

Request for Proposal



Selection of System Integrator for Enhancement of Enterprise e-Despatch Application, Implementation & Support [e-Despatch 3.0]

RFP No.: OCAC-TE-14/2022-ENQ-22069



Vol-2 Terms of Reference



ODISHA COMPUTER APPLICATION CENTRE

[TECHNICAL DIRECTORATE OF E&IT DEPARTMENT, GOVERNMENT OF ODISHA]

OCAC Building, Acharya Vihar Square, Bhubaneswar-751013, Odisha, India

W: www.ocac.in | T: 0674-2567295/2567283 | F: 0674-2567842

Table of Contents

1	Background	5
1.1	e-Despatch Stakeholder	5
1.2	Existing Modules	7
1.3	Technology.....	10
1.4	Objective	10
2	Scope of work.....	10
2.1	Maintenance and Management of existing e-Despatch	11
2.2	Technology up-gradation	11
2.3	Requirement Study	11
2.4	Design	12
2.5	Development.....	12
2.6	Data Migration	12
2.7	Integration	12
2.8	Testing.....	13
2.9	Third Party Audit	13
2.10	SSL Certification	14
2.11	Training	14
2.12	Online Help / Reference with Search Option	14
2.13	Supply of tools and license.....	14
2.14	Deployment & Configuration	15
2.15	UAT & Go-Live	15
2.16	Infrastructure Support	15
2.16.1	Implementing Software & Tools	15
2.16.2	Business Continuity Planning	16
2.16.3	Documentation	16
2.17	Project Management Unit (PMU)	16
2.18	Application Maintenance Support	18
2.18.1	Application Support	18
2.18.2	Software Maintenance	18
2.18.3	System/Infra Support.....	18
2.18.3.1	Database Administration	18
2.18.3.2	Server Administration.....	19
2.18.3.3	Security Administration	19
2.18.3.4	Backup & Restore Management.....	19
2.18.3.5	System / Network Administration	19
2.19	Project Management	19

2.20	Guiding Principles	20
2.20.1	Standards.....	20
2.20.2	Application.....	20
2.20.3	Integration	20
2.20.4	Data	20
2.20.5	Data Security.....	20
2.21	Adherence to Standards.....	21
2.22	Security, Integrity & Confidentiality.....	21
2.23	Change Request Management.....	22
2.24	Exit Plan.....	23
2.25	Project Documentation.....	23
2.26	Expected Project Timeline.....	24
2.27	OCAC Responsibilities	24
2.27.1	Knowledge Transfer	24
2.27.2	General	24
2.28	Service Level & Penalty	25
2.29	Waiver of Penalty.....	27
2.30	Bill of Material & Quantity	27
2.31	Payment Terms	29
2.31.1	Maintenance of existing e-Despatch Application	29
2.31.2	Implementation of e-Despatch 3.0.....	29
2.31.3	OEM License	30
2.31.4	General Conditions	30
3	Functional Requirements of e-Despatch3.0.....	31
3.1	Analytical Dashboard	31
3.2	Object Storage	32
3.3	OCR	32
3.4	Use of Emerging Technology.....	32
3.4.1	Robotic Process Automation (RPA).....	33
3.4.2	Artificial Intelligence	33
3.4.3	Chatbot	33
3.4.4	Blockchain for Security	33
3.5	Open API for outward/inward Integration.....	34
3.6	Enhancement in Mobile App.....	34
3.7	e-Despatch Digitalization	35
3.8	Ticketing Software	36

Abbreviations

ATS	Annual Technical Support
CPU	Central Processing Unit
CBT	Computer Based Training
CV	Curriculum Vitae
DIC	District Industries Center
DO	Demissal Order
DRDA	District Rural Development Agencies
EMD	Earnest Money Deposit
FRS	Functional Requirement Specification
HLD	High Level Design
HR	Human Resource
ICT	Information Communication Technology
ISO	International Organization for Standardization
IT	Information Technology
KB	Kilobytes
LLD	Low Level Design
LOI	Letter of Intent
MIS	Management Information System
MUR	Monthly Utilization Reports
Nos	Numbers
OCAC	Odisha Computer Application Center
OSDC	Odisha State Data Centre
OSIC	Orissa small Industries Corporation Ltd
OSU	Operational Support Unit
PBG	Performance Bank Guarantee
PMU	Project Management Unit
PSU	Public Sector Undertaking
QCBS	Quality & Cost Based Selection
QR Code	Quick Response Code
RFP	Request for Proposal
ROC	Registrar of Companies
RTI	Right to Information
SDLC	Software Development Life Cycle
SI	System Integrator
SLA	Service Level Agreement

1 Background

Effective communication is the first step towards right decision for a desired action, which is why communication is much taken care of and systematized in a public sector, which can ensure transparency and accountability to its citizens. While every decision at Government needs an ink signed letter, these letters have been segregated into two categories – Letter Dispatched and Letter Received. The letters are regulated through stringent/auditable sets of rules laid down in the Central Secretariat Manual of Office Procedure (CSMoP) and the respective States Record Manual. Since the credibility of a letter is immense for decision-making at the Government authorities, each step right from dispatch to receipt of such a letter is meticulously documented.

In 2008, e-Despatch application was initially implemented in Panchayati Raj Department. Successful implementation has led to replication of the e-Despatch console in the 41 Departments of Government of Odisha. e-Despatch application is a simple and web based centralized communication management system that has facilitated Government letter transaction from dispatch to receipt with less travel time, cost and resources.

Key objective of e-Despatch was to bring in transparency in Government by the open publication of selected communications on the e-Despatch Portal for citizens to access and download. This function was aimed at considerably reducing the pressures arising from RTI applications and also increase accountability from officials.

1.1 e-Despatch Stakeholder

Below are the list of Government offices where e-Despatch has been successfully implemented.

Department Name	Dept.	HQ	District & Block	Total
Agriculture & Farmers Empowerment	1	29	601	631
Commerce & Transport	2	10	68	80
Co-operation	1	13	250	264
Electronics and Information Technology	1	1	-	2
Excise	1	2	34	37
Finance	1	16	249	266
Fisheries & Animal Resources Dev	1	17	192	210
Forest & Environment	1	2	13	16
General Administration & PG	1	8	7	16
Health & Family Welfare	1	13	390	404
Higher Education	1	4	32	37
Home	1	48	252	301
Housing & Urban Development	1	18	225	244

Department Name	Dept.	HQ	District & Block	Total
Industries	1	2	16	19
Information & Public Relations	1	-	-	1
Labour & Employees state Insurance	1	9	109	119
Law	1	1	-	2
Micro, Small & Medium Enterprises	1	14	60	75
Mission Shakti	1	-	-	1
Odia Language Literature & Culture	1	1	-	2
Parliamentary Affairs	1	-	-	1
Planning and Convergence	1	3	33	37
PR & Drinking Water	1	5	418	424
Public Enterprises	1	-	-	1
Revenue & Disaster Management	1	14	655	670
Rural Development	1	3	78	82
School & Mass Education	1	28	1,059	1,088
Science & Technology	1	6	-	7
Sports & Youth Services	1	-	-	1
SSEPD	1	-	-	1
Textiles & Handloom	1	4	-	5
Tourism	1	-	-	1
Water Resources	1	12	112	125
Women & Child Development	1	4	364	369
Works	1	15	91	107
Energy	1	-	-	1
FS & CW	1	4	91	96
Office Of Governor	1	-	-	1
PG & PA (Archive)	1	-	-	1
Skill Development & Technical Education	1	3	-	4
ST & SC Development	1	5	21	27
Steel & Mines	1	-	-	1
Odisha Legislative Assembly	-	1	-	1
	43	315	5,420	5778

1.2 Existing Modules

Modules	Functionalities
Master Configuration	Master Configuration (Receipt) <ul style="list-style-type: none"> – Letters Type- Management of different letter types such as DO letter, Court Matters etc. – File index: - Facilitates random access to any record given in file – Processing Period: Provision to define timeline for all level of action taking authority – Addressee: Address master’s creation for receiving letters and dispatch
	Master Configuration (Despatch) <ul style="list-style-type: none"> – Addressee- Address master creation for receiving letters and dispatch letter – Sent By: Defining masters for the signatory of letters – Section: Defining of various section of government department in the master configuration
User Management	Management of user by the default user of the system called super Administrator. <ul style="list-style-type: none"> – Creation of new user account – Roles and rights-based access to information – Assigning of unique user ID and password
Office Management	<ul style="list-style-type: none"> – Office Configuration: Various details of office like location, subordinate offices are managed – Set permission: System differentiates access to information by providing users with only ‘view’ rights/ both ‘add & view’ and the rest with ‘manage’ rights. Apart from that, there are option for Add/ Delete/ Modify for location, office and sub-ordinate
Login Management	<ul style="list-style-type: none"> – Assigning of login and password for every user. – Availability of additional feature like Forgot password & change Password option
Notification Management	<ul style="list-style-type: none"> – Management of different types of notification such as Email, SMS and portal notification – Fixing of notification time by the system application along with the number of days, time, week, etc.
Letter Despatch	<ul style="list-style-type: none"> – Letter Receive- Capture received Letters information with Letter Type, Category, Letter No/Date, Status, Subject, Enclosure (if any), Mode of receipt, Sender, Recipient Detail etc. by central diary – Scan and Attach Letter: Provision to upload the scanned PDF letter – Letter Distribution: Forward the letters to the concerned officials

Modules	Functionalities
e-Space	<ul style="list-style-type: none"> – Created for the recipient of the letter the moment an addressee is added. – Facilitates user control, query-based search and sort for a Govt. Officer – Ensures that there is no misplacement or letter lost, which otherwise happened in the postal system.
Office e-Space	<ul style="list-style-type: none"> – It is an interface to the users (diary or receiving section) for receiving all respective correspondences. – Multiple letters can be merged and downloaded by the office. – Manual letter can also be uploaded by the office
Diary Management	<ul style="list-style-type: none"> – Facilitates letter distribution management system – Provision for the diarist to manage the letters and circulate it to the officers.
e-File	<p>It is used to convert PDF Letters in to eBook files and store letters in a Government filing procedures. This application has below versions</p> <ul style="list-style-type: none"> – eFile web – eFiles Android/iOS
Mobile Application	<ul style="list-style-type: none"> – Enables Official receiver and the Public user to view the letters instantly.
Training	<ul style="list-style-type: none"> – Facilitates users to raise training request for e-Despatch system – This goes for an approval from Nodal officer after which training is scheduled.
QuikSpace	<ul style="list-style-type: none"> – Act as a single desktop interface enabling user to easily & quickly find their respective letters. – Provision to add comment while forwarding the letter to the subordinate officers. – Instant notification through SMS and email for fast intimation.
Internal Messaging	<ul style="list-style-type: none"> – Enables official to have one to one communication with their sub-ordinate offices and vice versa. – Instant messaging, document sharing and making official communication groups
Offline Letter Dispatch	<ul style="list-style-type: none"> – Desktop application providing an interface to work in offline mode. – The system can be used offline and data can be fed into the system. – On availability of internet, the offline data are synced.
Integration Service	<ul style="list-style-type: none"> – Provision for two way communication with e-Despatch & external application like OSWAS.

Below is the technical architecture of e-Despatch application

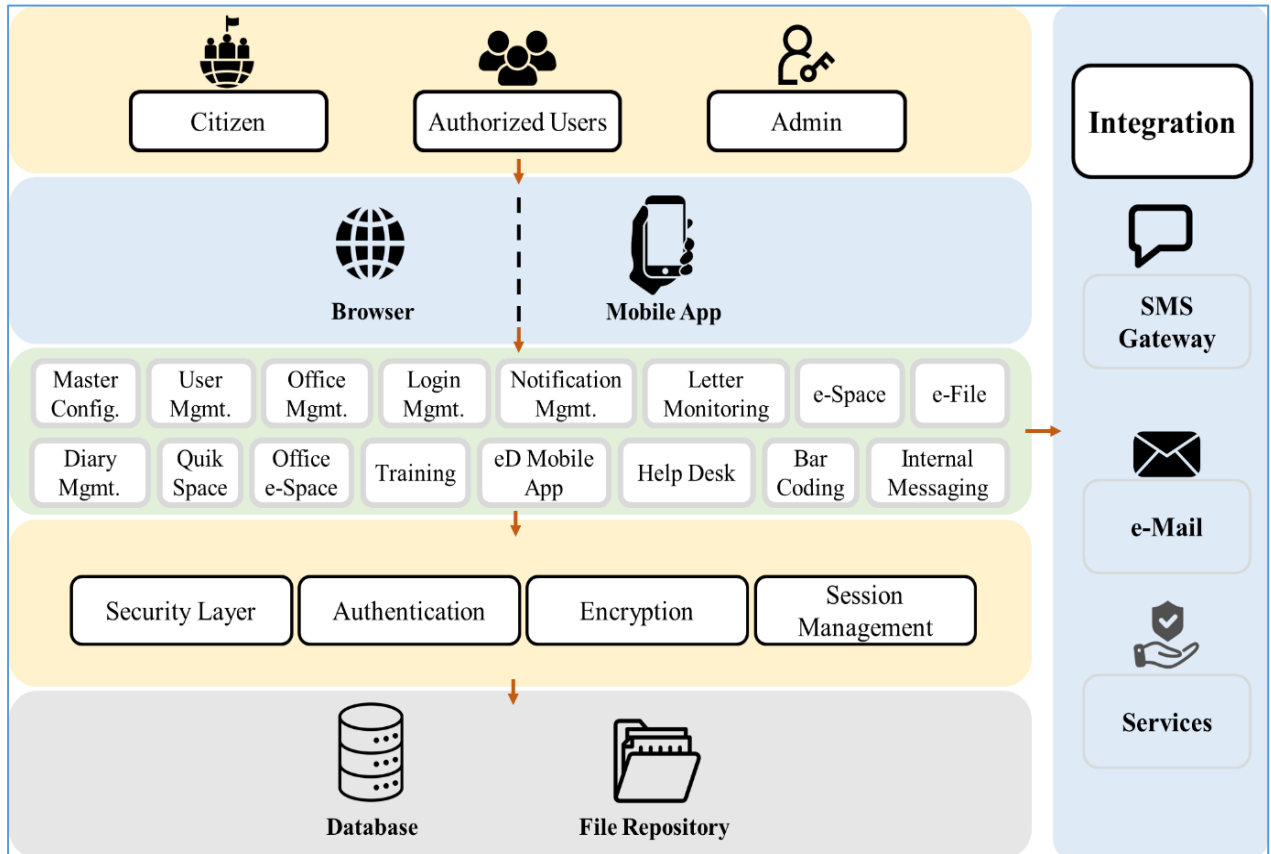


Diagram-1: Technical Architecture of e-Despatch Application

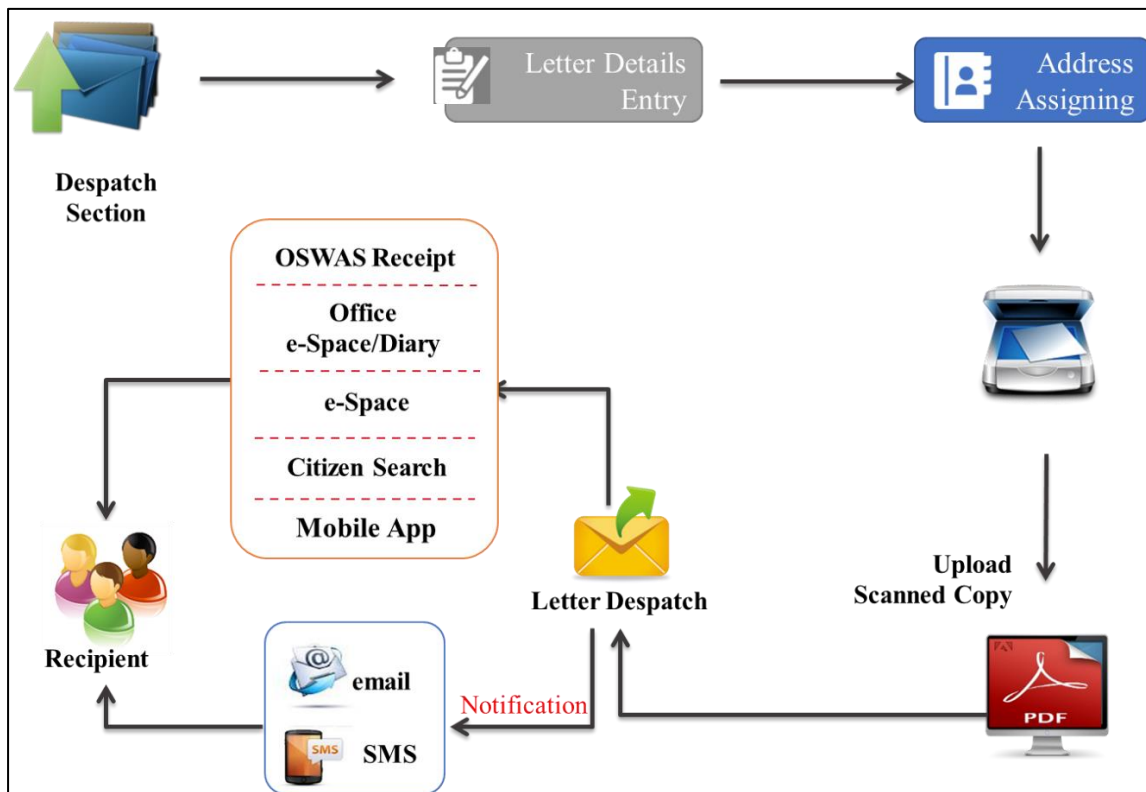


Diagram-2: Process Flow of e-Despatch Application

1.3 Technology

The existing e-Despatch application is developed in Microsoft .net technology with database as MS SQL 2012. The application is hosted at Odisha State Data Center (OSDC) and the technical specifications are as per below;

Web Application Framework	.Net 4.5
Database Server	MS SQL 2012
Server Operating System	Windows 2012

1.4 Objective

Technology up gradation and enhancement are treated as new normal for any ICT application for smooth implementation of e- Governance services. As the existing application is developed in Microsoft .net platform which will become obsolete in near future, OCAC envisages to upgrade its current technology to the latest version for hassle free usage by users.

The major objective for development of e-Despatch3.0 is to achieve following

- a) Upgrade to latest available technology to achieve following:
 - Cross-platform compatibility with a variety of operating systems, including Windows, Linux, and Mac OS.
 - Improved performance in comparison to existing Framework.
 - To have a highly scalable & robust platform
 - More agile and powerful
 - Robust ecosystem covering all the directions of modern development
- b) Bring in place citizen-centric mobile application to enable quick search facility.
- c) Implementation of Chatbot for faster letter retrieval process
- d) Undergo digital transformation by using emerging technologies
- e) Enhance security of the application

2 Scope of work

The Scope of work for the SI shall include following

- a) Maintain and manage the existing e-Despatch application till the new version (e-Despatch3.0) go-live.
- b) Up-grade the existing e-Despatch application to the latest available technology with additional features such as
 - i. Use of Chatbot to enable faster retrieval of letters

- ii. Data analytics to aid in tracking & monitoring letters
 - iii. Enhance security of the application
 - iv. Enhance security of the application
 - v. Voice based search option
 - vi. Creation of APIs for Outward and inward Integration
 - vii. Citizen-centric mobile application
- c) Testing, Security Audit and Implementation of the new version of e-Despatch i.e. e-Despatch3.0
- d) Provide audio & video-based CBT material to guide users on the application usage
- e) Set-up and operationalization of Project Management Unit [PMU] to provide technical and functional support to the users of across the state of Odisha.
- f) Application Maintenance Support for e-Despatch3.0

2.1 Maintenance and Management of existing e-Despatch

The primary objective is to ensure the continuity of the existing application for a period as defined in this document from the date of the onboarding of SI. The SI will be responsible for smooth transitioning of the entire application, infrastructure, and services ensuring business continuity and performance.

2.2 Technology up-gradation

The technology stack of existing e-Despatch application shall be upgraded to the latest technology by the SI, as mentioned below table.

Technology	Existing	Proposed Technology
Platform	.Net 4.5	.Net Core

OCAC will provide the source code rights of the existing e-Despatch application to upgrade and develop additional features / modules as per requirement in the same framework / architecture.

OR SI may develop a new solution with new technology which satisfies all the functionalities, services, features and performance of the existing e-Despatch application and additional functional requirements/services described in the document as well.

2.3 Requirement Study

Conduct a detailed study of the service and solution requirements of each participating department. Based on the requirement study, update the Functional

Requirements Specifications (FRS) in consultation with all concerned stakeholders and finalize the System Requirement Specifications (SRS). While doing so, it is suggested that the following activities needs to be performed:

- Conduct requirement gathering
- Follow industry standards template for requirements capturing
- Maintain traceability matrix from SRS stage for the entire implementation

2.4 Design

Prepare and submit a detailed design and development plan as per the SRS. Design the solution architecture and specifications for meeting the requirements mentioned as part of this document including sizing of the required hardware.

2.5 Development

Identify, design and develop components / functionalities that are required to address the proposed application requirements as mentioned in this RFP. The following documents shall be taken into consideration along with the developed components:

- Business process guides
- Data model descriptions
- Sample reports
- Frequently asked question (FAQ) guides
- Any other documentation required for usage of implemented solution

Implement a system for monitoring the SLAs and ensure that the system addresses all the SLA measurement requirements and calculation of applicable penalties as indicated in the document.

2.6 Data Migration

Migrate data from the existing system to the proposed application with minimum disruption of services. Appropriate data migration strategy and methodology to be followed as per industry practice.

2.7 Integration

The system should support both push and pull of data to and from systems proposed to be integrated. It is required that a standard mechanism of data exchange should be built and implemented using an industry specified data exchange protocol.

2.8 Testing

- a) Provide the testing strategy including Traceability Matrix, Test Cases and Conduct Testing of various components of the software developed / customized as per industry standards for Software Testing Life Cycle.
- b) Details of the testing strategy and approach should be provided in the response.
- c) Identify, inform regarding testing requirements along with its impact and work in a manner to satisfy all the testing requirements by adhering to the testing strategy outlined.
- d) Ensure deployment of necessary resources and tools during the testing phases and perform solution testing based on the approved test plan, document the results and fix the bugs found during the testing.
- e) Make sure that the end product delivered, meets all the requirements specified in the document.
- f) Take remedial action based on outcome of the tests.
- g) Provide complete support to departmental officials or their representatives at the time of User Acceptance Test (UAT).
- h) Ensure that all issues raised during UAT are closed and signed-off from respective authority.
- i) Ensure that each module & features developed under this RFP is tested as per the latest version of the IEEE 730 (Software Quality Assurance Processes) standards and comply with GIGW guideline.

2.9 Third Party Audit

- a) Ensure that the solution is in compliance with the CERT-In Security Policy and Guidelines.
- b) Appoint CERT-In empanelled auditor who shall be responsible for performing the security audit of the solution.
- c) Carryout security audit before go-live of application and obtain the safe-to-host certification
- d) Conduct the periodic audit & certification as and when it is required as per the OSDC policy.
- e) The audit shall be performed at least on the below mentioned aspects.
 - Accessibility Testing
 - Application Security Audit
 - Vulnerability Testing
- f) Third party audit will be carried out twice a year and whenever any functional changes occurs
- g) Third party audit so performed shall be subjected to in-house vulnerability assessment. In case, immediately after audit, it shows any bug, the SI has to fix the bug and do the security audit at its own cost.

2.10 SSL Certification

- a) Secure connection between Client and Server through Secure protocol HTTPS
- b) Encryption of Data during transmission from server to browser and vice versa
- c) Encryption key assigned to it by Certification Authority (CA) in form of a Certificate.
- d) SSL Security in the application server

2.11 Training

- a) Prepare training calendar and material in consultation with OCAC.
- b) Classroom training would be conducted for Secretariat users (2 persons / department)
- c) OCAC will provide required classroom and IT infra for the class room training.
- d) Training to the other users through virtual mode would be on need basis through PMU and SI will bear related expenditure for virtual meeting licensing (fixed & recurring).

2.12 Online Help / Reference with Search Option

- a) It is proposed that the training contents / user manuals be made available to users in downloadable (PDF) format so that the users may refer / download it for their own personal reference as and when needed.
- b) The downloadable training content should have proper indexing and internal references, mapped with key words, in order to allow any user to search and reach the desired content with the help of those key words.
- c) It is envisaged that any user will be able to search and read the directions / information for the right content. On entering the key words for search criteria, the system should pull out and display the links to the content as mapped.
- d) The system should support dynamic search facility i.e. as soon as the key words are changed; a new set of content links with page shall be displayed to the user.
- e) Prepare Video & Audio based professional training material so that the users may refer it for their own personal reference as and when needed.
- f) Availability of video & audio manual in the landing page of application in the form of YouTube link so that the end users can view it time & again.

2.13 Supply of tools and license

The SI shall procure analytical license for this project in name of OCAC as per the specification and bill of quantity mentioned in this RFP and proposed by SI in its technical proposal.

2.14 Deployment & Configuration

- a) Deploy the application over the hardware infrastructure provided by the OSDC / cloud.
- b) Perform detailed assessment of envisaged solution requirements and assess the infrastructure requirements including Servers, Storage and Security, etc. for operationalization of the solution
- c) Responsible for the end-to-end management of hosting and deployment of the application.
- d) Responsible for configuration, installation and hosting of the application in High Availability mode at OSDC / cloud.
- e) Ensure deployment of the application as per the DR policy of OSDC/ Cloud

2.15 UAT & Go-Live

- a) Preparation and submission of test strategy, test cases and test results
- b) Demonstration of module-wise functionalities/ features in staging environment
- c) Support designated authority for conducting the testing and provide access of the systems as required by them.
- d) Rectification in the new application for any issues/ bugs/ and improvements/ Enhancements / up-gradations suggested Departments (if any) during the UAT without any additional cost.
- e) After incorporation of the suggestion received during UAT the application will be declared as Go-Live.

2.16 Infrastructure Support

- a) The existing solution is hosted in OSDC.
- b) Post award of contract, it is expected to provide detail hardware sizing. Based on sizing of the hardware, the additional hardware (if required) will be arranged/procured separately.
- c) Carry out the installation, maintenance & support of all the supplied software(s) on the newly procured / existing hardware for development, quality and production environment.

2.16.1 Implementing Software & Tools

- a) Design, implement/customize the solution and install supplied tools and licenses as mentioned in the bill of materials.
- b) The observations of the audit shall be addressed and same shall be tested and verified again before the go-live.

2.16.2 Business Continuity Planning

Currently, there is no Disaster Recovery (DR) or Business Continuity Plan (BCP) to address any disruption in implementation of the system. However, in future, if it is decided to go for DR / BCP, then the SI will suggest and support for an appropriate methodology in a cost-effective manner for this purpose. The SI shall share the DC, DR sizing and OCAC shall arrange necessary infrastructure in accordance to the sizing received.

2.16.3 Documentation

- a) Undertake preparation of documents including that of infrastructure solution design and architecture, configuration files of the infrastructures, user manuals, Standard Operating Procedures, Information Security Management procedures as per acceptable standards.
- b) Take sign-off on the deliverables (documents), including design documents, Standard Operating Procedures, Security Policy and Procedures from OCAC / OSDC Team and shall make necessary changes before submitting the final version of the documents.

2.17 Project Management Unit (PMU)

Dedicated resources will be deployed to provide technical support & receive queries/ complaints of all types from the business users, register the query/ complaint in the application software, and take necessary action to satisfy the query or attend to the complaint by escalating the issue to the appropriate level in accordance with the protocol SOP defined by OCAC.

- The PMU will function from 09:00 AM to 07:00 PM on all government working days.
- OCAC may relocate the staff of the PMU within the state secretariat and OCAC as and when required.
- Scope of PMU does not include any purchase or maintenance of computer hardware, system software, etc.

a) Handholding Support

<i>Skill</i>	<i>Responsibility</i>
<u>B.E. / B.Tech / MCA</u> <u>from AICTE/ UGC</u> <u>recognized university</u> Minimum of 3 years' of experience in giving both onsite & offsite	<ul style="list-style-type: none">– They will be deployed at the IT Portal Centre, Secretariat Govt. of Odisha.– Over all responsible for monitoring the smooth functioning of the application.– Provide technical support to the departments at the Secretariat as and when required and maintain a log for the same.

<i>Skill</i>	<i>Responsibility</i>
support for any e-Governance application	<ul style="list-style-type: none"> – Provide for training and handholding support to the users other than Secretariat users through virtual mode. – Creation of MUR (Monthly Utilization Reports) & other MIS reports as per requirement of Department & their Directorate – Addressee/recipient data management – Manage data of signatory authorities of all department offices – Regular monitoring and cleaning of master data – Feasibility study of new offices to be implemented – Assist in integration of e-Despatch application with OSWAS

b) Helpdesk Support

<i>Skill</i>	<i>Responsibility</i>
<u>Graduate / Diploma in any discipline</u> Minimum of 3 years' of experience in giving both onsite & offsite support for any e-Governance application	<ul style="list-style-type: none"> – To be deployed at the Sanjog Helpline, OCAC or IT Centre, Odisha Secretariat for resolving e-Despatch queries from the e-Despatch users. – In case the issues are not resolved at its end, then it has to be escalated to the SI for fixing up the errors at the earliest. – The Helpdesk service is to be provided in three languages – English, Hindi & Odia. – The SI is required to provide necessary channels for reporting issues to the help desk. – Regular follow ups to offices to use e-Despatch & Office e-Space – Assist in despatching and diary operation – Provide support to e-Despatch users by taking remote login – Respond to public queries

2.18 Application Maintenance Support

2.18.1 Application Support

Application support includes production monitoring, troubleshooting and addressing the functionality, availability and performance issues, implementing the system change management etc. Key activities to be performed under application support phase are as follows:

- a) Enhancement of Analytical MIS report as per the requirement
- b) Database query report management on emergency
- c) Optimization of the already developed reports
- d) Tuning of transactions
- e) User & access management
- f) Ensure compliance to SLAs as indicated in this RFP and any upgrades / major changes to the software
- g) Ensure the SLA requirements are met at no additional cost to OCAC.
- h) It will include implementation of e-Despatch application, user creation, training through virtual mode or physically at state head quarter for the left-out offices (analysis given under clause 1.1.) during the application maintenance support period as and when it is requested by the respective department for their subordinate offices.

2.18.2 Software Maintenance

- a) Provide support through Telephone / Email / Video Conferencing as required
- b) Address all the errors / bugs / gaps in the functionality of the solution implemented (vis-à-vis the FRS and SRS signed off) at no additional cost during the support phase.
- c) All patches and upgrades shall be implemented by ensuring customization done as per the OCAC's requirements.
- d) Any changes/upgrades to the software performed during the support phase shall subject to the comprehensive and integrated testing.
- e) Ensure that the changes implemented in the system meets the specified requirements and doesn't impact any other function of the system.
- f) Tuning of application, databases, third party software's and any other components provided as part of the solution.
- g) Reconfiguration of the system in the event of any hardware/ network failures
- h) Issue log for the errors and bugs identified in the solution shall be maintained periodically submitted to OCAC.

2.18.3 System/Infra Support

2.18.3.1 Database Administration

- a) Regular monitoring & management of all the applications installed / re-installed and databases hosted as and when it required for the project

- b) Installation & configurations the database
- c) Database administration, optimization and trouble Shooting
- d) Database & file back-up as per the policy of OSDC
- e) Perform Database, event and system log analysis

2.18.3.2 Server Administration

- a) Installation, integration and commissioning new servers applicable for this project
- b) Management & monitoring of servers such as Web, Application, Portal, Database & Middleware, etc. in cloud/OSDC
- c) Manage the DNS and Active directory activities
- d) Configuration of server parameters, operating systems administration and tuning
- e) Integration and user support on all supported servers, data storage systems, etc.

2.18.3.3 Security Administration

- a) Regular analysis of events and logs generated
- b) User ID and group management services

2.18.3.4 Backup & Restore Management

- a) Preparation of backup plan
- b) Backup of operating system, database and application as per SDC/Cloud policy
- c) Monitoring and enhancement of the performance of scheduled backups

2.18.3.5 System / Network Administration

- a) Network configuration
- b) Patch update
- c) System Administration and Trouble Shooting
- d) Application & System Software Administration (including performance tuning)
- e) Application and database level performance tuning
- f) Co-ordination with OSDC Network Administration Team

2.19 Project Management

The envisioned project is a multi-disciplinary initiative. An effective project management plan and commitment to adhere to it is a mandatory requirement. The project plan should also include the resource, task and time plan for the entire duration of the project. Employ project management methodology to ensure that the envisioned project components are developed and implemented within the defined time period. A copy of the project management plan shall be handed over to the department to keep track of the progress of the project

2.20 Guiding Principles

The solution should adhere to the following principles.

2.20.1 Standards

- a) The system architecture should be based on latest industry standards and protocols
- b) The system will be centrally deployed and globally accessed
- c) The system shall be designed to be scalable and easily extensible
- d) The system should be flexible to cater to changing business, industry and compliance requirements (including reporting requirements in proper formats)

2.20.2 Application

- a) All applications must take into account appropriate security, performance, efficiency and maintainability issues.
- b) The ownership of the product licenses would be with OCAC.
- c) Upgrade to new releases should not become mandatory for the next three years from the date of installation.
- d) The SI shall optimize the tuning of the application so that the application will run Uninterruptedly except in case of exigencies due to forced measures.

2.20.3 Integration

The integrated solution design should include framework for integration of both internal and external applications and services using suitable architecture.

2.20.4 Data

- a) Data will be owned, shared, controlled and protected as a corporate asset of the OCAC.
- b) Data should only be accessed through application / interfaces to create, update and delete. There should not be any direct access to the data layer for users.

2.20.5 Data Security

- a) Provide strategy to maintain data security at the application level, database level, messaging and middleware level.
- b) Provide security strategies when the applications are accessed by the resources outside the network
- c) Provide strategies of encryption and security for external transaction with partner network and systems

2.21 Adherence to Standards

The system shall comply with relevant defined industry standards (their latest versions as on date) wherever applicable. This will apply to all the aspects of solution including its design, development, security, installation, and testing. The suggested architecture must be scalable and flexible for modular expansion. It should ensure ease of integration with software / applications developed using common industry standards since the solution may be linked and connected to other sources (websites, contents, portals, systems of other user departments etc.) as well as there may be loose/tight integration with backend system of other departments depending on individual service processes. The solution architecture should thus have provision to cater to the evolving requirements of the Department.

A reference list of the minimum industry standards which the system components should adhere to is mentioned below:

Component	Standards
Information Access / Transfer Protocols	SOAP, HTTP/HTTPS
Interoperability	Web Services, Open Standards
Portal Development	W3C Specifications
Information Security	ISO 27001 certified System
Operation	ISO 9001 Certified
Quality	CMMi Standard
Service Management	ISO 20000 specifications or latest
Project Documentation	IEEE/ISO Specifications for documentation
Data Standards	All-important data entities should be in line with standards published by DeITY.

2.22 Security, Integrity & Confidentiality

- a) **Web Services Security**: System shall comply with all the Web services including routing, management, publication, and discovery should be carried out in a secure manner. Those who are using the Web services should be able to utilize security services such as authentication, authorization, encryption and auditing. Encryption of data shall take place at client level itself. Application server shall provide SSL security.
- b) **Data Integrity and Confidentiality**: Data integrity techniques need to be deployed to ensure that information has not been altered, or modified during transmission

without detection. Similarly, Data confidentiality features are also to be applied to ensure that the data is only accessible by the intended parties.

- c) **Transactions and Communications:** With respect to the Data Transactions and Communications, system needs to ensure that the business process is done properly and the flow of operations are executed in correct manner.
- d) **Non-Repudiation Security:** The application shall have the non-repudiation security services to protect a party to a transaction against false denial of the occurrence of that transaction by another party. End-to-End Integrity and Confidentiality of Messages The integrity and confidentiality of messages must be ensured even in the presence of intermediaries.
- e) **Database Controls:** The database controls for online transaction processing systems like access to database directly, access to database through application, access to log files, access by the remote terminals, DBA controls, backup policy and backup procedures.

2.23 Change Request Management

Looking into the length of the project implementation period it is very usual to find changes in business logic frameworks. In such scenarios, there may be a need of modification of the software modules beyond FRS/SRS/Scope document. It may also be required to develop new software modules beyond the coverage of FRS/ SRS/ Scope document.

- a) The activities that will be treated as enhancement services is mentioned below:
 - Functional changes in the application
 - Development of new module/sub-module/Form/Report in the developed system
 - Changes in the workflow or core application framework
 - Integration with any new system
 - Additional onsite resources in the project
- b) The procedure for executing the change request is as follows:
 - **Analysis:** Analyses the changes suggested and submit an effort estimation including timeline to OCAC
 - **Approval:** OCAC shall do the due diligence and provide approval on the effort and timeline suggested.
 - **Incorporation:** After receiving the approval from OCAC, team will incorporate the changes in the application.
 - On approval, deliver the services and raise the claim as per actual according to the Commercial Bid.

2.24 Exit Plan

- a) Provide systematic exit plan and conduct proper knowledge transfer process to handover operations to OCAC technical team at least three months before project closure.
- b) OCAC will work closely with the SI during knowledge transfer of testing, staging and production environment.
- c) All knowledge transfer should be documented and possibly recorded.
- d) Ensure capacity building of the IT resource persons of OCAC on maintenance of software and infrastructure.

2.25 Project Documentation

Below list of documents needs to be submitted to OCAC during the project contract period.

[If the SI is proposing new technology, then the following documents would be submitted before first milestone payment OR If the SI is managing the existing source code to implement the e-Despatch, then the documents are required before last milestone payment of each year]

- a) Latest version of Source Code
- b) System Requirement Study Documents
- c) System Design Document
- d) Test Plans and Reports
- e) Issue Logs
- f) User Manual
- g) Application Installation & Configuration Manual
- h) Report of Security Audit & Safe-to-Host Certificate
- i) Any other documents defined under Timeline & Tentative Deliverables
- j) All the above documentation should be done as per IEEE/ISO/CMM Standard

2.26 Expected Project Timeline

SI#	Milestone	Timeline
Maintenance of existing e-Despatch Application		
a)	Handover & Takeover	Within 1-month from the effective date of contract
b)	Maintenance & management of existing e-Despatch application	Within 9-month from the effective date of contract
Technology up-gradation and Go-live of new version of e-Despatch i.e. e-Despatch 3.0		
c)	Study and submission of System Requirement Study) SRS document	Within 1-month from the effective date of contract
d)	Technology up-gradation and enhancement of e-Despatch application	Within 7-months from the effective date of contract
e)	User Acceptance Test (UAT) of enhanced application (e-Despatch3.0) by OCAC	Within 7.5-months from the effective date of contract
f)	Security Audit by CERT-In empaneled auditor / agency	Within 1-month from the date acceptance of UAT
g)	Configuration and go-live of e-Despatch3.0	Within 0.5 month from the receipt of security audit certificate
h)	Application Maintenance Support	From the date of go-live of e-Despatch 3.0 Application
i)	Start of Project Management Unit (PMU)	Within 1-month from the effective date of contract

2.27 OCAC Responsibilities

2.27.1 Knowledge Transfer

- a) Facilitate the knowledge transfer session of the new SI with the existing service provider
- b) Ensure all the required document transfer to the new SI
- c) Ensure standard procedure followed for this KT session

2.27.2 General

- a) Assign a nodal officer as a single point of contact for the project.
- b) Provide necessary support to the development team of implementing agency for smooth execution of project
- c) Provide all the relevant documents and information during the system study and analysis.
- d) Facilitate the implementing agency for the third party software integration

- e) Provide approval of SRS Document, User Acceptance Test Certificate, Go-Live Certificate, approval of activity report during Post Implementation Support phase, AMC etc.
- f) Provide Hosting Infrastructure, SMS and Email Gateway etc.

2.28 Service Level & Penalty

If the selected bidder fails to achieve the below scope of work within the corresponding Delivery Period and any extension thereof, unless such failure is due to force majeure situation or due to OCAC's default, penalty shall be imposed by OCAC on the selected bidder.

If at any time during the Contract, the selected bidder should encounter conditions impeding timely performance of service, the selected bidder shall promptly notify to OCAC in writing of the fact of the delay and its likely duration along its cause(s). As soon as practicable after receipt of the selected bidder's notice, OCAC shall evaluate the situation and may at its discretion waive the penalty on the request of the selected bidder.

Sl#	Major Area	Parameter	Requirements	Penalty
a)	Development & Implementation	Major milestone during development and implementation as per project timeline.	As per project timeline	Rs. 500/- per day delay
b)	Response time for bug fixing	Time taken (after the request has been informed) to acknowledge problem	Within 24 hours from the time the bug is reported.	Rs. 100/- per hour delay
c)	Resolution Time (Only for Bug fixing)	Time taken by the service provider to fix the problem	Problems with severity within 48 hours from the time of reporting.	Rs. 500/- per hour delay
d)	Resource Deployment	Start of service	As per project timeline	Rs. 200/- per day delay

In case, the delay is more than 24 weeks and the cause of delay is attributable to System Integrator, authority reserves right to increase the penalty value and/ or take appropriate action against the bidder such as cancellation of contract etc.

OR

Application Availability

The Application covering all the features shall remain operational during the scheduled operation time

Measurement	Reporting Period	Target	Penalty
Daily	Monthly	≥ 98%	Nil
		≥ 95% but <98%	0.5% of Quarterly billed value of Application Maintenance Support
		≥ 90% but <95%	1.0% of Quarterly billed value of Application Maintenance Support
		<90%	2.0 % of Quarterly billed value of Application Maintenance Support

- a) Performance of system refers to the proper and timely functioning of the system’s functionalities. The application should be available and performing as per functionalities
- b) The non-availability for application service is measured on monthly basis and excluding the scheduled maintenance shutdown and incidents.
- c) Application availability and performance will be monitored and reports will be generated as per the monitoring system deployed at OSDC.

Resolution Time

Measurement	Reporting Period	Target	Penalty
Critical Severity – within 2 hours	Monthly	100% of resolution within schedule	Nil
Moderate Severity – within 6 hours		≥ 95% of issues to be resolved within the schedule	0.01% of Application Maintenance Support cost for that Qtr.
Minor Severity – within 12 hours		<95% of the issues to be resolved within the schedule	Penalty of 0.05% of Application Maintenance Support cost for that Qtr.
(Monitored through Monthly Incident report)			

<u>Incident Level</u>	<u>Description</u>
Critical	Critical bugs / issues – Bugs / issues on application affecting most of the intended users Showstoppers involving major functional failure in the application such as unable to login, system completely down, unable to save due to error etc.
Moderate	Affecting large numbers of users or some key users. No workaround available / moderate functional restrictions in the application
Minor	Only for Bug fixing

If penalty reaches above 5% of Application Maintenance Support, it may be treated as unsatisfactory performance by SI. The purchaser has the right to terminate the contract in such case or case of any additional delays.

2.29 Waiver of Penalty

If at any time during the Contract, the selected bidder should encounter conditions impeding timely performance of service, the selected bidder shall promptly notify to OCAC in writing of the fact of the delay and its likely duration along its cause(s). As soon as practicable after receipt of the selected bidder's notice, OCAC shall evaluate the situation and may at its discretion waive the penalty on the request of the selected bidder.

2.30 Bill of Material & Quantity

Sl#	Category	Items	Qty.
a)	Maintenance & management of existing e-Despatch application	As per the scope mentioned in the clause 2.1 of this document.	9 Months
b)	Implementation of e-Despatch3.0 application	Study, design, development, security audit, training, go-live, documentations, etc. as per requirement mentioned under clause no. 3 of this document.	Lump-sum
c)	Application Maintenance Support of the e-Despatch 3.0 application	Application Support, Software Maintenance, System Support etc. mentioned under clause 2.18 of this document.	5-Years

SI#	Category	Items	Qty.						
d)	Project Management Unit	Technical support during business hours as per requirement mentioned under clause no. 2.17 of this document with flowing quantity <table border="1"> <thead> <tr> <th>Skill</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td><i>Handholding Support</i></td> <td>5</td> </tr> <tr> <td><i>Helpdesk Support</i></td> <td>5</td> </tr> </tbody> </table>	Skill	Qty	<i>Handholding Support</i>	5	<i>Helpdesk Support</i>	5	9 Months for existing e-Despatch application + 5 Years for e-Despatch 3.0 application
Skill	Qty								
<i>Handholding Support</i>	5								
<i>Helpdesk Support</i>	5								
e)	SSL certificate	As per the scope mentioned in clause 2.10	60 Months						
f)	Cyber Security Audit	As per the scope mentioned in clause 2.9	10 nos.						
g)	Analytical Tool	Supply of tools as per the scope mentioned in clause 3.10 of this document and quantity proposed by SI	License with 5-year support						
Contract duration would be 60 months from the effective date of contract which includes the application maintenance support period for e-Despatch3.0. The contract period may be extended for another 24 months based on the requirement and performance of the SI. Further extensions (if required) may be done on mutual agreement between OCAC and SI.									

2.31 Payment Terms

2.31.1 Maintenance of existing e-Despatch Application

Sl#	Milestone	Deliverables	Payment Terms
a)	Maintenance and management of existing e-Despatch application	Maintenance activity report	100% Quoted cost equally divided by duration (month)

2.31.2 Implementation of e-Despatch 3.0

Sl#	Milestone	Deliverables	Payment Terms
a)	Study	Submission of System Requirement Study document	20% of the development cost
b)	Design and Development	Completion of development of e-Despatch 3.0 and hosting in staging server for UAT	20% of the development cost
c)	User Acceptance Test	UAT Certificate by OCAC	20% of the Development cost
d)	Go-live	Security audit certificate by CERT-In empaneled auditor Uploading of FAQ and ICT material in the website Hosting of e-Despatch3.0 in the production server under domain name www.edodisha.gov.in	30% of the Development cost
e)	Successful Implementations	Activity report from the date of go live.	10% of the Development cost After Successfully running of 6 months from the date of go live
f)	Application Maintenance Support of e-Despatch3.0 Application	Maintenance activity report for that particular billing cycle	100% of the Application Maintenance Support of e-Despatch 3.0 Application cost equally divided by 20 quarters
g)	Project Management Unit	Monthly activity report for that particular billing cycle	Quoted cost equally divided by 23 quarters.

2.31.3 OEM License

Sl#	Milestone	Deliverables	Payment Terms
a)	Supply of tool and license with 1 st year Annual Technical Support	OEM License certificate in name of OCAC	100% of the quoted cost
b)	2 nd , 3 rd , 4 th & 5 th year Annual Technical Support of the supplied tools and license	Documentary evidence on support of renewal	100% of the yearly quoted cost at the beginning of respective year

2.31.4 General Conditions

- a) Payment schedule - Payments to the bidder/authorized partner, after successful completion of the target milestones (including specified project deliverables), would be made as under: -
- b) The supplier's/ selected bidder's request for payment shall be made to the purchaser in writing, accompanied by invoices describing, as appropriate, the goods delivered and related services performed, and by the required documents submitted pursuant to general conditions of the contract and upon fulfilment of all the obligations stipulated in the Contract.
- c) Due payments shall be made promptly by the purchaser, generally within thirty (30) days after submission of an invoice or request for payment by the supplier/ selected bidder/authorized partner, and the purchaser has accepted it.
- d) The currency or currencies in which payments shall be made to the supplier/ selected bidder under this Contract shall be Indian Rupees (INR) only.
- e) All remittance charges will be borne by the supplier/ selected bidder/authorized partner.
- f) In case of disputed items, the disputed amount shall be withheld and will be paid only after settlement of the dispute.
- g) Payment in case of those goods which need testing shall be made only when such tests have been carried out, test results received conforming to the prescribed specification.
- h) Any penalties/ liquidated damages, as applicable, for delay and non-performance, as mentioned in this bidding document, will be deducted from the payments for the respective milestones.
- i) Taxes, as applicable, will be deducted/ paid, as per the prevalent rules and regulations at the time of billing. Legitimate payment shall be made within 30 working days of the receipt of invoice along with supporting documents subject to penalties, if any.

3 Functional Requirements of e-Despatch 3.0

The objective of e-Despatch 3.0 application is to enhance & upgrade the existing application and adopt the trends in technological advancements and play a role in the change for the better. The below mentioned list of functionalities is indicative in nature and may change during the system study phase.

3.1 Analytical Dashboard

The SI shall provide an analytical tool to perform various analytics on the data available in e-Despatch application. The analytical dashboard should enable state as well as departmental authorities to view dynamic reports in graphical and tabular manner. The tool should have the capability to perform following type of analysis:

- a) Trend analysis of Assembly Letters
- b) Trend analysis of RTI Letters
- c) Forecast the number of letters to be received/ dispatched per Dept.
- d) Turnaround time for drafting response to a letter etc.

The proposed OEM tool shall cater to the below functionalities

SI#	Functional Requirements
FR01	Provision to generate turnaround time wise report, department wise report, office wise report
FR02	The solution should provide easy-to-use ad hoc query and analysis.
FR03	Users should be able to drill, pivot, and filter their data directly on a dashboard, while a rich set of prompts and powerful right-click interactions open up even more advanced analysis capabilities.
FR04	Users should be able to see information filtered and personalized based on their identity, function, or role processed via predefined security rules.
FR05	The solution should offer a logical view of metrics, hierarchies, and calculations expressed as understandable concepts.
FR06	Users should be able to quickly and seamlessly transfer their data, layout, and format of a dashboard or analysis to an output or data export file.
FR07	The Analytics platform should provide a powerful, near-real-time, multistep alert engine that can trigger workflows based on business events and notify stakeholders via their preferred medium and channel.

3.2 Object Storage

Currently all the documents are stored in one server with multiple blocks, as a result of which overall application processing has slowed down. The SI shall provide object storage solution to store documents in a dedicated server.

SI#	Functional Requirements
FR01	The system should work in a Distributed Architecture
FR02	Provision for storing documents in a dedicated server
FR03	This should ensure faster retrieval of data.
FR04	Should provide a complete control over how, where and by whom the data can be frequently accessed.

3.3 OCR

Following provisions shall be available in the solution:

SI#	Functional Requirements
FR01	OCR (optical character recognition) should extract entities (content, subject, images etc.) from the scanned PDF letters.
FR02	The solution should have provision for Examination of text of a document and translation of characters into code that can be used for data processing.
FR03	OCR should have capability for document processing, validation & index building
FR04	Provision to Index folders, files and documents on user-defined indexes like department, bureau, file number, year etc.
FR05	The solution should have manual and automatic indexing.
FR06	Allows automatic full text indexing for text search.
FR07	Provision to add keywords with documents to act as quick reference for the documents

3.4 Use of Emerging Technology

Followings are some of the use cases for implementing Emerging Technology in e-Despatch 3.0.

3.4.1 Robotic Process Automation (RPA)

SI#	Features/Requirement
FR01	Should automate letter dispatch & receiving process
FR02	Provision for document format verification
FR03	Capability for recipient address assigning while dispatching letter
FR04	Provision for auto forwarding of received letter to the concerned authorities
FR05	Data extraction and confidence Assessment
FR06	Should have capability to sort, classify, and process documents

3.4.2 Artificial Intelligence

SI#	Features/Requirement
FR01	Capability to learn from experience & perform tasks
FR02	Should have intelligence to read and understand the recipients mentioned in the letter
FR03	Provision for AI based address recommendation during letter dispatch

3.4.3 Chatbot

SI#	Features/Requirement
FR01	Help public & department users for faster letter search
FR02	Provision for voice-based search functionalities
FR03	Capability for analyzing requests and prepare its response
FR04	Should understand user requests and extract structured information from their message.

3.4.4 Blockchain for Security

Documents transfers at e-Despatch are of high value & OCAC wants to ensure that all the stakeholders should be able to verify the authenticity of these documents. To bring in more security & veracity in the document, Blockchain needs to be implemented.

SI#	Features/Requirement
FR01	The solution should have provision for Check Authenticity of the letter
FR02	The system should have capability to Ensure Peer To Peer Communication
FR03	Should help in preventing fraudulent transactions, forgery, tampering, or counterfeiting of letters
FR04	The intended users must be able to verify letters in a trust-less manner.
FR05	The system must raise a red flag in case the document on the server is tampered or modified.

3.5 Open API for outward/inward Integration

A lot of inward & outward integration requests are coming up for integration of E-Despatch application with other third-party applications. OCAC intends to implement open API management to overcome integration challenges.

SI#	Functional Requirements
FR01	Securely expose data and business applications
FR02	Manage/Publish APIs flawlessly
FR03	Analyze APIs to gain insights
FR04	Analyze API calls to get visibility and understand API consumption
FR05	Easy creation of APIs for Outward and inward Integration
FR06	Integration with OSWAS & HRMIS application

3.6 Enhancement in Mobile App

The existing e-Despatch mobile application (available both in Android & iOS) needs to be enhanced for better performance and wide usage. The services to be covered by the mobile application would include all functionalities of the existing as well as new modules which are explained below.

SI#	Features/Requirement
FR01	Provision for citizen to view & access letters
A. Document Scanning	
FR02	System should have capability for scanning letters directly from the mobile application by taking a photo with the device camera
FR03	Provision to share document in PDF format
FR04	Should allow users to scan multiple files/Document from their mobile application
FR05	The PDF processing functionality must allow users to perform various activities such as merge files, split pages etc.
B. Letter Despatch	
FR01	The mobile app should have feature to dispatch letters to the recipients after scanning of letters.
FR02	Diary user must be able to dispatch letters just like the web version of the E-Despatch application

3.7 e-Despatch Digitalization

Sl#	Features/Requirement
A. File Compression	
FR01	e-Despatch3.0 should have in built capability to compress files
FR02	Compressing files should help to free up space on the hard disk.
FR03	Facilitate easy sharing of files
FR04	Use compression mechanism to compress big files and decrease their size
FR05	The file size must reduce without losing any data.
B. Drag & Drop option for letter attachments	
FR01	Users shall be able to select a file & can move it to a desired location and "drop" it in specific section of E-Despatch solution
C. Password Protected file	
FR01	Provision to protect confidential letters with password to prevent unauthorized access to the file content
FR02	OTP based authentication of users before viewing the letter
FR03	Facility to share password to the registered recipient of letters
FR04	Provision to set minimum number of alpha, numeric and special characters.
FR05	Facility to create random user password
D. Scanner Connector	
FR01	Auto storage of scanned letters in e-Despatch server
E. FAQs	
FR01	OCAC will provide frequently asked questions along with the answers. The system integrator is responsible for adding those FAQs on the E-Despatch applications
FR02	The dynamic FAQs should be responsive and device friendly
FR03	Provision to perform following activities <ul style="list-style-type: none"> – Add/ Edit/ Delete FAQs – Active or De-active FAQs – Change the position of FAQs – Change the Style/ Template of FAQs – Option to set the font style & font colour

3.8 Ticketing Software

All e-Despatch users shall be able to report queries, errors, incidents, issues using this ticketing software. SI will provide an integrated ticketing software to manage request & service calls in a centralized way.

SI#	Functional Requirements
FR01	Ticketing software should have ticket tags with an ability to organize tickets and spot common issues amongst users
FR02	Provision to recommend FAQs to the users based on their queries
FR03	Facility to maintain various ticket status options such as “open” , “Close” , “Require further information” & “follow-up”.
FR04	Provision to prioritize critical issues
FR05	Track performance metrics such as response time, overall resolution time, ticket lifecycle, user satisfaction and other relevant key performance metrics etc.