GOVERNMENT OF TAMIL NADU

Tamil Nadu e-Governance Agency

Request for Proposal

Selection of System Integrator for the Implementation and Maintenance

of Master Data Management (MDM) and De-Duplication Tool for State

Family Database (SFDB) in Tamil Nadu

Tender Ref No: TNeGA/MDM/2022-23

Tamil Nadu e-Governance Agency
807,2nd Floor, PT Lee Chengalvarayan Naicker Building
Anna Salai, Chennai - 600 002.
Tel No: +91-44-40164907
Email: tenders.tnega@tn.gov.in , mngr1tnega@tn.gov.in
Website: www.tnega.tn.gov.in

Important Notice

This Tender (RFP) process is governed by The Tamil Nadu Transparency in Tenders Act 1998 and The Tamil Nadu Transparency in Tenders Rules 2000 as amended from time to time.

In case of any conflict between the terms and conditions in the tender document and the Tamil Nadu Transparency in Tenders Act 1998 and The Tamil Nadu Transparency in Tenders Rules 2000, the Act and Rules shall prevail.

Letter of Undertaking

To

Chief Executive Officer,

Tamil Nadu e-Governance Agency (TNeGA),

807, 2nd floor, P.T.Lee.Chengalvarayan Naicker Maaligai,

Anna Salai, Chennai - 600 002.

Sir,

Sub: Undertaking for participating in Selection of System Integrator for the Implementation and Maintenance of Master Data Management (MDM) and De-Duplication Tool for State Family Database (SFDB) in Tamil Nadu - Reg

Ref: Tender Ref: TNeGA/MDM/2022-2023

I/We do hereby submit my/our bid for the Selection of System Integrator for the Implementation and Maintenance of Master Data Management (MDM) and De-Duplication Tool for State Family Database (SFDB) in Tamil Nadu in accordance with the Terms and Conditions of this RFP.

I/We have examined the details of the tender document (RFP) and have carefully noted the conditions of contract and the specification with all the stipulations of which I/We agree to comply. I/We hereby undertake to complete the assigned tasks as **System Integrator for the Implementation and**

Maintenance of Master Data Management (MDM) and De-Duplication Tool for State Family Database (SFDB) in Tamil Nadu at the places mentioned in the specification of all the articles within as per RFP & tender schedule from the date of communication of acceptance of my/our tender.

I/We further agree that the acceptance of this tender shall result in a valid and concluded contract binding on me/us the terms whereof shall be taken to be those mentioned in the form of agreement here to annexed notwithstanding the non-execution of the said agreement.

I/We hereby declare that I/We agree to do the various acts, deeds and things referred to herein including the condition relating to non-withdrawal of this tender above set out in consideration of the TNeGA and considering this my/our tender.

I/We --- hereby confirm that our Company was not blacklisted by any State Government/ Central Government/ Public Sector Undertakings during the last three years. We also hereby confirm that our EMD/SD was not forfeited by any State Government / Central Government / Public Sector Undertakings during the last three years due to our non-performance, non-compliance with the tender conditions etc.

I/We --- hereby confirm that our Company has not filed for bankruptcy during the last three years.

I/We --- hereby confirm that our Company has not violated / infringed on any Indian or foreign trademark, patent, registered design or other intellectual property rights any time anywhere in India.

I/We…………………………. shall not sub-contract any works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

I/We…………………………. have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India, as per Government of Tamil Nadu G.O.Ms.No.343, Finance (Salaries) department, dated 18.9.2020; I certify that this bidder is not from such a country or,

if from such a country, has been registered with the Competent Authority. I certify that this bidder fulfils all requirements in this regard and is eligible to be considered.

I/We --- hereby declare that all the particulars furnished by us in this Tender are true to the best of my/our knowledge and we understand and accept that if at any stage, the information furnished is found to be incorrect or false, we are liable for disqualification from this tender and also are liable for any penal action that may arise due to the above.

I/We _____ certify that we are liable and responsible for any disputes arising out of Intellectual Property Rights.

I/We --- hereby declare that I/We shall not form any consortium with any other bidder / firm/ company for this tender as well as during the period of contract if selected.

In case of violation of any of the conditions above, I/We ....understand that I/We are liable to be blacklisted by TNeGA/Government of Tamil Nadu for a period of three years.

Note:

a) Declaration in the company's letter head should be submitted as per format given above

b) If the bidding firm has been blacklisted by any State Government/ Central Government/ Public Sector Undertakings earlier, then the details should be provided.

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1. Introduction

1.1. Tamil Nadu e-Governance Agency

Tamil Nadu e-Governance Agency (TNeGA) is responsible for driving all technology initiatives for the Government of Tamil Nadu. Its primary aim is to develop low cost, technology enabled scalable solutions to impact Governance in a significant way. It aims to create an inclusive, equitable, and universally accessible G2C service delivery mechanism for barrier free access to Governance. TNeGA offers IT solutions and consultancy services to Government departments for their technology needs. Tamil Nadu e-Governance Agency has also established Centre of Excellence (CoE) in the emerging technologies and is functioning under the Information Technology Department, Government of Tamil Nadu.

The Government of Tamil Nadu and its various departments have embraced computerization and automation to conduct their day-to-day operations. Volumes of department data reside in different data platforms and technology stacks. The current data management architecture with multiple platforms create challenges in delivering efficient, transparent and seamless delivery of services to the residents of Tamil Nadu. The State Family Database (SFDB), will host the details of the State's residents and will be the single source of truth on all details with respect to the state's residents, the data hosted in the SFDB should be the most current, relevant, complete, logically consistent and comprehensive that can be used by all the departments. SFDB by enabling cross-department data harmonization and synchronization, will not only streamline government service delivery, but also assist the policy makers in making the right decisions providing data-driven policy making support.

TNeGA is inviting proposals from firms/ Companies who specialize in the domain of big data, open source technologies, data analytics, data warehousing, master data management solutions for the implementation and maintenance of the Master Data Management (MDM) and De-Duplication Tool for the SFDB in the state of Tamil Nadu. Further functionalities for this platform like reporting and analytics should be built using open source technology as far possible.

2. Tender Schedule and Data Sheets

S.No.	Activity	Description and Details
1	Tender inviting Authority, Designation and Address	Chief Executive Officer, Tamil Nadu e-Governance Agency, 807,2nd Floor, PT Lee Chengalvarayan Naicker Building, Anna Salai, Chennai - 600 002. Tel No: +91-44-40164907
2	Name of the Work	Selection of System Integrator for the Implementation and Maintenance of Master Data Management (MDM) and De-Duplication Tool for State Family Database (SFDB) in Tamil Nadu
3	Tender Reference Number	TNeGA/MDM/2022-2023
4	Earnest Money Deposit (EMD)	Rs. 5,00,000/- (Rupees Five Lakhs only) should be paid through online mode.
5	Contract Period	24 Months (12 months for implementation phase + 12 months AMC).
6	Tender Document	The Tender document can be downloaded from the URL https://tntenders.gov.in https://www.tnega.tn.gov.in

7	Mode of Submission	e-Submission through https://tntenders.gov.in and the Bids cannot be submitted after the due date and time.
8	Date and Place of Pre-bid Meeting	On **29.12.2022 @ 11.30 Hrs.** Pre-bid meeting is scheduled online through Video Conference and the link for the VC is given below. https://teams.microsoft.com/l/meetup-join/19%3ameeting_NDYyYzdjNjgtOGQ3Yi00NjY1LTg1ZTEtNDA4ODVmZjc4Y2Vh%40thread.v2/0?context=%7b%22Tid%22%3a%2243ba7e2e-286a-4816-bcdc-53c0b403bc51%22%2c%22Oid%22%3a%2276c2f4d5-4e6f-43e5-ad5c-2c06382d5674%22%7d
9	Due date and Time for Bid Submission	On **09.01.2023 upto 16.00 Hrs**.
10	Date, Time and Place of Opening of Technical Bid	On **09.01.2023 at 16.30 Hrs.**
11	Date, Time and Place of Opening of Financial Bid	Financial Bid Opening Date & Time will be communicated to Technically Qualified Bidders Only

Note:

Neither the TNeGA nor their representatives are obligated to inform any bidders who have not qualified in any of the stages of bid process management

3. General Instructions

3.1. General

a) The Bidders are requested to examine the instructions, terms and conditions and specifications given in the Request for Proposal (RFP). Failure to furnish all required information in every respect will be at the Bidder's risk and may result in the rejection of bid.

b) It will be imperative for each Bidder(s) to familiarize itself/ themselves with the prevailing legal situations for the execution of contract. TNeGA shall not entertain any request for clarification from the Bidder regarding such legal aspects of submission of the Bids.

c) It will be the responsibility of the Bidder that all factors have been investigated and considered while submitting the Bids and no claim whatsoever including those of financial adjustments to the contract awarded under this tender will be entertained by TNeGA. Neither any time schedule nor financial adjustments arising thereof shall be permitted on account of failure by the Bidder to appraise themselves.

d) The Bidder shall be deemed to have satisfied itself fully before Bidding as to the correctness and sufficiency of its Bids for the contract and price quoted in the Bid to cover all obligations under this Tender.

e) It must be clearly understood that the Terms and Conditions and specifications are intended to be strictly enforced. No escalation of cost in the Tender by the Bidder will be permitted throughout the period of Agreement or throughout the period of completion of contract whichever is later account of any reasons whatsoever.

f) The Bidder shall make all arrangements as part of the contract to implement and maintain the MDM and De-duplication tool for the SDFB of Government of Tamil Nadu at their own cost and transport.

g) The Bidder should be fully and completely responsible to TNeGA and State Government for all the deliveries and deliverables.

3.2. Clarifications to the RFP

a) A prospective Bidder requiring any clarification in the RFP may notified by E-mail to tenders.tnega@tn.gov.in or through online mode in https://tntenders.gov.in (Clarification Forum).Clarifications to the queries (if any) by the bidders and corrigendum's (if any) will be published in the websites https://www.tnega.tn.gov.in, https://tntenders.gov.in.

3.3. Amendments to the Tender

a) A Pre-bid meeting will be held for addressing the clarifications on the date and time mentioned in the Tender Schedule and Data Sheet (Section 2) or any other date to be decided by TNeGA. The Bidders are requested to participate in the Pre-bid meeting and get the clarifications.

b) Before closing of the Tender, clarifications and corrigendum (if any) will be notified in the websites mentioned in the Tender Schedule. The Bidders shall periodically check for the amendments or corrigendum or information in the websites till the closing date of this Tender. TNeGA will not make any individual communication and will in no way be responsible for any information missed out by the bidders.

c) No clarifications would be offered within **48 hours** prior to the due date and time for submitting the Tender.

d) Before the closing of the Tender, TNeGA may amend the Tender document (RFP) as per requirements or wherever it feels that such amendments are absolutely necessary.

e) Amendments also may be given in response to the queries by the prospective Bidder(s). Such amendments will be notified in the websites mentioned in the tender schedule. It is bidder responsibility to keep checking the website for any changes or clarifications or corrigendum to the tender document.

f) TNeGA at its discretion may or may not extend the due date and time for the submission of bids on account of any amendments.

g) TNeGA is not responsible if bidder misinterprets any provision of this RFP/tender document.

3.4. Language of the Bid

a) The bid prepared by the Bidder as well as all correspondences and documents relating to the bid shall be in English only. The supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation in English duly notarized, in which case, for all purposes of the bid, the translation shall govern. Bids received without such translation copy are liable to be rejected.

3.5. Bid Currency

a) Price should be quoted in Indian Rupees (INR) only and Payment shall be made in Indian Rupees only.

3.6. Contacting Tender Inviting Authority

a) Bidders shall not make attempts to establish unsolicited and unauthorized contact with the Tender Accepting Authority, Tender Inviting Authority or Tender Scrutiny Committee after the opening of the Tender and prior to the notification of the Award and any attempt by any Bidder to bring to bear extraneous pressures on the Tender Accepting Authority shall be sufficient reason to disqualify the Bidder

b) Notwithstanding anything mentioned above, the Tender Inviting Authority or the Tender Accepting Authority may seek bonafide clarifications from Bidders relating to the tenders submitted by them during the evaluation of tenders.

3.7. Force Majeure

a) Neither the Purchaser / nor the Successful Bidder shall be liable to the other for any delay or failure in the performance of their respective obligations due to causes or contingencies beyond their reasonable control such as:

   i. Natural phenomena including but not limited to earthquakes, floods and epidemics.

ii. Accidents or disruptions including, but not limited to fire, explosions, breakdown of essential machinery or equipment, power and water shortages.

3.8. Arbitration

a) In case of any dispute, the matter will be referred to a sole Arbitrator to be appointed by the CEO, Tamil Nadu e-Governance Agency (TNeGA) under the "Arbitration and Conciliation Act 1996". The arbitration shall be held in Chennai, Tamil Nadu, India and the language of arbitration shall be English. The Hon'ble High Court of Madras. Chennai alone shall have jurisdiction in the matter.

4. Bid Evaluation Procedure

a) The solution under this RFP is highly technology intensive. The performance of the software solution is heavily dependent on availability of an efficient and powerful Entity Resolution, context based relationship discovery capability, MDM Data mining etc for Indian names/addresses with proven capability to deal with very large volumes and variety. The evaluation criteria will be **Quality cum Cost Based System (QCBS) with 70:30** where **Technical Bid Score will get a weightage of 70 and Financial Bid Score a weightage of 30**.

b) The bid evaluation would be divided into the following two sequential steps i.e. Technical bid evaluation and Financial bid Evaluation. The technical bid evaluation consists of the following two sequential steps namely

1. Evaluation on Minimum Eligibility Criteria (MEC) as per cl.4.1
2. Technical Evaluation System including Proof of Concept evaluation as per cl. 4.2

4.1. Minimum Eligibility Criteria (MEC)

a) The Bidders should have the following MEC for participating in the Tender. The Bidders should enclose documentary evidence for fulfilling the MEC in the Technical Bid. **If a Bidder fails to enclose the documentary proof for MEC, their bid will be summarily rejected.**

S.No.	Basic Requirement	Minimum Eligibility Criteria	Document to be uploaded
4.1.1	Legal Entity	The bidder should be a company registered in India incorporated under Indian Companies Act 1956/ 2013 and must have at least 5 years of existence and operations in India as on date of submission of bids.	Valid copy of the Certificate of Incorporation of the bidder
4.1.2	Sales Turnover in System Integration	The Bidder should have an average annual turnover of at least Rs.10 (ten) Crores during the last three financial years (2019-2020, 2020-2021, 2021-2022)	Audited and Certified Balance Sheet & Profit/Loss Account of last 3 Financial Years or certificate from a Chartered Accountant duly certifying the annual turnover during the last 3 FYs. For 2021-2022, provisional statement/ certificate is accepted.
4.1.3	Certification	The bidder must possess SEI CMMi Level 3 OR ISO 9001:2015 certification.	Copy of certification issued from accreditation organizations need to be attached, which should be valid on the date of bid submission.
4.1.4	Technical Capability	Bidder must be an owner or an authorized channel partner for Enterprise level data deduplication MDM products, Entity Resolution / Context based Relationship Discovery technology and the quoted product tool should have been implemented in at least one application at Central/	1. Manufacturer's Authorization Form specific to this tender should be submitted with undertaking from Original Equipment Manufacturer (OEM). In case the bidder owns the technology the details needs to be uploaded.

S.No.	Basic Requirement	Minimum Eligibility Criteria	Document to be uploaded
		State/Union Territory Government departments/ PSUs/BFSI/ Telecom in India with record count exceeding 5 crores during the last 5 years.	2. Work order/ Contract along with the completion/ satisfactory performance certificate from the Central/ State/Union Territory Government departments/ PSUs/BFSI/Telecom in India for the implementation of the solution with record count exceeding 5 crores during the last 5 years. 3. Brief Details of software solutions in Entity Resolution/ Context based Relationship Discovery to above said clients during the last 5 years.
4.1.5	Non-blacklisting	Bidder/Responding Firm/ Company shall not be under a declaration of ineligibility for corrupt or fraudulent practices and must not be blacklisted by any State Govt. Central Govt., for any reason, at the time of bid submission.	Undertaking and Self declaration from the authorized signatory of the bidder
4.1.6	Consortium	Bidder/Responding Firm/ Company shall not form any Consortium / sub-contract the tender and the services to be delivered in this tender/contract	Undertaking and Self declaration from the authorized signatory of the bidder

b) The bidders who have submitted required documents and meet the MEC as mentioned above

as determined by the Tender Scrutiny Committee (TSC) shall only be eligible for further technical evaluation as per clause 4.2.

4.2. Technical Evaluation System (TES)

The bidders who qualify in the MEC will be evaluated in TES based on the information furnished in Form Tech-1 (cl.4.2.1) and Form Tech-2 (cl.4.2.2). Further, all bidders who qualify the MEC will have to do a Proof of Concept (PoC) as per cl. 4.2.3 and make a detailed presentation as per cl. 4.2.4 in the TES. As detailed in cl.4.2.5, the technical score will be assigned to the bidders in TES for cl.4.2.1, 4.2.2, 4.2.3 and 4.2.4 as given below:-

4.2.1 FORM TECH - 1:

#	ITEM DESCRIPTION	DETAILS with Page no.	REFERENCE TO ATTACHED SHEETS IF ANY
1	Client Name, Address and Phone/Mobile		
2	Brief Project Details		
3	Period / Date of Contract and Tenure		
4	Solution Details (but not limited to): • Platform & Technology details • Software & Tools details • Any other (Specify in details)		
5	Total Value of the Contract		

(To be submitted on bidder's letter head by the Bidder with experience. Top 3 implementations in India in terms of base volume)

NOTE:
   a) Separate sheets must be uploaded to elaborate the projects undertaken
   b) Necessary work order/ contract along with project completion /satisfactory performance certificate duly signed by Senior Executive/ Deputy GM of the organization clearly indicating his/her name, designation and contact details such as Telephone Number, Fax number, email-id etc. must be uploaded as documentary evidence of the projects executed
   c) Bidder should submit installation certifications/ delivery challan from the client).

4.2.2. FORM TECH – 2

(A) Product Information: - Bidder has to provide details of the Entity Resolution and Context based Relationship Discovery product as under.

Name of the Product/Technology and name of entity owning the product/technology	IP developed in India/outside India.	3 Top installations in India during last 5 years (Each organization should be treated as one installation) in terms of base volume	Total volume of records handled from Golden record/ Incremental Data 360 degree view etc on non-unique ID (in Crores) as on December 2022

In each case, the firm should give the details of the projects/assignments undertaken during the last 5 years only, in detail (including name of assignment, name/address of employer, date of award of assignment, date of completion of assignment, nature of the assignment, value of the assignment, scope/geographical coverage of the assignment and role of the firm viz. prime consultant, sub-consultant, consortium member etc.).

(B) Previous Implementation experience for one-time Golden Record.

Bidder has to provide details of top 3 implementations in India of creating Golden Record solution on non-unique attributes like name, fathers name, address, phone no, email id, with a specific reference to the Base Volume as on December 2022 along with copy of the letter from the organization on the letter head/on official email ID giving details of the base volume and description of application. TNeGA will verify the details during evaluation. The format of details is as under.

Name of organization	Base Volume as on December 2022 (In Crores)	Brief description of the application and name of the application	Contact details of the person in charge of the implementation (mobile number and email ID)

(C) Previous Implementation experience for INCREMENTAL DATA updation of Golden Record.

Bidder has to provide details of top 3 implementations in India of INCREMENTAL DATA updation of Golden Record solution on non-unique attributes like name, father's name and address phone no, email id, with a specific reference to the Base Volume as on December 2022 along with copy of the letter from the organization on the letter head/on official email ID giving details of the base volume and description of application. TNeGA will verify the details during evaluation. The format of details is as under.

Name of organization	Base Volume as on December 2022 (In Crores)	Daily volume of records for INCREMENTAL DATA processing	Brief description of the application and name of the application	Contact details of the person in charge of the implementation (mobile number and email ID)

(D) Previous Implementation experience for 360-degree view, report including family tree and Relationship resolution.

Bidder has to provide details of top 3 implementations in India for 360 degree view report including family tree and Relationship resolution on non-unique attributes like name, father's name and address phone no, email id, with a specific reference to the Base Volume as on December 2022 along with copy of the letter from the organization on the letter head/on official email ID giving details of the base volume and description of application. TNeGA will verify the details during evaluation. The format of details is as under:

Name of organization	Base Volume as on December 2022 (In Crores)	Types of relationships resolved and number of resolutions per day	Brief description of the application and name of the application	Contact details of the person in charge of the implementation (mobile number and email ID)

(E) CVs of the resources to be deployed at TNeGA during the contract period

Bidder has to provide the CVs of the six resources with the required qualification and experience (as detailed in the clause 12.1) to be deployed at TNeGA during the implementation phase of one year.

4.2.3 Proof of Concept

a. Those bidders who meet the MEC are required to do a detailed Proof of Concept (PoC) on large test data which shall be provided by the TNeGA. Following Key Performance Indicators will be used for evaluation of the effectiveness of proposed solution:

1. Precision (high positive matching accuracy i.e never miss the right match)
2. Negative matching accuracy (get least number of false positives)
3. Response time
4. Ability of Ranking of results so that best results come on top
5. Ability to define multiple rules
    i. to use combination of one or more of entity attributes like name, address (Residential/Office), fathers name, DoB/age etc.,
    ii. to use unique Identifiers like PAN, Aadhaar, Driving license number, ration card number, phone number
6. Ability to control the depth of search of each entity attributes like name, address (Residential/Office), fathers name, DoB/age etc.,

b. The Key Performance Indicators of the solution are Precision (high positive matching accuracy i.e never miss the right match), Negative matching accuracy (get least number of false positives), response time and Ability of Ranking of results so that best results come on top need to be achieved simultaneously. If a solution is very fast with a response time of few second but does not detect any correct results or has large number of false positives is assumed as not meeting the requirement of the RFP. Likewise a solution which is able to detect all correct matches but takes unusually longtime of is assumed as not meeting the requirement of the RFP.

c. The test data for P0C would be a very large since Government wants to ensure that the performance of the solution finally selected when rolled out on the actual data volumes which are very large would

be as per the expectations. A study suggests that

1) While there are many solutions with satisfactory performance when the volume/velocity is low, the difference in performance of solutions on key metrics of positive matching accuracy/negative matching accuracy/speed/Relationship discovery becomes highly pronounced as the volumes grow to double digit to three digit millions. The best way therefore to judge performance is to evaluate on high volumes.

2) In any Entity Resolution Approximately first 20% of the results are easily obtained. The next 10 to 20% of the results poses some challenge. The last 60% of the results is most challenging. The objective of this RFP is look for that solution which gives highest possible results in this 60% and not the sub optimal solution which addresses only part of the problem

3) The capability for relationship resolution on very large volumes is understood to be a challenge.

d. All the bidders will be given the same test data. The PoC will be done in the TNeGA premises at Chennai on the infrastructure to be provided by TNeGA.

1) The bidder has to do the Golden Record creation on the test data using non unique attributes like name, fathers name, address, age/DOB and share the results like response time, number of false positives reported, number of correct matches reported, total results, match score

2) The bidder has to do an incremental data processing of input file with the Golden Record created at step 1 for updating and creating new Golden Records and share the results like response time, number of false positives reported, number of correct matches reported, number of Golden Records updated and number of Golden Records created. The matching parameters would be non-unique attributes like name, father's name, address, age/DOB.

3) The bidder has to do real time query on some records based on different rules like name alone, name+ father's name, name +address, name+ address+ age etc in an iterative manner

and show the response time, number of false positives reported, the number of correct matches reported for

      a. build relationship resolution

      b. Prepare 360-degree report

4) The results of PoC in terms of response time, number of false positives reported, the number of correct matches reported, relationship resolution, 360-degree profile etc., would be used for benchmarking the solutions proposed by the vendors.

5) Each bidder will be given 7 working days for completing the PoC. The data sample will be shared at start of PoC to all bidders who satisfy MEC.

6) PoCs of all the bidders will be done simultaneously.

e. Entire cost associated with PoC including travel and stay of the persons is to be borne by the bidders.

f. Along with the results of PoC, the bidder has to provide the technical Compliance of the Solution as per the format specified in Appendix -III.

4.2.4 Presentation by the bidder:

Post PoC all the bidders should make a detailed presentation clearly bringing out the bidder's understanding of the requirements of the services, capability and approach for carrying out the tasks along with the results of the PoC. The main focus will be on the PoC results.

The presentation shall ensure the following:

    i. The understanding and expertise indicating the major activities, interface requirements and deliverables as per the RFP.

    ii. The work plan, flow chart, staffing schedule, approach and methodology must provide a logical description of how the bidder will carry out the services to meet all the requirements of RFP.

    iii. PoC results

The purpose of proposal presentation is to enable the TNeGA to seek clarifications and gain a better

understanding about the team and the approach to the assignment.

The bidder's design, development and implementation plan, its deployment of sound project management strategy etc. for the project, along with quality, responsiveness, responsibility, ease of use, reliability and comprehensiveness of the proposed technologies, adherence to IT architecture plans, standard information systems security policies etc. would be evaluated from the perspective of the proposed solution.

4.2.5 Technical Bid Score:

Based on the documents submitted by the bidder as per cl.4.2.1 & 4.2.2, the PoC results as per cl.4.2.3 and the presentation as per cl.4.2.4, the Total Technical Score would be arrived at as follows:

S.No.	Evaluation Parameter	Maximum score	Minimum Qualifying Score in each criteria (70%)
(I)	(II)	(III)	(IV)
	Reference clause 4.2.1 and 4.2.2 (A, B, C and D)		
(i)	Prior experience in Entity Resolution implementation for Golden Record/ Incremental Data / Relationship discovery, Data De-Duplication, MDM using non-unique ID like Name and address for each project with a. Base volume of 5-10 crore records – 1 mark b. Base volume of 10-20 crore – 2 marks c. Base volume of 20-30 crores – 3.5 marks d. Base volume of 30 crores plus – 4.5 marks Each project will be assigned marks based on the number of records as mentioned above with a maximum of 4.5 marks per project.	9	6.3
	Reference clause 4.2.2 (E)		

S.No.	Evaluation Parameter	Maximum score	Minimum Qualifying Score in each criteria (70%)
(I)	(II)	(III)	(IV)
(ii)	CVs of the six resources to be deployed at TNeGA As per the qualification and experience specified in cl.12.1 – 1.5 marks (educational qualification-0.5 marks & relevant experience – 1 mark) per resource with a maximum of 9 marks for 6 resources. For lesser experience, marks will be assigned on pro-rata basis.	9	6.3
Reference clause 4.2.3 and 4.2.4. PoC based evaluation and presentation			
(iii)	Strength of search on different non-unique attributes like name, father's name, address and different rules like name alone, name+father's name, name +address etc **on positive matching**	14	9.8
(iv)	Strength of search on different non-unique attributes like name, father's name, address and different rules like name alone, name+father's name, name +address etc **on Negative matching**	14	9.8
(v)	**Response time (indicating speed)** of search on Strength of search on different non-unique attributes like name, father's name, address and different rules like name alone, name+father's name, name +address, etc.	14	9.8
(vi)	Ability of ranking of results	6	4.2
(vii)	One time creation of Golden Record based on non-unique IDs like name, father's name, DOB, address etc	14	9.8
(viii)	File Upload on an Incremental Data basis against existing Golden Record data base and create and update the Golden records on non-unique IDs like name, father's name, ,DOB, address etc.	7	4.9

S.No.	Evaluation Parameter	Maximum score	Minimum Qualifying Score in each criteria (70%)
(I)	(II)	(III)	(IV)
(ix)	Build relationship resolution using a Graph DB like Neo4j or Orient or any other open source database along with 360 degree profile report	6	4.2
(x)	Ability to handle data in Tamil language	7	4.9
	Total Technical Score (S$_T$)	**100**	**70**

The Total Technical Score i.e. the sum of the marks obtained under the above heads for each bid is termed as **S$_T$**. Only those bidders whose

1. **Total Technical Score (S$_T$) is above 70 and**
2. **Who scores minimum qualifying score (as mention in column IV of the above table) in each of the above parameters (i) to (x)**.

will be treated as **qualified** in the Technical Evaluation System (TES). The financial bid of those bidders who qualify in the TES will be opened and evaluated as per the QCBS method furnished below.

4.3   Financial Bid Score

The Financial Bids of **those bidders who are qualified in Technical Evaluation System** only would be opened and the financial bid evaluation would be carried out computed based on the financial bid submitted by the vendors as given below.

- **F$_{DC}$** is the value of financial bid price quoted in the bid under consideration**.**
- **F$_{LDC}$** is the value of lowest financial bid price among all the technically qualified bidders**.**

- **Financial Bid Score (S$_F$)** for each bid shall be computed as follows:

    S$_F$ = 100 x (F$_{LDC}$ / F$_{DC}$)

4.4   Total score of the Bidder

Total Score (Ts) for each qualified bid in QCBS method for this tender shall be computed as under:

$$T_S = 0.7 \times S_T + 0.3 \times S_F$$

The Bidder obtaining highest Total Score **(T$_S$)** value, will be declared as the **Successful bidder (H1)**. In the event the Total bid scores of the bidders are 'tied', the bidder securing the highest technical score **S$_T$** will be adjudicated as the Successful Bidder (H1) for award of the Project.

5.   Bid Preparation and Submission

5.1. Cost of Bidding

a) The Bidder should bear all costs associated with the preparation and submission of Bids. TNeGA will in no way be responsible or liable for these charges/costs incurred regardless of the conduct or outcome of the bidding process.

5.2. Earnest Money Deposit (EMD)

a) An EMD amount as specified in the Tender Schedule should be paid through ONLINE mode. The EMD of the unsuccessful Bidders will be auto-refunded to their bank account within a reasonable time in consistent with the rules and regulations in this behalf. The EMD amount held by TNeGA till it is refunded to the unsuccessful Bidders will not earn any interest thereof.

b) The EMD amount of the Successful Bidder shall be converted as part of the Security Deposit (SD) for successful execution of the work and will be returned only after the successful fulfillment of the Contract.

c) The EMD amount will be forfeited by TNeGA, if the Bidder withdraws the bid during the period of its validity specified in the tender or if the Successful Bidder fails to sign the contract or the Successful in Bidder fails to remit Security Deposit within the respective due dates.

5.3. Letter of Authorization

a) A letter of authorization from the Board of Directors / appropriate authority authorizing the Tender submitting authority or a Power of Attorney should be submitted in the tender; otherwise the Bids will be summarily rejected.

5.4. Two Part Bidding

a) Bidders should examine all Instructions, Terms and Conditions and Technical specifications given in the Tender document. Failure to furnish information required by the Bid or submission of a Bid not substantially responsive in every respect will be at the Bidders risk and may result in rejection of Bids. Bidders should strictly submit the Bid as specified in the Tender, failing which the bids will be non-responsive and will be rejected.

5.4.1. Technical Bid

a. The first part relates to Technical Bid submitting all the required details and documents complying with all the MEC & TES conditions and the other tender conditions/instructions as well as the statement of compliance consisting of the following.

     i. A Letter of Undertaking (as per the format specified in this RFP) in company's letter head along with the Letter of Authorisation in pdf

     ii. Copy of supporting documents for MEC & TES (cl.4.1 and 4.2) as .rar file (Zipped) /pdf file have to be submitted.

5.4.2. Financial Bid (Price Bid Form)

a) Second part relates to Financial Bid which should be submitted in the **Bill of Quotation (BoQ)** as given in the Tender.

b) The rate quoted by the bidder in the financial bid for "**Creation of Golden Record with the 7 crore record of Public Distribution System (PDS) of Government of Tamil Nadu**" (item 1.01 of BOQ) and "**Creation of Golden record for base 20 Crore record without identifier**" (please refer

item No.1.02 of BOQ for detailed description) should be for the successful implementation of **full Scope of Work** mentioned and no other charges will be allowed by the TNeGA other than the rates quoted in the bid.

c) The rate quoted by the bidder in the price bid for the "**Deployment of 6 manpower resources (as per the qualification and experience specified in Cl. 12.1) at TNeGA for a period of one year from the date of issue of work order**" (item 1.03 of BOQ) is all inclusive cost of deploying team at TNeGA i.e it includes pay-roll costs, training, administration, replacements (if need be), travel and any other incidental expenses for the manpower resources deployed.

d) The rate quoted for '**AMC Cost for customization part for a period of one year after implementation phase'** (item 1.04 of BOQ) includes all such costs incurred for MDM and De-Duplication tool and cost for the AMC as defined in the scope of work.

e) The total bid price (value of financial bid price) is defined as the summation of rates quoted by the bidder for the item Nos.1.01, 1.02, 1.03 and 1.04 of BOQ.

f) In case, based on the request of TNeGA, if resources (Lead Data Engineer, DBA, Developer - API) needs to be deployed during the AMC period, the rates quoted by the bidder in the price discovery items of BoQ will be used for finalising the cost implications subject to the provisions of TNTIT Act 1998 and Rules 2000

g) Bill of Quotation (BoQ) should not contain any conditional offers or variation clause, otherwise the Bids will be summarily rejected.

h) The Prices quoted shall be only in INDIAN RUPEES (INR) only. The tender is liable for rejection if BoQ contains conditional offers.

i) The cost quoted by the Bidder shall be kept firm for a period specified in the Tender from the date of opening of the tender. The Bidder should keep the Price firm during the period of Contract including during the period of extension of time if any. Escalation of cost will not be permitted during the said periods or during any period while providing services whether extended or not for reasons other than increase of duties / taxes payable to the Governments in India. The Bidders should particularly take note of this factor before submitting the Bids.

5.4.3. Details of the Documentary proofs to be uploaded in portal

Letter of Undertaking		Upload Format
A Letter of Undertaking in company's letterhead (template of this is given in page2 of the RFP) along with the Letter of Authorization	1	PDF (Max 2 MB)
Tender document (RFP)		
1	This Tender document (RFP) along with corrigendum if any	1	PDF (Max 2 MB)
Minimum Eligibility Criteria (MEC) (4.1)		**Upload Format**
1	Copy of documentary proof for clause 4.1.1 as PDF	6	RAR (WinRAR) (Max 20 MB)
2	Copy of documentary proofs in chronological order for clause 4.1.2 as merged PDF		
3	Copy of documentary proofs for clause 4.1.3 as merged PDF		
4	Copy of documentary proof for clause 4.1.4 as PDF		
5	Copy of documentary proof for clause 4.1.5 as PDF (Undertaking/ Self declaration)		
6	Copy of documentary proof for clause 4.1.6 as PDF (Undertaking/ Declaration)		
Technical Evaluation System (4.2)		**Upload Format**

1	Copy of documentary proofs for clause 4.2.1 (Form Tech-1) as merged PDF	3 (All these PDF have to be placed in a folder, and zipped as .rar file before submission)	RAR (WinRAR) (Max 30 MB)
2	Copy of documentary proofs for clause 4.2.2 [Form Tech-2 (A), (B), (C), (D) and (E – CVs of the resources)] as merged PDF		
3	Copy of detailed presentation for clause 4.2.4 (excluding PoC results) as merged PDF		
Financial Bid			**Upload Format**
Bill of Quotation (BoQ)		1	.XLS
Total		**12**	

Note: Total Documents = 12

- Under Technical bid = 11 documents
- Under Financial bid = 1 document (pre-defined template)

5.5. Bid closing date and time

a) Bids cannot be submitted not later than the date and time specified in the tender schedule or corrigendum if published. Hence bidders should be cautious to submit the bids well in advance to avoid disappointments.

5.6. Online Submission of Bids - https://tntenders.gov.in

a) Bidder should read all the terms and conditions and accept the same to proceed further to submit bids. Tendering system will give a successful bid update message after uploading all the bid documents submitted. A print out of Bid Submission Confirmation showing the bid number, the date and time of submission of the bid with all other relevant details can be taken from the

website and kept as an acknowledgement for submission of bid. This acknowledgement will act as a proof of bid submission.

b) The bidders can resubmit the bid as many times as possible till the closing time of the bid submission. Withdrawal of the bid is also possible before the closing time of the bid submission.

c) The time settings fixed in the server and displayed at the top of the tender site, will be valid for all actions of bid submission, bid opening etc., in E-Tender system.

6. Tender Opening and Evaluation

6.1. Technical Bid Opening

a) The Technical Bid will be opened on the date and time as specified in the Tender schedule or in the Corrigendum issued by TNeGA (if any).

NOTE: **If the date fixed for opening of the tender happens to be a Government holiday**, the e-tender will be opened on the next Working day at the time specified in the Tender Schedule.

6.2. Tender Validity

a) The offer submitted by the Bidders should be valid for a minimum period of 120 days from the date of opening of the Tender.

6.3. Initial Scrutiny

a) Initial Bid scrutiny will be conducted, and incomplete details as given below will be treated as non-responsive. If Tenders are:
   1) received without the Letter of Undertaking on the company letter head per the template given in RFP and without Letter of Authorization
   2) received without EMD amount
   3) found with suppression of details
   4) with incomplete information, subjective, conditional offers and partial offers

5) submitted without supporting documents as per the MEC and TES

6) non-compliance of any of the clauses stipulated in the Tender

7) with lesser validity period

8) technical bids containing information about the bid price/financial bid

b) All responsive Bids will be considered for further evaluation. The decision of TNeGA /Government will be final in this regard.

6.4. Clarifications

a) When deemed necessary, TNeGA shall seek bona-fide clarifications on any aspect from the bidder. However, that would not entitle the bidder to change or cause any change in the substance of the Bid or price quoted. During the course of technical bid evaluation, TNeGA may seek additional information or historical documents for verification to facilitate decision making. In case the bidder failed to comply with the requirements of TNeGA as stated above, such bids may at the discretion of TNeGA, shall be rejected as technically non-responsive.

6.5. Tender Evaluation

6.5.1. Suppression of facts and misleading information

a) During the Bid evaluation, if any suppression or misrepresentation is brought to the notice of TNeGA, TNeGA shall have the right to reject the Bid and if, after selection, TNeGA would terminate the contract. Termination of the contract will be without any compensation to the Bidder and the EMD / SD shall be forfeited.

b) Bidders should note that any figures in the proof documents submitted by the Bidders for proving their eligibility is found suppressed or erased, TNeGA shall have the right to seek the correct facts and figures or reject such Bids.

c) It is up to the Bidders to submit the full copies of the proof documents to meet out the MEC and TES. Otherwise, TNeGA at its discretion may or may not consider such documents.

d) The Tender calls for full copies of documents to prove the Bidder's experience and capacity to undertake the project.

6.5.2. Technical Bid Evaluation

a) **Mininum Eligibility Criteria (MEC):**

TSC will examine the technical bids as per Cl.4.1 MEC given in the tender document. The bids which did not meet the MEC in the first stage of scrutiny will be rejected in that stage itself and further evaluation will not be carried out for such bidders. The eligible Bidders satisfying all the criteria in cl. 4.1 – MEC alone will be considered for further evaluation as per TES (cl.4.2). The decision of TNeGA will be final in this regard.

b) **Technical Evaluation system (TES):**

The bidders who qualify in the MEC will be evaluated as per cl.4.2 TES given in the tender document. TSC will examine the bids as per clause 4.2.1 & 4.2.2 - TES from documentary evidence (Form Tech-1 and Tech-2) enclosed by bidder. Bidders have to do a Proof of Concept (PoC) as detailed in cl.4.2.3. The bidder shall be informed to demonstrate their PoC result and their presentation to the TSC as per cl.4.2.3 and 4.2.4 of TES and marks (technical score) will be awarded as detailed in cl.4.2.5. Only those bidders whose

1. **Total Technical Score (S_T) is above 70 and**
2. **Who scores minimum qualifying score (as mention in column IV of the table in cl.4.2.5) in each of the above parameters (i) to (x).**

will be treated as **qualified** in the Technical Evaluation System (TES). The financial bid of those bidders who qualify in the TES will be opened and evaluated as per cl.4.3.

6.5.3. Financial bid evaluation

a) Bidders should fill price quote details ONLY in Bill of Quotation (BoQ).
b) All the taxes indicated in the Price Bid will be taken for the Price Bid evaluation as per the Tamil Nadu Transparency in Tender Rules 2000 with latest amendments.

c) The Bidders should quote for all the items including price discovery. Failure to submit the price for all the items (including price discovery) or partial offer will be liable for rejection of the bid itself. The decision of TNeGA will be the final.

d) The financial bids would be evaluated as per cl.4.3 and the total score would be determined as per cl. 4.4 of RFP. The bidder with the highest QCBS score (H1) as per Cl. 4.4 (Total Score of the bidder) would be declared as the successful bidder (H1).

6.6. Negotiations

a) Negotiations will be conducted with the Successful (H1) Bidder for improvement in the Scope of Work, Specification, further reduction in bid price & price discovery rates and advancement of delivery schedule.

6.7. Award of Contract (through https://tntenders.gov.in)

a) Award of Contract (Letter of Acceptance) shall be issued online through https://tntenders.gov.in to the successful bidder (H1). After acceptance of the tender and LOA issued by TNeGA, the successful bidder (H1) shall have no right to withdraw their tender or claim higher price.

b) No dispute can be raised by any Bidder who's Bid has been rejected and no claims will be entertained or paid on this account.

6.8. TNeGA reserves the right to:

a) Modify, reduce or increase the quantity requirements to an extent of tendered quantity as per the provisions of Tamil Nadu Transparency in Tenders Act 1998 and Tamil Nadu Transparency in Tenders Rules, 2000.

b) withhold any amount for the deficiency in Quality/Service aspect of the ordered items supplied to the customers.

c) accept or reject any or all of the tenders in full or in parts without assigning any reason whatsoever. The Tender Accepting Authority may also reject all the tenders for reasons such as change in Scope, Specification, lack of anticipated financial resources, court orders, calamities or any other unforeseen circumstances.

7. Execution of Contract

7.1. Payment of Security Deposit (SD)

a) The successful Bidder will be required to remit a Security Deposit (SD) of **5% of contract value** by way of Demand Draft or Banker's Cheque payable at Chennai or in the form of unconditional irrevocable Bank Guarantee valid for a period of 27 months from the date of acceptance of the tender on receipt of confirmation from TNeGA. The SD shall be paid within a week from the date of issue Letter of Acceptance (LOA) by TNeGA.

b) The EMD/Security Deposit will be forfeited if the Successful Bidder withdraws the Bid during the period of Bid validity specified in the Tender or if the Bidder fails to sign the contract.

c) The SD furnished by the bidder shall be forfeited by TNeGA if the bidder has failed to deliver the services or failed to perform any of the contractual obligations mentioned in this RFP during the contract period.

7.2. Execution of Contract

a) The Successful Bidder should execute a Contract in the INR 100 non-judicial Stamp Paper bought in Tamil Nadu only, in the name of the bidder within a week from the date of Letter of Acceptance issued by TNeGA, with such changes/modifications as may be indicated by TNeGA at the time of execution and on receipt of confirmation from TNeGA.

b) The Successful Bidder shall not assign or make over the contract, the benefit or burden thereof to any other person or persons or body corporate for the execution of the contract or any part thereof without the prior written consent of TNeGA. TNeGA reserves its right to cancel the

work order either in part or full, if this condition is violated. If the Successful Bidder fails to execute the agreement within the stipulated period of one week, the SD of the Successful Bidder will be forfeited and their tender will be held as non-responsive.

c) The expenses incidental to the execution of the agreement should be borne by the Successful Bidder.

d) The conditions stipulated in the agreement should be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of TNeGA and also TNeGA have the right to recover any consequential losses from the Successful Bidder.

7.3. Release of Work Order

a) After payment of security deposit and execution of the contract, TNeGA will issue the work order to the successful bidder for the commencement of services.

7.4. Refund of EMD

a) The EMD amount paid by the successful bidder will be adjusted towards security deposit payable by them. If the successful bidder submits security deposit for the stipulated value in full by way of cash/bank guarantee, the EMD will be refunded. The EMD amount of the unsuccessful bidder will be auto-refunded upon finalization and issue of work order to the successful bidder.

7.5. Release of SD

a) The Security Deposit will be refunded to the Successful Bidder on completion of 3 months after the Contract Period subject to satisfaction of TNeGA. Such completion would be arrived at when the entire Scope of Work is executed by the Bidder as per the Contract Agreement and as per Order(s) issued by TNeGA from time to time.

7.6. Failure to Agree with the Terms and Conditions of the RFP

a) Failure of the successful bidder to agree with the draft legal agreement and Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of award, in which event TNEGA may call for new proposals from the interested bidders. In such a case, TNEGA shall invoke the PBG of successful bidder.

7.7. Forfeiture of EMD and SD

a) If the successful Bidder fails to act according to the tender conditions or backs out, after the tender has been accepted, the EMD will be forfeited.

b) If the Successful Bidder fails to remit the SD, the EMD remitted by him will be forfeited to TNeGA and the tender submitted by the bidder will be held void.

c) If the Successful Bidder fails to act up on to the tender conditions or fails to perform any of the contractual obligations during the period of contract or backs out from the contract, the SD mentioned above will be forfeited by TNeGA.

7.8. Termination of Contract

7.8.1. Termination for default

a) TNeGA may without prejudice to any other remedy for breach of contract, by written notice of default with a notice period of 15 days, sent to the Successful Bidder, terminate the contract in whole or part, (i) if the Successful Bidder fails to deliver any or all of the service within the time period(s) specified in the Contract, or fails to supply the items as per the Delivery Schedule or within any extension thereof granted by TNeGA; or (ii) if the Successful Bidder fails to perform any of the obligation(s) under the contract; or (iii) if the Successful Bidder, in the judgment of TNeGA, has engaged in fraudulent and corrupt practices in competing for or in executing the Contract. Upon termination of contract, the Successful Bidder (SI) shall not be entitled to receive any compensation or any amount for the services rendered.

b) In the event TNeGA terminates the Contract in whole or in part, TNeGA may procure, upon terms and in such manner as it deems appropriate, the goods and services similar to those and delivered and the Successful Bidder shall be liable to TNeGA for any additional costs for such similar goods and service. However, the Successful Bidder shall continue the performance of the contract to the extent not terminated.

7.8.2. Termination for Insolvency

a) TNeGA may at any time terminate the Contract by giving written notice with a notice period of 7 days to the Successful Bidder, if the Successful Bidder becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Successful Bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to TNeGA.

7.8.3. Termination for Convenience

a) TNeGA may by written notice, with a notice period of 15 days sent to the Successful Bidder, TNeGA may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for TNeGA's convenience, the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective. On termination, the successful Bidder is not entitled to any compensation whatsoever.

7.9. Single point of contact and Project Lead

a) The successful bidder should nominate a single point of contact (Project Lead) from their side to lead the project full-time and be available to respond to all requests from TNeGA or the Government departments. This person should be responsible for delivery of work in compliance with all the terms and conditions.

7.10. Liquidated Damages (LD)

a) The Bidder must strictly adhere to the implementation schedule, specified in the RFP issued by TNeGA to the successful Bidder and any delay will enable TNeGA to resort to any or both of the following:

    1. Claim liquidated damages as detailed below:

Sl. No.	Project Activity / Scope of Work	Timeline	Penalty
1	Creation of Makkal Id in PDS	T1 = 30 days from the issuance of Work order	A penalty @ 1% per week of the component value (i.e. cost for item Nos.1.01) subject to maximum of 10% of the total contract value
2	De-duplication and creation of golden record for the first 5 Crore records	T2 = T1 + 15 days	A penalty @ 1% per week of the component value (i.e. cost for item Nos.1.02 of BoQ) subject to maximum of 10%of the total contract value
3	De-duplication and creation of golden record for the next 5 Crore records (upto 10 Crore records)	T3= T2+15 days	A penalty @ 1% per week of the component value (i.e. cost for item Nos.1.02 of BoQ) subject to maximum of 10%of the total contract value
4	De-duplication and creation of golden record for the next 5 Crore records (upto 15 Crore records)	T4=T3+15 days	A penalty @ 1% per week of the component value (i.e. cost for item Nos.1.02 of BoQ) subject to maximum of 10%of the total contract value
5	De-duplication and creation of golden record for the next 5 Crore records (upto 20 Crore records)	T5=T4+15 days	A penalty @ 1% per week of the component value (i.e. cost for item Nos.1.02 of BoQ) subject to maximum of 10%of the total contract

			value
6	Dashboard and reports	T6=T1+30 days	A penalty @ 1% per week of the component value (i.e. cost for item Nos.1.02 of BoQ) subject to maximum of 10%of the total contract value
7	Customization and maintenance(any customization suggested by TNEGA, based on future requirements during remaining 9 months of implementation phase)	As per the work order for customization	A penalty @ 1% per weekof the cost as per Cl. 18.1 (c) calculation table subject to maximum of 10% of the total contract value
8	Deployment of 6 manpower resources at TNeGA during the implementation phase	12 months	a. One day per month is eligible for casual/ sick leave for each resource. If the resource is absent for more than 1 day in a month, amount will be deducted on pro-rata basis (from the item No.1.03 of BoQ) for the number of days of absence.
			b. In case the replacement resources are not provided within 7 days of continuous absence, a penalty of 2% of the per person-month resources cost would be levied for every week after 7 days, with a cap of 10% of the per person-month cost (item No.1.03 of BoQ).
			c. For non-replacements

			of resources as directed by TNeGA, beyond 7 days, a penalty of 2% of the per person-month support team cost for every week after 7 days with a cap of 10% of the per person-month cost (item No.1.03 of BoQ).
9	Annual Technical Support and AMC of customization part	1 year from the completion of implementation phase.	A penalty @ 1% per week of the component value (item No.1.04 of BoQ) subject to maximum of 10% of the total contract value

In case, the delay is more than 8 weeks and the cause of delay is attributable to bidder, authority reserves right to take appropriate action against the bidder such as termination of contract etc.

2. In case of the termination of the contract by TNeGA due to non- performance of the obligations arising out of the RFP, LOA & Work order, the Earnest Money Deposit / Security Deposit will be forfeited.

3. In addition, TNeGA reserves the right to award the work to any other party / parties and the loss / expenses incurred thereafter will be recovered from the successful bidder.

b) The RFP, bid submitted by the successful bidder, negotiated offer of the successful bidder, contract and the work order will form part of this contract. Wherever the offer conditions furnished by the successful bidder are at variance with conditions of this contract or conditions stipulated in the work order, the latter shall prevail over the offer conditions furnished by the successful bidder.

c) Notwithstanding anything contained in this clause, TNeGA reserves the right to blacklist the successful bidder from taking part in any of the procurement operations of TNeGA for a minimum period of three years from the date of blacklisting for failure to carry out supply in time or according to the quality and quantity prescribed or any such similar reasons. This

penalty shall be over and above all other penalties. Such bidders would be automatically banned for 3 years from taking part in TNeGA's tenders.

7.11. Other Conditions

a) TNeGA reserves the right not to accept the bid price, to reject any or all the tenders without assigning any reasons, to relax or waive any of the conditions stipulated in the terms and conditions of tender as deemed necessary in the best interest of TNeGA for good and sufficient reasons.

7.12. Arbitration and Jurisdiction

a) Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, at any time in connection with construction, meaning, operation, effect, interpretation or out of the contract or breach thereof, the same shall be decided by Sole Arbitrator to be appointed by the CEO, TNeGA.

b) If the Arbitrator so appointed dies, resigns, incapacitated or withdraws for any reason from the proceedings, another Arbitrator shall be appointed by the CEO, TNeGA. The Arbitrator so appointed shall proceed with the reference from the stage, where his predecessor had left if both parties consent for the same.

c) It is a term of the contract that the party invoking arbitration shall specify all disputes to be referred to arbitration at the time of invocation of arbitration and not thereafter.

d) It is also a term of the contract that neither party to the contract shall be entitled to seek interest and the arbitrator should not grant interest.

e) The Arbitral Tribunal shall give reasoned award and the same shall be final, conclusive and binding on the parties.

f) The venue of the arbitration shall be Chennai and language English. The fees of the Arbitrator and expenses incidental to the arbitration proceedings shall be borne equally by the parties.

g) Subject to as aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment in lieu thereof shall apply to the arbitration proceedings under this Clause.

h) Subject to the above, the Hon'ble High Court of Madras, Chennai alone shall have jurisdiction in this matter.

8. The State Family Database (SFDB) Platform

8.1. Preamble

SFDB is envisioned as a data driven decision support infrastructure for improving Governance by aiding planning, implementation and execution of government schemes and programs. It will complement the existing Department infrastructure by enabling data harmonization and synchronization among various departments to ensure transparent and seamless service delivery to citizens.

The primary objective of SFDB is to connect the existing applications and database to enable:

1. Improve governance through effective service delivery, greater accountability of Government departments and more efficient monitoring of Government schemes.
2. Provide data foundation for Dashboards and MIS reports.
3. GIS Integration of Data Driven Governance.
4. Support Data Driven Policy Making.
5. Provide Aadhaar authentication to various Department applications to ensure the benefit reaches the eligible beneficiary.
6. Improve transparency in benefit distribution and Government service delivery with better accessibility for residents and departments.
7. Provide a platform for G2C Service model. New services can be easily designed and integrated in a plug-and-play fashion.
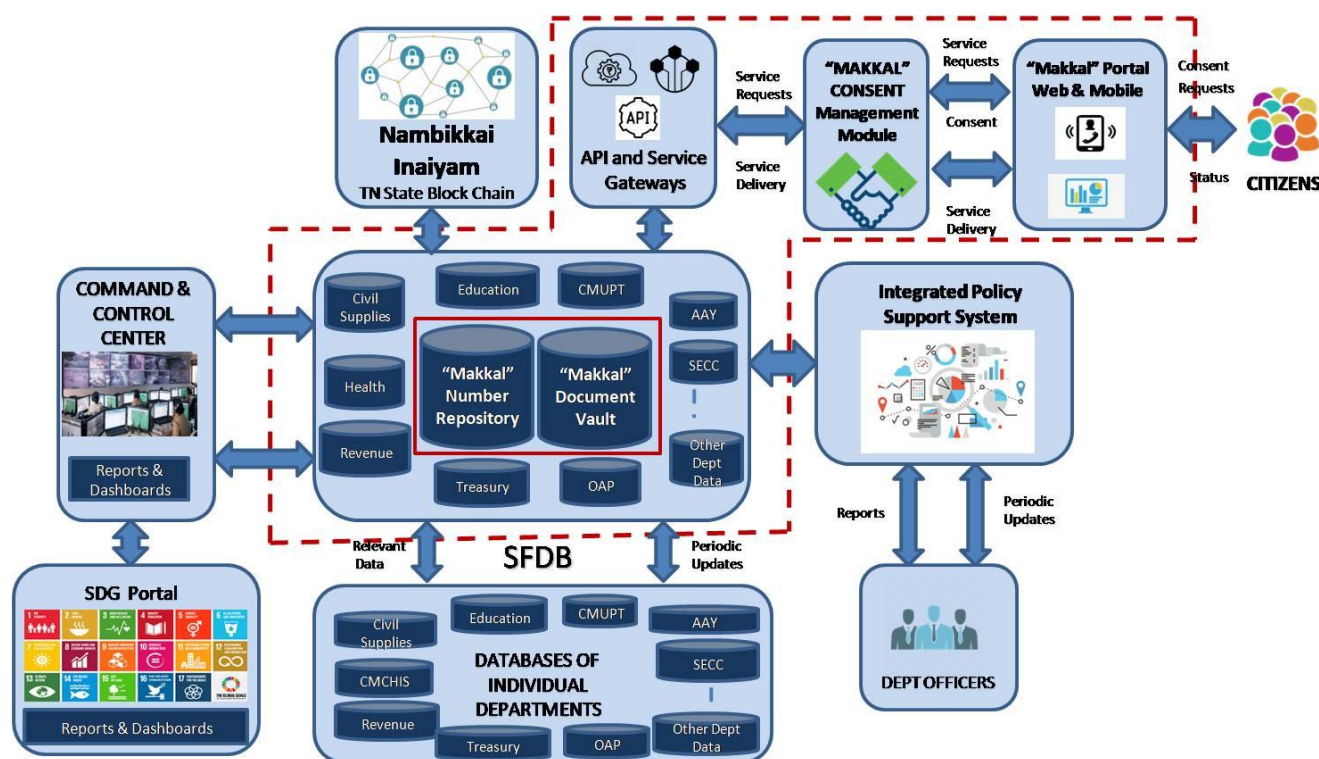
Figure 1 - Conceptual diagram of SFDB Platform and other key system interactions

8.2. Scope of work

TNeGA is looking for Master Data Management (MDM) and data de-duplication tool for building and maintaining a Resident/Beneficiary Data Platform which will be the heart of TNeGA SFDB project.

The existing Core Database schema is PDS built in PostgreSQL and contains demographic details about the state's residents. The current database covers about 7 Cr residents. Each of the departments of Government of Tamil Nadu have their own applications and associated databases. The SI should compare all those databases against the PDS data and assign a Makkal ID (explained in detail in 10.1.2) so that data exchange across these databases is seamless.

8.2.1. Golden Record Creation:

a) A Golden Record of a Resident/Beneficiary is a single, well-defined view across multiple database systems of the SFDB with or without unique identifier and other trusted sources of external information in the SFDB. It is a Single Version of Truth based on survivorship rules. A Golden record will be mapped to each Makkal ID. The following are the requirements in this regard.

1. The MDM should create a Golden Record for all the records in SFDB.
2. The Golden record would be based on survivorship rules. The survivorship rules/merging rules will determine the composition of a Golden Record and they run in an automatic setup to generate the Golden Record. Survivorship rules are rules that specify the surviving attribute.
3. Preparation of family tree for each golden record.
4. Disclose the complete logics or bias behind the rule engine/algorithms. No black box approach will be accepted.

8.2.2. Makkal ID Generation:

a) Each resident should be provided with a unique Individual-ID known as "Makkal ID". Makkal ID should be generated as 'random numbers' and _not_ as a pattern-based number with encoded information or alphanumeric string.

b) Based on popular ID models, this random Individual-ID can have a string size of anywhere between 10 -12 digits (thereby having enough numbers of the current and future State population), where the last digit of the ID is reserved as a "checksum" digit. The randomness of the number will make it difficult to guess the number. The last digit which is reserved for the checksum will help in eliminating the data entry errors, like single digit, transposition of adjacent digit, jump transposition, twin, phonetic and jump twin. The check sum digit can follow the Verhoeff method which help in eliminating the major errors successfully.

b. The logic for identifying a duplicate depends on completeness, accuracy, integrity of the people data being ingested. The additional identifier data like Aadhaar number, Ration card number and such, captured in the participating database could also be used to find an appropriate match.

c. During the initialization and any subsequent updates from the participating databases, data ingestion framework would be using this service to segregate the matching and non-matching records.

d. For assigning the Makkal ID for all the existing beneficiaries, a one-time process of deduplication of current beneficiary base should be carried out. The matches will be classified as the perfect matches and probable matches. For the perfect matches, the Makkal ID will be automatically assigned. All the probable matches are directed to an eye balling and then Makkal ID will be assigned.

e. A decisioning system shall be available for the eyeballing of matches with a Maker Checker policy.

f. Makkal_ID service can be consumed in the ETL pipelines in both batch and real-time situations.

g. Applications built on top of certified databases call this Makkal Service directly from their application whenever they are adding a new beneficiary.

h. Successful bidder would deploy tools and techniques to identify each person uniquely based on the core attributes like name, father name, mother name, date of birth and gender. We may use additional attributes like personal identifiers, address and mobile number for disambiguation.

i. To identify duplicates and assign unique Makkal number, data available in both English and Tamil must be considered.

8.2.3. Data deduplication & Matching:

a) SFDB see this capability as a critical feature for an efficient linking of records and arriving at an enriched golden record of the beneficiary and the selected bidder should be responsible for

data de-duplication and creation of Golden record. The solution should be able to identify the duplicate records and its record reference numbers from source data. The solution should be comprehensive, complete, correct, scalable, seamless, interoperable, configurable which can solve all the challenges in Entity Resolution.

1. The solution should be able to resolve multiple instances of the same individual with attribute variations like father name, mother name, spouse name, address, date of birth, mobile number etc

2. The solution should be capable of handling variations in all the person attributes in both English and Tamil (full name, fathers name, mothers name, spouse name, address etc.) on account of spelling mistakes, abbreviation, sequence variation, missing/ extra   parts, differences in date/ month/ year, variations in city/ pin codes/ locality / sub localities etc.

3. The solution should be able to resolve variations in different components of the address like house number, street name, village/town panchayat/city, taluk, district etc.

4. Successful bidder would de-duplicate and enrich the existing SFDB Core data filling nulls wherever possible comparing data available in English vs Tamil, standardize address fields and such.

b) The demographic deduplication and entity resolution is a critical component of the solution and the match engine will be assessed for its efficiency. The following are the key aspects of the entity resolution match engine.

1. Response Time & Throughput: The Response time of the match engine should be very low and throughput high - quantify.

2. Accuracy of record retrieval: The Precision and Recall of the match engine should be very high.

3. Configurable: A flexible match rule definition should be available with provision to define rules, define the tolerance of match of attributes.

4. Match Classification & Bucketing: There should be a provision for branding a match as perfect match/probable match with provision to define rules for such tagging. There should be provision to assign weights to various matching attributes, report total match score.

5. Ranking: The results should be able to be ranked with the best match assigned the lowest rank.

6. Handle data as is available: Since the data is derived from disparate sources, uniformity cannot be assured in respect of availability of attributes or quality of available data. The engine should be able to provide the best matches considering the data quality issues.

7. Bulk data processing: The engine should be capable of deduplicating millions of records within the defined timelines.

8. Relationship Discovery & Networking: The system should be capable of identifying & linking the records of related persons and associates of the beneficiary.

c) The following GUI should be available:

1. For defining the matching rules, setting the tolerances of match etc.

2. For uploading a file for matching and downloading the matches

3. For defining the survivorship rules that governs the Golden records

4. For decisioning of the matches for assigning the Makkal ID with Maker Checker policy

5. For decisioning the probable matches obtained during the real time query.

The successful bidder would disclose the use of any proprietary tool for identifying the duplicates and potential matches.

9. MDM- SFDB integration Scope- APIs and services

a) MDM should provide framework, libraries, APIs and documentation that allows interactions and data exchanges between the SFDB Core and Departments. Major components of the MDM-SFDB integration are as follows:

1. Golden Record ingestion framework

2. Data enrichment services

9.1. Golden Record ingestion framework

a) **MDM** can publish the data to SFDB either as a db file or csv feed or using an API. This framework should use Open-source big data frameworks like Spark or like to develop the following meta-data driven libraries.

1. Load

2. Extract

3. Cleanse

4. Transform and

5. Map

b) The framework should allow creation of multiple pipelines for ingesting full files, differentials using multiple channels like flat files posted in SFTP, using external APIs.

c) The pipelines built for the ingestion process should be orchestrated using open-source libraries like Apache Airflow or similar.

d) Successful bidder would design and develop this framework repurposing some of the existing components of the framework.

9.2. Data enrichment services

a. As more Participating databases get integrated with SFDB core, the data in SFDB would be enriched. The enrichment process includes filling missing values using reference master databases or data available across different departments or data available in one language and

missing in the other. Successful bidder would develop the necessary logics for enriching the data mostly using metadata driven approach where possible instead of all code by hand.

b. When multiple values are available for the same attribute, successful bidder would develop necessary logics to maintain the data in a chronological order and assign preference for the most current value.

9.3. Dashboards and Reports

a. Dashboards and reports to be made available for the following purpose:

1. Checking the certification levels of various departments that gives insights into level of integration completed (Makkal Seeded), pending verification, progress made over time and such.

b. Statistics and profile of data of all datasets

10. Technical Requirement

a. The technical requirements of proposed tool are provided below:

1. Environments: Staging and Production

2. Scalable (Horizontal & Vertical) to handle any data volumes: The solution must support Horizontal and vertical scalability to take care of ever-growing demands of the SFDB.

3. High Availability (HA): All the components of the solution must provide adequate redundancy to ensure high availability. The solution shall have built in redundancy so that service is not impacted and is available 24x7.

4. Security: Adequate security aspects should be built into the application

5. Reliability: The solution needs to be reliable to maintain data integrity and support businesscontinuity.

6. Browser compatibility: The solution should be browser independent and should support allleading web browsers.

7. Database: The solution should support the database of SFDB.

8. Storage

9. Backup: Will be taken in regular intervals as well as critical configuration back up will be takenas and when required

10. Application Server, Web server, Operating System, Messaging Queue: The solution shouldalign with SFDB s choice on these aspects.

11. Latest technology adoption: The solution should advise and adopt latest technology stack.

12. During implementation the bidder is expected to engage adequate number of experienced resources with requisite skillset for timely and successful implementation.

13. Since, the product will be integrated with SFDB solution, any vulnerability found in the product,solution deployed and the customization part shall be resolved by the bidder without any financial implication to TNEGA.

14. Training and Capacity Building: The bidder has to impart training physically on de-duplicationand creation of Golden record to the authorized person of TNEGA and the system integrator ofSFDB for smooth functioning of the platform. However, in case of exigencies/pandemic, TNEGAmay ask the bidder to impart training on virtual mode.

The bidder has to do necessary customization of their product to make it fit as per the requirement of TNEGA/Govt. of Tamil Nadu and provide necessary API and support for preparation of Social registry as well as integration with the SFDB application.

11. Project Documentation

    a. The bidder has to provide following documentations

1. Manual on the supplied tool

2. Installation and Configuration manual of the supplied tool

12. Deployment of Manpower Resources on-premises

12.1. Teams on-premises

a) Bidder shall deploy suitable 6 technical resources (as given below) at TNeGA for the activities expected to be carried out during the implementation phase of one year, and all the resources should be trained in the use of the deployed tools, technologies and should have requisite functional knowledge. They should undergo suitable trainings in relation to security aspects of the project, and maintain the confidentiality of data. During the course of the contract, if it becomes necessary to replace any of the resources, bidder shall forthwith with due consent from TNeGA provide as a replacement a resource of equivalent or better qualifications and experience than the resource being replaced.

S.No	Resource Required	Qualification and Experience Required
1	Project Manager – 1 No.	a. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Electrical/ Electronics/Any other Engineering discipline b. Overall Experience of 10 years in software design, development, testing and implementation c. At least 4 years of experience as a Project Manager managing large multi-year projects. d. Tamil language proficiency is desirable
2	Lead Data Engineer – 1 No.	a. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Electrical/ Electronics/Any other Engineering discipline

		b. Overall Experience of 7 years in IT
		c. Experience of 4 years or more in Database design, development, MDM, testing and implementation using Python/SQL.
		d. Experience of 4 years or more in Data Engineering solutions using Big data stack like Hadoop/Spark
3	Database Administrator (DBA) – 1 No.	a. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Electrical/ Electronics/Any other Engineering discipline
		b. Overall Experience of 7 years in IT
		c. Experience of 4 years or more as DBA in handling 3-4 large projects with high data transactions, large data growth and high concurrency in PostgreSQL in Linux environment.
4	Developers with experience in API development - 3 Nos.	a. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Electrical/ Electronics/ Any other Engineering discipline
		b. Overall Experience of 7 years in IT
		c. Experience of 5 years or more in design and development of web applications
		d. Experience building high performing APIs for real-time transactions using multiple stack Java, Python, Apache Pyspark consumed by multiple applications

b) In case, based on the request of TNeGA, if resources (Lead Data Engineer, DBA, Developer - API) needs to be deployed during the AMC period, the rates quoted by the bidder in the price discovery items of BoQ will be used for finalising the cost implications subject to the provisions of TNTIT Act 1998 and Rules 2000.

12.2. Workspace for the teams deployed at TNeGA

a) TNeGA will provide necessary workspace and internet connection for the above team deployed at TNeGA. Successful bidder must ensure that the team members deployed at TNeGA are fully equipped in terms of providing laptops, phones or any other accessories etc. and be operational from day one.

12.3. Separation or replacements within the on prem resources

a) The successful bidder shall maintain the resources deployed on the project, with the approval of TNeGA.

b) Successful bidder would ensure that there is no change in the resources deployed. However, TNeGA may ask for the replacement of any resource due to reasons such as behavioural, delivery, punctuality etc.

c) In case any of the resource members are to be replaced, successful bidder must ensure that proper handover process to be completed and has to share the confirmation mail to TNeGA with checklist.

d) For the period of absence beyond one day per month per resource, resources cost would not be paid prorated for the days absent for each resource. In case the replacement resources are not provided within 7 days of continuous absence, a penalty of 2% of the per person-month resources cost would be levied for every week after 7 days, with a cap of 10% of the per person-month cost (item No.1.04 of BoQ).

e) Successful bidder would replace the resource members on request of TNeGA for any reasons and the same should be provided within 7 days. For the period of absence resource cost would not be paid, prorated for the days unavailable. For non-replacements beyond 7 days, a penalty of 2% of the per person-month support team cost for every week after 7 days with a cap of 10% of the milestone payment.

13. Use of Proprietary and Third-party software

a) Successful bidder would use open source software as much and possible and in case there is need for use of any proprietary software bidder would disclose well before and seek approval for the same.

b) If there is any system software or application software belonging to the bidder is being used in developing the system, no additional license cost would be paid beyond the development cost quoted. TNeGA would be authorized to use that software to perpetuity (even if the contract is terminated for any reason) and bidder would continue to upgrade through the contract period.

c) If bidder uses any third-party software, system or application or any other, bidder will purchase all such licenses and support in the name of TNeGA and all such license costs would have to be factored in development costs. No additional license or support costs would be paid outside of the development costs.

14. Annual Maintenance

a. The successful bidder should maintain the MDM and De-Duplication Tool during the 12 months of AMC. The scope of work for AMC consists of processing the incremental data, seeding of Makkal-ID and creation of golden record, updations od dashboards and reports.

b. TNeGA may extend the AMC by another 1 year based on the requirements if any, with the existing AMC rates quoted by bidder in item 1.04 of BoQ.

15. Review and Monitoring

a) TNeGA will hold scheduled review meeting and the successful bidder should report the progress to TNeGA and adhere to the decisions made during the review meeting.

16. Exit Clause

a) At the time of expiry of contract period or termination of contract as per Cl. 7.8 of RFP, the successful bidder should ensure a complete knowledge transfer to the new professional replacing them within a period of 4 weeks. The successful bidder at the time of exit process will furnish the following.

    i. All information relating to the work rendered

    ii. Project data and confidential information

    iii. All other information including but not limited to documents, records and agreements relating to the services reasonably necessary to TNeGA or any other agency identified to carryout due diligence in order to transition the provision of services to TNEGA or any other agency identified.

    iv. All properties provided by TNEGA shall be returned.

    v. Before the date of exit, the successful bidder shall deliver to TNEGA all new and updated deliverables and shall not retain any copy thereof.

17. Deliverables and Timeline

Sl. No.	Project Activity / Scope of Work	Deliverable	Timeline
	Implementation Phase		
1	Creation of Makkal Id in PDS	Product implementation certificate from competent authority of TNeGA	T1 = 30 days from the issuance of Work order
2	De-duplication and creation of golden record for the first 5 Crore records	Product implementation certificate (Go-live) from competent authority of TNeGA	T2 = T1 + 15 days

3	De-duplication and creation of golden record for the next 5 Crore records (upto 10 Crore records)	Product implementation certificate (Go-live) from competent authority of TNeGA	T3= T2+15 days
4	De-duplication and creation of golden record for the next 5 Crore records (upto 15 Crore records)	Product implementation certificate (Go-live) from competent authority of TNeGA	T4=T3+15 days
5	De-duplication and creation of golden record for the next 5 Crore records (upto 20 Crore records)	Product implementation certificate (Go-live) from competent authority of TNeGA	T5=T4+15 days
6	Dashboard and reports		T6=T1 + 30 days
7	Customization and maintenance (any customization suggested by TNeGA, based on future requirements) as per the work orders issued for customization	Sign off from TNeGA on the customization acceptance	T7=T5 + 9 months
AMC Phase			
8	Annual Technical Support and AMC of customization part	Declaration of bidder and Acceptance from TNeGA	1 year from the completion of implementation phase

18. Payment Terms and Schedule

18.1. Payment Terms

a. It is intended to implement the project in a phased manner, with more and more data sources joining the SFDB platform in course of time.

b. The existing Core Database schema is from PDS built in PostgreSQL and contains family based demographic details about the state's residents. The current database covers about 7 Cr residents with Aadhaar and has a relationship between the family members in which de-duplication has

already been completed. Hence, it is expected that the bidder will quote a lower price for processing the PDS database as against other 20 Crore records. The bidder has to quote a separate pricing for creation of Golden Record with the 7 crore record of PDS (refer item 1.01 of BoQ).

c. The commercial model will be a pay as use model and hence will be based on the base volume of records. The total payout will increase as the base volume increase. However, given economies of scale, the incremental effort by the solution provider will lessen as the data volume increases. It is expected to go down as the volume increases (see table below). The Bidder has to therefore, quote a one-time amount for the base record size of 20 Crore records (refer item 1.02 of BoQ). For records above 20 Crores, payment will be released as given below.

X – One time price for 20 Crore record

Volume of Records			
Slab 1	Slab 2	Slab 3	Slab 4
Upto 20 Crore	Between 20 to 30 Crore	Between 30 to 40 Crore	Above 40 Crore
One time price for 20 Cr record (X)	$0.8 \times (X/2)$ for 20 crore to 30 Crore records	$0.6 \times (X/2)$ for 30 crore to 40 Crore records	$0.4 \times (X/2)$ for every 10 Crore record

d. **A record is the meta record having demographic information and not the transaction records. For example, in case of mobile database even though there may be a number of transactions for each mobile number, as long as the demographic details are same it will be treated as one record. A bank account, may have many transactions but it will be treated as one record.**

18.2. Payment schedule

Payments will be released to the successful bidder (SI) based on the completion of deliverables as per the specified timelines in Cl. 17 and its acceptance by TNeGA. LD will be imposed as per Cl. 7.10 for any delay attributable to the successful bidder (SI).

18.2.1. For Implementation Phase (item No.1.01 and 1.02 of BOQ)

a. 100% of total amount on 1.01 of BoQ will be paid on the generation of makkal ID in the PDS database.

b. 22.5% of total amount on 1.02 of BoQ will be released on de-duplication and creation of golden record for the first 5 Crore records.

c. 22.5% of total amount on 1.02 of BoQ will be released on de-duplication and creation of golden record for the next 5 Crore records (upto 10 Crore records)

d. 22.5% of total amount on 1.02 of BoQ will be released on de-duplication and creation of golden record for the next 5 Crore records (upto 15 Crore records)

e. 22.5% of total amount on 1.02 of BoQ will be released on de-duplication and creation of golden record for the next 5 Crore records (upto 20 Crore records)

f. 5% of total amount on 1.02 of BoQ will be paid on completion of implementation phase

g. 5% of total amount on 1.02 of BoQ will be paid after full compliance of the Cl. 17 - Exit Clause (after AMC) by the successful bidder.

h. For records above 20 Crore, upon completion of de-duplication and creation of golden record, payments will be released as defined in Cl. 18.1 (c) on pro-rata basis based on the number of records.

18.2.2. Manpower Cost (item No.1.03 of BOQ)

a. Man power cost will be paid on monthly basis based on the deployment of resources at TNeGA as defined in cl.12 and as certified by TNeGA.

18.2.3. For AMC (item No.1.04 of BOQ)

The AMC for a period of 1 year will commence after the completion of implementation phase. Upon successful completion of the maintenance and acceptance by TNeGA, payments will be released in four equal installments at the end of every quarter.

19. APPENDIX – I: Performance Security Bank Guarantee Format

(To be executed in Rs.100/- Stamp Paper)

To

The Chief Executive Officer,

Tamil Nadu e-Governance Agency,

807,2nd floor, PT Lee Chengalvarayan Naicker Building,

Anna Salai, Chennai – 600002

Bank Guarantee No:

Amount of Guarantee:

Guarantee covers from:

Last date for lodgment of claim:

This Deed of Guarantee executed by ……………….. (Bankers Name & Address) having our Head Office at …………………..(address) (hereinafter referred to as "the Bank") in favor of CEO, TNeGA, registered under Societies Act and wholly owned by Government of Tamil Nadu and having its Registered office at No.807, 2nd Floor, PT Lee Chengalvarayan Naicker Building, Anna Salai, Chennai- 600 002 (hereinafter referred to as "the Beneficiary") for an amount not exceeding Rs._____/- (Rupees _____ Only) as per the request of M/s. _____ having its office address at _____ (hereinafter referred to as "Successful Bidder") against Letter of Acceptance reference _____ dated __/__/____ of M/s. Tamil Nadu e-Governance Agency for the tender ref: TNeGA/MDM/2022-2023 - **Selection of System Integrator for the Implementation and Maintenance of Master Data Management (MDM) and De-Duplication Tool for State Family Database (SFDB) in Tamil Nadu.** This guarantee is issued subject to the condition that the liability of the Bank under this guarantee is limited to a maximum Rs._____/- (Rupees _____ Only) and the guarantee shall remain in full force upto 27 months from the date of

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Bank Guarantee and cannot be invoked otherwise by a written demand or claim by the beneficiary under the Guarantee served on the Bank before ___months from the date of Bank Guarantee.

AND WHEREAS it has been stipulated by you in the said ORDER that the Successful Bidder shall furnish you with a Bank Guarantee by a Scheduled / Nationalized Bank for the sum specified therein as security for compliance with the Successful Bidder performance obligations for a period in accordance with the contract.

AND WHEREAS we have agreed to give the Successful Bidder a Guarantee.

THEREFORE, we (Bankers address)……………., hereby affirm that we are Guarantors and responsible to you on behalf of the Successful Bidder up to a total of Rs._____/- (Rupees _____ Only) and we undertake to pay you, upon your first written demand declaring the Successful Bidder to be in default under the contract and without any demur, cavil or argument, any sum or sums within the limit of Rs._____/- (Rupees _____ Only) as aforesaid, without your needing to prove or show grounds or reasons for your demand or the sum specified therein. We will pay the guaranteed amount notwithstanding any objection or dispute whatsoever raised by the Successful Bidder.

This Guarantee is valid until 27 months from the date of Bank Guarantee. Notwithstanding, anything contained herein, our liability under this guarantee shall not exceed Rs._____/- (Rupees _____ Only). This Bank Guarantee shall be valid up to 27 months from the date of Bank guarantee and we are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before_____.

In witness whereof the Bank, through its authorized Officer, has setits, hand and stamp on this……………………………….at ……………………………….

Witness:

(Signature)

(Name in Block Letters)

20. APPENDIX – II: Model Form of Contract

(To be executed on a Rs. 100/- Non-Judicial Stamp Paper bought in Tamil Nadu by the Successful Bidder)

(NO FIGURES IN NUMERALS OR WORDS SHALL BE FILLED UP INTHIS SAMPLE FORM AT THE TIME OF SUBMISSION OF TENDER)

This CONTRACT is made at Chennai on the.......... day of 2022

 BETWEEN

Tamil Nadu e-Governance Agency, registered under the Tamil Nadu Societies Registration Act 1975 and having its Registered Office at 807, P.T.Lee.Chengalvarayan Naicker Maaligai, Anna Salai, Chennai - 600 002 , being the Service recipient (hereinafter referred to as "TNeGA" which expression shall unless repugnant to the context mean and include its successors and assigns) on Behalf of Government of Tamil Nadu of the FIRST PART.

AND

……………………., a firm represented herein by ……………………., aged ….years and having its Registered office at ………………………………………….(hereinafter referred to as "Successful Bidder" which expression shall unless repugnant to the context mean and include its successors and assigns) of the SECOND PART.

Whereas, TNeGA invited a tender vide Tender Ref: TNeGA/MDM/2022-2023 for Selection of System Integrator for the Implementation and Maintenance of Master Data Management (MDM) and De-Duplication Tool for State Family Database (SFDB) in Tamil Nadu as per the scope of work and Terms & Conditions prescribed in the Tender document (RFP).

Whereas TNeGA and the Successful Bidder in pursuance thereof have arrived at the following terms and conditions.

NOW THEREFORE

In consideration of the mutual protection of information herein by the parties hereto and such additional promises and understandings as are hereinafter set forth, the parties agree as follows:

1. Purpose

The purpose of this Agreement is to maintain in confidence the various Confidential Information, which is provided between TNeGA and System Integrator (Successful bidder) to perform the considerations (hereinafter called "Purpose") set forth in below:

2. Definition

For purposes of this Agreement, "Confidential Information" means the terms and conditions, and with respect to either party, any and all information in written, representational, electronic, verbal or other form relating directly or indirectly to the Purpose (including, but not limited to, information identified as being proprietary and/or confidential or pertaining to, pricing, marketing plans or strategy, volumes, services rendered, customers and suppliers lists, financial or technical or service matters or data, employee/agent/ consultant/officer/director related personal or sensitive data and any information which might reasonably be presumed to be proprietary or confidential in nature) excluding any such information which (i) is known to the public (through no act or omission of the Successful Bidder in violation of this Agreement)

is lawfully acquired by the Successful Bidder from an independent source having no obligation to maintain the confidentiality of such information was known to the Successful Bidder prior to its disclosure under this Agreement

was or is independently developed by the Successful Bidder without breach of this Agreement

is required to be disclosed by governmental or judicial order, in which case Successful Bidder shall give the TNeGA prompt written notice, where possible, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment and also to enable the TNeGA to seek a protective order or other appropriate remedy at TNeGA's sole costs.

Confidential Information disclosed orally shall only be considered Confidential Information if: (i) identified as confidential, proprietary or the like at the time of disclosure, and (ii) confirmed in writing within Seven (7) days of disclosure.

3. No Licenses

This Agreement does not obligate either party to disclose any particular proprietary information; to purchase, sell, license, transfer, or otherwise dispose of any technology, services, or products; or to enter into any other form of business, contract or arrangement. Furthermore, nothing contained hereunder shall be construed as creating, conveying, transferring, granting or conferring by one party on the other party any rights, license or authority in or to the Confidential Information disclosed under this Agreement.

4. Disclosure

Successful Bidder agrees and undertakes that it shall not, without first obtaining the written consent of the TNeGA, disclose or make available to any person, reproduce or transmit in any manner, or use (directly or indirectly) for its own benefit or the benefit of others, any Confidential Information save and except both parties may disclose any Confidential Information to their Affiliates, directors, officers, employees or advisors of their own or of Affiliates on a "need to know" basis to enable them to evaluate such Confidential Information in connection with the negotiation of the possible business relationship; provided that such persons have been informed of, and agree to be bound by obligations which are at least as strict as the recipient's obligations hereunder. For the purpose of this Agreement, Affiliates shall mean, with respect to any party, any other person directly or indirectly Controlling, Controlled by, or under direct or indirect common Control with, such party. "Control", "Controlled" or "Controlling" shall mean, with respect to any person, any circumstance in which such person is controlled by another person by virtue of the latter person controlling the composition of the Board of Directors or owning the largest or controlling percentage of the voting securities of such person or by way of contractual relationship or otherwise.

The Successful Bidder shall use the same degree of care and protection to protect the Confidential Information received by it from the TNeGA as it uses to protect its own Confidential Information of a like nature, and in no event such degree of care and protection shall be of less than a reasonable degree of care.

The TNeGA shall not be in any way responsible for any decisions or commitments made by Successful Bidder in relying on the TNeGA's Confidential Information.

5. Return or Destruction Of Confidential Information

The parties agree that upon termination/expiry of this Agreement or at any time during its currency, at the request of the TNeGA, the Successful Bidder shall promptly deliver to the TNeGA the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the Successful Bidder or its Affiliates or Directors, officers, employees or advisors based on the Confidential Information and promptly certify such destruction.

6. Independent Development and Residuals

Both parties acknowledge that the Confidential Information coming to the knowledge of the other may relate to and/or have implications regarding the future strategies, plans, business activities, methods, processes and or information of the parties, which afford them certain competitive and strategic advantage. Accordingly, nothing in this Agreement will prohibit the Successful Bidder from developing or having developed for it products, concepts, systems or techniques that are similar to or compete with the products, concepts, systems or techniques contemplated by or embodied in the Confidential Information provided that the Successful Bidder does not violate any of its obligations under this Agreement in connection with such development.

7. Injunctive Relief

The parties hereto acknowledge and agree that in the event of a breach or threatened breach by the other of the provisions of this Agreement, the party not in breach will have no adequate remedy in

money or damages and accordingly the party not in breach shall be entitled to injunctive relief against such breach or threatened breach by the party in breach.

8. Non-Waiver

No failure or delay by either party in exercising or enforcing any right, remedy or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise or enforcement of any right, remedy or power preclude any further exercise or enforcement thereof or the exercise of enforcement of any other right, remedy or power.

9. This Contract shall remain in force during the contract period of 24 months as per the scope of work, terms & conditions and deliverables from the date of signing of this contract and issuance of work order.

10. The Successful Bidder agrees to deliver the services as per the scope indicated in the Tender Scope of Work and terms & conditions of this Tender within the stipulated period prescribed by TNeGA at the cost arrived at in the financial bid. This cost is firm and not subject to enhancement.

11. The Contract or any part share of interest in it shall not be transferred or assigned by the Successful Bidder directly or indirectly to any person or persons whomsoever without the prior written consent of TNeGA.

12.Neither TNeGA nor the Successful Bidder shall be liable to the other for any delay or failure in the performance of their respective obligations due to causes, contingencies beyond their reasonable control such as:

   a) Natural phenomena including but not limited to earthquakes, floods and epidemics.
   b) Acts of any Government authority domestic or foreign including but not limited to war declared or undeclared.
   c) Accidents or disruptions including, but not limited to fire and explosions.

13. The tender (RFP) document in relation with this contract shall be deemed to form and be read and construed as part of this Contract. The Tender enclosures, the offer submitted by the Successful Bidder,

the finalized Terms and Conditions and the LoA/Work Order respectively will form part of this contract. Wherever the offer conditions furnished by the Successful Bidder are at variance with conditions of this contract or conditions stipulated in the RFP document, the final negotiated offer conditions shall prevail over the tender conditions furnished by the Successful Bidder.

14. The Successful Bidder shall be liable and / or responsible for the compliance of all Statutory Provisions, especially those relating to Labour Laws in respect of this Contract.

15. Any notice from one party to the other given or required to be given hereunder shall be given by either:

Mailing the same by registered mail, postage prepaid, return receipt requested; or

Having the same delivered by courier with receipt acknowledged at the address set forth above or with other addresses and to the attentions of such other person or persons as may hereafter be designated by like notice hereunder and any such notice shall be deemed to have been served if sent by post on the date when in the ordinary course of post, it would have been delivered at the addresses to which it was sent or if delivered by courier on the date of acknowledgement of receipt.

16. In case of breach of any of the conditions of the contract by the Successful Bidder during the contract period, TNeGA reserves the right to recover costs/liabilities arising directly due to such breach from the Successful Bidder.

17. Termination of Contract – as per cl.7.8 of this RFP.

18. Liquidated Damages (LD) – as per cl.7.10 of this RFP

19. Arbitration - as per cl.7.12 of this RFP

20. Deliverables and Timeline– as per cl. 18 of this RFP

21. Payment Terms – as per cl.19 of this RFP

IN WITNESS WHEREOF the Parties have by duly authorized Representatives set their respective hands and seal on the date first above

Signed by:

(Name and designation) For and on behalf of TNeGA

(FIRST PARTY)

Signed by:

(Name and designation) For and on behalf of Implementation Partner

(SECOND PARTY)

WITNESSES:

1. (for FIRST PARTY)

2. (for SECOND PARTY)

21. Appendix III - Technical Compliance of Solution (to be submitted by the bidder along with the PoC results)

Item wise technical compliance statement as per technical specifications mentioned in RFP (taking in to consideration all the amendments issued to this document, if any) is to be submitted in the following format:

Three Key Components of the solution (All relate to query on non-unique ID)

Sl. No.	Parameter/ Feature	Specification Required	Compliance (Complied/ Not complied)	Reference for proof of compliance (Required docs to be uploaded along with technical bid)
A	B	C	E	F
				(Detailed reference such as doc name, para no. page no. etc. should be provided)
1	One time activity of profiling and creating Golden Records	Should be done in less than 2 days for 5 Cr records (excluding manual resolution)		The existing client in India where it is achieved with the data volumes
2	matching the daily incremental records of each source with the master repository of Golden records	Should be on INCREMENTAL DATA (8 hours) for normal daily volume		The existing client in India where it is achieved with the data volumes
3	real-time interactive query for a 360 degree view all the details person like His phone number, Voter ID, Driving License no, including all the relationships	Less than 15 seconds for 5 Cr records (Excluding time for manual resolution)		The existing client in India where it is achieved with the data volumes

based on user defined rules and with or without considering address in an interactive manner with review and confirmation by the user			

Key Design Principles (All relate to query on non unique ID)

Sl. No.	Parameter/ Feature	Specification Required	Compliance (Complied/Not complied)	Reference for proof of compliance (Required docs to be uploaded along with technical bid)
A	B	C	E	F
				(Detailed reference such as doc name, para no. page no. etc. should be provided)
1	Response time for real time single query	Less than 30 Seconds for any data volume		The existing client in India where it is achieved with the base data volumes
2	Response for INCREMENTAL DATA process	25,000 on INCREMENTAL DATA (about 8 hours) against any data volume		The existing client in India where it is achieved with base data volumes
3	Seam less and interoperable	Should support the open architecture solutions such as XML, LDAP and SOA, web service etc. Should provide APIs. It should		The existing client in India where it is achieved

		support structured data from relational and non relational databases		
4	High positive matching accuracy	At least 80% of correct results in the base volume must be detected		The existing client in India where it is achieved with data volumes
4a	High Negative matching accuracy	Less than 40 matches without losing correct matches in any rule on any volume		The existing client in India where it is achieved with data volumes
5	Ranking of results	Best results should be on top		The existing client in India where it is achieved with data volumes
6	Handle data As is where Basis	Name of persons, father's names, addresses etc are expected to have large variations and no presumption can be made on the quality of data. The solution should be able to handle the data on "as is available" basis.		The existing client in India where it is achieved with data volumes
7	Scalable (Horizontal & Vertical)	The solution should support both vertical and horizontal scalability		The existing client in India where it is achieved with data volumes
8	Use of proven products and technologies used in India	Proven products and technologies already being used in India in large enterprise organizations with		Details of 2 top clients In India with highest volume, Variety and Velocity

		comparable volume, Variety and Velocity. New and untried products will not be considered for evaluation.		
9	High Availability (HA	Should support High Availability		The existing client in India where it is achieved with data volumes
10	Some amount of multiple language support	support unicode through some transliteration tools		The existing client in India where it is achieved with data volumes
11	Configurability	Configurable for building rules		The existing client in India where it is achieved with data volumes
12	Support Big data like Hadoop/Spark	Support Big Data		The existing client in India where it is achieved with data volumes.
13	Minimum Hardware in terms of number of cores and RAM	Indicative number of cores and RAM for every 1 Crore records (This will be verified in PoC)		The existing client in India where it is achieved with data volumes
14	Data Base Support	The solution should support all data bases like Oracle/SQL server/ DB2/My SQL/		The existing client in India where it is achieved
15	OS Support	The solution should support leading Operating systems like Microsoft/Linux/Un ix/Solaris.		The existing client in India where it is achieved
16	Network Relationship	The solution should build a network of related persons and entities and the		The existing client in India where it is achieved

		same should be displayed as a Graph using a Graph Data base like Neo4j or Orient DB or any other open source graph data base.		

It is understood that most of the above performance indicators of are linked to the Hardware. The performance on many of these important parameters will be evaluated during PoC.

Place & Date: Bidder's signature and seal