SMART
CITY
BHOPAL

Workshop on "Integrated Command and Control Centre"

Integrated Control and Command Center For 7 Smart Cities of MP

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A Common Cloud Based Command Control Centre for all Smart Cities of MP

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MP has identified 07 Cities to be developed under Smart city Missions

05 cities - Bhopal, Indore, Jabalpur, Ujjain and Gwalior are already part of the mission and 02 cities Sagar and Satna have been selected in Smart City Mission on 23rd June 2017.

State has decided to set-up a Common Cloud Based Data Centre with a Common Command & Control Centre Platform to be used by all Smart Cities of MP

Under this model Each Smart City shall have its own physical CCC, but leverage a common Cloud based DC/DR Infrastructure and CCC platform

Key Components of the project

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Cloud Based CCC Platform

- A common platform for all smart cities of state
- Integration, Analytical and Operations capabilities
- Other cities can leverage a stable platform in future

Cloud Service Provider

- Leverage Public Cloud
- Pay as-you-grow/use model
- Over 14 Mega Tier 3 CSPs operational in India

City ICCC Establishment

- Each City to have its own ICCC based out of city
- Connected with Cloud based CCC platform
- Use CSP for application hosting/processing

Master System Integrator

- Offer an unified solution
- Experience of delivering CCC operations
- Integrate Smart City applications, data analytics, Resources

Roles and Responsibilities

State

- Overall Governing body
- Form Technical Evaluation Committee

BSCDCL

- Issue of RFP and Bid Process Management
- Signing of Contract, overall contract governance
- Manage and Monitor common components for all Smart Cities
- Payment for initial setup of common components (Capex)

City SPV

- Finalize plan for city specific ICCC components
- Manage and Monitor city specific components
- Payment for initial setup of city specific components
- Payment for O&M components of city specific components

Key Features

- *Leveraging Most advanced **Cloud infrastructure** vs Building captive City Data Centre*
- ***Pay as you Grow and Pay as you Use model** – Evolution from Capital investments*
- *City **Data Analytics** Platform, Leverage Machine learning and Artificial Intelligence tools*
- *Breaking silos of city operations- City applications data need to be integrated with each other for better planning, operations and cost economics*
- *Data Scientists for Evolving new Smart City Use cases*
- ***Most advanced Cyber safety practices** –Critical factor*
- ***Sub-Contracting** -The bidder would not be allowed to sub-contract / outsource work, except for the following:*

a) *Cloud Service Provider (CSP)*

b) *Fiber optic network build, other cabling and fixtures work, and all civil work during implementation*

c) *Facility Management & Physical Security Staff at Command Control Center & City Operation*

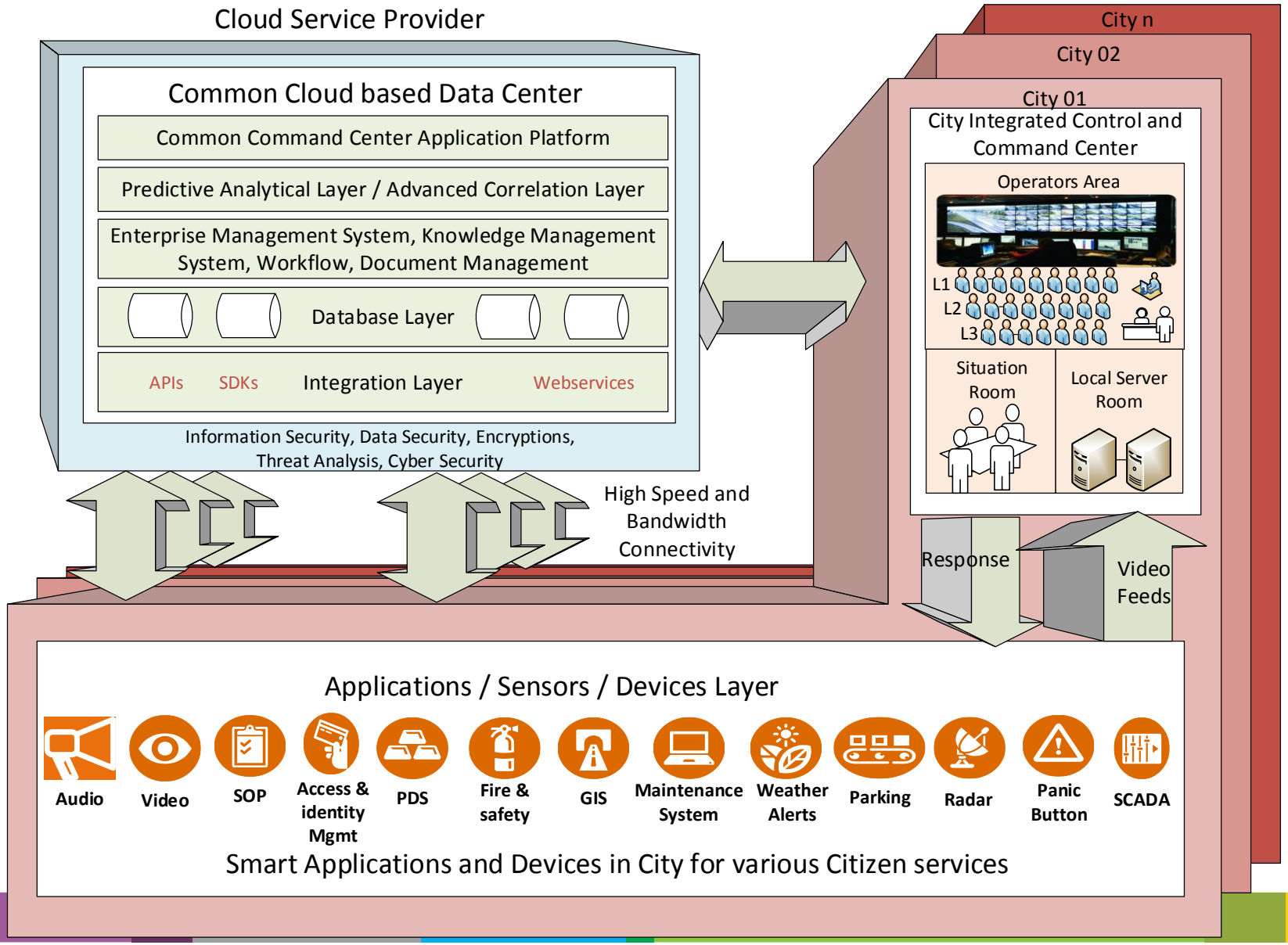
d) *Center*

e) *Non – Technical Manpower (Facilities Management and Physical Security) during O&M Phase*

Key Features

- *>Substantial cost reduction in Total cost of ownership over 5 years through*
  - *Pay as you grow vs Capital expenditure for upfront capacity*
  - *Aggregating 7 cities needs vs individual cities*
  - *Competition enhanced on account scale*
- *Ready platform to onboard new cities- No delays on account build out of data centre infrastructure- 12 months+*
- *Uniformity across all the cities in state*
- *Best in class selection of Cloud service providers, System integrators and City digital platform providers*
- *World class practices of Data center operations, Highest availability SLAs*

Proposed Solution- Design



Illustrative City ICCC Design elements

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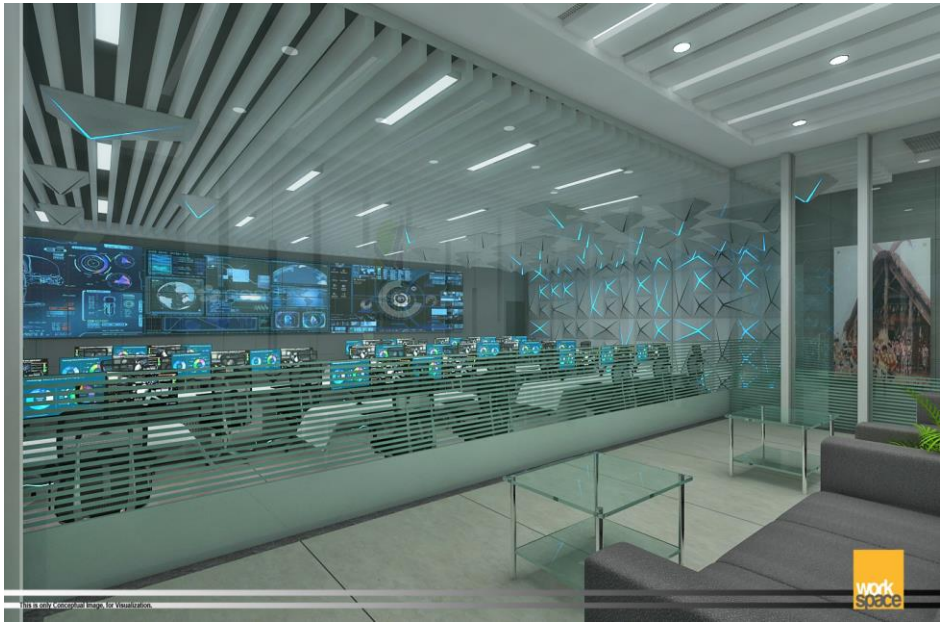
City - Bhopal



Current Status of the Project

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7 bids received on 26th August 2017

- M/s. Himachal Futuristic Communications Limited (HFCL) in consortium with M/s. Accenture Solutions Private Limited (Accenture) and M/s. Webdunia.com (India) Private Limited (Wendunia)
- M/s. Larsen & Toubro Limited (L&T)
- M/s. Bharat Sanchar Nigam Limited (BSNL) in consortium with M/s. Fluentgrid Limited (Fluentgrid)
- M/s. Wipro Limited (Wipro)
- M/s. Hewlett Packard Enterprise India Private Limited (HPE)
- M/s. Tech Mahindra Limited (TechM) in consortium with M/s. Mahindra Defence Systems Limited (MDSL)
- M/s. US Technology International Private Limited (UST) in consortium with M/s. Allied Digital Services Limited (Allied) and M/s. Arceus Infotech Private Limited (Arceus)

Physical bids opened on 26th August 2017

Pre Qualification Evaluation Completed on 7th September 2017

Technical Evaluation started on 7th September 2017

Live Demonstration and Technical Presentation started on 20th September 2017 – continue till 23rd September 2017

Expected Closure of Technical Evaluation by 23rd September 2017

Plan to open financial bid on 25th September 2017

Proof of Concept (POC) / Live Demonstration

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Integrated Control and Command Center Use Cases

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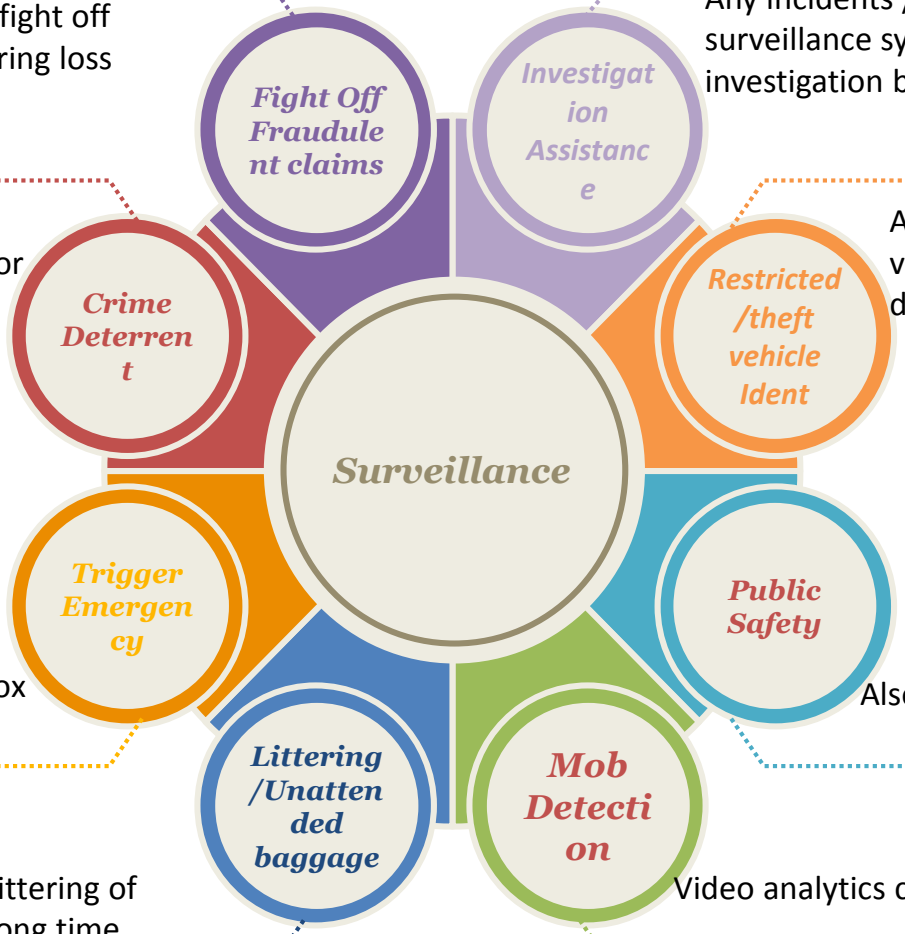
Citizen Centric use cases for Surveillance

Having key evidence to fight off fraudulent claims, ensuring loss prevention and
Analyzing behavior

Any incidents / accidents can be recorded by surveillance system and can be referred during investigation by appropriate authority

Gives the citizens and residents the sense of security, great deterrent for potential wrongdoers

ANPR camera can detect theft vehicle entering in city or Parking data can help to locate vehicle



Panic button and Emergency call box help to attend distress calls

CCTV footage can help to investigations.
Also critical and restricted public place can be monitored in real time.

Trigger alert in case of littering of unattended article for long time

Video analytics can help to identify any unwanted gathering

Use cases of Integrated Traffic Management System

Traffic Diversion information can be disseminated through VMS

Traffic violations can be detected and challan can be generated

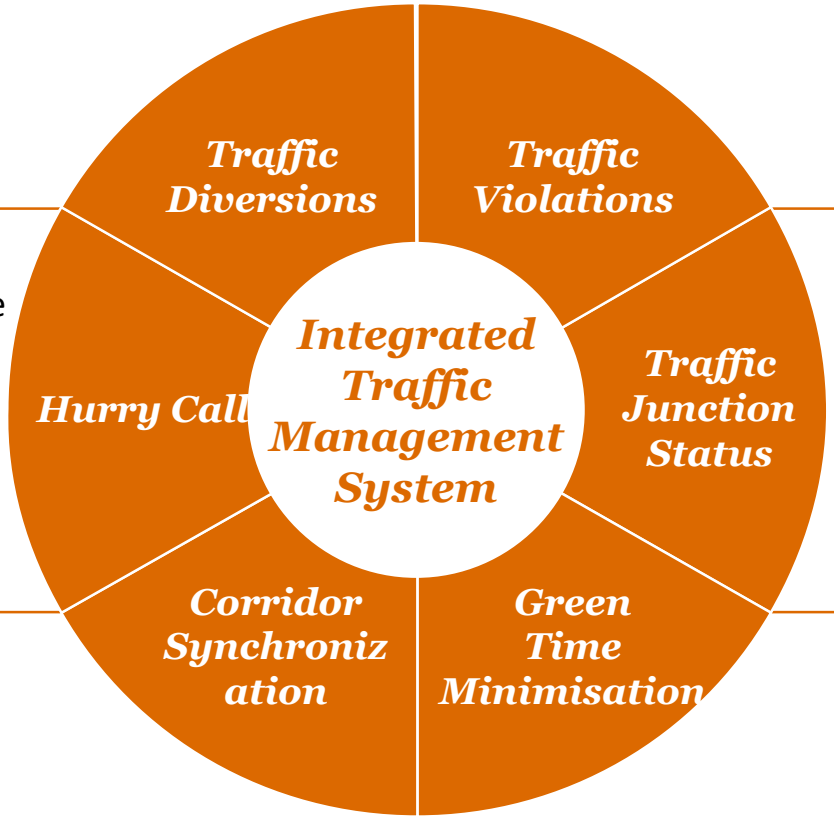
Hurry Call facility available in the traffic controller will enable movement of emergency vehicles without violating safety clearances

Real time junction status can be monitored from control room.

Special signal plan can be programmed in the traffic junction in advance as and when required

Cable-less synchronization between traffic junctions reduce traffic congestions and enable smooth traffic flow also reducing fuel consumption

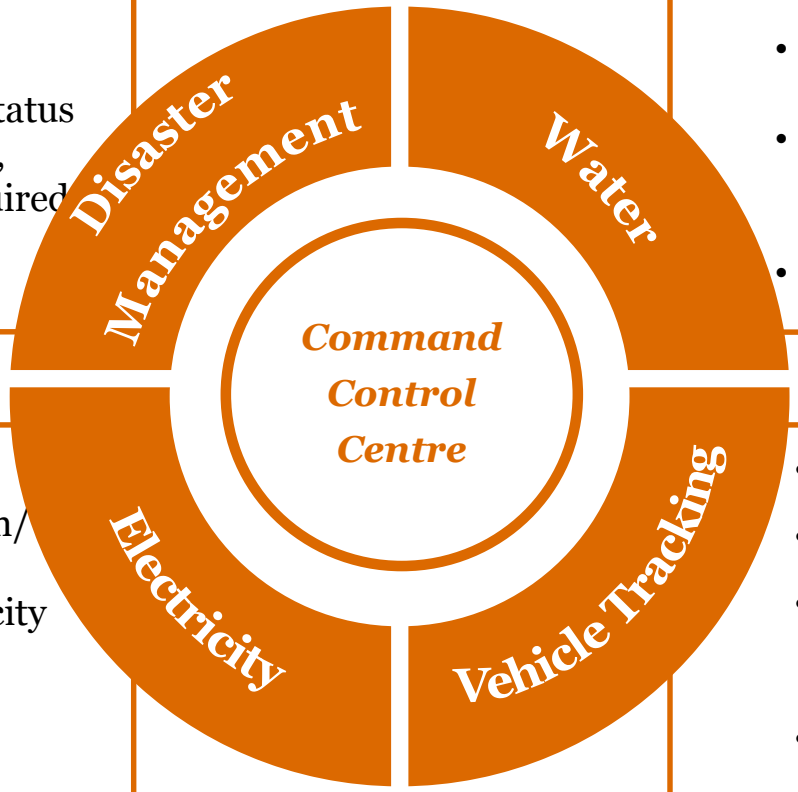
Detector sensors can detect the junction status and can minimize green time by reducing unnecessary waiting time



Use cases of Command Control Centre

- Communicate with the Police, Citizens, Govt dept etc as required
- Issue sms, Voice alerts
- Communicate about the status to the nearest fire brigade, Ambulance, police as required

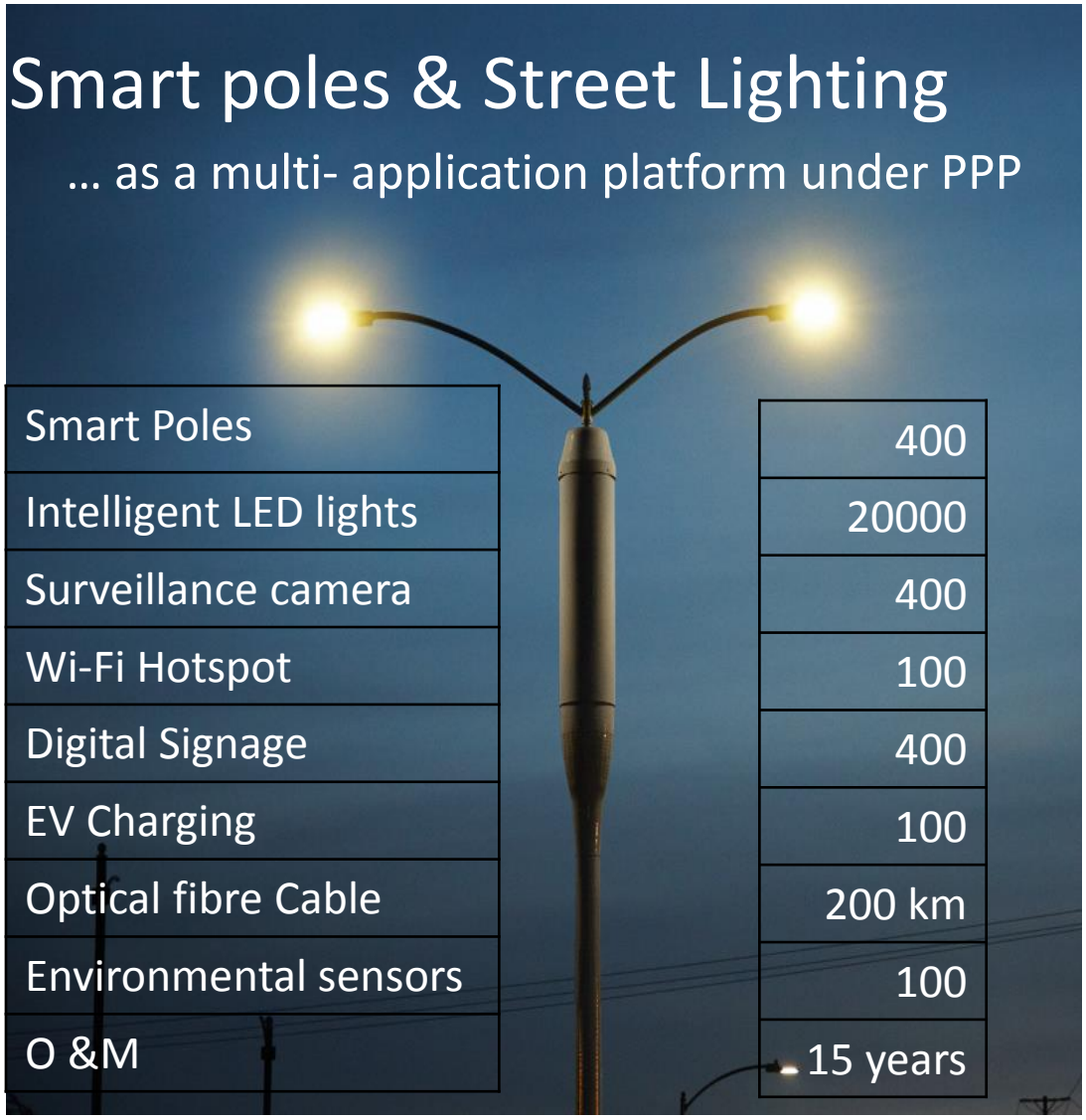
- Monitor water flow rates (pressure levels) across distribution network
- Identify non-revenue water loss
- View collections up to the end node customer premises
- View pending connections



- View and control View status of street lights (on/ off/ dimmed + diagnostics) across the city w
- Fault identification and passage
- Analyse fault history for proactive maintenance

- View Transport route
- Defaulters
- View ideal/ wrong SWM vehicle
- View Tankers involved in Water theft

Key Applications Planned for Integration with ICCC



- Feeds such as environment sensor, lighting sensors. Video, etc.
- Information on the status of working of the installed LED lights, as well as other sensors and other cameras.
- Real-time video feed from the installed Smart Poles.
- Monitor assets of Municipal Corporation.
- Mapped on the GIS map.
- Analytical layer which will help city in better planning and running of operations.
- Trigger alert to respective application (if required)

Key Applications Planned for Integration with ICCC

SMART CITY APPLICATION (Bhopal Plus)

A SMART APP FOR A SMART CITY

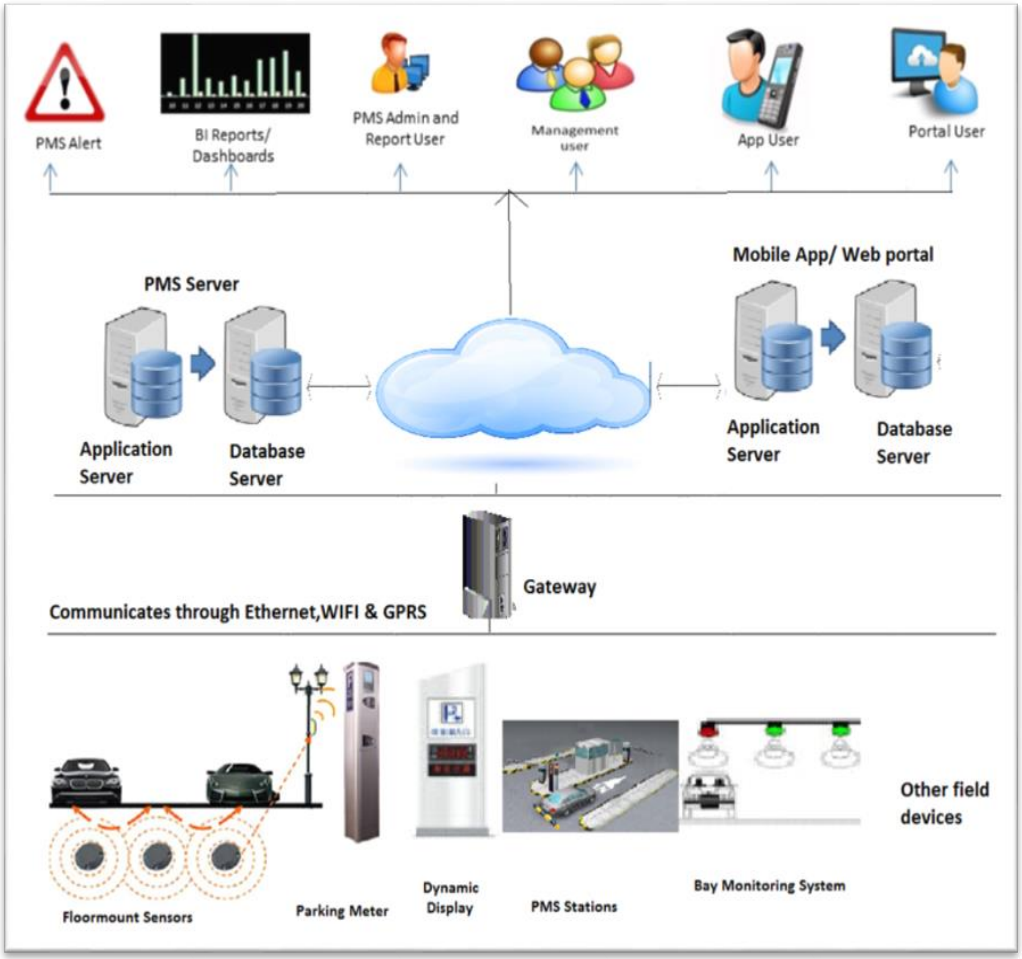
CITIZEN SERVICE APP

Download BHOPAL PLUS now!

- Receive feeds on the status of request raised on Bhopal Plus application of various ULB services (like Death, Birth, Marriage Certificate, etc.)
- Information of City Dashboard and Citizen Collaboration platform.
- Tracking of Grievances
- Mapped on the GIS map.
- Analytical layer which will help city in better planning and running of operations.
- Trigger the commands / alerts (if required) to the respective application

Key Applications Planned for Integration with ICCC

SMART PARKING



- Receive feeds on the status of parking across the city which are managed by the Smart Parking command center (feeds received from all the edge devices of the Parking Solution).
- Information of available, non-available parking slots, functional and non - functional parking slots.
- Video feeds from the parking areas on real-time basis.
- Monitor assets of Municipal Corporation.
- Mapped on the GIS map.
- Analytical layer which will help city in better planning and running of operations.
- Trigger the commands / alerts (if required) to the respective application

Key Applications Planned for Integration with ICCC

Solid Waste Vehicle Tracking System

- Information like location and route of the Vehicle.
- Information like fuel utilization of Vehicles.
- Mapped on the GIS map.
- Analytical layer which will help city in better planning and running of operations.
- Trigger the commands / alerts (if required) to the respective application.

Key Applications Planned for Integration with ICCC

Intelligent Transport Management System

- Sensor based feeds on location of public transport vehicles, bus station information operations, etc.
- Analytical layer which will help city in better planning and running of operations.
- Trigger the commands / alerts (if required) to the respective application.
- Mapped on the GIS map.

Key Applications Planned for Integration with ICCC

Public Bike Sharing (PBS)

DB POST BHOPAL SUNDAY HI-LIFE 9 JULY 2017 10

THE CHARTERED CYCLES HAVE BECOME A NEW REASON FOR FRIENDS TO HANG OUT

CYCLING TAKES BHOPALITES BY STORM

While the entire country is discussing and partially implementing promotional programmes for healthier activities like cycling, Bhopal recently launched India's first GPS-enabled bicycle structure, which has being appreciated by fitness and adventure loving people of the city.

On a pleasant Saturday evening, a bunch of friends got together to try out cycling amidst lush green surroundings of Char Imli. "If you are worried about falling off the bike, you'd never get on. Cycling is the perfect way of fitness today and is eco-friendly. I used to be very fond of it when I was a kid and I still cycle at times. The best place to cycle in Bhopal is Van Vihar, very close to nature and makes you feel alive," says Poorva Mulchandani, founder, Midas Touch.

While, for Radhika Sachdev, riding a bike is healthy and fun too. "It is a good way of exercise for all ages. Also its good for strength and stamina. Cycling has always been my favourite outdoor activity. It works as a great stress-buster. Char Imli is the place I love to cycle the most," she says. The GPS-enabled cycles are being imported from Germany and Bhopal features 50 docking stations and two six-km-long cycling tracks.

"Besides just cycling on these tracks, I can see people taking on these cycles all over the city. Cycling, in Bhopal especially, is great because there's so many green patches around. Like, for me the best spot for cycling is the Badhbhada Dam area and the reason is obviously self-explanatory," says Chirag Lalchandani. "Cycling always helps me break the monotony," he adds.

"I started cycling as a cardio exercise. Not only do I burn good calories but also discover new routes. I feel really lucky to be living in this beautiful city which has so many green and scenic areas to cycle. While there are many cycling groups already in Bhopal, I want to form one of my own and go for long excursions in and around the city." -Sahil Sachdev

Sahil and Radhika Sachdev

Priya Hingorani, Charu Dawani, Poorva Mulchandani & Radhika Sachdev

Priya Hingorani cycling at Char Imli

"Cycling is an amazing cross between adventure and exercise. A must do in today's humdrum life. Presently, I cycle on the track next to the Upper Lake but I would love to cycle one day by the coastline in Spain" -Charu Dawani, fashion expert

Deepak Motwani, Sunny Hingorani, Ihit Virk, Sahil Sachdev & Chirag Lalchandani

- Receive feeds on the status of utilization of public bike sharing docks across the city.
- Information of available, non-available cycles in slots, functional and non - functional PBS stations.
- Video feeds from the PBS stations on real-time basis.
- Monitor assets of Municipal Corporation
- Information regarding the position of the cycles deployed under the PBS project.
- Mapped on the GIS map.
- Analytical layer which will help city in better planning and running of operations.
- Trigger the commands / alerts (if required) to the respective application.

Key Applications Planned for Integration with ICCC

Mayor Express

भोपाल प्लस एप से महापौर एक्सप्रेस के साथ आरटीओ और पुलिस विभाग भी जुड़े

एप एक: पुलिस, आरटीओ, बिजली से लेकर 24 घंटे ड्राइवर की सुविधा

भोपाल। नवदुनिया प्रतिनिधि

भोपाल प्लस एप में महापौर एक्सप्रेस के अलावा आरटीओ और पुलिस से संबंधित मदद भी मिल सकेगी। भोपाल स्मार्ट सिटी डेवलपमेंट कार्पोरेशन लिमिटेड (बीएससीडीसीएल) के एप में वाहन खोज के विकल्प पर जाकर संबंधित गाड़ी का नंबर डालते ही उसके मालिक का नाम पता मिल जाएगा। अब तक यह व्यवस्था सिर्फ परिवहन विभाग की वेबसाइट पर थी।

इसी तरह सिटीजन कॉप से संबंधित सुविधाओं को भी एप में लिंक किया गया है। इसमें ट्रैफिक पुलिस द्वारा जब्त किए गए वाहनों की खोज, खोए सामान या दस्तावेज की शिकायत, खतरनाक ड्राइविंग, दुर्घटना आदि घटना की सूचना देने और पुलिस से मदद के लिए मेरी मदद का विकल्प दिया गया है। इसके माध्यम से ऑनलाइन भोपाल पुलिस से मदद मांगी जा सकती है।

पहले दिन 80 से अधिक कॉल

खास बात ये है कि महापौर एक्सप्रेस सेवा के लिए निगम के कॉल सेंटर में शाम तक 80 से अधिक फोन आए। बुकिंग के बाद लोगों को सुविधा जल्द मिले इसके लिए कर्मचारी शहर के अलग-अलग हिस्से में तैनात हैं।

महापौर बोले -हर माह दो-तीन सेवाओं की लॉन्चिंग करें, इमरजेंसी सुविधा 24 घंटे मिले

ड्राइवर के लिए चार घंटे के 350 और आठ घंटे के 600 रुपए लगेंगे

अब कारपेंटर, इलेक्ट्रीशियन, गार्डन के लिए माली, प्लंबर, ड्राइवर के लिए लोगों को परेशान नहीं होना पड़ेगा। घर बैठे भोपाल प्लस एप में महापौर एक्सप्रेस सेवा के माध्यम से ऑन लाइन या फिर नगर निगम के कॉल सेंटर 155304 या 18002330014 पर फोन करके बुकिंग कराई जा सकेगी। सभी सेवाओं के लिए दो घंटों के लिए 200 रुपए चुकाने होंगे। ड्राइवर के लिए चार घंटे के 350 और आठ घंटे के 600 रुपए लगेंगे।

महापौर एक्सप्रेस के लिए काम करने वाली टीम से मिलते महापौर आलोक शर्मा।

ड्राइवर और इलेक्ट्रीशियन की सुविधा 24 घंटे करने के निर्देश

महापौर एक्सप्रेस की री-लॉन्चिंग के बाद महापौर शर्मा ने बीएससीडीसीएल के सीईओ चंद्रमौली शुक्ला को निर्देश दिए कि इलेक्ट्रीशियन और ड्राइवर की आवश्यकता इमरजेंसी सेवा है, इसलिए इसे 24 घंटे किया जाए। निगम ने यह सेवा उपलब्ध कराने के लिए निजी कंपनी को अनुबंधित किया है। सभी कर्मचारियों के मोबाइल जीपीएस के माध्यम से ट्रैक किए जाएंगे। निगम अधिकारियों ने बताया कि सभी कर्मचारियों का पुलिस वेरिफिकेशन भी कराया गया है। महापौर ने कहा कि अब पेंटर, एकाउंटेंट, एयर कंडीशन रिपेयरिंग, घरेलू कामकाजी महिला, ब्यूटीशियन, होम ट्यूटर, कार क्लीनर, कुक, साफ-सफाई, पेस्ट कंट्रोल, फोटोग्राफर आदि 25 सेवाएं जुड़ेंगी। हर महीने दो-तीन सेवाएं जोड़ी जाएंगी।

8 महीने में 10 हजार लोगों ने डाउनलोड किया एप

ज्ञात हो कि बीएससीडीसीएल ने 7 नवंबर 2016 को भोपाल प्लस एप की लॉन्चिंग की थी। शुरुआत में इसमें सात सेवाएं थीं। आठ महीने में अब तक करीब 10 हजार लोगों ने एप को डाउनलोड किया है। उम्मीद जताई जा रही है कि महापौर एक्सप्रेस सेवा से यूजर्स की संख्या में इजाफा होगा, क्योंकि इसमें सेवाओं को और यूजर फ्रेंडली बनाया गया है। साथ ही कुछ नई सेवाएं भी इसमें शामिल की गई हैं।

एप में पहले से उपलब्ध हैं ये तमाम सेवाएं

बिजली बिल भुगतान, अस्पताल क्लीनिक, जन्म-विवाह और मृत्यु पंजीयन, जलकर भुगतान, संपत्तिकर भुगतान से एप शुरू हुआ था। बाद में लो फ्लोर बसों की लोकेशन और टाइमिंग की जानकारी के लिए बस यात्रा योजना, सीर सयंत्र और प्रशासनिक निर्देशिका जिसमें आफसरों के नंबर उपलब्ध हैं को इसमें शामिल किया गया था।

- Receive feeds on the status of request raised on Mayor Express application of various domestic services (like plumber, electrician, carpenter, etc.)
- Dashboard view of services rendered and staff utilization
- Tracking of Grievances
- Mapped on the GIS map
- Analytical layer which will help city in better planning and running of operations.
- Trigger the commands / alerts (if required) to the respective application

Other use cases of Urban management using ICCC platform

- Predictive models using sensor data to help reduce water leaks and detect bursts.
- Predictive models using sensor data to analyse the effects of service interruptions and other disruptions to transit systems.
- Predicting structural damages using data from weather & maintenance of assets.
- Predicting sewer overflows and flooding.
- Locating potholes using crowdsourcing and data analysis.
- Usage of social media to predict public safety issues.

Request for Proposal
&
Bid Process Management

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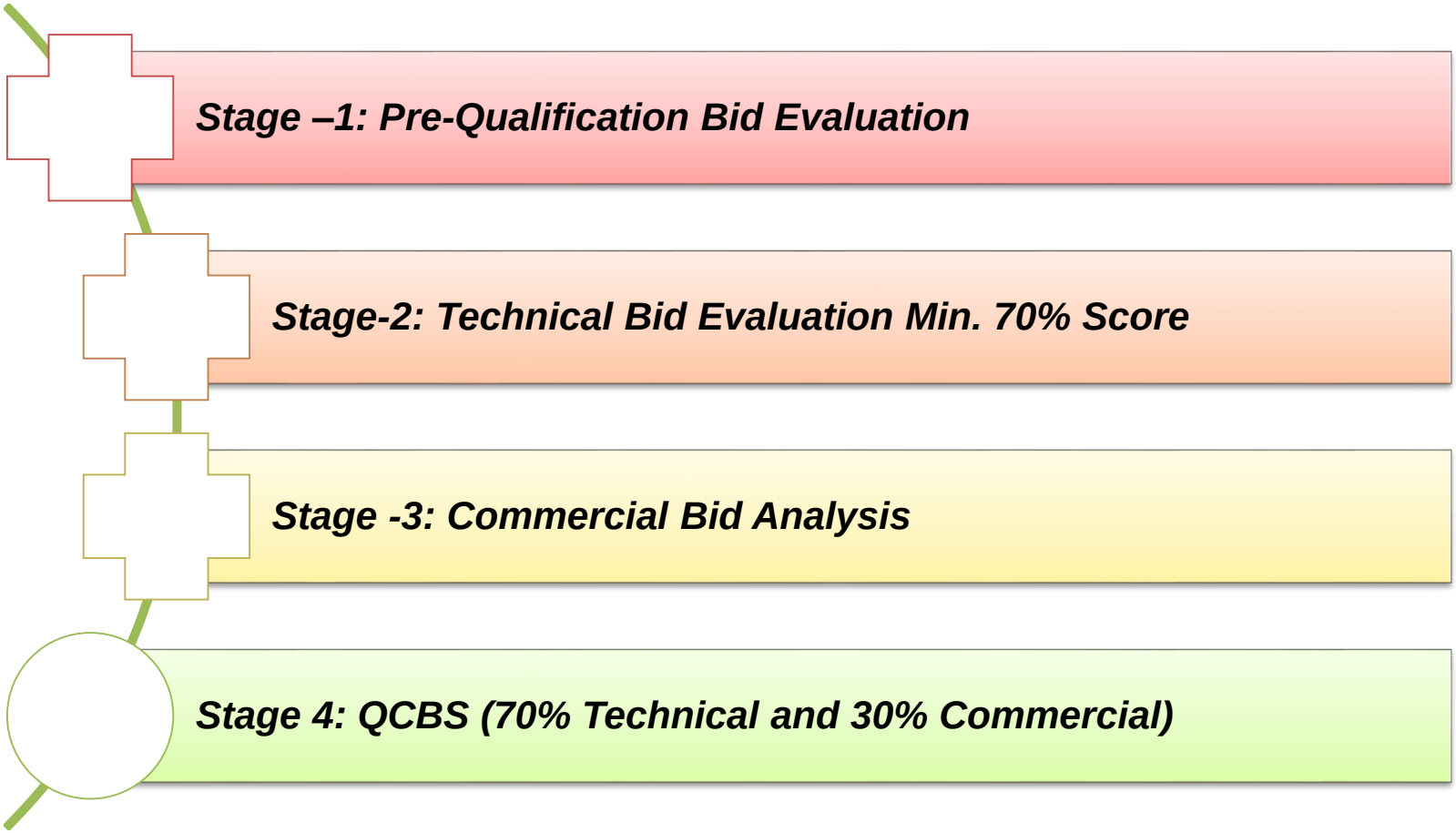
Bid Process Management



Expectations from the Common Command Center Application Platform

- *Enable cross-system and cross-agency coordination to monitor, operate and manage the city in an integrated manner.*
- *Enable different agencies and departments of State and Cities to utilize each others information in an integrated manner*
- *Normalize the data coming from different devices of various OEMs*
- *Multiple systems to be integrated with Command Center Application*
- *The platform shall enable various visualization and analytics of city operations to improve decision making.*
- *Command Center Application shall provide reporting capabilities for city administrators to keep record of city operations.*
- *Integrity and Confidentiality of all information gained is secure at all times.*
- *The integration point at which data from across the city converges for processing.*
- *Provide shift based operations for an overall 24x7 support.*
- *Map and integrate all systems to city specific GIS platform*
- *The system shall be scalable to accommodate future growth*

Expectations from Command Cloud based Data Center for Smart Cities (CCDCSC)

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- *CCDCSC is required to host only common command center applications for Smart Cities of Madhya Pradesh*
- *CCDCSC will only save data related to common command center applications for smart cities only.*
- *CCDCSC will not host any smart application (implemented in smart cities) which is being integrated with command center application.*
- *CCSCDC will also host common applications like Integration Layer, Analytical Layer, EMS, KM, Information & Cyber Security applications, etc.*
- *CCDCSC will also have dashboard views of the applications*
- *CCDCSC will have also have DR on cloud (with 50% capacity of CCDCSC only)*
- *CCDCSC will provide SaaS, IaaS and PaaS for the project.*

Functional and Technical Requirements for the Project

- *Bidders are encouraged to propose the solution and technology required to make this project successful. The solution and technology proposed should be such which fulfills the theme of the project and adheres to the SLAs defined .*
- *Bidders may propose better technologies, if those are meeting requirements .*
- *Bidder may propose better solution with enhanced functionalities.*

Pre Qualification Criteria

Parameter	Revised
Legal Entity	Company should be registered in India or abroad
Turnover	At least INR 600 Crores in over last 3 financial years (FY 2013-14, 2014-15, 2015-16) from Annual Turnover from IT / ITES. In case of Consortium, aggregated turnover of the consortium may be considered with 60% of the lead bidder and 40% of the consortium partners
Relevant Experience	Prior Experience in any of the Smart City related components in last 10 years (in India or abroad) with value not less than Rs. 20 Cr.
Blacklisting	Lead Bidder and its Consortium Partner should not have been blacklisted by Govt. Of India and Govt. Of Madhya Pradesh
Earnest Money Deposit (EMD)	The bidder should furnish, as part of its proposal, an Earnest Money Deposit (EMD) of INR Five Crores only (Rs. 2,50,00,000/-), it should be valid for 6 months from the date of submission of tender.
Technology Declaration Stack	The bidder needs to furnish Technology Declaration Stack as per the format provided.

Technical Evaluation Criteria

#	Evaluation Criteria	Total Marks
A	Bidder's Organizational Strength and Experience	100
B	Proposed Solution, Approach & Methodology (Common Cloud based DC and DR approach, Innovation, Command Center Platform Support during the contract period – L1, L2 and L3, etc.)	200
C	Project Governance, Exit Management and Transition Management	100
D	Common Command Center Application Platform OEM and CSP Credentials	200
E	Technical Presentation and Live Demo	400
Total		1000

A. Bidder's Organizational Strength and Experience

- *Bidder should have an average annual turnover of at least INR 600 Crores in any of the 3 financial years (FY 2013-14, 2014-15 and 2015-16)*
- *Experience in Implementation and maintenance of large scale ICT based Utility Management System / Municipal Services in India or Abroad*
- *Experience in Implementation & maintenance of application in hosted environment in India or abroad*
- *Experience in Implementation of integrated ICT based Smart City / township / campus system / Emergency Services for city / Law Enforcement/ Telecom / Defense including Command and Control Centre (CCC) / Network Operating Center (NOC)*

B. Proposed Solution, Approach and Methodology

Bidder has to provide answers of the below mentioned questions in form of write-up :-

- *Understanding of the project as per RFP*
- *High level Architecture of the solution proposed*
- *Proposed solution for common cloud based DC and DR*
- *Proposed solution for networking along with Network Architecture between City ICCC and common cloud based DC & DR*
- *Adherence to functional and Technical SLAs*
- *Approach towards the scalability, Interoperability and modularity features*
- *Identify major risks for the project and also propose suitable mitigation plan*
- *How the proposed solution ensures the fool proof security to the system*
- *ICCC platform OEM roadmap for next 10 years along with planned L1, L2 and L3 support*
- *Detailed approach and methodology*

C. Project Governance, Exit Management and Transition Management

Project Governance Framework at State Level

a) *Organization Structure, Resource Reporting mechanism, Format of the reports, Frequency of the reporting*
b) *Structure of the review meeting with the Management Committee of this project*

Project Governance Framework at City Level

a) *Organization Structure, Resource Reporting mechanism, Format of the reports, Frequency of the reporting*
b) *Structure of the review meeting with the City level steering Committee of this project*

Exit Management

a) *Activities, process part of the successful exit management*
b) *Mechanism to be followed for handover of the assets, data and IPR*

Transition Management

a) *Activities ,process part of the successful transition management*
b) *Mechanism to be followed for secure movement of the data (one CSP to another CSP or DC)*

D. Command Center Application OEM and CSP Credentials

Common Command Center Application OEM Turnover

a) *Single legal entity or its holding company, having annual revenue of INR 75-100 Crores or More than INR 100 Crores*

Common Command Center Application Platform Experience and Capabilities

a) *Proposed platform for City Control and Command Centre by bidder should have been deployed in India or abroad in last 5 years. Platform is Deployed on cloud in India or abroad*

Cloud Service Provider (CSP) Turnover

a) *Single legal entity or its holding company, having annual revenue from the Data Centre or cloud related services be INR 75-100 Crores or More than INR 100 Crores*

Cloud Service Provider (CSP) Experience

a) *The experience of Cloud Service Provider (CSP) in provisioning various services through cloud on their Cloud for Government or Private organization in India or Globally*

Cloud Service Provider (CSP) Capabilities

a) *The Cloud Service Provider (CSP) should have minimum 100 racks. The Cloud Service Provider (CSP) should have minimum RPO (less than 15 min for critical data and less than 2 hrs) and RTO (less than 4 hrs) requirements*

E. Demo and Presentation

Presentation *– Evaluations will be on the basis of*

a) Understanding of the project
b) Governance Structure and team deployment plan
c) High level Architecture of the solution
d) Proposed solution for common cloud based DC
e) Proposed solution for common cloud based DR
f) Proposed solution for networking along with Network Architecture
g) Proposed solution for Local Server Room and Video Analytics Solution
h) Adherence to functional and Technical SLAs
i) Approach towards the scalability, Interoperability and modularity features
j) Major risks
k) ICCC platform OEM support roadmap
l) Cloud Service Provider (CSP) strategy, Exit Management and transition Plan

Live Demo / POC

Bidder will be given minimum of 1 week to establish setup for infrastructure doing the Demo / POC at Bhopal.

Payment Terms

- ***Capex***
  - *Infrastructure for ICCC establishment at each City*
    - *Server, Storage, and Networking*
    - *IP Telephony, Indoor Surveillance & Access control*
    - *HW like Desktop, Video walls, Screens etc.*
    - *Physical built Infra for 5000 sqft for command control center including furniture*
  - *Software Licenses (Specific to City ICCC ; one time procurement like OS)*
  - *One time charge of Integration of each Services (to be paid as it happens)*
  - *One time establishment cost of Command Center Application (at the time of Go-Live)*
- ***Opex***
  - *Cloud Services (Server, Storage, and Networking Infrastructure)*
  - *Cloud Services (Platform as a Service)*
  - *Manpower for O&M*
  - *O&M for IT and non-IT components at each city ICCC*

Payment Terms

- ***Common Components*** *– Payment by BSCDCL*
  - *Common components like initial setup of Cloud based DC, DR and Command Center Platform for all cities*
- ***City Specific Components*** *– Payments by each City*
  - *ICCC setup*
  - *Cloud Services Utilization*
  - *Manpower*
  - *Services Integration*
  - *O&M of ICCC*

Delivery Milestones

The implementation is divided in three key phases

Phase I – Cloud based CCC platform, DC/DR and City ICCC for 05 Cities and Cloud based DC/ DR

Timelines - 6 months

Phase II –City ICCC for next 02 cities including Integration with Cloud CCC –

Timelines - 90 days after handover of site (expected in 12 months from start of project)

Phase III – Operation & Maintenance – for Including integration of new applications by cities

Timelines – 4-1/2 years

THANK YOU

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BHOPAL