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Webinar 5: Addressing technology challenges & issues in ICCC RFPs release

The Integrated Command and Control Centres (ICCCs) have taken centre-stage in the battle against COVID era. 47 smart cities have converted their ICCCs into dynamic war rooms in recent months for information dissemination, effective communication and efficient management aiding in the quick response on ground.

The significance of such a technology has resonated across the urban ecosystem and therefore the cities who are yet to establish ICCCs, should expedite the process to release the tenders and start setting up these centers to help manage city operations and emergencies situations such as COVID-19.

In this webinar, we focus on addressing the technology challenges and issues in ICCC RFPs release by the cities.

Speakers:

1. Mr. Rahul Kapoor – Director, Smart Cities Mission
2. Dr Shailesh Kumar Yadav – CEO, Agartala Smart City Limited
3. Mr. Padam Vijay – Smart Cities Mission Technical Team
4. Mr. Abhishek Dubey – Smart Cities Mission Technical Team

Introduction- Rahul Kapoor, Director, Smart Cities, MoHUA

- Mr Rahul Kapoor highlighted the significance achieved by ICCCs in various smart cities in the response management against COVID. He mentioned the importance of Integrated Command and Control Centre equipping cities to do more with less by graduating to real time data driven decision/policy making.

- He highlighted cities had benefitted immensely from the previous webinars by clearly understanding the issues around technology.

Mentioning how several Smart Cities had faced challenges in getting their ICCCs tendered successfully, he complimented Agartala city which was the first smart city in the North-east to get its ICCC functioning, overcoming the commonly faced challenges in ICCC tenders.

City spotlight: Experience and learning of Agartala Smart City Limited (ASCL): Dr. Shailesh Kumar Yadav, CEO, Agartala Smart City Limited

- Agartala is the first city in the North-Eastern region to come up with ICCC.

- Cities face the challenge with tendering and ICC tendering tends to be very vendor-specific.

- Agartala faced multiple challenges, a significant few are:

    - Identification of the functional requirement for all smart elements in the SCP. This was addressed by conducting an AS-IS assessment of adopting functional requirements from other Smart Cities RFP.
    - Identifying use cases for smart elements integration. This has to be very important requirement and priority specific mapped to the cities demands. Alongside, the

other benefits for other line departments needs to be assessed, based on which required datasets and data feed frequency can be aligned.
    - Another challenging area is to identify vendor neutral technical compliance specifications. Technology specifications were reviewed by the ASCL team to maintain neutrality, free from any proprietary OEM specifications.
    - How large should the ICCC be? Spacing constraints are common across all cities in India and this aspect needs to be planned in advance accordingly to fit the requirements of the ICCC, with supporting rooms for operations.
    - Designing of the Optical Fibre backbone network was a critical aspect for the ASCL team, stretching over 156 kms, connecting all smart elements is no easy task. In order to address this issue a quantity deviation clause for goods and services was added to the RFP, to allow for any deviation arising during the implementation phase. The final length of the OFC in Agartala's case worked out to 160 km.

- In Agartala, a Project Working Group (PWG) was formed, aiding in the guidance and oversight of the ICCC and other projects undertaken in the ASCL. Proof of Concept (PoC) for the project was done by the PWG.

- It comprised of Police, Traffic Police, Director IT, etc, who are critical actors in the ICCC ecosystem of operations and who are provided with actionable insights for deployment on ground.

Webinar Questions & Answers

Q1. Is there a source or knowledge repository for best practices or models on implementing ICCCs and similar projects?

Ans: SMARTNET is a repository for models and best practices for ICCC and other Urban Sectors. Further, the city support coordinators (CSCs) will be able to guide you in this regard from mission side.

Q2. How can smart cities protect themselves from risks and liabilities in case of failure from a vendor or consortium of vendors?

Ans: There can be various terms and conditions that can be built into the contract. Having Step-in rights, or substitution clause is one such provision that can be built into the contract. This can be in addition to Performance Bank Guarantees, Security deposit, having adequate technical and financial eligibility conditions, ensuring that consortium partners have a stake in the implementation of the project through lock-in requirements etc.

Q3. Many agencies have to be involved in such massive projects, how to effectively coordinate the different agencies in such works?

Ans: While designing, Agartala formed a working group from traffic police, transport dept, intelligence departments, director of the IT department to help coordinate and created a project working group (PWG). Several rounds of discussion were held before formulating the RFP. Proof of Concept (PoC) and tender requirements were made after due consultation by the committee.

Q4. Have smart cities been able to receive funding outside of smart city budgets and government channels?

Ans: Many of the Smart Cities have been able to leverage funds from outside the Government system. e.g. PPP, Multi-lateral funding etc. However, innovative models of financing ICCC projects is an area to be explored

Q5. Is there a centralised database of all contractors, vendors, their past projects and performances that can be accessed?

Ans: A centralised vendor database is being populated by the SCM team and will be available on MIS soon

Q6. How to reduce collusion in the tendering process?

Ans: Prebid meet, making eligibility conditions more open to increasing competition, allowing consortium and making consortium provisions clear to avoid changes post award of contract and to avoid vitiation, etc. are some of the methods to avoid collusion from happening.

Q7. How to identify an unqualified participants and unrealistic cost tenders?

Ans: Once qualification criteria have been defined, eligibility has to be assessed strictly according to it. For unrealistic cost tenders on the lower side, strong deterrents in case of the event of default should be built in the contract.

Q8. Identify a few critical aspects of a good contract, ensuring the successful delivery of projects and also not panicking the bidders?

Ans: Clear eligibility conditions, milestones and payment deliverables to be clearly defined and deterrents for events of default, exit clauses, termination payments etc. need to be defined.

Q9. Is there any model RFP available for ICCC projects?

Ans: MoHUA has released a model RFP which was built in consultation with Meity. Cities have built on top of this RFP document and refined it iteratively over time. Cities can refer to such RFPs from these cities from SMARTNET.

Q10. Is it better to break down or compound/bundle the work packages when tendering for such large projects?

Ans: It depends on case to case / city to city. inter-linkages will have to be seen between different components as to what can be clubbed and what can be tendered separately. However, Cities may like to explore having a single MSI tender with integration to other IT infrastructure. This will help in achieving single point of ownership for project delivery/use case and overall SLA.

Q11. Which is a better option from a centralised (state level) or city level deployment of an ICCC?

Ans: Both options have their pros and cons and will differ from the city to city. The city/state should analyse and assess various factor viz operational complexities, budget,, capacities on ground, technology, overall scope, future scalability, functional usecase to be implemented . The cities with limited budget and capacity will benefit from centralised approach as it will help in expediting entire design and process. Whereas the cities with strong skills and resource ecosystem may opt for standalone ICCC to customise in line with their local needs and priorities.

Q12. Should smart cities follow QCBS or LCS (L1)?

Ans: Traditional vs Novel Problem/Solutions can be a basis to select the method to be utilised. If a novel solution is approached, QCBS should be preferred due to lack of knowledge on qualified firms and technology to be used and for traditional solutions, L1 (LCS) is preferred.

Q13. What selection method was followed by Agartala Smart City?

Ans: The QCBS (70 quality - 30 cost weights method was utilised).

Q14. Agartala Smart City has identified 6 challenges. Are there other challenges that they could think of that is not listed in the presentation?

Ans: The presentation had covered the significant challenges faced in the ICCC RFP process. There are some unforeseen circumstances. Legal challenges are always undesirable, but something that cannot be avoided. Best way to mitigate such challenges is to be flexible in the design and engage with the grievances of the parties.

Q15. 10 years of operations clause would make it impossible for Startups to be involved in state-of-the-art solutions for ICCC. Will this be a bottleneck for innovation?

Ans: Startups bring a different perspective to the picture and such projects should provide the space for such solutions to be developed. Take the case of COVID where different vendors could come in and build solutions around it. Startups find it difficult to compete with big players. Cities could create an open cohort where startups work directly with smart cities. Bring startups while building the scope of the projects and look at what tech offerings they have while building RFPs. Engage them for the long term and in a sustained manner.

Q16. Will Smart Cities be spending more on the healthcare given the COVID crisis and is the SCM flexible enough to make it possible?

Ans: Mission has the flexibility in project implementation which can be seen during the COVID time where priorities were shifted to building COVID related solutions. However , mission guidelines to be followed at all times.

Q17. How to build and formulate KPIs for ICCC deployment?

Ans: KPIs development should be seen at 3 levels: Operational, tactical and strategic.

- Operational KPIs: Outline KPIs to measure operational success of ICCC. Say, for a WiFi hotspot project in a city, one can measure concurrent users, data they download etc, to measure the success etc.

- Tactical KPIs: Outline KPIs to develop tactical capacity at ICCC to develop better situational awareness, for better decision making in real time and facilitate effective collaboration and communication through smart elements deployed in Smart City.

- Strategic KPIs: Outline KPIs to assess the impact and outcomes of various elements and solutions deployed in smart cities. To develop Intelligence eg. how to predict and build intelligence by integrating multi-dimensional datasets.

These KPIs must be discussed with stakeholders and ecosystem partners who would own and drive the operations from ICCC. It is Important to decide the KPIs right at the design phase

and they should evolve over time. KPIs will help cities decide on more fine-grain decisions like a cloud or in-house platform deployment etc. Think of how the system will help startups to enter and build solutions. ICCC should also include citizen-centric use-cases and not just Municipal use-cases.

Q18. The Smart City Mission, which was to be implemented in 5 years, has been still going on. The delay in implementation is mainly due to a clear road map and insufficient data. My suggestion is why don't allow all municipalities to become smart cities.

Ans: Selection of cities has been done in multiple rounds with the last city getting selected in July 2018. therefore, not all cities are approaching close to 5 years of implementation.

Q19. As the ICCC-MSI for all four smart cities of Bihar are now being done centrally by Bihar State Electronic Development Corporation (BELTRON), how will the role change for PDMC with respect to inputs from respective cities, and the role of an IT expert on board PDMC.

Ans. The city may go through the scope given to Beltron and identify roles and responsibilities in respect of ICCC RFP preparation, Its execution & operational aspects. PDMC role may have been defined in the agreement signed by them with city. The assessment of gaps on deliverables, if any, may be done and city may decide work share accordingly. The PDMC may also support with the inputs on various mission guidelines released from time to time for its compliance by Beltron.