Request For Proposal

Appointment of QA Partner Agency

for

UMANG

(Unified Mobile Application For New-Age Governance)

Backend, Frontend, Helpdesk and Voice/Chat Bot

May, 2021

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PART – I

1. Purpose of the document

The Request for Proposal (this document) floated by NeGD-MeitY (National e-Governance Division - Ministry of Electronics & Information Technology), Government of India is to select a Partner Agency which would be responsible to conduct needed Audits (Platform/API Security, SLA/O&M, Performance etc.) and Testing (Functional Acceptance, Platform-Capacity/ Load-Handling etc.) related to UMANG Platform, comprising of Backend, Frontend, Helpdesk, AI based Voice/Chat Bot, for a period of 3 years and then one extension of 2 years, i.e. max of 5 (3+2) at the quoted commercials and executed contract terms & conditions.

2. Introduction

National e-Governance Division (NeGD) is an autonomous business division of Digital India Corporation, under the Ministry of Electronics and Information Technology (MeitY), for supporting and assisting MeitY in Program Management of NeGP (e-Kranti) and supporting Digital India (DI) Programme. Under Digital India Programme, NeGD has developed UMANG, which is a unified platform with a single mobile app (on Android, iOS and KaiOS) and web (www.umang.gov.in) at the front-end. It aims to provide a single point 24x7 access to major government services from the Central Government, State/UT Governments, and local bodies as well as from their agencies from mobile.

On November 23, 2017, the Hon'ble Prime Minister dedicated the UMANG Mobile app to the Nation. Within a short period of its successful running, the mobile app bagged:

a) 'Best m-Government service' award at the 6th World Government Summit held at Dubai, UAE, on February 2018.

b) IDC Digital Transformation Awards 2018 in August, under the category Omni-experience Innovator which recognized it as a pioneering initiative.

c) 'Digital India Jury choice award 2018-19' and

d) DARPG Gold award 2018-19 for 'Excellence in providing Citizen Centric Delivery'.

Since then, no. of services on UMANG increased from 163 to 20786 (comprising of 530 central services, 620 state services & 19,636 bill payment services) with more in pipeline and registered users scaled to about 2.8 crore. UMANG has been maintaining user rating of 4+ on Play Store.

UMANG reach is expanded to rural areas through 3.75 lakh Common Service Centres in assisted mode. UMANG supports 8x7 Helpdesk Centre (Toll Free Number is 1800-11-5246) to manage user queries/grievances regarding UMANG platform and services on it.

3. Request for Proposal – Objective

The true potential of UMANG can only be realized, when the delivery and availing of services through UMANG is robust, durable and user friendly. Key objective of UMANG is to enhance 'Ease-of-Living' with 24x7 digital access to services at the click of a button on mobile, anytime/ anywhere, without any intermediary.

UMANG Platform has been structured into 4 logical segments as listed below, each being managed and operated by a different Partner Agency:

a) **UMANG Backend**, managed by M/s Ernst & Young – Core platform, all associated development (new or enhancements or optimizations), its integration with department's platform/applications for services on-boarding; Operations, Maintenance and Management of the Platform (production as well as staging)

b) **UMANG Frontend**, managed by M/s Daffodil – Client side platforms (mobile – Android, iOS & KaiOS; Web – all major browsers; Indian & International versions both), all associated development and delivery of applications/services, enhancements/ optimizations; Operations, Maintenance and Management of all services on all interfaces in all versions

c) **UMANG Helpdesk**, managed by M/s Cyfuture – Operating the 8x7 Help Desk Centre, interfaced with UMANG CRM.

d) **UMANG Conversational AI based Voice/Chat Bot**, managed by M/s Senseforth – Enablement of UMANG services for delivery over voice & chat through cloud hosted 'Conversational AI based Platform and Voice/Chat Bots' in different Indian languages including Hindi & English.

As the Agreement with current QA Partner Agency is coming to an end, NeGD intends to find a new QA Partner Agency, which will be responsible to conduct below listed audits and testing across 4 segments as stated above:

a) O&M/SLA Audit   – Backend, Frontend, Helpdesk and Voice/Chat Bot
b) Testing   – Functional Acceptance Testing (FAT) of services enabled on UMANG and AI Voice/Chat Bot
c) Security Audit   – Backend, Frontend and Voice/Chat Bot
d) Security Audit   – Department Service APIs
e) Regression Testing   – Backend, Frontend and Voice/ Chat Bot

This RFP is for appointment of QA Partner Agency for UMANG Platform comprising of 04 segments as mentioned above.

NeGD invites proposal from reputed and reliable companies/vendors (hereafter referred as 'Bidders) to appoint QA Partner Agency, who is capable of undertaking audits and testing, as stated above, for all four segments of UMANG Platform comprehensively, with agility/ conviction/ confidence and using state of the art tools/ testers, process & methodologies.

The Partners, who are already engaged and managing and/or deploying the above stated 04 segments of the UMANG Platform i.e. Backend, Frontend, Helpdesk and Conversational AI based Voice/ Chat Bot, are not eligible to participate in this RFP. However, this restriction is not applicable to the existing QA Partner Agency, whose term is coming to an end.

Request for proposal (RFP) is available at Central Public Procurement Portal (https://eprocure.gov.in/eprocure/app), NeGD website (http://www.negd.gov.in) as well as on MeitY's website (http://www.meity.gov.in) for ready reference. Bid against this RFP shall be submitted online only at Central Public Procurement Portal (CPP portal) (https://eprocure.gov.in/eprocure/app). No other mode of bid submission shall be accepted.

4. References

Potential bidders may refer to the RFPs floated for the selection of Partner Agencies to manage and operate the 4 key segments of the UMANG platform as mentioned above in clause 3.0 for further details. The links to these RFPs are given below:

a) UMANG Backend (Monday, October 7, 2019)
https://www.meity.gov.in/tenders/rfp-appointment-partner-agency-vendor-1-umang-%E2%80%93-backend-unified-mobile-application-new-age

b) UMANG Frontend (Revised, Monday, December 30, 2019)

c) UMANG Helpdesk (Sunday, October 6, 2019)

d) UMANG AI based Voice/ Chat Bot (Friday, January 1, 2021)

5. UMANG Overview

UMANG is one of a kind government service aggregation platform delivering hundreds of services through single app on all major mobile platforms i.e. Android, iOS, KaiOS and Web. Currently, various Government departments of Centre, State, local bodies and corporates are the service providers to the end-users on UMANG. Backend applications of these service provider departments connect with UMANG platform through APIs provided by them or developed by UMANG for them. The applications of these departments are diverse in terms of implementation and technology stack used.

UMANG platform is hosted on the NIC cloud, thus, the hosting environment as well as data for the entire UMANG platform resides within the territory of India.

UMANG solution involves three layers, a) UMANG Client Apps – Android, iOS, KaiOS and Web; b) UMANG Platform (cloud hosted) and c) Departments' Backend (Service Providers) connected to UMANG through APIs. Concept diagram is presented below.
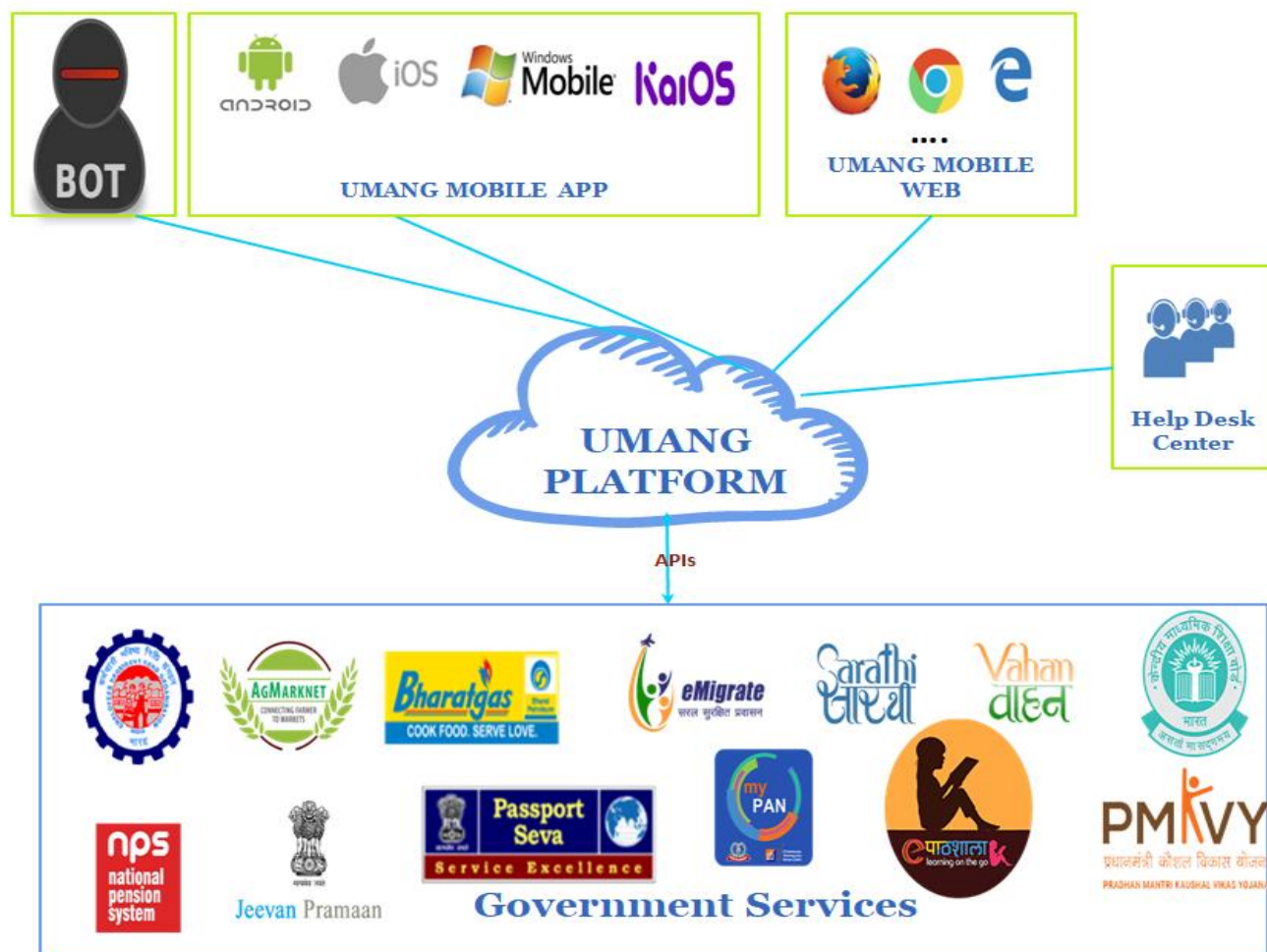
Fig 1 – UMANG Concept Diagram

5.1 UMANG Client Apps (Frontend)

Users can access services offered through UMANG using a single mobile app available on Android, iOS, KaiOS and also through a single mobile web app (on major browsers such as Chrome, Firefox, Safari, IE, Edge etc.) currently. These frontends can expand in coming years to different types of clients such as Bots (Voice and Chat) and other popular platforms on need basis.

5.1.1 Mobile App

a) The core of UMANG Android and iOS apps are fully interactive, native mobile apps, built using the platform-specific development tools and technologies defined by Google and Apple respectively.

b) The department applications and their services are HTML, JS, CSS based web applications rendered on the mobile apps with platform specific customizations of view, navigation etc.

c) The app, with continuous improvements, follows the platform specific and latest best practices for security and performance to ensure a smooth, hassle free experience for the user.

d) For the UI/UX part, the app follows a customized design guidelines based primarily on material design guidelines defined by Google for Android apps and Apple's HIG guidelines for iOS apps.

Table 1 – Technology Stack for Frontend

1.	Android	Java, Android Studio, Android SDK
2.	iOS	Objective-C, Swift, Apple Xcode
3.	KaiOS	React JS, Redux, Flux, Sass (NodeJS, Webpack for packaging)
KaiOS is currently developed in-house and tested by Reliance Jio		

Reference URL to download the UMANG mobile applications from respective store is: https://web.umang.gov.in/uaw/i/v/ref. Users can also give missed call on 97183-97183 to get a download link through SMS.

5.1.2 Web

The web part consists of a fully responsive web application for multiple form factors (primarily targeting mobile web). Server rendered pages use Java, JSP, Spring, Hibernate and client side pages use HTML, CSS, AngularJS and other JavaScript libraries. The web URL to access UMANG services is **https://www.umang.gov.in/.** For more details on Frontend please refer UMANG Frontend RFP at NeGD Website at link mentioned above at clause 4 b).

5.2 UMANG Helpdesk

In order to manage queries and/or grievances of UMANG users, a 8x7 Helpdesk is established and managed by M/s Cyfuture. For more details on Helpdesk please refer UMANG Helpdesk RFP at NeGD Website at link mentioned above at clause 4 c).

5.3   UMANG Backend

The UMANG backend can be considered as a middleware between the back-end application of the departments (whose services are offered through UMANG) and UMANG Client apps. UMANG platform is also placed as a mBaaS (mobile-Backend-as-a-Service) powered by an industry grade API management layer for API management, transformation, orchestration etc. The platform is built on industry-grade, open source components and technologies. The architecture is open standards based and follows loosely coupled design philosophy, allowing seamless integration and interoperability. Departments can have different technology stacks. The components of the stack are mentioned below.

Fig 2 – UMANG Open Source Technology Stack

The platform is constituted of many components coupled together. These components are for Authentication and Authorization, Analytics, Self-care for departments (For configuration of services), Campaign and Notification management, SMS Gateway integration, IVRS, Transaction Management, Payment Gateway integration, Aadhaar integration, Digilocker integration and CRM. The platform uses several Open Source tools/solutions as part of its technology stack which includes

Table 2- UMANG Open Source Technology Stack

S. No.	Component	Technology Stack/Platform/Tool
1.	Operation System	RedHat Linux
2.	API Manager	WSO2
3.	Load Balancer	NGINX
4.	App Server	Tomcat
5.	Database	a. Postgres b. Redis - Cache & Session Management
6.	Message Broker	Kafka
7.	Log Management	Graylog
8.	Notifications	Firebase Cloud Messaging
9.	Analytics	Tomcat, AngularJS, Postgres
10.	APM	Apache Skywalking, Angular 6, Tomcat

Following diagram summarizes the logical flow in UMANG:
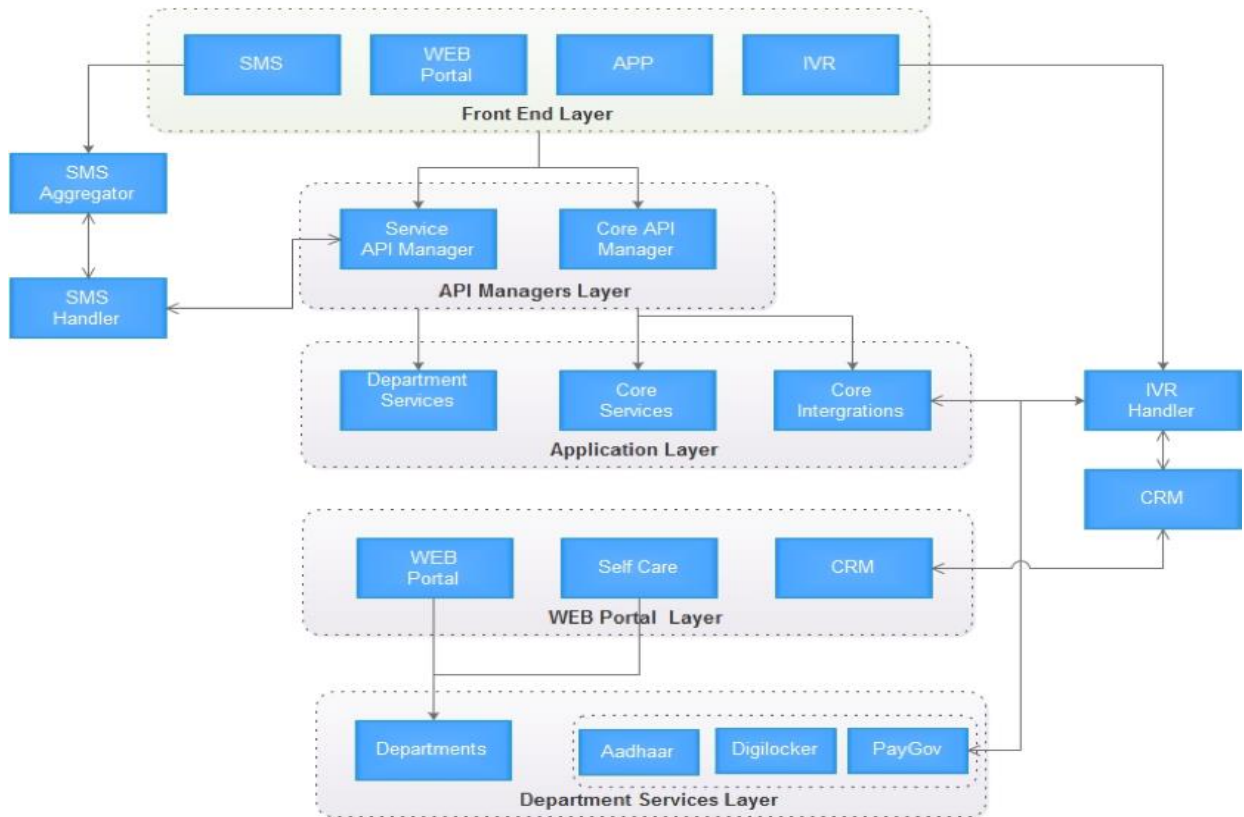
Fig 3 – UMANG Logical Flow

5.3.1 Design Principles

Key design considerations for UMANG are summarised below.

5.3.1.1. User Centric

End users availing the services are centric to the design of UMANG Backend. The system focuses on ease of use and simple operation along with ensured availability of the services. The system allows and enables fast on-boarding of user-centric services and quick roll-out on UMANG Frontend.

5.3.1.2. Heterogeneous and Interoperable

The UMANG platform has been designed keeping in mind that information flows across applications owned by different departments. The UMANG platform is able to integrate and interoperate with various other external entities. The solution is capable of integrating with external entities and interoperate with multitude of technologies, easily and in a relatively seamless manner.

The UMANG platform also support features which work seamlessly to power various Client Apps of UMANG.

5.3.1.3. Sustainable and Scalable

Architecturally, the UMANG backend is sustainable and scalable. Sustainability requires the platform to use software, tools, frameworks etc., which has a large usage base and regular long-term support and upgrades. For scalability, UMANG backend is cloud enabled to take the advantage of next generation cloud implementations and technologies. The following were the criteria for selection of the technology:

a) Every component needs to scale to a large volume

b) Every component as well as the whole system needs to provide consistent and acceptable performance even at very large scale

c) Single point of bottle-neck and failure are avoided

While upgrading and scaling-up, platform supports earlier versions especially when upgrading the APIs.

5.3.1.4. Pluggable and Loosely coupled Components

The system supports open standards and open APIs with plug-n-play capabilities. The system design supports plugging-in new technologies and components in a seamless manner, and easy removal of any obsolete technology or component without impacting any other component of the system. The components are loosely coupled to allow changes in

applications that are integrated with it and in any sub-system level without affecting other parts. It is capable of working in a heterogeneous technical environment.

5.3.1.5. Easy On-boarding

On-boarding of departments/e-Gov applications involve minimal changes (ideally to the extent of exposing their existing APIs or developing new APIs if required) in their respective applications. Also, Service enablement is supported across all frontend client simultaneously.

5.3.1.6. Address privacy concerns

The UMANG backend addresses the privacy concerns of integrated applications and thus restrict visibility of each department to data/information pertaining only to them. Also, the platform protects users' information.

5.3.1.7. Analytics

The UMANG platform is able to generate insights for analytics. These includes, but is not restricted to, on-demand reports which can be configured, filtered and customized by NeGD as well as integrating departments. The UMANG platform can provide usage at an aggregate as well as at an individual level.

Relevant dashboards are available for decision makers about the platform's performance and usage and insights on user information (demographic, location, behavioural etc. aspects).

5.3.1.8. Multi-Language Support

Various mobile channels support local Indian languages to be able to reach masses. UMANG backend provides support for English and standard local languages across various channels. UMANG backend is capable of providing multilingual capabilities for both static and dynamic data.

5.3.1.9. Security

UMANG platform is capable of managing security and privacy at multiple levels. A transactional service require higher security levels than an ordinary information service such as status check or weather forecast. Non-functional requirements such as data security, user authorization and access control have been taken into account while designing the components of the platform.

5.3.1.10. Easy integration with external interfaces

In the current IT environment when several function specific systems are developed, a system comprises of core functional modules talking to several platforms and services through APIs published by such platforms. UMANG platform has technical capabilities to

integrate with external interfaces such as payment gateways, identity providers, location services etc.

5.3.2. UMANG Core integrations

5.3.2.1. *Aadhaar/VID (UIDAI, MeitY)*

The UMANG platform has the capability to authenticate users via mobile number linked with Aadhaar/ VID. UMANG platform has been compliant with UIDAI Aadhaar/ VID guidelines issued by UIDAI from time to time and be kept compliant to such guidelines in future.

5.3.2.2. *Digilocker (NeGD, MeitY)*

The UMANG app allows integration with Digital locker, which extends capabilities such as creation of Digilocker account (for new users), access to existing Digilocker account using user credentials, access of stored documents, upload any document stored in mobile or scanned by the mobile camera, sharing of documents along with Departmental service flows where documents are required to be shared with departments for availing services.

5.3.2.3. *PayGov (PayGov of MeitY or as provided by Departments)*

UMANG is single platform for on-boarding major citizen centric apps and PayGov is integrated as a part of UMANG and is extended to all states/ department apps that are on-boarded on UMANG where a payment/charge is taken from citizen for availing the services as decided by governing body of the services

5.3.2.4. *RAS (NeGD, MeitY)*

UMANG platform is integrated with Rapid Assessment System (RAS) for continuous feedback of services on-boarded on UMANG. Once a user has availed a service on UMANG different mechanism are available including invocation of a mandatory feedback page post availing the service. The feedback is then available with concerned department.

5.3.3. UMANG Backend Modules

Major modules of UMANG backend developed as a part of the current system and available on 'as is where is' basis and which shall undergo continuous improvement as per the requirements of different stakeholders are listed below.

5.3.3.1. *Self-Care*

Self-care, besides providing insights into various technical (API performance) and non-technical parameters (Feedbacks and Ratings), provides a configurable management system

for all the service providers integrated with UMANG. Some salient feature and functionalities are:

a) It provides a multilevel authorization and access control for its users. Departments can configure their logo, short and long descriptions, search keywords (multilingual) etc. for services enabled on UMANG.

b) Departments with access to Self-care can push notifications to their selected user base through various options.

c) Departments can block and unblock their services on UMANG

5.3.3.2. Analytics

UMANG application provides analytics tool to provide detailed reports of transactions or usability of the services on UMANG platform. The platform is dynamic in nature and users can access various kinds of reports for different date ranges. Some of the reports are daily transactional reports, total hits on department services, total subscribers on UMANG etc. System ensures proper authentication mechanisms as it supports login credentials based on roles and responsibilities of the user. Users have the option to change the language in offline mode and can check various services on UMANG. Along with that, search option, directory services, notifications, settings and user profile can be accessible in offline mode.
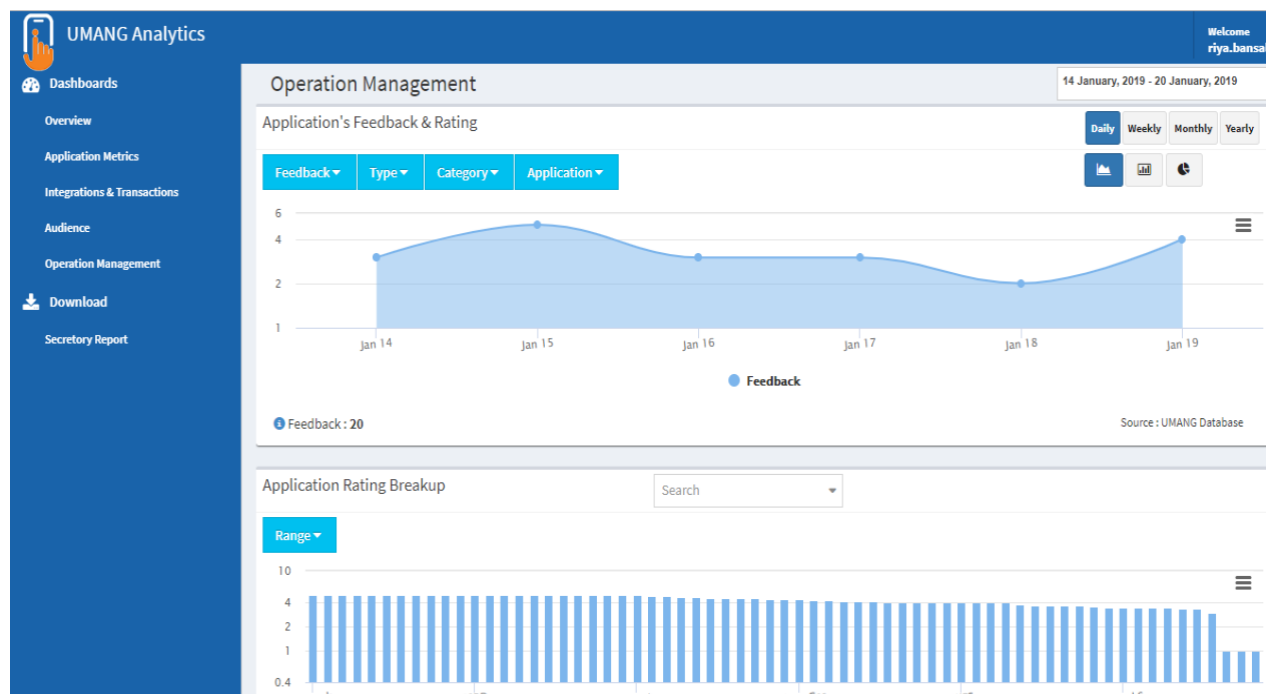
Fig 4 – UMANG Analytics Dashboard

5.3.3.3. Campaign Manager

Campaign management module enables campaign in multiple ways such as SMS, Email, and OBD. System has the features to maintain the credits for the department and credits can be used to manage the campaigns. As per process, every authorized user has the access to the apps with respective departments and is able to draw credits and run promotional and transactional campaigns. Campaign manager's capabilities include proper prioritization, queuing, load management and scheduling of campaigns.

5.3.3.4. API Manager

UMANG provides a platform to manage the API by the service provider SPOCs. Services are integrated with UMANG through APIs (REST, SOAP etc.). UMANG back-end's API Management Layer (WSO2 and some custom modules) transforms and orchestrates APIs of various service providers for the services enabled on UMANG and expose them to UMANG client apps with a capability to support non-UMANG apps. API manager provides the following functionalities:

a) Support publishing SOAP, REST style services as APIs

b) Manage API visibility and restrict access to specific partners or customers

c) Publish both production and sandbox keys for APIs to enable easy developer testing

d) Manage API versions and deployment status by version

e) Manage API lifecycle from cradle to grave: create, publish, block, and retire

f) Customize the API lifecycle, including executing custom behaviour on lifecycle transitions

g) Set the pricing and rate limits with respect to APIs. Also, set duration limits for authorized use of APIs
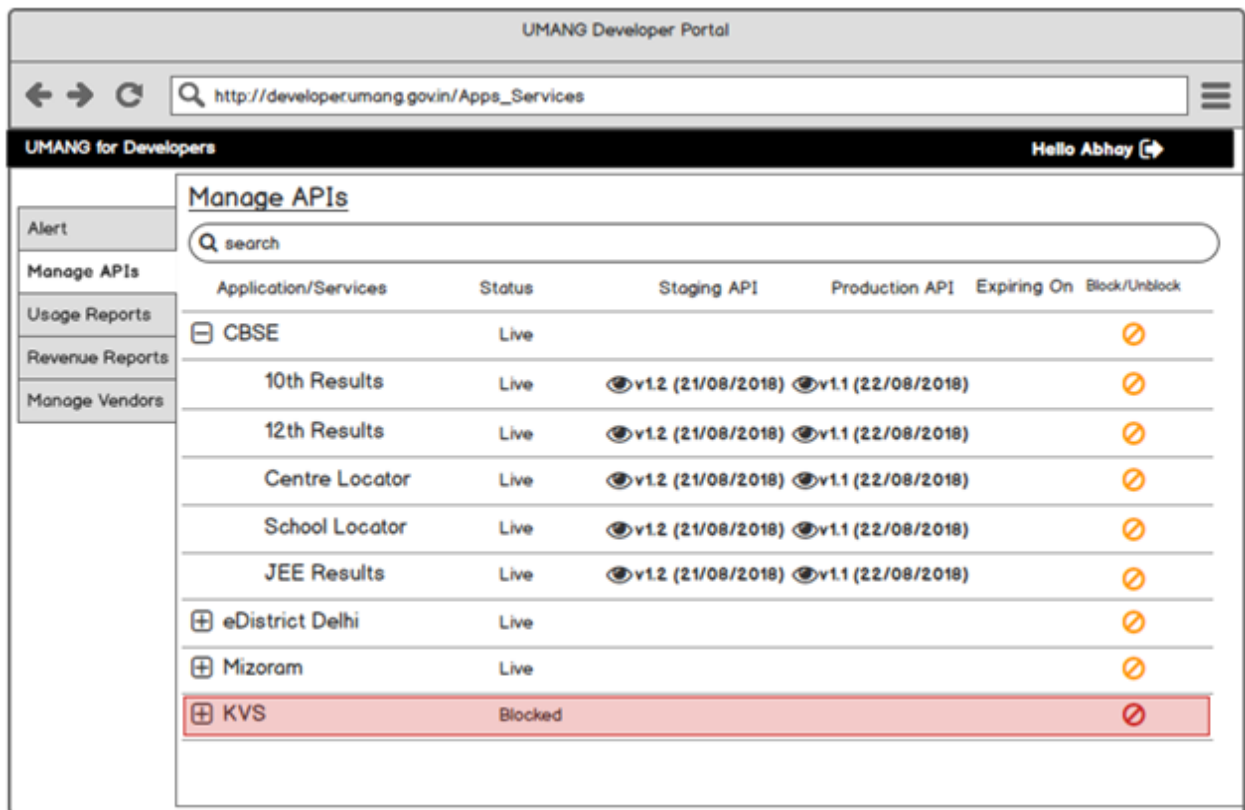
Fig 5 – UMANG API Manager

5.3.3.5. CRM

UMANG backend also provides CRM system which helps the UMANG Help Desk team to manage the end users issues and queries. CRM system has the features to raise the internal (Tech-ops) or external (Departments) tickets, view service provider's SPOC information. Department team can view all such tickets or information on self-care portal. UMANG Operations team ensures appropriate and timely solution to be provided by interacting department SPOCs or internal teams to customer care support team. Resolutions are captured in CRM system so as to manage proper communication and closer of the tickets. Dashboard has been created for different user types such as Admin, Agents, departments or Tech-ops. It also provides various reports which help to manage the call centre are available on CRM system such as:

a) Reports with respect to Agent Login & Performance Reports

b) Real Time APR Report generating tool, to fetch the current agent's performance (AHT, Calls answers, Chat answers, agent abandoned).

c) Chat, IVR calls abandoned

d) Hourly Chat, Email & Call Reports

e) Helpdesk SLA Report

f) CRM Collective Report

Fig 6 – UMANG CRM

5.3.3.6. *Application Performance Management*

UMANG provides APM tool based on Apache Skywalking and some custom modules. This tool enables the performance related parameters/reports to operations team and NeGD.

5.3.3.7. *Transaction Management*

The transaction management component is responsible for processing all the transactions and user interactions on the UMANG platform. The API Manager layer is acting as the transaction manager for the system. All requests and API calls on the platform are routed through the API manager and all subsequent business rule handling or invocation of external APIs for data processing is handled from here.

This module is responsible for enforcing the authentication mechanisms for incoming requests and routing these requests to subsequent modules for further processing. The module is working in combination with other modules of the system for providing end-to-end functionalities such as user verification, payment processing, service enablement, and applying any configured charges for the use of a particular service.

The module maintains tracks of all ongoing transactions in the system and is further makes this data available for checking the transaction history of any user. The transaction history

summary is also made available to the user for viewing and downloading the same for future reference.

5.3.3.8. Exception Handling

The design outlines a standardized approach to structured exception handling across the application. Application exception handling is minimize the information disclosure in the case of an exception. Frontend is able to identify generic error messages and error messages codes that are returned to the client. The private data (for example, passwords) is not be logged into the system.

For every exception occurring on the platform, user-friendly error messages and corresponding error/exception codes are provided to frontend. In the case of any error, the sensitive data is not be exposed in error pages, error messages, logs, and audit files.

5.3.3.9. Security and Authentication

The Security and Authentication modules are responsible for authenticating the user and granting permissions based on the corresponding roles and responsibilities. Every end user login is authenticated through OTP or MPIN.

The platform integrates with the Aadhaar platform for supporting Aadhaar based authentication for requisite departmental services.

All API calls on the platform are validated and authorized by the API Manager using access tokens and security keys to prevent any unauthorized access to the platform from external systems.

Access and transaction logs are maintained on the platform and these verification logs are analyzed for strengthening the overall authentication process.

Both single and multi-factor authentication mechanisms are supported by the platform and can be employed wherever required by the corresponding services.

5.3.3.10. Cache Management

To ensure optimal service performance, the UMANG system is making extensive use of the device and the platform cache. The use of cache helps in keeping the frequently accessed data readily available and avoiding roundtrip server calls for relatively static and constant data. Responses of frequently used APIs, which do not change over time or change after a known time, are cached within the API manager so that the backend API need not be invoked every time the data is required.

5.3.3.11. Load Management

The UMANG system is catering to requests from users from across the county and this results in a high load on the platform when the different services are made available to the users.

The platform is designed with a view to effectively handle this incoming load and distribute the same across the different components to optimally handle the user requests and provide prompt responses for a better overall user experience. Some of the basic techniques employed for load management are Asymmetric load balancing, SSL Offload and Acceleration, Distributed Denial of Service (DDoS) attack protection, HTTP compression, TCP offload, Health checking, HTTP security, Client authentication, Department Load Management.

The UMANG platform is integrated with various central and state departments to provide corresponding services to the citizens. The platform also manages the load of requests for the particular department services by deploying multiple servers to cater to increased loads and configuring API Layer (WSO2) to balance the load.

5.3.3.12. Session Management

One of the primary functionality of the platform is an efficient Session management capability. A user is allowed to maintain multiple sessions simultaneously with the UMANG platform through the various available channels. A user is logged on from the mobile app and the web portal at the same time from two different devices (or even the same device.). To manage the distinct logins and transactions of the users efficiently, the multiple session entries are maintained corresponding to every distinct login. Various techniques are used to ensure the security of the session tokens and user data security.

5.3.3.13. Log Management

The system design identifies the level of auditing and logging necessary for the application and based on that, identify the key parameters to be logged and audited. The design considers the flow of caller identity across multiple tiers (at the operating system or application level) for auditing using the unique ID. All user transactions on the platform are logged for future reporting and auditing. While logging it ensured that sensitive data (such as passwords and account IDs) are either logged in a masked manner (if required) or not logged at all.

Hourly system logs are created to enable easy movement of log files to other analytic servers and easy loading of data into databases if required. This ensures availability of almost real-time data for the platform. Message Broker (Kafka) is used for better management of load for logging.

5.3.3.14. Payment Module

To enable payments through UMANG, UMANG backend can integrate with one or more payment gateways through its payment module. The payment module keeps a record of all

payment transactions through UMANG and generates reports for the purpose of reconciliation of these payment gateways and analytics.

5.3.4. Software

The following diagram displays the platform architecture and layout of various system components. It also displays the integrations and flows between the components.
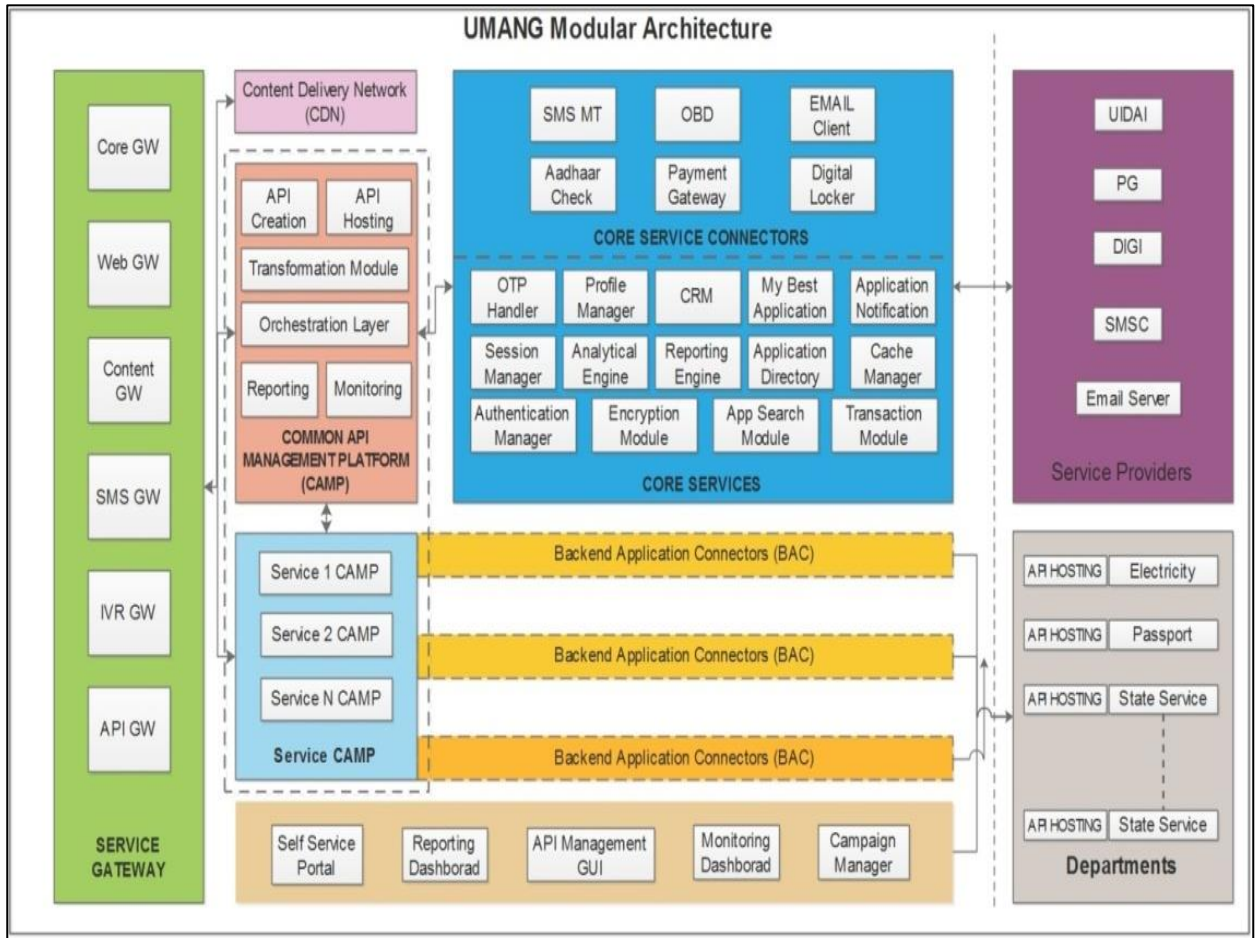
Fig 7 – UMANG Platform Architecture

5.3.4.1.   User Flow Diagram
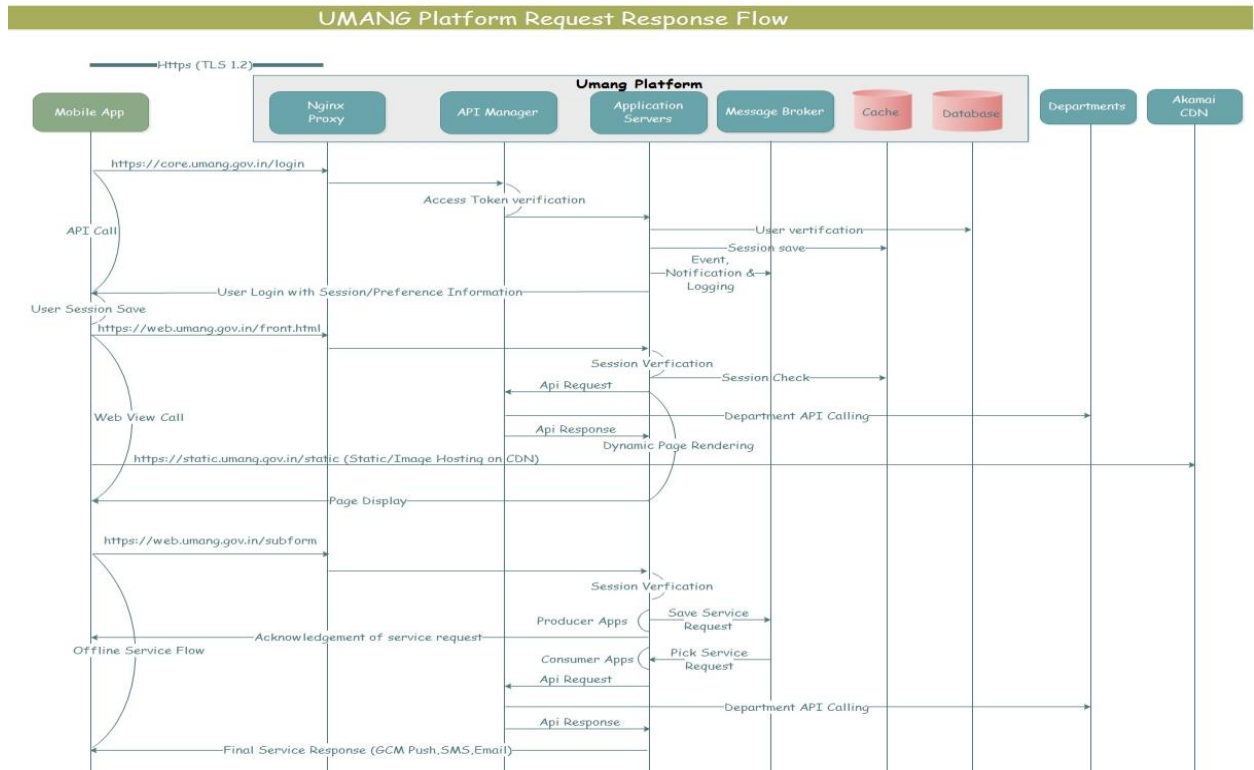
Fig- 8 – User Flow

5.3.4.2.   Network Setup Diagram

The entire platform setup (except the IVR platform) is hosted on the NIC Cloud. A user can access the functionalities through the UMANG mobile application or through the UMANG Web portal (from a mobile device or a desktop). Any request, from the end user application requiring data to be fetched from the platform and sent to the UMANG Platform over the internet.

In this setup, the Load Balancer routed the requests to the corresponding service gateway instance of the platform based on the incoming request URL. All APIs exposed from the platform are segregated into the following domains based on the type of request:

a) All Core platform requests provided the domain name as core.UMANG.com/<API>/... These requests include request for profile details, login, account creation, Aadhaar validation, and Digilocker access.

b) All Department Application Services are routed using the domain name as service<Instance>.UMANG.com/<API>/... These requests are generally the service specific requests, which cater to the functionality of the particular selected service. Some examples of such services are – Pay Electricity Bill, View Passport details, and Check Driving License Application status.

c) Any images or static content shall be fetched from the web server gateway using the domain content.UMANG.com/<resource path>/...

d) Any third party system can have access to the platform through the domain extApi.UMANG.com/<API>/...If any functionality access shall be provided to a third-party application, the requests shall be processed with the service gateway. This gateway shall further route the requests to the appropriate service handler based on the type of request received. This must be improved by NeGD.

e) All service gateways have the same basic architecture comprising of Nginx-based HTTP server for load distribution (enabling horizontal scaling) and backend API Manager and service processing module. The NGINX server ensures that new nodes can be added to the setup and requests can be routed on the fly to the nodes for achieving optimum performance and smooth scaling.

f) The API Manager and service module are responsible for processing the incoming requests and for interfacing with the different internal and external systems for executing the request.

g) The various service connectors hosted on the service gateway layer are responsible for interfacing with the department and other government services for retrieving and sending data. This connectivity established through the internet and uses various protocols (HTTP/s), XML/SOAP, RESTful API, ODBC/JDBC, and (FTP/s) as provided by the corresponding department service.
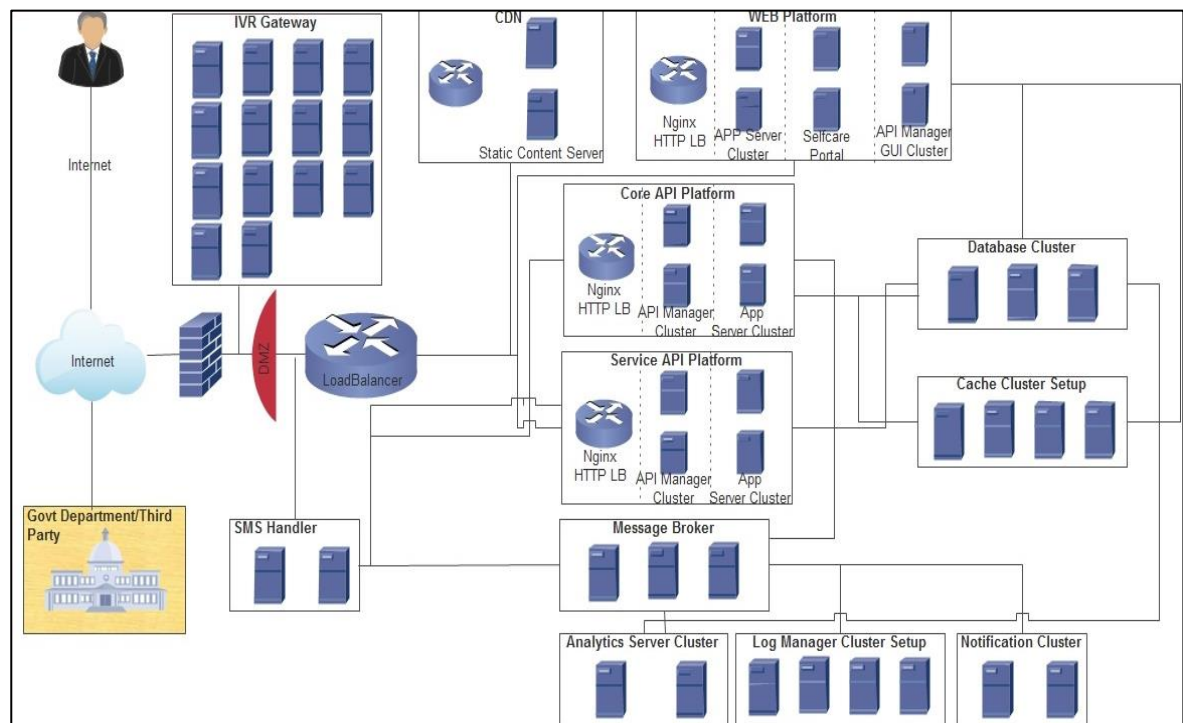
Fig 9 – UMANG Network Set-up

6. Scope of Work (SoW)

Audit and testing requirements are defined below in the context of the 04 segments of UMANG Platform as mentioned above in clause 3.0. The work related to these audits and testing shall be conducted by QA partner agency in regular consultation/discussions with the concerned Partner Agencies for the specific segment of the UMANG Platform. It shall be desirable that the QAP is able to suggest ways by which the problems/ issues identified by it can be resolved and solutions implemented to plug such gaps.

It is to be noted that the SLA or their parameters presented in the RFP may change, as NeGD's program shall evolve over the course of the contract period. So, QA partner agency will have to perform the audit of additional or modified SLAs, as and when they are introduced/ updated.

6.1. Functional Acceptance Testing (FAT)

QA Partner (QAP) shall perform the FAT to ensure that the added functionality (new/enhanced/revamped) and services (applications/depts.) added to the UMANG platform (Backend or Voice/Chat Bot) meet the FRS requirements with respect to functionality, validations, specifications, performance and comply to Design Guidelines for consistent UI/UX. QAP shall also review/validate relevance of descriptions (services/ departments), grammatical & spelling corrections, presence of relevant keywords (for intuitive search), proper categorization and other aspects of design such as font type/size, spacings, layout, logo, navigation etc. All central services are implemented in 13 languages (English plus top 12 languages of Schedule-VIII of The Constitution of India; list can be seen on the UMANG app) and state services in 3 languages i.e. English, Hindi and the regional/state language. Select services are being implemented in additional 10 languages namely, Maithili, Santhali, Kashmiri, Nepali, Sindhi, Dogri, Konkani, Manipuri, Bodo and Sanskrit. The FAT shall primarily be conducted in the below mentioned 03 contexts:

a) Services on-boarding on UMANG
b) Additional 10 languages, as listed above, in existing services
c) Services on-boarding on AI based Voice/ Chat Bot
d) New or Enhanced Functionality (Multiples of 50 Test Cases or parts thereof)

Any other audit or testing requirement, on account of new/ enhanced functionality or anything unforeseen, that may arise during the currency of the contract shall be handled/ managed on the basis of the equivalency method i.e. in multiples of 50 test cases or part thereof. Test cases shall be required to be concurred/ approved by NeGD or its nominated agency in advance.

For example, any new audit/test requirement for any function/component in future, translates into, say 75 test cases then this shall be treated as 1.5 task (75/50) and invoiced accordingly.

The functional testing shall include the below, but not limited to:

a) All aspects and all possible flows of the service shall be tested to ensure that all functional requirements are met and service is delivered in a seamless smooth manner.

b) All functions/ services must be tested for all possible 'Use Cases', when user provide correct inputs, as well as when incorrect inputs are provided. For incorrect inputs, system should respond properly (relevant error messages) without any impact on the performance in any manner.

c) Testing of Forms that are used to get information from users and to keep interaction with them, e.g. i) check for validations on each field on the form, ii) check for default values of the fields, iii) check for wrong inputs to the fields in the form and iv) options to create, view, delete or modify the forms etc.

d) Test for all the links on pages, forms used in the pages for submitting or getting information from user, cookies testing etc. such as, i) test for all outgoing links from all pages, ii) test for all internal links, iii) test links for jumping to same pages and iv) test links to send emails to administrators and other users.

e) Search Engine Optimization related enablement/ additions in the service or functionality developed

f) UI/UX Testing – Compliance to Government Websites Standards, Visual Design, Menus, Toolbars, Images, Message Boxes, Keyboard Interface, Responsive Design and Easy to use: Graphical user interface as per requirement specification and agreed by NeGD etc.

g) Error/Exception Handling
   ▪ Make sure exceptions are properly handled and specific, meaningful and proper error message is displayed to the user;
   ▪ Make sure that the error pages include helpful information and links that help users find what they seek;
   ▪ Help user by accepting common misspellings, typos, incorrect case sensitivity, different terminology for the same items, and predictable domain name errors: provide suggestions to redirect users to the proper page.

h) Multilingual Testing - UMANG App is multilingual, with support for top 12 Indian languages mentioned in Schedule-VIII of the Constitution, in addition to English. Remaining 10 languages of the Schedule-VIII of the Constitution are also being added on UMANG for select services. Testing scope covers only validation of the labels/ phrases, error/information messages & short texts on the UMANG app for the correct intent in the context of the respective service delivery.

i) Test Cases – Though the UMANG Partner Agency, offering services, functionality or module for FAT, shall provide test cases prepared by them but the QA Partner remains responsible for the complete and exhaustive functional testing covering all types of flows/use-cases. Hence, QAP may require to write all test cases or add missing test cases to achieve the objective.

j) The timelines for services and functionality/module testing is furnished below:

Table 3 - FAT Timelines (Per Service)

Item	Description	1st Iteration	2nd Iteration & Beyond	Max Time
Services on UMANG* **OR** Voice/ Chat Bot **OR** New/ Enhanced Functionality (~50 Tests)	Functional + English & Hindi (Android, iOS, Web)	3-days	2-days	7-days

* Types/categories of services and tentative mix can be checked in the UMANG Frontend RFP (Table-2, clause 5.2.1 and existing services list in Annexure-II), whose link available at clause 4 (b) of above.

Notes:

(i) Time is in calendar days i.e. inclusive of weekends/ holidays

(ii) English & Hindi language testing is covered in functional testing of 3/2/7 days

(iii) For every 02 additional language or part thereof, additional 1 day is available

(iv) Timelines are for 03 platforms Android, iOS & Web

(v) Iteration time starts from the offering/re-offering date/time;

Quantum of Work – Approx. number of services offered for FAT in a quarter may be up to 60 and concurrent offerings may be around 25-30 services, barring exceptions. QAP shall be expected to manage such workloads as per timelines/ SLAs laid out above in the table.

Deliverables – QAP shall submit FAT report with all relevant details such as Test Cases (identifying the self-added ones) with Results (iteration-wise), Test Environment, Test Parameters, associated artefacts etc. Further, QAP must maintain the version control of the responses, test iterations with associated results and documentary evidences for receipt/ revert dates for SLA assessment failing which max applicable penalty may get levied.

6.2   Security Audit

Purpose of the security audit is to determine that the platform/ application protects itself, connected systems, users'/ departments' data and maintains functionality as intended. To ensure that the Platform/ application, the underlying infra and the APIs developed to interconnect with other apps/ systems are protected against external threats and attacks. The assessment will be done periodically (preferably once a quarter) or whenever there are major changes, on the production environment, at the discretion of NeGD. The platform/ solution should be safe/secure and free from the OWASP (Open Web Application Security Project) top 10 (including for mobile apps) & other known vulnerabilities as well as compliant to guidelines/ standards as notified/ recommended/ adopted or enforced by Govt. of India or its agencies such as CERT-IN from time to time. The platform/ solution should be audited in accordance to web application penetration testing methodologies like OWASP, SANS top 25, OSSTMM, NIST 800-115. Audit shall cover all known and notified threats/vulnerabilities. The security audit shall primarily be conducted in the below mentioned 04 contexts.

a) UMANG Backend
b) UMANG Frontend (including international instance)
c) UMANG Voice/Chat Bot
d) UMANG Application (Services APIs)

The application security testing will include but not limited to the below items:
a) User Authentication (& Authorization)
b) User Privacy
c) Data Protection
d) Man-in-the-middle-attack
e) Encryption levels & Security protocols (highlight outdated ones)
f) Audit Trails
g) Configuration Management
h) Identification of security flaws such as SQL injection, buffer overflows, XSS etc.
i) Session Management
j) Input & Output Manipulation
k) Information Leakage
l) Denial of Service
m) Access Control
n) Error Handling
o) Integrity testing
p) Vulnerability Assessment

QA Partner Agency shall ensure that Security Audit is conducted and certified by CERT-IN empanelled auditor, in case, the QA Partner itself is not CERT-IN emplaned.

<div align="center">Table 4 – Security Audit Timelines</div>

Item	Description	1st Iteration	2nd Iteration & Beyond	Max Time
a) UMANG Backend b) UMANG Frontend *(including international instance)* c) UMANG Voice/ Chat Bot	Platform	13-days	4-days	21-days
UMANG APIs (Per service)	For on-boarded services	6-days	2-days	10-days

Notes:

(i) Time is in calendar days i.e. inclusive of weekends/ holidays

(ii) Iteration time starts from the offering/re-offering date/time

Deliverables – QAP shall submit Security Audit Report (with executive summary and detailed audit findings) in the CERT-IN prescribed format and/or in a format acceptable to Could Infra Provider, particularly NIC. The report should include all relevant details such as Test Cases with Results (iteration-wise) and associated artefacts. Further, QAP must maintain the version control of the responses, test/audit iterations with associated results and documentary evidences for receipt/ revert dates for SLA assessment failing which max applicable penalty may get levied. The audit shall be considered completed on final iteration with 'NIL' vulnerabilities or with minor ones accepted as 'business/ operational' requirement by NeGD.

6.3 SLA (O&M) Audit - Quarterly

This is to determine that required level of operational performance is maintained as per all the defined SLA parameters. The SLA/O&M audit shall be conducted quarterly for following segments of UMANG operations:

a) UMANG Backend O&M — Applicable SLA at Annexure-I A

b) UMANG Helpdesk Operations — Applicable SLA at Annexure-I B

c) UMANG Frontend O&M — Applicable SLA at Annexure-I C
   (including international instance)

d) UMANG Voice/Chat Bot O&M — Applicable SLA at Annexure-I D

The applicable SLAs for these segments against which audit shall be done is enclosed at the above mentioned Annexures.

The primary objective of the periodic SLA audit is to drive the operations towards SLA compliance so that uninterrupted quality services are delivered to the end user. The audit methodology shall be well laid out with clear process definition for data collection, data normalization/cleansing, data processing, exception handling etc. The audit report must be well structured with proper data presentation, analysis, results presentation and inferences. Major audit activities and timelines are as presented below:

Table 5 – SLA/ O&M Audit Timelines

Item	Description	1st Iteration	2nd Iteration & Beyond	Max Time
SLA/ O&M Audit (UMANG) – a) Backend b) Frontend *(including international instance)* c) Helpdesk d) Voice/Chat Bot	Process involves but not limited to: a) Data/ logs collection b) Data cleansing/ normalization c) Gaps identification d) Data analysis/ validation/ checks e) Calculations f) Findings and Presentation g) Report submission	8-days	3-days	14-days

Notes:

(i) Time is in calendar days i.e. inclusive of weekends/ holidays
(ii) Iteration time starts from the offering/re-offering date/time
(iii) Timelines applicable individually for all 04 categories/segments of SLA/O&M audits

Deliverables - QAP shall submit SLA/O&M Audit Report (with executive summary and detailed audit findings) in a structured/ standard manner. The report should include all relevant details such as raw data and its source details, cleansed/normalized data with massaging actions/details, processed data/details, inferences on SLA compliances/breaches, recommendations with associated artefacts. Further, QAP must maintain transaction details and documentary evidences for receipt/ revert dates with version control of the offerings/responses for SLA assessment failing which max applicable penalty may get levied.

6.4   Regression Testing of the Build

QA Partner (QAP) shall perform the regression testing on the new Build before it is pushed to production. The testing shall ensure that the added functionality (new/enhanced/revamped) and/or services (applications/depts.) added to the UMANG platform (Backend or Voice/Chat Bot) are not impacting the existing services/ functionality in any adverse manner. To meet the objective, QAP shall be required to test existing functionality, services and the user experience aspects (such as UI/UX, navigation and general features like search, filter) comprehensively to be sure no negative/unintended impact on the application performance. Testing for the Build stability and crashes under varied scenarios (positive as well as negative) shall also be part of the deliverables. Depending on the nature of changes, language validation/ testing may also gain relevance. Regression testing shall be offered to QAP on a case to case basis at the discretion of NeGD.

Table 6 - Regression Timelines

Item	Description	1st Iteration	2nd Iteration & Beyond	Max Time
UMANG new Build – Regression Testing	Covering existing/new services, functionality, user experience including the testing of Build stability & crashes under varied scenarios.	7-days	4-days	15-days

Notes:

(i) Time is in calendar days i.e. inclusive of weekends/ holidays

(ii) It could be any platform i.e. Android or iOS

Deliverables – QAP shall submit Regression Test Report with all relevant details such as Test Cases (identifying the self-added ones) with Results (iteration-wise), Test Environment, Test Parameters, associated artefacts etc. Further, QAP must maintain the version control of the responses, test iterations with associated results and documentary evidences for receipt/ revert dates for SLA assessment failing which max applicable penalty may get levied.

6.5   Test Set-up

Important components of a test set-up are listed below with indicative details that may not be complete and comprehensive.

a) Testing Infrastructure
b) Tools/ Testers/ Scripts
c) Processes

- Test cases – adding to make complete & exhaustive
- Define understanding & scope of every SLA and present to NeGD in advance
- Prepare and share the 'Audit Requirements' document with concerned Partner Agency
- Map data requirement for every SLA
- Assessment of quantum of data, getting data from source in optimum and secure manner
- Approach to cleanse or pre-process the data e.g. identification of outliers/exceptions (criteria definition), highlight impact of the data cleansing
- Quantitative SLAs shall be audited on 100% data
- Qualitative SLA may be audited on sampling basis; sampling size based on scientific and/or industry practises
- Proper artefacts for iterations, audit duration (at QA Partner end), communication records etc. to be maintained

d) Reports/ Certification
- Test Report – covering test cases, test set-up, procedures, test parameters, test results, date wise iteration details, inferences etc.

7. Timelines

7.1 Project Timelines and Services to be executed by QA Partner Agency

Table 7 – Timelines

Item #	Milestone	Days
Take Over and Go-Live Phase		
1.	Issue of WO to successful Bidder (QA Partner Agency)	T_0
2.	Understanding the Services FAT and Presentation to NeGD	$T_0+10 = T_1$
3.	Understanding SLA (O&M) Audit - Define & present scope of every SLA to NeGD	$T_0+10=T_1$
4.	Prepare and share the 'SLA Audit Requirements' document(s) and methodology to measure the same	$T_1 +20=T_2$
5.	Readiness for FAT and Audits	T_2 onwards

Note: *The QA Partner Agency must ensure to put apt resources and the needed tools/scripts, at its cost, so as to meet these timelines.*

8. Manpower and Resource Management

The QA Partner Agency shall maintain the manpower deployed on the project, with the approval of NeGD, for the duration of the project/contract. Any request for replacement can only be considered after completion of 1 year, subject to merit of the case and prior approval of NeGD for any replacement shall be must.

If replacement of any deployed resource is sought by NeGD or due to attrition in the deployed team, the QA Partner Agency must replace the resources within thirty days and shall ensure proper handover without any impact on ongoing FAT/ Audit schedule and/or quality. Any delay with either the FAT/ Audit shall attract a penalty as per Note (v) of clause 9.4. QA Partner agency need to get approval from NeGD team if they want to replace the existing resource or structure.

NeGD has the right to demand for the replacement of resources due to any unforeseen reasons or quality of the resources. QA Partner Agency has to continuously support these resources with necessary technical and domain specific knowledge of the company so as to enable them to perform their duties as per requirement of this RFP.

QA Partner Agency has to ensure that their office exist in Delhi & NCR regions so that the meetings with UMANG Partner Agencies, NeGD and other stakeholders can be managed in efficient manner. Also, NeGD, at its discretion team, may call for the meeting at NeGD office or any other location.

If the office is not available in Delhi & NCR at the time of the bid, operating office must be opened within 3 months of WO.

9. Service Level Agreement (SLA)

9.1 Introduction

This section details the various service levels to be adhered to by the Partner Agency for FAT and other Audits. The performance of the QA Partner Agency and the payment is linked to the Key Performance Indicators listed in the document. The SLAs are intended to:

a) Clearly articulate the performance criteria to be used to monitor SLA as well as the criteria used to calculate the penalty if any due to violation of SLAs.
b) Help QA Partner Agency to monitor and attain the required service levels.
c) Bring to attention of NeGD and the concerned UMANG Partner Agency any drop in performance levels.
d) The Partner Agency shall be required to meet the SLAs specific to
   (i) Execution Timelines - FAT & Audit
   (ii) Performance & Quality - FAT & Audit

9.2   FAT & Audit Execution Timelines SLA

Services delivery is subject to the successful completion of FAT by the QA Partner Agency. Hence, execution in timely manner is important as this has impact on, a) making services live on production, b) target achievement by the concerned Partner Agency and c) payment to the concerned Partner Agency. Similarly, timely completion of other audit activities also impacts the production movements and delivery by concerned Partner Agencies.

9.3   Performance and Quality SLA

Purpose of the FAT and Audits is to get the deliveries of different Partner Agencies validated by a third party expert QA Partner Agencies working on behalf of NeGD. Based on the FAT clearance and successful Audit completion by the QA Partner Agency, services and the functionalities are made live on production environment and the payment released to the concerned Partner Agency. Hence, quality of the FAT and Audit becomes important and any deficiency in this could lead to the launch of defective services/functionality and incorrect payments.

9.4   FAT & Audit execution Timelines SLA

Deviations from the agreed upon performance would need to be consistently measured FAT & Audit timelines (SLA) are presented below.

a) Services FAT (including Voice/Chat Bot)   – 07 days

b) New/enhanced functionality (multiples of 50 test cases or part thereof)– 07 days

c) Security Audit (Platform)   – 21 days

d) Security Audit (APIs)   – 10 days

e) O&M/SLA Audits   – 14 days

f) Regression Testing of UMANG Build   – 15 days

Notes:

(i) Timelines of 07 days is for the first 30 concurrent services; In case of more than 30 concurrent services (31 to 60), FAT timelines shall be 10 days i.e. additional 3 days (timeline for 1st iteration) and so on.

(ii) Covers 03 iterations including final clearance round (07=03+02+02)

(iii) Additional 02 days for every additional iteration, after the first 03, only for cases where delay is on account of the Partner (Daffodil, EY or others) responsible for bug-fixing

(iv) Time is in calendar days i.e. inclusive of weekends/ holidays

(v) Penalty of 2%, of the payable amount corresponding to the delayed FAT/Audit activity, per week shall be levied with a cap of 10% of the maximum payable amount against the corresponding audit/testing.

QAP shall not be held responsible for the delays not attributable to it and which could not be avoided despite all reasonable efforts on its part. However, onus to establish this with proper artefacts shall remain with the QAP.

10. Commercial Structure

10.1 Components of Commercial Structure

<u>Table 8 - Components of Commercial Structure</u>

S. No.	Audit/ Test	Qty	Amount *(INR, Excl. of GST)*
I.	**Functional Acceptance Test (FAT) – A1**		
1.	Services – Functional (Android + iOS + Web)+ English & Hindi	540	
II.	**Security Audit & Report (Platform & Application) – A2**		
2.	Backend	12	
3.	Frontend *(including international instance)*	12	
4.	Voice/Chat Bot	12	
5.	API Security Audit Per Service	36	
III.	**SLA/O&M Audit – A3**		
6.	Backend	12	
7.	Frontend *(including international instance)*	12	
8.	Helpdesk	12	
9.	Voice/ Chat Bot	12	
IV.	**Build Regression Testing – A4**		
10.	Regression Testing of UMANG Build – Android	24	

11.	Regression Testing of UMANG Build – iOS	24	
V.	**New or Enhanced Functionality (Contingent) Audit – A5**		
12.	Benchmarked @ 50 test cases (approved by NeGD) and part/ multiples thereof	12	

Notes:

(i) *Additional platform, if introduced by NeGD, shall be paid @30% of the quoted service FAT amount at s. no. 1 in the table above*

(ii) *Audit for every additional language shall be paid @ 2% of the quoted service FAT amount at s. no. 1 in the table above*

(iii) *Table-8 above is only for reference. No financial quotes should be included with the Technical Bid. Commercial Bid in the prescribed format (clause S3-1) is to be submitted separately.*

10.2 Payment Milestones

Payment for the successfully completed FAT and Audits shall be made quarterly against the submission proper invoices along with all supporting documents (including FAT/ Audit Report and certifications) and relevant artefacts for establishing the SLA compliances, in the absence of which max penalty may be levied.

10.3 Duration and Extension

The Overall "Term" for the Project is 5 years, however the initial Contract shall be given for 3 years which can be extended for another period of 2 years at the sole discretion of NeGD at the same T&C and the quoted/ discovered rates (commercials) with 10% one-time increment, which will be binding to the bidder. The information to this effect will, however, be given to the Bidder at least 2 months in advance of the expiry of the contract.

Note: An undertaking from Authorised signatory of the bidder has to be provided stating that the Bidder agrees to the extension of 02 years, if NeGD so decides, beyond initial 3 years at the quoted cost (with 10% one-time increase) and as per the term and conditions of this RFP.

11. Bidding and Evaluation Process

11.1 Eligibility Criteria

The following criterion shall be met by the company:

Table 9 - Eligibility Criteria

S. No.	Parameter	Criteria	Evidence to be Submitted
1	Legal Entity	1. A company incorporated in India under the Companies Act, 1956 or 2013 OR LLP Act 2008 and subsequent amendments thereto 2. Registered with the Income Tax (PAN) and GST (GSTN) Authorities in India with active status	Certified by Authorized Signatory: 1. Copy of Certificate of Incorporation 2. Copy of Registration Certificates with the GST & IT (PAN) Authorities
2	Turnover	The company shall have a cumulative total combined turnover of at least **INR 3 Crores** over the last three financial years i.e. a. Year 2017-18 **_OR_** _03/04 Quarters of FY 2020-21, till Dec'20/ Mar'21,_ b. Year 2018-19 & c. Year 2019-20 The 'Net Profit' of the company shall be positive in at least two of the last three financial years.	Copy of Audited (or certified by independent practising Chartered Accountant) Balance Sheet for the years – • 2017-18 (OR 03/04 Quarters of FY 2020-21, till Dec'20/ Mar'21) • 2018-19 • 2019-20
3	Experience	Bidder shall have experience of performing below mentioned Audits/ Testing over at least one **'Large-size IT Platforms/ Applications'**# during the last 03 years (FY 2018-19 to FY 2020-21): a. O&M/ SLA Audits b. Functional Acceptance Testing (FAT) of the services delivered on the Platform through mobile app & web app. _c._ Security* Audit _(Experience of the bidder OR the proposed Partner shall be valid for this activity)_	For requirements a) to c), please submit: Copy of the Work Order + Completion Certificates (for Audit/ FAT) from the Client; **OR** Self-certificate (& certified by an independent practising Chartered Accountant) for the Audit/ FAT Completion _mentioning the parameters of eligibility criteria clearly_ **AND** Additionally, for requirement c), please also submit the: Copy of "CERT-In Empanelment" Letter/Certificate _(in the name of Bidder OR its Partner, proposed for Security Audit, as the case may be)_

4	Blacklisting	Bidder should not have been blacklisted or debarred by Govt. of India and/or any State Government and/or any Central/State PSU at the time of bid submission date	Self-certificate and/or Letter of Undertaking to this effect on company's letter head signed by company's authorized signatory.

 # Large-size IT Platform/ Application: *Means a multi-layered IT Application providing interactive services/form submissions with*

  i)   *one or multiple frontends such as mobile app, web app, bot etc.,*
  ii) *backend (application servers, web servers, database/s) with workflow serving the frontend,*
  iii) *at least 1 million transactions (delivery of interactive services/form submissions) in any calendar year.*

* Security Audit shall only be performed by CERT-IN (Indian Computer Emergency Response Team under the Ministry of Electronics & Information Technology, Government of India) *empanelled Security Auditor. Bidder is allowed to avail services of such partner, who fulfils the eligibility criteria.*

<u>**Note:**</u> *Consortium shall not be allowed to participate in the bid.*

11.2 Evaluation Criteria

11.2.1   Technical Evaluation

The technical bids shall be evaluated and will be given marks based on the following criterion:

Table 10 - Technical Evaluation

S. No.	Category	Marks	Description & Marking
1.	Turnover of the company/ bidder, cumulative, over the last three financial years (i.e. year 2017-18 *<OR 03 quarters of FY 2020-21, till Dec'20>*, year 2018-19 & year 2019-20).	15	Weightage for the turnover is as below: a. Turnover >3 Cr. & up to 5 Cr. – 02 marks b. Turnover >5 Cr. & up to 10 Cr. – 05 marks c. Turnover > 10 Cr. & up to 15 Cr. – 08 marks d. Turnover > 15 Cr. & up to 20 Cr. – 10 marks e. Turnover > 20 Cr. – 15 marks
2.	Experience of performing below Audits/ FAT on additional IT Platforms/ Applications: a. O&M/ SLA Audit	30	For every additional project after 1st project (as declared against the Eligibility Criteria), max 10 marks per project (only 03 projects to

	b. FAT on multilingual mobile/ web app delivered services c. Security Audit		be considered for evaluation), as per below marking: a. O&M/SLA audit – 02 marks b. FAT on mobile/web app – 1.5 marks c. FAT – language review/ validation – 0.5 marks per language, max 5 marks d. Security Audit – 1.5 marks
3.	Experience of performing below Audits/ FAT on AI based Voice & Chat Bot Platforms/ Applications: a. O&M/ SLA Audit b. FAT of voice/chat delivered services c. Security Audit	20	For every project, max 10 marks per project (only 02 projects to be considered for evaluation), as per below marking: a. O&M/SLA audit – 04 marks b. FAT on Voice delivered services – 02 marks c. FAT on Chat delivered services – 02 marks d. Security Audit – 02 marks
4.	Procedures, Tools/ Testers & Scripts/ Automation (at own cost) that would be deployed including International Best Practices assuring high quality/ standards of audit.	15	Documentation/ details of the items/ resources proposed to be deployed for the project: a. Tools/ Testers/ Scripts – BoQ, Capabilities, description, relevance etc. – 10 marks b. Procedures, standards, international best practices assuring high quality/ standards of audit – 05 marks
5.	Presentation – technical, procedural/ methodology, technology set-up, company's relevant experience/ skill, unique value proposition (if any), international best practices, standards/ references, comprehension of the requirements, transition (entry/exit) etc.	20	a. Understanding of UMANG/ AI Bot platform and interpretation/ scope of associated SLAs (such as components covered, type & source of data, granularity of audit etc.) – 10 **marks** b. ***Other aspects such as Exit Management Plan,*** qualification, competencies and experience of the key personnel proposed to be deployed on the project etc. – 10 marks
6.	**Total Marks**	**100**	

Notes:

a) *The bidder has to secure **minimum 60 marks** to qualify for the commercial evaluation*

b) *Documents to be furnished, as proof of the extent of experience/exposure for Technical Evaluation under different categories in Table-10 above, are listed in Schedule-II, S2-3.*

11.2.2   Financial Bid Evaluation

The financial bids of only the bidders who have secured required score in the technical evaluation will be considered and opened. The final proposal evaluation will be based on QCBS **(60:40),** 60 for Technical and 40 for Financial). as explained below:

a. Financial Score, Fi   - [F(Lowest)/ Fi]*100
b. Financial Weightage, Fw   - 40%
c. Technical Score, Ti   - Ti   as per technical evaluation
d. Technical Weightage, Tw   - 60%
e. QCBS Score, Bi   - [Fi*40%]+[Ti*60%]
  i. where i=1, 2,… total qualified bids

The financial quote shall be furnished in the format presented in the Table-13 (clause S3-1) in Schedule-III to this RFP.

To facilitate evaluation of bids, NeGD, at its sole discretion, may seek clarification in writing from any bidder regarding the bid.

Final choice of firm for the project shall be made on the basis of conformity to pre-qualification, appropriateness of the financial offer from point of view of cost effectiveness over the entire period for the services and capability of the firm to execute and service the project.

11.3   Contract Finalization and Award

LoI/ WO will be awarded to the responsible, responsive bidder whose proposal conforms to the RFP and is, in the opinion of NeGD, the most advantageous and represents the best value to the proposed project, price and other factors considered. Evaluations will be based on the proposal submitted while responding to the bid, and any additional information requested by the Tender Evaluation Committee while evaluating.

11.4   NeGD's Right to Accept Any Proposal or Reject any or all proposals

NeGD reserves the right to accept or reject any bid, annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for NeGD's action.

NeGD may at its sole discretion and at any time during the evaluation of proposal, disqualify any bidder, if the bidder has:

a) Submitted the proposal documents after the deadline;

b) Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements;

c) Exhibited a record of poor performance such as abandoning works, not properly completing the contractual obligations, inordinately delaying completion or financial failures, etc. in any project in the preceding three years;

d) Submitted a proposal that is not accompanied by required documentation or is non-responsive;

e) Failed to provide clarifications related thereto, when sought;

f) Submitted more than one proposal;

g) Declared ineligible by the Government of India/ State/ UT Government for corrupt and fraudulent practices or blacklisted.

h) Submitted a proposal with price adjustment/variation provision.

12. Instructions to Bidders

12.1 Calendar of Events (Tentative)

Table 11 - Calendar of Events

Activity	Date
RFP for Appointment of QA Partner Agency Released	Monday, May 03, 2021
Prebid Conference – Date & Venue	Monday, May 10, 2021; 1500 hours Online over MS Team
Last date for raising queries/ clarifications	Wednesday, May 12, 2021
Release of Clarifications	Friday May 14, 2021
Last date and time for submission of Bids	Monday, May 24 , 2021 1800 hours
Opening of Bids (Eligibility & Technical)	Tuesday, May 25, 2021 1100 hours
Date for Technical Presentations	Thurs/Fri, May 27/28, 2021
Date and time for opening of Financial Bids	Tuesday, June 01, 2021
Award of LoI/ WO/ Contract	Monday, June 07, 2021

Note: _Bidders are advised to regularly visit CPP Portal and NeGD/ MeitY websites for updates regarding the RFP_

12.2 General Instructions On Bidding Process

The bid shall be submitted online on CPP Portal only. Bidders must familiarize (if not already) with the Portal and check/ fulfil the pre-requisites to access and submit the bid there.

a) Technical and Financial bids shall be submitted as per Tables 10 (clause 11.2.1) & 13 (clause S3-1) and the Eligibility Documents as per Table-9, clause 11.1.

b) Carefully read/study the complete RFP, particularly, the scope of work (clause 6), SLA (clause 9 and Annexure-1 A, B, C & D), commercial structure (clause 10), eligibility criteria (clause 11.1), evaluation criteria (clause 11.2), calendar of events (clause 12.1) and prepare the bid accordingly

c) Financial bids shall be opened only for those who qualify in technical evaluation as per the criteria laid out in the RFP.

d) Bidder with highest QCBS score as per the combined evaluation criteria, as laid out in the RFP, shall be the winner.

The bidders are expected to examine all instructions, forms, terms, project requirements and other information in the RFP document(s). Failure to furnish all information required as mentioned in the RFP document(s) or submission of a proposal not substantially responsive to the RFP document(s) in every respect will be at the bidder's risk and may result in rejection of the proposal and forfeiture of the bid security.

12.3 Interpretation

In this RFP, unless otherwise specified:

a) References to clauses/sections, sub-clauses/sub-sections, paragraphs, schedules and appendix are to clauses/sections, sub-clauses/sub-sections, paragraphs, schedules and appendix to this RFP;

b) Use of any gender includes the other genders;

c) References to a 'company' shall be construed so as to include any company, corporation or other body corporate, wherever and however incorporated or established;

d) References to a 'person' shall be construed so as to include any individual, firm, company, government, state or agency of a state, local or municipal authority or government body or any joint venture, association or partnership (whether or not having separate legal personality);

e) Reference to any statute or statutory provision shall be construed as a reference to the same as it may have been, or may from time to time be, amended, modified or re-enacted;

f) Any reference to a 'day' shall mean a period of 24 hours running from midnight to midnight without distinguishing the weekends, holidays or business days;

g) References to a 'business day' shall be construed as a reference to a day (other than Saturday, Sunday and holidays) on which Government offices in the Centre/States/UTs are generally open for business;

h) References to times are to Indian Standard Time;

i) Reference to any other document referred to in this RFP is a reference to that other document as amended, varied, notate or supplemented at any time; and

j) All headings and titles are inserted primarily for convenience. These, in case of any conflict/ambiguity, are to be ignored in the interpretation of this RFP.

12.4   Measurements and Arithmetic Conventions

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down except in money calculations where such amounts shall be rounded off to the nearest INR.

In case of ambiguities between the quoted (by bidder) unit prices/ values and any derived/calculated values, unit prices/values shall prevail and all derived values shall be recalculated using the quoted unit prices and the quantities furnished in the RFP.

12.5   Ambiguities within RFP

In case of ambiguities or discrepancies within the RFP, the following principles shall apply:

a) As between two clauses/sections of this RFP, the provisions of a specific clause/section relevant to the issue under consideration shall prevail over those in a general clause/section;

b) As between the provisions of this RFP and the Schedules/ Annexure, the RFP shall prevail, save and except as expressly provided otherwise in the RFP or the Schedules/ Annexures; and

c) As between any value written in numerals and that in words, the value in words shall prevail.

12.6   RFP Document Fees

RFP document(s) can be downloaded from Central Public Procurement Portal (https://eprocure.gov.in/). There is no Tender fees for this RFP.

12.7　　　Earnest Money Deposit (EMD)

There is no EMD for this RFP. However, Bidder is required to submit a "Bid Security Declaration" in the prescribed format (refer Schedule-III Bid Formats, S3-5) and on the Company letter head, signed by the Bidder's authorised signatory for the Bid. The "Bid Security Declaration" should be submitted along with the Eligibility Documents. Bids received without or with improper Declaration (missing letter head or company seal, not signed by authorised signatory etc.), shall be summarily rejected.

Actions proposed as part of the "Bid Security Declaration" comes into effect on below listed violations:

a) If a bidder withdraws its bid during the period of bid validity
b) Any information furnished as part of the bid and/or against queries/clarifications, is found wrong, leading to cancellation of his offer/ bid.
c) In case of a successful bidder (winner)
    (i) if the bidder fails to sign the Contract in accordance with the RFP terms and conditions
    (ii) fails to furnish the Performance Bank Guarantee

12.8　　　Proposal Preparation Costs

The bidder shall be responsible for all costs incurred in connection with participation in the RFP process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/ discussions/ presentations, preparation of proposal, in providing any additional information required by NeGD to facilitate the evaluation process, and in negotiating a definitive Service Agreement (Master Service Agreement) and all such activities related to the bid process. This RFP does not commit NeGD to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award of the contract for implementation of the project.

12.9　　　Pre-Bid Conference

NeGD will host a Pre-Bid Conference, as per the calendar of events (Tentative) given in Table-11, clause 12.1. The date, time and venue of the conference may be changed with intimation to all bidders through notice on the CPP Portal and/or on NeGD website. The representatives of the potential bidder organizations may attend the pre-bid conference at their own cost. The purpose of the conference is to provide bidders with information regarding UMANG project, the RFP in question and on the requirements/ scope of the RFPs. Pre-Bid Conference

will also provide each bidder with an opportunity to seek clarifications regarding any aspect of the UMANG functioning, RFP and the project.

12.10 Response to Bidder's Queries

All enquiries from the bidders relating to this RFP must be submitted in writing exclusively to the contact person by the last date as mentioned in Table-11, clause 12.1 or as updated on the CPP Portal at NeGD website, in case of any change/extension. Please make sure that RFP is clearly referred to in the subject line for clarity and to avoid confusion. Contact details for the RFP are as follows:

Name: Mr. Anil Agarwal
Address: 4th Floor, NeGD, Electronics Niketan, 6 CGO Complex, New Delhi - 110003
E-mail: umang@digitalindia.gov.in
Telephone: 011-24301936, 011- 24303704

The queries should necessarily be submitted in the format provided in Schedule III, clause S3-4.

All queries/clarifications should be sent in writing through authorized signatory of the company, along with word document, in an email. Bidder shall be responsible for ensuring that their queries/clarifications have been received by NeGD. However, NeGD neither makes any representation nor warranty as to the completeness or accuracy of the responses, nor does it undertake to answer all the queries that have been posed by the bidders. All responses given by NeGD will be available to all the bidders, without displaying the name of bidders who raised the queries, by putting replies to queries on CPP Portal and/or NeGD website.

12.11   Supplementary Information/ Corrigendum/ Amendment to the RFP

If NeGD deems it appropriate to revise any part of this RFP or to issue additional data to clarify an interpretation of the provisions of this RFP, it may issue supplements/corrigendum to this RFP. Such supplemental information will be communicated to all the bidders by making it available on CPP Portal. Any such supplement/corrigendum shall be deemed to be incorporated by this reference into the RFP. Bidders are advised to visit and check the CPP Portal regularly for updates and information.

At any time prior to the deadline (or as extended by NeGD) for submission of bids, NeGD, for any reason, whether at its own initiative or in response to clarifications requested by prospective bidder may modify the RFP document by issuing amendment(s). All bidders will

be notified of such amendment(s) by publishing on the CPP Portal/ website, and these will be binding on all bidders.

In order to allow bidders a reasonable time to take the amendment(s) into account in preparing their bids, NeGD, at its discretion, may extend the deadline for the submission of bids.

12.12 NeGD's Right to terminate the Process

NeGD makes no commitments, explicit or implicit, that this process will result in a business transaction with anyone. Further, this RFP does not constitute an offer by NeGD. The bidder's participation in this process may result in NeGD selecting the bidder to engage in further discussions and negotiations towards execution of a contract. The commencement of such negotiations does not, however, signify a commitment by NeGD to execute a contract or to continue negotiations.

12.13 Authentication of Bids

The original bid, comprising of multiple parts/sections, shall be in the PDF/Excel format as prescribed and detailed in clause 12.16 of the RFP.

A letter of authorization shall be supported by a written power-of-attorney accompanying the Bid. The bid shall be signed by the Bidder or a person duly authorized to bind the Bidder to the bid. All pages of the bid, except for un-amended printed literature, shall be initialled and stamped by the authorised person or persons signing the bid.

12.14 Interlineations in Bids

The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialled by the authorised person or persons signing the bid along with the stamp.

12.15 Bid Submission Instructions

Proposals must be direct, concise, and complete. NeGD will evaluate bidder's proposal based on its clarity and the directness of its response to the requirements of the project as outlined in this RFP. Bidders shall furnish the required information on their technical and commercial proposals in the enclosed/recommended formats only.

Bidders are advised to refer to the CPP Portal (https://eprocure.gov.in/eprocure/app?page=HelpForContractors&service=page) for instructions (on usage and pre-requisites), registration on the Portal and online bid submission on the CPP Portal after bid preparation as per the RFP document/ requirements. For bidders manual kit, bidders may also refer to https://eprocure.gov.in/eprocure/app?page=BiddersManualKit&service=page. Any deviations in format would result in bid rejection.

12.16   Mode of Bid Submission

Bids shall be submitted online only at Central Public Procurement (CPP) Portal Website: http://eprocure.gov.in/ in three parts, i.e. 'EMD and Eligibility' (documents in .pdf format)", 'Technical bid' (documents in .pdf format) and 'Financial bid' (in .xlsx format). Bids must be submitted as per the schedule (date & time) indicated in the calendar of events at clause 12.1. Manual bids or the bids submitted by telex/ telegram/ fax/ e-mail etc. will not be accepted under any circumstances. No correspondence will be entertained on this matter. Bidders are advised to follow the 'Instructions for Bids Submission' given below for e-submission of the bids online through CPP Portal.

a) All documents as per the RFP requirement shall be uploaded online through CPP Portal and further no documents will be accepted offline.
b) Bidders not submitting any of the required documents online will be summarily rejected.
c) Both technical and financial bids are to be submitted concurrently (but as separate documents) duly digitally signed on the CPP Portal.
d) The bidders shall have a valid digital signature certificate for participation in the online tender. The cost of digital signatures, if any, will be borne by respective bidders.
e) Bidders are also advised to go through instructions provided at CPP Portal.
f) The bidders must submit their financial bid in the prescribed format (.xlsx format as per Table-13, clause S3-1, Schedule-III) – no other format is acceptable.

Submission of bids shall be in accordance to the instructions given in the Table below:

Table 12 - Mode of Submission (online on CPP Portal)

Proposals	Instructions
Proposal-1: EMD (Earnest Money Deposit)	***Proposal-1*** shall be titled, "***EMD & Eligibility – Appointment of QA Partner Agency for UMANG***" and shall be uploaded (on CPP Portal) as single pdf document covering following category of documents: a) "Bid Security Declaration" – Against EMD Waiver

and Eligibility Documents	b) Eligibility related all supporting Documents c) Undertaking from the bidder on submitting the commercial proposal d) A board resolution authorizing the Bidder to sign/ execute the proposal as a binding document and to execute all relevant agreements forming part of RFP ***Proposal-1 cannot contain any bid related pricing/ financials, in either explicit or implicit form, in which case the bid will be summarily rejected.***
Proposal-2: Technical Proposal	Technical ***Proposal-2*** shall be prepared in accordance with the Scope/ Requirements of the RFP using the suggested formats/structure. The proposal shall be titled, "***Technical Proposal – Appointment of QA Partner Agency for UMANG***" and addressed to NeGD, at the address specified in the RFP. a) Technical proposal shall be uploaded (on CPP Portal) as a single pdf document covering all requirements. All pages of the document (.pdf) shall be numbered & signed/initialled by the authorized signatory. b) Technical proposal shall cover the documents required against the technical evaluation parameters and the technical presentation (clause 11.2.1, Table-10 and Schedule-II, clause S2-3). ***Technical Proposal cannot contain any bid related pricing/ financials, in either explicit or implicit form, in which case the bid will be rejected.***
Proposal-3: Financial Proposal	Financial ***Proposal-3*** shall be submitted only in excel format (.xlsx) in accordance with the suggested formats in the RFP. Company name (with address & contact details) & logo should be placed on all pages of the Financial Proposal. The proposal shall be titled ***"Financial Proposal – Appointment of QA Partner Agency for UMANG"*** and addressed to NeGD at the address specified in this RFP. ***Financial Proposal cannot be kept/ mixed with the Propoal-1 (EMD & Eligibility) and Proposal-2 (Technical Proposal) in either explicit or implicit form, in which case the bid will be rejected.***
Note: The proposals as mentioned above shall indicate the name and address of the bidder company. Failure to mention the name and address on the Proposals may result into confusion and/or misdirection.	

NeGD will not accept delivery of proposal in any manner other than that specified in this RFP. Proposal delivered in any other manner shall be treated as defective, invalid and rejected.

The proposals shall be valid for a period of six (06) months from the date of opening of the proposals. A proposal valid for a shorter period may be rejected as non-responsive. On completion of the validity period, unless the bidder withdraws his proposal in writing, it will

be deemed to be valid until such time that the bidder formally (in writing) withdraws his proposal.

In exceptional circumstances, at its discretion, NeGD may solicit the bidder's consent for an extension of the validity period. The request and the responses thereto shall be made in writing.

12.17   Venue & Deadline for submission of proposals

Bid, covering all Proposals as per Table-12 (clause 12.16), in its complete form in all respects as specified in the RFP, must be submitted online on CPP Portal by the due date and time as per clause 12.1, Table-11 OR as mentioned on the CPP Portal, in case of subsequent change in schedule.

12.18   Late Bids

Being online submission of bids on the CPP Portal, there is no possibility of late submission as the portal shall close automatically on the due date & time. However, in any case, late bids shall not be entertained. Bids received through any channel, other than the online CPP Portal, shall not be entertained.

12.19   Commercial Proposal

In the commercial bid, the Bidder is expected to price for all the items and services as per the RFP scope/ requirements and/or proposed in the Technical Proposal. NeGD, may seek clarifications from the Bidder on the Technical Proposal. Any of the clarifications by the Bidder on the technical proposal cannot have any commercial implications. The Commercial Proposal submitted by the Bidder should be inclusive of all the items in the technical proposal and should have incorporated all clarifications that the Bidder may provide on the technical proposal during the evaluation of the technical offer.

Unless expressly indicated in this RFP, bidder shall not include any technical information regarding the services in the commercial proposal. Additional information directly relevant to the scope of services provided in the RFP may be submitted to accompany the proposal. However, this information will not be considered for evaluation purposes. All the prices/ commercials shall be quoted entirely in Indian Rupees for preparation of Commercial Proposal against this RFP. The bidder must provide the Commercial Proposal in .xlsx format and should not comprise of any direct/ indirect conditions. It is required that the entire financial proposal(s) submitted against the RFP is unconditional.

12.19.1   Correction of Error

Bidders are advised to exercise adequate care in quoting the prices. No excuse for corrections in the quoted figures will be entertained after the bid submission and/or receipt of commercial proposals by NeGD. All corrections, if any, should be initialled by the person signing the proposal form before submission, failing which the figures for such items may not be considered and/or the financial proposal may be rejected on grounds of incomplete or erroneous proposal.

Arithmetic errors in proposals will be corrected as follows:

a) In case of discrepancy between the amounts mentioned in figures and in words, the amount in words shall govern. The amount stated in the proposal form, adjusted in accordance with the above procedure, shall be considered as binding.

b) In case of ambiguities between the quoted (by bidder) unit prices/ values and any derived/calculated values, unit prices/values shall prevail and all derived values shall be recalculated using the quoted unit prices and the quantities furnished in the RFP.

12.19.2   Prices and Price Information

The Bidder shall quote a price for all the components against the RFP scope to meet the requirements of NeGD. All the prices will be in Indian Rupees.

No adjustment of the price quoted in the Commercial Proposal shall be made on account of any variations in costs of labour and materials, currency exchange fluctuations with international currency or any other cost component affecting the total cost in fulfilling the obligations under the contract.

The price quoted in the Commercial Proposal shall be the only amount payable for completion of the contractual obligations by the successful Bidder under the Contract, subject to the terms of payment specified in the RFP. The prices/quotes would be exclusive of GST but inclusive of all other duties, charges and levies as applicable.

The prices, once offered, must remain fixed and must not be subject to escalation for any reason, whatsoever, within the period of the validity of the proposal and the duration or the extended duration of contract. A proposal submitted with an adjustable price quotation or conditional proposal may be rejected as non-responsive.

Bidder should provide all prices, quantities as per the prescribed format as given in Schedule III – 'Bid Formats' for Bid Response – Financial Bid (Table-13, clause S3-1). Bidder should not leave any field blank. In case the field is not applicable, Bidder must indicate "0" (zero) in all such fields.

It is mandatory to provide the break-up of all components in the format specified for detailed Bill of Material. The commercial bid should include the unit price and proposed number of units for each component provided in the Bill of Material in the commercial bid. In case of a discrepancy between the Bill of Material and the commercial bid, the commercial bid remains valid. In no circumstances shall the commercial bid be allowed to be changed/ modified except as required by clause 12.19.1.

All costs incurred due to delay of any sort, shall be borne by the Bidder. NeGD, reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated within specified time frames.

12.20   Language of Proposals

The proposal and all correspondence and documents shall be written in English. All proposals and accompanying documentation will become the property of NeGD, and will not be returned.

12.21   Conditions under which this RFP is issued

This RFP is not an offer and is issued with no commitment. NeGD, reserves the right to withdraw the RFP and change or vary any part thereof at any stage. NeGD, also reserves the right to disqualify any bidder should it be so necessary at any stage. Timing and sequence of events resulting from this RFP shall ultimately be determined by NeGD.

No oral conversations or agreements with any official, agent, or employee of NeGD, shall affect or modify any terms of this RFP and any alleged oral agreement or arrangement made by a bidder with any department, agency, official or employee of NeGD, shall be superseded by the definitive agreement that results from this RFP process. Oral communications by NeGD, to bidders shall not be considered binding on it, nor shall any written materials provided by any person other than NeGD.

Neither the bidder nor any of the bidder's representatives shall have any claims whatsoever against NeGD or any of their respective officials, agents, or employees arising out of or relating to this RFP or these procedures (other than those arising under a definitive service agreement with the bidder in accordance with the terms thereof).

Until the contract is awarded and during the currency of the contract, bidders shall not, directly or indirectly, solicit any employee of NeGD, to leave NeGD, or any other officials

involved in this RFP process in order to accept employment with the bidder, or any person acting in concert with the bidder, without prior written approval of NeGD.

12.22   Rights to the Content of the Proposal

All proposals and accompanying documentation of the Technical proposal will become the property of NeGD, and will not be returned after opening of the technical proposals. The commercial proposals that are not opened may be returned to the bidders. NeGD is not restricted in its rights to use or disclose any or all of the information contained in the proposal and can do so without compensation to the bidders. NeGD shall not be bound by any language in the proposal indicating the confidentiality of the proposal or any other restriction on its use or disclosure.

12.23   Modification and Withdrawal of Proposals

No proposal may be withdrawn in the interval between the deadline for submission of proposals and the expiration of the validity period. Entire bid security may be forfeited if any of the bidders withdraw their bid during the validity period.

12.24   Non-Conforming Proposals

A proposal may be construed as a non-conforming proposal and ineligible for consideration:

a) If it does not comply with the requirements of this RFP. Failure to comply with the technical requirements, and acknowledgment of receipt of amendments, are common causes for holding proposals non-conforming

b) If a proposal appears to be "canned" presentations of promotional materials that do not follow the format requested in this RFP or do not appear to address the particular requirements of the proposed solution, and any such bidders may also be disqualified

12.25   Disqualification

The proposal is liable to be disqualified in the following cases or in case bidder fails to meet the bidding requirements as indicated in this RFP:

a) Proposal not submitted in accordance with the procedure and formats prescribed in this document or treated as non-conforming proposal

b) During validity of the proposal, or its extended period, if any, the bidder increases his quoted prices

c) The bidder qualifies the proposal with his own conditions

d) Proposal is received in incomplete form

e) Proposal is received after due date and time at the designated venue

f) Proposal is not accompanied by all the requisite documents

g) If bidder provides quotation only for a part of the project

h) Information submitted in technical proposal is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any

i) Commercial proposal is enclosed within the same envelope as technical proposal

j) Bidder tries to influence the proposal evaluation process by unlawful/ corrupt/ fraudulent means at any point of time during the bid process

k) In case any one bidder submits multiple proposals or if common interests are found in two or more bidders, the bidders are likely to be disqualified, unless additional proposals/ bidders are withdrawn upon notice immediately

l) Bidder fails to deposit the Performance Bank Guarantee (PBG) or fails to enter into a contract within 60 working days of the date of LoI or within such extended period, as may be specified by NeGD. Bidders may specifically note that while evaluating the proposals, if it comes to NeGD's knowledge expressly or implied, that some bidders may have colluded in any manner, whatsoever, or otherwise joined to form an alliance then the bidders so involved are liable to be disqualified for this contract as well as for a further period of three years from participation in any of the tenders floated by NeGD

m) The bid security document(s) and technical proposal including entire documentation (pdf format) should not contain any information on price, pricing policy, pricing mechanism or any information indicative of the commercial aspects of the bid.

12.26 Conflict of Interest

Bidder shall furnish an affirmative statement as to the absence of, actual or potential conflict of interest on the part of the Bidder (or any prospective subcontractor, if applicable) due to prior, current, or proposed contracts, engagements, or affiliations with NeGD/MeitY. Additionally, such disclosure shall address any and all potential elements (time frame for service delivery, resource, financial or other) that would adversely impact the ability of the Bidder to complete the requirements as given in the RFP.

END OF PART – I

13. Ownership and Intellectual Property Rights

13.1 Ownership & IPR

NeGD will hold the license perpetually of proprietary component/s, if any, under UMANG. Further, the IPR of all the system and application software (other than the proprietary component) that are part of the UMANG and any derivative works, modifications, enhancements, improvements or customization to the software or its related source code and/or documentation and also all copyrights and trademarks will vest with NeGD.

Department to own APIs along with source code and other relevant artefacts such as documentation etc. developed for them by any of UMANG Partner Agencies.

13.2 Products and Fixes

All products and related solutions and fixes provided pursuant to this RFP shall be licensed according to the terms of the license contract packaged with or otherwise applicable to such product. "Product" means any computer code, web-based/mobile-based services, or materials comprising commercially released, pre-release or beta products (whether licensed for a fee or no charge) and any derivatives of the foregoing which are made available to NeGD for license which is published by product owner or its affiliates, or a third party. "Fixes" mean product fixes that are either released generally (such as commercial product service packs) or that are provided to when performing services (such as workarounds, patches, bug fixes, beta fixes and beta builds) and any derivatives of the foregoing.

14. Award of Contract

14.1 Award Criteria

a) **Award Criteria –** NeGD will issue the Work Order (WO) to the successful bidder whose proposal has been determined to be substantially responsive and has been determined as the most responsive bid as per the process outlined above.

b) **Right to Accept Any Proposal and To Reject Any or All Proposal(s) –** NeGD reserves the right to accept or reject any proposal, and to annul the tendering process/ public procurement process and reject all proposals at any time prior to award of Work Order, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for NeGD action.

c) **Notification of Award**- Prior to the expiration of the validity period, NeGD will notify the successful bidder in writing or by email, that its proposal has been accepted. In case the tendering process/ public procurement process has not been completed within the stipulated period, NeGD, may like to request the bidders to extend the validity period of the bid. On issue of the WO, successful bidder shall furnish the Acceptance Letter and the Performance Bank Guarantee (PBG).

d) **Acceptance Letter** - NeGD will require the selected bidder to provide an acceptance letter and a PBG, for a value equivalent to 03% of the Project Cost, within 15 days from the issue of WO. The Performance Guarantee should be valid for 42 (36+6) months from the date of issue of WO. In case the selected bidder fails to submit the acceptance letter and PBG within the time stipulated, NeGD at its discretion may decide to cancel the order without giving any reason. The PBG shall contain a claim period of six months from the last date of validity. NeGD shall invoke the Performance Bank Guarantee in case the selected bidder fails to discharge its obligations as per the terms & conditions of the MSA/ Work Order. The format of Performance Bank Guarantee is given in clause S3-8, Schedule III – Bid Formats.

e) **Fraud and Corrupt Practices-** NeGD requires that Agency selected through this RFP/ tender process must observe the highest standards of ethics during the procurement process. In pursuance of this policy, NeGD**:**

(i) Defines, for the purposes of this provision, the terms set forth as follows:

- "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of NeGD or any personnel of Agencies in contract executions.

- "Fraudulent practice" means erroneous presentation of facts, in order to influence a procurement process or the execution of a contract, to NeGD, and includes collusive practice among Respondents (prior to or after Proposal submission) designed to establish Proposal prices at artificially high or non-competitive levels and to deprive NeGD of the benefits of free and open competition;

- "Coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the execution of contract.

(ii) Will reject a proposal for award, if it determines that the Respondent recommended for award, has been determined by NeGD to having been engaged in corrupt, fraudulent or coercive practices.

(iii) Will declare a firm or any of its partner organizations ineligible, either indefinitely or for a stated period of time, for awarding the contract, if it at any time determines that the firm has engaged in corrupt or fraudulent practice in competing for the

tender.

14.2　Signing of Contract

Concurrent to NeGD notifying the successful bidder about its proposal acceptance, NeGD shall enter into a separate Contract, the Master Service Agreement (MSA), incorporating all agreements between NeGD and the successful bidder.

15.　Payment Terms and Schedules

15.1　Performance Bank Guarantee (PBG)

A PBG of 03% of the value of the contract shall be furnished by the successful bidder in the form of a Bank Guarantee as per the format provided in this RFP from any Commercial Bank. Details of the bank are to be furnished in the commercial offer. It can also be submitted in the form of FDR or A/C Payee Demand Draft.

a) The PBG should be furnished before signing of the contract, within 15 days from the issue of WO and should be valid for 42 (36+6) months after that.
b) PBG to remain valid up to 180 days beyond guarantee/warranty obligations after which this shall be returned.
c) NeGD may forfeit the PBG/ Security for any failure on part of the selected QA Partner Agency (winning bidder) to complete its obligations under the Agreement.
d) No amendment to the agreement can be made, except as laid out in clause 17.13

15.2　Limitation of liability

Except in cases of gross negligence or wilful misconduct:

a) Neither party shall be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Bidder/Partner to pay liquidated damages to NeGD as per the terms of the Agreement; and
b) The aggregate liability of the selected QA Partner Agency (winning bidder) to NeGD, whether under the Contract, in tort, or otherwise, shall not exceed the total amount of the Contract/ Agreement Value.
c) Selected Partner Agency (winning bidder) shall not be held responsible for the delays/ failures, not attributable to them, provided they have made all reasonable efforts towards achieving the objective and/or meeting the timelines/ deadlines including needed coordination and follow-ups. The onus to establish this lies with the Partner Agency.

16. Termination

16.1   Material Breach

If the Partner Agency is not able to deliver the services as per the RFP/Agreement (MSA), which translates into Material Breach, then NeGD may serve a 15-days written notice for curing this Material Breach. In case the Material Breach continues, after the expiry of such notice period, NeGD will have the option to terminate the Contract/ Agreement with one month's notice. Further, NeGD may, after granting a reasonable opportunity to the Partner Agency to explain the circumstances leading to such a delay, take an appropriate decision. Material Breach of the Contract/Agreement is a breach (a failure to perform the Contract/ Agreement obligations) that strikes so deeply at the heart of the Contract/ Agreement that it renders the Contract/Agreement "irreparably broken" and defeats the purpose of making the Contract/ Agreement in the first place.

The material breach shall cover but will not be limited to following:
a) Consistent delay in deliverables,
b) Failure to provide deliverables,
c) Signification and consistent performance quality issues,
d) Failure to successful knowledge transfer (KT), handover all relevant documents, test cases, processes/ procedures and provide hand-holding for the defined period at the time of exit as laid out in the Schedule I – Exit Management.

16.2   Termination of the Contract due to bankruptcy of Partner Agency

The NeGD may serve written notice on Partner Agency at any time to terminate the Contract with immediate effect if:
a) The Partner Agency reporting an apprehension of bankruptcy to the NeGD or its nominated agencies;
b) NeGD or its nominated agencies apprehending a similar event.

16.3   Change of Control

NeGD may, by giving a one month's written notice, terminate the Contract if a Change of Control of the Partner Agency has taken place. For the purposes of this clause, in the case of Partner Agency, Change of Control shall mean the events stated below and such notice shall become effective at the end of the notice period as set out below:
a) In the event of a Change of Control of the Partner Agency during the Term, the Partner Agency shall promptly notify NeGD and/or its nominated agencies of the same. If the net worth of the surviving entity is less than that of Partner Agency prior to the change

of control, NeGD or its nominated agencies, within 30 days of becoming aware of such Change in Control, as an alternative to termination, may demand a replacement of existing Performance Guarantee furnished by the Partner Agency from a guarantor acceptable to NeGD or its nominated agencies, which shall not be Partner Agency or any of its associated entities.

b) If such a guarantee is not furnished within 30 days of NeGD or its nominated agencies demanding the replacement, NeGD may exercise its right to terminate this Contract within a period of further 30 days by written notice, to become effective on the date as specified in such notice.

c) Pursuant to termination, the effects of termination as set out in clause 16.4 of this RFP shall follow.

For the avoidance of doubt, it is expressly clarified that the internal reorganization of the Partner Agency shall not be deemed an event of a Change of Control for the purposes of this clause unless the surviving entity is of less net worth than the predecessor entity.

16.4 Effects of termination

a) If NeGD terminates the Contract pursuant to Material Breach and/or default and/or failure on the part of the Partner Agency to comply with the conditions as contained in the Contract, Performance Bank Guarantee furnished by Partner Agency shall be forfeited;

b) Upon termination of the Contract, the Parties will comply with the provisions of the Exit Management set out as Schedule-I of this RFP;

c) Due payments will be settled in accordance with the terms of this RFP;

17. General Terms and Conditions

17.1 Personnel

a) The personnel assigned by the Partner Agency to perform the Services shall be employees of the Partner Agency, and under no circumstances shall such personnel be considered employees of NeGD or its nominated agencies. The Partner Agency shall have the sole responsibility for the supervision and control of its personnel and for payment obligations of such personnel's compensation, including salary, withholding of income taxes and social security taxes, workers' compensation, employee and disability benefits and the like and shall be responsible and accountable for all obligations of an employer according to applicable laws, rules and regulations.

b) The Partner Agency shall use its best efforts to ensure that sufficient personnel are

assigned to perform the Services and those personnel have appropriate qualifications, skills and experience to perform the Services. After discussion with Partner Agency, NeGD or its nominated agencies shall have the right to require the removal or replacement of any Partner Agency personnel deployed on the Project. If NeGD or its nominated agencies requests that any Partner Agency personnel be replaced, the substitution of such personnel shall be accomplished as per the terms of this RFP and subsequent Contract/ WO;

c) If NeGD (or its nominated agencies) identifies any personnel of Partner Agency as "Key Personnel", then the Partner Agency shall not remove such personnel from engagement under this project without the prior written consent of NeGD (or its nominated agencies) unless such removal is the result of an unavoidable circumstances including but not limited to resignation, medical leave, etc.

d) Except as stated in this clause/section, nothing in this RFP will limit the ability of the Partner Agency to freely assign or reassign its employees; provided that the Partner Agency shall be responsible, at its expense, for transferring all appropriate knowledge from personnel being replaced to their replacements. NeGD or its nominated agencies shall have the right to review and approve personnel identified/selected for deployment on this Project and Partner Agency's plan for any such knowledge transfer. The Partner Agency shall maintain the same or higher standards for skills and professional knowledge among replacement personnel as in those of personnel being replaced;

e) Each Party shall be responsible for the performance of all its obligations under the Contract/ Agreement and shall be liable for the acts and omissions of its employees, agents or subcontractors in connection therewith.

17.2   Independent Contractor

Nothing in this RFP shall be construed as establishing or implying any partnership or joint venture between the Parties to this RFP and, except as expressly stated in this RFP, nothing in this RFP shall be deemed to constitute any Parties as the agent of any other Party or authorizes either Party to:

a) Incur any expenses on behalf of the other Party;

b) Enter any engagement or make any representation or warranty on behalf of the other Party;

c) Pledge the credit of or otherwise bind or oblige the other Party; or

d) Commit the other Party in any way whatsoever without in each case obtaining the other Party's prior written consent.

17.3   Sub-contractors

The Partner Agency shall not subcontract (except partnering with CERT-IN empaneled agency for Security Audits as allowed by eligibility criteria) any work related to the core activities to be performed under this RFP without NeGD's prior written consent. It is clarified that the Partner Agency shall be the principal employer for all claims arising from the liabilities, statutory or otherwise, concerning the sub-contractors. The Partner Agency undertakes to indemnify NeGD or its nominated agencies from any claims on any grounds, whatsoever, and in no way, shall hold NeGD accountable.

17.4   Assignment

a) All terms and provisions of this RFP and subsequent Contract/ Agreement with the successful Bidder shall be binding and shall inure to the benefit of NeGD and their respective successors and permitted assigns;
b) Subject to clause mentioned above, the selected Partner Agency shall not be permitted to assign its rights and obligations, under the Contract/ Agreement, to any third party;
c) NeGD may assign or novate all or any part of the Contract/ Agreement and the Partner Agency shall be a party to such novation, to any third party contracted to provide outsourced services to NeGD or any of its nominees.

17.5   Trademarks and Publicity

Neither Party may use the trademarks of the other Party without the prior written consent of the other Party. Except as required by law or the rules and regulations, neither Party shall publish or permit to be published either alone or in conjunction with any other person, any press release, information, article, photograph, illustration or any other material of whatever kind relating to the Contract/Agreement or the business of the Parties without prior reference to and approval in writing from the other Party; such approval not to be unreasonably withheld or delayed provided, however, that Partner Agency may include NeGD (or any of its nominees) in the lists for reference to third parties subject to the prior written consent of NeGD not to be unreasonably withheld or delayed. Such approval shall apply to each specific reference and relate only to that reference.

17.6   Notices

a) Any notice or other document which may be given by either Party under the Contract/ Agreement shall be given in writing in person or by pre-paid recorded delivery post, email.
b) In relation to a notice given under the Contract/ Agreement, any such notice or other

document shall be addressed to the other Party's principal or registered office address as set out below:

(i) NeGD (Details shall be provided in the Contract/MSA with the successful Bidder)

- *Name:*
- *Address:* 4th Floor, NeGD, Electronics Niketan, 6 CGO Complex, Lodhi Road, N. Delhi-3
- *E-mail:*
- *Telephone:*

(ii) Partner Agency

- *Name:*
- *Address:*
- *Email:*
- *Telephone:*

c) In relation to a notice given under the Contract/ Agreement, a Party shall specify the Parties' address for service of notices, any such notice to be copied to the Parties at the addresses set out in this clause/section;

d) Any such notice or other document shall be deemed to have been given to the other Party (or, if relevant, its relevant associated company) if delivered between the business hours of 9.00 am and 5.30 pm at the address of the other Party set forth above, or on the next working day thereafter if delivered outside such hours, and 7 days from the date of posting (if by letter);

e) Either Party to the Contract may change its address, telephone number, and nominated contact for notification purposes by giving the other Party reasonable prior written notice of the new information and its effective date.

17.7 Variations and Further Assurance

No amendment, variation or other change to the Contract/ Agreement shall be valid except as laid out in clause 17.13 of this RFP.

Each Party to the Contract/ Agreement agrees to enter or execute, without limitation, whatever other contract, document, consent and waiver and to do all other things which shall or may be reasonably required to complete and deliver the obligations set out in the Contract/ Agreement.

17.8   Severability and Waiver

If any provision of the Contract/ Agreement, or any part thereof, shall be found by any court or administrative body of competent jurisdiction to be illegal, invalid or unenforceable; the illegality, invalidity or un-enforceability of such provision or part provision shall not affect the other provisions of the Contract/ Agreement or the remainder of the provisions in question which shall remain in full force and effect. The concerned Parties shall negotiate in good faith to agree to substitute for any illegal, invalid or unenforceable provision with a valid and enforceable provision which achieves to the greatest extent possible the economic, social, legal and commercial objectives of the illegal, invalid or unenforceable provision or part provision.

No failure to exercise or enforce and no delay in exercising or enforcing on the part of either Party to the Contract of any right, remedy or provision of the Contract/ Agreement shall operate as a waiver of such right, remedy or provision in any future application nor shall any single or partial exercise or enforcement of any right, remedy or provision preclude any other or further exercise or enforcement of such right, remedy or provision or the exercise or enforcement of any other right, remedy or provision.

17.9   Compliance with Applicable Law

Each Party to the Contract/ Agreement accepts that its individual conduct shall (to the extent applicable to it) always comply with all laws, rules and regulations of government and other bodies having jurisdiction over the area in which the Services are undertaken. In case of changes in such laws, rules and regulations which result in a change to the Services, shall be dealt with as an exceptional situation with the objective to realign the part getting violated under the revised laws with minimal changes to achieve the objective existent prior to the change. For avoidance of doubt, the obligations of the Parties to the Contract are subject to their respective compliance with all local, state, national, supra-national, foreign and international laws and regulations.

17.10   Professional Fees

All expenses incurred by or on behalf of each Party to the Contract/ Agreement, including all fees of agents, legal advisors, accountants and actuaries employed by either of the Parties about the negotiation, preparation and execution of the Contract/ Agreement shall be borne solely by the respective Party which incurred them.

17.11 Ethics

The Partner Agency represents, warrants and covenants that it has given no commitments, payments, gifts, kickbacks, lavish or expensive entertainment, or other things of value to any employee or agent of NeGD or its nominated agencies about the RFP/Contract and acknowledges that the giving of any such payment, gifts, entertainment, or other things of value is strictly in violation of NeGD standard policies and will result in termination of the Contract/ Agreement.

17.12 Entire Contract

The Contract/ Agreement with all Appendices and Schedules appended thereto, contents and scope/ specifications of the RFP, all the corrigendum's, response to queries etc. that may be issued against this RFP and the Bidder's offer including presentation and all supporting documents shall constitute the entire Contract/ Agreement between the Parties with respect to their subject matter, and as to all other representations, understandings or agreements which are not fully expressed herein, provided that nothing in this clause shall be interpreted so as to exclude any liability in respect of fraudulent misrepresentation.

17.13 Amendment

No amendment to the Contract/ Agreement shall normally be possible and allowed. Only under exceptional and unforeseen circumstances, amendments can be considered after due deliberations and requisite approvals at the appropriate levels in NeGD. Such amendments shall be made in writing and signed by the duly authorized representatives of the parties to the Contact/ Agreement.

END OF PART – II

SCHEDULE I – EXIT MANAGEMENT

Exit Management Plan gets effective either on expiry of the Contract/ Agreement or termination. The objective is to smoothly handover all the activities/ tasks performed and managed by the Partner Agency on UMANG platform such as FAT and audits to the new Partner Agency with proper knowledge transfer (KT), all documentations, processes updated to the latest along with credentials/ accesses as applicable.

Exit Management Plan shall become effective after the completion of the contract period; from the next day of contract expiry or termination. The Partner Agency shall provide full knowledge transfer, at no additional cost to NeGD except as specified explicitly in this schedule, regarding the complete scope as per the contract, that may continue until 60-days after the expiry or termination.

The Exit Management Plan shall contain the detailed action plan for proper handover of assigned activities/ tasks, FAT/ audits pertaining to UMANG Platform(s), all applicable licenses, access-control credentials, updated documentations, all archives/logs/reports etc. This shall list out all the activities to be handed over, full details of the procedures/ processes, SLA understanding, data collection scope & methodology, breadth & depth of UMANG Platform covered under various audits/ testing. details of tools/ testers/ scripts deployed/used, associated licenses with their validity & relevant keys (as applicable), list of all documents that need to be updated just before the transition, methodology for knowledge transfer during transition, team structure with skills/experience details that shall be responsible for the transition, time-table etc.

The Partner Agency shall review the Exit Management Plan annually to ensure that it remains relevant and up to date. Any updates/changes shall be presented to and approved by NeGD or its nominated agencies that shall become addendum to the original schedule superseding the original sections/ subsections.

During the handing over and knowledge transfer, the partner agency shall continue to carry on with required FAT & audit(s) activities for which partner agency shall be paid as per the terms of the Contract/ Agreement.

S1-1. Purpose

a) This Schedule sets out the provisions, which will apply on expiry or termination of the contract, regarding all managed activities as detailed in above paras;

b) In the case of termination of the contract the provisions of this Schedule shall be applicable to

both the parties;

c) The Parties shall ensure and be responsible that their respective associated entities carry out their respective obligations set out in the Exit Management Schedule.

S1-2. Cooperation and Provision of Information

During the exit management period:

a) The Partner Agency will allow NeGD or its nominated agency access to information reasonably required to define the then current mode of operation associated with the FAT and audits;

b) Promptly on reasonable request by NeGD, the Partner Agency shall provide access to and copies of all information held or controlled by them, which they have prepared or maintained in accordance with this contract relating to any material aspect of the services (whether provided by the Partner Agency or sub-contractors appointed by the Partner Agency). NeGD shall be entitled to copy of all such information. Such information shall include details pertaining to the services rendered and other associated data. The Partner Agency shall permit NeGD or its nominated agencies to have reasonable access to its employees and facilities as reasonably required to understand the methods of conducting FAT and other audits by the Partner Agency and to assist appropriate knowledge transfer.

S1-3. Confidential Information, Security and Data

a) The Partner Agency will promptly on the commencement of the exit management period supply to NeGD or its nominated agency the following:

(i) Information relating to the current FAT and audits conducted, associated reports and data;

(ii) Documentation relating to procedures/ processes, standards and industry best practices being followed, tools/ testers/ scripts deployed and so on;

(iii) Documentation, such as SoW (SLA interpretations), resources deployed, terms of contract etc. relating to sub-contractors, as applicable;

(iv) All other information (including but not limited to documents, records and contract) relating to the services, reasonably necessary to enable NeGD or its nominated agencies or its Replacement Partner Agency to carry out due diligence for transitioning the provision of the Services to NeGD or its nominated agencies, or its Replacement Partner Agency (as applicable).

b) Before the expiry of the exit management period, the Partner Agency shall deliver to NeGD or its nominated agency all up-dated documents as set out above and shall not retain any copies thereof;

c) Before the expiry of the exit management period, unless otherwise provided under the Contract/ Agreement, NeGD or its nominated agency shall deliver to the Partner Agency all forms of

Partner Agency confidential information, which is in the possession or control of NeGD or its nominated agency.

S1-4. Employees

a) Promptly on reasonable request at any time during the exit management period, the Partner Agency shall, subject to applicable laws, restraints and regulations (including those relating to privacy) provide to NeGD or its nominated agency a list of all employees (with job titles) of the Partner Agency dedicated to providing the services at the commencement of the exit management period;

b) To the extent that any Transfer Regulation does not apply to any employee of the Partner Agency, NeGD or its nominated agency or its Replacement Partner Agency may make an offer of employment or contract for services to such employee/s of the Partner Agency and the Partner Agency shall not enforce or impose any contractual provision that would prevent any such employee from being hired by NeGD or its Replacement Partner Agency.

S1-5 General Obligations of the Partner Agency

The Partner Agency shall provide all such information as may reasonably be necessary to effect as seamless a handover as practical in the circumstances to NeGD or its nominated agency or its Replacement Partner Agency and which the Partner Agency has in its possession or control at any time during the exit management period.

For the purposes of this Schedule, anything in the possession or control of the Partner Agency, its associated entity and/or its sub-contractor is deemed to be in the possession or control of the Partner Agency. The Partner Agency shall commit adequate resources to comply with its obligations under this Exit Management Schedule.

S1-6. Exit Management Plan

1. Plans for provision of contingent support to NeGD and Replacement Partner Agency for a reasonable period, not less than 60-days, after transfer i.e. 4-months after the contract expiry.
2. During the exit management period, the Partner Agency shall be obligated to carry on with FAT, audits and testing, as required, related to UMANG Platform per the Contract/ Agreement;
3. In the event of termination or expiry of the Contract/ Agreement, each Party shall comply with the Exit Management Plan;
4. The terms of payment as stated in the Terms of Payment Schedule includes the costs of the Partner Agency for complying with its obligations under this Schedule;
5. Payments during the Exit Management period shall be made in accordance with the Terms of

Payment Schedule;

6. The Partner Agency shall provide NeGD or its nominated agency with a recommended exit management plan ("Exit Management Plan") which shall deal with at least the following aspects of exit management in relation to the Contract/ Agreement;

   (i) A detailed program of the transfer process that could be used in conjunction with Replacement Partner Agency including details of the means to be used to ensure continuing audits/FAT throughout the transfer process;

   (ii) Plan for communication with Partner Agency's sub-contractors (if applicable), staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on UMANG audits/ FAT because of undertaking the transfer;

7. This Exit Management plan shall be furnished in writing to NeGD or its nominated agencies within 06 months from the date of WO.

SCHEDULE II – LIST OF DOCUMENTS

Summary of the documents required to be submitted as part of the bid against this RFP. Please note that this list may not be exhaustive and relevant documents (essential and supporting, as applicable) as per the requirements of the RFP must be complied to and furnished.

S2-1. Eligibility Documents

a) "Copy of Certificate of Incorporation"
b) "Copy of Registration Certificates with the GST & IT (PAN)" Authorities
c) "Bid Security Declaration" – Against EMD waiver
d) Copy of "Audited (OR certified by practising independent Chartered Account) Balance Sheet" **OR** "Copies of Purchase Orders (certified by practising independent Chartered Account)" showing at least 3 years of operations
e) "Audited Balance Sheet for Financial Years – 2020-21 (till Mar '21 or Dec'20) OR 2017-18 , 2018-19, 2019-20"; For the FY 2020-21 can be certified by practising independent Chartered Accountant.
f) "Copy of the Work Orders + Audit/ FAT Completion Certificates from the Client" **OR** "Self-Certificate (certified by practising independent Chartered Account) of Audit/ FAT Completion"; in the context of experience requirements under 03 categories (i.e. O&M/SLA audit, Functional Acceptance Testing (FAT) of the services delivered on the Platform through mobile app & web app & Security audit) on the Large size IT Platforms/Applications, according to item 3, Table-9, clause 11.1)
g) "Copy of Certificate/ Letter of Empanelment from CERT-In" (for Security Audit requirement) of the Bidder or the Partner, as the case may be.
h) Self-certificate and/or Letter of Undertaking regarding 'No Black Listing' on company's letter head signed by company's authorized signatory

S2-2. Other Bid Documents

a) Undertaking from Authorised Signatory for unconditional acceptance all terms and conditions of 'RFP (Request for Proposal) i.e. Nil Deviation Certificate.
b) Undertaking from Authorised Signatory for accepting 'Extension' beyond 02 years at the quoted commercials and existing T&C, if NeGD so decides.
c) Undertaking regarding non-existence of 'Conflict of Interests'

S2.3. Documents related to Technical Evaluation

a) Copy of audited (OR certified by practising independent Chartered Account) Balance Sheet OR copies of Purchase Orders (certified by practising independent Chartered Account) clearly mentioning the turnover during the required periods of operations as per item 1, Table-10 of clause 11.2.1.

b) Copy of the Work Orders + Audit/ FAT Completion Certificates from the Client **OR** Self Certificate (certified by practising independent Chartered Account) of Audit/ FAT Completion; in the context of experience requirements under 03 categories (i.e. O&M/SLA audit, FAT on multilingual mobile/ web app delivered services & Security audit) and marking criteria (on 04 parameters) on IT Platforms/Applications, according to item 2, Table-10, clause 11.2.1, clearly mentioning the categories and the parameter values along with the client name (wherever possible), average annual transaction volume with month/year, when the activity was performed.

c) Copy of the Work Orders + Audit/ FAT Completion Certificates from the Client **OR** Self Certificate (certified by practising independent Chartered Account) of Audit/ FAT Completion; in the context of experience requirements under 03 categories (i.e. O&M/SLA audit, FAT on multilingual mobile/ web app delivered services & Security audit) and marking criteria (on 04 parameters) on AI based Voice & Chat Bot Platforms/ Applications, according to item 3, Table-10, clause 11.2.1, clearly mentioning the categories and the parameter values along with client name (wherever possible), average annual transaction volume with month/year when the activity was performed.

d) Document(s) and/or presentation with the crisp description of the Tools/ Testers/ Scripts etc. (along with the listing of such items with relevant details as make, model, key features/ functionalities etc.) that is proposed to be deployed for the audits/ FAT of UMANG project; item 4, Table-10, clause 11.2.1

e) Document(s) and/or presentation with the crisp description of "Procedures, Standards, International Best Practices" assuring high quality/ standards of audit; item 4, Table-10, clause 11.2.1

f) Presentation, according to the requirements mentioned in item 5, Table-10, clause 11.2.1

g) Exit Management Plan mentioned in item 5, Table-10, clause 11.2.1

h) Document on company's capability, skills, technology set-up and proposed methodology, for audit/ FAT on UMANG platform

S2-4. Check List of the Documents (To be Submitted with the Bid)

Confirm the enclosure of all the below listed documents *(refer clause 11.1, 11.2.1, clause S2-1, S2-2, S2-3 above and the Schedule III Bid Formats):*

S. No.	Items	Confirm (Yes/No)
1.	"Bid Security Declaration" – Against EMD waiver	
2.	Eligibility Documents (refer clause 11.1, Table-9 & clause S2-1)	
3.	Documents as required for Technical Evaluation (refer clause 11.2.1, Table-10 & clause S2-3)	
4.	Technical Bid Document(s) with Proposal Cover Letter *(all pages to be serially numbered, signed and stamped)*	
5.	Financial Bid Document(s) in the prescribed format with Proposal Cover Letter *(all pages to be serially numbered, signed and stamped)*	
6.	Undertaking for unconditional acceptance of all terms & conditions of the 'RFP (Request for Proposal) i.e. Nil Deviation Certificate; signed by Authorised Signatory	
7.	Undertaking regarding extension (for 02 years) beyond initial term of 03 years, in accordance with the clause 10.3	
8.	Exit Management Document	
9.	Certificate/ Undertaking for not being Blacklisted	
10.	Undertaking regarding non-existence of 'Conflict of Interests'	
11.	Agency (Bidder) Information Form	
12.	Non-Disclosure Agreement	

Signature of Authorised Person

Date:

Place:

Full Name:

Company's Seal:

SCHEDULE III – BID FORMATS

S3-1. Financial Bid

Table 13 – Financial Bid

S. No.	Audit/ Test	First 03 Years Quote (INR, Excl. of GST)	Qty (For 3 years)	Total Amount (estimate for 03 years)
I.	**Functional Acceptance Test (FAT) – A1**			
1	Services – Functional (Android + iOS + Web) + English & Hindi	**A11**	540	A11 * 540
2	Every additional language - @2% of service FAT Fee	2.0%	1,620	02% * A11 * 1620
3	*Additional Platform – @30% of service FAT Fee*			
	Total (A1) = (540 + (2% * 1620)) * A11			**A1**
II.	**Security Audit & Certification (Platform & Application) – A2**			
4	Backend	**A21**	12	A21 * 12
5	Frontend *(including international instance)*	**A22**	12	A22 * 12
6	Voice/Chat Bot	**A23**	12	A23 * 12
7	API Security Audit Per Service	**A24**	36	A24 * 36
	Total (A2) = 12 * (A21 + A22 + A23) + (36 * A24)			**A2**
III.	**SLA/O & M Audit – A3**			
8	Backend	**A31**	12	A31 * 12
9	Frontend *(including international instance)*	**A32**	12	A32 * 12
10	Helpdesk	**A33**	12	A33 * 12
11	Voice/ Chat Bot	**A34**	12	A34 * 12
	Total (A3) = 12 * (A31 + A32 + A33 + A34)			**A3**
IV.	**Regression Testing of the UMANG Build - A4**			
12	Regression Testing - UMANG Android Build	**A41**	24	A41 * 24
13	Regression Testing - UMANG iOS Build	**A42**	24	A42 * 24
	Total (A4) = 24 * (A41 + A42)			**A4**
V.	**New or Enhanced Functionality (Contingent) Audit - A5**			
14	Benchmarked @ 50 test cases (approved by NeGD) and multiples or part thereof; **Total (A5) = 12 * A51**	**A51**	12	A51 * 12
Total Quote/ Bid Value (A) = A1 + A2 + A3 + A4 + A5				**A5**
Grand Total in words				**A1+A2+A3+A4+A5**

Notes:

a) *Only quote/ unit rates to be furnished in the 3rd column titled, "First 03 years- Quote (INR, excl. of GST); For the 4th & 5th years quoted unit value shall be increased by 10%.*

b) *Quantities in the table above are for bid evaluation purposes only. Payment shall be based on actual work/ audits that may vary from above.*

c) *Bid evaluation on 3-years estimate*

S3-2. Technical Bid Cover Letter

<Company Letter Head>

<Date>

To,

<Name & Address>

Ref: RFP for Appointment of QA Partner Agency for UMANG

Dear Sir,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the RFP for the **UMANG** Project.

We attach hereto the technical response as required by the RFP, which constitutes our proposal.

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

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the shortlisting process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and also agree to abide by this tender response for a period of SIX MONTHS from the date fixed for bid opening.

We hereby declare that in case the contract is awarded to us, we shall submit the contract "Performance Bank Guarantee (PBG)" in the form prescribed in this RFP.

We agree that you are not bound to accept any tender response you may receive. We also agree that

you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

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

Dated this _____Day of _____2021

<Signature>

(In the capacity of)

<Name>

Duly authorized to sign the Tender Response for and on behalf of:

<Name and Address of Company>

<Seal/Stamp of bidder>

Witness Signature:

Witness Name:

Witness Address:

CERTIFICATE AS TO AUTHORISED SIGNATORIES

I,……………………………, the Company Secretary of ……………………………, certify that …………………………… who has signed the above/ enclosed proposal is authorized to do so and bind the company to the contract/agreement, pursuant to the resolution passed in the meeting of Board of Directors of the company on *<date>.*

Date:

Signature:

<Company Seal>

<Name>

S3-3. Commercial Proposal Cover Letter

<Company Letter Head>

<Date>

To,

<Name & Address>

Ref: RFP for Appointment of QA Partner Agency for UMANG

Dear Sir,

Having examined the RFP Document, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the services, as required and outlined in the RFP. In order to meet such requirements and to provide services as set out in the RFP document, following/enclosed is our quotation summarizing our Commercial Proposal.

We attach hereto the Commercial Proposal as required by the bid document, which constitutes our proposal. We undertake, if our proposal is accepted, to the services as put forward in the RFP or such modified requirements as may subsequently be agreed mutually by us and NeGD.

We will obtain necessary performance bank guarantee (PBG), in the formats provided in the RFP document, issued by a bank in India, acceptable to NeGD and furnish them within the time frames set out in the RFP.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and we also agree to abide by this bid response for a period of SIX (6) MONTHS from the date fixed for commercial bid opening and it shall be valid proposal till such period with full force and virtue. Until within this period a formal contract is prepared and executed, this bid response, together with the written acceptance thereof in your notification of award, shall constitute a binding contract between us and NeGD.

We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to NeGD is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead NeGD as to any material fact.

We agree that you are not bound to accept the lowest or any bid response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the bid response without assigning any reason whatsoever.

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

Dated this _____ Day of _____ 2021

<Signature>

(In the capacity of)

Duly authorized to sign the Bid Response for and on behalf of:

<Name and Address of Company>

<Seal/Stamp of Agency>

CERTIFICATE AS TO AUTHORISED SIGNATORIES

I,……………………………., the   Company   Secretary   of   ……………………………., certify   that …………………………… who has signed the above/ enclosed proposal is authorized to do so and bind the company to the contract/ agreement, pursuant to the resolution passed in the meeting of Board of Directors of the company on *<date>.*

Date:

Signature:

<Company Seal>

<Name>

S3-4. Format for submission of Queries for Clarifications

Bidders requiring specific points of clarification may communicate with NeGD, during the specified period using the following format:

<Name and Address>			
Bidder Request for Clarification			
Name of Organization submitting request	**Name and Position of Person Submitting Request**	**Full formal address of the Organization including phone, fax and email points of contact**	
		Tel:	
		Mobile:	
		E Mail:	
S. No.	**RFP Document Reference(s) (clause number/ page number)**	**Content of RFP requiring clarification**	**Points of clarification Required**

S3-5. Bid Security Declaration Format

<On Bidder Company Letter Head>

Bid Security Declaration

To,

The Managing Director & Chief Executive Officer,

NeGD, Digital India Corporation (DIC),

Electronics Niketan Annexe, CGO Complex,

Lodhi Road, New Delhi-110003

Whereas *<Name of the Bidder>* (hereinafter called 'the Bidder') has submitted the bid for submission of RFP *<Number>* for "Appointment of QA Partner Agency for UMANG (Backend, Frontend, Helpdesk and Voice/Chat Bot" (hereinafter called "the Bid") to DIC (hereinafter called 'the Purchaser').

I/We, hereby, accept that I/We will not withdraw or modify our bid during the bid validity period (180 days). I/We understand that on violation of this declaration, I/We may be penalized with suspension for participation in future for a period of up to one year.

(Authorized Signatory of the Bidding Agency)

Stamp/ Company Seal:

Date:

Place:

S3-6. Bidder Information Form

Bidders are requested to furnish the following information and enclose along with quotation.

Agency/ Bidder Name			
Address of the Agency/ Bidder			
Name & Designation of Authorised Person			
Contact Information	Mobile No.	Telephone No.	Email
Name & Designation of Contact Person *(For Query/ Clarifications)*			
Contact Information	Mobile No.	Telephone No.	Email
Bank details of the Agency *(Optional)*			
Bank Name			
Bank Address			
Bank Account No.			
IFSC Code			
PAN No.			
TIN No.			

<Signature & Stamp of the Bidder>

Date

S3-7. Proforma for not being Blacklisted

<Bidder Company Letterhead>

<div align="right">
<Place>

<Date>
</div>

To,

Director (Project Appraisal and Finance)

NeGD, 4th Floor, Electronics Niketan

6 CGO Complex, New Delhi-110003

Dear Sir,

We confirm that our company is not blacklisted in any manner whatsoever by any State Government, Central Government or any other Public Sector Undertaking or a Corporation or any other autonomous organisation of Central or State Government as on bid submission date.

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

<Signature of authorised signatory>

<Name and Title of the Authorised Signatory>

On behalf of

<Bidder – Name of the Company/ Agency>

<Address>

<Seal/ Stamp of Bidder>

S3-8. Performance Bank Guarantee (PBG)

To,

<Name & Address>

Sub: PERFORMANCE BANK GUARANTEE for NeGD, Government of India

Ref: RFP for Appointment of QA Partner Agency for UMANG

WHEREAS, M/s. (name of bidder), a company registered under the Companies Act, 1956, having its registered office at (address of the bidder), (hereinafter referred to as "our constituent", which expression, unless excluded or repugnant to the context or meaning thereof, includes its successors and assignees), agreed to enter into a contract dated …….. (Herein after, referred to as "Contract") with you (NeGD) for UMANG project.

We are aware of the fact that as per the terms of the contract, M/s. (name of bidder) is required to furnish an unconditional and irrevocable bank guarantee in your favour for an amount INR XXX (Rupees XXX only), and guarantee the due performance by our constituent as per the contract and do hereby agree and undertake to pay the amount due and payable under this bank guarantee, as security against breach/ default of the said contract by our constituent.

In consideration of the fact that our constituent is our valued customer and the fact that he has entered into the said contract with you, we, (name and address of the bank), have agreed to issue this Performance Bank Guarantee. Therefore, we (name and address of the bank) hereby unconditionally and irrevocably guarantee you as under:

In the event of our constituent committing any breach/ default of the said contract, and which has not been rectified by him, we hereby agree to pay you forthwith on demand such sum(s) not exceeding the sum of amount INR XXX (Rupees XXX only), without any demur.

Notwithstanding anything to the contrary, as contained in the said contract, we agree that your decision as to whether our constituent has made any such default(s) / breach(es), as aforesaid and the amount or amounts to which you are entitled by reasons thereof, subject to the terms and conditions of the said contract, will be binding on us and we shall not be entitled to ask you to establish your claim or claims under this Performance Bank Guarantee, but will pay the same forthwith on your demand without any protest or demur.

This Performance Bank Guarantee shall continue and hold good till the completion of the project,

subject to the terms and conditions in the said Contract.

We bind ourselves to pay the above said amount at any point of time commencing from the date of the said Contract until the completion of the project for the total solution as per said Contract.

We further agree that the termination of the said agreement, for reasons solely attributable to our constituent, virtually empowers you to demand for the payment of the above said amount under this guarantee and we would honour the same without demur.

We hereby expressly waive all our rights to pursue legal remedies against NeGD.

We the guarantor, as primary obligor and not merely surety or guarantor of collection, do hereby irrevocably and unconditionally give our guarantee and undertake to pay any amount you may claim (by one or more claims) up to but not exceeding the amount mentioned aforesaid during the period from and including the date of issue of this guarantee through the period.

We specifically confirm that no proof of any amount due to you under the contract is required to be provided to us in connection with any demand by you for payment under this guarantee other than your written demand.

Any notice by way of demand or otherwise hereunder may be sent by special courier, telex, fax, registered post or other electronic media to our address, as aforesaid and if sent by post, it shall be deemed to have been provided to us after the expiry of 48 hours from the time it is posted.

If it is necessary to extend this guarantee on account of any reason whatsoever, we undertake to extend the period of this guarantee on the request of our constituent upon intimation to you.

This Performance Bank Guarantee shall not be affected by any change in the constitution of our constituent nor shall it be affected by any change in our constitution or by any amalgamation or absorption thereof or therewith or reconstruction or winding up, but will ensure to your benefit and be available to and be enforceable by you during the period from and including the date of issue of this guarantee through the period.

Notwithstanding anything contained hereinabove, our liability under this Performance Guarantee is restricted to amount INR XXX (Rupees XXX only) and shall continue to exist, subject to the terms and conditions contained herein, unless a written claim is lodged on us on or before the aforesaid date of expiry of this guarantee.

We hereby confirm that we have the power/s to issue this Guarantee in your favour under the Memorandum and Articles of Association/ Constitution of our bank and the undersigned is/are the recipient of authority by express delegation of power/s and has/have full power/s to execute this guarantee under the Power of Attorney issued by the bank in your favour.

We further agree that the exercise of any of your rights against our constituent to enforce or forbear to enforce or any other indulgence or facility, extended to our constituent to carry out the

contractual obligations as per the said Contract, would not release our liability under this guarantee and that your right against us shall remain in full force and effect, notwithstanding any arrangement that may be entered into between you and our constituent, during the entire currency of this guarantee.

Notwithstanding anything contained herein:

Our liability under this Performance Bank Guarantee shall not exceed amount
INR XXX (Rupees XXX only);

This Performance Bank Guarantee shall be valid only up to the completion of the project for the total solution/services as per contract; and We are liable to pay the guaranteed amount or part thereof under this Performance Bank Guarantee only and only if we receive a written claim or demand on or before …. (Date) i.e. completion of the period for the proposed UMANG project in **Appointment of QA Partner Agency** For UMANG < Agency's Name>.

Any payment made hereunder shall be free and clear of and without deduction for or on account of taxes, levies, imports, charges, duties, fees, deductions or withholding of any nature imposts.

This Performance Bank Guarantee must be returned to the bank upon its expiry. If the bank does not receive the Performance Bank Guarantee within the above mentioned period, subject to the terms and conditions contained herein, it shall be deemed to be automatically cancelled.

This guarantee shall be governed by and construed in accordance with the Indian Laws and we hereby submit to the exclusive jurisdiction of courts of Justice in India for the purpose of any suit or action or other proceedings arising out of this guarantee or the subject matter hereof brought by you may not be enforced in or by such count.

Dated ………………….. this ……….. day …………. **2021.**

Yours faithfully,

For and on behalf of the …………… Bank,

(Signature)

Designation

(Address of the Bank)

Note:

This guarantee will attract stamp duty as a security bond.

A duly certified copy of the requisite authority conferred on the official/s to execute the guarantee on behalf of the bank should be annexed to this guarantee for verification and retention thereof as documentary evidence

S3-9. Non-Disclosure Agreement (NDA)

<Company Letterhead>

This AGREEMENT (hereinafter called the "Agreement") is made on the [day] day of the month of [month], [year], between, NeGD, on the one hand, (hereinafter called the "Client") and, on the other hand, [Name of the bidder] (hereinafter called the "Bidder") having its registered office at [Address]

WHEREAS

The "Client" has issued a public notice inviting various organizations to propose for hiring services of an organization for provision of services under the "**RFP for Appointment of QA Partner Agency for UMANG**" (hereinafter called the "Project") of the Client;

The Bidder, having represented to the "Client" that it is interested to bid for the proposed Project, The Client and the Bidder agree as follows:

1. In connection with the "Project", the Client agrees to provide to the Bidder a Detailed Document on the Project vide the Request for Proposal. The Request for Proposal contains details and information of the Client operations that are considered confidential.

2. The Bidder to whom this Information (Request for Proposal) is disclosed shall:

   a) Hold such Information in confidence with the same degree of care with which the Bidder protects its own confidential and proprietary information;

   b) Restrict disclosure of the Information solely to its employees, agents and contractors with a need to know such Information and advice those persons of their obligations hereunder with respect to such Information;

   c) Use the Information only as needed for the purpose of bidding for the Project;

   d) Except for the purpose of bidding for the Project, no copy or otherwise duplicate such Information or knowingly allow anyone else to copy or otherwise duplicate such Information; and

   e) Undertake to document the number of copies it makes;

   f) On completion of the bidding process and in case unsuccessful, promptly return to the Client, all Information in a tangible form or certify to the Client that it has destroyed such Information.

3. The Bidder shall have no obligation to preserve the confidential or proprietary nature of any Information which:

   a) Was previously known to the Bidder free of any obligation to keep it confidential at the time of its disclosure as evidenced by the Bidder's written records prepared prior to such

disclosure; or

b) Is or becomes publicly known through no wrongful act of the Bidder; or

c) Is independently developed by an employee, agent or contractor of the Bidder not associated with the Project and who did not have any direct or indirect access to the Information.

4. The Agreement shall apply to all Information relating to the Project disclosed by the Client to the Bidder under this Agreement.

5. The Client will have the right to obtain an immediate injunction enjoining any breach of this Agreement, as well as the right to pursue any and all other rights and remedies available at law or in equity for such a breach.

6. Nothing contained in this Agreement shall be construed as granting or conferring rights of license or otherwise, to the bidder, in any of the Information. Notwithstanding the disclosure of any Information by the Client to the Bidder, the Client shall retain title and all intellectual property and proprietary rights in the Information. No license under any trademark, patent or copyright, or application for same that are now or thereafter may be obtained by such party is either granted or implied by the conveying of Information. The Bidder shall not alter or obliterate any trademark, trademark notice, copyright notice, confidentiality notice or any notice of any other proprietary right of the Client on any copy of the Information, and shall reproduce any such mark or notice on all copies of such Information.

7. This Agreement shall be effective from the date the last signature is affixed to this Agreement and shall continue in perpetuity.

8. Upon written demand of the Client, the Bidder shall (i) cease using the Information, (ii) return the Information and all copies, notes or extracts thereof to the Client forthwith after receipt of notice, and (iii) upon request of the Client, certify in writing that the Bidder has complied with the obligations set forth in this paragraph.

9. This Agreement constitutes the entire agreement between the parties relating to the matters discussed herein and supersedes any and all prior oral discussions and/or written correspondence or agreements between the parties. This Agreement may be amended or modified only with the mutual written consent of the parties. Neither this Agreement nor any right granted hereunder shall be assignable or otherwise transferable.

10. CONFIDENTIAL INFORMATION IS PROVIDED "AS IS" WITH ALL FAULTS. IN NO EVENT SHALL THE CLIENT BE LIABLE FOR THE ACCURACY OR COMPLETENESS OF THE CONFIDENTIAL INFORMATION.

11. This Agreement shall benefit and be binding upon the Client and the Bidder and their respective subsidiaries, affiliate, successors and assigns.

12. This Agreement shall be governed by and construed in accordance with the Indian laws.

For and on behalf of the Bidder

(Signature)

(Name of the Authorized Signatory)
Date,

Address. Location

ANNEXURE I – Service Level Agreements (SLA)

A. UMANG Backend

EY shall be responsible for high availability of services, excluding the external factors, which means faults/ breakdowns/ outages of cloud infrastructure, network environment, servers of integrated departments/ applications of UMANG, CDN etc. As UMANG environment is hosted on NIC Cloud, any security breach or outage of infrastructure because of components like VMs, Network components, Firewall, etc. does not fall under the scope of EY. However, EY shall be responsible for:

a) proactive monitoring and reporting of faults/performance issues to such service providers (such as cloud & network infrastructure provider, integrated applications/ departments) and close follow-up for prompt/ timely resolution,

b) exploring and implementing workarounds to mitigate/ eliminate the impact,

c) tuning and managing the hardware provided, as required, for running the UMANG Backend smoothly (e.g. RAM, storage etc.),

d) co-ordination with all stakeholders.

A1.1   Introduction

EY shall be required to meet the SLAs specific to

a) Service Delivery – APIs and core applications
b) Platform Availability
c) Performance
d) Quality

A1.1.1 Definition of Service:

The definition of service from the backend SLA point of view are as below.

a) Published APIs for the enablement of functionality on UMANG platform

b) Core applications of UMANG such as CRM, API Manager, Analytics, Recommendations Engine, Self-care, Campaign Manager etc.

A1.2   Platform Availability

One of the key aspects of UMANG platform is anywhere – anytime – any device availability, which implicitly means 24X7 availability of the platform and services. The SLA parameters to measure availability of the platform are defined in the subsequent sections.

A1.3　　　Severity Level

Table A1.1 – Severity Level

Severity Level	Description
1.	Minimum loss of service and minimum loss in quality of service delivered
2.	Delay or denial of service or services observed / reported. Lack of availability of a feature results into non enablement of service
3.	Delay or denial of services observed, lack of effective and timely communication results into customer support and citizen perception issues
4.	Complete loss of service for a period of time resulting into significant inconvenience to the users or multiple instances of complete loss of service resulting into users losing confidence in the system and hence directly affects the ability of the platform to on-board additional services, get buy-in, popularize the service.

A1.4　　　Application Performance SLA

Table A1.2 - Application Performance SLA

Descriptions	Baseline	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
* Time taken by the server to complete the request originating from the mobile upon receiving the request [1]. Excluding the time taken by the external system and display information in the portal/app. SLA shall breach if more than 2% of the request shall take >2 seconds	< = 2 Seconds for 99.5% of the requests	<= 2 Seconds for 98% of the requests	<= 2 Seconds for 95% of the requests	<= 2 Seconds for 92% of the requests	<= 2 Seconds for 90% of the requests

Service time excludes time taken by external systems like Frontend display in the portal / app, payment gateway, departments or any other issue beyond the control of EY.

[1] Transaction logging module to have ability to record the IN & OUT time at each step of the transaction extracting the data and providing it in the user readable format is the responsibility of EY.

A1.5　　　Availability of Services SLA

Table A1.3 - Availability of Services SLA

Descriptions	Baseline	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
Availability of the services (any failure due to external factors, are not part of the SLA but EY is required to document the external failures to provide documentary evidence if asked for)	99.90%	Up to 99.5%	< 99.5 % &>=98%	< 98% &>= 96%	< 96%
Number of requests to be successfully processed by the platform (Processed includes – successful completion or failure due to business logic enforced by the platform or failure due to data error on user's part or failure due to any external factors)	99.90%	Up to 99.5%	< 99.5 % &>=98%	< 98% &>= 96%	< 96%

Scheduled downtime (if required) for system maintenance shall be for 3 hours from 1 am to 4 am on Sundays and shall have to be notified 7 days in advance. This has to be documented and managed by PM. NeGD approval and appropriate communications to stakeholders are mandatory.

A1.6　　　Service Quality SLA

A1.6.1　　　Severity Level Definition

Table A1.4 – Severity Level Definition

Description (For each Developed Service)	Severity Level
Test case Pass % less than <75%	Level 4
Test case Pass % in range >75% and <80%	Level 3
Test case Pass % in range >80% and <85%	Level 2
Test case Pass % in range >85% and <90%	Level 1
Test case Pass % >=90 %	Baseline

Note: *EY is required to submit all test cases prepared while developing a service to NeGD/ NeGD nominated agency. EY must ensure to have completeness in test case before delivering any service for external QA.*

A1.6.2 Service Quality SLA

Table A1.6 - Service Quality SLA (Indicative)

Descriptions	Base-line	Level 1 Breach	Severity Level Applicable	Level 2 Breach	Severity Level Applicable	Level 3 Breach	Severity Level Applicable
The number of P1 reported in a Quarter	25	26- 50	3	>50	4	N/A	N/A
The number of P2 reported in a Quarter	100	100-125	2	>125	3	>150	4
Time taken to fix a P1 once reported	<=16 Hours for 90 % of tickets	<=24 Hours for 90 % of tickets	1	<= 36 Hours for 90 % of tickets	2	<= 48 Hours for 90% of the tickets	3
Time taken to fix a P2 once reported	<=48 Hours for 90 % of tickets	<=72 Hours for 90 % of tickets	1	<= 96 Hours for 90 % of tickets	2	<=120 Hours for 90% of the tickets	3

P1 – The bug which results into the user not being able to complete the business transaction /activity

P2 – The bug which impacts the functionality, the business process is delivered at a sub-optimal level or workaround for the identified issue is possible without significant inconvenience to the user or loss of required functionality.

B. UMANG Helpdesk

B1.1 Introduction

This clause details the various service levels to be adhered to by Cyfuture for operating the UMANG Helpdesk Centre. The SLA parameters are divided into 2 (two) types: -

a) One-Time SLA Parameters
b) Operational SLA Parameters

B1.2 Service Level Agreement Applicability

NeGD or its authorized partner(s) shall audit the Helpdesk Centre sites, procedures, reviews of CSE's, etc. NeGD will conduct (either itself or through appointed partner) performance and response audits (e.g. calling / Barge-in online and offline), process audits, site visits, to ensure service quality management.

B1.3 Operational SLA

Cyfuture is required to manage the entire customer support process. The Help Desk team is required to manage customer queries in the most efficient and effective manner.

B1.3.1 Severity Levels

Table B.1 – Severity Level

Severity Level	Description
1	Minimum loss of service and minimum loss in quality of service delivered
2	Delay or denial of service or services observed / reported. Lack of availability of a feature results into non enablement of service
3	Delay or denial of services observed, lack of effective and timely communication results into customer support and citizen perception issues
4	Complete loss of service for a period of time resulting into significant inconvenience to the users or multiple instances of complete loss of service resulting into users losing confidence in the system and hence directly affects the ability of the platform to on-board additional services, get buy-in, popularize the service.

B1.3.2 Operational SLA Parameters

Table B.2 – Operational SLAs

Description	Formula	Baseline	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
System uptime:- Voice response available to citizen	It will be calculated based on formula —Total uptime in minutes/ Total minutes of operations in the selected period.	>=99.5%	>=98.7% and <99.5%	>=97% but <98.7%	>= 95% but < 97%	< 95%
Average speed to answer: The waiting time in Automatic Call Distributor (ACD) queue experienced by a caller to talk to the Helpdesk Centre operator.	Calls Answered within a threshold of 20 seconds across all languages /Total Calls offered across all languages	75 % of the calls are answered within 20 seconds	>= 70 % and < 75%	>= 65 % and < 70%	>= 60 % and < 65%	< 60%
Call abandon rate: This measures % of calls that requested for Helpdesk Centre operator but got disconnected before being answered (Only calls that get disconnected after 20 seconds from transfer to the ACD from the IVRS will be considered for computation of this SLA)	(Total Abandoned calls across all languages – Abandoned calls with less than or equal to 20 seconds queue time across all languages.)/Total Calls Offered across all languages.	<3%	>=3% and <5%	>=5% and <10%	>=10% and <15%	>=15%
Average Hold time:- This is a measure that refers to how long does the Helpdesk Centre operator keep the caller on Hold for any reason	Total Hold Time/(Sum of Calls Handled + Sum of Outbound Calls)	<=30 sec	>30 sec and <= 40 sec	>40 sec and <= 50 sec	> 50 sec and <=60 sec	> 60 sec

Average Wrap Time:- This is measured as the average time spent by the Helpdesk Centre Operator in wrap mode. Wrap* - The time required by Helpdesk Centre operator after a conversation is ended, to complete work that is directly associated with the calls just completed.	Total wrap Time/(Sum of Calls Handled + Sum of Outbound Calls)	<=20 sec	> 20 sec and <=35 sec	>35 sec and <=40 sec	>40 sec and <= 45 sec	>45 sec
Average Handle time (AHT): This is a measure that refers to how long it takes to manage a Helpdesk. AHT shall be calculated as the sum of the average talk time, hold time and wrap time.	It will be measured as: - [(Sum of Talk Time + Sum of Hold Time + Sum of Wrap Time)/Sum of calls handled]	<=240 sec	>240 sec and <=270 sec	>270 sec and <=300 sec	>300sec and <=330 sec	>330 sec
Average Response time for Chat. Average response time for chat is a measurement of the number of Secs it takes for Helpdesk Centre operator to attend to a query of user initiated via chat. *No automated response will be consider for this SLA.*	Chats attended within a threshold of 12 seconds/ Total Number of Chat Inquiry	90 % of the chats are answered within 12 seconds	>= 85 % and < 90%	>= 80 % and < 85%	>= 75 % and < 80%	< 75%
Interactions Record Percentage: To measure percentage of interactions recorded in system. Interactions are defined as Inbound voice	Number of cases created or modified in system/Number of Interactions	>= 95%	>= 90 % and < 95%	>= 85 % and < 90%	>= 80 % and < 85%	< 80 %

calls, outbound voice calls, emails & chat.						
User Satisfaction (IVRS): Measure of User's satisfaction - the way their query/complaint has been handled by the Helpdesk Operator. Cyfuture shall be responsible for maintaining a min level of user satisfaction based on the criteria defined by NeGD. The satisfaction level of the users shall be collected on a five pointer scale of 5: "Very satisfied", 4: "Satisfied" 3: "Average", 2:"Dissatisfied" and 1: "Very Dissatisfied". The calls should be transferred to IVRS for feedback.	Sum of 5 and 4/ Total number of surveys	>=85 %	>= 80 % and < 85%	>= 75 % and < 80%	>= 70 % and < 75%	< 70%
Quality of Service (QoS):- Quality of service (QoS) is the overall performance of Helpdesk Centre, particularly, the performance experienced by the Users. This refers to the calls/ e-mails audited by an independent third party auditor.	Count of Survey(Very Good, Good)/Total Count of Survey	> 80%	>= 75 % and < 80%	>= 70 % and < 75%	>= 65 % and < 70%	< 65%
AVERAGE RESPONSE TIME FOR EMAIL. The average response time for an email is a measurement of the number of hours it takes	Sum of Response Times/ Total Number of Email Inquiry	<=24Hours	>24 Hours <= 30 Hours	>30 Hours <= 36 Hours	>36 Hours<= 48 Hours	>48 Hours

to provide a response to an email-based inquiry. *in case issue is further forwarded by CSE, then the no. of hours will be calculated from the time response is received by the CSE and responding back to Users,					

Also, auditing of Login Hours as submitted by Helpdesk Partner Agency may be required on need basis. Login Hours is the actual time taken by all Helpdesk Agents to work on resolving User grievances across different mediums.

C. UMANG Frontend

M/s Daffodil Software Pvt. Ltd. shall be responsible for high availability of services, excluding the external factors, which means faults/breakdowns/outages of cloud infrastructure, network environment, and servers of integrated departments / applications of UMANG, CDN etc. However, M/s Daffodil Software Pvt. Ltd. shall be responsible for all frontend aspects:

a) Proactive monitoring and reporting of faults/performance issues for frontend related infrastructure and close follow-up for prompt/ timely resolution,
b) Exploring and implementing workarounds to mitigate/ eliminate the impact,
c) Tuning and managing the hardware provided, as required, for running the UMANG Platform/infrastructure (corresponding to UMANG frontend) smoothly (e.g. RAM, storage etc.),
d) Co-ordination with all stakeholders and building relationship with them, including NIC.

C1.1 Introduction

M/s Daffodil Software Pvt. Ltd. shall be required to meet the SLAs specific to

a) Service Enablement and core applications/modules
b) Service Delivery Quality
c) Performance and Availability

C1.2 Severity Levels & Penalty

Deviations from the agreed upon performance would need to be consistently measured and severity level for non-compliance need to be assigned. Below table describes the various severity levels.

C1.3 Severity Level

Table C.1 – Severity Level

Severity Level	Description
1.	Minimum loss of service and minimum loss in quality of service delivered
2.	Delay or denial of service or services observed / reported. Lack of availability of a feature results into non enablement of service
3.	Delay or denial of services observed, lack of effective and timely communication results into customer support and citizen perception issues

4.	Complete loss of service for a period of time resulting into significant inconvenience to the users or multiple instances of complete loss of service resulting into users losing confidence in the system and hence directly affects the ability of the platform to on-board additional services, get buy-in, popularize the service.

C1.4   Service Quality SLA

Table C.2 – Service Quality SLA

Description (For each Developed Service)	Severity Level
Test case Pass % less than <75%	Level 4
Test case Pass % in range >75% and <80%	Level 3
Test case Pass % in range >80% and <85%	Level 2
Test case Pass % in range >85% and <90%	Level 1

Note: *M/s Daffodil is required to submit all test cases prepared while developing a service to NeGD or its nominated agency. M/s Daffodil must ensure to have completeness in test case before delivering any service for external QA.*

C1.5   Service Performance SLA (Indicative)

Table C.3 – Service Performance SLA

Description	Base line	Level 1 Breach	Severity Level Applicable	Level 2 Breach	Severity Level Applicable	Level 3 Breach	Severity Level Applicable
The number of P1 reported in a Quarter	10	10-15	3	>15	4	N/A	N/A
The number of P2 reported in a Quarter	25	25-50	2	>50	3	>75	4
Time taken to fix a P1 once reported	16 Hours	>16 and < 24 Hours	2	>24 and <= 32 Hours	3	>=32 Hours	4
Time taken to fix a P2 once reported	48 Hours	>48 and < 72 Hours	1	>72 and <96 Hours	2	>=96 Hours	3

P1 – The bug which results into user not being able to complete the business transaction/ activity

P2 – The bug which impacts the functionality, the business process is delivered at a sub-optimal level or workaround for the identified issue is possible without significant inconvenience to the user or loss of required functionality.

C1.6   Application Availability SLA

Table C.4 – Application Availability SLA

Description	Baseline	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
Availability of the services (any failure due to external factors, are not part of the SLA but M/s Daffodil Software Pvt. Ltd. is required to document the external failures to provide documentary evidence if asked for)	99.90%	Up to 99.5%	< 99.5 % &>=98%	< 98% &>= 96%	< 96%

Note: *Scheduled downtime (if required) for system maintenance shall be for 3 hours from 1 am to 4 am on Sundays and shall have to be notified 7 days in advance. This has to be documented and managed by PM. NeGD approval and appropriate communications to stakeholders are mandatory.*

**M/s Daffodil Software Pvt. Ltd. shall make necessary arrangements to monitor the various aspects of servers such as Memory, Heap, and Space etc. and ensure to provide the reports along with invoices.

D. AI Based Conversational Voice & Chat Bot

D1.1 Severity Levels Agreements and Penalty

Deviations from the agreed upon performance would need to be consistently measured and severity level for non-compliance need to be assigned. The following tables describe the various severity levels.

D1.2 Severity Level

Table D.1 – Severity Level

Severity Level	Description
1	Minimum loss of service and minimum loss in quality of service delivered
2	Delay or denial of service or services observed / reported. Lack of availability of a feature results into non enablement of service
3	Delay or denial of services observed, lack of effective and timely communication resulting into citizen perception issues
4	Complete loss of service for a period of time resulting into significant inconvenience to the users or multiple instances of complete loss of service resulting into users losing confidence in the system and hence directly affects the ability of the platform to on-board additional services, get buy-in, popularize the service.

D1.3 Platform Availability SLA

The penalty for not meeting the SLAs is linked to the severity level of the breach of the SLA as detailed in Table D.1 above;

Table D.2 – Platform Availability SLA

Description	Base line	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
Availability of services *(Any failure due to external factors, are not part of the SLA but the bidder is required to document*	99.9%	<= 99.5%	< 99.5% & >=98%	< 98% & >= 96%	< 96%

these external failures & provide documentary evidence if asked for)					

Scheduled downtime (if required) for system maintenance shall be for 3 hours from 1 am to 4 am on Sunday's and shall have to be notified 7 days in advance. This has to be documented and managed by Project Manager. NeGD approval and appropriate communications to stakeholders are mandatory.

D1.4   Software Delivery SLA

Table D.3 – Software Delivery SLA

Description	Baseline	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
Delivery of Change (from scoping to implementation)	As per the agreement	Up to 10% Delay	Between 10% - 30% Delay	Between 30% - 50% Delay	More than 50% Delay

D1.5   Application Performance SLA

Table D.4 – Application Performance SLA

Description	Baseline	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
Average Response time for any user utterance. *(Excluding the time taken by the external system)*	<=2 Secs for 98% of the requests	<= 2 Secs for 95% of the requests	<=2 Secs for 92.5% of the requests	<= 2 Secs for 91.5% of the requests	<= 2 Secs for 90%of the requests

D1.6   Service Quality SLA

Table D.5 – Services Quality SLA

For 1st Year after Go-Live					
Description	Base-line	Severity Level 1 Breach	Severity Level 2 Breach	Severity Level 3 Breach	Severity Level 4 Breach
Fallback Count Percentage of user utterances that the Bot could not comprehend or comprehended incorrectly. SLA will breach if Fallback Count is more than 20%	<= 20%	> 20% but <= 25%	> 25% but <= 30%	> 30% but <= 35%	> 35%

Drop off rate Percentage of user utterance that are not responded to by the Bot. *(excluding external factors like API response from UMANG etc.)*	<=10% .	> 10% but <= 15%	> 15% but <= 20%	> 20% but <= 25%	>25%
Satisfaction rating SLA will breach if rating goes below 4 on 1 to 5 scale for a given quarter.	Avg. Rating >=3.5	Avg. Rating > 3 & < 3.5	Avg. Rating > 2.5 &<= 3	Avg. Rating > 2 &< 2.5	Avg. Rating <=2
After 1st Year From Go-Live					
Fallback Count Percentage of user utterances that the Bot could not comprehend or comprehended incorrectly. SLA will breach if Fallback Count is more than 20%	<= 10%	> 10% but <= 15%	> 15% but <= 20%	> 20% but <= 25%	> 25%
Drop off rate Percentage of user utterance that are not responded to by the Bot. *(excluding external factors like API response from UMANG etc.)*	<=5% .	> 5% but <= 10%	> 10% but <= 15%	> 15% but <= 20%	>20%
Satisfaction rating SLA will breach if rating goes below 4 on 1 to 5 scale for a given quarter.	Avg. Rating >=4	Avg. Rating > 3.5 & < 4	Avg. Rating >= 3 & < 3.5	Avg. Rating >= 2.5 & < 3	Avg. Rating <= 2.5

Glossary

S. No.	Abbreviation	Definition
1	AHT	Average Handling Time
2	AI	Artificial Intelligence
3	AMC	Annual Maintenance Contract
4	API	Application Program Interface
5	APM	Application Performance Management
6	APR	Annual Performance Report
7	B2C	Business to Citizen
8	BG	Bank Guarantee
9	BI	Business Intelligence
10	BoM	Bill Of Materials
11	BoT	
12	B. Tech.	Bachelor of Technology
13	CC	Call Centre
14	CCN	Change Control Note
15	CERT-IN	Computer Emergency Response Team - India
16	CMMi	Capability Maturity Model Integration
17	CR	Change Request
18	CRM	Customer Relationship Management
19	CSS	Cascading Style Sheets
20	CSV	Comma Separated Values
21	CV	Curriculum Vitae
22	DARPG	Department of Administrative Reforms and Public Grievances
23	DBA	Database Administrator
24	DC	Data Centre

25	DDoS	Distributed Denial of Service
26	DoT	Department of Telecommunications
27	DR	Disaster Recovery
28	EMD	Earnest Money Deposit
29	ETL	Extract, Transform, Load
30	FAQ	Frequently Asked Questions
31	FAT	Functional Acceptance Testing
32	FRS	Functional Requirement Specifications
33	G2B	Government to Business
34	G2C	Government to Citizen
35	G2E	Government-to-Employees
36	G2G	Government to Government
37	GST	Goods and Services Tax
38	GSTN	Goods and Service Tax Network
39	H/W	Hardware
40	HLD	Higher Level Design
41	HTML	Hypertext Mark-up Language
42	HTTP	Hypertext Transfer Protocol
43	HTTPS	Hypertext Transfer Protocol over Secure Socket Layer
44	ICT	Information and Communications Technology
45	IMPS	Immediate Payment Service
46	iOS	iPhone Operating System
47	IPR	Intellectual Property Rights
48	ISO	International Standards Organization
49	IT	Information Technology
50	IVR	Interactive Voice Response

51	J2EE	Java 2 Enterprise Edition
52	JDBC	Java Database Connectivity
53	JS	Java Script
54	JSON	JavaScript Object Notation
55	JSP	Java Server Pages
56	KT	Knowledge Transfer
57	LLD	Lower Level Design
58	LOI	Letter Of Intent
59	MBA	Masters of Business Administration
60	mBaas	Mobile Back-end as a Service
61	MCA	Masters of Computer Application
62	MeitY	Ministry of Electronics & Information Technology
63	MIS	Management Information System
64	MoM	Minutes of Meeting
65	MPIN	Mobile Personal Identification Number
66	M. Tech.	Masters of Technology
67	NCR	National Capital Region (comprising of Ghaziabad, Noida, Greater Noida, Gurgaon & Faridabad)
68	NeGD	National e-Governance Division
69	NIC	National Informatics Centre
70	NOC	No Objection Certificate
71	NPCI	National Payments Corporation of India
72	O&M	Operations and Management
73	OAuth	Open Authorization
74	OBD	Out Bound Data calls
75	ODBC	Open Database Connectivity

76	OTP	One Time Password
77	OWASP	Open Web Application Security Project
78	PAN	Permanent Account Number
79	PCI DSS	Payment Card Industry Data Security Standard
80	PM	Project Manager
81	PMU	Program Management Unit
82	QA	Quality Analyst
83	R&D	Research and Development
84	RAS	Rapid Assessment System
85	RBI	Reserve Bank of India
86	Redis	Remote Dictionary Server
87	REST	Representational State Transfer (Protocol)
88	RFP	Request for Proposal
89	SDLC	Software Development Life Cycle
90	SLA	Service Level Agreement
91	SMS	Short Message Service
92	SOAP	Simple Object Access Protocol
93	SOP	Standard Operating Procedures
94	SPOC	Single Point Of Contact
95	SQL	Structured Query Language
96	SSDG	State Service Delivery Gateway
97	SSL	Secure Socket Layer
98	STQC	Standardization Testing and Quality Certification
99	SYN Cookies	Synchronize Cookies
100	T&C	Terms and Conditions
101	TCP	Transmission Control Protocol

102	TDD	Test Driven Development
103	TRAI	Telecom Regulatory Authority of India
104	TSA	Technical Solution Architect
105	UAT	User Acceptance Testing
106	UI	User Interface
107	UIDAI	Unique Identification Authority of India
108	UMANG	Unified Mobile Application for New-age Governance
109	URL	Uniform Resource Locator
110	UT	Union Territory
111	UX	User Experience
112	VA	Virtual Assistant
113	VID	Virtual ID
114	WSO2	Web Service Oxygen
115	XML	Extensible Mark-up Language