NEW DELHI MUNICIPAL COUNCIL
(NDMC)

Invites Budgetary Offer for

Deployment of IT Manpower in New Delhi Municipal Council (NDMC)

Last Date and time for submission of Budgetary Offer	**11/04/2016 at 3:00 PM**
Name of work	Invites Budgetary Offer for Deployment of IT Manpower in New Delhi Municipal Council (NDMC)

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1. General Instructions to bidder (Work Description)

1.1 It is intended to select vendor for Supplying technical manpower for Computerized Systems Development and Management Activity and bids are invited for the same. The scope of the work includes deploying a team of IT Professionals at NDMC premises to attend the following tasks, as per terms and conditions as detailed in the Bid Documents.

1.2 Carrying out development of new systems on present or suggested platform through all the phase of systems development life cycle like systems analysis, systems development, systems maintenance, systems management, etc.

1.3 Supporting the existing 40+ minor/major systems or modules developed in JAVA and net with ORACLE and SQL Server as the database backend.

1.4 Conversion and up gradation of existing systems [application and databases] in a phased manner to meet present day requirement of NDMC administration and citizens.

1.5 Gather, acquire and document the complete knowledge of the existing application, data and IT Infrastructure by studying available documents and specific queries shall be addressed by the existing software bidder/Department. The Bidder is expected to deploy required tools and techniques for studying the existing applications, data and IT infrastructure.

2. Brief Scope of Work

2.1. Deployment of Staff at NDMC

2.1.1. The scope of work is requires bidder to depute technical manpower for the following positions at NDMC site for the sole purpose of NDMC systems analysis, development, maintenance and support for a minimum period of one year and extendable up to three years.

Sr. No.	Position	Number of staff
1.	Network Administrator	1
2	Senior Programmers	2
3.	Senior Programmers (Oracle utility project) Customer Care & Billing Module, Meter Data Management, Work & Assets Module	4
3.	Junior Programmers	2
4.	Mobile App Developer	1
5.	Web Designer	1
	Total:	**11**

2.1.2. In addition to the positions state above, the Bidder shall be required to nominate one Project Manager, whom shall be the required to visit NDMC on periodic basis or on specific requests of NDMC. S/he will be responsible for organizing, planning, directing, and coordinating the overall program effort. S/he will participate in review and update meetings, to review progress, attendance, performance, etc. of the deployed team.

2.1.3. The bidder shall deploy well qualified, experienced and certified manpower to provide application development, enhancement, maintenance support and other allied services.

2.1.4. The staff once deployed will be solely dedicated for NDMC support for the contract period. Any change in the staff will be duly notified to the Information Technology Department NDMC. The bidder will be required to maintain a team structure for specific areas/ projects that are undertaken within the functional scope of work.

2.1.5. The bidder shall ensure minimum team strength of 07 resources as per clause 2.1.1 above. The payment as per the below mentioned percentage of monthly consideration will be made for respective position. Failure to deploy suitably qualified resources will lead to deductions as per below mentioned table. Additionally, penalty may be levied for delays and non-performance attributable to bidder organization or deployed staff.

Sr. No.	Position	Percentage of Monthly consideration to be paid/deducted per resource
1.	Network Administrator	10.00%
2.	Senior Programmers	7.25%
3.	Junior Programmers	7.00%
4.	Mobile App Developer	6.00%
5.	Web Designer	5.00%

2.1.6. Considering the critically of the applications to NDMC Departments, IT Department expects the bidder to deploy the best of the breed resources to ensure smooth service delivery to the end users and seamless coordination with the entities involved in the project.

2.2. Functional Scope

2.2.1. The functional scope for the bidder would include the following four categories

- Transition Management (during takeover and handover)
- Management of Existing applications and Legacy environment
- Performance Management and tuning of the applications, Infrastructure and environment
- New Systems Development/Enhancement/Migration of existing systems as per SDLC

1. **Transition Management:** The bidder shall gather and document the complete knowledge of the existing applications, data and IT Infrastructure by studying available documents and specific queries shall be addressed by the existing software bidder / IS Department. User manuals and system design documents would be required to be prepared/ updated based on discussions with existing vendor and IS Department Members. At the end of the contract, the bidder shall handover all knowledge repository along with source code to the IT Department.
2. **Management of Applications and Legacy environment:** The Bidder will be required to provide maintenance support for all existing applications and identify opportunities for database consolidation and application migration/integration.
3. **Performance Management and tuning of the applications, Infrastructure and environment:** The IT department desires to assess the performance of the existing application in order to fine tune the applications on a periodic basis. The bidder would be required to identify parameters and requirements based on service levels for performance of applications. Periodic reporting on the parameters and tuning/optimizing activities would be undertaken by the bidder.
4. **New Systems Development/Enhancement/Migration of existing system as per SDLC:** New Systems Development / Enhancement /Migration of existing systems to new platform as per the System Development Life Cycle encompassing the following steps
   - Initiation
   - Reconnaissance Preliminary Study
   - Systems Requirement and Specifications
   - SRS acceptance
   - Project Scheduling Detailed Study
   - Systems Report [Pre-Development]
   - System Development
   - User Testing
   - Changes and bug fixes
   - User Acceptance Certificate
   - System Report [Post-Development]
   - Auditing and Security Report
   - User Manual
   - Installation
   - Training Support

3. Key Events & Dates

Event	Target Data
Notice Inviting Tender	
Downloading of Bid Documents	
EMD	
Date & Time for Pre-bid Conference	
Last date of Online Submission of Bids	
Submission (in Hard Copy) of Technical Bid along with Bid fee, EMD, Solvency Certificate and other	

supporting documents	
Opening of Technical Bids	
Opening of Price Bids	

4. Technical Eligibility Criteria

The companies/firms interested in being considered for 'Computerised Systems Development and Management at NDMC should fulfil the following minimum criteria:

1. The bidder should be a company registered under the Companies Act, 1956/2013 and in operation for at least 5 years as on 31.12.2015 and should have their registered offices in India. However, this criterion is not applicable for the State/Central Government undertakings.

2. The bidder shall have an average annual turnover not less than Rs.10 Crores for the last three financial years. For this purpose, turnover figures as prelist three audited balance sheets are to be considered. For this purpose last financial year would be considered as the one ended on 31.03.2015.

3. The bidder shall be certified as CMM/CMMi Level 5 Company.

4. The bidder shall have at least 3 years of proven experience as on 31.03.2015 in the business of application development and application maintenance services.

5. The bidder should have undertaken at least TWO projects with similar scope for an Urban Local Body or Government Organisation in the last 5 years with project value greater than Rs. 25 lakhs. (For this purpose last financial year would be considered as the one ended on 31.03.2015.)

6. The Bidder shall not be under a Declaration of Ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government or Public Sector Units.

5. Instructions for the Bidder

Availing Bid Documents
document can be downloaded from www.ndmc.gov.in up to the date and time mentioned in the budgetary offer document.

Indicative list of Documents to be submitted.

The bidder shall submit all the relevant documents so as to ascertain the claims made. Following is the indicative list of documents that are to be submitted.

#	Description of Requirement	Proof Required to be Submitted along with Bid
1.	The bidder should be a company registered under the Companies Act, 1956/2013 and in operation for at least 5 years as on 31.03.2015 and should have their registered offices in India. However this criterion is not applicable for the State/Central Government	Certificate of incorporation
2.	The bidder shall have an average annual turnover not less than Rs. **10 Crores** (Ten Crores) for the last three financial years. For this purpose, turnover figures as pre last three audited balance sheets are to be considered. For this purpose last financial year would be considered as the one ended on 31.03.2013.	Audited P&L and Balance Sheet / Certificate for Auditor
3.	The bidder shall be certified as **CMM / CMMi Level 5** Company.	Copy of original CMM / CMMi 5 Certificate
4.	The bidder shall have **at least 5 years** of proven experience as on 31.03.2015 in the business of application development and application maintenance services.	Copy of work order / Completion certificate / Contract
5.	The bidder should have undertaken **at least TWO projects** with similar scope for an Urban Local Body or Government Organisation **in the last 5 years** with project value greater than `**25 lakhs.** (For this purpose last financial year would be considered as the one ended on 31.03.2015)	Copy of work order / Completion certificate / Contract
6.	The Bidder **shall not be under a Declaration of Ineligibility for corrupt or fraudulent practices or blacklisted** with any of the Government or Public Sector Units.	Self-declaration / Undertaking by bidder

TECHNICAL BID

Scope of Work in Detail

A. Deployment of Staff at NDMC

On being awarded the contract, the bidder shall depute the following IT professionals on NDMC site for the sole purpose of NDMC systems analysis, development, maintenance and support **for a period of three years.** The contract would be valid for a period of one year and renewable at the end of first and second year considering the performance of the bidder.

Sr. No.	Position	Number of staff
1.	Network Administrator	1
2	Senior Programmers	2
3.	Senior Programmers (for Oracle utility project) Customer Care & Billing Module, Meter Data Management, Work & Assets Module	4
3.	Junior Programmers	2
4.	Mobile App Developer	1
5.	Web Designer	1
	Total:	**11**

The minimum qualifications for various staff shall be as listed below against the designation. All professional certifications must be valid (shouldn't have expired) at the time of submitting the bid and when joining. The functions to be performed by various staff will be inclusive but not limited to the list given below against the designations. Any task not specified below but necessary to be performed under this assignment has to be performed by the team of the bidder.

1. NETWORK ADMINISTRATOR

Education and Experience

BE/B. Tech/MCA Degree in Computer Science plus six (6) years of computer experience working with networking infrastructure and WAN networks (Cisco, Microsoft& Certifications) OR any equivalent combination of education and experience.

GENERAL PURPOSE

Under the general supervision of the Administrative is responsible for all NDMC computer network planning, administration and operations activities. Also performs a variety of complex professional and technical duties related to the installation and maintenance of the NDMC computer

network and communication hardware and software systems including network and application servers, routers, Firewall, LAN, WAN, Frame Relay, phone systems, in addition to mainframe and PC workstations. Responsible for the configuration and installation of network and internet security. Responsible for the configuration and installation of all network software packages used by the NDMC. Responsible for the IT disaster backup and recovery systems. Supervises the work of the network technical staff.

DUTIES

a. Plans, administers and supervises all computer network functions for the NDMC. Ensures the WAN ISO pertaining at maximum efficiency with proper security. This also includes RF (Radio Frequency), P2P associated with Cisco/HP Router and Fiber optic connectivity.

b. Supervises the maintenance and software updates to all Network Devices in the NDMC. Responsible for the IBM Content Manager server, Parks Class server, HTTP   Web filter, Fires Arrakis Server, Active Directory, Linux DNS servers, Windows 2003/2008 DNS servers, Firewall server, Windows 2008 File servers.

c. Responsible for the cabling and wiring plant and facilities for the network.

d. Serves as the security officer for the network.

e. Deploys and maintains firewalls and all network host security activities.

f. Works with management to determine resource requirements, budget, and personnel needed to keep the network in a production status. Evaluates end user needs and recommends appropriate equipment and software configurations.

g. Preserves system integrity for all computers within the NDMC. Ensures NDMC's Network and personnel are in compliance with all Operating system Licenses for servers and desktop PC's to ensure the Legality of usage.

h. Responsible for wireless connectivity for NDMC. Ensures wireless connections are secure and safe and meets Govt. requirements for 128 bit encryption.

i. Oversees and installs complex software for Lan Desk Desktop Maintenance, including desktop maintenance, management and software delivery systems, creating install packages and deploying system updates.

j. Responsible for maintaining comprehensive documentation describing the LAN's layout and operational considerations.

k. Assists with the acquisition and directs the installation of new network hardware, PC computer, hardware and software systems.

l. Works Closely with CFCs in ensuring smooth Network connectivity for all CFC (Citizen Facility Centres) on Desktops and Laptops. Also assists Public Safety with the Installation and configuration of Network and desktop PC's.

m. Provides training to user in the use of their systems.

n. Responsible for network management including development and implementation of wiring configuration standards connectivity solutions, overall network operation systems, network software, server hardware configurations, network file systems, directory structure and LAN/WAN system integrity and security. The Network Administrator is responsible for the installation and configuration of network hardware and software.

o. Responsible for all LAN and WAN hardware, software and data integrity, security, all backup and recovery for all Netware, Unix, Windows server and Linux Platforms.

p. Assembles and installs PC hardware, investigates and resolves routine hardware and communications problems.

q. Distributes and supervises server storage space allotments.

r. Analyses system or application usage and plans for growth or increases in network capacity of NDMC.

b) Understands and uses PC computers, including peripheral devices; understands and uses windows operating system; performs system administrative duties; installs operating system, PTF's and application system software.

c) Understands principles of data communications including SNA/SDLC networks including Ethernet and token ring, modem setup and installation, and problem determination and resolution.

d) Practices network asset management, including maintenance of network component inventory and related documentation and technical specifications information.

e) Researches, configures and installs personal computer software packages, software upgrades, PC Support, emulation, internal/external modems, etc.; upgrades hardware and software to meet user needs.

f) Performs related duties as required.

Special Requirements

1. Flexible work schedules, occasional evening and weekend work.

2. Necessary Knowledge, Skills and Abilities.

3. Working knowledge of LAN and WAN topologies and architecture, including MultiVlan architecture. Must be able to construct, operate and maintain LAN and WAN Networks.

4. A complete knowledge of Giga bit and Ethernet topology interfacing with network IP phone systems. Must be able to research and solve associated problems and also knowledge of Videoconferencing.

5. A complete knowledge of network equipment such as switches, routers, hubs, and associated equipment and how to construct and maintain networks. Must also have a working knowledge of the software control systems for networks such as H.P. Optivity or equivalent.

6. Working knowledge of Server and PC operating systems-such as Novell Netware (may substituteMicrosoftNT,2000,2003), PC operating systems.

7. Must have knowledge of Firewall/UTM and basic rule setting programming. (Gaj shield UTM is preferred).

8. Understands, installs and configures network equipment utilizing varied protocols such as: TCP/IP, IPX/SPX, Microsoft protocols and NMS.

9. Must have a working knowledge of IP Telephony and QOS service implementation for network based phone systems.

10. Working knowledge PC hardware and components including processors, motherboards, accessories, cards, peripherals.

11. Working knowledge of PC/LAN application software including word processing (Word or WordPerfect), spread sheets (Excel or Quattro Pro), E-Mail (Zimbra and Outlook), some administration in database management and development tools. Must be able to install, configure, and administer those systems.

12. Ability to model programs and systems to needs of users for desired results; understand and follow, oral and written instructions; explain technical material in layman terms.

13. Develop effective working relationships with customers, co-workers and administration.

14. Ability to make contacts with other departments, requiring act and judgement to avoid friction; frequent contacts with executives on matters requiring explanations and discussions; frequent contacts involving the carrying out of programs and schedules; regular and frequent outside

contact with persons of high rank requiring tact and judgement; requires well developed sense of strategy and timing.

15. Ability to analyse local and WAN network problems, as well as P2P connectivity problems and solve problems with efficient results.

16. Ability to train users on network concepts and methodologies as well as specific application utilization and configuration.

17. Ability to inter face with technical and engineering personnel in order to discuss technical issues pertaining to problems, purchases or technical specifications.

TOOLS & EQUIPMENT USED

Personal computer, including word processing and spread sheet software; network equipment and software; fax and copy machine.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently required to sit; talk or hear; use hands to finger, handle, feel objects, tools, or controls; and reach with hands and arms. The employee is regularly required to walk.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

2) **Senior Programmers:**
   Qualifications Required:
   - Should be a graduate with specialization in information technology / systems
   - Should have at least four years of post- qualification experience
   - Should be proficient in .Net, VB, ASP, Javascript, HTML, DHTML, XML, AJAX, SQL server
   - Professional certifications like MCP, MCSD, MCSE, MCSE+I, MCDBA, OCDBA, etc. would be preferred.
   - Should have capacity to handle the application independently
   - Should be trained on Application development (SDLC lifecycle) and Software Quality Assurance

Responsibilities:

- Shall be responsible to carry out analysis of the software requirements and prepare detailed specifications of the requirements
- Shall be responsible for covering the cycle of implementation to unit and integration testing for the application allocated to him/her
- Shall be responsible to translate the SRS into the selected programming language to create source code and executable.
- Shall be responsible to undertake unit testing using the unit test plan prepared during detailed design phase. The defects found in this testing should be logged and the programmer should remove the identified defects.
- Shall be responsible for identifying and escalating any issues – technical/business rules in the application allocated to him and their timely resolution.
- Shall be responsible for using the development/testing and quality standards and best practices established in the project.
- Shall be responsible to carry out system analysis, design and maintenance related activities independently if assigned to do so.
- Shall be responsible to ensure that relevant documentation related to the application has been prepared and indexed.
- Shall be responsible for tuning the application as per the Performance management results
- Shall be responsible to conduct UAT/ System Testing / defect fixing
- Shall be responsible to report the status to the respective Module Leader/ Systems Manager.

Senior Programmers (for Oracle utility project)

Experience: (BE/B-Tech/MCA) with 4 year Experience	Hands on experience to handle the Operational Automation System e.g. Customer Care & Billing, Meter Data Management, Work and Assets Management etc.
Essential Experience	Oracle/Siebel Master Data Management & Data Analysis & Profiling experience good hands-on oracle SQL, PL/SQL, Good to have: Functional experience etc.

3) **Junior Programmers:** A Junior Programmer will work as per the instruction of Sr. Programmer and will be solely responsible for the projects assigned to them for the purpose of systems development.

Qualifications Required:

- Should be a graduate with specialization in information technology /

systems
- Should have at least two years of post-qualification experience
- Should be proficient in .Net, VB, ASP, Javascript, HTML, DHTML, XML, AJAX, SQL server
- Professional certifications like MCP, MCSD, MCSE, MCSE+I, MCDBA, OCDBA, etc. would be preferred.
- Should be trained on Application development (SDLC lifecycle) and Software Quality Assurance

Responsibilities:

- Shall be responsible for the design, development and maintenance of the desktop based and web-based applications
- Shall be responsible to carry out analysis of the software requirements and prepare detailed specifications of the requirements
- Shall be responsible for covering the cycle of implementation to unit and integration testing for the application allocated to him/her
- Shall be responsible to translate the SRS into the selected programming language to create source code and executable.
- Shall be responsible to undertake unit testing using the unit test plan prepared during detailed design phase. The defects found in this testing should be logged and the programmer should remove the identified defects.
- Shall be responsible for identifying and escalating any issues – technical/business rules in the application allocated to him and their timely resolution.
- Shall be responsible for using the development/testing and quality standards and best practices established in the project.
- Shall be responsible to ensure that relevant documentation related to the application has been prepared and indexed.
- Shall be responsible for tuning the application as per the Performance management results
- Shall be responsible to conduct UAT/ System Testing / defect fixing
- Shall be responsible to report the status to the respective Module Leader/ Systems Manager

4) **Mobile App Developer:** A Mobile App Developer will work as per the instruction of Systems Manager, Systems Analyst or IS Department and will be solely responsible for the projects assigned to them for the purpose of systems development.

Qualifications Required

- Should be a graduate with specialization in information technology / systems
- Should have at least two years post-qualification experience of ObjectiveC and iPhone App development
- Should have strong knowledge in Objective C, C++ & X-Code Development Tool

- Experience in Android and PhoneGap would be preferred
- Should have good understanding of iPhone architecture, MVC pattern and its execution

Responsibilities

- Shall be responsible for the design, development and maintenance of the mobile applications throughout its lifecycle.
- Shall be responsible to carry out analysis of the software requirements and prepare detailed specifications of the requirements.
- Shall be responsible for covering the cycle of implementation to unit and integration testing for the application allocated to him/her.
- Shall be responsible to translate the SRS into the selected programming language to create source code and executable.
- Shall be responsible for using the development/testing and quality standards and best practices established in the project.
- Shall be responsible to ensure that relevant documentation related to the application has been prepared and indexed.
- Shall be responsible for tuning the application as per the Performance management results.
- Shall be responsible to conduct UAT/ System Testing / defect fixing.
- Shall be responsible to report the status to the respective Module Leader/ Systems Manager.
- Work with other cross-functional teams to ensure that projects are delivered according to the requirements and with the highest quality.

5) **Web Designer:** A web designer will work as per the instruction of Systems Manager, Systems Analyst or IS Department and will be responsible for designing of intranet/extranet websites, mobile apps and applications to make them attractive and user-friendly.

Qualifications Required:

- Should be a graduate.
- Should have at least two years post-qualification experience in the area of website design and development.
- Should have good knowledge of JavaScript, jQuery, HTML, HTML5, DHTML, XML, AJAX, CSS, CSS3.
- Should have good knowledge of designing programs like Expression Web, Dreamweaver, Photoshop, Illustrator, Corel, Flash, etc.

Responsibilities:

- Shall be responsible to develop the layout of NDMC intranet / extranet website, web- based applications and mobile app.
- Shall be responsible to develop and update the static web pages and the dynamic web pages as per the instruction of Systems Analysts and IS Department.
- Shall be responsible to ensure that web sites are accessible from a variety of different environments and devices.
- Shall be responsible for creating, maintaining and updating webpages.

6) Project Manager: The bidder will be required to nominate one Project Manager. S/he will not be required to remain onsite but will visit NDMC on periodic basis. S/he should be fairly senior official of the bidder and should have at least 10-12 years of overall experience with 6 years of project management experience. S/he should have been an employee of the Bidder's organization for at least 3 years. S/he should have very good leadership skill, interpersonal skill and a very good domain knowledge and understanding for effectively handling the team deployed at NDMC.

Responsibilities:
a. Shall be required to provide oversight and guidance to the team and ensure that professionalism and focus on quality is maintained in all activities of the team.
b. Shall be responsible for organizing, planning, directing, and coordinating the overall program effort.
c. Shall be responsible for conflict management, issue and dispute resolution.
d. Shall conduct periodic meeting with the team and also with the department head and division head of ISD with a view to check the actual performance of the team and expectations of the NDMC are in line.
e. Shall be responsible for the review of progress, performance and attendance of the team deployed.
f. Shall be responsible for allocating resources to the project
g. Shall review quality of project deliverables to ensure compliance with the agreed quality measures and standards
h. Shall ensure compliance to the terms and conditions of the Contract and other requirements of NDMC.
i. Shall monitor the functioning of the team and provide necessary directions so as to ensure that the requirements of NDMC are met with up to the expectation of both the internal and external stakeholders.
j. Shall participate in all monthly project meetings and project review meetings as scheduled by IS Department from time to time.
k. Shall visit NDMC frequently during initial period so that handholding completes smoothly and project starts effectively and shall visit NDMC twice a month afterwards, however s/he shall be required to visit NDMC if required by NDMC.

(**Note**: NDMC will not make any additional payment for the routine or special visits of project manager.)

B. Functional Scope

The functional scope for the bidder has been broadly divided into the following four categories

1. Transition Management
2. Management of Existing applications and Legacy environment
3. Performance Management and tuning of the applications, infrastructure and environment
4. New Systems Development/ Enhancement / Migration of existing systems as per SDLC

1. Transition Management:

A. <u>Transition Management during takeover*:</u>

The bidder shall gather, acquire and document the complete knowledge of the existing applications, data and IT Infrastructure by studying available documents and specific queries shall be addressed IT Department.

Activities to be performed include:

The bidder shall gather, acquire and document the complete knowledge of the existing applications, data and IT Infrastructure by studying available documents and specific queries shall be addressed by the IT Department.

Activities to be performed include:

- **Documentation:** The vendor would have to gather information by studying available documents and the existing systems and deploying any required tools and techniques. Specific queries therein shall be addressed by the existing software vendor / IS Department. This would be a one-time activity to be conducted at the beginning of the support period and to be completed within three months from the date of release of work order. Thereafter, similar documentation is required to be prepared / maintained for each new application developed and changes made to existing systems. Documents required to be prepared / maintained within the transition period (3-month) shall include the following:
  - o System Design Documents ('SDD') detailing existing system design including database design for each of the applications.
  - o User Manual and Training Materials for each existing system.
  - o Batch processes, flat files formats for all data download and upload interfaces. Additionally bidder will be required to create and maintain the following documentation for each new application developed by the bidder's team:
  - o Requirement specification documents such as System Requirement Specifications, Business Requirement Specifications, Change Requests, Impact Analysis, System Test Specifications and test results, Application deployment manual, list of open defects and

User Acceptance Test (UAT) reports of previous versions may be specifically requested by the IS Department for new applications developed and major changes undertaken.

- o Application coding standards and naming conventions shall be developed at the onset. The bidder shall adhere to fix set of development rules and shall prepare a

  rulebook detailing the coding and designing standards so as to maintain uniform development of all the systems, the same shall be made available on request.
- o Version control repository containing the source code, application parameter & configuration files that are required for application server & database setups, database objects including rollback segments, table spaces, tables, views, partitions, indexes, database links, snapshots, procedures, functions, packages, libraries shall be maintained for each of the new applications developed.
- o Batch processes, flat files formats for all data download and upload interfaces

- **Understanding stakeholder needs:** The bidder shall be responsible for planning and organizing structured sessions to gather knowledge from the Department's heads if required. The bidder shall intimate, in advance, the schedule for such structured sessions to the IT Department.

- **Preparation of Transition report:** The bidder shall deliver a **Transition Document** upon completion of takeover of the maintenance and support activities. This document shall capture the following:
  - o Project overview
  - o NDMC Operations overview
  - o Application overview
  - o Application inventory including program components (Forms, Reports, and Libraries), database components (tables, views, indexes, stored procedures / functions etc.), configuration / parameter files etc.
  - o Agreed Processes and Standards – change management, configuration management and version control, release management, help desk operations, etc.
  - o Severity definitions for Problem Requests/Defect Fixes
  - o Index of System Design Documents
  - o Index of User Manuals

This document shall be internally reviewed for completeness and correctness by bidder's and subsequently delivered to the IS Department for its approval. The Department shall verify the completeness and correctness of the document and provide necessary approval. Any modifications/corrections suggested by the Department shall be incorporated, by the bidder, in the document and delivered for its approval.

(***Note**: In case the existing agency is awarded the work, the above points specified under "A. Transition Management during takeover" will not be applicable.)

2. **Management of Applications and Legacy environment**: The Bidder will be required to provide maintenance support for all existing applications and identify opportunities for consolidation and application migration / integration.

   Activities to be performed include:

   - **Application maintenance:** The bidder shall provide application maintenance and support services, including request based services (problem requests/defect fixes), enhancements (in the form of integration / consolidation, configuration management and post release support). As part of these services, bidder should provide support for bug fixes, enhancements, operational support, and assistance to IS Department.

Sr. No.	Application description	Short Description	Technology used	Total No. of users

   - **Configuration management and version control:** With the objective of keeping track of the version updates in the applications, the bidder shall adhere to the configuration management process defined in conjunction with IS department. The bidder shall be required to ensure that a copy of the production environment is backed up and stored in the repository before the new / modified components are copied to Production environment. The bidder may be required to restore the backed up application versions for testing purpose mainly addressing the restorability of the media.

   - **Incident Management:** The bidder's team shall lend support for the purpose of up- keep and execution of the systems by resolution of all incidents reported. In case some glitch is observed in the system, the development team will give priority to removal and correction of the same.

   - **Extensions and Modifications:** Changes, extensions and modifications that are deemed necessary will not be afflicted to the system one at a time unless and until it is of a major nature. All the changes, extensions and modifications will be requested by the user department / ISD by filling in change requisition forms. However, critical changes, extensions and modifications will be required to be made as and

when required. The changes, modifications and extensions made to the system will also be effected to various reports and manuals and the updated copies of the same shall be submitted as stated here in above. The bidder shall have to maintain existing intranet-based solutions along with enhancements and new implementations.

- **Systems (IT Infrastructure and environment) Maintenance:** The systems engineer will be responsible for the purpose of maintaining the proper performance of the system as a whole. He will configure the nodes, servers and network so as to yield the optimum performance. He will also ensure the systems security by ensuring usage policies, the systems backup and restore, etc. The Systems engineer will grant access

  and permission to various users to the system. He will not however make any change without the instruction of the Head of the IT Department. The policies to be implemented for various users and systems will be mutually decided by the project manager and the Head of the IT Department.

- **Status Monitoring and Reporting:** The system manager shall submit a monthly report as to status of various systems that are under development at NDMC to the head of the IT Department. S/he shall also furnish interim status report as and when asked by the head of the IT Department. The monthly reports shall include:
  - o Log of requisitions/requirements/problems
  - o Summary of changes in all data structures
  - o Log of maintenance undertaken
  - o Bug / defect resolution reports including the analysis of bugs / defects resolved, pending, completion time, responsiveness, concern areas, etc.
  - o Time report of bidder's staff detailing effort spent by personnel across various tasks

3. **Performance Management and tuning of the applications, Infrastructure and environment**: The bidder would be required to identify parameters to assess the performance of the existing application in order to fine tune the applications on a periodic basis. Periodic reporting on the parameters and tuning / optimizing activities would be undertaken by the bidder.
   Activities to be performed include:
   - **Performance measurement:** The bidder shall conduct the application performance measurement and tuning either in a test environment or based on performance data from existing applications. The performance parameters shall be identified by the bidder. Performance parameters may include processing time taken, time performance of intranet applications, hardware resources utilisation, etc.
   - **Preparation of quarterly performance report:** The bidder shall prepare

a quarterly performance report to indicate status of performance on identified parameters. The report shall highlight action plan to prioritize and improve performance of selected applications through tuning and optimization of applications, infrastructure and environment.

4. **New Systems Development/ Enhancement / Migration of existing systems as per SDLC:** Systems Development / Migration of existing systems to new platform as per the Systems Development Life Cycle.

   Activities to be performed include:

   - **Initiation:** On issuance of the order for development of new system / enhancement / migration of existing systems from NDMC IS Department detailing the department for which the system is to be developed and the coordinating officer from the user department, the Systems Manager will assign the job to one of the Systems Analysts.
   - **Reconnaissance:** The Systems Analyst in turn will contact the coordinating officer for the purpose of reconnaissance and on the basis of reconnaissance issue the list of documents required for the study and estimated time period required for the study to the IS Department. The IS Department will fix a time limit on basis of mutual agreement for the purpose of systems study.
   - **Preliminary Study:** The department will submit the required document and the Systems Analyst will carry out a preliminary study of the system and then draft the systems requirements and specifications. For this the Systems Analyst may carry out one or more interviews with the personnel of the department.
   - **Systems Requirement and Specifications:** The completed document of the systems requirements and specifications will have to be submitted to IS Department.

   - **SRS Acceptance:** The user department will study the system's requirements and specifications detailed by the Systems Manager and point out the amendments required to it. One copy out of the two will be sent to the IS Department and on acceptance of SRS the scope of development will freeze there at.
   - **Project Scheduling:** The Systems Manager will submit the schedule of the project detailing start and end time of various activities like data collection, data conversion, documents collection, systems study, database modeling, database development, front-end development, data screening and filtering, database populating, systems integration, systems testing, user testing, systems installation, etc. to the head of the department. The Manager will have to reschedule the same on the instruction of the IT Department.
   - **Detailed Study:** The Systems Analyst along with the Systems Manager will then carryout a detailed study for the purpose of finalizing the database layout, the front end layout, system integration

with other systems of NDMC, etc. He will then prepare a systems report detailing various entities, properties of the entities, relationships among those entities, the business rules for the system, the integration with other systems, the scope of future development, etc. and submit it to the Systems Manager.

- **Systems Report [Pre-Development]:** The systems manager will add to the report the suggestions to modify the existing process so that the system that will be run will be effectively implemented and the responsibilities of various tasks to be carried out during the implementation. Systems Manager will submit this draft report to the IS Department.

- **Systems Development:** The System Analyst through the System Manager will ask for all the required data for building up various masters of the systems as well as some data for test cases. The task of data collection and that of frontend and backend development will be carried out simultaneously. The development will be carried out as detailed here in elsewhere. After the development of the system is over as per the frozen scope of development the development team will carry out an extensive testing so as to check the system for error, bugs and flaws. Once the testing is completed satisfactorily, the system shall be submitted to the user department for user testing.

- **User Testing:** A Programmer of the development team will aid the user(s) of the user departments to operate the system for testing. The user department will test the system for ease of operation, various business rules and logic and process and result validity. After the testing, i.e. on satisfactory validation and verification, the users may request some changes to the system, which will have to be carried out if, found reasonable on mutual agreement.

- **Changes:** Various changes that are requested by the user or the bugs/flaws/errors that are reported by the user shall be corrected and the system shall again be checked by the development team before again giving it to the user department for testing. The users may again check and request for change until the change is satisfactorily effected.

- **User Acceptance Certificate:** On satisfactory development of the system the user department will issue a user acceptance certificate for the system, which shall mark the satisfactory development of the system as per the frozen scope of the system and commencement of the implementation phase.

- **Systems Report [Post-Development]:** A post development system report will then be submitted to the IS Department. This report will also encapsulate the entire report format and their description, the operating cycles, the responsibility matrices, periodicity of various processes, etc. All other relevant documentation, source code and configuration files should be created and maintained as per requirements.

- **Auditing and Security Report:** A report detailing various inbuilt checks and balances in the system so as to audit the user activity will be separately drafted. The tables that are built for the sole purpose of audit of user actions and security and validity of the database will not be described in the general system reports but the same will be mentioned in this report. Moreover, various reports that can be generated from such tables and the method to get the same shall also be described here.
- **User Manual:** The user manual detailing various input screens, menus, toolbars, etc and how to use them to carry out various processes shall be submitted to IT Department. The user manual shall also detail various reports, their use and how to print them.
- **Installation:** The implementation will begin by installation of the system files required at various nodes / servers at computer centres. After the installation of various files / databases, the development team will check for proper working of the systems from all the nodes. The implementation phase will be coordinated by the systems engineer.
- **Training:** After the system is installed on the computer systems, the development team will take up the task of training the pilot batch(es) for the system. The number of personnel per batch as well as the number of batches will depend upon the nature of the system to be implemented. The team shall impart training for users as well as officers. The users will be trained for carrying out the daily chores whereas the officers will be trained for various rights delegation and MIS purposes. This training will be initial training to the pilot batch which in turn will train other users.

Preparation of the required documentation at all levels of the SDLC and as required by NDMC, shall be of industry standards.

It is acknowledged that this SLA may change as NDMC needs evolve over the course of the contract period. As such, this document also defines the following management procedures:

- A process for negotiating changes to the SLA.
- Department and Bidder management escalation process to be used in the event that an issue is not being resolved in a timely manner.

Any changes to the levels of service provided during the term of this Agreement will be requested, documented and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to this attachment and, consequently, the Contract.

If there is any confusion or conflict between the Contract and this document, the Tender and its addendums, the Contract will supersede.

SLA Change Process: The parties may amend this SLA by mutual agreement in accordance. Changes can be proposed by either party. The bidder representative will initiate an SLA review at least half yearly.

The bidder representative will maintain and distribute current copies of the SLA document as directed by Department. Additional copies of the current SLA will be available at all times to authorized parties.

Version Control: All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release or for release when a critical threshold of change has occurred.

Management Escalation Procedures: The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing this procedure ensures that IS Department and Bidder's management are communicating at the appropriate levels.

Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

- Either Department or bidder can initiate the procedure
- The "moving party" should promptly notify the other party that management escalation will be initiated
- Management escalation will be defined as shown in the contact map below
- Escalation will be one level at a time

Terms & Conditions

1. The bidder shall depute a person on its staff at NDMC only after the person is interviewed/ screened using any selection procedure by NDMC and/or its any representative(s) and the sanction for the same is given in writing. Moreover, the bidder shall remove a person from its staff at NDMC if instructed to do so by the head of the division of IS Department on behalf of NDMC. All persons deputed shall be on the payroll of the Bidder's organization.

2. The bidder shall depute additional professional(s) over and above that demanded in the scope of work on written demand by NDMC, or if NDMC instructs shall drop a professional/professionals. The payment/deductions for respective resource would be as per the table specified in table in Section : 4, Clause : 4.1.5.

3. The person on staff at NDMC will take the permission of for leave of absence from the Head of the Department for leaves more than 3 days.

4. Twelve leaves of absence per year will be admissible for each position; additional leaves would be liable to deductions.

5. At any point of time, the total number of persons taking leave of absence should not exceed 25% of Network Administrator and 25% of Programmer level resources. All Professionals not more than one person can take leave of absence at any time.

6. A schedule of up to 12 festival/national holidays per year for the staff will have to be provided by the bidder and get it approved by NDMC in advance for the entire year. For the current year the list is to be provided as soon as the contract comes into effect. Any change thereat will have to be effected only after prior permission of the Head of the IS Department.

7. It is desirable that the agency imparts periodic training to the resources deployed at NDMC. The training shall be focused towards latest technologies of the respective domain of the resource and skill improvement. Per year 7 days of training leaves will be permissible subject to the condition that the resource continues with NDMC for minimum six months duration. In case the resource leaves before six months duration, the training leaves will be considered as absence and deduction/penalty if any will be made applicable.

8. In case of personnel deputed at NDMC by bidder is on a leave of absence for more than five working days,
   - Then a competent substitute, fully conversant with the systems of NDMC will have to be provided by the bidder. Thus, the bidder is required to keep other personnel employed but not deputed at NDMC so that the vacancy of the primary personnel could be kept filled in.
   - if the substitute is not provided for more than 5 days than such leaves after fifth day will be considered as if a person is not deployed by the bidder and monetary deduction and penalty will be made accordingly.

9. The personnel of development team will observe the work-time of 8 hours per day including 30 minute break-time, 6 days per week (Sunday being holiday); but they will have to put in extra time whenever called for by NDMC without any additional charges but the same may be compensated in the form of "off-hours" from the normal working schedule. The reporting time will be 15 minutes earlier than the NDMC work start time. The personnel deployed must report to NDMC on or before the duty start time, delay in which will result in deduction.

10. The agency shall have to place the biometric attendance system at its

own cost for the purpose of monitoring the attendance and timing of the deputed staff. The deputed staff will be required to register the in-out time and recess time through the biometric device. The report with regards to this shall be furnished to IT Department.

11. **Submission of Resumes & Deputation of Staff**

   a. The bidder shall send updated résumés within 3 calendar days on receipt of notice awarding the contract from NDMC with a view to ensure scrutiny, holding written and/or practical tests and/or viva voce. Only the persons who are found satisfactory, will be allowed to be deputed on NDMC site.

   b. The bidder shall depute the minimum 60% staff at NDMC within 30 calendar days and full staff within 45 calendar days of the notice of award of contract.

      i. Minimum 60% professionals (i.e. 16 professionals) to be deployed within 30 days, this must include Systems Manager and Database Administrator.

      ii. Remaining staff is to be deployed within 45 days.

   Thus within 45 calendar days all 11 professionals must be deputed at NDMC.

   c. Whenever any vacancy occurs or its likely occurrence is known, the clause appearing as at (a) above will apply.

12. In case of change in its team composition owing to attrition the bidder shall ensure a reasonable amount of time-overlap in activities to ensure proper knowledge transfer and handover/takeover of documents and other relevant materials between the outgoing and the new member. The exiting team member should be replaced with equally or more competent personnel.

13. NDMC shall provide the bidder with the necessary space at NDMC campus whereat the staff deployed by the bidder will carry out the development work for NDMC.

14. The hardware for the purpose of development will also be provided by NDMC.

15. NDMC shall provide .net, Version Control Software, Database licenses, Client and Server OS licenses, and Office suite. All other software required to perform the scope of work including development, implementation, testing and helpdesk operations shall be provided by the vendor. If any other software is installed / found on the hardware provided (for the purpose of development) to the bidder then the responsibility of licenses will be entirely of the bidder and not of NDMC.

16. If the bidder wishes to use programs / software / components developed by them for the work of development at NDMC then they will be allowed to do so only after the permission by the Head of the IT Department. No Extra charges will be paid to the bidder for the same.

17. The personnel of development team will be required to visit any of the NDMC offices or any other places as per the directions of the Head of the IS Department. They will need to have their own vehicle / arrangements for this purpose and the bidder shall have to bear the cost for this and NDMC will not make additional payment in this regard.

18. The staff deputed must possess mobile phone to ensure their availability. The bidder shall have to bear the cost for this and NDMC will not make additional payment in this regard.

19. Any system, components of the systems, database, data, etc. developed/created at NDMC by the bidder will be the sole property of

NDMC and the bidder will have no claim over it.

20. The bidder shall not use its name/logo/symbol anywhere in systems/applications that are developed/maintained at NDMC.

21. The bidder shall not use any information (including but not limited to data, records), the name or the logo of NDMC except for the purpose of providing the service as specified under this contract.

22. The bidder shall not copy/transfer any source code of the systems, components of the systems, layouts, diagrams, database structure, database, etc. in full or part, in physical or electronic form, without the prior written permission of the Head of the Division of the IS Department and transfer it to person / institution outside NDMC.

23. The bidder shall aim to develop and implement the existing and new systems in such a way that the burden of hardware, network and software licenses is minimized. Wherever possible the existing set up should be optimally utilized.

24. Security of all the applications, websites and IT infrastructure in general is extremely critical, the bidder must take all necessary steps so as to ensure the same from all kind of risks.

25. If required, the bidder shall provide necessary backend support to adopt and implement newer technologies like virtualization, cloud computing, etc.

26. The bidder shall be required to do the needful so that the government directives and standards suggested/enforced from time to time are met with.

27. The deputed bidder will be required to rejuvenate the layout of NDMC public website, intranet website and mobile app. All the layout should be professionally designed and should be appealing. They should be user-friendly, with the interface and navigation simple and reliable and must adhere to the standards of W3C, STQC, etc. For this purpose, if required the bidder should get the layout ready from the professional designers at its cost and get it approved from the head of IT Department.

28. NDMC is having website and mobile app with payment facility. It is very important and critical to ensure that the website and mobile app are fully and completely secure and is not having any loopholes that can be exploited. Also data must be protected from any kind of tampering. The bidder shall have to critically examine and bridge the gaps to ensure complete security.

29. If the support of deputed staff is found to be insufficient, additional support as and when needed shall be provided from offsite competent staff at no extra cost to NDMC.

30. The staff deputed must work closely and coherently with other agencies working for NDMC for IT related activities.

31. The head of the division of IT Department will set the priority of the systems to be computerized for NDMC and the head of the IS Department will take decision regarding other operational aspects related to development. The bidder's staff at NDMC shall take instructions from the Head of the Department will act as per their instruction in respect to the development of the system and priority of various jobs and shall not follow instructions of anybody else.

32. The time period for the systems study will be proposed by the Systems Manager at the end of the reconnaissance study and the time period for systems development will be decided once the scope of development is frozen in mutual agreement with the systems manager. The decision of

the Head of the IT Department will be final and binding to the bidder in these regards. The bidder shall complete the job within the allotted time period. The bidder shall develop and maintain a computerized system to keep track of the systems development/maintenance timelines for its own use at the site and for IS Department for monitoring.

Format of the Budgetary Offer:

Sr. No.	Position	Number of staff	Unit Rate (In Rs.)	Total Amount (In Rs.)
1.	Network Administrator	1		
2	Senior Programmers	2		
3.	Senior Programmers (for Oracle utility project) **Customer Care & Billing Module, Meter Data Management, Work & Assets Module.**	4		
3.	Junior Programmers	2		
4.	Mobile App Developer	1		
5.	Web Designer	1		
Total Amount (In Rs) (Tax Extra as applicable)				

1.

Sr. No.	Description	Monthly Charges for the First Year	Monthly Charges for the Second Year	Monthly Charges for the Third Year
1	Total Monthly Charges as per the scope of work	In Figure Rs.	In Figure Rs.	In Figure Rs.
		In Words Rupees	In Words Rupees	In Words Rupees