Request for Proposal
for
Selection of an Agency
for
Support in Implementation of Next-Gen CPGRAMS

(Volume 1 of 3 – Scope of Services)

RFP No.: S-15/35/2024-PG dated 23.10.2024

प्रशासनिक सुधार और लोक शिकायत विभाग
DEPARTMENT OF
ADMINISTRATIVE REFORMS
& PUBLIC GRIEVANCES
सत्यमेव जयते

DEPARTMENT OF ADMINISTRATIVE REFORMS AND PUBLIC GRIEVANCES(DARPG)

MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS

GOVRNMENT OF INDIA

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Abbreviations and Acronyms	
AI	Artificial Intelligence
API	Application Program Interface
APM	Application Performance Management
ANSI	American National Standards Institute
ASP	Active Server Page
ATR	Action Taken Report
BI	Business Intelligence
BPR	Business Process Re-Engineering
CMDB	Configuration Management Database
CMMI	Capability Maturity Model Integration
CPGRAMS	Centralized Public Grievance Redress and Monitoring System
CEPENGRAMS	Centralized Pension Grievance Redress and Monitoring System
CSP	Cloud service provider
CSC	Common Service Centre
CV	Curriculum Vitae
DARPG	Department of Administrative Reforms and Public Grievances
DC	Data Centre
DDoS	Distributed denial-of-Service
DoPT	Department of Personnel and Training
DSC	Digital Signature Certificate
DR	Disaster Recovery
DNS	Domain Name System
EMS	Enterprise Monitoring System
EMD	Earnest Money Deposit
ETR	Estimated Time of Resolution
FRS	Functional Requirement Specifications
GoI	Government of India
GRA	Grievance Redressing Agencies
GRO	Grievance Redress Officer
GST	Goods and Services Tax
GUI	Graphical User Interface
HTML	Hyper Text Markup Language
ICT	Information and Communication Technology
IP	Internet Protocol
IEEE	Institute of Electrical and Electronics Engineering
IVRS	Interactive Voice Response System
IGMS	Integrated Grievance Management System
INR	Indian National Rupee
ISO	International Organization for Standardization
IT	Information Technology
KPI	Key Performance Indicators
LDAP	Lightweight Directory Access Protocol
MeitY	Ministry Of Electronics and Information Technology
MIS	Management Information Systems

Abbreviations and Acronyms	
MVP	Minimum Viable Product
NIC	National Informatics Centre
NLP	Natural Language Processing
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
OOA	Object Oriented Analysis
OTP	One Time Password
OS	Operating System
PAN	Permanent Account Number
PBG	Performance Bank Guarantee
PMU	Project Management Unit
PSU	Public Sector Undertaking
QCBS	Quality cum Cost Based Selection
RDBMS	Relational Database Management System
RFP	Request for Proposal
RTI	Right To Information
SLA	Service Level Agreement
SMS	Short Message Service
SOP	Standard Operating Procedure
SOA	Service Oriented Architecture
SRS	System Requirement Specifications
SSL	Secure Socket Layer
TSL	Transport Layer Security
UAT	User Acceptance Testing
UI	User Interface
UMANG	Unified Mobile Application for New-age Governance
UML	Unified Modelling Language
UX	User Experience
VPN	Virtual Private Network
Agency/Selected Agency	Agency selected through this RFP
Core Application/ Solution/ System	The System to be developed by the selected agency

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DISCLAIMER

1. This Request for Proposal (RFP) for **Selection of an Agency for Support in Implementation of Next-Gen CPGRAMS" , RFP No** S-15/35/2024-PG dated 22.10.2024 for Department of Administrative Reforms and Public Grievances (DARPG) under Ministry of Personnel, Public Grievances & Pensions, Govt. of India
2. Whilst the information in this RFP has been prepared in good faith, it is not and does not purport to be comprehensive or to have been independently verified. Neither DARPG, nor any of its officers or employees, nor any of their advisers nor consultants accept any liability or responsibility for the accuracy, reasonableness or completeness of the information contained in the RFP, or for any errors, omissions or misstatements, negligent or otherwise, relating to the proposed. Project, or makes any representation or warranty, express or implied, with respect to the information contained in this RFP or on which this RFP is based or with respect to any written or oral information made or to be made available to any of the recipients or their professional advisers and, so far as permitted by law and except in the case of fraudulent misrepresentation by the party concerned, and liability therefore is hereby expressly disclaimed.
3. The information contained in this RFP is selective and is subject to updating, expansion, revision and amendment at the sole discretion of DARPG. It does not, and does not purport to, contain all the information that a recipient may require for the purposes for making a decision for participation in this process. Each Party must conduct its own analysis of the information contained in this RFP, to correct any inaccuracies therein and is advised to carry out its own investigation into the proposed project, the regulatory regime which applies thereto and by and all matters pertinent to the project and to seek its own professional advice on the legal, financial and regulatory consequences of entering into any agreement or arrangement relating to the Project. DARPG shall not be responsible for any direct or indirect loss or damage arising out of or for use of any content of the RFP in any manner whatsoever.
4. This RFP includes certain statements, estimates, projections, targets and forecasts with respect to the proposed project. Such statements, estimates, projections, targets and forecasts reflect various assumptions made by the management, officers, employees, consultants, and experts, which (the assumptions and the base information on which they are made) may or may not prove to be correct. No representation or warranty is given as to the reasonableness of forecasts or the assumptions on which they may be based and nothing in this RFP is, or should be relied on as, a promise, representation or warranty.
5. DARPG shall be the final authority with respect to qualifying a bidder through this RFP. The decision in selecting the Selected Agency who qualifies through this RFP shall be final and DARPG reserves the right to reject any or all the bids without assigning any reason thereof. DARPG further reserve the right to negotiate with the selected agency to enhance the value through this project and to create a more amicable environment for the smooth execution of the project.
6. DARPG may terminate the RFP process at any time without assigning any reason and upon such termination DARPG shall not be responsible for any direct or indirect loss or damage arising out of such a termination.

NOTICE INVITING TENDER

Department of Administrative Reforms & Public Grievances (DARPG), working under the Ministry of Personnel, Public Grievances and Pensions, Govt. of India invites technical and financial proposals from reputed Bidder/Selected Agency firms for e-Governance Project implementation, to **"Selection of an Agency to Support in Implementation & of Next-Gen CPGRAMS" bearing RFP No** S-15/35/2024-PG dated 23.10.2024 on behalf of Department of Administrative Reforms & Public Grievances (DARPG).

The document can be downloaded from the website **https://darpg.gov.in** or can be accessed through Central Public Procurement Portal (https://eprocure.gov.in/cppp/) response to this tender shall be deemed to have been done after careful study and examination of this document with full understanding of its implications. This section provides general information about the Issuer, important dates and addresses and the overall eligibility criteria for the parties.

Issuer

The Joint Secretary
Department of Administrative Reforms & Public Grievances (DARPG)
5th Floor, Sardar Patel Bhawan, Sansad Marg, New Delhi 110001
Website: https://darpg.gov.in/

1 FACT-SHEET

SN	Item	Description
1	Tender No	S-15/35/2024-PG dated 23.10.2024
2	Name of the issuer of this tender	Department Of Administrative Reforms and Public Grievances (DARPG), Govt. of India
3	Date of RFP Issuance	23.10.2024
4	Project Initiator Details	Department Of Administrative Reforms and Public Grievances (DARPG), Govt. of India
5	Date of issue of Tender document	23.10.2024
6	Last Date of sending Clarification	08.11.2024
7	Last Date for Submission of Bids	25.11.2024 till 5 PM
8	Date of Opening of Technical Bids	26.11.2024 at 12 Noon
9	Date of Technical presentations/ demonstration	09.12.2024 11 AM onwards
10	Date of Financial Bid opening	To be intimated
11	Place of Opening of Bids	Department Of Administrative Reforms and Public Grievances (DARPG), Govt. of India
12	Address of Communication	The Joint Secretary Department of Administrative Reforms & Public Grievances (DARPG) 5th Floor, Sardar Patel Bhawan, Sansad Marg, New Delhi 110001
14	Earnest Money Deposit (EMD)	**INR 5,00,000/- (INR Five Lakh)** by means of Bank Guarantee from scheduled commercial bank drawn in favor of DARPG valid for **45 days beyond the validity of the bid**
16	Validity of Proposal	180 Days
17	Method of Selection	Quality and Cost Based Selection (QCBS)
18	Bid Submission	Bid Submission will be online through Central Public Procurement portal https://eprocure.gov.in/cppp/

19	Contact person for queries	Parthasarathy Bhaskar, Deputy Secretary Ph: +91-9990220978, Email ID: partha.bhaskar@gov.in

Note:

1. *The date of the opening of the bids will be intimated to the qualified Bidders before the due date through Email/ Telephone/Message Communication.*
2. *DARPG reserves the right to change any schedule of bidding process terms and conditions, select/reject any proposal or cancel the entire tender process without assigning any reason thereof.*
3. *Please visit https://darpg.gov.in, regularly for the same.*
4. *Proposals must be received not later than time, date and venue mentioned in the Fact Sheet. Proposals that are received after the deadline will not be considered in this procurement process.*

2 INTRODUCTION

2.1 About DARPG

The Department of Administrative Reforms and Public Grievances (DAR&PG) serves as the central agency for formulating policy guidelines aimed at fostering citizen-centric governance in the country. One of the department's foremost initiatives is the redressal of citizens' grievances. To this end, the DAR&PG establishes mechanisms for the effective and timely resolution of grievances lodged by citizens.

The DAR&PG is committed to achieving excellence in public service delivery and ensuring the meaningful redressal of citizens' grievances. This is accomplished through effective coordination with various Ministries and Departments of the Government, with a concerted effort to eliminate the root causes of grievances.

2.2 About CPGRAMS

The Centralized Public Grievance Redress and Monitoring System (CPGRAMS), launched by the Government of India in 2007, aimed to streamline the grievance redressal process. Initially a basic platform for capturing and forwarding public grievances to the relevant government departments, CPGRAMS faced challenges such as limited user adoption, inefficient processing times, and a lack of transparency.

To address these issues, significant upgrades have been made over the years. Key improvements include a user-friendly interface, mobile application integration, and some analytics, which have increased public trust and participation.

Enhancements, such as multilingual support and real-time tracking features, have increased accessibility and transparency, empowering citizens from diverse backgrounds to engage with the platform more effectively and fostering a sense of accountability within the government. These transformations have positioned CPGRAMS as a crucial tool for citizen engagement and efficient grievance redressal.

With the advancement of technology, CPGRAMS has developed a standalone mobile application available for Android devices, which can be easily downloaded from the Google Play Store. This app enables citizens to register complaints conveniently and without any hassle.

Additionally, individuals can file complaints through the UMANG app. The UMANG app empowers citizens to voice their concerns and lodge complaints directly on the CPGRAMS portal. This feature simplifies the grievance reporting process, providing a straightforward and efficient method for citizens to register their complaints. The user-friendly interface of the app further streamlines the process, making it quick and easy for users to seek redress.

2.3 About this RFP

This Request for Proposal (RFP) seeks to engage an Agency to Support in Development, Implementation & Manage Operations of Next-Gen CPGRAMS. The aim is to address key deficiencies, enhance user experience, to support in managing operations of a system that meets current and future operational requirements. The aim is to ensure scalability to handle

increased user traffic and data volumes while maintaining high performance. The key focus areas for the agency are to develop the Smart NextGen CPGRAMS with AI enabled dashboard supporting data Analytics. The system will derive actionable insights from grievance data, helping to identify systemic issues and monitor the performance of different departments. These insights will aid in formulating policies to address the root causes of grievances, enhancing the efficiency of the grievance redressal process and contributing to better governance.

NOTE: The engagement of the selected agency is initially for a period up to 31st March 2026. However, the engagement is likely to be continued for next financial cycle (5 Years) subject to necessary approvals and satisfactory performance of the Selected agency.

To develop the NextGen CPGRAS with dashboard and support in multiple integrations and managing operations for NextGen CPGRAMS, the broad goal for the selected agency is stated below-

SN	Goals	Activities
1	Infrastructure Assessment and Deployment	i. The Selected Agency shall assess infrastructure requirements and size server requirement appropriately for NextGen CPGRAMS. ii. The Selected Agency shall be responsible for engaging and deploying MeitY empaneled cloud for NextGen CPGRAMS iii. The Selected Agency shall deploy the solution on MeitY Empaneled cloud with sufficient security protocols after the advice of DARPG.
2	Support /Design Develop Deploy and implement and Comprehensive support in the NextGen CPGRAMS	i. The agency to Design, develop, the NextGen CPGRAMS Application ii. Integrate the Core Application with AI Chatbot and any other application/external components as desired by Department.
3	Design, Develop Deploy and implement the Smart Dashboard and Analytics	i. Design and develop a smart dashboard for NextGen CPGRAMS. ii. Integrate data from sources like grievance masters, citizen360, and department 360 and other standards

SN	Goals	Activities
		iii. Ensure real-time data updates and visualization for efficient monitoring. iv. Have an ability to disseminate the data received and use it with an LLM which will be able to categorize the data into various fields which make it amenable for query-based analysis. Such an analysis can be made across various dimensions like but not limited to geographical wise, Department/Receipt wise, Rating Wise, Central Sector Scheme wise. v. As far as possible the data analytics to develop on the already developed core analytical tools of DARPG like Tree Dashboard and IGMS.
4	Acceptance Testing	i. The Selected Agency shall set up a test environment and conduct User Acceptance Testing of the end-to end Integrated Application of NextGen CPGRAMS ii. The Selected Agency shall conduct various types of testing (unit, integration, security, etc.)
5	Security Audit	i. The Selected Agency shall implement all required security measures. ii. The Selected Agency shall get security audit done prior to Go-Live
6	Training and Capacity Building	i. The Selected Agency shall impart training to staff and other stakeholders. ii. The Selected Agency shall develop training materials in multiple languages
7	Operation & Maintenance during the stabilization	i. The Selected Agency shall maintain SLAs and conduct

SN	Goals	Activities
	period post Go-live	regular maintenance
8	Change Management	i. The Selected Agency shall support DARPG in change management and communication support
9	Resource Deployment	i. The Selected Agency shall deploy dedicated onsite and offsite resources
10	Helpdesk	i. The Selected Agency shall setup a helpdesk, helpdesk manpower and deploy a helpdesk management system with required features and ticket system
13	EMS	i. Deploy the EMS for monitoring the performances

Table 1: Goals of Selected Agency

3 OVERVIEW OF EXISTING CPGRAMS

The Centralized Public Grievance Redress and Monitoring System (CPGRAMS) is a 24/7 online platform launched in 2007 by the Government of India to streamline the grievance redressal process. Connecting all Ministries, Departments, and several State Governments through a single portal with role-based access, CPGRAMS was initially designed to capture and forward public grievances. Over time, it has evolved with technological advancements and user feedback, incorporating features such as an interface, mobile application integration, and analytics.

Accessible via a mobile app on the Google Play store and the UMANG platform, CPGRAMS allows citizens to track grievances using a unique registration ID and offers an appeal facility for unsatisfactory resolutions. Issues not addressed by CPGRAMS include RTI matters, court-related/sub-judice matters, religious matters, suggestions, and grievances of government employees concerning their service matters, unless the prescribed channels have been exhausted as per DoPT guidelines. By centralising the grievance process and utilising data analytics, CPGRAMS enhances complaint resolution efficiency, boosts public trust in government operations, and contributes to better governance.

3.1 Present Stakeholders

The effective functioning of CPGRAMS involves a diverse range of stakeholders, each playing a critical role in the system's operations and success. Understanding the roles and interactions of these stakeholders is essential for the smooth operation and continuous improvement of the CPGRAMS platform.

3.1.1 General Public/Citizens

The public or citizens are the primary users of CPGRAMS. They utilize the system to lodge grievances related to public services and government functions. Their active participation is crucial for the system’s effectiveness. The feedback and satisfaction of citizens help in evaluating the performance of the grievance redressal process and identifying areas for improvement.

i. Role: Submitting grievances, tracking the status of their complaints, providing feedback on the grievance redressal process.

ii. Interaction: Citizens interact with CPGRAMS through the web portal, mobile applications, and Common Service Centres (CSCs)

iii. Submission of Appeal: Citizen can submit an appeal if in case the grievance redressal is not satisfactory.

3.1.2 Grievance Redressing Agencies (GRA)

Grievance Redressing Agencies are the entities responsible for addressing and resolving the grievances lodged by citizens. They can be classified as follows:

i. Ministries/Departments of the Government of India: These are central government bodies that handle grievances related to their respective domains including attached/autonomous bodies falling under the jurisdiction of various Ministries/Departments.

ii. State Government Departments: State-level departments address grievances specific to their regional jurisdiction. Some State Governments use CPGRAMS for their redressal of grievances entirely. Examples include North Eastern States, Gujarat, Telangana etc. Around 18 State Governments use CPGRAMS by integrating this platform with their local grievance platform of grievances. Such states include Uttar Pradesh, Rajasthan, Madhya Pradesh, Tamil Nadu, Andhra Pradesh etc. The number of officers mapped in CPGRAMS for states is dependent on the extent in which the State Government concerned has decided to create subordinate workflow in CPGRAMS.

3.1.3 Other Grievance Portals linked to CPGRAMS

There are at least 4 other grievance portals in Govt of India which are using the CPGRAMS data base of DARPG. The current workflow of CPGRAMS can be explained by the following:

i. **Core Database and CPGRAMS**: The centralized CPGRAMS database is maintained by the Department of Administrative Reforms and Public Grievances (DARPG), which serves as the backbone for several grievance portals.
ii. **PMO Public Grievances Portal**: The Prime Minister's Office (PMO) has a separate interface built on top of the CPGRAMS database. Citizens can file grievances via this portal, and they are assigned a unique tracking number for monitoring. Users registered here can also log in through CPGRAMS, and vice versa.
iii. **President Secretariat Portal**: Similar to the PMO, the President Secretariat operates its own portal for grievances. Though it uses the CPGRAMS database, grievances submitted here receive a different tracking number.
iv. **CPENGRAMS**: The Central Pension Grievance Redress and Monitoring System is used specifically for pension-related grievances. It has a different workflow and does not require user registration, but it still feeds data into the CPGRAMS database.
v. **DPG Portal (Cabinet Secretariat):** The Directorate of Public Grievances (DPG) under the Cabinet Secretariat has its own mandate and workflow for handling unresolved grievances related to specific central government departments. Registration on this portal is separate, and once grievances are submitted, they flow into the same CPGRAMS database for resolution.

Each of these interfaces has distinct registration processes and workflows but shares a common back-end—the CPGRAMS database—for centralized monitoring and resolution of grievances.

3.1.4 Others

Other stakeholders include entities that support the functioning and enhancement of CPGRAMS:

i. **IT Service Provider (NIC):** Responsible for developing, maintaining, and upgrading the CPGRAMS platform. They ensure that the system remains robust, secure, and user-friendly

ii. **Common Service Centres (CSCs):** DARPG has a tie up with the common service centres from where citizens can file CPGRAMS on the payment of a small fee charged by M/s CSC. In return, the Village Level Entrepreneur's running the Common Service Centre's will assist citizens in lodging grievances and accessing the CPGRAMS platform.

iii. **Feedback Call Centre**: Everyday list of redressed grievances is shared by NIC through an API with a Call Centre. The call Centre presently calls the complainant within 5 days of complaint being closed by the Ministry/Department/State. Call Centre gives the citizen the option to file an appeal against the closed grievances (if the grievance pertains to Centre). A two-way communication API is presently existing.

3.2 Key Functionalities of the Existing System

The current CPGRAMS portal system comprises a range of functionalities designed for user interaction and task management. The table below summarises the main functionalities and their respective sub-functionalities, detailing the system's capabilities. This breakdown illustrates how each function contributes to the journey of grievance handling and the capture of user satisfaction within the CPGRAMS portal.

Sr. No	Process	Sub-Process
1	**Registration**	Grievance registration by citizen through CPGRAMS web portal, mobile app, or CSCs.
		Complainant provides personal details, grievance description, and supporting documents
		Submission generates acknowledgment receipt with a unique tracking ID sent to the complainant.
2	**Acknowledgment**	CPGRAMS automatically generates an acknowledgment receipt.
		Receipt contains a unique tracking ID and is sent to the complainant via email and SMS.
3	**Mapping**	CPGRAMS uses a predefined categorization system to route grievances appropriately based on the user selection of Ministry/Department
		Grievance is mapped to the relevant government department or authority in the appropriate category/sub-category
4	**Processing**	Concerned departmental officer receives the grievance who is mapped on CPGRAMS 7.0. If the citizen does not choose a specific category/sub-category or chooses the wrong Ministry/Department then the grievance is forwarded further

Sr. No	Process	Sub-Process
		through the concerned Nodal Officer of Ministry/Department/State Government
		Grievance assigned to a designated grievance officer by the Nodal Grievance Officer.
		Officer reviews the complaint and conducts necessary investigations.
		Appropriate actions are taken to address the issue.
		May involve interactions with other departments or consultations with experts.
5	**Resolution**	Grievance officer formulates a resolution.
		Resolution details are updated in the CPGRAMS system by filling in a designated Action Taken Report in CPGRAMS.
		Status of the grievance is changed to 'resolved'.
		Complainant is notified of the resolution through email and SMS.
6	**Feedback**	Option in the dashboard of the citizen to rate a grievance and also appeal.
		Feedback is also collected through an outbound call centre .
		Users rate the grievance resolution for satisfaction and rating.
		Feedback is used for continuous improvement and identifying gaps.
7	**Appeal (Presently only available for Central Ministries/Departments)**	Citizen files an appeal if dissatisfied with the resolution.
		Appeal is escalated to a designated appellate officer.
		Appellate authority reevaluates the original grievance, resolution, and grounds for appeal.
		A new response or resolution is issued after thorough review.
		Citizen is notified of the appellate decision through CPGRAMS portal.
8	**Monitoring & Escalation**	CPGRAMS monitors the performance of the grievance redressal process through regular reports and dashboards.
		Key metrics tracked include number of grievances received, average resolution time, and departmental performance.

Sr. No	Process	Sub-Process
		Unresolved grievances within the stipulated time frame are escalated to higher authorities.

Table 2: Process of the existing system

The processes mapped in the portal are given as per below:

Sr. No.	Functionalities	Sub Functionalities
A	**Citizen Interface**	
1	**Registration:** Citizens register by filling out a form, completing validation, and solving a captcha.	i. Registration form ii. Validation iii. Captcha
2	**Login:** Citizens and PG Officers log in with credentials or OTP and can recover forgotten details.	i. User ID ii. Password iii. Login via OTP iv. Forgot Username/Password v. Suggestion for new CPGRAMS vi. PG Officer login vii. Digital Seva Connect viii. Suggestion for new CPGRAMS
3	**Lodge Public Grievance:** Citizens submit grievances by selecting categories, describing issues, and receiving notifications.	i. Select Ministry / Department ii. Select Categories/ Subcategories iii. Description of grievance iv. Attach file v. Review form b/s grievance vi. Captcha vii. Notification of grievance ID (SMS / Mail / popup) viii. Feedback
4	**Lodge Pension Grievance:** Redirects citizens to CPENGRAMS for pension-related grievances.	i. Directed to CPENGRAMS
5	**Lodge Appeal:** Citizens lodge appeals by providing a registration number and reason.	i. Registration number ii. Reason for Appeal
6	**Account Activity:** Users view their account activities, including login details and actions taken.	i. Login ID ii. Action date & time iii. Action Name iv. IP Address
7	**Edit Profile:** Users update their personal information.	i. Update personal information
8	**Change Password:** Users change their password by providing the old and new passwords.	i. Old password ii. New password iii. Confirm Password
9	**FAQs/ Help:** Users access frequently asked questions and help resources.	i. Questioners

Sr. No.	Functionalities	Sub Functionalities
10	**View status:** Citizens view the status of their grievances and appeals.	i. Grievance status ii. Appeal status
11	**Nodal PG Officers**: Information on central and state government Public Grievance Officers is available.	i. Central PG Officers ii. State Government PG Officer
12	**Nodal Authority for Appeal:** Information on appellate officers handling appeals is available.	i. Appellate officers
13	Mobile App	i. Download
B	**PG Interface**	
1	**Grievance:** Grievance statuses include new, under process, and reminders/clarifications.	i. New (pending for Initial Action) ii. Grievance Under Process iii. Reminder / Clarification
2	**Utilities:** Utilities include lodging/editing grievances, correspondence, forwarding, bulk closure, search, and updates.	i. Lodge physical Grievance ii. Edit Grievances iii. Correspondence letter (Beta) iv. Correspondence Letter v. Multiple Forwarding vi. Bulk Closure vii. Search Grievance viii. Manage PG officer ix. Update Final Reply x. Translate Text xi. Update Category xii. Withdraw closing Right
3	**Monitoring Desk:** The monitoring desk manages subordinate organizations, logins, grievance categories, and PG officers.	i. Manage Subordinate Organization ii. Subordinate login (usages) iii. Manage Grievance Category iv. Level Wise PG officer
4	**Reports:** Reports cover various metrics, including query-based, age-wise pendency, progress, feedback, category-wise, and VIP references.	i. Query Based Report ii. Age - wise pendency Report iii. Subordinate - age wise pendency report iv. Progress report v. Subordinate wise feedback Report vi. Category wise report vii. State wis Received report viii. Subordinate wise summary report ix. VIP reference Cases Report x. Grievance Feedback

Sr. No.	Functionalities	Sub Functionalities
		xi. Closed Grievance List xii. Disposal Type Report xiii. Monitoring Category Wise Report xiv. Age- wise Appeal Pendency xv. Urgent Grievance Report xvi. AI classification Report
5	**Appeal:** Appeals are categorized as pending or closed.	i. Pending Appeals ii. Closed Appeals
6	**Tree Dashboard:** The tree dashboard provides analytical reports.	i. Analytical reports that is generated by directing users to a separate website of DARPG.
7	**AI dashboard:** The AI dashboard offers AI-generated analytical reports.	i. AI Generated analytical report that is generated by directing users to a separate website of DARPG.
8	**Documentations:** Documentation includes user manuals, public grievances information, and CPGRAMS 7.0 walkthroughs.	i. User manuals ii. Public Grievances and CPGRAMS 7.0 iii. Walkthrough - CPGRAMS 7.0
9	What's New	i.List of updates
C	**Appellate Login**	
1	**Home:** The home section includes the nodal appellate authority desk, new appeals, forwarded appeals, and comments.	i. Nodal Appellate authority desk ii. New Appeals iii. Appeals forward iv. Comments Sought v. Reply received vi. Returned
2	**Sub Appellate Authority:** Sub Appellate Authority section provides account details for sub appellate officers.	i. Account details for Sub Appellate officers
3	Closed Appeal	i. List of closed appeals
4	**Reports:** Reports include progress reports, PG officer pendency reports, SAA age-wise pendency, and subordinate organization appeals.	i. Progress Reports ii. PG Officer Wise Pendency Reports iii. SAA Age Wise Pendency Reports iv. Subordinate Organization Wise Appeals Received v. Grievance Category Wise Appeals Received
D	**Dashboards**	
1	**CPGRAMS PG:** The CPGRAMS PG dashboard provides MIS	i. MIS Reports ii. Graphical analysis report

Sr. No.	Functionalities	Sub Functionalities
	reports and graphical analysis.	
2	**Tree Dashboard:** The tree dashboard offers trend analysis, comparison analysis, and MIS reports.	i. Trend Analysis ii. Comparison Analysis iii. MIS Reports
3	**IGMS Dashboard:** The IGMS dashboard includes AI categorization, trend analysis, and comparison analysis.	i. AI Categorization for anomalies ii. Trend Analysis iii. Comparison Analysis

Table 3: Functionalities of the existing system

3.2.1 Flow of existing system

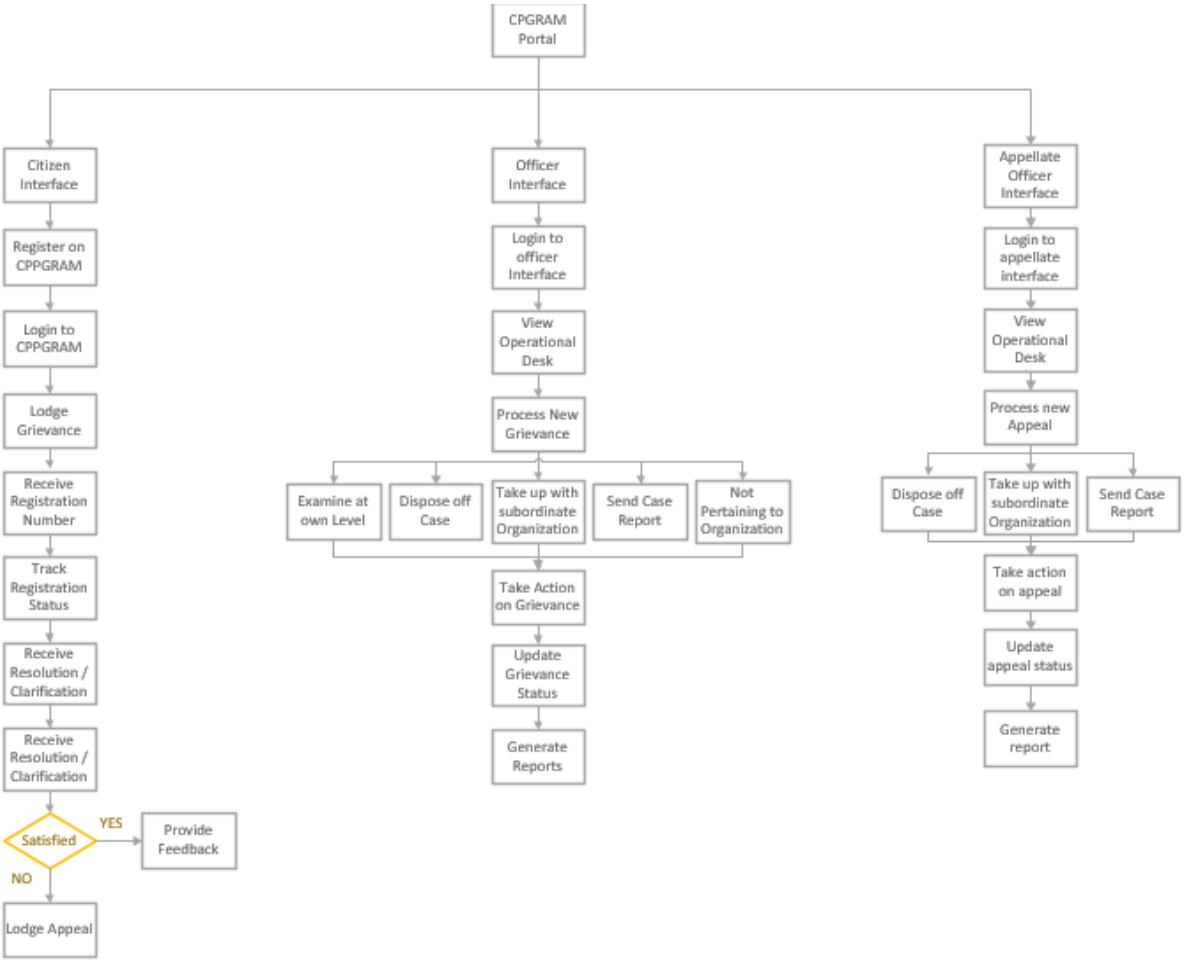


Figure 1: Existing CPGRAMS Workflow

(not showing the login of PMOPG, CPENGRAMS, Pres Secretariat, DPG)

3.3 Current Technology Landscape

The CPGRAMS portal is built using the Dot Net 4.5 framework (ASP.Net) and the MVC (Model-View-Controller) architecture for code organisation and system management. It is developed with the C# programming language and operates on Windows Server 2012 R2. Interactive features and integration are managed by jQuery and web services/APIs. The front-end interface uses JavaScript, HTML, and CSS. This tech stack enables CPGRAMS to handle a high volume of grievances, providing a platform for addressing user concerns.

SN	Component	Technology
1	Framework	Dot Net 4.5 (ASP.Net)
2	Architecture	MVC Architecture
3	Programming Language	C# Net
4	Server OS	Windows Server 2012 R2
5	Services	jQuery, Web services / API
6	Front End	Java Script, HTML, CSS

Table 4: Technology Stack – Existing CPGRAMS

SN	Components	Input
1	UNICODE enabled	Yes
2	Tech Stack	MVC.Net 5.2.8, MS SQL Server 2012
3	Brower independence	Yes
4	GIGW compliance	No
5	Compliant with Local Government Directory (LGD) for location codes	No
6	Comply with Naming e-Gov standards of MeitY	Up to some extent

SN	Hosting Environment	
1	Hosting Location	National Data Centre, Shastri Park, New Delhi

SN	Hosting Environment	
2	Number of VMs supporting operations	10
3	Supported by Cloud with automatic scaling of resources (VM, Memory, CPUs) or done manually	Memory and CPUs are dynamically allocated as per the allotted resources
4	Current Database size	822 GB
5	Growth rate of data size in Database in last one year	Approx 20%
6	Total number of registered users	27 Lakh Public Users, 74 thousand Active GROs
7	Average number of daily logins per day (Midnight to midnight)	Public User - 18,000 (for July 2024), GROs - 18,000 (for July 2024)
8	Maximum Concurrency on the portal during peak hours in last one year	Citizen - More than 10,000 per hour (July 2024)
9	DR Availability	Yes
10	Availability of replication servers to provide data to many other stakeholders (like for dashboard purpose)	Yes
11	Availability of staging servers to facilitate training etc	Yes

Table 5: Deployment Stack – Existing CPGRAMS

4 OVERVIEW OF NEXT-GEN CPGRAMS

4.1 Key Objectives

A. Architecture of Next Gen CPGRAMS

The primary goal of the NextGen CPGRAMS is to ensure a modular development architecture where components such as the Bhashini, App, Chatbot, WhatsApp will be independent modules

plugged into the core software platform. This core application shall interact with external licensed systems via APIs. Other components will be developed and integrated separately. Each of the independent modules will provide a different solution to an existing problem statement.

B. Problem Statements

Some of the problem statements to be solved at each stage of grievance filing are given in a flowchart below along with the name of the agent who is envisaged to solve them in the Next Gen CPGRAMS.

C. Sample regarding the Pre-Processing Problem Statement Stage

One of the problem statements was to devise an easier interface for a new user of CPGRAMS to navigate through complexity of the category/sub-category matrix of Ministries/Departments in the Central Secretariat.

DARPG had done a Proof of Concept for solving the issue of multiple category/ sub-category and found success with the use of LLM combined in a chat bot. Such an approach requires little or minimal training and can be used as a plugin to help the citizen register his grievance at the accurate level in CPGRAMS.

DARPG has requested Bhashini to own this interface so that the additional problem of language for a citizen is also solved by using Bhashini's readily available APIs for audio and text. Presently the scope of work of the application of DARPG has been given to Bhashini who will then select the knowledge partner who will implement this solution.

This solution will then act as a plugin to the next Generation of CPGRAMS. Use of LLMs and open-source APIs which talk with multiple databases may be required in this solution since DARPG has an additional requirement of segregation of grievance into suggestion/ Scheme Based Demand and Normal Grievance. The combination of such a system will be to ensure omni channel simple registration across languages.

D. Sample regarding the Analytics Stage

Similarly, for solving the issue of analytics of data, DARPG envisages the following. The Selected Agency should integrate a separate Dashboard and Analytics Unit. This unit should have the capability to receive the raw data from the core software on a real time basis with no latency. This data should be analysed through various dimensions and analytical reports to be prepared based on such analysis. There will be a team to be housed in DARPG which will develop a protocol for this analysis. The unit should ideally be able to use the services of an LLM, which is preferably hosted on their server.

The High-level flow of envisaged Nextgen CPGRAMS is given below:

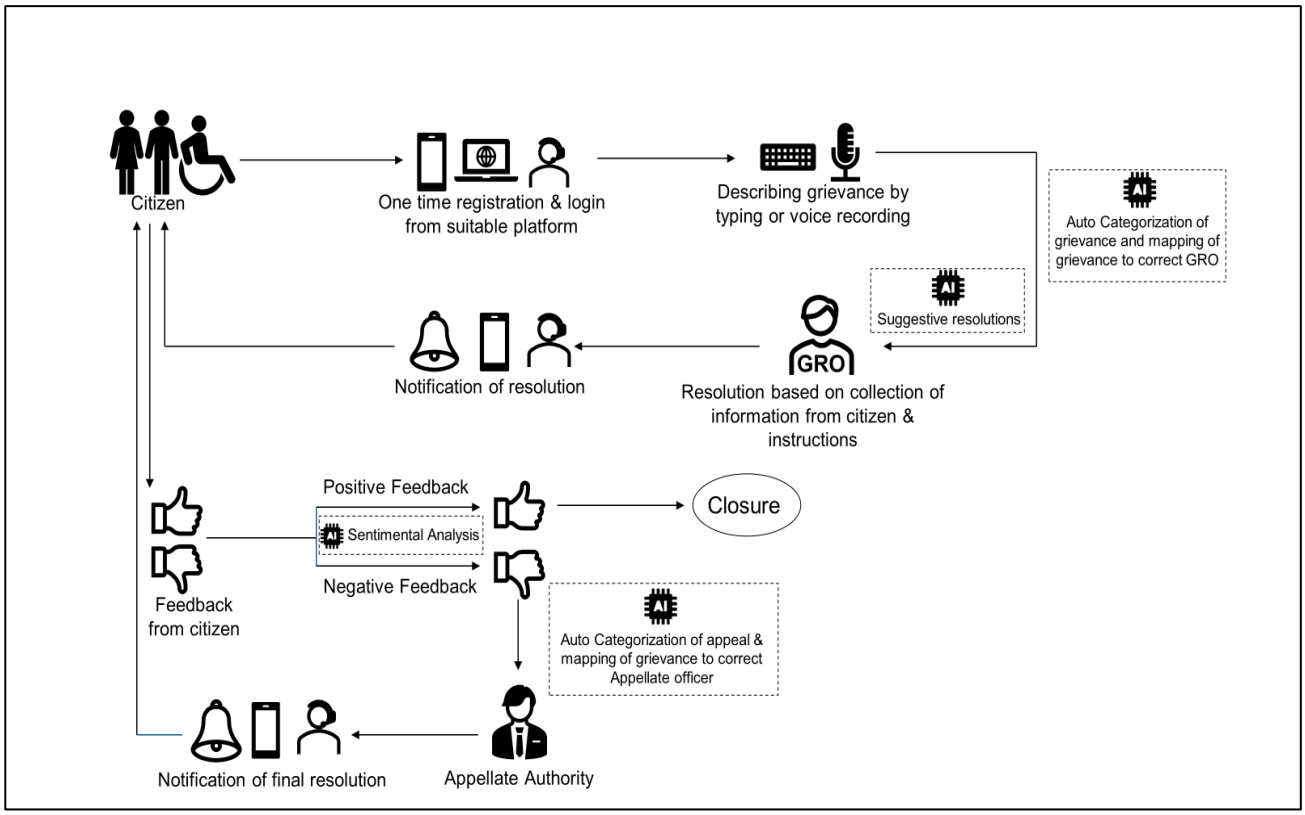


Figure 2: Envisaged NextGen-CPGRAMS Workflow

4.2 Features

The Next Gen CPGRAMS developed should have the following features:

A. High Accessibility

i. Support for multiple languages
ii. Accessibility through WhatsApp, SMS, web portals, mobile apps, and in-person options
iii. Text or voice-based grievance filing
iv. Conversational grievance filing experience to make it user-friendly (Demonstrated below)
v. Standardized flows to ensure consistent and comprehensive information collection

B. Automated pre-processing (to be done by Bhashini and facilitated by Selected Agency)

i. Rule-based categorization of queries, suggestions, and grievances
ii. Automated tagging, repeat identification, and allocation through AI integration

C. High-Quality processing

i. Interoperability with all intra/ inter-department systems through API linkages
ii. SLA and SOP-based interactions with other systems

D. Post-resolution analytics

i. Compliant with Open Telemetry guidelines
ii. Open APIs for grievance tracking, meta/aggregate data of grievances, and grievance data without PII
iii. Structured data trails for audits and reviews

E. Scalable and flexible module-based system architecture

i. Design to handle increasing volumes of grievances without loss of efficiency
ii. Modular architecture to allow easy integration of new features, solutions, and external integrations

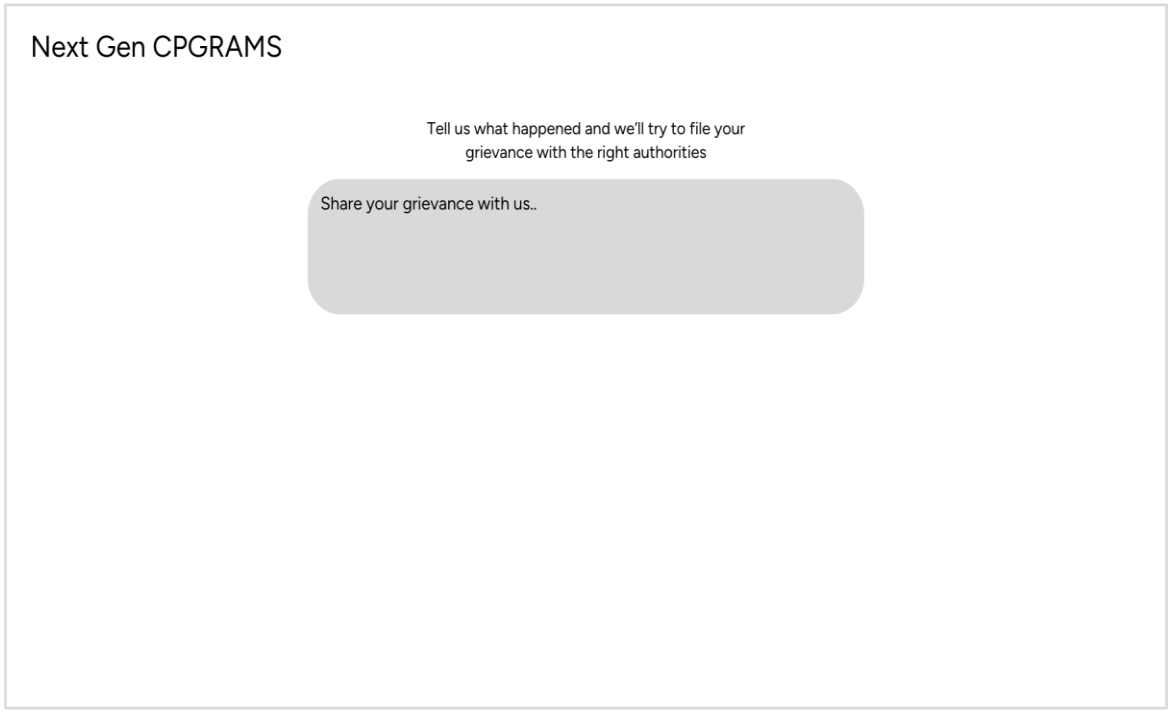
F. Standardized Filing Process

Current system requires people to first select the Ministry/Department, followed by the grievance category, and then allows the citizen to file their grievance. This process offloads the complexity of the system onto the citizen. The new system should have an intermediate step that allows citizens to share their grievances in text or speech, in their own language. The system should then use these initial utterances to establish where the grievance is filed. The system should be able to prompt the user with follow up questions if required to help it establish the right place to file. In case multiple possibilities exist, the platform can share a subset of its top 10 options with the citizen to make a choice of where to file. This system will dramatically improve the classification of grievances and reduce the instances of grievances going to the wrong department.

Some indicative Application Screens to show what filing could look like in its simplest form:

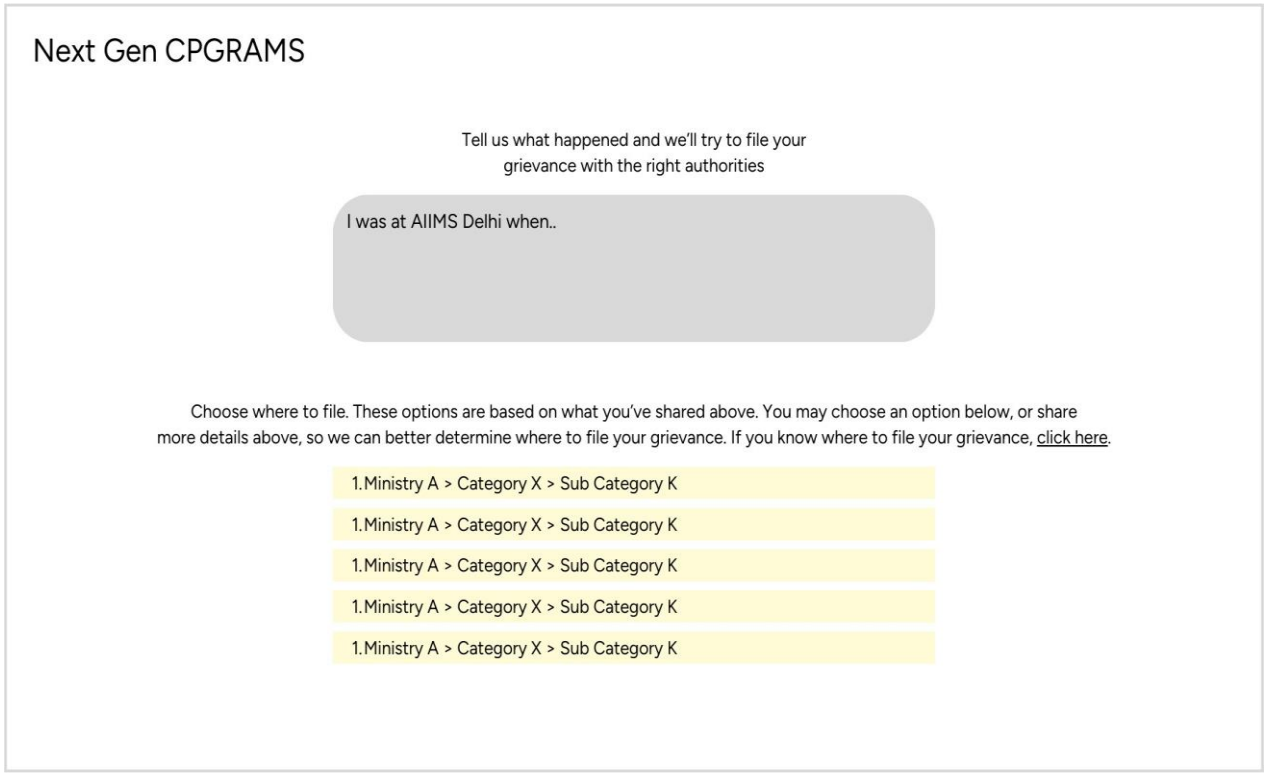
i. Screen 1:

Intermediate screen which is available in any language and allows for filing in any language. Platform onlyasks for grievance details and nothing else



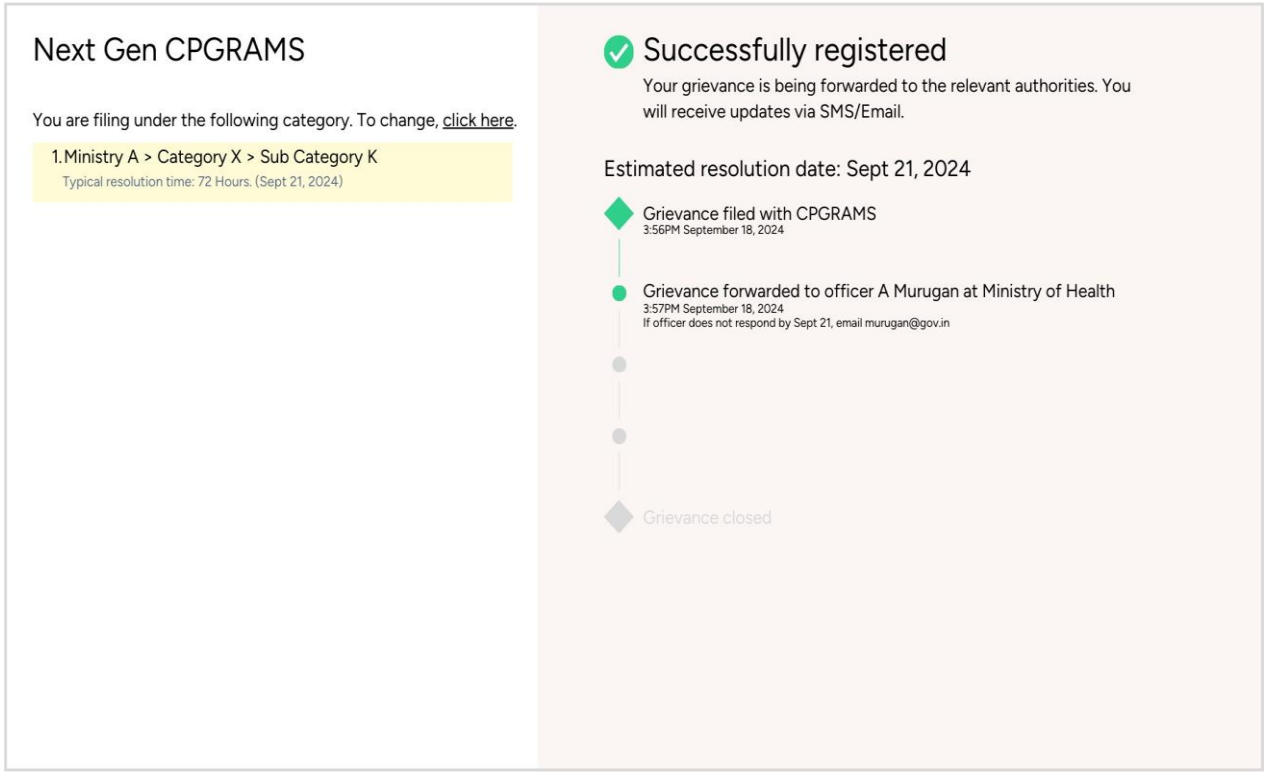
ii. Screen 2:

Based on what the user submits, CPGRAMS attempts to identify if the grievance belongs to a certain category. If the category returned is just one, then there's high confidence in the selection, and the process may be skipped. In the following screen we emulate what happens when there is not a lot of confidence, and possibilities may be more than 1. In this instance we reveal the top 5 potential categories and allow the citizen to make a potential choice.



Screen 3:

Once registration of grievance is complete, we offer transparency of the process back to the citizen, so they understand what is expected to happen after filing, and potential duration for resolution.



4.3 Responsibility of Selected Agency

The Selected Agency's responsibility is to deliver a robust, scalable, and modular Next-Gen CPGRAMS system that effectively integrates various external services while ensuring security, performance, and ongoing maintenance. They enable seamless API-driven communication between core and external modules, allowing flexibility for future expansions. The selected agency shall meet the below outlined Key Technical Requirements for NextGen CPGRAMS

A. End-to-End System Design & Development

B. Core System Development: The Selected Agency is responsible for developing the core CPGRAMS application based on the agreed architecture. DARPG may prescribe an open-source platform for building this architecture.

C. API Layer Management: Ensuring a well-designed API layer to expose core functionalities of the system, allowing seamless communication between internal and external services like Bhashini, WhatsApp-based tracking, or analytics dashboards is at the heart of this architecture. Some APIs that should be introduced in the new system are as follows:

D. Grievance filing API: This allows the potential for multi-modal filing of grievances. Organisations that already have large captive audiences can enable the ability for citizens to file grievances through different portal

E. Requirements for Grievance filing API:

i. Standardised Grievance Schema across all grievance categories with exceptions in the form of additional fields for certain grievances

ii. The filing API should not only allow for submitting fields in the structure that grievances are expected but should also expose the taxonomy of grievances under each department.

F. Grievance Agent API:

This API is made available to verified agents of CPGRAMs with the expertise to organise around certain categories of grievances. Some Organisations have created vast community-driven ecosystems that resolve grievances at hyper-local levels by effectively coordinating between the aggrieved citizens and government agencies. By enabling these organisations to work with CPGRAMs and forwarding certain kinds of grievances to these agents, CPGRAMs has the potential to strengthen its ability to address grievances, without investing in significant human resources on the ground.

G. Analytics API:

This API should enable access to grievance data, with PII redacted for processing by relevant LLMs if necessary. DARPG mandates that the LLM used for analytics API by the Selected Agency must host the GPU in the MeitY Empanelled or in

DARPG premises itself. DARPG mandates that the data for analytics should not be used by the LLM for training its own model and must be exclusively used for DARPG.

H. Grievance tracking API:

This API should be a part of the Grievance filing API and should enable the tracking status of a given grievance using a grievance ID or other unique identifier.

4.4 Note on Responsibility of Selected Agency

A. **External Service Stitching**: Integrating external services such as: Bhashini for language processing or chatbot features, Analytics tools to monitor, track, and visualize grievance data and WhatsApp API for status tracking and feedback collection are the responsibility of the Selected Agency.

B. **API Coordination**: Ensuring the APIs from these external services are properly integrated into the core CPGRAMS, managing authentication, data flows, and ensuring that all external services work in harmony are all also the responsibility of the Selected Agency.

C. **Modular Architecture**: The Selected Agency should build the system in a modular way so that each service (such as chatbot, analytics, or tracking features) is loosely coupled and independently scalable.

D. **Customization**: Adapting both the core platform and external services to specific government requirements, ensuring flexibility for future changes, upgrades, or new integrations (e.g., adding AI-based large language models for improved service delivery).

E. **Component Testing**: Ensuring that each external service is fully tested when integrated with the core CPGRAMS, including performance, security, and functional testing

F. **System-Wide Testing**: Conducting end-to-end testing to ensure smooth interaction between all modules and external services, focusing on error handling, latency, and scalability

G. **Security Audits:** Ensuring that all APIs and data exchanges comply with relevant data protection laws (e.g., India's IT Act), and ensuring a secure environment for the transmission of citizen data.

H. **Data Encryption**: Managing encryption protocols and securing communication between core systems and external services like Bhashini, to protect sensitive data

I. **Cloud Setup**: Deploying the CPGRAMS on MeitY empanelled cloud and ensuring scalability, high availability, and disaster recovery capabilities

J. **Hosting External Services**: Setting up MeitY empanelled cloud resources and environments for hosting the integrated services like Bhashini or analytics solutions,

if needed.

K. **Infrastructure Monitoring**: Continuously monitoring the infrastructure for performance bottlenecks, security threats, or downtime.

L. **Monitoring & Optimization**: Ensuring optimal performance of the overall system, especially when multiple external services are integrated. The Selected Agency must ensure that data flow between the core system and external modules is efficient and does not create latency or bottlenecks.

M. **Load Balancing & Scaling**: Ensuring that each integrated service can scale up based on user demand, without degrading system performance.

N. **Ongoing Maintenance**: The Selected Agency will be responsible for the long-term operation and maintenance of the entire system, including handling updates, bug fixes, and system optimization.

O. **Technical Helpdesk**: Providing technical support for system users, ensuring prompt resolution of issues, and maintaining a helpdesk for stakeholders.

P. **Training & Documentation**: Developing training materials and user documentation to support government staff and stakeholders in using and managing the Next-Gen CPGRAMS effectively.

Q. **Develop and implement all Future Enhancements & Upgrades**

R. **Enhancing Analytics Capabilities**: Continuously improving analytics and reporting capabilities by integrating new data insights and visualization tools based on feedback.

5 DETAILED SCOPE OF WORK FOR THE SELECTED AGENCY

5.1 Project Planning & Initiation

A. The Selected Agency shall develop a high-level agile plan in collaboration with DARPG within 1 weeks of the acceptance of the LOI that shall describe how all the elements of project management will work together to ensure that the entire scope and schedule will be managed holistically.

B. The Selected Agency shall develop detailed project plan for each assignment (as per the defined timelines in detailed project schedule).

C. The high-level plan shall contain at the minimum the following:

i. Description of Selected Agency’s organization with their proposed staffing, roles and responsibilities.

ii. Overall project organization and communication structure.

iii. Project monitoring and management tools to be used for successful monitoring & management of the project.

iv. Security and confidentiality practices in accordance with industry best practices to ensure the security and confidentiality of sensitive information, documents, records, software, data, reports, deliverables etc. handled during the entire project. It shall also address the succession planning with requisite checks, handover in case of employee replacement.

v. Project plans giving schedule wise details of various tasks, and subtasks, task completion timelines, dependencies, deliverables, milestones, resource deployment, meetings, reviews and information required from DARPG.

vi. Resource deployment plan indicating where the resource would be based during that phase, i.e. onsite at DARPG premises or offsite at Selected Agency's premises.

D. The Selected Agency shall also prepare and submit a project inception report, which will serve as the foundation document for all activities related to the project. Additionally, the inception report must cover the project risks that the Selected Agency anticipates and plans to propose towards the risk mitigation.

E. During project implementation, Selected Agency shall provide regular weekly/ fortnightly/ monthly/ progress reports to DARPG.

F. The Selected Agency shall identify the activities that require the participation of officials from DARPG including members of project monitoring Unit and communicate their time requirements and schedule early enough to ensure their full participation at the required time.

5.2 Resource Deployment

A. Selected agency shall have a dedicated and experienced development team for the development of applications and capturing client requirements at the client location during the project duration. Selected agency shall be responsible for regular technical discussions, requirement gathering managing infrastructure requirements, developing NextGen CPGRAMS, AI dashboards, and performing analytics. The onsite team will serve as the Single Point of Contact (SPOC) for the project, ensuring seamless communication, development, UAT facilitation, implementation, rollout, Dashboard and MIS development Data Management, Data Analysis, Report generation and other operational maintenance jobs of the NextGen CPGRAMS.

B. The onsite resources, in addition to the indicative tasks outlined in table 4, may also be engaged by the department in further enhancements to the NextGen CPGRAMS and its associated portal. They will perform detailed data analysis, derive insights, identify, and trigger actions based on data trends, and interpret data flows to identify associated risks, presenting these risks to the department. They will understand grievances in the context of departmental functions, identify underlying issues, address any problems, facilitate enhancements, and participate in discussions related to NextGen CPGRAMS. Additionally, they will generate, and present comprehensive reports related to NextGen CPGRAMS and its associated portal at the frequency as desired by the Department.

C. The Selected agency shall be responsible for sharing the list of all dedicated resources deployed (onsite and offsite development teams) for the development, management, and operations of the application.

D. The resources shall be deployed at the location provided by DARPG. All deployed resources must have their own laptop with internet connection.

E. The leaves of the deployed resources shall be approved by DRPG once requested by the selected agency.

F. The Selected agency shall also be required to share the escalation matrix along with the names of the project director and senior executives in the company with DARPG.

G. The potential deployed resources for deployment shall be interviewed by the concerned area professional at DARPG and approved once shall be deployed for work.

H. Minimum Qualifications of resources to be deployed at DARPG and the outline of their Roles and Responsibilities are given below:

SN	Profile	Location and Duration of Deployment	Qualification and Experience	Responsibilities
1.	Project Manager Resource ***Count: 1***	DARPG, Delhi From the 1st Milestone till the Project Duration	i. Graduation in Relevant stream ii. Minimum 12 years of experience iii. Must have project management experience of 3 IT implementation projects of State-Central-Government of India /PSU/PSBs/ Private Sectors iv. Preference will be given to the resources who have worked in relevant projects which involve use of AI in Analytics (Relevant documentary evidence of industry experience /Certifications.)	i. Act as the primary liaison between the department and the offshore development team. – Ensure project milestones and deliverables are met on time. ii. Manage and resolve any project-related issues. – Coordinate with the department and PMU during implementation and rollout. iii. Oversee ongoing project activities and ensure compliance with service level agreements (SLAs). iv. Manage communication between stakeholders and address any issues that arise. v. Provide strategic direction and support continuous improvement initiatives. vi. Any other Tasks assigned by the DARPG related to NextGen CPGRAMS

SN	Profile	Location and Duration of Deployment	Qualification and Experience	Responsibilities
2.	Senior Data Analyst /BI Analyst Resource ***Count: 1***	DARPG, Delhi Deployment within 30 days from the release of LOI till project duration	i. Graduation in Relevant stream ii. Minimum 10 years of experience iii. Must have experience in 2 projects involving Business Intelligence in State-Central-Government of India /PSU PSU/PSBs/ Private Sectors iv. Preference will be given to the resources who have worked in relevant projects which involve use of AI in Analytics (Relevant documentary evidence of industry experience /Certifications.)	i. Analyze the data generated from grievances. ii. Map data with government schemes to provide insights. iii. Perform data analytics and share insights with the departments. iv. Publish monthly reports based on dashboard analysis. v. Continuously monitor data quality and performance metrics. vi. Provide regular updates and insights to the department. vii. Identify trends and recommend improvements based on data analysis.
3.	Business Analyst 1 Resource ***Count: 1***	DARPG, Delhi From the 1st Milestone till	i. Minimum 8 years of experience ii. Must have experience in implementing 2 projects in State-Central-Government of India /PSU PSU/PSBs/	i. Facilitate discussions to understand the requirements thoroughly of NextGen CPGRAMS Dashboard. ii. Operation: - Ensure all business requirements are met. iii. Update documentation as needed.

SN	Profile	Location and Duration of Deployment	Qualification and Experience	Responsibilities
		project duration	Private Sectors related to large data management	iv. Provide support for any new requirements or changes. v. Continuous support in preparing report
4.	Business Analyst 2 Resource ***Count: 1***	DARPG, Delhi	i. Minimum 5 years of experience ii. Must have experience in implementation of 2 IT projects in State-Central-Government of India /PSU	i. Facilitate discussions to understand the requirements thoroughly of NextGen CPGRAMS Dashboard. ii. Operation: - Ensure all business requirements are met. iii. Update documentation as needed. iv. Provide support for any new requirements or changes. v. Continuous support in preparing report
5.	Policy Analyst Resource ***Count: 2***	DARPG, Delhi Deployment within 30 days from the release of LOI till	i. A degree in public policy/ Economics/ Mass Media with Minimum 2 years of experience ii. Must have experience in 2 projects in social Sector in India	i. Conduct social and economic analysis related to grievance data. - Provide insights on social implications of grievances. ii. Assist in the documentation and analysis process. iii. Continue to analyze social and economic impacts of grievance data.

SN	Profile	Location and Duration of Deployment	Qualification and Experience	Responsibilities
		project duration	iii. Published Reports/ Papers in reputed Journals	iv. Provide ongoing insights and recommendations.
6.	Data Scientist Resource ***Count: 1***	DARPG, Delhi Deployment within 30 days from the release of LOI till project duration	i. Minimum 8 years of experience ii. Must have experience in 2 projects involving development and deployment of data dashboards and reporting solutions. iii. 1 Project involving the analysis of large-scale data sets to derive insights for policymaking and service improvements.	i. Perform detailed data analysis and generate insights. ii. Map grievance data with relevant metrics and government schemes. iii. Support the creation of detailed reports and dashboards. iv. Maintain and update data reports and dashboards. v. Provide ongoing data analysis and insights.
7.	Data Analyst/MIS Expert	DARPG, Delhi	i. Minimum 5 years of experience ii. Must have experience in 2	i. Perform detailed data analysis and generate insights. ii. Map grievance data with

SN	Profile	Location and Duration of Deployment	Qualification and Experience	Responsibilities
	Resource ***Count: 1***	Deployment within 30 days from the release of LOI till project duration	projects involving development and deployment of data dashboards and reporting solutions. iii. 1 Project involving statistical and analytical tools	relevant metrics and government schemes. iii. Support the creation of detailed reports and dashboards. iv. Maintain and update data reports and dashboards. v. Provide ongoing data analysis and insights.
8.	ICT Infra Expert/Cloud Expert Resource ***Count: 1***	DARPG, Delhi From the 1st Milestone till the Project Duration	i. Graduate in relevant stream ii. Minimum 7 years of experience in managing Cloud deployments and managed the cloud operations iii. Minimum 2 Projects involving Deployment of applications and large database on Cloud environment	i. Ensure the ICT infrastructure supports the implementation and rollout. ii. Address any technical issues related to infrastructure. iii. Support the technical needs of the project. iv. Maintain and monitor ICT- DC-DR- Database infrastructure. v. Address technical issues promptly. vi. Ensure the system's cloud infrastructure remains robust and secure.

Table 6: Resource deployment and Responsibility Allocation

A. The key manpower resources (09) deployed by Selected Agency shall necessarily be on direct payroll of the bidder organization (or its consortium member) and shall not be outsourced / sub-contracted in any circumstances.

B. During the tenure of project, if any key manpower resource (out of total 09) does not meet the minimum qualification & experience prescribed as per Technical Evaluation criteria, will not be considered for the deployment. Attendance of such resource shall be marked 'absent' till date the compliance is achieved by Selected agency.

C. Selected agency shall deploy an onsite dedicated teams with no additional responsibility of any other project.

D. There will be 18 days leave for every key manpower resource in a calendar year with due permission of designated authority of the DARPG. Selected agency will ensure proper replacement during the period of leave (beyond 18 days of allocated leaves) of a manpower resource. The DARPG will not be liable to pay any additional cost for such replacements.

E. All 9 key resources whose CV have been shortlisted shall be deployed fulltime at DARPG's office during tenure of project.

F. The replacement of key resources by the DARPG after deployment will be allowed only in case, the resource leaves the bidders' organization by submitting resignation with the present employer / death / due to poor health condition (supported by certificate issued by a doctor) etc., and new resource meets the criteria of former resource. Selected Agency will deploy new resource in replacement before one month of leaving of existing resource to hand-over its charge and proper knowledge transfer to successor and with due acknowledgement of designated authority of the DARPG. In case of failure to meet the requisite conditions of replacement or proper knowledge transfer, the attendance of new resource shall be marked 'absent' till date the compliance is achieved by Selected agency.

G. In case of failure to meet the standards of the DARPG (which includes efficiency, cooperation, discipline, and performance), the purchase may ask the bidder to replace the resource.

5.3 Infrastructure Assessment

A. The selected agency shall be responsible for deploying, commissioning, implementing and maintaining the entire NextGen CPGRAMS with all integrated features on MeitY Empanelled cloud. For this purpose, the selected agency shall be responsible for infrastructure sizing as proposed in the RFP.
B. The selected agency must adhere to the all the features of the MeitY Cloud Service Provider as depicted in the RFP. The agency shall submit a detailed compliance report accommodating all the features & functionalities.
C. The selected agency shall perform the detailed assessment of the envisaged NextGen CPGRAMS and assess the infrastructure requirements on cloud (including servers, storage, networking security etc.) for operationalization of the solution and to provide the services in conformance with the SLA described in the RFP.

D. The selected agency shall be responsible for sizing the hardware to support the scalability and performance requirements of the solution. The selected agency shall ensure that the servers are sized adequately and redundancy towards high availability of all components is built into the architecture and meets the requirements of service levels as mentioned in the RFP.

5.4 Design, Development and Implementation of Next Gen CPGRAMS

5.4.1 Requirement Gathering & System Study

A. The selected agency will be responsible to carry-out a brief requirement study for understanding the business processes and functional requirements of the DARPG.
B. The requirement study shall include the following:
   i. Reviewing the existing systems, processes, and existing application software
   ii. Conducting a detailed assessment of the functional, technical, and operational requirements.
   iii. Identify the core application modules/sub-modules proposed to be implemented/ developed and rolled out under this project.
   iv. The Selected Agency shall conduct the study of the existing IT systems for the exact requirement of interfacing/ integration from the existing legacy applications.
C. The agency shall be responsible for maintenance of Requirement Traceability Matrix to demonstrate compliance with requirements and specifications as mentioned in the RFP. This will be a live document throughout the project, and agency's team shall update the document to reflect the compliance at every stage.

NOTE: *The business and the functional requirement of the envisaged system is annexed in section 9.1 of this RFP. The agency shall validate the same within the timeframe and deliver the Solution within two months for launch of pilot from the date of issue of LOI. The agency has the discretion to determine the team size necessary for the timely delivery of the solution.*

5.4.2 System Design Document

A. Based on the comprehensive study of the solution functional & technical requirements, the Selected Agency may be asked to prepare the software requirements specification (SRS) document.
B. The agency shall ensure that the SRS documentation is happening in parallel with the development
C. The Selected Agency shall perform business process re-engineering of all processes along with purchaser and PMU.
D. As part of the preparation of the SRS, the Selected Agency shall also be responsible for preparing and submitting a detailed system design document as per the IEEE or equivalent standards.
E. The Selected Agency shall be responsible for preparing a High-Level Design & Low-Level Design documents for explaining the overall system architecture framework and

integration mechanism along with component level design process used for designing the data structures, software architecture, source code and performance algorithms.

F. The DARPG reserves the right to drop, add or modify the functional requirements to the extent that it is in line with the broad scope of the project. DARPG may also change the sequence of tasks and activities of certain modules to suit the needs of DARPG or the project.
G. The Selected Agency shall be responsible to update the detailed system design document and the SRS as and when any enhancements/ modifications are made to the overall solution to ensure that the documentation is updated at all times for the entire duration of the contract.

5.4.3 Solution Design & Development

A. During Development support the agency shall be required to design an integrated solution architecture to deliver the business and functional requirements of DARPG.
B. The solution (core application) designed shall have seamless integration among all the components of the envisaged solution including but not limited to the dashboard developed by the selected agency, and other AI features (AI chatbot, rule engine for auto-routing, mapping, grouping and bunching of grievances and WhatsApp) that will be provided by DARPG. The solution design shall include, but shall not be limited to, the design of the application architecture, user interface, database structures, security architecture, network architecture, deployment architecture, UML diagrams, UI, database schema etc. The principles of service-oriented architecture (SOA) shall be followed while designing the systems.
C. The agency after analysing the technical solution requirements and solution design, can decide the approach for development for the envisaged solution architecture.
D. The agency shall have the overall responsibility for development/ customization, integration, testing and rollout of all the components of the project.
E. The agency shall deploy and configure an appropriate role-based user access management system and configure authentication-based access for various users of the system.
F. The agency shall ensure that the data model, interface designs, and other components are designed as per industry standards and best practices.
G. The agency shall ensure that the architecture is scalable (which caters to increasing load of internal and external users and their transactions) and capable of delivering high performance for the entire duration of the project. In this context, it is required that the application and deployment architecture shall provide for Scale-Up and Scale-Out on the Application and Web Servers, Database Servers and all other solution components.
H. The system design must be such that the developed solution is technology neutral and can be deployed and hosted on Cloud from MeitY Empanelled Cloud Service Providers (CSPs).
I. The design must be such that requires minimal installation, if at all, at the user's end, besides the Internet Browser (except where offline desktop/mobile apps are to be mandated). The system shall be able to support all common desktop & mobile browsers (like Internet Explorer, Mozilla, Chrome, etc.) and Mobile App compatible with Smart Phones and Tablets.

J. The agency shall ensure consultation with DARPG officials for finalizing of design components including the UI, the mode of data entry, storage and retrieval, MIS reports, queries and the overall application design.
K. The agency shall design the Frontend and Backend portals (or integrated portal), wherever necessary. This shall include design and hosting of the DPG Portal interface, the Office Portal of DPG, The PMO PG Portal and the President Secretariat Portal, and the CPENGRAMS portal.
L. The selected agency shall ensure the office module of DARPG, DPG, DoPPW, PMOPG & President Secretariat.
M. The agency shall be responsible for enabling all the functional requirements and processes (refer to FRS Section 9.1 of this RFP)
N. As part of the implementation of the data processing solution, the agency shall design a data integration strategy for integrating internal and external data sources (if any).
O. The agency shall develop a design monitoring system to support reconciliation of data.
P. The agency while implementing a data warehouse solution, shall carry out all the related tasks, including the following:
    i. Design and develop the data warehouse data model to fulfil the functional requirements of the DARPG and provide a comprehensive view of the entire CPGRAMS.

    ii. Design and develop Data Warehouse structure consisting of the physical data warehouse, logical data warehouse, data marts etc.

    iii. Ensure the data integrity & consistency is always maintained

    iv. Depending on the requirement ensure storage of documents and images like; PAN/ Aadhaar/ NOC/ authorization certificates/ etc.

Q. The agency shall adhere to the data archival, retention, disposal, and backup policy of DARPG and plan the data archival & back-up provision accordingly.

R. The Agency shall ensure that the developed solution should have capabilities for seamless integration with other Grievance portals of Ministry, Departments, State Govt Portals, Corporations, PSUS, Autonomous bodies, and regulatory authorities and other Portals as desired by the Department

S. The agency shall prepare a business continuity plan for ensuring uninterrupted services of the solution.

T. The agency shall be responsible for rationalizing and standardizing all the DARPG forms.

U. The agency shall ensure that future upgrades, enhancements and bug fixes are not impacted. Every custom development must be documented in detail and the code/script shall be properly annotated with comments etc.

V. The agency must deploy a software development methodology that ensures rapid deployment of the applications in such a way that the users are continually involved in the development process, and minimum iterations are required before the final Go-live of the integrated solution.

W. From the integration perspective, the agency must consider necessary interfacing requirements (both at the application and data level). Appropriate interfaces must be provided for seamless integration. Such interfaces shall follow industry standards such as web services. If such a need arises, the Selected Agency shall be responsible for creating such a required web service or API, etc. for the same. This includes, but not limited to, the integration with the Department Applications or any other external Departments Or any State applications.

X. The system shall include a centralised cockpit for seamless orchestration of complaints across all central ministries (54 approx.) and their aligned departments (94 approx.), State departments ensuring efficient management and resolution of grievances.

Y. AI-driven mapping of complaints to relevant departments based on the nature of the complaint shall be included to ensure that grievances are directed to the appropriate authorities swiftly and accurately. An auto-mapping feature shall be integrated to automatically match complaints with the relevant departments based on the keywords and context provided in the complaint text, utilising AI algorithms for precise mapping.

Z. The core application/solution to be developed by the selected agency for NextGen CPGRAMS shall include advanced features leveraging emerging technologies. The solution must provide suggestive resolutions based on insights from past grievances and enable auto-population of Action Taken Reports (ATRs). It should also support OCR conversion of paper-based grievances in various Indian languages, translating them into the desired Indian language. Additionally, the system must summarize and present a self-explanatory gist of long and detailed grievances, including letter-based grievances. The complainant shall have the option to view and confirm the summarized version of their grievance, and the Grievance Redressal Officer (GRO)/Appellate should be able to view the same on their interface.

AA. A solution suggestion engine shall recommend solutions based on past resolutions for similar complaints, leveraging historical data to provide quick and effective resolutions.

BB. The system will allow grievances to be lodged through external applications and portals using API integrations, ensuring seamless interaction with various platforms.

CC. A user-friendly citizen interface will be integrated with external solutions, such as Bhashini, enabling grievance lodging.

DD. The system will automatically categorise grievances lodged through the interface.

EE. A clear user journey for grievance submission and tracking will be provided.

FF. The GRO interface will incorporate large language models (LLMs) for automatic categorisation of grievances by type, priority, and scheme.

GG. The interface will support validation of the categorisation process to ensure accuracy.

HH. The system will feature a centralised dashboard capable of analysing different data formats, including text, PDFs (both typed and handwritten), and photographs.

II. A comprehensive list of ministries and sub-departments with mapped responsibilities shall be created. This list will include keywords and phrases to enable accurate mapping of complaints to the appropriate departments.

JJ. Advanced language models shall be implemented to understand and categorise complaint text effectively. The system shall include classification and recommendation models to enhance the accuracy of complaint handling.

KK. A recommendation engine shall be developed, incorporating a solution database, similarity algorithms, and solution suggestions to provide relevant and efficient resolutions to complaints.

LL. User interaction and admin dashboard tools shall be integrated into the system, including a chatbot for seamless user communication and a control panel for administrators to monitor and manage complaints effectively.

MM. The system design shall ensure that developed solutions are technology-neutral, supporting all common desktop and mobile browsers. Additionally, the system shall be compatible with mobile apps for smartphones and tablets, ensuring accessibility and convenience for all users.

NN. Since the policy is formed every year, the system shall be designed in such a way that it can accommodate those alterations/modifications with minimal efforts. The Selected Agency shall incorporate the changes and modifications (instructed by DARPG basis the administrative and policy defined changes) in the Nextgen CPGRAMS at no additional cost during the project duration.

OO. The agency for NextGen CPGRAMS shall develop a modular microservices-based system on open source ensuring scalable, secure, and independent service management. The system shall support the layers of India Stack, bringing useful and applicable features as and when required for seamless grievance management.

PP. The development shall leverage open-source technologies for NextGen CPGRAMS to enhance flexibility, innovation, and cost-effectiveness.

QQ. The selected agency shall be responsible to **use an open-source platform** to develop and implement the NextGen CPGRAMS system, incorporating all components outlined in the scope of work.

5.4.4 Software Warranty

A. Agency hereby grants the DARPG, license to access all the software provided under the scope of this RFP, including all inventions, designs, and marks embodied in the Software.
B. The comprehensive Onsite Warranty covering all updates, upgrades of software, maintenance or support for its proper operation, performance and output as specified in the RFP technical specifications for prescribed period.(in case of extension) from the date of acceptance by the purchaser.

5.5 Design, Development and Implementation of Next Gen CPGRAMS Smart Dashboard and Analytics

i. The selected agency will be responsible for establishing a comprehensive data lake/Lakehouse and analytics platform that will serve as the central repository for grievance-related data, reporting, dashboards, and advanced analytics for DARPG. This platform will act as a single source of truth for all grievance data and must deliver outputs in various formats, including but not limited to APIs, HTML, PDF, and CSV.

ii. The platform will be required to handle structured data from core systems such as NextGen CPGRAMS, CPENGRAMS-Pension Portal, President Secretariat Portal, DPG Portal Prime Minister Office Public Grievances (PMO-PG), State Grievance portals etc. as well as semi-structured data (such as clickstream data from web and mobile applications) and unstructured data (such as digital documents, call records, images, etc.). Furthermore, the platform must be capable of integrating relevant third-party data to enhance data enrichment and insights.

iii. The data ingestion process must support batch, real-time, and event-driven data ingestion, with both full and incremental data loads. The agency will be responsible for implementing data transformation and processing tools that can efficiently manage and transform diverse data formats. Data governance tools must be provided to ensure quality control and comprehensive metadata management, including technical metadata (transformations, mappings, schemas), business metadata (definitions, business context), and usage metadata (access patterns, grievance trends).

iv. The platform must be designed to meet the specific requirements of NextGen CPGRAMS, generating outputs such as grievance masters, citizen360, department360, and etc. The data marts to support detailed reporting, analytics, and operational efficiency. These outputs will be made available in multiple formats, including APIs, HTML, PDF, CSV, etc., for integration with front-end applications.

v. The agency's scope will encompass the implementation, rollout, ongoing support, and maintenance of the platform for a prescribed period, as outlined in the RFP document. The appointed agency must demonstrate proven experience and expertise in developing and deploying data, analytics, and reporting solutions in similar domains.

vi. The agency will be responsible to develop a centralised dashboard capable of analysing different data formats, including text, PDFs (both typed and handwritten),

and photographs. LLMs will be used in the dashboard for intuitive root cause analysis and identification of problem areas. A natural language search feature will be available for easier access to information within the dashboard.

The scope of work covers the following:

A. **Data lake / Lakehouse platform:** Install suitable software and infrastructure components and build an end-to-end, conceptual ―Lakehouse‖ platform. This will include:

i. Establish processes for importing structured data (such as grievance records, case details, and citizen/user profiles) from both internal systems and external sources, supporting both real-time and batch updates. Similarly, set up mechanisms to handle semi-structured data (like JSON, XML, and clickstream data) and unstructured data (including complaint documents, email correspondences, and voice recordings), ensuring integration from diverse internal and external platforms in real-time and batch modes.
ii. Develop and manage ETL/ELT workflows to transform grievance data effectively. Design and build various data repositories including raw data stores, processed data stores, and a centralized grievance data warehouse or Lakehouse. Implement data marts and provide robust data services and APIs to facilitate data access and integration.
iii. The selected Agency shall deploy an LLM as deemed fit for supporting query-based analysis and support in pro-active monitoring with real time dashboards and alerts in case of new or unique data generated through grievances received, processing, resolution, appeal, etc. phases.
iv. Implement a comprehensive data governance framework encompassing data quality management, metadata management, and the creation of a data catalog. Develop data lineage to track and document data transformations and origins.
v. Develop and maintain master data services for core entities such as grievance records and customer profiles. Provide APIs for these master data services to enable seamless integration and access by other applications.
vi. There should be an auto provisioning (Availability & Destruction) of resources driven by Demand for making it real sense cloud based whether for Virtual Machines or storage or compute power.

B. Analytics and BI: Install and implement suitable software and hardware components to establish state of the art analytics and BI platform. This will include:

i. Development of advanced analytics and AI/ML models for predictive insights, utilizing machine learning, deep learning, and other appropriate methods.
ii. Implementation of an architecture capable of supporting both real-time and batch-mode analytics services.
iii. Creation of comprehensive reports, MIS, and dashboards, covering regulatory, operational, and Stake holder’s needs.
iv. Provision of ad-hoc reporting functionality to facilitate self-service for key users.

C. Maintenance and Support: Maintenance and support of the platform up to a period for Project Duration. This will include:

i. Necessary updates to the platform,
ii. Possible inclusion of new data sources,
iii. Development of new analytical models and updates to existing ones,
iv. Creation of new reports and dashboards, as well as modifications to current ones.

The scope outlines the requirements for a technology solution, including data repositories, analytical models, and dashboards. DARPG may adjust the scope as needed based on evolving requirements and conditions. The solution must support future technology upgrades and be cross-functional, providing easy-to-use services. It should be offered as a managed Service, with the Selected agency responsible for development, operation, and maintenance.

D. The Dashboard application shall have inbuilt analytics capability and able to generate user friendly MIS reports, Graphical reports etc. in customized and standard form. The following types of reports, but not limited to, are required to be generated from this sub module. The report shall be generated in standard formats like MS Word, MS Excel, Adobe Acrobat files etc.:

i. **Fixed Format Reports:** Application shall have robust reporting capability, and shall be able to generate in multiple formats including XML, MS Word, MS Excel, Adobe Acrobat files etc. The output shall be delivered through email or shall be printed.
ii. **Ad-hoc Reports:** Application shall provide ad hoc query and analysis capability so that business users could create new analyses from scratch or modify existing analyses.
iii. Tools and utilities shall be provided to facilitate design layout using MS Word, MS Excel, Adobe Acrobat etc.
iv. System shall allow user to generate MIS reports/previous trends/graphics etc. as per the business process requirements. They shall be customizable as per user requirements.

E. The application shall provide dynamic dashboards to all end-users. The layout and content of the dashboard would be based on the user role/ category/ type etc.

F. The application shall periodically and automatically save the data entered by the user into the system during a live session and shall make the data available to the user as intermediate save even after expiry of the session. System shall prompt the user regarding availability of intermediate/ draft data and ask for the permission to save or discard this data.

G. The application shall display data according to user profile/ access rights.

H. The application shall provide functionality to users in generating customized reports on their own without having knowledge about technical programming.

I. Any document or report shall be previewed before printing.

5.6 Development of mobile applications

A. The SI may also be asked to design, development, implementation, and Go-Live of the following two mobile applications as and when required by DARPG.

B. Application for Admin/DARPGs/Associate Ministers/ Departments

i. All the features available on the NextGen CPGRAMS and its ancillaries for the Admin/Department shall be made available on the mobile application.
ii. Mobile Application that enables to manage the NextGen CPGRAMS and are designed to track, Respond Grievances. Designated officers can manage all operations in real-time and their entire field operation from any Android or iOS based smart phone.
iii. Access the relevant dashboards.

C. Application for Citizens/Consumers

i. Application for citizens can raise and track their Grievance and Appeal.

D. SI shall ensure that the mobile applications can seamlessly access the database of NextGen CPGRAMS application.

E. The Mobile Application would have to be uploaded on the following:

i. Apple app store
ii. Google play store

F. Mobile App shall be native, responsive, dynamic, online and robust which is to be supported on smart mobile phones and tablets with o/s such as Android and iOS including future versions of the mentioned O/S.

Sr. No.	Platform Support	OS Version	Display Orientation	Display Support
1	Android	Latest Version available	Portrait and Landscape both	(426 x 320 dp.) and above for android phones and tabs
2	iOS	iOS 7 and above (Latest Version available)	Portrait and Landscape both	(480 x 320) and above iPhone

Table 4: Mobile Application Specifications

G. SI shall be responsible for maintaining the mobile applications till the tenure of this agreement/project.

H. Application shall be designed in a way that it is easy to use and navigate with beautiful UX and UI

I. Application Code, Web API's, and the deployment document shall be shared with the department post deployment and launch of the application

J. Technical documentation of design and development stages of mobile application, database, complete source code of mobile application shall also be shared with the department.

K. SI shall design the application which has Portrait and landscape display orientations.

L. SI shall provide regular App Analytics, reports, vital statistics and analysis of applications with the department.

M. The application shall support multi-lingual (English and Hindi) feature

N. SI shall ensure that the mobile apps are designed to send alerts to the user to download the latest version, whenever available.

O. The mobile applications shall work in all networks irrespective of mobile device make and model.

P. The SI shall also have a provision in the application, for the access to Geolocation information in case the mobile device supports it.

Q. The solution developed by SI shall not be a responsive website solution. Native development is preferred from SI, but hybrid cross platform development can also be considered.

R. SI shall provide support 24*7 for mobile application related issues.

S. SI to provide application customization and upgrade.

T. The Intellectual Property Rights of the application shall rest with DARPG.

U. The SI shall provide the source code of the application to DARPG at the time of sign-off.

V. DARPG shall have the copyright to the design and content of the mobile application with all programmes, including those meant for statistical reporting, graphics and content developed to achieve the desired functionality.

5.7 Acceptance Test

At the discretion of the DARPG, acceptance test shall be coordinated and conducted by the selected agency in the presence of the officials of the DARPG & PMU.

A. The tests shall check for trouble-free operation of the complete system with successful usage of Nextgen CPGRAMS apart from physical verification and testing. There shall not be any additional charges payable by the DARPG for carrying out this acceptance test.

B. The selected agency will submit the testing report to the PMU following the successful completion of the acceptance test for further review and approval by DARPG.

5.8 Application Hosting on Cloud Services

A. Selected agency shall be responsible for hosting the entire NextGen CPGRAMS with all integrations and all ancillary in-scope applications on MeitY Empaneled Cloud.

B. In no case, selected agency shall host the application on cloud other than MeitY Empaneled.

C. Selected agency shall be responsible for installation of all the software required for the successful hosting of the Nextgen CPGRMAS and all ancillary in-scope applications.

D. The selected agency shall formulate an effective Backup Strategy and Disaster Recovery Plan and obtain sign-off from PMU & DARPG. The agency will be responsible for the implementation of the approved Backup and Disaster Recovery Plan. Additionally, the selected agency will be responsible for determining the cloud infrastructure requirements, deploying the MeitY Empaneled cloud infrastructure for NextGen CPGRAMS, and its ancillary applications, ensuring support for all processes with the DC-DR and Near DR setup.

E. The Selected agency shall ensure that both the Disaster Recovery (DR) site and the primary Data Centre (DC) operate with 100% compute capacity to support seamless failover and uninterrupted operations in active-active mode. The database storage capacity at the DR site must match 100% of the DC's capacity to enable full real-time replication and data recovery. The responsibility for all necessary software, licenses, and replication links for DR operations will rest with the selected agency.

F. The Selected agency shall ensure that the Near Disaster Recovery (Near DR) site maintains at least 75% compute capacity of the DC to support operational redundancy. The database storage at the Near DR must also be 100% of the DC's capacity to ensure real-time, synchronous replication. The agency will be responsible for managing the necessary software, licenses, and replication infrastructure for the Near DR site. The Near DR must maintain the required software, licenses (if any) and replication infrastructure which will be managed by the selected agency. The RPO for the Near DR must be 5 minutes or less, with an RTO of under 30 minutes, ensuring real-time, synchronous data replication between the DC and Near DR.

G. The Selected agency to adhere to the Govt. policies for data security, data back-up and data retention. The Selected agency to also adhere all industry best practices

security guidelines and MeitY & CERT-IN security guidelines, polices, controls & advisories releases on time to time.

H. Hosting Services

i. Selected Agency shall ensure the data replication on DR site must be on real time basis.

ii. The integration of Cloud DC-DR shall be responsibility of Selected Agency for seamless flow of data.

iii. Selected Agency to adhere to the policies for data security, data back-up and data retention. Selected Agency to also adhere all industry best practices security guidelines and MeitY & CERT-IN security guidelines, polices, controls & advisories releases on time to time.

iv. The Cloud, where the newly developed system shall be hosted should comply with the SLA requirements as provided in this RFP document, shall have following capabilities:

a) **Scalability:** The configuration of the Cloud is expected to have adequate upgrade capability in terms of processors, RAM, disk storage etc. which should be achievable with minimum disruptions to running system/ processes and no additional cost to the DARPG. Also, for any software upgrades, updates, patches etc. released by the various product owner/OEM, the Cloud should be capable to implement the same seamlessly as and when it gets released by the application owner/OEM with no additional cost to DARPG.

b) **Reliability:** The Cloud shall be reliable to comply with the SLA requirements provided in this RFP document and there shall not be any outages. Cloud platform shall always run in redundancy/High Availability so that in case of any outage system shall automatically switch to the available servers.

c) **Security:** The Cloud shall have highest level of security features against both physical as well as cyber threats.

d) **Backup:** Appropriate archiving system (i.e., SAN, tape library, optical backup equipment or better alternative etc.) to be available on Cloud. In the event of serious failure, backed up data must be restored in quickest time to ensure continuity of the services.

I. The Selected Agency shall formulate an effective Back-up Strategy and Disaster Recovery Plan and take sign-off from DARPG. Selected agency shall be responsible for the implementation of approved Back-up and Disaster Recovery plan.

J. During any outage, DRC shall become the primary site, and 100% data recovery shall be ensured.

K. The specification of the servers shall be designed to ensure high availability of servers. All the major servers shall be configured in such a way that there is no single point of failure. In case there is any requirement of application specific server at any point of time, the supplier shall be required to provide the same also without any additional cost to the DARPG.

L. The cloud platform must provide comprehensive AI/ML services, including fully managed machine learning model development, training, deployment, and integrated AI tools for advanced analytics, predictive modeling, and automation, specifically with access to specialized infrastructure. The platform should also support custom hardware accelerators for deep learning workloads.

M. The Cloud platform should have functionality of Dashboard-Console-Panel, for creating Server-Snapshots.

N. We should be able to recreate server instances from such snapshots through Console-Panel & APIs

O. Cloud platforms shall provide sufficient capacity in terms of data processing, data storage and network bandwidth to handle the overall load and traffic coming to the application without compromising the overall performance of the system.

P. Selected Agency shall consider Y-o-Y data growth pertaining to grievance registration, lodging, and processing with user accommodation.

Q. It shall be the responsibility of Selected Agency to prepare the specification for Cloud i.e., CPUs, RAM, storage, required software, other equipment, and the network requirements for running the application efficiently. Whatever infrastructure is needed shall be clearly accounted in the bid document. Selected Agency shall provision all the servers (development, test, staging and production) on cloud.

R. Appropriate redundancies shall be built in the IT infrastructure as per standard industry practices. The cost of Cloud shall also include cost of Disaster Recovery (DR) site as well.

S. The selected agency shall also ensure that the hosting services shall be portable to another CSP without any changes to hosting environment and no additional cost to the DARPG.

T. The Cloud service shall provide dedicated IP, dedicated TLS certificate.

U. Minimum Requirements from Hosting Services:

a. **Virtual Machines:**

i. The underlying processors shall be latest by the processor OEM at the time of bidding.

ii. Self-service provisioning of multiple VMs concurrently either through a programmatic interface (i.e., API/CLI) or through a management console or Web Portal.

iii. VMs shall be customizable, i.e., ability to modify configuration settings for vCPUs and RAM

iv. Ability to automatically increase/scale the number of Instances/VMs during demand spikes to maintain performance (i.e., 'scale-out')

v. Cloud service architecture shall be in such a way to avoid VM outages or downtime when the provider is performing any kind of hardware or service maintenance at the host level

b. Network Services:

i. DNS as Service: Highly available and scalable Cloud Domain Name System (DNS) web service with features like DNS Failover, DDOS Mitigation, Geo DNS, Latency Based Routing, Weighted Round Robin (WRR) functionality Private DNS for Cloud-based servers, access to management console. The service shall support internal domain names for intranet portals.

ii. IPSec VPN Connections: The remote access VPN solution shall enable users to access IT resources from outside the organization's network securely and seamlessly without requiring a dedicated client to be installed on the remote computer. The clientless web access (SSL VPN) solution must be able to:

iii. Provide support for multiple desktop and mobile platforms including Windows, MAC, and Linux, mobile OS (Android and iOS) environments.

iv. Easily integrate with existing authentication services: LDAP, Active Directory for user authentication and authorization.

v. Provide built-in support for two-factor authentication methods (such as SMS/email-based token etc.)

vi. Provide easy web-based management, role-based administration, detailed audit and logs for incident isolation and troubleshooting, and extensive filters and statistics per day, week, and month.

c. Cloud Management, Monitoring and Compliance Services:

i. **Cloud Resource Monitoring:** System shall have the capability to monitor Cloud environment centrally, custom monitoring metrics, monitor and store logs, view graphs and statistics, set alarms, monitor, and react to resource changes. Support monitoring of custom metrics generated by your applications and services and any log files your applications generate. Gain system-wide visibility into resource utilization, application performance, and operational health, using these insights to react intelligently and keep applications running smoothly.

ii. **Personal Health Dashboard:** System shall provide alerts and remediation guidance when CSP is experiencing events that may impact the customer.

Personalized view into the performance and availability of the Cloud services underlying your Cloud resources.

iii. **Audit Trail:** Logs of all user activity within a CSP account including actions taken through the CSP's Management Console, CSP's SDKs, command line tools, and other CSP services. The recorded information includes the identity of the API caller, the time of the API call, the source IP address of the API caller, the request parameters, and the response elements returned by the Cloud service.

iv. **Governance and Compliance:** System shall have the capability to discover all of Cloud resources and view the configuration of each. It shall continuously monitor and record Cloud resource configurations and allows to automate the evaluation of recorded configurations against desired configurations. Users shall receive notifications each time a configuration changes, as well as dig into the configuration history to perform incident analysis. System shall have the capability to obtain details of what a resource's configuration looked like at any point in the past. Also, system shall notify each configuration change so that users can process these notifications programmatically. Selected Agency shall also provide the real-time dashboard to DARPG for monitoring Cloud utilization and other Cloud reports.

v. **Cloud Advisor:** System shall analyze the Cloud environment and provides best practice recommendations (or checks) in five categories: cost optimization, security, fault tolerance, performance, and service limits.

d. Installation/Upgrade/Enhancement:

i. The selected agency will ensure that the cloud server infrastructure allows for seamless upgrades, including the deployment of patches or new versions, without any adverse impact on the system or its components. The agency will also be responsible for managing and maintaining version control on the cloud infrastructure side, ensuring that any server-related changes or modifications in each release are properly documented and tracked.

ii. The selected agency will be responsible for the development, integration, and proactive delivery of patches and system enhancements for the application. These upgrades and fixes will be implemented in a way that ensures the system continues to function smoothly after deployment. The selected agency will also handle the documentation of application changes, maintaining version control to track the modifications and updates made with each release, ensuring transparency and traceability in the development process.

e. Scalability

i. The system shall be scalable to handle the peak load from different types of users (Internal and External Users) and shall support high volumes of data upload, without compromising response time or system efficiency.

ii. A load balancer shall be deployed to optimize resource use, maximize throughput, minimize response time, and avoid overloading any single resource.

iii. Scalability of the solution is to be achieved along the following dimensions relevant to the cloud infrastructure:

a) **Scalability in terms of the volumes of transactions handled**: This involves the facility to enhance hardware, software, and network capacities to maintain performance levels in line with SLA metrics.
b) **The system shall allow the addition of more users** as and when required, without affecting the performance of the overall system.

f. Security

i. The system shall provide backup and recovery/disaster recovery system.

ii. The system data must be kept on storage media with high tolerance of failure/accident/natural calamity.

iii. **Anti-Virus and Anti-Spam Services:** The selected agency shall deploy anti-virus and anti-spam services to keep the servers and applications secure from viruses, spyware, Trojans, and spam. The agency will also manage a centralized system for updating virus definitions across all DARPG offices.

5.9 Enterprise Management System

A. The new system shall be able to support the proposed hardware and software components at DC and DR over the tenure of the contract. The system shall be capable of providing early warning signals to the PMU of DARPG on the solution performance issues, and future infrastructure capacity augmentation.
B. Selected Agency is expected to provide and implement a new single enterprise system encompassing the following functions to monitor SLA indicators for Nextgen CPGRAMS availability, Cloud Performance, Helpdesk performance :
   i. Configuration Management
   ii. Fault Management
   iii. Incident, Problem and Change Management
   iv. Asset Management
   v. Remote Control
   vi. SLA management and monitoring
   vii. Performance management
   viii. Monitoring Backup and Management
   ix. Server, storage, and other infrastructure management
   x. Network Link Monitoring
   xi. Other modules as required to meet the requirements of this NextGen CPGRAMS

C. Also, the new system shall be extended to any new device which shall be added in future to fulfil the project requirements.
D. Selected Agency shall also provide the Login of EMS to the DARPG, so that key members of the Project Management Unit can monitor the SLA compliances.
E. Selected Agency shall provide access on EMS for live monitoring of resources or for the validation/audit of rules/SLAs configured. The DARPG shall have rights to access the live and historical reports. The admin credentials shall be with the DARPG only, so that SLA reports cannot be tampered.

5.10 Testing and User Acceptability Testing

A. The Selected agency shall maintain a traceability matrix, to confirm that all the business and functional requirements as stated in the FRS and in requirements in the detailed scope of work of this volume of the RFP are met by the NextGen CPGRAMS solution.
B. Selected agency shall be responsible for the below mentioned activities as part of the testing:
   i. Unit Testing of different modules of the NextGen CPGRAMS
   ii. Integration testing of the solution
   iii. Security Testing
   iv. Functional Testing
   v. Performance testing which includes load/ stress testing
   vi. Any other testing as applicable
C. The selected Agency will share user manual, admin manual, test cases, test plan and QA Results for User Acceptance testing to be performed in coordination with the DARPG and PMU.
D. Selected agency shall setup a separate test environment for testing, which would be used for testing and quality check, before changes are pushed to the production environment.
E. The primary goal of User Acceptance Testing (UAT) is to ensure that the applications meet the requirements, standards, and specifications as per the expectations of DARPG and as needed to achieve the desired outcomes.
F. Selected agency shall prepare the UAT criteria document and sample data for UAT, and take approval from the DARPG, well in advance before start of the UAT process.
G. Upon successful UAT and prior to the Go Live, the Selected agency shall undertake security and performance testing & certification of the Software.
H. Upon completion of above activities, selected agency shall have to submit detail plan for the live implementation of the Applications.
I. The selected agency shall ensure that all the acceptance tests are successfully concluded as per the satisfaction of DARPG.

5.11 Security Audit

A. The Selected agency shall be responsible for getting the security audit done of entire NextGen CPGRAMS prior to the Go-Live Across all ministries, departments and the states.
B. The Selected agency could engage CERT-in Empanelled agency for the security audit along with STQC audit of the developed application. For this purpose, the

Selected Agency shall bear the cost of the security audit and furnish the security audit certificate to the department before the Go-live of the application.

C. The DARPG reserves the right to get the security audit done either through its nominated consultants or through any external agency at any point of time of project implementation cycle.

5.12 Pilot Provisions & Go Live Provisions

A. In compliance to Timelines of the Project, following shall be the conditions for various implementation milestones of the project.

B. The below conditions are indicative and shall be finalized during the project inception stage after requisite approvals from various committees for each of the milestones that will be mutually agreed by the Department, PMU and Selected Agency.

5.11.1. Pilot Phase

a) The selected agency shall ensure successful roll-out and user acceptance of all scope as defined in 2nd Milestone in the few departments. The number and name of the Departments will be defined by the Department

b) During the Pilot Phase, the Selected agency shall ensure 100% compliance of the SLAs as mandated in section 8 of volume 1 of this RFP.

c) Upon successful compliance of SLAs during the Pilot phase, the Selected agency shall furnish the pilot live sign off document/s to be issued by the Purchaser's committee.

5.11.2. Go-Live Phase

d) The selected agency shall furnish the Pilot sign off document for pilot phase including successful SLA compliance report.

e) The agency to perform nation-wide roll-out of all the modules for all ministries and the departments and states with all instructed integrations.

f) The selected agency to ensure integration of all respective state level grievance portals with the NextGen CPGRAMS application.

g) The selected agency to ensure completion of work, as mandated in the scope of work section and get required sign off from the Department.

h) The selected agency to conduct the security audit certification of the solution and submit the report to the Department.

i) The selected agency to ensure monitoring & compliance of the SLAs.

j) The Selected agency shall ensure the handover of documentation related to the application.

k) The selected agency shall ensure the completion of all the required training sessions mandated for the department officials and licensees on the usage of the entire end to end solution as mentioned in the RFP.

5.13 Training and Capacity Building

A. The Selected agency shall impart training to the DARPG staff and other key stakeholders on the usage and maintenance of Nextgen CPGRAMS
B. Selected agency shall propose different training modules for different user profiles at the appropriate timelines in the project.
C. Selected agency shall provide such additional training as they deem necessary in order to ensure that the training imparted is comprehensive and complete.
D. The Selected agency must propose an appropriate training model in their proposal and must propose detailed methodology on how the training would be conducted.
E. The selected agency must prepare marketing materials and digital training materials of NextGen CPGRAMS and shall get it approved from PMU & DARPG.
F. The Selected agency shall be required to arrange IT training infrastructure along with providing the training plan, training content & the training delivery and bear the cost for the same.
G. The Department shall be responsible for providing the venue for the training.
H. Selected agency shall be responsible for making sure that all the Officials and other users are technically equipped to operate the solution.
I. The Selected agency shall organize and conduct the trainings in the following ways:

i. Classroom training sessions with a maximum batch size of 20

ii. Online training courses with pre-loaded training videos with completion certificates.

iii. The Selected agency shall organize regular half yearly trainings for new joiners.

iv. Whenever there is change or upgradation in solution the selected agency shall make the changes in the content and should be readily available on the portal.

5.13.1 Development of Training Material for DARPG's Officials and other Users

A. The selected agency must prepare and supply the training material in all 22 official Indian languages. The developed material should be highly user-friendly, and the agency must share this material with the Department of Administrative Reforms and Public Grievances (DARPG) for approval before circulation.

B. Selected agency must ensure that the training material developed can be accessed online by the stakeholders.

C. The Selected agency shall provide the following type of online course content for ready use by the stakeholders:

i. PPTs
ii. User Manuals
iii. Quick user guide
iv. FAQs
v. Online videos in desired languages

5.14 Technical Helpdesk

A. The Selected Agency shall setup a technical helpdesk of 5-member team with integrated grievance redressal system and information portal to be setup with Interactive Voice Response System (IVRS).

B. The Selected Agency shall be responsible for the helpdesk Support for NextGen CPGRAMS

C. The Selected Agency shall be responsible for procuring & managing a toll-free number for technical/ operational support. Complaints from the Government Process-flow players will be registered at this central helpdesk.

D. The helpdesk shall be responsible for resolving issues / queries related to the NextGen CPGRAMS – to help Government Process-flow players of NextGen CPGRAMS.

E. All IT infrastructure cost required to establish helpdesk including lease lines shall be managed by selected agency on its expenses.

F. The space for setting up the helpdesk will be given by the DARPG.

G. Selected Agency shall provide an online application facility for officials to create and track status of incidents.

H. The helpdesk shall perform both inbound and outbound calls based on scenario.

I. The selected agency shall deploy a CRM helpdesk application that logs issues, records the time and date of call receipt, identifies the cause or nature of the problem (e.g., network, hardware), and tracks the resolution time. Upon a complaint being reported, an Issue Ticket will be generated, and an SMS with a unique tracking number will be sent to the complainant. Additionally, the CRM system should provide a performance dashboard to the PMU and DARPG, displaying key metrics such as call availability, abandonment rates, agent performance, and customer satisfaction. The system will meet the SLA parameters outlined in Section 8 of this RFP, ensuring compliance with the defined service standards.

J. The technical help desk executive shall also be a trained resource who shall be able to provide Level 1 support to all stakeholders shall be able to resolve complaints over phone.

K. For complaints not resolved by the helpdesk executive shall be immediately forwarded to the nodal level resource appointed. The nodal resource appointed by Selected Agency shall resolve the issue and communicate to Helpdesk on closing of the ticket.

L. All complaints shall be closed based on the feedback received by Helpdesk agent by calling the complainant.

M. The reported incident shall be resolved as per the defined SLA, any delay in resolving the issues shall result in penalties as per terms of SLA mandated in this RFP.

N. Helpdesk shall have voice logger to record all the complaints/ grievances /feedback 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 shall also be made available securely for review by department officials for service quality monitoring.

O. The helpdesk shall be operational for 5 days a week during office hours.

P. The entire cost of the operation involved in the setting up and operations of the Helpdesk shall be borne by the Selected Agency as a part of scope of work.

Q. The helpdesk management system provided by Selected Agency, shall have following features:

i. The helpdesk shall have tool to pull real-time reports from the helpdesk database.

ii. This tool shall have knowledge management or integrate tightly with a robust knowledge management module to store FAQs and assist in quick search and resolution of requests and incidents.

iii. This tool shall have configuration repository (most often identified as a CMDB).

iv. This tool shall have the ability to integrate with telephony, multiparty conferencing, messaging such as email, presence/IM, etc.

v. This tool shall have out-of-the- box integration capabilities to link to IT service catalogue, APM (application performance management), network event and performance monitoring, and client management tools.

vi. This tool shall have preconfigured workflows in accordance with industry’s best practices and the ease of use with respect to modifying those workflows as and when needed.

vii. This tool shall have ability to present an online portal to business end users who are requesting help from the IT service support in the forms of incident, change requests, IT service request or administration.

viii. This tool must have the ability to govern various aspects of the IT change management process. The tool must also support the configuration management process by enabling the creation and maintenance of a complete and accurate picture of configuration across various infrastructure elements via a configuration management database (CMDB). The tool must provide release governance capabilities to ensure that approved changes are executed in the environment in accordance with the IT organization's defined and documented procedures.

ix. This tool shall have the ability to manage the life cycles of IT incidents and problem records from recording to closing.

x. This tool shall support the collection, analysis and communication of incident and problem management data.

xi. This tool shall have the mobile capabilities that enable basic issue capture, update, approval, resolution, functions, and access to performance metrics.

5.15 Accessing CPGRAMS 7.0 Database

A. The Selected Agency shall be responsible for designing, developing, and implementing API pull features to enable data integration from the existing CPGRAMS 7.0 database into the NextGen CPGRAMS. This entails creating secure, efficient, and scalable RESTful APIs to retrieve necessary data such as grievances, their resolutions, user profiles, and departmental information. The API will allow NextGen CPGRAMS to access previously received grievances and their resolutions, enhancing the efficiency of the system. Grievance Redress Officers (GROs) will be able to view responses and resolutions for similar types of grievances handled in CPGRAMS 7.0, enabling them to reference and provide consistent responses for similar issues in NextGen CPGRAMS.

B. The Selected Agency must ensure robust authentication and authorization mechanisms to safeguard data access, using industry-standard protocols such as OAuth 2.0. Comprehensive error handling and logging should be incorporated to ensure reliability and traceability. Additionally, the APIs should be thoroughly tested, including unit, integration, and performance testing, to meet standards of quality and responsiveness.

C. The Selected Agency shall define the data format and share it with the department to ensure seamless data integration into the NextGen CPGRAMS. This includes specifying the structure and schema of the data to be pulled, ensuring compatibility with NextGen CPGRAMS, and documenting the data formats to facilitate smooth data transfer and integration processes.

5.16 Change Management

A. This project is positioned and treated as a transformation project by the DARPG than as an IT project. The department recognizes that this system is likely to bring changes to the business processes and current practices in the department. These changes will have a direct impact on the Citizens, staff, and the other stakeholders. The impact of these changes will need to be minimized through an effective change management and communications support for IT implementation. It is thus the responsibility of Selected agency to provide the required change management and communications support for addressing the people related concerns and aspects in IT implementation to ensure successful adoption of the system. The following will be the responsibility of the Selected agency for effective change management and communication:

Conduct workshops and seminars for department officials and other aligned users on the below:

I. Effective implementation of e-Governance initiatives
II. Sensitization towards e-governance
III. Computer awareness (basic understanding of IT system)
IV. Overview of the entire solution (basic functionalities) and its impact on Web Portal and Mobile Applications

B. Also, it shall be the responsibility of the department's senior officials to catalyze the change management and communication process by communicating the vision and need of the change to all department employees and ensure contribution to the change process from officers at each level.

C. Any significant modifications to the NextGen CPGRAMS, as instructed by the Department and deemed beneficial to the application within its scope, may require the selected agency to follow the change control procedure and implement necessary amendments and updates in the NextGen CPGRAMS application at no additional cost to the department for the duration of the project. The agency's financial quote must account for such changes.

5.17 Operation Support of Next Gen CPGRAMS

A. The Selected agency shall provide operation support as per the timeline defined in the RFP after developing and deploying the Application and the dashboard of NextGen CPGRAMS for the complete project duration. The operation support shall include management, and upgrades and maintenance of NextGen CPGRAMS, Dashboard and their integration with the Department provided AI features. The agency shall be responsible to provide for the implementation of Nextgen CPGRAMS.

B. The Selected agency shall also be responsible to provide operational services as per the mandated SLAs for the modules & components commissioned and in operation during pilot and after Go-Live.

C. The Selected agency shall be responsible for overall administration, operations, monitoring of the deployed Nextgen CPGRAMS and supporting infrastructure at the Cloud and to ensure the desired uptime. The Selected agency shall ensure the maintenance and operations of NextGen CPGRAMS Dashboard.

D. The Selected agency shall suggest the updates required in NextGen CPGRAMS to DARPG and PMU. Agency will develop implement all upgrades including definitions/ patches/ updates/ service packs etc. proposed Nextgen CPGRAMS application and related software/ tools during the O&M period.

E. Selected agency shall also be responsible for database administration, data back-up, data archiving, data security and other technical assistance.

F. Selected agency shall carry out preventive maintenance services, Security audit at least once in every quarter.

G. Corrective maintenance services to be carried out as and when required.

H. The Selected agency shall be responsible for informing DARPG about the required bug fixes, issue resolutions, functionality enhancements, patches to accommodate changes (including tax, legal, statutory, and policy requirements), modifications or enhancements to existing business processes, changes to the organizational structure, configurations, and customizations.

5.18 Operation and Maintenance of Next Gen CPGRAMS Post March 31, 2026 (Subject to Continuation and Approvals for the Next Financial Cycle)

The engagement of the selected agency is initially for a period up to 31st March 2026. However, this engagement is expected to continue into the next financial cycle for an additional five years, subject to the necessary approvals and satisfactory performance of the agency. During the continuation period, all terms and conditions outlined in the scope of this RFP will remain fully applicable, ensuring consistency in the execution of operations and maintenance activities. The Selected Agency may continue to provide a comprehensive operation & maintenance support for the proposed system at least for a period of five years. However, the continuance of the O&M of selected agency is subject to the satisfactory performance of the agency. Furthermore, all Service Level Agreement (SLA) compliances, as specified in **Section 8**, will be strictly adhered to throughout the operations and maintenance phase. A summary of the scope during the continuation period is provided below.

A. Training and Capacity Building:
    I. The selected agency shall continue to provide training to DARPG staff and stakeholders on the usage and maintenance of NextGen CPGRAMS at regular intervals, in coordination with DARPG. Training sessions shall be organized for new joiners and refreshers for existing users every six months.
    II. The training content shall be updated when changes or upgrades to the system occur, ensuring the new material is available online.

B. Technical Helpdesk Management:
    I. The agency shall continue to operate and manage the technical helpdesk with the same team, handling user queries, system issues, and stakeholder support.
    II. The same toll-free number shall remain in use for technical and operational support, handling both inbound and outbound calls.
    III. The CRM system shall continue to log all user issues and provide performance dashboards, tracking KPIs such as response times, agent performance, and user satisfaction.
    IV. The agency shall continue to track, log, and resolve user complaints as per the defined SLAs, ensuring escalation where needed.
    V. A voice logger shall be maintained for all helpdesk interactions, supporting service quality reviews, and tracking resolution timelines.

C. Application and System Maintenance:
    I. The agency shall continue performing necessary upgrades, bug fixes, and issue resolutions for NextGen CPGRAMS, including applying software patches and updates.

II. System operations shall be maintained to ensure uptime compliance as per SLAs defined in Section 8 of the RFP, with monitoring of cloud-based infrastructure.
III. Database management shall include regular backups, data archiving, and security measures.
IV. Preventive maintenance shall be carried out regularly, with corrective maintenance as needed.

D. Data Integration and API Management:
I. The agency shall maintain authentication, authorization mechanisms, and error handling for data access APIs, and support API integration with other government and external portals.

E. Change Management Support:
I. The agency shall continue supporting the implementation of changes to the system and ensure modifications to NextGen CPGRAMS as directed by DARPG. Any changes required due to policy updates or government instructions, including providing new or updated functionalities, shall be completed without additional cost to the department. The agency's financial quote must account for such changes.
II. The agency shall continue organizing workshops for department officials to enhance their understanding of e-governance initiatives and IT systems.
III. The concerned agency shall develop the approved changes and provide executable upgrades including definitions/ patches/ updates/ services pack etc. pertaining to the envisaged system.

F. System Stability and SLA Compliance:
I. The agency shall ensure system stability post go-live, managing it within the agreed SLAs.
II. Regular reports on system performance, incidents, and SLA compliance shall be provided.
III. Cloud-based resources shall continue to be maintained to ensure operations, scalability, and availability, without extra charges to DARPG, and in line with SLA parameters in Section 8.
IV. The agency shall monitor cloud infrastructure performance, apply updates, and scale resources as needed, and ensure recovery and data protection measures meet the RTO-RPO requirements in Section 8.
V. Failover mechanisms and data replication shall be in place to minimize downtime, with no extra cost for these services during the project.
VI. Infrastructure costs shall be optimized to ensure the cloud architecture remains scalable and aligned with system needs, without imposing extra costs.
VII. Continuation of the EMS

G. Continuation of Resources:
I. The same resources deployed during the development and stabilization period shall continue during the operations and maintenance phase beyond 31st March 2026. These resources shall handle DARPG's requirements for NextGen CPGRAMS, technical discussions,

infrastructure management, AI dashboards, data management, analysis, report generation, and operational maintenance.

II. Reports on system performance and operations shall be generated and presented as required by the department.

III. The team shall ensure continuity in maintaining and evolving NextGen CPGRAMS.

6 TIMELINES OF PROJECT

The selected Bidder is expected to follow the schedule as mentioned below.

SN	Particular / Milestone	Timeline /Milestones	Activities
	Release of the Workorder	Date of Start (T)	i. Submission of Signed Agreement
1	Engagement of Team for Development of NextGen CPGRAMS as per scope of work.	T+14 Days	i. Project Kickoff Meeting & presentation ii. Project Plan iii. Project Charter
2	a) Submission of Software Requirement Specification along with Infrastructure assessment report Sign off duly approved by DARPG b) Set up HA and DR in Cloud for Next-Gen CPGRAMS as per the scope mentioned in the scope of work c) Launch of NextGen CPGRAMS Pilot along with the Smart Dashboard at Pilot Sites(Departments) as selected by DAPG.	T + 2 Months	i. SRS Development ii. SRS Approval from DARPG iii. HA & DR Setup iv. UAT v. UAT approval vi. Approval from DARPG for launch of Pilot at selected departments vii. Stabilisation Period of 15 Days after Pilot of 45 Days viii. Approval Process and Preparation for Go live
3	a) One Time Security Audit by Third Party Agency b) Set up Helpdesk as per the Team composition mentioned in RFP Vol I and UAT Sign off for NextGen CPGRAMS	T+ 4 Months	i. Pilot Signoff from DARPG ii. Approval for Go live from DARPG iii. Implementation and launch of Integrated End-end application across all Ministries/Departments and States iv. Go-live certificate from Assigned signatory of DARPG. v. Client Signoff where the pilot implementation is done.

SN	Particular / Milestone	Timeline /Milestones	Activities
	c) Go-Live for Next- Gen CPGRAMS (Cloud), Cutover (Migration of User data) from current set of applications on web for CPGRAMS to Next-Gen CPGRAMS and stabilization in Production environment and implementation of Interactive Dashboard NextGen CPGRAMS as per the scope of work mentioned in the RFP d) EMS Deployment		vi. Deployment and operationalize the Helpdesk vii. Approval on Helpdesk Deployment as per requirement mentioned in the RFP. viii. Approval on EMS Deployment
4	Operation & Maintenance support of Next-Gen CPGRAMS, Deployment of Onsite Team & Helpdesk Team as per scope of work	After Go-Live till project Duration	a) Go live Approval from Client b) Quarterly (Quarter starting from the Date of Go live) Certified copy from the DARPG office regarding activity completed under Operational support during the stabilization period. c) Application Performance Report derived from EMS duly signed by DARPG (Service Availability). d) Quarterly Help Desk/ Ticket Resolution Report. e) Security Audit Report (To be conducted before the Go Live of the NextGen CPGRAMS).

T = Date of issuance of work order by the DARPG

Table 7: Timelines of Project

Note: *The selected agency's engagement is initially up to 31st March 2026, with an expected continuation for an additional five years, subject to approvals and satisfactory performance. During the extended period, SLAs and penalties from Section 8, Volume 1, will apply and scope will be in line with section 5.18 of Volume 1 of this RFP. Payments will be made quarterly, based on invoices raised against the quote submitted for the operations and maintenance phase in response to this RFP*.

7 TECHNICAL AND FUNCTIONAL REQUIREMENT

Technical specifications provided here are the set of requirements that the proposed NextGen CPGRAMS of Department must meet. This document provides information to the Selected Agency on the business requirements, various standards and guidelines and is an essential guide for defining a proposed system and ensuring mutual understanding among key stakeholders.

All the technical specifications provided in this section are minimum and have been provided for immediate reference only. All the software (if any) along with proposed NextGen CPGRAMS shall initially be supplied with minimum for complete duration of the project comprehensive on-site OEM warranty/ support from the date of Go-live. Also, if the contract period is extended, then Selected Agency must ensure that all the supplied software's OEM warranty, service and support, subscription is also extended for the same extended period.

7.1 Design, Development and Implementation of NextGen CPGRAMS

A. NextGen CPGRAMS must be web based, multi-tier/ N tier application architecture with sufficient flexibility for customization based on DARPG requirements as outlined in different sections of this RFP (Section 4; Section 5 and Section 7).

B. The Application should be built flexibility to implements desired Modules / Functionality and should have Multiple User Access modes like GUI, Web, Portal etc.

C. The application shall be inbuilt with automated workflow management system.

D. Implementation of the application shall be based on the approved SRS and Design documents.

E. The application shall be integrated with all the required third-party services.

F. The application shall support all popular/ common web browsers i.e., Google Chrome, Mozilla Firefox, Internet Explorer, and Safari.

G. The application shall have an interface for receiving grievances through mobile, social media, and call centre.

H. The Application shall have a voice-to-text, document-to text feature while capturing the text of grievance.

I. The application shall support multilingual interface that supports multiple Indian languages and provides translation of vernacular grievances.

J. The application shall have a dashboard for all stakeholders that shows the status and progress of the grievances and provides analytics and insights.

K. The application shall have a comprehensive alert mechanism that notifies the users and authorities about the grievances and their resolution.

7.2 Indicative Architecture

A. The System shall be designed, implemented, and deployed by considering the scalability, reliability, security, business continuity, optimum performance of the entire solution and based on the requirements of the DARPG.

B. The system architecture needs to be designed in a manner that will be based on loosely coupled components making it easy to extend.

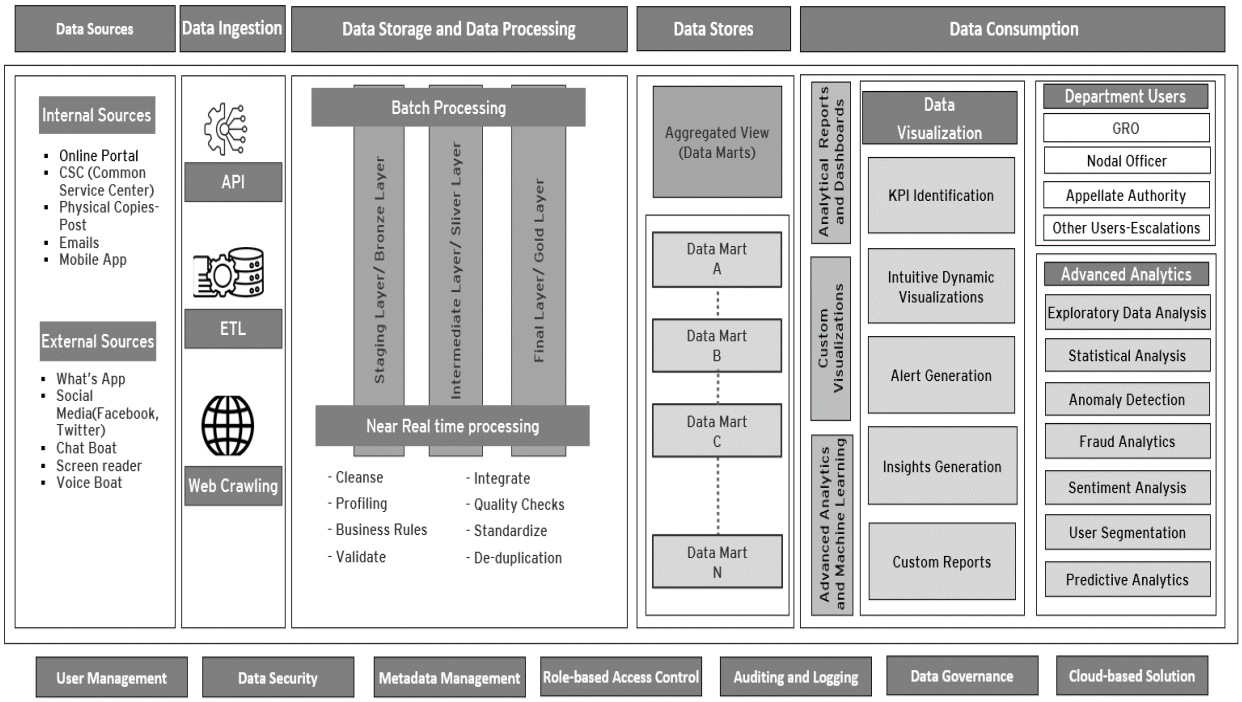


Figure 3: Functional Architecture for NextGen CPGRAMS Application

C. All the modules/ components of the proposed NextGen CPGRAMS should be deployed in centralized manner/ platform.
D. The architecture should be highly scalable and capable of delivering high-performance as and when transaction volume increases. It is required that application and deployment architecture should provide the flexibility of Scaling-up (vertical scaling) and Scaling-out (horizontal scaling) on Application and Web Servers, Database Servers, and all other solution components.
E. The system should allow addition of more modules/ sub-modules and more users without affecting the performance of overall application/ other functioning modules.
F. The system should support customization to meet the project requirements. In case need for customization arises, the same should be done in the form of add-ons and routines/ patches that can be plugged/ unplugged from the base software package as the situation arises.
G. System must have threshold base auto-scaling (upscale and downscale) capabilities.
H. System must have provision for notification based on the utilization and autoscaling.
I. System must have provision to store historical performance and utilization data for analysis.
J. Selected Agency must ensure availability of 24*7*365 and ensure zero down time for NextGen CPGRAM applications of DARPG ecosystem.
K. The system should provide facility for 'single point data entry at source' and fully integrated, unified, and interfaced so that there are no redundancies. It should have the ability to have an update occur in one module and be immediately available to all other modules of the system even among geographically dispersed sites.

L. The system should support clustering and high availability.
M. The system should have real-time data update among modules.
N. As specified above, the application should have multiple layers as described below:
    a. **Presentation Layer:** This layer should be web-enabled and should run on all major web browsers. This layer interfaces the business components and implements automated data workflows for GUI initialization, loading, saving data, enabling, and disabling forms. Multi-language support is also implemented at this layer which allows runtime modification of terms and phrases.
    b. **Service layer:** This layer contains a class library which takes care of inter-operability and open standard/ protocols like web service, windows services, APIs, which make this Business Layer a platform independent. This layer is used to give functionality for data exchange using web services-based component or database synchronization with external agency.
    c. **Business layer:** this layer should implement the components like User/Role Management, process flow and logic that drives the business functionality. Framework should have provision to keep all the user activity to be audited and logged during the business process.
    d. **Persistence layer:** It has been visualized that the application for this project would be managing very high volume of data, storing a large amount of data for long-term preservation of records at various repositories. It is mandatory for the Selected Agency to ensure faster access and better manageability of this data. It is expected that the Selected Agency shall consider mechanisms which would improve the performance of this layer.
    e. **Data layer:** Data layer will have Data Access class library which provides methods for exchanging data between business components/ layer and databases/ persistence layer.

7.3 Internet and Intranet Enabled

A. The NextGen CPGRAMS should support access via LAN, WAN, and Internet with secured connectivity.
B. The system should be scalable and flexible enough to provide access and information to all the users from the distinct functions/ departments/ offices of the DARPG and other key stakeholders.
C. The system should support all TCP/ IP/ SMTP/ or any other related protocols.

7.4 Graphical User Interface

A. The system should be user friendly and should have interactive Graphical User Interface (GUI).

B. All the application modules and sub-modules shall use uniform theme in the GUI. The application should be consistent in the sequences in the visual presentation to the user and in use.

C. Online forms should have mandatory fields marked out clearly. The system should not allow submission of the form without completing the mandatory fields.

D. The system should have sufficient validation checks at GUI/ presentation layer for validating the data formats, completeness of the forms in terms of mandatory fields, checking for file type and size of files uploaded etc.

E. The system shall support uploading of scanned documents. There must be check(s) for ensuring the upload of all the mandatory documents. The System should have a feature to extract the content (of any language) of uploaded document and present it in readable content (in desired language)

F. The system should display data according to user profile/access rights.

G. The system should allow multiple users to access the same module simultaneously.

H. It should have provision for warning and alert messages in case of validation failure, incomplete data etc.

I. It should have facility to display confirmation/ warning windows for deletes changes etc.

J. The system should provide consistent screen layouts and access methods across all modules so that they look and behave the same.

K. The system should provide various reports/ MIS in graphical and tabular views along with facility to drill down to navigate to the next levels of details and so on.

L. The/ user interface shall give flexibility to toggle between graphical and tabular views, and tile different views in the same interface.

M. User specific/ customized dashboard should allow authorized user to take action on pending activities in a secured manner in a system seamlessly integrated with other modules of the application. Submission of every activity in the system should suitably update database on real-time basis.

N. The system should notify users automatically after report is generated.

O. Developed system should have provision for any document or report to be previewed before printing.

P. The system should provide various reports/MIS in graphical and tabular views along with facility to drill down to navigate to the next levels of details and so on.

Q. The system should provide facility to block or unblock any user access.

7.5 Workflow Integration Approach

A. The application shall support the creation of workflows which shall be implemented using an automated workflow management system.

B. The application should support creation of secondary workflows as well, which would be fully integrated with the primary workflows.

C. The application should be able to support/ configure complete workflow required for successful coverage of various processes of the DARPG. It should allow designing of workflow with the ability to define business rules, process flows, alerts, and triggers without programming.

D. The application should automatically raise alerts, messaging, notifications, emails etc. across functional areas/ modules and concerned stakeholders based on the various timelines assigned for particular tasks or if an attempt is made to amend the entries already entered in the system.

E. Workflow management/ control must be an integrated part of the application. The application should allow authorized user to configure the workflow as per the guidelines of the department for handling the processes successfully. The workflow management/ control should provide consistent method of defining business rules, process flows for all DARPG offices and concerned stakeholders.

F. Mandatory approval should be uploaded in the application prior to making any changes in the workflow. Audit trail of the modifications should be maintained in the system.

G. The application should allow devising of simple or complex rules to suit the DARPG requirements and the requirements specific to certain stakeholder(s). The rules should be stored in a central repository and the same must be shared across all business processes.

7.6 Integration

A. The system should be designed to ensure that current state and departmental applications and new application can be seamlessly integrated (through an application integration solution) within its architecture with minimal impact and changes.

B. The system should be fully integrated across modules and functional areas.

C. Identify the data/ services which is to be exchanged between the application and other internal/ external systems.

D. Identify integration touch points for ensuring seamless integration with these internal/ external systems and the DARPG application.

E. The application should support integration with the following (but not limited to) application/ systems:

F. Digital signature services: The application should have DSC enabled and should automatically enable/ disable the Digital Signature Certificates (DSCs) of employees depending on the status of each employee namely, fresh appointment/ transfer/ suspension/ leave/ training/ retirement etc. The system should accordingly enable DSC only for an active employee.

G. SMS service: the application should be integrated with SMS gateway (The cost of all SMS to be borne by Selected Agency) for sending confirmations, status, alerts, reminders, notifications, messages etc. via SMS. Integration of NextGen CPGRAMS application with the GoI provided SMS Gateway (MSDG)/or the SMS gateways/email gateway prescribed by the DARPG. The recurring SMS and email charges, if any, shall be borne by DARPG. DARPG will facilitate for exemption charge for SMS as per the TCCCPR, 2018

i. The Selected Agency will be responsible for Identifying the data/services which needs to be exchanged between the NextGen CPGRAMS and the other internal/external systems and DARPG and other web-portals.

ii. The Selected Agency will be responsible for Identifying integration touch points for ensuring seamless integration with these internal/external systems and DARPG and Other Center/State Departments.

iii. Selected Agency must ensure that all the third-party API used in the integration are Security and quality audited from STQC and any other cert-in empaneled agency complaint. In case the third-party API used are found to be not in compliance with Security and quality audit from STQC and other cert-in empaneled agency then Selected Agency will seek approval of competent authority.

H. WhatsApp/ Chatbot: The Selected Agency shall integrate the WhatsApp/ Chatbot-based AI chatbot which will be provided by Department. The chatbot will support natural language understanding, intent recognition, sentiment recognition, multilingual capabilities, and ensure seamless, secure, and scalable deployment.

I. E-Mail services: the application should provide the user to send and receive formal communication, confirmation, status, alerts, messages, reminders, notifications etc. via email.

J. Document Management System (DMS): The application shall be integrated with the DMS to access and view various legacy digitized content/ files for business continuity.

K. Integration with other state and other Department Application

L. Integration with Parichay

M. Integration with Umang

7.7 Import/Export Facility

A. The system shall support the upload and download of the XML, MS Word files, MS Excel files, Adobe Acrobat files, Image files etc. type into/ from the system.

B. Any other file-format as required by DARPG in due course of time.

7.8 Hosting services

A. Selected Agency shall be responsible for hosting the entire application and all ancillary in-scope applications on Cloud from MeitY Empaneled Cloud Service Providers (CSPs).

B. In no case, Selected Agency shall host the application on Cloud of any company which is not empaneled with MeitY Empaneled and has a history of data loss and security breaches.

C. Selected Agency shall be responsible for installation of all the software required for the successful hosting of the application and all ancillary in-scope applications.

D. Selected Agency shall ensure the data replication on DR site must be on real time basis.

E. The integration of Cloud DC-DR shall be responsibility of Selected Agency for seamless flow of data.

F. Selected Agency to adhere to the policies for data security, data back-up and data retention. Selected Agency to also adhere all industry best practices security guidelines and MeitY & CERT-IN security guidelines, polices, controls & advisories releases on time to time.

G. The Cloud, where the newly developed system shall be hosted should comply with the SLA requirements as provided in this RFP document, shall have following capabilities:

   i. **Scalability:** The configuration of the Cloud is expected to have adequate upgrade capability in terms of processors, RAM, disk storage etc. which should be achievable with minimum disruptions to running system/ processes and no additional cost to the DARPG. Also, for any software upgrades, updates, patches etc. released by the various product owner/OEM, the Cloud should be capable to implement the same seamlessly as and when it gets released by the application owner/OEM with no additional cost to DARPG.

   ii. **Reliability:** The Cloud shall be reliable to comply with the SLA requirements provided in this RFP document and there shall not be any outages. Cloud platform shall always run in redundancy/High Availability so that in case of any outage system shall automatically switch to the available servers**.**

   iii. **Security:** The Cloud shall have highest level of security features against both physical as well as cyber threats.

   iv. **Backup:** Appropriate archiving system (i.e., SAN, tape library, optical backup equipment or better alternative etc.) to be available on Cloud. In the event of serious failure, backed up data must be restored in quickest time to ensure continuity of the services.

H. The Selected Agency shall formulate an effective Back-up Strategy and Disaster Recovery Plan and take sign-off from DARPG. Selected Agency shall be responsible for the implementation of approved Back-up and Disaster Recovery plan.

I. DR shall be at least with 100 % compute capacity of DC. All the software & related licenses, replication links, etc. will be in the scope of Selected Agency. The database storage at DR site should be of 100% capacity of DC site. DC/DR site should have Recovery Point Objective (RPO) of <=15 minutes and Recovery Time Objective (RTO) of <1 hour.

J. During any outage, DRC shall become the primary site, and 100% data recovery shall be ensured.

K. The specification of the servers shall be designed to ensure high availability of servers. All the major servers shall be configured in such a way that there is no single point of failure. In case there is any requirement of application specific server at any point of time, the supplier shall be required to provide the same also without any additional cost to the DARPG.

L. Cloud platforms shall provide sufficient capacity in terms of data processing, data storage and network bandwidth to handle the overall load and traffic coming to the application without compromising the overall performance of the system.

M. Selected Agency shall estimate Y-o-Y data growth after completion of Year 1.

N. It shall be the responsibility of Selected Agency to prepare the specification for Cloud i.e., CPUs, RAM, storage, required software, other equipment, and the network requirements for running the application efficiently. Whatever infrastructure is needed shall be clearly accounted in the bid document. Selected Agency shall provision all the servers (development, test, staging and production) on cloud.

O. Appropriate redundancies shall be built in the IT infrastructure as per standard industry practices. The cost of Cloud shall also include cost of Disaster Recovery (DR) site as well.

P. The Selected Agency shall also ensure that the hosting services shall be portable to another CSP without any changes to hosting environment and no additional cost to the DARPG.

Q. The Cloud service shall provide dedicated IP, dedicated TLS certificate.

R. Minimum Requirements from Hosting Services:

a) Virtual Machines:

i. The underlying processors shall be latest by the processor OEM at the time of bidding.
ii. Self-service provisioning of multiple VMs concurrently either through a programmatic interface (i.e., API/CLI) or through a management console or Web Portal.
iii. VMs shall be customizable, i.e., ability to modify configuration settings for vCPUs and RAM
iv. Ability to automatically increase/scale the number of Instances/VMs during demand spikes to maintain performance (i.e., 'scale-out')
v. Cloud service architecture shall be in such a way so as to avoid VM outages or downtime when the provider is performing any kind of hardware or service maintenance at the host level

b) Network Services:

i. **DNS as Service:** Highly available and scalable Cloud Domain Name System (DNS) web service with features like DNS Failover, DDOS Mitigation, Geo DNS, Latency Based Routing, Weighted Round Robin (WRR) functionality Private DNS for Cloud-based servers, access to management console. The service shall support internal domain names for intranet portals.
ii. **IPSec VPN Connections:** The remote access VPN solution shall enable users to access IT resources from outside the organization's network securely and seamlessly without requiring a dedicated client to be installed on the remote computer. The clientless web access (SSL VPN) solution must be able to:

- Provide support for multiple desktop and mobile platforms including Windows, MAC, and Linux, mobile OS (Android and iOS) environments.
- Easily integrate with existing authentication services: LDAP, Active Directory for user authentication and authorization.
- Provide built-in support for two-factor authentication methods (such as SMS/email-based token etc.)
- Provide easy web-based management, role-based administration, detailed audit and logs for incident isolation and troubleshooting, and extensive filters and statistics per day, week, and month.

c) Cloud Management, Monitoring and Compliance Services:

iii. **Cloud Resource Monitoring:** System shall have the capability to monitor Cloud environment centrally, custom monitoring metrics, monitor and store logs, view graphs and statistics, set alarms, monitor, and react to resource changes. Support monitoring of custom metrics generated by your applications and services and any log files your applications generate. Gain system-wide visibility into resource utilization, application performance, and operational health, using these insights to react intelligently and keep applications running smoothly.

iv. **Personal Health Dashboard:** System shall provide alerts and remediation guidance when CSP is experiencing events that may impact the customer. Personalized view into the performance and availability of the Cloud services underlying your Cloud resources.

v. **Audit Trail:** Logs of all user activity within a CSP account including actions taken through the CSP's Management Console, CSP's SDKs, command line tools, and other CSP services. The recorded information includes the identity of the API caller, the time of the API call, the source IP address of the API caller, the request parameters, and the response elements returned by the Cloud service.

vi. **Governance and Compliance:** System shall have the capability to discover all of Cloud resources and view the configuration of each. It shall continuously monitor and record Cloud resource configurations and allows to automate the evaluation of recorded configurations against desired configurations. Users shall receive notifications each time a configuration changes, as well as dig into the configuration history to perform incident analysis. System shall have the capability to obtain details of what a resource's configuration looked like at any point in the past. Also, system shall notify each configuration change so that users can process these notifications programmatically. Selected Agency shall also provide the real-time dashboard to DARPG for monitoring Cloud utilization and other Cloud reports.

vii. **Cloud Advisor:** System shall analyze the Cloud environment and provides best practice recommendations (or checks) in five categories: cost optimization, security, fault tolerance, performance, and service limits.

7.9 Online Training and Help Facility

A. The system shall have comprehensive online help facility (user manuals, troubleshooting content etc.) wherein the users can obtain system specific technical/ functional help online.

B. The system shall maintain a database of FAQ(s).

C. The system shall also maintain a Feedback database.

7.10 Installation/Upgrade/ Enhancement

A. The system shall facilitate seamless upgrades (deployment of patches/ new version) without any adverse impact on the system and its components.

B. The Selected Agency shall provide notification and patches for system enhancements and fixes to the application after implementation on a proactive basis.

C. The system shall have facility to maintain versions with changes/ modifications made in each release.

7.11 Scalability

A. The system shall be scalable to handle the peak load coming from different types of users i.e., Internal and External Users, and shall support high volume of data upload, without compromising response time or efficiency of the system.

B. A load balancer shall be deployed to optimize resource use, maximize throughput, minimize response time, and avoid overload of any single resource.

C. Scalability of the solution is to be achieved at least along the Dimensions described below:

   i. Scalability in terms of the volumes of transactions handled: This translates to the facility to enhance the hardware, software, and network capacities to maintain the performance levels always in tune with the SLA metrics.

   ii. The system shall allow addition of more users as and when required, without affecting the performance of overall application/ other functioning modules.

   iii. Scalability in terms of addition of new services of an existing department: This translates to seamless and effortless integration with the backend application such that new citizen services can be added and deployed with relative ease.

   iv. Scalability in terms of addition of new departments: This translates to seamless integration with heterogeneous systems at the backend with relative ease of deployment of the applications and services, maintaining the common look and feel and functionality at the front-end.

   v. The system shall allow addition of more modules/ sub-modules without affecting the performance of overall application/ other functioning modules.

   vi. Scalability in terms of addition of new channels of delivery: This translates to designing the systems suitably to provide services through other delivery channels like the mobile devices and other devices.

7.12 Security

A. The system shall provide well-designed identity and access management system, security of digital assets, data, network security, backup, and recovery/ disaster recovery system.

B. The system must have proper security and maintenance facility with access control features for controlling the access rights over the system and over the various functions/ features available for different types of users.

C. Unauthorized access shall be restricted and only authorized users with valid login-ID and password shall be allowed to access the legitimate features i.e., access to data file, module, screen, data table, record, field, etc. If required, second level password may be provided for accessing certain features/ screens/ transactions.

D. To maintain information security during transaction the developed system shall support both HTTP and HTTPS, all internal data communication shall be done through encrypted mode using latest version of TLS (Transport Layer Security)/ SSL (Secure Socket Layer).

E. The system shall have a capability to assign activities to roles, and map roles to users and provide role-based access to users.

F. The system shall notify security/ system administrator regarding unauthorized access or attempt to access and record in a log with reporting mechanism.

G. The system shall have the feature of automatic log-off if there is no user activity for specified period.

H. The application shall have sufficient validation checks at GUI/ presentation layer for validating the data formats.

I. The application shall provide safeguards to prevent damage to data from user errors, simultaneous updates, module unavailability or system failures.

J. The system data must be kept on storage media with high tolerance of failure/ accident/ natural calamity.

K. The application must have integrated security/ monitoring features with the following:

   i. Definition of roles and users
   ii. Define role-wise add/ edit/ view/ delete rights for each entry form/ report in all modules
   iii. Digital time and user stamping of each transaction
   iv. Online monitoring of the user activities using user activity logs

L. Anti-Virus and Anti-Spam Services: Anti-Virus and Anti-Spam shall be deployed to keep the servers and application secure from the attack of virus, spyware, Trojans, and spam. This shall also act as a centralized system for updating the virus definitions on the systems across offices of DARPG.

M. Virtual Firewall: Instance Level and Subnet Level and Web Application Firewall:

i. System shall have capability to protect network subnets with access controls that provides an optional layer of security that provides a stateless security system for controlling traffic in and out of a subnet.
ii. System shall have capability to segregate public subnet and private subnet.
iii. System shall have capability to configure route tables that define which subnets are allowed to route external traffic over backend VPN or site-site connections, VPC peering connections, Internet connections, or even specific virtual machine instances.
iv. System shall prevent packet sniffing: Virtual instances shall be designed to prevent other instances running in promiscuous mode to receive or "sniff" traffic that is intended for a different virtual instance. Even if tenants configure interfaces into promiscuous mode, the hypervisor shall not deliver any traffic to them that is not addressed to them.
v. System shall prevent IP Spoofing: The Cloud service shall not permit an instance to send traffic with a source IP or MAC address other than its own.

N. **Anti-Malware / HIPS (Host Intrusion Prevention System) and NIPS (Network Intrusion Prevention System):**

vi. Firewall with Intrusion Prevention System shall be configured and deployed to stop intrusion and other threats coming from the network before it enters the system.
vii. The solution shall be able to deliver Antimalware, Firewall, HIPS, Integrity Monitoring features, Log Inspection and Application control through an agent.
viii. System shall be capable of performing recommendations scan and able to monitor critical OS and application elements (files, directories, and registry keys) to detect suspicious behavior, such as modifications, or changes in ownership or permissions.
ix. The solution shall deliver virtual patching updates and HIPS shall work in detect only mode and prevent mode.
x. Solution shall support creation of custom packet inspection rule, protect against fragmented attacks, and shall allow to block based on thresholds. Packet Inspection shall protect operating systems and web applications etc. against attacks such as SQL injections and cross-site scripting.
xi. Detailed events data to provide valuable information, including the source of the attack, the time, and what the potential intruder was attempting to exploit, shall be logged.
xii. Solution shall provide vulnerability scanning to automate provisioning and de-provisioning of HIPS rules and shall provide recommendation scanning against existing vulnerabilities.
xiii. Solution shall support virtual patching both known and unknown vulnerabilities and Virtual Patching shall be achieved by using a high-performance packet inspection.
xiv. Security system rules shall filter traffic based on source and destination IP address, port, MAC address, etc. and shall detect reconnaissance activities such as port scans, Computer OS fingerprinting, SYNFIN SCAN, XMAS Scan etc.

O. **DDoS Protection:** Managed DDoS protection service that defends against most common, frequently occurring network and transport layer DDoS attacks that target web site or applications. When used with Content Delivery Network and global DNS service, shall provide comprehensive availability protection against all known infrastructure (Layer 3 and 4) attacks. Shall provide always-on detection and automatic inline mitigations, minimize application downtime and latency.

P. **Identity and Access Management:** Securely control users' access to Cloud services using a range of security credentials including passwords and key pairs. Create and manage users and groups, and grant or deny access to compute, storage and network.

Q. **Managed Threat Detection Service:** Continuously monitor for malicious or unauthorized behavior to help you protect your accounts and workloads. It shall monitor for activity such as unusual API calls or potentially unauthorized deployments that indicate a possible account compromise. The service shall also detect potentially compromised instances or reconnaissance by attackers.

R. **Two Factor Authentication**

i. The solution (mobile and web) shall support the Two Factor Authentication both OTP (One Time Password)/soft tokens and PKI authentication technologies.
ii. The solution shall have the capability to be deployed in such a way that the user’s login experience shall remain unchanged – there shall be no user training required.
iii. The solution shall prevent against all Man-in-the-Middle including advanced phishing, pharming, Man-in-the-Browser, Key logger, and Mouse click logger attacks.
iv. For the hardware/software token management system, all activities at admin console shall have an audit trail of all log in attempts and operations. Confidential logs shall be tampering proof. The tools shall be provided to check the integrity of logs.
v. The solution shall not store user credentials in any form at the server like passwords, hash of passwords, any pre-shared secret etc. In other words, there shall be only copy of the user credential which shall reside only with the user.

S. **Data Processing with LLM**

i. The agency shall ensure that all data processed through the Large Language Model (LLM) is handled in an exclusive, isolated environment (containerized or equivalent), where no external access, including from the LLM provider or third parties, is permitted. The environment must be deployed in a dedicated container, virtual machine, or enclave that is exclusive to the customer's operations.

ii. The agency must guarantee that the LLM provider will not have access to any data processed within the containerized environment. No data should leave

the secure processing environment, and the LLM provider must not retain, log, or otherwise persist any of the data used for processing. All interactions with the LLM must occur within the boundaries of the container, and data must remain under the exclusive control of the customer at all times.

iii. All data in transit and at rest within the LLM processing environment must be encrypted using industry-standard encryption protocols. Data must never be processed in plaintext outside of the secure container. Additionally, encryption keys must be managed by the customer or their designated representative, with no access to the LLM provider.

iv. The selected agency must provide auditing and logging mechanisms to ensure that data access is limited strictly to authorized customer personnel. Detailed audit logs of all data access and interactions with the LLM environment must be made available to the customer for review. The selected agency must also ensure that the LLM provider cannot access these logs or interact with the data.

v. Upon completion of data processing, all data used in conjunction with the LLM must be securely erased from the environment. The selected agency must ensure that no data is retained by the LLM provider, and certified proof of data deletion must be provided. The LLM provider must not store any intermediate or derived data.

vi. The agency and LLM provider must comply with strict confidentiality and non-disclosure agreements (NDAs), ensuring that neither party retains or discloses any information related to the customer's data, models, or interactions. This agreement must extend to all personnel involved in maintaining or operating the LLM infrastructure.

vii. The LLM processing environment shall ensure that no user or system outside the customer’s designated personnel has access to the environment, including the LLM provider. Multi-factor authentication (MFA) and strict access control mechanisms must be enforced for any personnel interacting with the system.

viii. The agency must ensure that all data processing through the LLM complies with applicable data protection laws and regulations, including but not limited to Digital Personal Data Protection Act (DPDPA) and government-specific regulations. The environment must be audited and certified to comply with these standards, and all data processing must be conducted in accordance with the highest privacy standards.

7.13 System control and Audit

A. The system shall maintain all the instances, audit trails, audit logs and transaction logs (what, when, who has changed).

B. The application shall log all the actions done by individual users with username, date time stamp and the administrator shall be able to generate detailed audit logs and history of the process instance.

C. It shall enable availability of user wise online audit trails/ logs which shall be archived based on user, date, time etc. as part of audit records keeping.

D. All the edited and deleted (if any) records shall be traceable and copy of all records shall be kept in the system and which shall be available with MIS reporting of the same.

E. The system should maintain all the instances, audit trails, audit logs and transaction logs (what, when, who has changed).

F. The application shall log all the actions done by individual users with username, date time stamp and the administrator shall be able to generate detailed audit logs and history of the process instance.

G. All the edited and deleted (if any) records should be traceable and copy of all records should be kept in the system and which should be available with MIS reporting of the same.

7.14 Data Backup/ Data Archival/ Restore

A. In case of server failure, system shall support auto-switching of failover to another available/ backup server.

B. The system shall be able to archive data, based on user specified parameters (i.e., date range) and restore archival data for online use whenever required.

C. Backup and recovery of all the system software, application software, database, etc. as per GoI policy (Guidelines for Government Departments for Adoption/ Procurement of Cloud Services).

D. The selected agency shall adhere to the Digital Personal Data Protection Act, 2023 (DPDP Act, 2023) as prescribed by Govt. of India.

E. Regular backups, data replication and recovery options should be available to minimize downtime and data loss.

F. The system should provide automated backup and restore functionality for configuration settings, ensuring data integrity and providing recovery options in case of unexpected failures or data loss.

G. The system shall provide features to schedule backup/ restore operations. The Selected Agency shall ensure that activity such as proper Data Backup, Data Restoration, and Data Synchronization at Disaster Recovery site are tested and implemented properly as per the standard norms.

H. The system shall produce a report for each backup/ restore activity.

I. The system shall support direct backup of data from one machine to another/ from server to back tapes/ CDs/ Storage Area Network etc.

J. The system shall have provision to keep data on storage media with high tolerance of failure.

K. The system shall allow recovery of data in case of hardware/ software failure and data corruption. It shall be able to perform recovery to a point of time, to known backup database.

L. For backup data, highly available durable Storage shall be offered with minimum two copies of the data in the Primary Site.

M. System shall offer users the ability to increase the size of an existing block storage volume without having to provision a new volume and copy/move the data.

N. System shall support complete eradication of data such that it is no longer readable or accessible by unauthorized users and/or third parties.

O. System shall offer server-side encryption of data 'at-rest,' i.e., data stored on volumes and snapshots.

P. The system should adhere to the data retention and backup policies defined by the relevant authorities, ensuring data integrity and availability. SI shall ensure, the data archival & retention policy prescribed by the Department should be implemented in the project. A data archival policy should be implemented to manage and store historical data related to grievances and transactions while ensuring compliance with data protection regulations.

Q. Data Archival Policy 2024 shall be shared with the selected agency after getting onboarded.

7.15 Database

A. The database technology shall be a full-featured RDBMS and shall adhere to ANSI standards.

B. Database shall be able to compress structured data and unstructured data such as documents, images, and multimedia.

C. Database shall support data mining techniques and allow seamless integration with a data warehouse. The data mining techniques like classification, clustering, regression, and association rule learning shall be supported by the database to support data mining applications developed in the application layer.

D. Database shall support continuous Log replication between primary node and secondary node in Synchronous or Asynchronous mode.

E. The solution shall use appropriate storage options for storing unstructured data such as documents, images, and multimedia instead of storing it in RDBMS system.

F. Database shall provide high availability and disaster recovery using cost effective option of automatically synchronizing the transaction logs to disaster site, which in case of fail over the other node provides the availability of all data.

G. The solution shall provide controls for database security and monitoring.

H. The solution shall have database health monitoring components which can ensure application availability and performance.

I. When scaling by adding servers, no re-sharding on the user side should be necessary and should automatically be done transparently on the database side.

J. The database must be able to push data to various databases platforms for online and offline analytics using industry-standard BI/Analytics tools.

K. Bidder shall provide a database capable of multiple data models, including Graphical DB, Time Series, Relation Database, document, key-value, and In-memory to manage different types of data collected in the network and meet different user requirements.

7.16 Enterprise Management System

A. The new system shall be able to support the proposed hardware and software components at DC and DR over the tenure of the contract. The system shall be capable of providing early warning signals to the DARPG on the solution performance issues, and future infrastructure capacity augmentation.

B. Selected Agency is expected to provide and implement a new single enterprise system encompassing the following functions:

i. Configuration Management

ii. Fault Management

iii. Incident, Problem and Change Management

iv. Asset Management

v. Remote Control

vi. SLA management and monitoring

vii. Performance management

viii. Monitoring Backup and Management

ix. Event Management

x. Server, storage, and other infrastructure management

xi. Network Link Monitoring

xii. Other modules as required by Selected Agency to meet the requirements of this RFP

C. Also, the new system shall be extended to any new device which shall be added in future to fulfil the project requirements.

D. Selected Agency shall also provide the Login of EMS to the DARPG, so that key members of the Department and Project Management Unit (PMU) can monitor the SLA compliances.

E. Selected Agency shall provide access on EMS for live monitoring of resources or for the validation/audit of rules/SLAs configured. The DARPG shall have rights to access the live and historical reports. The admin credentials shall be with the purchaser only, so that SLA reports cannot be tampered.

7.17 Operations

A. The application shall have inbuilt analytics capability and able to generate user friendly MIS reports, Graphical reports etc. in customized and standard form. The following types of reports, but not limited to, are required to be generated from this

sub module. The report shall be generated in standard formats like MS Word, MS Excel, Adobe Acrobat files etc.:

i. Fixed Format Reports: Application shall have robust reporting capability, and shall be able to generate in multiple formats including XML, MS Word, MS Excel, Adobe Acrobat files etc. The output shall be delivered through email or shall be printed.

ii. Ad-hoc Reports: Application shall provide ad hoc query and analysis capability so that business users could create new analyses from scratch or modify existing analyses.

iii. Tools and utilities shall be provided to facilitate design layout using MS Word, MS Excel, Adobe Acrobat etc.

iv. System shall allow user to generate MIS reports/previous trends/graphics etc. as per the business process requirements. They shall be customizable as per user requirements

B. The application shall provide dynamic dashboards to all end-users. The layout and content of the dashboard would be based on the user role/ category/ type etc.

C. The application shall periodically and automatically save the data entered by the user into the system during a live session and shall make the data available to the user as intermediate save even after expiry of the session. System shall prompt the user regarding availability of intermediate/ draft data and ask for the permission to save or discard this data.

D. The application shall display data according to user profile/ access rights.

E. The application shall provide functionality to users in generating customized reports on their own without having knowledge about technical programming.

F. Any document or report shall be previewed before printing.

8 SERVICE LEVEL AGREEMENTS

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the Selected Agency to DARPG for the duration of this contract.

8.1 Implementation Service Levels (Liquidated Damages)

The Selected agency must strictly adhere to the deliveries defined in the milestones/timelines outlined in Section 6 of Volume 1 of this RFP. If the Selected Agency fails to meet the project timelines as per the milestones defined in RFP Volume 1, the DARPG reserves the right to impose penalties without prejudice to other rights under the contract. A penalty of 2% per week, or part thereof, will be deducted from the milestone payment for the first and second milestones. For the third milestone and onwards, a penalty of 0.5% per week, or part thereof, will be deducted from the milestone payment, as defined in RFP Volume 2 and calculated based on the final contract value.

Please refer to the table below for applicable penalty for implementation delays

8.2 Post Implementation Service Level Agreement

Service Level Agreement (SLA) will form part of the contract between the DARPG and the selected Agency. SLA defines the terms of responsibility in ensuring the timely delivery and compliance to the Performance Indicators as detailed in this RFP document. The SLAs shall be applicable from the effective date of agreement between DARPG and Selected Agency. The Selected Agency must comply with service levels requirements to ensure adherence to timelines, quality and availability of services to the DARPG and other stakeholders as mandated in the RFP.

Following section outlines the key service level requirements for the Nextgen CPGRAMS , DARPG, Government of India, which needs to be ensured by Selected Agency during project lifecycle. The SLA monitoring shall be performed/reviewed on weekly basis and related penalties / payments will be calculated on quarterly basis by the Department.

During the contract period, it is envisaged that there could be changes to the SLA, in terms of addition, alteration or deletion of certain parameters, based on mutual consent of both the parties i.e. The DARPG and the Selected Agency.

The Selected Agency shall be responsible for supply, installation, commissioning and maintenance of all devices and configure tools and standards for evaluation and SLA monitoring as per the minimum specifications given in RFP.

Such tools shall be capable of monitoring the availability and performance as prescribed in service levels & scope and shall facilitate the department to evaluate its adherence to the SLAs defined below.

8.2.1 Service Level Objectives

i. The purpose of the Service Level Agreement (SLA) is to clearly define and mutually agree to the minimum levels of the services which shall be provided by the Selected Agency to the DARPG. The following Service Level Objectives have been identified for governing the SLAs in this project.

a) System shall be available to the users at all times

b) System shall be easy to use

c) System shall be responsive enough for the user to work without time delays/ interruptions

d) Users shall be able to easily store and retrieve the data from the system

e) Users shall always get the right support as and when it is required to perform their business

8.2.2 Performance Review of the Selected Agency

a) Monthly performance review of the Services rendered by the Selected Agency will be carried out in Project Review Meetings every month during the whole lifecycle of the project.

b) Monthly project review meetings shall be conducted under the aegis of Secretary, DARPG under designated officer appointed by the Secretary, DARPG and their team with the Selected Agency or their nominated representatives.

c) Indicative agenda for these monthly meetings shall be to discuss progress of the project, priorities, service levels, vendor performance and Application performance. Additional meetings may also be held if needed at the request of either the DARPG or the Selected Agency.

d) PMU shall perform assessment based on the information provided by the Selected Agency and system generated reports received from the Enterprise Management software.

8.3 Definition

For purposes of the SLA monitoring, the SLA terms as specified in this RFP document shall have definitions as set forth below:

S.No.	SLA Terms	Definition
1	Availability	a. Shall mean availability of the Nextgen CPGRAMS, Network and Servers and other services as defined in the scope

S.No.	SLA Terms	Definition
		b. Shall mean the availability of remote desktop monitoring application to monitor the health and availability of the Cloud hosting.
2	Uptime	Shall mean the period for which the availability of the specified device/ services / components with specified technical and service standards are working as intended and available to Department
3	Downti me	Shall mean the period for which the specified device/ services / components with specified technical and service standards are not available to Department
4	Incident	Refers to any Complaint / Event / Abnormalities reported in the functioning of Nextgen CPGRAMS commissioned that may lead to disruption in Nextgen CPGRAMS operations
5	Intended Operation	Shall mean capability to carry out all operations normally decided by the DARPG
6	Response Time	Shall mean the time from the report of incident at the successful Selected Agency help desk to the time Selected Agency technician / engineer attended the reported incident
7	Resolution Time	Shall mean the time taken by the Selected Agency's technician / engineer from report of incident to the Selected Agency's team for resolving, diagnosing, troubleshooting, fixing followed by closing the incident in EMS by Selected Agency showing confirmation with all levels.
8	Monitoring	It may be noted that DARPG and its authorized representative shall be responsible for carrying out centralized Monitoring of the SLA parameters.
9	Penalty	Shall mean deductions/recoveries to be made from the total payable to the vendor in INR from the invoices of the Selected Agency as specified herein due to non- response, inefficiency, under performance and delayed service by the Selected Agency. This shall also include any non-compliance of the terms and conditions of the contract

Table 8: Service Level Agreement Terms

8.3.1 SLA Reporting

Other than the typically standard SLA reports/deliverables, the Selected Agency has to submit any other customized report (based on defined SLA parameters) as may be required by the DARPG, to be mutually agreed by The DARPG and Selected Agency.

8.3.2 Service Level Parameters

The operational portion of the contract between The DARPG and the Selected Agency shall be in the form of an SLA. The payments to the Selected Agency are linked to the compliance with the SLA metrics specified in this RFP document. The Selected Agency shall be required to provide web based One integrated Enterprise management System for SLA Monitoring tool (i.e. EMS) to the Department for real-time efficient and effective monitoring of the SLA parameters defined in this RFP document. The SLA monitoring shall also include:

I. The DARPG shall be able to measure and monitor the performance of the deployed infrastructure at Cloud and all related SLAs as set out in this RFP.

II. The Enterprise Monitoring System available at Cloud shall be to monitor the infrastructure hosted at the Cloud.

III. If Selected Agency proposes to use the BCP/DR site for Enterprise Reporting, then SLA measurement tool needs to be configured accordingly.

IV. Selected Agency shall deploy a suitable Application Monitoring system to monitor various applications and database queries and record various SLA parameters like uptime, response time etc.

V. Selected Agency shall generate various SLA compliance reports, and make them available to DARPG as per schedule, or as and when asked for.

8.4 Service Level Targets and Severity for Penalty

Following is the service level targets envisaged by the DARPG for ensuring the minimum performance levels of the Selected Agency and the project. These would also be the baseline for the purpose of calculation of Penalty (applicable, if any). The services provided by the Selected Agency shall be classified into Service Level Parameters which in turn have been classified into sub-parameters as per the table below. The table also defines metrics, baselines, and categories of SLA breach for each service level parameter / sub-parameter.

[a]	**Availability of NextGen CPGRAMS – All Components**						
SN	**Service Level Parameter**	**Sub-Parameter**	**Metric Used**	**Expected Baseline**	**Categories of SLA Breach**		
					Low	**Medium**	**High**
1	**Availability of Nextgen CPGRAMS– All core software modules**	Availability (uptime) of Nextgen CPGRAMS, except during scheduled downtime as agreed with the DARPG (should be supported with DARPG's approval) Uptime = {1 - [(Nextgen CPGRAMS downtime) / (Total Time)]} Total Time shall be measured on 24*7 basis. **Quarterly SLA Monitoring** Average of the day wise compliance shall be taken for Quarterly measurement.	% availability of Nextgen CPGRAMS	>=99.7% availability per month To be measured Quarterly from MIS report generated by EMS and SLA monitoring tool. The daily performance should be recorded in EMS in real time.	<99.7% and >=99% availability per month	<99% and >=98.5% availability per month	<98.5% availability per month
					Penalty		
					2% of total Quarterly pay out	3% of total Quarterly pay out	5% of total m Quarterly pay out Additional 1% each for every drop-in availability percentage by 1% (below <97%)
[b]	**Security Incident Management**						
2	Security Management for Incidents such as virus attack, denial of service attack, data theft, device theft, etc.	In event of severity level 1 (high impact on business operations), the immediate steps to be taken towards damage control and to secure the system within 1 hour of occurrence or reporting the incident at helpdesk (whichever is earlier)	% of total number of incidents occurred / logged in helpdesk system	100% incidents to be resolved within 1 hour after its occurrence or the ticket is logged in helpdesk system Every occurrence of	>1 hour but <=2 hours after its occurrence or the ticket is logged in helpdesk system	>2 hours but <=4 hours after its occurrence or the ticket is logged in helpdesk system	More than 4 hours after its occurrence or the ticket is logged in helpdesk system

[a]	Availability of NextGen CPGRAMS – All Components						
SN	Service Level Parameter	Sub-Parameter	Metric Used	Expected Baseline	Categories of SLA Breach		
					Low	Medium	High
				Level 1 security incident would attract a penalty of INR 5 lakh To be measured from MIS report generated by EMS and SLA monitoring tool. The daily performance should be recorded in EMS in real time.	Penalty		
					INR 10 lakh per ticket / incident	INR 15 lakh per ticket / incident	INR 20 lakh per ticket / incident plus (+) INR 5 lakh for each additional one-hour
		In event of severity level 2 (business operations are not impacted but compromise in confidentiality, integrity, access, authentication), the immediate steps to be taken towards damage control and to secure the system within 2 hours of occurrence or reporting the	% of total number of incidents occurred / logged in helpdesk system	100% incidents to be resolved within 2 hours after its occurrence or the ticket is logged in helpdesk system To be measured from MIS report	>2 hours but <=4 hours after its occurrence or the ticket is logged in helpdesk system	>4 hours but <=8 hours after its occurrence or the ticket is logged in helpdesk system	More than 8 hours after its occurrence or the ticket is logged in helpdesk system
					Penalty		

[a]	Availability of NextGen CPGRAMS – All Components						
SN	Service Level Parameter	Sub-Parameter	Metric Used	Expected Baseline	Categories of SLA Breach		
					Low	Medium	High
		incident at helpdesk		generated by EMS and SLA monitoring tool. The daily performance should be recorded in EMS in real time.	INR 5 lakh per ticket / incident	INR 10 lakh per ticket / incident	INR 15 lakh per ticket / incident plus (+) INR 3 lakh for each additional one-hour
[c]	Cloud Services						
3	Recovery Time Objective (RTO)	Measured during the regular planned/unplanned or Cloud Platform/ DR outage	% of total number of incidents occurred / logged in helpdesk system	100% incidents to be resolved within 1 hour after its occurrence or the ticket is logged in helpdesk system (whichever is earlier) To be measured from MIS report generated by EMS and SLA monitoring tool. The daily performance should be recorded in EMS in real time.	>=1 hour & <1.30 hours	>=1.30 hours & <2 hours	>=2 hours
					Penalty		
					INR 10 lakh per ticket / incident	INR 20 lakh per ticket / incident	INR 30 lakh per ticket / incident plus (+) INR 10 lakh for each additional one-hour

[a]	**Availability of NextGen CPGRAMS – All Components**						
SN	**Service Level Parameter**	**Sub-Parameter**	**Metric Used**	**Expected Baseline**	**Categories of SLA Breach**		
					Low	**Medium**	**High**
4	Recovery Point Objective (RPO)	Measured during the regular planned/unplanned or Cloud Platform/ DR outage	% of total number of incidents occurred / logged in helpdesk system	100% incidents to be resolved within 15 minutes after its occurrence or the ticket is logged in helpdesk system (whichever is earlier) To be measured from MIS report generated by EMS and SLA monitoring tool. The daily performance should be recorded in EMS in real time.	>15 Minutes & <=20 Minutes	>20 Minutes & <=25 Minutes	>25 Minutes
					Penalty		
					INR 10 lakh per ticket / incident	INR 20 lakh per ticket / incident	INR 30 lakh per ticket / incident plus (+) INR 10 lakh for each additional 30 minutes
[d]	Manpower Services						
5	Key manpower resource – 2 (Project Manager and Senior Data Analyst /BI Analyst) to be	Monthly availability of key manpower resource to be calculated based on its working shifts for a month. Working shift means: 10am to 6pm (for Monday to Saturday,	Number of working shifts per resource per month	Availability of a key manpower resource during all working shifts in a month	Total number of absent working shifts per resource per month are >0 but <=5	Total number of absent working shifts per resource per month are >5 but <=10	Total number of absent working shifts per resource per month are >10

[a]	Availability of NextGen CPGRAMS – All Components						
SN	Service Level Parameter	Sub-Parameter	Metric Used	Expected Baseline	Categories of SLA Breach		
					Low	Medium	High
	deployed full-time by Selected Agency at DARPG's office during tenure of the project	except for official holidays of Government of India) Number of absent working shifts per resource will be calculated based on its attendance report from Biometric system (managed by DARPG) & adjustments of leaves approved by designated authority of the DARPG			Penalty		
					Total number of absent working shifts * INR 9000	Total number of absent working shifts * INR 12000	Total number of absent working shifts * INR 15000
6	Rest of the 7 Onsite Resources as defined in section 5.15 of this RFP	Monthly availability of each key manpower resource to be calculated based on its working shifts for a month. Working shift means: 10am to 6pm (for Monday to Saturday, except for official holidays of	Number of working shifts per resource per month	Availability of a key manpower resource during all working shifts in a month	Total number of absent working shifts per resource per month are >0 but <=5	Total number of absent working shifts per resource per month are >5 but <=10	Total number of absent working shifts per resource per month are >10
					Penalty		

[a]	Availability of NextGen CPGRAMS – All Components						
SN	Service Level Parameter	Sub-Parameter	Metric Used	Expected Baseline	Categories of SLA Breach		
					Low	Medium	High
		Government of India) Number of absent working shifts per resource will be calculated based on its attendance report from Biometric system (managed by DARPG) & adjustments of leaves approved by designated authority of the DARPG.			Total number of absent working shifts * INR 8000	Total number of absent working shifts * INR 9500	Total number of absent working shifts * INR 11000
Total penalties (including penalties towards “Manpower Services”) for a quarter shall not be higher than the quarterly pay-out for respective period.							

[e]	Centralized Helpdesk						
7	Availability of toll-free lines at helpdesk location	Uptime = {1 - [(Toll Free Line downtime) / (Total Time)]} Total Time shall be measured on weekly actual Central Govt. office hours. Downtime shall be measured from the time the Toll-free Line	% of availability of toll-free lines at helpdesk location	Minimum 99% uptime measured on quarterly basis per toll-free line To be measured Quarterly from MIS	>= 97.0% to <99% availability of toll-free line	>= 95.0% to <97% availability of toll-free line	<95% availability of toll-free line
					Penalty		

[e]	**Centralized Helpdesk**						
		at a helpdesk becomes unavailable to the respective users to the time it becomes available. Quarterly SLA Monitoring Average of the day wise compliance shall be taken for Quarterly measurement. Performance Monitored through CRM application and OEM performance certificate		report generated by Call Centre / Helpdesk CRM. CRM to be integrated with EMS	1% of total Quarterly pay out	2% of total Quarterly pay out	3% of total Quarterly pay out Additional 1% each for every drop-in availability percentage by 1% (below <93%)
8	Inbound Calls Abandonment Rate (unanswered calls by helpdesk agents)	This measure % of total number of calls that were requested for an agent but got disconnected before being answered by the agent. Only calls that get disconnected or unanswered after 60 seconds from transfer using IVRS options shall be	% of total number of calls requested for an agent	Minimum 99% calls answered by helpdesk agents To be measured Quarterly from MIS report generated by Call Centre /	>= 97.0% to <99% calls answered by the helpdesk agents	>= 95.0% to <97% calls answered by the helpdesk agents	<95% calls answered by the helpdesk agents
					Penalty		

[e]	**Centralized Helpdesk**						
		considered for computation of this SLA. Quarterly SLA Monitoring Average of the day wise compliance shall be taken for Quarterly measurement. Performance Monitored through CRM application and OEM performance certificate		Helpdesk CRM. CRM to be integrated with EMS	1% of total Quarterly pay out	2% of total Quarterly pay out	3% of total Quarterly pay out Additional 1% each for every drop-in availability percentage by 1% (below <93%)

Table 9: Service Level Targets and Severity for Penalty

Note: *The DARPG reserves right to terminate the contract if total penalties for a year exceeds more than 10% of total contract price (notional value of contract will be conveyed by the DARPG to Selected Agency at the time of issuance of work order).*

9 USER FLOW & FUNCTIONALITIES

The NextGen CPGRAMS aims to revolutionise the grievance redressal process across various ministries and sub-departments by leveraging AI-driven technologies and modernising the existing framework. The flow diagram given below illustrates the indicative overall process and interactions within the NextGen CPGRAMS.

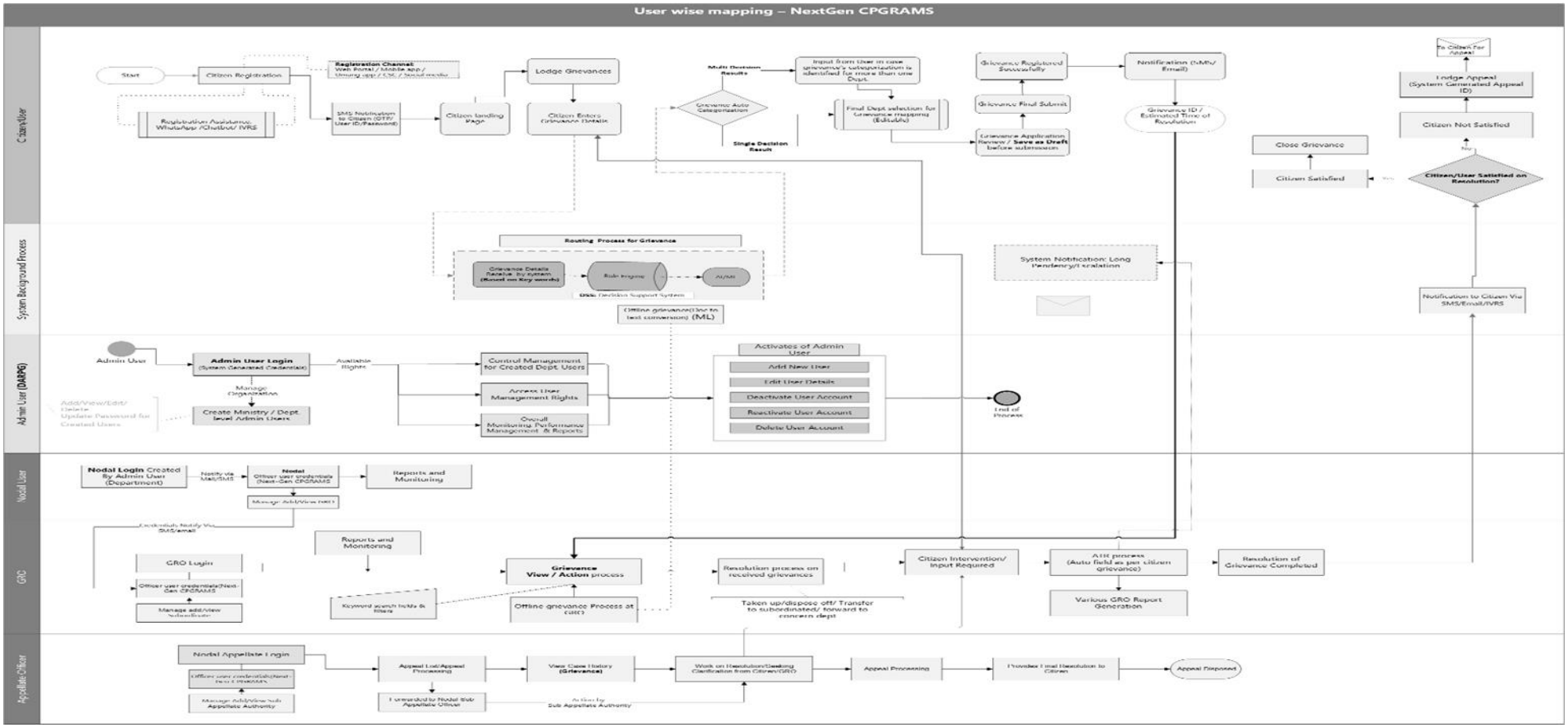


Figure 4: Flow Diagram of NextGen CPGRAMS

9.1 Indicative Functionalities & Features of Nextgen CPGRAMS

9.1.1. High Level Functionalities & Features

#	Functionality	Description
1	Integration with external applications or portals using APIs	APIs will be developed to integrate external applications and portals with CPGRAMS, enabling seamless grievance lodging through third-party platforms.
2	Centralised cockpit for orchestration of complaints across ministries, departments, and states	A centralised dashboard will allow monitoring and managing grievances across 54 ministries and 94 departments, ensuring efficient resolution.
3	AI-driven mapping of complaints to relevant departments	AI algorithms will automatically map complaints to appropriate departments based on the nature of the grievance, improving efficiency and accuracy.
4	Auto-mapping feature using AI algorithms for precise mapping	AI algorithms will use keywords and context from the complaint text to automatically match grievances with the relevant department.
5	Suggestive resolution system based on past grievances	The system will suggest potential resolutions based on similar past grievances, expediting the resolution process.
6	Auto-population of Action Taken Reports (ATRs)	ATRs will be auto populated based on the data from past cases, reducing manual effort.
7	OCR conversion for paper-based grievances in multiple Indian languages	The system will convert scanned or paper-based grievances into digital text, supporting multiple Indian languages for better accessibility.
8	Summarisation of long grievances for easy review	Long and detailed grievances will be summarised to provide a clear, concise overview for both citizens and officials.
9	Solution suggestion engine based on historical data	A recommendation engine will leverage past grievance resolutions to suggest effective solutions for new grievances.

#	Functionality	Description
10	User-friendly citizen interface integrated with external solutions like Bhashini	A citizen-facing interface will be integrated with solutions like Bhashini for easy grievance lodging and tracking.
11	Automatic categorisation of grievances	Grievances will be automatically categorised by type, priority, and scheme for faster processing.
12	Clear user journey for grievance submission and tracking	A clear and intuitive user journey will guide users through the process of submitting and tracking grievances.
13	GRO interface with automatic categorisation using LLMs	The interface for Grievance Redress Officers will use large language models to categorise grievances and facilitate decision-making.
14	Validation of grievance categorisation by GRO	GROs will be able to validate the automated categorisation to ensure accuracy and relevance.
15	Centralised dashboard analysing text, PDFs (typed and handwritten), and photographs	The dashboard will be able to process and analyse various formats, such as text, PDFs (both typed and handwritten), and images.
16	Comprehensive list of ministries and sub-departments for mapping complaints	The system will maintain a detailed list of ministries and departments with keywords for accurate mapping of complaints.
17	Advanced language models for understanding and categorising complaints	Advanced language models will be used to effectively analyse and categorise complaints.
18	Classification and recommendation models for enhancing complaint handling	The system will use classification and recommendation models to improve complaint management and resolution.
19	Recommendation engine with solution suggestions based on similarity algorithms	The recommendation engine will provide solutions using similarity algorithms based on previously resolved grievances.
20	User interaction tools including chatbot for communication	A chatbot will be integrated for real-time user support and communication.

#	Functionality	Description
21	Admin dashboard with control panel for complaint management	The admin dashboard will provide a control panel for monitoring and managing complaints, ensuring efficient administration.
22	Integration with Bhashini chatbot/WhatsApp for citizen grievance input and categorisation	The core application/solution of NextGen CPGRAMS shall be compatible for integration with Bhashini chatbot/WhatsApp, from where prompts about citizen details, grievance, and categorisation will be fed into the core application. Based on the input, the core application/system will automatically allocate the grievance to the appropriate department or scheme and assign it to the correct Grievance Redress Officer (GRO).
23	Suggestive resolution system based on past grievances	The core application/solution/system of NextGen CPGRAMS will provide the Grievance Redressal Officer (GRO) with suggestive resolutions, along with the percentage of times each suggestion has been successfully used to close similar grievances in the past, based on the resolution replies and processes followed previously. This analysis is designed to speed up the grievance handling process, while the GRO will still manually close the grievance.
24	Establishment of a comprehensive data lake/Lakehouse and analytics platform	The platform will serve as the central repository for all master data, supporting key applications such as NextGen CPGRAMS, Grievance-related data, reporting, dashboards, and advanced analytics, delivering outputs in various formats (APIs, HTML, PDF, CSV).
25	Handling structured, semi-structured, and unstructured data from various sources	The platform will manage structured data (e.g., grievance records), semi-structured data (e.g., clickstream data), and unstructured data (e.g., documents, photographs, videos, call records, images).
26	Support for batch, real-time, and event-driven data ingestion with data transformation	Supports data ingestion from multiple sources in both batch and real-time modes with data transformation processes.
27	Implementation of data governance tools for quality control, metadata management, and data lineage	Provides data governance features to ensure data quality, metadata management, and track data transformations.
28	Development of a centralized dashboard with analysis of text, PDFs, photographs, and more	The dashboard will analyze different formats including text, PDFs (typed and handwritten), and photographs.
29	Use of LLMs for root cause analysis and identification of problem areas	LLMs will be used in the dashboard for intuitive root cause analysis and the identification of problem areas.

#	Functionality	Description
30	Natural language search feature for easy access to information	Allows for natural language search to make information more accessible within the dashboard.
31	Creation of various data repositories including raw data stores, processed data stores, and centralized data warehouse	Creates and manages repositories for raw data, processed data, and a centralized grievance data warehouse.
32	Development of advanced analytics and AI/ML models for predictive insights	Develops advanced AI/ML models to provide predictive insights based on grievance data.
33	Provision of real-time and batch-mode analytics services	Supports both real-time and batch-mode analytics services for operational and predictive reporting.
34	Creation of comprehensive reports, MIS, and dashboards for regulatory and operational needs	Provides comprehensive reports, MIS, and dashboards to meet regulatory, operational, and stakeholder requirements.
35	Provision of ad-hoc reporting functionality for self-service by key users	Ad-hoc reporting capability allows users to generate reports without predefined templates, offering flexibility.
36	Maintenance and support of the platform for the entire project duration	Ongoing maintenance and updates of the platform, including adding new data sources and analytical models.
37	Dashboard application with inbuilt analytics for generating MIS and graphical reports	Inbuilt analytics tools for generating MIS and graphical reports in standard and custom formats.
38	Ability to generate fixed format and ad-hoc reports in multiple formats (XML, MS Word, Excel, etc.)	Ability to generate reports in formats like XML, MS Word, Excel, PDF, and deliver them via email or print.
39	Tools for designing report layouts using MS Word, Excel, Adobe Acrobat	Offers tools to design report layouts using common formats like MS Word, Excel, and Adobe Acrobat.
40	Customizable dynamic dashboards based on user role, category, and type	Provides dynamic dashboards that are customizable based on user role, category, or type.
41	Periodic auto-save of user-entered data during live sessions with intermediate save functionality	System automatically saves user-entered data during live sessions and provides intermediate save functionality.
42	Display of data according to user profile and access rights	Displays data based on user profiles and access rights, ensuring data security and relevance.

#	Functionality	Description
43	Functionality for generating customized reports without technical programming knowledge	Allows users to generate custom reports without needing technical knowledge or programming skills.
44	Preview of any document or report before printing	Users can preview documents or reports before final printing, ensuring accuracy and formatting.
45	Deployment of LLM in Dashboard for query-based analysis and real-time monitoring	Deployment of an LLM for supporting query-based analysis and pro-active monitoring with real-time dashboards and alerts when new or unique data is generated during grievance processing, resolution, appeal, etc.
46	Auto-population of Action Taken Reports (ATRs)	The core application/system will automatically populate Action Taken Reports (ATRs) based on grievance data.
47	OCR conversion of paper-based grievances in various Indian languages	The core application/system supports Optical Character Recognition (OCR) for converting paper-based/scanned letter/handwritten letter-based grievances into digital text in multiple Indian languages.
48	Translation of grievances into desired Indian languages	The core application/system provides translation capabilities to convert grievances into the desired Indian language for ease of use.
49	Summarization of long and detailed grievances, including letter-based grievances	The core application/system will summarize long grievances into a concise, self-explanatory gist for easier understanding.
50	Option for complainant to view and confirm summarized grievances	In core application/system complainants will be able to view the summarized version of their grievance and confirm it for accuracy.
51	Option for GRO/Appellate to view summarized grievances on their interface	In core application/system Grievance Redressal Officers (GROs) and Appellate officers will be able to view the summarized version of grievances on their interface for better clarity.
52	Bunching and closure of similar grievances	The core application/system should have an AI feature that identifies similar of Grievance and allows GRO for Bunching and closure together

Table 10: Indicative Functionalities of NextGen CPGRAMS