REQUEST FOR PROPOSAL

FOR AUTOMATION OF FAIR PRICE SHOPS

BY

FOOD AND SUPPLIES DEPARTMENT

GOVERNMENT OF WEST BENGAL

No. RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI)
Dated: 13 July 2021

Food and Supplies Department
11-A Mirza Ghalib Street Kolkata - 700087
E-mail: fpsautomationwb@gmail.com

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DISCLAIMER

The information contained in this Request for Proposal ("**RFP**") or any information subsequently provided to bidder(s), whether verbally or in documentary or any other form, by or on behalf of the Food and Supplies Department, Government of West Bengal ("**F&S Department**") or any of its employees or advisors, is provided to bidders on the terms and conditions set out in this RFP and such other terms and conditions in the form of any addendum or corrigendum or otherwise, subject to which such information is provided. This RFP supersedes and replaces any previous public documentation and communications and bidders should place no reliance on such documentation and communications.

This RFP is not an agreement and is neither an offer nor an invitation by the F&S Department to the prospective bidder(s) or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in formulation of their proposal pursuant to this RFP. This RFP includes statements which reflect various assumptions and assessments arrived at by the F&S Department in relation to the Scope of Work (Section III of the RFP) as provided hereinbelow. Such assumptions, assessments and statements do not purport to contain all the information that each bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the F&S Department, its employees or advisors to consider the business objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each bidder should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The F&S Department accepts no responsibility for the accuracy or for any interpretation or opinion on law expressed herein.

The F&S Department, its employees and advisors make no representation or warranty and shall have no liability to any person, including any bidder, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the content of the RFP and any assessment, assumption, statement or information contained herein or deemed to form part of this RFP or arising in any way with selection of bidders for participation in the bidding process.

The F&S Department may, in its absolute discretion but without being under any obligation to do so,

update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the F&S Department is bound to select a bidder or to appoint the selected bidder, as the case may be, for the said Scope of Work and the F&S Department reserves the right to reject all or any of the bids without assigning any reasons whatsoever. Additionally, the F&S Department may terminate the RFP process at any time and without assigning any reason.

All information supplied by bidders may be treated as contractually binding on the bidders on successful award of the assignment by the F&S Department on the basis of this RFP. The bidder shall bear all its costs associated with or relating to the preparation and submission of its bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the F&S Department or any other costs incurred in connection with or relating to its bid. All such costs and expenses shall be borne by the bidder and the F&S Department shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a bidder in preparation or submission of the bid, regardless of the conduct or outcome of the bidding process.

DEFINITIONS AND INTERPRETATIONS

Definitions:

In this RFP, unless the context otherwise requires, capitalized terms defined by inclusion in quotations and/or parenthesis shall have the meaning so respectively ascribed to each of such terms.

Unless the context otherwise requires, a term or a phrase used as a heading or sub-heading in this RFP in capitalized terms, if appearing anywhere else in the RFP shall refer to the said heading or sub-heading and shall be construed accordingly.

Interpretations:

1. The term "in writing" means communicated in written form and delivered against receipt;
2. The terms "bid" and "tender" and their derivatives (bidder/tender, bid/tender, bidding/tendering, etc.) are synonymous;
3. If a word or phrase is defined, cognate words and phrases shall have corresponding definitions;
4. Except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular;
5. "day" means calendar day;
6. "business day" means a day, on which the Government of West Bengal and scheduled commercial banks are open for business in the State of West Bengal;
7. "operational day" means a day on which the FPS shall be operational as may be notified by the F&S Department from time to time;
8. References to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
9. References to applicable laws or laws of West Bengal, laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications, orders or circulars which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;
10. References to a "person" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
11. Headings or sub-headings or table of contents are for convenience of reference only and shall not be used in and shall not affect, the construction or interpretation of the RFP. However, unless the context otherwise requires, a term or a phrase used as a heading or sub-heading in this RFP in capitalized terms, if appearing anywhere else in the RFP shall refer to the said heading or sub-heading and shall be construed accordingly.
12. The words "include" and "including" are to be construed without limitation and shall be deemed to be followed by "without limitation" or "but not limited to" whether or not they are followed by such phrases;
13. Any reference to any specific time of the day shall be construed in accordance with the Indian Standard Time;
14. Any reference to "hour" shall mean a period of 60 (sixty) minutes commencing either on the hour or on the half hour of the clock, which by way of illustration means 5.00 (five), 6.00 (six), 7.00

(seven) and so on being hours on the hour of the clock and 5.30 (five thirty), 6.30 (six thirty), 7.30 (seven thirty) and so on being hours on the half hour of the clock;

15. Any reference to "month" shall mean a reference to a calendar month as per the Gregorian calendar;

16. Any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates; provided that if the last day of any period computed under the RFP is not business day/operational day, then the period shall run until the end of the next business day/operational day, as the context may require;

17. References to any gender shall include the other and the neutral gender;

18. "Lakh" means a hundred thousand (1,00,000) and "crore" means ten million (1,00,00,000);

19. Any word or expression or any capitalized terms used shall, unless otherwise defined or construed in this RFP, shall be construed as per the definition given in General Clauses Act, 1897 and if such word or expression is not defined in General Clauses Act, 1897 then shall bear its ordinary English meaning;

20. Unless the context otherwise requires, any capitalized term used in any Section of the RFP but not defined therein, but defined in any other Section of the RFP shall have the meaning assigned thereto;

21. All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down;

22. A right includes a benefit, remedy, discretion, authority or power;

23. An obligation includes a warranty or representation and a reference to a failure to observe or perform an obligation includes a breach of warranty or representation;

24. "Clause" and "Section" shall refer, except where the context otherwise requires, to Clauses and Sections of the RFP;

25. Any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this RFP from or by any party shall be valid and effective only if it is in writing under the hands of duly authorized representative of such party in its behalf and not otherwise. Writing includes any mode of representing or reproducing words in tangible and permanently visible form, and includes e-mail and facsimile transmissions;

26. A Party or person includes each of their legal representatives, successors, transferees and assigns and where a Party comprises more than one person, includes each person's legal representatives, successors, transferees and assigns;

27. This RFP includes the document as varied, amended or replaced notwithstanding any change in the identity of the Parties; and

28. This RFP or any Section thereof shall not be construed adversely to a Party solely on the ground that the Party was responsible for the preparation of the RFP.

NOTICE INVITING E-TENDER

The Food and Supplies Department, Government of West Bengal Invites Proposals from reputed and experienced entities for implementation of "POS Based Food Grain Distribution under Public Distribution System"

Bidding Schedule and Important Information

Various milestones of the bidding process leading to the selection of the bidder along with the timelines and other important information are mentioned in the table below:

Sl. No.	Information	Details
1.	**Tender Inviting Authority**	The Food and Supplies Department, Government of West Bengal 11-A Mirza Ghalib Street Kolkata-700 087
2.	**Job Requirement**	Turnkey solution for procurement, supply, installation, commissioning and maintenance of new electronic Point of Sale ("**POS**") devices and related accessories including customization/development of POS application and software, hardware and software related to State PDS automation server, integration with the State PDS automation server, internet/ mobile services, mobile application, consumables, training to district officials and FPS dealers, technical support and maintenance, call center helpdesk support, project management system etc. as more fully described in the Scope of Work (collectively referred to as "**Deliverables**") for State-wide automation of Fair Price Shops ("**FPS**") based on the Public Distribution System ("**PDS**")
3.	**Duration of the Contract**	5 (five) years
4.	**Extension of Contract**	The Contract may be extended for a further period of 1 (one) year at a time, up to a maximum period of 3 (three) years subject to satisfactory performance of the SI and mutual consent of the Parties.
5.	**Volume**	The total POS devices requirement is 22,000 (twenty two thousand) ("**Total Estimated Deployment**") in nearly 20,000 (twenty thousand) FPS. However, 20,000 (twenty thousand) POS devices shall be required to be deployed initially ("**Initial Deployment**"), and the remaining POS devices will be deployed at the sole

Sl. No.	Information	Details
		discretion of the F&S Department, and in the manner as stipulated by them.
		Details of district and FPS is provided in Appendix I.
6.	**Delivery Time Line**	The Deliverables in relation to the Initial Deployment to be completed within 90 (ninety) days from the Notification of Award.
7.	**Place of Supply**	All POS devices and related peripherals are to be made available in perfect functional condition at every FPS.
		All server and help desk related deliverables to be provided at such location(s) as may be specified by the F&S Department.
		The reserve stock of POS devices and related peripherals shall be maintained at the sub-divisional/district level, as may be specified by the F&S Department official(s) posted at the district(s).
8.	**RFP Document Fees**	Nil
9.	**Earnest Money Deposit ("EMD") Amount and Mode**	INR 10,00,000 (Indian Rupees Ten Lakhs) only (through electronic mode)
10.	**Date of Floating the e-Tender**	13 July 2021
11.	**Start date of submitting clarifications and Queries on the following e-mail id: fpsautomationwb@gmail.com**	15 July 2021
12.	**Last date of submitting online clarification of queries**	20 July 2021 by 3 PM
13.	**Pre-bid conference**	23 July 2021 at 12 PM (Virtual)
14.	**Last date for submission of complete bid document.**	4 August 2021 by 3 PM
15.	**Date and time for opening of Technical Proposal**	6 August 2021 at 3 PM
16.	**Evaluation of Technical**	Will be notified later on the Portal

Sl. No.	Information	Details
	Proposal	
17.	**Date of opening of Financial Proposal**	Will be notified later on the Portal
18.	**Performance Bank Guarantee ("PBG") to be submitted by the selected bidder**	3% (three percent) of the Contract Fee

SECTION-II

INSTRUCTIONS TO BIDDERS

1. **Introduction**

   The Government of West Bengal endeavors to bring in reforms in the functioning of the Public Distribution System, by further modernization and upgradation of the operations at all Fair Price Shops in the State of West Bengal by means of FPS Automation through the use of POS devices and related software and hardware integration to provide a robust and transparent PDS with an overall aim of enhancing food security and ensuring delivery of essential commodities/subsidized food grains to the rightful beneficiaries/households at the right time and in right quantity which will prevent pilferages and malpractices in distribution of highly subsidized food grains and increase the accountability and efficiency of the entire supply chain operations.

   In view of the above, the F&S Department invites proposals from well-established firms to provide the Deliverables for a period of 5 (five) years subject to further extension of such periods in terms of this RFP.

2. **Proposed Model of Implementation**

   The F&S Department proposes to carry out the implementation of the FPS automation based on Build-Own-Operate Model.

3. **Geographical Spread**

   The F&S Department will engage 1 (one) system integrator for the entire State. The State of West Bengal is divided into 23 (twenty three) districts having around 20,000 (twenty thousand) FPS as detailed in Appendix I. The Total Estimated Deployment of POS devices is 22,000 (twenty two thousand), however, at the outset the Initial Deployment of 20,000 (twenty thousand) POS devices shall be required to be made, and the remaining POS devices will be deployed at the sole discretion of the F&S Department, and in the manner as may be specified by them. Depending on the number of beneficiaries and size of the serving area, one FPS may require more devices in addition to the existing POS device for doorstep delivery of ration or otherwise. In that event, either an additional POS device or a mobile device may be used by the FPS as per the sole discretion of the F&S Department. If the FPS uses a mobile device and its peripherals, it will utilize the mobile application developed by the SI as detailed in the Scope of Work, however the procurement of such mobile devices and its peripherals shall not form part of the Deliverables. Further, the selected bidder will be required to maintain, as reserve at all times, a stock of additional 5% (five percent) of the total number of POS devices and its accessories as may be deployed at the FPS at any given point of time, to ensure that there is no disruption in services due to malfunctioning of devices and/ or accessories thereto or otherwise.

4. **Completeness of Bids**
   (i) The bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP with full understanding of its implications; and
   (ii) The response to this RFP should be full and complete in all respects. Failure to furnish the information required by the RFP or submission of a bid not substantially responsive to the RFP in every respect will be at the bidder's risk and may result in rejection of the same.

   (iii) The bidders must:
   ➢ Submit all documents specified in this RFP;
   ➢ Follow the format of this RFP and respond to each element in the manner as set out in this RFP; and
   ➢ Comply with all requirements as set out in this RFP.

5. **Pre-Bid Conference and Clarifications**

   (i) **Pre-bid Conference**
   (a) The F&S Department shall hold a virtual pre-bid conference with the bidders on 23 July 2021 at 12 PM;
   (b) The bidders will have to ensure that their queries, if any, for the pre-bid conference should be sent to fpsautomationwb@gmail.com by 3 pm on 20 July 2021;
   (c) The queries should necessarily be submitted in the word or excel file in the following format:

Sl. No.	RFP Document Reference(s) (Clause & Page Number(s))	Content of RFP requiring Clarification(s)	Points of clarification
1.			

   (d) Any requests for clarifications submitted post the indicated date and time shall not be entertained by the F&S Department.

   (ii) Responses to Pre-Bid Queries and Issue of Corrigendum/Addendum (if any)
   (a) The F&S Department will endeavor to provide timely response to all queries. However, the F&S Department neither represents nor warrants as to the completeness or accuracy of any response made in good faith, nor does the F&S Department undertake to answer all the queries that have been submitted by the bidders. At any time prior to the last date for receipt of bids, F&S Department may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify

the RFP by a corrigendum or addendum;

(b) Any such corrigendum/addendum shall be deemed to be incorporated into this RFP and shall form part of the RFP;

(c) The bidders while submitting the bids should also submit duly digitally signed copy of corrigendum/addendum; and

(d) In order to provide prospective bidders reasonable time for taking the corrigendum/addendum into account, the F&S Department may, at its discretion, extend the last date for the receipt of the bids.

6. **Language**

The bid as well as all correspondence and documents relating to the bid exchanged by the bidder and the F&S Department shall only be in English.

7. **Compliance with Applicable Laws**

The bidders shall in addition to the terms and conditions of this RFP have to comply with all applicable laws in India, including acts, ordinances, rules, regulations, bye laws or notifications, orders, circulars, practices and procedures of the Government of India and Government of West Bengal in connection with public tenders generally or the proposed Scope of Work specifically.

8. **Accuracy of Information**

During evaluation of the bids or even during performance of the Contract, if any information submitted by any bidder including the selected bidders is found to be incorrect, misleading, manufactured or fabricated, the bid of such bidder(s) will be rejected and if the Notification of Award has already been issued, the Notification of Award/ Contract shall be terminated (after giving an opportunity of hearing to the selected bidder), without prejudice to any other rights of the F&S Department.

9. **Authorized Representative of the Bidder**

Where an individual as a director/ principal officer/partner/designated partner, uploads any bid for and on behalf of the bidder, such person shall, upload a copy of the power of attorney and authorization letter authorizing him to act on behalf of the bidder for the purpose of this bid process.

10. **Construction of RFP**

The statements and explanations contained in the RFP and any addenda or corrigenda thereto are intended to provide a better understanding to the bidders about the RFP and should not be construed or interpreted as limiting in any way or manner the Scope of Work and obligations of the selected bidder set forth in the GCC or the F&S Department's rights to amend, alter, change, supplement or clarify the Scope of Work, the Contract to be awarded pursuant to the bid process or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the RFP are to be noted, interpreted and applied appropriately to give effect to this intent, and no claims on that account shall be entertained by the F&S Department.

11. Corrupt Practices

(i) The F&S Department requires bidders to observe the highest standard of ethics during the bidding process and during the Term and Annual Renewal(s), as may be applicable;

(ii) The F&S Department may, if it determines that a bidder has, directly or through an agent, affiliate or associate has engaged in corrupt, fraudulent, coercive or restrictive practices in competing for, or in executing the Contract with the F&S Department:

    (a) reject the bidder's proposal; and/ or

    (b) declare the bidder indefinitely or for a specific period of time, ineligible to participate in any tender/bidding process of the Government of West Bengal and its parastatals; and/ or

    (c) cancel or terminate the Contract.

(iii) The F&S Department will normally require an agent of the F&S Department or any person that the F&S Department may designate, to inspect or carry out audits of the bidders' accounting records and financial statements in connection with the bidding process.

12. Blacklisting

In order to be eligible for the bid, the bidder shall not be barred or blacklisted from participating in any assignment or project or shall not have any pending disputes with the Government of West Bengal which continues as on the date of submission of its bid.

13. Anti-Collusion

(i) The F&S Department reserves the right at its discretion to report suspected collusive or anti-competitive conduct by bidders to the appropriate regulatory authority and to provide the authority with all relevant information in relation to the same;

(ii) The bidder warrants that the bid has been prepared and submitted without any consultation, communication, contract, arrangement or understanding with any competitor, other than:

    (a) Where the bidder and a competitor have an agreement that has been authorized by the relevant competition authority; and

    (b) Where the supplier/bidder has communicated with a competitor for the purpose of subcontracting a portion of the tender and where the communication with that competitor is limited to the information required to facilitate the particular subcontract.

In such a situation the bidder agrees to fully disclose the full nature and extent of any agreements with competitors to the F&S Department.

(iii) In the event that no such disclosure is made, the bidder warrants that their bid has not been prepared with any consultation, communication, contract, arrangement or understanding with any competitor regarding:

    (a) Prices;

    (b) Methods, factors or formulas used to calculate prices;

    (c) The intention or decision to submit, or not submit, a bid;

    (d) The submission of a bid that is non-conforming;

(e) The quality, quantity, specifications or Delivery Schedule of the Deliverables; and

(f) The terms of the bid.

(iv) The bidders must indicate if it or any person associated with their bid including directors and senior management, are or have ever been subject to proceedings related to anti-competitive conduct domestically or overseas. The information must include:

(a) The names of the parties to the proceedings;

(b) The case number;

(c) The general nature of the proceedings; and

(d) The outcome or current status of the proceedings.

14. Conflict of Interest

The F&S Department considers a conflict of interest to be a situation in which a party has an interest that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws, and that such conflict of interest may contribute to or constitute a prohibited practice by the F&S Department which requires that bidders, suppliers, and contractors under contracts with the F&S Department, observe the highest standard of ethics and will take appropriate actions if it determines that a conflict of interest has flawed the integrity of the bidding process. Consequently, all bidders found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process if, including but not limited to:

(i) they have promoters/controlling shareholders/partners/ designated partners/management in common;

(ii) they receive or have received any direct or indirect subsidy or financial grant or financial assistance from any of them;

(iii) they have the same legal representative for purposes of this bid; or

(iv) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the F&S Department regarding this bidding process.

15. Preparation and Submission of Bids

The bidders are responsible for registration on the e-procurement portal (www.wbtenders.gov.in) ("**Portal**") at their own cost. The bidders are advised to thoroughly go through all the e-procurement guidelines and instructions, as provided on the Portal and accordingly submit the bid. The F&S Department shall not be liable for the failure of any bidder to comply with guidelines and instructions provided on the Portal. The bidder shall submit the proposals online through the Portal as described below:

(i) **Technical Proposal** – Scanned copy (in PDF format) of Technical Proposal digitally signed, as per the format provided in this RFP document in **Annexure I** of Section IV should be uploaded on the Portal in the allocated folders as specified in **Annexure V** of Section IV; and

(ii) **Financial Proposal** – Financial Proposal as per the format provided in this RFP document in **Annexure II** of Section IV should be uploaded on the Portal in the allocated folder as specified in **Annexure V** of Section IV. The Financial Proposal should be inclusive of the cost of all Deliverables.

Following are certain key considerations to be kept in mind by the bidder while submitting the bid:

(i) Proposals that are incomplete or not in prescribed format shall be rejected;

(ii) Conditional proposals shall not be accepted on any ground and shall be rejected;

(iii) If any clarification is required, the same should be obtained before submission of the bids as per Clause 5 (Pre-Bid Conference and Clarifications) of ITB;

(iv) The bidders are advised to upload the proposals well before time to avoid last minute issues, and bids uploaded after due date and time shall not be accepted; and

(v) No physical submission of bids would be acceptable.

16. Earnest Money Deposit

(i) The bidders shall submit, along with their bids, EMD of INR 10,00,000 (Indian Rupees Ten Lakhs) only, by either of the modes available on the Portal i.e. Net Banking or RTGS/NEFT. Bids submitted without the EMD will be summarily rejected;

(ii) In the case of selected bidder, the EMD will be adjusted towards the PBG;

(iii) EMD of all unselected bidders would be refunded by the F&S Department within 30 (thirty) business days from the date of Notification of Award;

(iv) The EMD shall bear no interest and will be refundable to the unselected bidders without any accrued interest on it; and

(v) The EMD may be forfeited:
  ➢ If a bidder withdraws its bid during the period of bid validity; or
  ➢ If a bidder breaches the terms and conditions of this RFP; or
  ➢ If the selected bidder fails to furnish the PBG; or
  ➢ If the selected bidder fails to sign the Contract in accordance with this RFP.

17. Bid Validity

The bid must be valid for 180 (one hundred and eighty) days from the submission due-date of the bid as mentioned in this RFP or subsequent corrigendum or addendum (if any). However, the F&S Department may extend this period, subject to bidder's acceptance.

18. Cost and Currency

The offer of the bidders must be given in Indian Rupees only. The price will remain fixed for the Term and Annual Renewal(s), as may be applicable, and no changes will be allowed. The bidders shall bear all the costs associated with the preparation and submission of its bid, and the F&S Department will in no case be responsible or liable for these costs, regardless of conduct or outcome of bidding process.

19. Interpretation of the clauses in the RFP

In case of any ambiguity in the interpretation of any of the clauses in the RFP, the F&S

Department's interpretation of the clauses shall be final and binding on the bidder. The decision taken by the F&S Department in the process of tender evaluation will be full and final.

20. **Amendment of RFP**

At any time prior to the deadline for submission of bids, the F&S Department for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, may modify the bid documents by way of an amendment or addition. Any such communication shall be posted on website and bidders are requested to visit the Portal for updates and modifications.

21. **Deviations**

The bidder shall not be allowed to make any deviation whatsoever from the terms and conditions and technical specifications specified in the RFP. All the bidders should submit a 'Declaration of No Deviation' as per the format given in **Annexure III** of Section IV.

22. **Instructions for submission of bids on e-Procurement Portal**

(i) Intending bidders can search and download tender documents electronically by logging on to the Portal using the Digital Signature Certificates. This is the only mode of collection of tender documents;

(ii) The RFP including any corrigendum or addendum, if applicable should be digitally signed by the authorized signatory of the bidder with seal of the entity affixed below, confirming that the tender document has been read and understood. Any corrections or overwriting should also be duly countersigned. An authorization letter empowering the representative of the bidder has to be submitted as per the format given in **Annexure IV** of Section IV;

(iii) Click the check boxes beside the necessary documents in the "My Documents List". Next, click the tab "Click to Encrypt and upload" and then click the relevant Folders to upload the all documents in the manner as provided in **Annexure V** of Section IV; and

(iv) The Financial Proposal should contain the Bill of Quantities ("**BOQ**") in a separate and distinct folder as per the format provided in **Annexure II** of Section IV**.**

23. **Eligibility Criteria and Documents to be Submitted in Support of Bid**

Sl. No.	Eligibility Criteria	Documents to be provided
1.	The bidder must be a (i) company within the meaning of Companies Act, 2013; or (ii) limited liability partnership ("**LLP**") registered under the Limited Liability Partnership Act, 2008; or (iii) partnership registered under the Partnership Act, 1932, and must be in existence for last 5 (five) years on the date	Certificate of Incorporation or Registration Certificate, as may be applicable. Memorandum of Association and Articles of Association or LLP Agreement or Partnership Deed, as

Sl. No.	Eligibility Criteria	Documents to be provided
	of submission of the bid having experience in managing data, data process and system integration. However, it may be noted that, the bidder shall not have any shareholder(s)/ partner(s)/ designated partner(s), (as the case may be) whether directly or indirectly, who belongs to or is incorporated or registered in any of the countries sharing geographical land border with India.	may be applicable.
2.	The bidder should be in the business of system integration/ software development and implementation for at least 2 (two) years and shall have successfully completed PDS or retail chain project(s) for supply, installation, maintenance and commissioning of at least 5,000 (five thousand) POS devices of any Government/ Local bodies/ Public Sector Undertaking or otherwise.	Copies of Purchase/Work Orders/ Installation Certificates
3.	The bidder must have successfully completed 1 (one) year after installation and commissioning of at least 1 (one) system integration/ software development project, having not less than a yearly contract amount of INR 12 Crore of any Government/ Local bodies/ Public Sector Undertaking or otherwise	Certificate(s) from Client showing that bidder has successfully completed 1 (one) year after such installation and commissioning
4.	The bidder should have an annual average turnover of INR 25 Crore in last 3 (three) financial years (F.Y. 2017-2018, 2018-2019 and 2019-2020) and out of the said 3 (three) financial years, the bidders shall be in profit for a minimum of 2 (two) financial years.	Audited Financial Statements certified by a Chartered Accountant / Audited Balance Sheets Details of Financial Indicators of bidder as per the format provided in **Annexure VI** of Section IV
5.	The bidder shall be POS machine manufacturer or authorized distributor/ supplier of the Original Equipment Manufacturer ("**OEM**").	In the event the bidder is the OEM, self-certification to that effect. In the event the bidder is authorized distributor/ supplier of the OEM, the

Sl. No.	Eligibility Criteria	Documents to be provided
		authorization letter from OEM (capable of giving manufacturer authorization) as per the format provided in **Annexure VII** of Section IV.
6.	The bidder must have adequate and sufficient manpower for successful implementation of the Scope of Work.	Details of Manpower Information as per format provided in **Annexure VIII** of Section IV
7.	The bidder must have minimum CMM Level 3 and above certification as on date of submission of the tender. It may be noted that CMM Level 5 certification will be preferred.	Copy of the valid CMM Level 3 or above certification.
8.	The bidder shall be registered for Goods and Services Tax ("**GST**") and shall have valid Permanent Account Number ("**PAN**") and Tax Deduction and Collection Account Number ("**TAN**").	Copy of GST registration and copy of PAN and TAN.
9.	The bidder shall not have been blacklisted for fraudulent and corrupt practices by Central Government or any State Government Department/ Public Sector Undertaking in India at the time of submission of the bid.	Notarized Affidavit on Non-Judicial Stamp Paper of INR 100 as per the format provided in **Annexure IX** of Section IV.
10.	The POS devices and accessories, as may be applicable, shall be Standardisation Testing and Quality Certification ("**STQC**") certified as per the latest STQC scheme of certification of Unique Identification Authority of India ("**UIDAI**") for biometric (fingerprint and iris) authentication devices, as on the last date of bidding.	Copy of certificate(s) issued by STQC and UIDAI.
11.	The proposed POS devices should be compliant with (i) technical specifications for the POS devices enclosed with the RFP as Appendix II ("**Technical Specifications**"); and (ii) the Functional Requirements Specification for FPS Automation issued by National Informatics Center, Version 1.0 ("**FRS of NIC**") enclosed with the RFP as	Compliance statement as per format provided in **Annexure X** of Section IV.

Sl. No.	Eligibility Criteria	Documents to be provided
	Appendix III; and (iii) all laws, rules, regulations and guidelines applicable in India with regard to the make and manufacture of POS devices.	
12.	The bidder must have at least 40 (forty) member IT Staff of technically qualified personnel in the domain of software development and implementation on its roll with minimum qualification of B.E/ MCA or higher having 3 (three) or more years of IT experience as on 31 March 2021 on its payroll.	Self-Certification by the authorized signatory of the bidder with clear declaration of staff (year wise, level/designation wise, qualification, experience, IT skills). Provident Fund ("**PF**") Register showing the number of subscribers along with the deposit of challan as proof.
13.	The bidder must have cleared up-to-date GST and PF payments.	Documents declaring GST and PF payments. Certificate by a practicing Chartered Accountant certified that the bidder has cleared up to date GST and PF payments.

24. Tender Opening

(i) The bid opening shall take place through the Portal. Online bids submitted along with the EMD shall be considered for bid opening as per the timelines mentioned in the RFP;

(ii) In case EMD is not received as per the timeline mentioned in the RFP, the bid submitted in the Portal shall be rejected; and

(iii) During bid opening, preliminary scrutiny of the bid documents will be made to determine whether they are complete, whether required EMD has been furnished and whether the bids are generally in order. Bids not conforming to such preliminary requirement will be *prima facie* rejected.

25. Tender Evaluation

The Tender Evaluation Committee ("**TEC**") of the F&S Department shall evaluate the Technical Proposals and Financial Proposals as per the following process.

(i) The F&S Department will evaluate and compare the bids that have been determined to be substantially responsive;

(ii) The TEC shall review the Technical Proposal along with Eligibility Criteria. To assist in the examination, evaluation, and comparison of the bids, and qualification of the bidders,

TEC may, at its discretion, ask any bidder for a clarification of its bid;

(iii) The Technical Proposal for only those bidders who have been found to be in compliance with the Eligibility Criteria mentioned above would be considered by the F&S Department for further evaluation. Further, only those Technical Proposals, whose proposed POS devices comply with the Technical Specifications, FRS of NIC and all laws, rules, regulations and guidelines applicable in India with regard to the make and manufacture of POS devices shall be considered for further evaluation. It may be noted that in case of discrepancy(ies) with regards to the technical specification of POS devices as provided in the Technical Specifications and FRS of NIC, the former will prevail;

(iv) Technically qualified bidders may be requested for presentation(s) and demonstration(s) of the methodology, model and proposed application software before the TEC. Further, the bidders shall be required to make presentation(s) and demonstration(s) on the basis of the POS device that the bidder proposes to deploy in the FPS, and such POS device shall be submitted to the F&S Department post the presentation(s) and demonstration(s), for the purpose of reference and verification.

(v) Eligible bidders scoring 60% (sixty percent) or more in the Technical Evaluation shall be considered for financial evaluation. In case number of bidders scoring 60% (sixty percent) or above are less than three, then the top three scoring bidders with score not less than 40% (forty percent) would be considered for Financial Proposal opening and comparison;

(vi) Financial Proposal of only those bidders who have been qualified in the Technical Evaluation and whose presentation will be found as per requirements of the F&S Department will be opened; and

(vii) To assist in the scrutiny, evaluation and comparison of offer, the F&S Department may, as its discretion, ask some or all the bidders for clarification of their bid on any of the points mentioned therein and the same may be sent through e-mail. No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by F&S Department at the time of evaluation of the bids.

26. Technical Qualification Criteria

The TEC based on technical evaluation framework mentioned below shall evaluate each proposal and allot technical score as per the technical criteria mentioned below.

Sl. No.	Description	Maximum Score	Supporting Document
Mandatory Requirements/ Pre-Requisites			
1.	All eligibility requirements as mentioned in Clause 23 (Eligibility Criteria and Documents to be Submitted in Support of Bid) of ITB.	-	All supporting documents as mentioned in Clause 23 (Eligibility Criteria and Documents to be Submitted in Support of Bid) of ITB.

Sl. No.	Description	Maximum Score	Supporting Document
Technical Evaluation Framework: 80 Points			
1.	**Bidders' Turnover**: Annual average turnover of bidder in last 3 (three) financial years. (F.Y. 2017-2018, 2018-2019 and 2019-2020) ➢ 25 Crores to 40 Crores: 5 points ➢ More than 40 Crores up to 55 Crores: 10 points ➢ More than 55 Crores up to 70 Crores:15 points ➢ Above 70 Crores: 20 points	20	Audited Financial Statements certified by a Chartered Accountant / Audited Balance Sheets. Details of Financial Indicators of bidder as per the enclosed format in **Annexure VI** of Section IV.
2.	**Experience of Work: POS Devices Related** Supply, Installation and Maintenance and Commissioning of POS devices in relation to PDS or retail chain project(s) in last 2 (two) years. ➢ 5,000 to 7,500: 　▪ In Retail Chain Project: 0 points; or 　▪ In PDS Project: 5 points ➢ 7,501 to 10,000: 　▪ In Retail Chain Project: 5 points; or 　▪ In PDS Project: 10 points ➢ 10,001 to 12,500: 　▪ In Retail Chain Project: 10 points; or	20	Purchase/Work Orders/ Installation Certificates.

Sl. No.	Description	Maximum Score	Supporting Document

	▪ In PDS Project: 15 points
	
	➤ Above 12,500: 20 points
	  ▪ In Retail Chain Project: 15 points; or
	  ▪ In PDS Project: 20 points
	
	(**Note:** To secure the points allotted for the PDS Project in any given bracket, the bidder must have supplied more than 50% (fifty) per cent of POS devices in relation to PDS Projects)		

3.	**Experience of Work: Project Related** Successful completion of 1 (one) year after installation and commissioning of at least 1 (one) System Integration/ Software Development project ➤ At least 1 Project: 10 Points ➤ 2 Projects: 15 Points ➤ 3 or more Projects: 20 points	20	Certificate(s) from client showing that bidder has successfully completed 1 (one) year after such installation and commissioning.
4.	**Qualified Manpower Strength** ➤ 40 to 60: 2 Points ➤ 61 to 80: 3.5 Points ➤ Above 80: 5 Points	5	Self-Certification by the authorized signatory of the bidder with clear declaration of staff (year wise, level/designation wise, qualification, experience, IT skills). PF Register showing the number of subscribers along with the deposit of challan as proof.

Sl. No.	Description	Maximum Score	Supporting Document
5.	**Approach and Methodology:** ➤ Proposed Application for the POS and Software Integration Methodology: 5 Points ➤ Manpower Deployment Plan: 2 Points ➤ Implementation Plan and Methodology: 2 Points ➤ Help desk Solution: 2 Points ➤ Support and Maintenance: 2 Points ➤ Training Plan: 2 Points	15	Relevant bid supporting documents, discussions with bidders, and presentations by the bidders detailing the approach and methodology
Technical Demonstration: 20 Points			
6.	**Complete Transaction Time from POS Devices:** ➤ More than 2 Minutes = 2.5 Points ➤ 1 to 2 Minutes = 5 Points ➤ Less than 1 Minute = 10 Points	10	Demonstrations and Presentations
7.	**Aadhaar Authentication through POS Devices:** ➤ More than 25 seconds = 3 Points ➤ 15 to 25 seconds = 6 Points ➤ Less than 15 seconds = 10 Points	10	Demonstrations and Presentations

Sl. No.	Description	Maximum Score	Supporting Document
Total Points:		100	

Note to Bidders:

The F&S Department's authorized representatives reserves the right to visit (or conduct telephonic verification) bidders' client(s) where such a similar project has been executed.

27. **Financial Criteria and Evaluation**

(i)   The bidders will be required to quote a consolidated price bid towards the cost of all the Deliverables specified in this RFP;

(ii)   Only the Financial Proposals of the technically qualified bidder will be opened on the prescribed date;

(iii)   The Financial Proposal will include all applicable rates, levies, taxes, cess and other statutory duties and impositions of whatsoever and howsoever nature, save and except GST;

(iv)   The Financial Proposal shall be in Indian Rupees and no additional payment shall be made to the selected bidder over and above the bid price;

(v)   Any conditional bid will be rejected;

(vi)   If there is any discrepancy between words and figures, the amount in words will prevail; and

(vii)   If there is no price quoted, the bid shall be declared as disqualified.

28. **Selection of the Bidder**

Identification of bidder with lowest Financial Proposal ("**L1**") will be determined as per the criteria below:

(i)   The bidder who has submitted the lowest Financial Proposal as per the format provided in this RFP shall be termed as the L1 bidder;

(ii)   In the event that there are 2 (two) or more bidders having the same Financial Proposal, the bidder securing the highest technical score will be considered as the L1 bidder;

(iii)   In the event the Financial Proposals as well as Technical Proposals of 2 (two) or more bidders are at par, the F&S Department will hold an *inter se* auction amongst such bidders to quote further lower bids and shall declare the bidder who has offered the lowest bid in such auction to be the L1 bidder;

(iv)   A confirmation on the lowest financial quote will be sought from the L1 bidder;

(v)   If L1 bidder fails to accept the financial quote along with terms and conditions, the bid will be treated as cancelled and EMD of that bidder will be forfeited; and

(vi)   In such a scenario the bidder who had submitted the next lowest Financial Proposal may be called for negotiation and for matching the L1 bidder's Financial Proposal.

29. Negotiation

The F&S Department shall reserve the right to negotiate with the selected bidder to reduce the consolidated bid quoted by him on the basis of the Scope of Work defined in the RFP.

30. Notification of Award

(i)   The selected bidder will be notified of the award by the F&S Department ("**Notification of Award**") prior to expiry of the Bid Validity period by uploading such information on the Portal or by e-mail in the form as specified in **Annexure XI** of Section IV; and

(ii) Until the Contract is executed, the Notification of Award shall constitute a binding direction on the selected bidder to perform the obligations as may be directed by the F&S Department.

31. Performance Bank Guarantee

Within 7 (seven) business days of the receipt of Notification of Award from the F&S Department, the selected bidder shall furnish the PBG of an amount equivalent to 3% (three percent) of the Contract Fee in the form of a bank guarantee and in accordance with the terms of the RFP and GCC, issued by any scheduled nationalized bank drawn in favor of "Accounts Officer, Food and Supplies Department", payable at Kolkata, in the form as specified in **Annexure XII** of Section IV. Such bank guarantee towards the PBG shall remain valid, enforceable and in full force for the Term and Annual Renewal(s), as may be applicable and also a further period of 180 (one hundred eighty) days after the termination or expiry of the Contract (post the Term and Annual Renewal(s), as may be applicable).

32. Signing of Contract

Promptly after receipt of the PBG from the selected bidder, the F&S Department shall send to the selected bidder, the Contract to be executed. Each page of the Contract should be signed by the Joint Secretary, F&S Department and the SI's authorized signatory. If there are any corrections, cuttings, omissions, over writings, insertions, etc. (after issue of Contract) the same shall be clearly mentioned on each page of the Contract before signing and at the place of any such correction(s) or modification(s), the Parties will have to counter sign against the same.

Within 3 (three) days of receipt of the Contract from the F&S Department, the selected bidder shall sign and date the Contract and return it to the F&S Department.

33. Change in Scope of Work

(i) The F&S Department may at any time at its convenience and without any reason whatsoever change or modify the Scope of Work of the SI by providing an intimation in writing to the SI specifying *inter alia* the nature and scope of the modification of the Scope of Work ("**Modification Intimation**");

(ii) Upon receipt of the Modification Intimation by the SI relating to a reduction in the Scope of Work, the Contract with the SI shall be deemed to have been terminated with respect to

such specific component(s) which are taken out of the Scope of Work of the SI and Clause 17 (Commercial Consequences of Termination of Contract) of the GCC shall be deemed to be applicable to such terminated part or portion of the Scope of Work. It is hereby clarified that the Contract shall continue to remain in operation and enforceable for the balance component(s) of the Scope of Work. Further, in the event of abovementioned reduction of the Scope of Work, the amount of Contract Fee that the SI is entitled to receive under the terms of the Contract shall also be proportionately reduced;

(iii) After receipt of the Modification Intimation by the SI relating to an increase in the Scope of Work, the Parties shall enter into good faith negotiations with regard to the commercial understanding in relation to the increased Scope of Work, and such negotiation shall be concluded within 7 (seven) days of receipt of such Modification Intimation by the SI. However, the cost charged by the SI for such increased Scope of Work shall always be lower than or equivalent to the equated monthly cost per unit of POS device as quoted by the SI in its bid and which has accepted by the F&S Department; and

(iv) The SI shall implement the change in Scope of Work as per the Delivery Schedule.

34. Failure to Agree with the Terms and Conditions of the RFP / Contract

The failure on part of the bidder/ selected bidder/ SI to agree and comply with the terms and conditions of the RFP and/ or the Contract shall constitute sufficient grounds for the rejection of the bidder's proposal or non-award of contract to the selected bidder or termination of the Contract executed with the SI, as the case may be. In such an event the F&S Department shall be entitled to forfeit the EMD or PBG, as applicable, and may at its discretion award the contract to the next best value bidder or call for new bids.

SECTION III

PROJECT OVERVIEW AND SCOPE OF WORK

1. **Introduction**

   The F&S Department aims to further modernize and upgrade operations at around 20,000 (twenty thousand) number of FPS through robust utilization of POS devices in order to achieve the following objectives:

   (i)   To track all transactions relating to food grain distribution at FPS;

   (ii)   To make the relevant transaction data available in public domain;

   (iii)   To ensure that PDS items are distributed to the entitled ration card holders and accurately control the utilization of the benefits and empowerment of the rightful beneficiaries;

   (iv)   To use Aadhaar based biometric (fingerprint and iris) platform or other modes like OTP for authentication of beneficiaries;

   (v)   Prevention of pilferage/ diversion of PDS commodities/ food grains and putting a check on other malpractices;

   (vi)   Eradication of fake / bogus /duplicate ration cards;

   (vii)   Improve last mile efficiency and effectiveness of PDS by introducing transparency and accountability in the system;

   (viii) More accurate demand and supply analysis for realistic future planning;

   (ix)   To record online allocation of food grains; and

   (x)   Regular monitoring of the transactions, stock balance and distribution network.

2. **FPS Automation Process**

   The FPS automation is envisaged to be based on the "Fully Online Mode" mostly. All FPS will be equipped with POS devices with mobile internet connectivity supporting 2G, 3G and 4G network or any other advancement as may be applicable from time to time, provided however that in areas where 4G network or any other advanced network is available, the SI shall ensure that the POS devices in such areas are equipped with 4G or such advanced network connectivity. The supply of food grains at FPS shall be manual, but the sale of food grains to beneficiaries shall be carried out through the POS devices with proper authentication (Aadhaar based/OTP based) at the time of transaction, and all such transactions carried out on the POS devices will be recorded on the State PDS automation server. The printed receipt of transaction to be given to the beneficiary shall be in English language and an audio announcement from POS devices shall be made in Bengali language.

   Basic infrastructure provided by system integrator at each FPS would comprise

   (i) POS devices with reliable internet connectivity/ mobile internet connectivity, through 2 (two) SIM cards of 2 (two) different mobile internet service providers supporting 2G, 3G and 4G network or any other advancement as may be applicable from time to time (as specified in detail hereinabove) and having a slot for 1 (one) signal boost external detachable antenna;

(ii) 1 (one) additional charger and 1 (one) additional battery; and

(iii) Inbuilt GPS (both online and offline) capability of all transactions to be geo-tagged.

3. Issuance of Commodities to Beneficiaries

The F&S Department uses OTP-based/Aadhaar-based biometric (fingerprint and iris) model at FPS to uniquely identify/authenticate eligible beneficiaries before the actual sale of subsidized food grains takes place at the FPS. For this purpose, all the FPS are provided with POS devices which will be used for verification of beneficiaries and sale of food grains. All the transactions under this mode will be online and OTP/Aadhaar based authentication will be carried out and commodity distribution will be done.

It is proposed that for ration cards where Aadhaar seeding is completed (even if only Aadhaar number of at least one member of the household is linked with ration card of the household), the distribution of food grains shall be carried out using Aadhaar based authentication process only. The POS application developed by the SI must address this requirement of the F&S Department. However, in the absence of any beneficiary/household's Aadhaar number, it is proposed that OTP based authentication on the basis of the ration card number shall be carried out using POS devices prior to transaction.

In case both Aadhaar and mobile number of the beneficiary are not pre-registered/linked in the PDS (ration card) database, it shall be ensured, that even then 'No beneficiary shall be denied from issuance of their entitled quota of ration/ subsidized food grains'.

4. Key Modes of POS Application
(i) Online Mode
   (a) Aadhaar Authentication: The POS devices with biometric (fingerprint and iris) scanner and printer connected shall access the FPS Automation sales application (web or app) and data will be served from the State PDS automation server using the network connectivity. The State PDS automation server in turn authenticates the beneficiaries through the UIDAI server. All transactions shall happen in real-time;
   (b) OTP Based Authentication: An SMS shall be sent to the registered mobile number of the beneficiary at the time of sale of commodity. The request is being made from the POS terminal by keying in the ration card number selecting the beneficiary details on the POS terminal. The beneficiary gets the OTP from State PDS automation server on his/her mobile which shall be fed into the POS devices for beneficiary identification and closure of the sale transaction at FPS; and
   (c) In case the device is online and the beneficiaries don't have Aadhaar/mobile seeded or both the Aadhaar and OTP based authentication is not working, the food grains will be distributed on the basis of ration card. The FPS dealer will enter the ration card number and select the details of the beneficiary who has come for lifting of the commodity and will complete the transaction.

   In all online modes, required sales details shall automatically be synced with the State PDS

automation server.

(ii) Offline Mode (to be occasionally used)

In case the device is offline, the food grains will be distributed on the basis of the ration card. The FPS dealer will enter the ration card number and select the details of the beneficiary who has come for lifting of the commodity and will complete the transaction. When occasionally offline sale happens, required sales details have to be saved in local database of POS and is to be synced with the State PDS automation server within next 3 (three) days. In case of offline sales, the database of beneficiaries and individual entitlements will be downloaded to the POS devices at least once prior to the distribution.

5. **Sale of Commodity**

Following are the broad steps by which sale of commodities takes place at the FPS:

(i) The POS machine will download the list of eligible beneficiaries along with the Aadhaar seeding flag and their eligibility from the State PDS automation server in the beginning of the month. In case of any change in the eligible beneficiaries, such incremental data can be downloaded as and when required;

(ii) POS devices gets connected with the State PDS automation server and registers itself on the State PDS automation server on a daily basis;

(iii) Sale to the beneficiaries takes place by way of the online mode or in exceptional cases, the offline mode;

(iv) All the sales transactions for the day are recorded with the State PDS automation server; and

(v) The POS machine also generates the receipt of stock received at the FPS from the distributor and such receipt is recorded on the State PDS automation server.

6. **Key Considerations**

(i) At the end of the allocation month (i.e., validity date and time for sale) the POS application shall disable/freeze the sale of food grains corresponding to its allocation number. After the sales are closed the backup shall be maintained securely on POS;

(ii) There should be a feature in POS application by which the closure can be done in both ways i.e. either time-driven or event-driven whichever is earlier;

(iii) POS devices can be configured in such a manner so that the food grains distribution through POS can be restricted to a stipulated time period;

(iv) Software Development Kits for database, bio-metric scanner (fingerprint and iris) and printer shall be part of the POS application. Accordingly, if the application is uninstalled the transaction data shall get erased and Software Development Kits shall get uninstalled. If there are any pending records for synchronization, then uninstallation/ updation shall not be allowed;

(v) Across all features of the POS application, date and time needs to be synchronized between POS device and State PDS automation server;

(vi) STQC and UIDAI certified biometric (fingerprint and iris) devices have to be provided for authentication;

(vii) The battery backup of the POS devices must be designed to last at least 8 (eight) hours on a single charge (with data mode ON, full screen brightness) or 1500 (one thousand five hundred) transactions with print outs, whichever is higher;

(viii) The date and time settings in POS devices shall continuously be in sync with the server and shall not be accessible by the user or manipulatable (e.g. by removing the battery); and

(ix) SIM slots/network settings must be as inaccessible as possible.

7. **Scope of Work**

The indicative scope of work of the SI in relation to the Deliverables will include the following, and shall be implemented as per the Delivery Schedule:

(i) Mobile footprint survey:

(a) The SI must conduct the mobile foot print (signal strength) survey across all FPS falling in the district as detailed in Appendix I and identify and map the FPS with the mobile internet service provider who is providing the most reliable connectivity in that area;

(b) The SI in this survey should identify the best 2 (two) service provider based on the signal strength in the area of operations; and

(c) The SI will also determine the specifications of the antenna including its size etc. depending on the signal strength of each geographical location.

(ii) Procurement and Supply of POS Devices at FPS:

(a) The SI shall be responsible for supply, installation, commissioning and maintenance of the Total Estimated Deployment of POS devices, however at the outset the Initial Deployment shall be required to be made, and the remaining POS devices will be deployed at the sole discretion of the F&S Department, and in the manner as may be specified by them. Depending on the number of beneficiaries and size of the serving area, one FPS may require more devices in addition to the existing POS device for doorstep delivery of ration or otherwise. In that event, either an additional POS device or a mobile device may be used by the FPS as per the sole discretion of the F&S Department. If the FPS uses a mobile device and its peripherals, it will utilize the mobile application developed by the SI as detailed in the Scope of Work, however the procurement of such mobile devices and its peripherals shall not form part of the Deliverables. Further, the SI will be required to maintain, as reserve at all times, a stock of additional 5% (five percent) of the total number of POS devices and its accessories as may be deployed at the FPS, to ensure that there is no disruption in services due to malfunctioning of devices and/ or accessories thereto or otherwise. The SI shall demonstrate the compliance of POS devices, as per the RFP/Contract;

(b) The SI must ensure that the POS devices deployed are CE/EMI/EMC compliant and biometric (fingerprint and iris) features should be STQC and UIDAI certified in compliance with UIDAI guidelines for the POS devices. The SI must ensure that the deployment of POS devices is complete as per the Delivery Schedule given in the GCC;

(c) The SI shall demonstrate all the features of proposed POS device through a proof of concept (POC) implementation at SI's own cost. POC is required to be given at central point to ensure compliance as per requirements, however a certificate is to be submitted by SI stating that all machines deployed in the specified geographical location comply with the requirements stated herein;

(d) The SI should ensure that all the components of POS devices offered are as per the approved specification provided in the RFP. No item with short supply or with different technical specifications shall be accepted in any circumstances. The devices being supplied by the SI should be tested and certified prior to delivery of the device to the FPS;

(e) The SI shall provide such packing as is required to prevent damage or deterioration of the goods during transit to their final destination. The packing shall be sufficient to withstand, without limitations, rough handling during transit and exposure to extreme temperatures and precipitation during transit and open storage;

(f) The SI shall depute its technically qualified representative for commissioning/ installing the delivered quantity of POS devices at the FPS;

(g) The SI shall warrant that the IT infrastructure, including the POS device hardware and software, server software and other technical accessories supplied to the F&S Department shall have no defects arising from design or workmanship or any act or omission of the SI or otherwise. The warranty shall remain valid for the Term and Annual Renewal(s), as may be applicable, as per Clause 1 (Duration of the Contract) of the GCC, on all the Deliverables as per the Contract. The SI shall replace at its own cost and expenses, any parts/ components of the Deliverables as per the Contract if the same are found to be defective or damaged or not functional to the optimal capacity by the F&S Department, in its sole discretion. It is hereby further clarified that under no circumstances the F&S department shall be liable to pay any additional costs for such replacement of any parts/ components of the Deliverables and the warranty provided herein by the SI shall always cover such costs and expenses during the Term and Annual Renewal(s), as may be applicable;

(h) The SI has to ensure that the POS devices, application software functionalities and any other components, equipment, peripherals involved in implementation solution meet the current STQC and UIDAI guidelines and any changes in future shall be addressed via formal change request;

(i) The POS devices shall be preloaded with the developed client application. Application upgrades including new features and its implementation at FPS shall be provisioned at no extra cost to the F&S Department during the Term and Annual Renewal(s), as may be applicable;

(j) The SI shall provide necessary software and technical document including drivers,

installers, user manuals etc. to enable FPS dealers in using devices and also integrating these devices in their existing/new business applications;

(k) The SI shall provide Software Development Kit support for all popular software languages including Android, Java, .Net, etc. The Software Development Kit should be compatible with all versions of Windows, Linux and Android Operating System;

(l) In case, any POS device fails to perform as expected, due to defects caused by reason such as mishandling, misuse, abuse, physical damage, lightening, unauthorized opening of POS devices, the same would be required to be replaced by SI;

(m) The SI shall at all times insure and keep insured with insurance company acceptable to the F&S Department, the POS devices and its accessories, against loss or damage from environmental, fire and such other hazards or risks as are customarily insured against by companies in the business of operating similar devices, including transit insurance against any loss during transit of POS devices from SI's/OEM's site to FPS. Prior to the supply of the POS devices to the FPS, the SI shall submit to the F&S Department, all certificates of insurance setting forth the form, nature and extent of the insurance maintained pursuant to this clause. Further, all charges and premiums of insurance shall be borne by the SI and the F&S Department shall in no way be liable for the same; and

(n) The SI shall supply STQC and UIDAI certified 2D bar code scanner capable of scanning bar codes and QR codes, and also QR codes on Aadhaar cards.

(iii) Supply of SIM Cards and other consumables for POS devices

(a) The SI must provide reliable internet connectivity supporting 2G, 3G and 4G network or any other advancement as may be applicable from time to time for all POS devices distributed at all the FPS. Based on the mobile footprint survey conducted by the SI, at least two SIM cards from 2 (two) different service providers as mentioned in the report shall be provided to the FPS dealer by the SI. Ensuring reliable connectivity will be the sole responsibility of SI and the SI must address any connectivity issue raised by the FPS dealer on urgent basis;

(b) The SI needs to ensure that every POS device shall be provided with a carry case to protect the device from regular wear and tear along with 1 (one) additional charger and 1 (one) additional battery;

(c) The SI shall provide adequate paper rolls to FPS for use in POS devices for generation of transaction receipts;

(d) The SI shall upgrade devices in line with the upgradation of network quality and advancements in mobile data infrastructure to ensure better connectivity and functionality; and

(e) The SI shall be responsible to make necessary changes in the software for compliance with orders and guidelines of competent authorities (TRAI, MeitY, UIDAI etc.)

(iv) Features of POS application:

(a) The SI shall develop and customize the POS application. This application will also store

and retrieve relevant transaction details in POS devices, at least till the information is transferred to the State PDS automation server;

(b) The POS application must capture Aadhaar seeding flag, as may be applicable, against the registered beneficiary while pulling the beneficiary data from the ration card management software. Further, the POS application should prompt for Aadhaar based authentication for the ration cards where Aadhaar number is captured in the Ration Card Management System database even for any one of the members of the family;

(c) The POS application must have provision for seeding Aadhaar number and mobile number with the ration card of the entitled beneficiaries, on an ongoing basis, as may be applicable;

(d) The SI shall use Public Key Infrastructure based encryption to store and retrieve all relevant transaction details in the POS devices. No specific Public Key Infrastructure based encryption is desired however the security must be provided as per the best practices;

(e) The POS client application shall be user friendly, easy to operate, bi-lingual and configurable to display text in either English or Bengali by an operator with minimum qualification;

(f) The SI shall incorporate Back-up and Restore facility in the POS devices as necessary, till last committed transaction. Any data recovery, whether due to POS device replacement or any other reason(s), shall be carried out by the SI;

(g) The POS devices and the POS application supplied under the Contract may be put to use towards implementation of the cashless (Aadhaar based) payments or direct benefit transfers implementation or any other additional schemes/projects envisaged by the Government from time to time within the Term and Annual Renewal(s), as may be applicable. The devices and the POS software should therefore have the necessary technical capability to implement the above schemes. The software patches/applications required for such additional schemes shall be developed by the SI. Further client application upgrades (if any) and its implementation at FPS shall be provisioned at no extra cost to the F&S Department during the Term and Annual Renewal(s), as may be applicable;

(h) The POS devices shall be micro-ATM compliant; and

(i) The POS devices should have provision to connect to a weighing scale (through USD/serial/wireless communication) with provision (if activated) to capture weight automatically from the weighing scale.

(v) Development of Mobile application:
The mobile application shall be developed by the SI which shall be capable of conducting all transactions as in a POS device including Aadhaar authenticated transactions having the following key features:

(a) The mobile application shall be compliant with Android/iOS;

(b) The mobile application to function complimentary/supplementary to the POS functionality;

(c) The mobile application should be capable to perform PDS transactions with Aadhaar authentication. These transactions are to be treated at par with POS transactions;

(d) The transactions on the mobile application shall be in online mode (offline mode to be enabled at the discretion of the F&S Department, only in exceptional cases); and

(e) The mobile application shall have provision to raise help request with the helpdesk, with provisions to capture images, videos, voice for ease of the FPS dealers.

(vi) Development of training material and training to FPS Dealers and F&S Department officials:

(a) The SI must prepare and supply the training material in English and Bengali. The material developed should be highly user friendly and should have updated contact information pertaining to the local office, helpdesk support number and escalation point. Such material shall be shared to FPS dealer by the SI directly as well as through F&S Department;

(b) The SI must create simple and lucid bi-lingual video tutorials to explain the entire process flow to the FPS dealers and the beneficiaries. The design and content of the tutorials to be moderated and approved by the F&S Department;

(c) The SI must formulate dos and don'ts to be followed by the FPS dealers and the beneficiaries. Such dos and don'ts shall be prominently displayed at the FPS;

(d) The SI must ensure that all the training material developed are uploaded on the State PDS automation server and can be accessed online;

(e) The SI shall give training to all FPS dealers in the use of the POS devices as well as in troubleshooting of simple/basic errors in vernacular language. The trainings will be conducted on the weekly off day when the FPS remains closed. There will be at least 2 (two) practical trainings to be conducted for all FPS dealers at the block/ municipality level. Training shall be provided to the officials of the F&S Department as and when required. The contents, trainers, computer/laptop with projector and training manual will be provided by the SI. Beyond the minimum requirement, the SI has to assess the number of trainings depending on the FPS in each district;

(f) The SI shall also be responsible to provide training to district level officials of the F&S department in each district. The department official training would include basics of the operation, functionalities and features of the State PDS automation server, POS devices, usage guidelines, safety measures, etc.; and

(g) The SI must ensure all the executives working in the centralized helpdesk are trained to provide Level-1 support to the FPS dealer. An undertaking in this regard needs to be submitted by the SI to F&S Department once at the time of start of operations and subsequently as and when the employees are replaced by the SI.

(vii) Deployment of trained manpower and setting-up of local office:
(a) The SI shall deploy sufficient resources to plan and manage the installation and regular maintenance, health check-up of POS devices at all service points in the area of

operations. The SI shall ensure that the POS devices are delivered and installed in a safe and secure manner;

(b) The SI will have to provide sufficient, however not less than 1 (one) technical man power for every 250 (two hundred fifty) POS devices to ensure seamless operation at all FPS. This technical manpower shall be responsible to address any kind of technical or operational issue being faced by the FPS dealers on priority basis and shall also conduct health check-up of POS devices on periodical basis. In addition to the aforesaid technical manpower, the SI shall also deploy minimum of 1 (one) resource who will work at the district level as a single point of contact (SPOC);

(c) The SI will ensure that the list of all its staff (district wise) along with their e-mail ids and mobile number are shared with F&S Department and the concerned FPS;

(d) The SI shall set up an office with mobile and separate e-mail ID for each district. It is recommended that a standard e-mail ID should be used by the staff of the SI for the purpose of receiving communications from FPS dealers and other stakeholders (for example: pds_<District_name>@<SI_name>.com); and

(e) The SI shall also be required to share the escalation matrix along with the name of project manager and senior executive with F&S Department.

(viii) Helpdesk Support

(a) The SI will setup centralized call center for helpdesk support with at least 2 (two) helpdesk executives to be available at all times. The number of executives can be increased based on the requirement and as may be intimated by the F&S Department to the SI. The helpdesk should have a single telephone number with PRI connection for technical/ operational support. Complaints from the field will be registered at this central helpdesk by way of a ticketing system;

(b) The helpdesk shall perform both inbound and outbound functions;

(c) The SI shall deploy helpdesk application, which will maintain log of issues, time and date of receipt of call, cause / nature of problem (network, hardware etc.), date and time of resolution provided etc. On reporting of complaint by FPS dealer, issue ticket will be generated and SMS will be sent to the complainant. The helpdesk executive should also be trained resource who shall be able to provide Level-1 support to the FPS dealers and should be able to resolve complaints over phone;

(d) For complaints which the helpdesk executives are not able to resolve, communication (complaint details) should be immediately forwarded to the SPOC appointed at district level by the SI. The SPOC will resolve the issue and communicate to Helpdesk on partial closing of the ticket. Helpdesk executives will call the complainant and on the basis of feedback received, ticket will be closed. If negative feedback is received from complainant, then the ticket will remain open, and in that event the complaint shall be escalated as per the escalation matrix shared with F&S Department accordingly;

(e) The issue shall be resolved forthwith. The SI shall provide the access of the complaint logging application to the F&S Department and will share the weekly report with the

F&S Department;

(f) Helpdesk should have voice logger to record all the complaint/grievances/feedbacks received from the complainant. The recordings shall contain detailed call information such as date, time, call duration, agent ID, caller number, complaint ID, etc. These recordings should also be made available securely for review by the F&S Department officials for service quality monitoring; and

(g) The helpdesk shall be functional from 6:00 AM to 8:00 PM on all operational days. The entire cost of the operation involved in the setting up and operations of the Helpdesk shall be borne by the SI as a part of scope of work under FPS automation.

(ix) Application for FPS Automation, Remote Terminal Management Software for Monitoring of POS devices, Enterprise Management System, Regular Health Check-up:

(a) The SI shall develop, host and maintain the FPS Automation software application for supply and distribution of food grains for the usage over POS devices. The software must be developed and customized as per the requirements of the F&S Department and NIC and the hosting should be carried out in accordance with the guidelines of the F&S Department, NIC and UIDAI;

(b) The SI shall ensure the application developed is security audited by Cert-In empaneled agency and is capable of transferring the data from all POS devices deployed at all FPS to the State PDS automation server through online with-portable mode with Aadhaar (using Aadhaar API V_2.0 or above) or OTP based authentication. Data would be synchronized with the FPS automation application database on real-time basis. It will be the responsibility of the SI to ensure that data synchronization is happening in a seamless manner and without any delays. The SI should also have provision of Online non-portable mode where in the data would be synced with the data base once at the closing every day;

(c) The SI will develop and share Application Programming Interface for transfer of data pertaining to unique transaction from FPS automation application to the State PDS Automation server or any other means required by F&S Department from time to time;

(d) The SI will ensure redundancy in terms of both application server as well as database server to ensure seamless operation and business continuity at the FPS. The SI must ensure FPS Automation software/server availability of at least 99% (ninety nine percent) on all operational days;

(e) The SI must also ensure that the POS devices supplied to the FPS can be upgraded and monitored remotely through a Remote Terminal Monitoring Software. The remote terminal monitoring software using push method will updated with latest OS patches, applications software patches and new software releases on the POS devices. The software will also be used for daily remote monitoring of the availability of POS devices in FPS including remote disabling, data security in case of theft and prevention of data tampering;

(f) Such remote terminal desktop monitoring facility for the POS machine should be available online at the State Level as well as District level (if required);

(g) The remote terminal monitoring software should have provision of generating report of functional and non-functional POS terminal at FPS at any time and for any defined period (daily, interval wise, weekly, monthly);

(h) The SI shall deploy / implement an Enterprise Management System (EMS) to provide online access to F&S Department and their authorized representatives for downtime and historical information of the same. Enterprise Management System shall have a suitable complaint management module to log and track complaints received from users of the system. The same shall also be available to the F&S Department and their authorized representatives for logging new complaints which trigger suitable alerts to the Helpdesk personnel for necessary corrective actions;

(i) The EMS tool shall generate suitable MIS reports (as desired by the F&S Department during the Term and Annual Renewal(s), as may be applicable) to meet the requirements of the F&S Department in monitoring the POS operations and performance indicators. An indicative list of reports needed to be supported include:

  ➢ Reports to provide evidence of adherence to the Contract;

  ➢ Root cause analysis of most frequent (e.g. top 10) queries / complaints;

  ➢ District wise complaints details;

  ➢ Complaints details: Classification based on the nature of the complaints;

  ➢ Analysis of complaints/grievances with longest turnaround time;

  ➢ Total number of calls landed at the helpdesk facility, answered calls, unanswered calls for a given user defined period; and

  ➢ Total number of out bounds calls made to the FPS dealers along with the details

(j) SI shall provide a self-diagnostic tool installed on the POS devices or a suitable remote management tool to check the working status of various components of the POS devices and generate report of the same. Such report should be made available on the remote POS monitoring system for download by F&S department or their authorized representatives;

(k) SI shall also carry out physical health check-up of the device provided to the FPS dealers once in 3 (three) months and should submit a report on Block-wise FPS-wise health check-up at the district F&S Department office along with a district-wise FPS-wise report to F&S Department; and

(l) The SI shall be responsible for any upgrades/replacement/compliance arising out of notifications/guidelines/orders of competent authorities as well as required changes to incorporate advancement/deprecation of technology.

8. **Change in Scope of Work**

Any change in Scope of Work as intimated by the F&S Department to the SI as per Clause 10 (Change in Scope of Work) of the GCC, shall be construed in terms of the Scope of Work contained herein and any change thereto shall always be deemed to form part of this Scope of Work.

SECTION IV

ANNEXURES
Annexure I: Technical Proposal

(i) <u>**Covering letter (on bidder's letterhead):**</u>

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Submission of Technical Proposal

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the Deliverables as required and outlined in the RFP.

We attach hereto our response to the technical requirements specified in the RFP.

We confirm that the information contained in this response or part thereof, including the exhibits and other documents and instruments delivered or to be delivered to the F&S Department is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the F&S Department in its bidding process.

We fully understand and agree to comply that, on verification, if any of the information provided here is found to be misleading or incorrect or fraudulent, our bid shall be liable to be rejected or the Notification of Award may be cancelled or the Contract may be terminated at the sole discretion of the F&S Department, as the case may be.

We unconditionally accept all terms and conditions set out in the RFP and also agree to abide by this tender response for a period of 180 (one hundred eighty) days from the submission due date of submission of the bid.

We hereby declare that in case we are chosen as the SI, we shall submit the PBG in the form and manner prescribed in the RFP.

We agree that you are not bound to accept any of the bids that you may receive. We also agree that you reserve the absolute right to modify all or any of the Deliverables specified in the bid.

Following are the particulars of our organization:

Sl. No.	Description	Details
1.	Name of the Company/LLP/Partnership Firm	
2.	Official Address	
3.	Year of Incorporation/ Registration	
4.	Corporate Identification Number/LLP Identification Number/ Registration Number of Partnership Firm	
5.	Phone No. and Fax No.	
6.	Corporate Address	
7.	Phone No. and E-mail ID	
8.	Website URL/Address	
9.	Brief Description of the Business	
10.	Annual Turnover for the F.Y. 2017-2018, 2018-2019 and 2019-2020	
11.	Years of Experience in system integration/ software development	
12.	Number and details of projects of system integration/ software development undertaken in the years 2018-2019, 2019-2020 and 2020-2021.	

Contact Details of authorized representatives for future correspondence regarding the bid process:

Details	Authorized Signatory	Secondary Contact
Name		
Title		
Company Address		
Phone		
Mobile		
Fax		
E-mail		

It is hereby confirmed that I/We are entitled to act on behalf of our organization and empowered

to sign this document as well as such other documents, which may be required in this connection.

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

(ii) Checklist for Technical Proposal:

The Technical Proposal should comprise of the following documents mentioned below and shall form part of the Technical Proposal.

Sl. No.	Documents to be submitted	Submitted (Yes /No)
1.	Covering letter for Technical Proposal as per format provided in Annexure I of Section IV	
2.	Covering letter for Financial Proposal as per format provided in Annexure II of Section IV	
3.	Payment of EMD	
4.	Certificate of Incorporation or Registration Certificate, as may be applicable	
5.	Memorandum of Association and Articles of Association or LLP Agreement or Partnership Deed, as may be applicable	
6.	Copies of Purchase/Work Orders/ Installation Certificates showing that bidder is in the business of System Integration/ Software Development and implementation for at least 2 (two) years and has successfully completed PDS or retail chain project(s) for supply, installation, maintenance and commissioning of at least 5,000 (five thousand) POS devices of any Government/ Local bodies/ Public Sector Undertaking or otherwise	
7.	Certificates from Client showing that bidder has	

Sl. No.	Documents to be submitted	Submitted (Yes /No)
	successfully completed 1 (one) year after installation and commissioning of at least 1 (one) System Integration/ Software Development project having not less than a yearly contract amount of INR 12 Crore of any Government/ Local bodies/ Public Sector Undertaking or otherwise	
8.	Audited Financial Statements certified by Chartered Accountant / Audited Balance Sheets for the financial years 2017-2018, 2018-2019 and 2019-2020	
9.	Details of financial indicators of the bidder as per format provided in Annexure VI of Section IV	
10.	Self-certification to the effect that bidder is the OEM	
11.	Authorization letter from OEM (capable to give manufacturers authorization) as per format provided in Annexure VII of Section IV	
12.	Details of Manpower Information as per format provided in Annexure VIII of Section IV	
13.	Copy of the valid CMM Level 3 and above certification	
14.	Copy of GST Registration Certificate	
15.	Copy of PAN	
16.	Copy of TAN	
17.	Notarized Affidavit on Non-Judicial Stamp Paper of INR 100 for declaration of no blacklisting as per format provided in Annexure IX of Section IV	
18.	Copy of certificate(s) issued by STQC and UIDAI	
19.	Statement of compliance with (i) Technical Specifications; (ii) FRS of NIC; and (iii) all laws, rules, regulations and guidelines applicable in India with regard to the make and manufacture of POS devices as per format provided in Annexure X of Section IV	
20.	Self-Certification by the authorized signatory of the bidder with clear declaration of staff (year wise, level/designation wise, qualification, experience, IT skills)	
21.	PF Register showing the number of subscribers along with the deposit of challan as proof.	
22.	Documents declaring up to date GST and PF payments	

Sl. No.	Documents to be submitted	Submitted (Yes /No)
23.	Certificate by a practicing Chartered Accountant certified that the bidder has cleared up to date GST and PF payments	
24.	Statement of no deviation as per format provided in Annexure III of Section IV	
25.	Authorization Letter (as per format provided in Annexure IV of Section IV)	
26.	Power of Attorney for the authorized representative signing the bid on behalf of the bidder	
27.	Agreements with competitors that have been authorized by the relevant competition authority, if applicable	
28.	Documents evidencing details of proceedings related to anti-competitive conduct domestically or overseas	
29.	Any other document(s)	

Annexure II: Financial Proposal

(i) **Covering letter (on bidder's letterhead):**

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Submission of Financial Proposal

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the Deliverables as required and outlined in the RFP.

We hereby submit our Financial Proposal in the format as specified in the RFP.

We confirm that the information contained in this response or part thereof, including the exhibits and other documents and instruments delivered or to be delivered to the F&S Department is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the F&S Department in its bidding process.

We fully understand and agree to comply that, on verification, if any of the information provided here is found to be misleading or incorrect or fraudulent, our bid shall be liable to be rejected or the Notification of Award may be cancelled or the Contract may be terminated at the sole discretion of the F&S Department, as the case may be.

We unconditionally accept all terms and conditions set out in the RFP and also agree to abide by this tender response for a period of 180 (one hundred eighty) days from the submission due date of submission of the bid.

We hereby declare that in case we are chosen as the SI, we shall submit the PBG in the form and manner prescribed in the RFP.

We agree that you are not bound to accept any of the bids that you may receive. We also agree

that you reserve the absolute right to modify all or any of the Deliverables specified in the bid.

It is hereby confirmed that I/We are entitled to act on behalf of our organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

(ii) **BOQ Format:**

Sl. No.	Item	Units of POS Devices	Equated Monthly Cost per Unit of POS Device (In INR)	Total Cost for 60 months (In INR)	Total Cost for 60 months (In words)
1.	Turnkey solution for procurement, supply, installation, commissioning and maintenance of POS devices and related accessories including customization/development of POS application and software, hardware and software related to State PDS automation server, integration with the State PDS automation server, internet/ mobile services, mobile application, consumables, training to district officials and FPS dealers, technical support	22,000			

Sl. No.	Item	Units of POS Devices	Equated Monthly Cost per Unit of POS Device (In INR)	Total Cost for 60 months (In INR)	Total Cost for 60 months (In words)
	and maintenance, call center helpdesk support, project management system etc. as more fully described in the Scope of Work				
Total:					

Notes:

The same is inclusive of all taxes, surcharges, expenses and any other financial cost or implication save and except GST that shall be charged over and above the total consolidated financial bid.

The total consolidated financial bid shall include the cost of the additional stock of 5% (five percent), as reserve, of the total POS devices and its accessories as may be deployed at the FPS at any given point of time.

The equated monthly cost shall always be calculated in proportion to the actual units of POS devices installed and commissioned.

(iii) Checklist for Financial Proposal:

The Financial Proposal should comprise of the following documents mentioned below in and shall form part of the Financial Proposal.

Sl. No.	Documents to be submitted	Submitted (Yes /No)	Documentary Proof (Page No.)
1.	BOQ as per format provided in RFP		

Annexure III: Declaration of No Deviation
(On bidder's letterhead)

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Declaration of no deviation from the terms and conditions of RFP

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,

I, *[Name of Authorized Signatory]*, as the *[Designation]* of *[Name of Bidder]* state that in the proposal submitted by us, there are no deviations from the terms and conditions as specified in the RFP including the Technical Specification of POS devices provided therein.

This declaration is true to best of our knowledge and we accept and acknowledge that, the F&S Department may at its sole discretion disqualify our bid if it finds that the above-mentioned declaration is false.

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Annexure IV: Authorization Letter
(On bidder's letterhead)

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Authorization letter in favour of *[Name of Authorized Representative]* to act on behalf of *[Name of Bidder]*

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,
This is to state that, *[Name of Authorized Representative]*, *[Designation]* is hereby authorized to act on behalf of *[Name of Bidder]* for all purposes in relation to the afore-mentioned RFP including participating in the submission of bids including the Financial Proposal and taking all decisions on behalf of *[Name of Bidder]* till the bidding process is completed.

The Power of Attorney in favour of *[Name of Authorized Representative]* has been duly submitted.

The specimen signature of *[Name of Authorized Representative]* is as attested below:

[Specimen Signature of Authorized Representative]
[Name of Authorized Representative]

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Annexure V: Manner of Uploading Technical Proposal

Name of Folder	Details
Technical Folder	1. Copy of GST Registration Certificate 2. Copy of PAN 3. Copy of TAN 4. Copy of the valid CMM Level 3 and above certification 5. Copy of certificate(s) issued by STQC and UIDAI 6. Certificate of Incorporation or Registration Certificate, as may be applicable 7. Memorandum of Association and Articles of Association or LLP Agreement or Partnership Deed, as may be applicable 8. Power of Attorney for the authorized personnel signing the bid on behalf of the bidder 9. Documents declaring up to date GST and PF payments 10. Certificate by a practicing Chartered Accountant certified that the bidder has cleared up to date GST and PF payments 11. Audited Financial Statements certified by Chartered Accountant / Audited Balance Sheets for the financial years 2017-2018, 2018-2019 and 2019-2020 12. Copies of Purchase/Work Orders/ Installation Certificates showing that bidder is in the business of System Integration/ Software Development and implementation for at least 2 (two) years and has successfully completed PDS or retail chain project(s) for supply, installation, maintenance and commissioning of at least 5,000 (five thousand) POS devices of any Government/ Local bodies/ Public Sector Undertaking or otherwise. 13. Certificates from Client showing that bidder has successfully completed 1 (one) year after installation and commissioning of at least 1 (one) System having not less than a yearly contract amount of INR 12 Crores Integration/ Software Development project of any Government/ Local bodies/ Public Sector Undertaking or otherwise. 14. Self-certification to the effect that bidder is the OEM 15. Self-Certification by the authorized signatory of the bidder with clear declaration of staff (year wise, level/designation wise, qualification, experience, IT skills) 16. PF Register showing the number of subscribers along with the deposit of challan as proof. 17. Agreements with competitors that have been authorized by the relevant competition authority, if applicable. 18. Documents evidencing details of proceedings related to anti-competitive conduct domestically or overseas.
Financial Folder	BOQ (as per Annexure II of Section IV)
Annexures	1. Covering letter for Technical Proposal (as per Annexure I of Section IV)

Name of Folder	Details
and Declarations Folder	2. Covering letter for Financial Proposal (as per Annexure II of Section IV) 3. Statement of No deviation (as per Annexure III of Section IV) 4. Authorization Letter on behalf of bidder (as per Annexure IV of Section IV) 5. Details of financial indicators (as per Annexure VI of Section IV) 6. Authorization letter from OEM (capable to give manufacturers authorization) (as per Annexure VII of Section IV). 7. Details of Manpower Information (as per Annexure VIII of Section IV) 8. Notarized Affidavit on Non-Judicial Stamp Paper of INR 100 for declaration of no blacklisting (as per Annexure IX of Section IV) 9. Statement of compliance with (i) Technical Specifications; (ii) FRS of NIC; and (iii) all laws, rules, regulations and guidelines applicable in India with regard to the make and manufacture of POS devices (as per Annexure X of Section IV) 10. Any other document(s)
EMD Folder	Scanned copy of the NEFT/RTGS Challan or Net-Banking Receipt towards the payment of EMD.
RFP Folder	Scanned copy of the RFP, including any corrigendum or addendum, digitally signed.

Annexure VI: Financial Indicators
(On bidder's letterhead)

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Financial Indicators for the financial years 2017-2018, 2018-2019 and 2019-2020

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,

Please find below the financial indicators of [*Name of Bidder*] for the financial years 2017-2018, 2018-2019 and 2019-2020:

Item	2017-2018	2018-2019	2019-2020
Total Income			
Profit before Depreciation			
Profit before Tax			
Profit after Tax			
Net Worth			

Audited Financial Statements certified by Chartered Accountant / Audited Balance Sheets for the financial years 2017-2018, 2018-2019 and 2019-2020 have been duly submitted.

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Annexure VII: Authorization Letter of Original Equipment Manufacturer
(On letterhead of original equipment manufacturer)

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Authorization of *[Name of Bidder]* to provide services based on our products

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,

This is to certify that I/We am/are the Original Equipment Manufacturer in respect of the products listed below. I/We confirm that *[Name of Bidder]* have due authorization from us to provide product(s) listed below and related services of warranty, licensing and maintenance on the products, to the F&S Department, as per your RFP for selection of system integrator for Supply, Installation and Maintenance of POS devices.

We endorse the terms and condition specified in the RFP, contracting and licensing terms provided by *[Name of Bidder]* to the F&S Department.

We endorse the warranty support for the products for a period of 5 (five) years commencing from the date of the Contract and any subsequent annual renewal(s) of such Contract for a maximum cumulative period of additional 3 (three) years. The warranty shall cover all the components and sub-components of the supplied POS devices including battery, screen, patches and upgrades (free of cost) of the device driver.

We also certify that the below mentioned product(s) being supplied by the *[Name of Bidder]* meets the minimum specifications given in the RFP.

Sl. No.	Product Name	Remarks
1.	*[Model number and Product name]*	

Thanking You
Yours Faithfully

For *[Name of Original Equipment Manufacturer]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Annexure VIII: Manpower Information
(On bidder's letterhead)

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Details of Manpower with for support regarding supply, installation and maintenance of POS devices

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,
We declare that out of the total manpower of [●], [●] number of employees are engaged in System Integration/ Software Development related activities.

We hereby declare that the key staff, details of whom are provided below are full time employees of *[Name of Bidder]*:

Sl. No.	Staff Name	Designation	Education	Experience	Years with Bidder	Key Assignments
1.						
2.						

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Annexure IX: Declaration of No Blacklisting
(On Non-Judicial Stamp Paper of INR 100 and Duly Notarized)

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Declaration for not being blacklisted by any Government Entity

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,
I, *[Name of Authorized Signatory]*, as the *[Designation]* of *[Name of Bidder]* state that our Company/ LLP/ Partnership Firm and all our Shareholders/ Directors/ Partners/ Designated Partners are having unblemished past record and the Company/ LLP/ Partnership Firm is not blacklisted or declared ineligible to participate for bidding by Central Government or any State Government Department/ Public Sector Undertaking in India for corrupt / fraudulent or any other unethical business practices or for any other reason(s).

This declaration is true to best of our knowledge and we accept and acknowledge that, the F&S Department may at its sole discretion disqualify our bid if it finds that the above-mentioned declaration is false.

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Annexure X: Compliance Statement and Declaration
(On bidder's letterhead)

To

The Secretary
Food and Supplies Department, Government of West Bengal
11-A Mirza Ghalib Street
Kolkata - 700087

Sub: Statement of Compliance

Ref: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Dear Sir/Madam,

I, *[Name of Authorized Signatory]*, as the *[Designation]* of *[Name of Bidder]* state that the system integration/ software development including the POS devices offered by us in relation to the afore-mentioned RFP is in compliance and conformity with (i) the Technical Specifications of POS devices provided in Appendix II of the RFP; (ii) the Functional Requirements Specification for FPS Automation issued by National Informatics Center, Version 1.0 provided in Appendix III of the RFP; and (iii) all laws, rules, regulations and guidelines applicable in India with regard to the make and manufacture of POS devices.

This statement is true to best of our knowledge and we accept and acknowledge that, the F&S Department may at its sole discretion disqualify our bid if it finds that the above-mentioned declaration is false.

Thanking You
Yours Faithfully

For *[Name of Bidder]*

[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Annexure XI: Form of Notification of Award
(On the letterhead of the F&S Department)

No. [●] Date [●]
[Name and Address of the Selected Bidder]

Sir,

Sub: RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables

Ref: Your bid dated [●]

This is to notify you that your bid in reference to RFP No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 has been accepted by us at the consolidated fixed price of INR [●] (Indian Rupees [●] only) for the Scope of Work (as provided in the RFP) to be provided by you.

The Total Estimated Deployment of POS devices is 22,000 (twenty two thousand), however, the Initial Deployment of 20,000 (twenty thousand) POS devices shall be required to be deployed primarily, and the remaining POS devices will be deployed at the discretion of the F&S Department. The Initial Deployment shall be carried out as per the Schedule to the Notification of Award.

The F&S Department has decided to execute and enter into a separate contract to record the terms and conditions under which the selected bidder shall perform the Scope of Work. Accordingly, the Contract Fee (as defined in the RFP) shall be payable quarterly for the Term and the Annual Renewal(s), as may be applicable.

Pursuant to the requirements specified in the RFP, you are required to furnish Performance Bank Guarantee (as defined in the RFP) for an amount of INR [●], within 7 (seven) business days of receipt of this Notification of Award. The said Performance Bank Guarantee shall be payable through separate bank guarantee from a scheduled nationalized bank.

It may be noted that only upon payment of the aforesaid Performance Bank Guarantee, the F&S Department shall send you the Contract for execution. Each page of the Contract should be signed by your authorized signatory. Within 3 (three) days of receipt of the Contract from the F&S Department, you shall execute and return the Contract to the F&S Department.

It may be noted that no payment shall be made for the Scope of Work fulfilled by you till the Contract is executed and till such time the Performance Bank Guarantee has been submitted by you.

This Notification of Award is being sent to you in duplicate and you are requested to return without delay one copy of the letter duly signed and sealed, in token of your acknowledgement.

Unless the context otherwise requires, any capitalized term used herein shall have the meaning assigned to it in the RFP.

Kindly note that this Notification of Award shall constitute a binding contract between us pending execution of the Contract.

Yours faithfully,
For Food and Supplies Department, Government of West Bengal
[Designation]

[Signature]

For [Name of bidder]
[Authorized Signatory]
[Designation]
[Place]
[Date and Time]
[Seal and Sign]
[Business Address]

Schedule

Sl. No.	District	Sub Division	Block/Municipality	Name of FPS with FPS Code	Address of FPS	Number of POS Devices to be deployed at the FPS

Annexure XII: Performance Bank Guarantee
(On Non-Judicial Stamp Paper of INR 100)

B.G. No. [●]
Date: [●]

THIS DEED OF GUARANTEE made on this [●] day of [●] by:

[●] *[Name of the issuing Scheduled Nationalized Bank]* having its registered office at [●] and a branch at Kolkata ("**Scheduled Nationalized Bank**")

In favor of:

FOOD AND SUPPLIES DEPARTMENT, GOVERNMENT OF WEST BENGAL, having its office at 11-A Mirza Ghalib Street, Kolkata 700087 (hereinafter referred to as the "**F&S Department**") which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns and substitutes.

WHEREAS the F&S Department, vide its Request for Proposal No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables ("**RFP**")**,** invited bidders for supply, installation, commissioning and maintenance of electronic point of sale ("**POS**") devices across Fair Price Shops in the State of West Bengal,

WHEREAS after evaluation of the Technical Proposals and Financial Proposals received, the F&S Department has granted the contract vide its Notification of Award No. [●] dated [●] ("**Notification of Award**") in favor of the *[Insert name of the selected bidder]* ("**Selected Bidder**").

WHEREAS in terms of the RFP, the selected bidder has to furnish to the F&S Department, a Performance Bank Guarantee being an irrevocable and unconditional bank guarantee from a Scheduled Nationalized Bank for a sum of [●] within a period of 7 (seven) business days from the date of receipt of Notification of Award as a security for due and punctual performance/discharge of its obligations under the service level agreement to be executed between the F&S Department and the Selected Bidder.

NOW THEREFORE,

1. We *[Name of the Scheduled Nationalized Bank]*, having our registered office at [●] and a branch at [●], at the request of the Selected Bidder, do hereby in terms of the RFP, irrevocably, unconditionally and without any reservation(s), guarantee the due and faithful fulfilment and performance of the obligations of the said Selected Bidder under the Contract and unconditionally and irrevocably undertake to pay forthwith to the F&S Department, if the Selected Bidder fails to fulfil or comply with all or any of the terms and conditions contained in the Contract, an amount of [●] as our primary obligation without any demur, reservation, recourse, contest or protest and without reference/notice to the selected bidder.

2. Notwithstanding any objection by the selected bidder or any dispute between the Selected

Bidder and/or issuing Scheduled Nationalized Bank and/or F&S Department, whether or not pending before any court, tribunal, arbitrator or any other authority, any written demand made by the F&S Department stating that the Selected Bidder is in default of its obligations contained in the Contract shall be final, conclusive and binding on the Scheduled Nationalized Bank.

3. The Scheduled Nationalized Bank hereby irrevocably and unconditionally undertakes, agrees and acknowledges that its obligations as a guarantor hereunder shall not be affected by:
    (i)   the existence of and/or release and/or variation of any other guarantee or security for any of the obligations of the Selected Bidder under the Contract;
    (ii) any failure by the F&S Department to perform any of its obligations under the Contract;
    (iii) any failure or delay in payment of any fee or other amount payable to the Scheduled Nationalized Bank by the Selected Bidder in respect hereof;
    (iv) any exercise or non-exercise of any right, remedy, power or privilege of any person under or in respect of any obligations of the Selected Bidder under the Contract;
    (v)   any failure, omission or delay on the F&S Department's part to enforce, assert or to exercise any right, power or remedy conferred on the F&S Department in this Performance Bank Guarantee; and
    (vi) any act, omission, matter or thing which, but for this clause would reduce, release or prejudice the Scheduled Nationalized Bank from any of the obligations under this Performance Bank Guarantee or prejudice or diminish the obligations in whole or in part.

4. This Performance Bank Guarantee shall be irrevocable and remain in full force for period of 5 (five) years from the date of signing of the Contract ("**Term**") and for a further period of 1 (one) year at a time, up to a maximum period of 3 (three) years ("**Annual Renewal(s)**") and for an additional period of 180 (one hundred eighty) days after the termination or expiry of the Contract (post the Term and Annual Renewal(s), as may be applicable). The Performance Bank Guarantee shall continue to be enforceable till all amounts under it have been paid.

5. We, *[Name of the Scheduled Nationalized Bank]*, further agree that the F&S Department shall in their sole discretion decide, whether the Selected Bidder is in default of its obligations contained under the Contract. Such aforementioned decision of the F&S Department shall be final and binding on us, notwithstanding any differences between the F&S Department and the Selected Bidder or any dispute pending before any court, tribunal, arbitrator or any other authority.

6. This Performance Bank Guarantee shall not be affected or discharged by any change in the constitution or winding up of the Selected Bidder or F&S Department or the Scheduled Nationalized Bank or any absorption, merger or amalgamation of the Selected Bidder or F&S Department or the Scheduled Nationalized Bank with any other person.

7. In order to give full effect to this Performance Bank Guarantee the F&S Department shall be entitled to treat the Scheduled Nationalized Bank as the principal debtor. The F&S Department shall have the fullest liberty, without affecting in any manner the liability of the Scheduled

Nationalized Bank under this Performance Bank Guarantee from time to time, to vary any of the terms and conditions contained in the RFP or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said RFP by the said Selected Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Selected Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said RFP or the securities available to the F&S Department and the Scheduled Nationalized Bank shall not be released from its liability under these presents by any exercise by the F&S Department of the liberty with reference to the matters aforesaid or by reason of time being given to the Selected Bidder or any other forbearance, act or omission on the part of the F&S Department or any indulgence by the F&S Department to the Selected Bidder or by any change in the constitution of the F&S Department or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Scheduled Nationalized Bank from its such liability.

8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Scheduled Nationalized Bank and sent by courier or by registered mail to the Scheduled Nationalized Bank at the address set forth herein and the Scheduled Nationalized Bank hereby undertakes to make the payment on receipt of such notice of claim on the Scheduled Nationalized Bank.

9. It shall not be necessary for the F&S Department to proceed against the said Selected Bidder before proceeding against the Scheduled Nationalized Bank and this Performance Bank Guarantee contained shall be enforceable against the Scheduled Nationalized Bank, notwithstanding any other security which the F&S Department may have obtained from the said Selected Bidder or any other person and which shall, at the time when proceedings are taken against the Scheduled Nationalized Bank hereunder, be outstanding or unrealized.

10. The Scheduled Nationalized Bank further undertakes not to revoke this Performance Bank Guarantee during its currency except with the previous express consent of the F&S Department in writing.

11. The Scheduled Nationalized Bank declares that it has power to issue this Performance Bank Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Performance Bank Guarantee for and on behalf of the Scheduled Nationalized Bank.

12. Notwithstanding anything contained herein above, our liability under this Performance Bank Guarantee is restricted to INR [●] (Indian Rupees [●]) only and this Performance Bank Guarantee shall be valid for the period specified in Clause 4 of this Performance Bank Guarantee and shall expire and become ineffective only on written intimation given to the Scheduled Nationalized Bank by the F&S Department for this purpose and in that instance this Performance Bank

Guarantee shall stand discharged.

13. The obligations, covenants, agreements and duties herein shall not be subject to any counterclaims, cross claims, set offs, deductions, withholdings, diminutions, abatements, recoupments, suspensions, deferments, reductions or defence for any reason whatsoever and the Scheduled Nationalized Bank shall have no right to terminate this Performance Bank Guarantee or to be released, relieved or discharged from any of its obligations, covenants, agreements and duties hereunder for any reason whatsoever.

14. This Performance Bank Guarantee shall be governed by and construed in accordance with the laws of India. The Scheduled Nationalized Bank hereby irrevocably submits to the exclusive jurisdiction of the courts in Kolkata for the purposes of any suit, action, or other proceeding arising out of this Performance Bank Guarantee or the subject matter hereof, brought by the F&S Department or its successors or assigns. To the extent permitted by applicable laws, the Scheduled Nationalized Bank or its successors or assigns hereby waive, and shall not assert, by way of motion, as defence, or otherwise, in any such suit, action, or proceeding any claim that such suit, action, or proceedings is brought in an inconvenient forum, or that the value of such suit, action, or proceeding is improper, or that the subject matter hereof may not be enforced in or by such court.

Date: [●]
Signed and Delivered by *[Name of the Scheduled Nationalized Bank]*

By the hand of Mr./ Ms. [●], its [●] and authorized official.

[Signature of the Authorized Signatory]
[Official Seal]

SECTION V

GENERAL CONDITIONS OF CONTRACT

1. **Duration of the Contract**

   (i) The Contract will be valid for a period of 5 (five) years from the date of signing of the Contract ("**Term**");

   (ii) Upon expiry of the Term, the Contract may be extended for a further period of 1 (one) year at a time, up to a maximum period of 3 (three) years ("**Annual Renewal(s)**") subject to satisfactory performance of the SI and mutual consent of both Parties;

   (iii) The F&S Department shall intimate the SI for the Annual Renewal(s) at least 180 (one hundred eighty) days prior to the expiry of the Term or Annual Renewal(s), as the case maybe ("**Annual Renewal Intimation**"); and

   (iv) The SI shall communicate its acceptance towards such Annual Renewal within 30 (thirty) days from the receipt of the Annual Renewal Intimation but in no event later than 90 (ninety) days prior to the expiry of the Term or Annual Renewal(s), as the case maybe.

2. **Contract Fee**

   (i) Subject to Clause 2 (ii) below and in consideration for the SI's performance of the Contract, the F&S Department shall be liable to pay to the SI, such sum being the consolidated price bid specified in the BOQ submitted by the SI as part of its Financial Proposal and which has been accepted by the F&S Department during the bidding process ("**Contract Fee**");

   (ii) The quarterly payment of the Contract Fee shall be calculated proportionately on the basis of the actual units of POS devices installed and commissioned;

   (iii) The SI shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Fee, which shall cover all its obligations specified in the Scope of Work under the Contract, including all costs and expenses to be incurred by it for carrying out its obligations under the Contract; and

   (iv) Subject to Clause 10 (Change in Scope of Work) of GCC, the Contract Fee for the Term and the Annual Renewal(s), as may be applicable is fixed and shall not be subject to any escalation.

3. **Taxes and Duties**

   (i) Save and except for GST, the Contract Fee shall be inclusive of all applicable rates, levies, taxes, cess and other statutory duties and impositions of whatsoever and howsoever nature, if any, under the applicable laws for the time being in force; and

   (ii) It is hereby clarified that, save and except for GST, in the event there is any increase in the applicable rates, levies, taxes, cess and statutory duties and impositions of whatsoever and howsoever nature that may be effected from time to time by any competent authority in

connection with the performance of the Contract by the SI, the SI shall not be entitled to claim or demand or receive any additional sum over and above the Contract Fee on account of such increase in the applicable rates, levies, taxes, cess and statutory duties and impositions of whatsoever and howsoever nature.

4. **Terms of Payment**
   (i) Any and all payments to the SI by the F&S Department shall be made in Indian Rupees;
   (ii) The SI shall prepare monthly bill/invoice towards the Contract Fee and raise it on a quarterly basis for a specific calendar quarter after getting the same duly certified by the F&S Department within 7th day of the first month in the next quarter;
   (iii) The monthly bill/invoice shall comprise of equated monthly cost towards (a) Initial Deployment; (b) difference between Total Estimated Deployment and Initial Deployment, if applicable; and (b) additional units of POS devices installed and commissioned as per Clause 10 (Change in Scope of Work) of GCC, if applicable;
   (iv) The F&S Department shall endeavor to make payment of the Contract Fee for the said previous quarter within 30 (thirty) days after the submission of the quarterly bill/invoice for such Contract Fee by the SI to the F&S Department, subject however to deduction/set off of any amount payable by the SI to the F&S Department;
   (v) The quarterly bill/ invoice shall have to be supported by necessary documents/challans/certificates/receipts as may be required by the F&S Department from time to time;
   (vi) In case of any dispute or discrepancy with respect to the bill/invoice raised by the SI, the decision of the F&S Department shall be final and binding on the SI; and
   (vii) The quarterly bill/ invoice shall be raised as per the following indicative format:

Sl. No.	Item	Month	Units of POS Devices	Equated Monthly Cost calculated per unit of POS device (In INR)	Total Amount (in INR)
1.	Towards Deliverables as per Initial Deployment	Month 1			
		Month 2			
		Month 3			
2.	Towards Deliverables as per difference between Total Estimated Deployment and Initial Deployment (if applicable)	Month 1			
		Month 2			
		Month 3			
3.	Towards Deliverables as per increase in Scope of	Month 1			
		Month 2			

Sl. No.	Item	Month	Units of POS Devices	Equated Monthly Cost calculated per unit of POS device (In INR)	Total Amount (in INR)
	Work (if applicable)	Month 3			
Grand Total:					

5. **Performance Bank Guarantee**

(i) Within 7 (seven) business days of the receipt of Notification of Award from the F&S Department, the SI shall furnish the PBG of an amount equivalent to 3% (three percent) of the Contract Fee in the form of a bank guarantee and in accordance with the terms of the RFP and GCC, issued by any scheduled nationalized bank drawn in favor of "Accounts Officer, Food and Supplies Department" and payable at Kolkata. Such bank guarantee towards the PBG shall remain valid, enforceable and in full force for the Term and Annual Renewal(s), as may be applicable and also a further period of 180 (one hundred eighty) days after the termination or expiry of the Contract (post the Term and Annual Renewal(s), as may be applicable);

(ii) The SI shall at the end of every year of the Term and Annual Renewal(s), as may be applicable, evaluate the value of the PBG then existing and in the event the value of the PBG is found to be less than 3% (three percent) of the Contract Fee, the SI shall be responsible to forthwith top up the PBG with additional bank guarantee to the extent required so that the PBG does not fall below 3% (three percent) of the Contract Fee;

(iii) In case the PBG is not updated from time to time, the F&S Department shall reserve the right to invoke the PBG and appropriate the proceeds thereto and shall be further entitled to terminate the Contract;

(iv) The SI shall renew the PBG, as may be required from time to time, not later than 1 (one) month prior to the expiry of the validity of the PBG to ensure that the PBG is valid and subsisting for the Term and Annual Renewal(s), as may be applicable, failing which the F&S Department shall be entitled to terminate the Contract and forfeit the entire PBG.

6. **Sub-Contracting**

(i) The SI may sub-contract with the prior written permission of the F&S Department only the following matters forming part of the Scope of Work:

(a) Internet Connectivity Services;

(b) Manpower Support;

(c) Training and Handholding; and

(d) Stationaries to be used with respect to the POS devices.

(ii) The SI shall provide a written notice to the F&S Department of each proposed sub-contract together with all details required by the F&S Department in relation to the relevant sub-contract;

(iii) The SI shall obtain representations, warranties and covenants from the sub-contractor equivalent to those provided by SI under the Contract; and

(iv) The SI shall be solely responsible to the F&S Department for the performance of the Contract and will be liable for any and all acts and omissions that result in any failure, breach or default in the performance of the Contract. The F&S Department shall not have any liability whatsoever towards such agents / contractors / suppliers of the SI. The F&S Department shall have the right to cause the SI to terminate any arrangement with any sub-contractor on reasonable grounds that it may deem fit and the SI shall not dispute such decision of the F&S Department.

7. **Delivery Schedule**

   (i) Following is an indicative delivery schedule to be adhered to by the Parties, in the performance of the Contract;

   (ii) The Contract will be deemed as incomplete if any of the milestone(s) provided in the below mentioned Delivery Schedule is not completed to the satisfaction of the F&S Department.

Day	Milestone	Responsibility
A Day	**Notification of Award**	**F&S Department**
A to 90 (Ongoing)	Continuous handholding and transition support from the previous system integrator which will include detailed walkthrough and demonstrations for the IT Infrastructure, handover of relevant documentation, addressing queries/clarifications with respect to the working / performance levels of the infrastructure etc.	SI
A+15	Conducting mobile footprint survey across all FPS	SI
A+35	Completion of procurement and supply of the Initial Deployment along with the software as well as all consumables at all FPS	SI
A+50	Deployment of personnel at block/municipality level for handholding and trouble-shooting of the FPS owners and setting up call center helpdesk support	SI
A+70	Completion of training of the F&S Department officials, FPS dealer/ employees regarding operation of the system	SI
A+80	Completion of mock drills and real time testing of POS devices at all FPS	SI
A+85	Achieving complete and perfect functionality of the new system at all FPS	SI
A+88	Final acceptance test of the new system	SI and F&S Department
A+91	Go Live (Effective transition from the existing automation system to the new automation system)	SI
B Day	**Intimation(s) for implementing the Scope of Work in relation to**	**F&S Department**

Day	Milestone	Responsibility
	the difference between the Total Estimated Deployment and Initial Deployment, as may be applicable	
B+7	Implementing the aforesaid	SI
C Day	**Modification Intimation(s) for reduction in Scope of Work as per Clause 10 (Change in Scope of Work) of GCC**	**F&S Department**
C+7	Implementing the aforesaid	SI
D Day	**Conclusion of negotiation for increase in Scope of Work as per Clause 10 (Change in Scope of Work) of GCC**	**F&S Department**
D+7	Implementing the aforesaid	SI

8. **Non-Interruption of Services**

The SI shall ensure that the performance of its obligations under the Contract does not in any way disrupt the normal functioning of the FPS.

9. **Representations and Warranties of the SI**

The SI represents and warrants to the F&S Department that:

(i)   it is duly organized or incorporated, validly existing and in good standing under the applicable laws of India, and has agreed to unconditionally accept without any reservations, the terms and conditions set forth in this GCC and other sections of the RFP;

(ii)   it is a competent provider of variety of information technology and business process management services;

(iii) it has full power and authority to execute, deliver and perform its obligations in terms of the Contract;

(iv)   it has taken all necessary corporate and other actions under applicable laws to authorize the execution, delivery and performance of the Contract;

(v)   it has the financial standing and capacity to undertake the Scope of Work;

(vi)   it has obtained all licenses, approvals, registrations, consents etc. as may be necessary to perform its obligations under the Contract;

(vii) no approval, authorization, order or consent of, or declaration, registration, or filing with any competent authority is required for the valid execution and delivery of the Contract by the SI, except as such as have been already duly obtained or made by the SI;

(viii) the execution, delivery, performance or fulfilment of terms and conditions of the Contract by the SI, do not conflict with its Memorandum of Association and Articles of Association/ LLP Agreement/ Partnership Deed, or violate, or result in a breach of any law, governmental rules and regulation applicable to the SI or conflict with, violate, or result in a breach of terms and conditions of an order, judgement, decree, deed, agreement, contract or any instrument to which the SI is a Party, or by which any of its properties or assets are bound, or constitute a default there under;

(ix)   the Contract has been duly executed and shall constitute the legal, valid and binding obligations of the SI, enforceable against it in accordance with the terms hereof;

(x) it shall conform with all the descriptions and specifications as set out in the Scope of Work;

(xi) there are no orders from any court of competent jurisdiction or from any competent authority, or any action, suit, proceeding, or official investigation pending which in any way prevents the SI from entering into the Contract or adversely affects the ability of the SI to perform its obligations under the Contract or questions in any material respect the validity, binding effect or enforceability (or seeks to enjoin or assess penalties) relating to any of the obligations of the SI under this GCC, the Notification of Award and other sections of the RFP;

(xii) none of the existing shareholders/directors/ partners/ designated partners (as applicable) of the SI have been convicted in a court of law for an offence involving moral turpitude;

(xiii) it acknowledges and accepts that the F&S Department and its officers, employees, consultants and agents have not made any representation or warranty as to the accuracy or completeness of documents and information provided to the SI relating to the Scope of Work or otherwise;

(xiv) it acknowledges and accepts that although the F&S Department has made reasonable endeavors to provide all material documents and information sufficient for the SI to perform its obligations under the Contract, there may be other documents and information which the F&S Department and its officers, employees, consultants and agents are aware of and which may be relevant to the Scope of Work, but which may not have been provided or to which no reference has been made in, or in connection with, the RFP;

(xv) it has satisfied itself as on the date of execution of the Contract as to the extent and nature of the Scope of Work, as well as equipment, materials and manpower necessary for satisfactorily performing its obligations under the Contract;

(xvi) it has all the resources required to perform its obligations under the Contract in an efficient and timely manner;

(xvii) there are no contingencies, fees, payments or other benefits accruing to the SI (other than as stated in this RFP), which have not been notified to the F&S Department in writing;

(xviii) all records and other information supplied or to be supplied by the SI to the F&S Department in relation to the Contract, are and will be true, correct and accurate in all respects and shall accurately reflect the performance of the obligations by the SI and may be relied upon by the F&S Department in all respects, including for the purpose of calculating the SI's entitlement to the quarterly Contract Fee and any deductions there from;

(xix) it has made, and relied on, its own independent assessment of the condition and location of the FPS, documents and information provided by the F&S Department or its officers, agents, employees or consultants and of the suitability of the terms of this GCC and other sections of the RFP for the purpose of performing its obligations under the Contract;

(xx) as on the effective date of the Contract it has obtained for itself and is satisfied that it has all necessary information as to risks, contingencies and other circumstances which may

influence or affect its obligations under the Contract or the costs and expenses to be incurred by it for performing its obligations under the Contract; and

(xxi) it accepts that the F&S Department shall not be liable for any death or permanent or temporary or partial or total disability or loss of limbs or burns or medical expenditure for necessary treatment thereof of the personnel, workmen, employees and sub-contractor(s) of the SI.

10. **Change in Scope of Work**

(i) The F&S Department may at any time at its convenience and without any reason whatsoever change or modify the Scope of Work of the SI by providing an intimation in writing to the SI specifying inter alia the nature and scope of the modification of the Scope of Work ("**Modification Intimation**");

(ii) Upon receipt of the Modification Intimation by the SI relating to a reduction in the Scope of Work, the Contract with the SI shall be deemed to have been terminated with respect to such specific component(s) which are taken out of the Scope of Work of the SI and Clause 17 (Commercial Consequences of Termination of Contract) of the GCC shall be deemed to be applicable to such terminated part or portion of the Scope of Work. It is hereby clarified that the Contract shall continue to remain in operation and enforceable for the balance component(s) of the Scope of Work. Further, in the event of abovementioned reduction of the Scope of Work, then the amount of Contract Fee that the SI is entitled to receive under the terms of the Contract shall also be proportionately reduced;

(iii) After receipt of the Modification Intimation by the SI relating to an increase in the Scope of Work, the Parties shall enter into good faith negotiations with regard to the commercial understanding in relation to the increased Scope of Work, and such negotiation shall be concluded within 7 (seven) days of receipt of such Modification Intimation by the SI. However, the cost charged by the SI for such increased Scope of Work shall always be lower than or equivalent to the equated monthly cost per unit of POS device as quoted by the SI in its bid and which has accepted by the F&S Department; and

(iv) The SI shall implement the change in Scope of Work as per the Delivery Schedule.

11. **Warranty**

(i) The SI warrants that the IT infrastructure, including the POS devices hardware and software, server software and other technical accessories supplied to the F&S Department shall have no defects arising from design or workmanship or any act or omission of the SI or otherwise. The warranty shall remain valid for the Term and Annual Renewal(s), as may be applicable, as per Clause 1 (Duration of the Contract) of the GCC, on all the Deliverables as per the Contract; and

(ii) The SI shall replace at its own cost and expenses, any parts/ components of the Deliverables as per the Contract if the same are found to be defective or damaged or not functional to the optimal capacity by the F&S Department, in its sole discretion. It is hereby

further clarified that under no circumstances the F&S Department shall be liable to pay any additional costs for such replacement of any parts/ components of the Deliverables and the warranty provided herein by the SI shall always cover such costs and expenses during the Term and Annual Renewal(s), as may be applicable.

12. Insurance

(i) The SI shall at all times insure and keep insured with insurance company acceptable to the F&S Department, the Deliverables including the POS devices and related accessories, against theft, loss or damage from environmental, fire and such other hazards or risks as are customarily insured against by companies in the business of operating similar devices, including transit insurance against any loss during transit of POS devices from SI's/OEM's site to FPS;

(ii) Prior to the supply of the POS devices to the FPS, the SI shall submit to the F&S Department, all certificates of insurance setting forth the form, nature and extent of the insurance maintained pursuant to this clause;

(iii) All charges and premiums of insurance shall be borne by the SI and the F&S Department shall in no way be liable for the same; and

(iv) In the event the SI fails to make payment towards the charges and premiums of the aforesaid insurance, the F&S Department may at its sole discretion, make the payment towards such charges and premiums on behalf of the SI which shall be adjusted from the quarterly payment of the Contract Fee to SI by the F&S Department in the relevant quarter.

13. Indemnity

(i) Notwithstanding anything contained in the Contract, the SI agrees to indemnify and hold harmless the F&S Department and its managers, officers, directors, employees and advisors ("**F&S Department Indemnified Party**") forthwith upon demand at any time and from time to time, from and against any and all claims to which F&S Department Indemnified Party may become subject, in so far as such claims arise out of, in any way relate to, or result from:

(a) any mis-statement or any breach of any representation or warranty as specified in the Contract made by SI or any other person claiming through or under it, including sub-contractors or agents appointed by it, and their respective employees, agents, and representatives, etc.; or

(b) the failure, negligence, fraudulent omissions, willful misconduct by SI to fulfil any agreement, covenant or condition contained in the Contract, including without limitation the breach of any terms and conditions of the Contract by any employee or sub-contractor or agent of the SI or person claiming through or under the SI; or

(c) failure by the SI or any other person claiming through or under it, including sub-contractors or agents appointed by it, and their respective employees, agents, and representatives, etc. to comply with the applicable laws, including acts, ordinances, rules, regulations, bye laws or notifications, orders, circulars; or

(d)   breach or failure on part of the SI or any other person claiming through or under it, including sub-contractors or agents appointed by it, and their respective employees, agents, and representatives, etc. to comply with Clause 20 (Compliance with Data Protection Laws) and Clause 21 (Confidentiality Requirements) of the GCC; or

(e)   failure by the SI or any other person claiming through or under it, including sub-contractors or agents appointed by it, and their respective employees, agents, and representatives, etc. to pay any applicable rates, levies, taxes, cess and statutory duties and impositions of whatsoever and howsoever nature; or

(f)   any claims made by any third party against F&S Department arising out of any act, deed or omission by the SI and / or persons claiming through or under the SI; or

(g)   performance of the Contract by the SI.

(ii)   For the avoidance of doubt, indemnification of claims shall be made in amount(s) sufficient to restore the F&S Department Indemnified Party to the financial position it would have been in had the claims not occurred.

14. Defence of Claims

(i)   In the event that F&S Department Indemnified Party receives a claim from a third party in respect of which it is entitled to be indemnified under Clause 13 (Indemnity) of GCC, it shall notify the SI within 15 (fifteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the SI, which approval shall not be unreasonably withheld or delayed. In the event that the SI wishes to contest or dispute the claim it may conduct the proceedings in the name of the F&S Department Indemnified Party subject to the F&S Department Indemnified Party being secured against any costs involved, to its reasonable satisfaction; and

(ii)   If the SI exercises its rights to contest or dispute the claim, then the F&S Department Indemnified Party shall nevertheless have the right to employ its own counsel/law firm and such counsel/law firm may participate in such action, and the fees and expenses of such counsel/law firm shall be borne by the SI, when and as incurred. The counsel/law firm engaged by the F&S Department Indemnified Party shall have the right to direct the defense of such claim, action, suit or proceeding on behalf of the F&S Department Indemnified Party.

15. Liquidated Damages

(i)   Time is the essence of the Contract, and Clause 7 (Delivery Schedule) of GCC is binding on the SI. In the event of delay caused due to gross negligence or any deviance on the part of the SI in fulfilling its obligations under the Contract as per the Delivery Schedule, the F&S Department shall be entitled at its option to recover from the SI, liquidated damages of a sum of 0.5% (zero point five percent) of the value of the quarterly invoice as may be raised by the SI for that quarter, for every week of such delay or part thereof;

(ii) In case the SI is in breach or default as specified in the table below and fails to cure such breach or default within the timelines specified in the table below, the F&S Department shall be entitled to deduct such sums as specified in the table below, as liquidated damages

from the Contract Fee due to the SI or from the PBG. Determination of such breach or default on the part of the SI shall be ascertained by the F&S Department at its sole discretion and the SI shall accept such determination of the F&S Department without any demur or protest:

Sl. No.	Nature of Breach or Default	Cure Period	Liquidated Damages (In INR)
1.	Non-availability of helpdesk facility to FPS dealers (over calls, SMSs or e-mails) during working hours on operational day(s)	2 (two) hours from the time of such non-availability or 1 (one) hour from lodging of the complaint by the F&S Department's representative with the SI, whichever is earlier.	INR 5,000 (Indian Rupees Five Thousand) only per hour if not cured within the cure period.
2.	Non-functionality of POS devises affecting the business transaction and necessitating that the component/ device be replaced with spare(s).	3 (three) hours from the time of such non-functionality or 2 (two) hours from lodging of the complaint by the F&S Department's Representative with the SI, whichever is earlier.	INR 1,000 (Indian Rupees One Thousand) per hour per POS device if not cured within the cure period.
3.	Downtime of State PDS automation server on operational day(s).	1 (one) hour from the time of such downtime.	INR 50,000 (Indian Rupees Fifty Thousand) only per hour if not cured within the cure period.
4.	Non-availability of Remote Desktop POS Monitoring except any planned software/hardware/ network outage as approved by F&S department	6 (six) hours from the time of such non-availability.	INR 20 (Indian Rupees Twenty) only per hour per POS device if not cured within the cure period.
5.	Security management failure incidents such as virus attack at server level, denial of service attack, etc.	6 (six) hours from the time of such security management failure.	INR 1,00,000 (Indian Rupees One Lakh) only per day if not cured within the cure period.

(iii) For all events of default or breaches not specified above, the SI shall be liable to cure the same within a period of 6 (six) hours, failing which the SI shall be liable to pay liquidated damages at the rate of INR 1,000 (Indian Rupees One Thousand) only per hour, until such breach is cured;

(iv) The above-mentioned liquidated damages shall be subject to a maximum limit of 5% (five percent) of the Contract Fee payable to the SI during the Term and the Annual Renewal(s), as may be applicable; and

(v) The SI shall not shut down or close any systems or any part of it for undertaking scheduled maintenance or repair works except with the prior written approval of the F&S Department. Such approval shall be sought by the SI through a written request to be made at least 7 (seven) days before the proposed closure and shall be accompanied by particulars indicating the reason(s), nature and extent of repair or maintenance and the period of closure. The SI shall also furnish particulars indicating the minimum time required for completing such repair or maintenance. Upon receiving such request, F&S Department shall grant permission with such modifications and on such terms as it may deem necessary. Upon receiving such permission, the SI shall be entitled to close the relevant component/part of the Systems in accordance with such permission and re-open it within the period stipulated in such permission.

(vi) The SI acknowledges and accepts that the liquidated damages amount agreed upon is fair and reasonable and quantum of liquidated damages assessed and levied by the F&S Department in terms of the provisions of the Contract shall be final and binding on the SI and the SI shall not dispute or challenge the same on the ground that the said quantum of liquidated damages imposed on it is unreasonable and penal in nature.

16. **Termination of Contract by F&S Department**
    (i) Termination for breach of Contract
        (a) Without prejudice to any other right or remedy which the F&S Department may have in respect thereof under the Contract, upon the occurrence of any breach of Contract and failure of the SI to cure such breach within a cure period of 15 (fifteen) days, the F&S Department shall be entitled to terminate the Contract forthwith by issuing a termination notice to the SI; and
        (b) The following shall apply in respect of cure of any breach of Contract:
            ➢ The said cure period shall commence from the date on which the written notice of the breach of Contract is sent by the F&S Department to the SI asking the SI to cure the breach specified in the said notice; and
            ➢ The aforesaid notice or the cure period shall not relieve or waive or shall be deemed to relieve or waive the SI from any liability for damages caused by its default.

    (ii) Termination for convenience:
        The F&S Department may at any time terminate the Contract without any reason whatsoever, by giving at least 90 (ninety) days' prior notice in writing to the SI.

    (iii) Termination for specific events of default:
        The F&S Department reserves the right to terminate the Contract by giving 30 (thirty) days' prior notice in writing to the SI in the event:

(a) the SI gets blacklisted by the Government of India, or any other Ministry of Government of India, or any other State/Union Territory; or

(b) the SI is convicted by a competent court or authority on grounds of tax evasion, criminal misconduct etc.; or

(c) if the SI is liable to pay liquidated damages, amount of which exceeds 5% (five percent) of the Contract Fee; or

(d) The SI fails to update and/ or renew the PBG as specified in Clause 5 (Performance Bank Guarantee) of the GCC; or

(e) If the SI breaches the terms and conditions of Clause 23 (Change in Management Control); or

(f) If any person initiates against the SI or if the SI initiates against itself any proceeding seeking relief as insolvent or adjudication as bankrupt or any other relief under the applicable laws affecting the rights of the creditors, or a petition is presented for the winding up and/or liquidation of the SI, and in the case of any such proceeding or petition or application instituted or presented against the SI in any court of law or tribunal or statutory authority, such proceeding or petition or application results in a judgment of insolvency or bankruptcy of the SI.

17. Commercial Consequences of Termination of Contract

(i) Subject to Clause 18 (Continuity of Service) of GCC, upon termination of the Contract in terms of Clause 16 above, the F&S Department shall make payment of the last unbilled and/ or unpaid quarterly invoice or part thereof, as applicable, after deducting any sums due to the F&S Department from the SI; and

(ii) Upon termination of the Contract in terms of Clause 16 (ii) above or in the event of expiry of the Contract, the F&S Department shall return the PBG to the SI after deducting any outstanding amount due to it from the SI within 180 (one hundred eighty) days from the date of expiry or termination of the Contract. However, in the event of termination in terms of Clause 16 (i) or Clause 16 (iii) above as well as for the breach of the provisions of Clause 18 (Continuity of Service) of GCC on the part of the SI, the F&S Department shall be entitled to forfeit the entire PBG.

18. Continuity of Service

(i) Notwithstanding anything stated herein, upon termination of the Contract, the F&S Department shall reserve its right to direct the SI to continue to perform its obligations on the same terms and conditions as specified in the Contract, till the time a new system integrator is appointed by the F&S Department provided however the aforesaid direction of the F&S Department shall not be for a period more than 180 (one hundred eighty) days;

(ii) In the event the SI refuses to abide by the directions of the F&S Department in this regard, the F&S Department, in addition to any right or remedy it may have under the Contract and/ or applicable laws, shall be entitled to declare the SI indefinitely or for a specific period of time, ineligible to participate in any tender/bidding process of the F&S

Department; and

(iii) The F&S Department also reserves the right to forfeit last unbilled and/ or unpaid quarterly invoice or part thereof, as applicable, payable to the SI under the Contract.

19. **Exit Management**

Upon expiry or termination of the Contract:

(i) The SI shall provide a detailed report on the status of the work carried out by it till the date of expiry or termination;

(ii) The SI shall not be entitled to and/or make a claim for lost or foregone profits, revenues, consequential damages or any other costs, damages, expenses or losses of any kind as a result of or in connection with the expiry or termination of the Contract;

(iii) The SI shall remove all its employees and personnel from the work locations forthwith;

(iv) The SI shall hand over to the F&S Department or to its permitted assigns all documents including documents, manuals and records relating to work done by it under the Contract and also relating to the systems, hardware and software;

(v) The SI shall conduct knowledge transfer to the F&S Department or to its permitted assigns including providing up-to-date technical know-how and data relating to the systems, hardware and software and the F&S Department reserves the right to appoint an auditor to inspect the same;

(vi) The SI shall transfer or cause to be transferred to the F&S Department any agreements or contracts which the SI might have entered into with third parties relating to performance of the Contract or for meeting any of its other obligations under the Contract, which are:

(a) valid and subsisting;

(b) capable of being transferred to the F&S Department; and

(c) agreed to be taken over by F&S Department as per its discretion.

The SI shall terminate or cause to be terminated such agreements or contracts which are not transferred to the F&S Department.

(vii) The SI shall, without any additional payment, be obligated to remove from the work locations all such movable assets as may be directed by the F&S Department;

(viii) Subject to clause (v) above, any data that the SI does not or cannot return to the F&S Department, the SI shall prior to date of expiry or termination of the Contract, permanently destroy all paper or other hard copy media on which it is recorded, and/or wipe it from any hard drive, external storage device or other electronic medium on which it has been stored to render the data incapable of being read, deciphered, reconstructed or recoverable or otherwise physically destroy the medium on which the data is stored so that the data is not recoverable. The SI will further confirm in writing to the F&S Department that all such information has been securely destroyed or permanently erased and specify the specific means of destruction;

(ix) The F&S Department shall be entitled to restrain the SI and any person claiming through or under the SI from entering the work locations or any part thereof;

(x) All the cost, expense and other amount due to the SI's employees or any other personnel engaged by the SI in connection with or in relation to performance of the Contract shall be the sole responsibility of the SI even after the expiry or termination of the Contract;

(xi) The SI shall execute all such documents as directed by the F&S Department in order to give effect to transfer of licenses, registrations, approvals, consents etc., acquired in favor of the new system integrator appointed by the F&S Department. The SI shall be required to enter into deeds and agreements as directed by the F&S Department in order to assign and transfer the rights and obligations of the SI under the Contract in favor of the new system integrator appointed by the F&S Department; and

(xii) Notwithstanding contained herein, the SI shall for a period of 180 (one hundred eighty) days from the date of expiry or termination of Contract, without any financial emoluments provide all necessary handholding and relevant support to the new system integrator appointed by the F&S Department including transfer of technical know-how, maintenance and upgradation of software applications and transaction data management, failing which the PBG shall be invoked and the proceeds thereto shall be forfeited by the F&S Department.

20. **Compliance with Data Protection Laws**

(i) The SI or any other person claiming through or under it, including sub-contractors or agents appointed by it, and their respective employees, agents, and representatives, etc. shall, at all times, comply with all applicable laws, relating to privacy and the processing of personal data, including the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016, including the guidelines and codes of practice as maybe applicable to the Contract, in relation to the personal data processed by it under the Contract and shall not do, nor cause or permit to be done, anything which may result in a breach of the same;

(ii) The SI warrants to the F&S Department that:

(a) it shall process the personal data only to the extent, and in such a manner, as is reasonably necessary to perform its obligations under the Contract, or as is required by any applicable laws, as the case may be;

(b) it has implemented appropriate technical and organizational measures and has reasonable security practices and systems in place to protect any personal data, accessed or processed by it, against unauthorized and unlawful processing and against accidental loss, destruction, disclosure, damage or alteration, and shall regularly assess and evaluate the effectiveness of such measures, practices and systems;

(c) it shall not, and shall ensure that no third party introduces any malware into the transaction data, systems, server and software used to perform the obligations under the Contract, or in any other way destroys, damages or corrupts any F&S Department or SI systems and software;

(d) In the event that the malware affects the F&S Department's or SI's systems and software, the SI shall at its own cost and expense, take all steps necessary to eliminate the malware, mitigate any losses of operational efficiency or transaction data caused

by such malware, and assume responsibility for all data clean-up and reconstruction costs incurred by the F&S Department or the SI resulting directly or indirectly from the introduction of the malware;

(e) only those personnel that need to have access to personal data will be given access thereto, and only to the extent necessary to perform the obligations under the Contract, and only after the relevant personnel has been informed by the SI of the confidential nature of the personal data and such personnel agree in writing to comply with the obligations set out in this clause;

(f) it shall not publish, disclose or divulge (and ensure that any personnel as abovementioned do not publish, disclose or divulge) any personal data to any third party, nor allow any third party to process personal data on its behalf, unless the F&S Department has given its prior written consent; and

(g) it shall immediately notify the F&S Department if it detects a security incident which has resulted in a data breach, and the SI shall provide forthwith all relevant information to the F&S Department concerning any such data breach.

(iii) The SI shall obtain equivalent representations, warranties and covenants from its sub-contractors or agents appointed by it, and their respective employees, agents, and representatives, or any person claiming through or under the SI.

21. Confidentiality Requirements

(i) The SI undertakes that it shall not at any time during the Term and Annual Renewal(s), as may be applicable and at all times after termination or expiry of the Contract, disclose to any person any Confidential Information which has been disclosed to the SI by the F&S Department, its employees, agents, consultants or subcontractors or any other confidential information concerning the F&S Department's activities and functions which the SI may obtain from the F&S Department or any third party;

(ii) The SI shall use the Confidential Information only for the purposes of the Contract and shall protect such Confidential Information from disclosure to others using the same degree of care used to protect its own proprietary information of like importance but in any case, using no less than a reasonable degree of care; and

(iii) The SI may only disclose the Confidential Information it receives to its team or personnel only on a need-to-know basis for the purpose of performing its obligations under the Contract and the SI shall ensure that the team or personnel to whom such Confidential Information has been disclosed also complies with the provisions of this clause.

For the purpose of this RFP, 'Confidential Information' shall mean information including transaction data published in the public domain (whether in oral, written, electronic or other format) which relates to the technical, financial and business affairs, dealers, suppliers, products, developments, operations, processes, data, trade secrets, design rights, patents, know-how, plans, budgets and personnel of the F&S Department and its affiliates which may be disclosed or

otherwise learned by the SI in course of or in connection with the Contract, including information received during negotiations, location visits and meetings in connection with the Contract.

22. Performance Review

(i) Performance review of the services rendered by the SI under the Contract will be carried out in project review meetings to be held as per the discretion of the F&S Department, during the lifecycle of the Contract;

(ii) The project review meetings will be conducted under the aegis of Joint Secretary, Food and Department or any designated officer appointed by the F&S Department with the SI or its nominated representatives;

(iii)Indicative agenda for these meetings will be to discuss progress of the project, priorities, service levels and device performance with respect to locations of the FPS; and

(iv)The meeting date, time and venue will be informed by the F&S Department.

23. Change in Management Control

(i) The SI shall ensure that the existing shareholders/partners/designated partners, as the case may be, of the SI maintain the shareholding or ownership interest as well as management control, as existing on the date of submission of its bid, till the expiry of the Contract;

(ii) At all points of time, the SI shall ensure that, it shall not have any shareholder(s)/ partner(s)/ designated partner(s), (as the case may be) whether directly or indirectly, who belongs to or is incorporated or registered in any of the countries sharing geographical land border with India; and

(iii) Notwithstanding the aforesaid, any transfer of or change in shareholding/equity/ownership interest in the SI including by way of a restructuring or amalgamation, shall only be with the prior written approval of the F&S Department.

24. Intellectual Property Rights

(i) The SI represents, warrants and covenants to the F&S Department that, in relation to the Deliverables provided under this Contract, it shall not breach or infringe or otherwise violate any third party intellectual property rights and/ or applicable laws; and

(ii) The SI further acknowledges that all intellectual property rights including any trademark and related rights in the 'Food and Supplies Department, Government of West Bengal' exclusively vests with the F&S Department and the SI shall only use the same with the prior written specific or general permission of the F&S Department and only in relation to performing its obligations under the Contract.

25. Force Majeure

(i) Neither Party shall be liable for any delay in performing its obligations under the Contract caused by circumstances beyond its reasonable control, provided that, such circumstances substantially affect or impair the ability of the Party to perform its obligations under the

Contract. These circumstances shall only mean Act of God and natural calamities ("**Force Majeure Event**");

(ii) Each Party whose performance of any obligations under the Contract is affected by a Force Majeure Event shall:

   (a) promptly notify the other Party of the occurrence of a Force Majeure Event including the nature, extent, effect and likely duration of the circumstances constituting the Force Majeure Event; and

   (b) use its reasonable endeavors to remedy or mitigate the effect of the Force Majeure Event.

(iii) In the event that, a Force Majeure Event continues for more than 30 (thirty) days, the Parties shall enter into discussions to agree, in good faith, the best way forward; and

(iv) In the eventuality that a Force Majeure Event, persists for a period of more than 60 (sixty) days, the F&S Department shall have a right to terminate the Contract by giving 7 (seven) days' prior notice in writing to the SI.

26. Governing Law

The Contract shall be governed by the laws of India and subject to Clause 27 (Dispute Resolution), of the GCC any dispute arising out if the Contract, shall be exclusively subject to jurisdiction of courts in Kolkata, West Bengal.

27. Dispute Resolution

(i) Any or all disputes, differences or claims arising out of the performance of the Contract or construction, interpretation or application of any terms and conditions or any matter or thing in any way connected with or in connection with or arising out of the Contract, or the rights, duties or liabilities of any Party under the Contract, at any time, whether relating to law or fact or both, shall at first be attempted to be resolved between the F&S Department and the SI amicably through mutual discussion and negotiation. Either of the Parties shall be entitled to give notice of such dispute to the other Party requesting for bi-partite discussion between them. Upon receiving such notice, the other Party shall forthwith enter into discussions with the Party issuing the said notice in an attempt to resolve such dispute, within a period of 30 (thirty) days from the date of issuance of such notice; and

(ii) In the event any dispute between the Parties cannot be amicably settled within the period of 30 (thirty) days as specified above, then either of the Parties shall be entitled to approach relevant court(s) in Kolkata, West Bengal, which shall have the exclusive jurisdiction over all matters relating to or arising out of the Contract.

28. Notices

Unless otherwise agreed between the Parties, all notices required to be given under this Contract shall be in writing and must be delivered by hand or sent by post or by e-mail to the other Party at

the address or e-mail address of that Party as provided below, save and except notice(s) of termination which shall only be delivered by hand or sent by post.

F&S DEPARTMENT:
11-A Mirza Ghalib Street, Kolkata 700087, E-mail ID: fpsautomationwb@gmail.com

SI:
[●]

A Party may change its address for service provided that it gives the other Party prior notice of the same in accordance with this clause.

29. Amendment

No amendments, modifications or alterations of or any additions to the terms and conditions of the Contract including this GCC shall be valid unless the same is in writing and agreed to by both the Parties.

30. Relationship

The relationship of the SI with the F&S Department shall be that of an independent contractor and that neither the Contract, nor the relationship created by it, is intended to create, and will not be construed as creating, any partnership, joint venture or fiduciary obligation with regard to, or as between, the Parties.

31. Severability

If for any reason whatsoever any clause(s) or any part(s) of the Contract is declared void or illegal or invalid under applicable laws, by any judicial authority, and if such provision(s) or part(s) shall be fully separable then the Contract shall be constructed as if such provision(s) or part(s) never comprised part of the Contract and the remaining provision(s) or part(s) of the Contract shall remain in full force and effect and shall not be affected by such void or illegal or invalid provision(s) or part(s) or by its severance from the Contract.

32. Continuance of Performance

At all times including during any pending dispute between the Parties, the SI shall continue to perform its obligations under the Contract and as directed by the F&S Department and shall be governed by the Contract.

33. Waiver

No waiver of any term or condition or breach thereof by F&S Department shall be valid unless expressed in writing and signed by the F&S Department and communicated by the F&S Department to the SI. A waiver by the F&S Department of any term or condition or breach thereof in a given case shall not be deemed or construed as a general waiver of such term or condition or

breach thereof in the future or waiver of any other term(s) or condition(s) or breach thereof.

34. Assignment

The SI shall not assign or transfer its interest in the Contract without the prior written consent of the F&S Department. Notwithstanding any such assignment, the SI shall remain fully liable to the F&S Department, jointly and severally, with any such assignee or transferee.

35. No Press Release

No press release in relation to the Contract or the transactions contemplated herein or any other announcement will be issued by the SI without the prior written consent of the F&S Department.

36. Entire Agreement

The Contract constitutes the whole agreement between the Parties and supersedes any previous written or oral agreements, understandings, negotiations and discussions between the Parties in relation to the matters dealt with in the Contract.

37. Further Assurances

The Parties shall with reasonable diligence, do all such things, take all such actions and provide all such reasonable assurances as may be required to consummate the transactions contemplated by the Contract and each Party shall provide such further documents or instruments required by the other Party as may be reasonably necessary to give effect to the purpose and intent of the Contract and carry out its provisions.

38. Survival of Obligations

(i) Notwithstanding anything to the contrary in the Contract, any expiry or termination of the Contract will not affect the effectiveness of the provisions of Clause 13 (Indemnity), Clause 14 (Defence of Claims), Clause 17 (Commercial Consequences of Termination of Contract), Clause 18 (Continuity of Service), Clause 19 (Exit Management), Clause 20 (Compliance with Data Protection Laws), Clause 21 (Confidentiality Requirements), Clause 28 (Notices), this Clause 38 and Clause 39 (Specific Performance), and the said provisions shall be specifically enforceable by the F&S Department, independent of the Contract, for any breach thereof; and

(ii) Any cause of action which may have occurred in favor of the F&S Department or any right which may have accrued or vested in the F&S Department during the Contract, as a result of any act, omission, deed or matter done or omitted to be done by the SI, shall survive beyond the expiry or termination of the Contract.

39. Specific Performance

The SI acknowledges and agrees that the covenants in the Contract were negotiated at arm's

length and are fair and reasonable. The SI further acknowledges that any breach or threatened or attempted breach of any provision of the Contract would cause irreparable, material, immeasurable, continuing and immediate harm to the F&S Department and the monetary damage would not be sufficient or adequate to protect the F&S Department's interests. The F&S Department will be entitled to institute and prosecute proceedings in any court of competent jurisdiction to prevent the SI from violating any contractual or legal obligation or to compel performance of the SI's obligations hereunder. Any relief of injunction and/or specific performance shall be in addition to any remedy for damages which the F&S Department may be entitled to.

<p style="text-align:center;">**SECTION VI**</p>

<p style="text-align:center;">**FORM OF SERVICE LEVEL AGREEMENT**</p>

THIS SERVICE LEVEL AGREEMENT ("**Contract**") is entered into on this the [●] day of [●], 2021

BETWEEN

FOOD AND SUPPLIES DEPARTMENT, GOVERNMENT OF WEST BENGAL, having its office at 11-A Mirza Ghalib Street, Kolkata 700087 (hereinafter referred to as the "**F&S Department**" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns and substitutes) of the **First Part.**

AND

[If the System Integrator is a Company]

[●], a company incorporated within the meaning of Companies 2013, having PAN [●] and CIN [●], having its registered office at [●], represented by its director/ authorized signatory [●], (hereinafter referred to as the "**SI**", which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns and substitutes) of the **Second Part**.

[OR]

[If the System Integrator is a Partnership Firm/Limited Liability Partnership]

[●], a partnership firm/limited liability partnership registered under the Indian Partnership Act, 1932/ Limited Liability Partnership Act, 2008 having PAN [●] and LLPIN [●]/Partnership Registration No. [●], having its principal place of business at [●], represented by its authorized partner [●], (hereinafter referred to as the "**SI**", which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors-in-interest, executors, administrators and permitted assigns and substitutes, including those of the respective partners) of the **Second Part.**

The F&S Department and the SI shall be individually referred to as a **Party** and collectively referred to as **Parties**.

WHEREAS:

A.   The F&S Department, with an aim to bring in reforms in the functioning of the Public Distribution System, is in the process to further modernize and upgrade the operations at all Fair Price Shops in the State of West Bengal by means of FPS Automation through the use of electronic Point of Sale ("**POS**") devices and related software and hardware integration.

B.   The F&S Department has decided to outsource the turnkey solution for procurement, supply, installation, commissioning and maintenance of POS devices and related accessories including customization/development of POS application and software, hardware and software related to State PDS automation server, integration with the State PDS automation server, internet/ mobile services, mobile application, consumables, training to district officials and FPS dealers, technical support and maintenance, call center helpdesk support, project management system etc. as more fully described in the Scope of Work, to reputed and competent agency(ies) to be selected through a transparent and competitive bidding process.

C.   The F&S Department had prescribed certain financial and technical criteria and invited bids by its Request for Proposal No. 2230-FS/P/Sectt/ IT-09/2014 (Part-VI) dated 13 July 2021 for selection of SI for providing turnkey solution of Deliverables ("**RFP**") for selection of a system integrator for the aforesaid purpose.

D.   After evaluation of the Technical Proposals and Financial Proposals received, the F&S Department had accepted the bid of the SI (being the selected bidder) and issued award bearing No. [●] dated [●] ("**Notification of Award**") to the SI which has been duly accepted by the SI.

E.   The SI has submitted the Performance Bank Guarantee in accordance with Clause 31 of Section II of the RFP.

F.   Accordingly, the F&S Department and the SI has mutually agreed to enter into and be legally bound by the terms and conditions recorded in this Contract and record their respective rights, powers, duties and obligations in connection therewith.

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1   Any word or expression or any capitalised terms used in this Contract shall, unless otherwise specifically defined in this Contract, have the same meanings as are respectively assigned to them in the RFP.

2   The following documents (collectively referred to as "**Transaction Documents**") shall be deemed to form and be read and construed as part of this Contract and shall be binding on the SI:
   (i)   Notice Inviting e-Tender ("**e-NIT**") being Section I of the RFP;
   (ii)   Instructions to Bidders ("**ITB**") being Section II of the RFP;
   (iii)   Project Overview and Scope of Work ("**Scope of Work**") being Section III of the RFP;
   (iv)   Annexures I to XII ("**Annexures**") being Section IV of the RFP;
   (v)   General Conditions of Contract ("**GCC**") being Section V of the RFP;
   (vi)   Bid submitted by the SI comprising the Technical Proposal and the Financial Proposal;
   (vii)   Clarifications to the queries raised by the bidders *[if applicable]*;

(viii) Addendum/Corrigendum dated [●] issued by the F&S Department *[if applicable]*;

(ix) Notification of Award dated [●] bearing No. [●] issued by the F&S Department to the SI; and

(x) Any other letter or communication exchanged between the F&S Department and the SI during the Term and Annual Renewal(s), as may be applicable.

3 In consideration of the payments to be made by the F&S Department to the SI for the performance of its obligations under the Contract, the SI hereby covenants to carry out its obligations in conformity in all respects with the provisions of the Transaction Documents.

4 Unless otherwise agreed between the Parties, all notices required to be given under this Contract shall be in writing and must be delivered by hand or sent by post or by e-mail to the other Party at the address or e-mail address of that Party as provided below, save and except notice(s) of termination which shall only be delivered by hand or sent by post.

F&S DEPARTMENT:
11-A Mirza Ghalib Street, Kolkata 700087, E-mail ID: fpsautomationwb@gmail.com

SI:
[●]

A Party may change its address for service provided that it gives the other Party prior notice of the same in accordance with this clause.

5 This Contract may be executed in any number of documents or counterparts, each in the like form and all of which when taken together shall constitute one and the same document and a Party may execute this Contract by signing any one or more such documents or counterparts.

IN WITNESS WHEREOF the Parties have executed and delivered this Contract by their duly authorized representatives on the date first above written**:**

Signed, Sealed and Delivered	Signed, Sealed and Delivered
on behalf of the F&S Department by the hand of [●]:	on behalf of the SI by the hand of its Director/Partner/Designated Partner pursuant to authorization letter dated [●] and pursuant to power of attorney dated [●]:
[●] (Signature) [●] (Name) [●] (Designation)	[●] (Signature) [●] (Name) [●] (Designation)
In the presence of Witnesses:	In the presence of Witnesses:

[●] (Signature)	[●] (Signature)
[●] (Name)	[●] (Name)
[●] (Designation)	[●] (Designation)

APPENDIX I

Details of Districts and Fair Price Shops

Sl. No.	Districts	Total number of FPS
1.	Alipurduar	456
2.	Bankura	1206
3.	Birbhum	969
4.	Cooch Behar	651
5.	Dakshin Dinajpur	310
6.	Darjeeling	677
7.	Hooghly	1263
8.	Howrah	906
9.	Jalpaiguri	542
10.	Jhargram	379
11.	Kalimpong	161
12.	Kolkata	950
13.	Maldah	753
14.	Murshidabad	1385
15.	Nadia	1361
16.	North Twenty Four Parganas	1824
17.	Paschim Bardhaman	711
18.	Paschim Midnapore	1088
19.	Purba Bardhaman	1368
20.	Purba Midnapore	855
21.	Purulia	1094
22.	South Twenty Four Parganas	1396
23.	Uttar Dinajpur	542
Total		**20847**

APPENDIX II

Technical Specifications for POS devices

Sl. No.	Description	Minimum Suggested Specification (Subject to the requirements specified in the Project Overview and Scope of Work in Section III of RFP)
1.	**Processor**	(i) High performance Processor with speed of 1 GHZ or above capable of performing at least 10 transactions per minute in laboratory environment. (ii) Processor should be capable enough of performing fingerprint authentication with AUA/ASA/UIDAI severs.
2.	**OS**	(i) Linux OS (latest stable Kernel)/ Android 10.0 or higher/Windows (latest stable version). (ii) Device operating system which supports HTMI5 based web browser, CSS 3, Java Scripts.
3.	**Memory**	(i) 1GB RAM (for Linux) and 2GB RAM (for Android 10.0/Windows) (ii) 8 GB or higher in-built Storage (Flash Memory)
4.	**Expansion Slot**	(i) Micro SD slot with minimum 8GB high speed SD Card. (ii) Slot should be able to support up to 32 GB.
5.	**Communication**	(i) Should support 2G, 3G, 4G, LTE and above, Wi-Fi, Ethernet and Bluetooth. (ii) Device should support GPS feature.
6.	**Interface**	(i) USB 2.0 or higher (ii) At least one free USB port shall be available after setting up the entire solution including peripheral devices and Fingerprint, IRIS device, Weighing Scale, Magnetic Payment reader etc.
7.	**Display**	3.5 inch or higher color TFT Display supporting QVGA (320x240) or better resolution and 64K or higher colors.
8.	**Key Pad**	(i) Physical QWERTY keypad with navigation keys. (ii) Keys size to be large enough for navigation.
9.	**Battery**	Swappable and Dry/Rechargeable, li-ion or li Polymer battery capable of providing minimum 8-10 hours of operation while all functions of device are active i.e. battery capacity of minimum 2600 mAH (for Linux) and minimum 4000 mAH (for Android)
10.	**Power Adapter**	Power Adaptor with surge protection and operating range 100 to 240V, 50Hz. AC input.
11.	**SIM and SAM Slot**	Dual GSM SIM slots and Dual SAM slots for software up-gradation in device.

Sl. No.	Description	Minimum Suggested Specification (Subject to the requirements specified in the Project Overview and Scope of Work in Section III of RFP)
12.	Printer	Integrated 2" or higher printer (Thermal/Non-Thermal Printer).
13.	Audio	Good quality Speaker with 1 W or higher output for announcements.
14.	Fingerprint Scanner	Aadhaar enabled fingerprint scanner and IRIS scanner with STQC and UIDAI certification are both mandatory.
15.	Magnetic Payment Card Reader for digital payment	(i) As per PCI (Payment Card Industry) Security Standards (Optional) and EMV Standards. (ii) All Mastercard, VISA and Rupay cards should be accepted by the reader for payment.
16.	Support to connect Weighing Scale	Availability of connectivity feature of weighing scale through USB or Bluetooth.
17.	Status Indications	(i) Status Indicator provides ease of use, Indicators for connectivity (presence/absence), signal strength, battery status etc. (ii) Device Health Monitoring System Indicator may also be included.
18.	Other accessories	Durable carry Case, User Manual.
19.	SDK	Appropriate SDK need to be provided along with the devices.
20.	Terminal Management	Device should be remotely manageable in secured mode.
21.	Environment, Health and Safety Durability, Humidity, EMI/EMC Compliance	(i) Dry heat test- Operating (50 ± 2°C for 2 hrs) (ii) Cold test - Operating (0 ± 3°c for 2 hrs) (iii) Dry heat test (55 ± 2°C for 2 hrs) (iv) Damp heat Cyclic (40°C for (12+12 hrs)), No. of cycles: 2 (v) Cold Test (-10 ± 3°C for 2 hrs) (vi) Drop/Free Fall Test, in unpacked, Switched off and normal handling conditions (Height: 100 mm, Total no. of falls: 2) (vii) Vibration Test should be in packed condition, switched off conditions (10- 150Hz, 0.15mm/2g, 10 sweep, cycles/axes) (viii) Bump test should be in packed condition, switched off condition (1000 Bumps, 40g, in vertical position)
22.	Antenna	The POS devices must have a slot to connect an external antenna (detachable), the specifications of which shall be subject to the connectivity and signal reception of the concerned area where such POS device is deployed.
23.	Device Form Factor	The device should be portable and handy.

PRANAB BISWAS
WBCS (Exe.)
Joint Secretary
Food & Supplies Department
Govt. of West Bengal

APPENDIX III

(Functional Requirements Specification for FPS Automation Version 1.0 issued by National Informatics Center)

FUNCTIONAL REQUIREMENTS SPECIFICATION

for

FPS AUTOMATION

VERSION 1.0

NATIONAL INFORMATICS CENTRE

Table of Contents

Document Control Record

Version	Description of Change	Author	Date
0.1	Initial Draft	NIC	5th August 2015
0.2	Updated Sections 3.2.1 ,5.1 to 5.6	NIC	4th September 2015
0.3	Updated Section 1 and 2	NIC	21st September 2015
0.4	Updated Sections 1 to 10	NIC	15th October 2015
0.5	Updated Section 1,2,4	NIC	12th November 2015
0.6	Updated whole document	NIC	16th June 2016
0.7	Updated whole document	NIC	27th June 2016
0.8	Updated whole document	NIC	21st July 2016

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Convention Description

Convention Used	Purpose
Bold font	Titles, captions and examples
Blue font	Cross references
Courier new font	Codes or web services
Green font	Formulae
Red font	Notes
Italics	Related information

1 Introduction

PDS is an important constituent of the strategy for policy, to ensure availability of food grains to the public at affordable prices, for enhancing the food security for the poor, to aid in poverty eradication and is intended to serve as a safety net for the poor whose number is more than 330 million and are nutritionally at risk. PDS evolved as a major instrument of the Government's economic PDS with a network of over 5 lakhs FPSs (FPS) and is the largest distribution network of its type in the world. PDS is operated under the joint responsibility of the Central and the State Governments. The Central and State Governments have the responsibility for procurement, storage, transportation and bulk allocation of food grains to their respective Godowns. The responsibility for distributing the same to the consumers through the network of FPSs (FPSs) rests with the State Governments. The operational responsibilities including allocation within the State, issue of ration cards, supervision and monitoring the functioning of FPSs rest with the State Governments. [1]

Large scale pilferages resulting from diversion and leakages of food grains meant for the poor populace of this country is the bane of the Targeted Public Distribution System. Manual processes related to PDS operations and specifically FPS sale are manual in nature which lead to a lot of diversions as it is not possible to probe whether actual sale happened at FPS or not. The solution is to ensure the fair Last Mile Delivery of essential commodities.

The solution lies in distributing the essential commodities using electronic device with biometric authentication of any member of beneficiary in order to restraint the diversion at the FPS level.

FPSs provide the only touch point for the end beneficiary in the total Public Distribution System (PDS). Thus, having transparency in the functioning of FPS is critical for having greater transparency in the overall PDS value chain.

Therefore, Component–II of the "End-to-End computerization of PDS - (FPS Automation)" involves electronic transactions at the FPS level. This automation provides a medium to record and transmit the transactions made at the FPS. FPS Automation also intends to authenticate the beneficiary to ensure that the commodity issuance is happening to the intended beneficiary by biometric authentication with UIDAI server.

As per Chapter-V of the NFSA act, point no. 12 (2):

"(b) application of information and communication technology tools including end-to-end computerization in order to ensure transparent recording of transactions at all levels, and to prevent diversion;
(c) leveraging "aadhaar" for unique identification, with biometric information of entitled beneficiaries for proper targeting of benefits under this Act;"

Further, as per Chapter – III of the Aadhaar (TARGETED DELIVERY OF FINANCIAL AND OTHER SUBSIDIES, BENEFITS AND SERVICES) Act, 2016, point no. 7:

"The Central Government or, as the case may be, the State Government may, for the purpose of establishing identity of an individual as a condition for receipt of a subsidy, benefit or service for which the expenditure is incurred from, or the receipt therefrom forms part of, the Consolidated Fund of India, require that such individual undergo authentication, or furnish proof of possession of Aadhaar number or in the case of an individual to whom no Aadhaar number has been assigned, such individual makes an application for enrolment: Provided that if an Aadhaar number is not assigned to an individual, the individual shall be offered alternate and viable means of identification for delivery of the subsidy, benefit or service."

FPS automation with biometric authentication can be achieved in following ways:-

- *FPS Automation - Fully Online model:* In this model, the entire application shall be functioning from server and application shall be accessible using browser and through any device which supports HTML5 compliance browser. Finger print scanner, IRIS scanner and printer shall be integrated with the device for biometric authentication (finger print or IRIS) with UIDAI and printing receipt of sales. This requires uninterrupted, redundant and full time network connectivity. The application shall be independent of device, browser and Operating system. The application follows open standards viz. a viz. HTML5, CSS3 and JavaScript.

- *FPS Automation – Occasionally Online Model (Buffered Authentication) [Subject to the approval of State Food Department]:* In this model the application shall have a capability to function online as well as offline, depending on the availability of connectivity. There will be a piece of application software (FPS Automation Sales), which shall be installed in every device. Alternatively, the application may be developed by the SI/Vendor based on the FRS published and installed in the supplied devices.
  o Whenever connectivity is available the biometric authentication shall be performed seamlessly and the sale transaction shall be posted to PDS server as and when transactions are made.
  o When connectivity ceases or unavailable then the application shall function by storing the sale transactions in the local device along with the biometrics as per the UIDAI guidelines for Buffered authentication. In this case the FPS dealer may have to carry the device to network hot zone and push all the transactions made.

Decisions and Policies by GoI for implementing FPS Automation Application:

i. *Inclusion of NFSA:* As passed by the Parliament, Government has notified the National Food Security Act, 2013 on 10th September, 2013 with the objective to provide food and nutritional security, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity. For more details, refer http://dfpd.nic.in/nfsa-act.htm[2]

ii. *UIDAI Authentication:* The sale of commodities to beneficiary shall be done using Aadhaar based biometrics authentication. [3]

iii. *No denial of Service (nDoS):* The transactions are to be authenticated by beneficiary's biometrics. There shall be no denial of Service of ration to the beneficiary in case authentication is unsuccessful. The number of trials shall be configured (e.g. 3 or 5 trials). Ration will be delivered, however all the waiver cases and authentication failure cases shall be candidates for audit by State food department.

The different modes of Authentication, in the suggested sequence, are as follows:

a) **Finger Print based Authentication (using UIDAI)**
b) **IRIS based Authentication (using UIDAI)**
c) **Other alternate authentication adopted by a State/UT*, like:**
   a. **OTP (on Registered Mobile Number with PDS)**
   b. **OTP (on Registered Mobile Number with UIDAI)**
   c. **Any other mechanism to establish identity of beneficiary**

If any state/ UT desires to consider non-Denial of Service, the methodology is as defined in the Appendix-D.

1.1 Authentication - Role of Aadhaar in Public Distribution System

As per the policy, commodities shall be delivered to beneficiary using biometrics authentication with Aadhaar. Aadhaar Authentication API 1.6 is used for the authentication. For more details refer, https://uidai.gov.in/images/FrontPageUpdates/aadhaar_authentication_api_1_6.pdf. [3]

*To adopt alternate authentication option, requisite Certificate needs to be produced by the State/UT from the Telecom Department (GoI) for non-availability of fulltime network coverage.

1.2   Objective

This document defines the process flow, web services, data dictionary and limitations to perform sale transactions at the FPSs using Point of Sale/Mobile tablets with UIDAI based biometric authentication and transferring the data to the PDS Server.

2 FPS Automation - Models

2.1   FPS Automation - Fully Online

The PoS/Mobile tablet terminal or any computing devices with biometric scanner and printer connected shall access the FPS Automation sales application (Web or app) and data will be served from PDS Server using the network connectivity. The PDS server in turn authenticates the beneficiaries through the UIDAI server. The process flow is as shown in the figure 2. All transactions will happen in real-time.

Requirements for this model to function are:
- Digitized Ration Card data with Aadhaar number seeded.
- Reliable, redundant full time network connectivity with sufficient bandwidth.
- Functionality in POS/Mobile tablet (as per the published specifications) [5] or other device for online biometric authentication with UIDAI Server
- Browsers in the device should be HTML5, CSS 3 and JavaScript compliant in case.
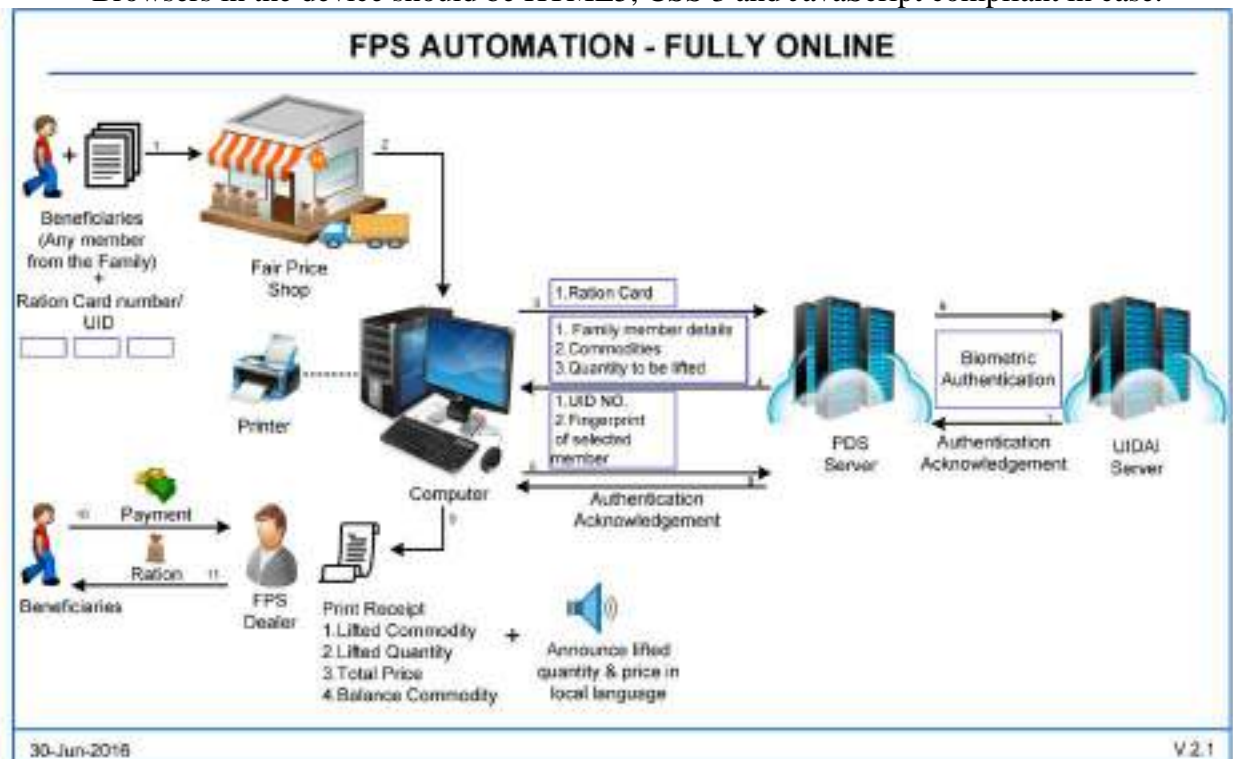
Figure 1: FPS Automation - Fully Online

A. Process Workflow

S#	Process flow for FPS Automation - Fully Online model	Detailed Description
1	Payment and Stock	FPS dealer makes payment against the allocation received. FPS receives stocks (after release order is received). The details of stock with the FPS are updated in PDS server.
2	Commencement of Sale	FPS commences sale of food grains for the month. Distribution of commodities is as per the beneficiary's entitlement.
3	Beneficiary Details	When the beneficiary approaches FPS to lift the commodity his Ration card number/Aadhaar Number /RMN is entered into the FPS Sales application. The Ration Card details along with the member details, entitlement and stock details are populated from the server. After successful transaction, the beneficiary lifts the commodity as per the balance left in his entitlement of the month.
4	Authentication	Beneficiary authentication is performed using Finger print/IRIS/OTP. Initially authentication shall be tried with Finger print. After exhausting the number of pre-defined trials due to failure in authentication, IRIS authentication shall be performed. If the beneficiary is not enrolled with UIDAI or didn't receive UID, OTP shall be used for authentication. (*as per State/UT policy for authentication*)
5	Sale reports and Closing Balance	The sale transactions are performed real time. Therefore, at the end of sale cycle, the closing balance is generated at PDS server and is used for next month allocation.

Table 1: FPS Automation - Fully Online Workflow

Figure 2: FPS Automation- Fully Online Workflow

2.2 FPS Automation - Occasionally Online *[Subject to the approval of State Food Department]*

It is challenging to implement Fully Online FPS automation model in those regions where connectivity is un-reliable. To mitigate this challenge, another model for FPS automation has been envisaged where the FPS gets occasional connectivity and gets connected with the PDS server as and when connectivity is established but still should be able to perform sale transactions using a POS or mobile tablet.

Requirements for this model to function:
- POS or Mobile Tablet (as per the published specifications) [5] with secure application and encrypted local database
- Transactions shall be stored in encrypted form
- Tampering of application or data results in corruption of application.
- The network is required at least once for receiving entitlement, beneficiary details, and upload sale transactions along with closing balance. If there is an option for Buffered authentication opted, then the biometrics as per the UIDAI guidelines.

Figure 2: FPS Automation - Occasionally Online

A. Process Workflow

#	Process flow for FPS Automation – Occasionally Online Model	Detailed Description
1	Beneficiary and Entitlement Details	At the start of every month, FPS dealer connects POS/mobile tablet device (at the nearest TSO/FSO/AFSO office where connectivity is available) to fetch latest beneficiary details and entitlement policy.
2	Authentication	In case network is available, Beneficiary's biometric authentication is carried out. If network is not available, then Buffered authentication shall be performed as per UIDAI guidelines. The beneficiary is not denied ration due to authentication failure.
3	Payment and Stock	FPS dealer makes payment against the allocation received. FPS receives stocks (after release order is received). The details of stock with the FPS are updated in PDS server.
4	Commencement of Sale	FPS commences sale of food grains for the month as per the allocation policy of the month.
5	Sale reports and Closing Balance	When the sale transactions are performed during the presence of the connectivity immediately the same shall be updated immediately. In case of network unavailability, the device need to be brought to the nearest FSO/TSO/AFSO and uploaded through the utility. The closing balance thus obtained shall be used for the next month allocation.

Table 2: FPS Automation - Occasionally Online Workflow
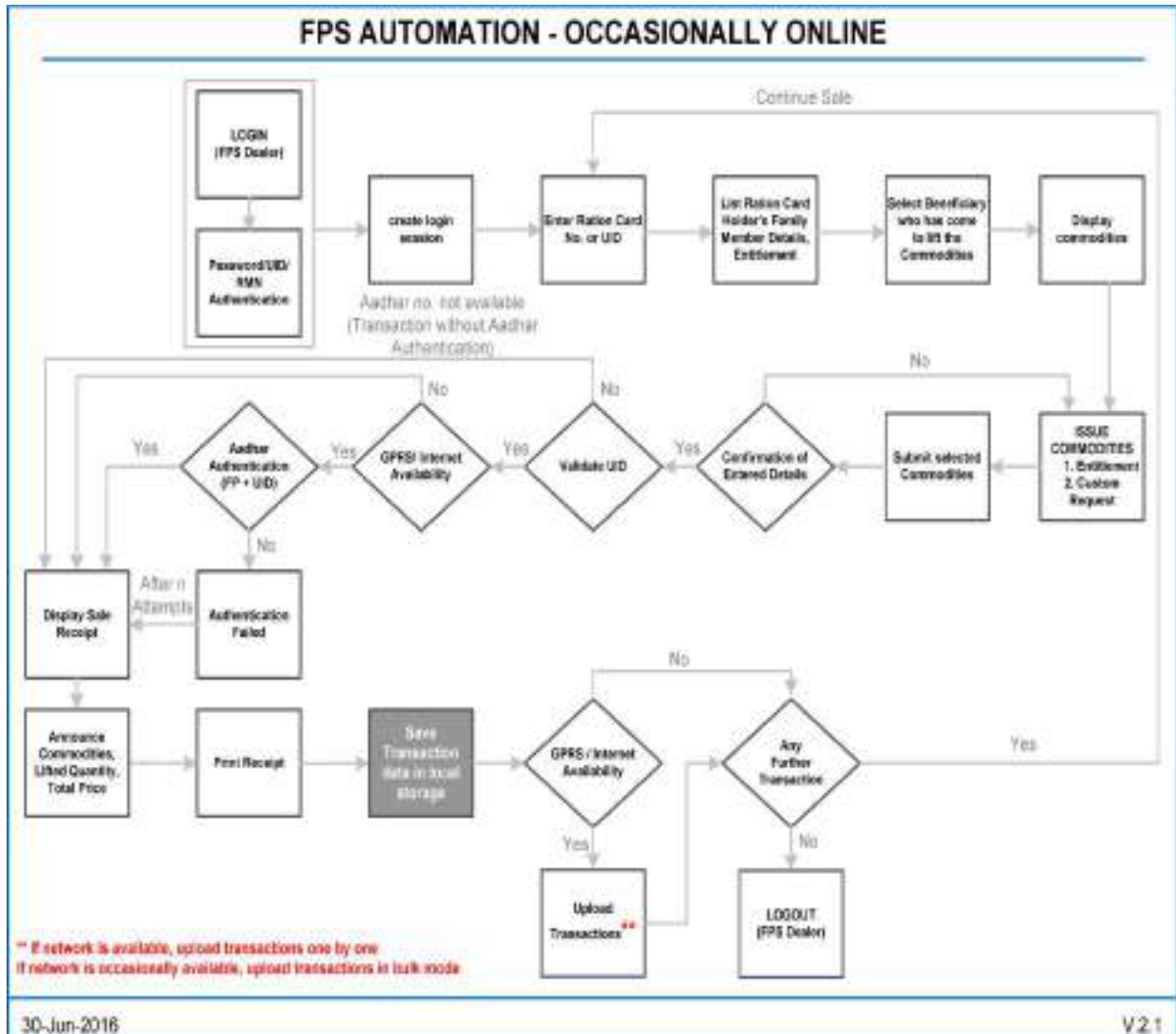
Figure 4: FPS Automation - Occasionally Online Workflow

2.3   Ration Card Portability

A.   Intra-State (Online Model): In this model, **b**eneficiary shall lift commodity from any FPS (which is functioning online) within State/UT, upto the maximum of his entitled quantity, subject to the state government's policy decision.

B.   Intra-State (Occasionally Online Model): It is not recommended to implement portability in this model, since synchronization with the PDS server may not be there due to network unavailability. Hence, challenges like beneficiaries lifting more than their entitled quantity, can be faced.

C.   Inter-State/ National Portability

The feature is not covered and depends on the policy decision & business rules of the central & state government.

3   Functionalities

App developed using the FRS guidelines should have the capability to enable the sales of commodities allocated to the FPS based on the Commodity-distribution-policy, and number of ration cards linked to a particular FPS. This application may help in areas such as tracking of commodity sales, stock maintenance, aadhaar seeding for beneficiaries, Inspection Feedback, Hardware complaint and various MIS reports.

3.1   Major Functionalities

A.   Downloading of the Commodity Sales Application by the FPS dealer

FPS dealer needs to run the required application on their device to facilitate sale of commodities.
For this, FPS dealer sends the details like FPS id, MAC id, location details, etc., to the PDS server and after successful verification, it gets the application (in '.apk' format) in response, and acknowledgement for success/failure (along with the reason).

B.   Application Login by FPS dealer

The FPS dealer needs to login before commencing the sale of commodities. One time registration with the PDS server is required, post which FPS dealer can login in a normal fashion.

PDS Server receives FPS login details after using following methods:

a) The FPS dealer can provide FPS id/ password as their login details.
b) FPS dealer can authenticate via Aadhar verification with biometric details
c) By requesting OTP on the RMN.

C.   Downloading of the beneficiary data by FPS dealer

The beneficiary details, along with the member details and entitlement, can be downloaded by the FPS dealer from the PDS server. The FPS dealer has to provide the RC no./ Aadhaar no. to get the details from the PDS sever.

Through this functionality, FPS dealer requests the PDS beneficiaries' data from PDS server based on its details (as shared with PDS server).

D.   FPS Sale Transactions

The FPS dealer performs sales transactions by getting the data from the PDS server. The sale transaction details, after Aadhaar authentication, are uploaded to the PDS server.
 PDS server recieves data packet from FPS dealer in the form of Sale Transactions data (containing details pertaining to the FPS, device and transactions).

E.   Time Synchronisation between PDS server & PoS device

There needs to be perfect syncing of time between the PDS server and FPS dealer device to avoid/ detect any mismatch between transactions/ data.
FPS dealer provides timestamps for each & every transaction cycle, for verification of valid time frame.

F.   Device Health Statistics

The various parameters related to PoS device performance need to be tracked and monitored on a regular basis to prevent transaction failure, transaction data mismatch, etc. during a sale event.
For proper transaction, the details of device are tested for the following parameters:
a) Battery percentage
b) Sims connected
c) SD card usage percentage
d) Flash memory usage
e) Timestamp
f) Network Type code

G.   Mobile Number Seeding

Other than the biometric authentication, OTP mode of authentication is performed using the mobile number of the beneficiary. It needs to be registered with PDS server, post which OTP is received on this number, also known as RMN (Reghistered Mobile Number).

H.   Aadhaar Number Seeding

As per the policy, commodities shall be delivered to beneficiary using biometrics authentication with Aadhaar number.
This functionality will facilitate the beneficiary to seed their Aadhaar number with the Ration Card. FPS dealer sends beneficiary's Aadhar number to PDS server to register Aadhar number (after verification through Aadhar server).

For detailed explanation of various components of above listed functionalities, please refer Appendix-F.

3.2 Required Reports

A. Summary stock register

    i. Monthly/date wise stock register report- minimum following field must be captured in this report:

a) FPS id
b) FPS name
c) Month name
d) From date
e) To date
f) Opening Balance
g) Received Quantity
h) Sold Quantity
i) Closing Balance
j) Commodity Name
k) Measurement Unit

B. Summary sales register

    i. Date wise/monthly sales report -minimum following field must be captured in this report

a) FPS id
b) FPS name
c) Month name
d) From date
e) To date
f) Opening Balance
g) Received Quantity
h) Transaction id
i) Ration card number
j) Beneficiary name
k) Authentication mode
l) Authentication status
m) Sold Quantity
n) Commodity Name
o) Measurement Unit

C. Issue of food grains receipt (with option of duplicate receipt)

    i. Transaction complete receipt

a) Transaction id
b) FPS name
c) Date
d) Opening Balance
e) Received Quantity
f) Ration card number
g) Beneficiary name
h) Authentication mode

       i)   Authentication status
       j)   Commodity Name
      k)   Measurement Unit
       l)   Amount paid

D. Stock receipt
    i.   Stock receipt while delivery at FPS doorstep
    a)   FPS id
    b)   FPS name
    c)   Month name
    d)   Opening Balance
    e)   Received Quantity
    f)   Commodity Name
    g)   Measurement Unit
    h)   RO details
    i)   Authorization from FPS dealer Status
    j)   Authorization from Route officer Status
    k)   Authorization mode

E. Monthly closure report
    a)   FPS id
    b)   FPS name
    c)   Month name
    d)   Date
    e)   Opening Balance
    f)   Received Quantity
    g)   Sold Quantity
    h)   Closing Balance
    i)   Commodity Name
    j)   balanced commodity
    k)   Amount received against commodity wise

F. Month wise food grains lifted and distributed report
    i.   Month to month wise food grains status report
    a)   FPS id
    b)   FPS name
    c)   Month name
    d)   Year
    e)   Date
    f)   Opening Balance
    g)   Received Quantity
    h)   Sold Quantity
    i)   Closing Balance
    j)   Commodity Name

k) balanced commodity
l) Amount received against commodity wise

G. Authentication report
 i. Month wise authentication report
a) FPS id
b) FPS Name
c) Month name
d) Date
e) Authentication mode
f) Number of Aadhaar based Finger print authentication
g) Number of Aadhaar based IRIS authentication
h) Number of any other authentication mode adopted by State/UTs

Suggested report formats were provided at Appendix-G.

4 Allocation Workflow

4.1 Closing Balance (CB)

Closing balance means the leftover quantity of commodities lying unsold after the closure of the sale against an allocation. The closing balance quantity is made minus to the total entitlement quantity for getting the final amount of allocation in next allocation cycle(s). Ideally for generation of allocation for next allocation cycle the closing balance of previous month must be considered. If state decides to close the sales transaction by mid of the month, the closing balance of this month can be considered for allocation of the next month.

However, sometimes the sales are kept on till late in the month in parallel to the allocation & lifting preparations for the next month, in this case the CB could not be made available for generation of just next allocation cycle but for next-to-next cycle. And sometimes there is sale validity period is for multiple months, then CB is not available for some months till the expiry validity of sale. So, the CB utilization is done at server side.

Closing balance is the Cumulative Received Quantity Minus Sold quantity at the end of sale period (at allocation order validity expiry).

Sometimes, the FPS Dealer receives the quantity less than what has been given in Truck Challan and sometimes more than that. This differential becomes the transit loss/gain and to be recovered from the transport agency. This differential component must also be considered in calculation of CB.

> Closing balance = Cumulative Received Quantity (TCs' quantities +/- transportation gain/loss) – Sold Quantity
> Where,
> Cumulative Received Quantity is the quantity of commodity lifted for a month against an Allocation Order
> Sold quantity for a commodity = $\sum_{commodity}$ Transactions quantity against that Allocation Order

Closing balance is calculated from the encrypted transactions only.

FPS Automation - Fully Online Mode: In case of Fully Online model, the uploaded Sales transactions summation is used for calculating closing balance and there is no need to upload closing balance explicitly.

FPS Automation - Occasionally Online Mode: However, in FPS Automation - Occasionally Online model, there might be a delay in transactions reaching the server. Hence, all the transactions and closing balance need to be uploaded before next month allocation order can be generated. Closing balance upload marks the end of transactions for that month.

Authentication: An FPS sends closing balance after biometric authentication. Authentication is mandated to prevent repeated sending of CB by mistake. Therefore, only the authenticated person can send the Closing balance of commodities.

Constraint: Closing balance can be uploaded after the closure of sales only.

Sale Closure: Closing balance is calculated once all the transactions are uploaded to the PDS server and sale is frozen for that month. After sending the closing balance from FPS device, no sale can be made on same allocation order number.

Security: In order to ensure that multiple Closing balance are not sent by FPS,
- *Separate Menu*: Closing balance upload shall be in a separate menu.
- *Selection of details:* Provision to upload commodity and month/year shall be given
- *Popup:* Popup shall be displayed to ensure that FPS is not doing the same by mistake.
- *Biometrics Authentication:* FPS owner shall perform biometric authentication to verify the locking of the closing balance. Authentication makes FPS liable for the same e.

Logger: PDS Server shall log the date of receiving Closing Balance.

No manual Intervention: Closing balance is calculated from the encrypted transactions only. Closing balance is uploaded from the device using a web service only.

Note: With each transaction, closing balance is calculated and stored in encrypted form in the device. This is because in case closing balance is calculated at the end of sale, some or all of the transactions might already be uploaded to the server.

4.2 Payment and Stock Delivery at FPS

Payment: Once the allocation order is generated FPS goes to the depot holder to make payment. The entitlement of FPS is referred from the allocation order of the month.

Stock Delivery: This is the process of physical delivery of essential commodities to the FPS owner based on the payment made by him (after release order is generated).

FPS dealer makes payment at the depot. Stock details are entered by Depot holder in PDS application after receiving payment from the FPS owner. On the basis of the payments made by the FPS dealer, the FPS receives stocks both physically and in POS after authentication of route officer.

Pre-requisite: FPS makes payment for being eligible to receive fresh stock of commodities.

Modes of Receipt: Stock can be received through:
- *Periodic Stock Poll*: FPS device polls PDS Server for receiving stock details.
- *Allocation Order Unicast on request:* PULL Stock functionality.

Logger: PDS Server shall log the date of sending the stock details to FPS.

Stock Receipt while delivery at FPS doorstep: Necessary provisions be made for counting on the damage and pilferage while transportation of allocated quantity to FPS. The stock received by FPS might be lesser and hence has to be taken in account before starting the sale. Necessary checks to be ensured for misuse of the feature. Stock receiving shall be done through Route Officer authentication.

4.3 Sale transaction upload and Reconciliation

Transactions Upload scenarios
 Fully Online Mode:
- **Real time transfer:** FPS device sends transactions through web service to PDS Server one by one as and when network is available.

 Occasionally Online Mode:
- **Bulk Transfer:** In bulk transfer mode, sale transactions are uploaded for an FPS in a single session to PDS server for sales against one allocation order.
- **Network Non-availability:** Device can be taken to upload the transactions data backup to server through a utility.
- **Device Failure:** SIM placed in SAM slot can be used to upload the encrypted transactions and closing balance to the PDS server

Logger: PDS Server shall log the date of receiving the sale transactions.

5 Suggested Web Services

5.1 JSON Services

1.1. FPS Dealer authentication

The FPS dealer is authenticated before he/she performs the FPS sales operation. The steps in dealer authentication are as follows:

a) The FPS application in the start screen displays prompts to enter dealer username (FPS dealer-id) and password.

b) Dealer enters Username and password.

c) The application connects to NIC server and verifies the credentials.

d) On successful verification the FPS sales screen is opened.
e) On failure, he/she has to re-enter the password.

f) If the dealer could not able to authenticate him/her then he/she cannot continue the sale operation.

g) Forgot password and pin generation.

1.1.1. FPS Dealer Login and Authentication (URL):

http://gaman-aagman.nic.in/ PDSReceiveFPSAuthentication

1.1.2. FPS Dealer Login and Authentication (JSON object)

```
{
  " PDSReceiveFPSAuthentication ":
      [{
      "fps": "",
      "lat": "",
      "lon": "",
      "cc": "",
      "mac": "",
      "ver": "",
      "reqts": "",
      "req": "",
      "bid": "",
      "reccnt": "",
      "totcnt": "",
      "logints ": "",
      "authstatus ": "",
      "aadhaarflag ": "",
      "localpasswordflag ": "",
      "serverpasswordflag ": "",
```

```
        "otpflag ": ""
        }]
}
```

1.1.3.   **FPS Dealer Login and Authentication (Metadata)**

Field Id	Field Name	xml tag name	Type	Purpose	Required	Unique	Range
Packet Header : FPSH1							
Header from FPS							
FPSH1.1	fps_id	fps	varchar(12)	Fair Price shop Id : DDDDAAASSSSS	Y		FPS Id is of fixed length and permissible value is numeric [0-9] as per the following pattern DDDDAAASSSSS DDDD - DFSC code AAA - AFSO code SSSSS - FPS Shop sequence number covered by AFSO where DDDD -First 4 digit makes a DFSO/DFSC/DSO code (First digit is a sequence number within the district , for example , 1 means first dfsc/dfso within the district and Next 3 digits are District code (Reference: 2011 census code for districts) AAA - 3 digits AFSO/ TSO / FSO Code sequence number within the DFSO /DFSC/DSO SSSSS - 5 digits Sequence number within AFSO/TSO/FSO

FPSH1.2	Latitude	lat	double	Latitude of FPS geographic location			Latitude of FPS geographic location
FPSH1.3	Longitude	lon	double	Longitude of FPS geographic location			Longitude of FPS geographic location
FPSH1.4	company_code	cc	varchar(2)	Device Company Code	Y		The list shall be released and updated as and when vendor devices are registered. Permissible value is numeric [0-9]
FPSH1.5	device_mac_id	mac	varchar(64)	MAC Id of the FPS device.	Y	Y	Shall be either 48 or 64 bits. And has to be registered with Server. Permissible value is numeric [0-9]
FPSH1.6	app_version	ver	varchar(5)	Version of Distribution application	Y	Y	xx.yy where xx is major and yy is minor version where x,y E [0-9]

FPSH1.7	request_ts	reqts	date with timestamp	Date and timestamp when the request is made	Y		ddMMyyyyhhmmss format
FPSH1.8	request_id	req	varchar(31)	Uniquely identifies the transaction	Y	Y	FpsId(12)+Reqcode(4)+D or F+Date of request with Timestamp(ddMMyyyyhhmmss) D-delta F- Full where Request Code = RCMD for Member Details Data ,FPSD = FPS detail Data ,ENTR = Entitlement Regular, ENTO = Entitlement Adhoc, ENTA = Entitlement Additional, STKR = Stock Regular, STKO = Stock Adhoc, STKA = Stock Additional, ORDR = Active allocation Orders, FULL=Full app db ,APP= Application with database,L=LOGN for Login,TRAN=Transactions
FPSH1.9	batch_id	bid	Integer	Batch ID of the response lot.	Y	(res, id) is unique	[0,9]
FPSH1.10	records_in_current_batch	reccnt	Integer	Records in current batch.	Y		[0,9]
FPSH1.11	total_record_count	totcnt	Integer	Total records	Y	(res, id) is unique	[0,9]

Response Packet Header : PDSD6	
Response Header from PDS Server : PDSReceiveFPSAuthentication	

Field Id	Field Name	xml tag name	Type	Purpose	Required	Unique	Range
PDSD6.1	login_ts	logints	date with timestamp	Date and timestamp when the login request is made	Y		ddMMyyyyhhmmss format
PDSD6.2	Authentication status	authstatus	varchar(100)	Authentication status	Y		[a-zA-Z](0-9)
PDSD6.3	Aadhaar flag	aadhaarflag	varchar(1)	Aadhaar Authentication flag	Y		(0-1)
PDSD6.4	Password flag	localpassword flag	varchar(1)	Password flag	Y	Y	(0-1)
PDSD6.5	Serverpassword flag	serverpasswordflag	varchar(1)	Password flag	Y	Y	(0-1)
PDSD6.6	OTP flag	otpflag	varcahr(1)	Otp flag	Y		(0-1)

1.1.4. **FPS Dealer Login Authentication Acknowledgement: (JSON)**

```
{
  " PDSReceiveFPSAuthentication Ack":
      [{
      "fps": "",
      "req": "",
      "ackr": "",
      "acks": ""
      }]
}
```

1.1.5. **FPS Dealer Login Authentication Acknowledgement: PDSA1 (Metadata)**

Refer PDSA1

1.2. **Selection of beneficiary**

After successful dealer authentication the FPS sales screen opens. The steps in selecting the beneficiary are as follows:
   a)   12-digit beneficiary ration card number is entered.
   b)   The card number is verified in the database and the complete family member details are displayed on the screen.
   c)   The person who has visited the FPS and ready to perform the authentication is selected.

1.2.1 **Selection of commodities**
After the selection of the beneficiary the selection of commodities screen opens. The steps in selecting commodities are as follows:
   a) Entitlement of the family for the particular month is shown on the screen with total entitled quantity per commodity, unit price and total cost.
   b) He/she can lift the complete entitlement or can select the denomination as per his/her choice.
   c) The confirmation page displays the selected commodities with total cost he/she has to pay to the dealer.

1.3. **Beneficiary authentication**

The beneficiary is authenticated using Aadhaar finger print verification method as follows:

   a) The beneficiary's finger print is captured and sent to the PDS server, which in turns checks with the UIDAI repository.
   b) On successful authentication, "SUCCESS" message appears on the screen with mark.

c) On failure of authentication, the process is repeated 5 (five) times till he/she authenticates successfully.

d) Even after the fifth attempt if failure occurs, then an option to authenticate through OTP is shown on the screen.

e) If the OTP authentication is chosen, the request is send to PDS server to generate OTP and send it to RC registered mobile, RMN.

f) On successful receipt of OTP and entered in the POS the OTP is sent for validation in OTP server.

g) If OTP is validated then the beneficiary authentication is SUCCESS.

h) If OTP validation failed then the option to re-enter the OTP is given. After 3 (three) failed attempts the beneficiary authentication is FAILED.

i) If the OTP is not received on the registered mobile, an option to resend the OTP is given. Even after resend if the OTP is not received, the beneficiary authentication is FAILED.

j) If the OTP authentication is not opted then the beneficiary authentication is FAILED.

k) Validity of OTP within given time period.

1.3.1. Beneficiary Authentication (URL):

http://gaman-aagman.nic.in/PDSReceiveBeneficiaryAuthentication

1.3.2. Beneficiary Authentication (JSON):

```
{
   " PDSReceiveBeneficiaryAuthentication ":
[{
    "fps":"",
    "lat":"",
    "cc": "",
    "mac": "",
    "ver": "",
    "reqts": "",
    "req": "",
    "cnt": "",
    "bid": "",
    "reccnt": "",
    "lon": "",
    " bio ": "",
    "mid": "",
    "sid": "",
    "uid": "",
```

```
        "txnid":""
    }]
}
```

1.3.3.   **Beneficiary Authentication (Metadata): FPSBA (Metadata)**

Field Id	Field Name	xml tag name	Type	Purpose	Required?	Unique?	Range
Packet Header : FPSH1							
Header from FPS							

FPSH1.1	fps_id	fps	varchar(12)	Fair Price shop Id : DDDDAAASSSSS	Y		FPS Id is of fixed length and permissible value is numeric [0-9] as per the following pattern DDDDAAASSSSS DDDD - DFSC code AAA - AFSO code SSSSS - FPS Shop sequence number covered by AFSO where DDDD -First 4 digit makes a DFSO/DFSC/DSO code (First digit is a sequence number within the district , for example , 1 means first dfsc/dfso within the district and Next 3 digits are District code (Reference: 2011 census code for districts) AAA - 3 digits AFSO/ TSO / FSO Code sequence number within the DFSO /DFSC/DSO SSSSS - 5 digits Sequence number within AFSO/TSO/FSO
FPSH1.2	Latitude	lat	double	Latitude of FPS geographic location			Latitude of FPS geographic location

FPSH1.3	Longitude	lon	double	Longitude of FPS geographic location			Longitude of FPS geographic location
FPSH1.4	company_code	cc	varchar(2)	Device Company Code	Y		The list shall be released and updated as and when vendor devices are registered. Permissible value is numeric [0-9]
FPSH1.5	device_mac_id	mac	varchar(64)	MAC Id of the FPS device.	Y	Y	Shall be either 48 or 64 bits. And has to be registered with Server. Permissible value is numeric [0-9]
FPSH1.6	app_version	ver	varchar(5)	Version of Distribution application	Y	Y	xx.yy where xx is major and yy is minor version where x,y E [0-9]
FPSH1.7	request_ts	reqts	date with timestamp	Date and timestamp when the request is made	Y		ddMMyyyyhhmmss format

Field Id	Field Name	xml tag name	Length	Purpose	Required?	Unique?	Range
FPSH1.8	request_id	req	varchar(31)	Uniquely identifies the transaction	Y	Y	FpsId(12)+Reqcode(4)+D or F+Date of request with Timestamp(ddMMyyyyhhmmss) D-delta F- Full where Request Code = RCMD for Member Details Data ,FPSD = FPS detail Data ,ENTR = Entitlement Regular, ENTO = Entitlement Adhoc, ENTA = Entitlement Additional, STKR = Stock Regular, STKO = Stock Adhoc, STKA = Stock Additional, ORDR = Active allocation Orders, FULL=Full app db ,APP= Application with database,L=LOGN for Login,TRAN=Transactions
FPSH1.9	batch_id	bid	Integer	Batch ID of the response lot.	Y	(res, id) is unique	[0,9]
FPSH1.10	records_in_current_batch	reccnt	Integer	Records in current batch.	Y		[0,9]
FPSH1.11	total_record_count	totcnt	Integer	Total records	Y	(res, id) is unique	[0,9]

Packet Data : FPSBA							
Request Acknowledgement from PDS Server							
Field Id	Field Name	xml tag name	Length	Purpose	Required?	Unique?	Range
FPSBA.1	bio	bio	varchar(255)	Encrypted authentication code in Xml format	Y	Y	(0-9,A-Z,a-z,Special Symbols)

FPSBA.2	mid	mid	varchar(14)	Uniquely identifies the member with id.	Y		(0-9)
FPSBA.3	sid	sid	varchar(42)	Uniquely identifies the transaction	Y		(0-9 with Time stamp)
FPSBA.4	uid	uid	varchar(12)	Unique Aadhar number	Y		(0-9)
FPSBA.5	txnid	txnid	varchar(42)	Unique Transaction id	Y		(0-9 with Time stamp)

1.3.4.   Beneficiary Authentication Acknowledgement (JSON):

```
{
   " PDSReceiveBeneficiaryAuthentication Ack":
[{
    "fps":"",
    ""req":"",
    "acks":"",
    "ackr":"",
    "txnid":"",
    "authcode": "",
    "mid": "",
    "uiderrcode": "",
    "uid": "",
    }]
}
```

1.3.5.   Beneficiary Authentication Acknowledgement (Metadata):

Refer PDSA1

Packet Data : PDSA1
Response Acknowledgement from PDS Server

Field Id	Field Name	xml tag name	Length	Purpose	Required ?	Unique?	Range
PDSA1.1	authcode	authcode	varchar(20)	Authentication response in String format with Code if any.	Y	Y	(0-9,A-Z,a-z,Special Symbols)
PDSA1.2	mid	mid	varchar(14)	Uniquely identifies the member with id.	Y		(0-9)
PDSA1.3	txnid	sid	varchar(42)	Uniquely identifies the transaction	Y		(0-9 with Time stamp)
PDSA1.4	uid	uid	varchar(12)	Unique Aadhar number	Y		(0-9)
PDSA1.5	uiderrcode	uiderrcode	varchar(255)	Authentication response in String format with Error Code if any.	Y		(0-9,A-Z,a-z,Special Symbols)

1.4. **Uploading of transaction**

After the successful beneficiary authentication, the transaction data is uploaded to the NIC PDS server as explained in the following steps:

a. The transaction data are uploaded to the PDS server online if the network connection is available.

b. In case of network interruption the transactions are stored locally and pushed to the PDS server automatically when network connection is available.

c. The pending transactions can also be uploaded to the server manually at the end of the day by bringing the POS to a nearby location having good network strength.

d. <u>In each case, the authentication status per transaction is sent along with the transaction.</u>

1.4.1. **Transactions (URL):**

http://gaman-aagman.nic.in/ PDSReceiveFPSTransactions

1.4.2. **Transactions (JSON)**

```
{
   " PDSReceiveFPSTransactions ":
       [{
       "fps": "",
       "lat": "",
       "lon": "",
       "cc": "",
       "mac": "",
       "ver": "",
       "reqts": "",
       "req": "",
       "bid": "",
       "reccnt": "",
       "totcnt": "",
       "orderno ": "",
       "txnid ": "",
       "txndate ": "",
       "rcno ": "",
       "rctype ": "",
       "commcode ": "",
       "memid ": "",
       "authstatus ": "",
       "authcode ": "",
       "lqty ": "",
```

```
        "munit ": "",
        "price ": "",
        "month ": "",
        "year ": ""
        }]
}
```

1.4.3. **Fair Price Shop Request/Response Header Frame: Metadata of Mandatory Parameters to be sent by FPS with each Packet:**

Packet Header : FPSH1							
Header from FPS							
Field Id	**Field Name**	**xml tag name**	**Type**	**Purpose**	**Required?**	**Unique?**	**Range**
FPSH1.1	fps_id	fps	varchar(12)	Fair Price shop Id : DDDDAAASSSSS	Y		FPS Id is of fixed length and permissible value is numeric [0-9] as per the following pattern DDDDAAASSSSS DDDD - DFSC code AAA - AFSO code SSSSS - FPS Shop sequence number covered by AFSO where DDDD -First 4 digit makes a DFSO/DFSC/DSO code (First digit is a sequence number within the district , for example , 1 means first dfsc/dfso within the district and Next 3 digits are District code (Reference: 2011 census code for districts) AAA - 3 digits AFSO/ TSO / FSO Code sequence number within the DFSO /DFSC/DSO SSSSS - 5 digits Sequence number within AFSO/TSO/FSO

FPSH1.2	Latitude	lat	double	Lattitude of FPS geographic location			Lattitude of FPS geographic location
FPSH1.3	Longitude	lon	double	Longitude of FPS geographic location			Longitude of FPS geographic location
FPSH1.4	company_code	cc	varchar(2)	Device Company Code	Y		The list shall be released and updated as and when vendor devices are registered. Permissible value is numeric [0-9]
FPSH1.5	device_mac_id	mac	varchar(64)	MAC Id of the FPS device.	Y	Y	Shall be either 48 or 64 bits. And has to be registered with Server. Permissible value is numeric [0-9]
FPSH1.6	app_version	ver	varchar(5)	Version of Distribution application	Y	Y	xx.yy where xx is major and yy is minor version where x,y E [0-9]

FPSH1.7	request_ts	reqts	date with timestamp	Date and timestamp when the request is made	Y		ddMMyyyyhhmmss format
FPSH1.8	request_id	req	varchar(31)	Uniquely identifies the transaction	Y	Y	FpsId(12)+Reqcode(4)+D or F+Date of request with Timestamp(ddMMyyyyhhmmss) D-delta F- Full where Request Code = RCMD for Member Details Data ,FPSD = FPS detail Data ,ENTR = Entitlement Regular, ENTO = Entitlement Adhoc, ENTA = Entitlement Additional, STKR = Stock Regular, STKO = Stock Adhoc, STKA = Stock Additional, ORDR = Active allocation Orders, FULL=Full app db ,APP= Application with database,L=LOGN for Login,TRAN=Transactions
FPSH1.9	batch_id	bid	Integer	Batch ID of the response lot.	Y	(res, id) is unique	[0,9]
FPSH1.10	records_in_current_batch	reccnt	Integer	Records in current batch.	Y		[0,9]
FPSH1.11	total_record_count	totcnt	Integer	Total records	Y	(res, id) is unique	[0,9]

1.4.4. **Transactions FPSD1 (Metadata)**

Field Id	Field Name	xml tag name	Length	Purpose	Required ?	Unique?	Range
Packet Data : FPSD1							
Transactions Data from FPS							
FPSD1.1	fps_id	fps	varchar(12)	Fair Price shop Id : DDDDAAASSSSS	Y		Refer FPSH1.1
FPSD1.2	allocation_no_with_ts	orderno	varchar	Allocation Number with Timestamp	Y		Allocation number with timestamp
FPSD1.3	transaction_id	txnid	varchar(42)	Sale transaction unique Id	Y	Y	FPS ID(12) + Rc Id(12) + DD+MM+YYYY+hh+mm+ss +.mmm FPS Id - Refer FPSH1.1 RC Id - Refer PDSD1.2 DD - Date of Transaction MM - Month of Transaction YYYY - Year of Transaction hh - Hour of Transaction mm - Minutes of Transaction ss - seconds of Transaction .mmm - DOT delimiter for milliseconds followed by milliseconds
FPSD1.4	transaction_date	txndate	ddMMyyyy	Date of transaction	Y		TRANSACTION DATE without timestamp
FPSD1.5	ration_card_no	rcno	varchar(12)	Ration Card number	Y		Refer PDSD1.1

FPSD1.6	ration_card_type	rctype	varchar	Ration card Type based on economic status of the family	Y		Refer PDSD1.2
FPSD1.7	commodity_code	commcode	Varchar(2)	Commodity code for which stock is received	Y		premissible value is numeric (0-99) . Refer ePDS Metadata Draft List
FPSD1.8	authenticated member_id	memid	varchar(14)	Member who lifted the commodity	Y		Refer PDSD1.3
FPSD1.9	authentication status	authstatus	varchar(1)	Success or failure	Y		0 = Not verified 1 = verified
FPSD1.10	authentication response code	authcode	varchar(5)	Authentication Response code from UIDAI	Y		Authentication Response code from UIDAI. Refer Error_Codes sheet
FPSD1.11	quantity_lifted	lqty	double	quantity lifted	Y		Up to 2 decimal places
FPSD1.12	measurement_unit	munit	Varchar(2)	Sale unit	Y		[0-9]. Refer ePDS Metadata Draft List
FPSD1.13	Price	price	double	Price	Y		Upto 2 decimal places
FPSD1.14	Month	month	integer	Month of Entitlement	Y		(1,12)
FPSD1.15	Year	year	integer	Year of Entitlement	Y		$[0-9]^{4\ times}$

1.4.5. Transactions Acknowledgement (JSON)

```
{
    " ".
        [{
        "fps": "",
        "req": "",
        "acks": "",
        "ackr": ""
        }]
}
```

1.4.6. **Transactions Acknowledgement PDSA1 (Metadata)**

				Packet Data : PDSA1			
				Request Acknowledgement from PDS Server			
Field Id	**Field Name**	**xml tag name**	**Length**	**Purpose**	**Required ?**	**Unique?**	**Range**
PDSA1.1	fps_id	fps	varchar(12)	12 digit unique ration card number as in electronic PDS system	Y	Y	Refer PDSD1.1
PDSA1.2	request_id	req	varchar(31)	Uniquely identifies the transaction	Y		Refer FPSH1.7
PDSA1.3	ack_status	acks	varchar(1)	Acknowledgement Status	Y		S-Success F-Failure
PDSA1.4	ack_remarks	ackr	varchar(250)	Acknowledgement Remarks(Exception/Error Statement)	Y		(0-9,A-Z,a-z,Special Symbols)

1.5. **Issue of Receipt (Print out)**

a) After the successful authentication, commodities are issued as per selection.

b) A print receipt is issued to the beneficiary detailing the commodities lifted with cost indicating each items price and total cost.

c) The print out shows the balanced commodities belonging to the beneficiary's ration card.

1.6. Device registration

The POS devices have to be registered to the NIC PDS server with the following details:

1. FPS ID
2. FPS address
3. Device serial number
4. Device mac-id

1.7. Monthly FPS DB download

The POS device has to be prepared for every month sale by downloading the beneficiary database with monthly entitlement for each family and the latest application. NIC will provide a web service for downloading FPS shop wise database.

a) POS devices have to download the particular FPS DB by providing the FPS details and the same has to be stored in the device for the next sale operation.
b) Entire DB for the particular shop will be sent with changes and modifications in the beneficiary details.
c) DB schema will not be altered.
d) Monthly policy file with RC entitlement will be part of DB.
e) Along with the DB, the current version of the application also will be sent to the POS device.
f) In case of network interruption, the downloading of the database will resume from where it is interrupted.
g) Time sync of device with PDS Server.

1.7.1. PDS Data Download (URL)

http://gaman-aagman.nic.in/ FPSReceivePDSData

1.7.2. PDS Data Download (JSON)

```
{
```

```
" FPSReceivePDSData ":
        [{
        "fps": "",
        "lat": "",
        "lon": "",
        "cc": "",
        "mac": "",
        "ver": "",
        "reqts": "",
        "req": "",
        "bid": "",
        "reccnt": "",
        "totcnt": ""
        }]
}
```

1.7.3. PDS Data Download Acknowledgement (JSON)

```
{
  "fps": "",
  "req": "",
  "res": "",
  "rests": "",
  "bid ": "",
  "reccnt ": "",
  "totcnt ": "",
  " FpsReceiveRcMemberDetail ":
 [{
    "rcno": "",
    "rctype": "",
    "memid": "",
    "memen": "",
    "memll": "",
    "rel": "",
    "age": "",
    "uid": "",
    "mob": ""
      } ],
  "FpsReceiveEntitlementDetail":
[{
    " rcno ": "",
    " ano ": "",
    " atype ": "",
    " commcode ": "",
    " uprice ": "",
    " munit ": "",
    " eqty ": "",
    " adate ": "",
    " month ": "",
    " year ": "",
    " ctype ": "",
    " uflag ": ""
}],
  "FpsReceiveFpsDetail":
```

```
[{
    "fps": "",
    "fpsen": "",
    "fpsll": "",
    " fpsmac ": "",
    " fpspwd ": "",
    " fpsmob ": "",
    " fpsuid ": "",
    "villEn":"",
    "villCd":"",
    "villLl":""
}],
 "FpsReceiveCardTypeDetail": [
  {
    " cttype ": "",
    " ctypell ": "",
    " ctypeen ": ""
  }
 ],
 "FpsReceiveCommodityDetail": [
  {
    "commcd ": "",
    " commll ": "",
    " commen": "",
  }
 ],
 "FpsReceiveMeasurementDetail":
[{
    " mucd ": "",
    " mull ": "",
    " muen ": ""
  } ],
 "FpsReceiveRelationshipDetail":
[{
    " rscode ": "",
    " genderTypeId ": "",
    " rsNamell ": "",
    " rsNameEn":""
  } ]

}
```

1.7.4. **PDS Data Download Header (PDSH1)(Metadata)**

Refer FPSH1. Fair Price Shop Request/Response Header Frame: Metadata of Mandatory Parameters to be sent by FPS with each Packet.

Response Packet Header : PDSH1							
Response Header from PDS Server							
Field Id	Field Name	xml tag name	Type	Purpose	Required?	Unique?	Range

Field Id	Field Name	xml tag name	Length	Purpose	Required?	Unique?	Range
PDSH1.1	fps_id	fps	varchar(12)	FPS id	Y	Y	Refer FPSH1
PDSH1.2	request_id	req	varchar(31)	Uniquely identifies the transaction	Y		Refer FPSH1.7
PDSH1.3	response_lot_id	res	integer	Lot number of the response. It is an integer indicating a unique response number to each request id. This number will be same for all the batches of a lot. By default Lot Id is 1	Y		(1,n)
PDSH1.4	response_ts	rests	varchar(14)	Timestamp of the response. It will vary with each batch	Y	Y	ddmmyyyyhhmmsss format
PDSH1.5	batch_id	bid	integer	Batch ID of the response lot.	Y	(res, id) is unique	[0,9]
PDSH1.6	records_in_current_batch	reccnt	integer	Records in current batch.	Y		[0,9]
PDSH1.7	total_record_count	totcnt	integer	Total records	Y		[0,9]

1.7.5. PDS Data Download Data (PDSH1)(Metadata)

Packet Data : PDSD1							
Response form PDS Server for ReqCode = RCMD data							
Field Id	Field Name	xml tag name	Length	Purpose	Required?	Unique?	Range

PDSD1.1	ration_card_no	rcno	varchar(12)	12 digit unique ration card number as in electronic PDS system	Y		Ration Card number of the beneficiary. It is unique for each beneficiary throughout India.
PDSD1.2	ration_card_type	rctype	varchar(2)	Card type indicating Economical status of a family	Y		Card type code for a family indicating economic status.
PDSD1.3	member_id	memid	varchar(14)	Member Id as in elctronic PDS	Y	Y	Member Id is 12 digit Ration Card Id(PDSD1.1) + 2 digit sequence number of family member id.
PDSD1.4	member_name_en	memen	varchar(99)	Name of Member in English	Y		[a-z, A-Z]
PDSD1.5	member_name_ll	memll	varchar(99)	Name of Member in Local Language	Y		
PDSD1.6	relation_with_hof	rel	varchar(2)	Relation of member with Head of Family. SELF means HOF	Y		Relation code
PDSD1.7	age	age	integer	Member age	Y		(0-120)
PDSD1.8	member_uid	uid	varchar(12)	UID number of Member	Y	Y	12 digit Aadhar number seeded and verified.
PDSD1.9	mobile_no	mob	varcahr(10)	Mobile Number	Y	Y	Mobile number of Member

1.7.6.   **Metadata of Entitlement Data: PDSD4**

	Packet Data : PDSD4						
	Response from PDS Server for ReqCode = ENT*						
Field Id	**Field Name**	**xml tag name**	**Length**	**Purpose**	**Required ?**	**Unique?**	**Range**
PDSD4.1	ration_card_no	rcno	varchar(12)	12 digit unique ration card number as in electronic PDS system	Y	Y	Refer PDSD1.1
PDSD4.2	allocation_no with_timestamp	ano	varchar	Allocation Number	Y	Y	[0-9]
PDSD4.3	allocation_type	atype	varchar(1)	Allocation Type	Y		0-Regular 1-Adhoc 2-Additional/Special
PDSD4.4	comm_code	commcode	varchar(2)	Commodity Code	Y		premissible value is numeric (0-99) . Refer ePDS Metadata Draft List
PDSD4.5	unit price	uprice	double	Unit price of that commodity	Y		Up to 2 decimal places
PDSD4.6	measurement_unit	munit	varchar(1)	Measurement Unit	Y		[0-9] . Refer ePDS Metadata Draft List
PDSD4.7	entitled_quantity	eqty	double	Entitled quantity for that commodity	Y		Up to 2 decimal places
PDSD4.8	allocation_date	adate	date	Allocation date	Y		Date
PDSD4.9	month	month	integer	Month	Y		(1,12)

Field Id	Field Name	xml tag name	Type	Purpose	Required?	Unique?	Range
PDSD4.10	year	year	integer	Year	Y		[0-9]$^{4 \text{ times}}$
PDSD4.11	card_type	ctype	smallint	Card Type	Y		[0-9]
PDSD4.12	unit_flag	uflag	varchar(1)	Unit Flag	Y		Member based - m, Cardbased - c, Unit based - u

1.7.7.   **Metadata of FPS Details: PDSD5**

Response Packet Header : PDSD5							
Response Header from PDS Server : FPS Details							
Field Id	Field Name	xml tag name	Type	Purpose	Required?	Unique?	Range

SD5.1	fps_id	fps	varchar(12)	Fair Price shop Id : DDDDAAASSSSS	Y		FPS Id is of fixed length and premissible value is numeric [0-9] as per the following pattern DDDDAAASSSSS DDDD - DFSC code AAA - AFSO code SSSSS - FPS Shop sequence number covered by AFSO where DDDD -First 4 digit makes a DFSO/DFSC/DSO code (First digit is a sequence number within the district , for example , 1 means first dfsc/dfso within the district and Next 3 digits are District code (Reference: 2011 census code for districts) AAA - 3 digits AFSO/ TSO / FSO Code sequence number within the DFSO /DFSC/DSO SSSSS - 5 digits Sequence number within AFSO/TSO/FSO ***For testing purpose, the FPS id is SS1111111111 where SS = 2 digit state code***
PDSD5.2	fps_name_en	fpsen	varchar(12)	FPS name in English	Y		[a-zA-Z]
PDSD5.3	fps_name_ll	fpsll	varchar(12)	FPS name in Local Language	Y		
PDSD5.4	fps_device_ mac_id	fpsmac	varchar(64)	MAC id of FPS device	Y	Y	(0-9)
PDSD5.5	fps_passwor d	fpspwd	varcahr(20)	FPS Password	Y		(0-9 A-Z a-z *!@#$%^&*)

	fps_mobile_no	fpsmob	varchar(10)	FPS Mobile Number	Y		(0-9)
PDSD5.6							
PDSD5.7	fps_uid	fpsuid	varchar(12)	FPS Uid	Y	Y	(0-9)
PDSD5.8	villEn	villEn	varchar(255)	FPS Village Name(English)	Y		(A-z a-z)
PDSD5.9	villLl	villLl	varchar(255)	FPS Village Name(Local Language)	Y		(A-z a-z)
PDSD5.10	villCd	villCd	varchar(16)	FPS Village Code	Y	Y	(0-9)

1.7.8. **Metadata of Master Tables**

Measurement Unit			
Field Name	**tag name**	**Type**	**Purpose**
measurement_unit_code	mucd	smallint	Uniquely idenitfies a measurment unit code
measurement_unit_name_in_ll	mull	varchar(25)	Measurment unit code name in local language
measurement_unit_name_in_en	muen	varchar(25)	Measurment unit code name in english

Card Type			
Field Name	**tag name**	**Type**	**Purpose**
card_type_id	cttype	smallint	Uniquely idenitfies a card description code
card_description_ll	ctypell	varchar(150)	Card description name in local language
card_description_en	ctypeen	varchar(150)	Card description name in english

Commodity Code			
Field Name	**tag name**	**Type**	**Purpose**
comm_code	commcd	integer	Uniquely idenitfies a card description code
comm_en	commll	varchar	Commodity name in local language
comm_en	commen	varchar	Commodity name in english

Relationship Code			
Field Name	**tag name**	**Type**	**Purpose**
rs_code	rccode	integer	Uniquely idenitfies a relation description code
rsNameEn	rsnameen	varchar	Relationship name in english
rsNameLn	rsnamell	varchar	Relationship name in local language
gendertypeid	gendetypeid	integer	Uniquely idenitfies a gender description code

1.8.   **Full Application and Database Download**

1.8.1.   Application Dowload (URL):
http://gaman-aagman.nic.in/FpsAppDownload

1.8.2.   Application Dowload (JSON object):

```
{
   "FpsAppDownload":
[{
     "fps": "",
     "lat": "",
     "lon": "",
     "cc": "",
     "mac": "",
     "ver": "",
     "reqts": "",
     "req": "",
     "bid": "",
     "reccnt": "",
     "totcnt": ""
     }]
}
```

1.8.3.   Application Dowload (Metadata):
Same as FPSH1 with request type code as 'APP'.

1.8.4.   Application Dowload Acknowledgement: (JSON):

```
{
   " FpsAppDownload ":
[{
     "fps": "",
```

```
    "req": "",
    "ackr": "",
    "acks": "",
    "filesize": ""
    Application will be downloaded along with this frame as acknowledgement
    }]
}
```

5.2

1.8.5.   Application Dowload Acknowledgement: (Metadata):

Refer PDSA1: Request Acknowledgement from PDS Server. FileSize is included in Kilobytes. Also application will be downloaded when acknowledgement is received.

PDSD7							
App Download : FpsAppDownload							
Field Id	**Field Name**	**xml tag name**	**Type**	**Purpose**	**Required**	**Unique**	**Range**
PDSD7.1	Filesize	filesize	double	File Size in Kilobytes	Y		

1.9. **Stock Upload: FPS stock receipt entry**

a) Dealer has to enter the stocks received as and when the stock arrives at the FPS.

b) Only the authenticated person can send the FPS stock receipt of commodities to the PDS server after authenticating himself by Aadhaar authentication or OTP.

c) The sale has to occur only based on availability of the stocks.

d) Only additions of the stocks are allowed and deletion or updation of the already listed stocks should not be allowed.

e) At any point of time stock should not be a negative value.

1.9.1. Stock Upload (URL):
http://gaman-aagman.nic.in/PdsReceiveStockDetail

1.9.2. Stock Upload (JSON object):

```
{
  "PdsReceiveStock":
[{
    "ats": "",
    "atype": "",
    "commcd": "",
    "rdate": "",
    "stckqty": "",
    "fps":"",
    "munit":""
    }]
}
```

1.9.3. Stock Upload (Metadata):

FPSD2							
Health Statistics from FPS : PdsReceiveStock							
Field Id	**Field Name**	**xml tag name**	**Type**	**Purpose**	**Required**	**Unique**	**Range**
FPSD2.1	Fps_id	fpsid	Varchar(12)	Unique Fps id	Y		(0,9)

FPSD2.2	Allocation_ti me_stamp	ats	Varchar()	Allocation time stamp	Y		[0-9,a-z,A-z]
FPSD2.3	Allocation_ty pe	atype	Varchar()	Allocation type			[0-9,a-z,A-z]
FPSD2.4	Commodity_ code	commc d	integer	Commodity code	Y		(0,100)
FPSD2.5	Reciept_dat e	rdate	date	Reciept date			Time stamp
FPSD2.6	Stock_qty	stckqty	double	Stock qty	Y		Real values
FPSD2.7	_munit	munit	integer	Measurment Unit of Commodity	Y		integer values

1.9.4.   Stock Upload Acknowledgement: (JSON):

```
{
   " PdsReceiveStockAck":
[{
    "fps": "",
    "ackr": "",
    "acks": "",
    "req": ""
    }]
}
```

1.9.5.   Stock Upload Acknowledgement PDSA1 (Metadata):
Refer PDSA1

1.10. **Monthly closing of sales**

Closing balance means the declaration of leftover stock per commodity to GOI so that the Allocation Order of next month can be generated after re-conciliation of the sale and stocks.

a) The monthly sale can be closed after end of every calendar month at midnight (automated closure).

b) The dealer can also close the monthly sale (force closure) if the stocks are sold out and commodities are distributed to all the beneficiaries.

c) In both cases the database is backed up and all the remaining transactions will be pushed to the server.

d) The left out (un-lifted) commodities of the beneficiaries will not be carried forward to the next month.

e) The closing balance (CB) is pushed to the NIC server. The POS terminal is connected to the PDS server or is brought to the nearest AFSO/ DSO/ TSO office for submitting the data to the backend server.

f) Closing balance for a commodity can be sent only once by an FPS.

g) Popup shall be displayed to confirm and ensure that FPS dealer is not doing the same by mistake.

h) Only the authenticated person can send the closing balance of commodities after authenticating himself by Aadhaar authentication or OTP.

i) Extention of the distribution shall be based on the automated services.

1.10.1. Closing Balance Upload (URL):
http://gaman-aagman.nic.in/PDSReceiveClosingBalance

1.10.2. Closing Balance Upload (JSON object):

```
{
  "PDSReceiveClosingBalance_Detail ":
[{
    "fps": "",
    "lat": "",
    "cc": "",
    "mac": "",
    "ver": "",
    "reqts": "",
    "req": "",
    "totcnt": "",
```

```
    "bid": "",
    "reccnt": "",
    "lon":
     "ats": "",
    "adate": "",
    "txncnt": "",
    "commcode": "",
    "cqty": "",
    "munit": ""
    }]
}
```

1.10.3.   Closing Balance Upload (Metadata):

<table>
<tr><th colspan="8">FPSD2</th></tr>
<tr><th colspan="8">Closing Balance from FPS :
PdsReceiveClosingBalance</th></tr>
<tr><th>Field Id</th><th>Field Name</th><th>xml tag name</th><th>Type</th><th>Purpose</th><th>Required</th><th>Unique</th><th>Range</th></tr>
<tr><td>FPSD2.1</td><td>Allocation_time_stamp</td><td>ats</td><td>Varchar()</td><td>Allocation time stamp</td><td>Y</td><td></td><td>[0-9,a-z,A-z]</td></tr>
<tr><td>FPSD2.2</td><td>Allocation_Date</td><td>adate</td><td>Varchar()</td><td>Allocation Date</td><td></td><td></td><td>[0-9]</td></tr>
<tr><td>FPSD2.3</td><td>Commodity_code</td><td>commcode</td><td>integer</td><td>Commodity code</td><td>Y</td><td></td><td>(0,100)</td></tr>
<tr><td>FPSD2.4</td><td>txncnt</td><td>txncnt</td><td>integer</td><td>Transaction Count</td><td></td><td></td><td>(0-9)</td></tr>
<tr><td>FPSD2.5</td><td>closing_qty</td><td>cqty</td><td>double</td><td>Stock qty</td><td>Y</td><td></td><td>Real values</td></tr>
<tr><td>FPSD2.6</td><td>_munit</td><td>munit</td><td>integer</td><td>Measurment Unit of Commodity</td><td>Y</td><td></td><td>integer values</td></tr>
</table>

1.10.4.   Closing Balance Upload Acknowledgement: (JSON):

```
{
   " PdsReceiveFPSAck":
[{
    "fps": "",
    "ackr": "",
    "acks": "",
    "req": ""
    }]
}
```

1.10.5.   Closing Balance Upload Acknowledgement PDSA1 (Metadata):
Refer PDSA1

2. Other services

2.1.   **Time synchronization**

a) Time synchronization web service will be used in the POS devices to synchronize the time with NIC server.

b) The transactions exceeding the permissible time difference will be dropped by the PDS server and will not be accepted.

2.1.1.   Time Synchronization (URL):
http://gaman-aagman.nic.in/PdsReceivePDSTS

2.1.2.   Time Synchronization (JSON object):

```
{
   " FPSReceivePDSTS ":
[{
    "fps": "",
    "lat": "",
    "lon": "",
    "cc": "",
    "mac": "",
    "ver": "",
    "reqts": "",
    "req": "",
    "bid": "",
    "reccnt": "",
    "totcnt": "",
    }]
}
```

2.1.3.   Time Synchronization (Metadata):
Same as common header PDSH

2.1.4. Time Synchronization Acknowledgement: (JSON):

```
{
   " FPSReceivePDSTSAck ":
        [{
        "fps": "",
        "req": "",
        "ackr": "",
        "acks": "",
        "ts": "",  }]
}
```

2.1.5. Time Synchronization Acknowledgement PDSA1 (Metadata):

PDSD8							
Health Statistics from FPS : FPSReceivePDSTS							
Field Id	**Field Name**	**xml tag name**	**Type**	**Purpose**	**Required**	**Unique**	**Range**
PDSD8.1	Timestamp	ts	Date with timestamp	Timestamp of the server	Y	Y	'Yyyy-mm-dd hh:MM:ss.mmm' Year-month-date hours:minutes:seconds.milliseconds

2.2. **Aadhaar Seeding**

a) e-KYC service will be provided by NIC to verify the beneficiary and after successful verification the Aadhaar number will be seeded to the particular beneficiary in the ration card.

b) The service will be invoked by the FPS dealer through application.

2.2.1. Aadhaar Seeding (URL)
http://gaman-aagman.nic.in/PDSReceiveAadhaar

2.2.2. Aadhaar Seeding (JSON)

```
{
   " PDSReceiveAadhaar ":
[{
        "fps": "",
        "lat": "",
        "lon": "",
        "cc": "",
        "mac": "",
        "ver": "",
        "reqts": "",
        "req": "",
        "bid": "",
```

```
    "reccnt": "",
    "totcnt": "",
    "rcno": "",
    "memid": "",
    " memen ": "",
    "aadhaar: ""
    }]
}
```

2.2.3. Aadhaar Seeding (Metadata)

FPSD5							
Aadhaar Seeding in PDS Server : PDSReceiveAadhaar							
Field Id	**Field Name**	**xml tag name**	**Type**	**Purpose**	**Required?**	**Unique?**	**Range**
FPSD5.1	aadhaar	aadhaar	varchar(12)	Aadhaar number	Y	Y	(0-9)
FPSD5.2	ration_card_no	rcno	varchar(12)	Ration Card number	Y		Refer PDSD1
FPSD5.3	member_id	memid	varchar(14)	Member id	Y		Refer PDSD1
FPSD5.3	member_name	memen	varchar(99)	Member Name	Y		Refer PDSD1

2.2.4. Aadhaar Seeding Acknowledgement: (JSON)

```
{
  " FPSReceivePDSAck ":
[{
    "fps": "",
    "req": "",
    "ackr": "",
    "acks": ""
}]
}
```

2.3. **Mobile Number Seeding**

a) Mobile number seeding service will be provided by NIC to enter the mobile
   number of the beneficiary against his name in the ration card.

b) The service will be invoked by the FPS dealer through application.

2.3.1.   Mobile Number Seeding (URL)
          http://gaman-aagman.nic.in/PDSReceiveMobileNumber

2.3.2.   Mobile Number Seeding (JSON)

```
{
  " PDSReceiveMobileNo ":
[{
    "fps": "",
    "lat": "",
    "lon": "",
    "cc": "",
    "mac": "",
    "ver": "",
    "reqts": "",
    "req": "",
    "bid": "",
    "reccnt": "",
    "totcnt": "",
    "rcno": "",
    "memid": "",
    ""mob: ""
  }]
}
```

2.3.3.   Mobile Number Seeding (Metadata):

				FPSD3			
		Mobile Seeding in PDS Server : PDSReceiveMobileNo					
Field Id	Field Name	xml tag name	Type	Purpose	Required?	Unique?	Range
FPSD3.1	mobileno	mob	varchar(10)	Mobile number of the beneficiary	Y	Y	(0-9)
FPSD3.2	ration_card_no	rcno	varchar(12)	Ration Card number	Y		Refer PDSD1

FPSD3.3	member_id	memid	varchar(14)	Member id	Y		Refer PDSD1

An OTP Is sent to beneficiary's mobile. The user sends that OTP to the server for verification. If the OTP is correct then the mobile number is registered in the server.

2.3.4. OTP URL
http://gaman-aagman.nic.in/PDSReceiveOTP

2.3.5. OTP (JSON)

```
{
   " PDSReceiveMobileOTP ":
[{
        "fps": "",
        "lat": "",
        "lon": "",
        "cc": "",
        "mac": "",
        "ver": "",
        "reqts": "",
        "req": "",
        "bid": "",
        "reccnt": "",
        "totcnt": "",
        ""otp: "",
        "rcno": "",
        "memid": "",
        "mob": ""
        }]
}
```

OTP will be sent through a webservice to PDS server for verification. If OTP is correct mobile number is seeded.

2.3.6. OTP (Metadata)

FPSD4							
Mobile Seeding in PDS Server : PDSReceiveOTP							
Field Id	Field Name	xml tag name	Type	Purpose	Required?	Unique?	Range

FPSD4.1	otp	otp	varchar(10)	One time password	Y		(0-9 a-z A-Z)
FPSD4.2	ration_card_no	rcno	varchar(12)	Ration Card number	Y		Refer PDSD1
FPSD4.3	member_id	memid	varchar(14)	Member id	Y		Refer PDSD1
FPSD4.4	mobileno	mob	varchar(10)	Mobile number of the beneficiary	Y	Y	(0-9)

2.4. Centralized Device Management System

a) A web portal should be developed by System Integrated to get the information about the POS devices such as active status, network condition and other device statistics.

b) The web portal will be hosted in the NIC server and a link will be provided in the PDS portal to access the CDMS.

3. Web Services Describtion

The following web services are required to implement the FPS automation model:

a) **FPS dealer login web service**

The web service will receive FPS dealer username and password from POS and returns login success or failure.

b) **Monthly DB download web service**

To receive monthly ration card data mapped to an FPS along with entitlement for the current month. The service returns the FPS DB and current version of the application.

c) **Finger print authentication**

The finger print verification web service is used to verify the beneficiary finger print captured in POS with UIDAI. The finger print is encoded and encrypted

according to Aadhaar authentication API version 1.6. After due verification the service returns authentication success or failure as a response.

d) **OTP generation**

If the Aadhaar authentication fails, the Generate OTP web service is used to request the PDS server to generate OTP and send it to the registered mobile number.

e) **Verify OTP**

The verify OTP web service checks the validation of the OTP and authenticates a person and sends a response YES or NO.

f) **Upload Transaction**

The upload transaction web service pushes the transaction from the POS device to the PDS server. The server response with Success or Failure.

g) **Time synchronization**

This web service is used to sync the timestamp of the POS device with the NIC server. Whenever a request comes from the POS device the PDS server sends the time details.

h) **Aadhaar Seeding**

If a particular member's Aadhaar number is not included in the RC card details, then the Aadhaar seeding web service is used to include the same. This is done after verifying with the NIC e-KYC web service.

i) **Mobile number seeding**

Mobile number seeding web service inputs the mobile number against the RC card to include it as a registered mobile number where transaction information and OTP request will be sent for a particular ration card.

4. **Getting RC details online**

An alternative FPS automation model shall be getting the RC details and allotment details as and when required through a web service. This model ensures PDS server and POS will be in sync.

4.1. **Process flow**

a) FPS dealer enters the RC number.

b) A web service is invoked to fetch the beneficiary details of the RC along with the current balance commodities of the month.

c) Selection of beneficiary

d) Selection of commodities

e) Beneficiary authentication

f) Uploading of transaction

g) Issue of receipt (print out)

6 Application requirements for FPS Convenience

6.1 One-page application:

The FPS automation application shall be as simple as possible. It shall be a one-page application if there is no need otherwise.

6.2 No Forced Session Logouts:

For the FPS convenience, forced session logouts be not there before end of the day (00:00:00 Midnight).

6.3 No intervention from FPS:

As and when network connectivity is available, the sale transactions shall be uploaded without any need to trigger the sending of the un-sent transactions.

7 Application and Data Security

7.1 Device Binding:

FPS device numbers are added / deleted from PDS server only. Only registered FPS MAC Ids can function within PDS system.

7.2 Application Encryption:

The release version of the application shall be encrypted by algorithm and key given by NIC before deployment in the devices. In case the transactional data/application is tried to be tampered, the application shall get corrupt.

7.3 Audit Trails:

The result codes of transactions are logged for each FPS, indicating the reason of success or failure. It will also be logged whether the device has a SIM inserted or not along with the timestamp and duration thereof.

7.4 Distribution Officer Binding:

Registered Distribution Officer/Inspector can deliver commodity to FPS owner within PDS system.

8   Version Management

The vendor FPS application source code and the application configuration management will be with NIC. The registered version will be able to perform operations with PDS server.

9   Device Backup and Data Recovery

9.1   SAM Slot and DR:

SAM slot shall be used for data recovery and all transactions shall be stored in SIM/DIM/SD card for backup purpose in case the device goes faulty. It is mandatory to have a provision of backup without which application shall not function. Necessary alerts shall be included in the application to ensure the same.

10 Hardware Specifications

10.1 POS Specifications

Sl. No.	Description	Specifications
1	Processor	**Secure Processor** capable of performing at least 10 transactions per minute in laboratory environment (Each Transaction consists of 1. Perform Biometric Authentication of the PDS beneficiary with UIDAI server 2. Generate Encrypted pay load for maximal Sales data. 3. Store Encrypted transaction data in the local storage 4. Transmit the Encrypted transaction sales data to PDS server. 5.Remove the locally stored sales data only after getting acknowledgement from the server)
2	OS	**Secure OS** having an inbuilt web browser supporting HTML5, CSS3, Java Scripts. (Source code of OS shall be CC compliant at least EAL level 2 certified or OS hardened and tested by an independent lab with a declaration of equivalence to CC EAL2)
3	Memory	256MB or Higher RAM and 1GB or higher Flash memory

4	Expansion slot	Micro SD Slot to support SD card with minimum 8 GB high speed SD card
5	Communication	Should support GSM Network with GPRS, Wi-Fi, Ethernet, PSTN
6	Interface	USB 2.0 or higher. The USB port should support device battery charging through any other USB charging source, RS-232 (optional)
7	Display	2.75 inch or higher color TFT Display supporting QVGA (320 x240) or better resolution.
8	Key Pad	Hard (Optional) QWERTY keypad
9	Battery	Swappable &Dry/Rechargeable 2600mAH or higher, Li-ion or Li Polymer battery capable of providing minimum 6 hours of operation while all function of device active.
10	Power Adaptor	Power Adaptor with surge protection and operating range 100 to 240V, 50Hz. AC input.
11	SIM & SAM slot	One or more GSM SIM slot and minimum one SAM slots for software up-gradation in device.
12	Printer	2" or higher Thermal / Non-Thermal Printer
13	Audio (Optional)	Good quality Speaker with 1W or higher output for announcements.
14	Finger Print Scanner	STQC certified Finger Print Module
15	IRIS Scanner (Optional)	STQC certified IRIS scanner Module
16	Smart Card (contact type) (Optional)	1 or 2 Number of Smart Card Reader & Writer (ISO 7816 Complaint)
17	Status Indications	Status indicator provides ease of use, Indicators for connectivity (presence/absence), signal strength, battery status.
18	Other Accessories	Durable Carry Case and user manual etc.
19	SDK	Appropriate SDK need to be provided along with the devices
20	Terminal Management	Device should be remotely manageable in secured mode
21	Environment, Health & Safety Durability, Humidity, EMI/EMC Compliance	Dry heat test- Operating (50 ±2˚C for 2 hrs) Cold test – Operating (0 ±3˚C for 2 hrs) Dry heat test (55 ±2˚C for 2 hrs) Damp heat Cyclic (40˚C for (12+12 hrs)), No. of cycles: 2 Cold Test (-10 ±3˚C for 2 hrs) Drop/Free Fall Test, in unpacked, switched off and normal handling conditions (Height: 100mm, Total no. of falls: 2)

		Vibration Test should be in packed condition, switched off conditions (10-150Hz, 0.15mm/2g, 10 sweep, cycles/axes) Bump test should be in packed condition, switched off condition.(1000Bumps, 40g, in vertical position)
22	Add-On Antenna	May be provisioned for the POS devices which will be used in remote locations and hilly areas for better signal reception and seamless transactions
23	Warranty	Suitable Warranty support

10.2 Mobile Terminal Specifications

Sl. No.	Feature	Specifications
1	Display	7" inches or higher scratch resistant multi point capacitive touch screen with minimum WSVGA resolution (1024 X 600)
2	Processor Speed	1 GHz Dual Core or higher ARM /x86 processor or equivalent
3	RAM	1 GB or higher
4	Inbuilt Storage	4 GB or higher flash memory
5	Expansion Slot	At least a micro SD slot supporting up to 32 GB memory card
6	Audio	Good quality Speaker with 1W or higher output for announcements.
7	External Keyboard support (optional)	Device should support keyboard through USB or Bluetooth interface.
8	Connectivity	Device should support both 3G, GPRS and Wi-Fi, should support GPS feature
9	USB ports	At least one free USB port shall be available after setting up the entire solution including peripheral devices
10	Battery	Rechargeable 4000mAH or higher, Li-ion or Li Polymer battery capable of providing minimum 6 hours of operation while all function of device active.
11	Operating System	Operating system should be Linux (Latest Stable Kernel)/Android 4.0 or higher/Windows. Device operating system which supports HTML5 based web browser and CSS 3
12	Certification	RoHS (Restriction of Hazardous substance) CE or UL
13	Camera Barcode Reader	Capable of reading 1D line barcode and QR codes with minimum 5Mp auto-focus camera
14	Indicators	Status indicator provides ease of use, Indicators for connectivity

		(presence/absence), signal strength, battery status etc.,
15	SAM slot	Device should have at least a SAM slot to support secure loading of signed applications
16	Biometric Sensor	STQC certified Finger Print Module
17	IRIS Scanner (Optional)	STQC certified IRIS scanner Module
18	Smart Card Reader (Optional)	ISO 7816 Compliant
19	Environment & Durability	Dry heat test- Operating (50 ±2˚C for 2 hrs) -Storage-55 ±2˚C for 16hrs.in accordance with IS:9000/part-3/section-5/1977(reaffirmed in 2007). Cold test – Operating (0 ±3˚C for 2 hrs) Storage-minus10degC for 4 hrs. at a temp. of 0-degree C in accordance with IS:9000/part-2/section-4/1977 (reaffirmed in 2007). Damp heat Cyclic --0perating-40˚C, 95%RH for (12+12 hrs)), No. of cycles: 2 in accordance with IS: 9000/part-5/section-1/1981 (reaffirmed in 2007). During last half an hour of each environmental conditioning as above and after recovery period of two hours the product be checked for 1:1 authentication Drop/Free Fall Test, in unpacked, switched off and normal handling conditions (Height: 100mm, Total no. of falls: 2) Vibration Test should be in packed condition, switched off conditions (10-150Hz, 0.15mm/2g, 10 sweep, cycles/axes) Bump test should be in packed condition, switched off condition.(1000Bumps, 40g, in vertical position)
20	Printer	Integrated or external
21	Antenna (mandatory)	Internal
22	Terminal Management	Device should be remotely manageable in secured mode
23	Warranty	Suitable Warranty support

NOTE:

Mobile tablet devices should be preferred devices over POS devices for reasons of its cost, interoperability and easy maintenance. NIC will provide a working application based on Android. Vendor has the option to deploy and run NIC application in the device for its complete functionality or build an application with same functionality (exactly similar to

NIC application) in their device. In such a case the source code, every revised version of the source code and application, shall be copyright of NIC.

11 Error Codes

Web Services Errors	
API Error Code	**Description**
1000	FPS Id not registered
1001	Invalid PLC code
1002	Invalid company code
1003	Device not registered
1004	Application version mismatch
1005	Date greater than current date
1006	Data type mismatch
1007	Value out of range
1008	Invalid ration card number
1009	Invalid ration card type
1010	Commodity code does not exist
1011	Member id does not exist
1012	Invalid relationship code
1013	Invalid measurement unit code
1014	Timestamp not unique

Device Error codes	
API Error Code	**Description**
2000	SIM card not available
2001	No network in SIM
2002	Invalid SIM card
2003	Printer not connected
2004	Low battery for UIDAI authentication
2005	Mobile data off
2006	Driver not loaded
2007	Paper not available
2008	Device internal problem
2009	Options not supported

Login Errors	
API Error Code	**Description**
3000	Invalid Username or Password.
3001	Account Suspended due to some reason.
3002	Account Deactivated/Expired.

UIDAI Authentication Errors	
API Error Code	**Description**
100	"Pi" (basic) attributes of demographic data did not match
200	"Pa" (address) attributes of demographic data did not match
300	Biometric data did not match
310	Duplicate fingers used
311	Duplicate Irises used
312	FMR and FIR cannot be used in same transaction
313	Single FIR record contains more than one finger
314	Number of FMR/FIR should not exceed 10
315	Number of IIR should not exceed 2
400	"OTP" validation failed
401	"Tkn" validation failed
500	Invalid Skeyencryption
501	Invalid value for "ci" attribute in "Skey" element
502	Invalid Pid Encryption
503	Invalid HMac encryption
504	Session key re-initiation required due to expiry or key out of sync
505	Synchronized Skey usage is not allowed
510	Invalid Auth XML format

511	Invalid PID XML format
520	Invalid device
521	Invalid Finger device (fdc in Meta element)
522	Invalid Iris device (idc in Meta element)
530	Invalid authenticator code
540	Invalid Auth XML version
541	Invalid PID XML version
542	AUA not authorized for ASA.
543	Sub-AUA not associated with "AUA"
550	Invalid "Uses" element attributes
561	Request expired ("Pid->ts" value is older than N hours where N is a configured threshold in authentication server)
562	Timestamp value is future time (value specified "Pid->ts" is ahead of authentication server time beyond acceptable threshold)
563	Duplicate request (this error occurs when exactly same authentication request was re-sent by AUA)
564	HMAC Validation failed
565	License key has expired
566	Invalid license key
567	Invalid input (this error occurs when some unsupported characters were found in Indian language values, "lname" or "lav")
568	Unsupported Language
569	Digital signature verification failed (this means that authentication request XML was modified after it was signed)
570	Invalid key info in digital signature (this means that certificate used for signing the authentication request is not valid – it is either expired, or does not belong to the AUA or is not created by a well-known Certification Authority)
571	PIN Requires reset (this error will be returned if resident is using the default PIN which needs to be reset before usage)
572	Invalid biometric position (This error is returned if biometric position value - "pos" attribute in "Bio" element - is not applicable for a given biometric type - "type" attribute in "Bio" element.)
573	Pi usage not allowed as per license
574	Pa usage not allowed as per license
575	Pfa usage not allowed as per license
576	FMR usage not allowed as per license
577	FIR usage not allowed as per license

578	IIR usage not allowed as per license
579	OTP usage not allowed as per license
580	PIN usage not allowed as per license
581	Fuzzy matching usage not allowed as per license
582	Local language usage not allowed as per license
584	Invalid Pin code in Meta element
585	Invalid Geo code in Meta element
710	Missing "Pi" data as specified in "Uses"
720	Missing "Pa" data as specified in "Uses"
721	Missing "Pfa" data as specified in "Uses"
730	Missing PIN data as specified in "Uses"
740	Missing OTP data as specified in "Uses"
800	Invalid biometric data
810	Missing biometric data as specified in "Uses"
811	Missing biometric data in CIDR for the given Aadhaar number
812	Resident has not done "Best Finger Detection". Application should initiate BFD application to help resident identify their best fingers. See Aadhaar Best Finger Detection API specification.
820	Missing or empty value for "bt" attribute in "Uses" element
821	Invalid value in the "bt" attribute of "Uses" element
901	No authentication data found in the request (this corresponds to a scenario wherein none of the auth data – Demo, Pv, or Bios – is present)
902	Invalid "dob" value in the "Pi" element (this corresponds to a scenarios wherein "dob" attribute is not of the format "YYYY" or "YYYY-MM-DD", or the age of resident is not in valid range)
910	Invalid "mv" value in the "Pi" element
911	Invalid "mv" value in the "Pfa" element
912	Invalid "ms" value
913	Both "Pa" and "Pfa" are present in the authentication request (Pa and Pfa are mutually exclusive)
930-939	Technical error that are internal to authentication server
940	Unauthorized ASA channel
941	Unspecified ASA channel
980	Unsupported option

997	Invalid Aadhaar Status
998	Invalid Aadhaar Number
999	Unknown error

12 Constraints

12.1 Allocation

- *Allocation Order Generation*: Allocation Order can be generated after receipt of closing balance from all the FPS.

- *Sales Closure:* After sales closure, and transmitting the closing balance to PDS server, device shall not perform sale transactions.

- *Closing Balance:* Closing balance can be uploaded once in a month for a commodity.

- *Closing balance and transactions count:* Closing balance calculated at PDS Server from uploaded transactions shall vary from the actual closing balance in case some transactions are not uploaded due to network failure. Therefore, closing balance is also calculated and submitted from each FPS device in encrypted format.

12.2 Allocation and Ration Card

- *Reflection in PDS cycle of new, modified or deleted Ration Cards:* The modifications in Ration Card will be reflected in next month allocation and distribution cycle.

12.3 Device

- *Device Failure*: Department officials need to take appropriate decisions in case of device failure.

- *Minimum battery requirement:* Minimum battery requirement for UIDAI authentication is 15-25%.

12.4 Network

- *Network requirement:* In FPS Automation – Occasionally Online mode, the network is required at least once for receiving entitlement policy and beneficiary details, performing Buffered authentication, uploading sale transactions and closing balance. Redundant full-time connectivity is required in Fully Online mode.

- *Signal Boosters:* Whip Antenna and signal booster might be required to ensure reasonable signal strength.

12.5 Miscellaneous

- **Weighing machine**: If weighing machine is used along with the Point of Sale device it needs to be calibrated at regular intervals.

13 Appendix-A   GLOSSARY

Acronym	Acronym Full Form
AO	- Allocation Order
AFSO	- Assistant Food and Supplies Officer
CB	- Closing Balance
DFSO	- District Food Supply Office
DoFPD	- Department of Food and Public Distribution
FPS	- Fair Price Shop
FSO	- Food Supply Office
NIC	- National Informatics Centre
PDS	- Public Distribution System
POC	- Proof of Concept
PoS	- Point of Sale
RC	- Ration Card
RMN	- Registered Mobile number
TSO	- Tehsil Supply Office
UID	- Unique Identification
UIDAI	- Unique Identification Authority of India

14 Appendix-B   Preferable/Popular Matrix (Indicative)

OS Type	Device Type	App Type	App Mode	Aadhaar Support
Windows OS till 8.1	PC/Laptop	Web (HTML5.0/CSS3)	Online	Yes
Linux OS	PC/Laptop	Web (HTML5.0/CSS3)	Online	Yes
iOS	iMac PC/Laptop	Web (HTML5.0/CSS3)	Online	Not Available
Linux OS Kernal6.0	PoS	Native	Online +Offline	Yes
Windows 10	PC/Tablet/PoS/Mobile Phone	Native	Online + Offline	Yes
Android	Tablet/PoS/Mobile Phone	Native	Online + Offline	Yes
iOS	Tablet/Mobile Phone	Native	Online + Offline	Not available

15 Appendix-C Suggested Methodology for No Denial of Service

S. No.	Case	Mode of Authentication	Status	Available Waiver Counts	Service	Action
1.	Offline Sale	Buffered	First time no auth required	>=0	nDoS	-
2.	Offline Sale	Buffered	Auth failed in previous transactions	=0	DoS	-
3.	Offline Sale	Buffered	Auth failed in previous transactions	>0	*nDoS*	Reduce waiver count by 1
4.	Offline Sale	Buffered	Auth successful in previous transactions	>=0	nDoS	-
5.	Online Sale	Real-time	Auth failed in current transactions	=0	DoS	-
6.	Online Sale	Real-time	Auth failed in current transactions	>0	*nDoS*	Reduce waiver count by 1
7.	Online Sale	Real-time	Auth Successful in current transactions	>=0	nDoS	-

Authentication may be considered to happen only in following cases:

S. No.	Attempt 1		Attempt 2		Attempt 3		Status	Action
	Auth	No. of Trials	Auth	No. of Trials (configurable)	Auth	No. of Trials (configurable)		
1.	Finger	configurable	Iris	configurable	Aadhaar based OTP	configurable	Failed due to mismatch	Reduce waiver count by 1
2.	Finger	configurable	Iris	configurable	Aadhaar Based OTP	configurable	Failed due to any other issue like expiry of deferring period, network failure etc.	-
3.	Finger	configurable	Iris	configurable	Aadhaar Based OTP	configurable	Successful	-

In case of no Aadhaar seeded Ration Cards, the positive number of waiver counts (configurable) will be used to allow the transactions to happen. Initially it may be set to a respectable size and meantime beneficiaries may be asked to get their Aadhaar seeding done at the earliest. Warning needs to be issued on reducing number of waiver counts. Once the waivers are finished, DoS will start to happen. It is to be noted that Waiver count is valid for the Ration Card, not on a member and will be reduce if the successful transaction is performed.

16 Appendix-D   Aadhaar Seeding- eKYC

Aadhaar number is seeded after biometric authentication of the beneficiary with the UID number. In addition, the textual and demographic details are also matched with the details from UID server corresponding to the Aadhaar number. Once the demographic and biometric is authenticated, the UID number shall be seeded in PDS Server.

A demo of UID seeded is available at http://164.100.72.83/AadharComparison

Figure 3: Aadhaar Seeding in PDS – eKYC

17 Appendix-E   Design Considerations (Indicative)

- FPS user can make the transactions both online and occasionally offline (for both sales and commodity receiving) based on the configuration set at the backend. Mode of transactions, i.e., occasionally offline or online, depends on the availability of internet connection.

- When occasionally offline sale happens, required sales details are saved in local database. For the sale to happen offline, there are many essential details to be retrieved from main server and stored locally for that particular FPS like:

  o FPS details, credentials & available features for FPS

  o User configuration details – preferred language, form captions in selected language, state logo, sale options (e.g.-will be able to make online sale only or online-offline sale), aadhaar seeding options (e.g.: eligible for Organic or Inorganic Seeding or both).

  o Commodity allocation, Commodity Sales Validity Period, Ration card details and member details belonging to that particular FPS.

  o Commodity Master Data, Scheme Master Data, Measurements Unit Master.

  o For field inspection, Inspector's credentials will also be made available. The inspector can login through its credentials and make the complaint of any FPS dealer.

- At the end of the allocation month (validity date & time of sale) App should de-activate the sale corresponding to such allocation number. After the sales is closed the backup will be maintained securely on PoS. Also, there will be a feature in App to close the sale manually (event driven). Thus, sale closure will be done both ways either time-driven or event-driven whichever is earlier.

- At the end of the allocation cycle (validity date & time of sale) all the sales data have to be synchronized to main server.

- Database, Bio-metric and Printer SDKs may be part of the App. Accordingly, if the App is uninstalled the transaction data will get erased and SDKs will get uninstalled. If there are any pending records for synchronization, uninstallation / updation should not be allowed.

- Across the application date and time needs to be synchronized between POS device and PDS Server.

- Listed STQC certified biometric devices (finger & iris) have to be supported for authentication.

18 Appendix-F   Detailed Functionalities

18.1 Essential Functionality

a. **User Management:** User management module shall enable registration process, FPS, management of password, User Access and Authorization Management. Following functionalities shall be covered under this module

1	Functional Requirements of User Management
1.1	**Registration**
	System must allow user to register FPS during/after installation of PoS software
	Facility to register the FPS Owner
	FPS owner shall be allowed to create other users (operators) [subject to approval of state government]
	Aadhaar number shall also be recorded for Aadhaar authentication
1.2	**Access Control**
	System shall provide role-based access for application modules
1.3	**Password Management [may also be managed at PDS Server level)**
	System shall allow textual password /biometric based login
	Biometric based login shall be done through Aadhaar authentication
	System shall allow a maximum of three/ configurable attempts to login.
	System shall allow the user to regenerate a lost password/reset password
	System shall encrypt the user passwords
1.4	**Exceptions** [subject to approval of state government]
	System shall allow limited functionality (like reports) to FPSs which are temporarily suspended
	User to be blocked beyond unsuccessful attempts
	Provision to be given for unblocking the user
	Biometric authentication to be enabled for user login if network connectivity is available

b. **Master Data and Entitlement download in case of occasionally online mode:** For occasionally online mode, the input data for sales & receipts at FPS has to be downloaded to the PoS device in a secured and consistent manner.

2	Master Data and Allocation Download & Upload in offline mode
2.1	**Master Data Download**
	Data related to Ration card number and beneficiary shall be downloaded once in a month in PoS device for the FPS
	Downloading of master data not to be allowed if it is already stored for current allocation month
	Following data may be downloaded: FPS Details Commodity Master (only active commodities)

	Scheme Master (only active schemes) Measurement Units Master (only active units) Ration Card Details Member Details Month-wise Commodity Entitlement Details Configurable Parameters as per requested preferences of
2.2	**Allocation Data Download**
	System to initiate download of Regular allocation data if current month sale is closed
	System shall not allow download Regular allocation if it is already available in the PoS device
	System shall permit to download Additional or Ad-hoc allocation as and when it is available
	System shall allow to download data for multiple Additional/ Ad-hoc allocations
	Regular Allocation data shall be uploaded to PDS server and further removed once sale of the month is closed
2.3	**Data Upload**
	Transactions shall be uploaded as and when network connectivity is restored
	The transactions may be uploaded in bulk mode from a location where network is available.
2.4	**General Requirement**
	System shall check completeness of downloaded data in the PoS after download operation
	Progress of downloading shall be shown on the screen
	The downloaded data will be accessible only through app. The downloaded data will be encrypted and stored in local DB.
2.5	**Exceptions**
	System shall remove entire RC data from PoS if downloading is failed midway
	Battery backup may be more than 50% before starting downloading
	Master data to be removed immediately if someone/external software process tries to tamper it
	If master data needs to be removed from PoS due to unauthorized access then provision to be made for restoring data in the PoS device

c. PoS Boot up Operation

3	PoS boot up Operation
3.1	**Boot up of PoS Device**
	System shall diagnose the availability of SIM in the SIM slot, signal strength, battery backup, memory status, etc. (Exceptions to be notified and handled as listed in error code section).
	Check availability of Printer, biometric scanner and other connected or configured hardware devices.
	Allow below operations if results of diagnose operation is positive

		If Network is available then sync the time of PDS Server and PoS machine else sync whenever connectivity is restored
		Create Unique Token number for PoS device considering Hardware Mac ID, IP Address, FPS Unique ID at PDS Server and communicate to PoS device
		Login Screen to be shown to the user Allow user to login (as per Use Case No. 2.3 Login)
		Upload saved data of PoS device to the PDS Server
		After login following operations to be available on the screen: • Sale of commodity • Receipt of commodity • Stock Management • Aadhar Seeding • User Management • System Setting • Opening & Closing Sale against Allocation • Reports
3.2		**Exceptions**
		System shall remove entire RC data from PoS if downloading got failed
		Battery backup must be more than 50% before starting downloading
		Master data to be removed immediately if someone/external software process tries to temper it
		If master data has been removed from PoS due to corrupt/tempered event, then provision to be made for restoring master data.
		Trying to download allocation data without closing current month sale.

d.   Sale of Commodity in Online Mode

1.1 Process Map for Issuance in Online Mode – Beneficiary approaches FPS for Offtake

Dept Name:DFPD	Process No: 1.0	Version No: 0.1	Date: 04-07-16	Process Owner: DOG/NIC

FPS

Start

1. Beneficiary approaches FPS

2. Operator feeds Ration Card Details in PoS

RC No, Head of Family- Name, Age Gender, SubID, Member Name Age, Gender, Subid

4. List out RC Details and entitlement commodity wise

Aadhaar Auth. Process (3.0)

Details of Offtake Commodity Type, Allocation Type, Eligible Qty, Qty issued, Amount, Grand Total Amount

5. After authorization, Operator selects Allocation Type and enters commodity and qty.

6. Announce Commodity qty and amount to be paid

7. Display on screen & announce commodity qty and amount to be paid

8. Announce Commodity qty and amount to be paid

SMS covering Commodity lifted, Qty, Amount, Dt., remaining Qty.

PDS Server

PDS Server

3. Receives RC No. and sends RC details and entitlement to PoS

9. Update sale transaction and revise eligible qty for beneficiary

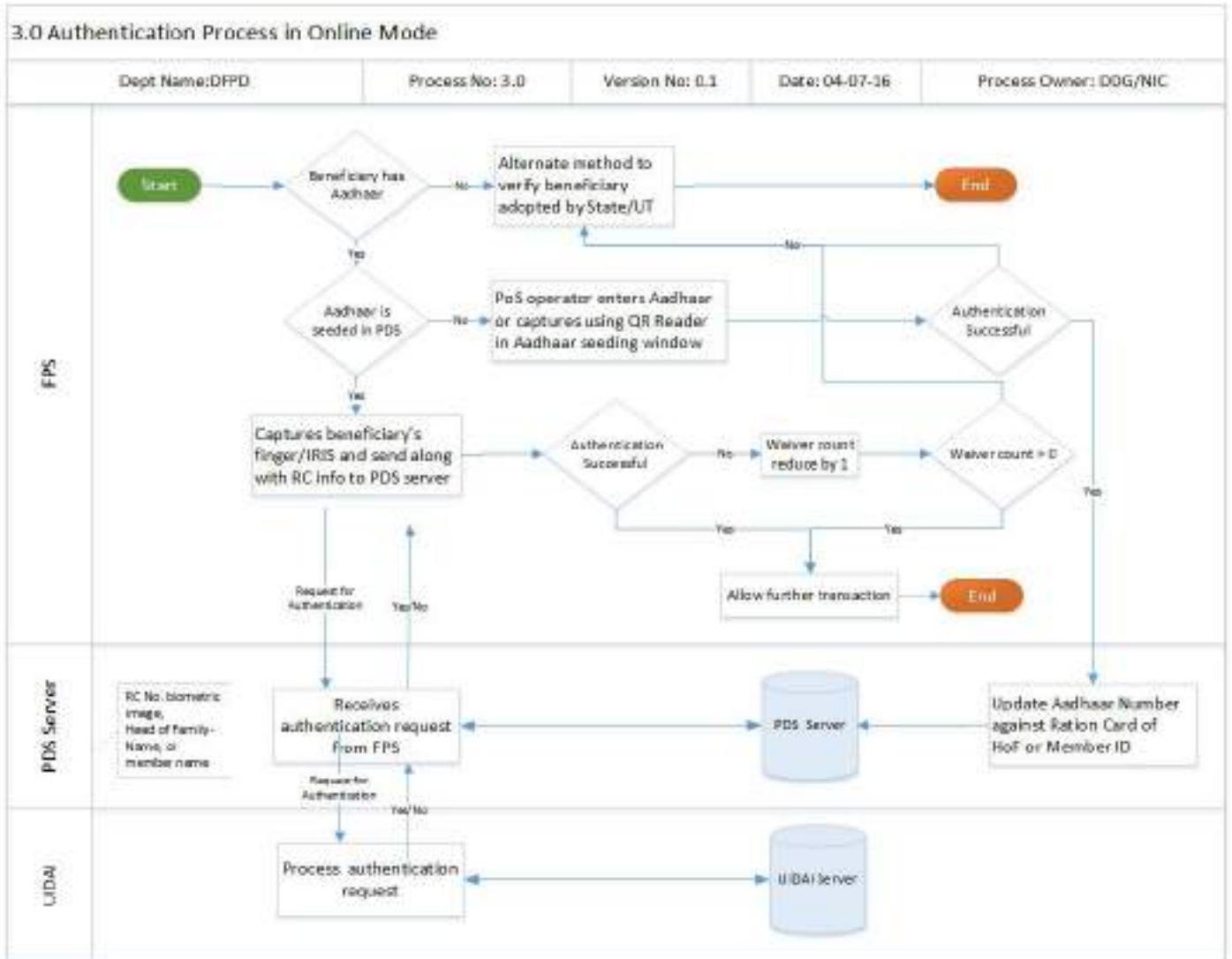10. Sends SMS to beneficiary giving transaction details

End

4	Sale of Commodity [subject to approval of state government]
4.1	**After successful login of FPS operator, below operation to be performed for the distribution of food grain to beneficiary**
	Allow to select issuance menu based on the role of logged in user
	Check pre-condition such as ○ Sale is not closed for the month ○ Sufficient stock is available for sale ○ Network connectivity is available
	Allow operator to enter Ration Card Number of beneficiary
	Transmit Card number to PDS Server
	System shall fetch entitlement and ration card details and show it in the respective user control (text, label, drop down, etc.) • Name & Age of Head of Family and members • Entitlement details like eligible commodity and quantity (consumed/balance) as per the regular allocation • Fetch Best Finger Detection details if same is available against Ration Card If **issuance is not** for **Regular Allocation,** then • Fetch entitlement details like eligible commodity and quantity (consumed/balance) as per the selected allocation type
	Allow the user to select name of beneficiary from list of HoF & members
	System shall show entitled & balance commodity and quantity
	Price of each commodity per unit shall also be shown
	System shall allow to enter quantity of the commodity that beneficiary wants to lift (within the range of eligible quantity)
	After entering details, system shall display and announce (in speaker) the commodity type, quantity, total cost of lifting
	If beneficiary agrees to off take, then system shall allow the user to press authentication button else allow the user to modify offtake details or cancel the transaction.
4.2	**Authentication of Beneficiary**
	System shall show the authentication window and allow the beneficiary to put the finger (may be best finger or fusion finger)
	Authentication to be performed as per the process defined at UC 3.0
	If authentication successful or allowed then below transaction details to be sent to PDS server else transaction shall be cancelled and display main window
	Following fields to be transmitted to PDS server for the sale transaction • Unique transaction ID • Token number • FPS Number

	- Original FPS of Ration card in case of Portability - Name of beneficiary/Member - RC Number - RC Member Id - Online/ Offline status of PoS while transaction is done - Type and quantity of each commodity purchased - Total amount paid for the transaction - Date and Time of Transaction - Authentication Status (Fingerprint, IRIS, Auth. failed but allowed, name of other mode of Authentication, etc.)
4.3	Print of Receipt and SMS – Option to be available to print the below receipt, send SMS and announce content in local or other preferred languages
	Following receipt shall be printed from PoS after completing the transaction - Ration Card Id - Date & Time of Transaction - HoF Beneficiary Name - Member ID (who have lifted commodity) - Unique Transaction ID - FPS name and code - Original FPS Name and Code (in case of portability) - Type and quantity of commodity delivered - Total amount paid by beneficiary - Balance entitlement
	Following data shall be sent through SMS from PDS Server to registered mobile number of beneficiary - Ration Card Id - Date & Time of Transaction - Member ID (who have lifted commodity) - Unique Transaction ID - FPS name and code - Total Quantity lifted - Balance commodity wise entitlement
4.4	**Exceptions**
	If battery life is less than 20 min then not to allow sale transaction
	If network goes down suddenly during data entry in the PoS (before beneficiary authentication or committing transaction to server) then user to be asked to switchover on offline mode for Buffered/buffered authentication of beneficiary.
	If commit transaction gets failed or network goes down during transmitting data to

	server then entire transaction data to be saved in PoS device and sync with PDS Server whenever it gets connected to server.
	Provision to be made to integrate with weighing machine if available
	In case of Network connectivity is not available, • All transactions to be recorded and stored in PoS device. These transactions shall be transmitted to PDS server whenever connectivity is restored. • Auto-Syncing and event-driven syncing features shall be given for uploading data to PoS device.

e. Aadhar Authentication

5	**Aadhar Authentication**
5.1	

	In Online Mode
	• Beneficiary approaches FPS for lifting food grain
	• If beneficiary has Aadhaar and seeded in PDS Server
	    ○ Enter Aadhar number in PoS device
	    ○ Capture beneficiary's biometric
	    ○ Sends biometric and beneficiary name to PDS Server
	    ○ PDS Server further sends details to UIDAI server for authentication
	    ○ If Authentication is successful, then
	        ▪ "Yes" message will be passed to PDS Server and PoS device
	        ▪ Beneficiary will be allowed to lift commodity as per the eligibility
	        ▪ Waiver Count of Ration Card to be increase by 1 (maximum limit of waiver count is configurable and may be decided by State/UT)
	    ○ If Authentication gets failed, then
	        ▪ "No" message will be sent to PDS Server and PoS device
	        ▪ Three attempts to be allowed for Finger Print and IRIS authentication for each beneficiary
	        ▪ If all attempts failed, then waiver count to be decrease by 1
	        ▪ If Waiver count of Ration Card is more than Zero then offtake operation will be allowed else, operation will be denied.
	• If beneficiary have Aadhar but not seeded in PDS database
	    ○ System shall allow to enter Aadhar number in PoS device or have provision to read QR code of Aadhar card through QR code reader
	    ○ Authentication of beneficiary is required before seeding Aadhar in PDS database
	    ○ Aadhar seeding process to be followed as described in
	    ○ If Authentication is successful, then
	        ▪ "Yes" message will be passed to PDS Server and PoS device
	        ▪ Beneficiary will be allowed to lift commodity as per the eligibility
	        ▪ Waiver Count of Ration Card to be increase by 1 (maximum limit of waiver count is configurable and may be decided by State/UT)
	    ○ If Authentication gets failed, then
	        ▪ "No" message will be sent to PDS Server and PoS device
	        ▪ Three attempts to be allowed for Finger Print and IRIS authentication for each beneficiary

- ▪ If all attempts failed, then waiver count to be decrease by 1
- ▪ If Waiver count of Ration Card is more than Zero then offtake operation will be allowed else, operation will be denied.
    - o After successful authentication, Aadhar seeding shall be done in PDS Server
    - o SMS to be sent to beneficiary for successful seeding of Aadhar in PDS database.
    - o Default value of Waiver count shall be set for the Ration Card
    - o Offtake operation shall be allowed for the beneficiary
- • If beneficiary doesn't have Aadhar then
    - o Authentication of beneficiary to be done as per alternate method adopted by State
    - o After taking necessary steps, offtake operation to be allowed.

In Offline Mode
- • PoS device has limited or no connectivity
- • Beneficiary approaches FPS for lifting food grain
- • If beneficiary has Aadhaar and seeded in PDS Server
    - o FPS Operator to capture Aadhar number of HoF/ Member of Ration Card
    - o Capture beneficiary's biometric and keep it in memory device with the time stamp.
    - o Distribute food grains to beneficiary as per his/her entitlement available in the PoS device
    - o Whenever connectivity is restored, PoS shall send biometric & beneficiary name to PDS Server which are stored in the device with the age of less than 24 hours (or window defined by UIDAI for buffered authentication)
    - o PDS Server receives bulk/single buffered authentication requests and it further sends these details to UIDAI server for authentication
    - o If Authentication is successful for a beneficiary, then
        - ▪ "Yes" message will be passed to PDS Server and PoS device
        - ▪ PDS sever shall set a flag for buffered authentication of the respective offtake transaction.
        - ▪ Similarly, flag to be set in PoS device for successful buffered authentication
        - ▪ Waiver Count of Ration Card to be increase by 1 (maximum limit of waiver count is configurable and may be decided by State/UT)

	o If Authentication gets failed, then
	    "No" message will be sent to PDS Server and PoS device - PDS sever shall set a flag for buffered authentication of the respective offtake transaction. - Similarly, failed authentication flag to be set for the transaction in the PoS device - Waiver count to be decrease by 1
	• If beneficiary have Aadhar but not seeded in PDS database
	   o System shall allow to enter Aadhar number in PoS device or have provision to read QR code of Aadhar card through QR code reader
	   o Capture biometric of beneficiary and store it in PoS device
	   o Distribute food grains to beneficiary as per his/her entitlement available in the PoS device
	   o Buffered authentication shall be followed once network connectivity is available. (buffered authentication to be done within 24 hours or as per the window defined by UIDAI)
	   o Aadhar seeding process to be followed as described in
	   o After successful authentication, Aadhar seeding shall be done in PDS Server
	   o SMS to be sent to beneficiary for successful seeding of Aadhar in PDS database
	   o Default value of Waiver count shall be set for the Ration Card
	• If beneficiary doesn't have Aadhar then
	   o Authentication of beneficiary to be done as per alternate method adopted by State
	   o After taking necessary steps, offtake operation to be allowed.

5.2	**Exceptions**
	If receipt transaction couldn't be completed due to network failure, then entire transaction data to be saved in PoS device and sync with PDS Server whenever it gets connected to server.
	Provision to be made to integrate with weighing machine if available

f. Receipt of Commodity against Allocation

6	**Receipt of Commodity at FPS**
6.1	
	During Online operation:

- Allow to choose receipt operation against allocation type such as Regular, Ad-hoc and Additional
- Check pre-condition such as
  - Closure of Sale for previous month.
  - All sale transactions of previous month need to be uploaded to PDS server (performed during offline operation)
- Show commodity and quantity issued from Godown (Truck Challan details)
- After weighment of commodities, allow FPS operator to enter actual quantity received from Route Officer
- Aadhar authentication to be carried out for FPS operator and Route Officer
- After successful authentication, commodity and quantity shall be added into the stock of the FPS
- Brief Summary report for receipt of food grains shall be printed from PoS
  - Unique Transaction ID of Receipt Operation
  - Date and time of transaction
  - Commodity & Quantity
  - Allocated quantity and actual quantity received
  - Name of FPS operator and Route Officer

During Offline operation:
- Allow to choose receipt operation against allocation type such as Regular, Ad-hoc and Additional
- If Truck Challan for incoming commodity couldn't be downloaded in the PoS device, then provision to be given to record details of Truck Challan in offline mode.
- After weighment of commodities, allow FPS operator to enter actual quantity received from Route Officer
- Buffered Aadhar authentication to be carried out for FPS operator and Route Officer
- After authentication operation, commodity and quantity shall be added into the stock of the FPS
- Brief Summary report for receipt of food grains shall be printed from PoS
  - Unique Transaction ID of Receipt Operation
  - Date and time of transaction
  - Commodity & Quantity
  - Allocated quantity and actual quantity received
  - Name of FPS operator and Route Officer
- Upload details of truck challan and receipt operation to PDS server whenever network connectivity is restored.

6.2	**Exceptions**
	If battery life is less than 15% then not to allow receipt operation
	If receipt transaction couldn't be completed due to network failure, then entire transaction data to be saved in PoS device and sync with PDS Server whenever it gets connected to server.
	Provision to be made to integrate with weighing machine if available

g. Sales Closure

7	**Closure of Sale**
7.1	
	• Allow to select closure operation against allocation type such as Regular, Ad-hoc and Additional • Check pre-condition such as o All sale transactions of previous month have been uploaded to PDS server (performed during offline operation) • Show commodity and quantity sold against selected Allocation and also show balance commodity & quantity • Aadhar authentication of FPS Operator to be carried out (in case of offline, Buffered authentication to be done) • Sale operation to be stopped for the calendar month & corresponding allocation type
7.2	**Exceptions**
	Distribution may be extended beyond the calendar month
	In some cases, entitlement and receipt for multiple months may be clubbed into a single month and distribution may be carried out beyond the particular month.
	State policy for price of price, commodity and entitlement for each ration card type shall be updated as and when available on the server.

18.2 Additional Functionality

a. Aadhar Seeding

1	**Seeding of Aadhar Number**
1.1	**In Online Mode**
	Enter Ration Card number in the PoS
	Transmit Ration Card Number to PDS server for fetching RC details
	Display list of RC members in the list and allow to feed Aadhar number for visiting

	HoF/member.
	QR code is printed on Aadhar Card. PDS operator may use QR Reader to extract Aadhar details from Aadhar Card instead of manually feeding in the PoS device.
	Capture Finger Print/ IRIS (biometric) and send it to PDS Server for authentication.
	PDS Server further sends biometric and beneficiary name to UIDAI server for authentication
	If authentication gets successful, then Aadhar number is to be seeded in PDS server and confirmation message to be shown on PoS device else show failure message on PoS device.
	Provision to be made for seeding Aadhar number of each member of Ration Card as per the above process
	After successful seeding of Aadhar number in PDS server, SMS to be sent to beneficiary informing below information • Ration Card • Date of Aadhar Seeding • Aadhar Number (mask all numbers except last 4) • Member Name Above information may be given to beneficiary as a print receipt
1.2	**In Offline Mode**
	Buffered authentication shall be done for Aadhar seeding
	Biometric along with beneficiary name shall be sent to PDS server whenever network connectivity gets restored
	If buffered authentication gets successful then Aadhar is to be seeded in PDS Server and SMS to be sent to registered mobile number (as given in above section)
1.3	**Exceptions**
	• If beneficiary (HoF) wants to authorize other person to lift food grains behalf of him/her then system should allow to register that person along with his Aadhar number (may be required when HoF lives along and may not be able to visit FPS due to medical reason or old age factor)

b. **Mobile Number Seeding**

2	**Seeding of Mobile Number**
2.1	**In Online Mode**
	Ration Card number to be entered in PoS device
	Transmit Ration Card Number to PDS server for fetching RC details
	System shall capture mobile number for the Ration Card
	Transmit mobile details to PDS Server
	PDS server shall immediately send OTP to the mobile number through SMS
	Beneficiary shall enter OTP on the PoS
	If PDS server confirms matching of OTP then mobile number shall be registered with PDS system and confirmation message to be sent on his/her mobile number

2.2	**In Offline Mode**
	Mobile number can't be registered when network connectivity is not available on PoS device

c. User Preference
- Language Selection
- Printer Selection

d. Field Inspection

e. Hardware Complaint

f. System Setting:
- Language setting 223

19 Appendix-G   Suggested Report Formats

Daily Status Report/ Monthly Status Report:
(Monthly – For the Month of   :   )
(Daily – For the Date :   )
For given range of dates (Date from :   Date To:)

Commodity	Quantity (In KG)	Scheme	Amount (In. Rs.)
Wheat	3.0	AAY	6.00
Rice	3.5	AAY	10.50
Total Amount :Rs			16.50

Summary of Stock Register

FPS ID   **FPS Name**
Date as on

Commodity	Opening Balance in the beginning of Month	Received Quantity during this month	Quantity of Sale during this month	Closing Balance (Balance as on date)
Rice				
Wheat				

Sale Register (MIS Report)

FPS ID   **FPS Name**
Month   **Date as on**
(Date From: **Date To:) – For a given range of dates**
Opening Balance in the beginning of the month   **: Rice -**
                                             Wheat -
Received quantity in the beginning of the month   **: Rice -**
                                             Wheat-

S.No.	Ration Card Number	Name of the Head of Family	Name of beneficiary Who lifted Food grains	Transaction ID	Mode of authentication	Status of authentication	Date & Time	Commodity Name	Qty. Sold	Amount (In. Rs.)
1.										
2.										

Receipt to Beneficiary

FPS ID   **:**   **Date :**
FPS Name   **:**   **Transaction ID**
Ration Card No.:
Name of HoF
Scheme Name (AAY/PHH)
Name who received food grains
Mode of Authentication
Status of authentication

S.No.	Commodity	Qty	Unit Price	Amount (In. Rs.)
1.				
2.				
Total				

Stocke Receipt

FPS ID :   **Date:**
FPS Name & Address:
Month   :
Allocation No. :

S.No.	Scheme	Commodity	Opening Balance (MT)	Qty. Received (MT)	Total Stock (MT)
1.	AAY	Rice	999.99	999.99	999.99
2.					

Truck Challan No: **Vehicle No:**   **Driver Name**

Month wise food grains lifted and distributed report (MIS Report)

FPS ID:
FPS Name & Address
(with options Scheme wise/ commodity wise/ both scheme and commodity/ for a given range of period)

(Qty in MT)

S. No.	Month and Year	Scheme	Commodity Name	Opening Balance	Received Qty	Sold Qty	Closing Balance
1.	Apr 2015	AAY	Rice				
2.	May 2015						
3.	June 2015						
Total							

Status Biometric Authentication by the beneficiaries
(For a given period)

FPS ID   :   Date :

FPS Name & Address:

Month   :

S.No.	Mode of Authentication	No. of Ration Cards
1.	Finger print	999
2.	IRIS	999
3.	Any Other Mode	999

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