1. **Background**

Ujjain city has been selected in round-2 of smart cities challenge to implement the Smart Cities Mission (SCM). Ujjain Smart City Proposal (SCP) has secured third rank in second round cities. The area based development (ABD) proposal spreads across a total area of 1023 acres in Mahakal region, having a population of 87,766 which is almost 17% of the total population of Ujjain city. An area of about 756.7 acres is proposed to be retrofitted with smart features/infrastructure and 266.25 acres is proposed to be redeveloped with zonal/layout/building level smart features/infrastructure in accordance with SCP and SCM guidelines.

The pan-city proposal includes Ujjain City Management & Information Dissemination (UMID) System. UMID is a comprehensive ICT (Information Communication Technology) based system, which will incorporate smart and efficient management modules for traffic, waste, safety & security in initial phase. It will integrate existing deployed ICT modules & will aggregates all future ICT-enabled interventions to be implemented in a phased manner.

As per the SCP, the estimated project cost for smart city projects is about Rs. 2318.1 crores (could be more or less during planning, design and implementation phase). The estimated project cost of ABD component and pan-city component is about Rs. 1868.9 crores and Rs 307.2 crores respectively; Rs 142 Cr for A&OE (Administrative and Office Expense) and Interest during construction period. The Applicants are advised to carry out their own due diligence including but not limited to review of smart city proposal and field investigations.

For the purpose of implementing the Smart Cities project, Ujjain Smart City Limited (USCL) (the “Authority”), a Special Purpose Vehicle (SPV) for Ujjain Smart City Project has been incorporated as a company under the Companies Act, 2013. USCL would receive funds from Government of India and Government of Madhya Pradesh (GoMP) for the development of Ujjain as smart city. USCL intends to apply part of this fund for the said services as specified in this document.

2. **Software / Mobile Apps Proposed for Ujjain**

Ujjain Smart City intends to develop multiple mobile applications, web-sites and other soft-solutions for the city of Ujjain as actual and feasible solutions. Amongst others, it is intended to develop multiple applications / solutions for mobile applications across various themes. A tentative example list includes:
a) About / Details / Important information / FAQ of the city.
b) Tourism / Travel / Attractions/ Things to do / Audio Book for historical places / Tourist Guide / Online ticketing/ entry passes (QR based) for entry to Heritage/ Tourist sites / Hotel / Guest house / Accommodation / Restaurants / Food & Beverages / Travel Agency / Temples / Cinemas & Malls, Gardens & Others / shopping/ Market / Notifications about important Events / News / Holidays
c) Hospitals/ Clinics / Dispensaries / Blood bank
d) Official Buildings / Police Stations / Women Safety / Report Lost Article (Lost & Found) / Report an Incident / Disaster Management (Fire / Ambulance / Police / Control room) / First Aid Manual / Help Me (SOS) / Traffic Challan payment / City Dashboard for Administration / Call Administration / Contact Admin / Directory
e) Inputs/ Opinions / Feeds(FB, twitter, etc.)/ citizen feedback
f) Citizen & Business Services: Mayor Express / Water Tax / Property Tax Payment / Shop & Establishment Tax / Marriage Registration / Registration for Shop & Establishment license / Track Registration Status / Grievance redressal / Complaint / Property Status / Apply for Water and Drainage Connections / Bookings for Municipal locations (Hall, Ground, etc.) / E-library, etc.
g) GIS Maps and Location Details
h) Recruitment and Opportunities / Tenders
i) Bus Route Planner / Bus route and stoppages / Vehicle Search / Towed Vehicle Search / Public Bike Sharing / Parking / Public transit fare collection system (city bus, BRTS, auto-rickshaw, e-rickshaw) / Vehicle Tracking / Traffic Management
j) Other applications as may be suggested by various stakeholders.

The above applications may be developed in various combinations / packages.

3. Key Considerations in Developing the Software / Mobile Apps

A standardised approach (SDLC, Waterfall, etc.) may be adopted or an agile implementation model may be chosen for development of solution after completion of detailed analysis of possible and feasible requirements. The key simplified stages of this approach would be as follows:

1. Design
2. Implementation
3. Roll out / Go Live
4. Maintenance, Training and Documentation

High quality documentation is expected to be produced.

The following general requirements should be considered to ensure the best in class web portal with integrated mobile applications are developed:

i. Be able to work on low internet bandwidth (2G connections)

ii. Should support at least Android and iOS.
iii. OpenAPI Standards based development, and ensure integration with other solutions developed, especially since the Integrated Command and Control Centre shall be operationalized in the city soon. The System Integrator would be required to provide the integration with the ‘to be established’ Command and Control Centre.

iv. Latest Web Guidelines by STQC and / or Government of India

v. Latest Accessibility Guidelines by Government of India / W3CG

vi. Security Standards Compliance to ensure that the solution may be audited by a CERT-IN empanelled vendor.

vii. The solution developed should support revenue generation (in the form of online advertisements, etc.) and all proceeds of such advertisement revenue shall belong to the client.

viii. Develop a corresponding web portal / application covering all the requirements for the app, which shall be linked to the existing Portal(s)

ix. The Mobile App should be developed in such a way that multiple other applications can be integrated to the relevant Applications.

The process of the development works may be as follows:

1. Submission of a “Brief” to the Client for review regarding an application to be developed. The Brief should include key details and high level functional specifications, deployment plan, etc. about the application. Such brief should be reviewed by the co-ordinator. It is expected that the brief take the form of an IEEE standard of SRS.

2. The client to approve the brief, with or without modifications, in consultation with various stakeholders and in discussions with the Developer(s). All key stakeholders to reach an agreement on the tasks to be accomplished, the timelines and other resources and constraints.

3. The Developers to carry out the development task in close consultation with the stakeholders and gain their feedback multiple times so as to ensure that the end-product is upto the expectations of the stakeholders.

4. When the product is finally ready, a final demonstration and approval should be gained from the stakeholders, before uploading to the Play Store / App Store.

5. Uploading to the Play Store / App Store and gaining feedback from a select set of audience, making appropriate changes / updates to the application.

6. Finalizing the application and updating the Play Store / App Store, submitting final documents with detailed implemented design, source code (in a CD / Pen Drive / Over File share / e-Mail) to the Client and obtaining a certificate of completion.

7. Any other process, at any stage, that may be required to ensure success of the application being developed.

8. The ownership of all process and outcome shall rest with Ujjain Smart City Limited. This shall include but not be limited to source code / App store ids / all freeware, open-ware used, etc.
4. **Co-ordinator for Development of Software / Mobile Apps**

It is intended to empanel one or more co-ordinators for the purpose of getting the mobile apps / software developed. It is required that the positions have a hands on experience in developing and implementing mobile apps on Android and / or iOS platforms and be very familiar with latest trends in mobile app development and information technology. It is required to have at least an undergraduate degree and a five year experience in related works.

The responsibilities would include monitoring, guiding and critically evaluating the works done by the Developers and to ensure a good quality product is developed for use.

5. **Developer for Software / Mobile Apps**

It is intended to empanel multiple developers who can utilize their time and expertise in developing the software / mobile apps.

While no educational qualifications and experience is mandated for the developers of software under this scheme, it is expected that the applicants are well versed with the technical nature of works.

These positions are also suitable for applicants who wish to enhance their experience in a government setup by developing socially useful applications, such as college students.

Formation of teams will be encouraged towards achievement of the tasks selected.

6. **Application Process**

Prospective applicants are requested to share their detailed CV, including their educational qualifications and relevant experience details (max. 5 pages) to ujjainsmartcity@gmail.com

USCL upon review may call upon suitable candidates for any further selection process.

7. **Miscellaneous**

This document constitutes no form of commitment on the part of the Ujjain Smart City Limited. Furthermore, this document confers neither the right nor an expectation on any party to participate in the proposed process and Ujjain Smart City Limited reserves the right to terminate this process at any time without any prejudice.
The Ujjain Smart City Limited shall decide on the honorarium to be paid to each of the persons empanelled and the frequency of such payments. Ujjain Smart City Limited shall provide a certificate to all applicants who participate in this endeavour and/or the products developed are put to use. The honorarium shall be decided by a committee constituted by Ujjain Smart City Limited and may take into consideration the qualifications, experience, industry standards and benchmarks, and the outputs and services delivered amongst other aspects.

Intellectual Property Rights for any bespoke development done during the implementation of the project will lie with Ujjain Smart City Limited. The individuals are required to ensure that there are no IPR / copyright violations and that the software developed by them should be available for commercial use by the Ujjain Smart City Limited.

All personnel are required to bring their own computing equipment (Laptops, etc.). The USCL may provide a working internet connection and suitable office space at their request, and if available.

The tenure of the empanelment shall be for a period of 6 months or till the time as decided by the Ujjain Smart City Limited and can be extended or curtailed at the discretion of Ujjain Smart City Limited without any rights to the applicants.

Ujjain Smart City Limited holds the right to cancel or modify the process or the outcome of this empanelment at any time without assigning any reasons whatsoever.

All communication shall be made to the mail id: ujjainsmartcity@gmail.com or to the Ujjain Smart City Limited at Mela Karyalaya, Kothi Road, Ujjain 456010, M.P.

The jurisdiction of the courts in Ujjain shall apply.