Requirement Document to Setting up of Platform for SMS Management, WhatsApp Business Solution and Google RCS for C-DIT

1. Objective

1.1. To set up a CPaaS (Communication Platform as a Service) platform for C-DIT, for integrating various communication services such as SMS, WhatsApp and Google RCS seamlessly.

1.2. Version/feature upgrade and maintenance of the platforms for a period of three years initially and expandable up to five years based on the requirements.

2. Scope of Work

2.1. PART A

2.1.1. SMS Platform

2.1.1.1. Set up an SMS platform, and host the same in the server identified by C-DIT

2.1.1.2. Create a master SMPP module for sending and monitoring messages from multiple accounts

2.1.1.3. Admin Module for managing SMS with various report features.

2.1.1.4. The web module should be capable of sending messages through compose, API integrations file upload etc., and should be able to generate live reports

2.1.1.5. The platform should be capable of integrating into the Google Jibe platform for sending upgraded versions of SMS (RCS MESSAGING) with images, videos, carousels, and text along with call-to-action buttons.

2.1.1.6. Predefined message templates for common use cases. Customization options for personalizing messages (e.g., recipient name, dynamic content).

2.1.1.7. Capability to send SMS to a large number of recipients simultaneously.

2.1.1.8. Queue management to handle large volumes of messages without any data loss.

2.1.1.9. Generate delivery reports for messages sent and track the status of messages (delivered, pending, failed).

2.1.1.10. The platform should be adaptable to all new features & rules announced by TRAI, time to time.

2.1.1.11. Facility to configure exempted sender ID separately, and the system should have provision for reducing SMS charges as per the norms by TRAI

2.1.1.12. CDIT will identify the service provider for SMS, and that should be integrated with the platform.

2.1.2. WhatsApp Business platform should meet the following Customization Requirements:

2.1.2.1. Create a detailed business profile including name, logo, contact details, and operational hours for each channel/ organisation.

2.1.2.2. Implement automated messaging for welcome messages, away messages, and quick replies.

2.1.2.3. Configure a labelling system for organising and managing customer/public conversations under each channel

2.1.2.4. Integrating services with images, PDF documents, descriptions, and accessible within WhatsApp.

2.1.2.5. Set up broadcast messaging for sending promotions and announcements to customer/ public segments.

2.1.2.6. Integrate call-to-action buttons (e.g., "Call Now," "Visit Website") in messages.

2.1.2.7. Enable desktop access for managing WhatsApp Business through WhatsApp Web.

2.1.2.8. Have reporting tools for analysing message delivery, read rates, and response times.

2.1.2.9. Implement multi-agent support using the WhatsApp Business API for concurrent customer service.

2.1.2.10. Enhance security with two-factor authentication (2FA) via WhatsApp for user verification.

2.1.2.11. The platform should provide a mobile application to handle incoming & outgoing chats, and monitor the campaign performance.

2.1.2.12. The platform should be adaptable to all new features released by WhatsApp

2.1.2.13. **Super User Functionality:**

A. Implement a super user (admin) role for CDIT to manage and oversee multiple organisations or customer accounts within WhatsApp Business.

B. Create and manage multiple channels for each customer(customer of CDIT), allowing customization based on their specific requirements.

C. Enable data collection and information delivery to specific groups within each channel, facilitating tailored communication and interaction.

2.1.2.14. **WhatsApp Chatbot Integration:**

A. Implement an AI-powered no code chatbot build (drag and drop) to handle routine inquiries, provide instant responses, and guide users through common tasks, and chatbot should be able to connect with APIs, Web books and other applications.

B. Ensure the chatbot can escalate complex issues to human agents when necessary.

C. Customise the chatbot's responses to align with the organisation's service tone and frequently asked questions, ensuring consistency in communication.
D. Integrate the chatbot with backend systems for tasks like tracking of requests/payment, appointment scheduling, and personalised public interactions.

2.1.3. RCS Platform:- Google RCS platform should meet the following Customization Requirements:

2.1.3.1. Support rich media content (images, videos, audio files, pdf documents) for promotional and instructional use.

2.1.3.2. Enable real-time interaction features like read receipts and typing indicators.

2.1.3.3. Customise group chat functionality for team and customer/ public interaction, including participant management.

2.1.3.4. Create a branded business messaging profile with logos and colour schemes, and ensure profile verification.

2.1.3.5. Implement interactive buttons for suggested actions (e.g., scheduling appointments, visiting the website).

2.1.3.6. Enable location sharing for real-time coordination of field agents.

2.1.3.7. Integrate file and document sharing for invoices, contracts, and reports.

2.1.3.8. Develop secure messaging protocols for the transmission of sensitive information.

2.1.3.9. Support interactive marketing campaigns with rich cards and carousels for promotion.

2.1.3.10. Integrate AI-powered chatbots to handle routine inquiries and assist with transactions, with escalation to human agents.

2.1.3.11. Implement digital ticketing and event passes with QR codes for easy scanning and entry.

2.1.3.12. Customize RCS for loyalty program management, allowing users to track points in the parent portal.

2.1.3.13. The platform should be adaptable to all new features released by Google

2.1.3.14. <u>Super Admin Functionality:</u>

A. Implement a super admin role to manage and oversee multiple organisations or customer accounts within RCS.
B. Create and manage multiple channels for each customer (customer of CDIT), allowing customization based on specific requirements.
C. Enable data collection and information delivery to specific groups within each channel, supporting targeted communication.

2.1.3.15. <u>RCS AI Integration:</u>

A. Integrate an AI-powered chatbot to handle routine inquiries, provide real-time responses, and assist users with tasks directly within RCS.
B. Ensure the AI chatbot can escalate issues to human agents when required, Providing a seamless transition between automated and live support.
C. Customise AI responses to match the organisation's communication style and frequently addressed topics.
D. Link the AI system with backend services to support functions such as tracking of services, Payments, customer support, and personalised recommendations within the RCS environment.

2.1.4. Cross-Platform Messaging Functionality (Unified API):

2.1.4.1. Implement a cross-platform messaging system where the system first attempts to deliver messages via WhatsApp.

2.1.4.2. Fallback mechanism: If the message is not delivered through WhatsApp, the system should automatically pull back the message and attempt delivery through RCS.

2.1.4.3. Alternative Methods: If RCS delivery also fails, the system should provide options for alternative communication methods (e.g., SMS, email) to ensure the message reaches the intended recipient.

2.1.4.4. Automated Error Handling: Develop an automated error handling process to manage and log failed delivery attempts, and to switch to alternative methods seamlessly.

I. Admin module of the Centralized platform for WhatsApp/ Google RCS must be able to create users, allot credits, see reports.
II. The platform should be linked to the respective DLT platform of the department and respective Google RCS
III. The platform should be able to filter RCS and Non-RCS Mobile numbers- Web and desktop RCS filtering tool
IV. Platform should be capable of providing analytic reports with Read, delivered, and submitted Status along with which all calls to actions have been clicked.

2.2. PART B

2.2.1. SMS Service for 1 Cr SMS

2.2.1.1. The bidder should provide a separate bid for the SMS Service for 1 Crore SMS

2.2.1.2. SMS service should be integrated with the services mentioned in PART A.

3. Hosting and Audit

The platform should be hosted at the State Data Centre (SDC) or a VM/Server that is provided by CDIT. A security audit should be done by a CERT-In empanelled agency before hosting the application/platform/service.

The platform should be

- Scalable
- Queue Management- Department based, OTP based, Performance based
- Upgradable
- Multiple Connectivity
- Alerts system through SMS & Email
- Data Security- On Premises Solutions
- Support: 24x7

Platform General Features

- HTTP API Interface
- WEB Interface
- File Upload
- Compose Content
- Delivery Reports
- Google RCS Count
- User Creation
- Assigning Sender Name for Users
- MIS
- User Management
- Spreadsheet Plug-in

4. Post Implementation Requirements

S. No.	Clause/requirement
1	Warranty and technical support for three years have to be provided by the bidder/vendor.
2	AMC after three years shall be provided by the bidder/ vendor by the mutually agreed upon the terms and conditions.

5. Eligibility Criteria

S. No.	Clause/requirement	Documents required
1	Bidder/Vendor should be a company or firm registered in India and should be a startup registered under Kerala Startup Mission	Copy of certificate of incorporation or registration
2	GST registration and PAN	Copy of GST and PAN
3	Bidder should have minimum 3 years of experience in developing SMS platform	Copy of experience certificate / copy of work order issued by client.
4	Registered office in Kerala	Copy of certificate.
5	Bidders who are blacklisted by State or Central Government are not eligible.	Self-declaration.
6	Bidder/Vendor should be a Google RBM Partner, should have direct connectivity with telecom operators.	Copy of certificate/ Agreement