



**RAILTEL CORPORATION OF INDIA LTD.**

(A Govt. of India Enterprise)

**Territory Office**

Plot No. 17, 1<sup>st</sup> Floor, Raghunath Nagar,  
Near Shahpura Police station,  
Bhopal MP- 462039

**Western Region Office**

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

**Corporate Office**

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

**Request for Quote**

For

“Selection of Service Provider for Installation,  
Commissioning, Integration and Maintenance of Command  
Center at MP Excise Department”

Tender Ref :- RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4

Dtd. 30/05/2023

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## NOTICE

Tender Ref :- RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

RailTel Corporation of India Ltd invites Tender's via E-Mail with password protected folder from reputed firms for work mentioned in the Scope of this Tender from empaneled BAs. The technical and commercial (price) bids shall be submitted through E-Mail at [bpltooffice@railtelindia.com](mailto:bpltooffice@railtelindia.com) in password protected folder as separate PDF documents up to the end date & time mentioned below.

| S<br>r<br>N<br>o | Description  | Estimated Cost   | Last date<br>& Time<br>for Bid<br>Submission | Date &<br>Time<br>for Bid<br>Open | Completion<br>Period   |
|------------------|--|--|--|-----------------------------------|--|
| 1                | Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department | As per tender document attached<br><br>As per Tender No: RCIL WR-BPL0 MKTG(EB)/UAD D/1/MAY-3/4 Dtd. 25/05/2023 | 07-06-2023<br>15:00 Hrs.                     | 07-06-2023<br>18:00 Hrs.          | As per Tender No: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 |

**Note:** In case of any discrepancy or ambiguity in any clause/specification pertaining to scope of work area, the RFP NO: MPBSCDCL/TENDER NO-268 TENDER No: 268 DATED: 16-05- 2023 NIT No. 268. Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department will be sacroscent **(Copy at annexure–VIII).**

**PRICE BID**

**Please Refer BoQ – Annexure -XX**

Bidder should quote price for end to end SOW wrt -

Tender Ref: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

and subsequent corrigenda. Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department.

**Note:** In case of any discrepancy or ambiguity in any clause/specification pertaining to scope of work area, the Tender noRFP NO: MPBSCDCL/TENDER NO-268 TENDER No: 268 DATED: 16-05- 2023 NIT No. 268 i.e. Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department will be sacroscent (**Copy at annexure–VIII**).

1. The details are as under:

|   |  |   |
|---|--|---|
| 1 | Issue date of “Invitation for Tender document”   | 30-05-2023  |
| 2 | Last date for submission of Tender by applicants | 07-06-2023<br>15:00 Hrs.  |
| 3 | Opening of Tenders                               | 07-06-2023<br>18:00 Hrs.  |
| 4 | Tenders Submission Mode                          | By email (with password protected)  |
| 5 | Completion Period                                | As per Tender Ref :- RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 and Tender Ref. MPBSCDCL/TENDER NO-268 Dtd. 16/05/2023 & subsequent corrigenda. |
| 6 | Estimated Value of Work                          | As per tender attached (Tender Ref. MPBSCDCL/TENDER NO-268 Dtd. 16/05/2023)   |

Tender and all corrigenda will be made available at RailTel Corporation of India’s portal <https://www.railtelindia.com>. EMD Fee of Rs. 800000/- as per tender clause

**(For Bank detail Refer Annexure X)**

# As per Tender No: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 and subsequent corrigenda.

Note: For bid submission, tenderer will have to submit signed and stamped printed copy of the tender document.

1. RailTel intends to look for an Empaneled BIDDER who can help us with Bid Submission & have the ability to take up the work on turnkey basis and who has good connect with the customer and local environment. The bidder shall bear all costs associated with the preparation, submission / participation in the bid. RailTel in no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process.
2. Bidders shall necessarily furnish the details of the valid SD / PBG / Tender fee / fee applicable submitted at time of empanelment for consideration of their offer.
3. Undertaking stating that bidder accept to execute SOW of Tender No: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 and subsequent corrigenda on fully Back to Back basis.
4. Copy of power of attorney issued in favor of signatory
5. The bidder responding to this Tender shall give an undertaking that, if they are successful, then they will not participate in the Tender No: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 and subsequent corrigenda directly or with other direct bidder
6. A pre bid agreement will be signed with successful bidder on non-judicial stamp of adequate value as per final bid value. Format will be shared with successful bidder only

7. Bidder should have aggregate turnover for the last five financial years should not be less than 100% of the value of the tender. If tender is issued in the month of September or prior to September, then last 5 FY shall include the financial year ended in March of last year and in case tender is issued after the month of September then last year should be financial year ended in March of current year.

8. The Bidder must provide acceptance (with documents) on the following:

All payments shall be paid on Bidder back to back basis. RailTel shall make payment to selected Business Associate after receiving payment from the end customer for the successful completion portion. In case of any penalty or deduction made by the end customer, the same shall be deducted from the selected BIDDER.

The BIDDER must have the pre-requisite experience for similar type of work (proof of similar works need to submit inform of PO and completion along with Value)

Bidder will submit No deviation certificate. Bidder will submit non-black listed certificate.

Partner will be chosen as per the policy guidelines of RailTel Corporation of India Ltd. Further evaluation will be carried out.

Please submit your proposal latest by 07-06-2023 upto 15:00 Hrs.

Prospective bidders are required to direct all communications related to this Invitation for Tender document, through the following Help Desk:

|                 |   |  |
|-----------------|---|--|
| Contact (1)     | : | Shri. Anand Kumar  |
| Designation     | : | Deputy General Manager/  |
| Marketing Email | : | <a href="mailto:anandnkn@RailTelindia.com">anandnkn@RailTelindia.com</a> |
| Telephone       | : | +91 7552428644   |
| Mobile          | : | +91 9004444107   |

|             |   |  |
|-------------|---|--|
| Contact (2) | : | Shri. Pavan Kumar Bhargava   |
| Designation | : | Group General Manager/ Territory Manager /Bhopal                   |
| Email       | : | <a href="mailto:pavan@RailTelindia.com">pavan@RailTelindia.com</a> |
| Telephone   | : | +91 7552428644   |
| Mobile      | : | +91 9179005188   |

|       | <b>Check List</b>  |                    |
|-------|--|--------------------|
| Sl No | Document   | Remarks ( Yes/ No) |
| 1     | Offer Letter   | Annexure I         |
| 1     | Proof of Submission of PBG/SD/Tender Empanelment Fee submitted against Empanelment with RailTel  |                    |
| 2     | Copy of LoA/LOI issued by RailTel for confirmation of empanelment.   |                    |
| 3     | Undertaking stating that bidder accept to execute SOW of Tender No: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 25/05/2023 and subsequent corrigenda on fully Back to Back basis.        |                    |
| 4     | Undertaking that, if they are successful, then they will not participate in the Tender No: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 25/05/2023 directly or with other direct bidders. |                    |
| 5     | Compliance certificate format  | Annexure II        |
| 6     | Price Bid  | Annexure IX        |
| 7     | Financial capacity Format  | Annexure IV        |
| 8     | Format for Declaration for acceptance of all Terms & Conditions  | Annexure V         |
| 9     | Non black listed   | Annexure VI        |
| 10    | No deviation certificate   | Annexure VII       |
| 11    | RailTel's bank account detail to deposit EMD   | Annexure X         |

**ANNEXURE-I:**

**OFFER LETTER**

(To be on company letter head)

Tender Ref. - RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

To,  
Executive Director  
RailTel Corporation of India Limited  
Western Railway  
Microwave Complex  
Senapati Bapat Marg,  
Near Railway Sports Ground,  
Mahalaxmi, Mumbai – 400013

Dear Sir,  
SUB: Participation in the Tender.

Having examined the Invitation Tender document bearing the reference number Tender Ref.- RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 released by your esteemed organization, we undersigned, hereby acknowledge the receipt of the same and offer to participate in conformity with the said Invitation for Tender document.

If our application is accepted, we undertake to abide by all the terms and conditions mentioned in the said Invitation for Tender document.

We hereby declare that all the information and supporting documents furnished as a part of our response to the said Invitation for Tender document, are true to the best of our knowledge. We understand that in case any discrepancy is found in the information submitted by us, our Tender is liable to be rejected.

Date:

Signature with seal –

Name: \_\_\_\_\_

Designation: \_\_\_\_\_



**Annexure II: Compliance Certificate**

To,  
Executive Director  
RailTel Corporation of India Limited  
Western Railway Microwave Complex  
Senapati Bapat Marg,  
Near Railway Sports Ground,  
Mahalaxmi, Mumbai – 400013

Sub: Tender Ref. - RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

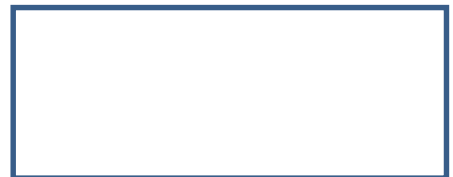
Dear Sir,

This is in response to the Invitation for Tender for the “Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department” in Tender Ref. - RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 25/05/2023.

We have applied against Tender issued by RailTel Corporation of India Ltd. We hereby covenant, warrant and confirm. We hereby comply with all the terms and conditions/ stipulations as contained in the Invitation for Tender document including Tender No: RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023.

Date:

Signature with seal (in the box)



Name:

Designation:

**Annexure-III :**

**PRICE BID**

**As per BoQ annexure – IX**

Bidder should quote price for end to end SOW as per Tender no. RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 and subsequent corrigenda (BOQ attached).

**Note:** In case of any discrepancy or ambiguity in any clause/specification pertaining to scope of work area, the Tender no. RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 i.e. Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department. (**Copy at annexure–VIII**).

**Annexure- IV: Performa for Format for Turnover & Profit & Loss Certificate  
(to be issued by practicing Chartered Accountant on its letter head)**

**TO WHOM IT MAY CONCERN**

Tender Ref. - RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

This is to certify that M/s ..... having its office at ..... are in the business of ..... for ..... Completed years (considered upto 31<sup>st</sup> March 2023) and the date of incorporation is \_\_\_\_\_. Their annual financial Turnover during the preceding five years or from date of incorporation (in case of date of incorporation is within five years of March) are as given below:

| <b>Financial Year</b>   | <b>Turnover<br/>(in Rs Cr)</b> | <b>Profit<br/>/ Loss<br/>(in Rs Cr)</b> |
|---|--------------------------------|---|
| <b>2017-2018</b>  |                                |   |
| <b>2018-2019</b>  |                                |   |
| <b>2019-2020</b>  |                                |   |
| <b>2020-2021</b>  |                                |   |
| <b>2021-2022</b>  |                                |   |
| <b>Gross Five years Turnover for<br/>these Five Financial Years</b> |                                |   |

This is further certified that the above Turnover is in line with the Turnover declared by the Firm in their Income Tax Returns filed under PAN.....

Place.....

Signature.....

Name .....

(Seal)

**Annexure- V: Performa for Declaration of acceptance for all Terms & Conditions**

Declaration for acceptance of all Terms & Conditions of the  
Tender Ref. - RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

1. We M/s (\_\_\_\_\_) having registered office at (Address) \_\_\_\_\_ agree to all the Terms & Conditions of the Tender Ref.- RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023 issued by RailTel.
2. Our offer will remain valid for 180 days from the date of opening of the Tender.
3. We confirm that we have the necessary resources & capabilities to undertake the work as specified in the schedule of work as per all terms and conditions given in the above Tender. We have also understood the process of submitting bid to RAILTEL and Instructions given in the above Tender. Further, we confirm that we shall execute the work against this price discovery forscope as specified in this Tender.
4. We also agree that RailTel has the right to reject all Tender, in part or in full without assigning any reason whatsoever.
5. This Tender along with other documents as stipulated in Tender together with your written acceptance there of shall constitute a binding contract between us.

Date:-

**Name of the Company :-**

**Signature & Seal:-**

## **Annexure VI**

### **Non Black listing Certificate Declaration**

To,  
Executive Director  
RailTel Corporation of India Limited  
Western Railway  
Microwave Complex  
Senapati Bapat Marg,  
Near Railway Sports Ground,  
Mahalaxmi, Mumbai – 400013

Sub: Undertaking of no deviation from Tender/ RFP terms and condition Tender Ref.- RCIL WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

We hereby undertake and submit the declaration that our firm/company is not debarred / black listed for future business with any Central/ State Government organization /CPSU/SPSU in India.

In case, at any stage if the above declaration is found false or incorrect, the Purchaser shall be free to take any punitive/ legal action against us, as may be deemed fit, which shall be acceptable / binding on us and the consequences shall be to our account.

Date:

Name & Signature of Authorized Representative:

Company Seal:

Name of Bidder:

Full Address:

Telephone No.:

## VII

### Format for Statement of No Deviation from the RFP

To,  
Executive Director  
RailTel Corporation of India Limited  
Western Railway  
Microwave Complex  
Senapati Bapat Marg,  
Near Railway Sports Ground,  
Mahalaxmi, Mumbai – 400013

Date: \_\_\_\_\_

Sub: Undertaking of no deviation from Tender/ RFP terms and condition Tender Ref.- RCIL  
WR-BPL0 MKTG(EB)/UADD/1/MAY-3/4 Dtd. 30/05/2023

Dear Sir,

This is to confirm that the proposal/bid submitted by <<\_\_\_\_\_ >>,  
is in complete agreement with the RFP/ Tender and any of the corrigendum(s) or  
amendment(s) issued thereon and there is no deviation whatsoever.

Date:

Name & Signature of  
Authorized  
Representative:

Company Seal:

Name of Bidder:

Full Address:

Telephone No.:

**Annexure VIII**

**MPBSCDCL/TENDER NO-268    Dtd. 16/05/2023**



## REQUEST FOR PROPOSAL

for

**Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department**

**RFP NO:** MPBSCDCL/TENDER NO-268 **TENDER**

**No: 268 DATED: 16-05- 2023**

**NIT No. 268**

***Tender Published By:***

**Bhopal Smart City Development Corporation Limited (BSCDCL), BHOPAL**

***On Behalf of:***

**MP Excise Department**

**RFP Publication Date: 16-05-2023**



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## 1. **Disclaimer**

The information contained in this Request for Proposal document ("RFP") whether subsequently provided to the bidders, ("Bidder/s") verbally or in documentary form by Bhopal Smart City Development Corporation Limited (henceforth referred to as "BSCDCL" in this document) or any of its employees or advisors, is provided to Bidders on the terms and conditions set out in this RFP document and any other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is not an offer or invitation to any party. The purpose of this RFP is to provide the Bidders or any other person with information to assist the formulation of their financial offers ("Bid"). This RFP includes statements, which reflect various assumptions and assessments arrived at by BSCDCL in relation to this scope. This RFP document does not purport to contain all the information each Bidder may require. This RFP document may not be appropriate for all persons, and it is not possible for the Chief Executive Officer, BSCDCL and their employees or advisors to consider the objectives, technical expertise and particular needs of each Bidder. The assumptions, assessments, statements and information contained in the RFP documents, may not be complete, accurate, adequate or correct. Each Bidder must therefore conduct its own analysis of the information contained in this RFP and to seek its own professional advice from appropriate sources.

Information provided in this RFP document to the Bidder is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. BSCDCL accepts no responsibility for the accuracy or otherwise for any interpretation of opinion on law expressed herein.

BSCDCL and their employees and advisors make no representation or warranty and shall incur no liability to any person, including the Bidder under law, statute, rules or regulations or tort, the principles of restitution or unjust enrichment or otherwise for any loss, cost, expense or damage which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, 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.

BSCDCL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. BSCDCL may in its absolute discretion, but without being under any obligation to do so, can amend or supplement the information in this RFP.

The issue of this RFP document does not imply that BSCDCL is bound to select a Bidder or to appoint the Selected Bidder (as defined hereinafter), for implementation and reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any Proof of Concept (PoC), demonstrations or presentations which may be required by BSCDCL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and BSCDCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder

in preparation for submission of the Bid, regardless of the conduct or outcome of the selection process.

## 2. Important Dates

| S. No. | Activity                           | Deadline                   |
|--------|------------------------------------|----------------------------|
| 1      | Release of RFP                     | 16-05-2023 from 18:00 hrs  |
| 2      | Pre bid Meeting Date               | 26-05-2023 till 15:00 hrs  |
| 3      | Last date for submission of Bids   | 15-06-2023 up to 17:30 hrs |
| 4      | Date of opening of Technical bids  | 16-06-2023 at 17:30 hrs    |
| 5      | Date of Technical Presentation     | To be notified later       |
| 6      | Date of opening of Commercial bids | To be notified later       |

### 3. Definitions and Abbreviations

| #   | Term  | Definition   |
|-----|---|--|
| 1.  | Agreement                                   | The contract agreement to be signed between the successful bidder and BSCDCL including all attachments, appendices, all documents incorporated by reference thereto together with any subsequent modifications/changes/corrigendum's, the RFP, the bid offer, the acceptance and all related correspondences, clarifications, presentations. |
| 2.  | Applicable Law                              | Applicable Law means the laws and any other instruments having the force of law in the State of Madhya Pradesh and/or by The Central Government of India as they may be issued and enforced from time to time.   |
| 3.  | Applicable Permits                          | All clearances, permits, authorizations, consents and approvals required to be obtained or maintained by the respective Parties under the Applicable Laws  |
| 4.  | Authority                                   | Here is Authority is referred to as BSCDCL (Bhopal Smart City Development Corporation Limited) or MP Excise Department, BSCDCL is floating this tender on behalf of MP Excise Department.  |
| 5.  | Authorized Representative/ Service Provider | Any person/ Service Provider authorized by either of the parties   |
| 6.  | Bidder                                      | The use of the term "Bidder" in the RFP means the Single Agency / firm/Service Provider who participate in the bidding process.  |
| 7.  | Corrupt Practice                            | The offering, giving, receiving or soliciting of anything of value or influence the action of a public official in the process of contract execution   |
| 8.  | Default Notice                              | The written notice of Default of the Contract issued by one Party to the other in terms hereof   |
| 9.  | EMD   | Earnest Money Deposit (EMD) is a specific form of deposit made by the Bidder to participate in the tendering process. The deposited amount will be refunded to the bidders, without any interest.  |
| 10. | GoI   | Government of India  |
| 11. | Implementation Period                       | The period from the date of signing of the Contract and up to the inauguration or Go-Live of the System.   |



| #   | Term                           | Definition  |
|-----|--------------------------------|---|
| 12. | LoI                            | Letter of Intent, which constitutes the intention of the BSCDCL to place the Work Order with the Successful Bidder.   |
| 13. | Nodal Officer                  | Official appointed by Authority for monitoring of this project  |
| 14. | Period of Contract             | Three (03 Years) from Work Order Date   |
| 15. | Performance Guarantee/Security | Performance Guarantee/ security shall mean the deposit made by the successful bidder, in the form of Demand Draft/Bank Guarantee. Performance Guarantee in the form of a bank guarantee shall be irrevocable and valid for the entire Contract period and an additional period of 90 days thereafter. |
| 16. | Request for Proposal           | The detailed notification seeking a set of solution(s), services(s), materials and/or any combination of them   |
| 17. | Site                           | The location(s) for which the Contract will be signed and where the services shall be provided as per Scope listed in RFP   |
| 18. | Subcontractor                  | Any natural person, private or government entity or a combination of the above to whom any part of the goods to be supplied or execution of any part of the related services is sub contracted by the Service Provider. <b>Subcontracting not allowed.</b>  |
| 19. | Termination Notice             | The written notice of termination of the Contract issued by one party to the other  |
| 20. | Transfer Date                  | The completion date of project, transfer of assets to Authority shall be done on that date.   |
| 21. | Work order                     | A formal order issued by BSCDCL to the successful bidder covering delivery timelines, Service Level Agreement and other terms and conditions  |
| 22. | Lead Bidder                    | “Lead Member of the Bidding Consortium” or “Lead Member”: There shall be only one<br><br>Lead Member, having shareholding more than 51% in the Bidding Consortium, which cannot<br><br>be changed till 1 year from the Commercial Operation Date (CoD) of the Project.                                |

#### 4. RFP Format

The objective of this RFP is to select a Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise office at Bhopal, M.P. The following sections attached are part of Bid Documents.

| Sections   | Description                      |
|------------|----------------------------------|
| Section-1  | Project Profile                  |
| Section-2  | Scope of Work                    |
| Section-3  | Stakeholder Responsibilities     |
| Section-4  | Instruction to Bidders           |
| Annexure-1 | Formats of Pre-Qualification Bid |
| Annexure-2 | Formats of Technical Bid         |
| Annexure-3 | Format of Price Bid              |
| Annexure-4 | Technical Specifications         |
| Annexure-5 | Non-Disclosure Agreement         |
| Annexure-6 | Contract Agreement               |

## 5. Fact Sheet

| S. No. | Item   | Description   |
|--------|--|---|
| 1.     | Name of the Assignment   | Request for Proposal for Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise - office at Bhopal, M.P. |
| 2.     | Method of Selection  | Technical qualification followed by lowest value of financial proposal (L1)   |
| 3.     | PAC  | Rs. 3.53 crore  |
| 4.     | Availability of RFP Documents  | <a href="https://mptenders.gov.in">https://mptenders.gov.in</a>   |
| 5.     | RFP date   | 16-05-2023 from 18:00 hrs   |
| 6.     | RFP Number   | MPBSCDCL/TENDER NO-268  |
| 7.     | Last date and time for submission of Proposal (Proposal Due Date)                                      | 15-06-2023 up to 17:30 hrs<br>On-line on e-procurement Portal:<br><a href="https://mptenders.gov.in">https://mptenders.gov.in</a>   |
| 8.     | Pre Bid Meeting  | 26-05-2023 up to 15:00 hrs.   |
| 9.     | Mode of Bid Submission along with EMD & Bid fee  | Online through eProcurement system<br><a href="https://mptenders.gov.in">https://mptenders.gov.in</a> .   |
| 10.    | Date, time and venue of opening of Pre-qualification and technical proposals on e-procurement platform | 16-06-2023 up to 18:00 hrs.<br>Venue: Bhopal Smart City Development Corporation Limited, Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda, Bhopal, Madhya Pradesh 462023"           |
| 11.    | Date, time and Venue of opening of financial proposal  | To be intimated to the technically qualified bidders at a later date  |
| 12.    | Bid Processing Fee (Non-refundable)  | Rs. 15,000 /- plus applicable GST @ 18% (non-refundable)<br>To be submitted online on e-portal  |
| 13.    | Bid Security / EMD (Refundable)  | Rs 8,00,000/- (Rs Eight Lakh only)<br>The EMD is payable Online Payment through MP E-Tenders Portal.  |
| 14.    | Performance Bank Guarantee   | 5% of the total Project Cost  |
| 15.    | For any enquiries and clarifications, please contact:  | Chief Executive Officer (CEO), Bhopal Smart City Development Corporation Limited<br><b>Email: bscdcl@smartbhopal.city</b>   |

| S. No. | Item                     | Description   |
|--------|--------------------------|---|
| 16.    | Validity of the Proposal | Bidder proposals shall remain valid for a period of 90 days from last date of submission of Bid.  |
| 17.    | Currency                 | Currency in which the Bidders may quote the price and will receive payment is Indian Rupees only. |

**Important Note:** Proposals/Bids submitted without Bid processing fee and Bid Security/EMD shall summarily be rejected.

## 6. Section 1: Project Profile

### 6.1 Project Background

Excise Department Madhya Pradesh is one of the major revenue earning departments for the Government of Madhya Pradesh. Excise Department Madhya Pradesh office intends to develop Command & Control Center for monitoring of their Production Units, Warehouses & Retail Outlets at their premises, and develop multiple analytics for the decision making of the authority. This command center shall be hosted at Bhopal Smart City data center.



At the moment, Excise department has integrated with E-Abkari Portal developed by NIC for various activities like Licensing, revenue tracking, payments etc.

There are 35 production units across the state licensed by Abkari Department for the production of various kind of liquors.

Excise Department have given licensed to approx. 35 Production Units (PU) in which Office In Charge (OIC) has been deployed by the government for the end to end monitoring of production and leakages. Further, as a part of their work, there are certain formats (paper form) which are to be filled on daily basis by the OIC to update regarding the production and facility operations to the department.

Liquor from these Production Facilities is then transferred to Warehouse (15 Nos Foreign Liquor Warehouse + 107 Country Liquor Warehouse) across the state via Loading Vehicles. These vehicle are provided with permits by Excise Department to conduct such activity. Any random vehicle cannot do that.

### 6.2 About the Project

The operations of the Organization centre around the enforcement of regulations relating to the manufacture, production, possession, distribution, transport, supply, selling and buying of spirit and bottled liquor. The Organization strives to achieve the twin needs of preventing the manufacture, supply and distribution of illicit/counterfeit/spurious liquor and/or non paid goods and attaining the full realizable revenue potential of the State since prohibition is not a viable option. Excise Department Madhya Pradesh is committed to provide professional law enforcement services, protecting rights of the individuals, preventing crime and

building community.

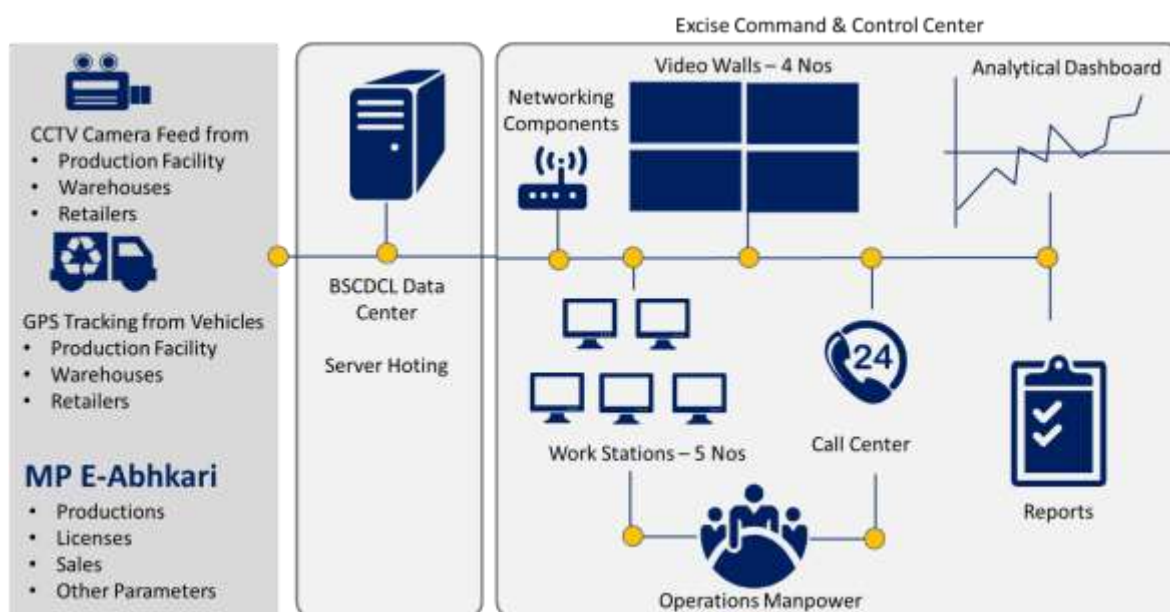
Currently, 35 Production Units are equipped with cameras at Entry, Exits, Bottling Units, Stocking facilities and are being monitored by Excise Department mostly via Public IP. Transportation of Liquor via Loading Vehicles are equipped with GPS devices (If some vehicles are not equipped with GPS devices then department will comply the same.)

Logs of the stocks, licenses, production, Sales etc. are maintained on the E-Abkari Portal

### 6.3 Detailed Scope of Project

As a part of first requirement all these Production Facilities shall be installed with ANPR Cameras (Excise Department will provide the ANPR cameras) to monitor the entry and exit of the vehicles at these facilities. Later, as a part of Command Center development, ANPR monitoring system with required analytics to be developed. Also, all these vehicles have to be monitored via GPS System and exact time of the entry and exit of the vehicle in the facility is to be monitored to detect leakages

**Broad scope involves:**



1. Development of Excise Command & Control Center
  - a. Civil Upgradation & Interiors for the Command Center Development
  - b. Installation & Commissioning of IT & Non-IT Infrastructure
  - c. Installation & Commissioning of Networking Equipment's
  - d. Commissioning of Command Center Application & Integration with Field Infrastructure
    - i. Command Center Application
    - ii. Video Management System
    - iii. Automatic Number Plate Recognition System
    - iv. Vehicle Tracking Management System
    - v. Call Center Management System
    - vi. Reporting Generation

- e. Development and Commissioning of Analytical Dashboard
  - i. Integration with Excise E-Abkari Portal
  - ii. Development as per agreed Use Cases
  - iii. Report Generation
- f. Deployment of Operational Manpower
- 2. Installation of IT Infrastructure at the place of MP Excise Department choice**
  - a. Installation of Data Center Infrastructure and Integration with Excise Command Center
  - b. Commissioning of Data Center with Excise Command Center through secure IP
3. Operations & Maintenance for a period of 36 Months

### **Detailed Activities**

- 1) Development of Excise Command & Control Center
  - a. Civil Upgradation & Interiors for the Command Center Development
    - i. False Ceiling (Approximate 1000 Sq. Ft. area) – Fiber Reinforced Plastic covering entire ceiling hanged with formwork of metal channel
    - ii. Floor Carpet (Approximate 1000 Sq. Ft. area)- suitable for command center use
    - iii. Wall Paneling for Video Wall (approximate 25 Ft Width X 12 Ft Height)
    - iv. Wall Papers for remaining walls of the Command Center
    - v. Sofa set 5 seater with Glass table for Authority
    - vi. Elevated Floor (Wooden) for Sofa Set and Glass Table (10Ft X 20 Ft)
    - vii. Electrical Fittings as per site requirements
    - viii. Lights Fixtures as per site requirements
    - ix. Glass Door for entry/exit with handlebars -1 Nos
    - x. Glass panels with matt finish for Windows – 4 Nos
    - xi. Stainless Steel Logo mentioning “Excise Command & Control Center”
    - xii. Air Conditioner Split type 2 Ton each – 3 Nos
    - xiii. Fire Safety System -1 Nos
    - xiv. Rodent Repellant System -1 Nos
    - xv. Any additional infrastructure as required and proposed by Service Provider
  - b. Installation & Commissioning of IT & Non-IT Infrastructure
    - i. Video Walls 70 Inches – 4 Nos (2X2 Matrix)
    - ii. Work-Stations with 3 Display each – 5 Nos
    - iii. IP Phones – 6 Nos
    - iv. Printer – 1 Nos
    - v. Access Control System at Entry/Exit Gate
    - vi. WiFi & Routers – Set
    - vii. Online UPS System 5KVA as per requirements
    - viii. Dome Cameras for Surveillance
  - c. Installation & Commissioning of Networking Equipment's
    - i. Switches
    - ii. Routers
    - iii. 9U Rack
    - iv. 100 MBPS Redundant Internet Lease Line (ILL) – shall be provided by Excise Department
- b) Commissioning of Command Center Application & Integration with Field Infrastructure
  - a. Command Center Application
    - i. Central Application for the management of Command Center



activities

- b. Video Management System – Integration of Field CCTV Cameras (15,622 Nos) with Command Center
  - i. 35 Nos Production Units – 10 CCTV Camera each Unit: 350 CCTV Cameras
  - ii. 30 Nos Importer Units – 4 CCTV Camera each Unit: 120 CCTV Cameras
  - iii. 122 Nos Warehoused – 6 CCTV Camera each warehouse: 732 CCTV Cameras
  - iv. 3605 Retail Shops & Bars – 4 CCTV Camera each: 14,420 CCTV Cameras
  - v. Note: CCTV Cameras may increase of decrease at the time of implementation or during the operations phase. Service provider should propose and design the system accordingly.
  - vi. Primary target is to surveillance the Production Units, Importer units and warehouses. Retail shops shall be integrated once the production units, importer units and warehouses are integrated and monitored.
  - vii. Flagged Data Feed shall be stored for 90 days.
  - viii. Unflagged data (FIFO) feed shall be stored for 30 days.
  - ix. Detailed Function Requirements have been described in Functional & Technical Specifications section.
- c. Automatic Number Plate Recognition System (ANPR) – Integration of Field Sensors ( 377 Nos ANPR Cameras) with Command Center
  - i. 35 Nos Production Units – 2 ANPR Camera each Unit: 70 ANPR Cameras
  - ii. 30 Nos Importer Units – 2 ANPR Camera each Unit: 60 ANPR Cameras
  - iii. 122 Nos Warehoused – 2 ANPR Camera each warehouse: 244 ANPR Cameras
  - iv. Authority intends to track the vehicle with permit entering/exiting the premises like production facility, warehouses etc and match with the permits released by E-Abkari portal. The overall intent is the eliminate the leakages in the system. **Intends to check with list of permitted vehicles.**
  - v. Note: ANPR Cameras may increase of decrease at the time of implementation or during the operations phase. Service provider should propose and design the system accordingly.
  - vi. All the entry and exit data of the Vehicles should be stored for 90 days.
  - vii. Detailed Function Requirements have been described in Functional & Technical Specifications section.
- d. Vehicle Tracking Management System – Tracking of GPS Devices Installed in the permitted vehicle carrying products
  - i. Permits are given by Excise department for the logistics of the products from Production Facility to Warehouse to Retail shops etc. which includes all the instate and outstate export & logistics vehicles.
  - ii. These permit vehicles shall be mandated to have GPS devices installed.
  - iii. Integration of these GPS devices is to be through Vehicle Tracking



- Management System.
- iv. At one day duration, almost 1000 permits are released by the abkari department for the logistics. Service Provider shall ensure that tracking of the vehicle is done in efficient manner.
- v. Data from ANPR system and GPS location is to be overlapped and assessed to check whether the vehicle entering the premises and the vehicle being tracked are the same vehicle. The intent is to eliminate the leakages in the system and improve efficiency.
- vi. All the vehicle movement data should be stored for 90 days
- vii. Detailed Function Requirements have been described in Functional & Technical Specifications section.
- e. Call Center Management System – Dedicate Call Center 5 Lines to be set up for grievance redressal and compliant management for all the abkari related calls.
  - i. Dedicate PRI line shall be provided by Excise Department
  - ii. Call related to grievance, illegal sale, sale above retail price shall be received at the call center. On a daily basis 100 Nos call are expected.
  - iii. Operators provided by Service Provider shall be receiving the call and registering the complaints.
  - iv. Ticketing management system shall be provided and operated by the service Provider (SERVICE PROVIDER).
  - v. Detailed Function Requirements have been described in Functional & Technical Specifications section.
- f. Reporting Generation
  - i. Reports in the format prescribed by generated by the Service Provider in regular intervals.
  - ii. Reports shall be shared via mail or any other medium prescribed by the Authority.
  - iii. Service Provider should keep the database of all the data & reports generated for the contract period and hand over it to authority at the time of exit management.
- c) Development and Commissioning of Analytical Dashboard
  - a. Integration with Excise E-Abkari Portal (shall be facilitated by Excise Department)
    - i. Abkari department shall provide an API integration with NIC server for all the E-Abkari related data of the state. The data shall be stored in the proposed data center.
    - ii. Basis the data available, Service Provider shall develop the Analytical Dashboard for the excise department.
    - iii. Detailed use cases to be developed under the analytical dashboard has been defined in the Function Requirement section.
    - iv. Please be noted that analytical use cases can be developed apart from already mentioned in the RFP based on the authority/excise department requirements. Service Provider shall be developing it during the operational phase as well at no added cost. The manpower i.e. Data Scientist shall be responsible for the respective tasks.
  - b. Development as per agreed Use Cases
    - i. A list of use cases has been defined in the RFP basis the E-abkari data lake and departmental requirements.
    - ii. Service provider shall develop the analytics and reports in the

directed framework as per instruction by department.

- c. Reporting Generation
  - i. Reports in the format prescribed by generated by the Service Provider in regular intervals.
  - ii. Reports shall be shared via mail or any other medium prescribed by the Authority.
  - iii. Service Provider should keep the database of all the data & reports generated for the contract period and hand over it to authority at the time of exit management.

d) Deployment of Operational Manpower

- a. Service provider shall deploy the requirement manpower as per RFP requirements during the operational phase of the project.
- b. Project manager shall be deployed since the inception of the project for the implementation phase as well.
- c. Project Manager's billing shall only be starting from the operational period or post g-live of the project.
- d. Other resources like Data Scientist, Data Supervisor and Operators shall be deployed post project go-live of the project.
- e. All the technical manpower required during the implementation phase shall be deployed by the service provider at its own cost without any cost implication until the project go-live.
- f. Any technical resources required for the project during the operational phase shall be deployed by the service provider. The resource can support remotely based on the requirements. No additional cost shall be paid by the authority for the support.

2) Development of Data Center at Bhopal Smart City (ICCC DC) Premises

- a. Installation of Data Center Infrastructure and Integration with Excise Command Center
  - i. Proposed Data Center infrastructure under the RFP shall be deployed at Bhopal Smart City ICCC data Center. Please be noted that the location of Data Center can be changed to State Data Center based on the instruction from Excise department. This shall be notified during the time of implementation.
  - ii. BSCDCL shall provide access to Data Center premises to Service Provider technical manpower for the installation and commissioning of the IT equipment's.
- b. Commissioning of Data Center with Excise Command Center through secure IP
  - i. Data Center at Bhopal Smart City shall be connected with Excise Command & Control Center through secured IP.
  - ii. Service Provider shall take redundant internet lease line (ILL) of 100 MPBS each for the connectivity at BSCDCL Data Center
  - iii. Service Provider shall ensure that there is highest uptime with respect to internet connectivity.

3) Operations & Maintenance for a period of 36 Months

- a. Post project go-live, the operations phase of 36 months shall started for the project.
- b. Service provider shall ensure that there is no deviation in the Service Level and maximum required SLAs are maintained.

- c. Availability of trained personnel: The service provider should have a team of trained and experienced personnel who are capable of operating and maintaining the command and control center. They should have the necessary technical expertise, communication skills, and ability to work under pressure.
- d. Adequate equipment and infrastructure: The service provider should ensure that the command and control center has the necessary equipment and infrastructure to support its operations. This includes hardware, software, communication systems, power backup, and other critical facilities.
- e. Effective maintenance and support: The service provider should have a robust maintenance and support system in place to ensure that the command and control center is always operational. This includes regular inspections, preventive maintenance, and prompt repair of any faults or failures.
- f. Reliable communication channels: The service provider should ensure that there are reliable communication channels between the command and control center and other relevant parties, including emergency responders, law enforcement agencies, and other stakeholders.
- g. Compliance with regulatory requirements: The service provider should ensure that the command and control center operates in compliance with all relevant regulatory requirements, including data privacy laws, security standards, and other relevant regulations.
- h. Continuous improvement: The service provider should continuously evaluate the performance of the command and control center and implement necessary improvements to enhance its functionality, efficiency, and effectiveness.
- i. By meeting these conditions, the service provider can ensure that the operational phase of the command and control center project is successful and contributes to achieving the desired outcomes.

## 6.4 Inception Phase

### Site Survey and Assessment Phase

The Agency will be responsible for preparation of detailed project plan. The plan shall address at the minimum the following:

- i. Define an organized set of activities for the project and identify the interdependence between them.
- ii. Resource planning and loading for each phase/activity. This must also indicate where each resource would be based during that phase, i.e. onsite at the Command Center location or off site at AGENCY premises.
- iii. Establish and measure resource assignments and responsibilities
- iv. Highlight the milestones and associated risks
- v. Communicate the project plan to stakeholders with meaningful reports.
- vi. Measure project deadlines and performance objectives.

- vii. Project Progress Reporting. During the implementation of the project, the AGENCY should present weekly reports. This report will be presented in the steering committee meeting to BSCDCL. The report should contain at the minimum the under mentioned:
  - i. Results accomplished during the period (weekly)
  - ii. Cumulative deviations from the schedule date as specified in the finalized Project Plan
  - iii. Corrective actions to be taken to return to planned schedule of progress
  - iv. Plan for the next week
  - v. Proposed revision to planned schedule provided such revision is necessitated by reasons beyond the control of AGENCY
  - vi. Support needed
  - vii. Highlights/lowlights
  - viii. Issues/Concerns
  - ix. Risks/Show stoppers along with mitigation
  - x. Details of Manpower deployed
- b. Procurement and Delivery Status
- viii. Identify the activities that require the participation of client personnel (including BSCDCL, Police Department, the Program Management Unit etc.) and communicate their time requirements and schedule early enough to ensure their full participation at the required time.

## 6.5 Requirement Phase

The Service Provider must perform the detailed assessment of the business requirements and IT requirements as mentioned in this RFP. Based on the understanding and its own individual assessment, AGENCY shall develop the BOQ in consultation with BSCDCL and its representatives. While doing so, SERVICE PROVIDER at least is expected to do following:

- i. SERVICE PROVIDER shall develop and follow standardized template for requirements capturing and system documentation.
- ii. SERVICE PROVIDER must maintain requirement traceability matrix from FRS/SRS stage for the entire implementation.
- iii. SERVICE PROVIDER must get the sign off from user groups formed by BSCDCL.
- iv. For all the discussion with BSCDCL team, SERVICE PROVIDER shall be required to be present at BSCDCL office with the requisite team members.
- v. Prior to starting the site clearance, the SERVICE PROVIDER shall carry out survey of field locations as specified in RFP.
- vi. Internet Connectivity and Electricity Supply Support shall be provided by the Excise Department for the project.

## 6.6 Development Phase

The SERVICE PROVIDER shall carefully consider the scope of work and provide a solution that best meets the project's requirements. Considering the scope set in this RFP, the SERVICE PROVIDER shall carefully consider the solutions it proposes and explicitly mention the same in the technical proposal. The implementation of the application software will follow the procedure mentioned below:

- a. Software Products (Configuration and Customization): In case SERVICE PROVIDER proposes software products the following need to be adhered:
  - i. SERVICE PROVIDER will be responsible for supplying the application and licenses of related software products and installing the same so as to meet project requirements.
  - ii. SERVICE PROVIDER shall have provision for procurement of licenses in a staggered manner as per the actual requirement of the project.
  - iii. SERVICE PROVIDER shall also supply any other tools & accessories required to make the integrated solution complete as per requirements. For the integrated solution, the SERVICE PROVIDER shall supply:
    - Software & licenses.
    - Supply tools, accessories, documentation and provide a list of the same. Tools and accessories shall be part of the solution.

### **6.7 Integration Phase**

The Command Center at Excise Department Madhya Pradesh shall be integrated with E-Abkari Application and other related and relevant application as directed by the authority. Service Provider shall work in close coordination with the existing agencies for API integration for smooth and seamless data feed transfer.

### **6.8 Go-Live Preparedness and Go-Live**

- a. SERVICE PROVIDER shall prepare and agree with BSCDCL, the detailed plan for Go-Live (in-line with BSCDCL's implementation plan as mentioned in RFP).
- b. The SERVICE PROVIDER shall define and agree with BSCDCL, the criteria for Go-Live.
- c. The SERVICE PROVIDER shall ensure that all the data migration is done from existing systems.
- d. SERVICE PROVIDER shall submit signed-off UAT report (issue closure report) ensuring all issues raised during UAT are being resolved prior to Go-Live.
- e. SERVICE PROVIDER shall ensure that Go -Live criteria as mentioned in User acceptance testing of Project is met and SERVICE PROVIDER needs to take approval from BSCDCL team on the same.
- f. Go-live of the application shall be done as per the finalized and agreed upon Go-Live plan.

### **6.9 Maintenance**

Success of the Project would lie on how professionally and methodically the entire Project is managed once the implementation is completed. From the SERVICE PROVIDER perspective too this is a critical phase since the quarterly payments are linked to the SLA's in the post implementation phases. SERVICE PROVIDER thus is required to depute a dedicated team of professionals to manage the Project and ensure adherence to the required SLAs. SERVICE PROVIDER shall provide operations and maintenance services for the software, hardware and other IT and Non-IT infrastructure installed as part of the project after Go-Live for a period of 3 years. Warranty period of the product supplied under project i.e hardware, software, IT/Non-IT etc., will be considered after phase wise Go-Live.

### **6.10 Data Sharing and Data Privacy**

Service Provider shall ensure that all the user data, operations data, commute data etc. shall be

secured within the system with highest order of security. No breach of any kind with respect to data sharing and security shall be tolerated. Service Provider shall require prior permission of the authority before using the data for any third party. Data breach if found in any case whatsoever shall be the responsibility of the Service Provider and their impact thereafter. Only limited access of the ICCC shall be provided upon request post due diligence. No or only limited access to the data center shall be provided to Service Provider. No third-party data sharing devices shall be used. Only encrypted and secured gateway devices for any kind of data sharing shall be used. The application access should be user based and password protected.

#### **6.11 Warranty support**

- a. Service Provider shall provide comprehensive and on-site warranty for complete project duration for the infrastructure deployed on the project. Service Provider need to have OEM support for these components and documentation in this regard need to be submitted to BSCDCL on bi-annual basis.
- b. Service Provider shall provide the comprehensive & onsite manufacturer's warranty in respect of proper design, quality and workmanship of all hardware, equipment, accessories etc. covered by the RFP. Service Provider must warrant all hardware, equipment, accessories, spare parts, software etc. procured and implemented as per this RFP against any manufacturing defects during the warranty period.
- c. Service Provider shall provide the performance warranty in respect of performance of the installed hardware and software to meet the performance requirements and service levels in the RFP.
- d. Service Provider is responsible for sizing and procuring the necessary hardware and software licenses as per the performance requirements provided in the RFP.
- e. During the warranty period Service Provider shall maintain the systems and repair/replace at the installed site, at no charge to BSCDCL, all defective components that are brought to the Service Provider's notice.
- f. The Service Provider shall carry out Preventive Maintenance (PM) of all hardware and testing for virus, if any, and should maintain proper records at each site for such PM. The PM should be carried out at least once in six months.
- g. The Service Provider shall carry out Corrective Maintenance for maintenance/troubleshooting of supplied hardware/software and support infrastructure problem including network (active/passive) equipment, security and rectification of the same.
- h. Service Provider shall monitor warranties to check adherence to preventive and repair maintenance terms and conditions.



### **6.12 Common guidelines regarding compliance of systems/equipment**

1. The specifications mentioned for various IT / Non-IT components are indicative requirements and should be treated for benchmarking purpose only. SERVICE PROVIDER s are required to undertake their own requirement analysis and may propose higher specifications that are better suited to the requirements.
2. Any manufacturer and product name mentioned in the Tender should not be treated as a recommendation of the manufacturer / product.
3. All IT Components should support IPv4 and IPv6
4. All IT/Electronics components shall be in compliance to the IEC/ISI/BSI standards as applicable
5. SERVICE PROVIDER should adhere with the open standard oneM2M wherever applicable during solution design and implementation
6. The specifications provided in this RFP are indicative and carry guiding rule. The SERVICE PROVIDER is free to offer better and superior products and solutions which meet requirements of the RFP focusing on the outcome, future scalability, security, reliability and adherence to specified SLA under this RFP, in line with applicable standards & best practices adopted in the industry. The SERVICE PROVIDER is encouraged to design an Optimized solution which is technically superior, innovative, proven, better in terms of functionality and is cost effective. Any specified parameters mentioned in the scope/technical requirement in the RFP may be considered if it is required for meeting current & future requirements during the contract period. Necessary justification should be given in Technical solution accordingly. The SERVICE PROVIDER is fully responsible for the specified outcome to be achieved.
7. Bidders should provide complete make, model, for all equipment/software quoted, in the Technical Bid. Technical Bid should also be accompanied by OEM's product brochure / datasheet (wherever applicable).
8. Bidder should ensure that only one make and model is proposed for one component in Technical Bid
9. Bidders should ensure warranty and support for equipment from OEMs during the contract period.
10. All equipment, parts should be original and new.
11. For custom made modules, industry standards and norms should be adhered to for coding during application development to make debugging and maintenance easier. Object oriented programming methodology must be followed to facilitate sharing, componentizing and multiple use of standard code. Before hosting the application, it shall be subjected to application security audit (by any of the CERTIN empanelled vendors) to ensure that the application is free from any vulnerability; and approved by the BSCDCL.
12. All the Clients Machines / Servers shall support static assigned IP addresses or shall obtain IP addresses from a DNS/DHCP server.
13. SERVICE PROVIDER is required to ensure that there is no choking point / bottleneck anywhere in the system (end-to-end) and enforce performance and adherence to SLAs. SLA reports must be submitted as specified in the Bid without fail.
14. All the hardware and software supplied should be from the reputed Original

Equipment Manufacturers (OEMs). BSCDCL/or any other authorized Service Provider as nominated by the Authority reserves the right to ask replacement of any hardware / software if it is not from a reputed brand and conforms to all the requirements specified in the RFP documents.

15. All licenses should be in the name of the Bhopal Smart City Development Corporation Limited (BSCDCL)

NOTE: For all supply equipment's, registered service/support center of the respective OEM should be existing or established in India within 30 days of award of contract.

### 6.13 Project Duration, Timeline, Milestones and Payment Terms

The project duration is 39 months (3 Years) from the Work Order date, where timeline for implementation and installation is Three (03) months and Maintenance for remaining duration of 36 months is envisaged.

Note:

1) No Mobilization Advance shall be provided to the Service Provider

| Miles tone | Phase                             | Deliverables   | Project Timelines    | Payments  |
|------------|-----------------------------------|--|----------------------|---|
|            | LOI                               | 1. Signing of LOI<br>2. Submission of PBG  | T0                   | NIL   |
| M0         | Agreement                         | Agreement Signing  | T1=<br>T0+15<br>days | NIL   |
| M1         | Site Survey Assessment and Design | 1. CONOPS document<br>2. Functional Requirement Specification document, System Requirement Specification document, Requirements Traceability Matrix<br>3. Site Survey Report<br>4. Final Bill of Quantity<br>5. HLD documents<br>6. LLD documents<br>7. Application architecture documents.<br>8. Technical Architecture documents.<br>9. Network Architecture documents.<br>10. ER diagrams and other data modeling documents.<br>11. Logical and physical database design.<br>12. Data dictionary and data definitions.<br>13. GUI design (screen design, navigation, etc.).<br>14. Test Plans | T1+15<br>Days        | NIL<br><br><i>Note: No payment shall be against the documentation, however all above documents are mandatory to be submitted as a part of milestone M1.</i> |



| Mile stone                  | Phase                                       | Deliverables  | Project Timelines | Payments   |
|-----------------------------|---|---|-------------------|--|
|                             |   | 15. SoPs<br>16. Change management Plan  |                   |  |
| <b>Implementation Phase</b> |   |   |                   |  |
| M2                          | Supply & Installation of Hardware Materials | 1. Delivery Challan Report<br>2. Civil Upgradation Report<br>3. IT and Non-IT Infrastructure Installation & Commissioning of Command Center & Report  | T1+45 Days        | 30% of CAPEX Cost  |
| M3                          | Application UAT                             | Application deployment configuration report & Integration Testing Report<br>1. Command Center Application<br>2. Video Management System Application<br>3. Vehicle Tracking & ANPR System<br>4. Call Center Management Application<br>5. Analytics Dashboard (E-Abkari Portal) | T1+ 60 Days       | 20% of CAPEX Cost<br><br>Payment of 20% has been distributed according the following:<br><br>1. Command Center Application – 2.5%<br>2. Video Management System Application – 2.5 %<br>3. Vehicle Tracking & ANPR System – 2.5%<br>4. Call Center Management Application – 2.5%<br>5. Analytics Dashboard (E-Abkari Portal) – 10%                                    |
| M4                          | Go-Live                                     | 1. Application Testing & Go-Live Report:<br><br>A. Command Center Application<br>B. Video Management System Application<br>C. Vehicle Tracking & ANPR System<br>D. Call Center Management Application<br>E. Analytics Dashboard (E-Abkari Portal)                             | T2= T1+90 Days    | 30% of CAPEX Cost<br><br>Payment of 30% has been distributed according the following:<br><br>1. Application Testing & Go-Live Report:<br><br>A. Command Center Application 2.5%<br>B. Video Management System Application 2.5%<br>C. Vehicle Tracking & ANPR System 2.5%<br>D. Call Center Management Application 2.5%<br>E. Analytics Dashboard (E-Abkari Portal) – |

| Mile stone              | Phase  | Deliverables  | Project Timelines | Payments  |
|-------------------------|--|---|-------------------|---|
|                         |  |   |                   | 10%   |
| <b>Operations Phase</b> |  |   |                   |   |
| M5                      | Operations and Maintenance Period<br><br><i>Note: EMS System generated reports shall only be accepted, no physical/excel/soft reports entertained. Authority to validate the EMS generated reports, before proceeding with each quarterly payments</i> | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q1= T2 +3 Months  | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|                         |  | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q2= T2 +6 Months  | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|                         |  | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q3= T2 +9 Months  | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|                         |  | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q4= T2 +12 Months | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|                         |  | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q5= T2 +15 Months | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |

| Mile stone | Phase | Deliverables  | Project Timelines  | Payments  |
|------------|-------|---|--------------------|---|
|            |       |   |                    | Capex Cost  |
|            |       | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q6= T2 +18 Months  | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|            |       | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q7= T2 +21 Months  | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|            |       | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q8= T2 +24 Months  | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|            |       | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q9= T2 +27 Months  | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|            |       | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q10= T2 +30 Months | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of            |

| Milestone | Phase | Deliverables  | Project Timelines  | Payments  |
|-----------|-------|---|--------------------|---|
|           |       |   |                    | Capex Cost  |
|           |       | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q11= T2 +33 Months | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |
|           |       | <ol style="list-style-type: none"> <li>Quarterly report for Manpower Deployed (along with attendance)</li> <li>Quarterly report for Maintenance Activities</li> </ol> | Q12= T2 +36 Months | Equal Quarterly Payment based on the quoted Yearly On Value for respective year post deduction of Quarterly SLA Penalty<br><br>+ Equal Quarterly Payment from 20% of Capex Cost |

Note: Abkari Department approvals shall be required before the release of each Milestone Payment.

#### 6.14 Manpower Deployment

The Service Provider shall be required to establish the helpdesk and provide facilities management services to support the Excise Command Center and stakeholder department officials in performing their day-to-day functions related to this system.

The Service Provider shall setup a central helpdesk dedicated (i.e. on premise) for the Project, which shall be supported by individual smart city command centers, implemented and proposed to be setup under the Programme. This helpdesk would be operational upon operations phase of the Project. Providing helpdesk/support services from a shared facility of any other party/provider is not permitted.

Functional requirements of the helpdesk management system, fully integrated with the enterprise monitoring and network management system. The system shall be accessed by the stakeholder department officials for raising their incidents and logging calls for support. The detailed service levels and response time, which the Service Provider is required to maintain for provisioning of the Command Center services are described in the Service Level Agreement of this Tender.

Service Provider shall deploy Manpower during implementation and O&M phases. The deployed resource shall report to Excise Department Project In-charge and work closely with Program Management Office of the project. Following are the minimum resources required to be deployed in the Project, however SERVICE PROVIDER may deploy additional resources based on the need of the Project and to meet the defined SLAs in this RFP:

| Sr. No. | Resource                                  | Quantity | Deployment Type   |
|---------|---|----------|-------------------|
| 1       | Project Manager cum Senior Data Scientist | 1        | Full Time On-Site |
| 2       | Data Scientist                            | 1        | Full Time On-Site |
| 3       | Data Supervisor                           | 2        | Full Time On-Site |
| 4       | Operations Staff                          | 10       | Full Time On-Site |

As specified in the Technical Bid Evaluation Framework, Authority will give high importance on the quality and competence of the technical manpower proposed for the project. Bidder are required to propose separate resources for different skill-sets (during Design, Project Implementation & Post-Implementation). Following documentation is expected in this section:

- Overall Project Team (For Operations Phases)
- Escalation Chart for the entire Project Duration
- Summary Table giving Qualification, Experiences, Certifications, Relevance
- Detail of the proposed resources in the Format

*Note: Key position profiles: Project Manager cum Senior Data Scientist and Data Scientist shall not be allowed to be replaced for atleast one year of the operations period, in any case of replacement during exceptional circumstances three months of notice period is mandatory to be served by the resource for smooth knowledge transfer and the replaced resource shall have equal or higher qualification.*

## **7. Service Level Agreements**

### **1. Purpose of Service Levels**

The purpose is to define/measure the levels of the Service provided by SERVICE PROVIDER to the Authority for the duration of the Agreement. The benefits of this are:

- Implement a process to define Service level parameters or permissible threshold within which SERVICE PROVIDER would be required to perform the Services, and failure of performing the Services by SERVICE PROVIDER within the said acceptable parameters would be considered as a deficiency in Services;
- help the Authority control the levels and performance of SERVICE PROVIDER's Services; and
- alert SERVICE PROVIDER to improve its Services and/or remove deficiencies in Services in case the Service Levels agreed between the Authority and SERVICE PROVIDER are breached by SERVICE PROVIDER

### **2. Service Level Agreements & Targets**

- a. The SERVICE PROVIDER agrees and acknowledges that the works and services in relation to the Project are to be performed in strict compliance with the requirements of the Agreement. In the event of the failure of the SERVICE PROVIDER to duly perform the said works and services in accordance with the aforesaid requirements, the SERVICE PROVIDER agrees and acknowledges that it shall be required to pay the corresponding extent of liquidated damages as specified in respect thereto in terms of the Schedules, which amounts, shall be deemed to not be by way of penalty, and shall represent a genuine pre-estimate of the loss and damage occurring to Authority, on account of the relevant non-compliance and/ or failure of the SERVICE PROVIDER.
- b. Provided however that, on or prior to the Appointed Date, the SERVICE PROVIDER shall provide a report to Authority setting out the specific provisions of the scope of the service level standards that it would not be able to comply with, and request for a waiver or relaxation thereto. Authority may, but shall not be obliged to, grant such a waiver or relaxation to the SERVICE PROVIDER. It is clarified that:
  - i Such waiver or relaxation granted by Authority shall only apply for such time period as may be prescribed by Authority, and upon the expiry of such time period, the obligation of the SERVICE PROVIDER to comply with the requirements of service level standards shall stand reinstated in its entirety; and
  - ii Any such waiver or relaxation shall not extend to any period beyond the Completion Date.
- c. The SERVICE PROVIDER shall, provide to Authority, a monthly report, within 5 days of the expiry of each month, or at such intervals as specified in the Agreement, setting out the extent of its compliance with the aforesaid service level standards, and the remedial action undertaken by the SERVICE PROVIDER in this regard.

- d. This section is agreed to by Authority and SERVICE PROVIDER as the key performance indicator for the Project. This may be reviewed and revised according to the procedures detailed in Article of Service Level Change Control.
- e. The following section reflects the measurements to be used to track and report system's performance on a regular basis. The targets shown in the following tables are for the period of Contact.
- f. The procedures in this RFP shall be used if there is a dispute between Authority and SERVICE PROVIDER on what the permanent targets should be.

### **3. Maintenance Manual**

- a. Without prejudice to the other obligations of the SERVICE PROVIDER, the SERVICE PROVIDER agrees and acknowledges that it shall be required to undertake the Operations and Maintenance of the Project, in accordance with certain pre-identified work schedules.
- b. Towards the aforesaid, the SERVICE PROVIDER shall within 45 days from the Effective Date (and thereafter, on or prior to the 30 days before the commencement of each succeeding Financial Year therefrom), prepare, and submit for the approval of Authority, a repair, operation and maintenance manual (the "Maintenance Manual"), for all aspects of the Operations and Maintenance Project. The Maintenance Manual shall be consistent with the requirements of service level standards as laid down in the Agreement, unless a waiver or relaxation is sought and granted by Authority (whereupon such requirements shall be appropriately deemed to be modified for the relevant approved period). Such Maintenance Manual shall inter alia, provide for the following:
  - i. The mode and manner of carrying out of the O&M of the Project, including specifically the proposed measures of the SERVICE PROVIDER for ensuring compliance requirements of the service level standards;
  - ii. The manner of scheduling and deployment of manpower and resources;
  - iii. Arrangements and procedures for carrying out urgent repairs;
  - iv. Criteria and process to be adopted for deciding maintenance needs;
  - v. A cleaning schedule, for cleaning of Project assets and utilities; and
  - vi. An inspection schedule for inspection and examination of the condition, state of repair and operational efficiency of various components of the Project thereat.
- c. The aforesaid Maintenance Manual shall, upon being approved by Authority (and subject to the comments of Authority thereon), be binding on the SERVICE PROVIDER, and the O&M of the Project shall be undertaken in accordance with the said approved Maintenance Manual. Provided that approved Maintenance Manual (and the approval thereof by Authority), shall not relieve the SERVICE PROVIDER of its obligation to



duly undertake the O&M of the Project as per Applicable Laws and Good Industry Practices, and the other provisions of the Agreement.

#### **4. General Principles of Service Level Agreements**

The Service Level Agreements have been logically segregated in the following two categories:

##### **a. Liquidated Damages**

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

##### **b. Service Level Agreements (SLA)**

- i The SERVICE PROVIDER has to comply with service level standards and requirements to ensure adherence to project timelines, quality and availability of services, throughout the period of this O&M period i.e., for a period mentioned in the project timeline of the RFP. The SERVICE PROVIDER has to supply and develop appropriate software/hardware/automated tools as may be required to monitor and submit reports of all the SLAs mentioned in this section.
- ii SLA would be applicable in operations and maintenance phase of the project. The penalties shall be applicable on Operations & Maintenance cost of the project calculated quarterly. SLA would be applicable on:
  - Command Center IT and Non Hardware Installed
  - Data Center Infrastructure
  - Software Applications & Reports Generation Time
  - Manpower Availability
- iii For purposes of the SLA, the definitions and terms as specified in the Document along with the following terms shall have the meanings set forth below:
  - a) **"Total Time"** - Total number of hours in the quarter (or the concerned period) being considered for evaluation of SLA performance.
  - b) **"Uptime"** – Time period for which the specified services/outcomes are available in the period being considered for evaluation of SLA. Formulae for calculation of Uptime: 
$$\text{Uptime (\%)} = \{1 - [(\text{Downtime}) / (\text{Total time} - \text{scheduled maintenance time})]\} * 100$$
  - c) **"Downtime"**- Time period for which the specified services/components/outcomes are not available in the concerned period, being considered for evaluation of SLA, which would exclude downtime owing to Force Majeure & Reasons beyond control of the successful bidder.
  - d) **"Scheduled Maintenance Time"** - Time period for which the specified services/components with specified technical and service standards are not



available due to scheduled maintenance activity. The successful bidder is required to take at least 10 days prior approval from Authority for any such activity. The scheduled maintenance should be carried out during non-peak hours (like post mid-night, and should not be for more than 4 hours. Such planned downtime would be granted max 4 times a year.

- e) **“Incident”** - Any event/abnormalities in the service being rendered, that may lead to disruption in normal operations and services to the end user.
- f) **“Response Time”** - Time elapsed from the moment an incident is reported in the Helpdesk over phone or by any applicable mode of communication, to the time when a resource is assigned for the resolution of the same.
- g) **“Resolution Time”** - Time elapsed from the moment incident is reported to Helpdesk either in person or automatically through system, to the time by which the incident is resolved completely and services as promised are restored.

## 5. Measurement of SLA

- a. The SLA metrics provided specifies performance parameters as baseline performance, lower performance and breach. All SLA calculations will be done on quarterly basis, as per the individual parameter requirements.
- b. The SLA also specifies the liquidated damages for lower performance and breach conditions.
- c. Payment to the SERVICE PROVIDER is linked to the compliance with the SLA metrics. The matrix specifies three levels of performance, namely:

|   |  |
|---|--|
| 1 | The SERVICE PROVIDER will get 100% of the Contracted value if all the baseline performance metrics are compiled and the cumulative credit points are 100;  |
| 2 | The SERVICE PROVIDER will get lesser payment in case of the lower performance. (For e.g. if SLA point score is 80 then the SERVICE PROVIDER will get 20% less on the quarterly payment – The formula calculating the deductions is “(100 – SLA Point Score)%”) |
| 3 | If the performance of the Service Provider in respect of any parameter falls below the prescribed lower performance limit, debit points are imposed for the breach.  |

- d. The credit (+) points earned during the quarter will be considered for computing penalty. The quarterly payment shall be made after deducting the liquidated damages as mentioned above.
- e. SERVICE PROVIDER shall be responsible for providing appropriate web based online SLA measurement and monitoring tools for the same. SERVICE PROVIDER shall be expected to take immediate corrective action for any breach in SLA. In case issues are not rectified to the complete satisfaction of Authority, within a reasonable period of time defined in this Agreement, then the Authority shall have the right to take appropriate penalizing actions, or termination of the contract.
- f. The afore mentioned SLA parameters shall be measured as per the individual SLA parameter requirements and measurement methods, through appropriate SLA Measurement tools to be provided by the SERVICE PROVIDER and approved and audited by BSCDCL or its appointed Consultant for accuracy and reliability.

- g. BSCDCL shall also have the right to conduct, either itself or through any other Service Provider as it may deem fit, an audit / revision of the SLA parameters. The SLAs defined, shall be reviewed by BSCDCL on an annual basis after consulting the SERVICE PROVIDER, Project Management Consultants and other experts. All the changes would be made by BSCDCL after consultation with the SERVICE PROVIDER and might include some corrections to reduce undue relaxation in Service Levels or some corrections to avoid unrealistic imposition of liquidated damages, which are noticed after project has gone live.
- h. Total liquidated damages to be levied on the SERVICE PROVIDER shall be capped at 10% of the total contract value. However, BSCDCL would have right to invoke termination of the Contract in case the overall liquidated damages equals 10% of total contract value. Liquidated damages to be levied during Post Implementation period shall be capped at 10% of the OPEX value. BSCDCL would also have right to invoke termination of Contract in case cumulative debit point (breach points) are above 30 in 2 consecutive quarters.

## 6. Implementation Phase SLA

| Definition  | Timely delivery of Deliverables would comprise entire bill of material and the application systems, and as per successful UAT of the same.  |
|---|---|
| <b>Service Level Requirement</b>                      | All the Deliverables defined in the Contract has to be submitted on-time on the date as mentioned in the Contract with no delay.  |
| <b>Measurement of Service Level Parameter</b>         | To be measured in Number of weeks of delay from the timelines mentioned in the section "Project Timelines"  |
| <b>Penalty for non-achievement of SLA Requirement</b> | Any delay in the delivery of the Project Deliverables (solely attributable to vendor) would attract a liquidated damage per week of 0.2% of the CAPEX of Contract / Request Order value per week for first 8 weeks and 0.3% per week for every subsequent week. If the liquidated damage reaches 10% of the total Contract value, Authority may invoke termination clause. Liquidated Damage will be computed on Capex value of Contract/ Request order value of the particular phase |

## 7. Post Implementation SLAs

- 7.1 These SLAs shall be used to evaluate the performance of the Services on Monthly basis but the payments shall be made on quarterly basis post calculation of three months collective SLA.
- 7.2 Penalty levied for non- performance as per SLA requirements shall be deducted through subsequent payments due from BSCDCL or through the Performance Bank Guarantee.
- 7.3 The SLA parameters shall be measured for each of the sub systems' SLA parameter requirements and measurement methods, through appropriate SLA measurement tools.

All such required tools should be provided by the Service Provider. BSCDCL will have the authority to audit these tools for accuracy and reliability.

7.4 The upper limit of penalty would be capped at 10% of the opex value for each quarter. In case the calculated penalty crosses 10% penalty of the opex value in 2 subsequent quarters, BSCDCL reserves the right to invoke the termination clause.

7.5 SLAs for IT infrastructure at Command Center and Data Center:

| # | Uptime SLA (Monthly) | Penalty Clause   |
|---|----------------------|--|
| 1 | Uptime $\geq 98\%$   | No Deduction   |
| 2 | Uptime $< 98\%$      | (98% - Uptime %) of monthly Operational Expense for the component. For example if uptime of component is 95%, then penalty imposed will be 98% - 95% i.e. 3% of operational expense. |

Service Provider shall submit detailed report of the Uptime and provide access to authority to validate in the system for the operational period.

7.6 SLAs for Network availability and connectivity for equipments

| # | Uptime SLA (Monthly) | Penalty Clause   |
|---|----------------------|--|
| 1 | Uptime $\geq 99\%$   | No Deduction   |
| 2 | Uptime $< 99\%$      | (99% - Uptime %) of monthly Operational Expense for the component. |

7.7 SLAs for Network Quality of Service

| # | SLA (Monthly)   | Penalty Clause                                    |
|---|---|---|
| 1 | 99% throughput of minimum stipulated bandwidth during 24*7 hours                      | No Deduction                                      |
| 2 | $\geq 97\%$ and $< 99\%$ throughput of minimum stipulated bandwidth during 24*7 hours | 1.0% deduction from Quarterly Operational Payment |
| 3 | $< 97\%$ throughput of minimum stipulated bandwidth during 24*7 hours                 | 2.0% deduction from Quarterly Operational Payment |
| 4 | Average Packet loss exceeding 0.5% over a month ( at Data Center and WAN level)       | 0.5% deduction from Quarterly Operational Payment |
| 5 | Latency Delay $> 150$ ms (every instance) ( at Data Center and WAN level)             | 0.5% deduction from Quarterly Operational Payment |

7.8 SLAs for IT Infrastructure including software applications, hardware, video walls, workstations and other equipment of ITCCC.

| #  | Performance Area  | Baseline   |        | Lower Performance   | Breach |   |        |
|--|---|--|--------|---|--------|---|--------|
|  |   | Metric   | Points | Metric  | Points | Metric  | Points |
| 1. Application Performance (includes any user/system application related to the project) |   |  |        |   |        |   |        |
| 1  | Overall application(s) availability <ul style="list-style-type: none"><li>Command Center Application</li><li>Video Management System</li><li>Automatic Number Plate Recognition System</li><li>Vehicle Tracking Management System</li><li>Call Center Management System</li><li>Analytics Dashboard Application</li></ul> | 99.5%  | 20     | >= 96.5 % to <99%   | 10     | < 96.5 %  | 0      |
| 2  | Reports Generation Response Time (Alerts/MIS/Logs etc.)   | Simple query - < 5secs<br>Medium complexity query - <30 secs<br>High Complexity query - < 1min | 5      | Simple complexity Query = 5.01 – 10 secs<br>Medium complexity query = 30.01 – 60 secs<br>High Complexity query = < 60.1 sec – 2 min | 2.5    | Simple compl exity Query = > 10 secs<br>Mediu m compl exity query = > 60 secs<br>High Compl exity query = > 2 min | 0      |
| 3  | Maximum time for successful settings modification of field devices with Command   | < 4 secs   | 5      | 4.01 – 6.0 secs   | 2.5    | >6 secs   | 0      |

| #  | Performance Area   | Baseline                                 |        | Lower Performance   | Breach |                |        |
|--|--|--|--------|---------------------|--------|----------------|--------|
|  |  | Metric                                   | Points | Metric              | Points | Metric         | Points |
|  | Center Applications  |  |        |                     |        |                |        |
| <b>2. End-User Equipment Uptime</b>  |  |  |        |                     |        |                |        |
| 1  | Monitoring workstations at Command Centers                                 | 99%                                      | 4      | >= 96 % to <99%     | 2      | < 96 %         | 0      |
| 2  | IP Phones  | 98%                                      | 3      | >= 96 % to <98%     | 1.5    | < 96 %         | 0      |
| 3  | Video Wall   | 99%                                      | 3      | >= 96 % to <99%     | 1.5    | < 96 %         | 0      |
| <b>3. Underlying IT Infrastructure Uptime/Availability at Data Centers</b> |  |  |        |                     |        |                |        |
| 1  | Production Servers Uptime  | 99.5%                                    | 20     | >= 99.3 % to <99.5% | 10     | < 99.3%        | 0      |
| 2  | Storage System Uptime  | 99.5%                                    | 20     | >= 99.3 % to <99.5% | 10     | < 99.3%        | 0      |
| <b>4. Security /Patch Services for IT Infrastructure</b>                   |  |  |        |                     |        |                |        |
| 1  | Firewall and any other security appliance Uptime                           | 100%                                     | 15     | 97 % to 99.99%      | 7.5    | < 97%          | 0      |
| 2  | Security rules update within 2 hours of approved change management request | 0 violations of service parameters       | 1      | 1 – 4 violations    | 0.5    | > 4 violations | 0      |
| 3  | Anti-virus, Anti-spyware, Anti-spam updates within 24 hrs. of request      | 0 violations of service parameters       | 1      | 1 – 4 violations    | 0.5    | > 4 violations | 0      |
| 4  | Critical Patches – within 48 hours of patch release.                       | 0 violations of service parameters       | 1      | 1 – 4 violations    | 0.5    | > 4 violations | 0      |
| 5  | Non Critical Patches – within 15 days of patch release.                    | Up-to 1 violations of service parameters | 1      | 2 – 5 violations    | 0.5    | > 5 violations | 0      |

| #                  | Performance Area    | Baseline   |            | Lower Performance  | Breach    |   |          |
|--------------------|---------------------|--|------------|--|-----------|---|----------|
|                    |                     | Metric   | Points     | Metric   | Points    | Metric  | Points   |
| 6                  | Resolution of Issue | <8 Hrs (for Critical issue)<br><16 Hrs (for Medium issue)<br><4 days (for Low issue) | 1          | <12 Hrs and >=8 hrs (for Critical issue)<br><24 Hrs and >=16 (for Medium issue)<br><8 days and >=4 (for Low issue) | 0.5       | >12 Hrs (for Critical issue)<br>>24 Hrs (for Medium issue)<br>>8 days (for Low issue) | 0        |
| <b>Total Score</b> |                     |  | <b>100</b> |  | <b>50</b> |   | <b>0</b> |

## 7.9 SLA for Change Requests or enhancements

| # | Parameter                             | Metric  | Frequency             | Penalty  |
|---|---------------------------------------|---|-----------------------|--|
| 1 | Criticality of Change – <b>Low</b>    | < T, where T is the timeframe for completion of the Change request as agreed upon by BSCDCL and successful bidder | Weekly per Occurrence | 1 % of change request value per week for the first two weeks for each occurrence,<br>2 % of change request value per week for every subsequent week, subject to a maximum of 10% post which BSCDCL may invoke annulment of the contract.     |
| 2 | Criticality of Change – <b>Medium</b> | < T, where T is the timeframe for completion of the Change request as agreed upon by BSCDCL and successful bidder | Weekly per Occurrence | 1.5 % of change request value per week for the first two weeks for each occurrence,<br>2.5 % of change request value per week for every subsequent week, subject to a maximum of 10% post which BSCDCL may invoke annulment of the contract. |
| 3 | Criticality of                        | < T weeks,  | Weekly per            | 2 % of change request  |

|  |                      |  |            |  |
|--|----------------------|--|------------|--|
|  | Change – <b>High</b> | where T is the timeframe for completion of the Change request as agreed upon by BSCDCL and successful bidder | Occurrence | value per week for the first two weeks for each occurrence,<br>3 % of change request value per week for every subsequent week, subject to a maximum of 10% post which BSCDCL may invoke annulment of the Contract. |
|--|----------------------|--|------------|--|

## 8. SLA for issue resolution

| # | Parameter        | Metric   | Frequency | Penalty  |
|---|------------------|--|-----------|--|
| 1 | Severity 1 Issue | Resolution Time:<br>≤ 2 Hrs from the time the call is logged by end user.    | Daily     | 0.1% of monthly opex value per week for the first two weeks for each occurrence,<br>0.2% of monthly opex value per week for every subsequent week, subject to a maximum of 10% post which BSCDCL may invoke annulment of the contract. |
| 2 | Severity 2 Issue | Resolution Time:<br>≤ 6 Hours from the time the call is logged by end user.  | Daily     | 0.1% of monthly opex value per week for the first two weeks for each occurrence,<br>0.2% of monthly opex value per week for every subsequent week, subject to a maximum of 10% post which BSCDCL may invoke annulment of the Contract. |
| 3 | Severity 3 Issue | Resolution Time:<br>≤ 18 Hours from the time the call is logged by end user. | Daily     | 0.1% of monthly opex value per week for the first two weeks for each occurrence,<br>0.2% of monthly opex value per week for every subsequent week, subject to a maximum of 10% post which SSCL may invoke annulment of the Contract.   |
| 4 | Severity 4 Issue | Resolution Time:<br>≤ 24 Hours from the time the call is logged by end user. | Daily     | 0.1% of monthly opex value per week for the first two weeks for each occurrence,<br>0.2% of monthly opex value per week for every subsequent week, subject   |



|  |  |  |  |   |
|--|--|--|--|---|
|  |  |  |  | to a maximum of 10% post which BSCDCL may invoke annulment of the contract. |
|--|--|--|--|---|

## 9. Miscellaneous SLAs

| # | Parameter  | Metric  | Frequency            | Penalty   |
|---|--|---|----------------------|---|
| 1 | Compliance in document versioning and maintenance (FRS, SRS, Business Blue Prints, User Training Manual etc.), application version control, updates & patches etc. | 100% as per requirement timelines   | Daily per occurrence | Rs.10,000 per occurrence per day of delay.  |
| 2 | Manpower Availability & Readiness  | 100% as per requirement timelines   | Daily                | Rs. 10,000 per day in case there is shortage in manpower deployment or lack of adequate skills              |
| 3 | Scheduled downtime for System Maintenance per week   | <= 2 times per month  | Per Occurrence       | Rs. 1,00,000 per occurrence for unscheduled downtime or scheduled downtimes exceeding the specified metric. |
| 4 | Resource Replacement/ Manpower Unavailability  | Within 7 days of exit of resource (in case of SSCL initiated or supplier initiated) | Per Occurrence       | Rs. 5,000.00 per day of unavailability of resource  |
| 5 | Application Security   | Cyber Crime/Hacking/Data Theft/Fraud attributable to the Service Provider           | Per Occurrence       | Rs.10,000 per occurrence per day of delay.  |

## 10. Operational SLAs

- The proposed storage for all the production related applications should be on latest generation technology. The latency of storage should always be less than 1ms for all transactions.
- The proposed solution for backup should be cost optimized to provide lowest cost per TB of capacity. It should provide flexibility to schedule policy and retention levels as required and mandated from time to time.



- iii. The proposed backup solution should include features like deduplication, compression and encryption. The proposed backup solution should also allow flexibility to migrate the backups from one DC to other DC without needing to de-duplicate, compress and encrypt the data again.

## **11. Definitions:**

- i. Response Time: Response time is defined as the time the support vendor takes to respond from the time that ticket was raised.
- ii. Resolution Time: Resolution time is defined as the time the vendor takes to resolve the issue or provide acceptable workaround for the issue.

## **12. Conditions for No Penalties**

- a. Penalties shall not be levied on the Bidder if there is a Force Majeure event effecting the SLA which is beyond the control of the SERVICE PROVIDER. Force Majeure events shall be considered in line with the clause mentioned RFP.

## **13. Reporting Procedures**

- 13.1 SERVICE PROVIDER representative shall prepare and distribute Service level Performance Reports in a mutually agreed format by the 5th working day of subsequent month. The Reports shall include “actual versus target” Service Level Performance, a variance analysis and discussion of appropriate issues or significant events. Performance Reports shall be distributed to Authority management personnel as directed by Authority.
- 13.2 Also, SERVICE PROVIDER may be required to get the Service Level Performance Report audited by a third-party Auditor appointed by the Authority.

## **14. Issue Management Procedures**

### **14.1 General**

- a. 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 Authority and SERVICE PROVIDER.
- b. 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.

### **14.2 Issue Management Process**

- a. Either Authority or SERVICE PROVIDER 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.
- b. Any unresolved issues/disputes concerning the Project/Contract between the Parties shall first be referred in writing to the Project Manager for his consideration and resolution. If the Project Manager is unable to resolve any issue/dispute within 5 days

of reference to him, the Project Manager shall refer the matter to the Program Management Committee. If the Program Management Committee is unable to resolve the issues/disputes referred to them within 15 days, the unresolved issue/dispute shall be referred to Steering Committee/High Powered Committee/Project Implementation Committee for resolution. The Steering Committee or the High Powered Committee / Project Implementation Committee within 30 days of reference to them shall try to resolve the issue/dispute.

- c. If the Steering Committee or the High Powered Committee / Project Implementation Committee fails to resolve a dispute as per the above clause, the same shall be referred to arbitration. The arbitration proceedings shall be carried out as per the Arbitration procedures mentioned in Clause 34 of this of RFP.

## **15. Service Level Change Control**

### **15.1 General**

- i. It is acknowledged that this Service levels may change as Authority's business needs evolve over the course of the Contract period. As such, this document also defines the following management procedures:
  - i. A process for negotiating changes to the Service Levels
  - ii. An issue management process for documenting and resolving particularly difficult issues.
  - iii. Authority and SERVICE PROVIDER management escalation process to be used in the event that an issue is not being resolved in a timely manner by the lowest possible level of management.
- ii. Any changes to the levels of service provided during the Term of the Contract shall be requested, documented and negotiated in good faith by both Parties. Either Party can request a change.
- iii. Service Level Change Process: The Parties may amend Service Level by mutual agreement. Changes can be proposed by either Party. Unresolved issues shall also be addressed. SERVICE PROVIDER's representative shall maintain and distribute current copies of the Service Level document as directed by Authority. Additional copies of the current Service Levels shall be available at all times to authorized parties.
- iv. Version Control/Release Management: All negotiated changes shall require changing the version control number. As appropriate, minor changes may be accumulated for periodic release or for release when a critical threshold of change has occurred.

## **16. Service Level Change Control**

### **a. General**

- v. It is acknowledged that the Service levels may change as Authority's business needs evolve over the course of the Agreement period.
- vi. Any changes to the levels of service provided during the Term of the Agreement shall be requested, documented and negotiated in good faith by both Parties. Either Party can request a change.

- vii Service Level Change Process: The Parties may amend Service Level by mutual agreement. Changes can be proposed by either Party. Unresolved issues shall also be addressed. SERVICE PROVIDER's representative shall maintain and distribute current copies of the Service Level document as directed by Authority. Additional copies of the current Service Levels shall be available at all times to authorized parties.
- viii Version Control/Release Management: All negotiated changes shall require changing the version control number. As appropriate, minor changes may be accumulated for periodic release or for release when a critical threshold of change has occurred.

## Annexure I: Change Control Note

| Change Control Note  |                             | CCN Number: |
|--|-----------------------------|-------------|
| <b>Part A: Initiation</b>  |                             |             |
| Title  |                             |             |
| Originator   |                             |             |
| Sponsor  |                             |             |
| Date of Initiation   |                             |             |
| <b>Details of Proposed Change</b>  |                             |             |
| (To include reason for change and appropriate details/specifications. Identify any attachments as A1, A2, and A3 etc.)   |                             |             |
| Authorized by Authority  | Date                        |             |
| Name   |                             |             |
| Signature  |                             |             |
| Received by the SERVICE PROVIDER   | Date                        |             |
| Name   |                             |             |
| Signature  |                             |             |
| Change   |                             |             |
| Change Control Note  |                             | CCN Number: |
| <b>Part B: Evaluation</b>  |                             |             |
| (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. |                             |             |
| <b>Brief Description of Solution:</b>  |                             |             |
| <b>Deliverables:</b>   |                             |             |
| <b>Timetable:</b>  |                             |             |
| <b>Charges for Implementation:</b>   |                             |             |
| <b>Other Relevant Information:</b>   |                             |             |
| (Including value-added and acceptance criteria)  |                             |             |
| Authorized by Authority  | Date                        |             |
| Name   |                             |             |
| Signature  |                             |             |
| Change Control Note  |                             | CCN Number: |
| <b>Part C: Authority to Proceed</b>  |                             |             |
| Implementation of this CCN as submitted in Part A, in accordance with Part B is: (tick as appropriate)   |                             |             |
| <b>Approved</b>  |                             |             |
| <b>Rejected</b>  |                             |             |
| <b>Requires Further Information</b> (as follows, or as Attachment 1 etc.)  |                             |             |
| <b>For Authority and its nominated agencies</b>  | <b>For SERVICE PROVIDER</b> |             |
| Signature  | Signature                   |             |
| Name   | Name                        |             |
| Title  | Title                       |             |
| Date   | Date                        |             |

## 8. Section 3: Functional & Technical Specifications

Application Side

### 8.1 Command Center Application

| S. No. | Functional/Technical Parameters | Description   |
|--------|---------------------------------|---|
| 1      | General requirements            | The Command & Control solution should be implemented and Compliance to the industry open standards based Commercial-of-the-shelf (COTS) products.   |
| 2      |                                 | Software Solution should support Role based access of application modules.  |
| 3      |                                 | System must provide a comprehensive API (Application Program Interface) or SDK (Software Development's Kit) to allow interfacing and integration with existing systems and future application and sensors which shall be deployed on the field. |
| 4      |                                 | The platform should be able to normalize the data coming from different devices of same type and provide secure access to that data using data API(s) to application developers.  |
| 5      | Command & Control               | The solution must use the latest application architecture models of Service-oriented Architecture or equivalent for better interoperability and performance.  |
| 6      |                                 | Proposed Software Solution Application and Field User Mobile Application shall have Web Security Audit certificate from a Cert-In authorized Security Auditor as on date of publishing of the bid.  |
| 7      |                                 | The platform must be able to normalize the data from various data sources such as IOT (Internet of things), IT (Informational Technology).  |
| 8      |                                 | Software Solution Platform shall be developed utilising the latest Microsoft .NET architecture and the back bone of the systems database will be a Microsoft SQL server.  |
| 9      |                                 | The proposed Software Solution platform should be deployable both on-prem or on cloud.  |
| 10     |                                 | The proposed Software Solution platform must be published on atleast one of the leading global CSP marketplace i.e., AWS/Azure/GCP.   |
| 11     |                                 | The platform must be able to integrate data from different sub-systems and provide a unified view of the sub-system data over visualization dashboards.   |
| 12     |                                 | The platform must have the capability to perform collection of data from the devices or sensors through the APIs provided by the sub-systems.   |
| 13     |                                 | The platform must be compatible to work on web browsers.  |
| 14     |                                 | Software Solution and Video Management System should not be from same OEM.  |
| 15     |                                 | Must have capabilities to achieve load balancing and high availability using load balancer & must be self-certified by the  |

|    |  |   |
|----|--|---|
|    |  | OEM.  |
| 16 | Integrations   | <p>The Software Solution shall integrate with the following Systems/ Platforms through SDKs and APIs shared by their provider:</p> <ul style="list-style-type: none"> <li>• Video Management System (CCTV Surveillance System)</li> <li>• Video Analytics</li> <li>• Automated Number Plate Recognition (ANPR) System</li> <li>• Vehicle Tracking Management System</li> <li>• Call Center Management System</li> <li>• Analytical Use Cases</li> <li>• GIS platform</li> <li>• Email Gateway</li> <li>• SMS Gateway</li> </ul> |
| 17 | Video Management System (CCTV Surveillance System) Integration | Software Solution Platform Solution should have the capability to be integrated with Video Management System (VMS) through SDKs and APIs shared by their provider and shall have the following functionalities:   |
| 18 |  | View live video of Camera nearest to the Alert location in Software Solution Application.   |
| 19 |  | User can take snapshot and allocated with alert created which can be utilized for future reference.   |
| 20 |  | All Cameras should be mapped on GIS platform (if integrated) with different information regarding their status, Location address.   |
| 21 |  | The camera visual should be directly accessed through the icon on the map.  |
| 22 |  | There should be a snapshot functionality, when the operator access a live video camera.   |
| 23 |  | Zoom in/out camera functionality should be provided.  |
| 24 |  | Ability to perform below mentioned video controls (if applicable) from Software Solution systems by Operator:   |
| 25 |  | Play, slide-forward, slide-backward, pause, and specify time to play recorded video.  |
| 26 |  | Take a video still image (snapshot) from live or recorded video.  |
| 27 |  | Move PTZ camera by clicking on camera controls to the chosen location.  |
| 28 |  | Provide screen control in video pane to control pan, tilt and zoom PTZ camera.  |
| 29 |  | Display in 2x2 and 3x3 window formats.  |
| 30 | Video Analytics Integration                                    | The Software Solution solution should have the capability to be integrated with Video Analytics Platform through SDKs and APIs shared by their provider and shall have the following functionalities:   |

|    |                                     |  |
|----|-------------------------------------|--|
| 31 |                                     | Alerts will be generated in Software Solution Platform in case of any information received from the Video Analytics platform.      |
| 32 |                                     | Geo-spatial locations of all the incidents will be plotted on GIS Map.   |
| 33 |                                     | All the information received from integrated Video Analytics Platform will be visible on Software Solution Platform.               |
| 34 | Vehicle Tracking System Integration | The Software Solution solution shall have the following functionality with respect to Vehicle Tracking Integration:                |
| 35 |                                     | Track latitude and longitude or geospatial location of resources (ex. People/ vehicles.) if associated with location-based device. |
| 36 |                                     | Enable multiple resources to be simultaneously tracked.  |
| 37 |                                     | Enable resource locations to be displayed on the map in Software Solution Application.   |
| 38 |                                     | Enable display of recent movements of tracked object on a map.   |
| 39 |                                     | Enable display of any vehicle/resource on a map with GPS coordinates.  |
| 40 |                                     | Enable search and find tracked objects by name.  |
| 41 |                                     | Operator should be able to get Vehicle's attributes by clicking on the icon of vehicle on GIS map.                                 |
| 42 | Open Source GIS Map Integration     | Software Solution application should be integrated with Open Source GIS map.   |
| 43 |                                     | All alerts should be mapped in GIS map   |
| 44 |                                     | Integration application should support for receiving different types of alerts.  |
| 45 |                                     | GIS map should have all basic features of creating any point of interest point or affected area.                                   |
| 46 |                                     | GIS map should have plotted all Cameras/Sensors deployed across the city.  |
| 47 |                                     | GIS map should enable search on Map for any alert by type or subtype.  |
| 48 |                                     | Distance measuring tool should be part of GIS panel.   |
| 49 |                                     | On receiving alerts GIS map should zoom on alert location.   |
| 50 |                                     | Clicking on any alerts in GIS map should allow to acknowledge or close the alert. Same should be possible from alert panel.        |
| 51 |                                     | Alert Panel and GIS panel should be in sync and support multi-screen.  |
| 52 |                                     | Clicking on any Alert should show nearest Cameras, from where live viewing of Camera should support.                               |
| 53 |                                     | Operator should be able to take Snapshot of Live streaming and save image.   |
| 54 |                                     | Operator should have capability to Create alerts when viewing something on Camera and attaching the snapshot taken.                |
| 55 |                                     | All alerts should be mapped to various SOP, where authorities should be informed through SMS or Email.                             |



|    |                  |  |
|----|------------------|--|
| 56 |                  | Operator should be able to draw a free hand shape on GIS map and should be able to perform following functionalities: <ul style="list-style-type: none"> <li>• Alert list should be populated in a window which are generated in area within the drawn shape on GIS Map.</li> <li>• Operator Should be able to perform certain action on listed Alerts like close the alert, assign nearest responder and execute SOP.</li> <li>• Responder list should be populated in a window which are available in area within the drawn shape on GIS Map.</li> <li>• Operator should be able to Send the Message to selected Responders.</li> <li>• Operator should able to see health status of all sensors which are available in area within the drawn shape on GIS Map.</li> </ul> |
| 57 |                  | Operator can assign to nearest field responder from drag and drop option from GIS Map as well as assigned from Alert panel.  |
| 58 |                  | Platform shall have Map view widgets with support of different base maps and additional map layers imposed on the base map.  |
| 59 |                  | Platform shall support open-source base map as well as should be able to support major map providers such as HERE, Tom-tom, Google Maps, ESRI etc.   |
| 60 |                  | Platform shall be able to integrate and visualize map layers provided by Client for different layers such as administrative boundaries, Road Networks, Hospital/Fire Stations, Landmarks etc. These layers can be contextually enabled or disabled by the operator for situational awareness.  |
| 61 |                  | Platform shall support the Map functionalities such as zoom-in, zoom-out, re-centre, search, filter, area selection, zoom to marker level, multi-select, selection of a specific element to see more details of the same, change of the base map, selection/deselection of layer maps for visualization.   |
| 62 |                  | Platform shall visualize on the map different vehicles, IoT Devices & Sensors, CCTV Cameras and other IoT Elements. These layers shall show contextual information on the icons when mouse-over and also have different colour of icons for easy representation of the state of the IoT elements. A summary panel shall show the legends and the corresponding counts.   |
| 63 |                  | Platform shall have capability to show heatmap as additional map layer on top of pre-selected map layers.  |
| 69 | Alert Management | The Platform shall support the following Alert Management functionality:   |
| 70 |                  | Operator can access complete information related with Alert.   |
| 71 |                  | Operator should be able to assigned nearest responder to an alert from the alert Panel its self  |
| 72 |                  | Should support Geospatial rendering of Alert information. Platform must have the ability to show the alerts over the map view so that there is a sense of awareness amongst the platform users where the alert has occurred.   |



|    |  |
|----|--|
| 73 | Should provide facility to capture critical information such as location, name, status, time of the event and be modifiable in real time by multiple authors. Events should be captured in standard formats to facilitate event correlation and reporting.   |
| 74 | Operator should be able to print audit log of an alert from the alert panel which should contained all the activities performs against the alert.  |
| 75 | Application should provide visual indication for the severity of alert , like if severity of alert is high it should show upward-arrow , if low then downward-arrow should be visible against each alert in alert panel.   |
| 76 | Platform must have differentiated color cues for multiple criticalities of the alert that are sourced from the sub-systems or generated in the platform.   |
| 77 | Application should provide visual indication in alert panel if alert crossed escalation time.  |
| 78 | <p>Operators shall be able to perform the following actions:</p> <ul style="list-style-type: none"> <li>• Change the Alert state.</li> <li>• Edit the Alert.</li> <li>• Change the description</li> <li>• Change the priority level</li> <li>• Attach additional entities to the Alert.</li> <li>• Link related Alert.</li> <li>• Attach a document as a URL link to the Alert.</li> </ul> <p>It shall be possible to query the Alert history filtering by:</p> <ul style="list-style-type: none"> <li>• Alert type</li> <li>• Alert state</li> <li>• Location</li> <li>• Priority</li> <li>• Trigger time range</li> <li>• Alert owner</li> </ul> |
| 79 | Operator should be able to change the severity of an alert from the alert panel itself after analyzing the alert.  |
| 80 | Platform must have the ability to change the severity of an alert and the ability to capture the comments when change in critically is performed by platform users.  |
| 81 | Platform users must have the capability to create manual events from the alert Management module by providing appropriate domain, alert type, description, location details and image/video for proof of alert.  |
| 82 | Operator should have clear visual indication that alert have an attachment or not.   |
| 83 | Platform users must have the ability to comment and collaborate on any event that is visible and provide more evidence, if necessary, in the form of image or video.   |
| 84 | Alert attachments should be accessible from the alert panel and user should not be required to open the complete alert to view the alert attachments.  |

|     |                                  |  |
|-----|----------------------------------|--|
| 85  |                                  | Operator should be able to short the alert based on severity, status, created time, assigned responder, alert type, alert sub type and source of alerts.   |
| 86  |                                  | Alert comments must also receive the image and video evidences submitted by the field responder, if field responder assigned for the alert.  |
| 87  |                                  | Operator should be able to clear an alert from the alert panel with mandatory remarks.   |
| 88  |                                  | Operator should be able to define up to ten escalation levels associated with the Type and Jurisdiction of an alert.   |
| 89  |                                  | Operator should be able to escalate the alert from alert panel and application should find appropriate escalation level automatically and a SMS and Email should be dispatched to qualified escalation level.        |
| 90  |                                  | Create and modify user-defined alert types. An unrestricted number of user-defined alert types shall be supported.   |
| 91  |                                  | Operator should be able to schedule the creation of alert.   |
| 92  |                                  | User should be able Set the priority level of an alert.  |
| 93  |                                  | User should able to view the history / activity perform against the Alert.   |
| 94  |                                  | Provide the ability to group alerts by source and by type.   |
| 95  |                                  | The platform should generate Notification/ Alert messages as per the incidence / events that are received, that should be visible within the Dashboard and the Field Responder Mobile App or web portal if required. |
| 96  |                                  | All system messages (notifications, alerts and alarms) should always be available from the Notifications View.   |
| 97  |                                  | Software Solution platform should support to deliver message. The Notification service should support min two types of notification methods:   |
| 98  |                                  | 1. Email notification  |
| 99  |                                  | 2. Short Messaging Service (SMS) notification  |
| 100 | Vehicle Tracking and Geo fencing | Software Solution Solution should have capabilities to track vehicle from any agency through Pull or push mechanism.   |
| 101 |                                  | Solution should have capabilities to pull the data from APIs and track the vehicle.  |
| 102 |                                  | Solution should have capabilities to listen with predefined GPS packet format so that GPS device provider can push the data to system.   |
| 103 |                                  | Solution should have capability to visualize agency wise vehicle tracking.   |
| 104 |                                  | Solution should have capabilities to display the summary of all tracking vehicle for example total vehicle tracked, currently how many vehicles are sending the location data.                                       |
| 105 |                                  | Solution should have capability to display the vehicle details like registration number, driver name, speed, direction etc.  |
| 106 |                                  | Solution should have facility to set the speed limit for vehicle. In case any vehicle violates the speed limit ,alert notification should generate in command center.  |

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| 107 |                                      | User should be able to create the geofence over the GIS map.   |
| 108 |                                      | User should be able to create and save the geofence like circle, polygon, rectangle and free hand drawn shapes and save for further use.   |
| 109 |                                      | User should be able to edit the created geofence in case it is required and save the updated geofence.   |
| 110 |                                      | User should be able to map created geofence to a single vehicle or multiple vehicles.  |
| 111 |                                      | User should get alerts in case any vehicle violates the associated geofence.   |
| 112 |                                      | In case any vehicle is not in associated geofence, user should be identifying the vehicle on GIS map by its icon.  |
| 113 |                                      | Icon of all the vehicles should be color coded like vehicle within the geofence in green color, outside the geofence in red and no geofence associated in blue color.  |
| 114 |                                      | User should be able to fetch the geofence violation report of vehicle between selected duration.   |
| 115 | Architecture and Data Connectors     | Platform must have the ability to connect to different source systems using varied connection protocols and consume the data that can be either used for ingestion into the platform database or be directly pushed for the visualization layer to be consumed by visualization layer or be exposed as an API to be consumed by 3 <sup>rd</sup> party. |
| 116 |                                      | Platform shall be an IP enabled solution. All communication between the servers and other clients shall be based on standard TCP/IP protocol.  |
| 117 |                                      | Software Solution API/SDK should be available for third party system to use.   |
| 118 |                                      | Platform must be able to consume the data from REST API.   |
| 119 | Standard Operating Procedures (SOPs) | Platform must provide the ability to assign SOP to an alert type.  |
| 120 |                                      | Platform must provide the ability to approve or reject an SOP from getting executed for a created alert.   |
| 121 |                                      | Platform must provide an ability to trigger multiple tasks at the same time.   |
| 122 |                                      | Platform must provide an ability to trigger tasks to Field Responder mobile application through SOP.   |
| 123 | Escalation Rules                     | Platform must provide the Escalation capability if the SOP is not completed within the pre-defined duration. Duration can be set by an operator and can be updated if required.  |
| 124 |                                      | Platform must provide the capability to create Escalation levels so that escalation hierarchy can be established when the SOPs are not executed within the pre-defined duration.   |
| 125 |                                      | Escalation rules must be region-based and can be assigned to an SOP if escalation is required.   |
| 126 |                                      | Escalation rules must trigger both notification and email to the users for which the escalation level is assigned so that appropriate action can be taken by the user on the alert instance that is escalated.   |
| 127 | Visualization                        | Platform must have capability to create grid-based widget system to create different visualization elements and compose it over dashboards.  |

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| 128 |                                  | Platform must be capable of providing different widgets like charts, data grids, KPI, map, timeline.  |
| 129 |                                  | Platform user must be able to change the theme that are allocated by the admin user for the tenant.   |
| 130 |                                  | Platform visualization must be intuitive that the two or more widgets should be able to communicate with each other wherein the change in one or more widgets should affect the other widgets in the dashboard. |
| 131 |                                  | Platform should allow widget to drilldown from one level to next level and also allow other related widgets data to be automatically updated based on the selected drilldown level.                             |
| 132 |                                  | Platform must be able to embed other websites/portals/standalone pages into the dashboard using iframes.  |
| 133 | Notifications                    | Platform must be able to source the events from the sub-systems and be able to show in the form of notification so that the platform user can take necessary action on the alerts.                              |
| 134 |                                  | Platform must be able to show the escalation on an SOP Instance to an escalated user in the notification section.   |
| 135 |                                  | Platform users must be able to navigate from the notification section to the alert management section by perform click action on the notification.  |
| 136 |                                  | Platform must have an ability to unmute or mute notification sound for the alerts.  |
| 137 |                                  | Notification section must have the ability to represent graphically from which domain/sub-system the event is received.   |
| 138 |                                  | Platform users must receive the notification based on the Data Access Control restriction that is set for the domain for the derived roles.   |
| 139 | Reports                          | Platform must have an ability to schedule reports from the report section.  |
| 140 |                                  | Platform must have the ability to fetch reports based of selected parameters and can download it in Excel or PDF format.  |
| 141 |                                  | Platform must be able to preview the report before scheduling the report.   |
| 142 |                                  | Platform must be able to generate the report Daily, Weekly and Monthly.   |
| 143 |                                  | Platform must have the ability to pause the report schedule and resume it when required.  |
| 144 |                                  | Platform must have the necessary audit trail if the schedule got executed or failed, with appropriate transaction ids to trace in case of failures.   |
| 145 | Role based Access Control (RBAC) | In-built default Roles should be available in the Platform.   |
| 146 |                                  | Admin must have the ability to derive new roles from the default roles.   |
| 147 |                                  | Default roles must have the default features access capabilities predefined and can't be changed at any time.   |
| 148 |                                  | Platform must have the ability to assign appropriate features access levels to the roles.   |
| 149 |                                  | Platform must have the ability to assign appropriate domains  |

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|     |                              | access to the roles.  |
| 150 |                              | Platform must have the ability to assign appropriate region access to the roles.  |
| 151 |                              | Platform must have the ability to assign appropriate roles to the Users, and the users created would be able to see the data and access the features basis the role that has been assigned. |
| 152 | Dashboards                   | Integration platform should have KPI dashboard along with various analytics for end user.   |
| 153 |                              | GIS Analysis: Platform should be equipped with heat map analysis along with clustering of alerts to indicate the area affected.   |
| 154 |                              | Comparative Analysis: User should have option to compare two-time intervals along with alert type and subtype to measure the effectiveness of applying some policy.                         |
| 155 |                              | Trend Analysis: User should have visibility of all trends in system i.e., month wise, day wise, alert wise, season wise, time interval based.   |
| 156 |                              | Solution shall be enabled with word cloud and operator can easily identify maximum used key words.  |
| 157 |                              | User should allow to extract event based on custom draw shape from GIS map irrespective of any boundaries limitations.  |
| 158 | Intelligent Dispatch Centre  | Identify & dispatch mobile resources available nearby the Alert location.   |
| 159 | Intelligent Operator Console | Provide configurable intelligent operator console based on the jurisdiction, critical area or sensors to monitor as per situation demands for focused surveillance.                         |
| 160 | Remote User Module           | Supervisors remotely can access the system and monitor the alerts received, action taken status, response etc.  |
| 161 | Mass Notification System     | Provide a single web-based dashboard to send notifications to target audiences using multiple communication methods including SMS, E-mail.  |
| 162 | Workflow Engine              | User should be able to create the dynamic workflows with Drag and Drop ease.  |
| 163 |                              | Workflow can be created base on action / status change of an Alert.   |
| 164 |                              | User should be able to attach multiple activities with single workflow with Drag and Drop.  |
| 165 |                              | All the activities should execute in sequential order as they are created / attached with the work flow.  |
| 166 |                              | User should be able to attach single workflow with the Alert generated from different sub systems.  |
| 167 |                              | User should be able to de-attach the workflow from Alert Type.  |
| 168 |                              | User should be able to create multiple work flow without restricting a user.  |
| 169 |                              | User Should be able to detached the Workflow from Alert Type in case it is not required.  |
| 170 | Scheduler                    | User Should be able to schedule an Alerts/Event for a period at specific time.  |

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| 171 |                      | User should be able to schedule to broadcast a message to individual or group users of Software Solution application.   |
| 172 |                      | User should be able to schedule to play a file on public address system for certain period with an option to send it to individual or group of PA System (if applicable). |
| 173 |                      | User should be able to remove any scheduled event.  |
| 174 |                      | All scheduled event should be mapped to Calendar view in form of day, week or month.  |
| 175 | Custom Query Builder | Software Solution Platform should provide user to search the system data based on the query designed by operator dynamically.   |
| 176 |                      | User should be able to design the dynamic query using boolean operator like AND & OR.   |
| 177 |                      | User should be able to design dynamic query using conditional operator like IN, Greater Than, Less Than, Equal To, between and not between etc.                           |
| 178 |                      | User should be able to save these query templates for future use.   |
| 179 |                      | Search data can be taken as Print report in form of Excel/CSV or PDF.   |
| 180 | Alert Search         | Operator should be able to search alerts created based on some predefined parameters. Like From and To Date, Alert type, Alert area, alert sub type and status of alerts. |
| 181 |                      | Operator should be able to do analysis on searched data.  |
| 182 |                      | Pre - defined charts should be generated automatically based on search data in 2 x 2 blocks.  |
| 183 |                      | Operator should be able to change the type of chart in any of the panel out of four.  |
| 184 |                      | Operator should be able to Map any chart type to any panel in 2 x 2 blocks.   |
| 185 |                      | Operator should be able to enable or disable the level and legends of any chart panel.  |
| 186 |                      | Operator should be able to change the X - Axis data of any chart from the search results.   |
| 187 | Correlated Alerts    | Application should allow an admin operator to set the correlation parameters like correlation distance, Time etc.   |
| 188 |                      | Application should provide correlation notification in case any newly generated alert qualifies the defined correlation criteria.   |
| 189 |                      | Operator should be able to tag two correlated alerts manually after modifying the correlation criteria for a login session.   |
| 190 |                      | After tagging two alerts child alert should close automatically to avoid the repetitive work for operator.  |
| 191 |                      | Application should provide the count of alerts generated from same source in alert panel.   |
| 192 |                      | Operator should be able to view summary of alerts generated from same source and analyzed the similarity by clicking on counts of similar alerts.                         |
| 193 |                      | Operator should be able to close all similar alerts with single close action to avoid the repetitive work.  |
| 194 | Post Alert Analysis  | Solution should be displaying all Alert related details by just   |



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|     |  | entering the alert ID.  |
| 195 |  | Post Alert analysis should have complete information of Similar Alert generated within predefined time.   |
| 196 |  | Administrator should have the ability to change the predefined time period for displaying the similar alert.  |
| 197 |  | Complete history of alert action should be visible under post alert analysis.   |
| 198 |  | System should rate the alert execution based on certain parameter such as, closing time, priority, Action perform etc.  |
| 199 |  | Supervisors remotely can access the system and monitor the alerts received, action taken status, response etc.  |
| 200 |  | Supervisor should be able to add remarks against alerts.  |
| 201 |  | Supervisor should be able to give star ratings to an alert after analysing the complete details on single page.   |
| 202 | Command Line Action  | <p>Application should support following command line functionality :</p> <ul style="list-style-type: none"> <li>• Enable the console to be launched through a pre-defined button.</li> <li>• Enable a video window in the console to be displayed through a command line.</li> <li>• Launch an alarm window and alarm details in the console to be displayed through a command line.</li> <li>• View the All Commands Defined for operator action.</li> <li>• Programmatic command to acknowledge the particular alert.</li> <li>• Operator should be able to close an alert.</li> <li>• Escalate an alert through a command line.</li> <li>• Assign nearest field resource to alert through a command line.</li> <li>• locate the alert on map using command line.</li> <li>• Operator should be able to Enable and Disable the escalation for particular alert.</li> <li>• Open sensor window for deployed sensors across the jurisdiction.</li> <li>• Operator should be able to mark any sensor operational or non-operational using command line.</li> <li>• Send message to logged in application user using command line.</li> <li>• Broadcast the message to all logged in application user.</li> </ul> |
| 203 | Field Responder Mobile App (if required during contract period)<br>General Requirements: | The Software Solution shall support mobile apps for various off-the-shelf smartphones and tablets. The mobile apps shall communicate with the Mobile Server of Software Solution over any WIFI or mobile network connection.  |
| 204 |  | Integration platform should have Work force mobile app.   |
| 205 |  | Mobile app should receive alerts from integration platform.   |
| 206 |  | Mobile app should be used for GPS tracking of Resources.  |
| 207 |  | Mobile app should have the feature to update its status by acknowledge, enroute and arrive on the assigned alert.   |
| 208 |  | Mobile app user should submit the action taken report in form of text and should be able to attach audio, video files or  |

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|     |   | images with the alert.   |
| 209 |   | Action taken report should be visible at integration platform.   |
| 210 |   | Mobile application should have the facility to create POIs on the map to update the new locations to keep the map updated.   |
| 211 |   | All the communication between the mobile apps and Software Solution platform will be on HTTP and also on HTTPS by adding TLS encryption (if required).               |
| 212 | SOS Mobile App<br>General Requirements: | The application should provide functionalities enforcing User safety.  |
| 213 |   | User should be able to register themselves using SOS application with minimal information like Name, Phone number, gender, age and address.                          |
| 214 |   | User should be able to create SOS alert in integrated command-and-control centre application.  |
| 215 |   | Application should capture two pictures from front mobile camera and two from back camera automatically and attached with Created SOS alert.                         |
| 216 |   | Number of images can be configured in application without coding efforts involved.   |
| 217 |   | Application should capture 10 second video from mobile camera and attached with SOS alert created.   |
| 218 |   | User should be able to attached Image, additional textual information as remarks in case SOS alert is active and not closed.   |
| 219 |   | User real time location should be tracked from command-and-control center during active SOS alert.   |
| 220 |   | User should view all the alerts generated by him at least for a month time span.   |
| 221 |   | User should save up to five contacts number with in the application. In case SOS button pressed by citizen one predefined SMS should be delivered to saved Contacts. |
| 222 |   | User should be able to view neared Police Station from the current location in case he/she within the city jurisdiction.   |
| 223 |   | User should be able to get route from current location to the selected Police station.   |
| 224 |   | User should be able to view neared Hospital from the current location in case he/she within the city jurisdiction.   |
| 225 |   | User should be able to get route from current location to the selected Hospital.   |
| 226 |   | SOS Mobile App should be the integral part of Software Solution Application and should not be a Third-party Application.   |
| 227 |   | User Application should be available for Both Android and IOS mobile users.  |
| 228 | Social Media Analysis                   | Social Media Analysis should be integral part of Software Solution platform.   |
| 229 |   | No separate license should be required for this.   |
| 230 |   | It should integrate with open source APIs to monitor insights of the social media platform.  |



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| 231 |                                | Its should integrate with Facebook,Twitter,Instagram and multiple RSS feeds.  |
| 232 |                                | <p>Tool should provide insights of these platform like</p> <p>Total Followers</p> <p>New Followers</p> <p>New Accounts You Follow</p> <p>Male %</p> <p>Female %</p> <p>Primary Age Group</p> <p>Primary Location</p> <p># of Positive Sentiments</p> <p># of Negative Sentiments</p> <p># of Neutral Sentiments,Total Engagements</p> <p># of Individual Engagements by Type (retweets, likes, comments, link clicks, shares, etc.)</p> <p>Engagement Rate % Increase/Decrease</p> <p>Mentions Received,Total Page Views,Influencer analysis,Keyword search,most trending topics,latest trends</p>  |
| 233 | WhatsApp Chatbot               | Chatbot should be part of Software Solution application and provide a platform to citizens to get the static as well as dynamic information about the facilities and scheme.  |
| 234 |                                | It should not use any third party API or SDK except WhatsApp.   |
| 235 |                                | User can register a complaint from Chatbot into Software Solution application.  |
| 236 |                                | User can view the status of registered complaint.   |
| 237 |                                | Software Solution can broadcast to all chatbot users relevant information as and when needed.   |
| 238 | Application Server Performance | <p>Operator should be able to monitor following parameter of Software Solution application servers on real time bases with in the Software Solution application without using any external Tools.</p> <ul style="list-style-type: none"> <li>• CUP performance counter of Application server deployed</li> <li>• RAM Performance counter of Application server deployed</li> <li>• /Sec disk transfer and free and used space of drive</li> <li>• Lan Adaptor uses configured in Server</li> <li>• System performance counter like running process , file write operations / sec, file control operations / sec etc.</li> <li>• IIS performance counters like Request /sec, Request Wait Time ,Request Failed , Success Request etc.</li> </ul> <p>Above paremeters can be customizes as per the requirment</p> |

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| 239 | Database Performance           | <p>Operator should be able to monitor following parameter of Software Solution database server on real time bases with in the Software Solution application without using any external Tools.</p> <ul style="list-style-type: none"> <li>• Total Active requests on database.</li> <li>• Lock Request / sec.</li> <li>• Transactions / sec on database.</li> <li>• Database file size .</li> <li>• Processor Queue length.</li> <li>• User Connections.</li> <li>• Static Performance counters.</li> </ul> |
| 240 | Document Management            | Document management should be integral part of the Software Solution platform  |
| 241 |                                | User should be able to create dynamic file system / Folders of users' choice.  |
| 242 |                                | User should be able to upload PDF, Word, Excel, CSV, JPEG, GIF etc. file into application to manage  |
| 243 |                                | Uploaded files should be accessible based on user rights   |
| 244 |                                | User should make secure the file by encrypting and should not be modify without decrypting the same.   |
| 245 |                                | User Should be able to lock the file, so it cannot be download or access to delete from the file system  |
| 246 |                                | Application should be able to maintain all the action perform on a file which include view, downloads, Encrypted, decrypted renaming etc.  |
| 247 |                                | All the Logs should be accessible for further analytics.   |
| 248 |                                | Version of uploaded files should be maintained in application itself.  |
| 249 |                                | User should be able to rename the uploaded file.   |
| 250 |                                | User should be able to see the dashboard and over view of complete the action performed by a user.   |
| 251 | Software Solution OEM Criteria | <ul style="list-style-type: none"> <li>• Software Solution Platform OEM should have ISO 9000; ISO 20000/ISO27001.</li> </ul>   |
| 252 |                                | <ul style="list-style-type: none"> <li>• Software Solution Platform OEM should have office and development center in India for last 5 years.</li> </ul>  |
| 253 |                                | <ul style="list-style-type: none"> <li>• Software Solution Platform Application Software OEM must be CMMI Level 3 or above Certified</li> </ul>  |
| 254 |                                | <ul style="list-style-type: none"> <li>• OEM Should have at least 5 Workorders wrt municipal bodies/smart cities/ Emergency response systems in India.</li> </ul>  |
| 255 |                                | <ul style="list-style-type: none"> <li>• The Software Solution OEM should have PO/ Work-order for implementation of a state wide command and control centre project.</li> </ul>  |
| 256 |                                | <ul style="list-style-type: none"> <li>• Software Solution platform should be "make in India"</li> </ul>   |

## 8.2 Video Management Software

Video management system shall constitute of a platform which shall be designed for viewing, recording and replaying acquired video as part of overall project solution. This platform shall be based on the Internet Protocol (IP) open platform concept. Major functionalities are described here:

| #   | Minimum Specifications  | Compliance (Yes/No) |
|-----|---|---------------------|
| 1.  | VMS shall be used for centralized management of all field camera devices, video servers and client users.   |                     |
| 2.  | VMS server shall be deployed in a clustered server environment or support inbuilt mechanism for high availability and failover.   |                     |
| 3.  | VMS shall support a flexible rule-based system driven by schedules and events.  |                     |
| 4.  | VMS shall be supported for fully distributed solution for monitoring and control function, designed for limitless multi-site and multiple server installations requiring 24/7 surveillance with support for devices from different vendors.   |                     |
| 5.  | VMS shall support ONVIF compliant internet protocol (IP) cameras.   |                     |
| 6.  | The bidder shall clearly list in their proposal the make and models that can be integrated with the VMS, additionally all the offered VMS and cameras must have Open Network Video Interface Forum (ONVIF) compliance.<br><br>VMS shall be enabled for any standard storage technologies and video wall system integration.                                   |                     |
| 7.  | VMS shall be enabled for integration with any external Video Analytics Systems both server & edge based.  |                     |
| 8.  | VMS shall be capable of being deployed in a virtualized server environment without loss of any functionality.   |                     |
| 9.  | All CCTV cameras locations shall be overlaid in graphical map in the VMS Graphical User Interface (GUI). The cameras selection for viewing shall be possible via clicking on the camera location on the graphical map. The graphical map shall be of high resolution enabling operator to zoom-in for specific location while selecting a camera for viewing. |                     |
| 10. | VMS shall have an administrator interface to set system parameters, manage codecs, manage permissions and manage storage.   |                     |
| 11. | VMS day-to-day control of cameras and monitoring on client workstations shall be controlled through the administrator interface.  |                     |
| 12. | Whilst live control and monitoring is the primary activity of the monitoring workstations, video replay shall also be accommodated on the GUI for general review and also for pre- and post-alarm recording display.  |                     |
| 13. | The solution design for the VMS shall provide flexible video signal compression, display, storage and retrieval.  |                     |
| 14. | All CCTV camera video signal inputs to the system shall be provided to various  |                     |

| #   | Minimum Specifications   | Compliance (Yes/No) |
|-----|--|---------------------|
|     | command control center(s), Command Center etc., and the transmission medium used shall best suit the relative camera deployments and access to the CCTV Network.   |                     |
| 15. | VMS client shall have the capability to work with multi-monitor workstations. It shall be capable of displaying videos in up to three (3) monitors simultaneously.   |                     |
| a.  | AVI files  |                     |
| b.  | Motion- Joint Photographic Experts Group (M-JPEG)  |                     |
| c.  | Moving Picture Expert Group-4 (MPEG-4)   |                     |
| d.  | MP4 Export or Latest   |                     |
| 16. | All streams to the above locations shall be available in real-time and at full resolution. Resolution and other related parameters shall be configurable by the administrator in order to provide for network constraints. |                     |
| 17. | The VMS shall support field sensor settings. Each channel configured in the VMS shall have an individual setup for the following settings, the specific settings shall be determined according to the encoding device:     |                     |
| 18. | The VMS shall support the following operations:  |                     |
| a.  | Adding an IP device  |                     |
| b.  | Updating an IP device  |                     |
| c.  | Updating basic device parameters   |                     |
| d.  | Adding/removing channels   |                     |
| e.  | Adding/removing output signals   |                     |
| f.  | Updating an IP channel   |                     |
| g.  | Removing an IP device  |                     |
| h.  | Enabling/disabling an IP channel   |                     |
| i.  | Refreshing an IP device (in case of firmware upgrade)  |                     |
| j.  | Multicast at multiple aggregation points   |                     |

| #   | Minimum Specifications   | Compliance (Yes/No) |
|-----|--|---------------------|
| 19. | The VMS shall support retrieving data from edge storage. Thus when a lost or broken connection is restored, it shall be possible to retrieve the video from SD card and store it on central storage. System should support to view the recordings available over cameras local storage device (such as an SD card), and copy them to the server. |                     |
| 20. | The VMS shall support bookmarking the videos. Thus, allowing the users to mark incidents on live and/or playback video streams.  |                     |
| 21. | The VMS shall allow the administrator to distribute camera load across multiple recorders and be able shift the cameras from one recorder to another by simple drag and drop facility.   |                     |
| 22. | VMS shall support automatic failover for recording.  |                     |
| 23. | VMS should also support dual recording or mirroring if required.   |                     |
| 24. | VMS shall support manual failover for maintenance purpose.   |                     |
| 25. | VMS shall support access and view of cameras and views on a smartphone or a tablet (a mobile device).  |                     |
| 26. | VMS shall support integration with the ANPR application.   |                     |
| 27. | VMS shall support integration with other online and offline video analytic applications.   |                     |
| 28. | VMS shall be able to accept alerts from video analytics built into the cameras, other third party systems, sensors etc.  |                     |

### 8.3 Automatic Number Plate Recognition System

| Sr. NO | Parameter | Minimum Specifications   |
|--------|-----------|--|
| 1      | General   | <p>The entire ANPR process shall be performed at the lane location in real-time. The information captured of the plate alphanumeric, date-time, and any other information required shall be completed in approximately a few milliseconds. This information shall be transmitted to the Control Room for further processing if necessary, and/or stored at the lane for later retrieval.</p> <p>The solution should support integration with other ICCV applications and E-Abkari data for cross checking the vehicle entered and exited from the facility with their permitted data</p> |

| Sr. NO | Parameter                                  | Minimum Specifications   |
|--------|--|--|
|        |  | from the abkari portal. Trigger should be generated with respect to the deviations found (if any) in the ANPR values and permitted values.   |
| 2      | Lane Coverage                              | Each camera system covers at least 1 lane having width of 3.5 meter or more.   |
| 3      | Detection Zone                             | 15 m to 20 m for ANPR data   |
| 4      | Maximum Vehicle Speed                      | System captures clear images of all vehicles moving at a speed up to 100 km/hr.  |
| 5      | Vehicle Detection and Video Capture Module | The System shall automatically detect the license plate of all vehicles in the camera view in real time using video detection and activates license plate recognition software.  |
| 6      | Optical Character Recognition              | The system shall perform OCR (optical character recognition) of the license plate characters in real time. (English alpha-numeric characters in standard fonts). OCR accuracy shall be at least 90% during daytime and 70% during night-time for standard plates. System can detect and recognize the English alphanumeric License plate in standard fonts and formats of all vehicles including cars, HCV, LCV and two wheelers. The system is robust to variation in License Plates in terms of font, size, contrast and color.  |
| 7      | Network                                    | Connectivity from site to control room shall be through proper network and local storage should be provided to account for any data loss.  |
| 8      | Data capture and transfer                  | The OCR data of all vehicles along with the JPEG image of the vehicle etc. shall be automatically transferred immediately to the nominated server in the Control Room. Each vehicle record shall be a single file and shall contain, as a minimum, an ASCII header that contains the following: a) vehicle registration number b) date and time that the vehicle is identified c) ANPR site location, and it shall be possible to include one or more of the following in the same single vehicle record: a) image of the number plate b) image of the front of the vehicle from the ANPR IR camera, and/or c) wide-angle vehicle/lane image (with additional scene camera). A detailed description of the file format can be finalized by the user to further develop post processing software. |
| 9      | Hot List creation                          | The system shall have option to input certain license plates according to hot listed categories like "Wanted", "Suspicious",   |

| Sr. NO | Parameter  | Minimum Specifications   |
|--------|--|--|
|        |  | "Stolen" etc. The system can generate automatic alarms to alert the control room personnel for further action, in the event of detection of any vehicle falling in the Hot listed categories.  |
| 10     | Alert Generation                                 | On successful recognition of the number plate, system shall be able to generate automatic alarm to alert the control room for vehicles which have been marked as "Wanted", "Suspicious", "Stolen", etc.  |
| 11     | Data Storage                                     | The System shall store JPEG image of vehicle and license plate into a database management system like MySQL, PostgreSQL etc. along with date timestamp and site location details.  |
| 12     | Vehicle Classification                           | The System shall have option of identification of Color, Make Model of vehicles along with count and classification  |
| 13     | Data Retrieval and Reports                       | The system shall enable easy and quick retrieval of snapshots, video and other data for post incident analysis and investigations. Database search could be using criteria like date, time, location and vehicle number. The system shall be able to generate suitable MIS reports as desired by the user. The system shall also provide advanced and smart searching facility of License plates from the database.                |
| 14     | Integration with Third Part VMS                  | The system should be integrated with the proposed Video Management System.   |
| 15     | Local Server at Intersection for ANPR Processing | The system must run on Outdoor INDUSTRIAL Grade processor-based server and should be able to cover at least 4 lanes or complete junction. The entire unit should be capable to perform under overall operating temperature of minimum 60 deg. System should be equipped with appropriate storage capacity for transactional data for min. 7 days, with overwriting capability. Images should be stored in tamper proof format only |

#### 8.4 Vehicle Tracking System

The Automated Vehicle Location System (AVLS) shall primarily use GPS based location tracking devices mounted on the vehicle as primary source of data for tracking purposes. The location and associated data acquired from the vehicle units shall act as input source for tracking and operations process management required by user executing their specific functions. The AVLS system shall enable Authority operations team to monitor vehicle movement in real-time and synthesize the AVL field data to deliver the same on the public information system devices installed on Bus stations, Terminals, Buses, Authority customer portal, mobile information delivery system in



case of public transit application. The AVL data from vehicles other than the transit vehicles shall be delivered to individual process owners within Authority for further use and processing based on the requirements identified for individual departments.

The backend tracking system should be AIS-140 (Automatic Industry Standards-140) compliant and the certification must be obtained from certifying agencies authorized by MoRTH for carrying out AIS-140 certification. The backend tracking platform should be integrated with VAHAN and ERSS.

### **8.5 Call Center Management System**

- **Call Routing and Queuing:** The call center management system should be able to route incoming calls to the most appropriate agent based on their skillset and availability. Calls should also be queued and prioritized based on the customer's needs and urgency.
- **Interactive Voice Response (IVR):** The system should include an IVR system that allows customers to self-serve and navigate through the options using touch-tone or voice commands. The IVR should also be customizable to meet the department's specific needs.
- **Call Monitoring and Recording:** The system should allow supervisors to monitor and listen to live calls in real-time, as well as record calls for quality assurance and training purposes.
- **Reporting and Analytics:** The system should provide detailed reporting and analytics on call volumes, agent performance, customer satisfaction, and other key performance indicators. These reports should be customizable and exportable in various formats.
- **Agent Management:** The system should allow supervisors to manage agents, assign tasks, and track their performance in real-time. Agents should also have access to relevant customer information, call history, and other resources to provide personalized service.
- **Integration with Other Systems:** The system should be able to integrate with other departmental systems such as customer relationship management (CRM) software, help desk software, and billing systems to provide a seamless experience for customers and agents.
- **Multichannel Support:** The system should support multiple channels, including phone, email, chat, and social media, to provide customers with a choice of communication channels.
- **Escalation Function:** The system should have an escalation function that allows supervisors to escalate calls to higher-level agents or managers when needed. The escalation function should be customizable to match the department's escalation procedures and protocols.
- **Scalability and Flexibility:** The system should be scalable and flexible to meet the department's changing needs and growing customer base. It should also be



customizable to match the department's branding and customer service requirements.

- **Security and Compliance:** The system should be secure and compliant with industry standards, including data privacy regulations and security protocols.
- **Training and Support:** The vendor should provide comprehensive training and support to ensure smooth implementation and ongoing operation of the call center management system. This should include user training, technical support, and ongoing system maintenance and updates.

### 8.6 Analytical Solution

Given below are the exhaustive list of the analytical use cases (but not limited to) to be developed by the Service Provider. Excise department shall provide the real time or data dump of the meta data through API from E-Abkari Portal for the analytical dashboard.

Analytical Dashboard shall be developed by the Service Provider as per requirements by Excise Department officials. End to End Intellectual property rights of the Analytical Dashboard shall belong to Excise Department post development. **The dashboard should be developed on Open-Source Platform/COTS Product but no license fee or any additional fee shall be paid by the Excise Department against the Analytical Dashboard.** The dashboard along with other applications shall be hosted at DC/Cloud Infrastructure as per instruction by Excise Department/BSCDCL.

1. **Licensing:** The platform should be licensed under an open-source license approved by the Open Source Initiative (OSI), such as the Apache or GNU General Public License (GPL). The Service Provider should be allowed to use, modify, and distribute the software without any restrictions.
2. **Scalability:** The platform should be scalable to handle large amounts of data and provide high-performance analytics. It should support distributed computing and be able to run on a cluster of machines.
3. **Data Sources:** The platform should support a wide range of data sources, including structured and unstructured data. It should be able to integrate with different types of databases, data warehouses, and data lakes.
4. **Data Processing:** The platform should provide a range of data processing capabilities, such as data ingestion, transformation, cleansing, and aggregation. It should support both batch and real-time data processing.
5. **Analytics:** The platform should support a variety of analytical functions, such as data visualization, statistical analysis, machine learning, and predictive modeling. It should have a user-friendly interface for creating and managing analytical workflows.
6. **Security:** The platform should have robust security features to ensure the confidentiality, integrity, and availability of data. It should support access control, authentication, encryption, and auditing.
7. **Support and Maintenance:** The Service Provider should provide comprehensive support and maintenance services for the platform, including installation, configuration, troubleshooting, and software updates during the contract period.

**Post completion of the contract period or termination of service, the ownership of the Analytical Solution/Dashboard/Data Management Solution shall belong with**

**Excise Department and Service Provider shall have no rights and ownership over the product. In any case whatsoever.** If the proposed product is COTS based, then perpetual license of the product should be provided by the Service Provider at no additional cost.

Further, post completion of the contract period or termination of services, the Service Provider shall handover end to end data repository, documents, source code and all form of intellectual property to the Excise Department at **no additional cost**. This shall be considered as mandatory requirement before exit management.

| #  | Component              | Use Cases for Analytics  |
|----|------------------------|--|
| 1. | CCTV ANPR Surveillance | <ul style="list-style-type: none"> <li>Real time Surveillance Feed Monitoring and Tracking through Command Center</li> <li>ANPR Camera feed match with the E-Abkari data to track vehicle entry/exit at production facility &amp; ware houses</li> <li>Video Management System Access</li> </ul> |
| 2. | Vehicles Tracking      | <ul style="list-style-type: none"> <li>GPS Tracking of Vehicle carrying the stock from Production Facility to Warehouse to Retail shops</li> <li>Service Level based performance monitoring (Speed/Time) and identification of deviations</li> <li>GIS Management System Access</li> </ul>       |
| 3. | Call Center            | <ul style="list-style-type: none"> <li>24X7 Call Center for receiving complaints from public &amp; E-Abkari Services</li> <li>Forwarding the escalation to the concerns officers</li> </ul>  |
| 4. | Data Analytics         | <ul style="list-style-type: none"> <li>Tax evasion Identification based on E-Abkari data</li> <li>Preparation of actionable insights and related reports</li> <li>Dashboard Development for E-Abkari Analysis</li> </ul>   |
| 5. | Licenses               | <ul style="list-style-type: none"> <li>Analysis of 16 Category &amp; 47 Sub- Category Licenses &amp; performance</li> <li>360 Degree profile creation of all the licensees</li> </ul>  |
| 6. | Production Facility    | <ul style="list-style-type: none"> <li>Production against raw material and deviation identification</li> <li>Bottle labelling monitoring Quantity wise</li> <li>Inhouse Stock and production performance monitoring</li> </ul>   |
| 7. | Revenue                | <ul style="list-style-type: none"> <li>License Revenue</li> <li>Duty</li> <li>VAT and other Taxes</li> <li>Leakages identification basis the sale trend</li> </ul>   |

| #   | Component           | Use Cases for Analytics   |
|-----|---------------------|---|
| 8.  | Permits             | <ul style="list-style-type: none"> <li>Vehicle Permits and their performance tracking</li> <li>Cross checking the permits with ANPR Camera Feed against vehicle entry/exit the production &amp; warehousing facility</li> </ul> |
| 9.  | Labels              | <ul style="list-style-type: none"> <li>Label wise production &amp; consumption trend</li> <li>Identification of Duty slab basis the labels sale</li> <li>Revenue for Excise against various labels</li> </ul>                   |
| 10. | Geographical Demand | <ul style="list-style-type: none"> <li>Division, District &amp; Thana wise tracking of Liquor Demand</li> <li>Area wise identification of major labels sold &amp; Heat Map generation</li> </ul>                                |
| 11. | Warehouses          | <ul style="list-style-type: none"> <li>Input, Stock &amp; Output wise Warehouse rating and performance monitoring</li> <li>Entry &amp; Exit monitoring using ANPR Cameras</li> </ul>  |
| 12. | Retailers           | <ul style="list-style-type: none"> <li>One Click Profile &amp; Performance Tracking</li> <li>Tracking of variation in sale and order trend</li> <li>Future projections</li> <li>Default in Duty Payment</li> </ul>              |
| 13. | Officer Profile     | <ul style="list-style-type: none"> <li>Profile and Performance of the officer against the data feed</li> </ul>  |
| 14. | Consumption         | <ul style="list-style-type: none"> <li>Consumption trend in terms of Labels, Retailers, Area etc. and generation of Heat Maps</li> </ul>  |
| 15. | Duty Slab Trend     | <ul style="list-style-type: none"> <li>Propose new duty slabs basis the label sale for enhancing the revenue and recommendations to State Government</li> </ul>   |
| 16. | Projections         | <ul style="list-style-type: none"> <li>Projection of Demand   Sale   Revenue   Deviations etc.</li> </ul>   |

**Note:** Please be noted that above Component & Analytics are exhaustive in nature and incorporates the justify the intent of the authority. Service Provider is hereby instructed to consider that details of the above use cases and variable factors associated and required with them shall be mentioned by Excise Department.

Service Provider during their Project Documentation stage i.e. M1 Milestone shall have detailed discussion with the Excise Department to understand their requirements and expectations.

Further, post project Go-Live, during the operations phase, If Authority i.e. BSCDCL and Excise Department comes up with additional use cases and requirement in the Analytical Dashboard & reports, then Service Provider shall be developing them as per the requirements. The deployed Manpower shall be responsible for such kind of additional development and no additional cost or change order shall be released to the Service Provider with respect to analytics or development of use cases & reports in any case

whatsoever.

Infrastructure Side

### 8.7 Videowall

| Video Wall, 70" Displays |   |   |                     |
|--------------------------|---|---|---------------------|
| Sl. No.                  | Parameter                                 | Technical Specifications  | Compliance (Yes/No) |
| 1                        | Overview Display                          | 70" diagonal size with bezel-less design to have seamless technology with only 0.2 mm gap between two cubes |                     |
| 2                        | Total panels                              | 4 DLP Cubes in 2x2 configuration  |                     |
| 3                        | Native Resolution per Panel               | 1920 x 1080   |                     |
| 4                        | Aspect Ratio                              | 16:9  |                     |
| 5                        | Backlight                                 | LED with 700 nits brightness and $\geq 100,000$ hours lifetime  |                     |
| 6                        | Brightness                                | 700 nits  |                     |
| 7                        | Viewing angle                             | 178° (H), 178° (V)  |                     |
| 8                        | Automatic color and brightness adjustment | Yes, with embedded light sensor and color sensor  |                     |
| 9                        | Input signal flexibility                  | HDMI, DisplayPort, DVI, VGA, S-Video, Composite Video, IP Streaming   |                     |
| 10                       | Connectivity                              | Ethernet, RS232C, IR, USB   |                     |
| 11                       | OEM Certification                         | BIS   |                     |
| 12                       | Signal cropping                           | Yes   |                     |
| 13                       | Remote Management                         | Yes, via LAN or RS232C  |                     |
| 14                       | EMC Protection                            | BIS for EMC protection  |                     |
| 15                       | Safety                                    | Complies with BIS for Safety  |                     |
| 16                       | Auto-sensing alignment                    | Yes   |                     |
| 17                       | Overview Display                          | 70" diagonal size with bezel-less design to have seamless technology with only 1.8mm gap between two panels |                     |

### 8.8 Videowall Controller

| Video Wall Controller with Software |           |  |                     |
|-------------------------------------|-----------|--|---------------------|
| Sl. No.                             | Parameter | Technical Specifications   | Compliance (Yes/No) |
| 1                                   | CPU       | Intel Core i7-10700 Processor (8 Cores, 16M Cache, up to 4.80 GHz) |                     |

|    |                       |  |  |
|----|-----------------------|--|--|
| 2  | Memory                | 32GB DDR4 RAM  |  |
| 3  | Hard Disk             | 1TB SSD  |  |
| 4  | Cooling               | Liquid cooling system/Fan Cooling System   |  |
| 5  | Network               | Dual Gigabit Ethernet ports  |  |
| 6  | Outputs               | 4 HDMI outputs (supporting up to 4K resolution) at 60 FPS  |  |
| 7  | Inputs                | 2 DisplayPort inputs   |  |
| 11 | Graphics Card         | NVIDIA GeForce RTX 3070 with 8GB GDDR6 memory AS PER oem Design  |  |
| 12 | Operating System      | Windows 10 Pro 64-bit  |  |
| 13 | Protocols Supported   | TCP/IP, UDP, HTTP, SNMP  |  |
| 14 | Dimensions            | 19" rackmountable (2U)   |  |
| 15 | Operating Conditions  | 0°C to 35°C, 10% to 90% non-condensing humidity  |  |
| 18 | Humidity              | Max. 80% Rh(noncondensing) @ 40°C  |  |
| 19 | Regulation Compliance | BIS  |  |
| 20 | Software              | The software should be able to preconfigure various display layouts and access them at any time with a simple mouse click or schedule/timer based.   |  |
| 21 | Software              | The software should be able display multiple sources anywhere on video wall in any size.<br>Key features of Video Wall management Software <ul style="list-style-type: none"> <li>• Central configuration database</li> <li>• Browser based user interface</li> <li>• Auto-detection of network sources</li> <li>• Online configuration of sources,displays and system variables</li> </ul>  |  |
| 22 | Software              | Video Wall Control Software shall allow commands on wall level or cube level or a selection of cubes: <ul style="list-style-type: none"> <li>• Switching the entire display wall on or off.</li> <li>• Setting all projection modules to a common brightness target, which can be either static(fixed) or dynamic to always achieve maximum (or minimum) common brightness between projection modules.</li> <li>• Fine-tune colour of each cube</li> </ul> |  |
| 23 | Software              | Should support Multiple clients / Consoles to control the Wall layouts   |  |
| 24 | Software              | The Software should be able to share layouts b/w available different videowalls on same network as well as preview of sources on the workstation   |  |
| 25 | Software              | Software should enable the user to display multiple sources (both local & remote) up to any size and anywhere on the display walls (both local & remote).  |  |
| 26 | Software              | The software should be able to create layouts and launch them as and when desired  |  |
| 27 | Software              | The Display Wall and sources (both local & remote) should be controlled from Remote PC through LAN without the use of KVM Hardware.  |  |
| 28 | Software              | Software should support display of Alarms  |  |

|    |          |  |  |
|----|----------|--|--|
| 29 | Software | The software should provide at least 2 layers of authentication  |  |
| 30 | Software | Software should be able to Save and Load desktop layouts from Local or remote machines   |  |
| 31 | Software | All the Layouts can be scheduled as per user convince. Software should support auto launch of Layouts according to specified time event by user  |  |
| 32 | Software | It should be possible to create layouts comprising of screen scrapped content of Workstations, DVI inputs, Web sources, URLs configured as sources. Layouts can be pre-configured or changed in real time Can be pre-configured or changed in real time  |  |
| 33 | Software | It should be possible to schedule specific Layout based on time range It should be possible to share the layouts over LAN/WAN Network with Display in meeting room or on Remote Workstations connected on LAN/WAN Network  |  |
| 34 | Software | The system shall include complete Bi-directional Soft KVM to permit operators to take mouse & keyboard control of Displays, Screen Scrapped applications and DVI source  |  |
| 35 | Software | It should be possible to create two separate Tickers which run concurrently. These can be positioned at top or bottom and can run independently  |  |
| 36 | Software | The system should have the capabilities of interacting (Monitoring & Control) with various applications on different network through the single Operator Workstation. It shall be possible to launch layouts, change layouts in real time using Tablet   |  |
| 37 | Software | The control of the wall shall be possible via a network. All cubes shall have their own IP address, and the control software can access all of them at the same time. The available features shall be: On/Off, Brightness and Colour, Input control Separate hardware server for monitoring features Wall or Panel On/Off, Brightness and Colour, Input control, health monitoring. Also, software have feature to show maximum, minimum and current brightness / colour values of all the projectors. |  |
| 38 | Software | Central setup & Connection management, Central configuration database, fully distributed & modular component technology, Browser based UI, Auto-detection of network sources   |  |
| 39 | Software | Online configuration of sources, backup & restore, Scheduled backup, fully features web services-based API covering all legacy and encrypted communications  |  |
| 40 | Software | Save and load layouts (complete display pre-sets including perspectives and applications), start stop and position applications & sources freely over the complete desktop, remote keyboard and mouse control from and towards other networked desktops (bi-directional)   |  |
| 41 | Modules  | The Display Modules, Display Controller & Software should be from a single OEM   |  |

## 8.9 Work Station

| #   | Parameter   | Minimum Specifications   | Compliance |
|-----|---|--|------------|
| 1.  | Processor   | Latest generation 64bit X86 Quad core processor(3Ghz) or better  |            |
| 2.  | Chipset   | Latest series 64bit Chipset  |            |
| 3.  | Motherboard   | OEM Motherboard  |            |
| 4.  | RAM   | Minimum 8 GB DDR3 ECC Memory @ 1600 Mhz. Slots should be free for future upgrade. Minimum 4 DIMM slots, supporting up to 32GB ECC  |            |
| 5.  | Graphics card   | Minimum Graphics card with 2 GB video memory (non- shared)   |            |
| 6.  | HDD   | 500 GB SATA-3 Hard drive @7200 rpm with Flash Cache of 64GB SSD  |            |
| 7.  | Media Drive   | NO CD / DVD Drive  |            |
| 8.  | Network interface   | 10/100/1000 Mbps autosensing on board integrated RJ-45 Ethernet port.  |            |
| 9.  | Audio   | Line/Mic IN, Line-out/Spr Out (3.5 mm)   |            |
| 10. | Ports   | Minimum 6 USB ports (out of that 2 in front)   |            |
| 11. | Keyboard  | 104 keys minimum OEM keyboard  |            |
| 12. | Mouse   | 2 button optical scroll mouse (USB)  |            |
| 13. | PTZ joystick controller<br>(with 2 of the workstations in SCOC) | <ul style="list-style-type: none"> <li>PTZ speed dome control for IP cameras</li> <li>Minimum 10 programmable buttons</li> <li>Multi-camera operations</li> <li>Compatible with all the camera models offered in the solution</li> <li>Compatible with VMS /Monitoring software offered</li> </ul> |            |
| 14. | Monitor   | Three Monitors of 22" TFT LED monitor, Minimum 1920 x 1080 resolution, 5 ms or better response time, TCO 05 (or higher) certified. The TFT Monitor, CPU, Mouse and keyboard workstation shall be of same make.   |            |
| 15. | Certification   | Energy star 5.0/BEE star certified   |            |
| 16. | Operating System  | 64 bit pre-loaded OS with recovery disc  |            |
| 17. | Security  | BIOS controlled electro-mechanical internal chassis lock for the system.   |            |



| #   | Parameter         | Minimum Specifications   | Compliance |
|-----|-------------------|--|------------|
| 18. | Antivirus feature | Advanced antivirus, antispymware, desktop firewall, intrusion prevention (comprising of a single, deployable agent) which can be managed by a central server. (Support, updates, patches and errata for the entire contract/ project period) |            |
| 19. | Power supply      | SMPS; Minimum 400-watt Continuous Power Supply with Full ranging input and APFC  |            |

### 8.10 Application Server

| Sl. No. | Parameter                     | Description   | Compliance (Yes/No) |
|---------|-------------------------------|---|---------------------|
| 1       | Make & Model                  | (Specify)   |                     |
| 2       | Market position               | The OEM for the proposed server must be in one of the top two server vendors (by market share revenue in IDC) in any of the previous 2 quarters             |                     |
| 3       | Form Factor                   | 2U rack mounted with sliding rails  |                     |
| 4       | Supported CPU                 | Up to two 3rd Generation Intel® Xeon® Scalable processors with up to 40 cores per processor.  |                     |
| 5       | Configured CPU                | 2* 24 Cores with clock speed of 2.1 GHz or better and with 36 MB cache or better  |                     |
| 6       | Memory slots                  | Up to 32 x DDR4 RDIMMs/LRDIMMs  |                     |
| 7       | Memory configured             | 256 GB populated with 16 GB DIMMs 3200 MT/s   |                     |
| 8       | Disks supported               | Up to 24 x 2.5" SAS/SATA HDD or SSD or NVMe with universal slots  |                     |
| 9       | Disks configured              | 4* 2.4 TB 10K SAS<br>2* 960GB SAS SSD RI Drive, 1 DWPD  |                     |
| 10      | RAID Controller               | HW RAID Card with 8 GB Cache  |                     |
| 11      | I/O slots                     | Up to 8 x PCIe Slots Gen4   |                     |
| 12      | Ethernet ports                | 4* 10/25GbE SFP28 Ports and 4* 1G Base-T ports. The server should be provided with port level and card level redundancy                                     |                     |
| 13      | Certification and compliances | Microsoft Windows Server, Hyper-V, VMWare, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES)   |                     |
| 14      | Power Supply                  | Platinum rated redundant Hot plug Power Supplies with hot plug fans   |                     |
| 15      | Management integration        | Support for integration with Microsoft System Center, VMware vCenter, BMC Software  |                     |
| 16      | Power & temperature           | Real-time power meter, graphing, thresholds, alerts & capping with historical power counters.<br>Temperature monitoring & graphing                          |                     |
| 17      | Pre-failure alert             | Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD |                     |



|    |                            |  |  |
|----|----------------------------|--|--|
| 18 | Configuration & management | <ul style="list-style-type: none"> <li>• Real-time out-of-band hardware performance monitoring &amp; alerting</li> <li>• Agent-free monitoring, driver updates &amp; configuration, power monitoring &amp; capping, RAID management, external storage management, monitoring of FC, HBA &amp; CNA &amp; system health</li> <li>• Out-of-band hardware &amp; firmware inventory</li> <li>• Zero-touch auto configuration to auto deploy a baseline server configuration profile</li> </ul>                              |  |
| 19 | Management (continued)     | <ul style="list-style-type: none"> <li>• Automated hardware configuration and Operating System deployment to multiple servers</li> <li>• Zero-touch repository manager and self-updating firmware system</li> <li>• Virtual IO management / stateless computing</li> <li>• Support for Redfish API for simple and secure management of scalable platform hardware</li> <li>• Should support telemetry streaming</li> <li>• Server management software should support upto 8000 devices in a single instance</li> </ul> |  |
| 20 | LCD panel                  | Should display system ID, status information and system error error code followed by descriptive text. LCD background should light up in different colours during normal system operation & error conditions.  |  |
| 21 | Server security            | Should have a cyber resilient architecture for a hardened server design for protection, detection & recovery from cyber attacks  |  |
|    |                            | Should provide effective protection, reliable detection & rapid recovery using: <ul style="list-style-type: none"> <li>- Silicon-based Hardware Root of Trust</li> <li>- Signed firmware updates</li> <li>- Secure default passwords</li> <li>- Configuration and firmware drift detection</li> <li>- Persistent event logging including user activity</li> <li>- Secure alerting</li> <li>- Automatic BIOS recovery</li> <li>- Rapid OS recovery</li> <li>- System erase</li> </ul>                                   |  |
|    |                            | Configuration upgrades should be only with cryptographically signed firmware and software  |  |
|    |                            | Should provide system lockdown feature to prevent change (or “drift”) in system firmware image(s) & prevent malicious modification of server firmware  |  |
| 22 | Intrusion alert            | Intrusion alert in case chassis cover being opened   |  |
| 23 | Warranty                   | 5 years On-site comprehensive warranty with 24x7x365 remote hardware support. Faulty Disks would not be retuned back to OEM/Vendor   |  |

### 8.11 Storage

| Sl. No. | Parameter                          | Description   | Compliance (Yes/No) |
|---------|------------------------------------|---|---------------------|
| 1       | Storage Controller                 | The Storage Solution should be based on multiple controllers with Data Assurance in active-active mode configured in a NSPOF and End-to-End Data Protection to provide both SAN and NAS functionalities from day one.   |                     |
| 2       | Cache required                     | The system should have 48 x 2.1 Ghz CPU Cores or higher per array and minimum 384 GB or higher cache memory across the two controllers with an ability to protect data on cache if there is a controller failure or power outage. The cache on the storage should have 36 hrs or more battery backup (OR) should have destaging capability to either flash/disk. The system should also have extended mirrored cache based on SSD or 768 GB DRAM or higher cache must be provided on the offered storage controllers for read and write operations. |                     |
| 3       | Drive Support                      | The system must support intermixing of SSD, SAS and NLSAS/SATA drives. Solution should be supplied with SSD/SAS/NLSAS drives to meet the capacity requirements of the Smart city.   |                     |
| 4       | Protocols                          | The storage should be configured with FCP & iSCSI, NFS/SMB protocols. Any hardware/software required for this functionality shall be supplied along with it in No Single Point Of Failure mode  |                     |
| 5       | Performance                        | The storage should be able to deliver atleast 3 GBPS throughput   |                     |
| 6       | RAID configuration                 | Should support various RAID levels 0/ 10, 5, 6  |                     |
| 7       | Storage Capacity                   | Total: 100 TB or higher Usable Capacity- 20 TB SSD on RAID 5 , 80 TB on RAID 5 with 10K RPM SAS HDD,  |                     |
| 8       | Drive Support                      | The system must support intermixing of SSD, SAS and NL-SAS dual ported drives to meet the capacity and performance requirements of the applications. The system must support dynamic/automated tiering of data across the drives (including SSD, SAS and NLSAS). The system must support a minimum of a 800 or more disks per two controllers for scalability purpose.  |                     |
| 9       | Front-End and Backend connectivity | The proposed storage system should have minimum, 4 numbers of 12Gbs or higher backend SAS ports scalable to 8 x 12 Gbps SAS Ports, 8 numbers of 32Gb or higher FC ports and 8 nos. of 10G or higher ports for ( iSCSI, NFS/SMB) available across controllers.   |                     |
| 10      | Rack Mountable                     | The storage should be supplied with rack mount kit. All the necessary patch cords (Ethernet and Fiber) shall be provided and installed by the vendor.   |                     |
| 11      |                                    | The storage shall have the ability to expand LUNS/Volumes on the storage online and instantly and it should have data at rest Encryption( Controller based/SED)   |                     |
| 12      | Storage functionality              | The storage shall have the ability to create logical volumes without physical capacity being available or in other words system should allow over-provisioning of the capacity. The license required for the same shall be  |                     |

|    |                       |   |  |
|----|-----------------------|---|--|
|    |                       | supplied for the maximum supported capacity of the offered storage model.   |  |
| 13 |                       | The proposed storage system should be configured to provide data protection against two simultaneous drive failures, it should also have WORM/File level retention features.  |  |
| 14 |                       | The required number hard disks for parity & spares, should be provided exclusively of the usable capacity mentioned after consider RAID and Filesystem overhead. 1 spare per 32 drive should be configured as spare drives with all subsequent disk types. The Proposed storage must provide either dedicated or Global or shared/distributed Hot Spare as per the hot spare policy of the storage. |  |
| 15 |                       | Storage system should support RAID level distributing data across multiple Disk to ensure faster rebuild time   |  |
| 16 |                       | Storage system should allow variable block size nondisruptively for defined RAID group levels to meet various kind of workload  |  |
| 17 |                       | Storage shall have capability to integrate with Object Storage.   |  |
| 18 |                       | System should have redundant hot swappable components like controllers, disks, power supplies, fans etc   |  |
| 19 | Point-in-times images | The storage should have the requisite licenses to create point-in-time snapshots. The storage should support minimum 200 snapshots per system. The license proposed should be for the complete supported capacity of the system   |  |
|    |                       | The system should support instant creation of clones of active data   |  |
| 20 | Management            | Easy to use GUI based administration interface for configuration, storage management and performance analysis tools   |  |
| 21 | OS support            | Support for industry-leading Operating System platforms including: LINUX , Microsoft Windows, HP-UX, SUN Solaris, IBMAIX, etc. It shall support connecting hosts over iSCSI, NFS, SMB and FC and shall be supplied with any Multipathing software, if required, with the solution   |  |
| 22 | Warranty & SLA        | The Hardware and software quoted should have 5 years support along with all upgrade and updates   |  |

### 8.12 L3 Switch

| Sl. No. | Description  | Compliance (Yes/No) |
|---------|--|---------------------|
|         | <b>Desc : Datacentre Switches -</b>  |                     |
| 1       | All the switches should be from same OEM. Bidder has to quote Spine to each Leaf connectivity over 100G. |                     |
| 2       | The Switch should support non-blocking Layer 2 switching and Layer 3 routing                             |                     |

|    |  |  |
|----|--|--|
| 3  | The switch should have inbuilt redundant, hot-swappable fan modules and power supplies with power cords provided as per site requirement |  |
| 4  | Switch should support the complete STACK of IP V4 and IP V6 services. Switch must be IPv6 Ready from Day 1.                              |  |
| 5  | Switch with different modules should function line rate and should not have any port with oversubscription ratio applied                 |  |
| 6  | Switch should have the following interfaces:   |  |
| 7  | Minimum 24 no. of 40/100Gbps SFP+ ports. 1 Gigabit RJ45 Port for Management. Fibre Modules to be supplied per switch with patch cords    |  |
| 8  | Packet buffer memory: 32MB<br>CPU memory: 16GB   |  |
| 9  | Throughput - minimum 6.4 Tbps (Full duplex) Line rate throughput   |  |
| 10 | Layer 3 IP Routing: Inter-Vlan Routing, RIPv2, OSPF & BGP, Policy based routing.   |  |
| 11 | L3 switching, Port Aggregation Protocol, 802.1Q (VLAN), Spanning-Tree Protocol Guard   |  |
| 12 | Min. 128K MAC Address support  |  |
| 13 | Min 128K IPV4, 64k IPV6  |  |
| 14 | Min 16K Multicast Routes   |  |
| 15 | Min. 1K VLANs Support  |  |
| 16 | VRFs/VXLAN support   |  |
| 17 | Should support active-active uplink  |  |
| 18 | Should have at least 100 vPC's/ LAG/LACP or higher.  |  |
| 19 | Should have VXLAN + EVPN compliance  |  |
| 20 | IPV4 & IPV6 compliant  |  |
| 21 | provide real-time streaming telemetry for device parameters without using SNMP protocol  |  |
|    | <b>Management</b>  |  |
| 22 | Secure Web, ssh v2, SNMP v3, Console, syslog   |  |
| 23 | USB Port and Console Port  |  |
| 24 | Should have Open APIs/REST APIs  |  |
| 25 | The switch should provide telemetry analytics and notification based on System events without using SNMP protocol.                       |  |
|    | <b>QOS</b>   |  |
| 26 | 802.1P & DSCP  |  |
| 27 | Should provide QoS policies including shaping,   |  |
| 28 | Traffic prioritization.  |  |
|    | <b>Security</b>  |  |
| 29 | ACLs based on source, destination IP addresses, ports  |  |
| 30 | Switch should have EAL2/NDPP certified   |  |
|    | <b>Rack Mounting</b>   |  |
| 31 | Max 1RU size   |  |
| 32 | OEM Rack Mounting Kit & Console Cable to be provided   |  |
| 33 | ONIE Support - to care care of the OPEN Networking with 3rd Party Network Operating System   |  |

### 8.13 Dome Camera

#### Dome Camera

| Sl. No. | Parameter                                  | Technical Specifications  | Compliance (Yes/No) | Remarks |
|---------|--|---|---------------------|---------|
| 1       | Type of Camera                             | Indoor Dome   |                     |         |
| 2       | Image Sensor                               | 1/2.8" or better progressive Scan CMOS  |                     |         |
| 3       | Signal System                              | PAL/NTSC  |                     |         |
| 4       | Resolution & frame rate                    | 2MP (1920 × 1080) @ 25/30fps  |                     |         |
| 5       | Minimum Illumination                       | 0.005Lux@ F1.6, AGC ON, 0 lux with IR or better   |                     |         |
| 6       | Imaging                                    | 1/3s to 1/100000s, Auto Gain Control, White Balance- Auto, Back Light Compensation, Multi zone Privacy Masking, HLC.  |                     |         |
| 7       | Signal to Noise Ratio                      | 50 dB or more   |                     |         |
| 8       | Lens Type                                  | 2.7mm ~ 13.5mm  |                     |         |
| 9       | Focus                                      | Motorized Vari Focal  |                     |         |
| 10      | Day & Night                                | True Day & Night High Performance Mechanical IR cut filter with auto switch, IR Source- Inbuilt Smart IR LED's with effective distance up to 30 Mtr or better with the help of External/ Integrated IR. |                     |         |
| 11      | Video Compression (Minimum)                | H.265+, H.265, H.264+, H.264  |                     |         |
| 12      | Wide Dynamic Range                         | WDR (120db or more), HLC and BLC  |                     |         |
| 13      | Digital Noise Reduction                    | DNR (2D/3D) On/Off  |                     |         |
| 14      | Streaming                                  | Triple streaming, configurable  |                     |         |
| 15      | Connectivity                               | LAN   |                     |         |
| 16      | Image Setting                              | Rotate Mode, saturation, brightness, contrast, sharpness adjustable through client software or web browser  |                     |         |
| 17      | Profile Management                         | User configuration – multiple user levels   |                     |         |
| 18      | Security                                   | User Authentication, Water Marking/ Video Encryption  |                     |         |
| 19      | Onboard Storage                            | Camera should support built in Class-10 Micro SD/SDHC/SDXC Card slot up to 256 GB.  |                     |         |
| 20      | Recording Management                       | Format SD, overwrite, storage management, video to NAS device (NFS/SMB/CIFS)  |                     |         |
| 21      | Edge based Video Analytics & Alarm Trigger | Motion detection, Camera Video Tampering alarm, Tripwire, Intrusion, scene change detection, region entrance /exiting detection, IP address conflict, Storage full, Storage error.                      |                     |         |
| 22      | <b>Network Compatibility</b>               |   |                     |         |
| 23      | Network Protocol                           | TCP/IP, Ipv4/Ipv6, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UpnP, SMTP, QoS, UDP, SSL/TLS, PPPoE, ARP,SNMP  |                     |         |
| 24      | User Access                                | 5 User Simultaneously or more   |                     |         |

|    |                     |  |  |  |
|----|---------------------|--|--|--|
| 25 | System Capability   | It should support ONVIF (Profile S, Profile G, Profile T and latest profile). The Quoted Model Should be listed on ONVIF Official website. The proposed CCTV OEM should not be backlisted/ suspended by ONVIF. |  |  |
| 26 | VMS                 | Camera shall support open source VMS   |  |  |
| 27 | Ethernet            | 1 RJ 45 10/100 Ethernet port   |  |  |
| 28 | Audio In/ Out       | Mini. 1 Input & 1 Output port for external Mic. & Speaker.   |  |  |
| 29 | Alarm In/ out       | Mini. 1 Input & 1 Output port for external sensors etc.  |  |  |
| 30 | Power Input         | Standard DC Jack   |  |  |
| 31 | Power Requirement   | 12VDC $\pm$ 10%, PoE (IEEE802.3 af)  |  |  |
| 32 | Power Consumption   | 6 – 9 W  |  |  |
| 33 | Enclosure           | IP67 weatherproof & IK10   |  |  |
| 34 | Operating Condition | -20°C to 60°C, humidity 95% (max) (non-condensing)   |  |  |
| 35 | Standards           | BIS or Equivalent (UL, CE, FCC)  |  |  |

#### 8.14 Printer

| A4 LaserJet, MFP, Monochrome Printer |                              |  |                     |         |
|--------------------------------------|------------------------------|--|---------------------|---------|
| Sl. No.                              | Parameter                    | Technical Specifications   | Compliance (Yes/No) | Remarks |
| 1                                    | Print Technology             | Laser Printer  |                     |         |
| 2                                    | Print Speed                  | 40 ppm   |                     |         |
| 3                                    | Connectivity                 | USB & Wireless   |                     |         |
| 4                                    | Paper Handling               | Paper (laser, plain, photo), envelopes, labels, cardstock, transparencies, postcards   |                     |         |
| 5                                    | Paper Size                   | A4, A5, A6, B5, C5, postcards  |                     |         |
| 6                                    | Monthly - Cycle              | Up to 2000 Pages   |                     |         |
| 7                                    | Print Quality                | Up to 600 x 600 dpi  |                     |         |
| 8                                    | Compatible operating systems | Windows Client OS (32/64 bit), Win10, Win8.1, Win 8 Basic, Win8 Pro, Win8 Enterprise, Win8 Enterprise N, Win7 Starter Edition SP1, UPD Win7 Ultimate, Mobile OS, iOS, Android, Mac, Apple® macOS |                     |         |

#### 8.15 Control Desk Work Station

| CONTROL DESK FOR WORKSTATION WITH CHAIR |                   |   |                     |         |
|---|-------------------|---|---------------------|---------|
| Sl. No.                                 | Parameter         | Technical Specifications  | Compliance (Yes/No) | Remarks |
| 1                                       | Console Structure | Console System must be of modular design. The Console design shall address the functional, ergonomic and aesthetic requirements of the particular working environment while complying with accepted human factor design |                     |         |



|    |                               |   |  |  |
|----|-------------------------------|---|--|--|
|    |                               | and ergonomic standards for viewing distance, angle, keyboard height, and knee space requirements.  |  |  |
| 2  |                               | Standard top height of modular control desk shall be 750 mm. The Console Table Top / Working Surface should be made of 25mm MDF Board with 1mm Laminate and with Polyurethane Nosing.   |  |  |
| 3  |                               | The Basic Structure should consist of Extruded AL Profiles (6063T6 grade) binded by Top & Bottom (min 2mm) MS Frames formed in such a way as to provide maximum buckling and torsion resistance. The Front & Back Panels should be openable / removable (with Push Lock Mechanism) made of laminated MDF Board in min thickness of 18mm. The Side Panels should be fixed type, made in 26mm MDF Board Claded on 18mm MDF Board. All panels must be attached to the frame with concealed fasteners. Console access panels (Front & Rear Panels) must be removable without the use of tools. The Front panel should be positioned in such a way that there should be sufficient leg space (min of 400mm from the front edge of the Table Top) |  |  |
| 4  |                               | All sheet metal / aluminum parts must be finished with electrostatic powder coating with average of min 80 microns over all surfaces.   |  |  |
| 5  |                               | The console frame shall have provisions for leveller legs to be incorporated into the frame.  |  |  |
| 6  | Work Surface                  | The Console Table Top should be made of 25mm MDF Board with Polyurethane Nosing. The work surface platform shall have smooth edges and transitions, thus avoiding sharp corners or potential rib catchers for operator safety.  |  |  |
| 7  | Modular real wall (Slat wall) | Wall should be of min 86 mm (Height) and approx 200-300 mm high from the Monitor Base.  |  |  |
| 8  |                               | Modular walls shall be made of 2mm thick Extruded Aluminum (6063T6 aluminum alloy).   |  |  |
| 9  |                               | It should have high Load bearing capacity. Minimum weight carrying capacity has to be 20 KGs per Meter.   |  |  |
| 10 | Monitor Arm                   | It shall be capable for mounting all type of existing LCD monitor with dimensions between 17" to 24" using suitable adopter/additional base plate, if required any.   |  |  |
| 11 |                               | Vendor shall provide the suitable adopter/additional base plate for mounting the existing LCD monitors.   |  |  |
| 12 |                               | It shall allow the rotate/ tilt/ raise/the monitors as well as fix their adjustment.  |  |  |

|    |               |  |  |  |
|----|---------------|--|--|--|
| 13 |               | The monitor arm should be Articulating monitor arm   |  |  |
| 14 | Miscellaneous | There shall be a closed cabinet below the modular control desk for placing of CPU. Cabinet should have proper cooling system. CPU needs to be accessible from front as well as rear side of control desk for easy working and maintenance. |  |  |
| 15 |               | The cabinet shutters shall be of Butt Hinged type with 18mm thick MDF.   |  |  |
| 16 |               | Rear shutters of each console should have provision of Airflow opening for cooling and heat dissipation effect.  |  |  |
| 17 |               | Rear panel shall have ventilation fans mounted on it.  |  |  |
| 18 |               | It shall have proper arrangement for flow of cables i.e. LAN Cable, Power cable, VGA cable, Mouse cable, Keyboard etc.   |  |  |
| 19 |               | Design of control desk shall allow cables from the floor cable channel.  |  |  |
| 20 |               | Control desk shall be equipped with individual power distribution unit (PDU) (06 no for one Modular Control Desk) and capable of being switched on/off individually. Power supply socket should be dual type i.e. Universal type.          |  |  |
| 21 |               | All bolts must be of SS material to avoid rust due to environment.   |  |  |
| 22 | Chair         | HIGH BACK CHAIR  |  |  |
| 23 |               | Structure: High back chair   |  |  |
| 24 |               | Armrest: Adjustable Armrest  |  |  |
| 25 |               | Seat Back Adjustment, Height Adjustment  |  |  |

### 8.16 Split AC

| Sl. No. | Technical Specifications | Specifications                                   | Compliance (Yes/No) |
|---------|--------------------------|--|---------------------|
| 1       | Type                     | Split Units                                      |                     |
| 2       | Capacity                 | Minimum 1.5 Ton                                  |                     |
| 3       | Cooling Capacity         | Minimum 24000 BTU / Hr                           |                     |
| 4       | Noise Level              | Less than 50 dB                                  |                     |
| 5       | Operation                | Remote Control                                   |                     |
| 6       | Power                    | 230VAC, 50Hz                                     |                     |
| 7       | Refrigerant Type         | R32 (CFC-free) or better                         |                     |
| 8       | Inclusions               | Cables, Refrigerant Pipes, Drain Pipes, MS Stand |                     |
|         |                          |  |                     |

### 8.17 5KVA UPS



| 5 KVA UPS with 1 Hours Backup |   |  |                     |         |
|-------------------------------|---|--|---------------------|---------|
| Sl. No.                       | Parameter   | Technical Specifications   | Compliance (Yes/No) | Remarks |
| 1                             | Capacity (in kVA / kW)                                  | >5 KVA, 0.9 or Better O/P power factor   |                     |         |
| 2                             | Technology and Capability                               | a) Active Power Factor Correction (APFC) in converter to improve Input Power Factor > 0.98 |                     |         |
| 3                             | Input facility - Phases / Wires                         | 1 Phase IN & 1 Phase Out   |                     |         |
| 4                             | Input Voltage Range                                     | 110 – 280 V AC   |                     |         |
| 5                             | Input Frequency Range                                   | 40 to 70 Hz  |                     |         |
| 6                             | Input Power Factor                                      | > 0.98 on Full Load  |                     |         |
| 7                             | Generator Compatibility                                 | Compatibility to genset supply required  |                     |         |
| 8                             | Input Protection (Thru In-built 1P MCB)                 | Should be provided at the input of the UPS suitable for the full rated capacity of the UPS |                     |         |
| 9                             | Nominal Output voltage                                  | 220/ 230/ 240VAC (Selectable)  |                     |         |
| 10                            | Output Voltage Regulation                               | +/- 1% static and +/- 5% at 100% load step   |                     |         |
| 11                            | Nominal Output Frequency                                | 50 / 60 Hz   |                     |         |
| 12                            | Output Frequency Regulation                             | +/- 0.10 Hz (Free Running / Self Clocked Mode)   |                     |         |
| 13                            | Output Wave Form  | Pure sine wave   |                     |         |
| 14                            | Output Voltage Distortion (THDu)                        | <= 3% for Linear load  |                     |         |
| 15                            | Crest Factor  | 3 : 1 On Full Load (Minimum)   |                     |         |
| 16                            | Output Short circuit Protection                         | Electronic / Fused   |                     |         |
| 17                            | Transfer Time (Inverter to Bypass / Bypass to Inverter) | < 4 ms (Synchronized Mode)   |                     |         |
| 18                            | Automatic Bypass (In-built)                             | To be provided   |                     |         |

|    |  |  |  |  |
|----|--|--|--|--|
| 19 | Overall Efficiency (AC to AC) - Online (Double Conversion)       | >= 90% at Full Load<br>>= 98% in Green ECO mode  |  |  |
| 20 | Green Mode / Eco Mode  | Shall be provided in each UPS (All ratings) to choose Higher Efficiency Mode of Operation  |  |  |
| 21 | Measurements (On LCD)  | Input: Voltage / Frequency<br>Output: Voltage / frequency<br>Battery: Remaining time / Voltage<br>Load: Percentage / kW  |  |  |
| 22 | Fault Indication (On LCD)  | Charger Failure Battery Failed Battery Low Overload  |  |  |
| 23 | Indications (LED/LED)  | AC indicator/Battery Mode of Operation / Bypass feeding the load / UPS Fault   |  |  |
| 24 | Audible Alarms   | Battery Low beep / DC Fault beep/ UPS Overload beep/ o/p short circuit fault beep/ Shutdown beep   |  |  |
| 25 | Backup Required  | 60 Min back up at 0.8 PF and 1.75 ECV.   |  |  |
| 26 | Battery Bank Voltage   | Vendor to Specify  |  |  |
| 27 | Batteries Type   | Sealed Maintenance Free (SMF) - 12V Cells  |  |  |
| 28 | Battery recharge time (After complete discharge) to 90% capacity | 8-10 hours   |  |  |
| 29 | USB Port   | Shall be present in the UPS  |  |  |
| 30 | Emergency Power Off  | Should be provided as standard in the UPS  |  |  |
| 31 | Remote Monitoring  | To be provided with access to user using a mobile app compatible with IOS/Android.   |  |  |
| 32 | SNMP Card  | To be provided   |  |  |
| 33 | Interface to BMS (Building Management System)                    | ModBus Card for connecting to UPS to BMS thru RS485 & monitoring thru BMS option shall be available.   |  |  |
| 34 | Interface to DCS (Distributed Control System)                    | Relay I/O Card or PFC (Potential free contacts) for connecting to UPS to DCS / PLC / SCADA system for communicating UPS operating status option shall be available |  |  |
| 35 | Scheduled Shutdown   | The UPS NMC shall be capable for scheduling a shutdown.  |  |  |
| 36 | Cold Start   | UPS should start up<br>On AC Supply (Mains) without DC Supply (Batteries)<br>On DC Supply (Batteries) without AC Supply (Mains)                                    |  |  |
| 37 | Automatic  | UPS should start up automatically on mains   |  |  |

|    |                         |  |  |  |
|----|-------------------------|--|--|--|
|    | Restart                 | resumption after battery low shutdown  |  |  |
| 38 | Operating Temperature   | 0 to 40 deg C  |  |  |
| 39 | Storage Temperature     | -15 to 50 deg C  |  |  |
| 40 | Operating Humidity      | 0% ~ 95%RH (No Condensing)   |  |  |
| 41 | Operating Elevation     | 0 - 1000 m   |  |  |
| 42 | Type of Cooling         | Natural Convection Cooling through air vents   |  |  |
| 43 | Noise Level             | < 60 dbA at 1-meter distance   |  |  |
| 44 | Form Factor             | 5 kVA: Rack/ Tower mountable   |  |  |
| 45 | Air Filters (mandatory) | UPS should have internal anticorrosion air filters for dust filtration   |  |  |
| 46 | Product Certificates    | BIS or Equivalent Certification<br>OEM should have own centralized Help Desk (24 X 7 support) with Toll Free Number. |  |  |

### 8.18 Fire Alarm

#### FIRE ALARM SYSTEMS

| Sl. No. | Parameter     | Technical Specifications  | Compliance (Yes/No) | Remarks |
|---------|---------------|---|---------------------|---------|
| 1       | Control Panel | The primary function of the control panel shall be to automatically respond to the operation of one or more detectors to give fire alarm and to indicate area (zone) from where the devices are activated. Required specifications of Control Panel are |                     |         |
|         |               | 2 Zone / 4 Zone Microprocessor based Master Control Panel as per IS: 2189-2008. On activation it should initiate Audio alarm as well as visual signal on the control panel.   |                     |         |
|         |               | 2 Zone / 4 Zone Main Control Panel should be latest microprocessor technology based and as per IS:2189-2008.  |                     |         |
|         |               | The panel should be compatible with all type of standard conventional detectors.  |                     |         |
|         |               | The Panel should have a manual OFF switch for manual operation in case of continuous fault alarm.   |                     |         |
|         |               | The Panel should have 2 or more zones and zone disable switches accordingly to the number of zones.   |                     |         |
|         |               | On activation it should initiate Audio alarm (The sound characteristic of the alarm should be continuous and similar throughout the protected premises) as well as visual signal on sector/zonal panel of the control panel.                            |                     |         |
|         |               | Each zone can be connected with 20 conventional detectors.  |                     |         |

|   |                      |   |  |  |
|---|----------------------|---|--|--|
|   |                      | Control Panel should have inbuilt SMPS with spike/ transient reduction circuit, to avoid any false alarming in case of transient/abrupt voltage fluctuations.   |  |  |
|   |                      | Control Panel should have Test Certificate with details like Model No.,Serial No.,Zones,etc.  |  |  |
|   |                      | The Panel should have feature of continuous uninterrupted power supply in case of External Power supply failures. The battery backup with built battery charger for not less than 12 hours normal working.  |  |  |
|   |                      | Panel should be compatible for installation of external Auto-dialer – both PSTN and GSM types.  |  |  |
|   |                      | The Panel should have approvals listing of BIS/ UL /LPCB/ FM/ VdS.  |  |  |
| 2 | Power supply         | The fire panel shall operate from a 230 v + / - 10 % 50Hz mains supply and in case of power failure shall automatically switch over to a built-in sealed maintenance free (SMF) battery with a switch over time of less than 100 ms   |  |  |
| 3 | Display / Indication | Master Control Panel should have audible and visual indications of system status as under<br>Ø LCD display showing system status<br>Ø System ON indication (ON – OFF indicators) Ø Fault status LED indication<br>Ø Low Battery / AC power off indications  |  |  |
| 4 | Number of zones      | Minimum 2 zones with Zone Isolation facility and loop voltage cut off. iv. The panel should have facility to isolate/open individual zones.   |  |  |
| 5 | Battery back up      | Battery backup of minimum 10 hours duration in normal working condition and 20 minutes in alarm activated condition (All hooters activated) thereafter.   |  |  |
|   |                      | Battery should be of sealed maintenance free (SMF) type with capacity of 7Ah or more.   |  |  |
|   |                      | Panel should have in built battery charger with over charging and deep discharging protection.  |  |  |
|   |                      | Battery Low visual warning with audible tone.   |  |  |
| 6 | Smoke detectors      | The System should have smoke detectors of both ionization type (below false ceiling) and optical type (above false ceiling) conforming to the IS: 2189-2008. Both ionization and optical type smoke detectors will be installed in the ratio 2:1. (Note: If Ionization sensors are not available in market Optical sensors are to be used in lieu). |  |  |
|   |                      | Smoke detector should have LED, which should flash periodically to indicate that the detector is in proper working mode and glow continuously if smoke is detected.<br>iii. Smoke detectors should have approvals/ listing of BIS / UL/LPCB/ FM/ VdS.   |  |  |

|   |                          |   |  |  |
|---|--------------------------|---|--|--|
| 7 | External Hooters         | External hooters (150 db) (sounders) of fire alarm system should be electronic hooters /horns /electric bell having a frequency range of 500 to 1000 Hz.<br>iv. Sound from the hooters on activation of the Fire Detection and Alarm System should be clearly audible up to 500 meters. |  |  |
| 8 | Response indicators (RI) | Response indicators with LED indicators to indicate activation of a detector installed inside rooms / cabins and above false ceiling or generally hidden  |  |  |
| 9 | Manual Call Points (MCP) | The Manual Call Point (MCPS) should be break glass type with hammer or thumb press type.  |  |  |

### 8.19 Access Control System

| ACCESS CONTROL SYSTEM |  |  |                     |         |
|-----------------------|--|--|---------------------|---------|
| Sl. No.               | Technical Specifications   |  | Compliance (Yes/No) | Remarks |
| 1                     | The Access Control System shall be deployed with the objective of allowing entry and exit to and from the premises to authorized personnel only.   |  |                     |         |
| 2                     | Biometric based access control shall be provided for the Server Room and CCC.  |  |                     |         |
| 3                     | Both CCC and Server room may have double leaf doors.   |  |                     |         |
| 4                     | An access control system consisting of a central PC, intelligent controllers, power supplies and all associated accessories is required to make a fully operational online access control system.  |  |                     |         |
| 5                     | Enclosure for the Access Controller to be provided by OEM.   |  |                     |         |
| 6                     | Access control shall be provided for doors. These doors shall be provided with electric locks and shall operate on fail-safe principle.  |  |                     |         |
| 7                     | The fire alarm supplier shall make potential free contacts available for releasing the locks in a fire condition especially for entry to ICC and DC.   |  |                     |         |
| 8                     | Entry to the restricted area could also be possible by showing a proximity card near the reader and exit shall be using a push button installed in the secure area.  |  |                     |         |
| 9                     | The system shall monitor the status of the doors through magnetic reed contacts.   |  |                     |         |
| 10                    | SI to provide minimum 50 Access Cards as a part of scope.  |  |                     |         |
| 11                    | Proposed Access Control System should have a dedicated controller which shall share data with the accesscontrol software. The controller should support TCP/IP protocol for communication and configuration. If any expansion modules are connected, the controller needs to encrypt the data with AES-256 encryption formats. |  |                     |         |
| 12                    | The controller should support a minimum of 2 doors locally in an open architecture.  |  |                     |         |
| 13                    | Should support TLS 1.2, AES-256, OSDP encryption.  |  |                     |         |
| 14                    | Credential Capacity: Min. 200000   |  |                     |         |
| 15                    | The System should support existing 125KHz Proximity Cards.   |  |                     |         |
| 16                    | Configurable system for user defined access policy for each access point   |  |                     |         |
| 17                    | Record, report and archive each and every activity (permission granted and   |  |                     |         |

|    |   |  |  |
|----|---|--|--|
|    | / or rejected) for each access point.   |  |  |
| 18 | User defined reporting and log formats  |  |  |
| 19 | Fail safe operation in case of no-power condition and abnormal condition such as fire, theft, intrusion, loss of access control, etc. |  |  |
| 20 | Day, Date, Time and duration-based access rights should be user configurable for each access point and for each user.                 |  |  |
| 21 | One user can have different policy / access rights for different access points.   |  |  |
| 22 | The system should support Attendance Management too.  |  |  |

## 8.20 U Cabinet Rack

| 42U Cabinet Rack |                  |   |                     |         |
|------------------|------------------|---|---------------------|---------|
| Sl. No.          | Parameter        | Technical Specifications  | Compliance (Yes/No) | Remarks |
| 1                | Basic Structure  | Rack should be of All Steel Construction with powder coated finish. Rack design should enable shipping of the rack in (CKD) Completely Knock Down condition and it should permit an easy assembly of the racks at site as per the requirement at site. All Steel structure of frames and depth mounting channels should rest positively fastened onto the integral Plinth of box like Configuration. Thus, ensuring the higher level of Rigidity of the Basic rack skeleton while effectively distributing and transferring the entire load to integrated Plinth. Construction of all direct load bearing structural members like Frames, Plinth and Vertical Mounting rails should not be less than 2.0mm CRCA Steel. Integral Plinth should have provision for Cable Entry on rear and two sides along with cable entry gland plate on the top face of the Plinth.. |                     |         |
| 2                | Plinth & Castors | The plinth should also have provision to mount castors (4 Nos.) and Levelling Feet – (4 Nos.) simultaneously. This is required for the facility of moving the rack while installation process and then resting the same rigidly at the final location. When the rack is resting on the levelling feet, castors should not touch the ground surface. (All castors should be without any brake or any other locking mechanism)  |                     |         |
| 3                | Front Door       | Front door – Front Perforated Door with dual Cam Lock for security purpose. This door should have provision to get mounted on Right or Left side of the rack front. This means that it should be possible to change the door configuration from Left to Right at site. It should also be possible to open this door by 180 Degrees to ensure proper approach to front of rack.  |                     |         |



|    |                        |   |  |  |
|----|------------------------|---|--|--|
| 4  | Rear Door              | Rear door should be completely perforated to facilitate the air circulation at the maximum without offering any resistance to the same. Ideally, it should be possible to remove it easily and should have centre handle lock for the security purpose. Rear doors should have provision to mount fan trays.  |  |  |
| 5  | Side panel             | Side Panels should be easily removable type along with the provision for locking. Ideally, the panels should have latching arrangement to facilitate easy removal and putting back the panel along with locks for the security purpose.   |  |  |
| 6  | Space                  | Height - The Rack should Provide 42U Usable Space.  |  |  |
|    |                        | Width – The rack should be 800mmW with 19" mounting provision   |  |  |
|    |                        | Depth – The rack should be at least 1000mmD. Usable Depth should be not less than 970mm   |  |  |
| 7  | Load Bearing Capacity  | Load carrying capacity of rack should be 850 Kg.  |  |  |
| 8  | Mounting Provisions    | Mounting rails (for Standard 19" mounting) should be made up of steel. (Minimum 2.0mm thickness) and should be of Multi-fold design for enhanced loading capacity and rigidity. It should have unique U Marking along with U locator notch. U Number Markings should be clearly visible even after mounting of the equipment.   |  |  |
| 9  | Cable Management       | 1U Cable Managers to be supplied. Cable Managers should have Metal Hoops  |  |  |
| 10 | Heat Management        | Top roof should be well ventilated, especially with ventilation provided on the vertical side of the roof. This will greatly enhance the hot air outflow while in operation. Roof should also have provision to mount the cooling fan trays. It should be possible to mount at least 4 nos. of 90 CFM cooling fans on this roof and in addition there should be space for the cable entry from the top. |  |  |
| 11 | Powder Coating Details | Thickness of powder coating should be 60 microns or more.   |  |  |
|    |                        | Colour of the cabinet should be: Black  |  |  |
| 12 | Thickness of Material  | The structure and all its components should be made from CRCA Steel Material – at least 1.2mm thick   |  |  |
| 13 | Shelving Options       | The rack should be provided with 1 Heavy - Shelf of 727mmD  |  |  |
| 14 | Power Management       | Vertical power distribution units provided should have 12 outlets of 5/15 amp capacity. These should be split in to two internal circuits so as to avoid overloading of the interconnection cables inside the unit. All cables used should be of ISI grade with 2.5sq mm cross sectional area.  |  |  |

|  |  |  |  |
|--|--|--|--|
|  | All the connecting ends must be tinned so as to avoid any loose wire strands. Rack should have the appropriate mounting provision for the multiple of these PDUs at the rear of the rack. Each Rack should have 2 Nos PDU per Rack |  |  |
|--|--|--|--|

### 8.15 Firewall

| Firewall |  |                     |         |
|----------|--|---------------------|---------|
| Sl. No.  | Technical Specifications   | Compliance (Yes/No) | Remarks |
| 1        | The Firewall should be hardware based, reliable, purpose-built security appliance with hardened operating system that eliminates the security risks associated with general purpose operating systems.                   |                     |         |
| 2        | The firewall OS family shall be tested and certified for EAL4 as per Indian Common Criteria Certification Scheme (IC3S) or equivalent organization.  |                     |         |
| 3        | Certifications: NDPP / NSS / ICSA Labs   |                     |         |
| 4        | Appliance should have at least 8 x GbE copper and 2 x SFP+ loaded ports.   |                     |         |
| 5        | Form factor should not exceed 2 RU.  |                     |         |
| 6        | Appliance should be provided with single supply in hot swappable mode.   |                     |         |
| 7        | Appliance should have minimum throughputs: Firewall : 10 Gbps; IPS /NGFW : 1.5 Gbps or above   |                     |         |
| 8        | The proposed solution should support identity awareness on the security gateway via Active Directory or RADIUS   |                     |         |
| 9        | Solution should be compatible with any networking equipment  |                     |         |
| 10       | High Availability (Active-Active & Active-Passive)   |                     |         |
| 11       | Two factor authentication for user creation  |                     |         |
| 12       | Deployment of minimum 2 or more ISP links.   |                     |         |
| 13       | 802.3ad interface link aggregation   |                     |         |
| 14       | High-performance, next-gen IPS deep packet inspection engine with selective IPS patterns for maximum performance and protection. The solution should be able to address aspects of the Advanced Persistent Threat (APT). |                     |         |
| 15       | Second independent malware detection engine for dual-scanning.   |                     |         |
| 17       | Fully transparent proxy for anti-malware and web-filtering; support for HTTP and HTTPS scanning on as per user or network policy basis with customizable rules and exceptions. TLS 1.2/1.3 scanning capabilities.        |                     |         |
| 18       | Enhanced application control with signatures and Layer 7 patterns for applications   |                     |         |
| 19       | Should provide risk level of applications on the network.  |                     |         |
| 20       | Solution should be capable to provide CLI and GUI. Solution should support Role based administration.  |                     |         |
| 21       | IPv4 and IPv6 supported.   |                     |         |



## 9. Section 4: Stakeholder Responsibilities

The following list is a tentative, but not exhaustive summary of the respective responsibilities of BSCDCL and the Service Provider .

### 9.1 Responsibility Matrix

R/A = Responsible/Accountable

C = Consulted

I = Informed

| #  | Key Activities   | Service Provider | Excise Department | Smart City SPV | PMC |
|----|--|------------------|-------------------|----------------|-----|
| 1  | Project Kick Off   | R/A              | C                 | C              | C   |
| 2  | Deployment of manpower   | R/A              | C                 | C              | C   |
| 3  | Assess the requirement of IT and Non-IT Infrastructure                           | R/A              | C                 | C              | C   |
| 4  | Involving and facilitating with departments for business process assessment      | I                | R                 | R              | I   |
| 5  | Providing As-Is information  |                  | R/A               | R/A            |     |
| 6  | Assessment of Business processes   | R/A              | C                 | C              | C   |
| 6  | Acceptance of changes and ownership of business process post assessment          | I                | R                 | R              |     |
| 8  | Assessment of Software/ Application requirements                                 | R/A              | C                 | C              | C   |
| 9  | Assess the Integration requirement   | R/A              | C                 | C              | C   |
| 10 | Assess the connectivity requirement all locations (Field level+ ICCC/DC/DR site) | R/A              | C                 | C              | C   |
| 11 | Providing relevant data sets for identified use cases                            |                  | R/A               | C              | C   |
| 12 | Assessment of available city data sets   | R/A              | R                 | C              | C   |
| 13 | Preparation and finalization of use cases  | R/A              | R                 | C              | C   |

|    |   |     |   |     |   |
|----|---|-----|---|-----|---|
| 14 | Assessment of training requirement  | R/A | R | C   | C |
| 15 | Develop the Concept of Operations (CONOPS)                                    | R/A | R | C   | C |
| 16 | Formulation of Solution Architecture  | R/A | C | C   | C |
| 17 | Preparation of Detailed Drawing   | R/A | C | C   | C |
| 18 | Preparation of detailed Design of Excise Command Center Solution              | R/A | C | C   | C |
| 19 | Development of test cases (Unit, System Integration and User Acceptance)      | R/A | R | C   | C |
| 20 | Preparation of phase wise bill of material                                    | R/A | C | C   | C |
| 21 | Approval of material for procurement  | C   | C | R/A | C |
| 22 | SoP preparation   | R   | C | A   | C |
| 23 | Material Procurement including software licenses                              | R/A | C | C   | C |
| 24 | Physical Infrastructure setup   | R/A | C | C   | C |
| 25 | IT and Non-IT Infrastructure Installation                                     | R/A | C | C   | C |
| 26 | Development, Testing and Production environment setup                         | R/A | C | C   | C |
| 27 | Software Application customization (if any)                                   | R/A | C | C   | C |
| 28 | Development of Bespoke Solution (if any)                                      | R/A | C | C   | C |
| 29 | Implementation, testing of Solutions and urban services                       | R/A | C | C   | C |
| 30 | Integration of GIS and other sub-systems in ICC                               | R/A | C | C   | C |
| 31 | Providing data for migration in the specified format                          | C   | R | C   | C |
| 32 | Data Migration  | R/A | C | C   | C |
| 33 | Training contents preparation   | R/A |   |     |   |
| 34 | Integration with third party services (Surveillance Camera, ANPR Cameras, GPS | R/A | C | C   | C |

|    |  |     |     |   |   |
|----|--|-----|-----|---|---|
|    | Devices etc)   |     |     |   |   |
| 35 | SoP and KPI implementation   | R/A | C   | C | C |
| 36 | User Acceptance Testing  | R/A | R   | R | C |
| 37 | Helpdesk setup   | R/A | C   | C | C |
| 38 | Preparation of manual/ documents for system installation, system operation, User guide, SoPs | R/A | C   | C | C |
| 39 | Role based training(s) on the Process, operations and Maintenance                            | R/A | C   | C | C |
| 40 | Go Live  | R   | R/A | C | C |
| 41 | Operation and Maintenance of IT, Non-IT infrastructure and Applications                      | R/A | C   | C | C |
| 42 | SLA and Performance Monitoring   | R/A | C   | R | C |
| 43 | Logging, tracking and resolution of issues.  | R/A | C   | C | C |
| 45 | Application enhancement  | R/A | C   | C | C |
| 46 | Patch & Version Updates/upgrades   | R/A | C   | C | C |
| 47 | Future Integration with other services/infrastructure  | R/A | C   | C | C |
| 48 | Business process re-engineering  | R/A | C   | C | C |
| 49 | Use-cases enhancements   | R/A | C   | C | C |

## 9.2 Bhopal Smart City Development Corporation Limited (BSCDCL)

1. Issuance of LOI to the Selected Bidder.
2. Coordination with Excise Department Madhya Pradesh Bhopal during installation and also during O&M Phase. Taking feedback from them and instructing the Service Provider accordingly.
3. Ensure timely execution of the project and proper Maintenance services delivered by Service Provider during the contract period.
4. Re-order the list of activities, take a final decision on attributing delays to project timeline

and reschedule the project implementation timelines, if needed.

5. Support Service Provider in integration activities with city command and control center (if required).
6. Constitute a Project Monitoring Unit to provide strategic guidance and to actively monitor the project.
7. Conduct periodic inspections for assessing maintenance of system
8. Review Service Provider's plans of operation and maintenance
9. Review and Approve Monthly and Quarterly Progress Reports and share the same with Excise Department Madhya Pradesh Bhopal.
10. Monitor performance of the Service Provider during the contract period.
11. Issue the notices against non-compliances in coordination with Excise Department.

### **9.3 Excise Department Madhya Pradesh**

1. Providing Adequate Spaces and approval for the installation and Commissioning of Command Center.
2. Provision of Electricity Connection for the Operations of the project at Command Center location. Timely Payment of all the one time & recurring expenses related to electricity under the project.
3. Provision of API for Integration with E-Abkari Portal
4. Provide access to Service Provider Technical & Operational Manpower at the Command Center Location
5. Smooth coordination and communication of the ta/sks and SLA observations
6. Reporting to BSCDCL for any communication and compliance requirements
7. Easy access to the implementation Service Provider at the sensitive areas for the installation
8. Approval on achievement of Milestones and during go-live of the project for release of payments against the achieved milestones.
9. Take handover of the project upon Project Go-Live as sole authority.

### **9.4 Service Provider**

1. Timely procurement and supply of components, installation, operations and maintenance for proposed system as stated in project scope of work.
2. Provision of High Speed (Min. 100 MBPS) Internet Lease Line for the Command Center.
3. Integration of all the field level devices (GPS, CCTV Camera, ANPR Camera) & Data Center (BSCDCL)
4. Development of space provided by Excise (More than 800 Sq. Ft.) as Command Center facility with required Civil Upgradation (Minor) & Interior Works.
5. Commissioning of all the project IT, Non IT Infrastructure as per scope of work
6. Integration with E-Abkari Portal and other applications as instructed by Authority timely.
7. Facilitate inauguration arrangements and roll-out of the system implemented.

8. Regular Maintenance of installed devices during Operations and Maintenance Phase.
9. Ensuring warranty conditions and SLAs"s to be met.
10. Onsite Deployment of Technical Manpower during Installation Phase and required Operations Manpower during O&M Phase.
11. Share the Monthly Project Progress Report in editable format whenever requested by BSCDCL in the format proposed by BSCDCL.
12. Appointment of adequate training technical staff for implementation and operations of the project scope.
13. The Service Provider shall arrange at its own cost the necessary electrical, networking and supply of instruments/devices as per requirements listed in scope of work.
14. Integrate the system with the Integrated Command and Control Centre (ICCC) of BSCDCL as and when required by BSCDCL.

## 10. Guiding Principles

### 10.1 Guiding Principles

SERVICE PROVIDER shall design the solution while taking into consideration the following guiding principles:

#### 10.1.1 Scalability

Important technical components of the architecture must support scalability to provide continuous growth to meet the growing demand of the city. The architecture should be scalable (cater to increasing load of internal and external users and their transactions) and capable of delivering high performance at all times. The solution should support vertical and horizontal scalability so that depending on changing requirements from time to time, the solution may be scaled upwards. There must not be any system-imposed restrictions on the upward scalability of data center IT components such as compute infrastructure such as Application & Web Servers, Database Servers, data storage infrastructure, bandwidth, application software, number of cameras, or other smart city components required in this RFP. The data center infrastructure shall be capable of serving the growing concurrent users' requirement which would be increasing as the city grows.

#### 10.1.2 Availability

The architecture components should provide redundancy and should be resilient to technology sabotage. It should be ensured that there are no single points of failures in the key solution components, including core/data center components. To take care of remote failures, the systems should be configured to mask and recover with minimum outage. The SERVICE PROVIDER shall make the provision for high availability for all the services of the system.

#### 10.1.3 Security

The architecture should adopt an end-to-end security model that protects data and the infrastructure from malicious attacks, theft, natural disasters etc. SERVICE PROVIDER should make provisions for security of field equipment as well as protection of the software system from hackers and other threats. Bidder's solution shall adhere to the model framework of cyber security (K- 15016/61/2016-SC-1, Government of India, and Ministry of Urban Development) and also section 9 of this RFP, while designing the solution, the Command Center system shall be highly secure as it is intended to handle sensitive data relating to the city and its residents. The Authority would carry out the security audit of the entire system upon handover and also at regular intervals during O&M period.

#### 10.1.4 Manageability

Ease of configuration, ongoing health monitoring, and failure detection are vital to the goals of Command Center project. The system should be auto/manual configurable for various future requirements for the ease of maintenance / debugging.

#### 10.1.5 Interoperability

The system should have interoperable capability with other ICT Systems.

## 10.2 Open Standards

Systems should be built on open standards and protocols. Keeping in view the evolving needs of interoperability considering that solution shall become the focal point of delivery of services and may also involve cross-functionality with the project systems of other departments The SERVICE PROVIDER shall ensure that the ICCC application developed is easily integrated with the existing applications using open APIs. The software code should not build a dependency on any proprietary software. The standards should at the minimum comply with the published national standards such as BIS standards for smart cities, e-governance standards, frameworks, policies and guidelines available on <http://egovstandards.gov.in> (updated from time-to-time). Systems implemented by the SERVICE PROVIDER shall adhere to the Unified Digital infrastructure (UDI) properties defined in IS 18000 and the data principles defined in Table 1 of IS 18002.

## 10.3 Universal Access IT Systems

The solution designed should ensure Universal Access to IT systems to empower authority and its authorized personnels with disabilities, to access various systems/components envisaged and future systems for integrations with ease.

## 10.4 Single-Sign On

The application should enable single-sign-on so that any user once authenticated and authorized by the system is not required to be re-authorized for completing any of the services in the same session. For employees of the department concerned, the browser-based application accessed on the intranet, through a single sign-on mechanism, shall provide access to all the services of the departments concerned (based on role based access policy), Help module, basic and advanced reporting etc. Similarly, for external users (citizens, etc.), based on their profile and registration, the system shall enable single sign-on facility to apply for various services, make payments, submit queries/complaints and check status of their applications/queries.

## 10.5 Support for PKI-based Authentication and Authorization

The solution shall support PKI based Authentication and Authorization, in accordance with IT Act 2000, using the Digital Certificates issued by the Certifying Authorities (CA) including e-sign. In particular, 3 factor authentications (login id & password, biometric and digital signature) shall be implemented by the SERVICE PROVIDER for officials/employees involved in processing citizen services.

## 10.6 GIS Integration

SERVICE PROVIDER shall undertake detailed assessment for integration of all components (e.g., Vehicle Tracking, Surveillance System etc.) with the open source Geographical Information System (GIS) platform. SERVICE PROVIDER is required to carry out the seamless integration of ICCC with GIS to ensure ease of use of GIS in the dashboards in ICCC. If such data is already available with the Authority, it shall facilitate the same. SERVICE PROVIDER shall check the availability of such data and its suitability for the project. SERVICE PROVIDER is required to update GIS maps from time to time.

## 10.7 Application Architecture

The software applications designed and developed must follow best practice and industry standards and shall be based on approved requirements. In order to achieve high level of stability and robustness of the application, the system development life cycle must be carried out using the industry standard best practices and adopting the security constraints for access and control rights.

The systems should at least comply with the published BIS smart city standards, eGovernance standards, frameworks, policies and guidelines available on <http://egovstandards.gov.in> (updated from time-to-time) and <https://bis.gov.in/>. System implemented in the city shall adhere to the Unified Digital infrastructure (UDI) properties defined in IS 18000 and the data principles defined in Table 1 of IS 18002

All IT products and services used by SERVICE PROVIDER must necessarily incorporate the principle of Universal Design and global accessibility standards as approved by MeitY. In absence of any such MeitY approved standards, SERVICE PROVIDER should adhere to global accessibility standards as reference (e.g. EN 301 549).

All information portals and websites developed by SERVICE PROVIDER for information dissemination must necessarily be in accessible formats, adhering to the provisions of the WCAG 2.0, Web Access Guidelines. The IT systems should be built, with an aim, to provide maximum accessibility and usability to its users irrespective of device in use, technology or ability.



## 11. Cyber Security

### 11.1 Overview: City Cyber security

Advanced and integrated technology to deliver services to the Excise Department in an efficient manner (as per the scope of this RFP), may expand the cyber threat landscape, and therefore, the authority has planned to consider the cyber security requirements in a comprehensive manner. The objective of the Authority from Cyber security and privacy perspective is to:

- Deliver services to excise department and relevant stakeholders in a safe, secure and reliable manner
- Protect the confidentiality, integrity and availability of the data processed during command center operations
- Maintain the privacy of the data of the department collected while provisioning services
- Provide command center services in compliance to GoI Regulations with regard to the security and privacy of the data
- Protect the command center infrastructure and data from existing and emerging cyber security and privacy threats
- Create Cyber security awareness for all the stakeholders involved, and officials at large
- Resolve cyber security incidents

### 11.2 Cybersecurity Requirements

Minimum cyber security requirements that must be met by the Service Provider throughout the duration of the contract are detailed in the following sections. The SERVICE PROVIDER shall bring appropriate tools, technologies and solutions (which together shall be referred to as security solutions), deploy qualified and experienced cyber security and privacy professionals and implement appropriate policies to meet the security requirements. At any time during the execution of the agreement, if any security solutions intended to meet the security requirements are found to be insufficient / ineffective, the Service provider is expected to bring additional numbers or additional solutions to compensate for the requirement at no additional cost.

#### 11.2.1 Cyber Security Structure

The Service Provider shall deploy a team of qualified and experienced cyber security and privacy professionals which shall include Security Governance Expert, Vulnerability assessment and penetration tester, Security Network Architecture Expert, Security Risk and Compliance Manager and many others. The experts mentioned above can work and support remotely. No additional cost shall be paid to service provider for the Cyber security experts. The cyber security team shall work in cohesion to implement and maintain the desired level of information security.

This cyber security team shall perform the following responsibilities:

- Provide information security directives, management direction, security strategy and support for information security initiatives
- Evaluate and constantly strive to improve the security posture of Authority

- Develop and monitor a strategic, comprehensive information security program
- Ensure security solutions are implemented as per Authority's security requirements

### 11.2.2 Cyber security framework

The Service Provider shall implement Cyber Security and Privacy Framework and security policies aimed at building a secure and resilient cyberspace for citizens and stakeholders of Authority. The Framework shall be designed to protect cyberspace information and infrastructure; build capabilities to prevent and respond to cyber-attacks; and minimize damages through coordinated efforts of institutional structures, people, processes, and technology.

This shall be implemented based on the following guidelines / standards:

- MoHUA guidelines vide circular K- 15016/61/2016-SC-1 dated 20th May 2016
- Government of India guidelines on Data Security
- IT Act
- CERT-IN guidelines
- CMP guidelines on countering cyber-attacks
- International standards including ISO 27001
- NIST Cyber Security Framework

The Service Provider shall ensure implementation of Smart City Cyber Security Policy and related procedures is in line with relevant national and international standards. The Service Provider shall implement Standard Operating Procedures for smooth Operations and Maintenance of IT infrastructure.

Security procedures including, but not limited to the following, shall be implemented:

- Asset management
- Change management
- User access management
- Patch management
- Back up management
- Incident management
- Communications security
- Supplier relationship
- Cryptography
- Secure software development
- Physical and environmental security
- Business Continuity and Disaster Recovery
- IOT Security
- Minimum security baseline (hardening) documents for:

- IT systems and databases (e.g., windows operating system, Linux, databases)
- Network and security devices (e.g., firewall, switches, routers)
- IOT devices (e.g. sensors, actuators)
- Other systems (e.g. CCTV, OT, etc.)
- Integration between various components

A security baseline document shall define a set of minimum-security requirements which shall be met by any given service or system implemented in the city. All systems/services shall be implemented ensuring the compliance to defined security baseline.

### 11.2.3 Cyber Security Governance

Service Provider shall put Cyber security governance in place to ensure cyber security aspects are considered for the Smart City in a comprehensive and continuous manner:

- SERVICE PROVIDER shall establish Cyber security organization structure with clearly defined security roles and responsibilities with skilled cyber security professionals throughout the duration of the contract
- SERVICE PROVIDER shall conduct Risk Assessment and develop a secure network architecture considering security across all the layers: Application, Data, Communication and Sensor layers.
- SERVICE PROVIDER shall facilitate management reporting in form of dashboard for security maturity across different areas on a regular basis
- SERVICE PROVIDER shall implement security controls as required for the protection of the smart city services and data

### 11.2.4 Security Operations Center

Security Operations Centre shall be setup to ensure continuous monitoring and manage cyber security operations pertaining to Smart City. Security Operations Centre shall be a secure facility dedicated to maintaining situational awareness to detect, respond and respond to cyber threats/incidents. It shall include the following:

- Design, implementation and operations of Security Operations Centre
- Ensure that appropriate logs are enabled, captured and retained for analysis from all the relevant systems and devices
- Setup the processes to perform security monitoring on a 24x7 basis. Service Provider may consider remote monitoring to optimize efforts (upon consultation with authority).
- Design other SOC processes including incident handling and escalation, incident investigation, use case update, etc.
- Implement appropriate ticketing system to report and manage security incidents
- Establish appropriate mechanism to respond to security incidents

Cyber Incident Management teams need to be set up to manage and mitigate the cyber incidents and risks for the smart city. All the information on incidents be shared regularly with Indian Computer Emergency Response Team (CERT-In) and NCIIPC (National Critical Information Infrastructure

Protection Centre) and take help to mitigate and recover from the incidents in compliance to GoI regulation.

### 11.2.5 Information Security Assessment

SERVICE PROVIDER shall perform Information security assessment of the Command Center services and related applications before Go-Live and on a regular basis (half-yearly by Service Provider and annually by an external agency) after the Go-Live to ensure continuity of cyber security for the Smart City. The assessment shall be performed in line with defined policies and procedures, Cyber security model framework, international standards, Government of India guidelines and Regulations. The assessment shall include the following:

- Security network architecture
- Network Topology and placement of security products in the network
- High-Level Design (HLD) and Low-Level Design (LLD) documents
- Zoning and network segregation
- Security operations review including change management, incident management, back-up management
- Vulnerability assessment and penetration testing of all the applications and IT infrastructure
- Application Source Code review
- Configuration review of servers, databases, and network devices
- Compliance to Regulatory and MoHUA requirements
- Security Operations Centre
- BCP and DR Plan

An Independence shall be maintained during the assessment, and the team carrying out the assessment exercise shall be different from the implementation team. Systematic actionable need to be derived post assessment and necessary changes shall be performed in a prioritized and timely manner to enhance the cyber security maturity. Volunteer disclosure process may be delineated along with collaboration with White Hat groups.

### 11.2.6 ISO 27001 readiness

Information Security Management System (ISMS) shall be established in line with ISO 27001 standard covering the following:

- a) Define the following as required by ISO 27001:
  - i. ISMS Policy
  - ii. ISMS Scope
  - iii. Cyber security policy, procedures, and guidelines
  - iv. Risks and Opportunities
  - v. Statement of Applicability
  - vi. Risk Assessment Methodology

- vii. Security awareness
- viii. ISMS Assurance process
- b) Co-ordinate with respective stakeholders to perform the risk assessment and implementation of security requirements
- c) Provide security awareness trainings
- d) Facilitate the internal review
- e) Support during certification audit by an external agency appointed by Smart City

#### **11.2.7 Business Continuity Planning and Disaster Recovery**

SERVICE PROVIDER shall develop Business continuity and disaster recovery plan to ensure the continuity of command center services. A Disaster Recovery plan for critical infrastructure and related applications shall be developed to support operations in an event of a disaster. Details of Mean Time To Failure (MTTF) and Mean time to repair (MTTR) shall be defined in the BCP and DR plan. The Business continuity and disaster recovery plan shall be tested on a periodic basis. Requirements of DR can be raised by Authority later at the time of implementation of the project.

#### **11.2.8 SLA management framework:**

Service Provider shall establish an SLA management framework to monitor and report the SLAs on a regular basis. The framework should cover the following:

- a) Define SLA framework for the monitoring and reporting
- b) Implement and review SLA monitoring tools in line with the SLA objectives
- c) Establish the process for collection of raw data, and measurement methodology for the calculation of SLA
- d) Analyze the SLA data and prepare SLA reports on a regular basis
- e) Review and enhance the SLA management framework on a yearly basis to improve the SLA measurement and reporting
- f) Penalty for non-compliance with SLA

#### **11.2.9 IOT Security**

##### **11.2.9.1 Discovery capabilities:**

- a) Asset discovery capability for operational technology environment, captures configuration data that passive scanning may not be able to deliver.
- b) Alert authority about any unauthorized configuration change, identifying malicious silent installs as well as sophisticated cyber-attacks in real time if integrated with city SIEM and command and control center.

##### **11.2.9.2 Identity and Access Management:**

- a) Identity and access management for operational technologies/sensors/smart devices to provide single management interpretation of access requests, reporting, analytics, and automated provisioning, as contained within a centralized directory service for unparalleled

control, the configuration depends upon whether it is isolated i.e. demilitarized or connects with external systems such as cloud.

#### **11.2.9.3 Authentication:**

- a) Device centric authentication capabilities to provide a critical foundation for establishing and maintaining trust in the IoT/OT devices, applications and data that are driving data collection, analytics, decision-making, and the automated processes that manage physical control systems.
- b) The process of introducing and on boarding devices into an IT/OT environment must be securely controlled while meeting the specific requirements of different OT environments. Capability may provide several environment alternatives for device registration models, including automated device registration which enables secure, without manual intervention, physical control, or system access to target devices.

#### **11.2.9.4 Authorization:**

- a) The environment authorization policies to determine what authenticated devices may do. An authenticated ID is used by devices such as sensors, human machine interface, surveillance cameras etc., the identified device may execute its functioning only if authorization policies allows i.e. post grant of permissions.
- b) Operations are advised to be divided into categories such as control and data plane. Control plane allows city officials to perform administrative tasks like creating or updating certificates, things, rules etc., whereas data plane API allows sending and receiving data from cloud. Policy-based authorization is a powerful capability. It gives complete control over what a device, user, or application can do in IoT and OT environment of a smart city.

#### **11.2.10 Secure Remote Administration**

- a) Securing remote access creating usable guidance as it pertains to control systems environments must include both users and the technology to be accessed remotely.
- b) Common elements, such as users, roles, existing technology and architecture types, to be reviewed and their attributes can be leveraged.
- c) Access to and from critical control system assets in the modern environment is usually LAN based, but still should be considered remote if the operator is traversing across different networks. Virtual Private Networking (VPN) is often considered the best approach in securing trans-network communication.
- d) Set requirements on collection, receipt, transmission, storage, disposal, use and disclosure of cities confidential information especially for the assets which are accessed remotely.

#### **11.2.11 Network Segmentation:**

- a) Appropriate tools and processes should be deployed for segmentation of field sensors to the overall network.

#### **11.2.12 Network Binding**

- a) All sensors deployed as part of IT and IT based systems should talk only to the authorized wireless network, and do not hook on to the rogue networks. All traffic from the sensors in the



command center to the application servers should be encrypted Secure Socket Layer (SSL) and authenticated prior to sending any information. The data at rest and in transit must be encrypted.

#### **11.2.13 Hardening:**

- a) All devices and systems deployed in Smart city should be hardened and have the ability to be upgraded remotely for firmware through encrypted and signed images files with authentication mechanism to complete the operation.

#### **11.2.14 Vulnerability Disclosure:**

- a) IOT product and solution providers should have a vulnerability disclosure process.

#### **11.2.14 Security Controls for Cloud Services (If Required during operations)**

The security controls for creating and managing cloud services shall comply with the following requirements. SERVICE PROVIDER along with CSP shall ensure:

- a) The CSP should be empaneled by MeitY for providing cloud services. The CSPs facilities/services shall be certified to be compliant to the following standards: ISO 27001, ISO 27017, ISO 27018, ISO 20000-9, ISO/IEC 20000-1 & PCI DSS.
- b) The CSP/Service Provider shall comply or meet any security requirements applicable to CSPs/Service Providers published (or to be published) by MeitY or any standards body setup / recognized by Government of India from time to time and notified to the CSP/Service Providers by MeitY as a mandatory standard.
- c) The CSP/Service Provider shall meet all the security requirements indicated in the IT Act 2000, the terms and conditions of the Provisional Empanelment of the Cloud Service Providers and shall comply with the audit criteria defined by STQC.
- d) Incident Management shall be managed by CSP / third party.
- e) Periodic secure code review shall be performed for cloud applications and compliance to secure software development lifecycle.
- f) Data encryption at rest / transit depending on sensitivity of data shall be implemented using Authority managed keys, which are not stored on the cloud.
- g) Appropriate encryption mechanisms such as “two-way” shared key symmetric encryption, “two-way” public/private key asymmetric encryption, “one-way” salted hash encryption, etc. should use to secure data at any tier of the application. Due care must be taken to ensure that cryptographic modules used by the application are compliant with international standards both from vendor and algorithm perspectives.
- h) Key management process shall be properly documented and should entail key distribution plans which detail out the scenarios in which key management components are encrypted or decrypted and their physical form
- i) The CSP shall undertake to treat information passed on to them as classified. Such Information shall not be communicated / published / advertised by the CSP to any person/organization without the express permission of the Authority.
- j) CSP shall inform all security breach incidents to Smart City management on real time.



- k) CSP shall ensure data confidentiality and mention Sub-contractual risk shall be covered by CSP.
- l) E-Discovery shall be included as clause in SLA with CSP. It is the process of locating, preserving, collecting, processing, reviewing, and producing Electronically Stored Information (ESI) in the context of or criminal cases/proceedings or investigation. Logging and reporting (e.g., audit trails of all access and the ability to report on key requirements/indicators) must be ensured.
- m) The Law Enforcement Agency as mandated under any law for the time being in force may seek access to information stored on cloud as provided by the Service Provider. The onus shall be on the CSP to perform all due diligence before releasing any such information to any such law enforcement agency. The process for release and transfer shall be detailed in the agreement and approved.
- n) CSP must ensure location of all data related to smart cities to be stored in India only.
- o) The Cloud Service Provider's services offerings shall comply with the audit requirements defined under the terms and conditions of the Provisional Empanelment of the Cloud Service Providers (or STQC /MEITY guidelines). The Audit, Access and Reporting Requirements should be as per the terms and conditions of the Provisional Empanelment of the Cloud Service.
- p) CSP's exit Management Plan shall include - Transition of Managed Services & Migration from the incumbent cloud service provider's environment to the new environment and shall follow all security clauses for smooth transition.
- q) SLA with CSP shall cover performance management & dispute resolution escalation. Guidelines on Service Level Agreement issued by MeitY lists out the critical SLAs for cloud services.
- r) Identification and problem resolution (e.g. helpline, call center, or ticketing system) mechanism must be defined and approved
- s) Change-management process (e.g. changes such as updates or new services) must be defined with sufficient staging and testing.
- t) Appropriate segregation of Virtual Private Cloud (VPC) security rules defined as part of firewall should implement role based access management, Logging and monitoring.
- u) VPN gateway must be setup to ensure controlled access, appropriate security rules must be employed to encrypt outward data flow, IDS, IPS, API Gateways to be setup and ELB logs to be maintained for any activities and access and exceptions to carried out in the cloud setup, Database logs to be routed as part of the Logging VPC setup.
- v) Digital Certificate shall be implemented for secure access.
- w) Web Application Firewall must be provided, Host IPS must be setup on all the Web servers, Web servers must be configured as per the CIS hardening guidelines and baseline security requirements, logging and monitoring should be enabled.
- x) Application access between hosted Smart City applications shall be segregated, internal infrastructure and external traffic, Role based access must be defined, hardening of database instances as per the CIS baselines configuration guidelines in the cloud setup must be ensured, Logging and monitoring must be enabled.
- y) For SLAs to be used to steer the behavior of a cloud services provider, imposition of financial penalties is to be incorporated.

- z) Smart City shall monitor Vendor Service level agreement for annual end-to-end service availability of 99.999 percent with financial penalties on violation. The end to end service agreement should be in place for minimum period of five years from the date of operations of the systems.

#### 11.2.15 Indicative Key Performance Indicators

SERVICE PROVIDER shall prepare Key performance indicators to assess the security maturity. The key performance indicators shall include the following:

- Number of documented security procedures covering each area of operations (e.g., change management, user access management)
- Number / percentage of systems / devices configured as per hardening guidelines
- Number / percentage of Systems with updated patches
- Number / percentage of Systems with updated latest Anti-virus signatures
- Average number of days to deactivate access of former employee / contractor / third party user
- Percentage of total vulnerabilities identified during different assessment closed
- Number of security awareness training sessions conducted
- Number of security assessments (internal and external) conducted by teams independent of implementation team
- Total number of incidents reported
- Percentage of incidents responded / recovered within agreed timeframe
- Total / percentage of systems monitored on a regular basis (e.g., through security operations center)

The KPI shall be assessed and renewed annually. The suggested KPIs may also include;

- i. Number/percentage of devices/end points providing security logging.
- ii. Number/percentage of devices meeting regulatory requirements.
- iii. Number/percentage of events requiring escalation (for reasons other than severity)
- iv. Number of security incidents reported
- v. Down time during incidents
- vi. Total/percentage of network traffic including east/west passing through
- vii. Total/percentage of network traffic including east/west for which logging is done.

## 12. Section 5: Instruction to Bidders

### 12.1 Instructions for Online Bid submission

1. Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e Procurement at <https://mptenders.gov.in>.
2. Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-Procurement/e-tender portal are prerequisite for e-tendering.
3. Bidder should register for the enrollment in the e-Procurement site using the “Online Bidder Enrollment” option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide only valid and true information including valid email id. All the correspondence shall be made directly with the contractors/bidders through email id as registered.
4. Bidder need to login to the site through their user ID/ password chosen during enrollment/registration.
5. Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/TCS/nCode/e-Mudra or any other Certifying Authority recognized by Controller of Certifying Authorities (CCA) India on e- Token/Smartcard, should be registered.
6. The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
7. Contractor/Bidder may go through the tenders published on the site and download the tender documents/schedules for the tenders.
8. After downloading / getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.
9. Bidder may log in to the site through the secured login by the user id/ password chosen during enrolment/registration and then by submitting the password of the e-Token/Smartcard to access DSC.
10. Bidder may select the tender in which he/she is interested in by using the search option and then move it to the ‘my tenders’ folder.
  - a. From my tender folder, he may select the tender to view all the details uploaded there.
  - b. It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
  - c. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and ordinarily it shall be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, all may be clubbed together and provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same if permitted may be uploaded. The file size being less than 1

MB the transaction uploading time will be very fast.

- d. The Bidders can update well in advance, the documents such as certificates, annual report details etc., under “My Space option” and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- e. Bidder should submit the Tender Fee/ EMD as specified in the tender.
- f. **Online submission of scan copy of EMD and Bid processing fees shall only be considered. No Hardcopy of physical submission, until requested by authority.**
- a. An undertaking for the confirmation of online submission of EMD and Bid Processing Fees shall be submitted by the Bidder as part of Pre-Qualification Bid.
- b. While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.
- c. The bidder has to select the payment option as online to pay the Tender FEE/ EMD as applicable and enter details of the instruments.
- d. The bidder has to digitally sign and upload the required bid documents one by one as indicated. Very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read, understood and agreed with all clauses of the bid document including General conditions of contract without any exception.
- e. The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.
- f. The Priced bid/BOQ template shall not be modified / replaced by the bidder; else the bid submitted is liable to be rejected for the tender.
- g. The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission due date and time (as per Server System Clock). The TIA shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.
- h. After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the acknowledgement number indicated by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and also be used as entry pass to participate in the bid opening.
- i. The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening etc., in the e-Tender system. The bidders should follow such time during bid submission.
- j. All the data being entered by the bidders would be encrypted using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.
- k. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers’ public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- l. The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128-bit encryption technology. Data storage encryption of sensitive fields is done.
- m. The bidder should logout of the tendering system using the normal logout option available at the top right-hand corner and not by selecting the (X) exit option in the browser.
- n. For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. For any further queries, the bidders are advised to send a mail to [bscdcl@smartbhopal.city](mailto:bscdcl@smartbhopal.city).

### **12.2 General Guidelines**

1. While every effort has been made to provide comprehensive and accurate background information, requirements and envisaged solution(s) specifications, Bidders must form their own conclusions about the solution(s) needed to meet the Authority's requirements. Bidders and recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.
2. All information supplied by Bidders as part of their bids in response to this RFP, may be treated as contractually binding on the Bidders, on successful award of the project by the Authority on the basis of this RFP.
3. 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 Authority. Any notification of preferred bidder status by Authority shall not give rise to any enforceable rights by the Bidder. Authority may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of Authority.
4. Bids shall be received by the Authority on the e-Procurement portal <https://mptenders.gov.in> before the time and date specified in the schedule of the tender notice. In the event of the specified date for the submission of tender being declared a public holiday by the Government of Madhya Pradesh, the offers will be received up to the appointed time on the next working day. The Authority may, at its discretion, extend this deadline for submission of offers by issuing corrigendum and uploading the same on e-Procurement portal.
5. Telex, cable or facsimile offers will be rejected.
6. Each page of the above should bear the initials of the Applicant along with the seal of the Applicant in token of confirmation of having understood the contents. In case of consortium the bid will be signed by the Prime Bidder.
7. Pre-qualification and technical bid should be signed by an authorized person of the bidder. The pre-qualification bid should be submitted along with a certified true copy of a board resolution/power of attorney empowering authorized signatory to sign/act/execute documents binding the bidder to the terms and conditions detailed in this proposal. In case of the Consortium the Prime bidder will submit this document.

### **12.3 Compliant Bids/Completeness of Response**

1. 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 full understanding of its implications.

2. Failure to comply with the requirements of this RFP may render the bid non-compliant and the Bid may be rejected. Bidders must:
  - a. Include all documentation specified in this RFP, in the bid
  - b. Follow the format of this RFP while developing the bid and respond to each element in the order as set out in this RFP
  - c. Comply with all requirements as set out within this RFP

#### **12.4 Bid Preparation costs**

The Bidder shall bear all costs associated with the preparation and submission of its bid.

#### **12.5 Language of the Bid**

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

#### **12.6 Handwritten documents, Erasures or Alterations**

The offers containing erasures or alterations will not be considered. There should be no handwritten material, corrections or alterations in the offer. Filling up of the information using terms such as “OK”, “noted”, “as given in brochure/manual” is not acceptable and may lead to the disqualification of the Bid.

#### **12.7 Earnest Money Deposit (EMD) / Bid Security**

Bidders should submit EMD of Rs 8,00,000/- (Rupees Eight Lakh only)/- to be submitted online on e-portal which should be valid for 90 days from the last date of submission of bids. Format of the Bank Guarantee is given in Annexure 1 of this RFP.

Earnest Money Deposits (EMD) submitted by the bidders along with their bids, shall be refunded to all bidders, except the Successful Bidder and the second ranked Bidder, within 120 days of issuance of the LOI. EMD of the Successful Bidder and the second ranked Bidder & shall be returned after successful execution of the Agreement and submission of 5% Performance Bank Guarantee (i.e. 5% of Total Project Cost) by successful Bidder.

The Bid security amount is interest free and will be refundable to the unsuccessful bidders without any accrued interest on it.

The Bid submitted without Bid Security, mentioned above, will be summarily rejected. The Bid Security may be forfeited:

1. If a Bidder withdraws its Bid during the period of bid validity



2. If the Successful Bidder fails to sign the contract and submit Performance Bank Guarantee within the stipulated period.
3. In case the documents submitted, or the information furnished by the bidder are found to be not genuine/false.

### **12.8 Firm Prices**

Prices quoted in the Bid must be firm and shall not be subject to any modifications, on any account whatsoever. The Bid Prices shall be indicated in Indian Rupees (INR) only.

The Price Bid should clearly indicate the price quoted without any ambiguity whatsoever and should include all applicable taxes, duties, fees, levies, and other charges as may be applicable in relation to the activities proposed to be carried out. Should there be a change in applicable taxes, the actual taxes on the date of billing would prevail.

Prices in any form or by any reason before opening the Price Bid should not be revealed, failing which the offer shall be liable for rejection. If price change is inevitable due to any factor external to the bidders, the bidders may be given chance to submit revised Bids in a separate sealed cover. Decisions of the Authority shall be final in this regard.

### **12.9 Amendment of the RFP Document**

At any time prior to the submission of bids, Authority for any reason whatsoever, may, modify any element of the RFP Document by issuing a corrigendum. For the sake of interpretation, the content of any corrigendum issued by the Authority shall be read as a part of the original RFP Document. In each instance in which provisions of the Corrigendum contradict or are inconsistent/ inapplicable with the provisions of the RFP, the provisions of the Corrigenda shall prevail and govern, and the contradicted or inconsistent/inapplicable provisions of the RFP shall be deemed amended accordingly.

The Authority may in its sole discretion consider extension of deadlines for submission of the bids, in order to allow prospective bidders reasonable time to take the amendment into account while preparing their bids. All the communications with regards to the clarifications / corrigendum shall be uploaded on e-procurement website <https://mptenders.gov.in>.

It shall be the responsibility of the prospective bidder(s) to check the Authority's website and e-procurement portal from time to time for any amendment in the RFP document. In case of failure to get the amendments, if any, Authority shall not be responsible.

### **12.10 Inspection of Site and sufficiency of RFP**

Bidder is expected to work out their own rates based on the detailed description of scope of work, the specifications and should judiciously arrive at the bidding price. The Bidder shall be deemed to have satisfied itself before Bid submission as to correctness and sufficiency of its bid. The rates quoted by bidder shall cover all its obligations under the RFP necessary for proper execution of the project including O&M.

If necessary, before submitting its Bid the Bidder should inspect and examine various locations and shall satisfy itself about form and nature of the sites/ means of access to the Sites, and in general, obtain all necessary information which may influence or affect Project implementation and operationalization. No extra charges consequent on any misunderstanding or otherwise shall be



allowed.

### **12.11 Deviations and Exclusions**

Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the RFP. The bids with deviation(s) are liable for rejection.

### **12.12 Total Responsibility**

Bidder should issue a statement undertaking total responsibility for the defect free operation of the proposed solution as per the format mentioned in Section 10.8.

### **12.13 Right to vary quantity**

1. At the time of award of contract, the quantity of goods, works or services originally specified in the bidding documents may be increased or decreased. It shall be without any change in the unit prices or other terms and conditions of the Bid and the bidding documents.
2. If the Authority does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in circumstances, the bidder shall not be entitled for any claim or compensation except otherwise provided in the bidding document.
3. Repeat orders for extra items or additional quantities may be placed, if it is provided in the bidding document, on the rates and conditions given in the contract if the original order was given after inviting open competitive bids. Delivery or completion period may also be proportionally increased.

### **12.14 Withdrawal, Substitution and Modification of Bids**

1. A Bidder may withdraw its Bid or re-submit its Bid (technical and/ or financial) as per the instructions/ procedure mentioned at e-Procurement website.
2. Bids withdrawn shall not be opened and processed further.

### **12.15 Opening of Bids**

The Bids shall be opened by Authority in presence of those Bidders or their representatives who may be present at the time of opening. The representatives of the bidders are advised to carry the identity card or a letter of authority from the bidder firms to identify that they are bona fide representatives of the bidder firm, for attending the opening of bid.

There will be two bid opening events.

1. Set 1 (Bid Processing Fess & EMD, Technical bid)
2. Set2 (Price bid)

The venue, date and time for opening the technical bid are mentioned in the Fact sheet. The date and time for opening of price bid would be communicated to the qualified bidders. Bids received within the prescribed closing date and time will be opened on the e

procurement platform, on the date, time and at the address mentioned in the RFP Document.

### 12.16 Qualification Criteria

#### a. General rejection criteria

- i. Conditional Bids;
- ii. If the information provided by the Bidder is found to be incorrect / misleading / fraudulent/incomplete at any stage / time during the Tendering Process;
- iii. Any effort on the part of a Bidder to influence the bid evaluation, bid comparison or contract award decisions;
- iv. Bids received after the prescribed time & date for receipt of bids;
- v. Bids without signature of person (s) duly authorized on required pages of the bid;
- vi. Bids without power of attorney/ board resolution or its certified true copy;

#### b. Pre-Qualification criteria

The Bidder must possess the requisite experience, strength, and capabilities in providing services necessary to meet the requirements as described in the RFP document. Keeping in view the complexity and volume of the work involved, following criteria are prescribed as the eligibility criteria for the bidder interested in undertaking the project. The bidder must also possess technical know-how and financial ability that would be required to successfully provide System Integration, Operation and Maintenance services sought by the Authority for the entire agreement duration. The bids must be complete in all respects and should cover the entire scope of work as stipulated in the bid document. This invitation to bid is open to all Bidders who qualify the eligibility criteria as given below:

| # | Eligibility Criteria | Document Proof | Name to be given to the PDF file to be uploaded |
|---|----------------------|----------------|---|
|   |                      |                |   |

|     |  |  |             |
|-----|--|--|-------------|
| i.  | <p>The Sole Bidder</p> <p><b>OR</b></p> <p>Prime Bidder (in case of consortium) and each consortium members</p> <p>Should be</p> <ol style="list-style-type: none"> <li>1. A company incorporated in India under the Companies Act, 1956 and subsequent amendments thereto or Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008</li> <li>2. Should be operational at least for last 5 years as on date of publishing of RFP.</li> <li>3. Should have GST Number</li> </ol> <p>Consortium Members- Maximum 2 companies are allowed in a consortium including Prime bidder.</p> <p>In case of consortium: the consortium partner can be either a company registered under the Indian Companies Act 1956 or a Partnership Firm registered under Indian Partnership Act 1932 or a Proprietorship Firm or a Limited Liability Partnership Firm under Limited Liability Partnership Firm Act 2008 and be operational at least for last 5 years as on date of publishing of RFP</p> <p><b>Note:</b> The Prime bidder shall be jointly and severally responsible for complete scope, whereas consortium partner shall be severally responsible only for its respective scope.</p> | <ol style="list-style-type: none"> <li>a) Copy of Certificate of Incorporation / Registration under Companies Act 1956/2013 or Partnership Act of 1932</li> <li>b) GST Registration Certificate</li> <li>c) Pan Card Copy</li> <li>d) EPF and ESIC Certificate with last Three Months Submitted</li> </ol> | <b>13.1</b> |
| ii. | <ol style="list-style-type: none"> <li>a) The bidder (lead bidder, in case of consortium) should have an average annual turnover of INR 8 (Eight) Crores from Similar Work over the last three (3) financial years (2019-</li> </ol>   | <ol style="list-style-type: none"> <li>a) Audited Balance Sheet (of Lead Bidder, in case of Consortium) for stated 3 financial years from the statutory auditor of the company only. <b>No</b></li> </ol>  | <b>13.5</b> |

|      |  |  |              |
|------|--|--|--------------|
|      | 20, 2020-21 and 2021-22)   | <p><b>provisional balance sheet shall be accepted.</b></p> <p>b) Certificate from then appointed Statutory auditor clearly specifying the average annual of stated 3 financial years as per prescribed format.</p> <p>c) Board Resolution for appointing Statutory Auditor of the company (of Lead Bidder, in case of Consortium) during Financial Year <b>(Mandatory)</b> (2019-20, 2020-21 and 2021-22). No specific format attached, but it a mandatory document submitted as a part of Technical Proposal.</p> |              |
| iii. | The Bidder (lead bidder, in case of consortium) should have a positive net worth for the previous 3 financial years (2019-20, 2020-21 and 2021-22)   | <p>a) Audited and Certified Balance Sheet and Profit/Loss Account of last 3 stated Years should be enclosed.</p> <p>b) Certificate from the Statutory auditor clearly specifying the net worth of the firm as per prescribed format.</p>   | <b>13.5</b>  |
| iv.  | <p>The bidder shall have successfully completed atleast One (01) similar works each for Implementation and Analytics Project during the last five (05) years as mentioned below:</p> <p>Atleast One (01) Similar Project experience for Implementation and commissioning of IT/ITeS Projects with specified time period as above.</p> <p>Note:</p> <p>1) Similar Project experience shall be considered for projects executed for PSU/State Govt/Central Govt sector only.</p> <p>2) Similar Project under IT/ITes</p> | <p>a) Project Citation</p> <p>b) Work order / Contract/LOI <b>And</b> Completion certificate <b>(mandatory)</b> clearly highlighting the scope of work, Bill of Material and value of the contract/order. Completion Certificate shall be issued &amp; signed by Issuing Authority.</p> <p>Note: In case project is on-going a certificate from Client/ Chartered Accountant/Statutory Auditor has to be provided, mentioning that Capex work has been fully completed and operations are on-</p>                  | <b>13.11</b> |

|      |  |   |              |
|------|--|---|--------------|
|      | Project shall consist of IT Implementation, Commissioning, Operations and maintenance of Command & Control Center projects. Similar IT/ITes project shall consist of following components:<br>- Video Walls<br>- Work Stations<br>- Data Center (Servers, Firewalls, Storages, etc)/ Cloud Infrastructure/ State Data Centers<br>- ICCC <b>AND</b> Analytics Application/Unified Application | going.<br><b>Project citation without stated completion certificate shall not be considered whatsoever.</b>   |              |
| v.   | Affidavit by the Bidder (in case of Consortium, Affidavit from both Parties required) duly signed by the authorized signatory confirming they have never been blacklisted by any Central / State Government/Union Territories /PSUs in India in last five (05) years as on the bid submission date in India  | Undertaking by the authorized signatory of Bidder (in case of Consortium, Affidavit from both Parties required) as per format given in <b>Section A.1.5 of Annexure1.</b> | <b>13.6</b>  |
| vi   | Power of Attorney for signing of the Bid (Applicable in case of Sole Bidder)   |   | <b>13.4</b>  |
| VI I | Consortium Agreement (If applicable)   |   | <b>13.14</b> |
| VI I | Power of Attorney for lead member of the Consortium (If applicable)  |   | <b>13.13</b> |

### c. Technical criteria

| #                           | Technical Evaluation Criteria | Technical Evaluation parameter | Points | Name to be given to the PDF file to be uploaded |
|-----------------------------|-------------------------------|--------------------------------|--------|---|
| <b>A. Financial Profile</b> |                               |                                |        |   |

| A1  | Annual Turnover   | The Bidder (lead bidder, in case of consortium) shall have an average annual turnover of INR 08 Crores over the last three (3) financial years (2019-20, 2020-21 and 2021-22)   | 30  | 13.5        |   |    |   |            |                                  |   |    |       |    |       |
|---|---|---|---|-------------|---|----|---|------------|----------------------------------|---|----|-------|----|-------|
|   |   | <table><tr><th>Over All Turn over</th><th>Marks</th></tr><tr><td>More than 50 Crore</td><td>30</td></tr><tr><td>20 to 50 Crore</td><td>20</td></tr><tr><td>&lt; INR 20 Crore to &gt;= INR 8 Crore</td><td>10</td></tr></table>  | Over All Turn over  | Marks       | More than 50 Crore                        | 30 | 20 to 50 Crore  | 20         | < INR 20 Crore to >= INR 8 Crore | 10  |    |       |    |       |
| Over All Turn over  | Marks   |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| More than 50 Crore  | 30  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| 20 to 50 Crore  | 20  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| < INR 20 Crore to >= INR 8 Crore  | 10  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| B. Project Experience   |   |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| B1  | Similar Project Experience                                    | The bidder should have demonstrable expertise and experience in implementing Systems Integration project during last five (05) years in India of minimum project cost of INR 4 Cr.<br><table><tr><th>Number of Projects</th><th>Marks</th></tr><tr><td>3 Projects</td><td>30</td></tr><tr><td>2 Projects</td><td>20</td></tr><tr><td>1 Project</td><td>10</td></tr></table> | Number of Projects  | Marks       | 3 Projects                                | 30 | 2 Projects  | 20         | 1 Project                        | 10  | 30 | 13.11 |    |       |
| Number of Projects  | Marks   |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| 3 Projects  | 30  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| 2 Projects  | 20  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| 1 Project   | 10  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| B2  | CMMI Level Certification (lead bidder, in case of consortium) | Level 3 – 5 Numbers<br>Level 5 – 10 Numbers   | 10  |             |   |    |   |            |                                  |   |    |       |    |       |
| C. Project Presentation   |   |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| C1  | Technical Presentation  | Technical Presentation highlighting Strategy, solution, Understanding, Past experience, Details of Firm, Analytics Dashboard proposed and OnM Phase   | 10  |             |   |    |   |            |                                  |   |    |       |    |       |
| D. Team Strength and Manpower Experience  |   |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| D1  | Experience of Manpower/Team                                   | <table><tr><th>Criteria</th><th>Total Marks</th></tr><tr><td>Project Manager cum Senior Data Scientist</td><td>12</td></tr><tr><td><table><tr><th>Experience</th><th>Marks</th></tr><tr><td>Total Experience of 10+ years, executed more than 3 similar</td><td>12</td></tr></table></td><td></td></tr></table>   | Criteria  | Total Marks | Project Manager cum Senior Data Scientist | 12 | <table><tr><th>Experience</th><th>Marks</th></tr><tr><td>Total Experience of 10+ years, executed more than 3 similar</td><td>12</td></tr></table> | Experience | Marks                            | Total Experience of 10+ years, executed more than 3 similar | 12 |       | 20 | 13.13 |
| Criteria  | Total Marks   |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| Project Manager cum Senior Data Scientist   | 12  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| <table><tr><th>Experience</th><th>Marks</th></tr><tr><td>Total Experience of 10+ years, executed more than 3 similar</td><td>12</td></tr></table> | Experience  | Marks   | Total Experience of 10+ years, executed more than 3 similar | 12          |   |    |   |            |                                  |   |    |       |    |       |
| Experience  | Marks   |   |   |             |   |    |   |            |                                  |   |    |       |    |       |
| Total Experience of 10+ years, executed more than 3 similar   | 12  |   |   |             |   |    |   |            |                                  |   |    |       |    |       |

|  |  |   |       |   |  |
|--|--|---|-------|---|--|
|  |  | projects, MBA plus Btech/BE/ME/Mtech/BSc/MSc  |       |   |  |
|  |  | Total Experience of less than 10 years, executed less than 3 similar projects, MBA plus Btech/BE/ME/Mtech/BSc/MSc                     | 4     |   |  |
|  |  | Data Scientist  |       | 8 |  |
|  |  | Experience  | Marks |   |  |
|  |  | Total Experience of 5+ years, implemented/developed analytical dashboard in more than 03 projects, Btech/BE/ME/Mtech/BSc/MSc          | 8     |   |  |
|  |  | Total Experience of less than 5 years, implemented/developed analytical dashboard in less than 03 projects, Btech/BE/ME/Mtech/BSc/MSc | 4     |   |  |
|  |  | Analytics Dashboard and Used Cases  |       |   |  |

### Pre-Qualification Refection Criteria

- Bidders not complying with the Eligibility Criteria given in this RFP;
- Revelation of prices in any form or by any reason before opening the Commercial Bid;
- Failure to furnish all information required by the RFP Document or submission of a Bid not substantially responsive to the RFP Document in every respect;

### Condition for rejection of Technical Bids

- Technical Bid containing commercial details;
- Revelation of Prices in any form or by any reason before opening the Commercial Bid;
- Failure to furnish all information required by the RFP Document or submission of a Bid not substantially responsive to the RFP Document in every respect;
- Bidders not quoting for the complete scope of work as indicated in the RFP Documents, addendum /corrigendum (if any) and any subsequent information given to the Bidder;



- iv. Bidders not complying with the Technical and General Terms and conditions as stated in the RFP Documents;
- v. The Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with the scope of work and Service Level Agreements of this RFP;

**Important Notes:**

1. For all the project experience, following documentary evidences are required:
  - a. The Mandatory Document if not provided as a part of Technical Bid Submission shall be leading to disqualification subject to non-adherence to the clarifications required/requested by the Authority
2. Authority (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.

**d. Commercial Rejection Criteria**

- i. Incomplete price Bid;
- ii. Price Bids that do not conform to the RFP's price bid format;
- iii. Total price quoted by the Bidder does not include all statutory taxes and levies applicable;
- iv. If there is an arithmetic discrepancy in the commercial Bid calculations the Technical Committee shall rectify the same. If the Bidder does not accept the correction of the errors, its Bid may be rejected.

Misrepresentation/ improper response by the Bidder may lead to the disqualification. If such disqualification / rejection occurs after the Proposals have been opened and the L1 Bidder gets disqualified / rejected, then Authority reserves the right to consider the next best ranked Bidder (L2) or take any other measure as may be deemed fit in the sole discretion of Authority, including annulment of the Selection Process.

**12.17 Evaluation Process**

Authority 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 requisite 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 will be entertained outside the process of evaluation with the Committee. The Tender Evaluation Committee may ask for meetings or presentation with the Bidders to seek clarifications or confirmations 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:

**Stage 1: Technical Qualification:**

1. Authority shall validate the Set 1 "Bid Processing Fees & Earnest Money Deposit (EMD)".
2. If the contents of the Set 1 are as per requirements, Authority shall evaluate the "Technical

Qualification Bid". Each of the **Technical Qualification condition mentioned in the document is MANDATORY**. In case, **the Bidder does not meet any one of the conditions, the bidder shall be disqualified**.

3. Bidders will be informed of their qualification/disqualification based on the Technical Qualification criteria through Email and Phone and subsequently, the EMD amount shall be returned to the respective disqualified Bidders after the submission of Performance Bank Guarantee by the successful Bidder.
4. Price bid will not be opened for those bidders, who don't qualify the technical evaluation. EMD amount shall be returned for those who don't qualify the financial evaluation stage after Performance Bank Guarantee is submitted by successful bidder.

## **Stage 2: Financial/Price Bid Evaluation**

1. **All the technically qualified bidders will be notified to participate in Price Bid opening process.**
2. The price bids for the technically qualified bidders shall then be opened on the notified date and time and reviewed to determine whether the price bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at Authority's discretion.
3. **Price Bids that are not as per the format provided in the RFP shall be liable for rejection.**
4. The bid price shall include all taxes and levies and shall be in Indian Rupees and mentioned separately. The Authority or any other government Service Provider shall not have any liability of paying any taxes (including GST)/charges/levies as part of this project. The bidder has to quote their Price duly factoring all these costs over the project duration.

If there is any discrepancy in the Price Bid, it will be dealt as per the following:

1. If there is a discrepancy between words and figures, the amount in words shall prevail.

### **Successful bidder evaluation:**

**Bidder having more than or equal to 70 marks in Technical Evaluation will be considered as Technically Qualified Bidder and shall be eligible for financial bid opening. Technically Qualified Bidder with the Lowest VALUE OF FINANCIAL PROPOSAL (Capex and Opex both) (L1) will be declared as a successful bidder.**

## **12.18 Financial/Price Bid Criteria**

The Bidder shall prepare the Bid based on details provided in the RFP document. It must be clearly understood that the Scope of Work is intended to give the Bidder an idea about the order and magnitude of the work and is not in any way exhaustive and guaranteed by the Authority. It shall be the responsibility of the Bidder to fully meet all the requirements and objectives of the RFP. If during the course of execution of the project any minor revisions to the work requirements like technical specifications, equipment sizing, etc. are to be made to meet the goals of the Project; such changes shall be carried out within the proposed price. If any deviation has a major impact on the Project Cost, the Authority shall take appropriate decision and such decisions would be binding on the Bidder.

### **12.19 Bill of Quantities**

The Bill of Quantities will contain the requisite items and their estimated quantities for the project work to be done by the bidder.

*Mentioned in Price Bid Format under Section 16 of this RFP.*

*All the IT and NON-IT Infrastructure shall have Inclusive 2 Years Annual Maintenance along with the costs proposed.*

For Line Item 6 : Installation, Operationalization, Demonstration and Testing following work is expected:

- Network and Electrical Connectivity
- Professional grade network and electrical connectivity connecting all the equipment
- Provision of system inputs in at least 18 locations (Fiber Connectivity)
- Professional installation of Video Wall at appropriate height
- Aesthetic finishing of all installations (in case any material is required, ex. Cables, concealers, pipes, cabinets, etc., the same would be required to be procured by the Vendor)
- Some fittings etc. (ex. UPS) may involve multi-room operations, wherein the UPS installation would have to be done in a separate room.

### **12.20 Extra (New) Items**

- a. Extra items of work shall not vitiate the contract. The reimbursement for extra items shall be validated by BSCDCL. The bidder shall be bound to execute extra items of work as directed by the Authority. The rates for extra items shall be worked out based on the unit rates quoted by the Bidder in Price Bid/as per mutually agreed terms and conditions.
- b. For new items which are beyond the scope of the BoQ, BSCDCL shall validate the requirements and necessity of such new/extra items after due diligence, based on site conditions and work contingencies.
- c. The bidder shall submit in writing well in advance at least 14 days before the Authority a statement of extra items if any that they need to initiate during the course of project works.

### **12.21 Conditional bids/Offer by the bidders**

The Bidder should abide by all terms and conditions specified in the RFP Document. Conditional bids/offers shall be liable for disqualification.

### **12.22 Late Tender bids**

Any bid received by client after the deadline for submission of bid prescribed by the Authority, will be summarily rejected.

### **12.23 Bid Validity Period**

Bids shall be valid for a period of 90 days (Ninety days) from the last date of submission of the bids. A Bid valid for shorter period may be considered as non-responsive. In exceptional circumstances, at its discretion, Authority may solicit the bidder's consent for an extension of the validity period. The request and the responses thereto shall be made in writing or by fax or email.

### **12.24 Address for Communication**

Bids should be addressed to the Authority at below given address:

**Chief Executive Officer,**

**Bhopal Smart City Development Corporation Limited**

**Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,**

**Bhopal, Madhya Pradesh-462021.**

### **12.25 Opening of Bids**

Bids received within the prescribed closing date and time will be opened on the e-procurement platform, on the date, time and at the address mentioned in the RFP Documents.

Technical bids of only those Bidders shall be evaluated who have submitted the prescribed Bid Processing fees and EMD.

### **12.26 Clarification of Bids**

To assist in the scrutiny, evaluation and comparison of bids, Authority may, at its discretion, ask some or all bidders for clarifications with regards to their Bid. The request for such clarifications and the response will necessarily be in writing (by letter / fax / email). Failure of a Bidder to submit additional information or clarification as sought by Authority within the prescribed period will be considered as non-compliance and the Proposal may get evaluated based on the limited information furnished along with the bids.

### **12.27 Right to accept any Bid and reject any or all Bids**

Authority reserves the right to accept or reject any Bid, and to annul the RFP process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder(s) or any obligation to inform the affected Bidder(s) of the grounds for such action.

Bid should be free of over writing. All erasures, correction or addition must be clearly written both in words and figures (if applicable) and attested.

In the event of any assumptions, presumptions, key points of discussion, recommendation or any points of similar nature are submitted along with the Bid, Authority reserves the right to reject the Bid and forfeit the EMD.

If there is any discrepancy in the price bid, it will be dealt as per the following:

1. If, in the price structure quoted for the required Product and services, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), only the total price/cost as quoted.
2. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail, and the total shall be corrected.
3. If there is a discrepancy between words and figures, the in words shall prevail.
4. If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date up to which the bidder has to send his acceptance and if the bidder does not agree to the decision of Authority, the bid is liable to be disqualified.

### **12.28 Non-Conforming bids**

A bid may be construed as a non-conforming bids and ineligible for consideration:

1. If it does not comply with the requirements of this RFP.
2. If a bid does not follow the format requested in this RFP or does not appear to address the particular requirements of the solution.

### **12.29 Confidentiality**

All the material/information shared with the Bidder during the course of this procurement process as well as the subsequent resulting engagement following this process with the successful bidder, shall be treated as confidential and should not be disclosed in any manner to any unauthorized person under any circumstances. The employees of the successful bidder who are proposed to be deployed on the project need to furnish a Non-Disclosure Agreement (NDA).

### **12.30 Notification of Award**

Authority will notify the Successful Bidder via letter / fax /email of its intent of accepting the bid. Within 7 days of receipt of the Letter of Intent (LOI) issued by the Authority, the Successful Bidder shall be required to sign the LOI and return the same to the address specified above as a token of acceptance of the LOI.

### **12.31 Performance Bank Guarantee**

As a condition precedent to execution of the Agreement, the Successful Bidder shall ensure submission of the requisite unconditional irrevocable Bank Guarantee, in the prescribed Format within 7 days of receipt of the LOI as a Performance Bank Guarantee (PBG) for the services to be performed under the resultant Agreement. **The Bank Guarantee shall be equivalent to 5 % of the total Project Cost.** The Performance Bank Guarantee shall be valid up to 60 days beyond the term of the resultant Agreement and shall be renewed and maintained as necessary by the Implementation Service Provider for the term of the resultant Agreement, and extensions if any.]

The Performance Bank Guarantee may be liquidated by the Authority as penalty/liquidated damages resulting from the Implementation Service Provider failure to complete its obligations under the resultant Agreement. The Performance Bank Guarantee shall be returned by Authority to the Bidder within 120 days of the term/expiration of the resultant Agreement after applicable deductions as per the Agreement, if any.

### **12.32 Signing of Contract**

Subsequent to Authority notification to the Successful Bidder by way of an LOI, acceptance of the LOI and submission of the Performance Guarantee, the Successful Bidder shall execute the Agreement with the client. Failure of the Successful Bidder to furnish the Performance Guarantee or execute the Agreement within the prescribed time shall cause the EMD of the Successful Bidder to be liquidated. In such event, client shall negotiate with the next eligible bidder. The Successful Bidder will be liable to indemnify client for any additional cost or expense, incurred on account of failure of the Successful Bidder to execute the Agreement.

Notwithstanding anything to the contrary mentioned above, the Authority at its sole discretion shall have the right to extend the timelines for execution of Agreement on the request of the Successful Bidder, provided the same is bonafide.

### **12.33 Rejection criteria**

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

#### **General rejection criteria**

1. Conditional Bids;
2. If the information provided by the Bidder is found to be incorrect / misleading / fraudulent at any stage / time during the RFP Evaluation Process;
3. Any effort on the part of a Bidder to influence the bid evaluation, bid comparison or contract award decisions;
4. Bids received after the prescribed time & date for receipt of bids;
5. Bids without signature of person (s) duly authorized on required pages of the bid;
6. Bids without power of attorney/ board resolution or its certified true copy.
7. Bids received without submission of the prescribed Bid processing fee and EMD.
8. Bidder tries to influence the bid evaluation process by unlawful/corrupt/fraudulent means at any point of time during the bid process
9. In case any bidder submits multiple bids or if common interests are found in two or more bidders, the bidders are likely to be disqualified, unless additional bids/bidders are withdrawn upon notice immediately

#### **Technical rejection criteria**

1. Technical Bid containing Price details;
2. Revelation of Prices in any form or by any reason before opening the Price Bid;
3. Failure to furnish all information required by the RFP Document or submission of a Bid not substantially responsive to the RFP Document in any aspect;
4. Bidders not quoting for the complete scope of work as indicated in the RFP Documents, addendum /corrigendum (if any) and any subsequent information given to the Bidder;
5. Bidders not complying with the Technical/Functional and General Terms and conditions as stated in the RFP Documents;
6. The Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with the scope of work and Service Level Agreements of this RFP

#### **Price Bid Rejection Criteria**

1. Incomplete Price Bid;
2. Price Bids that do not conform to the RFP 's Price Bid Format;
3. If there is an arithmetic discrepancy in the Price Bid calculations the RFP Evaluation Committee shall rectify the same. If the Bidder does not accept the correction of the errors, its Bid may be rejected.

### **12.34 Concessions permissible under statutes**



Bidder, while quoting against this RFP, must take cognizance of all concessions permissible, if any, under the statutes and ensure the same is passed on to the Authority, failing which it will have to bear extra cost. In case Bidder does not avail concessional rates of levies like customs -, excise -, sales tax, etc. client will not take responsibility towards this. However, the Authority may provide necessary assistance, wherever possible, in this regard.

### **12.35 Taxes**

The Bidders 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 client under the Agreement. Prices in the price bid quoted by the Bidder shall be exclusive of Applicable Taxes.

### **12.36 Records and Information**

For the purposes of audit in accordance with this Schedule, the Implementation Service Provider shall maintain true and accurate records in connection with the provision of the services and the Implementation Service Provider shall handover all the relevant records and documents upon the termination or expiry of this Agreement.

### **12.37 Terms of Payment**

1. The request for payment shall be made to the Authority in writing, accompanied by invoices describing, as appropriate, the services performed, and by the required documents submitted pursuant to conditions of the contract and upon fulfilment of all the obligations stipulated in the Contract.
2. Due payments shall be made promptly by the Authority, within forty-five (45) days after submission and acceptance of an invoice or request for payment by Implementation Service Provider .
3. Due payments **for Quarterly Operational Payment** shall be made by the Authority at its discretion, within forty-five (45) days after submission and acceptance of an invoice or request for payment by Implementation Service Provider .
4. The currency or currencies in which payments shall be made to the Implementation Service Provider under this Contract shall be Indian Rupees (INR) only.
5. All remittance charges shall be borne by the Implementation Service Provider .
6. In case of disputed items, the disputed amount shall be withheld and shall be paid only after settlement of the dispute.
7. Any penalties/ liquidated damages, as applicable, for delay and non-performance, as mentioned in this RFP document, shall be deducted from the due payments of the respective milestones.
8. Taxes, as applicable, shall be deducted / paid, as per the prevalent rules and regulations.

9. Payments to Implementation Service Provider /Service Provider , after successful completion of the target milestones (including specified project deliverables), shall be made as per Payment Terms.

### ***12.38 Right to vary the scope of Work***

#### ***Right to vary the scope of the work at the time of award***

The Authority reserves its right to make changes to the scope of the work at the time of execution of the resultant Agreement. If any such change causes an increase or decrease in the cost of, or the time required for the Implementation Service Provider 's performance of any part of the work under the Agreement, whether changed or not changed by the order, an equitable adjustment (if required) shall be made in the Contract Value or time schedule, or both, and the Agreement shall accordingly be amended. Any claims by the Implementation Service Provider for adjustment under this Clause must be asserted within thirty (30) days from the date of the Implementation Service Provider 's receipt of the client changed order.

### ***12.39 Fraud and corruption***

Authority requires that Bidder must observe the highest standards of ethics during the entire process of RFP evaluation and during execution of the contract. In pursuance of this policy, client defines, for the purpose of this provision, the terms set forth as follows:

**"Corrupt practice"** means the offering, giving, receiving or soliciting of anything of value to influence the action of the Authority in contract executions.

**"Fraudulent practice"** means a misrepresentation of facts, in order to influence a procurement process or the execution of a contract, to the Authority, and includes collusive practice among bidders (prior to or after Proposal submission) designed to establish Proposal prices at artificially high or non-competitive levels and to deprive the Authority of the benefits of free and open competition.

**"Unfair trade practices"** means supply of services different from what is ordered on, or change in the Scope of Work which is given by the Authority in this RFP.

**"Coercive Practices"** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the execution of contract.

Authority shall reject the Bid proposal for award of contract, if it determines that the Bidder recommended for award, has been found to have been engaged in corrupt, fraudulent or unfair trade practices. Once the contract is signed and if it is noticed that the Implementation Service Provider has indulged into the Corrupt / Fraudulent / Unfair / Coercive practices, it will be a sufficient ground for client for termination of the contract and initiate blacklisting of the Implementation Age.

### ***12.40 Conflict of Interest***

1. A bidder shall not have a conflict of interest that may affect the Selection Process or the

Solution delivery (the “Conflict of Interest”). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, Authority shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to Authority for, inter alia, the time, cost and effort of Authority including consideration of such Bidder’s Bid, without prejudice to any other right or remedy that may be available to Authority hereunder or otherwise.

2. Authority requires that the bidder provides solutions which at all times hold Authority’s interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The bidder shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of Authority.
3. The bidder privy to the proposal shall not be allowed to bid.
4. Conflict of interest to be a situation in which a party has interests that could improperly influence that party’s performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations
5. A Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the party is involved
6. Any Bidder found to have a Conflict of Interest shall be disqualified.

#### **12.41 Consortium and Sub-Contracting**

- *The number of consortium members cannot exceed two, including the Prime Bidder.*
  - A Bidder applying individually or as consortium member shall not be entitled to submit another application either individually or as a member of any other consortium, as the case may be.
  - Consortium members must provide a Memorandum of Understanding (MoU) covering above points and showing their intention to enter into such an Agreement at the time of bidding along with Pre-Qualification Bid.
  - A Bidding Consortium is required to nominate a Prime Member. The formation of the consortium including identification of Prime member and role and responsibilities of each member shall be supported by Memorandum of Agreement and Power of Attorney signed by all the members on a stamp paper of INR 500/-.
  - The successful bidder (SI) shall require to enter into agreement with the Consortium Member specifying following points in the Agreement. These points shall also be captured in MoU
1. Identity Prime Member and Power of Attorney in favor of Prime Member.
  2. Roles and responsibilities of the consortium partner, the identification of the lead partner, and providing for joint and several liability for each partner.
  3. All consortium members would be available throughout the Contract Period.
  4. The Prime bidder shall be jointly and severally responsible for complete scope, whereas consortium partner shall be severally responsible only for its respective scope.
  5. The role and responsibility of any member must be commensurate with the technical/financial capabilities that such member is contributing towards meeting the qualification criteria. Each consortium member is liable to contribute resources in terms of knowledge, skills and trained manpower commensurate with its role and responsibilities during the Contract Period.

6. The Consortium Agreement must also state that the period of the Agreement would coincide with the Contract period. Consortium must continue to be in existence during the period of the contract and that any change will be subject to approval of the Authority (BSCDCL) only.
7. The final contract between the consortium members (The Consortium Contract) would be available for legal vetting and open to suggestions by the BSCDCL. BSCDCL will suggest binding corrections if it finds that such contract does not meet its requirements and interests as per the Tender in letter and spirit.
8. The Agreement should be on stamp paper and notarized. The signatories must be duly authorized.
9. Any modification in roles and responsibilities between consortium members during Contract Period shall be allowed only after approval from BSCDCL. Any changes and deviation of roles and responsibilities of consortium members during the execution, operation and maintenance of this Project without prior approval of Authority shall be viewed seriously by the BSCDCL as it can affect an important public service. Such unilateral action by the SI shall entitle BSCDCL to take appropriate action including considering it an Event of Default under this Contract leading to consequences including termination with appropriate notice.
10. Any Dispute arising during Contract Period between the Consortium Member shall be resolved amicably without adversely impacting Project execution, implementation or operation. If in BSCDCL's opinion, Dispute between Consortium members adversely impacting implementation and operation of the Project then Authority may in its sole discretion in the interest of the Project (a) Terminate the Contract after due process and/or (2) Provide a binding solution.
11. In case BSCDCL Intends to proceed for Termination on account of System Integrator Event of Defect and /or unresolved disputes between the Consortium Members, all the Consortium Members shall be jointly and severally liable for Implementation, Operation and Maintenance of project at Agreed prices and payment terms specified in this Tender till Authority or any new agency appointed by it takes over the Project
12. BSCDCL reserves the right to reject the Bid in case of change in the constitution of the consortium after the submission of Bid and before the execution of the Agreement.

However, Sub-contracting is not allowed.

## **12.42 Special Conditions**

### **12.42.1 Indemnity**

1. The Concessionaire (the "Indemnifying Party") undertakes to indemnify, defend, save and hold harmless the Authority and its officers, servants, agents, Government Instrumentalities and Government owned and/or controlled entities/enterprises, (the "Indemnified Party") against any and all suits, proceedings, actions, demands and claims from third parties for any bodily injury, death, loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Concessionaire of any of its obligations under this RFP/Agreement/Scope or any related agreement or on account of any defect or deficiency in the provision of services by the Concessionaire to any User or from any negligence of the Concessionaire under contract or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, or breach or default of this Agreement on the part of the Indemnified Party.
2. The Concessionaire further agrees to indemnify and hold harmless the "Indemnified Party" promptly upon demand at any time and from time to time, from and against any and all losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified Party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from

- i. Failure of the Concessionaire to comply with Applicable Laws and Applicable Permits;
- ii. Payment of taxes required to be made by the Concessionaire in respect of the income or other taxes of the Concessionaire's contractors, suppliers and representatives;
- iii. Any misstatement or any breach of any representation or warranty made by the Concessionaire;
- iv. The failure by the Concessionaire to fulfil any covenant or condition contained in this Agreement, including without limitation the breach of any terms and conditions of this Agreement by any employee or agent of the Concessionaire;
- v. All losses or damages arising from claims by third parties that any deliverable (or the access, use or other rights thereto), created by the Concessionaire pursuant to this Agreement, or any equipment, software, information, methods of operation or other intellectual property created by the Bidder, its agents or sub-contractors pursuant to this Agreement, or if any of the services, goods, products, output, (a) infringes a copyright, trade mark, trade design enforceable in India, (b) infringes a patent issued in India, or (c) constitutes misappropriation or unlawful disclosure or use of another Party's trade secrets under the laws of India (collectively, "Infringement Claims"); provided, however, that this will not apply to any deliverable (or the access, use or other rights thereto) created by (a) implementation of project by the Authority itself or through other persons other than the Concessionaire or its sub-contractors; (b) third parties (i.e., other than the Bidder or sub-contractors) at the direction of the Authority;
- vi. Any compensation / claim, including all legal, administrative, arbitration fees, to be paid to any third party arising out of proceedings against the Authority due to any act, deed or omission by the Concessionaire;
- vii. Non-payment of amounts due as a result of materials or services furnished to the Concessionaire or any of its contractors which are payable by the Concessionaire or any of its contractors;
- viii. Any claim, suit, petition, notice filed/issued by a workman, employee, sub-contractor, partners, vendors, service provides, engaged by the Concessionaire for carrying out work related under this Agreement.

For the avoidance of doubt, indemnification of losses pursuant to this clause shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred. Any payment made to the indemnified party or any claim for breach of any of the terms and conditions shall also include payment of applicable taxes.

3. In the event that the Authority (the "Indemnified Party") receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this clause, it shall notify the Concessionaire (the "Indemnifying Party") within 15 days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

4. Notwithstanding anything to the contrary contained in this clause, the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

5. This Article shall survive the termination of the Agreement.



### 12.42.2 Dispute Resolution

1. Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the “Dispute”) shall, in the first instance, be attempted to be resolved amicably through good faith negotiation within 30 days from the issue of the notice of dispute.
2. Any Dispute which is not resolved amicably by negotiation, shall be finally decided by reference to arbitration before a bench of 3 (three) arbitrators, where each Party shall appoint one arbitrator each, and the third arbitrator shall be appointed by the two arbitrators so appointed.
3. Such arbitration shall be held in accordance with the Arbitration and Conciliations Act, 1996 or any amendments thereafter. The venue of arbitration shall be Bhopal, Madhya Pradesh, and the language of arbitration proceedings shall be English.
4. The arbitrators shall make a reasoned award (the “Award”). Any Award made in any arbitration held pursuant to this clause shall be final and binding on the Parties as from the date it is made, and the Concessionaire and the Authority agree and undertake to carry out such Award without delay.
5. This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.
6. The fees of the arbitrator, costs and other expenses incidental to the arbitration proceedings shall be borne equally by the parties.

### 12.42.3 Termination for Concessionaire’s Default

- 1) Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Concessionaire fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 60 (sixty) days, the Concessionaire shall be deemed to be in default of this Agreement (the “Concessionaire Default”), unless the default has occurred solely as a result of any breach of this Agreement by the Authority or due to Force Majeure. The defaults referred to herein shall include:
- a) the Performance Security has been encashed and appropriated in accordance with Clause of this agreement and the Concessionaire fails to replenish or provide fresh Performance Security within a Cure Period of 15(fifteen) days;
  - b) subsequent to the replenishment or furnishing of fresh Performance Security in accordance with of this agreement , the Concessionaire fails to cure, within a Cure Period of 60 (sixty) days, the Concessionaire Default for which whole or part of the Performance Security was appropriated;
  - c) the Concessionaire does not achieve the latest outstanding Project Milestone of Payment due in accordance with the provisions and continues to be in default for 45 (Forty Five) days;
  - d) the Concessionaire abandons or manifests intention to abandon the Site Installation or operation of the Project without the prior written consent of the Authority;
  - e) Project Completion Date does not occur within the period specified in Clause of this agreement;
  - f) the Concessionaire is in breach of the Maintenance Requirements or the Safety Requirements, as the case may be;

- g) the Concessionaire has failed to make any payment to the Authority within the period specified in this Agreement;
- h) upon occurrence of a Financial Default, the Lenders' Representative has by notice required the Authority to undertake Suspension or Termination, as the case may be, in accordance with the Substitution Agreement and the Concessionaire fails to cure the default within the Cure Period specified hereinabove;
- i) the Concessionaire creates any Encumbrance in breach of this Agreement;
- j) the Concessionaire repudiates this Agreement or otherwise takes any action or evidences or conveys an intention not to be bound by the Agreement;
- k) a Change in Ownership has occurred in breach of the provisions of this agreement;
- l) there is a transfer, pursuant to law either of (i) the rights and/or obligations of the Concessionaire under any of the Project Agreements, or of (ii) all or part of the assets or undertaking of the Concessionaire, and such transfer causes a Material Adverse Effect;
- m) an execution levied on any of the assets of the Concessionaire has caused a Material Adverse Effect;
- n) the Concessionaire is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Concessionaire or for the whole or material part of its assets that has a material bearing on the Project;
- o) the Concessionaire has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect;
- p) a resolution for winding up of the Concessionaire is passed, or any petition for winding up of the Concessionaire is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 45 (Forty Five) days of the date thereof or the Concessionaire is ordered to be wound up by Court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Concessionaire are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Concessionaire under this Agreement and the Project Agreements; and provided that:
  - i. the amalgamated or reconstructed entity has the capability and operating experience necessary for the performance of its obligations under this Agreement and the Project Agreements;
  - ii. the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and the Project Agreements and has a credit worthiness at least as good as that of the Concessionaire as at the Appointed Date; and
  - iii. each of the Project Agreements remains in full force and effect;
- q) any representation or warranty of the Concessionaire herein contained which is, as of the date hereof, found to be materially false, incorrect or misleading or the Concessionaire is at any time hereafter found to be in breach thereof;



- r) the Concessionaire submits to the Authority any statement, notice or other document, in written or electronic form, which has a material effect on the Authority's rights, obligations or interests and which is false in material particulars;
- s) the Concessionaire has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement; or
- t) the Concessionaire commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Authority.

2) Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of a Concessionaire Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Concessionaire; provided that before issuing the Termination Notice, the Authority shall by a notice inform the Concessionaire of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Concessionaire to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice, subject to the provisions of clause of this agreement.

3) The Authority shall, if there be Senior Lenders, send a copy of its notice of intention to issue a Termination Notice referred to in Clause of this agreement to inform the Lenders' Representative and grant 15 (fifteen) days to the Lenders' Representative, for making a representation on behalf of the Senior Lenders stating the intention to substitute the Concessionaire in accordance with the Substitution Agreement. In the event the Authority receives such representation on behalf of Senior Lenders, it shall, in its discretion, either withhold Termination for a period not exceeding 180 (one hundred and eighty) days from the date of such representation or exercise its right of Suspension, as the case may be, for enabling the Lenders' Representative to exercise the Senior Lenders' right of substitution in accordance with the Substitution Agreement:

Provided that the Lenders' Representative may, instead of exercising the Senior Lenders' right of substitution, procure that the default specified in the notice is cured within the aforesaid period of 180 (one hundred and eighty) days, and upon such curing thereof, the Authority shall withdraw its notice referred to above and restore all the rights of the Concessionaire:

Provided further that upon written request from the Lenders' Representative and the Concessionaire, the Authority shall extend the aforesaid period of 180 (one hundred and eighty) days by such further period not exceeding 45 (Forty Five) days, as the Authority may deem appropriate.

#### **12.42.4 Miscellaneous**

##### **1. Governing law and jurisdiction**

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Bhopal, Madhya Pradesh shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

##### **2. Entire Agreement**

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the

Concessionaire arising from the Request for Qualification or Request for Proposals, as the case may be, shall be deemed to form part of this Agreement and treated as such.

### 3. Severability

If for any reason whatever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

### 4. No partnership

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

### 5. Third parties

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

### 6. Successors and assigns

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

### 7. Language

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

#### **12.42.5 Insurance**

The Goods supplied under the Agreement shall be comprehensively insured by SERVICE PROVIDER at its own cost, against any loss or damage, for the entire period of the Agreement. SERVICE PROVIDER shall submit to the Authority, documentary evidence issued by the insurance company, indicating that such insurance has been taken.

12.42.5.1 SERVICE PROVIDER shall bear all the statutory levies like customs, insurance, freight, etc. applicable on the Goods and also the charges like transportation charges, GST etc. that may be applicable till the Goods are delivered at the respective sites of installation shall also be solely borne by SERVICE PROVIDER.

12.42.5.2 SERVICE PROVIDER shall take out and maintain at its own cost, on terms and conditions approved by the Authority, all necessary insurance against the risks, and for the coverages, as specified below:

- a. at the Authority's request, shall provide evidence to the Authority showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid; and
- b. Employer's liability and workers' compensation insurance in respect of the Personnel of the SERVICE PROVIDER, in accordance with the relevant provisions of the Applicable Laws including personal accident and death in respect of its Personnel or any other insurance as may be appropriate and the proof of such insurances shall be provided to Authority, when so requested. Notwithstanding the above, the Key Personnel of SERVICE PROVIDER shall be and shall remain the employees of SERVICE PROVIDER and SERVICE PROVIDER alone shall be responsible for the payment of all dues with respect to them or meeting any statutory obligations under the Applicable Laws with respect to such Personnel.

#### **12.42.6 Transfer of Ownership**

12.42.6.1 All Commercially off the Shelf (COTS) products/ Open-Source Solutions 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 products. Such licenses shall be brought on behalf of and in the name of Authority or mentioning Authority as the end user of such licenses. SERVICE PROVIDER shall 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 the Purchaser 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. Unless otherwise specifically restricted by the Licensing Terms of the COTS products/ Open-Source Solutions, all intellectual property rights in any development/ enhancement/ customization etc. done on the COTS products/ Open-Source Solutions pursuant to this Agreement shall be owned by Authority. Further, the SERVICE PROVIDER shall be obliged to ensure that all approvals, registrations, licenses, permits and rights which are, inter-alia, necessary for use of the Deliverables, goods, services, applications, services etc. provided by the SERVICE PROVIDER / Consortium / subcontractors under this Agreement shall be acquired in the name of the Authority and SERVICE PROVIDER shall have the non-exclusive, limited right to use such licenses till the Term on behalf of the Authority solely for the purpose of execution of any of its obligations under the terms of this Agreement. However, subsequent to the term of this Agreement, such approvals etc. shall endure to the exclusive benefit of the Authority.

12.42.6.2 Forthwith upon expiry or earlier termination of the Agreement and at any other time on demand by the Authority, SERVICE PROVIDER shall deliver to the Authority all Documents provided by or originating from the Authority and all Documents produced by or from or for SERVICE PROVIDER in the course of performing the Services, unless otherwise directed in writing by the Authority at no additional cost. SERVICE PROVIDER shall not, without the prior written consent of the Authority store, copy, distribute or retain any such Documents.

#### **12.42.7 Exit Management Plan**

12.42.7.1 An Exit Management plan shall be furnished by SERVICE PROVIDER in writing to the Authority within 90 (ninety) days from the date of signing of the Agreement, which shall deal with at least the following aspects of exit management in relation to the Agreement as a whole and in relation to the Project implementation, and Service Level monitoring:

- a. a detailed program of the transfer process that could be used in conjunction with a Replacement Service Provider 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;
- b. plans for provision of contingent support to Project and Replacement Service Provider for a reasonable period after transfer;
- c. Exit Management Plan in case of normal termination of Agreement period;
- d. Exit Management Plan in case of any eventuality due to which Project is terminated before the Agreement period; and
- e. Exit Management Plan in case of termination of SERVICE PROVIDER.

12.42.7.2 Exit Management Plan at the minimum shall adhere to the following:

- a. 3 (Three) months of the support to Replacement Service Provider post termination of the Agreement.

### 13. **Annexure 1- Formats of Technical Qualification Bid**

#### 13.1 **Indicative Checklist for the Documents to be included in the Technical Qualification Bid.**

| S. No. | Description   | Documents/Format   | Reference |
|--------|---|--|-----------|
| 1      | Technical Qualification Checklist   |  | 13.1      |
| 2      | Bid Cover Letter  |  | 13.2      |
| 3      | Particulars of the bidders  |  | 13.3      |
| 4      | Power of attorney / board resolution to the authorized Signatory of the Bid   |  | 13.4      |
| 5      | The Bidder should be a Company registered under the Companies Act 1956 or Partnership firm registered under the Partnership Act of 1932 or Companies Act 2013 or registered (converted to) under the Indian Limited Liability Partnership Act, 2008 in India or a Proprietorship Firm and must be operational for at least 3 years as on publication of bid.  |  | 13.1      |
| 6      | The Bidder must not be blacklisted by any Central / State Government Department or Central/State Public Sector Units (PSUs), Government (Central / State / PSU/ World Bank/Asian Development Bank), Other Smart Cities, Urban Local Bodies, Multi-Lateral Service Provider organizations in India as on the bid submission date.  |  | 13.6      |
| 7      | <p>The bidder shall have successfully completed atleast One (01) similar works each for Implementation and Analytics Project during the last five (05) years as mentioned below:</p> <p>Atleast One (01) Similar Project experience for Implementation and commissioning of IT/ITeS Projects with specified time period as above.</p> <p>Note:<br/>1) Similar Project experience shall be considered for projects executed for PSU/State Govt/Central Govt sector only.</p> | <ul style="list-style-type: none"> <li>• Project Citation</li> <li>• Work order / Contract/LOI</li> </ul> <p><b>And</b> Completion certificate <b>(mandatory)</b> clearly highlighting the scope of work, Bill of Material and value of the contract/order. Completion Certificate shall be issued &amp;</p> | 13.11     |

| S. No. | Description  | Documents/Format  | Reference                              |
|--------|--|---|--|
|        | <p>2) Similar Project under IT/ITes Project shall consist of IT Implementation, Commissioning, Operations and maintenance of Command &amp; Control Center projects. Similar IT/ITes project shall consist of following components:</p> <ul style="list-style-type: none"> <li>- Video Walls</li> <li>- Work Stations</li> <li>- Data Center (Servers, Firewalls, Storages, etc)/ Cloud Infrastructure/ State Data Centers</li> <li>- ICCC/Analytics Application/Unified Application</li> </ul> | <p>signed by Issuing Authority.</p> <p>Note: In case project is on-going a certificate from Client/ Chartered Accountant/ Statutory Auditor has to be provided, mentioning that Capex work has been fully completed and operations are on-going.</p> <p><b>Project citation without stated completion certificate shall not be considered whatsoever.</b></p> |  |
| 8      | No Deviation Certificate   |   | 13.7                                   |
| 9      | Total Responsibility Certificate   |   | 13.8                                   |
| 10     | E.M.D. of INR "8,00,000/-" (Rupees Eight Lakh only)/-  |   | 13.9                                   |
| 11     | Bid processing fee (Non-refundable)- INR XXXXX /- (Rupees Five Thousand Nine hundred only) inclusive of applicable GST @ 18% (non-refundable)  | Proof of Transaction  |  |
| 12     | Turn Over and Net Worth Details  | <p>a) Audited Balance Sheet for stated 3 financial years from the statutory auditor of the company only. <b>No provisional balance sheet shall be accepted.</b></p>   | 13.5, along with Audited Balance sheet |

| S. No. | Description | Documents/Format   | Reference |
|--------|-------------|--|-----------|
|        |             | <p>b) Certificate from then appointed Statutory auditor clearly specifying the average annual of stated 3 financial years as per prescribed format.</p> <p>Board Resolution for appointing Statutory Auditor of the company during Financial Year<br/> <b>(Mandatory)</b><br/>                     (2019-20, 2020-21 and 2021-22).<br/>                     No specific format</p> |           |



### 13.2 Technical Qualification Bid Cover Letter

(To be submitted on the letterhead of the Bidder)

To  
Chief Executive Officer,  
Bhopal Smart City Development Corporation Limited  
Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh-462021.

Subject: Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise - office at Bhopal, M.P.

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

Sir/ Madam,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise - office at Bhopal, M.P.

We attach here to our responses to Technical and Price Bids as required by the RFP. 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 client 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 disqualified 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 RFP Document and also agree to abide by this RFP response for a period of 90 days from the date fixed for bid submission. We hereby declare that in case the contract is awarded to us, we shall submit the performance bank guarantee bond in the form prescribed in the RFP.

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

Dated this     Day of     2023

(Signature)

(In the capacity of) (Name) Duly authorized to sign the  
RFP response for and on behalf of: (Name and Address  
of Company) seal/stamp of Bidder

### 13.3 Bidder Details

| #  | Details of Bidder   | Details |
|----|---|---------|
| 1. | Organization Name   |         |
| 2. | Legal Status (Company/Pvt. Ltd/LLP etc.)                                      |         |
| 3. | Registered Office Address   |         |
| 4. | Incorporation/Registration Date and No.                                       |         |
| 5. | GSTN Number   |         |
| 6. | PAN Details   |         |
| 7. | Primary Contact Person (Name, Designation, Address, Mobile No. Email, Fax)    |         |
| 8. | Secondary Contact Person (Name, Designation, Address, Mobile No., Email, Fax) |         |

### 13.4 Format for Power of Attorney for signing the Bid

(On INR 500.00 Non judicial Stamp Paper and duly notarized)

KNOW ALL MEN BY THESE PRESENTS,

We \_\_\_\_\_ (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. (name), \_\_\_\_\_ son/daughter/wife of \_\_\_\_\_ and presently residing at \_\_\_\_\_, who is presently employed with us and holding the position of \_\_\_\_\_, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for qualification and submission of our bid for the Project proposed by the \_\_\_\_\_ (the "client") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in pre-applications and other conferences and providing information/ responses to the client, representing us in all matters before the client, signing and execution of all contracts including the Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the client in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/or till the entering into of the Agreement with the client.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, \_\_\_\_\_, THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF \_\_\_\_\_.

For \_\_\_\_\_

(Signature, name, designation and address)

Witnesses:

1. (Notarized)

2.

Accepted

(Signature, Name, Title and Address of the Attorney)

Notes:

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.

Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney

in favor of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.

In case the bid is signed by an authorized Director / Partner or Proprietor of the Bidder, a certified copy of the appropriate board resolution / document conveying such authorization to client may be enclosed in lieu of the Power of Attorney.

### 13.5 Certificate for Net Worth and Average Annual TurnOver

Date:

To

Chief Executive Officer,

Bhopal Smart City Development Corporation Limited

Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,

Bhopal, Madhya Pradesh-462021.

Sir/Madam,

We hereby certify that Net Worth of M/S\_\_\_\_\_ (name of the bidder, (lead bidder, in case of consortium)) as on 31<sup>st</sup> March 2022 is positive and is as given below:

| Net worth as on 31 <sup>st</sup> March 2022 in India Rupees (In Crore)                                |           |                                    |
|---|-----------|------------------------------------|
| Particular  |           | As on 31 <sup>st</sup> March, 2022 |
| Total   |           | .....                              |
| Average Annual TurnOver for last 3 Years as on 31 <sup>st</sup> March 2022 in India Rupees (In Crore) |           |                                    |
| Particular  |           | As on 31 <sup>st</sup> March, 2022 |
| Total for 3 Years   |           | .....                              |
| Annual Turn Over  | FY2019-20 | In Rs.....                         |
| Annual Turn Over  | FY2020-21 | In Rs.....                         |
| Annual Turn Over  | FY21-22   | In Rs.....                         |

(Signature of Statutory Auditor)

Name of Statutory Auditor:

Name of Statutory Auditor Firm:

### 13.6 Declaration of Non-Blacklisting

(To be provided on the Company letter head)

Place

Date

To,

Chief Executive Officer,

Bhopal Smart City Development Corporation Limited

Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,

Bhopal, Madhya Pradesh-462021.

Subject: Self-Declaration of not been blacklisted in response to the Request for Proposal for Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise - office at Bhopal, M.P.

.

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

Dear Sir,

We confirm that our company or firm, \_\_\_\_\_, is currently not blacklisted in any manner whatsoever by any Central / State Government Department or Central/State Public Sector Units (PSUs), Government (Central / State / PSU/ World Bank/Asian Development Bank), Other Smart Cities, Local Bodies, Multi-Lateral Service Provider organizations in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

(Signature of the Bidder)

(Required from both bidders in case of Consortium)

Printed Name

Designation

Seal

Date:

Place:

Business Address:

### 13.7 No Deviation Certificate

(To be provided on the Company letter head)

Place

Date

To,  
Chief Executive Officer,  
Bhopal Smart City Development Corporation Limited  
Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh-462021.

Subject: Self-Declaration for No Deviation in response to the Selection of Service Provider for Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise - office at Bhopal, M.P.

.

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

Dear Sir,

This is to certify that our offer is exactly in line with your tender enquiry/RFP (including amendments) no. \_\_\_\_\_ dated \_\_\_\_\_. This is to expressly 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.

(Authorized Signatory)

Printed Name

Designation

**Seal**

Date:

Place:

Business Address:



### 13.8 Total Responsibility Certificate

(To be provided on the Company letter head)

Place

Date

To,  
Chief Executive Officer,  
Bhopal Smart City Development Corporation Limited  
Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh-462021.

Subject: Self Declaration for Total Responsibility in response to the Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise - office at Bhopal, M.P.

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

Dear Sir,

This is to certify that we undertake the total responsibility for the defect free operation of the proposed solutions as per the requirement of the RFP for the duration mentioned in the RFP.

(Authorized Signatory)

Printed Name

Designation

**Seal**

Date:

Place:

### 13.9 Format of Earnest Money Deposit

Date: dd/mm/yyyy

To,

Chief Executive Officer,  
Bhopal Smart City Development Corporation Limited  
Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh-462021.

Whereas M/s <<Name of Bidder>>, a company incorporated under the <<Act>>, its registered office at.....or (hereinafter called 'the Bidder') has submitted its Proposal dated ----- for "Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise office at Bhopal, M.P.  
."

KNOW ALL MEN by these presents that WE <<Name of Bank>> of ----- having our registered office at ----- (hereinafter called "the Bank") are bound unto the Bhopal Smart City Development Corporation Limited (hereinafter called "the Client") in the sum of **Rs. xxxx Only** for which payment well and truly to be made to the said Client, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this --- day of ----- 2023

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid
2. If the Bidder, having been notified of the acceptance of its Proposal by the Client during the period of validity of Proposal, bidder:
  - a. withdraws his participation from the Proposal during the period of validity of Proposal document;
  - b. fails to extend the validity if required and as requested or
  - c. fails to produce Performance Bank Guarantee in case of award of tender within 15 days of award of LOI or awarding contract whichever is earlier

We undertake to pay to the Client up to the above amount upon receipt of its first written demand, without the Client having to substantiate its demand, provided that in its demand the Client will note that the amount claimed by it is due to it owing to the occurrence of one or any or a combination of the above conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to the period of bid validity and its validity should be extensible to 60 days beyond the bid validity date. Any demand in respect thereof should reach the Bank not later than the above date.

**(Authorized Signatory of the Bank)**

### 13.10 Format for PBG

[On Appropriate Stamp Paper]

Ref:

Date

Bank Guarantee No.

< Name>

<Designation>

<Address><Phone Nos.><Fax Nos.><Email id>

Whereas, <<name of the supplier and address>> (hereinafter called “the Service Provider”) has undertaken, in pursuance of contract no. <Insert Contract No.> dated. <Date> to provide Implementation services for << RFP >> to [XXXXXXX] (hereinafter called “the BSCDCL”)

And whereas it has been stipulated by in the said contract that the bidder shall furnish you with a bank guarantee 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 office at <Address of Local Office> have agreed to give the supplier such a bank guarantee.

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 Service Provider 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 Guarantee shall be valid until <<Insert Date>>)

Notwithstanding anything contained herein:

- i. Our liability under this bank guarantee shall not exceed Rs. <Insert Value> (Rupees <Insert Value in Words> only).
- ii. This bank guarantee shall be valid up to <Insert Expiry Date>)
- iii. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for

payment under this bank guarantee on or before <Insert Expiry Date>) failing which our liability under the guarantee will automatically cease.

Date:

Place:                      Signature:

Witness: Printed name:

(Bank's common seal)

### 13.11 Project Experience/Citation

Date:

To,  
Chief Executive Officer,  
Bhopal Smart City Development Corporation Limited  
Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh-462021.

Sir/Madam,

I have carefully gone through the Terms & Conditions contained in the RFP Document for Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise office at Bhopal, M.P.

. I hereby declare that below are the details regarding relevant work that has been taken up by our company.

Note: To be filled for separately for each project undertaken

| Name of the client                                 |  |
|--|--|
| Project Name                                       |  |
| Brief Description                                  |  |
| Activities performed by the bidder for the project |  |
| Year (start date; end date)                        |  |
| Duration   |  |
| Order value (INR)                                  |  |
| Supporting documents                               |  |

**13.12 Manpower CV Format**

|    |                   |  |
|----|-------------------|--|
| 1. | Proposed position |  |
|----|-------------------|--|

|     |   |  |                                |                 |
|-----|---|--|--------------------------------|-----------------|
| 2.  | Name of firm  |  |                                |                 |
| 3.  | Name of staff   | [First] [Middle] [Surname]   |                                |                 |
| 4.  | Date of birth   | [MM DD, YYYY]  |                                |                 |
| 5.  | Nationality   |  |                                |                 |
| 6.  | Education   | [Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and year of obtainment starting from the latest degree]  |                                |                 |
| 7.  | Membership of Professional Organizations  |  |                                |                 |
| 8.  | Training & Publications   | [Indicate significant training since education degrees (under 5) were obtained]  |                                |                 |
| 9.  | Countries of Work Experience  | [List countries where staff has worked in the last ten years]  |                                |                 |
| 10. | Languages   | Language   | Proficiency (good/ fair/ poor) |                 |
|     |   |  | Speaking                       | Reading Writing |
|     |   | English  |                                |                 |
|     |   | XXX  |                                |                 |
|     |   | XXX  |                                |                 |
| 11. | Employment record<br>[Starting with present position, list in reverse order every employment held by staff member since graduation] | Name of the Organization   | Position Held                  | Duration        |
|     |   |  |                                |                 |
|     |   |  |                                |                 |
|     |   |  |                                |                 |
|     |   |  |                                |                 |
| 12. | Details of tasks assigned   |  |                                |                 |
| 13. | Work Undertaken that Best Illustrates Capability to Assigned Handle the Tasks Assigned  | [Among the assignments in which the Staff has been involved, most importantly describe in depth explaining components handled / contribution made with specific reference to ToR for those assignments that best illustrate staff capability to handle the tasks assigned] Name of assignment or project:<br>Year:<br>Location:<br>Employer:<br>Project Cost:<br>Main project features: Positions held:<br>Activities performed: |                                |                 |
| 14. | Certification   | I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification  |                                |                 |



### **13.13 Power of Attorney for Lead Member of Consortium**

Whereas the Bhopal Smart City Development Corporation Limited has invited applications from interested parties for the Selection of “Selection of System Integrator for Information and Communication Technology (ICT) Upgradation and Enablement of Fire Services in Bhopal Smart City (RFP No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_)”.

Whereas \_\_\_\_\_, and \_\_\_\_\_ (Collectively “Consortium”) being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal (RFP document) and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Prime 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 bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

I, \_\_\_\_\_ Having our Registered office at \_\_\_\_\_, (hereinafter collectively referred to as the “Principals”) do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s. \_\_\_\_\_ having its registered office at \_\_\_\_\_, being one of the Members of the Consortium, as the Prime Member and true and lawful attorney of the Consortium (hereinafter referred to as the “Attorney”). We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and during the bidding process and, in the event the Consortium is awarded the concession/contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the pre-qualification of the Consortium and submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the BSCDCL, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium’s bid for the Project and/ or upon award thereof till the Concession Agreement is entered into with the BSCDCL.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney

in exercise of the powers hereby conferred shall and shall always be deemed to have been done  
by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF  
ATTORNEY ON THIS ..... DAY OF ....., 20....

For .....

(Signature)

.....

(Name & Title)

For .....

(Signature)

.....

(Name & Title)

Witnesses:

1.

2.

(Executants)

(To be executed by all the Member of the Consortium)

Notes:

- 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.
- Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.
- For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.

### **13.14 Consortium Agreement**

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

This Memorandum of Understanding ( M o U ) entered into this day of [Date] [Month] 2023 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.

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

WHEREAS Bhopal Smart City Development Corporation Limited (BSCDCL), Bhopal, Madhya Pradesh has issued a Request for Proposal dated [Date] (RFP) from the Applicants interested in Request for Proposal (RFP) For Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department

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 with respect to 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 (RFP) For Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department " as a Consortium.
- b. Sign Contract in case of award.
- c. Provide and perform the supplies and services which would be ordered by the ASCL pursuant 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 BSCDCL for "Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department" for and related execution works to be performed pursuant to the Contract and shall not extend to any other activities.

iii. The Lead Bidder shall be solely and severally responsible and bound towards the BSCDCL for the performance of the works in accordance with the terms and conditions of the BID document, and Contract. The consortium members, if any will support the lead bidder in successful implementation of the objectives.

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 BSCDCL.
- 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 channel of communication between the BSCDCL 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

vii. Bidding shall be as below:

Party A: \_\_\_\_\_

Party B: \_\_\_\_\_

Party C: \_\_\_\_\_

Party D: \_\_\_\_\_

viii. That this MoU shall be governed in accordance with the laws of India and courts in [State] 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 have caused this MoU duly executed on the date and year above mentioned.

(Party of the first part) (Party of the second part)

Witness:

i. \_\_\_\_\_

ii. \_\_\_\_\_

## 14. **Annexure 2 – Formats of Price Bid**

### 14.1 **Price Bid – Cover Letter**

#### **To be Submitted as Price Bid**

To,

Chief Executive Officer,

Bhopal Smart City Development Corporation Limited

Kalibadi Rd, Near Natraj Petrol Pump, Sector A, Berkheda,

Bhopal, Madhya Pradesh-462021.

Subject: Request for Proposal for Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise office Bhopal MP

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

Dear Sir,

We, the undersigned Bidder, having read and examined in detail all the RFP Documents in respect of Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of control system and Command Center at Excise office at Bhopal, M.P. do here by propose to provide services as specified in the RFP Documents number Tender No :<No> Dated<DD/MM/YYYY> as per below terms and conditions:

#### **1. PRICE AND VALIDITY**

- All the prices mentioned by us in this Price Bid are in accordance with the terms as specified in the RFP Documents. All the prices and other terms and conditions of this RFP are valid for a period of 90 calendar days from the date of submission of the Bid.
- We hereby confirm that our prices include all taxes, charges, levies etc. to be payable to various govt./non-govt./local authorities.
- We understand and agree that the finalization/selection of the Implementation Service Provider is solely based on the L1, subject to fulfilment of eligibility criteria.

#### **2. UNIT RATES**

We also understand and agree that the unit rates of various components in the Price Bid also should be quoted, without which the bid is liable to be rejected by the technical/ evaluation committee. The decision of the committee shall be final and binding on all in this regard.

We have indicated in the Price Bid, 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 or quantities under the contract. We understand and agree that the unit rates will

not be considered for evaluation, finalization/selection of the Implementation Service Provider under this RFP.

### **3. QUALIFYING DATA**

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

### **4. CONTRACT PERFORMANCE BANK GUARANTEE**

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 RFP.

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

We understand that our response to the RFP is binding on us and that you are not bound to accept an RFP you receive.

Thanking you,

Yours faithfully,

(Signature of the Bidder)

Name

Designation

Seal.

Date:

Place:

Business Address:

## **14.2 General instructions**

1. The Authority or any other government Service Provider shall not have any liability of paying any taxes (including GST)/charges/levies as part of this project. The bidder has to quote their Price duly factoring in all these costs over the project duration.
2. Bidder should provide all prices as per the prescribed Format under this Annexure.
3. All the prices are to be entered in Indian Rupees (INR) only.
4. Prices indicated in the schedules shall be excluding all taxes, GST, Levies, duties etc.
5. Authority reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.
6. The Bidder needs to account for all Out of Pocket expenses on account of Boarding, Lodging and other related items.
7. The Unit Rate as mentioned in the prescribed Formats may be used for the purpose of 'Change Order' for respective items, if any. However, based on the market trends, Authority retains the right to negotiate this rate for future requirement.
8. Bidder shall ensure that the future products to be supplied shall be of latest specifications as per the OEM roadmap.
9. Total cost should be excluding all applicable taxes / charges, annual support charges or any other recurring charges such as license fees etc. (for hardware as well as software components) as applicable.
10. No escalation of prices will be considered during the course of the project implementation and O&M.



## 15. Annexure- Excise Command Center Premises



Note:

- a) Premises of approximate 1000 Sq. Ft. at the present Abkari Department office i.e. Excise Commissioner Camp office shall be provided to the service provider for the development of Command & Control Center.
- b) The exact area can vary on the ground. During the implementation phase, the excise department can ask for the change in the location before installation of the infrastructure. Service Provider shall work as per instruction of the excise department.
- c) Adequate electricity and water connection shall be provided by the Excise department as per the requirements.
- d) Excise department shall provide access to the premises to the list of the persons for the installation and operations of the project based on request by Service Provider.

## 16. Bill of Quantity

| #  | CAPEX Line Items  | Quantity | Unit    | Proposed Rates | Amount (in Rs) excluding Taxes |
|----|---|----------|---------|----------------|--------------------------------|
| A  | <b>Interior Works for Excise Command &amp; Control Center</b>   |          |         |                |                                |
| 1  | False Ceiling- Fiber Reinforced Plastic covering entire ceiling hanged with formwork of metal channel | 1000     | Sq. Ft. |                |                                |
| 2  | Floor Carpet  | 1000     | Sq. Ft. |                |                                |
| 3  | Wall Panelling for Video Wall   | 300      | Sq. Ft. |                |                                |
| 4  | Wall Papers for Remaining walls   | 1        | Lot     |                |                                |
| 5  | Sofa Set 5 Seater with Glass Table  | 1        | Nos     |                |                                |
| 6  | Elevated Floor - Wooden for Sofa Set and Glass Table 10ft X 20 Ft                                     | 200      | Sq. Ft. |                |                                |
| 7  | Operator Table for work stations  | 5        | Nos     |                |                                |
| 8  | Ergonomic Chairs (for operators , meeting rooms, office staff etc.)                                   | 6        | Nos     |                |                                |
| 9  | Electrical Fittings as per site requirements  | 1        | Lot     |                |                                |
| 10 | Light Fixtures as per site requirements   | 1        | Lot     |                |                                |
| 11 | Glass Door for Entry/Exit with handlebars   | 1        | Nos     |                |                                |
| 12 | Glass Door Panels for Windows   | 4        | Nos     |                |                                |
| 13 | Stainless Steel logo (MP Excise Command Center)   | 1        | Nos     |                |                                |
| 14 | Air Conditioner 2 Ton Split Type  | 3        | Nos     |                |                                |
| 15 | Fire Safety System as per Site Requirements   | 1        | Nos     |                |                                |
| 16 | Rodent Replant System as per Site Requirements  | 1        | Nos     |                |                                |
| B  | <b>IT Equipments for Command Center</b>   |          |         |                |                                |
| 17 | Video Walls -70 Inch  | 4        | Nos     |                |                                |
| 18 | Video Wall Controller   | 1        | Nos     |                |                                |
| 19 | Operator Work Station (3 Screen)  | 5        | Nos     |                |                                |
| 20 | IP PABX System with 10 Licenses   | 1        | Nos     |                |                                |
| 21 | IP Phones   | 6        | Nos     |                |                                |
| 22 | Fixed Dome Cameras  | 4        | Nos     |                |                                |
| 24 | Access Control System (Fingerprint & RFID Based for staff)  | 1        | Nos     |                |                                |
| 25 | Multifunction Laser Printer   | 1        | Nos     |                |                                |
| 26 | Internet Router   | 1        | Nos     |                |                                |
| 27 | Access Switch (L3/L2)   | 2        | Nos     |                |                                |
| 28 | Wiring and Earthing as per Site Requirements  | 1        | Nos     |                |                                |
| 29 | Online UPS 5KVA   | 1        | Nos     |                |                                |
| 30 | Cabinet Rack - 9U   | 1        | Nos     |                |                                |
| C  | <b>Data Center Infrastructure (Location</b>   |          |         |                |                                |

|    | <b>BSCDCL ICCD DC)</b>                                |      |     |  |  |
|----|---|------|-----|--|--|
| 31 | Server with Virtualisation                            | 3    | Nos |  |  |
| 32 | Storage (100 TB) at Smart City ICCD                   | 1    | Nos |  |  |
| 33 | Firewall (AAA with Load Balancer)                     | 1    | Nos |  |  |
| 34 | Switch L3   | 1    | Nos |  |  |
| 35 | Command Center Application with GIS Application       | 1    | Nos |  |  |
| 36 | Video Management System with ANPR Capability          | 1    | Nos |  |  |
| 37 | VMS License (Camera)                                  | 1000 | Nos |  |  |
| 38 | ANPR License (ANPR Camera)                            | 400  | Nos |  |  |
| 39 | Vehicle Tracking Management System for 1,000 Vehicles | 1    | Lot |  |  |
| 40 | Analytics Management System                           | 1    | Nos |  |  |
|    | <b>Grant Total</b>                                    |      |     |  |  |

|    | <b>Opex Line Item</b>  | <b>Quantity</b> | <b>Unit</b>    | <b>Year 1 Opex Cost</b> | <b>Year 2 Opex Cost</b> | <b>Year 3 Opex Cost</b> | <b>Amount (in Rs) excluding Taxes</b> |
|----|--|-----------------|----------------|-------------------------|-------------------------|-------------------------|---------------------------------------|
| D  | <b>Manpower Deployment (Location Abhkari Department CCC)</b>                             |                 |                |                         |                         |                         |                                       |
| 41 | Project Manager cum Senior Data Scientist  | 1               | Onsite Persons |                         |                         |                         |                                       |
| 42 | Data Scientist   | 1               | Onsite Persons |                         |                         |                         |                                       |
| 43 | Data Supervisor  | 2               | Onsite Persons |                         |                         |                         |                                       |
| 44 | Monitoring Staff   | 10              | OnSite Persons |                         |                         |                         |                                       |
| 45 | Comprehensive AMC per year   | 1               | Yearly Rate    |                         |                         |                         |                                       |
| 46 | Network Connectivity for Data Center at BSCDCL 100 MBPS Lease Line Redundant             | 1               | Yearly         |                         |                         |                         |                                       |
| 47 | Network Connectivity for Command Center at MP Excise Dept. 100 MBPS Lease Line Redundant | 1               | Yearly         |                         |                         |                         |                                       |
|    | <b>Grant Total</b>   |                 |                |                         |                         |                         |                                       |

|                   |  |
|-------------------|--|
| Tender ID         | MPBSCDCL/TENDER NO-268   |
| Tender Floated by | Bhopal Smart City Development Corporation Limited  |
| Project Name      | Selection of Service Provider for Installation, Commissioning, Integration and Maintenance of Command Center at MP Excise Department |

| #  | CAPEX Line Items  | Quantity | Unit    | Proposed Rates | Amount (in Rs) excluding Taxes |
|----|---|----------|---------|----------------|--------------------------------|
| A  | <b>Interior Works for Excise Command &amp; Control Center</b>   |          |         |                |                                |
| 1  | False Ceiling- Fiber Reinforced Plastic covering entire ceiling hanged with formwork of metal channel | 1000     | Sq. Ft. |                | 0                              |
| 2  | Floor Carpet  | 1000     | Sq. Ft. |                | 0                              |
| 3  | Wall Panelling for Video Wall   | 300      | Sq. Ft. |                | 0                              |
| 4  | Wall Papers for Remaining walls   | 1        | Lot     |                | 0                              |
| 5  | Sofa Set 5 Seater with Glass Table  | 1        | Nos     |                | 0                              |
| 6  | Elevated Floor - Wooden for Sofa Set and Glass Table 10ft X 20 Ft                                     | 200      | Sq. Ft. |                | 0                              |
| 7  | Operator Table for work stations  | 5        | Nos     |                | 0                              |
| 8  | Ergonomic Chairs (for operators , meeting rooms, office staff etc.)                                   | 6        | Nos     |                | 0                              |
| 9  | Electrical Fittings as per site requirements  | 1        | Lot     |                | 0                              |
| 10 | Light Fixtures as per site requirements   | 1        | Lot     |                | 0                              |
| 11 | Glass Door for Entry/Exit with handlebars   | 1        | Nos     |                | 0                              |
| 12 | Glass Door Panels for Windows   | 4        | Nos     |                | 0                              |
| 13 | Stainless Steel logo (MP Excise Command Center)   | 1        | Nos     |                | 0                              |
| 14 | Air Conditioner 2 Ton Split Type  | 3        | Nos     |                | 0                              |
| 15 | Fire Safety System as per Site Requirements   | 1        | Nos     |                | 0                              |
| 16 | Rodent Replant System as per Site Requirements  | 1        | Nos     |                | 0                              |
| B  | <b>IT Equipments for Command Center</b>   |          |         |                |                                |
| 17 | Video Walls -70 Inch  | 4        | Nos     |                | 0                              |
| 18 | Video Wall Controller   | 1        | Nos     |                | 0                              |
| 19 | Operator Work Station (3 Screen)  | 5        | Nos     |                | 0                              |
| 20 | IP PABX System with 10 Licenses   | 1        | Nos     |                | 0                              |
| 21 | IP Phones   | 6        | Nos     |                | 0                              |
| 22 | Fixed Dome Cameras  | 4        | Nos     |                | 0                              |
| 24 | Access Control System (Fingerprint & RFID Based for staff)  | 1        | Nos     |                | 0                              |
| 25 | Multifunction Laser Printer   | 1        | Nos     |                | 0                              |
| 26 | Internet Router   | 1        | Nos     |                | 0                              |
| 27 | Access Switch (L3/L2)   | 2        | Nos     |                | 0                              |
| 28 | Wiring and Earthing as per Site Requirements  | 1        | Nos     |                | 0                              |
| 29 | Online UPS 5KVA   | 1        | Nos     |                | 0                              |
| 30 | Cabinet Rack - 9U   | 1        | Nos     |                | 0                              |
| C  | <b>Data Center Infrastructure (Location BSCDCL ICCC DC)</b>   |          |         |                | 0                              |
| 31 | Server with Virtualisation  | 3        | Nos     |                | 0                              |
| 32 | Storage (100 TB) at Smart City ICCC   | 1        | Nos     |                | 0                              |
| 33 | Firewall (AAA with Load Balancer)   | 1        | Nos     |                | 0                              |
| 34 | Switch L3   | 1        | Nos     |                | 0                              |
| 35 | Command Center Application with GIS Application   | 1        | Nos     |                | 0                              |
| 36 | Video Management System with ANPR Capability  | 1        | Nos     |                | 0                              |
| 37 | VMS License (Camera)  | 1000     | Nos     |                | 0                              |
| 38 | ANPR License (ANPR Camera)  | 400      | Nos     |                | 0                              |
| 39 | Vehicle Tracking Management System for 1,000 Vehicles   | 1        | Lot     |                | 0                              |
| 40 | Analytics Management System   | 1        | Nos     |                | 0                              |
|    | <b>Grant Total</b>  |          |         |                | 0                              |

|    | Opex Line Item   | Quantity | Unit           | Unit Rate (in Rs) | Year 1 Opex Cost | Year 2 Opex Cost | Year 3 Opex Cost | Amount (in Rs) excluding Taxes |
|----|--|----------|----------------|-------------------|------------------|------------------|------------------|--------------------------------|
| D  | <b>Manpower Deployment (Location Abhkari Department CCC)</b>                             |          |                |                   |                  |                  |                  |                                |
| 41 | Project Manager cum Senior Data Scientist  | 1        | Onsite Persons |                   | 0                | 0                | 0                | 0                              |
| 42 | Data Scientist   | 1        | Onsite Persons |                   | 0                | 0                | 0                | 0                              |
| 43 | Data Supervisor  | 2        | Onsite Persons |                   | 0                | 0                | 0                | 0                              |
| 44 | Monitoring Staff   | 10       | OnSite Persons |                   | 0                | 0                | 0                | 0                              |
| 45 | Comprehensive AMC per year   | 1        | Yearly Rate    |                   | 0                | 0                | 0                | 0                              |
| 46 | Network Connectivity for Data Center at BSCDCL 100 MBPS Lease Line Redundant             | 1        | Yearly         |                   | 0                | 0                | 0                | 0                              |
| 47 | Network Connectivity for Command Center at MP Excise Dept. 100 MBPS Lease Line Redundant | 1        | Yearly         |                   | 0                | 0                | 0                | 0                              |
|    | <b>Grant Total</b>   |          |                |                   |                  | 0                |                  |                                |

Total (Capex + Opex)

0

|      |   |
|------|---|
| Note | Bidders are requested to fill suitable values against highlighted field only                |
|      | Bidders submitting in any other format shall be liable for rejection of their financial bid |
|      | Bidders shall quote the financial values excluding Taxes                                    |



**Mahalaxmi Branch  
Mahalaxmi Chambers  
22, Bhulabhai Desai Road  
MUMBAI: 400 026**

**Tel. No. No.23512895 / 23517234 Fax No.23516948**

**LT No:MAH/RCIL/ 2010**

**Date: 21/10/2010**

To,  
The Sr. Manager (Finance)  
Railtel Corporation Of India Limited  
Mahalaxmi,Mumbai

Dear Sir,

**Sub-: Bank Details For your collection account.**

**We are in receipt of your letter no. RCIL/WR/Fin/Bank Matters dated 20.10.2010  
Requesting bank details for your collection account no. 317801010036605. Details are below-:**

**Account No.- 317801010036605**

**A/c Name- Railtel WR collection A/c**

**Bank Name- UNION BANK OF INDIA**

**Branch name- Mahalaxmi, branch**

**Branch address- 22, bhulabhai desai Road, Mahalaxmi chambers,  
Mahalaxmi, Mumbai-400026**

**IFSC Code- UBIN0531782**

**Swift Code- UBININBBLOP**

Thanking You

Your's faithfully

*Pushpa Tiwari*  
Pushpa Tiwari  
Manager

