

**Government of Uttarakhand, Finance Department
Uttarakhand Public Financial Management Strengthening Project
Centre for Training and Research in Financial Administration, (CTRFA)
UTTARAKHAND, INDIA**

**REQUEST FOR EXPRESSIONS OF INTEREST
(CONSULTING SERVICES –SELECTION OF FIRMS)**

Assignment Title: Consultancy service for Hiring of IT consultants for Customization, Development, Deployment, Integration, and Maintenance of Municipal Accounting Software for Urban Local Bodies (ULB) in Uttarakhand

India

**Uttarakhand Public Financial Management Strengthening Project
Loan No.: IBRD 89280**

Reference No. (as per Procurement Plan): IN-CTRFA-305766-CS-QCBS

Request for Expression of Interest for Assignment Title: Consultancy service for Hiring IT consultants for Customization, Development, Deployment, Integration, and Maintenance of Municipal Accounting Software for Urban Local Bodies (ULB) in Uttarakhand

(CONSULTING SERVICES –SELECTION OF FIRMS)

Application Deadline:	10 th August 2022
Type of Contract:	Consulting Service- Selection of Firm
Method of Procurement:	Quality-Based Cost Selection (QCBS)
Expected Duration of Assignment:	09 Months lumpsum and from 09 months 10 months' time based support contract (expected from October 2022 to February 2023)

Reference No: **IN-CTRFA-305766-CS-QCBS**

Date: 24th July 2022

The GoUk has received a loan from IBRD for the Uttarakhand Public Financial Management Strengthening Project (UkPFMS) and intends to apply a part of the loan proceeds for this assignment toward the Consultancy service for Hiring IT consultants for Customization, Deployment, Integration, and Maintenance of Municipal Accounting Software for Urban Local Bodies (ULB) in Uttarakhand.

The objective of the assignment is to implement the municipal accounting software and related modules across all ULBs. The details are provided in the Draft Terms of Reference annexed with the Request of Expression of Interest.

The Finance Department through the Center for Training and Research in Financial Administration (CTRFA) now invites eligible consulting firms (“Consultants”) to indicate their interest in providing the Services. The Consultant should have carried out IT/ ITES/ Software Development or System Integrator entity and will provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The minimum required qualifications/criteria are available in Annexure 1 and the terms of reference of the assignment can be accessed on the website <http://www.uttarakhandaudit.uk.gov.in> or can be obtained from CTRFA.

The attention of interested Consultants is drawn to paragraphs 3.14 and 3.17 of the World Bank Procurement Regulations, July 2016 revised in November 2017 and August 2018 (“Procurement Regulations”), setting forth the World Bank’s policy on conflict of interest.

Consultants may associate with other firms to enhance their qualifications or for implementation of the Software but should indicate clearly whether the association is in the form of a duly registered Joint Venture and/or Consortium agreement. In the case of a Joint Venture, all the partners in a joint venture shall be jointly or severally liable for the entire contract, if selected. *The Lead firm shall have to comply with all the minimum criteria of REOI. Joint Venture/ Consortium shall be allowed with only one firm.* The co-venture or consortium partner shall only support the lead firm, the lead firm shall have to fulfil all the minimum criteria of REOI. Sub Consultancy shall not be allowed.

A Consultant will be selected in accordance with the **Quality Cost Based Selection (QCBS)** method set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours *1000 to 1700 hours IST.*

Expression of Interest in the prescribed format along with relevant annexures must be delivered in a document form (hard copy or electronic pdf) at the address or mail id given below (in person, by post or by email) latest **by 10th August 2022**

Project Director
Uttarakhand Public Financial Management Strengthening Project

PDU-CTRFA

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Annexure 1: Minimum Required Qualifications Criteria

S. No.	Basic Requirement	Specific Requirements	Supporting Documents Required
1)	Entity	Must be a Company/LLP/Partnership/or any entity as constituted under an applicable i.e. a legally constituted entity	Copy of the Certificate of Incorporation and constitutional documents
2)	Turnover	Should have an Average Annual Turnover from of at least INR Ten Crores and positive net worth during the last three financial years (2021-22, 2020-, and 2019-20)	Certified copy of the audited financial statements and certificate from the statutory auditor
3)	Overall experience	Should have at least 05 year's experience working as a System Integrator	Self-certification of details of the experience
4)	Technical Capability	<p>Should have proven track record of having successfully carried out at least one relevant assignment as System Integrator in a government department or government PSUs or autonomous or local bodies either on ERP / Software Bespoke or COTS / Tally ERP</p> <p>This should include the complete Software development Cycle</p> <ul style="list-style-type: none"> • Development or Customization • Implementation • Maintenance • Training <p>A preference and weightage shall be provides to the firm who has be an SI or Developer or implemented accounting software in ULBs</p> <p>Preference would be given to projects on the DIGIT platform for Shortlisting process.</p>	<p>Copy of work orders for completed assignments / Work completion certificates from client</p> <p style="text-align: center;">(OR)</p> <p>In the case of ongoing consultancy, the completion should be substantial (at least 75% of the technical deliverables have been submitted to client satisfaction). Letter from the client stating the status of delivery along with work order to be submitted.</p>
5)	Staff	Should have at least 10 staff/consultants with relevant qualifications and experience in IT/ITES/e-Governance/ Consultancy/Service Provider/IT-based project manpower services and also Finance Background	Self-certification of the list of such staff with qualifications and experience \

EOI FORMAT

Instructions

1. Please provide the details as required in the format. Non-completion of the format may lead to rejection during evaluation.
2. The consultant can add other materials about the Organization and other relevant details as annexure.
3. Please provide all documents requested as annexure.

Name of the Consultant	
Registered Address	
Phone No:	
Email id:	
Name of the Contact Person for this EoI	
Phone no. of the Contact Person for this EoI	
Email id of the Contact person for this EoI	
Do you have a HO in the State	Yes/No. If yes, please provide the address
Do you have a branch office in the State	Yes/No. If yes, please provide the address
Date of establishment	
Registration number if any with ROC, registrar of societies etc.	
Number of full-time qualified staff	
PAN	
GST	

Financial Particulars of the Consultant

Financial year	Turnover	Net worth
2021-22		
2020-21		
2019-20		

Key Staff Brief Profile ***

Name of Staff	Age	Years of experience	Qualification	Number of years associated with the Consultant	Name of clients handled with nature of work done	Training on DIGIT Platform (Yes in case please annex the certificate)
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Relevant assignments as SI in E-Governance and IT Projects – Last Five years***

Project Name	Funding agency Name	Client Name	Nature of work	Year of Work	Key reference person in client organization with designation and email id	Status (Completed/Ongoing)
	Central/State/Multilateral/ Bilateral funding agency					

*** Please provide detailed citations of work separately in the format given below. Relevant assignments are System Integrator or Development of ERP System for PSUs / Government Entities/ Local Bodies and autonomous bodies.

The Assignment should include at least one development/customization and implementation, of an Accounting Software across various ULBs in the case of Nagar Palika / Nagar Panchayats across a State or in the case of Greater Municipal Corporation/ Municipal Corporation, the value of the work order shall be of more than 400 Lakh. In case of Tally implementation, the same shall be complete Tally ERP System

In case of the firm has worked on the DIGIT Platform, the firm shall be given preference in Shortlist Process at REOI Stage

In case a firm is a DIGIT Partner annex the MOU with the proposal

Detailed Format for Citations

Assignment name:	Approx. value of the contract (in INR crores):
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total N ^o of staff-months of the assignment:
Address:	Approx. value of the services provided by your Consultant under the contract (in current US\$ or Euro):
Start date (month/year): Completion date (month/year):	N ^o of professional staff months provided by associated Consultants:
Name of associated Consultants, if any:	Name of the senior professional staff of your Consultant involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader):
Narrative description of Project:	
Description of actual services provided by your staff within the assignment:	

Terms of Reference

Hiring of IT consultants for Customization, Development, Deployment, Integration, and Maintenance of Municipal Software's for Urban Local Bodies (ULB) in Uttarakhand

Background

1. The Urban Local Bodies (ULB) in Uttarakhand (Uk) are 102 in numbers - 8 Nagar Nigams or Municipal Corporations, 41 Nagar Palika Parishads and 53 Nagar Panchayats. The long-term vision of the government is to improve the revenue potential of the ULBs, enhance accountability and transparency, and reform the ULBs to make them sustainable. The state is looking at two reform areas in the near future: strengthening property tax system to improve efficiency and transparency in collection and mobilization of resources and enhancing financial accountability and transparency.
2. Accounting and financial reporting in ULBs is being strengthened and modernized. Directorate of Urban Department (UDD) is embarking on many reforms which are listed below:
 - a. Redrafting of the Uttarakhand Municipal Accounting Manual
 - b. Implementation of GIS for ULBs
 - c. Implementation of computerized revenue management for all ULBs
 - d. Implementation of computerized accounting and other modules for all ULBs.
 - e. Revision of Acts and Rules
3. UDD ultimate aim is to computerize and digitize all the ULBs and bring them on an online platform so that all financial records and revenue records are available for better decision making. Gradually this will also help the ULBs to focus on improving their revenue efficiency, improving their accounts and transparency, and provide faster service to the public.
4. The Government of Uttarakhand (GoUk) is embarking on an ambitious program of implementation of computerized modules which will cover all the ULBs in the state and intends to hire a technical consultant (IT consultant) for this purpose. GoUk has applied for a loan to fund the Uttarakhand Public Financial Management Strengthening Project (UkPFMS) and intends to apply a part of the loan proceeds for this assignment. Apart from this consultancy, The UDD will be hiring CA firms to support the ULBs in migration and implementation.

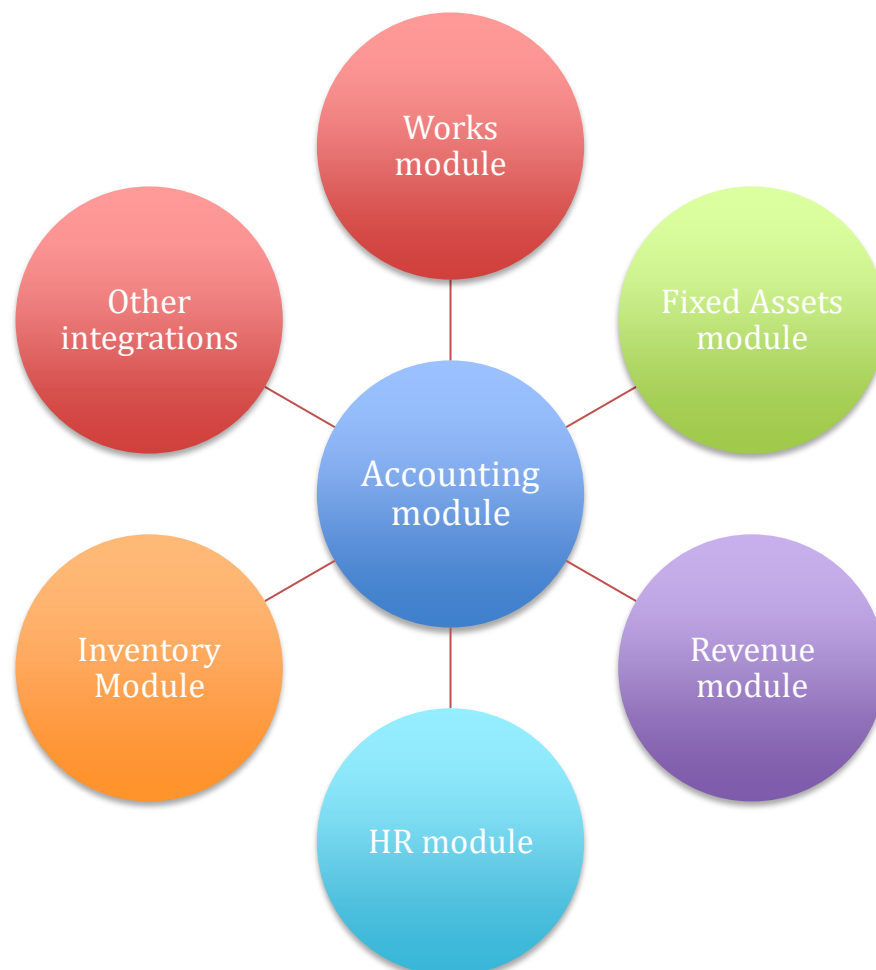
Objective of the assignment

5. The objective of the assignment is to implement the accounting software and related modules across all ULBs.
6. UDD needs a consulting firm which can
 - a. Develop and customize the software as required and integrate various modules seamlessly into one platform,
 - b. Integrate with other government software's based on requirements
 - c. UAT Pilot and roll out
 - d. Support in implementation and roll out of the software to the ULBs
 - e. Provide help desk support
 - f. Provide hand holding and capacity building
 - g. Operate and maintain the software for the contract period.

Detailed scope and activities

Develop, Customize, and Integrate the software as required

7. The UDD has identified the following modules which are necessary for the ULBs.



8. UDD has identified the following Modules; Financial Accounting Software in Digit Platform, Revenue Module in Digit Platform, HRMs an Inventory Modules Implemented in Nagar Nigam Dehradun through Smart City Dehradun to be rolled out across the state. The software, technical know-how and code support would be provided by the respective Vendor to the consultant who can take forward the customization and development for the state. Apart from these modules there could be requirements of integration with the state treasury system and other government systems as required by the UDD.

<i>Modules</i>	<i>Vendor/Provider</i>	<i>Scope</i>	<i>Platform</i>	<i>Remarks</i>
<i>Core Accounting Module</i>	<i>E-Gov foundation</i>	<i>Customization with some development and integration</i>	<i>DIGIT – Open platform</i>	<i>This module will facilitate and create accounting of fixed assets , depreciation and fixed assets register and store and inventory management</i>
<i>Revenue Module</i>	<i>E-Gov foundation</i>	<i>Customization with some development and integration</i>	<i>DIGIT Open Source platform –</i>	<i>Already implemented in ULBs to be integrated, Property tax module to be modified as per capital value taxes</i>
<i>HRMS and Payroll Module</i>	<i>Smart Dehradun</i>	<i>City Integration of already developed and implemented module</i>	<i>Open Source platform</i>	<i>Already implemented in one Nagar Nigam through Smart City Dehradun – To be integrated/customised as per needs of ULBS</i>
<i>Inventory Module</i>	<i>Smart Dehradun</i>	<i>City Integration of already developed and implemented module</i>	<i>open Source platform</i>	<i>Already implemented in one Nagar Nigam through Smart City Dehradun – To be integrated/customized as per needs of ULBS</i>

In addition to above vendor will also integrate with IFMS (Integrated Financial Management System) of the State Government, PFMS (Public Financial Management System) of Gol, and other payment gateways as required with Core Accounting module.

9. The consultant shall understand the platform and related products of the software stated above in paragraph 8, along with key features and functionalities as well as other modules required by the UDD.
10. The consultant shall carry out a detailed study of the software provided, FRS and prepare Functional requirements of the Solution as well as formulate the Solution Design Document (SDD). A detailed FRS has been prepared by the UDD which will be shared with the successful consultant. The SDD shall necessarily contain the following details
 - a. Detailed mapping of the prevailing work flows for different processes
 - b. User groups, roles and types of access needed
 - c. System checks requirements
 - d. Master Data requirements
 - e. Reporting requirements
 - f. Security requirements
 - g. Audit requirements
 - h. Migration requirements - Digital and Manual records
 - i. Language and Localization requirements
 - j. Integration requirements with existing systems and any other external agencies
 - k. Any other relevant details which are required to clearly articulate solution requirement
11. The Consultant shall visit at least 3 Municipal Corporations, 3 Municipalities to understand the process and shall work with the stakeholders to get a comprehensive understanding of the gaps as part of the assessment.
12. The consultant shall conduct workshops with relevant users of the systems wherever necessary, to obtain more details on the requirements of the project
13. The consultant shall compare the prevailing processes and any planned changes to these processes with the Platform/ product
14. The SDD preparation shall consider the Business Process Reengineering (BPR) changes identified during the Requirement gathering stage
15. The consultant shall identify the configurations, extensions and integration requirements for the implementation. Any changes required in the proposed processes will have to be explicitly discussed and agreed with UDD and relevant stakeholders.
16. Based on the requirements study, consultant shall submit SDD which should be agreed upon with UDD through a formal sign off.

17. Once the SDD is approved, the SI would create a High-Level Design (HLD) which should be agreed upon with UDD through a formal sign off. The HLD would consist of deployment design, coding standards, architectural requirements etc.
18. The consultant will customize the software which could be pilot tested and rolled out.
19. The consultant shall configure and deploy the solution for delivering all the services and management functions detailed in SDD. The Solution shall be hosted at the State Data Centre (SDC).

Integrate various modules seamlessly into one platform

20. The main module is finance and accounting module. The consultant should integrate with the other e-Governance applications if any as determined during the study phase and necessary APIs should be developed for integration. Few of these external applications are mentioned below:
 - a. NUS Revenue management software
 - b. Payroll and HRMS Module already developed and implemented (Technical details attached)
 - c. Inventory Module already developed and implemented
21. The consultant should integrate all these modules seamlessly so that data from one system is transferred to another one on a real time basis and vice versa.
22. It is expected that all these modules would be implemented across all ULBs in the state.

Integrate with other government software's based on requirements

23. The consultant is expected to integrate, *IFMIS and PFMS*

24. ***Extension of Revenue Module - Capital Base Property Tax***

In Uttarakhand property tax is present in 68 ULBs. All 68 ULBs has successfully digitalized their property data on portal. Currently in portal ULBs can enter their legacy data and collect their payment offline and online through online System (www.nagersewa.gov.in). Currently Self-Assessment is present in 8 Nagar Nigams and rest ULBs are calculating tax based on Annual Rental Value (ARV).

Government of Uttarakhand has taken policy decision that all 102 ULBs of Uttarakhand will shift from Unit Rate property taxation to Capital Based property taxation which will be calculated according to circle rate. The calculation on circle-based property tax is as follows:-

Annual Rental Value (ARV) is calculated as

ARV of Land = Area of vacant land (in sq.meter) * Circle Rate of non-agriculture land of that financial year

ARV of Constructed Land = Covered Area * Circle Rate of land for that financial year

ARV of Property = ARV of Land + ARV of Constructed Land

TAX RATE

Tax rates are defined separately for residential and non-residential property according to ULBs Gazette Notification. Rate defined would be same or different for residential and non-residential type of properties.

CALCULATION OF PROPERTY TAX (DEMAND):-

$$\text{ARV of Property} * \text{Tax Rate} / 100$$

There is a rider present for next 5 years in Circle Based property tax
Circle based property tax cannot exceed more than 5% of last year tax.

For eg: If property tax is Rs 100 and according to capital based it is calculated as Rs 110 then according to rider final property tax will be considered as Rs 105.

Above new methodology based on Capital Based Tax on properties is to be incorporated in the existing revenue module.

UAT, Pilot and roll out

25. The modules are expected to be developed in phases and then UAT is to be conducted. After UAT, pilot testing will be done at sample ULBs and then roll out will be done across the state.

UAT

26. The consultant must build up an overall plan for testing and acceptance of system, in which specific methods and steps should be clearly indicated and approved by UDD. The acceptance test plan will be defined by the consultant, agreed and approved by UDD and will include all the necessary steps to ensure complete functionality, operation and performance of the system. UDD will assign specific persons to test the modules.

27. Primary goal of Testing & Acceptance would be to ensure that the modules meet the following:

- a. Functional Requirements
- b. Availability
- c. Performance
- d. Security
- e. Manageability
- f. Project Documentation
- g. Data Quality

28. UAT shall be done centrally. Installation and operation testing have to be done at all installation sites.

29. It is consultants' responsibility during the tests to evaluate and recommend any further changes to the infrastructure & application. Any recommendations for change will be discussed with UDD.
30. UDD reserves the right to conduct Third Party Audit as required.
31. System would be accepted in a phased manner. The consultant has to ensure the delivery of the system as per Implementation Plan. The consultant should specify the implementation plan along with data digitization & migration requirement for the respective sub system/module.
32. Functional Requirements: The system developed/customized by consultants shall be reviewed and verified by the UDD and select internal department users (i.e. User Acceptance Testing) against the Functional Requirements signed-off. Any gaps, identified as a severe or critical in nature, shall be addressed by consultants immediately prior to Go-live of the system.
33. Security: Security is the aspect of the service of providing confidentiality and non-repudiation by authenticating the parties involved, encrypting messages, and providing access control. The applications can have different approaches and levels of providing security, depending on the service requester. Security Process will include:
 - a. Audit of Network, Server and Application security mechanisms
 - b. Assessment of authentication mechanism in application / components / module
 - c. Assessment of data encryption mechanism
 - d. Assessment of data access privileges, retention period and archival mechanism
 - e. Assessment for tools provided by SI for Vulnerability assessment and automated policy compliance tools, Log Correlation, end to end data encryption and various other security tools. Final outcome of this process would be a comprehensive audit report including all Network, Server and Application security features incorporated in this project.
34. Project Documentation: UDD shall review the project documents developed by consultant including requirements, design, source code, installation, training and administration manuals, version control, Layout Plan, etc. Any issues/gaps identified by the UDD in any of the above areas, shall be addressed to the complete satisfaction of UDD. Documentation requirement (but not limited to) are as follows:
 - a. Technical, Operational and User Manuals for operation of deployed solution
 - b. All policy documents such as Security Policy, Backup and Recovery Policy, Business Continuity Plan (BCP), etc.
 - c. Source Code and solution design documents
 - d. Maintenance manuals for equipment at SDC, Networks, server and other hardware
 - e. Network Diagrams

- f. Documentation of IP and Subnet Scheme, Routing Tables and ACL etc. deployed for Intranet
- g. Documentation of device configurations such as firewall, routers, servers etc.
- h. Details of IT infrastructure required
- i. All the relevant documents related to Implementation and any other document which may be necessary.

35. Data Quality: UDD shall perform the Data Quality Assessment for the data digitized/migrated by consultant. The errors/gaps identified during the Data Quality Assessment shall be addressed by consultant before moving the data into the production environment, which is a key milestone for Go-live of the solution.

Operation Acceptance – Pilot

36. Before pilot the following should be completed

- a. UDD Approval of modules to be tested in pilot
- b. Testing by consultant including Functionality Test, Database Test, Integration Testing, Unit Test, System Test, Stress test and Load/ Performance test.
- c. UAT completion by UDD
- d. Completion of Training and Change Management Workshops in pilot locations
- e. Completion of master data related activities for pilot locations

37. Pilot will be done at ULBs identified by the UDD. Pilot will do extensive checking and testing at ULBs and all aspects of the software needs to be tested in the field. Once the pilot is completed, the consultant is required to review any changes in the software and carry them out in intimation to the UDD. UDD may also provide certain changes which needs to be incorporated in the software and if these are major changes UAT should be done. In case of minor changes, the process owners can check the changes.

38. After successful pilot completion, consultant shall submit a report to UDD. The consultant shall give a detailed roll out plan for all ULBs.

Operation Acceptance – Go-live

39. After successful Pilot, system shall be Go-Live at all the remaining locations in phased manner. Consultant shall submit a report ULB and module wise implementation status every month. To obtain Go- Live Certificate, following activities relating to the Go-Live must be completed:

- a. Submission of updated SDD

- b. Submission of all updated documents (such as User Manuals, design documents and training material)
- c. Readiness of Data Centre, with all proposed ICT infrastructure/Services including SLA monitoring tool
- d. Completion of Training and Change Management Workshops
- e. Completion of master data related activities
- f. Delivery of all transactions of services/management functions relating to concerned sub- phase for a period of at least one month through the on-line system from the date of Government Order
- g. Providing help desk support

40. Based on the above and only after being completely satisfied that all the concerned users of related locations have access to the System and are using the System for the respective functional areas, the UDD shall issue Operational Acceptance– Go-Live (Phase wise OR ULB and module wise).

Provide help desk support

41. Consultant will set up a centralized help desk with adequate number of resources to resolve user queries from the pilot rollout of the first module till the end of the contract the helpdesk team shall be responsible for providing technical solutions to queries raised by internal users. Indicative list of activities shall include:

- a. Deployment of manpower to attend the helpdesk requests for extending technical support to end users for the system deployed by bidder
- b. 4 staff will be deputed till go live and the first year of operations.
- c. Deployment of web-based tool for the users to file issues and enable the help desk to respond to them to closure.
- d. Operational window for helpdesk on govt. working days from 9.30 to 6:30 PM.
- e. Help Desk facility to provide technical incidents/ issues /problems with the system. Help desk facility shall be provided through a dedicated phone number with 10 lines.
- f. Implement a call logging system in line with the severity levels as per the SLAs. The Help desk shall log user calls related to system and assign an incident/ call ID number.
- g. All infrastructure requirements (office space, furniture, computers, network, telephone lines, power back up etc.) for the smooth operation of the help desk will need to be provided by the bidder.
- h. Track each incident / call to resolution.

- i. Escalate the calls, to the appropriate levels
- j. Coordinate with respective stakeholders for closure of calls.
- k. Analyze the incident / call statistics and provide monthly reports including but not limited to:
 - i. ▪ Type of incidents / calls logged
 - ii. ▪ Incidents / calls resolved
 - iii. ▪ Incidents / calls open

Provide handholding and training

42. The consultant is required to train the ULB/department staff (technical personnel and end-users) to enable them in effectively operating the system. Consultant shall also be responsible for re-training the staff whenever changes are made in the Solution that is implemented for this project. The consultant is expected to do capacity building of at least 400 to 500 staff across the state.
43. Before the commencement of the training, the consultant shall prepare a capacity building plan at various levels including the ULB administrators and module specific administrators and agreed upon by UDD.
44. The consultant must impart training to the personnel from UDD and ULBs in the operation of the application software, generation of MIS reports, maintenance of User Logins and operations of the backend servers, policies and procedures. All the personnel selected shall be trained on all the modules of the concerned ULB. For all these training programs the consultant should provide necessary course material, manuals for troubleshooting and system admin to the trainees etc. Training Room /Premises, Desktop, whiteboard, furniture for training would be provided by respective ULB offices.
45. In addition to the individual trainings conducted centrally for the ULB and the UDD staff, SI may introduce 'Train the Trainer' Concept for effectiveness and continuity of training for future in consultation with UDD. For this purpose, he may select potential trainers from various ULB staff Departmental staff and grade them as certified trainers. This is a recognition certificate. ULBs may use these selected trainers for conducting their internal trainings.
46. Consultant shall take the feedback from trainees at the end of each trainee and submit a report to UDD.
47. Training shall be imparted in English and Hindi
48. SI shall develop documents, videos, e-contents in Hindi and English (maximum 5-15 minutes) and upload on the portal so that users can do self-learning. E-Contents should be prepared for (but not limited to):
 - a. Registration into application

- b. Password change
- c. Application/Portal Navigation
- d. Broad functionalities/features of all modules
- e. Walk through of each functionality enabled in the system

49. The training and capacity building program will start in tandem with the roll-out plan and the department envisages one round of refresher training for 50% of the users for each of the modules.

50. At the beginning of the program, following trainings shall have to be provided by the consultant:

#	Training Detail	Staff to be trained	Persons per training session	Duration
1	General Awareness Training (Basic computer awareness training)	200	30	2 days
2	Functional Training on Application and system administration training	200	30	3 days
3	Change Management and IT sensitization Training for Senior officers	125	30	2 days
4	Admin users training	125		5 days
	Train the trainers	105		5 days
	Training on modules for ULB	200	30	15 days training for all modules and 3 days refresher training

51. Subsequently, on the job trainings/handholding shall have to be provided by the SI during the O&M period of the project

52. The department envisages a first round of training of 07 days and the refresher training for 3 day similarly for each phase . The classroom training is expected to be hands on training.

53. Consultant shall create user manual for end users. A copy of the training manual will also be available online.

Operate and maintain the software for the contract period

54. The consultant will operate and maintain all the components of the proposed solution upto March 2024

55. During the O&M phase, consultant shall customize, implement and manage the Solution in accordance with the service level defined for the project. (Service Level Agreement attached)

56. The consultant shall provide operational support and maintenance services for the term of the Project including but not limited to the overall system stabilization, IT infrastructure solution maintenance, system administration, security administration, database administration, network administration and end-user problem resolution. The consultant will have to ensure that the solution is functioning as intended and attending to all problems associated in operation of the application system

57. The consultant will provide full support to ensure that the Solution implemented under this Contract shall have no defect arising from development/ customization/configuration

58. This support should also cover adapting the Solution for any additional requirement that might come to the notice of UDD at the time of actual use of the same.

59. During the Project term, the consultant shall be completely responsible for defect-free functionality of the Solution implemented under this Contract and shall resolve any related issues (including bug-fixing, etc.) within the duration agreed between the UDD and the consultants, at no additional cost to UDD.

60. Since it has been considered that solution may undergo the changes post-go live of solution, hence consultant shall deploy the required resources during operation & maintenance period. Consultant shall make all the customization in the Application during Operation & Maintenance period as per requirement of UDD without any additional cost/change request to UDD for all the services/modules mentioned in this RFP.

61. The consultant shall provide latest updates, patches/ fixes, version upgrades relevant for the Solution implemented under this Contract.

62. All planned or emergency changes to any component of the system shall be through the approved Change Management process. The consultant shall ensure:

- Detailed impact analysis
- Appropriate communication on change required has taken place
- Proper approvals have been received

- Schedules have been adjusted to minimize impact on the production environment
- All associated documentation is updated post stabilization of the change
- Version control maintained for change

63. The consultant shall be responsible for arranging for annual technology support with e-Governments Foundation (limited to upgrades for NUS platform) during the entire O&M phase. (The upgrades for digit will be provided by E-gov free of cost)

64. The consultant will be responsible to work with UDD, provide assistance to ensure that the solution is hosted on the environment provided by the state, and finalize the SLAs needed from the Infrastructure and ensure that the Development, Production, UAT and Training instances are available as needed with required remote access provided for these instances.

65. The consultant will also work with the department to finalize the back-up and DR strategy and implement the same.

66. To enable IT support and administration, the consultant would need to plan and deploy experienced manpower so as to maintain availability of services and SLAs. Infrastructure Management includes the following activities:

- Design of appropriate System Administration policy with precise definition of duties and adequate segregation of responsibilities and obtaining approval for the same from Purchaser.
- Overall management and administration of infrastructure solution including servers, networking & security components, storage solution etc.
- Performance tuning of the system as may be needed to comply with SLA requirements on a continuous basis.
- Security management including monitoring security and intrusions into the solution.
- Monitor and track server and network performance and take corrective actions to optimize the performance on a daily basis.
- System administration tasks such as managing the access control system, creating and managing users, etc.
- Data storage management activities including backup, restore and archival etc.
- The consultant undertakes to ensure that regular back-up copies of data are created and maintained safely.

- Maintenance of the database (Para to be reviewed by technical person)

67. Network Administration & Management consists of the following activities but not limited to: Administering User IDs, Network analysis and performance optimizing, Continuous monitoring and management of network during the working hours of ULBs on each working day and restoration of breakdown within prescribed time limits, Ensuring network security and database security at all times.

68. Design of Network Administration Policy and getting it approved from UDD for effective and efficient management of Network resources. Network Administration would broadly include the activities: Network devices configuration, management and tuning for optimum performance, Tracking the network status, Availability and taking the remedial and preventive actions in case of problems, Network fault isolation and resolution, Monitoring of network performance and escalation of performance deterioration to concerned authorities and take remedial actions to resolve such issues, Implementation/ modification of network routing policies, IP addressing policy as required and Documentation related to network configuration, routing policies, IP addressing scheme etc.

69. Consultant will be responsible for implementing measures to ensure the overall security of the solution and confidentiality of the data. The consultant shall monitor production systems for events or activities, which might compromise (fraudulently or accidentally) the confidentiality, integrity or availability of the Services. This monitoring shall be through the security controls including:

- Real-time intrusion detection tools
- Audit review tools
- Manual processes

70. Consultant shall develop and deploy a detailed security policy for the solution implementation & maintenance in adherence to policies and procedures as laid by Govt. of India and Uttarakhand

71. Consultant shall be responsible for application security audit from CERT-In empaneled agencies and STQC during implementation and operation & maintenance period as per requirements given in this RFP and submit 'Certificate of Audit' to UDD along with detailed report on vulnerabilities. Consultant shall take approval from UDD for the selection of CERT-In empaneled agency

72. UDD may, as and when required, revalidate the given audit report.

73. Consultant shall fix all the vulnerabilities as per report of Security Auditor and submit the compliance report.

74. Consultant shall produce and maintain system audit logs on the system for a period agreed with UDD after which point, they will be archived and stored at off-site or as desired by UDD. Consultant would deploy tools for automated correlation of audit logs for relevant security exceptions in real time or in near real time and take immediate remediation action.
75. Manageability: UDD shall review that the solution deployed has adequate monitoring and tracking features for measuring the utilization and availability of resources. This includes:
- Remote monitoring of Status and Statistics of all high-level components
 - Management capability to start/stop/restart services and systems
 - Auto discovery of all components manageable
 - Auto discovery of all other system components
 - Ability to track changes in configuration of the system components to help track service
 - System disruptions
76. At the end of the contract the consultant shall provide the UDD with a recommended exit management plan or transition plan. The Exit Management Plan shall deal with the following aspects of the exit management in relation to the Agreement as a whole or the particular service of the Agreement:
- Transition of Managed Services
 - Migration from the incumbent SDC/cloud environment to the new environment
77. At the end of the contract the consultants shall provide all documents, software and other related materials of the project to the UDD.
78. The consultant shall ensure that all the documentation required by the UDD for smooth transition (in addition to the documentation provided by the Cloud Service Provider) are kept up to date and all such documentation is handed over to the UDD during regular intervals as well as during the exit management process.
79. Document, update, and provide functional organization charts, operating level agreements with Third-Party contractors, phone trees, contact lists, and standard operating procedures
80. Transfer physical and logical security processes and tools, including cataloguing and tendering all badges and keys, documenting ownership and access levels for all passwords, and instructing UDD or its nominee in the use and operation of security controls.

Deliverables:

81. The initial project duration will be till March 2024. The timelines for the deliverables are as follows:

Sr. No.	Key Milestone	Key aspects to be covered	Timeline for submission	
1	Inception Report	<ul style="list-style-type: none">• Provide detailed project work plan• Understand different modules and FRS	T + 4weeks	2.5%
2	Software Customization Requirements Specifications (SRS) -	<ul style="list-style-type: none">• Review FRS and modules in details• Discuss with UDD and finalize the software requirements• Detailed Software Requirement Document prepared• Modifications need in software modules prepared• Interface specifications between modules prepared	T+3 months	10%
3	Software developed for a Modules and integration of module	<ul style="list-style-type: none">• Prototype of software developed for all modules with integration• User Acceptance Test Cases, Test Data and Test Results, User Acceptance Test Scripts, Unit Test Cases, Integration Test Results/Cases - System Integration Tests (SIT)• QA testing done by the consultant for all modules• User Manuals and System Manuals	T+ 6 months	15%
4	UAT for modules	<ul style="list-style-type: none">• UAT test conducted by UDD staff and	T+ 7 months	2.5 %

Sr. No.	Key Milestone	Key aspects to be covered	Timeline for submission
		suggestions provided for improvement.	
5	Training for pilot ULBs	<ul style="list-style-type: none"> • Next version of Software released • Training Materials prepared • Software available for training 	T+ 7 months
6	Pilot testing in ULBs for module	<ul style="list-style-type: none"> • Pilot at Two Nagar Nigam, Nagar Pallika, and one Nagar Panchayat 	T+ 8 months 2.5%
7	Establishment of Help Desk	<ul style="list-style-type: none"> • Standard Operating Procedures and Operations Manuals • Issues resolved by Help Desk • Handholding of ULBs 	T+8 months
8	Final version of software modules developed after pilot	<ul style="list-style-type: none"> • Final software provided for testing • Roll out plan developed and agreed with UDD • UDD sign off received for the software 	T+ 9 months 10%
9	Roll out to other ULBs	<ul style="list-style-type: none"> • Training starts for all ULBs to be provided till end of contract • Roll out begins for modules 	T+9 months to T+ 15 months to be completed 30% (6% to be released for the each set of 20 ULBs the software has been rolled out successfully with UAT from individual ULB

TIME BASED CONTRACT for 10 months only

Sr. No.	Key Milestone	Key aspects to be covered	Timeline for submission
10	Operations and maintenance of system With Operation of Help desk (The time based contract is operational after deliverable is attained)	<ul style="list-style-type: none"> • Manage the system throughout the entire contract • Address Pending Issues in the system, Dependencies • Updated System Design documents, specifications for every change request • Updated user Manuals, administration manuals, training manuals • Develop and customize as required by the UDD 	T+ 08 Month- Till end of the contract ie 18 months 27.5% first two quarter 5% each and the last quarter and submission of necessary source code to UDD 17.5%

Key Experts:

82. The professional requirements of personnel to be provided by the consultant for the Task are given in the following table detailing type of expertise, required skills and experience. The team of key professionals shall be adequately supported by non-key support functionaries in requisite disciplines including urban reforms and IT. The team will work in close liaison with the UDD office and ULBs. The CVs of key experts only would be evaluated. Additional Support staff may be added as required by the consultants.

Sr	Key Experts	Qualification	Experience	Person - months
1	Program Manager (1)	Minimum Education: <ul style="list-style-type: none"> • CA/MBA(Finance) • Fluent in Hindi and English with good communication and managerial skills • Additional qualification in Certification Course in Information Technology, Certification in any Information system 	<ul style="list-style-type: none"> • Required minimum 10 years of Project/Program management experience implementing. ERP in large organizations with extensive understanding of finance and accounting systems for implementing it on an IT Platform or through ERP System • Should have worked in at 	18 -man months

Sr	Key Experts	Qualification	Experience	Person - months
		/DISA / CISA /	<p>least 2 Projects of Implementing End to End accounting System</p> <ul style="list-style-type: none"> ● ULB Accounting reforms Project shall have a suitable weightage ● Should have been a team leader at least in one large project of INR 25 crore (Contract Value of assignment) related to integration development and software 	
2	Technical Lead (1)	<ul style="list-style-type: none"> ● MTech in IT or IS / MCA ● Certification in software application platforms proposed for the project will be an Added advantage ● Fluent in Hindi and English with good communication skills 	<ul style="list-style-type: none"> ● Required 10+ years of technology/solutioning experience. The experience is post qualification ● The experience of deploying and maintaining large integrated platforms / ERP System of at least five years ● At least carried out one assignments of deploying and maintaining large integrated platforms / ERP System in Government Sector /PSUs /Government Bodies /Autonomous Bodies / Local Bodies with the system still functional ● Should have worked in a 	18

Sr	Key Experts	Qualification	Experience	Person - months
			Leadership position for at least 2 years.	
3	Senior Developer	<ul style="list-style-type: none"> ● M.Tech in IT or IS / MCA ● Certification in software application platforms proposed for the project will be an added advantage ● Fluent in Hindi and English with good communication skills 	<ul style="list-style-type: none"> ● Required 10+ years IT experience with skills such as Java, Core java, PostgreSQL, GIT, Linux, Kibana, Elasticsearch, JIRA - Incident management, ReactJS, Spring Boot, Microservices, NodeJS ● At least has developed an information systems; designed , developed and installed/ implemented software/ERP solutions with above technical skill set ● A least has lead in one assignment in which team of developers responsible for building new and support existing ERP/ Software in the Government sector or PSUs or 	18
4	Tester / QA (1)	<ul style="list-style-type: none"> ● MTech in IT or IS System / ● Certification in software testing will be an added advantage ● Fluent in Hindi and English with good communication skills 	<ul style="list-style-type: none"> ● Required 5+ years IT experience with skills such as users' stories /use cases/requirements, execute all levels of testing (System, Integration, and Regression) JIRA - Incident management ● Has at least carried out in two assignment at least related to test for the quality 	10

Sr	Key Experts	Qualification	Experience	Person - months
			of software development and deployment/ analysis of software, and systems, /mitigate risk and prevent software issues performing automated and manual tests to ensure the software created by developers is fit for purpose..	
5	DevOps Lead (1)	<ul style="list-style-type: none"> ● BE in IT or IS / BTech in IT / IS ● Fluent in Hindi and English with good communication skills ● Certification course in DevOPS or different courses in technical area were DevOPS such as work scripting, Networking Fundamentals, integration tools, automaton tools, application tools will be an added advantage ● 	<ul style="list-style-type: none"> ● 5+ years of overall experience ● At least in one assignment managed the development, testing, and support processes in a completed software development project life cycle (SLDC) ● Experience of SDC teams on deployments and configurations needed for running the platform in SDC at least one project <p>At least four skill sets of following mentioned below shall be required, the same to be demonstrated in Tech-6 through assignment any more skill sets more than four shall be provided due weightage in evaluation subject to the certificate(s) appended with CV</p>	18

Sr	Key Experts	Qualification	Experience	Person - months
			<ul style="list-style-type: none"> ❖ Strong hands-on Linux experience (RHEL/CentOS, Debian/Ubuntu, Core OS), ❖ Experience in managing AWS/Azure cloud instance, Strong scripting skills (Bash, Python, Perl) with Automation ❖ Strong hands-on in Git/Github, Maven, DSN/Networking Fundamentals. ❖ Strong knowledge of CI/CD Jenkins continuous integration tool ❖ Good knowledge of infrastructure automation tools (Ansible, Terraform) ❖ Good hands-on experience with Docker containers including container management platforms like Kubernetes ❖ Strong hands-on in Web Servers (Apache/NGINX) and Application Servers (Jboss/Tomcat/Spring boot) 	
6	Finance Expert (1)	<ul style="list-style-type: none"> • Chartered Accountant • Has successfully 	<ul style="list-style-type: none"> • Has BPR and process mapping expertise in at least one assignment 	6

Sr	Key Experts	Qualification	Experience	Person - months
		<p>completed DISA / CISA Course or certification course in IT or IS</p> <ul style="list-style-type: none"> Fluent in Hindi and English with good communication skills 	<ul style="list-style-type: none"> Should have 5 yrs. of experience post qualification Have demonstrated through at least one assignment of linking business process, accounting process to a software /ERP successfully Having experience in providing training to staff 	

83. The key experts related to IT /IS work experience shall be tabulated on the basis of the project, mentioned in TECH-6. the projects mentioned in Tech -6 shall elucidate experience including the language, platform which was used by the expert in the stated project in TECH-6

84 . Key Experts shall also annex their certificate for the Certification courses as specified in Tech -6 of key expert

83. The finance staff will be used for training and handholding.

Services & Support to be provided by Client

84. Technical Review Committee: A Technical review committee headed by the/Director (Urban Development) and comprising of representatives of the ULBs will carry out the review of all the outputs and provide comments which will be shared with the consultant for incorporation. The TRC will endeavor to review and provide the comments at the earliest, but not later than 4 weeks of submission of the reports and will inform the consultant in case of any delays.

85. The assignment will be administratively coordinated by the Project Director UkpFMS.

86. Technical coordination will be done by the Director (Urban Development)

87. The Urban Development Directorate will coordinate with departments for the workshops/training and to designate staff for training and facilitate meetings with the stakeholders. For training, GoUK will provide the venue and cost of trainee travel including TA/DA, but all other requirements will be arranged by the Consultant.

Appendix 1: NUS Finance

Architecture Overview

NUS is a modular, extensible and evolvable platform that complies to the architectural principles and guidelines as proposed in the National Urban Innovation Stack. The guiding principles of NUS are as below (Further details can be found [here](#))

- Ecosystem Driven
- Interoperability through Open APIs and Open Standards
- Inclusive
- Minimalistic
- Privacy and Security by Design
- Unbundling
- Designing for evolvability and scale
- Transparency and Accountability through Data
- Non-Repudiable
- Domain Modeling
- Federated Architecture
- Ensuring extensibility through the use of layered design
- Multi-channel Access

Functional Specifications of Finance and Accounting on NUS

National Municipal Accounting Standards compliance is necessary for ULB funding and grants. NUS Finance and Accounting System is an NMAM compliant application which can be integrated with all the other relevant modules (both internal as well as third party system) with budgetary controls in place. The complete books of accounts can be maintained at one place which enables the creation of Financial statements. The high-level feature set is listed below.

Masters	<ul style="list-style-type: none">● Chart of Accounts (COA)● Bank● Bank account● Fund● Function
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	<ul style="list-style-type: none"> ● Financials year ● Scheme and sub-scheme ● Vendor (Contractor/Supplier) ● Recovery codes ● Accounting entities and User defined masters ● Cheque master ● Ledger opening balance ● Service to Bank Account mapping
Expenditure Accounting	<ul style="list-style-type: none"> ● Creation and approval of expense bill ● Create and approve voucher from bill ● Payment of Bills ● Direct bank payment ● Cancel Bill ● Cheque Assignment ● RTGS Assignment ● Surrender and reassign cheques ● Surrender and reassign RTGS
Revenue Accounting	<ul style="list-style-type: none"> ● Creation and approval of receipt voucher ● Creation of day end remittance vouchers ● Miscellaneous receipts
Journal Voucher	<ul style="list-style-type: none"> ● Book adjustment entries (General Journal vouchers) ● Creation and approval of Vouchers of type - Works, Purchase, Fixed Assets
General	<ul style="list-style-type: none"> ● Cancel Voucher ● View Voucher

Reports	<ul style="list-style-type: none"> ● Accounting Reports <ul style="list-style-type: none"> ● General Ledger ● Trial Balance ● Bank book ● Day book ● Journal book ● Opening balance ● Collection Reports <ul style="list-style-type: none"> ● Receipt Register ● MIS Reports <ul style="list-style-type: none"> ● Bills and Payments ● Cheque issue register ● RTGS Advice
Configuration data	<ul style="list-style-type: none"> ● Master data upload ● System configuration set up

Masters	<ul style="list-style-type: none"> ● Service master ● Budget control Type
Recoveries and remittance	<ul style="list-style-type: none"> ● Deduction of recoveries as part of bills ● Remittance of recoveries ● Cheque Assignment of recoveries payment
Contra	<ul style="list-style-type: none"> ● Bank to Bank transfer ● Inter fund transfer
Expenditure Accounting	<ul style="list-style-type: none"> ● Define, add and manage - Purchase Order and Work order ● Creation and approval of contractor bill ● Creation and approval of supplier bill ● Advance Adjustments in Bills
Budget and controls	<ul style="list-style-type: none"> ● Upload of sanctioned budget and one step approval ● Apply budgetary controls on bills and vouchers

	<ul style="list-style-type: none"> • Budget Additional Appropriation
Reports	<ul style="list-style-type: none"> • Financial Statements <ul style="list-style-type: none"> • Balance Sheet • Income Expenditure Report • Accounting Report <ul style="list-style-type: none"> • Subledger schedule • Subledger Report • Deductions Reports <ul style="list-style-type: none"> • Deduction Remittance Summary • Pending Deductions report • MIS Reports <ul style="list-style-type: none"> • Remittance Advice • Budgeting Reports <ul style="list-style-type: none"> • Department wise budget • Function wise budget • Budget Variance • Budget Watch register • Budget Upload report
Dashboard	<ul style="list-style-type: none"> • Roll out Analysis

Bank Reconciliation	<ul style="list-style-type: none"> • Reconcile with Bank (Manual) • Capture entries not in Bank book • Auto Bank Reconciliation
Year End Activities	<ul style="list-style-type: none"> • Closing of financial year • Closing of a date range • Reopening of closed periods • Transfer closing balance

Reports

- Bank Reconciliation
 - Reconciliation Summary
- MIS Reports
 - COA Report
 - Surrendered Cheques

Appendix-II: NUS Stack Technology Details

Components used in NUS Stack

Tech Stack Versions

Technologies	Version
Spring Boot	2.1.8
Elastic search	6.6.1
Apache Kafka	2.11
Reach JS	16.10.2
Chart Js	2.8.0
Redux	4.0.4
Material design	4.5.1

UI Major Module

Major Module	Open Source React Module
Share	Mailto, Whatsapp API
PDF Generation	Dom-to-image
Chart	ChartJS
Storing Image	React S3
State Management	Redux
Fonts	Font Awesome
Export CSV	XLSX

About NUS Platform

Overview

Some of the Products provided through NUS platform are:

- A. Public Grievance Redressal : PGR System is an application in which citizens can lodge complaints and track them, whereas employees can track, and address grievance incidents raised by the citizens. The platform is available for use in both mediums as web and mobile app.
- B. Property Tax : The Property Tax System (PT) provides a digital interface to make property assessments, pay property tax, generate payment receipts and monitor tax collection.
- C. Trade License : The Trade License product provides a digital interface, allowing citizens to apply for the Trade License and subsequently make the payment online.
- D. Online Building Permission System: The OBPS enables citizens and architects to apply for building permits, online scrutiny of the building plans and issue of certificates and permits
- E. Accounting System : The Accounting System is an NMAM compliant application which can be integrated with all the other relevant modules (both internal as well as third party system) with budgetary controls in place. The complete books of accounts can be maintained at one place which enables the creation of Financial statements.
- F. Water and Sewerage Management : The Water and Sewerage (W&S) module provides a digital interface to apply for water and sewerage connections and, pay the water and sewerage charges for connection/s.
- G. Fire NOC: Fire No-Objection Certificate (NOC) application, developed on the NUS platform, makes process of obtaining a Fire NOC easy, smooth, and transparent. It eliminates the current manual process by automating and streamlining it, thus providing a better citizen service experience with the Urban Local Body (ULB) and Fire station employees.
- H. mCollect: mCollect module is designed to facilitate ULBs all type of miscellaneous collection into account of ULB and produce the MIS around it with an integration to NUS Finance application

Technologies used for NUS Platform

Category	Area	Description
DevOps	SysOps.	(Linux admin (Ubuntu), SSH, Package management, SSL, security, Firewall Rules, Troubleshooting)
	AWS/Azure	(Kubernetes, Instances/VMs, LB, VPC, DB, Volumes, Autoscaling VMs, DNS Routing)
	Dockers	(Create Docker file, understanding docker file, install docker, push, pull, registry)
	Kubernetes 1.12 & Kubectl	(Creating k8s cluster using EKS/AKS/or manual, deploying, scaling & monitoring, troubleshooting the cluster)
	Jenkins & CI Pipelines	(Plugins, configurations, Jobs, credentials, scripted CI/CD Pipelines)
	Python and Jinja2 templates	(Install python, pip installation, encode, decode, Jinja2 templates)
	CI/CD Pipeline	(Git Commit => validation => CI Test => Build => Bake Docker Image => Push Image => DeployTo k8s)
	GitOps	GitBranching, PullRequests, Tagging, Repo Forking, etc
Engg.	Microservice Architecture	https://medium.com/free-code-camp/how-to-scale-microservices-with-message-queues-spring-boot-and-kubernetes-f691b7ba3acf
	Build a REST API	1. React + SpringBoot API + Push to Kafka + Consume & Persist data to PostGres
		2. React + Node API + Push to Kafka + Consume & Persist data to PostGres
	ElasticSearch & Kibana	
	JDBC Query	

	Zuul, Zuul Filters	https://medium.com/@jegasingamjeyanthasingam/zuul-functionality-routing-proxy-and-filters-285f911146ea
	OAuth2	https://medium.com/tech-tajawal/microservice-authentication-and-authorization-solutions-e0e5e74b248a
	Java (OBPS Stack)	Hibernate, Spring JPA, JSP, Jasper Reports, Elastic search, jQuery, Python, Postgres (database), Kibana Dashboard

Infrastructure Setup for State Data Centre

- NUS Finance requires:
 - 2 core CPU with Memory of 4 GB
 - Wildfly 11.0.0.Final
 - Redis
- It will be deployed as a service in the existing NUS cluster
- Database with multi schema structure for each city:
 - It is shared with the NUS DB instance
- To have communication/session between Finance module with NUS modules one System Integrator (SI) user has to be created

Technologies used in HRMS and Inventory Modules developed by Smart City Dehradun for Nagar Nigam Dehradun –

DSCL Technology Stack

S. No	Technology	Code, Tools, Platform
1	Portal	HTML 5.0, CSS3.0, BootStrap, COTS
2	Micro Services / API Infrastructure	Spring Boot, Open API 3.0, Swagger 2.0, CXF 3.0
3	Document Management System	CMIS. CMIS 1.2 compliant DMS
4	Business Process Management	BPM, BPEL2.0 compliant BPM
5	Business Rule	Drools
6	Reporting	Jasper, Birt, etc.
7	Data lake, Data Warehouse	Hadoop, Big Data etc.
8	Database	MySQL, Postgres, Oracle

9	Mobility	Ionic Framework, Cordova etc.
10	Analytics Reporting and Dashboard	Python, Dash, Jasper, Birt
11	Security	COTS, Anti Virus, Form Signer, PKCS Infrastructure, Web Security etc.
12	Dev Ops -Continuous integration	Maven, Henking pipeline, Containerized - Docker & Kubernetes
13	Configuration Management	GitLab
14	Project Management	RedMine
15	Internet of thing	Integration with IOT Platform
16	Scheduler, Notification	Spring Scheduler, Quartz Scheduler
17	CAS / Single Sign On	COTS, LDAP etc.
18	Unified Payment Solution	Integration with UPI, BBPS
19	Accessibility	WCAG, Smart transportation, Smart communication

Final Service Level Agreement (SLA), Acceptance & Certification

1. The Project shall be governed by the mechanism of final acceptance of Service Level Agreement (SLA) to be put into place by the Directorate of Urban Development and the Selected Agency. The final Service Level Agreement (SLA) criteria shall lay down a set of guidelines to be followed by all Project stakeholders during the Project period.
2. Final acceptance shall be given on completion of the following:
 - i. Approved Financial Statements available on Urban Local Body/ Directorate of Urban Development on their portal for all the period specified in the Request for Proposal (RFP)
 - ii. Fixed Assets and Inventory Register are updated as on 31st March 2022 or on the date mutually agreed by both parties till final acceptance of the project (whichever later)
 - iii. Training and Handholding support to Urban Local Bodies Staff for the period specified in the Request for Proposal (RFP)

3. Obligations

3.1. Obligations of Directorate of Urban Development and respective Urban Local Bodies

Without prejudice to any other undertakings or obligations of the Directorate Urban Development and respective Urban Local Bodies or its nominated agencies under this Agreement, the Directorate of Urban Development and respective Urban Local Bodies or its nominated agencies shall perform the following:

- a) To provide support required by Selected Agency through their personnel for implementation of Accrual Based Double Entry Accounting Systems (ABDEAS) in all the Municipal Corporations / Councils / Committees of Uttarakhand, as per Scope of Work of the Request for Proposal (RFP) during the Term of this Agreement;
- b) To promptly provide all the data, information, approvals, documents, details, personnel and to ensure the prompt delivery of data, information, approvals, documents, details etc. from other Stakeholders of the Project as and when required by the Selected Agency for performance of its Services.
- c) To make available the details of all the municipal corporation and municipal council/Committee of Uttarakhand from Directorate of Urban Development for the smooth functioning of the project
- d) To coordinate amongst each other and between all the divisions of their own offices for providing necessary information for the study and implementation of Accrual Based Double Entry Accounting Systems and other related services mentioned in the Request for Proposal.
- e) To hold meetings of the steering committee and the project monitoring committee.
- f) To ensure signoffs/acceptance and timely responses from the Stakeholders and urban local bodies.
- g) Coordinate with Selected Agency for conducting workshops for the Stakeholders and other representatives of Urban Local Bodies.
- h) Issuing the necessary certification including completion certificate with mutually agreed between the Urban Local bodies and Selected Agency for the implementations of project and for other components of the Scope of Work (wherever required).

- i) To create internal capacity for execution of the Project after takeover from the Selected Agency after the termination of this Agreement.
- j) Ensuring the staff members of Urban Local Bodies and other Stakeholders attend the training programs as per the schedule defined by the Selected Agency and agreed upon by respective Urban Local Bodies
- k) Ensuring the staff members and other Stakeholders including Directorate of Urban Development / Municipal Corporations / Municipal Councils/ Committees) provide data, information, replies etc. in a timely manner.
- l) Performing its obligations under the Request for Proposal (RFP) within the stipulated time and in case of there being no stipulated time, within reasonable time and without any unnecessary delay.
- m) Selected Agency will, on completion of a milestone, furnish the final deliverable to the respective Urban Local Body. Selected Agency shall also intimate Directorate of Urban Development) regarding completion of the milestone and submission of deliverable to respective Urban Local Body. Respective Urban Local Body shall provide its acceptance and/or objection and/or rejection and/or seek clarifications on non-compliance part of such delivery as per the checklist provided by **Selected Agency within Fifteen (15) working days after the milestone completion letter submitted by Selected Agency.**
- n) Release of timely payment to Selected Agency on submission of invoices after approval from Project Monitoring Committees (PMC).
- o) Directorate of Urban Development and respective Urban Local Bodies shall provide to Selected Agency with only sitting space and basic infrastructure not including, stationery and other consumables at the Urban Local Bodies' office locations.

3.2. Obligations of the Selected Agency

- a) Selected Agency's obligations shall include all the activities as specified by the Client in the Scope of Work and other sections of the Request for Proposal (RFP) and Contract and changes thereof to enable Directorate of Urban Development and respective Urban Local Bodies to meet the objectives and operational requirements. It shall be Selected Agency's responsibility to ensure the proper and successful implementation, performance and continued operation of the proposed solution in accordance with and in strict adherence to the terms of his Bid, the Tender and this Contract.

- b) It shall provide to respective Urban Local Bodies or its nominated agencies, the Deliverables as agreed between the Parties. It shall also intimate Directorate of Urban Development regarding completion of the milestone and submission of deliverable to respective Urban Local Body.
- c) It shall perform the Services as set out in Scope of Work of Request for Proposal (RFP) in a good and workmanlike manner commensurate with industry and technical standards which are generally in effect for such projects and innovations pursuant thereon similar to those contemplated by this Agreement, and so as to comply with the applicable Service Levels set out with this Agreement.
- d) It shall ensure that the Services are being provided as per the Project Timelines as set out this Agreement.
- e) It shall migrate the existing data to the new developed accounting application database and preparation of financial statements and reporting with handholding support to Urban Local Bodies.
- f) The Selected Agency shall be responsible for and shall ensure that all activities /services are performed in accordance with this Agreement, Scope of Work and that the Selected agency 's team complies with such specifications and all other standards, terms and other stipulations/conditions set out hereunder.
- g) Client reserves the right to interview the personnel proposed that shall be deployed as part of the project team. If found unsuitable, the Client may reject the deployment of the personnel. But ultimate responsibility of the project implementation shall lie with Selected Agency.
- h) The Selected agency shall perform the activities /services and carry out its obligations under this Agreement with due diligence, efficiency and economy, in accordance with generally accepted accounting policies as per Uttarakhand Accounts Code/ National Municipal Accounting Manual. The Selected Agency shall always act, in respect of any matter relating to this Agreement, as faithful advisors to the respective Urban Local Bodies and Directorate of Urban Development and shall, at all times, support and safeguard the respective Urban Local Bodies and Directorate of Urban Local Bodies legitimate interests in any dealings with third parties

3.3. Access to locations of respective Urban Local Bodies and Directorate of Urban Development.

- a) For so long as the Selected Agency provides services to respective Urban Local Bodies and Directorate of Urban Local Bodies or its nominated agencies from their location, as the case may be, on a non-permanent basis and to the extent necessary, respective Urban Local Bodies and Directorate of Urban Local Bodies as the case may be or its nominated agencies shall, subject to compliance by the Selected Agency with any safety and security guidelines which may be provided by respective Urban Local Bodies and Directorate of Urban Local Bodies as the case may be or its nominated agencies and notified to the Selected Agency in writing, provide the Selected Agency with:
- I. Reasonable access, in the same manner granted to respective Urban Local Bodies and Directorate of Urban Local Bodies or its nominated agencies / employees, as the case may be;
 - II. Reasonable work space, access to office equipment as mutually agreed and other related support services in such location and at any other locations of respective Urban Local Bodies and Directorate of Urban Local Bodies as the case may be location, if any, as may be reasonably necessary for the Selected Agency to perform its obligations hereunder and under the Service Level Agreement (SLA).
- b) Access to locations, office equipment and services shall be made available to the Selected Agency on an “as is, where is” basis by respective Urban Local Bodies and Directorate of Urban Local Bodies (DULB) as the case may be or its nominated agencies. The Selected Agency agrees to ensure that its employees, agents and contractors shall not use the location, services and equipment referred to in Request for Proposal (RFP) for the following purposes:
- I. For the transmission of any material which is defamatory, offensive or abusive or of and obscene or menacing character; or
 - II. In a manner which constitutes a violation or infringement of the rights of any Person, firm or company (including but not limited to rights of copyright or confidentiality).

3.4. Coordination for enabling installation of Accounting Application

Selected Agency shall co-ordinate with Directorate of Urban Local Bodies, System integrator and Urban Local Bodies to enabling commencement of installation of accounting application in the allotted Urban Local Bodies (ULBs) for the purpose specified in Request for Proposal

