National Urban Digital Mission

Implementation of
National Urban Governance Platform (NUGP) and allied Municipal Services

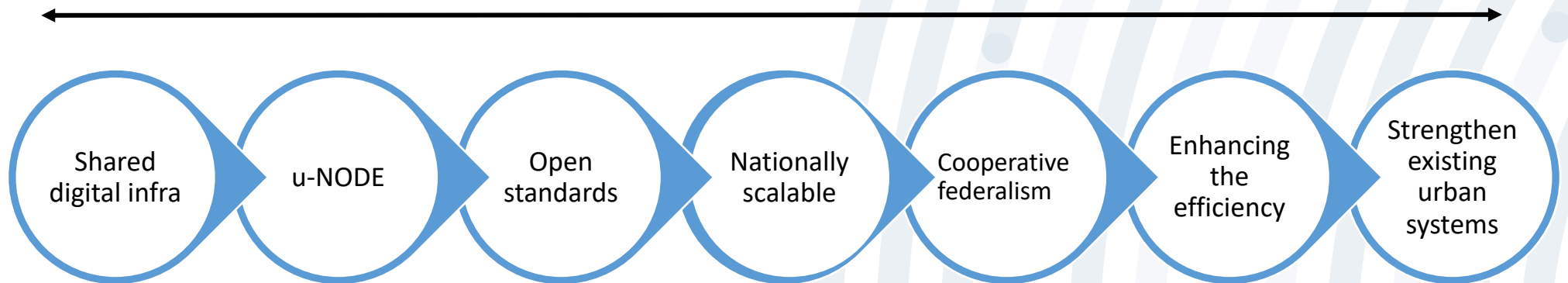**Inviting participation by Industry for Empanelment with NIUA, for NUDM roll-out**

30-09-2021

"To improve the ease of living for citizens by creating a national urban digital ecosystem that delivers accessible, inclusive, efficient and citizen centric governance in India's 4400 towns and cities".

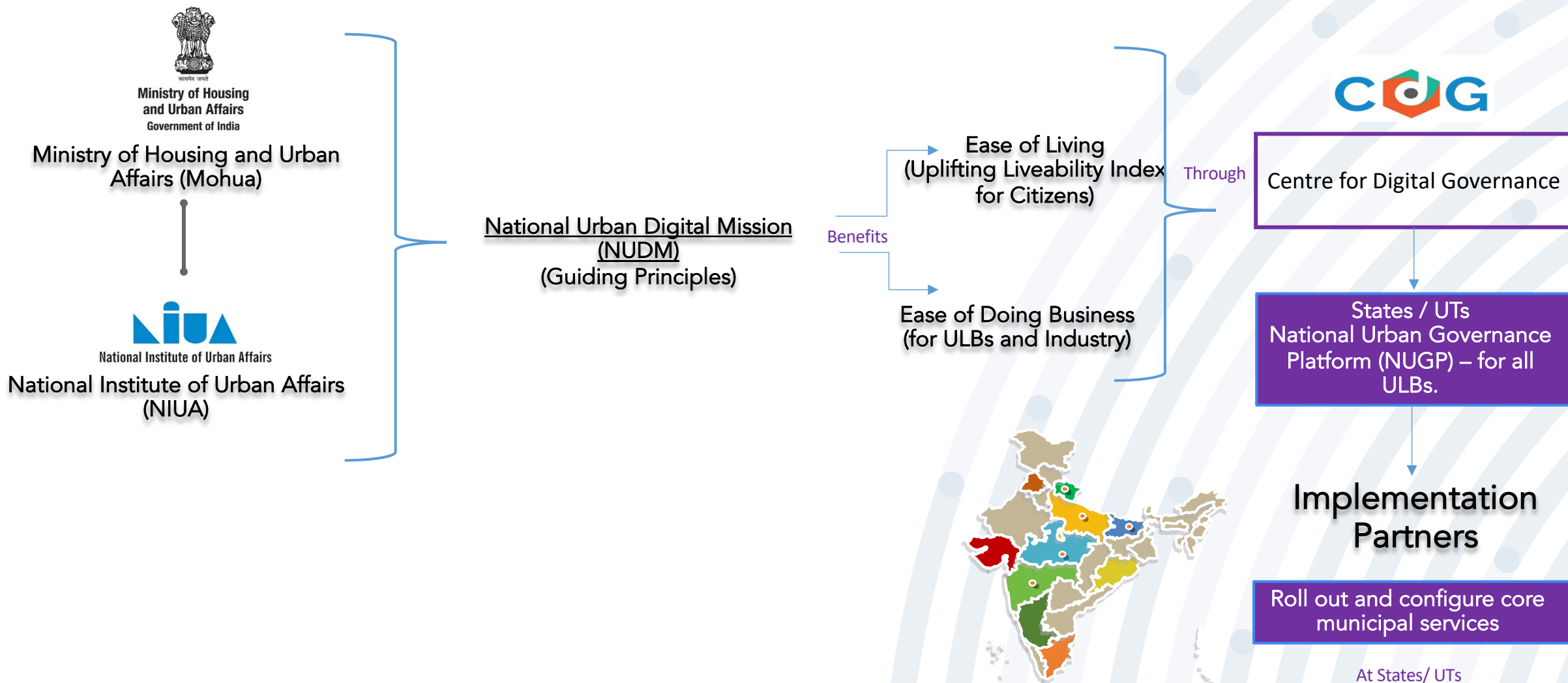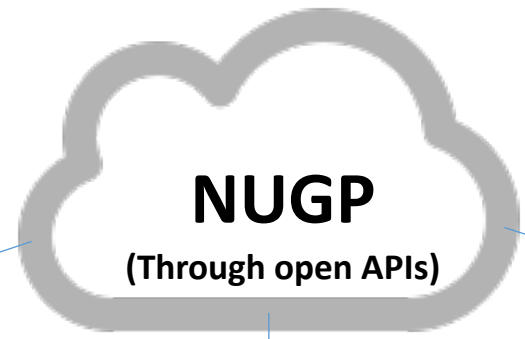*Through a collaborative efforts of Centre & State Governance*

Objectives: National Urban Digital Mission

| Shared digital infra | u-NODE | Open standards | Nationally scalable | Cooperative federalism | Enhancing the efficiency | Strengthen existing urban systems |

Ministry of Housing and Urban Affairs (Mohua)

National Institute of Urban Affairs (NIUA)

National Urban Digital Mission (NUDM)
(Guiding Principles)

Benefits

Ease of Living
(Uplifting Liveability Index for Citizens)

Ease of Doing Business
(for ULBs and Industry)

Through

Centre for Digital Governance

States / UTs
National Urban Governance Platform (NUGP) – for all ULBs.

Implementation Partners

Roll out and configure core municipal services

At States/ UTs

3

NUGP: Federated Rollout Model- Onboarding choices for States/ UTs

NUGP
(Through open APIs)

Option 1: Adopt centrally-hosted instance

Greenfield States/ UTs

Where,

1. Digital Systems do not exist;
2. Devoid of basic IT infrastructure for Governance

SaaS Model: Leverage Reference Municipal Modules with NUGP

Option 2: Create State instance

Brownfield States/ UTs

Where,

1. Experience in e-Governance systems (not implemented throughout the state);
2. In need of expanding State-wide portfolio

PaaS Model: Integration of existing Applications with systems within NUGP

Option 3: Compliance with standards

Matured States/ UTs

Where,

1. Existing e-Governance models across the region
2. Wish to upgrade the experience level keeping the core structure of operations unchanged

Adoption of NUGP standards and integrated reporting within NUDM

Starter Kit - NUGP with 9 initial Reference Applications for ULBs

Revenue Earning Services

User Charges

Property Tax Assessment & Payment

Water & Sewerage Connection & payments

No Objection Certificate Issuance

Trade License Issuance & Payment

Online Building Plan Approval

Monitoring & Other Basic Citizen Services
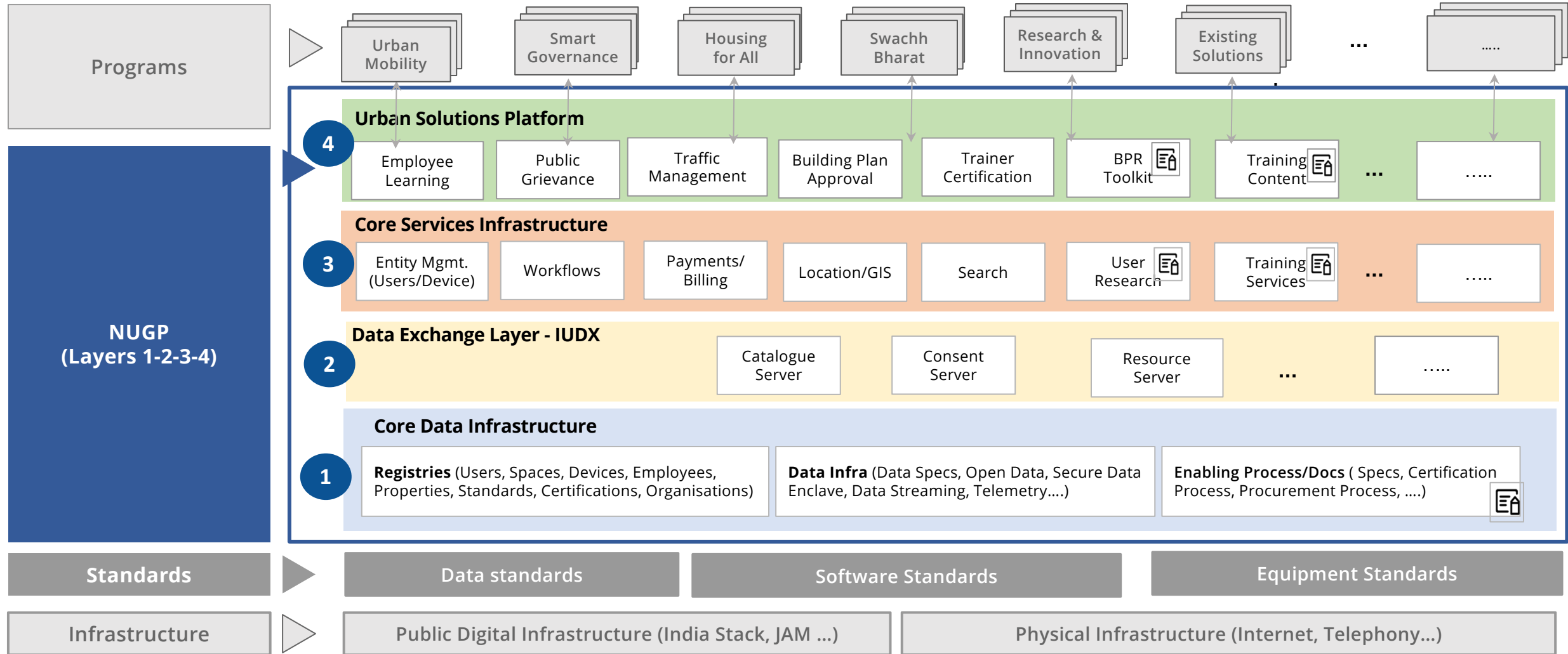
Birth & Death Registration

Citizens' Grievance Redressal

NMAM Compliant Municipal Accounting & Finance

NUGP: Building Blocks – Layered Architecture

Programs

Urban Mobility | Smart Governance | Housing for All | Swachh Bharat | Research & Innovation | Existing Solutions | ... | .....

NUGP (Layers 1-2-3-4)

4 — **Urban Solutions Platform**

| Employee Learning | Public Grievance | Traffic Management | Building Plan Approval | Trainer Certification | BPR Toolkit | Training Content | ... | ..... |

3 — **Core Services Infrastructure**

| Entity Mgmt. (Users/Device) | Workflows | Payments/ Billing | Location/GIS | Search | User Research | Training Services | ... | ..... |

2 — **Data Exchange Layer - IUDX**

| Catalogue Server | Consent Server | Resource Server | ... | ..... |

1 — **Core Data Infrastructure**

| **Registries** (Users, Spaces, Devices, Employees, Properties, Standards, Certifications, Organisations) | **Data Infra** (Data Specs, Open Data, Secure Data Enclave, Data Streaming, Telemetry….) | **Enabling Process/Docs** (Specs, Certification Process, Procurement Process, ….) |

Standards

| Data standards | Software Standards | Equipment Standards |

Infrastructure

| Public Digital Infrastructure (India Stack, JAM …) | Physical Infrastructure (Internet, Telephony…) |

Non Software Elements - Process, Documents, Policies

NUGP Implementation : Cost Drivers at State/ UTs

Scope of services: e-Governance at ULB

State will decide the number of ULBs vis a vis the number of services to be implemented. This will define the quantum of work.

Strategy: RFP by States referring the empanelled partners, effort estimation by the partners

Personnel Cost

State and ULB level Team based on the services to be implemented and the size of ULB.

Strategy: RFE Benchmarking

IT Infrastructure

ICT and Hardware requirements.

Strategy: CDG, Procured separately by State/ UT

COST DRIVERS

Travel and Logistics

Initial state level training for representatives from all ULBs, and regular support with logistics as applicable.

Strategy: as per actuals

Monitoring and Evaluation Cost

Implementation Audit, Quarterly Audits, Reporting and Compliance.

Strategy: State Governance team, RFE Benchmarking

Capacity Building

- Helpdesk setup by the Implementation Partner
- L1 support to ULB teams.

Strategy: RFE Benchmarking, NULP

Roadmap of NUGP implementation

NUDM Launch
Vision is to improve digital governance in India.

1

Program Setup
Preparing for the program implementation with mission documents and NUGP.

2

RFE for Implementation Partners (IP)
IP empanelment, benchmarking of Rates

4

State Engagement
Identification of specific needs.

3

Train Empaneled IPs
Training the IPs to familiarize them with the product and prepare for on-ground deployment.

5

State MoU
Onboarding the states on NUDM and help in resource building.

6

State Scoping
The state will recognize its requirements at ground level. Use the cost model and empanelment to estimate costs involved.

7

State Onboarding of IP
Program Implementation begins at State /UT / ULB levels.

8

Central Empanelment of prospective Implementation Partners for NUDM implementation across ULBs in the participating States and UTs

The Empanelment will enable NUDM to catalyse:

1. **Shortlisting** of pre-qualified partners to fast-track the man-power procurement at States/ UTs

2. **Rate Card** discovery through the central empanelment will be the reference competitive rates for States / UTs

3. **Quicker tendering** process at States/ UTs based on the QCBS criteria (State-defined)

4. **Periodic updating** of the empanelment list based on PQ terms

The key points of eligibility for interaction with industry may include:

a. **Turnover:** INR ___, Average Annual Turnover from IT/ICT services/e-Governance services (excluding IT infrastructure, networking equipment, storage backup equipment, servers and other auxiliary infrastructure) during the last three financial years (FY 2018-19, 2019-20, 2020-21)

b. **Project Experience**: The Applicant should have an experience in India of IT implementation/ consulting of at least ___ projects for ULBs in any State/UT, ERP implementation in ULB/e-Governance projects in Urban sector/ULBs having minimum contract value of INR 75 Lacs for each project in the last 5 F.Y. ending March 31, 2021 for State / Central Governments as on bid submission date (Different slabs for Tier I, II & III as revealed from the activity)

- **Certification**: The Applicants should possess the following certifications, which are valid at the time of bidding:

  i.   ISO 9001:2008/ ISO 9001:2015 for Quality Management System

  ii. ISO 20000:2011 for IT Service Management

  iii. ISO 27001:2013 for Information Security Management System

- **CMMi certification**: Level 5 or Level 3

- The Applicant should have at least ____ (No.) of full time employees on the payroll of the Applicant, working in the Application/Software development/e-Governance business unit providing "IT / ICT services including post implementation support and operations" as on bid submission date.

Personnel Requirement – Benchmarked Basis RFE

S. No.	Position	Final Rate (Discovered)
1	Program Manager	
2	IT Business Analyst	
3	Solution Architect	
4	Full Stack & Application Developer	
5	DevOps & Cloud Monitoring	
6	Database Administrator	
7	IT Security and Audit Expert	
8	Help Desk and Support (internal and external purposes): Leader, Executive & on-ground support	
9	ULB onsite team: Manager	
10	ULB onsite team: IT engineer	
11	ULB onsite team: Data Entry Operator	
12	Capacity building and change management expert	

Tiers of Implementation Partners and Scope of Assignment

Tier	Broad Scope of the Assignment	Remark
I	State level engagement across all ULBs, Project Management and Integration of ULB level implementations, Interface with central instance, O&M	**Objective:** Fast tracking State-wide rollouts by adopting a parallel implementation approach by leveraging a combination of Tiers (based on the capabilities and expertise of partners)
II	Implementation & O&M at large ULB/ cluster of ULBs with population <= 20L	
III	Implementation & O&M at ULB/ cluster with population <= 5L MSME & Start-ups to be included here	To be determined by the State /UT during RFP formulation process

Important Links

- **Applicable Standards & Guidelines: https://nudm.mohua.gov.in/standards/, https://nudm.mohua.gov.in/resources/**

- **NUIS Digital Blueprint: https://smartnet.niua.org/sites/default/files/resources/digital_blueprint-digital-4.pdf**

- **NUIS Strategy and Approach: https://smartnet.niua.org/sites/default/files/resources/nuis_master_doc_07.01.19_v5_0.pdf**

- **REoI document for selection of the NUGP partner https://smartnet.niua.org/content/17e13518-7fa3-4731-8a77-f80a4f3c49ab**

- **Link to documentation of the base platform selected for NUGP https://docs.digit.org/**

Thank You

Backup Slides

Implementation Partner will broadly need following resources

Resource	Qualification/ Requirements
Project Manager	B.Tech / M/Tech / MBA (IT) / MCA: 10+ years of Project/Program management experience. Domain Knowledge on e-Governance is a big plus
IT Business Analysts	B.Tech / M/Tech / MBA (IT) / MCA: 8+ years of experience in electronic delivery of Services (G2C, G2G, G2B) creating a detailed business analysis, outlining problems, opportunities and solutions for a business, Budgeting and forecasting, Planning and monitoring, Financial modelling, Variance Analysis, Pricing, Reporting, Defining business requirements and reporting them
Solution Architect	B.Tech / M/Tech / MBA (IT) / MCA: Experience: > 8 years of IT solution design & architecture experience. Should have worked in Distributed computing, Java, API driven Development, RDBMS, Restful web services, Spring Framework, JavaScript, NodeJS, HTML 5 & micro-service architecture
Sr Software Engg 1	B.Tech / M/Tech / MBA (IT) / MCA: 8+ years of IT experience with skills such as Java, Core java, PostgreSQL, GIT, Linux, Kibana, Elasticsearch, JIRA - Incident management
Sr Software Engg 2	B.Tech / M/Tech / MBA (IT) / MCA: 8+ years of IT experience with skills such as JAVA, Jquery ,Hibernate, Spring JPA,REST API, Kafka, PostGres, Elastic Search

Resource	Qualification/ Requirements
DevOps Lead	5+ years of overall experience: Linux experience (RHEL/CentOS, Debian/Ubuntu, Core OS), managing AWS/Azure cloud instance, scripting skills (Bash, Python, Perl) with Automation., hands-on in Git/GitHub, Maven, DSN/Networking Fundamentals., knowledge of CI/CD Jenkins continuous integration tool, knowledge of infrastructure automation tools (Ansible, Terraform), hands-on experience with Docker containers including container management platforms like Kubernetes, hands-on in Web Servers (Apache/NGINX) and Application Servers (Jboss/Tomcat/Spring boot)
Database Administrator	B.Tech / M/Tech / MBA (IT) / MCA: Candidate with strong exposure to data migration and PostgreSQL with 5+ years of experience in migrating data between disparate systems. Hands-on experience with XLs and Macros
Help Desk Support Team	- BCom / MCom / Accounting Background - Knowledge of managing helpdesk, fluent in local language, good typing skills. - Strong process and application knowledge