sharing Model’ according to the requirements, specifications and bill of quantities in the bid document.

RailTel is planning to participate in a Tender Floated by Pimpri Chinchwad Smart City Ltd (PCSCL) for Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on ‘Revenue Sharing Model’ vide Tender Reference No: 04/22-23 Dated. 05.08.2022.

Summary of Scope

Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on ‘Revenue Sharing Model’

Proposed Scope of Work

RailTel wishes to utilize the services of an Implementation Agency (hereafter referred to as “Implementation Agency”/“IA”/“Selected Agency”/“Vendor”/“Bidder”) for Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on ‘Revenue Sharing Model’. The project is envisaged to be implemented in a period as specified in the referred tender and any of its addendums/corrigendums/additional documents as encompassed in the tender. The Technical details of Scope encompassed may be referred in the PCSCL Tender, its addendums/ corrigendum/ any other documents published by PCSCL issued vide Tender Reference No: 04/22-23 Dated. 05.08.2022.

In case of any discrepancy or ambiguity in any clause / specification pertaining to scope of work area, the RFP released by end customer organization shall supersede and will be considered sacrosanct. (All associated clarifications, response to queries, revisions, addendum and corrigendum, associated prime service agreement (PSA)/MSA/SLA also included.)

Special Note: RailTel may retain some portion of the work mentioned in the end organization RFP, where RailTel has competence so that overall proposal becomes most winnable proposal.

5. Payment Terms, Timelines & SLA

All the Payment Terms, Timelines and SLA will be back to back as per End Customer Tender document referred in Scope of Work. However following clauses override this EoI, its corrigendum and any other documents/its addendums/corrigendum referred in this EoI:

- 1) Payments will be processed post furnishing appropriate Invoices which are compliant as per statutory norms
- 2) Once RailTel receives payment from its End Customers the Payments appropriately as per Invoices received will be processed and released after 45 days.
- 3) No payments will be made in Advance.



6. Annexure I: Instructions & Pre-Qualification Bid Formats

Pre-Qualification Cover Letter

Date: dd/mm/yyyy

To
Deputy General Manager/ Marketing
RailTel Corporation of India Ltd
Western Railway Microwave Complex
Senapati Bapat Marg, Near Railway Sports Ground
Mahalaxmi, Mumbai – 400013

Sub: Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on 'Revenue Sharing Model'

Ref: Bid No: <No> Dated <DD/MM/YYYY>

Dear Sir,

Having examined the EoI Document (and the referred documents/ clarification / corrigendum issued thereafter, if any), the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the Bid Document for Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on 'Revenue Sharing Model'.

We attach hereto our responses to pre-qualification requirements and technical & commercial proposals as required by the Bid Document. 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 RailTel and its end customers, 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 or termination of the contract during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the Bid Document (& referred Documents, subsequent clarification / addendums / corrigendums, if any) document and also agree to abide by this EoI response for a period of 120 days from the date fixed for bid opening. We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed the Bid Document.

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.

Signature of Authorized Signatory (with official seal)

Name :

Designation :

Address :

Telephone and Fax :

E-mail address :



रेलटेल
RAILTEL

Format to share Bidder's Particulars

Sr. No	Description	Details(to be filled by the responder to the Bid)
1.	Name of the company	
2.	Official address	
3.	Phone No. And Fax No.	
4.	Corporate Headquarters Address	
5.	Phone No. And Fax No.	
6.	Web Site Address	
7.	Details of Company's Registration (Please enclose copy of the company registration document)	
8.	Name of Registration Authority	
9.	Registration Number and Year of Registration	
11.	GST registration No.	
12.	Permanent Account Number (PAN)	
13.	Company's Revenue for last 5 years (Year wise)	
14.	Company's net worth for the last year(Year wise)	

Please submit the relevant proofs for all the details mentioned above along with your bid response.

Contact Details of officials for future correspondence regarding the bid process:

Details	Authorized Signatory	Secondary Contact
Name		
Title		
Company Address		
Phone		
Mobile		
Fax		
E-mail		

Format for Declaration by the Bidder for not being Blacklisted / Debarred

(On Stamp Paper of Rs 500)

DECLARATION CUM-INDEMNITY BOND

Date: dd/mm/yyyy

I, _____ of, _____ do hereby declared and undertake as under.

1. I declared that I have submitted certificates as required to Executive Engineer (Monitoring) at the time of registration of my firm / company _____ and there is no change in the contents of the certificates that are submitted at the time of registration.
2. I declared that I _____ in capacity as Manager / Director / Partners / Proprietors of _____ has not been charged with any prohibitory and /or penal action such as demotion, suspension, black listing / de- registration or any other action under the law by any Government and / or Semi Government and/ or Government Undertaking.
3. I declared that, I have perused and examined the EoI document including addendum, condition of contract, specification, drawings, bill of quantity etc. forming part of EoI and accordingly, I submit my offer to execute the work as per EoI documents at the rates quoted by me in capacity as _____ of _____.
4. I further declared that if, I am allotted the work and I failed to carry out the allotted work in accordance with the terms and conditions and within the time prescribed and specified, RailTel is entitled to carry out the work allotted to me by any other means at my risk and cost, at any stage of the contract.
5. I also declared that I will not claim any charge / damages / compensation for non-availability of site for the contract work at any time.
6. I Indemnify RailTel and its stakeholders/ partners/ patrons for any Damages, Loss, or Injury, any legal suit, proceeding or legal action whatsoever that may be caused at any time by me or any other staff of _____ company, for the work undertaken and all such damage, damages, injury or loss, legal suit, legal action, I shall be solely responsible in individual as well as official capacity and such loss, damages, injury shall be made good and/ or as the case may be shall be paid immediately by me / Company to the satisfaction of the RailTel and its stakeholders/ partners/ patrons.

Dated _____ day of _____, 20 _____

Identified by me

Before me

<Advocate>

7. Annexure II: Instructions & Technical Bid Document Formats

General Instructions for the Technical Bid

Bidders have to submit a very structured and organized technical bid, which will be analyzed by the Technical Evaluation Committee for different compliances with regards to the requirements of the project.

Bidder is expected to divide its Bid in following sections / documents:

A. Bidder's Competence to execute the project

This document should bring about the capability of the firm to execute this project. Some of the required documents are as follows:

- Financial Capability of the Bidder and supporting documents
- Experience of Bidder of implementing similar/same applications or in supply of similar/same hardware components
- Quality of similar domain experts available with the firm

B. Proposed Team for the Project

Bidder may propose different people for different skill-sets required and different responsibilities (during Project Implementation and Post-Implementation). Following documentation is expected in this section:

- Overall Project Team (for both Project Implementation and Support phases)
- Escalation Chart for the entire Project Duration
- Summary Table giving Qualification, Experiences, Certifications, Relevance

C. Technical Solution Proposed for the Project

Broad areas to be covered in the Technical Solution documentation are given below:

- Bill of Material: This document should give details of all the proposed components, without specifying the costs. Please note that the bid shall get disqualified if Bidder gives price details in the technical document.
- Describe the proposed Technical Solution in a structured manner. Following should be captured in the same:
 - Clear articulation and description of the design and technical solution and various components
 - Reasoning for selection of the proposed technology over other options.
 - Extent of compliance to technical requirements specified in the scope of work
- Strength of the Bidder to provide services including examples or case-studies of similar solutions deployed for other clients
- Clearly articulate the Strategy and Approach and Methodology for Installation, Configuration and Implementation of the project.
- Approach and Methodology for Management of SLA Requirements specified in the bid. Bidder is required to clearly articulate how the SLA requirements would be adhered.
- Detailed Project Plan with timelines, milestones etc. for supply, installation and commissioning of the various project components.

Format to share Project Details

Name of the Project:	
General Information	
Client for which the project was executed	
Name of the client contact person(s)	
Designation of client contact person(s)	
Contact details of the client contact person(s)	
Project Details	
Description of the project	
Scope of work of the Bidder	
Deliverables of the Bidder	
Technologies used	
Current Status of the project	
Other Details	
Total cost of the project	
Total cost of the services provided by the Bidder	
Duration of the project (number of months, start date, completion date, current status)	
Other Relevant Information	
Mandatory Supporting Documents:	
Work order / Purchase order / Contract for the project/ Client Certificate giving present status of the project and view of the quality of services by the Bidder	

Note: The Bidder is required to use above format for all the projects referenced by the Bidder for the pre- qualification criteria and technical bid evaluation.

8. Annexure III: Instructions & Commercial Bid Formats

Commercial Bid Cover Letter

Date: dd/mm/yyyy

To

Deputy General Manager/ Marketing

RailTel Corporation of India Ltd

Western Railway Microwave Complex

Senapati Bapat Marg, Near Railway Sports Ground

Mahalaxmi, Mumbai – 400013

Sub: Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on ‘Revenue Sharing Model’

Ref: BidNo:<No> Dated <DD/MM/YYYY>

Dear Sir,

We, the undersigned Bidders, having read and examined in detail all the bidding documents in respect of “Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on ‘Revenue Sharing Model’” do hereby propose to provide services as specified in the bid referred above.

1. PRICE AND VALIDITY

- All the prices mentioned in our bid are in accordance with the terms as specified in the bid documents. All the prices and other terms and conditions of this bid are valid for a period of 120 calendar days from the date of opening of the Bids and back to back as per scope of work whichever is later.
- We hereby confirm that our bid prices include all taxes. Taxes are quoted separately under relevant sections, as specified in the bid formats.
- We have studied the clause relating to Indian Income Tax and hereby declare that if any income tax, surcharge on Income Tax, Professional and any other Corporate Tax in altered under the law, we shall pay the same.

2. UNIT RATES

We have indicated in the relevant schedules enclosed, the unit rates for the purpose of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

3. DEVIATIONS

We declare that all the services shall be performed strictly in accordance with the bid documents and there are no deviations.

4. QUALIFYING DATA

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our bid, we agree to furnish the same in time to your satisfaction.

5. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified in the bid document. These prices are indicated in the subsequent sub-sections of this Section.

6. CONTRACT PERFORMANCE GUARANTEE BOND

We hereby declare that in case the contract is awarded to us, we shall submit the contract Performance Bank Guarantee in the form prescribed in the bid.

We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

We understand that our bid is binding on us and that you are not bound to accept a bid you receive. We confirm that no Technical deviations are attached here with this commercial offer.

Thanking you,

Yours faithfully,

(Signature of the Authorized Signatory)

Name:

Designation:

Seal:

Date:

Place:

Business Address:

रेलटेल
RAILTEL

Commercial Bid Format and Instructions

The Bidder has to quote the rate in the BoQ table. The price shall be inclusive of Goods & Services Tax as applicable under the relevant Laws of India.

BOQ Format:

Sr. No.	Item Description	Quantity	Units	Estimated Rate	Percentage (%) to be quoted by bidder
1.01	“0%” of the Yearly Minimum Revenue Committed (YMRC) which shall be necessarily either equal to or above 100%	1.000	Nos	1.00	
1.02	“0%” of “Yearly Additionally Revenue Generated (YARG)” which concessionaire/selected bidder will give to PCSCL	1.000	Nos	1.00	

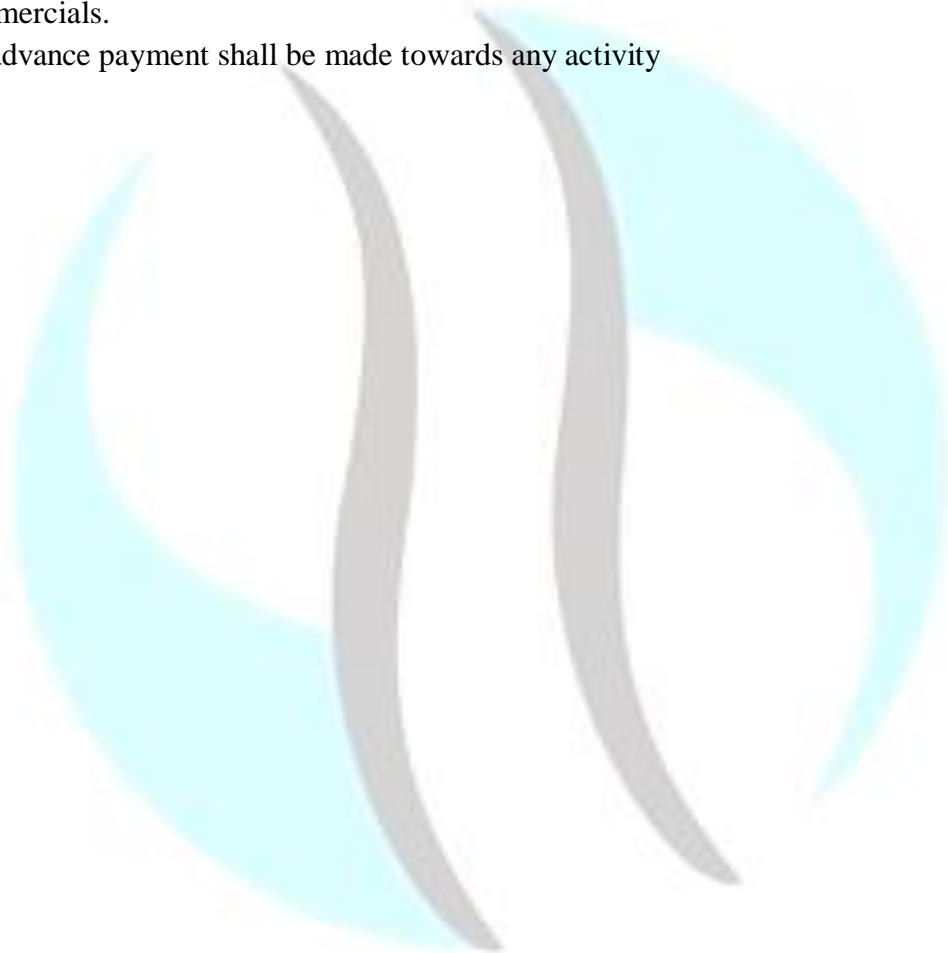
BoQ Table will be as per formats specified in referred documents including all of its addendums / corrigendums / additional documents as mentioned in Scope of Work.

Note:

1. Bidder is required to do POC of the hardware during the technical evaluation or post Award of contract as per RailTel’s discretion.
2. The Bidder will quote both for Implementation cost and the Operations and Maintenance cost.
3. RailTel to scale up and scale down resources based on requirements. Any line items may be removed from the scope based on RailTel’s discretion.
4. All the prices are to be entered in Indian Rupees ONLY.
5. Prices indicated in the schedules shall be inclusive of all taxes, Levies, duties etc. It is mandatory to provide breakup of all Taxes, Duties and Levies wherever asked for.
6. During the payment stage, RailTel reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.
7. The Bidder needs to account for all Out of Pocket expenses due to Boarding, Lodging and other related items. No additional/separate payment shall be made regarding the same.
8. For the purpose of evaluation of Commercial Bids, RailTel shall make appropriate assumptions to arrive at a common bid price for all the Bidders. This however shall have no co-relation with the Contract value or actual payment to be made to the Bidder.
9. The Contract Price shall be firm and not subject to any alteration.
10. The Bidder should be deemed to have satisfied itself as to the correctness and sufficiency of the contract price, which shall, except as otherwise provided for in the contract, cover all its obligations under the contract.
11. Please note invitation of price discovery rate for future requirements does not imply

guarantee of any additional work or any increase in scope. The price discovery rates are being invited to meet any exigency requirements if a need emerges during the period of contract with respect to deployment of additional manpower resources.

12. Wherever present, the items mentioned as Lump Sum in above table will have quantity as 1. However, the bidder should consider the same as Lump Sum and submit the commercials.
13. No advance payment shall be made towards any activity



रेलटेल
RAILTEL

9. Annexure IV: Complete EoI Examination & Nil Deviation Certificate

To
Deputy General Manager/ Marketing
RailTel Corporation of India Ltd
Western Railway Microwave Complex
Senapati Bapat Marg, Near Railway Sports Ground
Mahalaxmi, Mumbai – 400013

Sub: Complete EoI Examination & Nil Deviation Certificate

Ref: EoI Number: _____ Dated: _____

Dear Sir,

We <Bidder Name> having completely examined the referred EoI, its corrigendum and any other documents/its addendums/corrigendum referred in this EoI, conclude that we have understood the Terms & Conditions of the EoI and its subsequent addendums & corrigendum (if any) and any other documents/its addendums/corrigendum referred in this EoI. We declare that we have sought all clarifications for the same from RailTel or its end customer for anything contained in this EoI & any other documents/its addendums/corrigendum referred in this EoI and have been satisfied with the clarifications to the fullest extent and there are no terms, clauses, conditions, etc which are ambiguous.

We also declare that there is no deviation from adhering to anything that is contained in this EoI and any other documents/its addendums/corrigendum referred in this EoI and that any deviation later raised by us shall lead to forfeiture of the Bid/Contract at complete discretion of RailTel.

Signature of Authorized Signatory (with official seal)

Name :
Designation :
Address :
Telephone and Fax :
E-mail address :

10. Annexure V: Back to Back Compliance Certificate

To
Deputy General Manager/ Marketing
RailTel Corporation of India Ltd
Western Railway Microwave Complex
Senapati Bapat Marg, Near Railway Sports Ground
Mahalaxmi, Mumbai – 400013

Sub: Complete back to back Compliance Certificate

Ref: 1) EoI Number: _____ Dated: _____

2) Tender Reference No: 04/22-23 Dated. 05.08.2022 and all of its corrigendums & published documents

Dear Sir,

Considering reference 1 & 2 we would like to declare that we have read and understood the EoI, its corrigendum and any other documents/its addendums/corrigendum referred in this EoI thoroughly. We would like to give you our back to back compliance for all the tender terms and conditions, clauses, timelines, deliverables and anything explicitly mentioned in the EoI, its corrigendum and any other documents/its addendums/corrigendum referred in this EoI.

Signature of Authorized Signatory (with official seal)

Name :
Designation :
Address :
Telephone and Fax :
E-mail address :

रेलटेल
RAILTEL

11. Annexure VI: Draft Non-Disclosure Agreement

(To be submitted on Letter Head)

This Non-Disclosure Agreement (“Non-Disc”) is made and entered into _____ day of _____ month _____ year (effective date) by and between _____ (“Department”) and _____ (“Company”). Whereas, Department and Company have entered into an Agreement (“Agreement”) _____ effective _____ for _____ and

Whereas, each party desires to disclose to the other party certain information in oral or written form which is proprietary and confidential to the disclosing party, (“CONFIDENTIAL INFORMATION”).

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements contained herein, the parties agree as follows:

1. Definitions. As used herein:

- a. The term “Confidential Information” shall include, without limitation, all information and materials, furnished by either Party to the other in connection with citizen/users/persons/customers data, products and/or services, including information transmitted in writing, orally, visually, (e.g. video terminal display) or on magnetic or optical media, and including all proprietary information, customer and prospect lists, trade secrets, trade names or proposed trade names, methods and procedures of operation, commercial or marketing plans, licensed document know-how, ideas, concepts, designs, drawings, flow charts, diagrams, quality manuals, checklists, guidelines, processes, formulae, source code materials, specifications, programs, software packages, codes and other intellectual property relating to the disclosing party’s data, computer database, products and/or services. Results of any tests, sample surveys, analytics, data mining exercises or usages etc. carried out by the receiving party in connection with the Department’s information including citizen/users/persons/customers personal or sensitive personal information as defined under any law for the time being in force shall also be considered Confidential Information.
- b. The term, “Department” shall include the officers, employees, agents, consultants, contractors and representatives of Department.
- c. The term, “Company” shall include the directors, officers, employees, agents, consultants, contractors and representatives of Company, including its applicable affiliates and subsidiary companies.

2. Protection of Confidential Information: With respect to any Confidential Information disclosed to it or to which it has access, Company affirms that it shall:

- b. Use the Confidential Information as necessary only in connection with Project and in accordance with the terms and conditions contained herein;
- c. Maintain the Confidential Information in strict confidence and take all reasonable steps to enforce the confidentiality obligations imposed hereunder, but in no event take less care with the Confidential Information than the parties take to protect the

confidentiality of its own proprietary and confidential information and that of its clients;

- d. Not to make or retain copy of any commercial or marketing plans, citizen/users/persons/customers database, Bids developed by or originating from Department or any of the prospective clients of Department except as necessary, under prior written intimation from Department, in connection with the Project, and ensure that any such copy is immediately returned to Department even without express demand from Department to do so;
- e. Not disclose or in any way assist or permit the disclosure of any Confidential Information to any other person or entity without the express written consent of the other party; and
- f. Return to the other party, or destroy, at Department's discretion, any and all Confidential Information disclosed in a printed form or other permanent record, or in any other tangible form (including without limitation, all copies, notes, extracts, analyses, studies, summaries, records and reproductions thereof) immediately upon the earlier to occur of (i) expiration or termination of either party's engagement in the Project, or (ii) the request of the other party therefore.
- g. Not to discuss with any member of public, media, press, any or any other person about the nature of arrangement entered between Department and Company or the nature of services to be provided by the Company to the Department.

3. Onus. Company shall have the burden of proving that any disclosure or use inconsistent with the terms and conditions hereof falls within any of the foregoing exceptions.

4. Exceptions. These restrictions as enumerated in section 1 of this Agreement shall not apply to any Confidential Information:

- a. Which is independently developed by Company or lawfully received from another source free of restriction and without breach of this Agreement; or
- b. After it has become generally available to the public without breach of this Agreement by Company; or
- c. Which at the time of disclosure to Company was known to such party free of restriction and evidenced by documentation in such party's possession; or
- d. Which Department agrees in writing is free of such restrictions.
- e. Which is received from a third party not subject to the obligation of confidentiality with respect to such Information;

5. Remedies. Company acknowledges that

- (a) any actual or threatened disclosure or use of the Confidential Information by Company would be a breach of this agreement and may cause immediate and irreparable harm to Department;
 - (b) Company affirms that damages from such disclosure or use by it may be impossible to measure accurately; and
 - (c) injury sustained by Department may be impossible to calculate and remedy fully.
- Therefore, Company acknowledges that in the event of such a breach, Department shall be entitled to specific performance by Company of Company's obligations contained in this Agreement. In addition, Company shall indemnify Department of the actual and

liquidated damages which may be demanded by Department. Moreover, Department shall be entitled to recover all costs (including reasonable attorneys' fees) which it or they may incur in connection with defending its interests and enforcement of legal rights arising due to a breach of this agreement by Company.

- 6. Need to Know.** Company shall restrict disclosure of such Confidential Information to its employees and/or consultants with a need to know (and advise such employees of the obligations assumed herein), shall use the Confidential Information only for the purposes set forth in the Agreement, and shall not disclose such Confidential Information to any affiliates, subsidiaries, associates and/or third party without prior written approval of the disclosing party.
- 7. Intellectual Property Rights Protection.** No license to a party, under any trademark, patent, copyright, design right, mask work protection right, or any other intellectual property right is either granted or implied by the conveying of Confidential Information to such party.
- 8. No Conflict.** The parties represent and warrant that the performance of its obligations hereunder do not and shall not conflict with any other agreement or obligation of the respective parties to which they are a party or by which the respective parties are bound.
- 9. Authority.** The parties represent and warrant that they have all necessary authority and power to enter into this Agreement and perform their obligations hereunder.
- 10. Dispute Resolution.** If any difference or dispute arises between the Department and the Company in connection with the validity, interpretation, implementation or alleged breach of any provision of this Agreement, any such dispute shall be referred appropriately to RailTel/ stakeholders/ partners/ patrons
 - a. The arbitration proceedings shall be conducted in accordance with the (Indian) Arbitration and Conciliation Act, 1996 and amendments thereof.
 - b. The place of arbitration shall be Mumbai.
 - c. The arbitrator's award shall be substantiated in writing and binding on the parties.
 - d. The proceedings of arbitration shall be conducted in English language.
 - e. The arbitration proceedings shall be completed within a period of 180 days from the date of reference of the dispute to arbitration.
- 11. Governing Law.** This Agreement shall be interpreted in accordance with and governed by the substantive and procedural laws of India and the parties hereby consent to the exclusive jurisdiction of Courts and/or Forums situated at Mumbai, India only.
- 12. Entire Agreement.** This Agreement constitutes the entire understanding and agreement of the parties, and supersedes all previous or contemporaneous agreement or communications, both oral and written, representations and under standings among the parties with respect to the subject matter hereof.
- 13. Amendments.** No amendment, modification and/or discharge of this Agreement shall be valid or binding on the parties unless made in writing and signed on behalf of each of the parties by their respective duly authorized officers or representatives.
- 14. Binding Agreement.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.
- 15. Severability.** It is the intent of the parties that in case any one or more of the provisions contained in this Agreement shall be held to be invalid or unenforceable in any respect,

such provision shall be modified to the extent necessary to render it, as modified, valid and enforceable under applicable laws, and such invalidity or unenforceability shall not affect the other provisions of this Agreement.

16. Waiver. If either party should waive any breach of any provision of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision hereof.

17. Survival. Both parties agree that all of their obligations undertaken herein with respect to Confidential Information received pursuant to this Agreement shall survive till perpetuity even after any expiration or termination of this Agreement.

18. Non-solicitation. During the term of this Agreement and thereafter for a further period of two (2) years Company shall not solicit or attempt to solicit Department's employees and/or consultants, for the purpose of hiring/contract or to proceed to conduct operations/business similar to Department with any employee and/or consultant of the Department who has knowledge of the Confidential Information, without the prior written consent of Department. This section will survive irrespective of the fact whether there exists a commercial relationship between Company and Department.

19. Term. Subject to aforesaid section 17, this Agreement shall remain valid up to _____ years from the "effective date".

IN WITNESS HEREOF, and intending to be legally bound, the parties have executed this Agreement to make it effective from the date and year first written above.

For Department

Name:

Title:

WITNESSES:

1. _____

2. _____

For Company

Name:

Title:

WITNESSES:

1. _____

2. _____

12. Annexure VII: Performance Bank Guarantee Format

(For a sum of in accordance and back to back with the document referred in scope of work)
(Stamp Duty to be confirmed by RailTel in co-ordination with RailTel's Legal Department)

Ref. No. :
Date :
Bank Guarantee No. :

To
<Insert complete postal address>

THIS INDENTURE made this <current date> day of< current Month> 2022, BETWEEN THE <Bank Name>, a Company incorporated and registered under the Indian companies act, 1913 and deemed to exist within the companies Act 1956, and governed by the Banking Regulation Act, 1949 and having its registered office at <Address>, and its corporate office at <Address>, India and having one of its Branch Office at <Mumbai Branch Office> (hereinafter referred to as "the Bank" which expression shall be deemed to includes its successors and assigns) of the first part and <Bidders Company Name> a company incorporated under the Indian Companies Act 1956 having its Registered Office at <Address>, Corporate Office at <Address> and its Regional Office at <Mumbai Office Address> (hereinafter referred to as 'the Contractor/s') of the second part and RailTel Corporation of India Ltd (hereinafter referred to as 'RailTel') of the third part WHEREAS the Contractor/s have submitted to RailTel EoI/Quotation for the execution of Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on 'Revenue Sharing Model' Dated <Date of EoI> and the terms of such EoI/Tender/Quotation/contract require that the Contractor/s shall deposit with RailTel as the security a sum of Rs. <Amount>/- (in figures and words<in words> only Including all Taxes and contingencies and any other costs mentioned as per LOI and RailTel Terms)AND WHEREAS if and when any such EoI/Tender/Quotation is accepted by RailTel the contract to be entered into in furtherance thereof by the Contractor/s will provide that such deposit shall remain with and be appropriated by RailTel towards the security deposit to be taken under the contract and be redeemable by the Contractors/ if they shall duly and faithfully carry out the terms and provision of such contract and shall duly satisfy all claims properly chargeable against them there under AND WHEREAS the Contractor/s are constituents of the Bank and in order to facilitate the keeping of the accounts of the Contractor/s, the Bank with the consent and concurrence of the Contractor/s has requested RailTel to accept the Guarantee of the Bank hereinafter contained, in place of the Contractor/s depositing with RailTel the said sum as security as aforesaid AND WHERE AS accordingly <Bank Name>has agreed to accept claim from RailTel upon demand in writing, whenever required by him, from time to time upto <Date (contract period + 3 months)> so to do, a sum not exceeding in the whole Rs. <Amount>/- (in figures and words <in words> only incl of Tax) under the terms of the said EoI/Tender/Quotation and/ or the Contract. The Bank Guarantee is valid up to<Date (contract period + 3 months)>.

Notwithstanding anything what has been stated above, <Bank Name> liability under the above guarantee is restricted to Rs. <Amount>/- (in figures and words <in words>only incl of Tax) and guarantee shall remain in force up to <Date (contract period + 3 months)> unless the demand or claim under this guarantee is made on us and we receive in writing on or before <Date (contract period + 3 months)> all your rights under the above guarantee shall be forfeited and we shall be released from all liabilities under the guarantee thereafter whether or not the original bank guarantee is returned to us.

In witness whereof the Bank, through its authorized Officer, has set its hand and stamp on this day of 2022 at

For <Bank Name>

For<Company Name>

Authorized Signatories

EMP No. _____

Authorized Signatories

EMP No. _____

रेलटेल
RAILTEL

13. Annexure VIII: Contract Agreement

(To be executed on Rs. 500/- Stamp Paper post award of Contract within 30 days of placement of LOI)

1. Overview:

The document below Dated describes the Agreement between the RailTel Corporation of India Limited a company having its registered office at Plate-A, 6th Floor, Office Block Tower-2, East Kidwai Nagar, New Delhi-110023 and Regional Office at Western Railway Microwave Complex, Senapati Bapat Marg, Mahalaxmi, Mumbai – 400013 called herein after “BUYER/ PURCHASER/ RailTel” and <Company Name> having its office at <Address> as “SELLER/ SERVICE PROVIDER”. It includes the critical success factors and performance indicators to help evaluate Seller’s effort in providing the desired results.

2. Scope of Work:

The Scope of Work includes Selection of Concessionaire for Providing End to End Services for Monetization of PCSCCL City Network Infrastructure on ‘Revenue Sharing Model’ as per Supply Order/ LOI issued vide Buyer’s letter No.<LOI No> dt <Dated>.

3. Term of the Contract Agreement

The term of this Contract Agreement shall be a period of <specify period of contract> years from the date of execution of this Agreement. This includes the time required for Implementation and Operations and Maintenance Support.

In the event of implementation period getting extended beyond the stipulated time, for reasons not attributable to the Service Provider, RailTel reserves the right to extend the term of the Agreement by a suitable period without mutual consensus to allow validity of contract from the date of operational acceptance.

4. Payment, Taxes & Claims

Under no circumstances whatever the Service Provider shall be entitled to any compensation from RailTel on any account unless the Service Provider shall have submitted a claim in writing to RailTel within 30 days of the case of such claim occurring.

It is agreed that the RailTel or its representative or Officer shall not be liable to pay

any interest or damage with respect of any moneys or balance which may be in its or its representative's or officer's hands owing to any dispute or difference or claim or misunderstanding between the RailTel or its representative or Officer on the one hand and the Buyer on the other, or with respect to any delay on the part of the RailTel or representative or Officers in making periodical or final payments or in any other respect whatever.

Variations

RailTel shall, having regard to the scope of the Works and the sanctioned estimated cost, have power to order, in writing, Variations within the scope of the Works RailTel considers necessary or advisable during the progress of the Contract. Such Variations shall form part of the Contract and the Service Provider shall carry them out and include them in updated Programmes produced by the Service Provider. Written confirmations of such variation of orders will be given.

Payment for Variations

The rates for Variation items as specified in the Bill of Quantities will be considered as base and the Service Provider shall carry out such work at the same rate.

5. Proprietary data

All documents and other information supplied by the Authority or submitted by a Service Provider to RailTel Authority shall remain or become the property of RailTel/ Stakeholders/ Partners/ Patrons. Service Provider are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. RailTel Authority will not return any Application or any information provided along therewith.

6. Taxes

G.S.T. and other state levies/ cess which are not subsumed under GST will be applicable. It is clearly understood that RailTel will not bear any additional liability towards payment of any Taxes & Duties.

Rates accepted by RailTel shall hold good till completion of work and no additional individual claim shall be admissible on account of fluctuations in market rates, increase in taxes/ any other levies/ tolls etc. Except that payment/ recovery for overall market situation shall be made as per price variation.

7. Publicity

Any publicity by the Service Provider in which the name of RailTel is to be used should be done with the explicit written permission of Executive Director/ Western Region of RailTel Corporation of India Ltd.

8. Force Majeure

The Service Provider shall not be liable for forfeiture of its Performance Guarantee, imposition of liquidated damages or termination for default, if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For purposes of this Clause, “Force Majeure” means an event beyond the “reasonable” control of the Service Provider, not involving the Service Provider’s fault or negligence and not foreseeable. Unforeseen circumstances or causes beyond the control of the Implementation Agency include but are not limited to acts of God, war, riot, acts of civil or military authorities, fire, floods, accidents, terrorist activity, strikes or shortages of transportation facilities, fuel, energy, labor or material.

For the Service Provider to take benefit of this clause it is a condition precedent that the Implementation Agency must promptly notify RailTel, in writing of such conditions and the cause thereof within five calendar days of the arising of the Force Majeure event. RailTel, or the consultant / committee appointed by RailTel shall study the submission of the Service Provider and inform whether the situation can be qualified one of Force Majeure. Unless otherwise directed by RailTel in writing, the Service Provider shall continue to perform its obligations under the resultant Agreement as far as it is reasonably practical, and shall seek all reasonable alternative means for performance of services not prevented by the existence of a Force Majeure event.

In the event of delay in performance attributable to the presence of a force majeure event, the time for performance shall be extended by a period(s) equivalent to the duration of such delay. If the duration of delay continues beyond a period of 30 days, RailTel and the Service Provider shall hold consultations with each other in an endeavor to find a solution to the problem.

Notwithstanding anything to the contrary mentioned above, the decision of RailTel shall be final and binding on the Service Provider.

9. Arbitration & Governing Laws:

Any dispute between the parties shall be resolved mutually by the parties.

If the dispute cannot be resolved by mutual consultation between the parties, the same shall be resolved by an Arbitrator who shall be the Chief Managing Director of the Seller.

This agreement shall be covered and constructed in accordance with Laws of India including without limitation, the relevant Central and State Acts and Rules, Regulations and Notifications issued and amended there under from time to time.

All disputes shall have jurisdiction of courts at Delhi, unless otherwise provided under the terms of agreement for arbitration or other recourse.

10. Termination of contract

RailTel may, without prejudice to any other remedy under this Contract and applicable law, reserves the right to terminate for breach of contract by providing a written notice of 30 days stating the reason for default to the Service Provider and terminate the contract either in whole or in part:

- i. If the Service Provider fails to deliver any or all of the project requirements / operationalization / Operational Acceptance of project within the time frame specified in the contract; or
- ii. If the Service Provider fails to perform any other obligation(s) under the contract.

Prior to providing a notice of termination to the Service Provider, RailTel shall provide the Service Provider with a written notice of 30 days instructing the Service Provider to cure any breach/ default of the Contract, if RailTel is of the view that the breach may be rectified.

On failure of the Service Provider to rectify such breach within 30 days, RailTel may terminate the contract by providing a written notice of 30 days to the Service Provider, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to RailTel. In such an event the Service Provider shall be liable for penalty imposed by RailTel.

In the event of termination of this contract for any reason whatsoever, RailTel is entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective continuity of the services which the Service Provider shall be obliged to comply with and take all available steps to minimize the loss resulting from that termination/ breach, and further allow and provide all such assistance to RailTel and/ or succeeding vendor, as may be required, to take over the obligations of the Service Provider in relation to the execution/ continued execution of

the requirements of this contract.

11. Termination for Convenience

RailTel, by notice sent to Service Provider, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for RailTel's convenience, the extent to which performance of the Service Provider under the Contract is terminated, and the date upon which such termination becomes effective.

The deliverables/ Services that are complete and ready for delivery within twenty-eight (28) days after the Service Provider's receipt of notice of termination shall be accepted by RailTel at the Contract terms and prices. For the remaining deliverables/ services, RailTel may elect:

- i. to have any portion completed and delivered at the Contract terms and prices; and/or
- ii. to cancel the remainder and pay to the Service Provider an agreed amount for partially completed deliverables and Related Services.

12. Miscellaneous Terms:

Sub Contracts

Sub-contracting is not permitted. The Service Provider shall seek prior approval from RailTel for sub- contracting any work, if not already specified in the bid. However, such sub-contracting shall not relieve the Service Provider from any liability or obligation under the Contract. If approved, however the Service Provider shall be solely responsible for the work carried out by subcontracting under the contract.

Waiver

A waiver of any provision or breach of this Agreement must be in writing and signed by an authorized official of the Party executing the same. No such waiver shall be construed to affect or imply a subsequent waiver of the same provision or subsequent breach of this Agreement.

Confidentiality

"Confidential Information" means all information including Project Data (whether in written, oral, electronic or other format) which relates to the technical, financial and operational affairs, business rules, citizen information, design rights, know-how and personnel of each Party and its affiliates which is disclosed to or otherwise learned by the

other Party or its subcontractors (whether a Party to the contract or to the SLA) in the course of or in connection with the contract (including without limitation such information received during negotiations, location visits and meetings in connection with the contract or to the SLA) or pursuant to the contract to be signed subsequently.

Except with the prior written permission of RailTel, the Service Provider (including all partners) and its Personnel shall not disclose such confidential information to any person or entity not expected to know such information by default of being associated with the project, nor shall the Service Provider and its Personnel make public the recommendations formulated in the course of, or as a result of the project. In matters pertaining to privacy of data, the Service Provider (including all partners) shall not use any data for analytical/commercial reasons whatsoever.

The Service Provider recognizes that during the term of this Agreement, sensitive data will be procured and made available to it, its Sub contractors and agents and others working for or under the Service Provider. Disclosure or usage of the data by any such recipient may constitute a breach of law applicable causing harm not only to the Department whose data is used but also to its stakeholders. The function of RailTel/ Stakeholders/ Partners/ Patrons requires the Service Provider, its Subcontractors and agents to demonstrate utmost care, sensitivity and strict confidentiality. Any breach of this Article will result in RailTel and its nominees receiving a right to seek injunctive relief and damages, from the Service Provider.

The restrictions of this Article shall not apply to confidential information that:

- i. Is or becomes generally available to the public through no breach of this Article by the Recipient; and
- ii. Was in the recipient's possession free of any obligation of confidence prior to the time of receipt of it by the Recipient hereunder; and
- iii. Is developed by the Recipient independently of any of discloser's Confidential Information; and
- iv. Is rightfully obtained by the Recipient from third Parties authorized at that time to make such disclosure without restriction; and
- v. Is identified in writing by the Discloser as no longer proprietary or confidential; or
- vi. Is required to be disclosed by law, regulation or Court Order, provided that the recipient gives prompt written notice to the Discloser of such legal and regulatory requirement to disclose so as to allow the Discloser reasonable

opportunity to contest such disclosure.

To the extent that such disclosure is required for the purposes of this Agreement, either Party may disclose Confidential Information to:

- i. Its employees, agents and independent contractors and to any of its affiliates and their respective independent contractors or employees; and
- ii. Its professional advisors and auditors, who require access for the purposes of this Agreement, whom the relevant Party has informed of its obligations under this Article and in respect of whom the relevant Party has informed of its obligations under this Article has used commercially reasonable efforts to ensure that they are contractually obliged to keep such Confidential Information confidential on terms substantially the same as set forth in this Article. Either Party may also disclose confidential Information or any entity with the other Party's prior written consent.

The provisions of this Article shall survive the expiration or any earlier termination of this Agreement.

This Agreement is being executed in two originals, one copy to be retained by each of the parties of this Agreement.

In WITNESS THEREOF, the parties hereto have caused this Agreement to be duly executed on the day, month and year endorsed below:

Authorized Signatory & Seal:

Authorized Signatory & Seal:

RailTel Corporation Of India Limited
Western Railway Microwave Complex,
Senapati Bapat Marg, Near Railway
Sports Ground, Mahalaxmi
Mumbai – 400013

<Bidder Company Name>
<Bidder Company Address>

Date:

Place:

Request for Proposal (RFP)

for

Selection of Concessionaire for
Providing End to End Services for
Monetization of PCSCCL City
Network Infrastructure on “Revenue
Sharing Model”

**VOLUME I - Structure of Proposal & Bid Process
Specifications**

Tender Ref Number- 04/22-23

Date: 05-08-2022

PIMPRI CHINCHWAD SMART CITY LTD. (PCSCCL)



Disclaimer

- i. This Request for Proposal ("RFP") is issued by Pimpri Chinchwad Smart City Ltd. (PCSCL)
- ii. The information contained in this Request for Proposal document ("RFP") or subsequently provided to Bidders, whether verbally or in documentary or any other form by or on behalf of the PCSCL (the Purchaser) or any of its employees or advisors, is provided to Bidders, on the terms and conditions set out in this RFP.
- iii. This RFP is not a Contract and is neither an offer nor invitation by the Purchaser to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their Proposals under this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at, by the Purchaser, with the project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Purchaser, its employees or advisers to consider the objectives, technical expertise and particular needs of each party, who reads or uses this RFP. The assumptions, assessments, statements, and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct his investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.
- iv. Information provided in this RFP to the Bidders is on a wide range of matters, some of which depend upon the interpretation of the law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Purchaser accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein. The Purchaser, its employees and advisers make no representation or warrants and shall have no liability to any person including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this selection process.
- v. The Purchaser also accepts no liability of any nature, whether resulting from negligence or otherwise, however, caused, arising from reliance of any Bidder upon the statements contained in this RFP.
- vi. The Purchaser may, in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP. The issue of this RFP does not imply that the Purchaser is bound to select a Bidder or to appoint the Selected Bidder for this project and the Purchaser reserves the right to reject all or any of the proposals, without assigning any reason whatsoever.
- vii. PCSCL or its authorized officers/representatives/advisors reserve the right, without prior notice, to change the procedure for the selection of the Successful Bidder or terminate discussions and the delivery of information at any time before the signing of any agreement for the Project, without assigning reasons thereof.

- viii. The RFP Document does not address concerns relating to diverse investment objectives, financial situation and particular needs of each party. The RFP document is not intended to provide the basis for any investment decision and each Bidder must make an independent assessment in respect of various aspects of the techno-economic feasibilities of the Project. No person has been authorized by PCSCL to give any information or to make any representation not contained in the RFP Document.
- ix. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation and expenses associated with any demonstrations or presentations which may be required by the Purchaser or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses shall remain with the Bidder and the Purchaser shall not be liable in any manner whatsoever for the same or any other costs or other expenses incurred by a Bidder, in preparation for submission of the Proposal, regardless of the conduct or outcome of the selection process.

Contents

1	Invitation to Proposal & Datasheet	7
1.1	Invitation to Proposal.....	7
1.2	Factsheet / Datasheet	7
2	Definitions & Acronyms	9
3	Introduction	10
3.1	About Pimpri Chinchwad City	11
3.2	About Pimpri Chinchwad Smart City Ltd. (PCSCL).....	12
3.3	Project Background.....	12
3.4	Intent.....	12
3.5	Key Objectives & Goals:.....	13
3.6	Role of Bidder	14
3.7	Role of the PCSCL (Purchaser).....	14
4	Instruction to Bidders.....	14
4.1	General	14
4.2	Notes of e-Tendering:.....	15
4.3	Eligible Bidders	15
4.4	Compliant Bids / Completeness of Response.....	15
4.5	Contract Tenure:	15
4.6	Code of Integrity	16
4.7	Bidder to Inform.....	16
4.8	Pre-bid meeting & Clarification	16
4.8.1	Bidders Queries.....	16
4.8.2	Pre-Bid Meeting.....	17
4.8.3	Responses to Pre-Bid Queries and Issue of Corrigendum.....	17
4.9	Bid Validity Period	17
5	Key Requirements of Bid.....	17
5.1	RFP Document Fees and Purchase	17
5.2	Earnest Money Deposit (EMD)	18
5.3	Submission of Proposal.....	18
5.4	Bid Preparation costs	19
5.5	Language	19
5.6	Only One Proposal and One Solution.....	19
5.7	Authentication of Bids.....	19
5.8	Bidders Authorization	19
5.9	Amendment of request for proposal	19

5.10 Local Conditions.....	20
5.11 Venue & Deadline for Submission of Proposals	20
5.12 Proposals submitted after the designated time of submission	20
5.13 Deviations	20
5.14 Modification and Withdrawal of Bids.....	20
5.15 Address for Correspondence.....	21
5.16 Contacting the purchaser	21
5.17 Bidder Related Conditions.....	21
5.18 Bid Submission	21
5.19 Contents of Bid on e-Procurement Portal	22
5.19.1 Technical Proposal	22
5.19.2 Commercial Bid	23
5.19.3 Technical Envelope	23
5.19.4 Commercial Envelope.....	23
5.20 Opening of Bids.....	23
5.21 Bid Opening Process.....	24
6 Bid Evaluation Process	24
6.1 Evaluation of Bids.....	24
6.2 Preliminary Examination of Bids.....	25
6.3 Clarification on Bids.....	25
6.4 Evaluation Process.....	25
6.4.1 Stage 1: Pre-Qualification.....	26
6.4.2 Stage 2: Technical Evaluation	31
6.4.3 Stage 3: Commercial Evaluation.....	36
6.4.4 Selection criteria & Commercial bid	36
7 Award of Contract.....	37
7.1.1 Right to Accept Any Proposal and To Reject Any or All Proposal(s)	37
7.1.2 Notification of Award.....	37
7.1.3 Negotiations with the successful bidder	37
7.1.4 Contract Finalization and Award.....	37
7.1.5 Performance Security Deposit	37
7.1.6 Signing of Contract.....	39
7.1.7 Failure to agree with the Terms & Conditions of the RFP	39
7.1.8 General Rejection Criteria	39
7.1.9 Commercial Rejection Criteria	40
8 Annexure 1 – Formats for Submission of the Pre- Qualification Bid.....	41

	<i>Annexure 1.1 - Pre-qualification bid checklist</i>	<i>41</i>
	<i>Annexure 1.2: Pre-Qualification Bid Covering Letter</i>	<i>42</i>
	<i>Annexure 1.3: Company profile</i>	<i>44</i>
	<i>Annexure 1.4: Certificate / Documents against Pre-Qualification Criteria (Section 4.6)</i>	<i>45</i>
	<i>Annexure 1.5: Declaration of Non-Blacklisting</i>	<i>46</i>
	<i>Annexure 1.6: No Deviation Certificate</i>	<i>47</i>
	<i>Annexure 1.7: Bidder's Experience - Client Citations</i>	<i>48</i>
9	Annexure 2 – Formats for Submission of the Technical Bid.....	49
	<i>Annexure 2.1: Technical Bid Checklist.....</i>	<i>49</i>
	<i>Annexure 2.2: Technical Bid Covering Letter.....</i>	<i>50</i>
	<i>Annexure 2.3: Credential Summary</i>	<i>51</i>
	<i>Annexure 2.4: Bidder's Experience - Client Citations</i>	<i>52</i>
	<i>Annexure 2.5: Overview of Proposed Solution</i>	<i>53</i>
	<i>Annexure 2.6: Compliance to Requirement (Technical / Functional Specifications)</i>	<i>54</i>
	<i>Annexure 2.7: Anti-Collusion Certificate</i>	<i>55</i>
	<i>Annexure 2.8: Non-Disclosure Agreement.....</i>	<i>56</i>
	<i>Annexure 2.9: Format for OEM Declaration</i>	<i>59</i>
	<i>Annexure 2.10: Manufacturers Authorization Form</i>	<i>60</i>
10	Annexure 3 – Format for Commercial Bid Submission	61
11	Annexure 4 – Performance Security Deposit.....	62
12	Annexure 5 - Format for Power of Attorney for Lead bidder of Consortium.....	64
13	Annexure 6 - Format for Power of Attorney to Authorize Signatory.....	65
14	Annexure 7 - Consortium Agreement	66

1 Invitation to Proposal & Datasheet

1.1 Invitation to Proposal

This RFP document is being published by Pimpri Chinchwad Smart City Ltd. (PCSCL), for the Project “Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network on “Revenue Sharing Model”

The complete bidding document shall be published on the e-Procurement Portal <https://mahatenders.gov.in> to download. The downloaded bidding document shall be considered valid for participation in the electronic bidding process (e-Tendering) subject to the submission of the required tender/ bidding document fee online.

Bidder is advised to study the RFP document carefully before submitting their proposals in response to the RFP Notice. Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with a full understanding of its terms, conditions, and implications.

1.2 Factsheet / Datasheet

Sr.	Item	Description
1.	Name of the Project	“Selection of a Concessionaire for providing end to end services for “Monetization of PCSCL City Network Infrastructure” on “Revenue Sharing Model”
2.	Method of Selection	The technically qualified bidder with the “Highest Final Score”, as per Bid Evaluation methodology mention in RFP, from amongst all the technically qualified bidders will be considered as the successful bidder.
3.	Availability of RFP/ Tender Documents	Available for download from following link: e-Procurement Portal (https://mahatenders.gov.in)
4.	Period of Sale/download of RFP/Tender Document (Start/ End Date)	Between Date 05/08/2022, 11:00 Hrs and Date 25/08/2022, 15:00 Hrs
5.	Tender document fee (Non-refundable and Not exempted)	INR 20,000 (INR Twenty Thousand Only) with GST and to be deposited online through the e-Procurement Portal
6.	Bid Security/Earnest Money Deposit (EMD)	The total EMD amount is INR 50,00,000 (INR Fifty Lakhs Only) and to be deposited online through the e-Procurement portal
7.	The last date for submission of written pre-bid queries for clarifications	Date.17/08/2022 till 15:00 Hrs
8.	Pre-bid Meeting date & Location	Date.18/08/2022 at 11.00 hrs at Pimpri Chinchwad Smart City Limited Office, Auto Cluster Development & Research Institute, H-Block, Plot No. C-181 Chinchwad East, Old Mumbai - Pune Highway, Pune, Maharashtra 411019
9.	Email ID for all correspondence to this RFP	PCSCLCNM@PCMCINDIA.GOV.IN
10.	Posting of responses to queries (on the website)	e-Procurement Portal (https://mahatenders.gov.in)
11.	Manner, Start Date for the submission of Bids	Manner: Online at website (https://mahatenders.gov.in) Start Date. 05/08/2022 10:00 Hrs.

Sr.	Item	Description
12.	Last Date and time for Bid/Bid submission (On or before)	End Date. 25/08/2022 by 15:00 hrs
13.	Date of opening of Technical Bids	Date. 29/08/2022 by 15:00 hrs at website (https://mahatenders.gov.in)
14.	Date of Technical Presentation	To be Informed Later
15.	Place, Time and Date of opening of Financial Bids received in response to the RFP notice	To be Informed Later
16.	Bid validity	Bid will remain valid up to 120 (One Hundred & Twenty) calendar days from the date of opening of technical bid.
17.	Name & Address of the Procuring Authority & Procuring Entity	The Chief Executive Officer (CEO), Pimpri Chinchwad Smart City Limited (PCSCL), Auto Cluster Development & Research Institute, H-Block, Plot No. C-181 Chinchwad East, Old Mumbai-Pune Highway, Pune, Maharashtra 411019

Sd/-

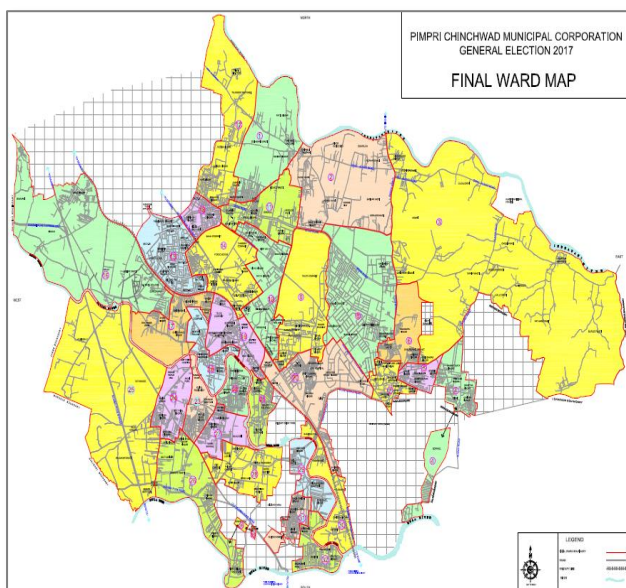
2 Definitions & Acronyms

Terms	Meaning
A&M	Approach & Methodology
API	Application Programming Interface
Bidder/Concessionaire	The vendor/agency/bidder who is participating in the bidding process
BOM	Bill of Material
BOQ	Bill of Quantity
CAPEX	Capital Expenditure
CCC	Command & Control Centre (Police Operations)
COC	City Operations Centre (Municipal Operations)
Concessionaire/ Successful bidder/Selected Bidder	The agency/bidder/concessionaire who gets selected in the bidding process
Commercial Bid	Commercial Bid / Price Bid
CVC	Central Vigilance Commission
DC	Data Centre
DPR	Detailed Project Report
DR	Disaster Recovery
EMD	Earnest Money Deposit or Bid Security
G2C	Government to Citizen
G2G	Government to Government
GB	Giga Byte
GBM	Ground Base Mast
GIS	Geographical Information System
Gol	Government of India
GoM	Government of Maharashtra
GPRS	General Packet Radio Service
GPS	Global Positioning System
GSM	Global System for Mobile communication
GST	Goods and Services Tax
HDD	Horizontal Directional Drilling
HDPE	High Density Polyethylene
ICCC	Integrated Command & Control Centre (Police & Municipal Operations + DC)
ICT	Information and Communication Technology
IDS	Intrusion Detection System
IP	Internet Protocol
ISP	Internet Service Provider
IT	Information Technology
ITES	Information Technology Enabled Service
ISO	International Organization for Standardization
LIU	Light Interface Units
LOA	Letter of Acceptance
LOI	Letter of Intent

Terms	Meaning
LSPM	Light source and Power Meter
Ltd.	Limited
MB	Megabits
Mbps	Megabits per second
MoUD	Ministry of Urban Development
NMS	Network Management System
NOC	Network Operation Centre
MTBF	Mean Time Between Failure
MTTR	Mean Time to Repair
O&M	Operations and Maintenance
OEM	Original Equipment Manufacturer
OFC	Optical Fibre Cable
OPEX	Operational Expenditure
OT	Open Trench
OTDR	Optical Time Domain Reflectometer
PaaS	Platform as a Service
PBG	Performance Bank Guarantee
PCMC	Pimpri Chinchwad Municipal Corporation
PCSCL	Pimpri Chinchwad Smart City Limited
PDU	Power Distribution Unit
PO	Purchase Order
PoP	Point of Presence
PPP	Public Private Partnership
PSU	Public Sector Undertaking
PS	Police Station
Purchaser	Pimpri Chinchwad Smart City Limited (PCSCL)
RFC	Request for Change
RFP	Request for Proposal
SITC	Supply, installation, testing and commissioning
SNMP	Simple Network Management Protocol
SLA	Service Level Agreement
SPV	Special Purpose Vehicle
T&D	Trenching & Ducting
TCB	Total Cost of Bid
TCV	Total Contract Value
TRAI	Telecom Regulatory Authority of India
TSP	Telecom Service Provider
UAT	User Acceptance Test
UPS	Uninterruptible Power Supply

3 Introduction

3.1 About Pimpri Chinchwad City



The Pimpri Chinchwad city is the eighteenth most populous city in India and the fifth-largest in the state of Maharashtra. It is located at the coordinates 18°37'07.04" N 73°48'13.43" E and is in the Pune District of Maharashtra. It is at 530 meters (1740 ft.) above mean sea level and is situated about 20 km to the east of Sahyadri ranges that run North to South in the Lonavala – Khandala section between Harishchandra Range and Mahadeo range. The total area covered by PCMC is 181 sq. km approx. geographically, the rock structure underneath is igneous (basalt) type and the soil is Red Soil.

Further, the city is also known for manufacturing and automobiles, as well as

government and private sector research institutes for information technology (IT) education, management and training that attract migrants, students, professionals from India, South East Asia, the Middle East, and Africa. Pimpri Chinchwad is also one of the fastest-growing cities in the Asia-Pacific region.

From the administration viewpoint, PCMC is divided into 8 Zones (as per data available in 2022) which are further divided into 32 Wards, as mentioned below, the geographical scope of the implementation of the Project shall be within the limits of PCMC jurisdiction and nearby

Sr.	Zone	Wards*
1.	A	Ward no: 10, 14, 15 & 19
2.	B	Ward no: 16, 17, 18 & 22
3.	C	Ward no: 2, 6, 8 & 9
4.	D	Ward no: 25, 26, 28 & 29
5.	E	Ward no: 3, 4, 5 & 7
6.	F	Ward no: 1, 11, 12, & 13
7.	G	Ward no: 21, 22, 24 & 27
8.	H	Ward no: 20, 30, 31 & 32

localities/area.

*As per data available in 2022

Indicative Snapshot:

- Total PCMC Jurisdiction Area: 181 sq. km.
- Total Population: Approx.30,00,000 (anticipated based on 2011 population)
- Total properties under PCMC jurisdiction: Approx.5.54 Lacs

3.2 About Pimpri Chinchwad Smart City Ltd. (PCSCL)

Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI) has embarked on the Smart Cities Mission programme which aims at bringing about urban transformation in cities covered by this programme. Pimpri Chinchwad is one of the cities selected under the Smart City Mission of MoHUA, GoI. The objective of MoHUA and PCSCL is to drive economic growth and improve the quality of life for citizens by enabling local development and harnessing technology to create smart outcomes.

Under the Ministry of Urban Development, Government of India (GoI) Smart Cities Programme, Pimpri-Chinchwad Smart City Limited (the “Authority”), a Special Purpose Vehicle (SPV) for Pimpri-Chinchwad Smart City Projects has been established as a company registered under the Indian Companies Act 2013. The Authority has received funding from the Government of India (GoI), the Government of Maharashtra (GoM) and Pimpri Chinchwad Municipal Corporation (PCMC) for the implementation and Operations & management (O&M) of the smart city projects in Pimpri-Chinchwad city. The Authority is a government-owned company with equal shareholding from Pimpri-Chinchwad Municipal Corporation and the Government of Maharashtra (GoM).

3.3 Project Background

To usher in Technology-led Transformation through the creation of Stat-owned robust, reliable, and sustainable ICT infrastructure which would help in transforming Pimpri Chinchwad into a safe, smart and sustainable city. PCSCL has identified below mentioned ICT-led Smart City Initiatives:

- a) City Network Backbone (Optical Fibre Cabling)
- b) Citizen Access Wi-Fi
- c) City Kiosk
- d) City Surveillance along with Video Analytics
- e) Smart Water Management
- f) Smart Sewerage Management
- g) Intelligent Traffic Management including
- h) Adaptive Traffic Management System
- i) Automatic Number Plate Recognition System
- j) Red Light Violation Detection System
- k) Variable Message Display (VMD)
- l) Public Address System
- m) GIS enablement of Smart City assets
- n) Smart Parking
- o) Smart Environment
- p) Smart City Mobile App
- q) Municipal E classroom
- r) GIS Enabled ERP
- s) Command & Control Centre & City Operation Centre

3.4 Intent

Pimpri Chinchwad Smart City Ltd (PCSCL) has created OFC based City Network under Smart City Mission. This network covers all the critical and major areas under the PCMC municipal limits with the intent to create a digitally connected ecosystem for its citizens and to render connected, efficient, and responsive city services (PCMC, PCSCL & Police).

Under this city network project, PCSCL has created approximately 600 KM of OFC network having 4 telecom duct and multicore fibre cables in one duct across its PCMC offices, police stations, critical junctions, footfall area etc. The OFC network is in “Ring Topology” to ensure adequate redundancy and resiliency. PCSCL shall be consuming required cores of fibre cable from 1 duct for providing connectivity to smart city elements across the PCMC. For remaining 3 dark ducts infrastructure, PCSCL intend to explore business partnership with possible monetization/revenue generation opportunities by leasing the ducts (3 spare duct infra across the approximately 600 KM route length) along with approximately 1800 poles.

In subsequence to the aforementioned project, PCSCL is looking for a Business Partner for end-to-end services including Network Infrastructure Monetization (ducts and poles), build, operate & manage Network Operations Centre (NOC) including procurement & end to end setup, future extension of PCSCL network Infrastructure along with operations & maintenance activities including but not limited to

1. Survey, design, procurement, installation, configuration, operationalization and maintenance of the Last-Mile Network connectivity.
2. Procurement of networking elements & Customer End Equipment
3. Operations & maintenance of Network Operations Centre (NOC)
4. Government Regulations & Compliances, Legal Compliances, policy preparation, market research
5. Customer Lifecycle Management (business development, actual monetization (allocation & de-allocations of resources), service operations, payment follow up & collections etc. regarding PCSCL City Network
6. Any other activity pertaining to complete & comply with the detailed scope mentioned in this RFP, which is required as a part of build, operate & manage scope.

About the above, PCSCL intends to invite bidders for presenting their credentials and other details as part of their proposal to this RFP.

The interested bidders are hereby invited to submit their proposals following the terms and conditions mentioned in this RFP document.

3.5 Key Objectives & Goals:

The key objectives & goals of this RFP are as below:

- To obtain Legal & Regulation Compliance for monetization of City Network infrastructure
- Preparation of City Fibre Network Policy along with network usage framework to blow fibre in the spare ducts laid by PCSCL across the city
- To set up Network Operation Centre (NOC) Management with the selected bidder
- Operations & Maintenance of existing scalable, robust, resilient, secure, and long-lasting digital infrastructure that interconnects citizens, government, business, and communities and allows better data management and control to offer richer application experiences.
- To extend and expand the city network as per the city & the business requirements in the future
- To monetize/generate revenue through its City Network infrastructure
- To make the PCSCL self-sustainable organization and to evolve its credit worthiness for raising additional resources from the market.

Given the above, PCSCL would select a bidder for the respective project based on a pre-defined selection criterion as mentioned in the RFP document.

3.6 Role of Bidder

The bidder is expected to submit a structured and organized technical proposal comprising the detailed solution design document, technology details, product & service specifications, datasheet and bill of materials (BOM) etc. based on the business, functional, financial, technical and operational requirements as mentioned in the RFP. The Purchaser shall provide an indicative Bill of Materials as part of the RFP; however, the qualified bidder will have to do their due diligence and include all the items that are required to meet the business, functional, financial technical and operational requirements laid down in the RFP including SLAs stated in this RFP.

Post submission of the detailed architecture as part of the technical proposal, the bidder will be required to present the proposed technical solution to the committee formed by the PCSCL for bidder's technical evaluation as mentioned in this RFP.

The bidder shall also submit their commercial proposal as per the requirements of the RFP document. The bidder will be required to present the proposed commercial solution to the committee formed by the PCSCL for bidder's technical evaluation as mentioned in this RFP.

The bidders are expected to comply with all the procedures that will be laid down as part of this RFP document & provide all required information following RFP response requirements.

3.7 Role of the PCSCL (Purchaser)

To issue the RFP, Corrigendum, and further clarifications if any:

1. The Purchaser shall evaluate the technology solution following the pre-defined criteria for the respective bidder.
2. Post completion of technical evaluation, the commercial bids of the technically qualified applicants shall be opened and evaluated.
3. The most eligible RFP bidder as per the technical & commercial evaluation results shall be selected and awarded Letter of Intent (LOI).
4. Notwithstanding anything contained in the published RFP, the purchaser reserves the right to accept or reject any proposal and withdraw the selection process and reject all proposals, at any time without any further notice, liabilities or any other obligations for such acceptance, rejection or withdrawal without assigning any reasons thereof. It shall be a sole decision of PCSCL to appoint the most eligible bidder or to reject any or all bidders.

4 Instruction to Bidders

4.1 General

The Purchaser has adopted a two-step process (referred to as the "Bidding Process") for selecting a Bidder for the award of the Project through the e-tendering system. The Bidding Process shall comprise two steps, the first relating to the qualification of the Bidder and the second relating to the Commercial Proposal of the Bidder. As part of the Bidding Process, the Bidders are being called upon to submit their Bids through the e-Procurement Portal (<https://mahatenders.gov.in>) in accordance with the terms specified in the Bidding Documents. Registered bidders should submit their offer through the e-Procurement Portal only. The official shall guide the interested Bidder to document the authorization process & to obtain the Registration Key.

4.2 Notes of e-Tendering:

1. All eligible interested Bidders, who want to participate in the e-tendering process should get enrolled on the e-Procurement portal (<https://mahatenders.gov.in>)
2. Bidder shall contact, for details or any difficulties in submission of online tenders, if any.
3. All participants must submit all documents online.
4. It is compulsory to submit the cost of Tender Form Fee and Earnest Money Deposit only in the prescribed form/mode of payment. Detailed terms and conditions are displayed on the portal (<https://mahatenders.gov.in>)
5. The right to reject any or all online bids of work without assigning any reasons thereof is reserved with the PCSCL.
6. While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, Bidders must form their conclusions about the solution needed to meet the requirements. Bidders and recipients of this RFP may wish to consult their legal advisers to this RFP.
7. All information supplied by Bidders may be treated as contractually binding on the Bidders, on the successful award of the assignment by the Purchaser based on this RFP.
8. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of the Purchaser. Any notification of preferred Bidder status by the Purchaser shall not give rise to any enforceable rights by the Bidder. The Purchaser may cancel this public tendering at any time prior to a formal written contract being executed by or on behalf of the Purchaser.
9. This RFP supersedes and replaces any previous public documentation & communications, and Bidders should place no reliance on such communications.

4.3 Eligible Bidders

Bids are only to be submitted by a Sole bidder or a Lead bidder, in case of consortium as per the eligibility norms outlined in this RFP document.

4.4 Compliant Bids / Completeness of Response

- a. Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with a full understanding of its implications.
- b. Failure to comply with the requirements of this paragraph may render the bid non-compliant and the Bid may be rejected. Bidders must:
 - i. Include all documentation in their bid, specified in this RFP & Corrigendum issued (if any)
 - ii. Follow the format of this RFP while developing the bid and respond to each element in the order, as set out in this RFP
 - iii. Comply with all requirements as set out within this RFP & Corrigendum issued (if any)

4.5 Contract Tenure:

The tenure of the concession period shall be initially be of 10 years & 6 months from the date of signing of the contract which shall be eligible for further extension of 5 years at the discretion of PCSCL with mutually agreed terms & conditions.

4.6 Code of Integrity

No official of the purchaser or a bidder shall act in contravention of the codes, which includes:

- a. Prohibition of:
 - i. Making an offer, solicitation or acceptance of a bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the tendering process or to otherwise influence the tendering process.
 - ii. Any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained, or an obligation avoided.
 - iii. Any collusion bid rigging or anticompetitive behaviour that may impair the transparency, fairness and progress of the tendering process.
 - iv. Improper use of information provided by the procuring entity to the bidder with an intent to gain an unfair advantage in the Tendering process or for personal gain.
 - v. Any financial or business transactions between the bidder and any official of the purchaser related to the tender or execution process of the contract.
 - vi. Which can affect the decision of the purchaser directly or indirectly.
 - vii. Any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the tendering process.
 - viii. Obstruction of any investigation or auditing of the tendering process.
 - ix. Making false declarations or providing false information for participation in a tender process or to secure a contract.
- b. Disclosure of conflict of interest.
- c. Disclosure by the bidder of any previous transgressions made in respect of the
 - i. Provisions of sub-clause (a) with any entity in any country during the last three years
 - ii. Or of being debarred by any other procuring entity.

In case of any reported violations, the purchaser, after giving a reasonable opportunity of being heard, concludes that a bidder or prospective bidder has contravened the code of integrity, and may take appropriate measures

4.7 Bidder to Inform

The Bidder shall be deemed to have carefully examined the Terms & Conditions, Scope, Service Levels, Specifications, and Schedules of this RFP. If bidder has any doubts/clarifications as to the meaning of any portion of the Conditions or the specifications, he shall, before the last date for submission of Pre-Bid Queries, set forth the particulars thereof and submit to Purchaser in writing in the form of Pre-Bid Queries so that the doubts may be removed, or clarifications are provided. Any alternate channel of communication may treat as null & void and the purchaser shall not have any binding response of the same.

4.8 Pre-bid meeting & Clarification

4.8.1 Bidders Queries

- a. Any clarification/queries regarding the RFP document and any other items related to this project must be submitted to the purchaser as per the submission mode and timelines mentioned in the RFP Datasheet.
- b. Any request(s) for clarifications post the indicated date and time shall not be entertained by the purchaser. Further, the purchaser shall reserve the right to issue clarifications.
- c. The queries of only those bidders would be considered, who shall send the same to e-mail IDs provided in the RFP Datasheet.

- d. The pre-bid queries must be submitted in excel sheet format, along with the name and details of the organization submitting the queries as below.

Sr.	Name of the Bidder	RFP Vol No.	Document Reference (s) Section	Page No. of RFP Doc.	Content of RFP requiring clarification	Queries/ Clarification Sought

Note: Purchaser will not be responsible for ensuring that the Bidders' queries are received by them.

4.8.2 Pre-Bid Meeting

The purchaser will hold a pre-bid meeting with the prospective bidders as per the mentioned date in the datasheet. The bidders are expected to submit the pre-bid queries one day prior to the date of the Pre-bid meeting mentioned in the datasheet. The purchaser will not respond to the pre-bid queries posted after the deadline of queries submission and any such claims from the bidder shall not be entertained by PCSCL.

4.8.3 Responses to Pre-Bid Queries and Issue of Corrigendum

- The Purchaser will endeavour to provide a timely response to all queries. However, Purchaser makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does Purchaser undertake to answer all the queries that have been posed by the Bidders.
- At any time prior to the last date for receipt of bids, Purchaser may, for any reason, whether at its initiative or in response to a clarification requested by a prospective Bidder, modify the RFP document by a corrigendum.
- The corrigendum (if any) & clarifications to the queries from all Bidders shall be posted on <https://mahatenders.gov.in>
- Any such corrigendum shall be deemed to be incorporated into this RFP.
- To provide prospective Bidders reasonable time for taking the corrigendum into account, the Purchaser may, at its discretion, extend the last date for the receipt of Proposals.

4.9 Bid Validity Period

The bid shall remain valid for the time mentioned in the RFP Datasheet. In exceptional circumstances, at its discretion, the purchaser may solicit the Bidder's consent for an extension of the validity period. The request and the response shall be made in writing.

5 Key Requirements of Bid

5.1 RFP Document Fees and Purchase

- The Bidders shall download the tender document from the e-Procurement Portal as mentioned in the Proposal Datasheet above. The downloading of the tender documents shall be carried out strictly as provided on the website.
- The tender Fee of the requisite amount, as per Datasheet, shall be paid online through the e-Procurement Portal.

- c. Without the payment of the tender fee, the bids shall be considered incomplete and non-responsive and shall not be considered.
- d. The RFP document/tender fee is non-refundable and not exempted.
- e. Proposals received without tender fee receipt shall be rejected.

5.2 Earnest Money Deposit (EMD)

- a. EMD, which is required to protect the purchaser against the risk of Bidders conduct, which would warrant the EMD forfeiture, of requisite amount, as per Factsheet/Datasheet, shall be paid through the e-Procurement portal
- b. No exemption for submitting the EMD shall be given to any bidder. EMD in any other form shall not be entertained.
- c. The EMD of all unsuccessful bidders would be refunded by the purchaser after submission of Performance Security by the successful bidder.
- d. The EMD of the successful bidder would be returned upon submission of Performance Security, by the successful bidder. The EMD amount is interest-free and shall be refundable without any accrued interest on it.
- e. Proposals that do not accompany the EMD or contain EMD with infirmity (ies) (relating to the amount or validity period etc.), mentioned above, shall be summarily rejected.
- f. The EMD may be forfeited:
 - 1. If a bidder withdraws its bid during the period of bid validity & extended bid validity period (extended with mutual agreement).
 - 2. A successful Bidder fails to sign the subsequent contract in accordance with this RFP within the stipulated time mentioned in the Letter of Intent (LoI) Issued.
 - 3. The Bidder is found to have indulged in any suppression of facts, furnishing of a fraudulent statement, misconduct, or other dishonest or other ethically improper activity, to this RFP & the tendering process.
 - 4. A Proposal contains deviations (except when provided in conformity with the RFP) conditional offers and partial offers.

5.3 Submission of Proposal

Bidders shall submit their responses as per the procedure specified in the e-Procurement Portal <https://mahatenders.gov.in> being used for this purpose. Generally, the items to be uploaded on the portal would include all the related documents mentioned in this RFP, such as:

- a. Tender Fee
- b. EMD Receipt Copy
- c. Pre-Qualification Proposal
- d. Technical Proposal
- e. Financial proposal

However, each of the above documents must be uploaded in the format specified for this purpose and as per the specified folder structure in the e-Procurement portal. The bidder must ensure that the bid is digitally signed by the Authorized Signatory of the bidding firm and has been duly submitted (freeze) within the submission timelines. The purchaser shall in no case be responsible if the bid is not submitted online within the specified timelines. All the pages of the Proposal document must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bidder's Proposal.

5.4 Bid Preparation costs

The Bidder shall be responsible for all costs incurred in connection with participation in the tendering process, including, but not limited to, costs incurred in the conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of a proposal, in providing any additional information required by the purchaser to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

The purchaser shall in no event be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

5.5 Language

The proposal should be filled by the bidders in English language only. If any supporting documents submitted are in any language other than English, translation of the same in the English language is to be duly attested by the bidders. For purposes of interpretation of the documents, the English translation shall govern.

5.6 Only One Proposal and One Solution

If a Bidder, submits or participates in more than one Proposal and/or presents more than one Solution, such Bidders shall be disqualified.

5.7 Authentication of Bids

The Proposal should be accompanied by a Power-of-Attorney in the name of the signatory of the Proposal.

5.8 Bidders Authorization

- a) The "Bidders" as used in the tender documents shall mean the one who has signed the Tender Forms. The Bidders may be either the Principal Officer or his duly Authorized Representative, in either case, he/she shall submit a power of attorney. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall be furnished, and signed by the representative or the principal.
- b) The authorization shall be indicated by written power-of-attorney accompanying the bid.

5.9 Amendment of request for proposal

- a) At any time prior to the deadline for submission of proposals, the purchaser, for any reason, may modify the RFP by amendment notified by uploading it on the e-Procurement Portal and such amendment shall be binding on all the bidders. The purchaser, at its discretion, may extend the deadline for the submission of proposals.
- b) The purchaser reserves the right to change the scope or other terms & conditions before the opening of Technical bids. In this case, the purchaser shall release a corrigendum/clarification and ask the bidders to resubmit their bids.

5.10 Local Conditions

- a) It shall be incumbent upon each Bidder to fully acquaint himself with the local conditions and other relevant factors, which would have any effect on the performance of the contract and/or the cost.
- b) The Bidders are expected to obtain for themselves on their responsibility all information that may be necessary for preparing the bid and entering a contract. Obtaining such information shall be at the Bidder's own cost.
- c) Failure to obtain the information necessary for preparing the bid and/or failure to perform activities that may be necessary for the providing services before entering the contract shall in no way relieve the successful Bidders from performing any work in accordance with the Tender documents.
- d) It shall be imperative for each Bidder to fully inform themselves of all legal conditions and factors, which may have any effect on the execution of the contract as described in the bidding documents. The purchaser shall not entertain any request for clarification from the Bidders regarding such conditions.
- e) It is the responsibility of the Bidders that such factors have properly been investigated and considered while submitting the bid proposals and that no claim whatsoever including those for financial adjustment to the contract awarded under the bidding documents shall be entertained by the purchaser and that neither any change in the schedule of the contract nor any financial adjustments arising thereof shall be permitted by the purchaser on account of the failure of the Bidders to appraise themselves of local laws and site conditions.

5.11 Venue & Deadline for Submission of Proposals

Proposals, in their complete form in all respects as specified in the RFP & the corrigendum, issued if any, must be submitted online before the last date and time of submission, to the purchaser at the portal specified in RFP Factsheet/Datasheet.

5.12 Proposals submitted after the designated time of submission

- a) Bids submitted after the due date shall not be accepted by the e-Procurement Portal (<https://mahatenders.gov.in>), and hence shall automatically be rejected. The Purchaser shall not be responsible for any delay in the online submission of the proposal.
- b) The bids submitted by telex/telegram/fax/e-mail etc. shall not be considered. No correspondence shall be entertained on this matter.
- c) The Purchaser shall not be responsible for any delay or non-receipt/ non-delivery of the documents. No further correspondence on the subject shall be entertained.
- d) The purchaser reserves the right to modify and amend any of the above-stipulated conditions/criteria depending upon project priorities vis-à-vis urgent commitments.

5.13 Deviations

Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the RFP & the corrigendum, issued if any. The Bidder shall submit a No Deviation Certificate as per the format provided in this RFP. The bids with deviation(s) are liable for rejection.

5.14 Modification and Withdrawal of Bids

- a. No bid may be altered/modified after submission to the purchaser. Unsolicited correspondences in this regard from Bidders shall not be considered.

- b. No bid may be withdrawn in the interval between the last date for receipt of bids and the expiry of the bid validity period specified by the Bidders in the Bid or agreed extended bid validity period.
- c. Withdrawal of a bid during this interval may result in the Bidders forfeiture of its EMD.

5.15 Address for Correspondence

The Bidders shall designate the official mailing/e-mail address and office place to which all correspondence shall be sent by the purchaser.

5.16 Contacting the purchaser

- a. No Bidders shall contact the purchaser on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded.
- b. Any effort by a Bidders to influence the purchaser's bid evaluation, bid comparison or contract award decisions shall result in the rejection of the Bidders bid.

5.17 Bidder Related Conditions

- a. The bidder shall prepare the bid based on details provided in the RFP documents. It must be clearly understood that the quantities, specifications, and diagrams that are included in the RFP document are intended to give the bidder an idea about the scope and magnitude of the work and are not in any way exhaustive and guaranteed by the purchaser.
- b. The bidder is expected to ensure that the solution & services proposed by him meet the functional requirements, conceptual design, performance requirements and other RFP requirements. Performing any activity required to design an optimal solution and services shall be at the bidder's own cost.
- c. The bidder shall carry out the sizing of the solution based on internal assessment and analysis, which may include the use of modelling techniques wherever necessary.
- d. The bidder must propose a solution best suited to meet the requirements of the purchaser. If during the sizing of the solution, any upward revisions of the specifications and/or quantity as given in this RFP document, are required to be made to meet the conceptual design and/or requirements of the RFP, all such changes shall be included in the technical proposal and their commercial impact, thereof, included in the commercial bid.
- e. The purchaser shall, in no case be responsible or liable for any costs associated with the design/sizing of the proposed solution, regardless of the conduct or outcome of the Tendering process.

5.18 Bid Submission

- a. Bidder should do online enrolment in the e-Procurement portal. The Digital Signature enrolment must be done with the e-token, after logging into the portal. The e-token may be obtained from one of the authorized Certifying Authorities.
- b. After downloading/getting the tender schedules, the Bidder should go through them carefully and then submit the documents as per the tender document; otherwise, the bid shall be rejected.

- c. The commercial template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for that tender. Bidders can enter the Bidder Name and Values only.
- d. The purchaser shall not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues.
- e. The bidder must submit the bid documents in online mode only, through the e-Procurement Portal.
- f. After the bid submission, the bid summary must be printed and kept as an acknowledgement as a token of the submission of the bid. The bid summary shall act as proof of bid submission for a tender floated and shall also act as an entry point to participate in the bid opening event.
- g. The time that is displayed from the server clock at the top of the tender Portal, shall be valid for all actions of requesting bid submission, bid opening etc., in the e-Procurement portal. The Time followed in this portal is as per Indian Standard Time (IST). The bidders should adhere to this time during bid submission.
- h. As per the disclaimer of the portal, it is recommended that the EMD transfer is done at least 1-3 days prior to the last date of submission to have hassle-free operations.

5.19 Contents of Bid on e-Procurement Portal

Sr. No.	Category	Response
1	Proof of payment of RFP Document/ fee & Earnest Money Deposit (EMD)	<ul style="list-style-type: none"> • Receipt of RFP/Tender Document Fee • Receipt or confirmation of EMD payment
2	Response to Pre-Qualification Criteria	<ul style="list-style-type: none"> • Pre-Qualification Bid Covering Letter • Pre-Qualification Bid Checklist • Response to Pre-Qualification criterion along with the required supporting documents
3	Technical Proposal	<ul style="list-style-type: none"> • Technical Bid Covering Letter • Technical Bid Checklist • Response to Technical Evaluation criterion along with the required supporting documents
4	Commercial Proposal	<ul style="list-style-type: none"> • Commercial bid/proposal as per the pre-defined format

5.19.1 Technical Proposal

Bidder is required to prepare a Technical Proposal as per prescribed formats for submission of Technical Bid. The bidder should upload all the associated documents in Online Technical Envelope (T1) in PDF format if required can be zipped as well and then uploaded. These documents need to be digitally signed by using a digital signature and uploaded during the Online Bid Preparation stage. The bidder should submit all the supporting documents as per prescribed formats for submission of the Technical Bid of this RFP.

5.19.2 Commercial Bid

All commercial offers must be prepared online (An online format shall be provided for this purpose during the Online Bid Preparation stage). No bidder should quote his commercial offer anywhere directly or indirectly in Technical Envelope, failing which the Commercial Envelope shall not be opened and his tender shall stand rejected.

5.19.3 Technical Envelope

- a. The technical Envelope of the bidder shall be opened online through an e-Tendering procedure to verify its contents as per requirements.
- b. If the various documents contained in this envelope do not meet the requirements, a note shall be recorded accordingly by the tender opening authority and the said Purchaser's Commercial Envelope shall not be considered for further action but the same shall be recorded.
- c. The decision of the tender opening authority shall be final in this regard.
- d. The commercial bids shall not be opened till the completion of the evaluation of technical bids. The commercial bids of only technically qualified Bidders as mentioned above shall be opened.
- e. Documents submitted by the bidder shall be closely scrutinized and the bidder shall provide all the original documents whenever requested.

5.19.4 Commercial Envelope

This envelope shall be opened online as per the date and time are given in the detailed tender schedule (if possible), through the e-Tendering procedure only.

5.20 Opening of Bids

- a. The bids that are submitted online successfully shall be opened online as per the date and time given in the proposal datasheet, through the e-Tendering procedure.
- b. Bids shall be opened either in the presence of bidders or their duly authorized representatives. The bidder representatives who are present shall sign a register evidencing their attendance. Two representatives per bidder shall be permitted to be present at the time of opening the tender.
- c. The Bid submitted without a Tender fee and EMD shall be summarily rejected. Only those Bids whose Tender fee and EMD are received shall be eligible for opening.
- d. Total transparency shall be observed and ensured while opening the Proposals/Bids
- e. The purchaser always reserves the rights to postpone or cancel a scheduled Bid opening
- f. Bid opening shall be conducted in two stages:
 1. In the first stage, Pre-qualification Proposals would be opened. The EMD of the Bidders shall be opened on the same day and time, on which the Pre-qualification Proposal is opened, and bids not accompanied with the requisite EMD or whose EMD is not in order shall be rejected. Technical Proposals of Bidders who pass the Pre-qualification criteria shall be opened.
 2. In the second stage, the Commercial Proposal of those Bidders who qualify as per the Technical qualification criterion would be opened in the presence of Bidders' representatives who choose to attend the Bid opening sessions on the specified date, time and address.
- g. The Bidders' representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for

the purchaser, the bids shall be opened at the same time and location on the next working day. In addition to that, if the representative of the Bidder remains absent, the purchaser shall continue the process and open the bids of all Bidders.

- h. During Bid opening, preliminary scrutiny of the Bid Documents shall be made to determine whether they are complete, whether the required EMD has been furnished, whether the Documents have been properly signed, and whether the bids are generally in order. Bids not conforming to such preliminary requirements shall be prima facie rejected. The purchaser has the right to reject the bid after due diligence is done.

5.21 Bid Opening Process

- a. The Bids shall be opened by Purchaser in presence of those Bidders or their representatives who may be present at the time of opening.
- b. The representatives of the bidders should be advised to carry the below documents for attending the opening of the bid.
 - 1. the identity card or a letter of authority from the bidder firms to identify that they are bona fide representatives of the bidder firm
 - 2. Copy of receipt of RFP/Tender Document Fee
 - 3. Copy of receipt or confirmation of EMD payment
- c. The bid shall be opened in the following manner (as per the date mentioned in Datasheet & further dates published in this regard):

Set 1:

- 1. RFP Document Fee & EMD
- 2. Pre-Qualification bid
- 3. Technical bid

Set 2:

- 1. Commercial bid
- d. The venue, date and time for opening the Pre-qualification & Technical bid are mentioned in the Datasheet.
- e. The Technical Bids of only those bidders shall be evaluated who clear the Pre-qualification stage.
- f. The Commercial Bids of only those bidders shall be opened whose score is equal to or more than qualifying marks in the Technical Bid.
- g. The date and time for the opening of the Commercial bid would be communicated to the qualified bidders.

6 Bid Evaluation Process

6.1 Evaluation of Bids

- a. The purchaser shall constitute a Tender Evaluation Committee to evaluate the responses of the bidders
- b. The Tender Evaluation Committee constituted by the purchaser shall evaluate the responses to the RFP and all supporting documents/documentary evidence. Inability to submit required supporting documents/documentary evidence may lead to rejection. The Bidders' technical solution shall be evaluated as per the requirements and evaluation criteria as stated in the RFP document. The Bidders are required to submit all required documentation in support of the evaluation criteria specified (e.g., detailed Project citations and completion certificates, client contact information for verification, profiles of project resources and all others) as required for technical evaluation.

- c. The Committee may seek inputs from bidder's experts in the evaluation process.
- d. The purchaser reserves the right to do a reference check of the experience stated by the Bidder. Any feedback received during the reference check shall be considered during the Technical evaluation process
- e. The decision of the Tender Evaluation Committee in the evaluation of responses to the RFP shall be final. No correspondence shall be entertained outside the process of negotiation/ discussion with the Tender Evaluation Committee.
- f. The Tender Evaluation Committee may ask for meetings with the Bidders to seek clarifications on their proposals.
- g. The Tender Evaluation Committee reserves the right to reject any or all proposals based on any deviations without assigning any reason thereof.
- h. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.

6.2 Preliminary Examination of Bids

- a. Initial Proposal scrutiny shall be held to confirm that Proposals do not suffer from the infirmities detailed below. Proposals shall be treated as non-responsive if a Proposal is found to have been:
 - i. Submitted in a manner not conforming with the manner specified in the RFP document
 - ii. Submitted without appropriate EMD as prescribed herein
 - iii. Received without the appropriate power of attorney
 - iv. Containing subjective/incomplete information
 - v. Submitted without the documents requested in the checklist
 - vi. Non-compliant with any of the clauses stipulated in the RFP
 - vii. Having lesser than the prescribed validity period

The EMD of all non-responsive bids shall be returned to the bidders.

- b. All responsive Bids shall be considered for further processing as below:
 - i. The purchaser shall prepare a list of responsive Bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids shall be considered for further evaluation by a Committee according to the Evaluation process defined in this RFP document. The decision of the Committee shall be final in this regard.

6.3 Clarification on Bids

During the bid evaluation, the purchaser may at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered or permitted. The purchaser is entitled to ask for clarifications as many times as possible from the bidders to the satisfaction of the Tender Evaluation Committee.

6.4 Evaluation Process

The purchaser shall constitute a Tender Evaluation Committee to evaluate the responses of the bidders. The Tender Evaluation Committee shall evaluate the responses to the RFP and all supporting documents/documentary evidence. Inability to submit required supporting documents/documentary evidence by bidders may lead to rejection of their bids.

The decision of the Tender Evaluation Committee in the evaluation of bids shall be final. No correspondence shall be entertained outside the process of evaluation with the Committee. The Tender Evaluation Committee may ask for meetings or presentations with the Bidders to seek clarifications or conformations on their bids.

The Tender Evaluation Committee reserves the right to reject any or all bids. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.

The steps for evaluation are as follows:

6.4.1 Stage 1: Pre-Qualification

- a. The purchaser shall validate the Set 1 "RFP Document fee & Earnest Money Deposit (EMD)".
- b. If the contents of Set 1 are as per requirements, the purchaser shall open the "Pre-Qualification Bid". In case, the Bidder does not meet any one of the conditions, the bidder shall be disqualified.
- c. Bidders would be informed of their qualification/disqualification based on the Pre-Qualification criteria.

Pre-Qualification Criteria

Sr. No	Section	Criteria	Details	Documents to be Submitted
1.	Administrative Criteria	Legal Entity	<p>Registered in India with competent authority under the Companies Act 1956 / 2013 or /LLP registered under LLP Act 2008 for sole bidder and/or consortium members or Joint Venture.</p> <p>Sole bidder / Lead Bidder and each member of the consortium/ Joint Venture should have been in existence of its IP1 / ISP business operation from last three (03) financial years.</p>	<ul style="list-style-type: none"> • Certificate of incorporation / Registered Partnership deed of bidder(s) • GST Registration Certificate of Lead bidder • Certificate of commencement of business (if applicable) of bidders • Certificate from statutory auditor/ Relevant Work Orders
2.	Administrative Criteria	Board Resolution / Power of Attorney in favour of Authorised Signatory	<p>A Board Resolution or Power of Attorney, in the name of the person executing the bid, authorizing the signatory to sign on behalf of the Bidding entity. The person issuing the Power of Attorney shall possess Board Resolution in his favour for granting such rights.</p>	<p>Board Resolution</p> <p>OR</p> <p>Power of Attorney with appropriate supporting documents as per the formats given in Annexure 6 of this document</p>

Sr. No	Section	Criteria	Details	Documents to be Submitted
				In case of generic Board Resolution or Power of Attorney, the same shall be certified by Company Secretary for the applicability of the same for this RFP.
3.	Administrative Criteria	Consortium	<p>In case of consortium, one of the Bidder shall be designated as a "Lead Bidder".</p> <p>The Consortium / Joint Venture is allowed with up to 2 (two) consortium members including the Lead Bidder. The lead Bidder should have majority stake in the Consortium/ Joint Venture, which may be an incorporated or non-incorporated JV.</p>	<p>In case of consortium, the bidders shall submit a power of attorney in favour of the lead bidder clearly mentioning their association and stake for the project and nominating the Lead bidder (as per Annexure 8 of the RFP) to participate in the bid. The same shall be signed by the authorized signatory of all the consortium members.</p> <p>The Authorized signatory shall possess Board Resolution in his/her favour for granting such rights and copy of such registered Board Resolution shall be submitted in original.</p> <p>In case of generic Board Resolution or Power of Attorney, the same shall be certified by Company Secretary for the</p>

Sr. No	Section	Criteria	Details	Documents to be Submitted
				applicability of the same for this RFP
4.	Administrative Criteria	Local Presence	The sole bidder or any member of the consortium, in case of a consortium, should have minimum One (01) operational office in Pimpri Chinchwad city /Pune city or should furnish an undertaking that the same would be established in Pimpri Chinchwad / Pune city within one month (30 days) of signing the contract, if project is awarded, and the proposed project team shall function from this office only.	Copies of any two i.e. Property Tax /Electricity /Telephone Bill/ GST Registration/ Lease agreement OR Undertaking to open Office in Pimpri Chinchwad city /Pune city
5.	Administrative Criteria	Non-Black Listed/ Debarred	The sole bidder or any member of the Consortium/ Joint Venture, in case of a Consortium/ Joint Venture, should not be blacklisted/debarred by any State Government or Central Government or PSUs / Govt. undertakings or Government Companies / Government Enterprises or Urban Local Bodies (ULB) or similar statutory entities in India as on the date of bid submission	Proforma to be counter signed by Applicant's Country Head or the Company Secretary
6.	Administrative Criteria	Self - Declaration	The sole bidder or each member of the Consortium/ Joint Venture, in case of a consortium, should not be insolvent, in receivership or bankrupt as on the date of bid submission	Self-declaration to be submitted on bidder's letter head
7.	Financial Criteria	Financials (Sole Bidder / Lead Bidder)	The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have: Minimum Cumulative Turnover of INR 400 crore in last three financial years AND Minimum Cumulative Turnover of INR 300 crore in last three financial years related to network infrastructure (telecom	Audited balance sheet and profit & loss OR Certificate from statutory auditor

Sr. No	Section	Criteria	Details	Documents to be Submitted
			towers/poles/ducts/OFC) leasing with IP1 business	
8.	Financial Criteria	Financials (Consortium/ Joint Venture Member)	Each of the Consortium/ Joint Venture member shall have Cumulative Average Annual Turnover of INR 20 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC/Bandwidth) leasing with IP1 or ISP business	Audited balance sheet and profit & loss OR Certificate from statutory auditor
9.	Financial Criteria	Net worth	The Sole Bidder or each of the consortium member (in case of consortium) should have positive net worth in each of the last three financial years AND The Sole Bidder or Lead Bidder (in case of Consortium/ Joint Venture) should have positive net worth of minimum INR 100 cr. as of 31st March 2022	Audited balance sheet and profit & loss OR Certificate from statutory auditor
10.	Technical Criteria	Technical Capability – Duct & OFC Fibre laying (Underground or Aerial)	The Sole bidder or Consortium/ Joint Venture as a whole, in case of consortium, should have all the relevant experience in India as per below criteria in last five financial years: 1. Experience of laying and maintenance of minimum 1000 km of telecom Duct/Optical Fibre Cable for licensed TSP/Government entity/PSU or as IP1 Infrastructure provider in India in last five financial year (2017-2022) 2. Experience of leasing telecom Optical Fibre Cable/Duct of atleast 500 km in India in last five financial year (2017-2022) 3. Experience of leasing of all types of telecom network infrastructure	Work Order or Signed Contract or MSA with detailed scope of work AND Client Completion Certificate OR Satisfactory Work in Progress Certificate from the Client/ Statutory Auditor

Sr. No	Section	Criteria	Details	Documents to be Submitted
			<p>(Telecom Towers/Poles, Optical Fiber Cable, Ducts and Bandwidth) in India from atleast last 3 financial years (2019-2022)</p> <p>4. Valid registration/License of IP1 and class A ISP over atleast last 5 years</p> <p>5. Experience of monetization (subletting & sharing with TSP/ISP) of minimum 750 Mobile Tower/Pole sites infrastructure owned by the bidder in India in last five financial year (2017-2022)</p> <p>6. Experience of minimum 1000 Smart Pole / Mobile Tower infrastructure Installation & Maintenance in India in last five financial year (2017-2022)</p> <p>7. Experience of setting up of Network Operation Centre (NOC) and managing more than 1000 network PoPs/nodes (SD WAN/L2/L3 switch/MPLS) with the usage of monitoring & management systems through that NOC in India in last five financial years (2017-2022)</p> <p>AND</p> <p>The sole bidder/lead bidder and each member of the Consortium/ Joint Venture (in case of consortium/JV) should have experience in India of either of the below:</p> <p>1. Laying /managing/ leasing of more than 500 km optical fibre cable/duct and installation/ leasing of 750 telecom towers/poles in India in last five</p>	

Sr. No	Section	Criteria	Details	Documents to be Submitted
			financial years (2017-2022) 2. Providing lit up OFC/ internet bandwidth services to atleast 2000 broadband customers in India at any time during the last five financial years.	
11.	Technical Criteria	Registration/License	<p>The Sole bidder / lead bidder in case of Consortium/ Joint Venture, should possess all the below mandatory certification/license as on date of bid submission:</p> <ul style="list-style-type: none"> • ISO 9001:2015 certification • Infrastructure Provider (IP1) Registration active of more than last five years at the time of bid submission <p>The Sole bidder/lead bidder or any member of the Consortium/ Joint Venture (in case of Consortium/ Joint Venture) should possess below mandatory certification/ license as on date of bid submission:</p> <ul style="list-style-type: none"> • Class A Internet Service Provider (ISP) license 	Registration /Certificate from Department of Telecommunications, Govt. of India and ISO authorities as applicable

Note: For the large ongoing projects, the client certificate shall clearly state the quantum of work completed, as per the requisite eligibility criteria.

6.4.2 Stage 2: Technical Evaluation

- Set 2, "Technical bid" shall be evaluated only for the bidders who get qualified in Pre-Qualification.
- The purchaser shall review the technical bids of the short-listed bidders to determine whether the technical bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at Purchaser's discretion.
- The bidders' technical solutions proposed in the bid document shall be evaluated as per the requirements and technical evaluation framework specified in the RFP
- Bidders shall be required to make the detailed presentation, as part of the Technical Evaluation Framework specified in the RFP.
- Each Technical Bid shall be assigned a technical score as per the Technical Evaluation Framework, as mentioned below. Only the bidders who get an overall **Technical score of 75%** of the Technical Evaluation Framework, i.e. 75 marks out of total 100 marks, as given in this section shall qualify for commercial evaluation stage. Failing to secure minimum marks shall lead to technical rejection of the Bid.

Technical Evaluation Framework

The Bidder's technical solution proposed in the Technical Evaluation bid shall be evaluated as per the evaluation criteria in the following table:

Section #	Evaluation Criteria	Total Marks
A.	Financials	30
B.	Project Experience	40
C.	Technical Presentation	30
Overall Technical Score		100

Note: Purchaser (or a nominated party) reserves the right to check/validate the authenticity of the information provided in the Pre-qualification and Technical Evaluation criteria and the requisite support must be provided by the Bidder within the stipulated time. Any absence of response within the timelines given for clarification shall be treated as non-compliance for that criteria.

The following sections explain how the Bidders shall be evaluated on each of the evaluation criteria.

Technical Bid Criteria & Evaluation

Sr. No.	Category	Evaluation Criterion details	Max. Marks Allotted to Sub-Category	Supporting Documents required
A	Financials	<p>A1. The sole bidder or lead bidder, in case of consortium, should have cumulative turnover in India in last three (03) financial years:</p> <ul style="list-style-type: none"> • INR 400 cr. <= INR 1000 cr.: 5 marks • INR 1000 cr. <= 2000 cr.: 7.5 marks • > INR 2000 cr.: 10 marks 	10	<p>Extracts from the audited balance sheet</p> <p>And</p> <p>Profit & Loss Statement</p> <p>OR</p> <p>Certificate from the statutory auditor</p>
		A2. The sole bidder or lead bidder, in case of consortium, should have	10	Extracts from the

Sr. No.	Category	Evaluation Criterion details	Max. Marks Allotted to Sub-Category	Supporting Documents required
		<p>cumulative turnover in India in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business:</p> <ul style="list-style-type: none"> • INR 300 cr. <= INR 1000 cr.: 5 marks • INR 1000 cr. <= 2000 cr.: 7.5 marks • > INR 2000 cr.: 10 marks 	10	<p>audited balance sheet</p> <p>And</p> <p>Profit & Loss Statement</p> <p>OR</p> <p>Certificate from the statutory auditor</p>
		<p>A3. The Sole bidder or lead bidder of consortium, in case of consortium, should have net worth as per the audited financial statements as on 31-03-2022:</p> <ul style="list-style-type: none"> • INR 100 cr. <= INR 500 cr.: 5 marks • INR 500 cr. <= 1000 cr.: 7.5 marks • > INR 1000 cr.: 10 marks 		Certificate from the statutory auditor
B	Project Experience	<p>B1. The Sole bidder or any member of consortium, in case of consortium, should have relevant experience of laying of Optical Fibre Cable/ duct for licensed TSP/Government entity/PSU or as IP1 Infrastructure in India in last five (05) financial years: (2017-2022):</p> <ul style="list-style-type: none"> • 1000 km. <= 1500 km.: 2.5 marks • 1500 km. <= 2000 km.: 4 marks • > 2000 km.: 5 marks 	5	<p>Work Order or Signed Contract or MSA with detailed scope of work</p> <p>AND</p> <p>Client Completion Certificate</p> <p>OR</p> <p>Satisfactory Work in Progress Certificate from the Client / / Statutory Auditor</p>
		<p>B2. The Sole bidder or any member of consortium, in case of consortium, should have relevant experience of leasing Optical fibre cable/ duct for licensed TSP/Government entity/PSU or as IP1 Infrastructure provider in India in last five (05) financial years:</p>	10	<p>Work Order or Signed Contract or MSA with detailed scope of work</p> <p>AND</p> <p>Client Completion Certificate</p> <p>OR</p>

Sr. No.	Category	Evaluation Criterion details	Max. Marks Allotted to Sub-Category	Supporting Documents required
		<p>(2017-2022)</p> <ul style="list-style-type: none"> • 500 km. <= 750 km...: 5 marks • 750 km. <= 1000 km.: 7.5 marks • > 1000 km...: 10 marks 		Satisfactory Work in Progress Certificate from the Client// Statutory Auditor
		<p>B3. The Sole bidder or lead bidder of the consortium, in case of consortium, should have experience of leasing of all types of telecom network infrastructure (telecom towers/Poles, Optical Fiber Cable, Ducts and Bandwidth) in India from atleast last 5 financial years (2017-2022)</p> <ul style="list-style-type: none"> • 3 years <= 5 years: 2.5 marks • 5 years <= 7 years: 4 marks • > 7 years: 5 marks 	5	<p>Work Order or Signed Contract or MSA with detailed scope of work</p> <p>AND</p> <p>Client Completion Certificate</p> <p>OR</p> <p>Satisfactory Work in Progress Certificate from the Client// Statutory Auditor</p>
		<p>B4. The Sole bidder or any member of the consortium, in case of consortium, should have experience of monetization (subletting & sharing with TSP/ISP) of Mobile Tower/Pole sites infrastructure owned by the bidder in India in last five financial year (2017-2022)</p> <ul style="list-style-type: none"> • 750 Towers/Poles <= 1000 Towers/Poles: 2.5 marks • 1000 Towers/Poles <= 1500 Towers/Poles: 4 marks • > 1500 Towers/Poles.: 5 marks 	5	<p>Work Order or Signed Contract or MSA with detailed scope of work</p> <p>AND</p> <p>Client Completion Certificate</p> <p>OR</p> <p>Satisfactory Work in Progress Certificate from the Client/Statutory Auditor</p>
		<p>B5. The Sole bidder or any member of the consortium, in case of consortium, should have experience of Smart Pole / Mobile Tower infrastructure Installation & Maintenance in India in last five financial year (2017-2022):</p> <ul style="list-style-type: none"> • 1000 Towers/Poles <= 1500 Towers/Poles: 2.5 marks • 1500 Towers/Poles <= 2000 Towers/Poles: 4 marks 	5	<p>Work Order or Signed Contract or MSA with detailed scope of work</p> <p>AND</p> <p>Client Completion Certificate</p> <p>OR</p> <p>Satisfactory Work in Progress Certificate from the Client</p>

Sr. No.	Category	Evaluation Criterion details	Max. Marks Allotted to Sub-Category	Supporting Documents required
		<ul style="list-style-type: none"> > 2000 Towers/Poles.: 5 marks 		/Statutory Auditor
		<p>B6. The Sole bidder or any member of consortium, in case of consortium, should have relevant experience of setting up of Network Operation Centre (NOC) and managing more than 1000 network PoPs/nodes (SD WAN/L2/L3 switch/MPLS) with the usage of monitoring & management systems through that NOC in India in last five financial years (2017-2022)</p> <ul style="list-style-type: none"> 1000 active network nodes <= 1500 active network nodes: 5 marks 1500 active network nodes <= 2000 active network nodes: 7.5 marks > 2000 active network nodes.: 10 marks 	10	<p>Work Order or Signed Contract or MSA with detailed scope of work</p> <p>AND</p> <p>Client Completion Certificate</p> <p>OR</p> <p>Satisfactory Work in Progress Certificate from the Client/Statutory Auditor</p>
C	Technical Presentation	<p>Demonstrated level of understanding of the scope of work and all aspects of the project</p> <p>Proposed Approach & Methodology for Policy Framework creation, Business Modelling</p> <p>Proposed Market Outreach Plan</p>	10	Detailed Technical Presentation
		Proposed Network Operation Centre solution with high level architecture and network interconnection	10	Detailed Technical Presentation
		Proposed Operations & Maintenance and Quality/SLA assurance Plan	10	Detailed Technical Presentation

Note: Only the bidders who get 75% or more in the technical criteria score, it shall be qualified for the opening of the commercial bids.

For the large ongoing projects, the client certificate shall clearly state the quantum of work completed, as per the requisite eligibility criteria

6.4.3 Stage 3: Commercial Evaluation

All the technically qualified bidders shall be notified to participate in the Commercial Bid opening process.

The commercial bids for the technically qualified bidders shall then be opened on the notified date and time and reviewed to determine whether the commercial bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at Purchaser's discretion.

Commercial Bids that are not as per the prescribed format (BoQ) shall be liable for rejection

6.4.4 Selection criteria & Commercial bid

- a. PCSCL wants to select and onboard only one (01) bidder/concessionaire for leasing all city network & pole infrastructure across the city
- b. Concessionaire/selected bidder shall pay 2 types of revenues to PCSCL, namely Yearly Minimum Revenue Committed (YMRC) & Yearly Additional Revenue Generated (YARG)
 - Yearly Minimum Revenue Committed (YMRC): minimum yearly revenue committed to pay to PCSCL by the concessionaire/selected bidder, either through yearly generated revenue by said infrastructure leasing or through its source of finance, irrespective of the quantum of revenue generated in that particular year through leasing of said infrastructure. The same shall be applicable for each of the year for the entire contract duration of 10 years.
 - Yearly Additional Revenue Generated (YARG): this is the yearly revenue which is generated over and above the Yearly Minimum Revenue Committed (YMRC), through leasing of the said infrastructure, and is to be shared between PCSCL & concessionaire/selected bidder, through an escrow account, at an agreed % share (bidder to quote as part of its commercial bid).
- c. The minimum base amount for Yearly Minimum Revenue Committed (YMRC) per year is INR 30 cr.
- d. As part of its Commercial Bid the bidder to quote the following:
 - “%” of the Yearly Minimum Revenue Committed (YMRC) which shall be necessarily either equal to or above 100%. In case of submission of YMRC below 100%, as part of the submitted commercial bid, the same shall be liable for rejection.
 - “% of “Yearly Additionally Revenue Generated (YARG)” which concessionaire/selected bidder will give to the PCSCL.
- e. Bidder shall quote both the above “%” in its commercial bid based on their market assessment & judgment about the likely business available in the market.
- f. The highest YMRC % & YARG % will be given a score of 100 points. The score of other proposals will be computed as follows.
 - YMRC score of the bidder = $100 * (\text{Quoted “\%” of the Yearly Minimum Revenue Committed (YMRC) by the bidder} / \text{Highest quoted “\%” of the Yearly Minimum Revenue Committed among all the technically eligible bids})$
 - YARG score of the bidder = $100 * (\text{Quoted “\% of “Yearly Additionally Revenue Generated (YARG)” by the bidder} / \text{Highest quoted “\% of “Yearly Additionally Revenue Generated (YARG)” among all the technically eligible bids})$

- g. The weightage assigned to both the YMRC score & YARG score will be 80% & 20% respectively. Accordingly, all the proposals will be finally ranked according to their Final Score which will be calculated as follows,

Final Score of the bidder = 80% of YMRC score of the bidder + 20% of YARG score of the bidder

- h. The bidder with the highest Final Score (H1) will be selected.
- i. All the values of the score will be calculated to the third decimal place. In case of a tie where two or more bidders achieve the same Final Score, the bidder with the higher YMRC score will be selected.
- j. The commercial bid format is provided as per the Annexure.

7 Award of Contract

7.1.1 Right to Accept Any Proposal and To Reject Any or All Proposal(s)

PCSCL reserves the right to accept or reject any proposal and annul the tendering process / public tendering process and reject all proposals 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 grounds for the purchaser action.

7.1.2 Notification of Award

- a. Prior to the expiration of the validity period, the purchaser shall notify the successful bidders in writing or by email, that its proposal has been accepted. In case the tendering process / public tendering process has not been completed within the stipulated period, the purchaser may like to request the bidders to extend the validity period of the bid.
- b. The decision to extend the validity period of a Bidder's Proposal shall be the Bidder's sole prerogative.

7.1.3 Negotiations with the successful bidder

If required, negotiations shall be held at the date, time and address intimated to the qualified and selected bidder. Representatives conducting negotiations on behalf of the bidder must have written authority to negotiate and conclude a contract.

7.1.4 Contract Finalization and Award

- a. The Purchaser shall reserve the right to negotiate with the Bidder(s) with highest Final Score (H1).
- b. The purchaser shall be sharing the draft contract format with the successful bidder for signing
- c. The selected Bidder(s) should convey acceptance of the award of the contract by returning a duly signed and stamped duplicate copy of the award letter within 7 days of receipt of the communication.
- d. Upon notification of award to the successful Bidder, PCSCL shall promptly notify each unsuccessful Bidder.

7.1.5 Performance Security Deposit

The successful Bidder shall at his own expense submit an unconditional and irrevocable Performance Security Deposit in the form of a Bank Guarantee from a nationalized bank in India to the purchaser

equivalent to the Yearly Minimum Revenue Committed (YMRC), before signing the contract/ agreement with the purchaser, valid for 26 months (2 years and 8 months).

In case, if the quoted YMRC is not achieved by the end of the running year, the bidder shall submit an additional Performance Security Deposit in the form of a Bank Guarantee from a nationalized bank in India to the purchaser of the amount equivalent to the deficit/ default observed in the quoted YMRC for the respective year, on the first day of the second/subsequent year, for example:

- YMRC for 1 Year = INR 30 Cr.
- Revenue generated and shared with Purchaser till the end of 1st year = INR 20 Cr.
- The deficit in YMRC for 1st year = INR 10 Cr. (a-b)
So, the bidder will be required to deposit an additional Performance Security Deposit of INR 10 Cr at the start of 2nd year (apart from already submitted 1st year's Performance Security Deposit of INR 30 Cr. which shall be valid for 26 months) to the purchaser.
- Bidder to ensure submission of Bank guarantee at least equivalent to the cumulative amount of current year's YMRC and outstanding previous year's YMRC.
- Similarly, for 3rd and 4th Year bidder shall submit Performance Security Deposit in the prescribed format equivalent to the quoted YMRC and shall be valid for 26 months (2 years and 2 months). The process shall continue till the completion or termination of the contract.
- Non-fulfilment of quoted/agreed YMRC for three consecutive years shall lead to termination of the contract at the sole discretion of PCSCL.

Illustrative Sample Scenario

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
YMRC BG	30 Cr	0	30 Cr	0	30 Cr	0
YMRC	20 Cr	20 Cr	30 Cr	20 Cr	20 Cr	20 Cr
YMRC Deficit	10 Cr	10 Cr	0	10 Cr	10 Cr	10 Cr
BG Deficit to be submitted	10 Cr	10 Cr	0	10 Cr	10 Cr	10 Cr
BG Revoke	0	20 Cr	0	10Cr		20 Cr
Termination (Yes/No)	No	No	No	No	No	Yes

Security Deposit shall be invoked by the purchaser, in the event the Bidder:

- a. fails to meet the overall penalty condition as mentioned in RFP or any changes agreed upon between the parties,
- b. fails to perform the responsibilities and obligations as set out in the RFP to the complete satisfaction of the Purchaser,
- c. misrepresents facts/information submitted to Purchaser
- d. any discrepancies/violations with respect to the infrastructure monetization
- e. any violations of the agreement terms & conditions.

The Performance Security Deposit shall be valid until 60 days (calendar days) after the completion of the Performance Security Deposit period. The Performance Security Deposit may be discharged/returned by the Purchaser upon being satisfied that there has been the due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the Performance Security Deposit.

In the event of the Bidder being unable to service the contract for whatever reason(s), the Purchaser shall have the right to invoke the Performance Security Deposit. Notwithstanding and without prejudice to any rights whatsoever of Purchaser under the contract in the matter, the proceeds of the

Performance Security Deposit shall be payable to Purchaser as compensation for any loss resulting from the bidder's failure to perform/comply with its obligations under the contract.

Purchaser shall notify the bidder in writing of the exercise of its right to receive such compensation within 30 days, indicating the contractual obligation(s) for which the bidder is in default. Purchaser shall also be entitled to make recoveries from the bidder's bills, Performance Security Deposit, or from any other amount due to him, an equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.

In case the project is delayed beyond the project schedule as mentioned in RFP, the performance security deposit shall be accordingly extended by the Bidder until completion of the scope of work as mentioned in the RFP.

On satisfactory performance and completion of the order in all respects and duly certified to this effect by the Project Coordinator, a Contract Completion Certificate shall be issued and the Performance Security Deposit would be returned to the Bidder.

7.1.6 Signing of Contract

After the notification of award, the Purchaser shall issue a Work Order (WO) and/or Letter of Intent (LOI). Accordingly, a contract shall be signed between the successful bidder and Purchaser or the bidder designated by Purchaser. As an acceptance of the WO and/or LOI, the Bidder shall deposit Performance Security Deposit and sign a contract with the Purchaser. The bidder shall deposit the Performance Security Deposit and sign the contract within 15 working days from the date of issuance of WO and/or LOI.

Volume III of this RFP document is to be referred as draft Contract / Agreement and the clauses shall be concluded between PCSCL and successful bidder before signing of contract / agreement.

7.1.7 Failure to agree with the Terms & Conditions of the RFP

Failure of the successful bidder to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event the Purchaser may award the contract to the next best value bidder or call for new bids. In such a case, the Purchaser shall invoke the PBG and/or forfeit the EMD.

7.1.8 General Rejection Criteria

Besides other conditions and terms highlighted in the RFP document, bids may be rejected under the following circumstances:

- a) Bids not qualifying under eligibility criteria.
- b) Bids submitted without or improper EMD or tender fees
- c) Bids received through Telex /Telegraphic / Fax / E-Mail
- d) Bids which do not confirm unconditional validity of the bid as prescribed in the Tender
- e) If the information provided by the Bidders is found to be incorrect/misleading at any stage/time during the Tendering Process
- f) Any effort on the part of a Bidders to influence the PCSCL's bid evaluation, bid comparison or contract award decisions
- g) Bids received by the Purchaser after the last date for receipt of bids prescribed in the fact sheet.

- h) Bids without the signature of the person(s) duly authorized on required (specified) pages of the bid
- i) Bids without the power of authorization and any other document consisting of adequate proof of the ability of the signatory to bind the Bidders
- j) Technical Bid containing commercial details or any such hints/ calculations /extrapolations/ records.
- k) The revelation of Prices in any form or by any reason before opening the Commercial Bid
- l) Failure to furnish all information required by the Tender Document or submission of a bid not substantially responsive to the Tender Document in every respect
- m) Bidders not quoting for the complete scope of Work as indicated in the Tender documents, corrigendum (if any) and any subsequent information given to the Bidders
- n) Bidders not complying with the General Terms and conditions as stated in the Tender Documents
- o) The Bidders that do not confirm unconditional acceptance of full responsibility for providing services in accordance with the Scope of Work and Service Level Agreements of this tender

7.1.9 Commercial Rejection Criteria

- a) Incomplete Price/commercial Bid
- b) Commercial/Price Bids that do not conform to the Tender's bid format

8 Annexure 1 – Formats for Submission of the Pre- Qualification Bid

Annexure 1.1 - Pre-qualification bid checklist

(To be provided on the Company letterhead by the bidder)

Sr. No.	Checklist Items	Compliance (Yes or No)	Page No. and Section No. in bid
	Tender Fee		
	Earnest Money Deposit		
	Pre-Qualification Bid Covering letter		
	Company Profile		
	Certificate / Documents against Pre-Qualification Criteria (Section Stage 1 Pre Qualification)		
	Declaration of Non-Blacklisting		
	No Deviation Certificate		
	Any other supporting credentials/documents		

Annexure 1.2: Pre-Qualification Bid Covering Letter

(To be provided on the Company letterhead by the bidder)

Date: dd / mm / yyyy

To,

The Chief Executive Officer,

Pimpri Chinchwad Smart City Ltd. (PCSCL).

Chinchwad, Maharashtra

Subject: Request for Proposal for Request for Proposal for _____ Ref: RFP No. <<.....>> dated <<....>>

Dear Sir,

With reference to your “_____”, we hereby submit our Prequalification bid, Technical Bid and Commercial Bid for the same.

We hereby declare that:

1. We hereby acknowledge and unconditionally accept that the Purchaser can at its absolute discretion apply whatever criteria it deems appropriate, not just limited to those criteria set out in the RFP and related documents, in short listing of bidder for providing services.
2. We have submitted EMD of INR _____ and Tender fee of INR _____ through _____
3. We hereby declare that all information and details furnished by us in the Bid are true and correct, and all documents accompanying such application are true copies of their respective originals.
4. We agree to abide by our offer for 120 days from the date of opening of the pre-qualification bid prescribed by Purchaser and that we shall remain bound by communication of acceptance within that time.
5. We have carefully read and understood the terms and conditions of the RFP and the conditions of the contract applicable to the RFP. We do hereby undertake to provide as per these terms and conditions.
6. In the event of acceptance of our bid, we do hereby undertake:
7. To supply the products and commence services as stipulated in the RFP document
8. To undertake the project services for the entire contract period from the date of signing of the contract as mentioned in the RFP document.
9. We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.

10. We understand that the Purchaser may cancel the bidding process at any time and that the Purchaser is not bound to accept any bid that it may receive without incurring any liability toward the bidder.

11. We fully understand and agree to comply that on verification, if any information as provided by us in our bid is found to be misleading or misrepresented or suppression of facts, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so, along with blacklisting/debarment at PCSCL office and purchaser may also send such recommendations to Government of Maharashtra

In case of any clarifications, please contact _____ email at _____

Thanking you,

Yours sincerely,

(Signature of the Lead bidder)

Printed Name

Designation

Seal

Date:

Place:

Business Address:

Annexure 1.3: Company profile

(To be provided on the Company letterhead by the bidder)

Sr. No.	Particulars	Description or Details
	Name of Bidder	
	The legal status of Bidder (company, Pvt. Ltd., LLP etc.) <i>[with supporting]</i>	
	The main business of the Bidder	
	Registered office address with documentary evidence (or equivalent certificate)	
	Date of incorporation and number with documentary evidence (or equivalent certificate)	
	GST number with a copy of GST Certificate and copy of the last return filed (or equivalent certificate): <i>[with supporting]</i>	
	PAN details with copy of PAN Card Certificate	
	Primary Contact Person (Name, Designation, address, mobile number, fax, email)	
	Secondary Contact Person (Name, Designation, address, mobile number, fax, email)	

Annexure 1.4: Certificate / Documents against Pre-Qualification Criteria (Section 4.6)

(SI to enclose documents against Pre-Qualification Criteria)

Annexure 1.5: Declaration of Non-Blacklisting

(To be provided on the Company letterhead by the bidder)

To,
The Chief Executive Officer.
Pimpri Chinchwad Smart City Ltd. (PCSCL),
Pune, Maharashtra

In response to the EoI Ref. No. _____ dated _____ for {Project Title}, as an Authorized Signatory of _____, I/ We hereby declare that presently our Company/ firm _____, at the time of bidding,:-

- a) possess the necessary professional, technical, financial, and managerial resources and competence required by the Bidding Document issued by the Procuring Entity.
- b) is has an unblemished record and is not declared ineligible for corrupt & fraudulent practices either indefinitely or for a period by any State Government or Central Government or PSUs / Govt. undertakings or Government Companies / Government Enterprises or Urban Local Bodies (ULB) or similar statutory entities in India.
- c) does not have any debarment by any other procuring entity
- d) is not insolvent in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and is not the subject of legal proceedings for any of the foregoing reasons;
- e) does not have, and our directors and officers not have been convicted of any criminal offence related to their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a procurement contract within three years preceding the commencement of the procurement process, or not have been otherwise disqualified according to debarment proceedings;
- f) will comply with the code of integrity and all the prevalent regulations and norms of the competent authority to execute the defined scope of work during the contract period.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken as per the provisions of the applicable Act and Rules thereto prescribed by GoM, my/ our bid, to the extent accepted, may be cancelled.

Thanking you,
Name of the Applicant: -
Authorised Signatory: -
Seal of the Organization: -
Date: _____
Place: _____

Annexure 1.6: No Deviation Certificate

(To be provided on the Company letterhead by the bidder)

To,

The Chief Executive Officer.

Pimpri Chinchwad Smart City Ltd. (PCSCL),

Pune, Maharashtra

Reference: Request for Proposal for _____ Ref: RFP No. <<.....>> dated <<>>

Subject: No Deviation Certificate

Dear Sir,

We <<The Bidder>> having our registered office at <<registered address of the bidder>> do hereby certify & confirm that:

We have read and understood all the requirements including the Terms & Conditions of the Tender under Reference

We certify that our offer is exactly in line with your tender enquiry/RFP (including amendments) no. _____ dated _____.

We accept and undertake to comply with all the requirements including terms & conditions specified in the Tender under Reference unconditionally

We certify that our offer contains no deviation either Technical (including but not limited to Scope of Work, Business Requirements Specification, Functional Requirements Specification, Hardware Specification and Technical Requirements Specification) or Commercial in either direct or indirect form. We hereby provide full & unconditional compliance to all clauses, sub-clauses, annexures & subsequent Addenda, Corrigenda, Amendments, and Errata including but not limited to General Conditions of the Contract, Special Conditions of the Contract & Technical Requirements stated in the Tender under Reference.

We undertake to supply any additional component that may be required to fulfil the requirements & Compliance of the Tender under Reference, in totality, and such additional components shall have no incremental impact on "Time and/or Commercial Terms, Price & Cost to the Purchaser"

We hereby declare No Deviation to Tender under Reference. This No Deviation Undertaking supersedes all deviations/observations/remarks/comments, if any, in our Bid Response, without any prejudice to the purchaser.

Later, if any deviation is observed in our Bid response to Tender under Reference, the same shall stand withdrawn at no additional implication & impact in terms of "Time and/or Commercial Terms, Price & Cost to the Purchaser".

(Authorized Signatory, Lead / Sole Bidder)

Signature:

Name:

Designation:

Seal & Date:

Annexure 1.7: Bidder's Experience - Client Citations

Name of the Project & Location	
Client's Name and Complete Address	
Scope of work carried out by the Bidder	
Contract Value for the Bidder (in INR)	
Contract Value of whole project (in INR)	
Date of Start	
Date of Completion	
Activities undertaken by prime bidder	

Note:

In support of having completed the above works attach self-attested copies of the completion certificate from the client indicating the name of work, the description of work done by the Applicant, date of start, date of completion (contractual & actual), the value of the contract as awarded and as executed by the Applicant and value of material supplied free by the client and escalation amount.

If work carried out as a Partner in the Joint Venture is included in this Annexure, details of Contract Value should be furnished including information on the extent of Financial participation by the Partner in that work. The proportionate share of the Partner will only be considered for assessment of work experience on similar works.

9 Annexure 2 – Formats for Submission of the Technical Bid

Annexure 2.1: Technical Bid Checklist

(To be provided on the Company letterhead by the bidder)

Sr. No.	Checklist Items	Compliance (Yes or No)	Page No. and Section No. in bid
1	Technical Bid Letter		
2	Certificate / Documents against Technical Evaluation Framework Criteria		
3	Overview of Proposed Solution: <ul style="list-style-type: none"> • Project Understanding • Proposed Technology Solution • Approach & Methodology • Project Plan • Manpower Plan and • Other technical details of the Solutions Proposed 		
4	Compliance to Requirement (Technical / Functional Specifications) on the respective OEM Letterhead with the countersign of Bidder's authorized signatory		
5	Manufacturers'/Producers' Authorization Form (if applicable)		
6	Proposed Manpower		
7	Anti-Collusion Certificate		
8	Non-Disclosure Agreement		
9	Self-Declaration by the Bidder		
10	OEM Declaration		
11	Any other supporting credentials/documents		

Annexure 2.2: Technical Bid Covering Letter

(To be provided on the Company letterhead by the bidder)

Date: dd/mm/yyyy

To,
The Chief Executive Officer
Pimpri Chinchwad Smart City Ltd. (PCSCL).
Pune, Maharashtra

Reference: Request for Proposal for _____ Ref: RFP No. <<.....>> dated <<>>

Dear Sir,

I, having read and examined in detail all the bidding documents in respect of “Request for Proposal for _____ Ref: RFP No. <<.....>> dated <<>> ” do hereby propose to provide our services as specified in the bid submitted by us.

It is hereby confirmed that I am 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.

I declare that all the services shall be performed strictly in accordance with the RFP documents.

I confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to PCSCL is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or part mislead the department in its evaluation process. We also confirm that we shall not attract conflict of interest in principle.

I hereby declare that in case the contract is awarded to us, we shall submit the contract Performance Security Deposit, in the form as prescribed in the RFP.

I hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

I understand that our bid is binding on us and that you are not bound to accept a Bid you receive. This bid is valid for 120 days after the opening of the pre-qualification bid. We shall extend the validity of the bid if required by Purchaser.

Thanking you,

Yours sincerely,

(Signature of the Lead Bidder)

Printed Name

Designation

Seal

Date:

Annexure 2.3: Credential Summary

(To be provided on the Company letterhead by the bidder)

Sr. No.	Project Name	Client Name	Client Type	Project Value (in INR)	Project Components	Documentary evidence provided (Yes or No)	Project Status (Completed or Ongoing or Withheld)
1							
2							
3							
4							
5							
6							
7							

- Client type – Indicate whether the client is Government or PSU or Private
- Project Components – Indicate the major project components
- Documentary evidence provided – Indicate the documentary evidence provided with the detailed project credential like work order or purchase order or completion certificate or letter of appointment

Project Status – Completed (date of project completion) or Ongoing (project start date)

Annexure 2.4: Bidder's Experience - Client Citations

Name of the Project & Location	
Client's Name and Complete Address	
Scope of work carried out by the Bidder	
Contract Value for the Bidder (in INR)	
Contract Value of whole project (in INR)	
Date of Start	
Date of Completion	
Activities undertaken by prime bidder	

Note:

In support of having completed the above works attach self-attested copies of the completion certificate from the client indicating the name of work, the description of work done by the Applicant, date of start, date of completion (contractual & actual), the value of the contract as awarded and as executed by the Applicant and value of material supplied free by the client and escalation amount.

If work carried out as a Partner in the Joint Venture is included in this Annexure, details of Contract Value should be furnished including information on the extent of Financial participation by the Partner in that work. The proportionate share of the Partner will only be considered for assessment of work experience on similar works.

Annexure 2.5: Overview of Proposed Solution

Bidders are required to provide a detailed Approach & Methodology to execute the entire project along with a technical & functional description of the proposed solution

Annexure 2.6: Compliance to Requirement (Technical / Functional Specifications)

[illegible]

Annexure 2.7: Anti-Collusion Certificate

(To be provided on the Company letterhead by the bidder)

Anti-Collusion Certificate

We hereby certify and confirm that in the preparation and submission of our Bid for Request for Proposal _____dated____, we have not acted in concert or collusion with any other Bidder or person(s) and also not done any act, deed or thing, which is or could be regarded as anti-competitive. We further confirm that we have not offered nor shall offer any illegal gratification in cash or kind to any person or organization in connection with the instant bid.

(Signature of the Lead Bidder)

Printed Name

Designation

Seal

Date:

Place:

Business Address:

Annexure 2.8: Non-Disclosure Agreement

(To be provided on the Company letterhead by the bidder)

WHEREAS, we the undersigned Bidder, _____, having our principal place of business or registered office at _____, are desirous of bidding for RFP No. <<>> dated <<DD-MM-2022>> "Selection of concessionaire for" (hereinafter called the said 'RFP') to the "PCSCCL", hereinafter referred to as 'Purchaser'

and,

WHEREAS the Bidder is aware and confirms that the Purchaser's business or operations, information, application or software, hardware, business data, architecture schematics, designs, storage media and other information or documents made available by the Purchaser in the RFP documents during the bidding process and thereafter, or otherwise (confidential information for short) is privileged and strictly confidential and or proprietary to the Purchaser,

NOW, THEREFORE, in consideration of the disclosure of confidential information, and to ensure the Purchaser's grant to the Bidder of specific access to Purchaser's confidential information, property, information systems, network, databases and other data, the Bidder agrees to all of the following conditions.

It is hereby agreed as under:

The confidential information to be disclosed by the Purchaser under this Agreement ("Confidential Information") shall include without limitation, all information in written, representational, electronic, verbal or other form relating directly or indirectly to processes, methodologies, algorithms, risk matrices, thresholds, parameters, reports, deliverables, work products, specifications, architecture, project information, security or zoning strategies & policies, related computer programs, systems, trend analysis, risk plans, strategies and information communicated or obtained through meetings, documents, correspondence or inspection of tangible items, facilities or inspection at any site to which access is permitted by the Purchaser.

Confidential Information disclosed shall be marked as "Confidential" or if incapable of marking, communicated as "confidential" in writing at the time of disclosure. Confidential Information shall exclude information developed independently of the Confidential Information. Further, notice in case of compelled disclosure shall be made only if permitted by law.

Confidential Information does not include information that:

the Bidder knew or had in its possession, prior to disclosure, without limitation on its confidentiality;

information in the public domain as a matter of law;

is obtained by the Bidder from a third party without any obligation of confidentiality;

the Bidder is required to disclose by order of a competent court or regulatory authority;

is released from confidentiality with the written consent of the Purchaser.

The Bidder shall have the burden of proving hereinabove apply to the information in the possession of the Bidder.

The Bidder agrees to hold in trust any Confidential Information received by the Bidder, as part of the Tendering process or otherwise, and the Bidder shall maintain strict confidentiality in respect of such Confidential Information, and in no event, a degree of confidentiality less than the Bidder uses to protect its own confidential and proprietary information. The Bidder also agrees:

to maintain and use the Confidential Information only to bid for this RFP and thereafter only as expressly permitted herein;

to only make copies as specifically authorized by the prior written consent of the Purchaser and with the same confidential or proprietary notices as may be printed or displayed on the original;

to restrict access and disclosure of Confidential Information to their employees, agents, and representatives strictly on a "need to know" basis, to maintain the confidentiality of the Confidential Information disclosed to them in accordance with this clause; and

to treat Confidential Information as confidential unless and until Purchaser expressly notifies the Bidder of the release of its obligations to the said Confidential Information.

Notwithstanding the foregoing, the Bidder acknowledges that the nature of activities to be performed as part of the Tendering process or thereafter may require the Bidder's personnel to be present on premises of the Purchaser or may require the Bidder's personnel to have access to software, hardware, computer networks, databases, documents, and storage media of the Purchaser while on or off-premises of the Purchaser. It is understood that it would be impractical for the Purchaser to monitor all information made available to the Bidder's personnel under such circumstances and to provide notice to the Bidder of the confidentiality of all such information.

Therefore, the Bidder shall disclose or allow access to the Confidential Information only to that personnel of the Bidder who needs to know it for the proper performance of their duties to this project, and then only to the extent reasonably necessary. The Bidder shall take appropriate steps to ensure that all personnel to whom access to the Confidential Information is given are aware of the Bidder's confidentiality obligation. Further, the Bidder shall procure that all personnel of the Bidder are bound by a confidentiality obligation to all proprietary and Confidential Information received by them which is no less onerous than the confidentiality obligation under this agreement.

The Bidder shall establish and maintain appropriate security measures to provide for the safe custody of the Confidential Information and to prevent unauthorized access to it.

The Bidder agrees that upon termination or expiry of this Agreement or at any time during its currency, at the request of the Purchaser, the Bidder shall promptly deliver to the Purchaser the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the Bidder or its Affiliates or directors, officers, employees or advisors based on the Confidential Information and promptly certify such destruction.

Confidential Information shall always remain the sole and exclusive property of the Purchaser. Upon completion of the Tendering process and or termination of the contract or at any time during its currency, at the request of the Purchaser, the Bidder shall promptly deliver to the Purchaser the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the Bidder or its Affiliates or directors, officers, employees or advisors based on the Confidential Information within sixty days from the date of receipt of the notice, or destroyed, if incapable of return. The destruction shall be witnessed and so recorded, in writing, by an authorized representative of the Purchaser. Without prejudice to the above, the Bidder shall promptly certify to the Purchaser, due and complete

destruction and return. Nothing contained herein shall in any manner impair the rights of the Purchaser in respect of the Confidential Information.

If the Bidder hereto becomes legally compelled to disclose any Confidential Information, the Bidder shall give sufficient notice and render best effort assistance to the Purchaser to enable the Purchaser to prevent or minimize to the extent possible, such disclosure. Bidder shall not disclose to a third party any Confidential Information or the contents of this RFP without the prior written consent of the Purchaser. The obligations of this Clause shall be satisfied by handling Confidential Information with the same degree of care, which the Bidder applies to its similar Confidential Information but in no event less than reasonable care.

For and on behalf of:

(BIDDER)

Authorized Signatory

Office Seal:

Name:

Place:

Designation:

Date :

Annexure 2.9: Format for OEM Declaration

To,

The Chief Executive Officer,
Pimpri Chinchwad Smart City Ltd. (PCSCL)
Pune, Maharashtra

Subject: Self-Declaration for Tender Reference No.

Sir,

We, <OEM Name> having our registered office at <OEM address>, hereinafter referred to as OEM are an established manufacturer of AI-based Decision Support System Platform quoted by <Bidder Name> having their registered office at <Bidder address>, hereinafter referred to as Bidder.

We confirm that we have understood the delivery & installation timelines defined in the tender. We confirm that we have worked out all necessary logistics and pricing agreements with <SI name>, and there won't be any delay in delivery, installation and support due to any delay from our side. Our full support as per the pre-purchased support contract is extended in all respects for the supply and maintenance of our products. We also ensure to provide the required spares, service support, updates & upgrades, bug fixing, patch installation etc. as pre-purchased for the supplied equipment for the entire contract period. In case of any difficulties in logging complaints at the bidder end, the user shall have the option to log a complaint at our call support centre.

We hereby declare that

- a. We have an authorized presence in India either directly or through channel partner(s) as of the date of release of the RFP.
- b. Products or technology quoted are neither end-of-sale nor end-of-life as on the date of installation and commissioning and are not end-of-support till the successful completion of the O&M period of the project.
- c. If the quoted product is declared at the end of the sale, we shall proactively ensure that a suitable equivalent or higher roll-over product is offered through the bidder to <<The Purchaser>>
- d. We understand that any false information/commitment provided here may result in getting blacklisted/debarred from doing business with <<The Purchaser>>
- e. We have not been blacklisted by any State / Central Government Department or Central /State PSUs as of the bid submission date.
- f. We either have existing capability and infrastructure to provide 24x7x365 technical support in India or shall be establishing the requisite infrastructure and capability to provide 24x7x365 technical support, on emerging a winner in this bidding process.

Yours sincerely,

Authorized Signature [In full and initials]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Location: _____ Date: _____

Annexure 2.10: Manufacturers Authorization Form

(To be provided by the respective OEMs on its letterhead and should be signed by OEM and bidder's authorized signatory)

To,

Date:

The Chief Executive Officer,

Pimpri Chinchwad Smart City Ltd. (PCSCL),

Pune, Maharashtra

Subject: Manufacturer's Authorization Form

Ref: RFP No. <<....>> dated <<>>

Dear Sir,

We _____ (Name of the OEM) who are established and reputable manufacturers/developer of AI based Decision Support System/Platform having product development centres at the locations _____ or as per list attached, do hereby authorize _____ (Name and address of the Bidder) to bid, negotiate and conclude the contract with you against RFP No. _____ dated _____ for the above goods manufactured or developed by us.

We hereby extend, our warranty for the software platform and applications supplied by the bidder and or maintenance or support services for software products against this invitation for bid by _____ (Name of the Bidder) as per the requirements of this RFP.

Thanking you,

Yours faithfully,

(Signature)

For and on behalf of: _____ (Name of the OEM)

Authorised Signatory

Name:

Designation:

Place:

Date:

10 Annexure 3 – Format for Commercial Bid Submission

As per BoQ Format uploaded on the e-tendering site

Bidder to quote below two percentages (%) as part of its Commercial Bid Format namely:

- A. “%” of the Yearly Minimum Revenue Committed (YMRC) which shall be necessarily either equal to or above 100%
 - a. For example, if bidder quotes “%” of the Yearly Minimum Revenue Committed (YMRC) as 120% then its Yearly Minimum Revenue Committed to PCSCL shall become INR 36 cr. (1.2 time of INR 30 cr.)
- B. “%” of “Yearly Additionally Revenue Generated (YARG)” which concessionaire/selected bidder will give to PCSCL
 - a. For example, if bidder quotes “%” of “Yearly Additionally Revenue Generated (YARG)” which concessionaire/selected bidder will give to PCSCL as 40% then selected bidder/concessionaire shall be liable to pay 40% of yearly additional revenue generated over and above its quoted/agreed Yearly Minimum Revenue Committed.

In above scenario, if bidder generates total revenue of INR 100 crore in year 1 then the bidder is liable to pay INR 36 crore to PCSCL and additionally 40% of INR 64 crore i.e. INR 25.6 cr.; thus, the total payout to PCSCL by the selected bidder/concessionaire for year 1 shall be INR 61.6 cr.

11 Annexure 4 – Performance Security Deposit

Ref: _____

Date _____

Performance Security Deposit No. _____

<Name>

<Designation>

<Address>

<Phone Nos.>

<Fax Nos.>

<Email id>

Whereas <<name of the supplier and address>> (hereinafter called “the concessionaire”) has undertaken, in pursuance of contract no. <Insert Contract No.> dated <Date> to provide Implementation services for <<name of the assignment to <<The Purchaser>> (hereinafter called “the Purchaser”)

And whereas it has been stipulated in the said contract that the bidder shall furnish you with bank security by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract.

And whereas we, <Name of Bank> a banking company incorporated and having its head/registered office at <Address of Registered Office> and having one of its offices at <Address of Local Office> have agreed to give the supplier such Performance security.

Now, therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of Rs. <Insert Value> (Rupees <Insert Value in Words> only) and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of Rs. <Insert Value> (Rupees <Insert Value in Words> only) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the bidder before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the bidder shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition, or modification.

This Performance Security Deposit shall be valid until <<Insert Date>>

Notwithstanding anything contained herein:

I. Our liability under this Performance security deposit shall not exceed Rs. <Insert Value> (Rupees <Insert Value in Words> only).

II. This Performance security deposit shall be valid up to <Insert Expiry Date>)

III. It is a condition of our liability for payment of the guaranteed amount or any part thereof arising under this Performance security deposit that we receive a valid written claim or demand for payment under this Performance security deposit on or before <Insert Expiry Date>) failing which our liability under the guarantee shall automatically cease.

Date _____

Place _____

Signature _____

Witness _____

Printed name _____

(Bank's common seal)

12 Annexure 5 - Format for Power of Attorney for Lead bidder of Consortium

[To be executed on non-judicial stamp paper of the appropriate value in accordance with the relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

Whereas _____ has invited RFP response for _____ (Name of the Project)

Whereas the Members of the Consortium comprising of M/s._____, M/s._____, M/s._____ and M/s._____ (the respective names and addresses of the registered offices to be given) are interested

in bidding for the Project and implementing the same in accordance with the terms and conditions contained in the RFP Documents.

Whereas the members of the Consortium must designate one of them as the lead member with all necessary power and authority to do, for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's RFP response for the Project.

NOW THIS POWER OF ATTORNEY WITNESSETH THAT

We, M/s._____ and M/s _____ and M/s_____ hereby designate M/s. _____ being one of the members of the Consortium, as the lead member of the Consortium, to do on behalf of the Consortium, all or any of the acts, deeds or things necessary or incidental to the Consortium's RFP

response for the Project, including submission of the RFP response, participating in meetings, responding to queries, submission of information or documents and generally representing the Consortium in all its dealings with Client or any other Government Agency or any person, in connection

with the Project until the culmination of the process of bidding till the Project Agreement is entered into with

Client and thereafter till the expiry of the Project Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney according to this

power of attorney and that all acts, deeds and things are done by our aforesaid Attorney shall and shall

always be deemed to have been done by us or Consortium.

Dated this the _____ day of _____ 2022

(Signature)

(Name in Block Letter of Executant) [Seal of Company]

Witness 1

Witness 2

Notes:

To be executed by all the members individually, in case of a Consortium.

The Mode of execution of the power of attorney should be in accordance with the procedure if any laid down by the applicable law and the charter documents of the executant(s) and when it is so required,

the same should be under a common seal affixed in accordance with the required procedure

13 Annexure 6 - Format for Power of Attorney to Authorize Signatory

POWER OF ATTORNEY

[To be executed on non-judicial stamp paper of the appropriate value in accordance with the relevant Stamp Act. The stamp paper is to be in the name of the company that is issuing the power of attorney.]

We, M/s._____ (name of the firm or company with an address of the registered office) hereby constitute, appoint and authorise Mr. or Ms._____ (Name and residential address) who is presently employed with us and holding the position of _____, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to our RFP for the Project _____ (name of the Project), including signing and submission of the RFP response, participating in the meetings, responding to queries, submission of information or documents and generally to represent us in all the dealings with Client or any other Government Agency or any person, in connection with the works until the culmination of the process of bidding till the Project Agreement is entered into with _____ (Client) and thereafter till the expiry of the Project Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney according to this power of attorney and that all acts, deeds and things are done by our aforesaid Attorney shall and shall always be deemed to have been done by us.

Dated this the _____ day of _____ 2022

(Signature and Name of authorized signatory)

(Signature and Name in block letters of all the remaining partners of the firm Signatory for the Company)

Seal of firm Company

Witness 1:

Witness 2:

Notes:

- a. To be executed by all the members individually.

The Mode of execution of the power of attorney should be in accordance with the procedure if any laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

14 Annexure 7 - Consortium Agreement

DRAFT MEMORANDUM OF UNDERSTANDING EXECUTED BY MEMBERS OF THE CONSORTIUM

[On Non-judicial stamp paper of INR 500 duly attested by notary public]

This Memorandum of Understanding (MoU) entered this day of [Date] [Month] 2022 at [Place]

among _____ (hereinafter referred to as "_____") and having office at [Address], India, as

Party of the First Part and _____ (hereinafter referred to as "_____") and having office at

[Address], as Party of the Second Part and _____ (hereinafter referred to as "_____") and having

office at [Address], as Party of the Third Part.

The parties are individually referred to as Party and collectively as Parties.

WHEREAS Pimpri Chinchwad Smart City Limited (PCSCL), PURCHASER, has issued a Request

for Proposal for Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network on "Revenue Sharing Model" dated [Date] (RFP) from the interested Bidders:

AND WHEREAS the Parties have had discussions for formation of a Consortium for bidding for the said

Project and have reached an understanding on the following points concerning the Parties' rights

and obligations towards each other and their working relationship.

AS MUTUAL UNDERSTANDING OF THE PARTIES, IT IS HEREBY AGREED AND DECLARED AS

FOLLOWS:

i. The purpose of this Agreement is to define the principles of collaboration among the Parties to:

- a. Submit a response jointly to Bid for the "Request for Proposal for Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network on "Revenue Sharing Model" dated [Date] (RFP)" as a Consortium.
- b. Sign Contract in case of an award.
- c. Provide and perform the supplies and services which would be ordered by the Purchaser according to the Contract.

ii. This Agreement shall not be construed as establishing or giving effect to any legal entity such as, but not limited to, a company, a partnership, etc. It shall relate solely towards the Purchaser for "End-to-end Services for Monetization of PCSCL City Network" dated [Date]

(RFP)” for and related execution works to be performed according to the Contract and shall not extend to any other activities.

iii. The Lead bidder shall be severally responsible and bound towards the Purchaser for the performance of the works in totality and in accordance with the terms and conditions of the BID document and Contract.

iv. ----- (Name of Party) shall act as Lead Partner of the Consortium. As such, it shall act as the coordinator of the Party’s combined activities and shall carry out the following functions:

- a. To ensure the technical, commercial, and administrative co-ordination of the work package
- b. To lead the contract negotiations of the work package with the Purchaser.
- c. The Lead partner is authorized to receive instructions and incur liabilities for and on behalf of all Parties.
- d. In case of an award, act as a channel of communication between the Purchaser and the Parties to execute the Contract

v. That the Parties shall carry out all responsibilities as Developer in terms of the Project Agreement.

vi. That the broad roles and the responsibilities of each Party at each stage of the Bidding shall be as below:

Party A: _____
Party B: _____
Party C: _____

vii. That the Parties affirm that they shall implement the Project in good faith and shall take all necessary steps to see the Project through expeditiously.

viii. That this MoU shall be governed in accordance with the laws of India and courts in Maharashtra shall have exclusive jurisdiction to adjudicate disputes arising from the terms herein.

In witness whereof, the Parties affirm that the information provided is accurate and true and has caused
this MoU was duly executed on the date and year above mentioned.

(Party of the first part)

(Party of the second part)

(Party of the third part)

Witness:

i. _____

ii. _____

Request for Proposal (RFP)

for

Selection of Concessionaire for
Providing End to End Services for
Monetization of PCSCCL City
Network Infrastructure on “Revenue
Sharing Model”

VOLUME II - Scope of Work
Tender Ref Number- 04/22-23
Date: 05-08-2022

PIMPRI CHINCHWAD SMART CITY LTD. (PCSCCL)



Disclaimer

- i. This Request for Proposal ("RFP") is issued by Pimpri Chinchwad Smart City Ltd. (PCSCL)
- ii. The information contained in this Request for Proposal document ("RFP") or subsequently provided to Bidders, whether verbally or in documentary or any other form by or on behalf of the PCSCL (the Purchaser) or any of its employees or advisors, is provided to Bidders, on the terms and conditions set out in this RFP.
- iii. This RFP is not a Contract and is neither an offer nor invitation by the Purchaser to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their Proposals in accordance with this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at, by the Purchaser, to the project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Purchaser, its employees or advisers to consider the objectives, technical expertise and particular needs of each party, who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Bidder shall, therefore, conduct his investigations and analysis and shall check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.
- iv. Information provided in this RFP to the Bidders is on a wide range of matters, some of which depend upon the interpretation of the law. The information given is not an exhaustive account of statutory requirements and shall not be regarded as a complete or authoritative statement of law. The Purchaser accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein. The Purchaser, its employees and advisers make no representation or warrants and shall have no liability to any person including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this selection process.
- v. The Purchaser also accepts no liability of any nature, whether resulting from negligence or otherwise, however, caused, arising from reliance of any Bidder upon the statements contained in this RFP.
- vi. The Purchaser may, in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP. The issue of this RFP does not imply that the Purchaser is bound to select a Bidder or to appoint the Selected bidder / concessionaire, as the case may be, for this project and the Purchaser reserves the right to reject all or any of the proposals, without assigning any reason whatsoever.
- vii. PCSCL or its authorized officers/representatives/advisors reserve the right, without prior notice, to change the procedure for the selection of the Successful Bidder or terminate

discussions and the delivery of information at any time before the signing of any agreement for the Project, without assigning reasons thereof.

- viii. The RFP Document does not address concerns relating to diverse investment objectives, financial situation and particular needs of each party. The RFP document is not intended to provide the basis for any investment decision and each Bidder must make their independent assessment in respect of various aspects of the techno-economic feasibilities of the Project. No person has been authorized by PCSCL to give any information or to make any representation not contained in the RFP Document.
- ix. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation and expenses associated with any demonstrations or presentations which may be required by the Purchaser or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses shall remain with the Bidder and the Purchaser shall not be liable in any manner whatsoever for the same or any other costs or other expenses incurred by a Bidder, in preparation for submission of the Proposal, regardless of the conduct or outcome of the selection process.

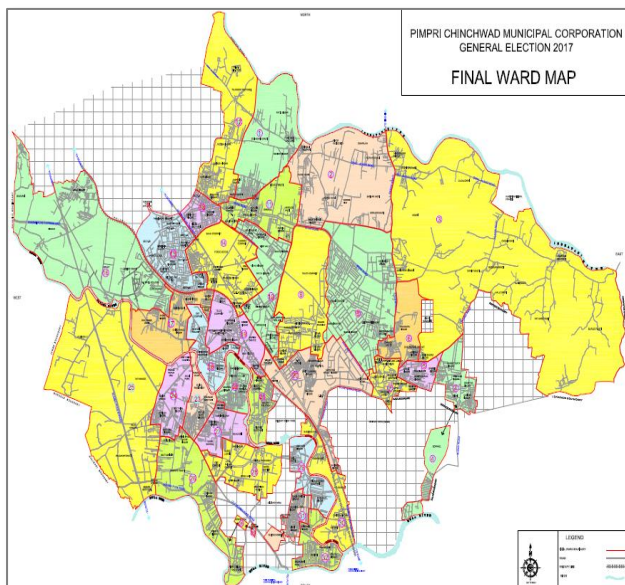
Contents

1	Introduction	6
1.1	About Pimpri Chinchwad City	6
1.2	About Pimpri Chinchwad Smart City Ltd. (PCSCL)	7
1.3	Project Background	7
1.4	Existing Network Details	7
1.5	City Network Architecture	8
1.6	Ring Details & Current status of the City Network (July 2022)	9
1.7	List of POP Locations	9
1.8	As Build Drawings & KMZ Drawings	10
1.9	Existing Duct Protections Details	10
1.10	Pole Infrastructure Details	11
2	Scope of Work	12
2.1	Policy Framework	12
2.1.1	Assistance to PCSCL for regulatory & statutory compliances (including IPI Registration & Other norms)	12
2.1.2	Preparation of City Fibre Network Policy	13
2.1.3	Formulation of Network Usage Framework	14
2.2	Unauthorized Network Identification and required corrective actions	14
2.2.1	AS-IS Assessment (Private Fibre Networks)	14
2.2.2	AS-IS Assessment (Telecom players)	15
2.3	Network Infrastructure Monetization	15
2.3.1	AS-IS Assessment (PCSCL City Network Infrastructure)	15
2.3.2	Market research & outreach drive	15
2.3.3	Preparation of leasing models	16
2.3.4	Network Leasing by various means	16
2.3.5	Allotment & De-allotment of telecom infrastructure	16
2.3.6	Leasing Payment	16
2.4	Fibre Commissioning, NOC Setup & Operations & Maintenance	17
2.4.1	Fibre Blowing in the telecom ducts	17
2.5	Setup and O&M of Network Operations Centre (NOC)	19
2.5.1	Data Center Network Operations Monitoring Platform	20
2.6	Operations & Maintenance (O&M) of City Network Infrastructure	26
2.6.1	HDPE Duct & Optical Fiber Cable	26
2.6.2	Fault Restoration Services	27
2.6.3	Methodology for Fault Restoration/ Fiber Cuts	28
2.6.4	Monitoring of Telecom Infrastructure	30
2.7	Network Infrastructure Extension	31
2.7.1	Last Mile Connectivity	31
2.8	Resource Deployment	32
2.9	Monitoring & Vigilance	33
2.10	Obligations of the Selected bidder / Concessionaire	33
2.11	Obligations of PCSCL	34
3	Project Timelines & Deliverables	35

4	Service Level Agreement (SLA) and associated Liquidated Damages (LD)	36
4.1	Purpose	36
4.2	General Principles of Service Level Agreement	36
4.3	Liquidated Damages	37
4.4	Service Level Agreement (SLA) Terminologies	38
4.5	Service Level Agreement (SLA) Monitoring	39
4.6	Minimum Benchmark Service Level Agreement (SLA)	39
5	Revenue sharing to PCSCL	39
6	Responsibility Matrix	40
7	Special Terms & Conditions	47
8	Annexures (Specifications of IT Infrastructure & Systems currently deployed by PCSCL at its field locations & server room)	49
8.1	Optical Fiber Cable	49
8.1.1	96 Core Fiber	53
8.1.2	48 Core Fiber	53
8.2	Core Router	54
8.3	Internet Router	57
8.4	Core Switch	61
8.5	Aggregation / Server Room Switch	64
8.6	Access Switch	68
8.7	Poles	73
8.8	Integrated Command Control Centre (ICCC) Platform	74
8.9	Enterprise Management System (EMS)	90

1 Introduction

1.1 About Pimpri Chinchwad City



The Pimpri Chinchwad city is the eighteenth most populous city in India and the fifth-largest in the state of Maharashtra. It is located at the coordinates 18°37'07.04" N 73°48'13.43" E and is in the Pune District of Maharashtra. It is at 530 meters (1740 ft.) above mean sea level and is situated about 20 km to the east of Sahyadri ranges that run North to South in the Lonavala – Khandala section between Harishchandra Range and Mahadeo range. The total area covered by PCMC is 181 sq. km approx. geographically, the rock structure underneath is igneous (basalt) type and the soil is Red Soil.

Further, the city is also known for manufacturing and automobiles, as well as

government and private sector research institutes for information technology (IT) education, management and training that attract migrants, students, professionals from India, South East Asia, the Middle East, and Africa. Pimpri Chinchwad is also one of the fastest-growing cities in the Asia-Pacific region.

From the administration viewpoint, PCMC is divided into 8 Zones (as per data available in 2022) which are further divided into 32 Wards, as mentioned below, the geographical scope of the implementation of the Project shall be within the limits of PCMC jurisdiction and nearby

Sr.	Zone	Wards*
1.	A	Ward no: 10, 14, 15 & 19
2.	B	Ward no: 16, 17, 18 & 22
3.	C	Ward no: 2, 6, 8 & 9
4.	D	Ward no: 25, 26, 28 & 29
5.	E	Ward no: 3, 4, 5 & 7
6.	F	Ward no: 1, 11, 12, & 13
7.	G	Ward no: 21, 22, 24 & 27
8.	H	Ward no: 20, 30, 31 & 32

localities/area.

*As per data available in 2022

Indicative Snapshot:

- Total PCMC Jurisdiction Area: 181 sq. km.
- Total Population: Approx.30,00,000 (anticipated based on 2011 population)

- Total properties under PCMC jurisdiction: Approx.5.54 Lacs

1.2 About Pimpri Chinchwad Smart City Ltd. (PCSCL)

Under the Ministry of Urban Development, Government of India (GoI) Smart Cities Programme, Pimpri-Chinchwad Smart City Limited (the “Authority”), a Special Purpose Vehicle (SPV) for Pimpri-Chinchwad Smart City Projects has been established as a company under the Indian Companies Act 2013. The Authority has received funding from the Government of India (GoI), the Government of Maharashtra (GoM) & Pimpri Chinchwad Municipal Corporation (PCMC) for the implementation and Operations & management (O&M) of the smart city projects in Pimpri-Chinchwad city. The Authority is a government-owned company with equal shareholding from Pimpri-Chinchwad Municipal Corporation and the state government.

1.3 Project Background

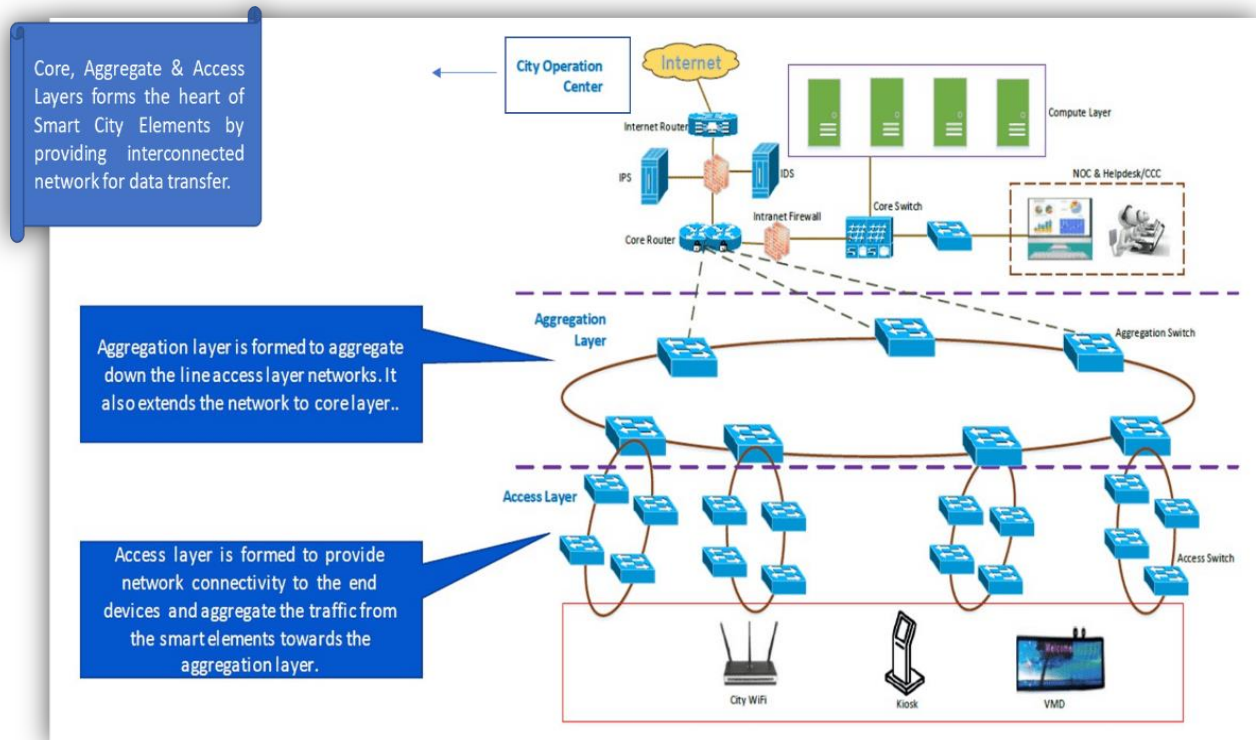
To usher in Technology-led Transformation through the creation of Stat-owned robust, reliable, and sustainable ICT infrastructure which would help in transforming Pimpri Chinchwad into a Safe and Smart Sustainable City. PCSCL has identified below mentioned identified ICT-led Smart City Initiatives:

- a) City Network Backbone (Optical Fibre Cabling)
- b) Citizen Access Wi-Fi
- c) City Kiosk
- d) City Surveillance along with Video Analytics
- e) Smart Water Management
- f) Smart Sewerage Management
- g) Intelligent Traffic Management including
- h) Adaptive Traffic Management System
- i) Automatic Number Plate Recognition System
- j) Red Light Violation Detection System
- k) Variable Message Display (VMD)
- l) Public Address System
- m) GIS enablement of Smart City assets
- n) Smart Parking
- o) Smart Environment
- p) Smart City Mobile App
- q) Municipal E classroom
- r) GIS Enabled ERP
- s) Command & Control Centre & City Operation Centre

1.4 Existing Network Details

PCSCL developed City Network Backbone layout/architecture, basis on the below-mentioned three-tiered architecture which is based on the Ring Topology to ensure redundancy at each node level. The existing fibre network has 3 layers, a Core layer, an Aggregation layer & Access layer. The majority of the smart elements are tapped on the Access layer. For future extension of the fibre network, the successful bidder shall maintain the same or better network topology, standards & security in consultation with PCSCL.

1.5 City Network Architecture



City Network Diagram

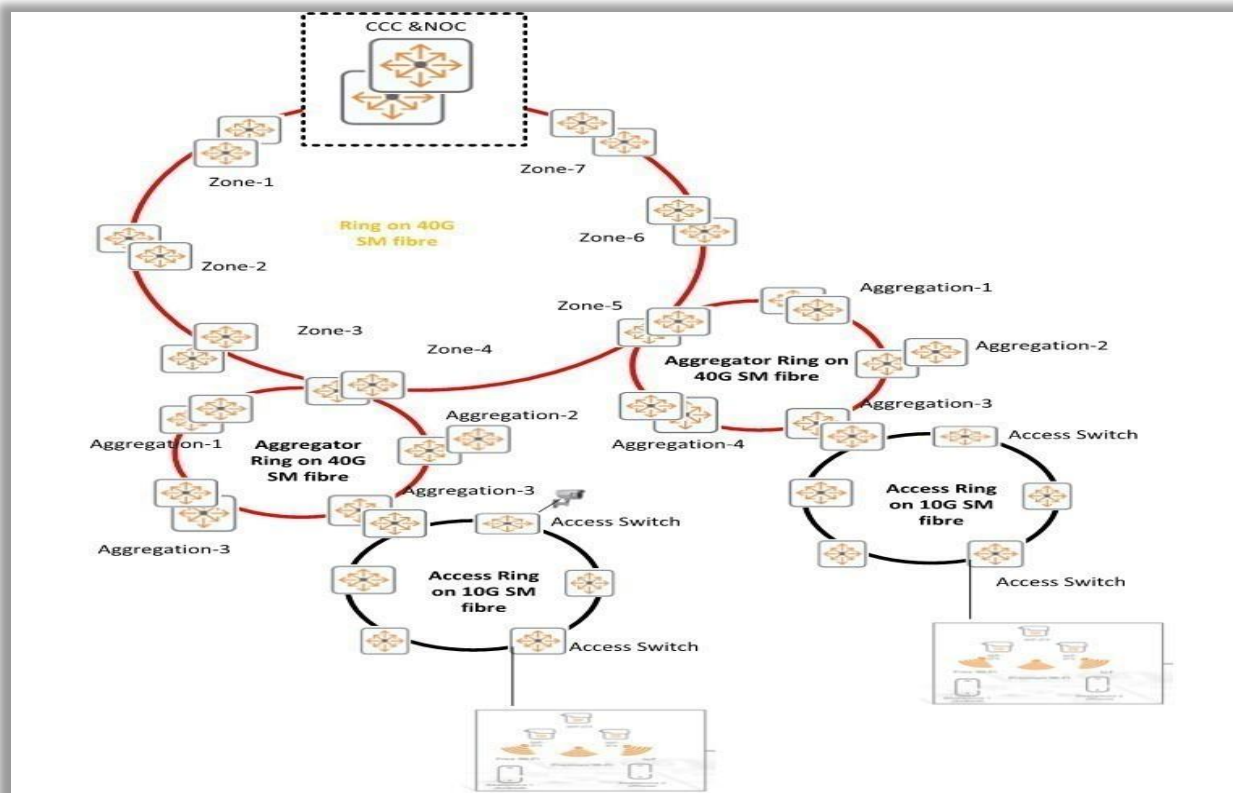


Figure: Functional Design of City Network Backbone

1.6 Ring Details & Current status of the City Network (July 2022)

Sr.	Ring Name	Planned Ring length	T&D Completed				Fibre Blowing (including loops)	Termination	No. of rings	No. of Fiber Cores
			By OT	By HDD	Use of existing Utilities	Total				
1	Core	57	46.82	9.95	0	56.77	63.63	15	2	96
2	Aggregation	129	105.08	16.62	0	121.70	118.19	24	10	96
3	Access	414	302.65	52.29	67	421.94	438.24	280	64	48
	Total	600	455	78	67	600	620	319	76	-

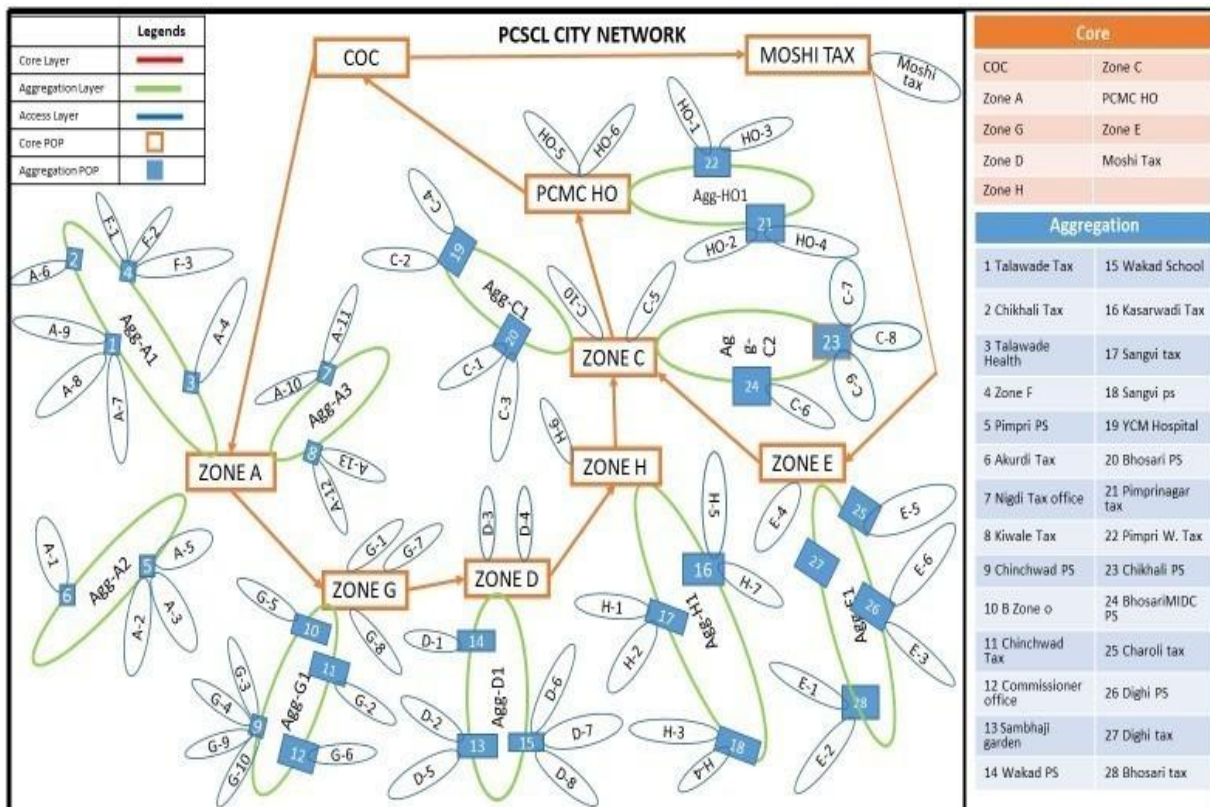
* All lengths in km. The no. are approximate and shall vary based on the project progress.

1.7 List of POP Locations

Sr.	Ring	POP Location Name	Latitude	Longitude
1	Core	COC	18.658584	73.777203
2	Core	Zone A	18.656099	73.771022
3	Core	Zone G	18.614437	73.779061
4	Core	Zone D	18.596411	73.782136
5	Core	Zone H	18.601086	73.822480
6	Core	Zone C	18.631783	73.826972
7	Core	PCMC HO	18.628384	73.804850
8	Core	Zone E	18.642099	73.849972
9	Core	Moshi Tax	18.677164	73.850369
10	Aggregation	Talawade tax office	18.666201	73.784642
11	Aggregation	Chikhali tax office	18.667690	73.797061
12	Aggregation	Talawade Health Centre	18.6986	73.7926
13	Aggregation	Zone F	18.658830	73.776348
14	Aggregation	Pimpri PS	18.639804	73.794786
15	Aggregation	Akurdi Tax Office	18.647650	73.775730
16	Aggregation	Nigdi Tax office	18.652121	73.765642
17	Aggregation	Kiwale Tax office	18.657173	73.722610
18	Aggregation	Chinchwad PS	18.629413	73.779947
19	Aggregation	B Zone office	18.629689	73.783813
20	Aggregation	Chinchwad tax office	18.635888	73.789324
21	Aggregation	Commissioner office	18.639991	73.781508
22	Aggregation	Sambbhaji Garden	18.599357	73.786878
23	Aggregation	Wakad PS	18.607226	73.765295
24	Aggregation	Wakad School	18.591979	73.762383
25	Aggregation	Kasarwadi tax office	18.602442	73.825187
26	Aggregation	Sangvi tax office	18.574792	73.820462
27	Aggregation	Sangvi ps	18.578263	73.815458
28	Aggregation	YCM Hospital	18.621803	73.821209
29	Aggregation	Bhosari PS	18.618687	73.826885

30	Aggregation	Pimprinagar tax office	18.618615	73.805983
31	Aggregation	Pimpriwaghere tax office	18.609834	73.800948
32	Aggregation	Chikhali PS	18.661268	73.812414
33	Aggregation	Bhosari MIDC PS	18.648018	73.842601
34	Aggregation	Charoli tax office	18.653322	73.907558
35	Aggregation	Dighi PS	18.643017	73.878205
36	Aggregation	Dighi tax office	18.613271	73.874016
37	Aggregation	Bhosari tax office	18.620773	73.849324

1.8 As Build Drawings & KMZ Drawings



PCSCl shall provide the KMZ files of the network laid (through its SI) to the successful bidder(agency) post the contract signing. These files include the details of Core, Aggregation & Access rings. The provision of manhole chambers is made at every 200 meters across the various network rings across the city.

- KMZ files
 - GPS coordinates of the entire network route
 - Core, Aggregation & Access POP details

1.9 Existing Duct Protections Details

The duct protection planned while laying the city network is as below. Whereas the as per the field conditions & various decisions taken by PCSCl actual implementation may differ and the "As Build" drawing shall prevail in the below table.

Sr.	Depth of Trench	Protection for HDPE Duct
1.	Beyond 1500 mm	No protection
2.	1000 mm to 1500 mm	DWC pipe
3.	500mm to 1000mm	DWC pipe plus RCC Half Round
4.	Less than 500 mm from the above surface of the road	GI with Box Culvert

1.10 Pole Infrastructure Details

PCSCL has installed various types of poles & gantries under smart city projects across the city. The detailed status of the same is as below:

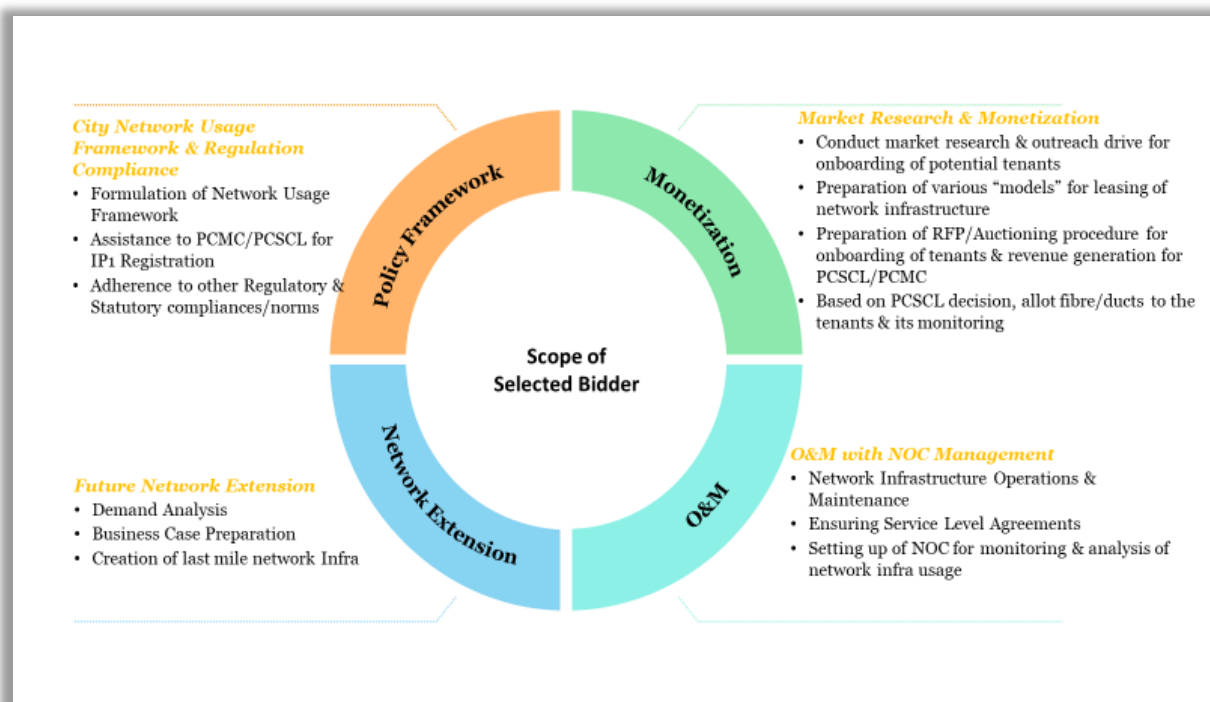
Pole Type	Without Cantilever	With Cantilever	Total
Scope	100	1691	1791

Gantry Type	Total Count
15 Mtr.	82
22 Mtr.	07
28 Mtr.	01

2 Scope of Work

Pimpri Chinchwad Smart City Ltd (PCSCL) has created OFC & duct-based City Network under Smart City Mission. This network is covering all the critical and major areas of the municipal limits with the intent to create a digitally connected ecosystem for its citizens to render connected, efficient, and responsive services. Under this city network project, PCSCL has created approximately 600 KM of the network (having 4 telecom duct and multicore fibre cables) across its PCMC offices, police stations, critical junctions, foot fall area, etc. in a “Ring Topology” to ensure adequate redundancy and resiliency. PCSCL shall be consuming some of the cores of fibre cable of first duct and intends to explore possible monetization/revenue generation opportunity through leasing of 3 dark ducts/dark fibre/lit up fibre, including unused fibre cores of the first duct, across the approx. 600 KM route length. & available pole infrastructure across the city.

High-Level Scope of Work



Scope of Work covers following, but are not limited to:

Operation & maintenance of all the 4 ducts (including fibre, protections used & associated accessories) along with fibre cables blown in the empty ducts (as agreed in the network policy document) shall be done by the selected bidder / concessionaire.

SLAs to be maintained (during the contractual period) by the selected bidder / concessionaire

2.1 Policy Framework

2.1.1 Assistance to PCSCL for regulatory & statutory compliances (including IP1 Registration & Other norms)

- a. Selected bidder / concessionaire shall assist PCSCL in IP1 License Registration/ other requisite including but not limited to
 1. Consolidation of the required documents for registration

2. IP1 License submission to the Department of Telecommunications (DOT)
 3. Follow up for getting the IP1 License
 4. Any other activity towards the regulatory & statutory compliances for the city network monetization proposed in this RFP
- b. PCSCL shall own all the payments and charges related to IP1 License. Further, the license and all related registrations shall be on the name of PCSCL. Thus, making sure PCSCL is the owner of the license.
 - c. It will be the sole & complete responsibility of the selected bidder / concessionaire to get the IP1 License in the name of PCSCL. All the necessary documents & support shall be provided by PCSCL & PCMC.
 - d. For any future renewal/amendments/upgradations of any laws and regulations (If required), the selected bidder / concessionaire would be responsible for all the compliances and regulatory adherence of the same.

2.1.2 Preparation of City Fibre Network Policy

a. Need/Objective:

The objective behind the preparation of the City Fibre Network Policy is as follows:

- i. To maximize the monetization probability of City Network Infrastructure
 - ii. To prepare a framework for further extension/last mile connectivity of City Network Infrastructure
 - iii. To minimize the trenching & ducting (T&D) across the city for extension/ last mile connectivity of the City Fibre Network
 - iv. To define rules, regulations & enforcement measures to be adopted by PCSCL & PCMC to reduce (towards zero km.) the repetitive digging on city roads & the overhead fibre cables across the city
 - v. Meet the demand & supply of the City Network Infrastructure created so far & be created in a fair, transparent & timely manner
 - vi. Assessment of existing unauthorized fibre network (underground & overhead) & defining/proposing a way ahead for corrective actions in this regard
- b. The selected bidder / concessionaire shall prepare the draft City Fibre Network Policy document within the timeline mentioned in Clause No. 3.1 (of this document) and submit to PCSCL for its review
 - c. PCSCL/ PCSCL appointed Committee/ PCSCL appointed Consultant shall review the draft city network policy document and will provide necessary feedback/ suggestions/ corrections/ opinion
 - d. The selected bidder / concessionaire shall prepare the final version of the City Fibre Network Policy document based on the feedback/ suggestions/ corrections/ opinion received
 - e. PCSCL & PCMC to approve and adopt the City Fibre Network Policy whereas, it will be an exclusive right and choice of PCSCL & PCMC to finalize and adopt the final version of the City Fibre Network Policy document
 - f. Coverage:
The City Fibre Network Policy document shall consist of the below points but is not limited to
 - i. AS-IS City Fibre Network status across the city (including but not limited to market players, fibre routes, telecom tower details, current demand, etc.), permissions etc.
 - ii. Current Market & User Segmentation

- iii. Blowing of optical fibre cable/s (number of cores to be decided based on requirement) in the duct/s
- iv. Proposed number and type of poles & gantries usage for the small tower cells
- v. Various proposed monetization plans & bundled packages
- vi. O&M approach and Methodology
- vii. City Overhead Network – Status, approach, enforcement mechanism proposed & plan for monetization of the same
- viii. Standards & guidelines for City Fibre Network
- ix. Future growth along with predicting demand & prospects
- x. Future expansion of City Fibre Network
- xi. Upcoming technologies, trends and their adoption models
- xii. SWOT Analysis for City Fibre Network in long-term prospects
- g. The selected bidder / concessionaire shall prepare City Fibre Network Policy and submit the same to Pimpri Chinchwad Smart City Ltd.
- h. PCSCCL or its appointed Expert Committee or its appointed consultants shall review the City Fibre Network Policy and the selected bidder / concessionaire need to do the required changes & corrections as per the review remarks received in this regard
- i. After due approval from PCSCCL or PCMC, it will be the responsibility of the selected bidder / concessionaire to comply with the same during the entire contractual period

2.1.3 Formulation of Network Usage Framework

- a. The selected bidder / concessionaire shall prepare the Network Usage Framework document which shall cover the below points in detail:
 - 1. Different modes of usage of the City Network Infrastructure elements
 - 2. Pros & Cons of various models with commercial aspects to PCSCCL
 - 3. Fair usage policy for each model along with scenario-based assessment and conclusions
 - 4. Proposed packages/models based on the market demands and citizen requirements based on the type of fibre, duct, fibre specification, pole, JB infrastructure to be leased based on area-wise, lease duration, upfront payment assurance from tenants, etc.

Best 3 Business Models have to be formulated based on overall understanding, which would be reviewed by PCSCCL or PCSCCL appointed expert committee or PCSCCL appointed consultant and approved by PCSCCL.

2.2 Unauthorized Network Identification and required corrective actions

2.2.1 AS-IS Assessment (Private Fibre Networks)

- 1. PCSCCL shall facilitate the data regarding the authorized permissions granted by the PCMC for city/private network laying to date
- 2. Agency shall perform a citywide survey to document the fibre network available/laid (including overhead and under-ground) in the city by various private agencies concerning the authorized permissions granted by the PCMC
- 3. Agency shall identify the unauthorized network in Pimpri-Chinchwad and shall share the same with PCSCCL and PCMC. The selected bidder / concessionaire shall on behalf of PCMC and PCSCCL carry out the removal/corrective actions, collections of penalty and regularization if as per approved Network Policy of the unauthorized network/s and

facilitate / implement the provision of the network infrastructure as per the agreed city network policy.

2.2.2 AS-IS Assessment (Telecom players)

1. The selected bidder / concessionaire shall identify and prepare the database of various telecom players in the city including their office locations, key person/SPOC, contact details, etc.
2. The telecom players shall include, Telecom Service Providers (TSP), Internet Service Providers (ISP) and local cable operators, , M2M service providers etc..
3. The selected bidder / concessionaire shall identify and document the authorised and unauthorised (if any) network details of the telecom players and levy penalties on behalf and in consultation of PCMC and PCSCL etc.

2.3 Network Infrastructure Monetization

2.3.1 AS-IS Assessment (PCSCL City Network Infrastructure)

1. The purchaser has installed/implemented various city network infrastructure elements listed below
 - a. Duct & protections used
 - b. Fibre cable (Dark & Lit up)
 - c. Junction Boxes & their elements (junction box, UPS Batteries, switch, LPUs etc.)
 - d. Poles & Gantries
2. The successful bidder/ selected bidder / concessionaire shall conduct the citywide survey to collect all information and insights of the available infrastructure & its status with respect to inspection, verification & certification of the existing infrastructure and its mapping in the supplied Account/Inventory/ Network/ Enterprise Management tool.
3. The selected bidder / concessionaire shall do the Technical Scrutiny of survey reports on the GIS map, confirmation of minimum available dark fibre & lit fibre and design and further enhancement of the network architecture
4. The selected bidder / concessionaire shall inspect, verify and certify the execution of the project which shall be followed by commissioning & leasing of the network, Equipment (including all active and passive infrastructure, etc.) including installation & integration and suggest necessary actions for timely execution of the project for the monetization of the same
5. The selected bidder / concessionaire shall be responsible for the reconciliation of Inventory and its mapping in PM tool
6. The selected bidder / concessionaire shall perform all the project management and monitoring activities during the entire contract duration

2.3.2 Market research & outreach drive

- a. This will be continuous activity during the entire contract period and a half-yearly report (every 6 months) shall be submitted by the selected bidder / concessionaire to PCSCL
- b. The selected bidder / concessionaire shall do the market research for the potential customers across the city, telecom and other domain
- c. The research shall include
 - i. Market & User Segmentations
 - ii. Contact details of the potential customers
 - iii. Customer Network and usage requirements and future-plans

- iv. Current user/tenants' usage, patterns & trends and expected future usage
- v. Upcoming technologies, trends, and their adoption models
- vi. SWOT Analysis of City Fibre Network (including technology & other prospects)
- d. The agency shall perform all the marketing & sales activities required to lease out the smart city network infrastructure

2.3.3 Preparation of leasing models

- a. As part of network policy, the selected bidder / concessionaire shall prepare different leasing models/packages based on the type of network infrastructure, leasing durations, actual usage, number of cores, etc.
- b. The selected bidder / concessionaire shall present various leasing models possible for all network infrastructure and submit the same to PCSCCL for review. PCSCCL or its appointed Expert Committee or its appointed consultants shall review the same & share the necessary feedback/inputs
- c. Leasing models shall be designed, defined and developed by a selected bidder / concessionaire and the final approvals on the same shall be provided by PCSCCL or an entity designated by PCSCCL

2.3.4 Network Leasing by various means

The selected bidder / concessionaire shall conduct a comprehensive market assessment comparing network, lit & dark fibre and core pricing as per industry standards in the Pimpri-Chinchwad area with other markets nationwide. The study shall adhere to industrial standards and norms. Based on the assessment and research, the selected bidder / concessionaire would be required to present various possible means of leasing 3 dark ducts and proposed fibre in these ducts' infrastructure across the approx. 600 KM route length for monetization/revenue generation opportunity through leasing. The assessment shall also define service framework, pricing recommendations, policies as per various models, the impact of the same on the entrepreneurial ecosystem, economic development opportunities and the impact of the model in ensuring that no 'one' company sets their monopoly in the Pimpri-Chinchwad area. After careful assessment and discussions, PCSCCL or its appointed Expert Committee or its appointed consultants shall finalise the leasing model that best suits PCSCCL and ensures maximised revenue generation/ monetization.

2.3.5 Allotment & De-allotment of telecom infrastructure

- 1. The selected bidder / concessionaire shall coordinate with various new prospects & existing tenants for the leasing demand
- 2. The selected bidder / concessionaire is solely responsible for allotment & de-allotment of the leased telecom infrastructure including ducts, fibre, bandwidth, poles etc. within the stipulated time frame as per the city network policy document.
- 3. The selected bidder / concessionaire shall handle all day-to-day communication, coordination & operational issues, along with follow-ups regarding the leasing activities, SLAs, issue resolutions, O&M, etc.

2.3.6 Leasing Payment

- 1. All the payments received from leasing activities shall be directly credited into the Escrow bank account created in Govt. Scheduled bank, jointly by PCSCCL and the selected bidder / concessionaire.
- 2. A separate Escrow bank account agreement shall be signed between PCSCCL, the selected bidder / concessionaire and the bank within 30 days of the signing of the

contract/agreement. The agency shall bear the cost required to open & maintain the Escrow account.

3. The selected bidder / concessionaire shall be solely responsible for all the payment recovery from all tenants
4. Based on the agreed percentage, PCSCL's share shall be paid into PCSCL's account from the Escrow account.

2.4 Fibre Commissioning, NOC Setup & Operations & Maintenance

2.4.1 Fibre Blowing in the telecom ducts

2.4.1.1 Guiding Principles and guidelines for Fiber Blowing

- a. The selected bidder / concessionaire shall blow OFC cables in the Core, Aggregation & Service/Access layer.
- b. The selected bidder / concessionaire shall place route marker as per given alignment while maintaining offset distance from road centre, co-locating with each manhole at every location where the route changes direction as per norms set forth by concerned government authorities
- c. The selected bidder / concessionaire shall use barricading and signage board as per requirements of concerned government authority/authorities to avoid any chaos and accidents
- d. The selected bidder / concessionaire shall install the OFC inside the existing 40mm HDPE pipe as per design consideration/s. The OFC shall be installed by compressed air blowing technique or suitable methods.
- e. The selected bidder / concessionaire shall handle the Optical Fiber Cable Drums as per instructions given by the manufacturer
- f. The selected bidder / concessionaire shall use the Ducts rudder for pulling OFC from one manhole/handhole to another manhole/handhole for short spans up to 200 Metres
- g. The selected bidder / concessionaire shall ensure manufacturer's guidelines and norms for minimum bend radius and tension are followed while installing the OFC
- h. The selected bidder / concessionaire shall keep a minimum 18-20 m loop in each manhole/handhole, properly coiled and tied with cable ties and Aluminium cable tags with punching to be used for tagging
- i. The selected bidder / concessionaire shall seal both the ends of HDPE pipe with cable sealing plugs/simplex plugs after installing OFC

2.4.1.2 Splicing of OFC and Installation of Fiber Splice Joint closure

- a. The selected bidder / concessionaire shall ensure that the splice loss per joint shall be less than 0.05dB/splicing joint
- b. The selected bidder / concessionaire shall ensure that during splicing fibre cores of 0.6 metres to 0.8 metres shall be stored in a cable tray
- c. The selected bidder / concessionaire shall seal and install the Fiber Splice Joint/closure assembly as per instructions of the manufacturer and as suggested by PCSCL appointed expert committee or PCSCL-appointed consultant
- d. The selected bidder / concessionaire shall carry one hour of leakage/ water penetration test on Fiber Splice Joint closures after installation
- e. The selected bidder / concessionaire shall attach Cable tags to all OFCs which are entering the Fiber Splice Joint Closure and OFC readings shall be recorded for updating in the As-build and GIS drawings
- f. The selected bidder / concessionaire shall provide an As-build diagram for splicing of OFC. The diagram shall indicate the cores from all OFC with their proper colour coding and numbering

- g. The selected bidder / concessionaire shall use Mid-Span Access Buffer Tube Slitter during mid-span splicing (for last mile or network extension location connectivity) to ensure that buffer jackets of fibre tubes are cut longitudinally to access all fibres in the side tube and then only required fibre cores shall be cut for splicing with fibre cores of last mile or network extension cable/s
- h. During maintenance of the network, Agency shall ensure that all fibre cores are spliced at the cut location (and not only live fibre cores) during the rectification process. PCMC / any third party - consultant appointed by PCSCL may audit the health/continuity of all fibre cores at any time and the selected bidder / concessionaire shall have to facilitate this exercise by performing LSPM and OTDR testing in presence of the PCSCL/ consultant team/s

2.4.1.3 Earthing

All electrical components are to be earthed by connecting two earth tapes from the frame of the component ring and will be connected via several earth electrodes. The cable arm will be earthed through the cable glands. The entire applicable IT infrastructure shall have adequate earthing. Further, earthing shall be done as per state/national standard/s in relevance with IS standard/s.

- a. Earthing shall be done for the entire power system and provisioning shall be there to earth UPS systems, Power distribution units, AC units, etc. to avoid a ground differential. PCSCL shall provide the necessary space required to prepare the earthing pits
- b. All metallic objects on the premises that are likely to be energized by electric currents shall be effectively grounded
- c. There shall be enough space between data and power cabling and there shall not be any cross-wiring of the two, to avoid any interference or corruption of data
- d. The earth connections shall be properly made.
- e. Install the Earthing devices for the equipment and metallic objects on the premises, including lightning Earthing, protection Earthing and shielded Earthing
- f. The Earthing cable shall be installed securely to prevent theft and shall be rust-proof. Earthing down lead and the Earthing electrode shall be galvanized
- g. Provide separate earthing pits for active equipment and UPS as per the standard/s

2.4.1.4 Fibre Testing & Commissioning

- a. Fibre-optic Tests applicable and applied to links and exclude equipment and work area cord
- b. OF Attenuation testing is used to verify the initial performance of the installed link
- c. 100 % of the installed OF links must be tested and must pass the acceptance criteria
- d. The attenuation of the link is measured using the insertion loss method. This method uses an optical source and an optical power meter to compare the difference between two optical power levels
- e. When/while testing Fiber links with a Light Source and a Power Meter, this measurement kit must be capable of operating at 1550 nm and 1310 nm for Single Mode
- f. The test scenario with a Light Source and a Power Meter shall be of the following for each link: Bidirectional testing @ 1550 nm and @ 1310 nm for single-mode fibres and calculating an average of both readings
- g. The use of a certification tool is recommended. Those tools are capable of producing a report, logging the time of the test, the link identification under test, the link length, the attenuation at the window tested and the acceptable link attenuation. The report shall also identify in which direction the testing was implemented
- h. When testing with a basic optical source and power meter, the operator will fill up a report logging the time of the test, the link identification under test, the link length and

- attenuation at the window tested in presence of the deputed staff/any person by PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant
- i. The report shall also identify in which direction the testing was implemented
 - j. Acceptable link attenuation to be calculated and documented
 - k. The measured attenuation of the links shall have a lower value than the acceptable link attenuation calculated
 - l. The selected bidder / concessionaire shall also provide a bidirectional OTDR report for all fibre cores
 - m. All the testing has to be performed in the presence of deputed staff/personnel by PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant. On successful completion of all tests, the document or note or test result shall be signed by the same deputed staff/personnel as appointed by PCSCL

2.5 Setup and O&M of Network Operations Centre (NOC)

The selected bidder / concessionaire shall set up a Network Operations Centre (NOC) for Operations, Maintenance & Management of Telecom Infrastructure created and further to be created or extended in the contract period.

1. PCSCL shall provide only the required space for the setup of the NOC (4-5 people sitting space with space for required hardware infrastructure).
2. All other required items for the setup & operations of the NOC has to be provided by the agency. All the expenditure for the designing, development, enhancement, management and operations of all equipment's IT/Non-IT (active/passive), resources, any certifications/compliances/regulations, etc. for the entire period of the contract should be sole and complete responsibility and obligation of the selected bidder / concessionaire. The agency shall provide a 98" (Inch) Screen Size LED Screen at NOC for monitoring all NOC-related operations & dashboards.
3. All the software, associated licenses, server compute & storage required for NOC setup shall be done by the agency. PCSCL shall provide the required rack space & electric power source for NOC setup & operations.
4. The agency may opt for cloud services from The Ministry of Electronics and Information Technology (Meity) empaneled Cloud service provider for the provisioning of the NOC related infrastructure, platform & the applications.
5. The agency needs to provide enough license quantity so that all devices& elements are required for monetization but required for mapping all smart city elements/components on the NOC applications to track the detailed status, to monitor other analytical parameters, to showcase on dashboards with required report generations. All the licenses shall be in the name of PCSCL. The NOC applications shall be integrated with the ICCC platform of the PCSCL Smart city. The efforts& cost required for this integration shall be borne by the agency.
6. It will be the sole and complete responsibility of the selected bidder / concessionaire to develop, manage, operate & maintain the NOC for the existing & to be created/extended network infrastructure during the contractual period with care & caution

7. The design, development and internal construction of the NOC needs to be reviewed and agreed upon by PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant
8. The management, resource allocation, SOP designing, and operations of the NOC also need to be reviewed, approved and agreed upon by PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant. The agency shall provide all required accesses & credentials to PCSCL as well as PCSCL appointed consultants for monitoring the all the NOC operations and shall submit the reports on a regular (agreed as per policy) and the reports/data need based whenever required & asked to the agency.
9. Most importantly the designing, development, management, operations, resource allocation, SOP, etc. for the NOC needs to be up to industry standards and shall be compliant with all applicable regulations and compliances
10. The agency shall run/operate the NOC by 24*7*365. The required NOC resources, furniture required for their sitting, workstations/laptops shall be provided by the agency.

2.5.1 Data Center Network Operations Monitoring Platform

The bidder shall be responsible for the Supply, Installation, Testing & Commissioning of the end-to-end Network Operation Monitoring System at PCSCL's designated location; the same is required to be able to seamlessly be used for managing & monitoring all the active devices (network & IoT) already installed by PCSCL under its Smart City Projects and finally shall be seamlessly integrated with PCSCL's ICCS Solution for unified visualisation & operations.

General:

- The design shall be as per industry best practices & standards
- The proposed solution must be able to remote access through internet globally with the help of VPN connectivity and able to manage a multi-tenant environment
- Time synchronization capability and ability to integrate with any GPS or NTP Master Clock system

Audit Trails / Data Trend Logging

- Ability to log all asset-related alarms or events for auditing purposes (time interval to be customizable)
- Ability to log all asset-related data for historical data trending (time interval to be customizable)
- Ability to log any user activity or configuration changes to the system and operator actions as well as acknowledgements with corresponding time stamp and username

Dashboard Displays

- Ability to view pre-defined KPI charts displaying information on the status of the enterprise health, asset inventory, space, power, and cooling within the data centre
- Ability to view pre-defined KPI charts displaying information on the status of the connectivity within the data centre
- Ability to choose which KPIs to display on each user's dashboard view. The information to view must be aligned with the permission set
- The pre-defined KPI charts shall include but are not limited to the following:

- Count of device, number of items, % of used racks, % of active power, PUE, Average Active Power, and Average Inlet Temperature
- Asset Inventory KPIs shall include charts for Items Added per Week, Item Age, and the breakdown of Items by Type
- Capacity KPIs shall include charts for the Number of Used vs Open Rack/Chassis Slots, Top
- Power Status KPR charts shall include a budget power consumed
- Cooling KPI Charts shall include cooling capacity, Inlet Temperature/Humidity
- Connectivity KPI Charts shall include the report of data circuits by number of hops and connected items by power supply or redundancy
- Connectivity KPI Charts shall include used vs. open network/data ports, top racks with open ports by connector
- Ability to use the command to query database tables and displays results in a report
- Ability to generate reports from all dashboard widgets, print to PDF, and export reports to Excel
- Ability to generate customized reports

Standard KPI Charts/Reporting

- Health Map: Used as a base to colour code and display racks based on event severity. If the rack itself, or any PDUs or sensors contained in the rack have a warning or critical active events, the rack is shown as a warning (yellow) or critical (red) level
- Active Events: Displays the 10 highest severity and active events in a list
- Reports and charts that show the following (including but not limited to):
 - Active Power (W)
 - Current (amp)
 - IT Energy (kWh)
 - CO2 Footprint (CO2 Kg) / CLF Cooling Load factor
 - IT Energy Cost (\$ or other currency)
 - Total Energy including cooling (kWh)
 - Total Energy Cost including cooling (\$ or other currency)
- Environmental Conditions Report:
 - Temperature Charts showing inlet and outlet temperature as well as Outside Air Temperature
 - Humidity Charts including Outlet Humidity (%), Outlet Humidity (%), and Outside Air Humidity (%)
 - Air Flow and Pressure Charts including Air Flow (m/s) and Air Pressure (Pa)
- Displays a default setting of average active power over the past 24 hours
- Able to show how much power a selected node of your data centre has consumed over a specified time period.
 - Minimum, maximum, and average power consumed during the time period
 - Real-time active power reading
- Cooling utilization charts to compare the data centre's sensor readings against industry recommendations
- PUE trend chart to see how the data centre's PUE changes over a selected time period. Either daily or monthly calculations may be used.
- Electrical utilization charts to display active power or energy readings for one or more facilities objects, such as a CRAC, floor PDU, floor UPS, power panel, or standalone meter, in the data centre.
- Rack PDU Energy Trends include but are not limited to: Active Power, IT Energy, Line Current, and Circuit Breaker Current
- Rack IT Devices: A list of all devices that are connected to one or more outlets or circuits. Devices that have associated circuits display the current and active power of the circuit. The outlets associated with each device display beneath the IT device.

- PDU Elements – A list of all outlets in the rack, or all outlets on the PDU, respectively
- Able to show rack energy and environmental trends
 - The first and last data points in the trend
 - Minimum and maximum values in the trend
 - Environmental, temperature and humidity charts are shown one per sensor
- Rack PDU Readings: Power readings for the PDU
- Cabinet (Rack) Detail Report: Displays either a text-based or visual representation of the cabinet elevations for the cabinets. Includes additional cabinet details such as the make, model, size, weight etc.
- Cabinet (Rack) Resource Report: Information on cabinets and the resources that are associated with them such as power ports, network equipment reports, comm ports etc.
- Items (Inventory) Report: A list of all items being maintained. Additionally, information specific to each item, such as the item type, function, administrator, etc. is captured in this report. This report can be filtered to display information based on criteria specified
- Item Details Report: Displays either text-based representations of items or, when available, images of the items being managed. Includes additional device details such as the make, model, etc.
- Power Connections Report: View connection information for all cabinets (All Connections in Cabinets Report) or specific types of connectors that are connected to specific items
- Network Connections Report: View connection information for all cabinets (All Connections in Cabinets Report) or specific types of connectors that are connected to specific items
- Power Report - View power data for all cabinets being managed
- Users should be able to generate trending and report for any selected historical data across any time period. This report should be able to be exported in Excel or CSV format.

Visualization

- Ability to import and export layout drawings representing the floor layouts for different sites or rooms.
 - Display imported layout in the dashboard and each layer to be able to be toggled on/off
 - Each overlay and the information in the overlay must be stored in individual layers
- Ability to link floor map objects to a database
- Ability to drill down from the floor map view to show individual racks and contents
- Colour code floor plan objects based on consumption and capacity criteria such as RU space, weight, temperature, humidity, budgeted power, real-time power etc.
- Colour-code assets based on status such as new/reserved or installed
- Export the complete or filtered data centre inventory into a delimited file (.csv) or Excel
- Ability to set thresholds and create colour-coded Floor Plan Reports that indicate the status based on real-time measured values and events for available RU space vs. configurable thresholds, occupied space vs. configurable thresholds, cabinet capacity, weight per cabinet, weight capacity per cabinet, static load per cabinet, max temperature per cabinet fronts/rears, measured amps per cabinet, budgeted power per cabinet, and a health map
- Ability to generate a quick view of the conditions within a room or an individual rack
- Ability to select and colour code floor plan objects
- Show cable plant and electrical connectivity between assets or floor objects
- Ability to view multiple cabinet elevations in one view based on multiple criteria including physical adjacent (row), user-defined logical grouping of cabinets, and cabinet RU usage
- Summary view of data centre power and cooling performance (e.g. capacity and consumption) ranging from region to a specific site or even specific data hall.

Real-time Monitoring

- Display real-time monitoring in a unified view

- Capability to create customized dashboards for event viewing (site, hall or room, asset, rack, asset power consumption or cooling capacity etc.)
- Capability to define thresholds for events and alerts
- Capability to enable user-defined polling intervals
- Ability to poll data centre devices using SNMP v3 protocol
- Capability to poll power consumption, temperature, humidity, airflow, pressure, contact closures, door locks, water, and smoke continuously based on user-defined intervals and store historical results in the database
- Capability to poll UPS, PDU, Remote Power Panels (RPPs), Busways, CRAC, BCMs, and environmental sensors to capture instantaneous data and display real-time values
- Ability to identify hot spots based on polled data
- Maintain and reference historical environmental data indefinitely
- Monitor for watts, amps, voltage, watt-hours, power factor, carbon footprint, cost, airflow, air pressure, humidity, and temperature. This data shall be collected at the inlet, outlet, phase, and breaker
- Ability to capture circuit capacity and utilization
- Ability to perform thermal & energy analytics based on polled data
- Ability to receive or send event notifications via HTTP delivery
- The ability for managed PDUs to respond to SNMPv3 Informs, acknowledging their receipt
- Monitor for events including and not limited to:
 - Server Reachable (Not Reachable, Not Reachable Clear)
 - Inlet Over/Under Peak Current (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Sensor Unavailable Clear)
 - Inlet Over/Under Unbalanced Current (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Inlet Over/Under Active Power (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Inlet Over/Under Apparent Power (Critical, Warning, Critical Clear, Warning Clear, Unavailable, Unavailable Clear)
 - Inlet Over/Under Power Factor (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Inlet Over/Under Frequency (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Inlet Over/Under Phase Angle (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Inlet Over/Under Residual Current (Critical, Warning, Critical Clear, Warning Clear)
 - Power Quality (Critical, Warning, Critical Clear, Warning Clear)
 - Inlet Over/Under Voltage Line (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Over/Under Peak Current (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Over/Under Unbalanced Current (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Over/Under Active Power (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Over/Under Apparent Power (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Over/Under Power Factor (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Over/Under Phase Angle (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Over/Under Voltage Line (Critical, Warning, Critical Clear, Warning Clear, Unavailable Clear)
 - Outlet Power State (Unavailable, Off, On, Unavailable Clear, Off Clear, On Clear)

- Circuit Breaker Peak Current (Critical, Warning, Unavailable, Critical Clear, Warning Clear, Unavailable Clear)

Integration Interfaces:

- The proposed solution shall support Open IP based protocols and open APIs that enable integration with the following protocols seamlessly (including but not limited to - Modbus TCP / SNMP / BACnet IP / OPC DA or UA / HTTP / MQTT / SOAP / REST):
 - Standard digital control systems
 - Third-party system (e.g., change management, ticketing system or CMDB systems)
 - The Solution should also integrate seamlessly with all the PCSCL's IoT, OT & IIoT devices through their respective protocols.
- Should be capable to access or retrieve data from the database or third-party systems through ETL or equivalent tool, event ingestion from other systems/Solutions via HTTPS for seamless visualization/KPI-driven dashboard creation, user authentication and
- The proposed solution should be seamlessly integrated with the existing ICCS Solution (details are enclosed in the Annexure) to ensure unified "Visualisation & Control" in the existing ICCS platform. The bidder shall consider the cost for the same (ICCS integration service cost along with additional ICCS license cost). The bidder is to furnish the "Technical Integration Architecture" as part of its technical bid.
- The solution should be able to integrate with third-party systems to read and query the database using ODBC, integrate with CMDB systems to provide asset item create, read, update and delete and integrate through Web Services API that enables reading of events.

Search/Find Function within Dashboard

- Ability to search and filter to locate an asset or circuit
- Ability to export search results
- Ability to limit search criteria based on asset or circuit attributes
- Ability to combine search criteria
- Ability to search and locate the best location (cabinet and U position) for an asset, utilizing available space, cooling, network and power capacity to optimize capacity utilization and avoid stranded capacity
- Ability to search and locate an IT device to perform power control

Capacity Views

- Summary view of a given cabinet including budgeted power, heat output, total weight, items in the cabinet, available RUs, and largest contiguous RUs
- Summary view of the types of ports, the total number of ports, and the total number of available ports for a given port type
- Summary view of connection path information including Outlet/outlet, power path connections, amps (r/b/m), and source
- Summary view of the power source including the number of breaker poles, the rated/budgeted/measured amps at the power outlet, the origination source, and sub-panel name

Connectivity Management

- Visualize the status of network ports on equipment
- Visualize the network cables
- Visually build data circuits between any combination of devices, network equipment, and patch panels including all hops in a single circuit
- Ability to set connections based on user-defined criteria such as colour codes, groupings, and VLANs
- Ability to distinguish all ports that are in use or ports that do not match the connectivity criteria

- Visually build power circuits between switchboards, RDU or PDU, power supplies, rack PDU sockets, and electrical outlets
- Visually trace power circuits including all hops in the power chain
- Alert the user as to where the bottleneck is in the power chain in the event a circuit cannot be built due to a lack of available budgeted power

Power Management

- Ability to manage all nodes in the power chain including UPS, PDU, RPP, panel board, busways, circuit breakers, electrical outlets, rack PDUs, rack PDU breakers/fuses, rack PDU sockets
- Ability to visualize the power path in a graphical diagram, including associated values at each node in the power path including budgeted and measured power
- Ability to manage 3-phase power along all nodes in the power chain using various 3-phase conventions including L1/L2/L3, A/B/C, and colour codes
- Ability to configure panel boards with any number of circuit breaker pole positions using all international conventions including odd/even and sequential
- Ability to create UPS banks and gang multiple UPS units into a single UPS bank
- Ability to track various PDU configurations including PDU with multiple panel boards, PDU with RPPs, PDU with busways
- Ability to track various rack PDU configurations, define socket types, and branch circuit breakers/fuses
- Ability to track capacity: nameplate, budgeted and measured usage for the entire PDU and each branch circuit
- Ability to make configuration updates in bulk including PDU rescanning, decommissioning and maintenance
- Ability to roll back or restore PDU configurations in bulk
- Ability to change PDU administrator passwords in bulk
- Ability to provide information on systems dependent on a specified ATS/UPS/PDU/Power Strip
- Ability to track and report current power costs and associated costs by Solution, application or business unit which is useful for billing matters
- Remote capability for graceful OS shutdown in event of an emergency
- Remote power supply outlet control (on/off)
- Ability to set a trap receiver
- Ability to forward traps to another system

Network Management

- Ability to track various configurations including but not limited to:
 - Stackable switches
 - Chassis and blade servers
 - Network equipment
 - SAN switches
- Ability to assign VLANs to network switches
- Ability to assign IP subnets to VLANs
- Ability to create and manage IP subnets
- Ability to create and manage pools of static IP addresses using an intelligent IP address calculator
- Ability to assign subnet names, subnet suffix, and colour codes to IP subnets
- Ability to assign IP addresses from a pool of available IP addresses to device ports using pre-defined subnets
- Ability to ping used IP addresses and DNS
- Ability to audit DNS entries on the network against the DNS entries in the Solution database

Cabinet and Containment Security

- Reporting on status and audit
- Integration with Security Access System to access CCTV cameras and security access logs

Server Performance Monitoring

- Capture of system information, device information, CPU utilization/processor load, network and partition table information, memory and disk usage running processes, and installed software
- Ability to make data available to third-party monitoring systems

Branch Circuit Monitoring

- Ability to display and report on BCM within PUE, floor maps and trend charts
- Ability to customize reports on BCM for specific circuits and over a specific time period
- Ability to provide events and notifications based on BCM thresholds

License Model

- The proposed solution should be either deployed as an on-premises model or should support the IaaS environment on a public cloud or a Hybrid model where it is possible to do centralized development via SaaS offering on the cloud and On-premises.
- Proposed solution licensing should be for the entire contract duration (10 years subscription) or perpetual and there shall not be any limitation in the number of asset/tags/device connectivity. Further, it should be an enterprise or similar level of agreement with PCSCCL under which 25 Named Users are to be considered for Operations/Development/Monitoring.

Network & Data Centre Operation Monitoring System integration with 3rd party City Network Monitoring

- The solution should be able to show the below:
- Top 5 locations (based on Fibre cut)
- Total core-aggregation-access switches status
- Core-aggregation-access switches temperature display and alert
- Network utilization, CPU utilization, Memory utilization, throughput utilization, nodes performance for all solutions
- GIS-based Network Performance Monitoring (for all devices connected - switches, UPS, etc.)

2.6 Operations & Maintenance (O&M) of City Network Infrastructure

The selected bidder / concessionaire shall provide the Operation & Maintenance Services for the entire contractual period from the date of issuance of work order/execution of the agreement (whichever is earlier) of the entire City OFC Network, related hardware and network solutions, which will include the following activities, but not limited to:

2.6.1 HDPE Duct & Optical Fiber Cable

- a. Routine inspection, viz. patrolling on the routes, to identify the area where OFC/duct is exposed due to natural/unnatural wear and tear, etc.
- b. Faulty rectification of OFC/duct cuts along routes
- c. Replacement of OFC routes due to non-viability of the transmission link
- d. Ensure availability of OFC route markers along the route at regular intervals
- e. Maintain proper condition of joint closure
- f. Prevent all kinds of third-party damages viz, theft, damage by other U/G utility SI etc

- g. Maintain condition of OFC with casing or with special arrangements near critical areas viz, major bridges, railway crossing, pipeline crossing, etc.
- h. Visual inspection of joint closure to check ingress of water, foreign particles, etc.
- i. Preventive and regular checks of all OFC networks and related hardware/equipment including but not limited to power plant battery, generator, AC, and remote alarm units
- j. Periodic measurement of the link attenuation loss to ensure that the link/s is/are free from any splice loss or point loss defects, etc.
- k. Maintain and update as-built drawings, and information along the OFC route
- l. Maintaining a history of events, analysis and reporting, and public coordination with concerned authorities. All this need to be informed, updated and discussed with PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant
- m. Periodic coordination with the concerned authorities to keep abreast of any development works, trenching, ducting, etc. along the route

2.6.2 Fault Restoration Services

- a. The selected bidder / concessionaire shall deploy maintenance teams at all the designated locations to ensure SLA adherence. The maintenance teams shall comprise sufficient and appropriate manpower, logistics, required tools/tackles/machinery & equipment etc.
- b. The selected bidder / concessionaire shall provide OFC maintenance service on round a clock basis for attending & rectifying the OFC fault in minimum downtime (including travel time) from the time of lodging the complaint to the representative of lead SI at their designated office. The selected bidder / concessionaire shall provide all assistance including but not limited to providing manpower, transportation of men and materials/equipment/tools etc. if required in the event of link failure due to all reasons
- c. The selected bidder / concessionaire shall provide conveyance facilities for maintenance, transporting the manpower, tools/tackles, test/ measuring equipment and consumables like OFC cable, Joint Closures, Jointing Pit, ducts, couplers, etc. A suitable vehicle shall be available round the clock with each of the maintenance team. The vehicle should be in a good working condition, compliant with all regulatory compliances & policies and shall not be more than five years old
- d. The selected bidder / concessionaire shall provide communication facilities to the maintenance teams. This shall include landline phone at office location, laptop/desktop (as per situation) and mobile phone to members of the maintenance teams to contact on an urgent need basis around the clock. The team-in-charge shall have a mobile phone of a mobile operator whose coverage is available in the desired section and it shall always be on.
- e. The selected bidder / concessionaire will be required to carry out maintenance activities which include identification of OFC fault/cut on ground, obtaining permission from local authorities if required, excavation of earth to expose cable, laying of the required length of OFC with protection wherever required, splicing of OFC, installation of Jointing pit & back filling of the pit with sand, supply and installation of cable Route Markers and Joint Markers as per specification, testing of OFC and updating of OFC as-built drawings and communicating back to the helpdesk/user of service restoration to confirm that the fault is restored.
- f. The selected bidder / concessionaire shall arrange for logistics to provide facilities such as AC/DC power source, lighting arrangement, dewatering facility, DG sets etc., which may be required during the execution of maintenance job at the site.

- g. Optimum functionality of maintenance teams shall be a prime necessity to carry out day-to-day maintenance of OFC links. OFC and accessories spare to cater for repair of the fibre cuts shall be always maintained with each of these teams.
- h. The selected bidder / concessionaire shall take insurance for all the workmen engaged under this contract and as per labour laws applicable from time to time.
- i. In case of preventive maintenance, timely communication shall be made with the required stakeholders and consent shall be taken from PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant

2.6.3 Methodology for Fault Restoration/ Fiber Cuts

Under OFC link cut condition, the following minimum activities shall have to be taken up by the lead SI for its restoration for the end-to-end restoration of the network traffic/service:

- a. On receipt of information of fault in OFC, the team stationed at the Communication Node shall move immediately for locating and rectifying the fault as per the response time given below. The fibres in use by PCSCL or PCMC or leaser shall be restored first. Sufficient labour shall be engaged for speedy restoration. Adequate care shall be taken not to damage any other cable if laid in the same trench or near or adjacent to it
- b. For the identification of the exact fault location on an immediate basis, the OTDR measurement of spare fibre shall be made from the nearest telecom station/Node. For better clarity, the OTDR measurement on spare fibre shall be taken at Nodes / nearest to OFC joints situated at both ends of cut and using a dummy fibre spool of 1km, in case required.
- c. After the OTDR measurement, the as-built drawing shall be referred and the physical site of fault on the ground shall be located. It may be possible that data in the as-built document may not be accurate. Thus, the As-built drawing shall be taken as reference only. No claim/s of SI will be entertained on account of this
- d. Accordingly, locating the OFC fault, the job of excavation in all types of soil, identification of OFC, blowing of cable, construction of jointing pits, splicing of OFC, back filling of trench & jointing-pit shall be taken up as per the industry standard procedure/s. This shall be incorporated in the cable route plan also
- e. The splicing of fibres is to be carried out in line with the installed fibre and measurements are to be taken on spare fibres. In case the active fibres are to be used, all appropriate and necessary precautions are to be taken concerning the power supplied to the fibre, splicing, trenching, ducting, etc. Restoration of the site shall be done properly and up to the satisfaction level of the designated PCSCL personnel
- f. In case of OFC cut where it is not possible to pull the cable from either end, the selected bidder / concessionaire or SI shall make two pits/ splicing joints between the required lengths of new OFC to be laid between the two joints. The spacing of joints/ pits shall be depending up on the situation at the site and shall be decided by Site Engineer. The remaining OFC shall be coiled in both pits. Wherever a new joint is made or an existing joint is attended to for rectification during the maintenance period, the joint/s shall be buried to the depth of 1.2 metres from the ground level in the joint chamber
- g. After the completion of site activities, the selected bidder / concessionaire or SI shall ensure the restoration of the traffic from PCSCL NOC and thereafter, fresh OTDR measurements and traces (for 1310nm, 1550nm) shall be taken for all fiber/s and further submitted to PCSCL representative

- h. After the completion of site activities and hop test, the As-built drawing shall be updated by incorporating the new details like OFC loop used, Joint-pit location, etc. Post fault restoration, the length of the loop in the joint pit shall be incorporated in As-built drawings
- i. After attending to the fault & permanent restoration a Fault-Rectification report, jointly signed by PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant and the selected bidder / concessionaire, shall be generated for the closure of the complaint
- j. Any other job required for the restoration of the OFC fault/cut in totality is to be taken up by the selected bidder / concessionaire or SI
- k. In case the site condition is not favourable for the immediate restoration of the fault, the temporary restoration of the service fibres shall be taken up immediately with the approval of an authorized representative of PCSCL or PCSCL appointed committee or PCSCL appointed consultant. Permanent restoration work will not be considered in breakdown time unless there is again link break during the restoration job. Permanent restoration of joint pits is to be carried out by the selected bidder / concessionaire within a reasonable time of fault / OFC cut. In case the site is not conducive for permanent restoration some arrangement of manpower shall be done by the selected bidder / concessionaire for safeguarding exposed OFC till permanent restoration is performed
- l. No extra payment shall be given to the selected bidder / concessionaire or SI on account of the deployment of additional manpower in such case/s. Any additional cut in that stretch will not be counted in SLA measurements as this is non-attributable to PIA
- m. The selected bidder / concessionaire or SIs must install the jointing chambers after permanent restoration is done
- n. In case of any breakdown in the OFC network, the selected bidder / concessionaire or SI shall be responsible for obtaining approval from concerned authorities as required for repairing. PCSCL can assist in getting permission for repair in a few cases where there is urgency
- o. Drains, pipes, cables and similar services encountered in the course of the works shall be guarded by the selected bidder / concessionaire at his own cost, so that they may continue in full and uninterrupted use to the satisfaction of the Owners thereof
- p. Any damage done by the selected bidder / concessionaire to the existing utility pipelines, the same selected bidder / concessionaire must fully repair the same or bear the cost of complete repair and recovery of the same without delay to the satisfaction of the Engineer-in-Charge
- q. The selected agency shall observe all national and local laws, compliances, ordinances, rules & regulations and requirements pertaining to the work and shall be responsible for any and all extra costs arising from violations of the same
- r. The selected bidder / concessionaire shall have a competent and well-experienced supervisor at all times while performing such repair and restoration work/s. Any instruction/s given to such supervisor shall be considered as having been given to the selected bidder / concessionaire
- s. The selected bidder / concessionaire shall employ as many personnel as required to comply with the local rules and administrative orders governing the Working Hours of Employment. The Selected bidder / concessionaire shall be responsible for compliance with all statutory requirements including but not limited to personnel-related matters
- t. The minimum down time shall include time taken in the restoration of fault/ cut caused by any means like miscreant activity at day or night, due to work done by any

other organization, due to development of high losses/ break at existing joints, fault caused due to rodent/ant, etc.

- u. In case of partial damage of the cable or development of high loss in the working and spare fibre or cable cut at any time (day/night) by miscreants or by any other entity, the responsibility of repairing the defective fibre lies with the selected bidder / concessionaire
- v. In case the selected bidder / concessionaire fails to completely restore (as per original condition) or submit OTDR test (power level in live equipment) records or update the As-Build Diagram (ABD), to establish completion of work a penalty shall be levied for the work involved at the site
- w. Examination of Finished Work : When finished work is taken down for inspection for any reason, the selected bidder / concessionaire shall bear the entire expenses incidental thereto if the said work is found to be defective. This situation may apply to both planned works as also to emergency restoration.

2.6.4 Monitoring of Telecom Infrastructure

In addition to the above, the Selected bidder / concessionaire shall be responsible for the following project monitoring activities as per the selected model but not limited to:

- a. Selected bidder / concessionaire shall monitor the progress, monetization & operations of the project as per the project plan.
- b. Selected bidder / concessionaire will notify the critical components/activities to PCSCL well in advance so that the same are addressed appropriately and the project timelines are not affected.
- c. Selected bidder / concessionaire shall verify the monthly status reports submitted and provide a summary report to PCSCL.
- d. Preparation and upload of all data/reports/certificates on project management tool and/or submitted the same to PCSCL as per pre-defined procedures.
- e. Regular monitoring of the tenants' management information system & reviewing various data/reports submitted by tenants.
- f. Highlight deviations/issues to the concerned authority within the specified time limits and assist PCSCL in the resolution of issues.
- g. Monitor and maintain Issue Tracker and keep on updating the status of all risks and issues from time to time in the Project Management tool.
- h. The request raised by the tenant for deviations, additional items and time extensions is to be analyzed by the agency. It will forward the recommendations within 7 days of the occurrence to PCSCL for information purposes. Each tenant onboarding will be approved by PCSCL, followed by a tri-party agreement between PCSCL, Concessionaire & the tenant. Only PCSCL (network Committee) have the "right to refusal" for tenant onboarding, Concessionaire at his level can not deny any proposal or any leasing request.
- i. The selected bidder / concessionaire is required to coordinate with all the stakeholders and support PCSCL while interacting with various agencies (internal and external) during the contract period. The selected bidder / concessionaire shall build mechanisms to ensure coordination and consultation between all key stakeholders and members of the governance committees on a continued basis to facilitate the network monetization.
- j. The selected bidder / concessionaire shall provide seamless monitoring access to PCSCL Officers, Network Committee members or the experts and consultants appointed by PCSCL. Any delay or denial, in this case, leads to penal actions, in line with the impact faced/to be faced.

2.7 Network Infrastructure Extension

2.7.1 Last Mile Connectivity

2.7.1.1 Design, Supply and Install all the IT Infrastructure and Systems

- a. Agency shall be responsible for provisioning end-to-end IT Infrastructure & System Applications at all levels- the field level, PoPs, the centralised location, Network Operations Centre (NOC), Server Room, etc. including installation of materials/accessories/consumables/libraries/assemblies, etc. necessary for the proposed monetization of network Infrastructure under this RFP.
- b. The selected bidder / concessionaire shall be responsible for coordinating with the purchaser's appointed entities for successful termination of the fibre cable at each of the field locations, city network PoPs, wherever required along with provisioning, installation and commissioning for housing of passive and active equipment like LIU, patch cord, etc.
- c. The selected bidder / concessionaire shall be responsible for executing requisite site preparation work including electrical, civil, administrative, etc. at Server Room, Network Operations Centre (NOC), PoPs, and Junctions Boxes to ensure that the site is ready and secure for hosting infrastructure
- d. The selected bidder / concessionaire shall be responsible for performing the reinstatement and restoration of the sites back to the previous/normal conditions as per the prevalent norms and to the satisfaction of the PCSCL / concerned entity/ PCSCL appointed consultants, wherever applicable
- e. The selected bidder / concessionaire is required to place their own switches, SDWAN, UPS, cables, batteries, LPUs and any required hardware for last-mile connectivity and wherever Lit-up fibre is to be monetised. Further PCSCL would try to accommodate the mentioned hardware in the already placed JB's but if the space is not sufficient then the selected bidder / concessionaire would be required to deploy and install their own junction box which could be either fixed on the top of the already present JB or could be pole mounted JB (which needs to be approved by either PCSCL or PCSCL appointed consultant). For the same, all the expenses for purchase, movement, deployment, placement, installation, etc shall be the sole responsibility of the selected bidder / concessionaire and deployed infrastructure shall be retained by bidder post completion of contract or in case of termination. In case, if the already placed JB's of PCSCL is utilized by bidder then related infrastructure shall be removed and retained by bidder post completion of contract or in case of termination.
- f. PCSCL would bear all fibre cable costs for the last mile as well as network extension/expansion. Further, the number of cores and other related specifications should be approved by PCSCL or PCSCL appointed committee or PCSCL appointed consultant.
- g. PCSCL will provide the locations of all the PoPs and junction boxes for last-mile connectivity, but the selected bidder / concessionaire would be responsible for all the investment required for all kinds of the IT and Non-IT hardware required for the leased infrastructure.

- h. Agency shall also provide a comprehensive onsite OEM warranty for all the supplied products/services at all the designated project locations for the entire project period.
- i. All the hardware, equipment, software, policies, timelines, etc. shall be approved by PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant

Provisioning of Network Connectivity

The selected bidder / concessionaire shall provide the required hardware for making the fibre cores (active) either within the existing Junction box or separate junction box which can be mounted on the existing junction box or could be pole-mounted to the nearest PCSCL/PCMC pole. The bidder to bear the cost for additional such infrastructure (JB, switch, UPS, LIU etc.) for provisioning the last mile connectivity.

2.7.1.2 Further City Network Extension

1. The selected bidder / concessionaire shall lay down the fibre cable/s and erect the associated network infrastructure as per the industry standards including but not limited to procurement, deployment, installation, implementation and maintenance of the required items/equipment
2. All the future extensions or expansions shall be in line with the network policy prepared by the selected bidder / concessionaire in accordance with the approvals from PCSCL or PCSCL appointed expert committee or PCSCL-appointed consultants
3. All proposed or required extensions of the network shall be submitted by the selected bidder / concessionaire along with detailed required assessment, justification and clarifications to PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant for their approval. Further, the end decision shall be on the discretion of PCSCL or PCMC
4. The extension of the network shall be in line with the existing network framework. Also, the intention of the network extension shall be to either to reach the areas (with possible revenue potential) which were not covered earlier by PCSCL in the 600 KM fibre network plan or for ensuring the last mile connectivity
5. The network laying charges shall be paid to the selected bidder / concessionaire as per the PCMC DSR Rates or actual rates discovered by PCSCL
6. The extended network once activated shall be considered as part of the original approx. 600 KM fibre network backbone. Thus, shall be additionally added to the fixed costing and revenue sharing model which will be decided and signed upon while appointing the selected bidder / concessionaire through this RFP
Ex. The Yearly Minimum Revenue Guaranteed (of 1st year) is "60 Cr." for 600 Km network at start of the contract period. If the network extension happens of 100 km due to the last mile in one year, then from 2nd year, Yearly Minimum Revenue Guaranteed would be 70 Cr. for total of 700 km (600 km +100 km) network i.e. proportionate increase in Yearly Minimum Revenue Guaranteed for each consecutive year till the end of the contract.
7. One of the most important steps the selected bidder / concessionaire is required to take is to ensure that it is carefully managing all the assets, including conduit and fibre provided and additionally deployed by the selected bidder / concessionaire on the field for the leasing of the network.

2.8 Resource Deployment

The selected bidder / concessionaire shall provide an adequate number of personnel, each responsible for a specific role during the project implementation and O&M phase. Selected bidder

/ concessionaire shall provide a clear definition of the roles and responsibilities of each individual personnel, which before deployment of resource needs to be in turn approved and agreed by PCSCL or PCSCL appointed expert team or PCSCL appointed consultant.

Agency shall have a well-defined hierarchy and reporting structure for various teams and team members that shall be part of the project. Also, the selected bidder / concessionaire must provide the list of proposed Manpower for the Project. Any changes in Manpower deployment shall be applied with proper justification and replacement having at least equal or better experience and skill sets and shall have to be approved by the purchaser (PCSCL).

1. The selected bidder / concessionaire will designate their resources to coordinate with the corporate office of PCSCL and PCSCL appointed expert committee or PCSCL appointed consultant as per the scope of work
2. The resource deployment plan shall take into consideration the redundancy plan in case any agency deployed resource is unavailable. Also, the change or temporary replacement of any resource of the selected bidder / concessionaire shall be approved by PCSCL post discussion with PCSCL appointed expert committee or PCSCL appointed consultant
3. The selected bidder / concessionaire shall carry out all necessary activities during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract
4. The selected bidder / concessionaire is required to deploy highly experienced and skilled resources to carry out all the necessary activities for deployment and execution of the scope of work
5. As and when required the selected bidder / concessionaire shall provide adequate training/s to all the deployed resources, as required to carry out the activities mentioned in the scope of work. The report of such training shall be shared with PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant
6. It is the sole responsibility of the selected bidder / concessionaire to ensure that all the resources deployed by the selected bidder / concessionaire shall have the required infrastructures to perform their daily and allocated tasks (equipment, phone, laptop, internet connectivity as per the requirements of the role & to fulfil the project need)
7. The PCSCL shall reserve the right to discard/reject any resource deployed by the selected bidder / concessionaire at its own discretion

2.9 Monitoring & Vigilance

1. The PCSCL, PCSCL appointed experts & consultants and the network monitoring committee shall have right to monitor the NOC, filed operations, allocations & deallocations data & facts., monetization agreements, financial calculations any other data & records related to the monetization.
2. The PCSCL, PCSCL appointed experts & consultants can randomly inspect, verify & collect evidence on the observations/findings.

2.10 Obligations of the Selected bidder / Concessionaire

1. Design of the last mile Telecom Network from PCSCL's chamber/PoP to tenant or end-user premise; supply, installation, testing & commissioning of the required network components like Routers, Switches, Leased line Modems, any type of media converters, any intermediate devices and other items required for the provisioning of the services as required by the tenant or end-user.

2. Design / up-gradation of the core IT infrastructure like server, storage, router, switch, firewall etc. required for the installation of Network Operation Centre (NOC) installation, testing & commissioning of this equipment at PCSCL's central location/data centre / NOC as required by the bidder to manage the customer link & for billing
3. Software upgrades for the last mile networking components such as routers, switches etc. are installed by the selected bidder / concessionaire for smooth functioning of the Network & customer link
4. Operation & Maintenance of the last mile link/s and associated infrastructure/s
5. The selected bidder / concessionaire will provide the details of PCSCL's POP/end OLT / tenant locations/end-user location where bandwidth will be injected into the PCSCL's Network & taken out of the PCSCL's Network for customer connectivity
6. The selected bidder / concessionaire shall have to provide necessary technical information like the type of equipment/s, port required to establish connectivity with PCSCL Network, bandwidth to be configured, VLAN (if any), etc. to PCSCL for circuit provisioning in PCSCL's Network. Further, the same need to be approved by PCSCL or PCSCL appointed expert committee or PCSCL appointed consultant
7. Maintenance, support services, annual maintenance contract etc. in respect of equipment supplied to the customer shall be in scope of selected bidder / concessionaire.
8. Sales & marketing activities to on-board the customer will be in the successful bidder's scope.
9. Bidder will be solely responsible for all commercial functions of bill issue to & payment collection from the customer collection on behalf of PCSCL for the Telecom services provided to the customers.
10. Bidder will have to fulfil all the RoW/permission-related formalities for expansion of the duct/fibre network, including last mile & future expansion, including preparing & submitting RoW/permission applications, liaison & follow-up with PCSCL & PCMC while PCMC/PCSCL shall bear the RoW charges for the same. However, for the route length outside the jurisdiction of PCMC/PCSCL, the selected bidder / concessionaire to bear the cost of RoW, permission charges, restoration charges etc. PCSCL or PCMC shall not be responsible for any such associated charges

2.11 Obligations of PCSCL

1. To support building/extending the OFC Network as per the assured and anticipated market demand.
2. To monitor the operations & maintenance of PCSCL Fibre Network through self or by its appointed committee or consultant appointed.
3. PCSCL will provide raw AC power supply and earthing (if required) at the PCSCL POP locations at PCMC & police locations.
4. The selected bidder / concessionaire may need to lay OFC to connect end customer on the same route where PCSCL's OFC route is laid. In this case, PCSCL may permit to use of fibre core from PCSCL's OFC cable on case to case basis at the discretion and formal approval of PCSCL or by its appointed committee or consultant appointed.
5. PCSCL will support the selected bidder / concessionaire to get RoW permission from PCMC. The accountability for RoW permissions shall lie with the selected bidder / concessionaire only.

3 Project Timelines & Deliverables

T is the date of signing of contract

T1 is the date of Network infrastructure handover

T2 is T1+ 6 Months + 10 Years

Sr.	Milestone Name	Activities to be completed	Deliverables	Timeline
A	Business Plan & Resource Mobilization	1. Business Plan Submission 2. Deployment of resources	Business Plan	T+30 Days
B.1	Policy Framework – IP1, City Network Policy & Network Usage Framework	1. To get PCSCL IP1 Certificate 2. Submission of City Network Policy 3. Submission of Network Usage Framework (with leasing models) 4. Creation of Bank Escrow Account	1. PCSCL IP1 Certificate 2. Network Usage Framework 3. Bank Escrow Account	T+3 Months
B.2	Policy Framework – AS IS & Market Research	1. Submission of AS-IS Assessment (Private Fibre Networks) 2. Submission of AS-IS Assessment (Telecom players) 3. Submission of AS-IS Assessment (PCSCL City Network Infrastructure) 4. Submission of Market research report & outreach drive (Every 6 monthly activity from T)	1. AS-IS Assessment (Private Fibre Networks) 2. AS-IS Assessment (Telecom players) 3. AS-IS Assessment (PCSCL City Network Infrastructure) 4. Market research report	T+6 Months
C.1	NOC - Procurement	1. Supply of NOC IT & Non-IT elements	1. Material inspection report	T1+4 Months
C.2	NOC – Installations, Configurations & Integrations & UAT	1. Installation of non-IT elements 2. Installations, Configurations & Integrations of IT elements 3. UAT of NOC setup	1. Installation report for IT & Non-IT elements 2. Configurations & Integrations Report of IT elements	T1+6 Months
D.1	Existing Duct & OFC – DIT	1. Completion of existing ducts DIT	DIT Report	T1+2 Months
D.2	Existing Duct & OFC – Fibre Blowing	2. Completion of OFC blowing in the agreed ducts	OFC Blowing Report	T1+4 Months
D.3	Existing Duct & OFC – Testing & Commissioning	3. Completion of Testing & Commissioning of the newly blown OFC by the agency	Testing & Commissioning Report	T1+6 Months
E	Initiation of PCSCL Assets leasing & Monetization Period	4. PCSCL assets custody to agency	PCSCL Assets leasing Report	T1+6 Months till T2

4 Service Level Agreement (SLA) and associated Liquidated Damages (LD)

4.1 Purpose

The purpose of Service Levels is to define the levels of service provided by the SI to the Client for the duration of the contract. The benefits of this are:

- Help the Client control the levels and performance of SI's services
- Create clear requirements for measurement of the performance of the system and help in monitoring the same during the Contract duration.
- Start a process that applies to Purchaser and SI attention to some aspect of performance, only when that aspect drops below the threshold defined by the purchaser

The Service Levels are between the Client and bidder.

4.2 General Principles of Service Level Agreement

1. A service Level Agreement (SLA) is the contract between the purchaser and the selected bidder / concessionaire. SLA defines the terms of the Selected bidder / concessionaire's responsibility in ensuring the timely delivery of the deliverables and the correctness of the same based on the agreed Performance Indicators as detailed in the Agreement. This section defines various Service Level Indicators which will be considered by the purchaser in the Service Level Agreement with selected bidder / concessionaire. The selected bidder / concessionaire must comply with all Service Level Agreements (SLAs) Defined below to ensure adherence to project timelines, quality, and availability of services. Noncompliance with the SLA attracts a penalty.
2. The selected bidder / concessionaire shall perform its obligations under the agreement entered with the PCSCL, in a professional manner. In the event of failure of maintaining the SLA, a penalty shall be imposed on basis of the cost of concerning services as mentioned in SLA and would be levied subject to a maximum of 10% of "Yearly bidder's revenue share". PCSCL may recover such amount of penalty from any payment being released to the selected bidder / concessionaire or the Performance Bank Guarantee submitted by the selected bidder / concessionaire.
3. If any act or failure by the selected bidder / concessionaire under the agreement results in failure or inoperability of systems and if the PCSCL has to take corrective actions to ensure the functionality of its property, the PCSCL reserves the right to impose a penalty, which may be equal to the cost it incurs or the loss it suffers for such failures along with the inconvenience charges/penalty.
4. PCSCL may impose a penalty to the extent of damage to any equipment, infrastructure etc. if the damage was due to the actions directly attributable to the staff of Agency or due to the negligence of the selected bidder / concessionaire in performing its duties bound by this contract.
5. The PCSCL shall implement all penalty clauses after giving due notice/fair chance for justification to the selected bidder / concessionaire whereas the final decision from PCSCL shall be liable to the selected bidder / concessionaire.
6. If the selected bidder / concessionaire fails to complete the due performance of the contract in accordance with the specification and conditions of the offer document, the

PCSCL reserves the right either to cancel the work order or to recover a suitable amount as deemed reasonable as Penalty / Liquidated Damage for non-performance.

The Service Level agreements have been logically segregated into the following categories:

1. Liquidated Damages

The liquidated damages shall come into effect once the notification of Award has been issued by the Purchaser. It would be mainly applicable to the implementation phase of the project.

2. Service Level Agreement

SLA would be applicable in the operations and maintenance phase of the project. The penalties shall be applicable to the Operations & Maintenance cost of the solution component calculated quarterly. SLA would be applicable on the city Network backbone

4.3 Liquidated Damages

T is the date of signing of contract

T1 is the date of Network infrastructure handover

T2 is T1+ 6 Months + 10 Years

Sr.	Milestone Name	Activities to be completed	Deliverables	Timeline	Liquidated Damages
A	Business Plan & Resource Mobilization	1. Business Plan Submission 2. Deployment of resources	1. Business Plan 2. Onsite Resource Team	T+30 Days	INR 20,000 Per Day upto 5 Lac max.
B.1	Policy Framework – IP1, City Network Policy & Network Usage Framework	1. To get PCSCL IP1 Certificate 2. Submission of City Network Policy 3. Submission of Network Usage Framework (with leasing models) 4. Creation of Bank Escrow Account	1. PCSCL IP1 Certificate 2. Network Usage Framework 3. Bank Escrow Account	T+3 Months	0.5% of Yearly YMRC Per Deliverable Per week upto 1 Cr. max
B.2	Policy Framework –AS IS & Market Research	1. Submission of AS-IS Assessment (Private Fibre Networks) 2. Submission of AS-IS Assessment (Telecom players) 3. Submission of AS-IS Assessment (PCSCL City Network Infrastructure) 4. Submission of Market research report & outreach drive (Every 6 monthly activity from T)	1. AS-IS Assessment (Private Fibre Networks) 2. AS-IS Assessment (Telecom players) 3. AS-IS Assessment (PCSCL City Network Infrastructure) 4. Market research report	T+6 Months	0.25% of Yearly YMRC Per Deliverable Per week upto 1 Cr. max

C.1	NOC - Procurement	1. Supply of NOC IT & Non-IT elements	1. Material inspection report	T1+4 Months	0.5% of Yearly YMRC Per Deliverable Per week upto 5 Cr. max
C.2	NOC – Installations, Configurations & Integrations & UAT	1. Installation of non-IT elements 2. Installations, Configurations & Integrations of IT elements 3. UAT of NOC setup	1. Installation report for IT & Non-IT elements 2. Configurations & Integrations Report of IT elements	T1+6 Months	0.5% of Yearly YMRC Per Deliverable Per week upto 5 Cr. max
D.1	Existing Duct & OFC – DIT	1. Completion of existing dust DIT	1. DIT Report	T1+2 Months	0.25% of Yearly YMRC Per Deliverable Per week upto 5 Cr. max
D.2	Existing Duct & OFC – Fibre Blowing	1. Completion of OFC blowing in the agreed ducts	1. OFC Blowing Report	T1+4 Months	0.25% of Yearly YMRC Per Deliverable Per week upto 5 Cr. max
D.3	Existing Duct with new OFC – Testing & Commissioning	1. Completion of Testing & Commissioning of the newly blown OFC by the agency	1. Testing & Commissioning Report	T1+6 Months	0.5% of Yearly YMRC Per Deliverable Per week upto 5 Cr. max

4.4 Service Level Agreement (SLA) Terminologies

- a) This section is agreed by the purchaser and SI as the key performance indicator for the project.
- b) Service Level Agreement (SLA) shall become part of the contract between the Client and the SI. SLA defines the terms of SI's responsibility in ensuring the timely delivery of the deliverables and the correctness of the deliverables based on the agreed performance indicators as detailed in this section.
- c) The SI shall comply with the SLAs to ensure adherence to project timelines, quality and availability of services throughout the Contract. For the SLA, definitions and terms as specified in the document along with the following terms shall have the meanings set forth below:
 - “Total Time” – Total number of hours in consideration for evaluation of SLA performance.
 - “Downtime” – The time for which the specified services/components/system is not available in the concerned period, being considered for evaluation of SLA, which shall exclude downtime owing to Force Majeure and reasons beyond the control of the SI.

- “Scheduled Maintenance Time” – The time for which the specified services/components/system with specified technical and service standards are not available due to scheduled maintenance activity. The SI shall take at least 15 days prior to approval from the Client for any such activity. The scheduled maintenance shall be carried out during nonpeak- hours and shall not exceed more than four (4) hours and not more than four (4) times in a year.
- “Uptime” – time for which the specified services are available in the period being considered for evaluation of SLA.
- $$\text{Uptime (\%)} = [1 - \{(\text{Total Downtime}) / (\text{Total Time} - \text{Scheduled Maintenance Time})\}] * 100.$$
- Penalties shall be applied for each criterion/solution individually and then added together for the total penalty for a particular quarter.
- “Incident” – Any event/abnormalities in the service/system provided that may lead to disruption in regular/normal operations and services to the end-user.
- “Response Time” – Time elapsed from the moment an incident is reported to the Helpdesk either manually or automatically through the system, to the time when a resource is assigned for the resolution of the same.
- “Resolution Time” – Time elapsed from the moment incident is reported to the Helpdesk either manually or automatically through the system, to the time by which the incident is resolved completely and services as per the Contract are restored.

4.5 Service Level Agreement (SLA) Monitoring

- The Service Level parameters as defined below shall be monitored periodically, as per the individual parameter requirements. Purchaser shall provide the Enterprise Management System Tool for the SLA measurement and monitoring; SI shall be required to configure the desired solution component-wise SLA in the same.
- SI shall be expected to take immediate corrective action for any breach in SLA. In case issues are not rectified to the complete satisfaction of the Purchaser, within a reasonable time defined in this RFP, then the Purchaser shall have the right to take appropriate penalizing actions or terminate the contract.
- The following section reflects the measurements to be used to track and report the system’s performance regularly. The targets shown in the following tables are for the period of the Contract.

4.6 Minimum Benchmark Service Level Agreement (SLA)

- The consessionaire will provide minimum service/link uptime as per industry standard.
- The consessionaire has its own NOC with NMS (Network Management System) application which will be used to determine the uptime of the service/link as mentioned below.
- As the customer service will be extended beyond PCSCl’s PoP installed on the field, therefore end-level active device (whichever it may be) uptime recorded in NOC’s NMS will be considered for the calculation of the SLA of individual service.
- SLA deduction shall be levied from the consessionaire’s % share of the YARG.
- SLA deductions will be limited to the ceiling of 10% of the concessionaires share of billing.

5 Revenue sharing to PCSCl

The selected bidder / concessionaire will have to pay below mentioned 2 types of revenues to PCSCl over the contract tenure:

1. Yearly Minimum Revenue Committed: Selected bidder / concessionaire will have to pay the quoted fixed yearly charges for a period of 10 years irrespective of quantum of revenue generated through leasing of city network & pole infrastructure in a calendar year.
2. Yearly Additional Revenue Generated (% Share to PCSCCL): Selected bidder / concessionaire & PCSCCL shall withdraw the agreed % share from the yearly additional revenue generated (over and above the yearly minimum revenue committed) from leasing of network & pole infrastructure (bidder to submit the % share of PCSCCL on YARG as part of its commercial bid)
3. The selected bidder / concessionaire/Agency shall submit copies of the monthly bills raised by the selected bidder / concessionaire (on behalf of PCSCCL) to its end customer to verify the revenue share amount calculated by the bidder. The selected bidder / concessionaire will have to comply with this requirement as & when required.
4. If the selected bidder / concessionaire fails to pay PCSCCL Yearly Minimum Revenue Commitment for 3 consecutive, PCSCCL at its discretion shall terminate the contract by issuing written notice to the selected bidder / concessionaire & shall recover the due payment from the bank guarantee submitted by the selected bidder / concessionaire.

Total 6 months mobilization period will be considered from the date of signing of the contract for fulfilling the pre-requisites regarding the network monetization. Agency will mobilize field teams, arrange all required materials, permissions, fibre blowing & commissioning etc. and also get the products and rates approved from PCSCCL including re-designing of new suitable products/service (if required) during this mobilization period.

6 Responsibility Matrix

Sr.	Area	Selected bidder / concessionaire	PCSCCL	PCSCCL Expert/Consultant
	Existing Infrastructure Understanding	<ol style="list-style-type: none"> 1. To conduct the in-depth assessment of available network infrastructure & its status 	<ol style="list-style-type: none"> 1. Sharing of City Network KMZ drawings 2. Sharing of pole & gantry infrastructure GIS co-ordinates 3. Sharing the As Built details of the infrastructure with the selected bidder / concessionaire 	Facilitate coordination among the stakeholders and assist Selected bidder / concessionaire in understanding the existing architecture, layout & other details of the infrastructure to be monetised
	Regulatory & Statutory Compliances- IP1/applicable Registration for PCSCCL	<ol style="list-style-type: none"> 1. Apply for requisite/ IP1 registration on behalf of PCSCCL 2. Follow up with the concerned authority to ensure successful completion of the registration process 3. Future renewal/ amendments/ upgradations on PCSCCL 	<ol style="list-style-type: none"> 1. To pay selected bidder / concessionaire required fees/charges for IP1/requisite registration, on actual basis 2. To share required documents for registration 3. Finalize the arrangement between 	<ol style="list-style-type: none"> 1. Facilitate handover of the required documents and assistance to the bidder during the registration process. 2. Provide end to end assistance

Sr.	Area	Selected bidder / concessionaire	PCSCL	PCSCL Expert/Consultant
		regulatory compliances 4. Opening of Escrow Account as per the instructions of PCSCL; the cost for the same to be borne by the bidder.	the bidder & PCSCL for entering an Escrow Account	to the PCSCL.
	City Network Policy	To prepare, submit & get it approved from PCSCL the City Network Policy document. End to end cost for the same including obtaining inputs from the leading industry experts/SMEs are to be borne by the bidder.	1. To review, suggest required changes & to approve	To review and suggest required changes in the City Network Policy document
	Market Research & Business Model Preparations	1. To conduct the research & outreach drive for association with potential tenants. All the advertising/outreach cost to be borne by the bidder during the contract tenure (the modus operandi & frequency of such drives shall be decided in consultation with PCSCL) 2. To prepare various leasing models & business models/packages pertaining to the leasing of fibre, duct & pole infrastructure. End to end cost for the same including obtaining inputs from the leading industry experts/SMEs are to be borne by the bidder. 3. Assessment of existing private telecom network and prepare "future expansion plans". The bidder to bear the cost of site survey, market analysis, software tools required to prepare & update the GIS enabled city network routes etc.	1. To review, suggest required changes & to approve	To review and suggest required changes in the City Network Policy document & future expansion plans

Sr.	Area	Selected bidder / concessionaire	PCSCL	PCSCL Expert/Consultant
		4. To prepare & submit required documentations (RFP, leasing contracts etc.) required for executing the “contracts/agreement” with the tenants/consumers. End to end cost for the same including obtaining inputs from the leading industry experts/SMEs are to be borne by the bidder.		
	Identification of existing unauthorised Fibre network	<ol style="list-style-type: none"> 1. As Is Assessment of the “permission” granted by PCMC/PCSCL till date for installation/erection of duct/fibre/pole infrastructure in the city 2. To conduct citywide survey & identify the presence of unauthorised Fibre/duct/Pole network infrastructure in the city during the entire contract duration. 3. To take “demolition drive” against the identified unauthorized infrastructure. The cost for the same (except legal charges) shall be borne by the bidder 	<ol style="list-style-type: none"> 1. To remove/ take corrective actions of the unauthorized network/s 2. To provide due support function in conduction of the “demolition drive” like legal formalities/charges, police protection, intimation to the defaulters etc. 	To assist bidder and PCSCL in document collation & stakeholder communication
	Allotment & De-allotment of available network & pole infrastructure	<ol style="list-style-type: none"> 1. Allocation of available network & pole infrastructure to the interested tenant/consumer basis the business models/fixed rates/PCSCL accepted rates. 2. Maintain & track the allotted network & pole infrastructure through “Asset Management / Inventory Management 	<ol style="list-style-type: none"> 1. To review & to suggest corrective actions, if any 2. Approve “allotment & de-allotment of network & pole infrastructure” 	1. To provide day to day support to the bidder & PCSCL related to project monitoring & management

Sr.	Area	Selected bidder / concessionaire	PCSCL	PCSCL Expert/Consultant
		<p>System”, records maintenance in hard copy as well; the cost for the same to be borne by the bidder</p> <p>3. In case of, tenure completion/termination/payment default etc. with the tenant/consumer, the bidder shall be responsible for de-allotment & handover of the requisite network & pole infrastructure. All the cost in terms of restoration/correction of infrastructure, books maintenance & payment default shall be on the head of the bidder.</p>		
	Setting up of Network & Data Centre Operations Monitoring Centre	<p>1. SITC of requisite systems (Network & Data Centre Operation Monitoring System & IT Infrastructure required to seamless operations at the PCSCL’s ICCC</p> <p>2. SITC of requisite compute & storage as part of its solution either at cloud or at on-premises; the cost for the same to be borne by the bidder.</p> <p>3. Provide requisite manpower at PCSCL’s ICCC for 24*7 operations.</p> <p>4. Provision for integration services (including integration with PCSCL’s ICCC platform, interfacing PCSCL’s field as well as server room devices/infra with Network & Data Centre Operation Monitoring System); the end-to-end cost for the same</p>	<p>1. To provide access & physical space at its ICCC for setting Network & Data Centre Operation Monitoring Centre and hosting associated IT infrastrucutre</p> <p>2. To provide requisite details on ICCC platform, available devices, IT Infrastructure etc. for enabling integration with the proposed system</p> <p>3. To conduct UAT & sign off of Network & Data Centre Operation Monitoring System</p>	<p>1. To assist PCSCL in undertaking UAT to check for conformance to defined specifications Network & Data Centre Operation Monitoring System</p> <p>2. To provide & assist in furnishing all the requisite details on existing system & infra while also enabling the bidder in ensuring requisite integration/interfaces among the existing & upcoming systems</p>

Sr.	Area	Selected bidder / concessionaire	PCSCCL	PCSCCL Expert/Consultant
		<p>including the additional licenses required at PCSCCL's exiting ICCCL platform and OEM integration services to be borne by the bidder. OEM's MAF to be submitted in case of supply of additional licenses.</p> <p>5. To submit Network & Data Centre Operation Monitoring System Specification Compliance on the letterhead of the OEM along with MAF.</p> <p>6. Provisioning for Security operations of the captioned network as per standard industry standards and policies.</p>		
	Expansion of existing network & pole infrastructure	<p>1. Trenching & Ducting, duct laying & fibre pulling along with supply of requisite material (duct, fibre cable, jointer, coupler, route marker, DIT, OTDR etc.); the cost for the same to be borne by the bidder and upon successful acceptance of the work, PCSCCL shall reimbursed as per DSR rates/applicable rates/PCSCCL's approved-appropriate rates.</p> <p>2. To coordinate & accept Duct Integration Test (DIT) for all the existing three empty ducts across the available network route length (DIT to be conducted by PCSCCL's contractor)</p> <p>3. SITC of active & passive infrastructure (junction</p>	<p>1. To provide requisite "Right of Way" to the bidder at "Zero Cost" for executing Trenching & Ducting activity to the new network routes along with approval for installation of new pole infra. (including design)</p> <p>2. To perform UAT for the requisite supply & services rendered.</p> <p>3. Release of payment for the requisite services & material supply made by the bidder as per the approved/applicable rates.</p>	Provide project management services (material inspection, work supervision, UAT etc.)

Sr.	Area	Selected bidder / concessionaire	PCSCL	PCSCL Expert/Consultant
		<p>box, LIU, switch, SD WAN appliance, power meters etc.) at the existing (approx.1500) as well as upcoming network PoPs/nodes, as applicable; the end-to-end cost to be borne by the selected bidder / concessionaire.</p> <p>4. Provisioning of telecom infrastructure on top of the existing PCSCL's poles or SITC of new poles at other locations; the end-to-end cost for the same (including modification of existing pole infra, telecom infra, new pole etc.) is to be borne by the bidder.</p> <p>5. Bidder to obtain approval from PCSCL before undertaking any above activities after providing requisite network designs, topology, product specifications etc.</p> <p>6. In case of extension of existing network route length the "Yearly minimum revenue committed" shall increase proportionately starting next month of deployment.</p>		
	Operations & Maintenance (O&M) of networking & pole infrastructure	<p>1. Deployment of requisite manpower on field along with patrolling vehicles to keep a close monitoring on the laid/leased network & pole infra</p> <p>2. Undertaking preventive & corrective measures to ensure conformance to the agreed Service Level Agreements</p>	<p>1. Requisite approvals to access the field sites for undertaking corrective measures & site restoration.</p> <p>2. Regular monitoring & random inspection</p>	Regular monitoring through Network & Data Centre Operation Centre

Sr.	Area	Selected bidder / concessionaire	PCSCL	PCSCL Expert/Consultant
		<p>3. End to end cost for taking corrective measures like restoration of fibre/duct or pole infrastructure, laying broken fibre/duct along with associated materials/infra etc. to be undertaken solely by the bidder.</p> <p>4. Any penalty on non-conformance to the SLAs shall solely to be bear by the bidder</p>		

7 Special Terms & Conditions

Sr.	Area	Details
1	Ownership	The ownership of the existing network & pole infrastructure as well as the upcoming/future network & pole infrastructure (to be laid/created/established by the concessionaire under this contract) shall reside with PCSCL during and after the expiry of the contract. This RFP is intent to only lease the network & pole infrastructure of PCSCL/PCMC only for the limited time period. The concessionaire shall only be responsible for leasing and maintaining the said infrastructure during the contract tenure of 10 years on behalf of PCSCL/PCMC.
2	Right to Refuse & Accept	For any leasing request received from prospects/tenants, only PCSCL/PCMC have the "Right to Refuse & Accept". The concessionaire shall not have any right to refuse & accept any proposal, nor does it is allowed to undertake any monetization activity of the said infrastructure without the consent of PCSCL/PCMC during the entire contract duration.
3	Allocation & De-allocation	The concessionaire shall not allocate or de-allocate any network infrastructure to any tenant without formal approval from PCSCL/PCMC.
4	Escrow Account	All the revenue generated from the network & pole infrastructure (existing as well as upcoming infra to be laid by the concessionaire under this contact) monetization shall be credited in the "Joint Escrow Account" as per approved Terms & Conditions of PCSCL/PCMC.
5	Penalty	Any loss of revenue due to delay in work execution (last mile connectivity, future network extensions, future pole installations etc.) at the concessionaire's end, shall lead to recovery of requisite amount and/or the additional penalty (to be decided by PCSCL at the time of policy approval) from the concessionaire which shall be over and above the Yearly Minimum Committed Revenue.
6	Network Operations Centre (NOC) & Security Operations Centre (SOC)	<p>The entire cost of NOC & SOC setup including infrastructure & systems (compute, storage, applications, desktop, UPS etc.) along with its operations (including manpower for the entire contract period) shall be borne by the concessionaire during the entire contract period.</p> <p>The concessionaire shall avail the MeITY empanelled cloud service provider (CSP) for providing NOC & SOC services (in case of proposing cloud-based solution offering)</p> <p>PCSCL/PCMC shall only provide physical space at its ICCC for accommodating the manpower with basic facilities (civil space, electricity etc.)</p>
7	Cost of Passive & Active Elements	<p>Network Route Infra: For any last mile connectivity and future network infrastructure expansion, all passive infrastructure cost (fibre, duct, T&D, Pole, chamber etc.), as per DSR or PCSCL's applicable rates, shall be reimbursed by PCSCL whereas concessionaire shall bear end to end cost of all the active elements (including but not limited to junction box, UPS, switches, electric meter, LIU, patch chords etc.)</p> <p>Pole Infrastructure: all the cost associated for making requisite structural changes (without deviating the applicable norms) and deployment of smart devices (Display-lights-EV charging point etc.) on the existing pole shall be borne by the concessionaire. Concessionaire shall also bear end to end cost for design, procurement, supply, installation & commissioning of Smart Pole (including all the active & passive components) after obtaining approval of PCSCL.</p>
8	Increase in MRC	The Yearly Minimum Revenue Committed (YMRC) by the concessionaire shall increase proportionately with respect to the increase of "network route length" (through expansion of network to cover last mile and/or new route connectivity). The revised/increased MRC shall be applicable from next

		month of such work completion on pro rata basis.
9	Penalty on SLAs/ non-conformance	Any penalty on non-conformance to the agreed SLAs, between concessionaire and tenant, shall solely to be bear by the concessionaire. In such circumstances, concessionaire obligations towards committed MRC shall remain unchanged while the “penalty/deductions” shall also not be accounted in YARG.
10	Overhead & Illegal Fibre Network	The concessionaire to take “demolition drive” against the identified unauthorized infrastructure being laid in the city with the approval from PCSCL. The cost for the same (except legal charges) shall be borne by the concessionaire.
11	Audit	<p>PCSCL/PCSCL Network Committee/ PCSCL consultant shall have right to access & audit all the project sites & NOC anytime during the contract tenure with prior intimation.</p> <p>In case of any fraud/corrupt/malpractices being observed then PCSCL/PCMC shall impose strict penalty on the concessionaire and may also lead to the termination of the contract, at the discretion of PCSCL/PCMC.</p>
12		For ongoing PCSCL's & PCMC's development work where either udergroung trenching & ducting is not possible or there is destruction to the already laid underground duct/fibre network, in such scenario PCSCL & PCMC shall grant permission to the selected bidder / concessionaire for maintiaing the business continuity through laying the fibre network via overhead methodology while utilising existing infra like PCSCL's/PCMC poles to the best possible extent.
13		During the entire tenure of the contract, the bidder is not allowed to sublet/sub contract any part of the mentioned scope of work/activities to be undertaken by the bidder (except core civil work like trenching & ducting, pole deployment etc.)

8 Annexures (Specifications of IT Infrastructure & Systems currently deployed by PCSCL at its field locations & server room)

8.1 Optical Fiber Cable

a. TEC GR of Optical Fibre Cable

Sr. No.	Description	TEC GR
OFC.TR.001	Specification for Raw Material used in the manufacturing of OFC.	GR No. TEC/GR/TX/ORM-01/04 SEP.09
OFC.TR.002	Tools for installation & Operating the OFC & for assembly of the OF Splice Closures.	GR No. GR/OFT-01/03. APR 2006
OFC.TR.003	Drum specifications for Cable end.	GR No. G/CBD-01/02. NOV 94

b. Standards of sub-items (EIA/IEC/Bell Core/CISPR/ISO etc.).

Sr. No.	Description	Standards
OFCSTD.T R.001	ITU-T Recommendations	ITU-T G.652 D
OFCSTD.T R.002	Test Methods for Optical Fibres	EC 811-5-1, IEC 794-1-2-E1 IEC 794-1-2-E2, IEC 794-1-2-E3 IEC 794-1-2-E4, IEC 794-1-2-E7, IEC 794-1-2-E10, IEC 794-1-E11 IEC 794-1-2-F1, IEC 794-1-2-F3, IEC 794-1-2-F5, IEC 60793-1-30, IEC 60793-1-31, IEC 60793-1-32, IEC 60793-1-33, IEC 60793-1-34 IEC 60793-1-47, IEC 60793-1-51, IEC 60793-1-52, IEC-60793-1-53 IEC -60793-2-50
OFCSTD.T R.003	Colour Standard	EIA 598-C
OFCSTD.T R.004	Test Method for Optical Fibre	EIA 455-104, EIA/TIA-455-181, EIA/TIA-455-73
OFCSTD.T R.005	Test Methods for Optical Fibres International Quality Management System	ISO 175, ISO 9001-2000
OFCSTD.T R.006	Test Methods	FOTP-89, FOTP-181
OFCSTD.T R.007	Test Methods	ASTM D-566, ASTM D-790, ASTM D-1248, ASTM D-4565

c. Optical Fibre Cable

Sr. No.	Item	Minimum Requirement Description
FIBRE.TR.001	Cable Type	Optical Fiber Single Mode unarmoured Ribbon Type
FIBRE.TR.002	Core	96/48
FIBRE.TR.003	Mode	Single Mode
FIBRE.TR.004	Standards	G.652D Characteristics of a single-mode optical fibre cable
FIBRE.TR.005	Standards	All applicable TIA/EIA standards for single-mode fibre cable and those listed in these technical Requirements s.
FIBRE.TR.006	Type	The fibre optic cable shall be single mode, Ribbon unarmoured cable which shall be ordered in different fibre count and tube configuration as detailed in the functional Requirement s.
FIBRE.TR.007	Fibre attenuation	Fibre attenuation measurements shall be made in the factory in accordance with EIA-455-78A for single-mode fibre. The spectral width of the source used to measure attenuation shall be less than 10 nm.
FIBRE.TR.008	Colour Coding.	Colour coding of individual tubes and fibre shall be in accordance with EIA- 598 standards. The fibre colour coding shall be visible throughout the life of the cable. Colour concentrates or inks used to colour the optical fibre shall be heat stable and shall not be capable of permeating through the protective fibre coating causing transmission degradation of the optical fibre.
FIBRE.TR.009	General	The minimum bending radius of the fibre optic cable shall be at least 15 times the diameter of the cable or better during operation and shall be at least 10 times the diameter of the cable or better during installation.
FIBRE.TR.010		Fibre optic cable shall be able to withstand a pulling tension of at least 2700N without any resulting damage.
FIBRE.TR.011		All cables shall be supplied on wooden reels, with both ends of the cable accessible for testing. Each reel shall be clearly labelled with the cable code, length, and date of manufacture. All reels shall be protected with solid (2x4) wooden lagging, intended for export shipment.
FIBRE.TR.012		The material used in optical fibre cables must not support galvanic action. The core-cladding shall be all glass that is predominately silica (SiO ₂). Phosphorus, if used as a dopant in the optical fibre, shall be limited to a minimum to reduce the potential effects on fibre attenuation due to hydroxyl ions.
FIBRE.TR.013		Cable Code and Length Marking shall comply with Telcordia GR-20 standards. This shall include sequentially numbered length markings in meters imprinted on the jacket, and this length marking shall not be reset to zero along the cable length.
FIBRE.TR.014		In addition to length markings, each length of the cable must be permanently marked to include the following:

Sr. No.	Item	Minimum Requirement Description
		<ul style="list-style-type: none"> • Manufacturer cable and ID code • Year of the manufacturer (cable) • Customer Name "PCMC" • Number of fibre • SM (single mode)
FIBRE.TR.015		The entire fibre length shall be capable of withstanding potential tensile stress of not less than 100 kpsi (0.7 Gpa).
FIBRE.TR.016		Dry water-blocking materials shall be applied over the cable core to prevent the ingress of water, and movement along the cable sheath.
FIBRE.TR.017		Fillers may be included in the cable core to lend symmetry to the cable cross-section where needed. The buffer tubes shall be enclosed in a cable sheath as specified in this section.
FIBRE.TR.018		The cabled optical fibre shall maintain mechanical and optical integrity through an operational temperature range of 0°C to +70°C.
FIBRE.TR.019	Temperature	<p>Temperature cycling measurements shall be made in accordance with EIA-455-3A as per below:</p> <ul style="list-style-type: none"> • Storage Temperature: 0°C to 60°C • Installation Temperature: 0°C to 55°C • Operating Temperature: 0°C to 70°C
FIBRE.TR.020	General	Lightning withstand current shall comply with Telcordia GR-20 standards.
FIBRE.TR.021	General	A sheath slitting cord is Required for each sheath.
FIBRE.TR.022	Fibre Tests	<ul style="list-style-type: none"> • Tensile Strength Test • Abrasion Test • Crush Test (Compressive Test) • Impact Test • Repeated Bending • Torsion Test • Kink Test • Cable Bend Test • Test of Figure 8 (Eight) on the cable (Type Test) • Temperature Cycling • Cable Aging test • Water Penetration Test • Cable Jacket Yield Strength and Ultimate Elongation • Ribbon Dimension Measurements Test • Ribbon Resistance to Twist (Robustness) Test • Ribbon Residual Twist (Flatness) Test • Ribbon Separation Test • Ribbon Strippability Test • Ribbon Macro-bend Performance • Torsion Resistance of the ribbon test

Sr. No.	Item	Minimum Requirement Description
		<ul style="list-style-type: none"> Crush Resistance of Ribbon Checking the quality of the loose tube (containing optical fibre ribbon) <ul style="list-style-type: none"> Embrittlement Test of Loose Tube Kink Resistance Test on the Loose Tube Drainage Test for loose Tube Checking for Easy Removal of Sheath Check the Effect of Aggressive Media on the Cable (Acidic and Alkaline Behaviour) Cable Outer Diameter and Jacket Thickness
FIBRE.TR.023		<p>Certificates And Proof of Factory Testing:</p> <p>The bandwidth and attenuation of every fibre in each cable shall be tested in the factory. Single-mode measurements shall be taken at 1310 nm and 1550 nm. These factory test results shall be provided with the cable. One copy shall be attached to the cable reel, inside the lagging, prior to shipment, and one copy shall be submitted to PCSCL.</p>
FIBRE.TR.024		<p>The Fiber Test report shall provide the following parameters.</p> <ul style="list-style-type: none"> Product Name. Fibre Identification No. Fibre Length. Group Refractive Index at 1310nm &1550nm Attenuation at 1310nm Attenuation at 1383 ±3nm (Post- hydrogen aging). Attenuation at 1550nm. Mode Field Diameter at 1310nm. Fibre Cut-off Wavelength. Zero Dispersion Wavelength Zero Dispersion Slope. Chromatic Dispersion at 1285-1330nm. Chromatic Dispersion at 1550nm.] Maximum Attenuation in (1285-1330) nm. Polarization Mode Dispersion. Cladding Diameter. Core/Cladding Concentricity Error. Cladding Non-circularity. Coating Diameter Cladding/Coating Concentricity Error. Coating Non-circularity. Fibre Curl. Proof Test Level.

Table 1: TRs of 48 Core Optical Fibre Cable

8.1.1 96 Core Fiber

Sr. No.	Parameter	Minimum Requirement Description
Fiber96.TR.001	Fiber Count	96
Fiber96.TR.002	Fiber per Ribbon	6
Fiber96.TR.003	Fiber Color in Ribbon	Blue, Orange, Green, Brown, Slate, White.
Fiber96.TR.004	No of Ribbon per Loose Tube	4
Fiber96.TR.005	Ribbon Identification	Individual Ribbon shall be printed with respective numbers as 1, 2, 3, 4
Fiber96.TR.006	No of Loose Tube	4
Fiber96.TR.007	No of Filler	1
Fiber96.TR.008	Loose Tube Inner Diameter	3.0 ± 0.2 mm
Fiber96.TR.009	Loose Tube/Filler Outer Diameter	4.0 ± 0.2 mm
Fiber96.TR.010	Loose Tube Colour	Blue, Orange, Green, Brown.
Fiber96.TR.011	Loose Tube Material	PBT
Fiber96.TR.012	Central Strength Member (FRP) Size	3.0 + 0.1/ -0.0 mm
Fiber96.TR.013	Inner Sheath Colour	Black
Fiber96.TR.014	Inner Sheath Thickness (Minimum)	0.9
Fiber96.TR.015	Inner Sheath Material	UV Stabilized HDPE
Fiber96.TR.016	Glass Yarn Quantity (Minimum)	27 kg
Fiber96.TR.017	Outer Sheath Thickness (Minimum)	1.5 mm
Fiber96.TR.018	Outer Sheath Colour	Black
Fiber96.TR.019	Outer Sheath Material	UV Stabilized HDPE
Fiber96.TR.020	Cable diameter	17.8 ± 1.0 mm
Fiber96.TR.021	Cable Weight	230 ± 8% kg/gm
Fiber96.TR.022	Maximum Tensile Strength	3000N @ 0.25% Fibre Strain
Fiber96.TR.023	Minimum Bend Radius	20 D, D is diameter of the cable
Fiber96.TR.024	Crush Resistance	2000N/10x10mm
Fiber96.TR.025	Kink	10 D, D is diameter of the cable
Fiber96.TR.026	Temperature Performance	-20°C to +70°C
Fiber96.TR.027	Fiber Type	ITU-T G.652D
Fiber96.TR.028	Maximum Cabled attenuation at 1310 nm	≤ 0.36
Fiber96.TR.029	Maximum Cabled attenuation at 1550 nm	≤ 0.23
Fiber96.TR.030	Maximum Cabled attenuation at 1625 nm	≤ 0.26

Table: TRs of 48 Core Optical Fibre Cable

8.1.2 48 Core Fiber

Sr. No.	Parameter	Minimum Requirement Description
Fiber48.TR.001	Fiber Count	48
Fiber48.TR.002	Fiber per Ribbon	6

Sr. No.	Parameter	Minimum Requirement Description
Fiber48.TR.003	Fiber Color in Ribbon	Blue, Orange, Green, Brown, Slate, White.
Fiber48.TR.004	No of Ribbon per Loose Tube	2
Fiber48.TR.005	Ribbon Identification	Individual Ribbon shall be printed with respective numbers as 1, 2.
Fiber48.TR.006	No of Loose Tube	4
Fiber48.TR.007	No of Filler	1
Fiber48.TR.008	Loose Tube Inner Diameter (Minimum)	2.8 ± 0.2 mm
Fiber48.TR.009	Loose Tube/Filler Outer Diameter	3.4 ± 0.2 mm
Fiber48.TR.010	Loose Tube Colour	Blue, Orange, Green, Brown.
Fiber48.TR.011	Loose Tube Material	PBT
Fiber48.TR.012	Central Strength Member (FRP) Size	2.5 + 0.1 / -0.0
Fiber48.TR.013	Inner Sheath Colour	Black
Fiber48.TR.014	Inner Sheath Thickness (Minimum)	0.9 mm
Fiber48.TR.015	Inner Sheath Material	UV Stabilized HDPE
Fiber48.TR.016	Glass Yarn Quantity (Minimum)	27 kg
Fiber48.TR.017	Outer Sheath Thickness (Minimum)	1.5 mm
Fiber48.TR.018	Outer Sheath Colour	Black
Fiber48.TR.019	Outer Sheath Material	UV Stabilized HDPE
Fiber48.TR.020	Cable diameter	16.0 ± 1.0 mm
Fiber48.TR.021	Cable Weight	185 ± 8% kg
Fiber48.TR.022	Maximum Tensile Strength	3000N @ 0.25% Fibre Strain
Fiber48.TR.023	Minimum Bend Radius	20 D, D is diameter of the cable
Fiber48.TR.024	Crush Resistance	2000N/10x10mm
Fiber48.TR.025	Kink	10 D, D is diameter of the cable
Fiber48.TR.026	Temperature Performance	-20°C to +70°C
Fiber48.TR.027	Fiber Type	ITU-T G.652D
Fiber48.TR.028	Maximum Cabled attenuation at 1310 nm	≤ 0.36
Fiber48.TR.029	Maximum Cabled attenuation at 1550 nm	≤ 0.23
Fiber48.TR.030	Maximum Cabled attenuation at 1625 nm	≤ 0.26

Table: TRs of 48 Core Optical Fibre Cable

8.2 Core Router

Sr. No.	Category	Minimum Requirement Specifications
COR.REQ.001	Architecture	The router shall have Modular distributed and chassis-based architecture
COR.REQ.002		Router shall have redundant management/Supervisor engine/CPU module and should support Separate data and control planes to provide greater flexibility and enable continual services

Sr. No.	Category	Minimum Requirement Specifications
COR.REQ.003		The router shall have minimum 4 additional open slots in the chassis apart from the Management/supervisor module slot
COR.REQ.004		Shall be based on a multi-core processor and shall be 19" Rack Mountable
COR.REQ.005		The router Shall have a minimum of 4 nos. Dual Gigabit Ethernet ports (Copper or SFP) and 8 nos. of 10G SFP+ port populated with appropriate transceivers as per solution/design.
COR.REQ.006		Shall have up to 1Tbps backplane Bandwidth and up to 240 Mbps per second Throughput
COR.REQ.007		The Router should support a Console port, USB port and Compact Flash slots
COR.REQ.008		Router shall have Min. 1 nos free open interface slot for future scalability of WAN/LAN interface module
COR.REQ.009		The Router should support redundant hot-swappable power supply and Hot-swappable modules
COR.REQ.010		Router shall have sufficient free open slot for future scalability of 4 nos. of 10G SFP+ interface module
COR.REQ.011	Performance	The Router should have 4 million (IPv4), 1 million (IPv6) Routing table size, 2K multicast routes
COR.REQ.012		The Router should support Distributed processing and support powerful parallel processing, encryption, and comprehensive HQoS functionalities
COR.REQ.013	Resiliency and high availability	The Router should support Virtual Router Redundancy Protocol (VRRP) or equivalent
COR.REQ.014		The Router should support Graceful restart including graceful restart for OSPF, IS-IS, BGP, LDP, and RSVP
COR.REQ.015		The Router should support nonstop forwarding (NSF), Hitless software upgrades and support IP Fast Reroute Framework (FRR)
COR.REQ.016	Layer 3 routing	The Router should support Static, RIP, OSPF, BGP, IS-IS routing for IPv4
COR.REQ.017		The Router should support Static, RIP, OSPF, BGP, IS-IS routing IPv6
COR.REQ.018		The Router should maintain separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design

Sr. No.	Category	Minimum Requirement Specifications
COR.REQ.019		The Router should support IPv6 tunnelling
COR.REQ.020		The Router should support MPLS and MPLS Layer 2 and Layer 3 VPN and support VPLS and Multicast VPN
COR.REQ.021		The Router should support Bidirectional Forwarding Detection (BFD)
COR.REQ.022		The Router should support IGMPv1, v2, and v3
COR.REQ.023		The Router should support Multicast VPN and support Multicast Domain (MD) multicast VPN, which can be distributed on service cards for multicast services, providing high performance and flexible configuration
COR.REQ.024		The Router should support PIM-SSM, PIM-DM, and PIM-SM (for IPv4 and IPv6) and support IP Multicast address management and inhibition of DoS attacks
COR.REQ.025		The Router should support Multicast Source Discovery Protocol (MSDP) and Multicast Border Gateway Protocol (MBGP)
COR.REQ.026		The Router should support Equal-Cost/Unequal-Cost Multipath (ECMP/UCMP) and support Policy-based routing
COR.REQ.027	Layer 3 services	The Router should support Address Resolution Protocol (ARP), UDP helper / DHCP helper, DNS and support DHCP protocol
COR.REQ.028	Security	The Router should support Dynamic Virtual Private Network (DVPN)
COR.REQ.031		The Router should support VPN services with Triple DES (3DES) and Advanced Encryption Standard (AES) encryption at high performance and low latency
COR.REQ.032		The Router should support powerful ACLs for both IPv4 and IPv6 to use for filtering traffic to prevent unauthorized users from accessing the network or for controlling network traffic to save resources and support rules based on a Layer 2 header or a Layer 3 protocol header and specific dates or times
COR.REQ.033		The Router should support Unicast Reverse Path Forwarding (URPF)
COR.REQ.034		Remote Authentication Dial-In User Service (RADIUS) and TACACS+
COR.REQ.035		The Router should support Network address translation (NAT)
COR.REQ.036	Quality of Service	The Router should support HQoS/Nested QoS

Sr. No.	Category	Minimum Requirement Specifications
COR.REQ.037	(QoS)	The Router should support Traffic policing and support Committed Access Rate (CAR) and line rate and support Congestion management techniques like FIFO, PQ, CQ, WFQ, CBQ
COR.REQ.038		The Router should support the Congestion avoidance technique Weighted Random Early Detection (WRED)/Random Early Detection (RED) and support traffic shaping, FR QoS, MPLS QoS, and MP QoS/LFI
COR.REQ.039	Management	The Router should support Industry-standard CLI, Telnet port, or reset button interfaces depending on security preferences, FTP, TFTP, SFTP/SCP (Secure Copy Protocol) and Secure Shell (SSHv2)
COR.REQ.040		The Router should support SNMPv1, v2, and v3, RMON, sFlow/NetFlow
COR.REQ.041		The Router should restrict access to critical configuration commands and offers multiple privilege levels with password protection, ACLs provide Telnet and SNMP access, and local and remote syslog capabilities allow logging of all access
COR.REQ.042		The Router should support ping and traceroute for both IPv4 and IPv6
COR.REQ.043		The proposed routing solution (with/without external tool/system) should analyze network performance & service quality and further diagnose & locate network congestion points or failures
COR.REQ.044		The Router should support Network Time Protocol (NTP) and RFC3164 Syslog Support
COR.REQ.045		The Router should provide a central information centre for system and network information to aggregate all logs, traps, and debugging information generated by the system and maintains them in order of severity and outputs the network information to multiple channels based on user-defined rules
COR.REQ.046	Environmental Features	Operating temperature of 0°C to 40°C
COR.REQ.047		Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A and (EN 55022 Class A or equivalent industry-standard certification)

8.3 Internet Router

Sl. No.	Category	Minimum Requirement Specifications
---------	----------	------------------------------------

Sl. No.	Category	Minimum Requirement Specifications
IR.REQ.001	Architecture	The router shall have Modular distributed and chassis-based architecture
IR.REQ.002		Router shall have redundant management/Supervisor engine/CPU module and should support Separate data and control planes to provide greater flexibility and enable continual services
IR.REQ.003		The router shall have minimum 2 additional open slots in the chassis apart from the Management/supervisor module slot
IR.REQ.004		Shall be based on a multi-core processor and shall be 19" Rack Mountable
IR.REQ.005		The router Shall have a minimum of 2 Dual Gigabit Ethernet ports (Copper or SFP) and 8 x 10G SFP+ Ports. All SFP/SFP+ ports populated with appropriate transceivers as per solution/design
IR.REQ.006		Shall have up to 500 Gbps backplane Bandwidth and support up to 120 Mpps packet forwarding rate
IR.REQ.007		The Router should support a Console port, USB port and Compact Flash slots
IR.REQ.008		Router shall have Min. 1 nos free open interface slot for future scalability of WAN/LAN interface module
IR.REQ.009		The Router should support redundant hot-swappable power supply and Hot-swappable modules
IR.REQ.010	Performance	The Router should have 3Million (IPv4), 1Million (IPv6) Routing table size, 2K multicast routes
IR.REQ.011		The Router should support Distributed processing and support powerful parallel processing, encryption, and comprehensive HQoS functionalities
IR.REQ.012	Resiliency and high availability	The Router should support Virtual Router Redundancy Protocol (VRRP) or equivalent
IR.REQ.013		The Router should support Graceful restart including graceful restart for OSPF, IS-IS, BGP, LDP, and RSVP
IR.REQ.014		The Router should support nonstop forwarding (NSF), Hitless software upgrades and support IP Fast Reroute Framework (FRR)
IR.REQ.015	Layer 3 routing	The Router should support Static, RIP, OSPF, BGP, IS-IS routing for IPv4
IR.REQ.016		The Router should support Static, RIP, OSPF, BGP, IS-IS routing IPv6

Sl. No.	Category	Minimum Requirement Specifications
IR.REQ.017		The Router should maintain separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design
IR.REQ.018		The Router should support IPv6 tunnelling
IR.REQ.019		The Router should support MPLS and MPLS Layer 2 and Layer 3 VPN and support VPLS and Multicast VPN
IR.REQ.020		The Router should support Bidirectional Forwarding Detection (BFD)
IR.REQ.021		The Router should support IGMPv1, v2, and v3
IR.REQ.022		The Router should support Multicast VPN and support Multicast Domain (MD) multicast VPN, which can be distributed on service cards for multicast services, providing high performance and flexible configuration
IR.REQ.023		The Router should support PIM-SSM, PIM-DM, and PIM-SM (for IPv4 and IPv6) and support IP Multicast address management and inhibition of DoS attacks
IR.REQ.024		The Router should support Multicast Source Discovery Protocol (MSDP) and Multicast Border Gateway Protocol (MBGP)
IR.REQ.025		The Router should support Equal-Cost/Unequal-Cost Multipath (ECMP/UCMP) and support Policy-based routing
IR.REQ.026	Layer 3 services	The Router should support Address Resolution Protocol (ARP), UDP helper / DHCP helper, DNS and support DHCP protocol
IR.REQ.027	Security	The Router should support Dynamic Virtual Private Network (DVPN)
IR.REQ.028		This clause stands deleted as per corrigendum 6
IR.REQ.029		This clause stands deleted as per corrigendum 6
IR.REQ.030		The Router should support VPN services with Triple DES (3DES) and Advanced Encryption Standard (AES) encryption at high performance and low latency
IR.REQ.031		The Router should support powerful ACLs for both IPv4 and IPv6 to use for filtering traffic to prevent unauthorized users from accessing the network or for controlling network traffic to save resources and support rules based on a Layer 2 header or a Layer 3 protocol header and specific dates or times
IR.REQ.032		The Router should support Unicast Reverse Path Forwarding (URPF)

Sl. No.	Category	Minimum Requirement Specifications
IR.REQ.033		Remote Authentication Dial-In User Service (RADIUS) and TACACS+
IR.REQ.034		The Router should support Network address translation (NAT)
IR.REQ.035	Quality of Service (QoS)	The Router should support HQoS/Nested QoS
IR.REQ.036		The Router should support Traffic policing and support Committed Access Rate (CAR) and line rate and support Congestion management techniques like FIFO, PQ, CQ, WFQ, CBQ
IR.REQ.037		The Router should support the Congestion avoidance technique Weighted Random Early Detection (WRED)/Random Early Detection (RED) and support traffic shaping, FR QoS, MPLS QoS, and MP QoS/LFI
IR.REQ.038	Management	The Router should support Industry-standard CLI, Telnet port, or reset button interfaces depending on security preferences, FTP, TFTP, SFTP/SCP (Secure Copy Protocol) and Secure Shell (SSHv2)
IR.REQ.039		The Router should support SNMPv1, v2, and v3, RMON, sFlow/NetFlow
IR.REQ.040		The Router should restrict access to critical configuration commands and offers multiple privilege levels with password protection, ACLs provide Telnet and SNMP access, and local and remote syslog capabilities allow logging of all access
IR.REQ.041		The router should support ping and traceroute for both IPv4 and IPv6
IR.REQ.042		The proposed routing solution (with/without external tool/system) should analyze network performance & service quality and further diagnose & locate network congestion points or failures
IR.REQ.043		The Router should support Network Time Protocol (NTP) and RFC3164 Syslog Support
IR.REQ.044		The Router should provide a central information centre for system and network information to aggregate all logs, traps, and debugging information generated by the system and maintains them in order of severity and outputs the network information to multiple channels based on user-defined rules
IR.REQ.045	Environmental Features	Operating temperature of 0°C to 40°C
IR.REQ.046		Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A and (EN 55022 Class A or equivalent industry-

Sl. No.	Category	Minimum Requirement Specifications
		standard certification)

8.4 Core Switch

Sl. No.	Category	Minimum Requirement Specifications
CoSW.REQ.001	Architecture	The Core switch should have chassis-based, min. 8 slots for interface modules/ Line card and support CLOS architecture
CoSW.REQ.002		The switch shall have Min Dual Management Modules/CPU/ Supervisory Module/ Routing Engine with 1:1 redundancy
CoSW.REQ.003		Shall provide distributed /Fabric switching technology (any additional hardware required for the same shall be proposed) & should support virtualization between both switches
CoSW.REQ.004		The switch shall be 19" Rack Mountable and shall have all mounting accessories
CoSW.REQ.005		Shall have up to 7.5 Tbps switching capacity and support min 5 Bpps switching throughput
CoSW.REQ.006		Minimum 400 Gbps (Full Duplex) per-slot bandwidth
CoSW.REQ.007		The switch should support 80K IPv4 routes, 20K IPv6 routes, 2K multicast routes
CoSW.REQ.008		The Switch shall support In-Service Software Upgrade (ISSU)
CoSW.REQ.009		The Switch must support TRILL/VxLAN/EVPN for network virtualization deployment within data centre / CoC.
CoSW.REQ.010		The switch should support virtualization of physical switch into multiple logical switches with their own Switching and Routing process and should support Spine-Leaf Architecture for datacentre networking
CoSW.REQ.011	Min Interface Requirement	Should have min. 48 x 10G SFP+ ports and 32 X 40G QSFP+ ports. All interfaces are distributed in min. four slots. All transceiver modules should be from the same Switching OEM
CoSW.REQ.012	Resiliency	Shall have the capability to extend the control plane across two active switches making it a single logical virtual switching fabric, enabling interconnected switches to perform as a single Layer-2 switch and Layer-3 router

Sl. No.	Category	Minimum Requirement Specifications
CoSW.REQ.013		The switch should support Hot-swappable Modules and support Passive backplane with no active components for increased system reliability
CoSW.REQ.014		The switch should support IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol
CoSW.REQ.015		IEEE 802.3ad Link Aggregation Control Protocol (LACP)
CoSW.REQ.016		Virtual Router Redundancy Protocol (VRRP) allows a group of routers to dynamically back each other up to create highly available routed environments
CoSW.REQ.017		Graceful restart for OSPF and BGP protocols
CoSW.REQ.018		Bidirectional Forwarding Detection (BFD) for OSPF and BGP protocols
CoSW.REQ.019		The switch should support Ethernet Ring Protection Switching (ERPS) / Ring Resiliency Protection Protocol (RRPP) for sub-millisecond recovery in Ethernet-based ring topology for city-wide deployment
CoSW.REQ.020	Features and Functionality	The switch should support up to 4,000 port-based or IEEE 802.1Q-based VLANs
CoSW.REQ.021		The switch should support GARP VLAN Registration Protocol or equivalent feature to allow automatic learning and dynamic assignment of VLANs
CoSW.REQ.022		The switch should have the capability to monitor link connectivity and shut down ports at both ends if unidirectional traffic is detected, preventing loops
CoSW.REQ.023		The switch should support IEEE 802.1ad QinQ and Selective QinQ to increase the scalability of an Ethernet network by providing a hierarchical structure
CoSW.REQ.024		The switch should support Internet Group Management Protocol (IGMP) / MLD snooping, IEEE 802.1AB Link Layer Discovery Protocol (LLDP) and Multicast VLAN/Multicast VLAN registration protocol to allow multiple VLANs to receive the same IPv4 or IPv6 multicast traffic
CoSW.REQ.025		The switch should support static Routing for IPv4 and IPv6, RIP for IPv4 (RIPv1/v2) and IPv6 (RIPng), OSPF for IPv4 (OSPFv2) and IPv6 (OSPFv3), IS-IS for IPv4 and IPv6 (IS-ISv6) and Border Gateway Protocol with support for IPv6 addressing from day one

Sl. No.	Category	Minimum Requirement Specifications
CoSW.REQ.026		The switch should support Policy-based routing and Unicast Reverse Path Forwarding (uRPF)
CoSW.REQ.027		The switch should allow IPv6 packets to traverse IPv4-only networks by encapsulating the IPv6 packet into a standard IPv4 packet
CoSW.REQ.028		The switch should support Dynamic Host Configuration Protocol (DHCPv4 & DHCPv6) client, Relay and server
CoSW.REQ.029		The switch should support PIM Dense Mode (PIM-DM) / Sparse Mode (PIM-SM), and Source-Specific Mode (PIM-SSM) for IPv4 and IPv6 multicast applications
CoSW.REQ.030		The switch should support MPLS and VPLS/L3VPN, NSF from day one
CoSW.REQ.031	QoS and Security Features	The switch should support Access Control Lists for both IPv4 and IPv6 for filtering traffic to prevent unauthorized users from accessing the network and support Port-based rate limiting and access control list (ACL) based rate limiting
CoSW.REQ.032		The switch should support Congestion avoidance using Weighted Random Early Detection (WRED), strict priority (SP) queuing, weighted round-robin (WRR) and weighted fair queuing (WFQ) or equivalent industry-standard protocol
CoSW.REQ.033		The switch should support IEEE 802.1x to provide port-based user authentication, Media access control (MAC) authentication to provide simple authentication based on a user's MAC address, Port security and port isolation and support DHCP snooping to prevent unauthorized DHCP servers
CoSW.REQ.034	Management Features	The switch should Configuration through the CLI, console, Telnet, SSH, FTP, TFTP, and SFTP and support Management security through multiple privilege levels with password protection
CoSW.REQ.035		The switch should support SNMPv1, v2, and v3 and Remote monitoring (RMON) and support sFlow (RFC 3176) or equivalent for traffic analysis
CoSW.REQ.036		The switch should support RADIUS/TACACS+ for switch security access administration
CoSW.REQ.037		The switch should support Network Time Protocol (NTP) or equivalent and support Ethernet OAM (IEEE 802.3ah) management capability
CoSW.REQ.038	Environmental	Shall provide support for WEEE regulations / ROHS regulations

Sl. No.	Category	Minimum Requirement Specifications
CoSW.REQ.039	Features	Operating temperature of 0°C to 40°C
CoSW.REQ.040		Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A and (EN 55022 Class A or equivalent industry-standard certification)
CoSW.REQ.041	Software-Defined Networking (SDN) Capability	The Switch should have OpenFlow 1.3 / REST APIs or equivalent protocol capability to enable software-defined networking from Day one. Necessary licenses should be included with the switches from day one
CoSW.REQ.042		The Switch shall allow the separation of data (packet forwarding) and control (routing decision) paths, to be controlled by an external SDN Controller, utilizing Openflow or equivalent protocol
CoSW.REQ.043	City-wide Network & Datacentre deployment Architecture	The functional requirement of the Project is that the proposed Network Active devices at Core Layer and Aggregation Layer MUST be capable of delivering Ring Topology at the city-wide Network level and the same Network Infrastructure should support and deliver Spine-Leaf Architecture at Core Layer and Server Farm Layer respectively within the datacentre

8.5 Aggregation / Server Room Switch

Sl. No.	Category	Minimum Requirement Specifications
ASW.REQ.001	Architecture	The switch should have at least 48 fixed 1000/10000 SFP+ ports & 6 x QSFP+ ports. All transceiver modules should be from the same Switching OEM
ASW.REQ.002		The switch Shall support 1000 Base-SX, LX, LH, 1000BASE-T
ASW.REQ.003		The switch Shall Support 10Gbase-SR, LR, ER
ASW.REQ.004		The switch shall have a 2Tbps switching capacity
ASW.REQ.005		The switch shall have switching throughput up to 1600 million PPS
ASW.REQ.006		The switch should have 32K ARP entries
ASW.REQ.007		The switch should support 80K IPv4 routes, 20K IPv6 routes, 2K multicast routes
ASW.REQ.008		The switch should have a Modular operating system with OVSDB to support a database-centric operating system

Sl. No.	Category	Minimum Requirement Specifications
ASW.REQ.009		The switch should have non-blocking architecture
ASW.REQ.010		The switch should have independent monitoring and restart of individual software modules and enhanced software process serviceability functions
ASW.REQ.011		The switch should have individual software modules be upgraded for higher availability
ASW.REQ.012		The switch should have a framework for monitoring, troubleshooting and capacity planning
ASW.REQ.013		The switch should support Jumbo frames size of 9K bytes
ASW.REQ.014		The switch should support internal loopback testing for maintenance purposes and an increase in availability
ASW.REQ.015		The switch should support redundant fans and power supplies
ASW.REQ.016		The switch should support hot-swappable modules (power supply, fan, line card etc.)
ASW.REQ.017		The switch should protect against unknown broadcast, unknown multicast or unicast storms
ASW.REQ.018		The switch should support internal Redundant power supplies
ASW.REQ.020	Resiliency and high availability	The switch should support MLAG or equivalent
ASW.REQ.021		The switch should support VRRP
ASW.REQ.022		The switch should support Unidirectional Link Detection (UDLD)
ASW.REQ.023		The switch should support IEEE 802.3ad LACP with support for up to 128 trunks and eight links per trunk
ASW.REQ.024		The switch should support Generic Routing Encapsulation (GRE)
ASW.REQ.025		The switch should support Ethernet Ring Protection Switching (ERPS) / Ring Resiliency Protection Protocol (RRPP) for sub-millisecond recovery in Ethernet-based ring topology for city-wide deployment
ASW.REQ.026	Management	The switch should have a built-in troubleshooting feature
ASW.REQ.027		The switch should have the capability to enable or disable interfaces depending on security preferences

Sl. No.	Category	Minimum Requirement Specifications
ASW.REQ.028		The switch should support Industry-standard CLI
ASW.REQ.029		The switch should restrict access to critical configuration commands and support multiple privilege levels with password protection
ASW.REQ.030		The switch shall provide ACL-based SNMP access and support local and remote syslog capabilities to allow logging of all access
ASW.REQ.031		The switch should Provide SNMP read and trap support of industry-standard Management Information Base (MIB), and private extensions
ASW.REQ.032		The switch should support sFlow (RFC 3176)
ASW.REQ.033		The switch should support Remote monitoring (RMON)
ASW.REQ.034		The switch should support TFTP, and SFTP support
ASW.REQ.035		The switch should support Debugging
ASW.REQ.036		The switch should support ping and traceroute for both IPv4 and IPv6
ASW.REQ.037		The switch should support Network Time Protocol (NTP)
ASW.REQ.038		The switch should support IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
ASW.REQ.039		The switch should support Dual flash images
ASW.REQ.040		The switch should support Multiple configuration files
ASW.REQ.041	Layer 2 feature	The switch should support up to 4,096 port-based or IEEE 802.1Q-based VLANs and supports MAC-based VLANs and IP subnet-based VLANs
ASW.REQ.042		The switch should support Bridge Protocol Data Unit (BPDU) tunnelling
ASW.REQ.043		The switch should support Port mirroring
ASW.REQ.044		The switch should support IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
ASW.REQ.045		The switch should support Rapid Per-VLAN spanning-tree plus (RPVST+) or Rapid Convergence Spanning Tree Protocol or

Sl. No.	Category	Minimum Requirement Specifications
		equivalent
ASW.REQ.046		The switch should support Internet Group Management Protocol IGMP v1, v2, and v3
ASW.REQ.047		The switch should support congestion actions and support strict priority (SP) queuing and weighted fair queuing OR both weighted random early detection & weighted round-robin.
ASW.REQ.048	Layer 3 feature	The switch should support Address Resolution Protocol (ARP) and supports static ARPs, gratuitous ARP to allow detection of duplicate IP addresses and proxy ARP
ASW.REQ.049		The switch should support UDP helper / DHCP helper
ASW.REQ.050		The switch should support Dynamic Host Configuration Protocol (DHCP) and support DHCP Relay
ASW.REQ.051		The switch should support Domain Name System (DNS)
ASW.REQ.052		The switch should support Multicast VLAN or equivalent industry-standard protocol.
ASW.REQ.053		The switch should support Protocol Independent Multicast (PIM) and supports Sparse Mode (SM)
ASW.REQ.054		The switch should support Static, Open shortest path first (OSPF), Border Gateway Protocol IPv4 routing
ASW.REQ.055		The switch should support directed broadcasts control and support of ICMP
ASW.REQ.056		The switch should support Static IPv6 routing, OSPFv3 and BGP-4
ASW.REQ.057		The switch should support a Dual IP stack
ASW.REQ.058		The switch should support Equal-Cost Multipath (ECMP)
ASW.REQ.059	Security	The switch should support ACLs for both IPv4 and IPv6 based on a Layer 2 header or a Layer 3 protocol header
ASW.REQ.060		The switch should support Remote Authentication Dial-In User Service (RADIUS)
ASW.REQ.061		The switch should support the Terminal Access Controller Access-Control System (TACACS+)
ASW.REQ.062		The switch should support a Secure shell (SSHv2)

Sl. No.	Category	Minimum Requirement Specifications
ASW.REQ.063	Environmental Features	Shall provide support WEEE regulations / ROHS regulations
ASW.REQ.064		Operating temperature of 0°C to 40°C
ASW.REQ.065		Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A; EN 55022 Class A
ASW.REQ.066	Software-Defined Networking (SDN) Capability	The Switch should have OpenFlow 1.3 / REST APIs or equivalent protocol capability to enable software-defined networking from Day one
ASW.REQ.067	City-wide Network & Datacentre deployment Architecture	The functional requirement of the Project is that the proposed Network Active devices at Core Layer and Aggregation Layer MUST be capable of delivering Ring Topology at the city-wide Network level and the same Network Infrastructure should support and deliver Spine-Leaf Architecture at Core Layer and Server Farm Layer respectively within the datacentre

8.6 Access Switch

Sl. No.	Category	Minimum Requirement Specifications
AS.REQ.001	Architecture	Shall be 19" Rack Mountable
AS.REQ.002		(1) 12 X RJ-45 autosensing 10/100/1000 PoE+ ports (30W power output per port) and 4 X 1000BASE-T or 1000Mbps SFP Ports or 10G SFP+ ports
AS.REQ.003		(2) 20 X RJ-45 autosensing 10/100/1000 PoE+ ports (30W power output per port) and 4 X 1000BASE-T or 1000Mbps SFP Ports or 10G SFP+ ports
AS.REQ.004		All proposed Access Switches should be supplied with a dual power supply for redundancy from day one and each 12-port PoE+ switch must deliver a 360 Watts power budget using a single power supply only & each 20-port PoE+ switch must deliver 600 Watts power budget using a single power supply only. For both the switch variants (12-port & 20-port), the second power supply should be used solely for redundancy purposes only so that even in the event of failure of either of the power supply, the switch should continue to deliver the power budget spelt above. Bidder should provide the power budget calculations for each proposed switch as part of its technical proposal

Sl. No.	Category	Minimum Requirement Specifications
AS.REQ.005		The switch should have the capability to upgrade to 2 X 10G SFP+ uplinks on the fibre backbone in future without changing the switch or its components. All transceiver modules should be from the same Switching OEM
AS.REQ.006		1 RJ-45 serial console port
AS.REQ.007		1 RJ-45 out-of-band management port/Remote management using the web browser
AS.REQ.008		1GB SDRAM and 512 MB flash and 2 MB Packet buffer size
AS.REQ.009		Shall have switching capacity/bandwidth of 128 Gbps
AS.REQ.010		Shall have up to 90 Mpps switching throughput or more
AS.REQ.011		The Switch should support 16000 MAC address
AS.REQ.012	Features	The switch should support the HTTP redirect function
AS.REQ.013		The Switch should automatically configure a switch for different settings such as VLAN, CoS, PoE max power, and PoE priority when a wireless access point is detected
AS.REQ.014	Quality of Service (QoS)	The switch should support Traffic prioritization which allows real-time traffic classification
AS.REQ.015		Layer 4 prioritization enables prioritization based on TCP/ UDP port numbers
AS.REQ.016		The switch should support Class of Service (CoS) to set the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
AS.REQ.017		The switch should support Rate limiting
AS.REQ.018		The switch should support large buffers & provide congestion management
AS.REQ.019	Connectivity	The switch should support Auto-MDIX
AS.REQ.020		The switch should support IEEE 802.3at Power over Ethernet (PoE+)
AS.REQ.021	IPv6 feature	The switch should support the IPV6 host and enables switches to be managed in an IPV6 network
AS.REQ.022		The switch should support Dual stack (IPV4 and IPV6) transitions

Sl. No.	Category	Minimum Requirement Specifications
		from IPV4 to IPV6, supporting connectivity for both protocols
AS.REQ.023		The switch should support MLD snooping forwards IPV6 multicast traffic to the appropriate interface
AS.REQ.024		The switch should support IPV6 ACL/QoS supports ACL and QoS for IPV6 network traffic
AS.REQ.025		The switch should support IPV6 routing supports static protocols
AS.REQ.026		The switch should support DHCPv6 protection, dynamic IPv6 lockdown, and DHCP Guard/DHCP snooping/IGMP snooping/ND snooping
AS.REQ.027	Performance	The switch should support selectable queue configurations or priority queueing to allow for increased performance by selecting the number of queues and associated memory buffering that best meet the requirements of the network applications
AS.REQ.029	Resiliency and high availability	The switch should support IEEE 802.3ad Link Aggregation Protocol (LACP)
AS.REQ.030		The switch should support IEEE 802.1s Multiple Spanning Tree
AS.REQ.031		The switch should provide easy-to-configure link redundancy of active and standby links
AS.REQ.032	Convergence	The switch should support IP multicast snooping (data-driven IGMP) / IGMP snooping (data-driven IGMP)
AS.REQ.033		The switch should support LLDP-MED (Media Endpoint Discovery)
AS.REQ.034		The switch should support IP multicast routing including PIM sparse and dense modes to route IP multicast traffic
AS.REQ.035		The switch should support Auto-VLAN or industry equivalent for the configuration of voice
AS.REQ.036		The switch should support Local MAC Authentication to assign attributes such as VLAN and QoS using the locally configured profile that can be a list of MAC prefixes
AS.REQ.037	Management	The switch should support IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
AS.REQ.038		The switch should support Multiple configuration files to store easily to the flash image
AS.REQ.039		The switch should support Dual flash images to provide independent primary and secondary operating system files for backup while

Sl. No.	Category	Minimum Requirement Specifications
		upgrading
AS.REQ.040		The switch should support Zero-Touch Provisioning (ZTP)
AS.REQ.041		The switch should support Unidirectional Link Detection (UDLD)
AS.REQ.042	Layer 2 Feature	The switch should support IEEE 802.1ad QinQ
AS.REQ.043		The switch should support VLAN and tagging and support the IEEE 802.1Q (4094 VLAN IDs) and 2K VLANs (for 20-port PoE+ switch variant) simultaneously and 1K VLANs (for 12-port PoE+ switch variant) simultaneously
AS.REQ.044		The switch should support the Jumbo packet
AS.REQ.045		The switch should support MAC-based VLAN
AS.REQ.046		The switch should support Rapid Per-VLAN spanning-tree plus (RPVST+) or Rapid Convergence Spanning Tree Protocol or equivalent
AS.REQ.047		The switch should support GVRP / MVRP or equivalent industry-standard protocols.
AS.REQ.048	Layer 3 feature	The switch should support the DHCP server
AS.REQ.049		The switch should support Static IP routing with ECMP capability
AS.REQ.050		The switch should support RIP & OSPF for IPv4 & IPv6
AS.REQ.051	Security	The switch should support Web-based authentication and provides a browser-based environment
AS.REQ.052		The switch should support MAC-based authentication
AS.REQ.053		The switch should support Multiple IEEE 802.1X users per port to provide authentication of multiple IEEE 802.1X users per port and also to prevent a user from “piggybacking” on another user's IEEE 802.1X authentication
AS.REQ.054		The switch should support Concurrent IEEE 802.1X, Web, and MAC authentication schemes per port
AS.REQ.055		The switch should support Access control lists (ACLs) and provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number

Sl. No.	Category	Minimum Requirement Specifications
AS.REQ.056		The switch should support source-port filtering to allow only specified ports to communicate with each other
AS.REQ.057		The switch should support RADIUS/TACACS+
AS.REQ.058		The switch should support a Secure shell that encrypts all transmitted data for secure remote CLI access over IP networks
AS.REQ.059		The switch should support the Secure Sockets Layer (SSL) encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
AS.REQ.060		The switch should support Port security and allows access only to specified MAC addresses, which can be learned or specified by the administrator
AS.REQ.061		The switch should support MAC address lockout to prevent particular configured MAC addresses from connecting to the network
AS.REQ.062		The switch should support Secure FTP
AS.REQ.063		Switch management logon security helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication
AS.REQ.064		The switch should support STP BPDU port protection to block Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs and also prevent forged BPDU attacks
AS.REQ.065		The switch should support DHCP protection to block DHCP packets from unauthorized DHCP servers and prevent denial-of-service attacks
AS.REQ.066		The switch should support Dynamic ARP protection to block ARP broadcasts from unauthorized hosts and prevent eavesdropping or theft of network data
AS.REQ.067		The switch should support an STP root guard to protect the root bridge from malicious attacks or configuration mistakes
AS.REQ.068		The switch should support an Identity-driven ACL that enables the implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
AS.REQ.069		The switch should support Per-port broadcast throttling
AS.REQ.070		The switch should support Private VLAN

Sl. No.	Category	Minimum Requirement Specifications
AS.REQ.071		Operating temperature of 0°C to 55°C
AS.REQ.072		Safety and Emission standards including EN 60950; IEC 60950; VCCI Class A; FCC Class A
AS.REQ.073	Software-Defined Networking (SDN) Capability	The Switch should have OpenFlow 1.3 / REST APIs or equivalent protocol capability to enable software-defined networking / software-defined access from Day one. Necessary licenses should be included with the switches from day one
AS.REQ.074	Immunity Standards	The switch should comply with the following certifications: Electrostatic Discharge: IEC/EN 61000-4-2 Radiation: IEC/EN 61000-4-3 Electrical Fast Transient / Burst Immunity: IEC/EN 61000-4-4 Surge Immunity: IEC/EN 61000-4-5 Power Frequency Magnetic Field: IEC/EN 61000-4-8 Voltage dips and variations Immunity: IEC/EN 61000-4- 11

8.7 Poles

Sr. No.	Parameter	Minimum Requirement Description
POLE.REQ.001	General Requirement	Shall be a minimum of 5.5mts height as per applicable norms
POLE.REQ.002	General Requirement	Hot-dip galvanized pole after fabrication as per IS:2629 with a silver coating of 86 micron as per IS:4759/ASTM A123 Pole design should be sleek and as per city aesthetics (indicative 10 cm diameter) confirming to IS 875 standards having an appropriate bottom and top thick HT plate along with base plate size 30x30x1.5 cms (indicative) suitable for wind speed 150 km/hr with suitable arm bracket and with J type foundation bolts
POLE.REQ.003	Foundation	The pole would be fixed on an adequate and strong foundation to withstand city weather conditions and wind speed of 150 km/hr. Foundation shall also be able to withstand the load of a cantilever as per the site requirements.
POLE.REQ.004	Foundation	The casting of civil foundation with foundation bolts to ensure vibration-free (video feed quality should not be impacted due to wind in different climatic conditions) Expected foundation depth of minimum 100cms or better
POLE.REQ.005	Protection	Lighting arrestors with proper grounding and earthing
POLE.REQ.006	Sign Board with number plate	Signboard, 18-inch corrosion-resistant aluminium alloy as per IRC67:2001 (pole-mounted), depicting the area under surveillance and with the serial number of the pole - - Pole number

Sr. No.	Parameter	Minimum Requirement Description
		- Pictures like Surveillance, speed limits, Wi-Fi, No Horn etc.
POLE.REQ.007	Requirement	The cantilever should be fixed appropriately as per the requirement of the site and shall adhere to requisite guidelines.
POLE.REQ.008	Height	The height of the pole shall be as per the requirement of the location varying from 5.5 Mts
POLE.REQ.009	Design	Pole Design should be approved by a structural Engineer appointed by PCSCL and must follow appropriate guidelines.

8.8 Integrated Command Control Centre (ICCC) Platform

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.001	Standardized Data Aggregation and normalization capabilities	It is envisaged that the city will implement multiple Smart City use cases over a period of time. The potential example Smart City use cases are-
		o Wi-Fi
		o Surveillance
		o Kiosks for Citizen Information
		o Smart Traffic
		o Smart Parking
		o Smart Water
		o Smart Sewerage
		o Environmental Monitoring
		o ICT enabled Waste Management
Platform should support Citizen centric solutions and other integrations as required in the future. Ability to integrate with subsystems natively driving unified user interface providing ease of operations and facilitating central control across multiple operations. Platform should also have ability to take over the specific allowable control of the integrated subsystems through single user interface of ICCC platform empowering the operator to manage critical incidences and events through directly initiating control over the subsystem		
ICCC.REQ.002	The ICCC platform should be able to integrate with any type of sensor platform – Standalone Sensor System, IoT Gateway connected Sensors etc. being used for the urban services irrespective of the technology used. ICCC platform should also be able to connect to operational technologies with bi-directional control via native protocols like OPC DA, OPC UA, BACNet, Serial communication, MODBUS, IEC protocols etc. ICCC platform should have built-in supervisory control to send control signals to the end systems in case of emergency and process overrides.	
ICCC.REQ.003	ICCC platform should provide a comprehensive API or SDK (Software development kit) to allow interfacing and integration of 3rd party systems	

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.004		The platform should be able to aggregate and normalize the data coming from different devices of same type (e.g. lighting sensor, water sensors (different OEMs), energy meters (different OEMs), SCADA, RTU's PLC etc.) and provide secure access to that data using data API(s) to application developers. The message exchange between various applications in the smart city should be fully encrypted and authenticated.
ICCC.REQ.005		ICCC platform is required to provide a single common layer for all connectivity to simplify configuration, establish standards, accelerate implementation, minimize maintenance and expand capabilities. It must fully embrace the openness of open protocol communication technology, exposing data from products as an open protocol communication Client and providing the means to connect to any third party open protocol communication Server. The platform should support distributed deployment of functions (workflows & policies) across city's network and compute infrastructure with centralized management and control. The platform for ease of management, should support multi-tenancy with adequate authentication and Role based access control mechanism for each tenant. In multi-tenant architecture, only to respective tenant partition(s) in an encryption mechanism. The platform should have provisions for flow of normalized data in a predefined manner with adequate authentication.
ICCC.REQ.006	GIS Map Support	System should support ESRI / map box / Open street/ Google Map, and any other GIS map. It should be possible to visualize all the Assets (Sensor, Devices, Vehicles, Cameras, other city resources) on map. Also, these assets must be provided as layers with ability to switch these layers and visualize the assets of only selected layers.
ICCC.REQ.007	Location Engine (GIS Map Functionality)	a) Map services and geospatial coordinates: provides the access to the geographical coordinates of specific facilities, roads, and city infrastructure assets (all the ICT & non-ICT Infra).
		b) Geospatial calculation: calculates distance between two, or more, locations on the map
		c) Location-based tracking: locates and traces devices on the map
ICCC.REQ.008	Data and Analytics Engine	Data archive and logging: stores data feeds from the device engine and external data sources
		ICCC platform should be able to perform multi-dimensional analysis on incidents data. This should provide capability to do Trends Analysis and provide near real time Stream Analytics, time-shifted or offline analytics on the archived data
		Reporting: delivers reports based on events triggered by device engine data and external notifications.
		ICCC platform should have inbuilt historian with advance data retrieval. Platform should have following advance data retrieval modes like: Time-in-state Best fit Counter Minimum, maximum, average

Sr. No.	Parameter	Minimum Requirement Description
		<p>Slope Time weighted average Cycle and delta Value state Interpolated Integral Full Round trip System should be able to handle data coming in from system with mismatched system clocks, preserving the correct data sequence automatically</p> <p>ICCC Platform should have inbuilt Historian to capture and store high-fidelity industrial and enterprise data. Historian should have high-performance process database capable of storing the huge volumes of data generated. Historian should capable of unite high-speed data acquisition and storage with traditional relational database management. Historian shall have capability to support upto 3mn I/O</p>
ICCC.REQ.009	Service Management	Data brokerage, ID Management: Performs service management
ICCC.REQ.010	Developer Program Tools	ICCC platform should provide SDK tools that help the City to produce new applications, and/or use solution APIs to enhance or manage existing solution.
ICCC.REQ.011	Authentication, Authorization	System should support standard Authentication, Authorization Performa.
ICCC.REQ.012	Data Plan Functionalities	Live data and visual feed from diverse sensors connected to the Platform
ICCC.REQ.013	API Repository / API Guide	Normalized APIs should be available to carry out integration with any domains (like Parking, Outdoor Lighting, Traffic, Environment, Urban mobility, and other systems.) to monitor, control sensor and/or actuators functionality to enable app developers to develop apps on the platform. For example, Lighting APIs: Vendor agnostic APIs to control Lighting functionality.
ICCC.REQ.014		Enables City and/or its partners to write software adaptors based on the API(s) provided by device vendors and have the ability to control, monitor and collect the data from these street devices
ICCC.REQ.015		ICCC platform should provide a comprehensive API or SDK (Software development kit) to allow interfacing and integration of 3rd party systems to create new application for the smart city in future.
ICCC.REQ.016	Platform Upgrade and Maintenance	The OEM should be able to securely access the platform remotely for platform updates / upgrades and maintenance during the contract duration. Platform should be able to make incremental changes in response to the staged object deployment within same scan cycle and make continuous updates on the fly.
ICCC.REQ.017		Platform should be able to be deployed as an on premises Model as a primary service or for implementing Disaster Recovery.
ICCC.REQ.018	Platform Functionality	System should enable users to define the business rules around incidents handling and Emergency response as per agreed SOPs

Sr. No.	Parameter	Minimum Requirement Description
		for the Smart City
ICCC.REQ.019		System should provide a common data integration layer, which can collect and contextualize information from disparate data sources regardless of protocol. Platform should have supervisory capabilities and should be able to bi-directionally monitor, command & control all types of operational technology.
ICCC.REQ.020		System should manage the life cycle of incidents and related entities via pre-defined workflows. Workflow should be able to write interactive SOPs. The workflow could cut across multiple systems via the interfacing modules. Workflow for operational alerts and escalations should be triggered automatically without human intervention.
		System should manage the planning preparations of an incident including resource allocation, tasks management etc.
		System should provide users with business analytics reporting and tools to organize, evaluate and efficiently perform day to day operations
		System should provide filterable reports and dashboards about critical information pertaining to incidents and KPIs collated in a single view which can be drilled down further for more detailed information
		System should manage roles definition for internal as well as external access
		System should provide facility for centralized storage of operational data (time-series and transactional) with high granularity and data compression capability
		System should enable operators and the crew members to access the workflow task assigned to them and act using the native mobile application. They should be able to close loop of workflow by acknowledging the real-time status of Action assigned to them.
		Should have ability to take over control of subsystems with bi-directional control wherever it is applicable and required. For e.g. Water SCADA & Electrical SCADA Systems. Ex: ability to start / stop pumps in pump house, open/close valves in distribution network in case of emergency like flood, earthquake or any disaster which may disrupt normal operations, control PTZ cameras, switching on/off street lights, setting the traffic signal timers to name a few.
ICCC.REQ.021		Platform should support features for billing, real time, telescoping, differential, value based mediation, and charging features to securely monetize the vast treasure troves of Internet of Things-generated data to deliver value to smart cities applications, whether by enabling new revenue streams, reducing costs, or improving customer experience
ICCC.REQ.022		Application management: Provides role-based access view to applications
ICCC.REQ.023		Enabling analytics: real-time analytics through Stream Analytics and time-shifted analytics.

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.024		The platform should also be able to bring in other e-governance data in the command and control centre dashboard
ICCC.REQ.025		Main GUI Dashboard for Integrated Command & Control Centre should support multi-monitor application. This core application should not be a web based terminal application, which can only run on web-browser interface. However, the core application should be capable of extending the same to terminal based web interface as a futuristic capability for easy accessibility or availability to perform remote or emergency operations with a secure access to authorized personals only. All of these data should be rendered / visualized on the command and control centre dashboard.
ICCC.REQ.026	Integration Capabilities	ICCC platform should have ability to integrate with subsystems natively, driving unified user interface providing ease of operations and facilitating central control across multiple operations. IT, OT and IoT conversion in Single Platform. This enables integration server to integrate seamlessly with Operational Technology, Information Technology (IT)/ IoT based subsystems. Operational Technology Integration should include inbuilt support for protocols like: OPC UA/DA (SCADA), BACNET (BMS), MODBUS (Metering & field controller-PLCs/DCS), IEC etc. Bidder to give undertaking for inbuilt support for above mentioned OT protocols. IT Application should integrate via ESB (Enterprise Service Bus) with IT protocols like: Web-services/APIs/ REST/SOAP (City Surveillance, ITMS, BRTS, GIS), ERP (e-Gov, payment gateway) etc.
ICCC.REQ.027		Integrate devices using their APIs in to this platform. For example, if the City wants to deploy Smart Parking solution, this platform should have the ability and provision to write adaptors which interface with the parking sensors or management software of the parking sensors to collect parking events, data and alerts and notifications from the devices and their software managers.
ICCC.REQ.028		The same logic and requirement applies to various other urban services devices like LED control nodes, water meters, energy meters, environmental sensors, waste bin sensors, device embedded in connected vehicles etc.
ICCC.REQ.029		Enables the City and its partners to define a standard data model for each of the urban services domains (i.e. Parking, lighting, kiosks etc....)
ICCC.REQ.030		ICCC platform shall include a broad range of Device Integration services for establishing the I/O interface to field devices such as RTU's, PLC's, IBMS etc. systems. Similarly, it should seamlessly integrate with IOT devices/Sensors/applications. Example SCADA integration with Downstream applications related to Water management, Electricity, Sewage etc.
ICCC.REQ.031		Provides urban services API(s) to develop operation applications for each of the Urban Services domains. For example, the lighting operator of the City should be able to develop a City Lighting management application based on the API(s) provided by the platform. This lighting application should also have the ability to

Sr. No.	Parameter	Minimum Requirement Description
		access data from other domains like environment based on the access control configured in the system.
ICCC.REQ.032		Platform should support all devices which are based on Industry standards.
ICCC.REQ.033		The device integration components must include powerful diagnostics, redundant communications, data level security, native open protocol communication connectivity and improved deployment capabilities. It should also support standardized M2M protocols like LWM2M, MQTT, Zigbee, LoRA etc.
ICCC.REQ.034		ICCC platform should have single common layer for all connectivity to simplify configuration, establish standards, accelerate implementation, minimize maintenance and expand capabilities. It must fully embrace the openness of open protocol communication technology, exposing data from products as an open protocol communication Client and providing the means to connect to any third party open protocol communication Server
ICCC.REQ.035	Trending & Reporting Service	<ul style="list-style-type: none"> • It should provide data-trend analysis, sophisticated numerical-data analysis, comprehensive data reporting using Microsoft Office / Open Office etc. and the capability to publish real-time and historical information to the Web or PCSCL intranet site; • Must produce on demand and scheduled reports for regulatory compliance and management; • It should publish reports easily to intranet or Internet servers; • It must be possible to customize data queries as per users' inputs; • Integration with and support for Microsoft Office / Open Office etc. add-ins. • Possibility to connect to local or remote Relational Database (RDB) sources through either Open Database Connectivity (ODBC) or OLE-DB; • Report template version management; • ICCC platform should be able to process at least 1 year of historical data in less than a second, giving immediate access to performance trends
ICCC.REQ.036	Events & Incident Management	<ul style="list-style-type: none"> • System should allow policy creation to set of rules through the use of Rule Engine that control the behaviour of infrastructure items. Each policy should a set of conditions that activate the behaviour it provides. System should allow Default, Time-based, Event-based and Manual override polices creation. For example: In case of Outage Management - Alerts in the Water SCADA system will automatically trigger an event. A notification will be generated to the user in ICCC. Upon confirmation of the alert by ICCC, subsequent actions will be automatically triggered according to defined SOP, In case of traffic congestion being encountered specific VMD, location based, shall be able to display the traffic congestion messages automatically etc. • System should support for sudden critical events and linkages to standard operating procedures automatically without human intervention. • Should support for multiple incidents with both segregated and / or overlapping management and response teams

Sr. No.	Parameter	Minimum Requirement Description
		<ul style="list-style-type: none"> • Should provide facility to capture critical information such as location, name, status, time of the incident and be modifiable in real time by multiple authors with role associated permissions (read, write) . Incidents should be captures in standard formats to facilitate incident correlation and reporting.
ICCC.REQ.037		<ul style="list-style-type: none"> • System should provision to defines a set of conditions that can be used to trigger an event-based policy • The system must identify and track status of critical infrastructure/ resources and provide a status overview of facilities and systems
ICCC.REQ.038	Notifications, Alerts and Alarms	System should generate Notification, Alert and Alarm messages that should be visible within the Dashboard and the Enforcement Officer Mobile App if required. System should have advance alarm management capabilities like state based alarming, alarm suppression, alarm shelving, alarm grouping and aggregation (active & historical) alarms
ICCC.REQ.039		All system messages (notifications, alerts and alarms) should always visible from the Notifications view, which provides controls that operator can use to sort and filter the messages that it displays.
ICCC.REQ.040		Systems should deliver message to a set of subscribers. The Notification service should support min three types of notification methods – Email notification and Short Messaging Service (SMS) notification and Mobile App based Notifications
ICCC.REQ.041	Users and Roles	Users access and perform various tasks, such as adding new locations, configuring new devices, managing adapters, and so on. However, not all users can perform all tasks. Each user should be associated with one or more roles and each role is assigned a certain set of permissions.
ICCC.REQ.042		These roles and permissions define the tasks that a user can perform. Additionally, system should assign one or more locations to each role so that the user can perform tasks at the assigned locations only.
ICCC.REQ.043		Roles and permissions define the tasks that a user can perform, such as adding users, viewing location details, exporting devices, generating reports, and so on. Each user should be associated with one or more roles and each role has an assigned set of permissions.
ICCC.REQ.044		The platform should allow different roles to be created and assign those roles to different access control policies.
ICCC.REQ.045		Since this platform is being used for managing Cities, the platform should also allow association of users and locations. For example, the platform should allow creation of locations in the system which correspond to various physical locations in the city and allow the admin to associate different users to different locations with the intent that each user can control only services for a location for which has been given access.
ICCC.REQ.046		System should support LDAP to be used as an additional data store for user management and authentication.

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.047	Dashboard and Analytics	The ICCC platform should allow users to define benchmarks against performance parameters. Performance reports shall have the option to generate reports with or without benchmark comparison. The platform should have capability to provide access to near real time, real time data and historical data from various connected devices for reporting and analytics.
ICCC.REQ.048		<ul style="list-style-type: none"> • ICCC platform should provide filterable reports and dashboards about critical information pertaining to incidents and KPIs collated in a single view which can be drilled down further for more detailed information. System should allow dashboard to generate reports and have provision to add reports in favourites list. • ICCC platform should provide integrated dashboard and KPI tracking capabilities for various city functions. Dashboards should be designed in such a way that user should be easily navigate user interfaces for managing profiles, groups, messages templates, communications, tracking receipts and compliance. Likewise, CCCP should have capabilities to configure and monitor key performance indicators on real time basis.
ICCC.REQ.049		ICCC platform should provide historical reports, events data, and activity logs. The reports can be exported to PDF or other formats. Offered platform for Reporting and dashboard solution should have consolidated Single window reporting, correlation and Analytics solution for all non-video applications.
ICCC.REQ.050	Data Security	The access to data should be highly secure and efficient.
ICCC.REQ.051		Access to the platform API(s) should be secured using API keys.
ICCC.REQ.052		Software should support security standards: SSO, HTTPS over SSL, and key management help protect the data across all domains.
ICCC.REQ.053	Standard Operating Procedure	ICCC Platform should provide for authoring and invoking unlimited number of configurable and customizable standard operating procedures through graphical, easy to use tooling interface.
ICCC.REQ.054		Standard Operating Procedures should be established, approved sets of actions considered to be the best practices for responding to a situation or carrying out an operation.
ICCC.REQ.055		ICCC Platform should provide for authoring and invoking unlimited number of configurable and customizable standard operating procedures through graphical drag and drop design tool preferably using workflow engine.
ICCC.REQ.056		The users should be able to also add comments to or stop the SOP (prior to completion).
ICCC.REQ.057		There should be provision for automatically logging the actions, changes, and commentary for the SOP and its activities, so that an electronic record is available for after-action review.
ICCC.REQ.058		The CCC platform should have the capability to bring in multiple stake holders automatically into a common collaboration platform like persistent chat rooms and virtual meeting rooms in response to a SOP defined to handle a particular event.

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.059		The CCC platform should provide an ability to bring multiple stake holders on to a common voice conference call as a standard operating procedure in response configured events
ICCC.REQ.060		The stake holders can be on various types of devices like computer, smart phones and tablets.
ICCC.REQ.061		The SOPs defined in the system should be easily editable by an administrator with drag and drop capabilities.
ICCC.REQ.062		The SOP Tool should have capability to define the following activity types:
ICCC.REQ.063		Manual Activity - An activity that is done manually by the owner and provide details in the description field.
ICCC.REQ.064		Automation Activity - An activity that initiates and tracks a particular work order and select a predefined work order from the list.
ICCC.REQ.065		If-Then-Else Activity - A conditional activity that allows branching based on specific criteria. Either enter or select values for Then and Else.
ICCC.REQ.066		Notification Activity - An activity that displays a notification window that contains an email template for the activity owner to complete, and then sends an email notification.
ICCC.REQ.067		SOP Activity - An activity that launches another standard operating procedure.
ICCC.REQ.068		System should be able to read data from flat CSV files.
ICCC.REQ.069		The SOPs defined in the system should be easily editable by an administrator with drag and drop capabilities.
ICCC.REQ.070		ICCC platform shall present the workflow and task information in a clear and logical manner on the incidents screen.
ICCC.REQ.071		ICCC platform system shall include a section that will contain the policy and standard operation procedures with easy to search functions to support the Operators during a crisis
ICCC.REQ.072		ICCC platform should be able to pass the SOP step on to operator workstation for the user to respond based on his role and responsibility in the SOP to achieve faster response to the incidences or events
ICCC.REQ.073	Analytics Engine Integration	Analytics Engine (inbuilt or integrated) should be an artificial intelligence-based smart city analytics platform module to maximize business value through advanced machine learning capabilities. The machine learning capabilities aid in automating policies that result in better asset and infrastructure management.
ICCC.REQ.074		The solution should be flexible to integrate with any other city and government software applications / ERP.
ICCC.REQ.075		Analytics Engine module should have below intelligence capabilities;
		a) Advanced Predictive Analytics should be part of the solution.
		b) The solution should be flexible to integrate with other city and government software applications
		c) The solution should be able to predict insights consuming data from city infrastructure viz., Traffic, Parking, Lighting etc.

Sr. No.	Parameter	Minimum Requirement Description
		d) The solution should be able to predict and integrate with Smart City solutions helping in driving operational policies creation.
		e) The solution should be robust, secure and scalable.
		f) The solution should have a visualization platform to view historic analytics
ICCC.REQ.076		The application should enable the customers to discover, compare, and correlate data across heterogeneous data sources to unravel the patterns that are previously hidden. At a broader level, when you work with the application, system do the following tasks:
		a) Connect to a variety of data sources
		b) Analyse the result set
		c) Visualize the results
		d) Predict outcomes
ICCC.REQ.077		Analytics Engine should support multiple Data Sources. Min below standard data sources should be supported from day 1 – CSV, TSV, MS Excel, NoSQL, RDBMS
		Analytics Engine should provide analysis of data from a selected data source(s).
ICCC.REQ.078		Analysis enables to define arithmetic and aggregation operations that result in the desired output.
		Analytics engine should provide capability to check analysis with multiple predictive algorithms
ICCC.REQ.079	Analytics Engine Visualizations	Analytics Engine should provide visualizations dashboard.
		In the visualization workspace it should allow to change visual attributes of a graph.
		User should not be allowed to alter the graph/visualization definition.
		In the visualizations workspace, user should able to do the following operations:
		a) Change the graph/visualization type
		b) Print the graph
		c) Export the graph
		d) Narrow down on the value ranges
		e) Toggle the axis labels
		f) Integrate with other 3rd party applications seamlessly
ICCC.REQ.080	Export Formats	System should allow export the analysis into min following formats:
		g) XML/JSON/Image
		h) Excel
		i) PDF
		j) CSV
ICCC.REQ.081	Video Display Integration	Shall have the ability to view live or recorded video from resizable and movable windows through integration with video management system
ICCC.REQ.082		Shall have an ability to perform video controls for video management systems from workstation
ICCC.REQ.083		Shall play, fast-forward, rewind, pause, and specify time to play recorded video through integration with video management

Sr. No.	Parameter	Minimum Requirement Description
		system
ICCC.REQ.084		Shall take a video still image (snapshot) from live or recorded video through integration with video management system
ICCC.REQ.085		Shall export video for user specified time and duration through integration with video management system
ICCC.REQ.086		Shall perform video controls for video system and move PTZ cameras by taking controls from video management system
ICCC.REQ.087		Shall view Video in Video Matrix.
ICCC.REQ.088		Shall display in 1x1, 2x2, 3x3 and 4x4 window formats
ICCC.REQ.089		Shall enable operator to specify video windows to be displayed in matrix
ICCC.REQ.090		Shall enable matrix settings to be saved per user
ICCC.REQ.091		Shall view either live or recorded video which can be displayed in the video matrix window
ICCC.REQ.092		Shall enable video snapshot to be taken and saved from any window pane in the matrix view through integration with video management system
ICCC.REQ.093		Shall rotate video in "virtual" video guard tour through integration with video management system
ICCC.REQ.094		Shall rotate through multiple video views based on predefined video camera sequence and duration through integration with video management system
ICCC.REQ.095		Shall enable the user to pause the rotation of video and resume the video rotation again through integration with video management system
ICCC.REQ.096		Shall enable times between new video to be adjusted through integration with video management system
ICCC.REQ.097		Shall manually create an alarm from the live or recorded video with specified severity and description through integration with video management system. Shall be able to navigate to process screen as well as camera feed from alarm itself for easier navigation and reduce response time from operator.
ICCC.REQ.098		Shall enable alarms to be generated from any video pane
ICCC.REQ.099		Shall enable user to only view and control video for which they have been assigned permissions by the administrator.
ICCC.REQ.100	Location Tracking System	ICCC will integrated with proposed GPS application to to support real time tracking of Vehicle or Mobile Resource using GPS. It should be Possible to integrate with any GPS Device, standalone or Mobile based.
ICCC.REQ.101	Integration with Social Media Intelligence	ICCC platform should be able to integrate with proposed social media analytics tool (inbuilt or external) to provide analytics based on the social media feed collected from the open source intelligence and collate with the surveillance inputs to alert the responders for immediate action on the ground.

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.102		ICCC platform should able to integrate with proposed social media analytics tool (inbuilt or external) to retrieve and cache open social data from Facebook, Twitter, Instagram, YouTube, G+, LinkedIn, Web Sites, News , blogs, etc. The system should have the capability to use the cached social data for analysis
ICCC.REQ.103	CCC Operations	The ICCC platform shall be fully integrated commercial off the self (COTS) software platform that provides seamless integration and control mechanism with various Information Technology, Operational Technologies and IOT sensors/applications/platforms. To achieve advanced smart city functionalities ICCC platform should not only integrate with IT solutions like Parking Management, Waste Management System, Street Light, Traffic Management System etc. but also the Water SCADA , Energy SCADA, Sewerage/ Drainage System, Gas SCADA etc. natively on real-time basis with bi-directional control, to achieve better services to Citizens
		<ul style="list-style-type: none"> • The solution shall integrate with GIS and map information and be able to dynamically update information on the GIS maps to show status of resources.
		<ul style="list-style-type: none"> • The solution shall also provide an integrated user interface for all the smart elements implemented.
		<ul style="list-style-type: none"> • The solution should provide operators and managers with a management dashboard that provides a real-time status and is automatically updated when certain actions, incidents and resources have been assigned, pending, acknowledged, dispatched, implemented, and completed. The above attributes shall be colour coded.
		<ul style="list-style-type: none"> • The solution shall provide the “day to day operation”, “Common Operating Picture” and situational awareness to the centre and participating agencies during these modes of operation.
		<ul style="list-style-type: none"> • It shall improve scalability for large and geographically distributed environments.
		<ul style="list-style-type: none"> • It shall provide complete view of sensors, facilities, e-governance/ERP, video streams and alarms in an easy-to-use and intuitive GIS-enabled graphical interface with a powerful workflow and business logic engine.
		<ul style="list-style-type: none"> • It shall provide a uniform, coherent, user-friendly and standardized interface.
		<ul style="list-style-type: none"> • It shall provide possibility to connect to workstations and accessible via web browser.
		<ul style="list-style-type: none"> • The dashboard content and layout shall be configurable and information displayed on these dashboards shall be filtered by the role of the person viewing dashboard.
		<ul style="list-style-type: none"> • The solution shall allow creation of hierarchy of incidents and be able to present the same in the form of a tree structure for analysis purposes.
		<ul style="list-style-type: none"> • The solution shall be available via a VPN as a web-based interface or a thin-client interface.
		<ul style="list-style-type: none"> • It shall be possible to combine the different views onto a single screen or a multi-monitor workstation.
ICCC.REQ.104		

Sr. No.	Parameter	Minimum Requirement Description
		<ul style="list-style-type: none"> The solution shall maintain a comprehensive and easy to understand audit trail of read and write actions performed on the system.
		<ul style="list-style-type: none"> The solution shall provide ability to extract data in desired formats for publishing and interfacing purposes.
		<ul style="list-style-type: none"> The solution shall provide ability to attach documents and other artefacts to incidents and other entities.
		<ul style="list-style-type: none"> The solution shall provide real time schematics to control the assets/operations. The platform shall have capability to authorize and authenticate operator upon every writes issued from the ICCC platform
		<ul style="list-style-type: none"> The solution is required to issue, log, track, manage and report on all activities underway during these modes of operation:
		a) anticipation of incident
		b) incident or crisis
		c) recovery
ICCC.REQ.105	API & Interface Security	d) incident simulation
		<ul style="list-style-type: none"> The access to data should be highly secure and efficient.
		<ul style="list-style-type: none"> Access to the platform API(s) should be secured using API keys.
		<ul style="list-style-type: none"> Software should support security standards: SSO / Auth 2.0, HTTPS over SSL, and key management help protect the data across all domains.
ICCC.REQ.106	Technical Support Centre	<ul style="list-style-type: none"> Should support security features built for many of its components by using HTTPS, TLS for all its public facing API implementations. For deployment where CCC Software API(s) exposed to application eco system, API Management, API security features and API Key management functions are required.
		<p>CCC OEM Should have 24*7*365 technical assistance Support centre (TASC) in India. TASC should provide online portal and contact number to register service request which could be raised by partner (MSI) and customer.</p>
ICCC.REQ.107	Field Responder Mobile Apps	<ul style="list-style-type: none"> ICCC platform should enable operators and the crew members to access the workflow task assigned to them and act using the native mobile application (Android & IOS). They should be able to close loop of workflow by acknowledging the real-time status of Action assigned to them ICCC platform should be able to pass the SOP step on to mobile application for the user to respond based on his role and responsibility in the SOP to achieve faster response to the incidences or events. ICCC platform should empower users to securely monitor, control and troubleshoot assets or process from any location, on any device, at any time. In addition, for remote or mobile users with operational needs, platform should provide full read/write access to a complete application via any HTML5 compliant web browser including tablets and smartphones, with zero client installation and zero maintenance. The platform should enable visualization, collaboration and execution at various levels of the PCSCL providing business benefits like increased productivity, efficiency and responsiveness, reduced costs, operational agility

Sr. No.	Parameter	Minimum Requirement Description
		and awareness. ICCC Operational Management Interface should work with any device, adding modern form factors, smart navigation and displays capable of delivering a superior operations experience. It should provide the main visualization product, including integration and interaction with software for CCTV, news feeds, vehicle tracking etc.
ICCC.REQ.108	Route Optimization	Proposed CCC is required to optimize the routes of police vans/emergency vehicle like medical, fire etc. and routing of patrolling vehicles to increase the area covered and maximize resource utilization.
ICCC.REQ.109	Field Device Integration	ICCC platform shall include a broad range of Device Integration services for establishing the I/O interface to field devices such as RTU's, PLC's, IBMS etc. systems with bi-directional control. Similarly, it should seamlessly integrate with IOT devices/Sensors/gateways and applications.
ICCC.REQ.110	System Development	<ul style="list-style-type: none"> • ICCC platform development Environment shall provide a mechanism to develop Application Object Templates. • ICCC platform system software shall include an object-oriented colour graphics display generator with full animation capabilities to provide users with a realistic and efficient visualization of the ICCC platform system process. It shall provide graphical capabilities to allow design of highly efficient user interface aimed at helping operators to easily achieve a state of situational awareness in relation to the process.
ICCC.REQ.111	SDK Tools and API's	Platform should provide SDK tools that help the City to produce new applications. Solution providers can use application SDK that are available in the market and leverage these APIs to integrate with ICCC platform and create new solutions as required.
ICCC.REQ.112	IT Standards & Industrial Protocols	ICCC platform should support various Information Technology Standards (like ESB, API Integration, and Web Services), industrial protocols (like OPC UA, BCNET, Modbus, IEC and Serial communication) and IOT (LoRA, MQTT, Stomp, AMQP etc.). ICCC platform should have built-in supervisory capabilities to integrate with operational systems like SCADA with bi-directional control over native protocol like OPC UA/DA, IT systems and applications on real time basis and not on off line basis.
ICCC.REQ.113	Tailored View	Platform should be able to combine data from various sources and present it as different views tailored to different operator's needs
ICCC.REQ.114	Asset Management	System shall be able to define the complete model of the asset hierarchy. System should be able to track the status of digitally connected assets on real time.
ICCC.REQ.115		System should allow maintenance personnel to manage and plan incoming work requests as well as automatically generated work from preventive maintenance programs.
ICCC.REQ.116		Work orders assigned should be able to identify labour, materials, tools, drawings and subcontractor requirements, as well as safety information to support proactive maintenance activities.

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.117		The system should be able to create a library of standard, repeatable jobs with automatic work order generation
ICCC.REQ.118		The system should be able to build a detailed history of equipment information based on day to day maintenance activities. Failure history, including symptoms, the cause of failure and action taken can be easily reviewed and analysed. The ICCC platform should seamlessly integrate with Asset Management to show dashboards, work order details and other relevant information in ICCC application without leaving the view.
ICCC.REQ.119		The system should be able to provide indicators like mean-time-between-failure and mean-time-to-repair The system should close the loop of Work order by creating work order manually/ automatically bases on user intervention or based on asset parameters, assigning work order (local or field personal), acting on and closing the work order
ICCC.REQ.120		The system should have an approval workflow to ensure auditable decision making.
ICCC.REQ.121	Business Rule Engine	Platform should automatically update the information based on alarms and incidents that are presented to it via the business rules engine. The polling and platform database refresh cycle shall be configurable to match the status of the situation (whether there is an emergency or crisis or just monitoring only). Platform should have the Incident workflow management. The ICCC platform should have a built-in alarm handling facility based on configurable cause and effect rules. The business rules engine shall be able to distinguish between “early warning or anticipation” type mode of operation and an “emergency or crisis” mode of operation. The CCCP shall provide capability to do a simulation run of a newly created/added business rule before it is activated.
ICCC.REQ.122	Changing Process	Platform should able to take over control of integrated sub-systems either passing set points or changing process as applicable. For example, platform should have capabilities to pass the trigger in the adaptive traffic solution to initiate the VVIP corridor process.
ICCC.REQ.123	Common Operational Picture	Common Operational Picture should comprise of a comprehensive view of the incident or a group of related incidents as on a specific date and time which should include but not be limited to the following: a. Tasks assignment and their status b. Agencies involved c. Resources deployed d. Incident status across relevant parameters of the incident e.g. household affected by a transformer shut down e. Timeline view of the situation f. Suggested actions from the system with their status
ICCC.REQ.124		Platform should able to take over control of integrated sub-systems either passing set points or changing process as applicable. For example, platform should have capabilities to pass

Sr. No.	Parameter	Minimum Requirement Description
		the trigger in the adaptive traffic solution to initiate the VVIP corridor process.
ICCC.REQ.125		ICCC Platform should automatically update the information based on alarms and incidents that are presented to it via the business rules engine. The polling and ICCC platform database refresh cycle shall be configurable to match the status of the situation (whether there is an emergency or crisis or just monitoring only).
ICCC.REQ.126	Common Data Integration Layer	System should provide a common data integration layer which can collect and contextualize information from disparate data sources regardless of protocol. Platform should have inbuilt supervisory capabilities and should be able to natively monitor, command & control all types of SCADA (Water, sewage, energy & electrical) with bi-directional control with Flexible message delivery capabilities including Web Services, File Drop, FTP, MSMQ, XML, HTTP and SOAP; Should have automatic store and forward capability to allows users to resend or adjust transactions, based on a full detailed message history
ICCC.REQ.127	Visualisation	Platform system software shall include an object-oriented colour graphics display generator with full animation capabilities to provide users with a realistic and efficient visualization of the system process. It shall provide graphical capabilities to allow design of highly efficient user interface aimed at helping operators to easily achieve a state of situational awareness in relation to the process. Platform should be capable to displaying the application on very large video wall with 4K resolution regardless of size of the video wall. Graphics should load within 5 seconds. Visualization should support multi monitor capability without opening multiple instances of the application. It should also support opening part of application at defined location on the video wall.
ICCC.REQ.128	Workflow	The platform should have process designer - Intuitive visual tool that offers an integrated workflow process design and deployment tool for use by departments, developers community, technical architects, and ISVs without any restriction for X or Y axis for design interface. Graphical process designer must be 100% web based tool that enables BPM practitioners to define processes to achieve smart city objectives.
ICCC.REQ.129		The platform shall have cross functional workflows with the ability to communicate between People, devices and systems (ERP/ CMMS/ EAM/ Sub-systems etc.).
ICCC.REQ.130		Workflow function should provide facility to trigger a corrective action workflow and define the stakeholders for the same.
ICCC.REQ.131		Workflow system should be able to create, assign, track and report on the lifecycle of tasks during an incident.
ICCC.REQ.132		The workflow system should allow a specific task to be decomposed into sub-tasks.

Sr. No.	Parameter	Minimum Requirement Description
ICCC.REQ.133		The workflow engine should be able to dynamic assignment of tasks based on roles, name, designation or any other attribute present in the resource database
ICCC.REQ.134		The criticality of task within workflow should be dynamically changed depending on the response SLA, for example, in case of delays in response to the task should change the task to high priority task.
ICCC.REQ.135		The workflow should able to do queue management for management of resources performing similar functions. Queue Management allows automatic, semi-automatic and manual modes of task dispatch. FIFO, LIFO, and Round-robin are some of the algorithms supported.
ICCC.REQ.136		Workflow approvals should have facility to approve from any smart device.
ICCC.REQ.137	Human Machine Interface	a) ICCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process. Extensible library of over 500 pre-designed 'intelligent' and customizable visualization objects & templates
ICCC.REQ.138		b) ICCC platform should have a client/server architecture to allow multiple client access to an Ethernet connected server. The workstation shall operate also as a stand-alone workstation/server. Should have built-in, real-time and historical trending. Stunning graphic visual representation and interaction with operation bringing the right information to the right people at the right time
ICCC.REQ.139		c) ICCC platform shall enable an operator to interact with various devices including network nodes (LonWorks/Modbus/BacNet), recorders, input/output (I/O) systems, intelligent transmitters, and other field devices.

8.9 Enterprise Management System (EMS)

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.001	General Attributes	The EMS shall be able to support the proposed hardware and software components (IT) deployed over the tenure of the Contract. The EMS shall be capable of providing early warning signals to the Helpdesk Agents on the performance issues, and future infrastructure capacity augmentation. The EMS shall also support single pane / dashboard with visibility across multiple areas of applications for monitoring
EMS.REQ.002	General Attributes	Bidder is required to design, supply, install, customize, test, implement, rollout and maintain the EMS application and hardware as per the requirements of this RFP. The proposed

Sr. No.	Parameter	Minimum Requirement Specifications
		EMS solution shall provide comprehensive and end-to-end management of all the components for each service including all the hardware devices, Network, Systems and Application infrastructure. The proposed solution must also provide single integrated dashboard to provide line of business views and drill down capabilities
EMS.REQ.003	General Attributes	Bidder is expected to provide EMS encompassing but not limited to the following functions:
EMS.REQ.004		Configuration Management
EMS.REQ.005		Fault Management
EMS.REQ.006		Incident, Problem and Change Management
EMS.REQ.007		Asset Management
EMS.REQ.008		Remote Control
EMS.REQ.009		SLA Management & Monitoring
EMS.REQ.010		Performance Management
EMS.REQ.011		Event Management
EMS.REQ.012		Server, Storage and other Infrastructure Management
EMS.REQ.013		Monitor network components of the LAN & WAN
EMS.REQ.014		Network Link Monitoring
EMS.REQ.015		Any other modules as required by SI to meet the requirements of the RFP
EMS.REQ.016		All EMS modules required to fulfil the requirements laid in the RFP should necessarily be from single OEM only
EMS.REQ.017		Note: It is mandatory that all the modules for the proposed EMS Solution shall provide out-of-the-box and seamless integration capabilities. Bidder shall provide the specifications and numbers for all necessary Hardware, OS & DB (if any) which is required for an EMS to operate effectively and provide the same at no extra cost
EMS.REQ.018	General Attributes	The EMS system shall provide for the regular monitoring, management and reporting of the ICT infrastructure of the project assets installed in the respective operations centre as

Sr. No.	Parameter	Minimum Requirement Specifications
		well as field locations. It shall be noted that the activities performed by the Bidder shall be under the supervision of PCSCL. The EMS system shall have the following features including but not limited to and as well act as authoritative source for the same:
EMS.REQ.019	General Attributes	Following functionalities are essential and required from such EMS tools:
EMS.REQ.020		Availability Monitoring, Management and Reporting
EMS.REQ.021		Performance Monitoring, Management and Reporting
EMS.REQ.022		Helpdesk Monitoring, Management and Reporting
EMS.REQ.023		Traffic Analysis
EMS.REQ.024		Asset Management
EMS.REQ.025		Incident Management and RCA reporting
EMS.REQ.026		Change and Configuration management
EMS.REQ.027	Discovery, Configuration and Faults	The proposed system shall support multiple types of discovery like IP range discovery – including built-in support for IPv6, Seed router based discovery and discovery whenever new devices are added with capability to exclude specific devices
EMS.REQ.028	Monitoring and Management	
EMS.REQ.029	Discovery, Configuration and Faults	The proposed system shall support exclusion of specific IP addresses or IP address ranges
EMS.REQ.030	Monitoring and Management	
EMS.REQ.031	Discovery, Configuration and Faults	The system shall provide discovery & inventory of physical network devices like Layer-2 & Layer-3 switches, Routers and other IP devices and shall provide mapping of LAN & WAN connectivity
EMS.REQ.032	Monitoring and Management	
EMS.REQ.033	Discovery, Configuration and Faults	The discovery shall be able to identify and model of the ICT asset

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.034	Monitoring and Management	
EMS.REQ.035	Discovery, Configuration and Faults	The proposed system shall provide a detailed asset report, organized by Bidder's name and device, listing all ports for all devices. The proposed system shall provide sufficient reports that identify unused ports in the managed network infrastructure that can be reclaimed and reallocated
EMS.REQ.036	Monitoring and Management	
EMS.REQ.037	Discovery, Configuration and Faults	The proposed system shall determine device availability and shall exclude outages from the availability calculation with an option to indicate the reason
EMS.REQ.038	Monitoring and Management	
EMS.REQ.039	Discovery, Configuration and Faults	The proposed system shall provide out of the box root cause analysis
EMS.REQ.040	Monitoring and Management	
EMS.REQ.041	Discovery, Configuration and Faults	The proposed system shall include the ability to monitor and visualize a virtualized system infrastructure by discovering and monitoring virtual machines and providing ability to depict the logical relationships between virtual servers and virtual machines
EMS.REQ.042	Monitoring and Management	
EMS.REQ.043	Discovery, Configuration and Faults	The proposed solution shall detect virtual server and virtual machine configuration changes and automatically update topology and shall raise alarm when VM migrations happen between hosts
EMS.REQ.044	Monitoring and Management	
EMS.REQ.045	Discovery, Configuration and Faults	The proposed solution shall have the ability to collect data from the virtual systems without solely relying on SNMP
EMS.REQ.046	Monitoring and Management	
EMS.REQ.047	Discovery, Configuration and Faults	The proposed solution shall support an architecture that can be extended to support multiple virtualization platforms and technologies
EMS.REQ.048	Monitoring and Management	

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.049	Discovery, Configuration and Faults	The proposed system shall support SNMPv3-based network discovery and management out-of-box without the need for any external third-party modules
EMS.REQ.050	Monitoring and Management	
EMS.REQ.051	Discovery, Configuration and Faults	The proposed system shall be able to administer configuration changes to network elements by providing toolkits to automate the following administrative tasks of effecting configuration changes to network elements like Capture running & startup configuration, Upload configuration etc.
EMS.REQ.052	Monitoring and Management	
EMS.REQ.053	Discovery, Configuration and Faults	The proposed system shall provide sufficient reports pertaining to asset and change management, alarms and availability of critical network resources as well as network response times for critical links
EMS.REQ.054	Reporting	
EMS.REQ.055	Discovery, Configuration and Faults	The proposed system shall able to perform real-time or scheduled capture of device configurations. It shall also provide features to capture, view & upload network device configuration
EMS.REQ.056	Reporting	
EMS.REQ.057	Discovery, Configuration and Faults	The proposed system shall able to store historical device configurations captured in the database and thereby enable comparison of current device configuration against a previously captured configuration as well as compare the current configuration against any user-defined standard baseline configuration policy
EMS.REQ.058	Reporting	
EMS.REQ.059	Discovery, Configuration and Faults	The proposed system shall be able to monitor compliance & enforce change control policies within the diverse infrastructure by providing data & tools to run compliance reports, track & remediate violations, and view history of changes
EMS.REQ.060	Reporting	
EMS.REQ.061	Discovery, Configuration and Faults	The proposed tool shall display configuration changes differences in GUI within central Console. Also, this shall be able to identify which user has made changes or modifications to device configurations using the Interface
EMS.REQ.062	Reporting	
EMS.REQ.063	Service Level Management	The proposed service management system shall provide a detailed service dashboard view indicating the health of each of the component and services provisioned as well as the SLA's
EMS.REQ.064	Monitoring and	

Sr. No.	Parameter	Minimum Requirement Specifications
	Management	
EMS.REQ.065	Service Level Management	The system shall provide an outage summary that gives a high-level health indication for each service as well as the details and root cause of any outage
EMS.REQ.066	Monitoring and Management	
EMS.REQ.067	Service Level Management	The system shall be capable of managing IT resources in terms of the business services they support, specify and monitor service obligations, and associate users/Departments/ Organizations with the services they rely on and related Service/Operational Level Agreements. Presently, services shall include E-mail, Internet Access, Intranet and other services hosted
EMS.REQ.068	Monitoring and Management	
EMS.REQ.069	Service Level Management	The Service Level Agreements (SLAs) definition facility shall support defining a set of one or more service that specify the Service obligations stipulated in an SLA contract for a particular time period (weekly, monthly, and so on)
EMS.REQ.070	Monitoring and Management	
EMS.REQ.071	Service Level Management	SLA violation alarms shall be generated to notify whenever an agreement is violated or is in danger of being violated
EMS.REQ.072	Monitoring and Management	
EMS.REQ.073	Service Level Management:	The system shall provide the capability to designate planned maintenance periods for services and take into consideration maintenance periods defined at the IT resources level. In addition, the capability to exempt any service outage from impacting an SLA shall be available
EMS.REQ.074	Monitoring and Management	
EMS.REQ.075	Service Level Management:	The reports supported shall include one that monitors service availability (including Mean Time to Repair (MTTR), Mean Time between Failure (MTBF), and Maximum Outage Time thresholds) and the other that monitors service transaction response time
EMS.REQ.076	Reporting	
EMS.REQ.077	Service Level Management:	The system shall provide a historical reporting facility that shall allow for the generation of on-demand and scheduled reports of Service related metrics with capabilities for customization of the report presentation
EMS.REQ.078	Reporting	
EMS.REQ.079	Service Level Management:	The system shall provide for defining service policies like Service Condition High\Low Sensitivity, Port Status High\Low Sensitivity shall be provided out of the box
EMS.REQ.080	Reporting	

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.081	Service Level Management	The system shall display option on Services, Customer, SLA's, SLA templates
EMS.REQ.082	Reporting	
EMS.REQ.083	Performance - Monitoring, Management and Reporting	The proposed performance management system shall integrate network, server and database performance information and alarms in a single console and provide a unified reporting interface for network components
EMS.REQ.084	Network Performance Monitoring, Management and Reporting:	The System shall have all the capabilities of a Network Management System which shall provide Real time network monitoring and Measurement off-end-to-end Network performance & availability to define service levels and further improve upon them
EMS.REQ.085	Monitoring and Management	
EMS.REQ.086	Network Performance Monitoring, Management and Reporting:	The tool shall provide a live exceptions list displaying the various health and threshold exceptions that are occurring in the managed infrastructure
EMS.REQ.087	Monitoring and Management	
EMS.REQ.088	Network Performance Monitoring, Management and Reporting:	The tool shall have the capability to configure different polling speeds for different devices in the managed infrastructure with capability to poll critical devices
EMS.REQ.089	Monitoring and Management	
EMS.REQ.090	Network Performance Monitoring, Management and Reporting:	The proposed system shall use intelligent alarm algorithms to learn the behavior of the network infrastructure components over a period of time
EMS.REQ.091	Monitoring and Management	
EMS.REQ.092	Network Performance Monitoring, Management and	The Network Performance Management console shall provide a consistent report generation interface from a single central console

Sr. No.	Parameter	Minimum Requirement Specifications
	Reporting:	
EMS.REQ.093	Reporting	
EMS.REQ.094	Network Performance Monitoring, Management and Reporting:	This central console shall also provide all required network performance reports (including latency, threshold violations, packet errors, availability, bandwidth utilization etc.) for the network infrastructure. The proposed system shall identify over- and under-utilized links and assist in maximizing the utilization of current resources
EMS.REQ.095	Reporting	
EMS.REQ.096	Network Performance Monitoring, Management and Reporting:	The proposed system shall enable complete customization flexibility of performance reports for network devices and monitored servers
EMS.REQ.097	Reporting	
EMS.REQ.098	Network Performance Monitoring, Management and Reporting:	The proposed system shall provide an integrated performance view for all the managed systems and networks along with the various threshold violations alarms in them
EMS.REQ.099	Reporting	
EMS.REQ.100	Network Performance Monitoring, Management and Reporting:	The proposed system shall provide the following reports as part of the base performance monitoring product out-of-the-box to help network operators quickly identify device problems quickly. The following charts like mentioned below shall be available for routers: Backplane Utilization, Buffer Create Failures, Buffer Hits, Buffer Misses, Buffer Utilization, Bus Drops, CPU Utilization, Fan Status, Free Memory, Memory Utilization, Packets by Protocol, and Packets out
EMS.REQ.101	Reporting	
EMS.REQ.102	Network Performance Monitoring, Management and Reporting:	The proposed system shall be able to auto-calculate resource utilization baselines for the entire managed systems and networks and allow user to set corresponding upper and lower threshold limits
EMS.REQ.103	Reporting	
EMS.REQ.104	Application Performance Monitoring,	The proposed solution shall proactively monitor all user transactions for any web-application hosted; detect failed transactions; gather evidence necessary for triage and diagnosis

Sr. No.	Parameter	Minimum Requirement Specifications
	Management and Reporting:	of problems that affect user experiences and prevent completion of critical business processes
EMS.REQ.105	Monitoring and Management	
EMS.REQ.106	Application Performance Monitoring, Management and Reporting:	The proposed solution shall determine if the cause of performance issues is inside the application, in connected back-end systems or at the network layer
EMS.REQ.107	Monitoring and Management	
EMS.REQ.108	Application Performance Monitoring, Management and Reporting:	The proposed solution shall correlate performance data from HTTP Servers (external requests) with internal application performance data
EMS.REQ.109	Monitoring and Management	
EMS.REQ.110	Application Performance Monitoring, Management and Reporting:	The proposed solution shall see response times based on different call parameters. For example, the proposed solution shall be able to provide CPU utilization metrics
EMS.REQ.111	Monitoring and Management	
EMS.REQ.112	Application Performance Monitoring, Management and Reporting:	The proposed Solution shall be able to correlate Application changes (code and configuration files) with change in Application performance
EMS.REQ.113	Monitoring and Management	
EMS.REQ.114	Application Performance Monitoring, Management and Reporting:	The proposed solution shall allow data to be seen only by those with a need to know and limit access by user roles
EMS.REQ.115	Monitoring and Management	

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.116	Application Performance Monitoring, Management and Reporting:	The proposed solution shall measure the end users' experiences based on transactions
EMS.REQ.117	Monitoring and Management	
EMS.REQ.118	Application Performance Monitoring, Management and Reporting:	The proposed solution shall give visibility into user experience without the need to install agents on user desktops
EMS.REQ.119	Monitoring and Management	
EMS.REQ.120	Application Performance Monitoring, Management and Reporting:	The solution shall be deployable as an appliance-based/software based system acting as a passive listener on the network thus inducing zero overhead on the network and application layer
EMS.REQ.121	Monitoring and Management	
EMS.REQ.122	Application Performance Monitoring, Management and Reporting:	The proposed solution shall be able to provide the ability to detect and alert which exact end users experience HTTP error codes such as 404 errors or errors coming from the web application
EMS.REQ.123	Monitoring and Management	
EMS.REQ.124	Application Performance Monitoring, Management and Reporting:	The proposed system shall be able to detect user impacting defects and anomalies and reports them in real-time for Slow Response Time, Fast Response time, Low Throughput, Partial Response, Missing component within transaction
EMS.REQ.125	Reporting	
EMS.REQ.126	Application Performance Monitoring, Management and Reporting:	The proposed system shall be able to instantly identify whether performance problems like slow response times are within or outside the Data centre without having to rely on network monitoring tools

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.127	Reporting	
EMS.REQ.128	Application Performance Monitoring, Management and Reporting:	The proposed system shall be able to provide trend analysis reports and compare the user experience over time by identifying transactions whose performance or count has deteriorated over time
EMS.REQ.129	Reporting	
EMS.REQ.130	Systems and Database Performance Monitoring, Management and Reporting:	The proposed system shall address management challenges by providing centralized management across physical and virtual systems across the layer including network, servers, DB and applications
EMS.REQ.131	Monitoring and Management	
EMS.REQ.132	Systems and Database Performance Monitoring, Management and Reporting:	The proposed system shall be able to monitor various operating system parameters such as processors, memory, files, processes, file systems, etc. where applicable, using agents on the servers to be monitored
EMS.REQ.133	Monitoring and Management	
EMS.REQ.134	Systems and Database Performance Monitoring, Management and Reporting:	It shall be possible to configure the operating system monitoring agents to monitor based on user-defined thresholds for warning/critical states and escalate events to event console of enterprise management system
EMS.REQ.135	Monitoring and Management	
EMS.REQ.136	Systems and Database Performance Monitoring, Management and Reporting:	It shall also be able to monitor various operating system parameters depending on the operating system being monitored yet offer a similar interface for viewing the agents and setting thresholds
EMS.REQ.137	Monitoring and Management	

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.138	Systems and Database Performance Monitoring, Management and Reporting:	The proposed solution shall support monitoring Processors, File Systems, Log Files, System Processes, and Memory etc.
EMS.REQ.139	Monitoring and Management	
EMS.REQ.140	Systems and Database Performance Monitoring, Management and Reporting:	The proposed tool shall provide Process and NT Service Monitoring wherein if critical application processes or services fail, administrators are immediately alerted and processes and services are automatically restarted while generating an incident report for the same subject to investigation
EMS.REQ.141	Monitoring and Management	
EMS.REQ.142	Systems and Database Performance Monitoring, Management and Reporting:	The proposed tool shall be able to provide Log File Monitoring which enables administrator to watch system logs and text log files by specifying messages to watch for. When matching messages gets logged, the proposed tool shall notify administrators and enable to take action like sending an email
EMS.REQ.143	Monitoring and Management	
EMS.REQ.144	Systems and Database Performance Monitoring, Management and Reporting:	The proposed database performance management system shall integrate network, server & database performance management systems and provide the unified view of the performance state in a single console
EMS.REQ.145	Monitoring and Management	
EMS.REQ.146	Systems and Database Performance Monitoring, Management and Reporting:	It shall be able to automate monitoring, data collection and analysis of performance
EMS.REQ.147	Monitoring and Management	

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.148	Systems and Database Performance Monitoring, Management and Reporting:	It shall also provide the ability to set thresholds and send notifications when an event occurs, enabling database administrators (DBAs) to quickly trace and resolve performance-related bottlenecks
EMS.REQ.149	Monitoring and Management	
EMS.REQ.150	Systems and Database Performance Monitoring, Management and Reporting:	The proposed system shall provide Performance Management and Reporting — Provides real-time and historical performance of physical and virtual environments enabling customers gain valuable insights of a given virtual container of the relative performance of a given Virtual Machine compared to other Virtual Machines, and of the relative performance of groups of Virtual Machines
EMS.REQ.151	Reporting	
EMS.REQ.152	Systems and Database Performance Monitoring, Management and Reporting:	Role based Access — Enables role-based management by defining access privileges according to the role of the user
EMS.REQ.153	Reporting	
EMS.REQ.154	Systems and Database Performance Monitoring, Management and Reporting:	The proposed Virtual Performance Management system shall integrate latest virtualization technologies
EMS.REQ.155	Reporting	
EMS.REQ.156	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall provide flexibility of logging, viewing, updating and closing incident manually via web interface
EMS.REQ.157	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall support ITIL processes like request management, problem management, configuration management and change order management with out-of-the-box templates for various ITIL service support processes
EMS.REQ.158	Helpdesk - Monitoring, Management and	Each incident shall be able to associate multiple activity logs entries via manual update or automatic update from other

Sr. No.	Parameter	Minimum Requirement Specifications
	Reporting	enterprise management tools
EMS.REQ.159	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall be able to provide flexibility of incident assignment based on the workload, category, location etc.
EMS.REQ.160	Helpdesk - Monitoring, Management and Reporting	Each escalation policy shall allow easy definition on multiple escalation levels and notification to different personnel via window GUI/console with no or minimum programming
EMS.REQ.161	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall provide grouping access on different security knowledge articles for different group of users
EMS.REQ.162	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall have an updateable knowledge base for tech al analysis and further help end-users to search solutions for previously solved issues
EMS.REQ.163	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall support tracking of SLA (service level agreements) for call requests within the help desk through service types
EMS.REQ.164	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall be capable of assigning call requests to technical staff manually as well as automatically based on predefined rules, and shall support notification and escalation over email, web etc.
EMS.REQ.165	Helpdesk - Monitoring, Management and Reporting	The proposed helpdesk system shall integrate tightly with the Knowledge tools and CMDB and shall be accessible from the same login window
EMS.REQ.166	Helpdesk - Monitoring, Management and Reporting	It shall support remote management for end-user & allow analysts to do the desktop sharing for any system located anywhere, just connected to internet
EMS.REQ.167	Helpdesk - Monitoring, Management and Reporting	Remote desktop sharing in the system shall be agent less & all activity shall be automatically logged into the service desk ticket
EMS.REQ.168	Helpdesk - Monitoring, Management and Reporting	It shall allow IT team to create solution & make them available on the end – user login window for the most common requests

Sr. No.	Parameter	Minimum Requirement Specifications
	Reporting	
EMS.REQ.169	Traffic analysis	The proposed system shall enable the Data centre to centrally manage user access privileges and allow deploying baseline security policies so that the right people have access to the right information. It shall proactively secure access to data and applications located on Linux, UNIX and Windows system servers
EMS.REQ.170		The traffic analysis system shall be from same OEM providing Network Fault & Performance Management System
EMS.REQ.171		The tool shall support Flow monitoring and traffic analysis for NetFlow, J-Flow, sFlow, Netstream, IPFIX technologies
EMS.REQ.172		The solution shall provide a central web based integration point for NetFlow based reporting and able to report from a single console across 100,000 interfaces
EMS.REQ.173		The solution shall be of the type passive monitoring without a need to install any probe or collector for data collection
EMS.REQ.174		The solution shall provide the following NetFlow based metrics:
EMS.REQ.175		Rate, Utilization, Byte Count, IP hosts with automatic DNS resolution, IP conversation pairs with automatic DNS resolution, Router/interface with automatic SNMP name resolution, IPv6 addresses
EMS.REQ.176		The proposed solution shall keep historical rate and protocol data for a minimum of 12 months (most recent) in its current long term operating database. All data in that database shall have a maximum 60 minutes window granularity without roll up. A user shall be able to select any 60 minutes window over the last 12 months and display unique utilization and protocol data for every monitored interface
EMS.REQ.177		The proposed solution shall keep historical rate and protocol data for a minimum of 30 days (most recent) in its short term operating database. All data in that database shall have a maximum 1-minute window granularity. User shall be able to select any 1-minute window over the last 30 days and display unique utilization and protocol data for every monitored interface
EMS.REQ.178		All custom reports from the long-term database shall support the ability to be run manually or scheduled to run automatically at user selectable intervals
EMS.REQ.179		All reports shall be generated and displayed directly by the

Sr. No.	Parameter	Minimum Requirement Specifications
		system from a common interface
EMS.REQ.180		The system shall allow Excel to download data to generate reports
EMS.REQ.181		The system shall be able to restrict views and access for defined users to specific routers, interfaces, and reports
EMS.REQ.182		The user shall be able to generate reports from the long-term database based on specific thresholds defined by the user where the threshold can be compared to rate, utilization or volume of every monitored interface as a filter for inclusion in the report
EMS.REQ.183		The system shall analyze all NetFlow traffic and alert via SNMP trap and syslog of any suspicious activity on the network
EMS.REQ.184		The system shall provide the ability to group interfaces into functional groups based on any user criteria. The grouping function shall allow users to create group names and add interfaces into that grouping for reporting purposes. Once created, these groups shall be available for selection within custom reports as a mechanism to include multiple interfaces without individual selection for inclusion
EMS.REQ.185		The monthly view shall provide a graphical representation of the level of utilization for each fifteen-minute interval of each day of the month
EMS.REQ.186		The user shall be able to easily change the data type of the main interface view to a tabular format showing the increase or decrease of traffic generated by that protocol as a percentage using discrete least-squares approximation to find a best fit line of growth
EMS.REQ.187	Asset Management through EMS	Ability to provide inventory of hardware and software applications on end-user desktops, including information on processor, memory, OS etc. through agents installed on them
EMS.REQ.188	Asset Management through EMS	Ability to have reporting capabilities; provide predefined reports and ability to create customized reports on data in the inventory database. Report results could be displayed as lists or graphs
EMS.REQ.189	Asset Management through EMS	Ability to provide the facility to collect complete details including custom information from desktops
EMS.REQ.190	Asset Management through EMS	Facility for the administrator to register a new application to the detectable application list using certain identification criteria. Shall enable the new application to be detected automatically

Sr. No.	Parameter	Minimum Requirement Specifications
		next time the inventory is scanned
EMS.REQ.191	Asset Management through EMS	Facility for User self-registration
EMS.REQ.192	Asset Management through EMS	Ability to support configuration management functionality using which standardization of configuration can be achieved of all the desktops
EMS.REQ.193	Asset Management through EMS	Software metering shall be supported to audit and control software usage. Shall support offline and online metering
EMS.REQ.194	Asset Management through EMS	Ability to support dynamic grouping of enabling assets to be grouped dynamically based on some pre-defined criteria e.g. a group shall be able to display how many and which computers has a specific application installed. As and when a new computer gets the new application installed it shall dynamically add to the group
EMS.REQ.195	Asset Management through EMS	Ability to use the query tool to identify specific instances of concern like policy violation (presence of prohibited programs / games and old versions, etc.), inventory changes (memory change, etc.) and accordingly it could perform several actions as reply. These actions could be (a) sending a mail, (b) writing to files, sound an alarm (c) message to scroll on monitor screen if the administrator, etc.
EMS.REQ.196	Asset Management through EMS	Facility to track changes by maintaining history of an asset
EMS.REQ.197	Asset Management through EMS	Ability to have web based console
EMS.REQ.198	Incident Management and Root Cause Analysis Reporting	Incident management shall be governed by the change management and configuration management policy of PCSCS. The policy shall be shared with the Bidder
EMS.REQ.199	Incident Management and Root Cause Analysis Reporting	Incidents shall be categorized and prioritized. While prioritizing incidents the impact and urgency of the incident shall be taken into consideration

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.200	Incident Management and Root Cause Analysis Reporting	It shall be ensured that the incident database is integrated with Known Error Database (KeDB), Configuration Management Database (CMDB). These details shall be accessible to relevant personnel as and when needed
EMS.REQ.201	Incident Management and Root Cause Analysis Reporting	Testing shall be performed to ensure that recovery action is complete and that the service has been fully restored
EMS.REQ.202	Incident Management and Root Cause Analysis Reporting	The Bidder shall keep the end users informed of the progress of their reported incident
EMS.REQ.203	Incident Management and Root Cause Analysis Reporting	When the incident has been resolved, it shall be ensured that the service desk records of the resolution steps are updated, and confirm that the action taken has been agreed to by the end user. Also, unresolved incidents (known errors and workarounds) shall be recorded and reported to provide information for effective problem management
EMS.REQ.204	Incident Management and Root Cause Analysis Reporting	Information security incidents and weaknesses associated with information systems shall be communicated in a manner allowing timely corrective action to be taken
EMS.REQ.205	Incident Management and Root Cause Analysis Reporting	The Bidder shall conduct regular reviews on performance of incident management activities against documented Key Performance Indicators (KPI's)
EMS.REQ.206	Incident Management and Root Cause Analysis Reporting	The incident management activities shall be carried out by the Bidder in such a way that an incident is resolved within the agreed time schedule. Root Cause Analysis (RCA) shall be conducted by the Bidder
EMS.REQ.207	Incident Management and Root Cause Analysis Reporting	Controls related to incident management need to be implemented and each implemented control shall have a documentary evidence to substantiate and demonstrate effective implementation

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.208	Change and Configuration Management	Change and configuration management shall be governed by the change management and configuration management policy
EMS.REQ.209	Change and Configuration Management	Change management provides information on changes, and enables better control of changes to reduce errors and disruption in services
EMS.REQ.210	Change and Configuration Management	All changes shall be initiated using change management process; and a Request For Change (RFC) shall be created. All requests for change shall be evaluated to determine the impact on business processes and IT services, and to assess whether change shall adversely affect the operational environment and introduce unacceptable risk
EMS.REQ.211	Change and Configuration Management	The Bidder shall ensure that all changes are logged, prioritized, categorized, assessed, authorized, planned and scheduled to track and report all changes
EMS.REQ.212	Change and Configuration Management	Ensure review of changes for effectiveness and take actions agreed with interested parties. Requests for change shall be analyzed at planned intervals to detect trends. The results and conclusions drawn from the analysis shall be recorded and reviewed to identify opportunities for improvement
EMS.REQ.213	Change and Configuration Management	Controls related to change management need to be implemented and each implemented control shall have a documentary evidence to substantiate and demonstrate effective implementation
EMS.REQ.214	Change and Configuration Management	The roles and responsibilities of the management shall include review and approval of the implementation of change management policies, processes and procedures
EMS.REQ.215	Change and Configuration Management	A configuration management database shall be established which stores unique information about each type Configuration Item CI or group of CI
EMS.REQ.216	Change and Configuration Management	The Configuration Management Database (CMDB) shall be managed such that it ensures its reliability and accuracy including control of update access
EMS.REQ.217	Change and Configuration Management	The degree of control shall maintain the integrity of services and service components taking into consideration the service requirements and the risks associated with the CI
EMS.REQ.218	Change and Configuration Management	Corrective actions shall be taken for any deficiencies identified in the audit and shall be reported to the management and process owners

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.219	Change and Configuration Management	Information from the CMDB shall be provided to the change management process and the changes to the CI shall be traceable and auditable
EMS.REQ.220	Change and Configuration Management	A configuration baseline of the attached CI shall be taken before deployment of a release into the live environment. It shall be stored in the safe environment with appropriate access control
EMS.REQ.221	Change and Configuration Management	Master copies of CI shall be recorded in the CMDB and shall be stored in secure physical or electronic libraries which shall be referenced in the configuration records. This shall be applicable to documentations, license information, software and hardware configuration images
EMS.REQ.222	EMS Ability to Integrate with Other Services	The proposed EMS solution shall comply with key integration points out of the box as listed below but not limited to:
EMS.REQ.223	EMS Ability to Integrate with Other Services	The proposed network management system shall integrate with the helpdesk system by updating the Asset with CI information to support viewing history or open issues in helpdesk on the particular managed asset and associate an SLA to the ticket in the helpdesk
EMS.REQ.224	EMS Ability to Integrate with Other Services	The proposed network management system shall attach an asset identifier when submitting a helpdesk ticket. In case the asset is not found in the helpdesk database, it shall be automatically created prior to submitting the ticket. NMS console shall show associated helpdesk ticket number for the alarms that generated those tickets
EMS.REQ.225	EMS Ability to Integrate with Other Services	SLA's violation on monitored end user response time shall open a helpdesk incident out of the box
EMS.REQ.226	EMS Ability to Integrate with Other Services	Proposed Application Performance Solution shall integrate with Network Fault Monitoring Solution to forward Application Performance Threshold violation alarms in proposed Network Fault Manager Console
EMS.REQ.227	EMS Ability to Integrate with Other Services	The proposed Fault Management Solution shall support integration with proposed help desk or trouble ticketing system such that integration shall Associates alarms with Service Desk tickets in the following ways:
EMS.REQ.228		Manually creates tickets when requested by Fault Management GUI operators
EMS.REQ.229		Automatically creates tickets based on alarm type

Sr. No.	Parameter	Minimum Requirement Specifications
EMS.REQ.230		Provides a link to directly launch a Service Desk view of a particular ticket created by alarm from within the Network Operation console
EMS.REQ.231		Maintains the consistency of the following information that is shared between alarm and its associated Service Desk ticket including status of alarms and associated tickets and current assignee assigned to tickets
EMS.REQ.232		Helpdesk ticket number created for associated alarm shall be visible inside Network Operation Console. It shall be integrated in a way that Helpdesk incident can be launched once clicked on ticket number for associated alarm from within Network Operation Console
EMS.REQ.233		The proposed virtual performance management system shall integrate with proposed Network Management and Performance Management system out of the box
EMS.REQ.234		The proposed NMS shall provide unified workflow between the fault and performance management systems including bi-directional and context-sensitive navigation, such as:
EMS.REQ.235		Navigate from the Topology View to At-a-Glance or Trend Reports for any asset
EMS.REQ.236		Navigate from the Alarm View to At-a-Glance, Trend or Alarm Detail Reports
EMS.REQ.237		Proposed Performance Management system shall feed in discovery from Devices already discovered in Network Management Module without starting discovery process again all together in Performance Management Engine this shall reduce effort of having to perform discovery on both Fault and Performance Management Engines Discovery can be synchronized
EMS.REQ.238	EMS Ability to Integrate with Other Services	Keeping in view the intricacies involved in the installation, configuration and day to day use of various components of Enterprise Management System covered under this document, the proposed EMS solution shall involve tools to ensure smooth/seamless integration and out of the box workability of the offered solution
EMS.REQ.239	ICT Assets Hardening	All the ICT assets shall be hardened as per the Hardening guidelines and industry leading practices. Remove all unauthorized software, utilities, and services. All required logs shall be configured and monitored



Request for Proposal (RFP)

for

Selection of Concessionaire for
Providing End to End Services for
Monetization of PCSCCL City
Network Infrastructure on “Revenue
Sharing Model”

VOLUME III - Legal Specifications

Tender Ref Number- 04/22-23

Date: 05-08-2022

PIMPRI CHINCHWAD SMART CITY LIMITED

Table of Contents

A.	GENERAL CONDITIONS OF CONTRACT (GCC)	5
1.	Definition of Terms	5
2.	Interpretation	6
3.	Measurements and Arithmetic Conventions	7
4.	Ambiguities within Agreement	7
5.	Priority of Documents	7
6.	Scope of work	8
7.	Term and Duration of the Agreement	8
8.	Conditions Precedent & Effective Date	8
9.	Commencement and Progress	9
10.	Standards of Performance	9
11.	Approvals and Required Consents	9
12.	Concessionaire's Obligations	10
13.	PCSCCL's Obligations	14
14.	Financial Matters	15
15.	Audit, Access and Reporting	17
16.	Intellectual Property Rights	17
17.	Representations & Warranties	18
18.	Term and Extension of the Contract	20
19.	Dispute Resolution	21
20.	Time is of the essence	21
21.	Conflict of interest	21
22.	Force Majeure	21
23.	Delivery	23
24.	Warranty & Maintenance	23
25.	Insurance	24
26.	Exit Management	25
B.	SPECIAL CONDITIONS OF CONTRACT (SCC)	28
27.	Performance Security	28
28.	Liquidated Damages	29
29.	Indemnifications and Limitation of Liability:	30
30.	Ownership and Retention of Documents	31
31.	Escrow Agreement	32
32.	Information Security	33
33.	Records of contract documents	34

34.	Security and Safety	34
35.	Confidentiality	34
36.	Events of Default by Concessionaire	35
37.	Termination.....	35
38.	Effects of Termination	37
39.	Change Control Note (CCN)	38
40.	Project Implementation Timelines, Deliverables and Payment Terms.....	39
41.	Miscellaneous.....	39
C.	SERVICE LEVELS	42
42.	Issue Management Procedures	42
43.	Governance Law and Dispute Resolution	43
44.	Jurisdiction.....	44
	Proforma A – Detailed Commercial Schedule	45
	ANNEXURES	46
A.	ANNEX I: CHANGE CONTROL NOTE	46
B.	ANNEX II: CHANGE CONTROL SCHEDULE	48
C.	ANNEX III: FORM OF AGREEMENT	50
D.	ANNEX V: AUDIT, ACCESS AND REPORTING	52

<< This RFP document is to be referred as draft Contract / Agreement and the clauses shall be concluded between PCSCL and successful bidder before signing of contract / agreement>>

CONCESSIONAIRE AGREEMENT

This Contract is made at Pimpri, Maharashtra, on this_____day of _____, 2022,

BETWEEN

The “Pimpri Chinchwad Smart City Limited” having its registered office at Pimpri Chinchwad Smart City Limited (PCSCL), Auto Cluster Development & Research Institute,H-Block, Plot No. C-181 Chinchwad East, Old Mumbai-Pune Highway, Pune, Maharashtra 411019 hereinafter referred to as “**PCSCL**”, (which expression unless repugnant to the context therein shall include its administrator and its assignees) of the **FIRST PART**;

AND

<NAME OF CONCESSIONAIRE>, a company organized and existing under the Section of 2(20) of Companies Act, 2013, having its registered office at **<ADDRESS OF CONCESSIONAIRE>**, India hereinafter referred to as “**Concessionaire**”, (which expression unless repugnant to the context therein, shall include its successors, administrators, executors and permitted assignees), of the **SECOND PART**.

WHEREAS Concessionaire has the required professional skills, personnel and technical resources and has agreed to provide the Services on the terms and conditions set forth in this Contract and RFP and is about to perform services as specified in this RFP Volume I & II (hereinafter called “works”) mentioned, enumerated or referred to in certain Contract conditions, specification, scope of work, other Sections of the RFP, covering letter and schedule of prices which, for the purpose of identification, have been signed by the authorized representative on behalf of <NAME OF CONCESSIONAIRE> (SI) and Pimpri Chinchwad Smart City Limited (PCSCL) and all of which are deemed to form part of the Contract as though separately set out herein and are included in the expression “Contract” whenever herein used.

NOW, THEREFORE, IT IS HEREBY AGREED between the parties as follows:

- a. The PCSCL has accepted the tender of Concessionaire for the provision and execution of the said works for Yearly Minimum Revenue Committed (YMRC) as _____ and Yearly Additional Revenue Generated (YARG) as _____ (as per Price Schedule attached at Proforma A)
- b. Concessionaire hereby agrees to provide Services to PCSCL, conforming to the specified Service Levels and conditions set out hereunder.
- c. The following documents attached hereto shall be deemed to form an integral part of this Contract:

Complete Request for Proposal (RFP) document	<i>Volumes I, II and III of the RFP and corrigendum, addendum and clarifications, if any</i>
Proposals Submitted by the Bidder	<i>Technical Bid and subsequent clarifications submitted and Technical Presentation</i>
Price Schedule	<i>Detailed Price Schedule – Proforma A</i>

- d. The mutual rights and obligations of the “PCSCL” and Concessionaire shall be as set forth in the Contract, in particular:
 - Concessionaire shall carry out and complete the Services in accordance with the provisions of the Contract
 - The payments to PCSCL & the Concessionaire shall be in accordance with the provisions of the contract through joint Escrow account

NOW THESE PRESENTS WITNESS and the parties hereto hereby agree and declare as follows, that is to say, in consideration of the payments to be made to Concessionaire by the PCSCL as hereinafter mentioned, Concessionaire shall deliver the services for the said works and shall do and perform all other works and things in the Contract mentioned or described or which are implied there from or there in respectively or may be reasonably necessary for the completion of the said works within and at the times and in the manner and subject to the terms, conditions and stipulations mentioned in the said Contract.

A. GENERAL CONDITIONS OF CONTRACT (GCC)

1. Definition of Terms

- 1.1. **“Applicable Law(s)”**: Any statute, law, ordinance, notification, rule, regulation, judgment, order, decree, by law, approval, directive, guideline, policy, requirement or other governmental restriction or any similar form of decision applicable to the relevant party and

as may be in effect on the date of the execution of this Contract and during the subsistence thereof, applicable to the Project

- 1.2. **"PCSCL"** means the Pimpri Chinchwad Smart City Limited
- 1.3. **"Concessionaire"** means the selected bidder i.e. *<NAME OF CONCESSIONAIRE>* or Substitute Concessionaire, as the case may be, who shall carry out all the services mentioned in the scope of work of the RFP
- 1.4. **"Contract"** means the Concessionaire agreement entered into by the parties with the entire documentation specified in the RFP
- 1.5. **"Document"** means any embodiment of any text or image however recorded and includes any data, text, images, sound, voice, codes, databases or any other electronic documents as per IT Act 2000
- 1.6. **"Effective Date"** means the date on which this Contract is signed and executed by the parties hereto. If this Contract is executed in parts, then the date on which the last of such Contracts is executed shall be construed to be the Effective Date
- 1.7. **"GCC"** means General Conditions of Contract
- 1.8. **"Goods"** means all of the equipment, sub-systems, hardware, products accessories, software and/or other material / items which Concessionaire is required to supply, install and maintain under the contract
- 1.9. **"PCMC"** means the Pimpri Chinchwad Municipal Corporation
- 1.10. **"PCMC HO"** means the Pimpri Chinchwad Municipal Corporation Head Office, Pimpri
- 1.11. **"Intellectual Property Rights"** means any patent, copyright, trademark, trade name, service marks, brands, proprietary information whether arising before or after the execution of this Contract and the right to ownership and registration of these rights
- 1.12. **"Notice"** means a consent, approval or other communication required to be in writing under this Contract
- 1.13. **"OEM"** means the **Original Equipment Manufacturer of any equipment / system / software / product**, which are providing such goods to the PCSCL under the scope of this RFP
- 1.14. **"Concessionaire's Team"** means Concessionaire who has to provide goods & services to the PCSCL under the scope of this Contract. This definition shall also include any and/or all of the employees of Concessionaire, authorized service providers/ partners and representatives or other personnel employed or engaged directly or indirectly by Concessionaire for the purposes of this Contract.
- 1.15. **"Substitute Concessionaire"** means the organization replacing Concessionaire in case of contract termination for any reasons.
- 1.16. **"Sub-Contractor"** shall mean the entity named in the contract for any part of the work or any person to whom any part of the contract has been sublet with the consent in writing of the PCSCL and the heirs, legal representatives, successors and assignees of such person.
- 1.17. **"SCC"** means Special Conditions of Contract.
- 1.18. **"Services"** means the work to be performed by Concessionaire pursuant to this RFP and to the contract to be signed by the parties in pursuance of any specific assignment awarded by the PCSCL.

2. Interpretation

In this Agreement, unless otherwise specified:

- a) References to Clauses, Sub-Clauses, Paragraphs, Schedules and Annexures are to clauses, sub-clauses, paragraphs, schedules and annexures to this Agreement;
- b) Use of any gender includes the other genders;
- c) References to a 'company' shall be construed so as to include any company, corporation or other body corporate, wherever and however incorporated or established;
- d) References to a 'person' shall be construed so as to include any individual, firm, company, government, state or agency of a state, local or municipal authority or government body or any joint venture, association or partnership (whether or not having separate legal personality);
- e) A reference to any statute or statutory provision shall be construed as a reference to the same as it may have been, or may from time to time be, amended, modified or re-enacted;
- f) Any reference to a 'day' (including within the phrase 'business day') shall mean a period of 24 hours running from midnight to midnight;
- g) References to a 'business day' shall be construed as a reference to a day (other than a Sunday) on which banks in the state of Maharashtra are generally open for business;
- h) References to times are to Indian Standard Time;
- i) A reference to any other document referred to in this Agreement is a reference to that other document as amended, varied, novated or supplemented at any time; and
- j) All headings and titles are inserted for convenience only. They are to be ignored in the interpretation of this Agreement.
- k) Concessionaire has been used for the same entity i.e. Bidder selected for the project.

3. Measurements and Arithmetic Conventions

- 3.1.** All measurements and calculations shall be in the metric system and calculations done to two decimal places, with the third digit of five or above being rounded up and below five being rounded down except in money calculations where such amounts shall be rounded off to the nearest INR.

4. Ambiguities within Agreement

- 4.1.** In case of ambiguities or discrepancies within this Agreement, the following principles shall apply:
 - a) as between two Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in a general Clause;
 - b) as between the provisions of this Agreement and the Schedules/Annexures, the Agreement shall prevail, save and except as expressly provided otherwise in the Agreement or the Schedules/Annexures; and
 - c) as between any value written in numerals and that in words, the value in words shall prevail.

5. Priority of Documents

This Agreement, including its Schedules and Annexures, represents the entire agreement between the Parties as noted in this Clause. If in the event of a dispute as to the interpretation or meaning of this Agreement it shall be necessary for the Parties to refer to documents forming part of the bidding process leading to this Agreement, then such documents shall be relied upon and interpreted in the following descending order of priority:

- a) This Agreement along with
- b) NDA agreement, if any
- c) Schedules and Annexures;

- d) the RFP along with subsequently issued corrigendum and addendums
- e) Technical and financial proposal submitted by the successful bidder, to the extent they along with subsequently issued clarifications furnished by the Concessionaire in response to the RFP, to the extent they are not inconsistent with any terms of the RFP.

For the avoidance of doubt, it is expressly clarified that in the event of a conflict between this Agreement, Annexures / Schedules or the contents of the RFP, the terms of this Agreement shall prevail over the Annexures / Schedules and Annexures / Schedules shall prevail over the contents and specifications of the RFP.

6. Scope of work

- 6.1.** Scope of the work as defined in **RFP Volume II** and Annexures thereto of the tender and subsequent pre bid clarifications, corrigendum/addendum, if any.

7. Term and Duration of the Agreement

- 7.1.** This Agreement shall come into effect on <DD/MM/YYYY> (hereinafter the 'Effective Date') and shall continue till _____ which shall be the date of the contract tenure, unless terminated earlier (as per clause 37), in which case the contract will get terminated on fulfillment of all obligations mentioned as per clause 37.

8. Conditions Precedent & Effective Date

8.1. Provisions to take effect upon fulfillment of Conditions Precedent

- a) Subject to express terms to the contrary, the rights and obligations under this Agreement shall take effect only upon fulfillment of all the Conditions Precedent set out below. However, PCSCL or its nominated agencies may at any time at its sole discretion waive fully or partially any of the Conditions Precedent for the Concessionaire.
- b) For the avoidance of doubt, it is expressly clarified that the obligations of the Parties (or its nominated agencies) under this Agreement shall commence from the fulfillment of the Conditions Precedent as set forth below.

8.2. Conditions Precedent of the Concessionaire

The Concessionaire shall be required to fulfill the Conditions Precedent, which is as follows:

- a) To provide a Performance Security/Guarantee and other guarantees/ payments within fifteen (15) days of the receipt of notification of award from the PCSCL; and
- b) To provide the PCSCL or its nominated agencies certified true copies of its constitutional documents and board resolutions authorizing the execution, delivery and performance of this Agreement by the Concessionaire (optional)

8.3. Conditions Precedent of the PCSCL

The PCSCL shall be required to fulfill the Conditions Precedents, which are as follows:

- a) Necessary clearances associated with the execution of the project, unless specified to be performed by the Concessionaire
- b) Approval of the Project by a Competent Authority, etc.

8.4. Extension of time for fulfillment of Conditions Precedent

The Parties may, by mutual agreement extend the time for fulfilling the Conditions Precedent and the Term of this Agreement.

8.5. Non-fulfillment of the Concessionaire's Conditions Precedent

- a) In the event that any of the Conditions Precedent of the Concessionaire have not been fulfilled within fifteen (15) days of signing of this Agreement and the same have not been waived fully or partially by PCSCL or its nominated agencies, this Agreement shall cease to exist;
- b) In the event that the Agreement fails to come into effect on account of non-fulfillment of the Concessionaire's Conditions Precedent, the PCSCL or its nominated agencies shall not be liable in any manner whatsoever to the Concessionaire and the PCSCL shall forthwith forfeit the Earnest Money Deposit.
- c) In the event that possession of any of the PCSCL or its nominated agencies facilities has been delivered to the Concessionaire prior to the fulfillment of the Conditions Precedent, upon the termination of this Agreement such shall immediately revert to PCSCL or its nominated agencies, free and clear from any encumbrances or claims.

9. Commencement and Progress

- 9.1.** Concessionaire shall subject to the fulfillment of the conditions precedent above, commence the performance of its obligations in a manner as per the Scope of Work (RFP Volume II).
- 9.2.** Concessionaire shall proceed to carry out the activities / services with diligence and expedition in accordance with any stipulation as to the time, manner, mode, and method of execution contained in this Contract.
- 9.3.** Concessionaire shall be responsible for and shall ensure that all activities / services are performed in accordance with the Contract, RFP Scope of Work and Service Specifications and that Concessionaire's Team complies with such specifications and all other standards, terms and other stipulations/conditions set out hereunder.

10. Standards of Performance

- 10.1.** Concessionaire shall perform the services and carry out its obligations under the Contract with due diligence, efficiency and economy, in accordance with generally accepted techniques and best practices used in the industry. Concessionaire shall always act, in respect of any matter relating to the Contract, as faithful advisors to the PCSCL and shall, at all times, support and safeguard the PCSCL's legitimate interests in any dealings with Third Parties.

11. Approvals and Required Consents

- 11.1.** The Parties shall cooperate to procure, maintain and observe all relevant, regulatory and governmental licenses, clearances and applicable approvals (hereinafter the "Required Consents") necessary for the Concessionaire to provide the services. The costs of such approvals shall be borne by the Party normally responsible for such costs according to local custom and practice in the locations where the services are to be provided. The PCSCL shall also provide necessary support to Concessionaire in obtaining the approvals. In the

event that any approval is not obtained, Concessionaire and the PCSCL shall co-operate with each other in achieving a reasonable alternative arrangement as soon as reasonably practicable for the PCSCL and at the discretion of the PCSCL without any adverse impact on PCSCL's interest including but not limited to additional time/expenditure, to continue to process its work with as minimal interruption to its business operations as is commercially reasonable until such approval is obtained, provided that Concessionaire shall not be relieved of its obligations to provide the services and to achieve the service Levels until the approvals are obtained if and to the extent that Concessionaire 's obligations are dependent upon such approvals.

- 11.2.** The PCSCL or its nominated agencies shall use reasonable endeavors to assist Concessionaire to obtain the required consent. In the event that any required consent is not obtained, the Concessionaire and the PCSCL or its nominated agencies will co-operate with each other in achieving a reasonable alternative arrangement as early and as reasonably practicable for the PCSCL or its nominated agencies to continue to process its work with as minimal interruption to its business operations as is commercially reasonable until such required consent is obtained, provided that the Concessionaire shall not be relieved of its obligations to provide the services and to achieve the service levels until the required consents are obtained to the extent that the Concessionaire's obligations are not dependent upon such required consents.

12. Concessionaire's Obligations

- 12.1.** Concessionaire's obligations shall include all the activities as specified by the PCSCL in the Scope of Work and other Sections of the RFP and Contract and changes thereof to enable PCSCL to meet the objectives and operational requirements. It shall be Concessionaire's responsibility to ensure the proper and successful fulfillment of requisite services in accordance with and in strict adherence to the terms of his Bid, the Tender and this Contract.

12.2. Use of Assets by the Concessionaire

During the Term, the Concessionaire shall:

- a) take all reasonable and proper care of the entire hardware and software, network or any other information technology infrastructure components used for the Project and other facilities leased / owned / operated by the Concessionaire exclusively in terms of ensuring their usability for the delivery of the Services as per this Agreement (hereinafter the "Assets") in proportion to their use and control of such Assets; and
- b) keep all the tangible Assets in as good and serviceable condition (reasonable wear and tear excepted) as at the date the Concessionaire takes control of and/or first uses the Assets and during the entire Term of the Agreement.
- c) ensure that any instructions or manuals supplied by the manufacturer of the Assets for use of the Assets and which are provided to the Concessionaire will be followed by the Concessionaire and any person who will be responsible for the use of the Assets;
- d) take such steps as may be properly recommended by the manufacturer of the Assets and notified to the Concessionaire or as may, in the reasonable opinion of the Concessionaire, be necessary to use the Assets in a safe manner;
- e) ensure that the Assets that are under the control of the Concessionaire, are kept suitably housed and in conformity with Applicable Law;

- f) procure permission from the PCSCL or its nominated agencies and any persons duly authorized by them to enter any land or premises on which the Assets are for the time being sited so as to inspect the same, subject to any reasonable third party requirements;
- g) not knowingly or negligently use or permit any of the Assets to be used in contravention of any statutory provisions or regulation or in any way contrary to Applicable Law

12.3. Access to Sites

- 12.3.1. For so long as the Concessionaire provides services to the PCSCL or its nominated agencies location, as the case may be, on a non-permanent basis and to the extent necessary, the PCSCL as the case may be or its nominated agencies shall, subject to compliance by the Concessionaire with any safety and security guidelines which may be provided by the PCSCL as the case may be or its nominated agencies and notified to the Concessionaire in writing, provide the Concessionaire with:
 - a) reasonable access, in the same manner granted to the PCSCL or its nominated agencies employees, to the PCSCL as the case may be location twenty-four hours a day, seven days a week;
 - b) reasonable work space, access to office equipment as mutually agreed and other related support services in such location and at such other the PCSCL as the case may be location, if any, as may be reasonably necessary for the Concessionaire to perform its obligations hereunder and under the SLA
- 12.3.2. Access to locations, office equipment and services shall be made available to the Concessionaire (as per scope of work defined in the tender) by the PCSCL as the case may be or its nominated agencies. The Concessionaire agrees to ensure that its employees, agents and contractors shall not use the location, services and equipment referred to in RFP for the following purposes:
 - a) for the transmission of any material which is defamatory, offensive or abusive or of an obscene or menacing character; or
 - b) in a manner which constitutes a violation or infringement of the rights of any person, firm or company (including but not limited to rights of copyright or confidentiality)

12.4. Management Phase

12.4.1. Changes

Unless expressly dealt with elsewhere in this Agreement, any changes under or to this Agreement or under or to the SLA shall be dealt with in accordance with the Change Control Schedule set out in Annex II of this Agreement.

12.4.2. Security and Safety

- a) The Concessionaire shall comply with the technical requirements of the relevant security, safety and other requirements specified in the Information Technology Act or Telegraph Act including the regulations issued by dept. of telecom (wherever applicable), IT Security Manual of the PCSCL as specifically stated in the RFP and follow the industry standards related to safety and security (including those as stated in the RFP), insofar as it applies to the provision of the Services.

- b) Each Party to the SLA/Agreement shall also comply with PCSCL or the Government of India, and the respective State's security standards and policies in force from time to time at each location of which PCSCL or its nominated agencies make the Concessionaire aware in writing insofar as the same apply to the provision of the Services.
- c) The Parties to the SLA/Agreement shall use reasonable endeavors to report forthwith in writing to each other all identified attempts (whether successful or not) by unauthorized persons (including unauthorized persons who are employees of any Party) either to gain access to or interfere with the PCSCL as the case may be or any of their nominees data, facilities or Confidential Information.
- d) The Concessionaire shall upon reasonable request by the PCSCL as the case may be or their nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.
- e) As per the provisions of the SLA or this Agreement, the Concessionaire shall promptly report in writing to the PCSCL or its nominated agencies, any act or omission which they are aware that could have an adverse effect on the proper conduct of safety and information technology security at the facilities of PCSCL as the case may be.

12.4.3. Co-operation

Except as otherwise provided elsewhere in this Agreement, each Party ("Providing Party") to this Agreement or to the SLA undertakes promptly to provide the other Party ("Receiving Party") with all such information and co-operation which the Receiving Party reasonably requests, provided that such information and co-operation:

- a) does not require material expenditure by the Providing Party to provide the same;
- b) is reasonably required by the Receiving Party in order for it to comply with its obligations under this Agreement ;
- c) cannot be construed to be Confidential Information; and
- d) is capable of being provided by the Providing Party

Further, each Party agrees to co-operate with the contractors and subcontractors of the other Party as reasonably requested in order to accomplish the purposes of this Agreement.

12.5. Reporting Progress

- 12.5.1. Concessionaire shall monitor progress of all the activities related to the execution of this contract and shall submit to the PCSCL, progress reports with reference to all related work, milestones and their progress during the implementation phase.
- 12.5.2. Formats for all above mentioned reports and their dissemination mechanism shall be discussed and finalized along with project plan. The PCSCL on mutual agreement between both parties may change the formats, periodicity and dissemination mechanism for such reports.
- 12.5.3. Periodic meetings shall be held between the representatives of the PCSCL and Concessionaire once in every fifteen (15) days during the implementation phase to discuss the progress of implementation. After the implementation phase is over, the meeting shall be held as an ongoing basis, as desired by PCSCL, to discuss the performance of the contract.

- 12.5.4. Concessionaire shall ensure that the respective solution teams involved in the execution of work are part of such meetings.
- 12.5.5. Several review committees involving representatives of the PCSCL and senior officials of Concessionaire shall be formed for the purpose of this project. These committees shall meet at intervals, as decided by the PCSCL later, to oversee the progress of the implementation.
- 12.5.6. All the goods, services and manpower to be provided / deployed by Concessionaire under the Contract and the manner and speed of execution and maintenance of the work and services are to be conducted in a manner to the satisfaction of PCSCL's representative in accordance with the Contract.
- 12.5.7. The PCSCL reserves the right to inspect and monitor/ assess the progress/ performance of the work / services at any time during the course of the Contract. The PCSCL may demand and upon such demand being made, Concessionaire shall provide documents, data, material or any other information which the PCSCL may require, to enable it to assess the progress/ performance of the work / service.
- 12.5.8. At any time during the course of the Contract, the PCSCL shall also have the right to conduct, either itself or through another agency as it may deem fit, an audit to monitor the performance by Concessionaire of its obligations/ functions in accordance with the standards committed to or required by the PCSCL and Concessionaire undertakes to cooperate with and provide to the PCSCL/ any other agency appointed by the PCSCL, all Documents and other details as may be required by them for this purpose. PCSCL at its discretion may appoint third party for auditing the activities of onsite services and operations of entire services provided by the Concessionaire. The same cost of the third party audit shall be borne by the Concessionaire.
- 12.5.9. Should the rate of progress of the works or any part of them at any time fall behind the stipulated time for completion or is found to be too slow to ensure completion of the works by the stipulated time, or is in deviation to Tender requirements/ standards, the PCSCL's representative shall so notify Concessionaire in writing.
- 12.5.10. Concessionaire shall reply to the written notice giving details of the measures Concessionaire proposes to take to expedite the progress to complete the works by the prescribed time or to ensure compliance to RFP requirements. Concessionaire shall not be entitled to any additional payment for taking such steps. If at any time it shall appear to the PCSCL or PCSCL's representative that the actual progress of work does not conform to the approved plan Concessionaire shall produce at the request of the PCSCL's representative a revised plan showing the modification to the approved plan necessary to ensure completion of the works within the time for completion or steps initiated to ensure compliance to the stipulated requirements
- 12.5.11. The submission seeking approval by the PCSCL or PCSCL's representative of such plan shall not relieve Concessionaire of any of his duties or responsibilities under the Contract.
- 12.5.12. In case during execution of works, the progress falls behind schedule or does not meet the Tender requirements, Concessionaire shall deploy extra manpower / resources to make up the progress or to meet the RFP requirements. Plan for deployment of extra manpower / resources shall be submitted to the PCSCL for its review and approval. All time and cost effect in this respect shall be borne, by Concessionaire within the contract value.

12.6. Adherence to safety procedures, rules regulations and restriction

- 12.6.1. Concessionaire's Team shall comply with the provision of all applicable laws including labor laws, rules, regulations and notifications issued there under from time to time. All applicable safety and labor laws enforced by statutory agencies and by PCSCL shall be applicable in the performance of this Contract and Concessionaire's Team shall abide by these laws.
- 12.6.2. Access to the Network Operations Center (NOC), Server Room, Command & Control Center (CCC) and City Operation Center (COC) shall be strictly restricted. No access to any person except the essential members of Concessionaire's Team who are authorized by the PCSCL and are genuinely required for execution of work or for carrying out management/ maintenance shall be allowed entry. Even if allowed, access shall be restricted to the pertaining equipment of the PCSCL only. Concessionaire shall maintain a log of all activities carried out by each of its team personnel.
- 12.6.3. No access to any staff of Concessionaire, except the essential staff who has genuine work-related need, shall be given. All such access shall be logged in a loss free manner for permanent record with unique biometric identification of the staff to avoid misrepresentations or mistakes.
- 12.6.4. Concessionaire shall take all necessary and proper measures to protect the personnel, work and facilities and shall observe all reasonable safety rules and instructions. Concessionaire's Team shall adhere to all security requirement/ regulations of the PCSCL during the execution of the work. PCSCL's employee also shall comply with safety procedures/ policy.
- 12.6.5. Concessionaire shall report as soon as possible any evidence, which may indicate or is likely to lead to an abnormal or dangerous situation and shall take all necessary emergency control steps to avoid such abnormal situations.

12.7. Statutory Requirements

- 12.7.1. During the tenure of this Contract, nothing shall be done by Concessionaire or his team including consortium in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof governing inter-alia customs, stowaways, foreign exchange etc. and shall keep PCSCL indemnified in this regard.

13. PCSCL's Obligations

- 13.1. PCSCL or his/her nominated representative shall act as the nodal point for implementation of the contract and for issuing necessary instructions, approvals, commissioning, acceptance certificates, payments etc. to Concessionaire.
- 13.2. PCSCL shall ensure that timely approval is provided to Concessionaire as and when required, which may include approval of project plans, implementation methodology, design documents, specifications, or any other document necessary in fulfillment of this contract.
- 13.3. The PCSCL's representative shall interface with Concessionaire, to provide the required information, clarifications, and to resolve any issues as may arise during the execution of the Contract. PCSCL shall provide adequate cooperation in providing details, coordinating and obtaining of approvals from various governmental agencies, in cases, where the intervention of the PCSCL is proper and necessary.
- 13.4. PCSCL may provide on Concessionaire's request, particulars / information / documentation that may be required by Concessionaire for proper planning and execution of work and for providing services covered under this contract and for which Concessionaire may have to coordinate with respective vendors.

- 13.5.** PCSCL shall provide to Concessionaire only sitting space and basic infrastructure not including, stationery and other consumables at the PCSCL's office locations
- 13.6.** Electrical connections and installation of sub meters shall be borne by the Concessionaire at all the site locations of the project. The PCSCL shall provide approval and necessary documents for electrical power connections, which is to be taken in the name of Pimpri Chinchwad Smart City Limited / PCMC.
- 13.7.** To provide any support through personnel to test the system during the Term;
- 13.8.** To provide any support through personnel and/or test data during development, rollout, steady state operation, as well as, for any changes/enhancements in the system whenever required due to scope change that may arise due to business, delivery or statutory/regulatory reasons;
- 13.9.** PCSCL shall provide the data (including in electronic form wherever available) to be migrated.
- 13.10.** PCSCL shall authorize the Concessionaire to interact for implementation of the Project with external entities and shall provide prompt Deliverable feedback, sign offs or its comments for changes.

14. Financial Matters

14.1. Terms of Payment

- a. In subject to the provisions to this agreement the payment to PCSCL and the concessionaire shall be made through the joint Escrow account as per accepted commercial bid.
- b. Payments shall be subject to the application of liquidated damages (for period prior to "Go Live") or SLA penalties and its adjustments/corrections (for post "Go-Live") as may be provided for in the Agreement and the SLA from the relevant milestone(s).
- c. Save and except as otherwise provided for herein or as agreed between the Parties in writing, the PCSCL shall not be required to make any payments in respect of the Services (or, without limitation to the foregoing, in respect of the Concessionaire performance of any obligations under this Agreement) other than those covered in this Agreement. For the avoidance of doubt, it is expressly clarified that the payments shall be deemed to include all ancillary and incidental costs and charges arising in the course of delivery of the Services including consultancy charges, infrastructure costs, project costs, implementation and management charges and all other related costs including taxes which are addressed in this Clause.
- d. Notwithstanding contained herein or elsewhere, any variation in applicable taxes, whether resulting into increase in rate of taxes or levy of new taxes or reduction in rate of taxes or abolition of existing taxes, shall be borne by the PCSCL.

14.2. Invoicing & Settlement

<< Clause to be defined later, in accordance with the accepted commercial bid.>>

14.3. Tax

- a. PCSCL or its nominated agencies shall be responsible for withholding taxes from the amounts due and payable to the Concessionaire wherever applicable. The Concessionaire shall pay for all other taxes in connection with this Agreement, SLA, scope of work and any other engagement required to be undertaken as a part of this Agreement, including, but not

limited to, property, sales, use, excise, value-added, goods and services, consumption and other similar taxes or duties.

- b. PCSCL or its nominated agencies shall provide Concessionaire with the original tax receipt of any withholding taxes paid by PCSCL or its nominated agencies on payments under this Agreement. The Concessionaire agrees to reimburse and hold the PCSCL or its nominated agencies harmless from any deficiency including penalties and interest relating to taxes that are its responsibility under this paragraph. For purposes of this Agreement, taxes shall include taxes incurred on transactions between and among the PCSCL or its nominated agencies, the Concessionaire and third party subcontractors.
- c. If, after the date of this Agreement, there is any change of rate of levy under the existing applicable laws of India with respect to taxes and duties, which are directly payable by the PCSCL for providing the goods and services i.e. GST or any such other applicable tax from time to time, which increase or decreases the cost incurred by the Concessionaire in performing the Services, then the remuneration and reimbursable expense otherwise payable to the Concessionaire under this Agreement shall be increased or decreased accordingly by correspondence between the Parties hereto, and corresponding adjustments shall be made to the ceiling amounts specified in Payment Schedule section. However, in case of any new or fresh tax or levy imposed after submission of the proposal the Concessionaire shall be entitled to reimbursement on submission of proof of payment of such tax or levy.
- d. The Parties shall cooperate to enable each Party to accurately determine its own tax liability and to minimize such liability to the extent legally permissible. In connection therewith, the Parties shall provide each other with the following:
 - i. any resale certificates;
 - ii. any relevant information regarding out-of-state or use of materials, equipment or services; and
 - iii. any direct pay permits, exemption certificates or information reasonably requested by the other Party.
- e. Concessionaire shall bear all personnel taxes levied or imposed on its personnel, or any other member of Concessionaire's Team, etc. on account of payment received under this Contract. Concessionaire shall bear all corporate taxes, levied or imposed on Concessionaire on account of payments received by it from the PCSCL for the work done under this Contract.
- f. Concessionaire shall bear all taxes and duties etc. levied or imposed on Concessionaire under the Contract including but not limited to GST, Sales Tax, Customs duty, Excise duty, Octroi, Service Tax, VAT, Works Contracts Tax and all Income Tax levied under Indian Income Tax Act – 1961 or any amendment thereof during the entire contract period, i.e., on account of material supplied and services rendered and payments received by him from the PCSCL under the Contract. It shall be the responsibility of Concessionaire to submit to the concerned Indian authorities the returns and all other connected documents required for this purpose. Concessionaire shall also provide the PCSCL such information, as it may be required in regard to Concessionaire's details of payment made by the PCSCL under the Contract for proper assessment of taxes and duties. The amount of tax withheld by the PCSCL shall at all times be in accordance with Indian Tax Law and the PCSCL shall promptly furnish to Concessionaire original certificates for tax deduction at source and paid to the Tax Authorities.

- g. Concessionaire agrees that he shall comply with the Indian Income Tax Act in force from time to time and pay Indian Income Tax, as may be imposed/ levied on them by the Indian Income Tax Authorities, for the payments received by them for the works under the Contract
- h. Concessionaire shall fully familiarize themselves about the applicable domestic taxes (such as GST, value added or sales tax, service tax, income taxes, duties, fees, levies, etc.) on amounts payable by the PCSCL under the Contract. All such taxes must be included by Concessionaire in the financial proposal. (Concessionaire to find out applicable taxes for the components being proposed.)
- i. Should Concessionaire fail to submit returns/pay taxes in time as stipulated under applicable Indian/State Tax Laws and consequently any interest or penalty is imposed by the concerned authority, Concessionaire shall pay the same. Concessionaire shall indemnify PCSCL against any and all liabilities or claims arising out of this Contract for such taxes including interest and penalty by any such Tax Authority may assess or levy against the PCSCL/Concessionaire.
- j. PCSCL shall if so required by applicable laws in force, at the time of payment, deduct income tax payable by Concessionaire at the rates in force, from the amount due to Concessionaire and pay to the concerned tax authority directly.

15. Audit, Access and Reporting

The Concessionaire shall allow access to the PCSCL or its nominated agencies to all information which is in the possession or control of the Concessionaire and which relates to the provision of the Services as set out in the Audit, Access and Reporting Schedule and which is reasonably required by the PCSCL to comply with the terms of the Audit, Access and Reporting Schedule set out as in Annex V of this agreement.

16. Intellectual Property Rights

16.1. Products and fixes:

All products and related solutions and fixes provided pursuant to this Agreement shall be licensed according to the terms of the license agreement packaged with or otherwise applicable to such product, the ownership of which shall continue to vest with the product owner. Concessionaire would be responsible for arranging any licenses associated with products. "Product" means any computer code, web-based services, or materials comprising commercially released, pre-release or beta products (whether licensed for a fee or no charge) and any derivatives of the foregoing which are made available to PCSCL for license which is published by product owner or its affiliates, or a third party. "Fixes" means product fixes that are either released generally (such as commercial product service packs) or that are provided to you when performing services (such as workarounds, patches, bug fixes, beta fixes and beta builds) and any derivatives of the foregoing.

16.2. Bespoke development:

Subject to the provisions of Clause 16.3 and 16.4 below, upon payment, the IPR rights for any bespoke development done during the implementation of the project will lie exclusively with the PCSCL.

16.3. Pre-existing work:

All IPR including the source code and materials developed or otherwise obtained independently of the efforts of a Party under this Agreement ("pre-existing work") including

any enhancement or modification thereto shall remain the sole property of that Party. During the performance of the services for this agreement, each party grants to the other party (and their sub-contractors as necessary) a non-exclusive license to use, reproduce and modify any of its pre-existing work provided to the other party solely for the performance of such services for duration of the Term of this Agreement. Except as may be otherwise explicitly agreed to in a statement of services, upon payment in full, the Concessionaire shall grant PCSCL a non-exclusive, perpetual, fully paid-up license to use the pre-existing work in the form delivered to PCSCL as part of the service or deliverables only for its internal business operations. Under such license, either of parties will have no right to sell the pre-existing work of the other party to a Third Party. PCSCL's license to pre-existing work is conditioned upon its compliance with the terms of this Agreement and the perpetual license applies solely to the pre-existing work that bidder leaves with PCSCL at the conclusion of performance of the services.

16.4. Residuals:

In no event shall Concessionaire be precluded from independently developing for itself, or for others, anything, whether in tangible or non-tangible form, which is competitive with, or similar to, the deliverables, set-out in this Agreement. In addition, subject to the confidentiality obligations, Concessionaire shall be free to use its general knowledge, skills and experience, and any ideas, concepts, know-how, and techniques that are acquired or used in the course of providing the Services.

17. Representations & Warranties

17.1. Representations and warranties of the Concessionaire

The Concessionaire represents and warrants to the PCSCL or its nominated agencies that:

- a) it is duly organized and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this Agreement and other agreements and to carry out the transactions contemplated hereby;
- b) it is a competent provider of a variety of information technology and business process management services;
- c) it has taken all necessary corporate and other actions under laws applicable to its business to authorize the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- d) from the Effective Date, it will have the financial standing and capacity to undertake the Project in accordance with the terms of this Agreement;
- e) in providing the Services, it shall use reasonable endeavors not to cause any unnecessary disruption to PCSCL's normal business operations
- f) this Agreement has been duly executed by it and constitutes a legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement shall be legally valid, binding and enforceable against it in accordance with the terms hereof;
- g) the information furnished in the Concessionaire's response to the RFP and any subsequent clarification pertaining to the evaluation process, furnished on or before the date of this Agreement is to the best of its knowledge and belief true and accurate in all material respects as at the date of this Agreement;

- h) the execution, delivery and performance of this Agreement shall not conflict with, result in the breach of, constitute a default by any of the terms of its Memorandum and Articles of Association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- i) there are no material actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its material obligations under this Agreement;
- j) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any Adverse Effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;
- k) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have an Adverse Effect on its ability to perform its obligations under this Agreement;
- l) no representation or warranty by it contained herein or in any other document furnished by it to PCSCCL or its nominated agencies in relation to the Required Consents contains or shall contain any untrue or misleading statement of material fact or omits or shall omit to state a material fact necessary to make such representation or warranty not misleading; and
- m) no sums, in cash or kind, have been paid or shall be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for entering into this Agreement or for influencing or attempting to influence any officer or employee of PCSCCL or its nominated agencies in connection therewith.

17.2. Representations and warranties of the PCSCCL or its nominated agencies

PCSCCL or its nominated agencies represent and warrant to the Concessionaire that:

- a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement and carry out the transactions contemplated hereby;
- b) it has taken all necessary actions under Applicable Laws to authorize the execution, delivery and performance of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- c) it has the financial standing and capacity to perform its obligations under the Agreement;
- d) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;
- e) this Agreement has been duly executed by it and constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof and its obligations under this Agreement shall be legally valid, binding and enforceable against it in accordance with the terms thereof;

- f) the execution, delivery and performance of this Agreement shall not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- g) there are no actions, suits or proceedings pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the default or breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform its material (including any payment) obligations under this Agreement;
- h) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any Adverse Effect on the PCSCL or its nominated agencies ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;
- i) it has complied with Applicable Laws in all material respects;
- j) all information provided by it in the RFP in connection with the Project is, to the best of its knowledge and belief, true and accurate in all material respects; and
- k) upon the Concessionaire performing the covenants herein, it shall not at any time during the term hereof, interfere with peaceful exercise of the rights and discharge of the obligations by the Concessionaire, in accordance with this Agreement.

18. Term and Extension of the Contract

- 18.1.** The Contract period shall commence from the date of signing of contract and shall remain valid for a period of 10 years and 6 months (126) months from signing of the contract with the provision of the further extension of the contract with mutual consent.
- 18.2.** If the delay occurs due to circumstances beyond control of Concessionaire such as strikes, lockouts, fire, accident, defective materials, delay in approvals or any cause whatsoever beyond the reasonable control of Concessionaire, a reasonable extension of time shall be granted by the PCSCL.
- 18.3.** The PCSCL shall reserve the sole right to grant any extension to the term abovementioned and shall notify in writing to Concessionaire, at least three (3) months before the expiration of the Term hereof, whether it shall grant Concessionaire an extension of the Term. The decision to grant or refuse the extension shall be at the PCSCL's discretion and such extension of the contract, if any, shall be as per terms agreed mutually between the PCSCL and Concessionaire.
- 18.4.** Where the PCSCL is of the view that no further extension of the term be granted to Concessionaire, the PCSCL shall notify Concessionaire of its decision at least three (3) months prior to the expiry of the Term. Upon receipt of such notice, Concessionaire shall continue to perform all its obligations hereunder, until such reasonable time beyond the Term of the Contract within which, the PCSCL shall either appoint an alternative agency/Concessionaire or create its own infrastructure to operate such Services as are provided under this Contract.

19. Dispute Resolution

- a) **General:** If any dispute arises between the parties during the execution of a contract that shall be amicably settled by mutual discussions. However, if the dispute is not settled by mutual discussions, a written representation will be obtained from the Concessionaire on the points of dispute. The representation so received shall be examined by the PCSCL and may take legal advice of a counsel and then examine the representation. The Concessionaire will also be given an opportunity of being heard. The PCSCL will take a decision on the representation and convey it in writing to the Concessionaire.
- b) In case of dispute arising amongst consortium members, beyond getting amicably settled by mutual discussion, and in the interest of project, PCSCL Network Committee/Board reserves the right to allow lead bidder for the change of consortium member as per RFP requirements and terms & conditions.
- c) **Arbitration**
In the event of unresolved dispute between the parties (PCSCL BoD fails to resolve), it shall be the subject matter of jurisdiction of Pune district court only.

20. Time is of the essence

- 20.1. Time shall be of the essence in respect of any date or period specified in this Contract or any notice, demand or other communication served under or pursuant to any provision of this Contract and in particular in respect of the completion of the activities by Concessionaire by the specified completion date.

21. Conflict of interest

- 21.1. The Concessionaire shall hold the Purchaser's interests paramount, without any consideration for future work, and strictly avoid conflict of interest with other assignments or their own corporate interests. If during the period of this contract, a conflict of interest arises for any reasons, the Concessionaire shall promptly disclose the same to the purchaser and seek its instructions.
- 21.2. Prohibition of Conflicting Activities: The Concessionaire shall not engage, either directly or indirectly, in any business or professional activities related to PCSCL's ICT led smart city solutions' Operations & Management that would conflict with the activities assigned to them under this Contract.
- 21.3. Concessionaire shall disclose to the PCSCL in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for Concessionaire or Concessionaire's Team) in the course of performing the Services as soon as practical after it becomes aware of that conflict.

22. Force Majeure

- 22.1. Definition of Force Majeure:
"Force Majeure" shall mean any event beyond the reasonable control of the PCSCL or of the Concessionaire, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected.
- 22.2. Force Majeure events

A Force Majeure shall include, without limitation, the following:

- a) War, hostilities, or warlike operations (whether a state of war be declared or not), invasion, act of foreign enemy, and civil war;
- b) Strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, pandemic, quarantine, and plague;
- c) Earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves, or other natural or physical disaster;

- 22.3.** If either party is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances of the event of Force Majeure within fourteen (14) days after the occurrence of such event.
- 22.4.** The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered, or delayed. The time for achieving Final Acceptance shall be extended.
- 22.5.** The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its or their performance of the Contract and to fulfill its or their obligations under the Contract, but without prejudice to either party's right to terminate the Contract under Clause 37.
- 22.6.** No delay or nonperformance by either party to this Contract caused by the occurrence of any event of Force Majeure shall:
- a) constitute a default or breach of the Contract
 - b) give rise to any claim for damages or additional cost or expense occasioned by the delay or nonperformance
 - c) if, and to the extent that, such delay or nonperformance is caused by the occurrence of an event of Force Majeure
- 22.7.** If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than sixty (60) days on account of one or more events of Force Majeure during the time period covered by the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which, either party may terminate the Contract by giving a notice to the other.
- 22.8.** In the event of termination pursuant to this Clause 22, the rights and obligations of the PCSCL and the Concessionaire shall be as specified in the clause titled Termination.
- 22.9.** Notwithstanding Clause 22, Force Majeure shall not apply to any obligation of the PCSCL to make payments to the Concessionaire under this Contract.
- 22.10.** For the avoidance of doubt, it is expressly clarified that the failure on the part of the Concessionaire under this Agreement to implement any disaster contingency planning and back-up and other data safeguards in accordance with the terms of this Agreement against natural disaster, fire, sabotage or other similar occurrence shall not be deemed to be a Force Majeure event. For the avoidance of doubt, it is further clarified that any negligence in performance of Services, which directly causes any breach of security like hacking aren't the forces of nature and hence wouldn't be qualified under the definition of "Force Majeure". In so far as applicable to the performance of Services, Service Provider will be solely

responsible to complete the risk assessment and ensure implementation of adequate security hygiene, best practices, processes and technology to prevent any breach of security and any resulting liability therefrom (wherever applicable).

23. Delivery

- 23.1.** Concessionaire shall bear the cost for packing, transport, insurance, storage and delivery of all the goods at all locations identified by the PCSCL in Pimpri Chinchwad.
- 23.2.** The Goods and manpower supplied under this Contract shall conform to the standards mentioned in the RFP, and, when no applicable standard is mentioned, to the authoritative standards; such standard shall be approved by PCSCL.

24. Warranty & Maintenance

- 24.1. Standard:** The Concessionaire warrants that the Project, including all the system(s), materials and goods supplied pursuant to the Agreement, shall be free from any defect or deficiency in the material, design, engineering, and workmanship that prevent the system and/or any of its systems(s) from fulfilling the technical requirements or that limit in a material fashion the performance, reliability, or extensibility of the system and/or any of its sub-system(s). Commercial warranty provisions of products supplied under the Agreement shall apply to the extent they do not conflict with the provisions of this Agreement.
- 24.2.** The Concessionaire also warrants that the products, materials and other goods supplied under the Agreement are new, unused and incorporate all recent improvements in design that materially affect the system's or subsystem's ability to fulfill the technical requirements specified in the RFP.
- 24.3.** In addition, the Concessionaire warrants that: (i) all Goods components to be incorporated into the System form part of the Concessionaire/OEM's and/or Subcontractor's current product lines.
- 24.4.** The warranty period shall commence from the date of Final Acceptance of the System (or of any major component or subsystem for which phased Go-Live is provided for in the Agreement) or on expiry of the products commercial warranty, whichever is earlier.
- 24.5.** If during the warranty period any defect or deficiency is found in the material, design and performance/workmanship of the Project and other Services provided by the Concessionaire, the Concessionaire shall promptly, in consultation and agreement with PCSCL, and at the Concessionaire's sole cost repair, replace, or otherwise make good (as the Concessionaire shall, at its discretion, determine) such default, defect or deficiency as well as any damage to the system caused by such default, defect or deficiency. Any defective component, excluding hard disks, that has been replaced by the Concessionaire shall remain the property of the Concessionaire.
- 24.6.** The Concessionaire may, with the consent of the PCSCL, remove from the site any product and other goods that are defective, if the nature of the defect, and/or any damage to the System caused by the defect, is such that repairs cannot be expeditiously carried out at the site. If the repair, replacement, or making good is of such a character that it may affect the efficiency of the System, the PCSCL may give the Concessionaire notice requiring that tests of the defective part be made by the Concessionaire immediately upon completion of such remedial work, whereupon the Concessionaire shall carry out such tests. If such part fails the tests, the Concessionaire shall carry out further repair, replacement, or making good (as the case may be) until that part of the System passes such tests. The tests shall be agreed upon by the PCSCL and the Concessionaire.

- 24.7.** If the Concessionaire fails to commence the work necessary to remedy such defect or any damage to the System caused by such defect within a reasonable time period, the PCSCL may, following notice to the Concessionaire, proceed to do such work or contract a third party (or parties) to do such work, and the reasonable costs incurred by the PCSCL in connection with such work shall be paid to the PCSCL by the Concessionaire or may be deducted by the PCSCL from any amount due to the Concessionaire.
- 24.8.** If the System or any of its sub-systems cannot be used by reason of such default, defect or deficiency and/or making good of such default, defect or deficiency, the warranty period for the Project shall be extended by a period equal to the period during, which the Project or any of its system could not be used by the PCSCL because of such defect and/or making good of such default, defect or deficiency.
- 24.9.** Items substituted for defective parts of the System during the Warranty Period shall be covered by the Warranty for the remainder of the Warranty Period applicable for the part replaced or three (3) months, whichever is greater.
- 24.10.** The Implementing Agency shall have no liability in the case of breach of this warranty due to (i) use of the deliverables on any environment (hardware or software) other than the environment recommended or approved by the Implementing Agency, (ii) the combination, operation, or use of some or all of the deliverables with information, software, specifications, instructions, data, or materials not approved by the Implementing Agency; (iii) the deliverables having been tampered with, altered or modified by PCSCL without the written permission of the Implementing Agency, or (iv) use of the deliverables otherwise than in terms of the relevant documentation.
- 24.11.** Implied Warranty: The warranties provided herein are in lieu of all other warranties, both express and implied, and all other warranties, including without limitation that of merchantability or fitness for intended purpose is specifically disclaimed.

25. Insurance

- 25.1.** The Goods supplied under this Contract shall be comprehensively insured by Concessionaire at his own cost, against any loss or damage, for the entire period of the contract. Concessionaire shall submit to the PCSCL, documentary evidence issued by the insurance company, indicating that such insurance has been taken.
- 25.2.** Concessionaire shall bear all the statutory levies like customs, insurance, freight, etc. applicable on the goods and also the charges like transportation charges, Octroi, etc. that may be applicable till the goods are delivered at the respective sites of installation shall also be borne by Concessionaire.
- 25.3.** Concessionaire shall take out and maintain at its own cost, on terms and conditions approved by the PCSCL, insurance against the risks, and for the coverages, as specified below:
- a. at the PCSCL's request, shall provide evidence to the PCSCL showing that such insurance has been taken out and maintained and that the current premiums therefor have been paid.
 - b. Employer's liability and workers' compensation insurance in respect of the Personnel of the Company, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate
- 25.4.** Obligation to maintain insurance in connection with the provision of the Services, the Service Provider must have and maintain:

- a. For the Agreement Period, valid and enforceable insurance coverage for:
 - i. Public liability;
 - ii. Either professional indemnity or errors and omissions;
 - iii. Product liability;
 - iv. Workers' compensation as required by law; and
 - v. Any additional types specified in Annex II
- b. For one year following the expiry or termination of the Agreement, valid and enforceable insurance policies (if relevant), in the amount not less than the Insurance Cover derived in this RFP

25.5. Certificates of Currency

- 25.5.1. The Concessionaire must, on request by the PCSCL, provide current relevant confirmation of insurance documentation from its insurance brokers certifying that it has insurance as required by this Clause 25. The Service Provider agrees to replace any coverage prior to the date of expiry/cancellation.

25.6. Non-compliance

- 25.6.1. PCSCL or its nominated agencies may, at its election, terminate this Agreement as per Clause 37.8, upon the failure of Concessionaire or notification of such failure, to maintain the required insurance coverage. Inadequate insurance coverage for any reason shall not relieve Concessionaire of its obligations under this Agreement.

26. Exit Management

26.1. Purpose

- 26.1.1. This Schedule sets out the provisions, which will apply on expiry or termination of the contract.
- 26.1.2. The Parties shall ensure that their respective associated entities carry out their respective obligations set out in this Exit Management clause.

26.2. Transfer of Assets

- 26.2.1. PCSCL shall be entitled to serve notice in writing on the Concessionaire at any time during the exit management period as detailed hereinabove requiring the Concessionaire and/or its sub-contractors to provide the PCSCL with a complete and up to date list of the Assets within ninety (90) days of such notice. PCSCL shall then be entitled to serve notice in writing on the Concessionaire at any time prior to the date that is ninety (90) days prior to the end of the exit management period requiring the Concessionaire to sell the Assets, if any, to be transferred to PCSCL or its nominated agencies at book value as determined as of the date of such notice in accordance with the provisions of relevant laws.
- 26.2.2. In case of contract being terminated by PCSCL, PCSCL reserves the right to ask Concessionaire to continue running the project operations for a period of six (6) months after termination orders are issued.
- 26.2.3. Upon service of a notice under this Article the following provisions shall apply:
 - i. in the event, if the Assets to be transferred are mortgaged to any financial institutions by the Concessionaire, the Concessionaire shall ensure that all such

liens and liabilities have been cleared beyond doubt, prior to such transfer. All documents regarding the discharge of such lien and liabilities shall be furnished to the PCSCL.

- ii. All risk in and title to the Assets to be transferred / to be purchased by the PCSCL pursuant to this Article shall be transferred to PCSCL, on the last day of the exit management period.
- iii. Concessionaire on the last day of the exit management period shall transfer all the assets, related to the project scope and as applicable, to the purchaser at no cost.
- iv. Payment to the outgoing Concessionaire shall be made to the tune of last set of completed services / deliverables.
- v. The outgoing Concessionaire will pass on to PCSCL and/or to the Replacement Concessionaire, the subsisting rights in any leased properties/ licensed products on terms not less favorable to PCSCL/ Replacement Concessionaire, than that enjoyed by the outgoing Concessionaire.

26.3. Cooperation and Provision of Information

During the exit management period:

- 26.3.1. The Concessionaire will allow the PCSCL or its nominated agency access to information reasonably required to define the then current mode of operation associated with the provision of the services to enable the PCSCL to assess the existing services being delivered;
- 26.3.2. Promptly on reasonable request by the PCSCL, the Concessionaire shall provide access to and copies of all information held or controlled by them which they have prepared or maintained in accordance with this agreement relating to any material aspect of the services (whether provided by the Concessionaire or sub-contractors appointed by the Concessionaire). The PCSCL shall be entitled to copy of all such information. Such information shall include details pertaining to the services rendered and other performance data. The Concessionaire shall permit the PCSCL or its nominated agencies to have reasonable access to its employees and facilities as reasonably required by the Chairman, PIU to understand the methods of delivery of the services employed by the Concessionaire and to assist appropriate knowledge transfer.

26.4. Confidential Information, Security and Data

- 26.4.1. The Concessionaire will promptly on the commencement of the exit management period supply to the PCSCL or its nominated agency the following:
 - i. Information relating to the current services rendered and customer and performance data relating to the performance of sub-contractors in relation to the services;
 - ii. Documentation relating to Computerization Project's Intellectual Property Rights;
 - iii. Documentation relating to sub-contractors;
 - iv. All current and updated data as is reasonably required for purposes of PCSCL or its nominated agencies transitioning the services to its Replacement Concessionaire in a readily available format nominated by the PCSCL, its nominated agency;

- v. All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable PCSCL or its nominated agencies, or its Replacement Concessionaire to carry out due diligence in order to transition the provision of the Services to PCSCL or its nominated agencies, or its Replacement Concessionaire (as the case may be).
- 26.4.2. Before the expiry of the exit management period, the Concessionaire shall deliver to the PCSCL or its nominated agency all new or up-dated materials from the categories set out in this section above and shall not retain any copies thereof, except that the Concessionaire shall be permitted to retain one copy of such materials for archival purposes only.
- 26.4.3. Before the expiry of the exit management period, unless otherwise provided under the MSA, the PCSCL or its nominated agency shall deliver to the Concessionaire all forms of Concessionaire confidential information, which is in the possession or control of Chairperson, PIU or its users.

26.5. Employees

- 26.5.1. Promptly on reasonable request at any time during the exit management period, the Concessionaire shall, subject to applicable laws, restraints and regulations (including in particular those relating to privacy) provide to the PCSCL or its nominated agency a list of all employees (with job titles) of the Concessionaire dedicated to providing the services at the commencement of the exit management period.
- 26.5.2. Where any national, regional law or regulation relating to the mandatory or automatic transfer of the contracts of employment from the Concessionaire to the PCSCL or its nominated agency, or a Replacement Concessionaire ("Transfer Regulation") applies to any or all of the employees of the Concessionaire, then the Parties shall comply with their respective obligations under such Transfer Regulations.

26.6. Transfer of Certain Agreements

On request by the PCSCL or its nominated agency, the Concessionaire shall effect such assignments, transfers, licenses and sub-licenses as the Chairperson, PIU may require in favor of the Chairperson, PIU, or its Replacement Concessionaire in relation to any equipment lease, maintenance or service provision agreement between Concessionaire and third party lessors, vendors, and which are related to the services and reasonably necessary for the carrying out of replacement services by the PCSCL or its nominated agency or its Replacement Concessionaire.

26.7. Rights of Access to Premises

- 26.7.1. At any time during the exit management period, where Assets are located at the Concessionaire's premises, the Concessionaire will be obliged to give reasonable rights of access to (or, in the case of Assets located on a third party's premises, procure reasonable rights of access to) the PCSCL or its nominated agency and/or any Replacement Concessionaire in order to make an inventory of the Assets.
- 26.7.2. The Concessionaire shall also give the PCSCL or its nominated agency or its nominated agencies, or any Replacement Concessionaire right of reasonable access to the Concessionaire's premises and shall procure the PCSCL or its nominated agency / agencies and any Replacement Concessionaire rights of access to relevant third party premises during the exit management period and for such period of time following

termination or expiry of the MSA as is reasonably necessary to migrate the services to the PCSCL or its nominated agency, or a Replacement Concessionaire.

26.8. Exit Management Plan

- 26.8.1. The Concessionaire shall provide the PCSCL or its nominated agency with a recommended exit management plan ("Exit Management Plan") which shall deal with at least the following aspects of exit management in relation to the MSA as a whole and in relation to the Project Implementation, and the Operation and Management SLA.
- i. A detailed program of the transfer process that could be used in conjunction with a Replacement Concessionaire including details of the means to be used to ensure continuing provision of the services throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer;
 - ii. Plans for the communication with such of the Concessionaire's sub-contractors, staff, Concessionaires, customers and any related third party as are necessary to avoid any material detrimental impact on the PCSCL's operations as a result of undertaking the transfer;
 - iii. If applicable, proposed arrangements for the segregation of the Concessionaire's networks from the networks employed by PCSCL and identification of specific security tasks necessary at termination;
 - iv. Plans for provision of contingent support to PCSCL, and Replacement Concessionaire for a reasonable period after transfer.
- 26.8.2. The Concessionaire shall re-draft the Exit Management Plan annually thereafter to ensure that it is kept relevant and up to date.
- 26.8.3. Each Exit Management Plan shall be presented by the Concessionaire to and approved by the PCSCL or its nominated agencies.
- 26.8.4. The terms of payment as stated in the Terms of Payment Schedule include the costs of the Concessionaire complying with its obligations under this Schedule.
- 26.8.5. In the event of termination or expiry of MSA, and Project Implementation, each Party shall comply with the Exit Management Plan.
- 26.8.6. During the exit management period, the Concessionaire shall use its best efforts to deliver the services.
- 26.8.7. Payments during the Exit Management period shall be made in accordance with the Terms of Payment Schedule.
- 26.8.8. This Exit Management plan shall be furnished in writing to the PCSCL or its nominated agencies within ninety (90) days from the Effective Date of this Agreement.

B. SPECIAL CONDITIONS OF CONTRACT (SCC)

27. Performance Security

The Concessionaire shall furnish Performance Security Deposit to the PCSCCL, in the form of Bank Guarantee (PBG), within fifteen (15) days of issuance of Letter of Intent (LoI) or Letter of Award (LoA) in accordance with RFP Vol I & II.

28. Liquidated Damages

- a) Except as provided under clause "Force Majeure", if the supplier/ selected bidder fails to deliver any or all of the items/goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in (d) below for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the bidding document and/ or contract. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to clause "Termination".
- b) The time specified completion of the defined milestones, shall be deemed to be the essence of the contract and the supplier/ selected bidder shall arrange items/goods supply and related services within the specified period.
- c) Milestone time period may be extended with or without liquidated damages, if the delay in the supply of items/goods or service is on account of hindrances beyond the control of the supplier/ selected bidder.
 - i. The supplier/ selected bidder shall request in writing to the Purchaser giving reasons for extending the delivery period of service, if he finds himself unable to complete the supply of items/goods or service within the stipulated delivery period or is unable to maintain prorated progress in the supply of items/goods or service delivery. This request shall be submitted as soon as a hindrance in delivery of items/goods and service occurs or within fifteen (15) days from such occurrence but before expiry of stipulated period of completion of delivery of items / goods and service after which such request shall not be entertained.
 - ii. The Purchaser shall examine the justification of causes of hindrance in the delivery of items/goods and service and the period of delay occurred due to that and recommend the competent authority on the period of extension which shall be granted with or without liquidated damages.
 - iii. Normally, extension in delivery period of items/goods and service in following circumstances may be considered without liquidated damages:
 - a. When delay has occurred due to delay in supply of drawings, designs, plans etc. if PCSCCL was required to supply them to the supplier of items/goods or service provider as per terms of the contract.
 - b. When delay has occurred in supply of materials etc. if these were required to be supplied to the supplier or service provider by PCSCCL as per terms of the contract.
 - iv. If the competent authority agrees to extend the delivery period/ schedule, an amendment to the contract with suitable denial clauses and with or without liquidated damages, as the case may be, shall be issued. The amendment letter shall mention that no extra price or additional cost for any reason, what so ever beyond the contracted cost shall be paid for the delayed supply of items/goods and service.
 - v. It shall be at the discretion of the concerned authority to accept or not to accept the supply of items/goods and/ or services rendered by the contractor after the expiry of the stipulated delivery period, if no formal extension in delivery period has been applied and granted. The competent authority shall have right to cancel the contract with respect to undelivered items/goods and/ or service.

- vi. If PCSCL is in need of the items/goods and/ or service rendered after expiry of the stipulated delivery period, it may accept the services and issue a letter of extension in delivery period with usual liquidated damages and denial clauses to regularize the transaction.
- d) In case of extension of milestone completion period is granted with full liquidated damages, the recovery shall be made as per RFP Vol II. (Timelines & associated LD clause)

29. Indemnifications and Limitation of Liability:

- 29.1.** Subject to Clause 29.5 below, Concessionaire (the "Indemnifying Party") undertakes to indemnify, hold harmless the PCSCL (the "Indemnified Party") from and against all claims, liabilities, losses, expenses (including reasonable attorneys' fees), fines, penalties, taxes or damages (Collectively "Loss") on account of bodily injury, death or damage to tangible personal property arising in favor of any person, corporation or other entity (including the Indemnified Party) attributable to the Indemnifying Party's negligence or willful default in performance or non-performance under this Agreement.
- 29.2.** If the Indemnified Party promptly notifies Indemnifying Party in writing of a third party claim against Indemnified Party that any Service provided by the Indemnifying Party infringes a copyright, trade secret or patents incorporated in India of any third party, Indemnifying Party will defend such claim at its expense and will pay any costs or damages, that may be finally awarded against Indemnified Party.
- 29.3.** Indemnifying Party will not indemnify the Indemnified Party, however, if the claim of infringement is caused by:
 - a. Indemnified Party's misuse or modification of the Service;
 - b. Indemnified Party's failure to use corrections or enhancements made available by the Indemnifying Party;
 - c. Indemnified Party's use of the Service in combination with any product or information not owned or developed by Indemnifying Party;
- 29.4.** However, if any service, information, direction, specification or materials provided by Indemnified Party or any third party contracted to it, is or likely to be held to be infringing, Indemnifying Party shall at its expense and option either
 - a. Procure the right for Indemnified Party to continue using it
 - b. Replace it with a non-infringing equivalent
 - c. Modify it to make it non-infringing

The foregoing remedies constitute Indemnified Party's sole and exclusive remedies and Indemnifying Party's entire liability with respect to infringement.

29.5. The indemnities set out in Clause 29 shall be subject to the following conditions:

- 29.5.1.** The Indemnified Party as promptly as practicable informs the Indemnifying Party in writing of the claim or proceedings and provides all relevant evidence, documentary or otherwise;
- 29.5.2.** The Indemnified Party shall, at the cost of the Indemnifying Party, give the Indemnifying Party all reasonable assistance in the Defense of such claim including reasonable access to all relevant information, documentation and personnel provided that the Indemnified Party may, at its sole cost and expense, reasonably participate, through its attorneys or otherwise, in such Defense;

- 29.5.3. If the Indemnifying Party does not assume full control over the Defense of a claim as provided in this Article, the Indemnifying Party may participate in such Defense at its sole cost and expense, and the Indemnified Party will have the right to defend the claim in such manner as it may deem appropriate, and the cost and expense of the Indemnified Party will be included in Losses;
- 29.5.4. The Indemnified Party shall not prejudice, pay or accept any proceedings or claim, or compromise any proceedings or claim, without the written consent of the Indemnifying Party;
- 29.5.5. All settlements of claims subject to indemnification under this Clause will:
- i. Be entered into only with the consent of the Indemnified Party, which consent will not be unreasonably withheld and include an unconditional release to the Indemnified Party from the claimant or plaintiff for all liability in respect of such claim; and
 - ii. Include any appropriate confidentiality agreement prohibiting disclosure of the terms of such settlement
- 29.5.6. The Indemnified Party shall account to the Indemnifying Party for all awards, settlements, damages and costs (if any) finally awarded in favor of the Indemnified Party which are to be paid to it in connection with any such claim or proceedings;
- 29.5.7. The Indemnified Party shall take steps that the Indemnifying Party may reasonably require to mitigate or reduce its loss as a result of such a claim or proceedings;
- 29.5.8. In the event that the Indemnifying Party is obligated to indemnify an Indemnified Party
- 29.5.9. pursuant to this Article, the Indemnifying Party will, upon payment of such indemnity in full, be subrogated to all rights and defenses of the Indemnified Party with respect to the claims to which such indemnification relates; and
- 29.5.10. If a Party makes a claim under the indemnity set out under Clause 28 above in respect of any particular Loss or Losses, then that Party shall not be entitled to make any further claim in respect of that Loss or Losses (including any claim for damages).
- 29.6.** The aggregate liability of either Party (whether in contract, tort, negligence, strict liability in tort, by statute or otherwise) for all claims in any manner related to this Agreement, including the work, deliverables or Services covered by this Agreement, shall be the payment of direct damages only which shall in no event exceed quoted Total Minimum Revenue Committed for the entire contract period.
- 29.7.** In no event shall either party be liable for any consequential, incidental, indirect, special or punitive damage, loss or expenses (including but not limited to business interruption, lost business, lost profits, or lost savings) nor for any third party claims (other than those set-forth in Clause 29.1) even if it has been advised of their possible existence.
- 29.8.** The allocations of liability in this Clause 29 represent the agreed and bargained-for understanding of the parties and compensation for the Services reflects such allocations. Each Party has a duty to mitigate the damages and any amounts payable under an indemnity that would otherwise be recoverable from the other Party pursuant to this Agreement by taking appropriate and commercially reasonable actions to reduce or limit the amount of such damages or amounts.

30. Ownership and Retention of Documents

- 30.1.** The PCSCL shall own the Documents, prepared by or for Concessionaire arising out of or in connection with the Contract.
- 30.2.** Forthwith upon expiry or earlier termination of this Contract and at any other time on demand by the PCSCL, Concessionaire shall deliver to the PCSCL all documents provided by or originating from the PCSCL and all documents produced by or for Concessionaire in the course of performing the Services, unless otherwise directed in writing by the PCSCL at no additional cost. Concessionaire shall not, without prior written consent of the PCSCL store, copy, distribute or retain any such documents.

31. Escrow Agreement

- 31.1.** The Concessionaire shall, within 45 (forty five) days of date of Agreement, open and establish an Escrow Account with a Bank (the "Escrow Bank") in accordance with this agreement read with the Escrow Agreement.
- 31.2.** The nature and scope of the Escrow Account are fully described in the agreement (the "Escrow Agreement") to be entered into amongst the Concessionaire, PCSCL and the Escrow Bank

31.3. Deposits into Escrow Account :

The payments from the tenants through leasing of the said network & pole infrastructure shall deposit or cause to be deposited the following inflows and receipts into the Escrow Account:

- a. all Revenues from or in respect of the Project, including the proceeds of any rentals, deposits, capital receipts or insurance claims; and

31.4. Withdrawals during Concession Period

- a. The Concessionaire shall, at the time of opening the Escrow Account, give irrevocable instructions, by way of an Escrow Agreement, to the Escrow Bank instructing, inter alia, that deposits in the Escrow Account shall be appropriated in the following order every month, or at shorter intervals as necessary, and if not due in a month then appropriated proportionately in such month and retained in the Escrow Account and paid out therefrom in the month when due:
- i. all taxes due and payable for and in respect of the Project;
 - ii. Concession Fee and Revenue Share due and payable to PCSCL
 - iii. balance, if any, in accordance with the instructions of the Concessionaire.
- b. The Concessionaire shall not in any manner modify the order of payment specified in Clause 31.4.a, except with the prior written approval of PCSCL

31.5. Withdrawals upon Termination

- a. Notwithstanding anything to the contrary contained in this Agreement, all amounts standing to the credit of the Escrow Account shall, upon Termination, be appropriated in the following order:
- I. all taxes due and payable for and in respect of the Project;
 - II. outstanding Concession Fee and Revenue Share;
 - III. all payments and Damages certified by PCSCL as due and payable to it by the Concessionaire;

- IV. retention and payments relating to the liability for defects and deficiencies set forth;
- V. any other payments required to be made under this Agreement; and
- VI. balance, if any, in accordance with the instructions of the concessionaire:

Provided that no appropriations shall be made under Sub-clause (j) of this Clause 35.5.a until a Vesting Certificate has been issued by PCSCL

- b. The provisions of this clause 31 and the instructions contained in the Escrow Agreement shall remain in full force and effect until the obligations set forth in Clause 35.5.a have been discharged.

32. Information Security

- 32.1.** Concessionaire shall not carry any written/printed document, layout diagrams, CD, hard disk, storage tapes, other storage devices or any other goods /material proprietary to PCSCL into / out of any location without written permission from the PCSCL.
- 32.2.** Concessionaire shall not destroy any unwanted documents, defective tapes/media present at any location on their own. All such documents, tapes/media shall be handed over to the PCSCL.
- 32.3.** All documentation and media at any location shall be properly identified, labeled and numbered by Concessionaire. Concessionaire shall keep track of all such items and provide a summary report of these items to the PCSCL whenever asked for.
- 32.4.** Access to PCSCL's data and systems, Internet facility by Concessionaire at any location shall be in accordance with the written permission by the PCSCL. The PCSCL shall allow Concessionaire to use facility in a limited manner subject to availability. It is the responsibility of Concessionaire to prepare and equip himself in order to meet the requirements.
- 32.5.** Concessionaire must acknowledge that PCSCL's business data and other PCSCL proprietary information or materials, whether developed by PCSCL or being used by PCSCL pursuant to a license agreement with a third party (the foregoing collectively referred to herein as "proprietary information") are confidential and proprietary to PCSCL; and Concessionaire along with its team agrees to use reasonable care to safeguard the proprietary information and to prevent the unauthorized use or disclosure thereof, which care shall not be less than that used by Concessionaire to protect its own proprietary information. Concessionaire recognizes that the goodwill of PCSCL depends, among other things, upon Concessionaire keeping such proprietary information confidential and that unauthorized disclosure of the same by Concessionaire or its team could damage the goodwill of PCSCL, and that by reason of Concessionaire's duties hereunder. Concessionaire may come into possession of such proprietary information, even though Concessionaire does not take any direct part in or furnish the services performed for the creation of said proprietary information and shall limit access thereto to employees with a need to such access to perform the services required by this Contract. Concessionaire shall use such information only for the purpose of performing the said services.
- 32.6.** Concessionaire shall, upon termination of this Contract for any reason, or upon demand by PCSCL, whichever is earliest, return any and all information provided to Concessionaire by PCSCL, including any copies or reproductions, both hardcopy and electronic.
- 32.7.** By virtue of this Contract, Concessionaire team may have access to personal information of the PCSCL and/or a third party. The PCSCL has the sole ownership of and the right to use,

all such data in perpetuity including any data or other information pertaining to the citizens that may be in the possession of Concessionaire team in the course of performing the Services under the Contract.

33. Records of contract documents

- 33.1.** Concessionaire shall at all-time make and keep sufficient copies of the process manuals, operating procedures, specifications, Contract documents and any other documentation for Concessionaire to fulfil his duties under the Contract.
- 33.2.** Concessionaire shall keep on the Site at least three copies of each and every specification and Contract Document, in excess of his own requirement and those copies shall be available at all times for use by the PCSCL's Representative and by any other person authorized by the PCSCL's Representative.

34. Security and Safety

- 34.1.** Concessionaire shall comply with the directions issued from time to time by the PCSCL and the standards related to the security and safety, insofar as it applies to the provision of the Services.
- 34.2.** Concessionaire shall upon reasonable request by the PCSCL, or its nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.

35. Confidentiality

- 35.1.** The PCSCL or its nominated agencies shall allow the Concessionaire to review and utilize highly confidential public records and the Concessionaire shall maintain the highest level of secrecy, confidentiality and privacy with regard thereto.
- 35.2.** Additionally, the Concessionaire shall keep confidential all the details and information with regard to the Project, including systems, facilities, operations, management and maintenance of the systems/facilities.
- 35.3.** The PCSCL or its nominated agencies shall retain all rights to prevent, stop and if required take the necessary punitive action against the Concessionaire regarding any forbidden disclosure.
- 35.4.** The Concessionaire shall ensure that all its employees, agents and sub-contractors involved in the project, execute individual non-disclosure agreements, which have been duly approved by the PCSCL with respect to this Project.
- 35.5.** For the avoidance of doubt, it is expressly clarified that the aforesaid provisions shall not apply to the following information:
 - 35.5.1.** Information already available in the public domain;
 - 35.5.2.** Information which has been developed independently by the Concessionaire;
 - 35.5.3.** Information which has been received from a third party who had the right to disclose the aforesaid information;
 - 35.5.4.** Information which has been disclosed to the public pursuant to a court order
- 35.6.** To the extent the Concessionaire shares its confidential or proprietary information with the PCSCL for effective performance of the Services, the provisions of the Clause 35.1 to 35.3 shall apply mutatis mutandis on the PCSCL or its nominated agencies
- 35.7.** Any handover of the confidential information needs to be maintained in a list, both by PCSCL & Concessionaire, containing at the very minimum, the name of provider, recipient, date of generation of the data, date of handing over of data, mode of information, purpose and signatures of both parties.

- 35.8.** Notwithstanding anything to the contrary mentioned hereinabove, the Concessionaire shall have the right to share the Letter of Intent / work order provided to it by the PCSCL in relation to this Agreement, with its prospective PCSCLs solely for the purpose of and with the intent to evidence and support its work experience under this Agreement.

36. Events of Default by Concessionaire

The failure on the part of Concessionaire to perform any of its obligations or comply with any of the terms of this Contract shall constitute an Event of Default on the part of Concessionaire. The events of default are but not limited to:

- 36.1.** Concessionaire Team has failed to perform any instructions or directives issued by the PCSCL which it deems proper and necessary to execute the scope of work or provide services under the Contract, or
- 36.2.** Concessionaire Team has failed to confirm / adhere to any of the key performance indicators as laid down in the Key Performance Measures / Service Levels, or if Concessionaire has fallen short of matching such standards / benchmarks / targets as the PCSCL may have designated with respect to the system or any goods, task or service, necessary for the execution of the scope of work and performance of services under this Contract. The above mentioned failure on the part of Concessionaire may be in terms of failure to adhere to performance, quality, timelines, specifications, requirements or any other criteria as defined by the PCSCL;
- 36.3.** Concessionaire has failed to remedy a defect or failure to perform its obligations in accordance with the specifications issued by the PCSCL, despite being served with a default notice which laid down the specific deviance on the part of Concessionaire/ Concessionaire's Team to comply with any stipulations or standards as laid down by the PCSCL; or
- 36.4.** Concessionaire/ Concessionaire's Team has failed to adhere to any amended direction, instruction, modification or clarification as issued by the PCSCL during the term of this Contract and which the PCSCL deems proper and necessary for the execution of the scope of work under this Contract
- 36.5.** Concessionaire/ Concessionaire's Team has failed to demonstrate or sustain any representation or warranty made by it in this Contract, with respect to any of the terms of its Bid, the RFP and this Contract
- 36.6.** There is a proceeding for bankruptcy, insolvency, winding up or there is an appointment of receiver, liquidator, assignee, or similar official against or in relation to Concessionaire.
- 36.7.** Concessionaire Team has failed to comply with or is in breach or contravention of any applicable laws.
- 36.8.** Where there has been an occurrence of such defaults inter alia as stated above, the PCSCL shall issue a notice of default to Concessionaire, setting out specific defaults / deviances / omissions / non-compliances / non-performances and providing a notice of thirty (30) days to enable such defaulting party to remedy the default committed.
- 36.9.** Where despite the issuance of a default notice to Concessionaire by the PCSCL, Concessionaire fails to remedy the default to the satisfaction of the PCSCL, the PCSCL may, where it deems fit, issue to the defaulting party another default notice or proceed to contract termination.

37. Termination

The PCSCL may, terminate this Contract in whole or in part by giving Concessionaire a **prior 90 days** written notice, indicating its intention to terminate the Contract under the following circumstances:

- 37.1.** Where the PCSCL is of the opinion that there has been such Event of Default on the part of Concessionaire / Concessionaire's Team which would make it proper and necessary to terminate this Contract and may include failure on the part of Concessionaire to respect any of its commitments with regard to any part of its obligations under its Bid, the RFP or under this Contract.
- 37.2.** Where it comes to the PCSCL's attention that Concessionaire (or Concessionaire's Team) is in a position of actual conflict of interest with the interests of the PCSCL, in relation to any of terms of Concessionaire's Bid, the RFP or this Contract.
- 37.3.** Where Concessionaire's ability to survive as an independent corporate entity is threatened or is lost owing to any reason whatsoever, including inter-alia the filing of any bankruptcy proceedings against Concessionaire, any failure by Concessionaire to pay any of its dues to its creditors, the institution of any winding up proceedings against Concessionaire or the happening of any such events that are adverse to the commercial viability of Concessionaire. In the event of the happening of any events of the above nature, the PCSCL shall reserve the right to take any steps as may necessary, to ensure the effective transition of the sites, pilot site to a successor agency, and to ensure business continuity
- 37.4.** Termination for Insolvency: The PCSCL may at any time terminate the Contract by giving written notice to Concessionaire, without compensation to Concessionaire, if Concessionaire becomes bankrupt or otherwise insolvent, provided that such termination shall not prejudice or affect any right of action or remedy which has accrued or shall accrue thereafter to the PCSCL.
- 37.5.** Concessionaire may, subject to approval by the PCSCL, terminate this Contract before the expiry of the term by giving the PCSCL a prior and written notice at least **three (3) months** in advance indicating its intention to terminate the Contract.
- 37.6.** Termination for Material Breach
- i. In the event that either Party believes that the other Party is in Material Breach of its obligations under this Agreement, such aggrieved Party may terminate this Agreement upon giving a three month's notice for curing the Material Breach to the other Party. In case the Material Breach continues, after the notice period, the PCSCL or Concessionaire, as the case may be will have the option to terminate the Agreement.
 - ii. Any notice served pursuant to this Clause shall give reasonable details of the Material Breach, which could include the following events and the termination will become effective:
 - a. If the Concessionaire is not able to deliver the services as per the SLAs defined in RFP which translates into Material Breach, then the PCSCL may serve a thirty (30) days written notice for curing this Material Breach. In case the Material Breach continues, after the expiry of such notice period, the PCSCL will have the option to terminate this Agreement. Further, the PCSCL may after affording a reasonable opportunity to the Concessionaire to explain the circumstances leading to such a breach.
 - b. If there is a Material Breach by the PCSCL or its nominated agencies which results in not providing support for effecting data migration or not providing the certification of User Acceptance then the Concessionaire will give a three month's notice for curing the Material Breach to the PCSCL. After the expiry of such notice period, the Concessionaire will have the option to terminate the Agreement.
 - iii. The PCSCL may by giving a three month's written notice, terminate this Agreement if a change of control of the Concessionaire has taken place. For the purposes of this Clause, in the case of the Concessionaire, change of control shall mean the events

stated in Clause 12.28, and such notice shall become effective at the end of the notice period as set out in Clause 12.28.

- iv. In the event that Concessionaire undergoes such a change of control, PCSCL may, as an alternative to termination, require a full Performance Guarantee for the obligations of Concessionaire by a guarantor acceptable to PCSCL or its nominated agencies. If such a guarantee is not furnished within ninety (90) days of PCSCL's demand, the PCSCL may exercise its right to terminate this Agreement in accordance with this Clause by giving fifteen (15) days further written notice to the Concessionaire.
- v. The termination provisions set out in this Clause shall apply mutatis mutandis to the SLA

37.7. Termination for Convenience

- i. The PCSCL may at any time terminate the Contract for any reason by giving the Concessionaire a notice of 30 days cure period for termination that refers to this clause.
- ii. Upon receipt of the notice of termination under this clause, the Concessionaire shall either as soon as reasonably practical or upon the date specified in the notice of termination:
 - a) cease all further work, except for such work as the PCSCL may specify in the notice of termination for the sole purpose of protecting that part of the System already executed, or any work required to leave the site in a clean and safe condition;
 - b) terminate all subcontracts, except those to be assigned to the PCSCL pursuant to Clause 37.7 (ii) (d) (ii) below;
 - c) remove all Concessionaire's Equipment from the site, repatriate the Concessionaire's and its Subcontractors' personnel from the site, remove from the site any wreckage, rubbish, and debris of any kind;
 - d) in addition, the Concessionaire shall:
 - i. Deliver to the PCSCL the parts of the System executed by the Concessionaire up to the date of termination;
 - ii. To the extent legally possible, assign to the PCSCL all right, title, and benefit of the Concessionaire to the System, or Subsystem, as at the date of termination, and, as may be required by the PCSCL, in any subcontracts concluded between the Concessionaire and its Subcontractors;
 - iii. Deliver to the PCSCL all non-proprietary drawings, specifications, and other documents prepared by the Concessionaire or its Subcontractors as of the date of termination in connection with the System.

37.8. Termination of this Agreement due to bankruptcy of Concessionaire

The PCSCL may serve written notice on Concessionaire at any time to terminate this Agreement with immediate effect in the event that the Concessionaire reporting an apprehension of bankruptcy to the PCSCL or its nominated agencies.

38. Effects of Termination

- i. In the event that PCSCL terminates this Agreement pursuant to failure on the part of the Concessionaire to comply with the conditions as contained in this Clause and depending on the event of default, Performance Guarantee furnished by Concessionaire may be forfeited.

- ii. Upon termination of this Agreement, the Parties will comply with the Exit Management section set out in Clause 26 of this Agreement.
- iii. In the event that PCSCL or the Concessionaire terminates this Agreement, the compensation will be decided in accordance with the Terms of Payment Schedule set out as Payment Schedule section of this Agreement.
- iv. PCSCL agrees to pay Concessionaire for
 - a. all charges for Services Concessionaire provides and any Deliverables and/or system (or part thereof) Concessionaire delivers through termination and any charges at the tendered rate, for extension period beyond termination as decided by the Nodal Agency, and
 - b. reimbursable expenses Concessionaire incurs through termination.
- v. If PCSCL terminates without cause, PCSCL also agrees to pay any applicable adjustment expenses to Concessionaire incurs as a result of such termination (which Concessionaire will take reasonable steps to mitigate).
- vi. In the event of termination of the Contract under clause 37.7, the PCSCL shall pay to the Concessionaire the following amounts:
 - a. The Contract Price, properly attributable to the parts of the System executed by the Concessionaire as of the date of termination;
 - b. The costs reasonably incurred by the Concessionaire in the removal of the Concessionaire's Equipment from the
 - c. Site and in the repatriation of the Concessionaire's and its Subcontractors' personnel;
 - d. Any amount to be paid by the Concessionaire to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges;
 - e. Costs incurred by the Concessionaire in protecting the System and leaving the site in a clean and safe condition pursuant to clause 37.7; and
 - f. The cost of satisfying all other obligations, commitments, and claims that the Concessionaire may in good faith have undertaken with third parties in connection with the Contract and that are not covered by clause 38 (iv) above.

39. Change Control Note (CCN)

- 39.1.** This applies to and describes the procedure to be followed in the event of any proposed change to contract, site Implementation, and Service levels. Such change shall include, but shall not be limited to, changes in the scope of services or products provided by Concessionaire and changes to the terms of payment.
- 39.2.** Change requests in respect of the contract, the site implementation, or the Service levels shall emanate from the Parties' representative who shall be responsible for obtaining approval for the change and who shall act as its sponsor throughout the Change Control Process and shall complete Part A of the CCN (Annex I of this Agreement). CCNs shall be presented to the other Party's representative who shall acknowledge receipt by signature of the authorized representative of the PCSCL.
- 39.3.** Concessionaire and the PCSCL while preparing the CCN, shall consider the change in the context of whether the change is beyond the scope of Services including ancillary and concomitant services required
- 39.4.** The CCN shall be applicable for the items which are beyond the stated/implied scope of work as per the RFP document.
- 39.5.** Additional payment due to change in location shall be considered only in those cases where any such change has been made after approval, by the PCSCL, of the detailed locations

plan prepared by the Concessionaire based on actual ground survey and such change results in additional material and or efforts/labour cost.

39.6. Quotation

39.6.1. Concessionaire shall assess the CCN and complete Part B of the CCN. In completing Part B of the CCN, Concessionaire shall provide as a minimum:

- a description of the change;
- a list of deliverables required for implementing the change;
- a timetable for implementation;
- an estimate of any proposed change;
- any relevant acceptance criteria;
- an assessment of the value of the proposed change;
- material evidence to prove that the proposed change is not already covered within the scope of the RFP, Contract and Service Levels.

39.6.2. Prior to submission of the completed CCN to the PCSCL or its nominated agencies, Concessionaire shall undertake its own internal review of the proposal and obtain all necessary internal approvals. As a part of this internal review process, Concessionaire shall consider the materiality of the proposed change in the context of the Contract, the sites, Service levels affected by the change and the total effect that may arise from implementation of the change.

39.6.3. Each Party shall be responsible for its own costs incurred in the quotation, preparation of CCNs and in the completion of its obligations described in this process provided Concessionaire meets the obligations as set in the CCN. In the event Concessionaire is unable to meet the obligations as defined in the CCN then the cost of getting it done by third party shall be borne by Concessionaire. Change requests and CCNs shall be reported monthly to each Party's representative who shall prioritize and review progress.

40. Project Implementation Timelines, Deliverables and Payment Terms

As per RFP Volume II or subsequent corrigendum/addendums

40.1. Project Deliverables, Milestones and Timelines

As per RFP Volume II or subsequent corrigendum/addendums

40.2. Payment Terms and Schedule

As per RFP Volume II or subsequent corrigendum/addendums

41. Miscellaneous

41.1. Independent Contractor

Nothing in this Agreement shall be construed as establishing or implying any partnership or joint venture between the Parties to this Agreement and, except as expressly stated in this Agreement, nothing in this Agreement shall be deemed to constitute any Parties as the agent of any other Party or authorizes either Party to:

- a) Incur any expenses on behalf of the other Party;

- b) Enter into any engagement or make any representation or warranty on behalf of the other Party;
- c) Pledge the credit of or otherwise bind or oblige the other Party; or
- d) Commit the other Party in any way whatsoever without in each case obtaining the other Party's prior written consent

41.2. Sub-contractors

Sub-contracting is not allowed for any scope of work/activity/deliverable mentioned in this RFP except the activities mentioned in RFP Vol II Special Terms & Conditions..

41.3. Assignment

- a) All terms and provisions of this Agreement shall be binding on and shall inure to the benefit of the PCSCL and their respective successors and permitted assigns
- b) The Concessionaire shall not be permitted to assign its rights and obligations under this Agreement to any third party
- c) The PCSCL may assign or novate all or any part of this Agreement and Schedules/Annexures, and the Concessionaire shall be a party to such novation, to any third party contracted to provide outsourced services to PCSCL or any of its nominees

41.4. Trademarks, Publicity

Neither Party may use the trademarks of the other Party without the prior written consent of the other Party except that Concessionaire may, upon completion, use the Project as a reference for credential purpose. Except as required by law or the rules and regulations of each stock exchange upon which the securities of one of the Parties is listed, neither Party shall publish or permit to be published either along or in conjunction with any other person any press release, information, article, photograph, illustration or any other material of whatever kind relating to this Agreement, the SLA or the business of the Parties without prior reference to and approval in writing from the other Party, such approval not to be unreasonably withheld or delayed provided however that Concessionaire may include PCSCL or its client lists for reference to third parties subject to the prior written consent of PCSCL not to be unreasonably withheld or delayed. Such approval shall apply to each specific case and relate only to that case.

41.5. Notices

- a) Any notice or other document which may be given by either Party under this Agreement or under the SLA shall be given in writing in person or by pre-paid recorded delivery post, email or by facsimile transmission
- b) In relation to a notice given under this Agreement, any such notice or other document shall be addressed to the other Party's principal or registered office address as set out below:

PCSCL Address: *Pimpri Chinchwad Smart City Limited (PCSCL), Auto Cluster Development & Research Institute,H-Block, Plot No. C-181 Chinchwad East, Old Mumbai-Pune Highway, Pune, Maharashtra 411019*

Email: PCSCLCNM@PCMCINDIA.GOV.IN

Concessionaire:

Tel:

Fax:
Email:
Contact:

- c) In relation to a notice given under this agreement, a Party shall specify the Parties' address for service of notices, any such notice to be copied to the Parties at the addresses set out in this Clause
- d) Any such notice or other document shall be deemed to have been given to the other Party (or, if relevant, its relevant associated company) when delivered (if delivered in person) if delivered between the hours of 9.00 am and 5.00 pm at the address of the other Party set forth above or if sent by fax, provided the copy fax is accompanied by a confirmation of transmission, or on the next working day thereafter if delivered outside such hours, and seven (7) days from the date of posting (if by letter)
- e) Either Party to this Agreement may change its address, telephone number, facsimile number and nominated contact for notification purposes by giving the other reasonable prior written notice of the new information and its effective date

41.6. Variations and Further Assurance

- a) No amendment, variation or other change to this Agreement shall be valid unless authorized in accordance with the change control procedure as set out in the Change Control Schedule set out in Annex II of this Agreement. Such amendment shall be made in writing and signed by the duly authorized representatives of the Parties to this Agreement .
- b) Each Party to this Agreement agrees to enter into or execute, without limitation, whatever other agreement, document, consent and waiver and to do all other things which shall or may be reasonably required to complete and deliver the obligations set out in this Agreement .

41.7. Severability and Waiver

- a) If any provision of this Agreement , or any part thereof, shall be found by any court or administrative body of competent jurisdiction to be illegal, invalid or unenforceable the illegality, invalidity or unenforceability of such provision or part provision shall not affect the other provisions of this Agreement or the remainder of the provisions in question which shall remain in full force and effect. The relevant Parties shall negotiate in good faith in order to agree to substitute for any illegal, invalid or unenforceable provision a valid and enforceable provision which achieves to the greatest extent possible the economic, legal and commercial objectives of the illegal, invalid or unenforceable provision or part provision.
- b) No failure to exercise or enforce and no delay in exercising or enforcing on the part of either Party to this Agreement of any right, remedy or provision of this Agreement shall operate as a waiver of such right, remedy or provision in any future application nor shall any single or partial exercise or enforcement of any right, remedy or provision preclude any other or further exercise or enforcement of such right, remedy or provision or the exercise or enforcement of any other right, remedy or provision.

41.8. Compliance with Applicable Law

Each Party to this Agreement accepts that its individual conduct shall (to the extent applicable to its business like the Implementation Agency as an information technology service provider) at all times comply with all laws, rules and regulations of government and other bodies having jurisdiction over

the area in which the Services are undertaken provided that changes in such laws, rules and regulations which result in a change to the Services shall be dealt with in accordance with the Change Control Schedule set out in Annex II of this Agreement.

41.9. Professional Fees

All expenses incurred by or on behalf of each Party to this Agreement, including all fees of agents, legal advisors, accountants and actuaries employed by either of the Parties in connection with the negotiation, preparation and execution of this Agreement shall be borne solely by the Party which incurred them.

41.10. Ethics

The Concessionaire represents, warrants and covenants that it has given no commitments, payments, gifts, kickbacks, lavish or expensive entertainment, or other things of value to any employee or agent of PCSCL or its nominated agencies in connection with this agreement and acknowledges that the giving of any such payment, gifts, entertainment, or other things of value is strictly in violation of PCSCL standard policies and may result in cancellation of this Agreement, .

41.11. Entire Agreement

This Agreement with all schedules & annexures appended thereto and the contents and specifications of the RFP constitute the entire agreement between the Parties with respect to their subject matter, and as to all other representations, understandings or agreements which are not fully expressed herein, provided that nothing in this Clause shall be interpreted so as to exclude any liability in respect of fraudulent misrepresentation.

41.12. Amendment

Any amendment to this Agreement shall be made in accordance with the Change Control Schedule set out in Annex II of this Agreement by mutual written consent of all the Parties.

C. SERVICE LEVELS

As per RFP Volume II

42. Issue Management Procedures

42.1. General

This process provides an appropriate management structure for the orderly consideration and resolution of business and operational issues in the event that quick consensus is not reached between PCSCL and Concessionaire.

Implementing such a process at the beginning of the outsourcing engagement significantly improves the probability of successful issue resolution. It is expected that this pre-defined process shall only be used on an exception basis if issues are not resolved at lower management levels.

42.2. Issue Management Process

- 42.2.1. Either PCSCL or Concessionaire may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.
- 42.2.2. The PCSCL and the Concessionaire will determine which committee or executive level shall logically be involved in resolution
- 42.2.3. A meeting or a conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion, if the issue is not an emergency requiring immediate attention.
- 42.2.4. The PCSCL and the Concessionaire shall develop an interim solution, if required, and subsequently the permanent solution for the issue at hand. The Concessionaire will then communicate the resolution to all the interested parties.
- 42.2.5. Any unresolved issues shall first be referred in writing to the Project Monitoring Committee. If the Project Monitoring Committee is unable to resolve the issue referred to them within fifteen (15) days, the same shall be referred to Project Steering Committee.

43. Governance Law and Dispute Resolution

- 43.1. This Agreement shall be governed by and construed in accordance with the laws of India, without giving effect to conflict of law rules. The parties expressly agree to exclude the application of the U.N. Convention on Contracts for the International Sale of Goods (1980) to this Agreement and the performance of the parties contemplated under this Agreement, to the extent that such convention might otherwise be applicable.
- 43.2. Any dispute arising out of or in connection with this Agreement shall in the first instance be dealt with in accordance with the escalation procedure as set out in the Governance Schedule set out in Annex IV of this Agreement.
- 43.3. In case the escalations do not help in resolution of the problem within 3 weeks of escalation, both the parties shall agree on a mediator for communication between the two parties.
- 43.4. The process of the mediation would be as follows:
 - 43.4.1. Aggrieved party shall refer the dispute to the identified mediator in writing, with a copy to the other party. Such a reference shall contain a description of the nature of the dispute, the quantum in dispute (if any) and the relief or remedy sought suitable.
 - 43.4.2. The mediator shall use his best endeavors to conclude the mediation within a certain number of days of his appointment.
 - 43.4.3. If no resolution can be reached through mutual discussion or mediation within thirty (30) days then the matter shall be referred to Experts for advising on the issue.
- 43.5. In case the mediation does not help in resolution and it requires expertise to understand an issue, a neutral panel of 3 experts, agreeable to both parties shall be constituted. The process of the expert advisory would be as follows:
 - 43.5.1. Aggrieved party shall write to the other party on the failure of previous alternate dispute resolution processes within the timeframe and requesting for expert advisory. This is to be sent with a copy to the mediator.
 - 43.5.2. Both parties shall thereafter agree on the panel of experts who are well conversant with the issue under dispute
 - 43.5.3. The expert panel shall use his best endeavors to provide a neutral position on the issue.

43.5.4. If no resolution can be reached through the above means within thirty (30) days then the matter shall be referred to Arbitration.

43.6. Compliance with laws: Each party will comply with all applicable export and import laws and regulations.

43.7. Risk of Loss: For each hardware item, Concessionaire bears the risk of loss or damage up to the time it is delivered to the Implementation/PCSCCL - designated carrier for shipment to PCSCCL or PCSCCL's designated location.

43.8. Third party components: Concessionaire will provide all third party components solely on a pass-through basis in accordance with the relevant third party terms and conditions.

44. Jurisdiction

In the event of dispute, Pune District Courts shall have the exclusive jurisdiction.

IN WITNESS WHEREOF the Parties have by duly authorized

Representatives set their respective hands and seal on the date first above

Written in the presence of:

WITNESSES:

Signed by:

(Name and designation) **For and on behalf of PCSCCL**
(FIRST PARTY)

Signed by:

(Name and designation)

CONCESConcessionaireONAIRe
(SECOND PARTY)

(Name and designation) For and on behalf of Concessionaire

Signed by:

Proforma A – Detailed Commercial Schedule

As per submitted and accepted Commercial Schedule (including Corrigendum)

ANNEXURES

A. Annex I: Change Control Note

Change Control Note		CCN Number:
Part A: Initiation		
Title:		
Originator:		
Sponsor:		
Date of Initiation:		
Details of Proposed Change		
(To include reason for change and appropriate details/specifications. Identify any attachments as A1, A2 and A3 etc.)		
Authorized by PCSCL	Date:	
Name:		
Signature:		
Received by the Bidder	Date:	
Name:		
Signature:		
Change Control Note		CCN Number:
Part B : Evaluation		
(Identify any attachments as B1, B2, and B3 etc.)		
Changes to Services, payment terms, payment profile, documentation, training, service levels and component working arrangements and any other contractual issue.		
Brief Description of Solution:		
Impact:		
Deliverables:		
Timetable:		
Charges for Implementation: (including a schedule of payments)		
Other Relevant Information: (including value-added and acceptance criteria)		
Authorized by the Bidder	Date:	
Name:		

Signature:	
Change Control Note	CCN Number :
Part C : Authority to Proceed	
Implementation of this CCN as submitted in Part A, in accordance with Part B is: (tick as appropriate)	
Approved Rejected Requires Further Information (as follows, or as Attachment 1 etc.)	
For PCSCL and its nominated agencies	For Concessionaire
Signature	Signature
Name	Name
Title	Title
Date	Date

B. Annex II: Change Control Schedule

This Schedule describes the procedure to be followed in the event of any proposed change to the Master Service Agreement ("MSA"), Project Implementation Phase, SLA and Scope of Work and Functional Requirement Specifications. Such change shall include, but shall not be limited to, changes in the scope of services provided by the Concessionaire and changes to the terms of payment as stated in the Terms of Payment Schedule.

The PCSCL and Concessionaire recognize that frequent change is an inevitable part of delivering services and that a significant element of this change can be accomplished by re-organizing processes and responsibilities without a material effect on the cost. The Concessionaire will endeavor, wherever reasonably practicable, to effect change without an increase in the terms of payment as stated in the Terms of Payment Schedule and PCSCL or its nominated agencies will work with the Concessionaire to ensure that all changes are discussed and managed in a constructive manner. This Change Control Schedule sets out the provisions, which will apply to all the changes to this agreement and other documents except for the changes in SLAs for which a separate process has been laid out in the SLA.

This Change Control Schedule sets out the provisions, which will apply to changes to the MSA.

CHANGE MANAGEMENT PROCESS

a) CHANGE CONTROL NOTE ("CCN")

- i. Change requests in respect of the MSA, the Project Implementation, the operation, the SLA or Scope of work and Functional Requirement specifications will emanate from the Parties' respective Project Manager who will be responsible for obtaining approval for the change and who will act as its sponsor throughout the Change Control Process and will complete Part A of the CCN attached as Annex I hereto. CCNs will be presented to the other Party's Project Manager who will acknowledge receipt by signature of the CCN.
- ii. The Concessionaire and the PCSCL or its nominated agencies, during the Project Implementation Phase and the PCSCL or its nominated agencies during the Operations and Management Phase and while preparing the CCN, shall consider the change in the context of the following parameter, namely whether the change is beyond the scope of Services including ancillary and concomitant services required and as detailed in the RFP and is suggested and applicable only after the testing, commissioning and certification of the Pilot Phase and the Project Implementation Phase as set out in this Agreement.
- iii. It is hereby also clarified that any change of request suggested beyond 25% of the value of this Project will be beyond the scope of the change control process and will be considered as the subject matter for a separate bid process and a separate contract. It is hereby clarified that the 25% of the value of the Project as stated in herein above is calculated on the basis of bid value submitted by the Concessionaire and accepted by the PCSCL or its nominated agencies or as decided and approved by PCSCL or its Nominated Agencies. For arriving at the cost / rate for change upto 25% of the project value, the payment terms and relevant rates as specified in Annex III shall apply.

b) Quotation

- i. The Concessionaire shall assess the CCN and complete Part B of the CCN, in completing the Part B of the CCN the Concessionaire shall provide as a minimum:

- a) a description of the change
 - b) a list of deliverables required for implementing the change;
 - c) a time table for implementation;
 - d) an estimate of any proposed change
 - e) any relevant acceptance criteria
 - f) an assessment of the value of the proposed change;
 - g) material evidence to prove that the proposed change is not already covered within the Agreement and the scope of work
- ii. Prior to submission of the completed CCN to the PCSCL, or its nominated agencies, the Service Provider will undertake its own internal review of the proposal and obtain all necessary internal approvals.
 - iii. As a part of this internal review process, the Concessionaire shall consider the materiality of the proposed change in the context of the MSA and the Project Implementation affected by the change and the total effect that may arise from implementation of the change

c) Costs

Each Party shall be responsible for its own costs incurred in the quotation, preparation of CCNs and in the completion of its obligations described in this process provided the Concessionaire meets the obligations as set in the CCN. In case of recertification due to proposed changes, required cost will be borne by the party that initiated the change. In the event the Concessionaire is unable to meet the obligations as defined in the CCN then the cost of getting it done by third party will be borne by the Concessionaire.

d) Obligations

The Concessionaire shall be obliged to implement any proposed changes once approval in accordance with above provisions has been given, with effect from the date agreed for implementation and within an agreed timeframe. Concessionaire will not be obligated to work on a change until the parties agree in writing upon its scope, price and/or schedule impact. The cost associated with any hardware/goods/License for COTS product shall not exceed the price quoted in the bidder's proposal. Any costs associated with changes to Software specifications which cannot be arrived at on the basis of the Concessionaire's proposal shall be mutually agreed to between the Concessionaire and the PCSCL.

C. Annex III: Form of Agreement

THIS Agreement made thedate of.....20122, between..... (hereinafter..... referred to as the “Concessionaire”) of the one part and (hereinafter called the “PCSCL”) of the other part.

WHEREAS Concessionaire has the required professional skills, personnel and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract and is about to perform services as specified in this RFP(hereinafter called “works”) mentioned, enumerated or referred to in certain Contract conditions, specification, scope of work, other Sections of the RFP, covering letter and schedule of prices which, for the purpose of identification, have been signed by on behalf of the Concessionaire and(the PCSCL) on behalf of the PCSCL and all of which are deemed to form part of the Contract as though separately set out herein and are included in the expression “Contract” whenever herein used.

NOW, THEREFORE, IT IS HEREBY AGREED between the parties as follows:

- a. The PCSCL has accepted the tender of Concessionaire for the provision and execution of the said works for the sum ofupon the terms laid out in this RFP.
- b. Concessionaire hereby agrees to provide Services to PCSCL, conforming to the specified Service Levels and conditions mentioned
- c. The following documents attached hereto shall be deemed to form an integral part of this Agreement:

Complete Request for Proposal (RFP) Document	<i>Volumes I, II and III of the RFP and corrigendum and addendum, if any</i>
Break-up of cost components	<i>Selected Bidder's Commercial bid</i>

- d. The mutual rights and obligations of the “PCSCL” and Concessionaire shall be as set forth in the Agreement, in particular:
 - Concessionaire shall carry out and complete the Services in accordance with the provisions of the Agreement; and
 - the “PCSCL” shall make payments to Concessionaire in accordance with the provisions of the Agreement.

NOW THESE PRESENTS WITNESS and the parties hereto hereby agree and declare as follows, that is to say, in consideration of the payments to be made to Concessionaire by the PCSCL as hereinafter mentioned, Concessionaire shall deliver the services for the said works and shall do and perform all other works and things in the Contract mentioned or described or which are implied there from or there in respectively or may be reasonably necessary for the completion of the said works within and at the times and in the manner and subject to the terms, conditions and stipulations mentioned in the said Contract.

AND in consideration of services and milestones, the PCSCL shall pay to Concessionaire the said sum ofor such other sums as may become payable to Concessionaire under the provisions of this Contract, such payments to be made at such time and in such manner as is provided by the Contract.

IN WITNESS WHEREOF the parties hereto have signed this deed hereunder on the dates respectively mentioned against the signature of each.

Signed
Name : _____
Designation : _____

Signed
Name : _____
Designation : _____

Date :

Place :

in the presence of :

Signed
Name : _____
Designation : _____
Date : _____
Place : _____

Date :

Place :

in the presence of :

Signed
Name : _____
Designation : _____
Date : _____
Place : _____

D. Annex V: Audit, Access and Reporting

1 PURPOSE

This Schedule details the audit, access and reporting rights and obligations of the PCSCL or its nominated agency and the Concessionaire.

2 AUDIT NOTICE AND TIMING

1. As soon as reasonably practicable after the Effective Date, the Parties shall use their best endeavors to agree to a timetable for routine audits during the Project Implementation Phase and the Operation and Management Phase. Such timetable during the Implementation Phase, the PCSCL or its nominated agency and thereafter during the operation Phase, the PCSCL or its nominated agency shall conduct routine audits in accordance with such agreed timetable and shall not be required to give the Concessionaire any further notice of carrying out such audits.
2. The PCSCL or its nominated agency may conduct non-timetabled audits at his/ her own discretion if it reasonably believes that such non-timetabled audits are necessary as a result of an act of fraud by the Concessionaire, a security violation, or breach of confidentiality obligations by the Concessionaire, provided that the requirement for such an audit is notified in writing to the Concessionaire a reasonable period time prior to the audit (taking into account the circumstances giving rise to the reasonable belief) stating in a reasonable level of detail the reasons for the requirement and the alleged facts on which the requirement is based. If the Concessionaire considers that the non-timetabled audit was not appropriate, the matter shall be referred to the escalation procedure as set out in the Governance Schedule.
3. The frequency of audits shall be a (maximum) half yearly, provided always that the PCSCL or its nominated agency shall endeavor to conduct such audits with the lowest levels of inconvenience and disturbance practicable being caused to the Concessionaire. Any such audit shall be conducted by with adequate notice of 2 weeks to the Concessionaire.
4. PCSCL will ensure that any 3rd party agencies (except CAG) appointed to conduct the audit will not be the competitor of Concessionaire and will be bound by confidentiality obligations.

3 ACCESS

1. The Concessionaire shall provide to the PCSCL or its nominated agency reasonable access to employees, subcontractors, Concessionaires, agents and third party facilities as detailed in the RFP, documents, records and systems reasonably required for audit and shall provide all such persons with routine assistance in connection with the audits and inspections. The Chairperson, PIU / Steering Committee shall have the right to copy and retain copies of any relevant records. The Concessionaire shall make every reasonable effort to co-operate with them.

4 AUDIT RIGHTS

1. The PCSCL or its nominated agency shall have the right to audit and inspect Concessionaires, agents and third party facilities (as detailed in the RFP), server room, documents, records, procedures and systems relating to the provision of the services, but only to the extent that they relate to the provision of the services, as shall be reasonably necessary to verify:
 - 1.1. The security, integrity and availability of all data processed, held or conveyed by the Partner on behalf of PCSCL and documentation related thereto;
 - 1.2. That the actual level of performance of the services is the same as specified in the SLA;
 - 1.3. That the Concessionaire has complied with the relevant technical standards, and has adequate internal controls in place; and
 - 1.4. The compliance of the Concessionaire with any other obligation under the MSA and SLA.

- 1.5. Security audit and implementation audit of the system shall be done once each year, the cost of which shall be borne by the Concessionaire.
- 1.6. For the avoidance of doubt the audit rights under this Schedule shall not include access to the Concessionaire's profit margins or overheads, any confidential information relating to the Concessionaire's employees, or (iii) minutes of its internal Board or Board committee meetings including internal audit, or (iv) such other information of commercial-in-confidence nature which are not relevant to the Services associated with any obligation under the MSA.

5 AUDIT RIGHTS OF SUB-CONTRACTORS, Concessionaires AND AGENTS

1. The Concessionaire shall use reasonable endeavors to achieve the same audit and access provisions as defined in this Schedule with sub-contractors who supply labor, services in respect of the services. The Concessionaire shall inform the PCSCL or its nominated agency prior to concluding any sub-contract or supply agreement of any failure to achieve the same rights of audit or access.
2. REPORTING: The Concessionaire will provide quarterly reports to the Chairperson, PIU / Steering committee regarding any specific aspects of the Project and in context of the audit and access information as required by the PCSCL or its nominated agency.

6 ACTION AND REVIEW

1. Any change or amendment to the systems and procedures of the Concessionaire, or sub-contractors, where applicable arising from the audit report shall be agreed within thirty (30) calendar days from the submission of the said report.
2. Any discrepancies identified by any audit pursuant to this Schedule shall be immediately notified to the PCSCL or its nominated agency and the Concessionaire Project Manager who shall determine what action shall be taken in respect of such discrepancies in accordance with the terms of the MSA.

8 RECORDS AND INFORMATION

For the purposes of audit in accordance with this Schedule, the Concessionaire shall maintain true and accurate records in connection with the provision of the services and the Concessionaire shall handover all the relevant records and documents upon the termination or expiry of the MSA.



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

CORRIGENDUM 1

To

Tender Ref Number- 04/22-23

“Selection of Concessionaire for Providing End to End Services for Monetization of PCSCCL City Network Infrastructure on “Revenue Sharing Model”

The bidders are required to kindly consider the following corrigendum pertaining to the aforementioned RFP:

S.No	RFP Clause	Existing Clause	Revised Clause
1.	RFP Volume I, Section 6.4.1 Pre-Qualification Criteria	The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have: Minimum Cumulative Turnover of INR 400 crore in last three financial years AND Minimum Cumulative Turnover of INR 300 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business	The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have: Minimum Cumulative Turnover of INR 400 crore in last three financial years AND Minimum Cumulative Turnover of INR 300 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business * Financial years: Cumulative Turnover as per audited balance sheet for FY 2019-20, 2020-21, 2021-22 or as per audited balance sheet for FY 2018-19, 2019-20, 2020-21(if audited data of 2021-22 is not available)
2.	RFP Volume I, Section 6.4.1	Point No. 8: Financial Criteria, Financials (Consortium/	Revised clause to be read as:



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
	Pre-Qualification Criteria	<p>Joint Venture Member)</p> <p>Each of the Consortium/ Joint Venture member shall have Cumulative Average Annual Turnover of INR 20 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC/Bandwidth) leasing with IP1 or ISP business</p>	<p>Each of the Consortium/ Joint Venture member shall have Average Annual Turnover of INR 20 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC/Bandwidth) leasing with IP1 or ISP business</p> <p>* Financial years: Average Annual Turnover as per audited balance sheet for FY 2019-20, 2020-21, 2021-22 or as per audited balance sheet for FY 2018-19, 2019-20, 2020-21(if audited data of 2021-22 is not available)</p>
3.	RFP Volume I, Section 6.4.1 Pre-Qualification Criteria – Net Worth	<p>The Sole Bidder or each of the consortium member (in case of consortium) should have positive net worth in each of the last three financial years</p> <p>AND</p> <p>The Sole Bidder or Lead Bidder (in case of Consortium/ Joint Venture) should have positive net worth of minimum INR 100 cr. as of 31st March 2022</p>	<p>The Sole Bidder or each of the consortium member (in case of consortium) should have positive net worth in each of the last three financial years</p> <p>AND</p> <p>The Sole Bidder or Lead Bidder (in case of Consortium/ Joint Venture) should have positive net worth of minimum INR 100 cr. as of 31st March 2022</p> <p>* Financial years: Networth as per audited balance sheet for FY 2019-20, 2020-21, 2021-22 or as per audited balance sheet for FY 2018-19, 2019-20, 2020-21(if audited data of 2021-22 is not available)</p>



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
4.	RFP Volume I, Section 6.4.1 Pre-Qualification Criteria	<p>Point No. 10: Technical Criteria, Technical Capability</p> <p>5. Experience of monetization (subletting & sharing with TSP/ISP) of minimum 750 Mobile Tower/Pole sites infrastructure owned by the bidder in India in last five financial year (2017-2022)</p> <p>6. Experience of minimum 1000 Smart Pole / Mobile Tower infrastructure Installation & Maintenance in India in last five financial year (2017-2022)</p> <p>7. Experience of setting up of Network Operation Centre (NOC) and managing more than 1000 network PoPs/nodes (SD WAN/L2/L3 switch/MPLS) with the usage of monitoring & management systems through that NOC in India in last five financial years (2017-2022)</p> <p>AND</p> <p>The sole bidder/lead bidder and each member of the Consortium/ Joint Venture (in case of consortium/JV) should have experience in India of either of the below:</p> <p>1. Laying /managing/ leasing of more than 500 km optical fibre cable/duct and installation/ leasing of 750 telecom</p>	<p>Revised clause to be read as:</p> <p>5. Experience of monetization (subletting & sharing with TSP/ISP) of minimum 750 Mobile Tower/Pole sites infrastructure, which are either owned by the bidder or possesses lease, in India in last five financial year (2017-2022)</p> <p>6. Experience of minimum 1000 Smart Pole / Mobile Tower infrastructure Installation or Maintenance in India in last five financial year (2017-2022)</p> <p>7. Experience of setting up of Network Operation Centre (NOC) and managing more than 1000 network PoPs/nodes (SD WAN/L2/L3 switch/MPLS) with the usage of monitoring & management systems through that NOC in India in last seven (7) financial years (2015-2022)"</p> <p>AND</p> <p>Each member of the Consortium should have experience in India of either of the below and sole bidder or consortium as a whole should have both the below stated experience:</p>



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
		<p>towers/poles in India in last five financial years (2017-2022)</p> <p>2. Providing lit up OFC/ internet bandwidth services to atleast 2000 broadband customers in India at any time during the last five financial years.</p>	<p>1. Laying /managing/ leasing of more than 500 km optical fibre cable/duct and installation/ leasing of 750 telecom towers/poles in India in last five financial years (2017-2022)</p> <p>2. Providing lit up OFC/ internet bandwidth services to atleast 2000 broadband customers in India at any time during the last five financial years.</p>
5.	RFP Volume I, Section 6.4.2 Stage 2: Technical Evaluation Financials - A1	<p>A1. The sole bidder or lead bidder, in case of consortium, should have cumulative turnover in India in last three (03) financial years:</p> <ul style="list-style-type: none"> • INR 400 cr. <= INR 1000 cr.: 5 marks • INR 1000 cr. <= 2000 cr.: 7.5 marks <p>> INR 2000 cr.: 10 marks</p>	<p>A1. The sole bidder or lead bidder, in case of consortium, should have cumulative turnover in India in last three (03) financial years:</p> <ul style="list-style-type: none"> • INR 400 cr. <= INR 1000 cr.: 5 marks • INR 1000 cr. <= 2000 cr.: 7.5 marks <p>> INR 2000 cr.: 10 marks</p> <p>* Financial years: Cumulative Turnover as per audited balance sheet for FY 2019-20, 2020-21, 2021-22 or as per audited balance sheet for FY 2018-19, 2019-20, 2020-21(if audited data of 2021-22 is not available)</p>
6.	RFP Volume I, Section 6.4.2 Stage 2: Technical Evaluation Financials – A2	<p>A2. The sole bidder or lead bidder, in case of consortium, should have cumulative turnover in India in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business:</p> <ul style="list-style-type: none"> • INR 300 cr. <= INR 1000 cr.: 5 marks 	<p>A2. The sole bidder or lead bidder, in case of consortium, should have cumulative turnover in India in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business:</p> <ul style="list-style-type: none"> • INR 300 cr. <= INR 1000 cr.: 5 marks



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
		<ul style="list-style-type: none"> • INR 1000 cr. <= 2000 cr.: 7.5 marks > INR 2000 cr.: 10 marks 	<ul style="list-style-type: none"> • INR 1000 cr. <= 2000 cr.: 7.5 marks > INR 2000 cr.: 10 marks <p>* Financial years: Cumulative Turnover as per audited balance sheet for FY 2019-20, 2020-21, 2021-22 or as per audited balance sheet for FY 2018-19, 2019-20, 2020-21(if audited data of 2021-22 is not available)</p>
7.	RFP Volume I, Section 6.4.2 Stage 2: Technical Evaluation Financials – A3	<p>A3. The Sole bidder or lead bidder of consortium, in case of consortium, should have net worth as per the audited financial statements as on 31-03-2022:</p> <ul style="list-style-type: none"> • INR 100 cr. <= INR 500 cr.: 5 marks • INR 500 cr. <= 1000 cr.: 7.5 marks > INR 1000 cr.: 10 marks 	<p>A3. The Sole bidder or lead bidder of consortium, in case of consortium, should have net worth as per the audited financial statements as on 31-03-2022:</p> <ul style="list-style-type: none"> • INR 100 cr. <= INR 500 cr.: 5 marks • INR 500 cr. <= 1000 cr.: 7.5 marks > INR 1000 cr.: 10 marks <p>* Financial years: Networth as per audited balance sheet for FY 2019-20, 2020-21, 2021-22 or as per audited balance sheet for FY 2018-19, 2019-20, 2020-21(if audited data of 2021-22 is not available)</p>
8.	RFP Volume I, Section 6.4.2 Stage 2: Technical Evaluation	<p>Technical Bid Criteria & Evaluation</p> <p>B. Project Experience</p> <p>B4. The Sole bidder or any member of the consortium, in case of consortium, should have experience of monetization (subletting & sharing with TSP/ISP) of Mobile Tower/Pole sites infrastructure owned by the</p>	<p>Revised clause to be read as:</p> <p>B. Project Experience</p> <p>B4. The Sole bidder or any member of the consortium, in case of consortium, should have experience of monetization (subletting & sharing with TSP/ISP) of Mobile Tower/Pole sites infrastructure, which are</p>



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
		<p>bidder in India in last five financial year (2017-2022)</p> <ul style="list-style-type: none"> • 750 Towers/Poles <= 1000 Towers/Poles: 2.5 marks • 1000 Towers/Poles <= 1500 Towers/Poles: 4 marks • > 1500 Towers/Poles.: 5 marks <p>B5. The Sole bidder or any member of the consortium, in case of consortium, should have experience of Smart Pole / Mobile Tower infrastructure Installation & Maintenance in India in last five financial year (2017-2022):</p> <ul style="list-style-type: none"> • 1000 Towers/Poles <= 1500 Towers/Poles: 2.5 marks • 1500 Towers/Poles <= 2000 Towers/Poles: 4 marks • > 2000 Towers/Poles.: 5 marks 	<p>either owned by the bidder or possesses lease, in India in last five financial year (2017-2022)</p> <ul style="list-style-type: none"> • 750 Towers/Poles <= 1000 Towers/Poles: 2.5 marks • 1000 Towers/Poles <= 1500 Towers/Poles: 4 marks • > 1500 Towers/Poles.: 5 marks <p>B5. The Sole bidder or any member of the consortium, in case of consortium, should have experience of Smart Pole / Mobile Tower infrastructure Installation or Maintenance in India in last five financial year (2017-2022):</p> <ul style="list-style-type: none"> • 1000 Towers/Poles <= 1500 Towers/Poles: 2.5 marks • 1500 Towers/Poles <= 2000 Towers/Poles: 4 marks • > 2000 Towers/Poles.: 5 marks
9.	RFP Volume I, Section 7.1.5	<p>Performance Security Deposit</p> <p>The successful Bidder shall at his own expense submit an unconditional and irrevocable Performance Security Deposit in the form of a Bank Guarantee from a nationalized bank in India to the purchaser equivalent to</p>	<p>Revised clause to be read as:</p> <p>The successful Bidder shall at his own expense submit an unconditional and irrevocable Performance Security Deposit in the form of a Bank Guarantee from a nationalized bank in India to the purchaser</p>



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
		<p>the Yearly Minimum Revenue Committed (YMRC), before signing the contract/ agreement with the purchaser, valid for 26 months (2 years and 8 months).</p> <p>Security Deposit shall be invoked by the purchaser, in the event the Bidder:</p> <ol style="list-style-type: none"> fails to meet the overall penalty condition as mentioned in RFP or any changes agreed upon between the parties, fails to perform the responsibilities and obligations as set out in the RFP to the complete satisfaction of the Purchaser, misrepresents facts/information submitted to Purchaser any discrepancies/violations with respect to the infrastructure monetization any violations of the agreement terms & conditions. 	<p>equivalent to the quoted Yearly Minimum Revenue Committed (YMRC), before signing the contract/ agreement with the purchaser, valid for 35 months (2 years and 11 months).</p> <p>Subsequently, at the end of 2nd year of monetization (i.e. 33 months from the start date of the contract), bidder shall also submit Bank Guarantee from a nationalized bank in India to the purchaser equivalent to the quoted Yearly Minimum Revenue Committed (YMRC) valid for 2 years & 2 months and BG equivalent to the deficit value (of YMRC for the preceding year, if applicable) valid for 1 year and 2 months; this process shall repeat after every two-year cycle.</p> <p>Security Deposit shall be invoked by the purchaser, in the event the Bidder:</p> <ol style="list-style-type: none"> Fails to meet the obligation of giving quoted YMRC to the PCSCL at the end of every 2 years (i.e. encashment of BG, equivalent of the deficit amount, on account of non-payment of its cumulative 2 years (every two years over the contract duration) YMRC obligation to PCSCL)



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
			<ul style="list-style-type: none"> b. fails to meet the overall penalty condition as mentioned in RFP or any changes agreed upon between the parties, c. fails to perform the responsibilities and obligations as set out in the RFP to the complete satisfaction of the Purchaser, d. misrepresents facts/information submitted to Purchaser e. any discrepancies/violations with respect to the infrastructure monetization f. any violations of the agreement terms & conditions.
10.	RFP Volume I, Section 6.4.4 Selection criteria & Commercial bid	Yearly Minimum Revenue Committed (YMRC): minimum yearly revenue committed to pay to PCSCL by the concessionaire/selected bidder, either through yearly generated revenue by said infrastructure leasing or through its source of finance, irrespective of the quantum of revenue generated in that particular year through leasing of said infrastructure. The same shall be applicable for each of the year for the entire contract duration of 10 years.	<p>Revised clause to be read as: Yearly Minimum Revenue Committed (YMRC): minimum yearly revenue committed to pay to PCSCL by the concessionaire/selected bidder, either through yearly generated revenue by said infrastructure leasing or through its own source of finance, irrespective of the quantum of revenue generated in that particular year through leasing of said infrastructure. The same shall be applicable for each of the year for the entire contract duration of 10 years.</p> <p>Bidder to note that YMRC deficit of a preceding &</p>



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
			current year (at the end of every two-year cycle) can be paid to PCSCL by bidder either through: <ul style="list-style-type: none"> • encashment of BG • from bidder's share of revenue (from Yearly Additional Revenue Generated (YARG)) • bidder's own source of funds (outside this contract) through appropriate mode of payment
11.	RFP Volume I, Contract Tenure	The tenure of the concession period shall initially be of 10 years & 6 months from the date of signing of the contract which shall be eligible for further extension of 5 years at the discretion of PCSCL with mutually agreed terms & conditions.	Revised clause to be read as: The tenure of the concession period shall initially be for 10 years & 9 months from the date of signing of the contract which shall be eligible for further extension of 5 years at the discretion of PCSCL with mutually agreed terms & conditions.
12.	RFP Volume II, Section 3	Project Timelines & Deliverables: T2 is T1+ 6 Months + 10 Years	Revised clause to be read as: "T2 is T1+ 6 Months + 10 Years" to be read as "T2 is T1+ 9 Months + 10 Years" T+ 6 months (in subclauses B2, C2, D3 & E) to be read as T + 9 months
13.	RFP Volume II, Section 7: Special Terms & Conditions		Additional Point: Revenue generated on account of imposition of appropriate penalty by PCSCL/PCMC on the vendor/agency, on account of detection of



PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd floor, C-181, Chinchwad MIDC,
Chinchwad, Pune- 411019

E-mail: smartcity@pcmcindia.gov.in

S.No	RFP Clause	Existing Clause	Revised Clause
			<p>unauthorized infrastructure, shall solely belong to PCSCL.</p> <p>However, revenue generated through leasing of infrastructure to the agency/tenant to whom PCSCL/PCMC has imposed penalty, on account of detection of unauthorized infrastructure, shall be counted under "Revenue Generated" as part of this project/contract.</p>

* Note: The Bidders are requested to refer the annexure for the response to the pre bid queries submitted to the PCSCL.

PCSCL/3/WS/312/2022

Date- 30/08/2022

Sd/-

Joint Chief Executive Officer,
Pimpri Chinchwad Smart City Limited,
Chinchwad-411019

Annexure-1

Pre- Queries Response for Tender Ref Number- 04/22-23

"Selection of Concessionaire for Providing End to End Services for Monetization of PCSCL City Network Infrastructure on "Revenue Sharing Model"

SN	RFP Vol No.	Document Reference (s) Section	Content of RFP Requiring Clarification	Points of Clarification	Response
1	Vol-I	1. Invitation to Proposal and Datasheet	The total EMD amount is INR 50,00,000 (INR Fifty Lakhs Only) and to be deposited online through the e-Procurement portal.	As per Gol, Dept. of Enterprise circular no. OM No. F.9/4/2020-PPD issued on 12th Nov, 2020, bid security submission has been removed. We request you to kindly exempt bid security for TCIL as we are a public sector undertaking.	No Change , As per RFP
2	Vol-I	1. Invitation to Proposal and Datasheet (clause 6)	The total EMD amount is INR 50,00,000 (INR Fifty Lakhs Only) and to be deposited online through the e-Procurement portal.	Kindly allow submission by bank guarantee as well.	No Change , As per RFP
3	Vol-I	3.4 Intent	Under this city network project, PCSCL has created approximately 600 KM of OFC network having 4 telecom duct and multicore fibre cables in one duct across its PCMC offices, police stations, critical junctions, footfall area etc., PCSCL intend to explore business partnership with possible monetization/revenue generation opportunities by leasing the ducts (3 spare duct infra across the approximately 600 KM route length) along with approximately 1800 poles.	Kindly clarify whether 600KMs is route length or duct length or trench length?	Kindly refer RFP Vol II Clause 1.6 Ring Details & Current status of the City Network & Clause 2 Scope of Work Total route length (civil length) is 600 km where total 4 ducts has been laid.
4	Vol-I	3.4 Intent	Under this city network project, PCSCL has created approximately 600 KM of OFC network having 4 telecom duct and multicore fibre cables in one duct across its PCMC offices, police stations, critical junctions, footfall area etc., PCSCL intend to explore business partnership with possible monetization/revenue generation opportunities by leasing the ducts (3 spare duct infra across the approximately 600 KM route length) along with approximately 1800 poles.	Please confirm how many KMs of fiber blowing has been completed? Please also confirm the routes where fiber has been blown in the duct.	Kindly refer RFP Vol II Clause 1.6 Ring Details Out of 4 ducts, fibre has been blown in 1 duct. PCSCL shall consume 8 to 12 fibre cores for its internal use and remaining ones are available for monetization.
5	Vol-I	Administrative Criteria - Consortium (Pt 3)	The Consortium / Joint Venture is allowed with up to 2 (two) consortium members including the Lead Bidder....	Kindly allow for atleast three (3) members in the consortium.	No Change , As per RFP
6	Vol-I	Pre-qualification Criteria (Pt 7)	Minimum Cumulative Turnover of INR 300 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business	Considering that leasing is not very cost intensive proposition, INR 400 cr turnover being asked for last 3 years is very high, we request you to kindly remove this criteria or reduce it to INR 100 Cr. This would enable better participation.	No Change , As per RFP

7	Vol-I	Pre-qualification Criteria (Pt 8)	Each of the Consortium/ Joint Venture member shall have Cumulative Average Annual Turnover of INR 20 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC/Bandwidth) leasing with IP1 or ISP business	As anyways a consortium is jointly and severly liable towards completion of a project, we request you to kindly make the following changes in the clause: "One of the Consortium/ Joint Venture member/s shall have Cumulative Average Annual Turnover of INR 20 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC/Bandwidth) leasing with IP1 or ISP business."	No Change , As per RFP
8	Vol-I	Pre-qualification Criteria (Pt 10)	The Sole bidder or Consortium/ Joint Venture a 2. Experience of leasing telecom Optical Fibre Cable/Duct of atleast 500 km in India in last five financial year (2017-2022).	Kindly consider "laying" as well and change the clause to "Experience of laying/ leasing telecom Optical Fibre cable/Duct of atleast 500 km in India in last five financial year (2017-2022)	No Change , As per RFP
9	Vol-I	Pre-qualification Criteria (Pt 10)	The Sole bidder or Consortium/ Joint Venture a 3. Experience of leasing of all types of telecom network infrastructure (Telecom Towers/Poles, Optical Fiber Cable, Ducts and Bandwidth) in India from atleast last 3 financial years (2019-2022)	Kindly consider "laying" as well and change the clause to "Experience of laying/leasing of all types of telecom network infrastructure (Telecom Towers/Poles, Optical Fiber Cable, Ducts and Bandwidth) in India from atleast last 3 financial years (2019-2022)"	No Change , As per RFP
10	Vol-I	Pre-qualification Criteria (Pt 10)	The Sole bidder or Consortium/ Joint Venture a 10. Experience of setting up of Network Operation Centre (NOC) and managing more than 1000 network PoPs/nodes (SD WAN/L2/L3 switch/MPLS) with the usage of monitoring & management systems through that NOC in India in last five financial years (2017-2022)	Kindly allow experience from last seven (7) years as you already are aware that due to covid almost all works and imports of network equipments were stopped in last 2 years.	Please refer corrigendum
11	Volume II	Special Terms and conditions (Pt 7)	Pole Infrastructure: all the cost associated for making requisite structural changes (without deviating the applicable norms) and deployment of smart devices (Display-lights-EV charging point etc.) on the existing pole shall be borne by the concessionaire. Concessionaire shall also bear end to end cost for design, procurement, supply, installation & commissioning of Smart Pole (including all the active & passive components) after obtaining approval of PCSCL.	As in case with network route infra, we request you that the cost of passive Pole Infrastructure like procurement and supply be taken up by PCSCL. This cost will exponentially increase the project cost and might make it unviable. Deployment of smart devices can be taken up by concessionaire.	No Change , As per RFP

12	Vol-I	Selection Criteria and Commercial bid (Clause 6.4.4 c)		<p>INR 30 Cr as minimum yearly base amount is very high. We request PCSCCL to reconsider this revenue. In the initial 2 years the NOC & SOC has to be set-up and last mile connectivity has to be established which will be CAPEX expenditure and revenues in the initial 2 years are expected to be less. Quantum of leasing is also expected to be less initially. In such cases YMRC of INR 30 Cr will further increase the outflow for the concessionaire and will cause cash crunch for the concessionaire. This might affect the services adversely and the break-even will take even more time. As proposed in our EOI as well, we request PCSCCL to consider a % of Profit instead of fixed YMRC of 30 Cr.</p> <p>If the same is not acceptable to PCSCCL then we request to kindly create YMRC in slabs and reduce the initial YMRC to INR 10 Cr for initial 4 years. We propose that the clause be changed to " The minimum base amount for Yearly Minimum Revenue Committed (YMRC) per year will be as under: > INR 10 cr for initial 4 years > INR 20 cr for next 3 years > INR 30 cr for subsequent next 3 years."</p>	No Change , As per RFP
13	Vol-I	Intent	Bid submission date	As the bid is very extensive and many festivals are coming just before the bid submission we request you to kindly extend the last date of bid submission by three (3) weeks atleast.	Please refer Extension Notice
14	VOLUME II - Scope of Work Tender Ref Number- 04/22-23 Date: 05-08-2022	NA	Scope of Work	<p>Please clarify on the minimum commitment asked for infrastructure cost since the infrastructure cost would be way lesser.</p> <p>We request you to please provide the Correct input cost for infrastructure.</p>	No Change , As per RFP
15	VOLUME II - Scope of Work Tender Ref Number- 04/22-23 Date: 05-08-2022	NA	Scope of Work	We request you to incorporate: Revenue generated from unauthorized connection should be a part of the revenue , since the unauthorized infrastructure laid should be a part of the monetization policy.	Please refer corrigendum

16	VOLUME II - Scope of Work Tender Ref Number- 04/22- 23 Date: 05-08- 2022	NA	Scope of Work	We request you to please provide Moratorium period of 9 months. We believe that it is a city wide initiative and hence we have to assess all regularized and authorized network and then create a model for the complete solutioning which we think would need atleast a period of 9 months.	Please refer corrigendum
17	VOLUME I	6.4.1 Pre Qualification	5. Experience of Monetizingof min 750 Mobile Towers / pole sites owned by the bidder	The word owned may be deleted please.	Please refer corrigendum
18	VOLUME I	6.4.1 Pre Qualification	6. Experience of minimum 1000 smart pole/ Mobile towers Installation & Maintainance.	The word installed may be deleted please. Further we request to include Microwave towers in the category.	Please refer corrigendum
19	VOLUME I	6.4.2 Technical Evaluation	B4. Experience of MonetizingMobile Towers / pole sites owned by the bidder	The word owned may be deleted please.	Please refer corrigendum
20	VOLUME I	6.4.2 Technical Evaluation	B5. Experience of smart pole/ Mobile towers Installation & Maintainance.	The word installed may be deleted please. Further we request to include Microwave towers in the category.	Please refer corrigendum
21	VOLUME I	6.4.4 (c) Selection criteria & Commercial bid	The minimum base amount for Yearly Minimum Revenue Committed (YMRC) per year is INR 30 cr.	The minimum base amount for Yearly Minimum Revenue Committed (YMRC) per year may be reduced to zero as we do not assess exact revenues expected. In lieu of this minimum revenue share may be fixed. As there is no visibility of the revenues expected from the leasing of this infrastructure. However by agreeing to fixed revenue share, there is an equal opportunity for bidder as well as PCSCL. This will also enable more competition	No Change , As per RFP
22	VOLUME I - Structure of Proposal & Bid Process Specifications Tender Ref Number- 04/22- 23 Date: 05-08- 2022	7.1.5	The successful Bidder shall at his own expense submit an unconditional and irrevocable Performance Security Deposit in the form of a Bank Guarantee from a nationalized bank in India to the purchaser equivalent to the Yearly Minimum Revenue Committed (YMRC), before signing the contract/ agreement with the purchaser, valid for 26 months (2 years and 8 months).	We request you please relax the Performance Security Deposit.	No Change , As per RFP
23	VOLUME I - Structure of Proposal & Bid Process Specifications Tender Ref Number- 04/22- 23 Date: 05-08- 2022	6.4.1	The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have: Minimum Cumulative Turnover of INR 400 crore in last three financial years AND Minimum Cumulative Turnover of INR 300 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business	We request you to kindly reduce the turnover eligibility criteria as: <i>The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have:</i> <i>Minimum Cumulative Turnover of INR 150 crore in last three financial years</i> AND <i>Minimum Cumulative Turnover of INR 75 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business</i>	No Change , As per RFP

24	VOLUME I - Structure of Proposal & Bid Process Specifications Tender Ref Number- 04/22-23 Date: 05-08-2022	6.4.1	Experience of laying and maintenance of minimum 1000 km of telecom Duct/Optical Fibre Cable for licensed TSP/Government entity/PSU or as IP1 Infrastructure provider in India in last five financial year (2017-2022)	We request you to please provide options for bidder who has their own network laying and are not directly involved with the govt. Please provide clarity on IP1 infrastructure provider in India clause.	Kindly refer RFP Vol I Clause 6.4.1 Point 10 Bidder to furnish Statutory Auditor Certificate to substantiate the RFP requirements
25	VOLUME I - Structure of Proposal & Bid Process Specifications Tender Ref Number- 04/22-23 Date: 05-08-2022	1.2	Bid Security/Earnest Money Deposit (EMD) : The total EMD amount is INR 50,00,000 (INR Fifty Lakhs Only) and to be deposited online through the e-Procurement portal	We request you to reduce the Bank Guarantee	No Change , As per RFP
26	1	7.1.5	Performance Security Deposit in the form of a Bank Guarantee from a nationalized bank in India to the purchaser equivalent to the Yearly Minimum Revenue Committed (YMRC), valid for 26 months (2 years and 8 months).	Request you to Clarify the duration of PBG is 26 Months or 2 year 8 months (32 months)	Please refer corrigendum
27	1	Pre-Qualification Criteria	In case of consortium, one of the Bidder shall be designated as a "Lead Bidder". The Consortium / Joint Venture is allowed with up to 2 (two) consortium members including the Lead Bidder. The lead Bidder should have majority stake in the Consortium/ Joint Venture, which may be an incorporated or non- incorporated JV.	We request to amend the clause as " The Consortium / Joint Venture is allowed with up to 2 (two) consortium members excluding the Lead Bidder. The lead Bidder should have majority stake in the Consortium/ Joint Venture, which may be an incorporated or non-incorporated JV." This will increase the no of the participate in the bid. consequently, you will get the most competitive pricing	No Change , As per RFP
28	1	Pre-Qualification Criteria	The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have: Minimum Cumulative Turnover of INR 400 crore in last three financial years AND Minimum Cumulative Turnover of INR 300 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business	We request to amend the clause and reduce the Minimum Cumulative Turnover of INR 200 crore for both the parameters. This will help small telecom companies like us to participate in the bidding process. We further request you to consider OFC laying also in the Minimum Cumulative Turnover	No Change , As per RFP
29	1	Pre-Qualification Criteria	Valid registration/License of IP1 and class A ISP over atleast last 5 years	As the project is completely in Maharashtra. Hence, we request you to to consider Class B license also	No Change , As per RFP

30	1	Special Terms & Conditions	For any leasing request received from prospects/tenants, only PCSCL/PCMC have the —Right to Refuse & Acceptll. The concessionaire shall not have any right to refuse & accept any proposal, nor does it is allowed to undertake any monetization activity of the said infrastructure without the consent of PCSCL/PCMC during the entire contract duration.	we request you to add " if PCSCL does not accept or reject in 10 days, it will be considered as proposal accepted".	No Change , As per RFP
31	1	Special Terms & Conditions	The concessionaire shall not allocate or de-allocate any network infrastructure to any tenant without formal approval from PCSCL/PCMC	we request you to add " if PCSCL does not accept or reject in 10 days, it will be considered as approved".	No Change , As per RFP
32	1	Special Terms & Conditions	The Yearly Minimum Revenue Committed (YMRC) by the concessionaire shall increase proportionately with respect to the increase of —network route length (through expansion of network to cover last mile and/or new route connectivity). The revised/increased MRC shall be applicable from next month of such work completion on pro rata basis.	Rate shall be dependent on the area or Location of expansion and not only on distance.	No Change , As per RFP
33	1	Responsibility Matrix	The concessionaire to take —demolition driver against the identified unauthorized infrastructure being laid in the city with the approval from PCSCL. The cost for the same (except legal charges) shall be borne by the concessionaire.	We request to kindly keep this in the responsibility of PCSCL and Bidder will only inform about the same.	No Change , As per RFP
34	1	Selection criteria & Commercial bid	The minimum base amount for Yearly Minimum Revenue Committed (YMRC) per year is INR 30 cr.	we request to reduce the amount to 10 Cr for initial 3 years and then divide the balance 60 Cr in 7 years	No Change , As per RFP
35	2	Scope of Work	Monetization of 3 Duct and fibre	<p>We would like to understand</p> <ol style="list-style-type: none"> 1.Details of fiber Laid 2.Brief plan of new rollout planned 3.Details of inhouse usage planned such as -Smart city, CCTV etc. 4.Details of commercial establishments located in planned areas like (Small, Medium and Large) 5.Details of housing colonies and broad no of flats/houses area wise 6.No of Kilometers ROW allotted and executed by Telco's and ISPs so far 7.Planned new industrial areas if any. 8.Any new allotments/applications done for Data Center business 9.Current pending Row application. 	As per RFP
36	1	Setup and O&M of Network Operations Centre		We request to clarify the dimension will be given to build the NOC.	As per RFP

37	1	Stage 1: Pre-Qualification6.4.1	<p>The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have: Minimum Cumulative Turnover of INR 400 crore in last three financial years AND Minimum Cumulative Turnover of INR 300 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business</p>	<p>We request you to kindly reduce the turnover eligibility criteria as last 2 years many companies financials were effected due to Covid pandemic .Hence we request you to kindly revise the clause as follows <i>The Sole Bidder/ Lead Bidder (in case of Consortium/ Joint Venture) shall have: Minimum Cumulative Turnover of INR 100 crore in last three financial years AND Minimum Cumulative Turnover of INR 50 crore in last three financial years related to network infrastructure (telecom towers/poles/ducts/OFC) leasing with IP1 business</i></p>	No Change , As per RFP
38	1	Stage 1: Pre-Qualification6.4.1	<p>The Sole Bidder or each of the consortium member (in case of consortium) should have positive net worth in each of the last three financial years AND The Sole Bidder or Lead Bidder (in case of Consortium/ Joint Venture) should have positive net worth of minimum INR 100 cr. as of 31st March 2022</p>	<p>We request you to kindly reduce the Positive network criteria as last 2 years many companies financials were effected due to Covid pandemic .Hence we request you to kindly revise the clause as follows <i>The Sole Bidder or each of the consortium member (in case of consortium) should have positive net worth in each of the last three financial years AND The Sole Bidder or Lead Bidder (in case of Consortium/ Joint Venture) should have positive net worth of minimum INR 50 cr. as of 31st March 2022</i></p>	No Change , As per RFP
39	1	6.4.2 Stage 2 Technical Evaluation	<p>A1. The sole bidder or lead bidder, in case of consortium, should have cumulative turnover in India in last three (03) financial years: <input type="checkbox"/> INR 400 cr. <= INR 1000 cr.: 5 marks <input type="checkbox"/> INR 1000 cr. <= 2000 cr.: 7.5 marks <input type="checkbox"/> > INR 2000 cr.: 10 marks</p>	<p>If the turnover criteria is amended , we request you to kind amend the technical evaluation criteria as follows A1. The sole bidder or lead bidder, in case of consortium, should have cumulative turnover in India in last three (03) financial years: <input type="checkbox"/> INR 100 cr. <= INR 150 cr.: 5 marks <input type="checkbox"/> INR 150 cr. <= 200 cr.: 7.5 marks <input type="checkbox"/> > INR 200 cr.: 10 marks</p>	No Change , As per RFP
40	1	6.4.2 Stage 2 Technical Evaluation	<p>A3. The Sole bidder or lead bidder of consortium, in case of consortium, should have net worth as per the audited financial statements as on 31-03-2022: <input type="checkbox"/> INR 100 cr. <= INR 500 cr.: 5 marks <input type="checkbox"/> INR 500 cr. <= 1000 cr.: 7.5 marks <input type="checkbox"/> > INR 1000 cr.: 10 marks</p>	<p>If the network criteria is amended , we request you to kind amend the technical evaluation criteria as follows A3. The Sole bidder or lead bidder of consortium, in case of consortium, should have net worth as per the audited financial statements as on 31-03-2022: <input type="checkbox"/> INR 50 cr. <= INR 60 cr.: 5 marks <input type="checkbox"/> INR 60 cr. <= 70 cr.: 7.5 marks <input type="checkbox"/> > INR 70 cr.: 10 marks</p>	No Change , As per RFP

41	VOLUME II - Scope of Work Tender Ref Number- 04/22- 23 Date: 05-08- 2022	8.8 (ICCC.REQ.13 4)	The criticality of task within workflow should be dynamically changed depending on the response SLA, for example, in case of delays in response to the task should change the task to high priority task.	Looks SLA management tool (from EMS software) would push the notifications timely to ICCC about its responses as needed to change the status.	The understanding is correct
42	VOLUME II - Scope of Work Tender Ref Number- 04/22- 23 Date: 05-08- 2022	2.5.1	Power Management	It is assume that this solution will connect to the existing system (Power Management) and not connecting to devices/ sensors/ equipment" directly	The understanding is correct
43	VOLUME II - Scope of Work Tender Ref Number- 04/22- 23 Date: 05-08- 2022	2.5.1	Connectivity Management	It is assume that this solution will connect to the existing system (Connectivity Management) and not connecting to devices/ sensors/ equipment" directly	The understanding is correct
44	VOLUME II - Scope of Work Tender Ref Number- 04/22- 23 Date: 05-08- 2022	2.5.1	Network Management	It is assume that this solution will connect to the existing system (Network Management) and not connecting to devices/ sensors/ equipment" directly	The understanding is correct
45	VOLUME III - Legal Specifications Tender Ref Number- 04/22- 23 Date: 05-08- 2022	18.1	The Contract period shall commence from the date of signing of contract and shall remain valid for a period of 10 years and 6 months (126) months from signing of the contract with the provision of the further extension of the contract with mutual consent.	We understand that OEM would need to provide DC UOC platform L2 solution support for the entire O&M period of 10years. However L1 support training would be provided to MSI team to manage the day to day activities. Is this understanding correct?	As per RFP
46	2	1.1	Pole Locations Lat/ Long	Location of Poles available	Kindly refer Corrigendum
47	2	8.7	Tower Strenghtening	Tower Type & Infrastructure Available	No Change , As per RFP
48	2	8.7	Rental to be paid only for the occupied tower or for all locations	Payment of Rent only on the occupied Space	The query is incorrect.
49	2	11	Class A Internet Service Provider (ISP) license	We are IP 1 and Class B ISP license with required experience	No Change , As per RFP

50	1	-	-	We are IP1 licences holder for Telecom Infrastructure. We are interested in Pole sites only. Kindly confirm we can Bid for Pole only, or we can have a separate discussion on same.	No Change , As per RFP
51	-	-	-	We Would like to mention that since the work area for this is Specifically for Pimpri Chinchwad (Maharashtra) only, so we request to amend the Criteria of ISP Category as Class B or to allow ISP Class B to participate in Tender.	No Change , As per RFP
52	-	-	-	Whether PCSCL (through its appointed concessionaire) shall provide last mile connectivity for the already laid other agencies (TSP/ISP/IP1) fibre network?	No Change , As per RFP
53	-	-	-	Who will do the Duct Integration Testing (DIT) of the 3 ducts laid under smart city project, if the duct not in usable condition, who will take the responsibility & accountability for handing over it to the concessionaire for monetization.	No Change , As per RFP
54	-	-	-	Some structural changes may be required for its utilization for 5G network .PCSCL should bear the cost of structural changes in pole as the infra is owned by & to be owned by PCSCL in future.	No Change , As per RFP
55	-	-	-	Bidders requested if PCSCL can provide calculations for 30Cr. Yearly Minimum Committed Revenue (YCMR)	No Change , As per RFP
56	-	-	-	Bidders requested for extension of 3 weeks for the proposal submission timeline.	Please refer Extension Notice
57	-	-	-	Bidders requested for removal of illegal network removal, PCSCL/PCMC should take the ownership. Concessionaire shal only intimate about the illegal network.	No Change , As per RFP
58	-	-	-	Please provide the requirement details of NOC. Also NOC shall be permanent asset of PCSCL, so PCSCL should bear the cost for the same.	No Change , As per RFP

Sd/-
 Joint Chief Executive Officer
 Pimpri Chinchwad Smart City Ltd
 Chinchwad-411019

Signature Not Verified

Digitally signed by NILKANTH DHONDIRAM POMAN
 Date: 2022.08.30 17:25:55 IST
 Location: Maharashtra-MH





PIMPRI CHINCHWAD SMART CITY LIMITED

CIN: U75302PN2017SGC171439

Registered Office: Auto Cluster Development and Research Institute,
2nd Floor, C-181, Chinchwad
Pune- 411019

[e-mail:smartcity@pcmcindia.gov.in](mailto:smartcity@pcmcindia.gov.in)

Extension Notice - 2

To

Tender No.04/22-23

Selection of Concessionaire for providing end to end services for monetization of PCSCL city network infrastructure on 'Revenue Sharing Model'

Attention of prospective bidders is invited to the Tender Notice No.04/22-23 dated 04.08.2022 published in the newspapers i.e. The Times of India, The Indian Express, The Nava Bharat Times, Daily Sakal, The Maharashtra Times and on the website <http://mahatenders.gov.in>

The last date for submission of bids hereby extended as follows:

Sr. No.	RFP Clause	Existing Content	Revised Content
1.	Volume I, Clause 1.2. Datasheet	Bid Submission last Date & Time: 12/09/2022, till 15.00 hrs	Bid Submission last Date & Time: 27/09/2022, till 15.00 hrs

PCSCL/3/WS/329/2022

Date- 12/09/2022

Sd/-

(Shekhar Singh)

Chief Executive Officer,
Pimpri Chinchwad Smart City Limited,
Chinchwad-411019.