

✦ Introduction

Welcome to the **Citizen Complaints and Engagement System** — a fully responsive, multilingual web application designed to empower citizens to voice their concerns, report issues, and engage with local authorities more effectively. This MVP (Minimum Viable Product) is built to streamline communication between citizens and governing bodies, enhancing transparency and service delivery.

🌐 Key Features:

- Fully responsive design for mobile, tablet, and desktop devices.
- Multilanguage support: **Kinyarwanda (default)**, English, and French.
- Intuitive interface for submitting, tracking, and managing complaints.
- Admin and staff dashboards for issue review and response.
- **Real-time notifications** via **SMS** and **email** to keep users informed on the status of their complaints.
- Real-time feedback and status updates to users.

This system is especially built with **Rwandan communities** in mind, making it accessible, user-friendly, and inclusive across language preferences.

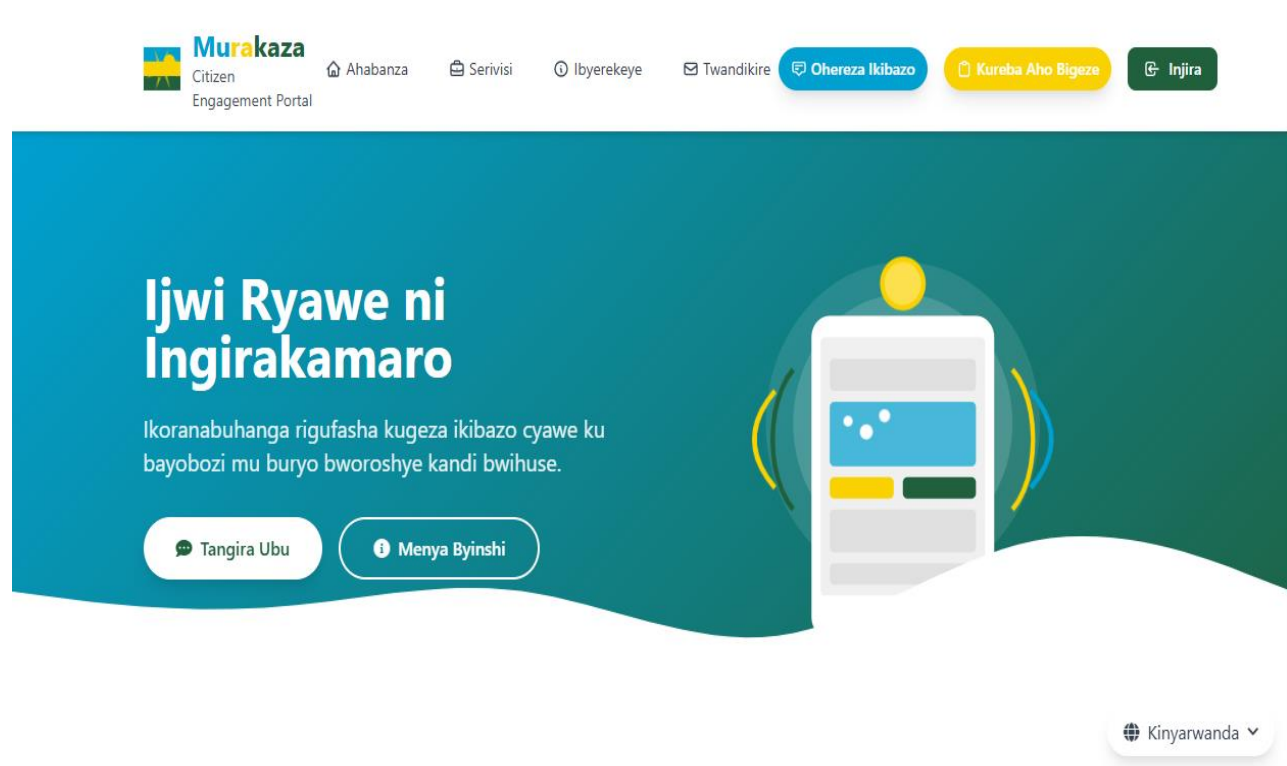


Figure 1web-kinyarwanda

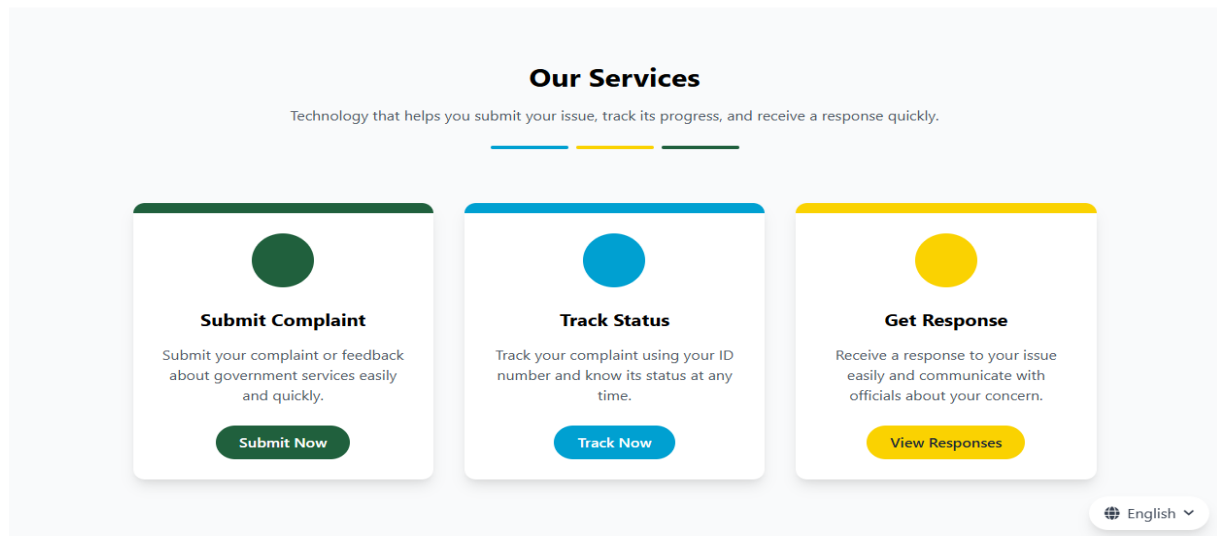


Figure 2web-english

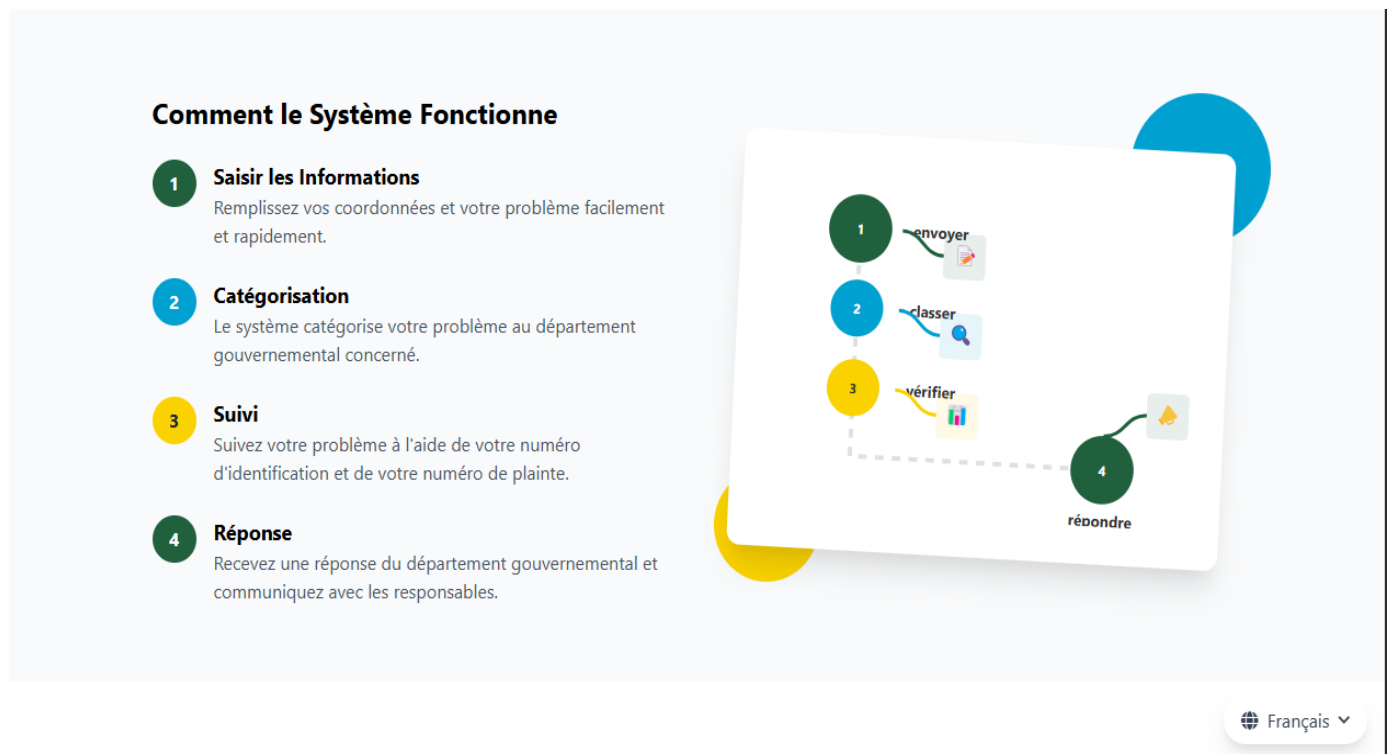

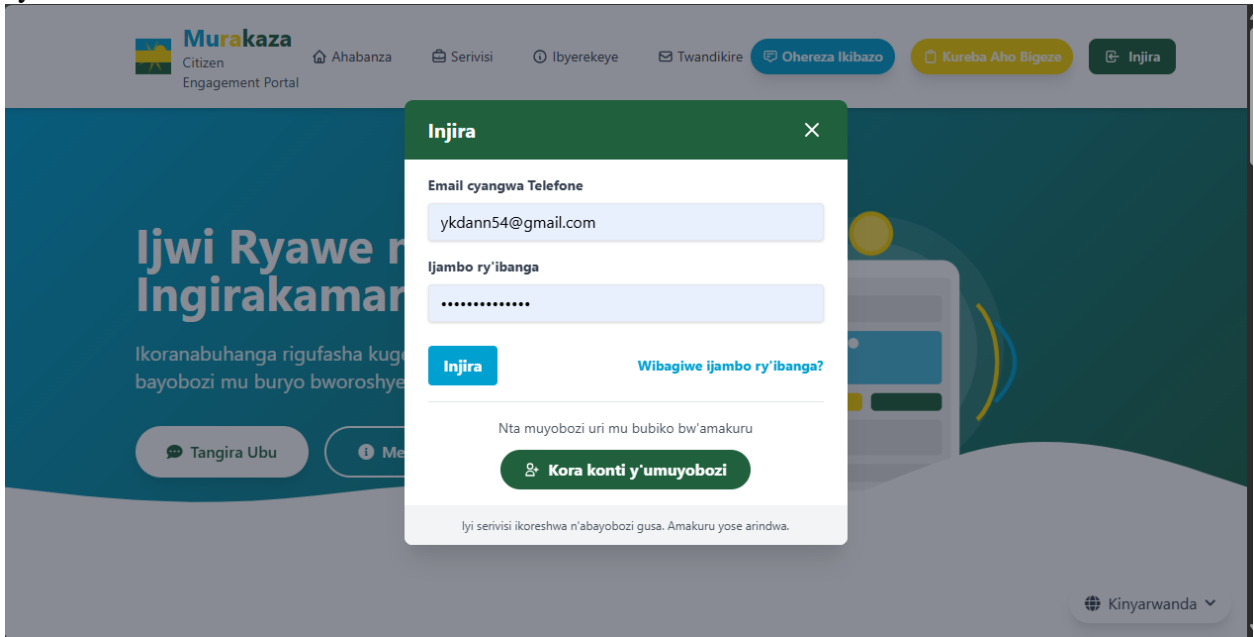


Figure 3web-fr

Admin Account Creation & User Invitation System

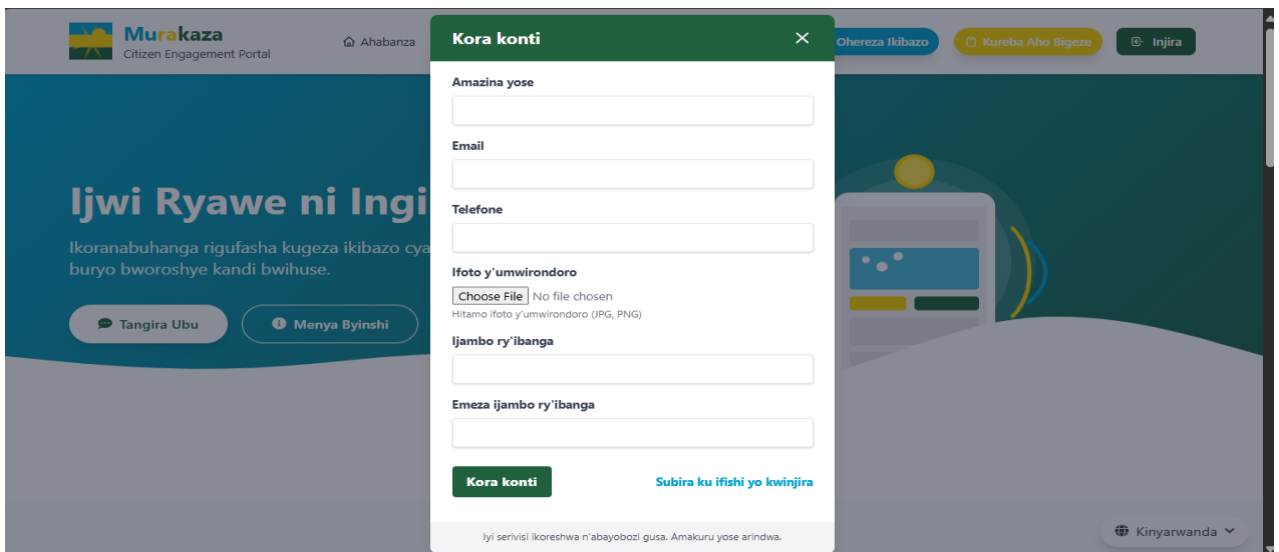
To ensure security and proper access control, the **Citizen Complaints and Engagement System** uses a **restricted account creation workflow**:

-  **Initial Admin Setup:** During the first-time setup, a **primary admin account** is created manually. This account has full privileges and is responsible for managing the system.



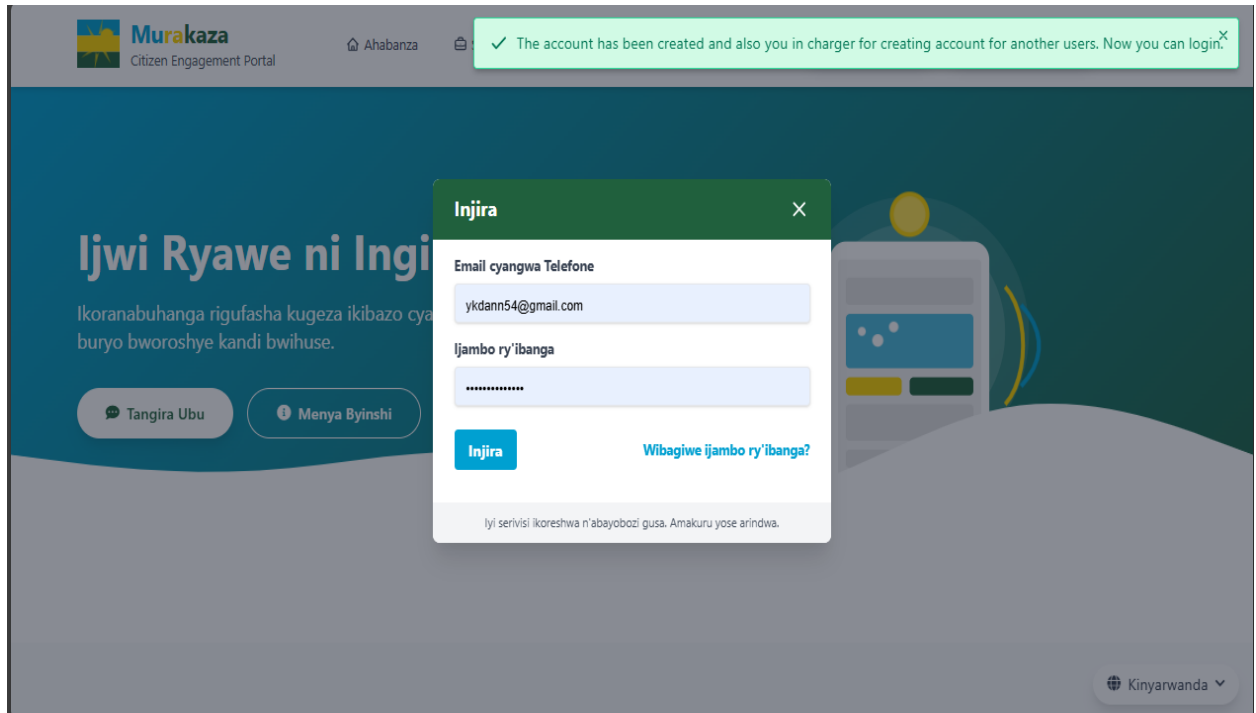
The screenshot shows the Murakaza Citizen Engagement Portal with a modal titled "Injira" (Login) open. The modal contains the following fields and buttons:

- Email cyangwa Telephone:** A text input field containing "ykdann54@gmail.com".
- Ijambo ry'ibanga:** A password input field with masked characters "*****".
- Buttons:** A blue "Injira" button and a blue link "Wibagiwe ijambo ry'ibanga?".
- Text:** "Nta muyobozi uri mu bubiko bw'amakuru" (No administrator is in the system).
- Primary Action:** A green button "Kora konti y'umuyobozi" (Create administrator account).
- Footer:** "Iyi serivisi ikoresheya n'abayobozi gusa. Amakuru yose arindwa." (This service uses only administrators. All information is confidential).

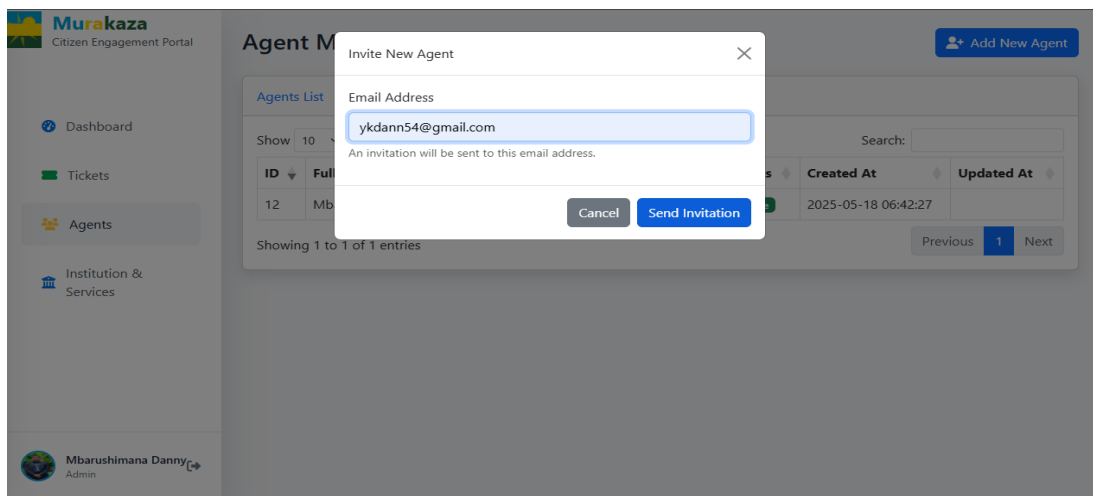


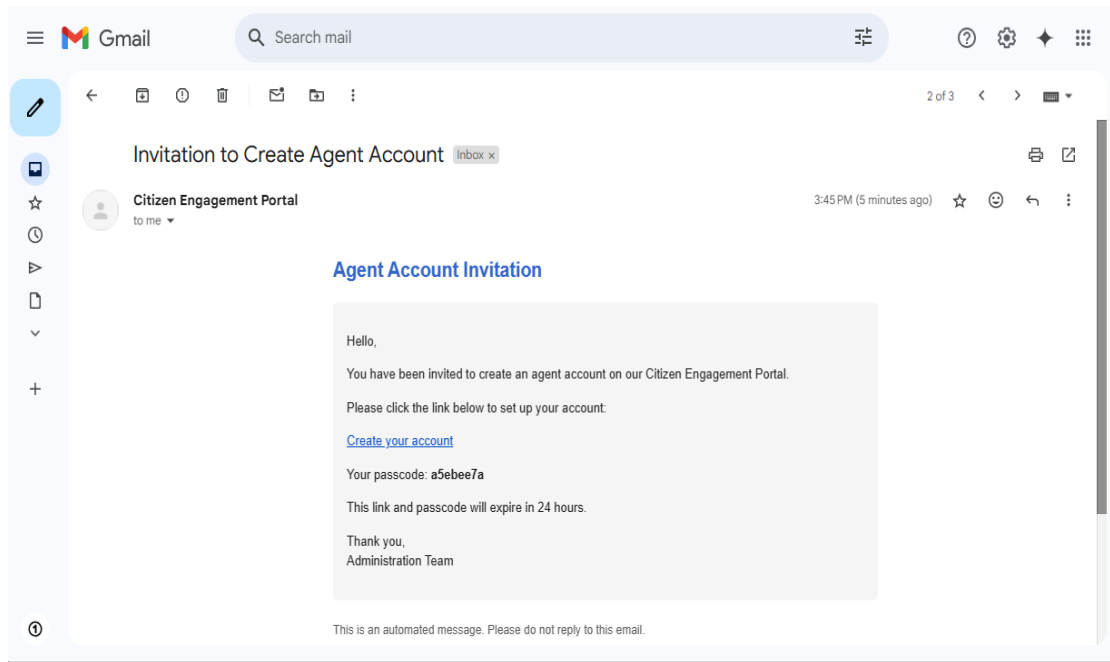
The screenshot shows the Murakaza Citizen Engagement Portal with a modal titled "Kora konti" (Create Account) open. The modal contains the following fields and buttons:

- Amazona yose:** A text input field.
- Email:** A text input field.
- Telephone:** A text input field.
- Ifoto y'umwirondoro:** A file upload section with a "Choose File" button, the text "No file chosen", and a note "Hitamo ifoto y'umwirondoro (JPG, PNG)".
- Ijambo ry'ibanga:** A password input field.
- Emeza ijambo ry'ibanga:** A confirm password input field.
- Buttons:** A green "Kora konti" button and a blue link "Subira ku ifishi yo kwinjira" (Return to login page).
- Footer:** "Iyi serivisi ikoresheya n'abayobozi gusa. Amakuru yose arindwa." (This service uses only administrators. All information is confidential).



- **✉ Invitation-Based Registration:** After initial setup, the admin can **send invitation links** to staff members or authorized users who need access to the system. These invitations allow them to create their own accounts through a secure process.





- **🚫 No Public Signup:** For security and integrity, the system does **not allow open or public registration**. Only users who receive invitations from the admin can create accounts.

This controlled approach helps maintain a secure environment and ensures that only trusted personnel have access to sensitive complaint data and system features.

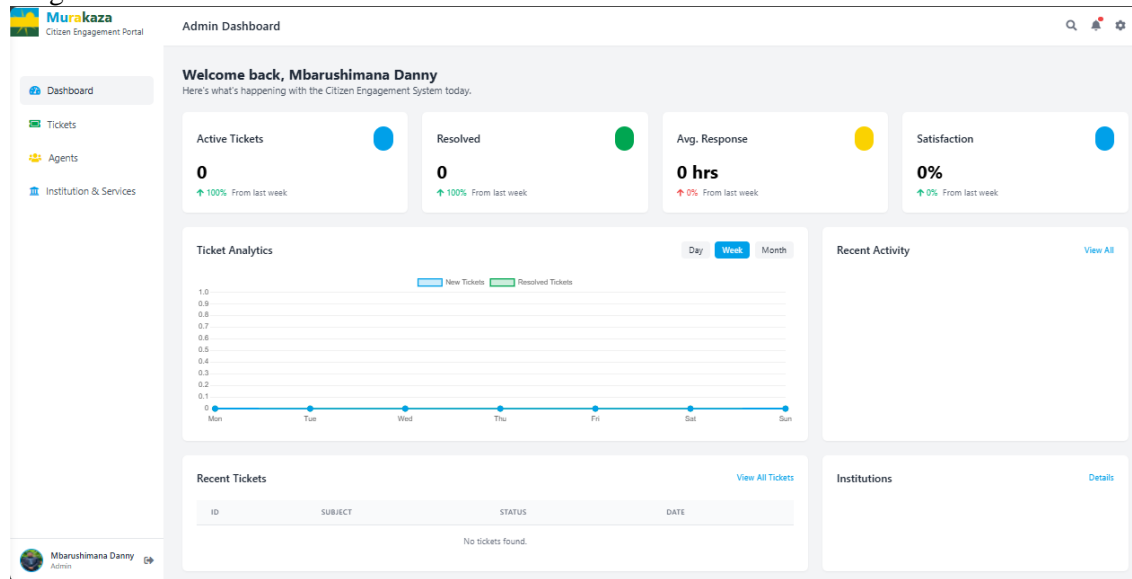
Dashboard & Interfaces

As part of this MVP, the **Citizen Complaints and Engagement System** provides **four main operational interfaces**, designed with simplicity and functionality in mind to deliver core features effectively:

1. **Dashboard (Landing Page)**

- After login, users are directed to a **minimal but functional dashboard**.
- Displays basic **analytics** such as:
 - Number of registered citizens.
 - Number of complaints submitted.
 - Complaint resolution statistics.

- Designed as a foundation for future scalability while providing immediate insight into system usage.



2. Agents Interface

- Shows a **list of all agents** registered in the system.
- Admins can **view and manage agent profiles**.
- Helps track who is responsible for handling citizen complaints.

The screenshot displays the 'Agent Management' interface. It includes a sidebar with navigation links: Dashboard, Tickets, Agents, and Institution & Services. The main content area features an 'Add New Agent' button and an 'Agents List' table.

Agents List:

ID	Full Name	Email	Phone	Status	Created At	Updated At
12	Mbarushimana Danny	ykdann53@gmail.com	0785498054	Active	2025-05-18 06:42:27	

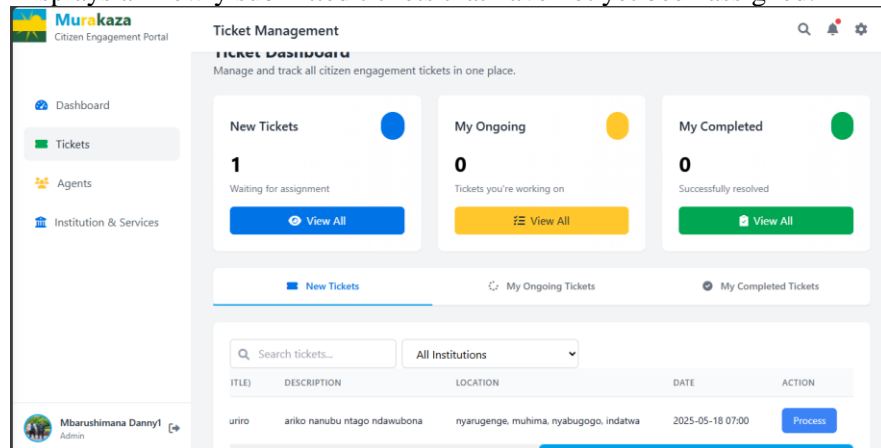
Showing 1 to 1 of 1 entries

3. Ticket Management System

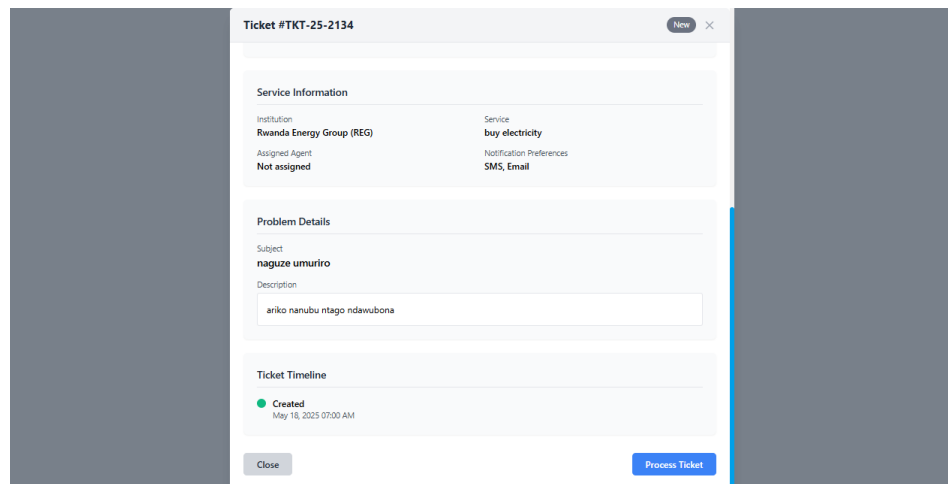
The core functionality of the system, divided into **three dynamic tabs**:

- New Tickets:**

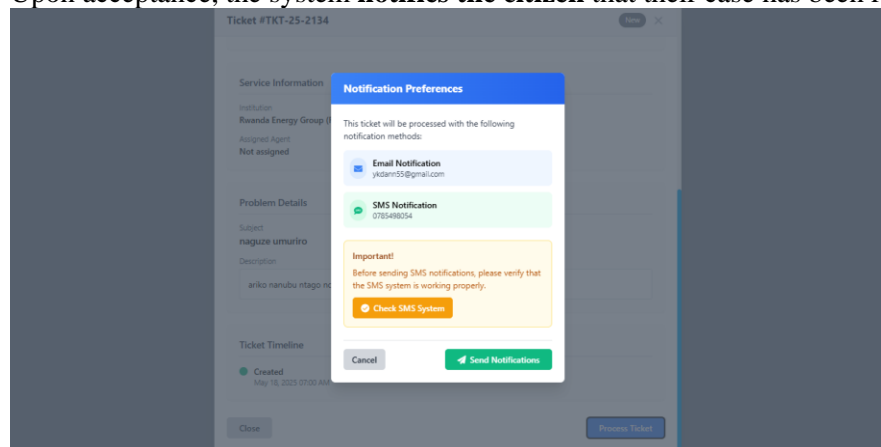
- Displays all newly submitted tickets that have not yet been assigned.



- Agents can view ticket details and click **"Proceed"** to accept the ticket.



- Upon acceptance, the system **notifies the citizen** that their case has been received.



- **Ongoing Tickets:**

- Displays tickets currently **assigned to the logged-in agent only**.

The screenshot shows the 'Ticket Management' dashboard for the MURAKAZA Citizen Engagement Portal. The dashboard is titled 'Ticket Dashboard' and includes a sidebar with navigation links: Dashboard, Tickets, Agents, and Institution & Services. The main content area displays three summary cards: 'New Tickets' (0), 'My Ongoing' (1), and 'My Completed' (0). Below these cards is a table titled 'My Ongoing Tickets' with columns for Ticket #, Institution, On Service, Problem(TITLE), Date Assigned, and Action. The table shows one ticket: TKT-25-2134, assigned to Rwanda Energy Group (REG) with the problem 'naguze umuriro'. The user 'Mbarushimana Danny!' is logged in as an Admin.

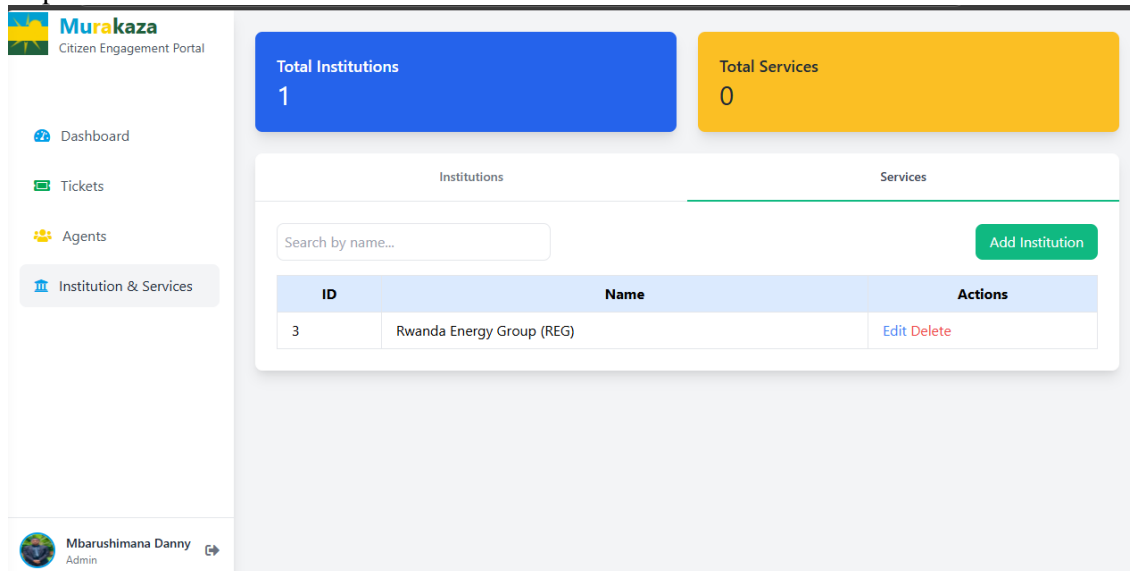
- Agents can **add responses**, updating the case and optionally **notifying the citizen** with each response.

The top part of the screenshot shows the 'Add Response' form for ticket TKT-25-2134. The form includes fields for 'Your Response' (filled with 'tubwire nimeru ya cash power yawe'), a checkbox for 'Mark ticket as completed', and a 'Decision' dropdown (set to 'Information Provided'). The bottom part shows the 'Response Added Successfully!' modal, which displays the ticket information and notification options. The modal includes a 'Warning' about the SMS system and buttons for 'Send Notifications' and 'Close'.

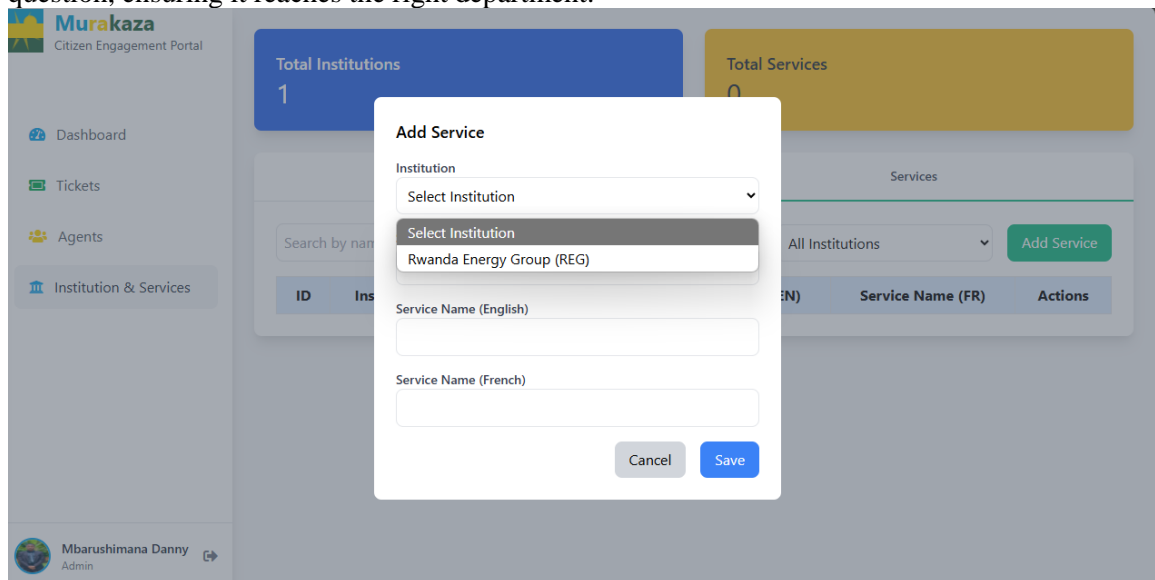
- **Completed Tickets:**
 - Displays tickets that the agent has marked as resolved.
 - Keeps a record for transparency and future reference.

4. 🏢 Institutions & Services

- Admins can **add and manage institutions** (e.g., police, health, water board, etc.) and their respective **services**.



- Citizens can then **choose an institution and specific service** when submitting their complaint or question, ensuring it reaches the right department.

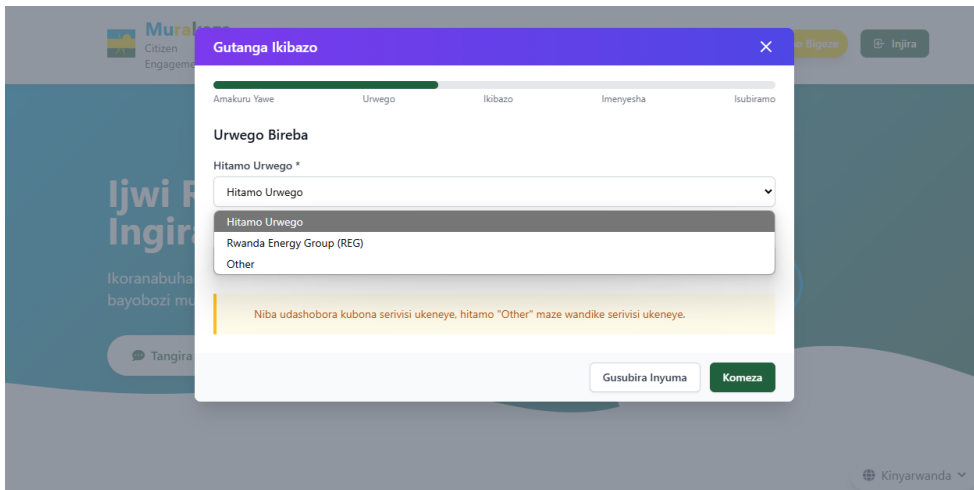
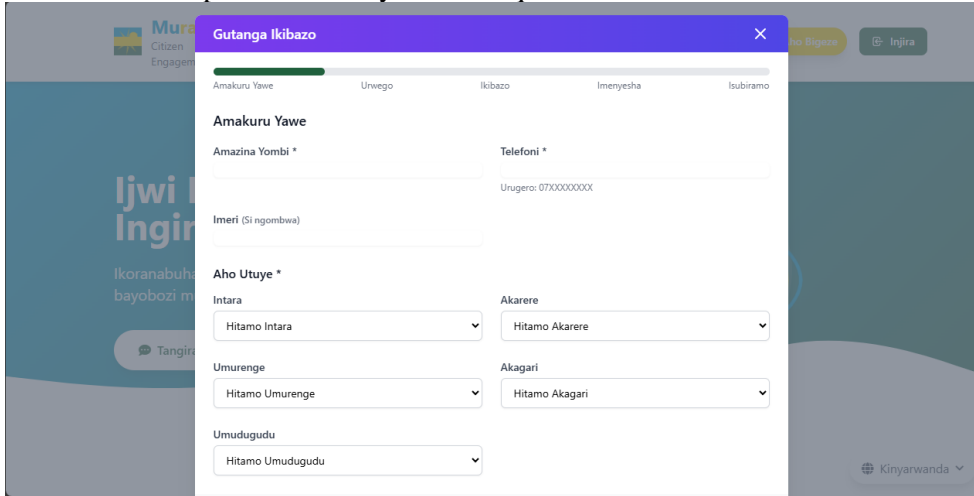


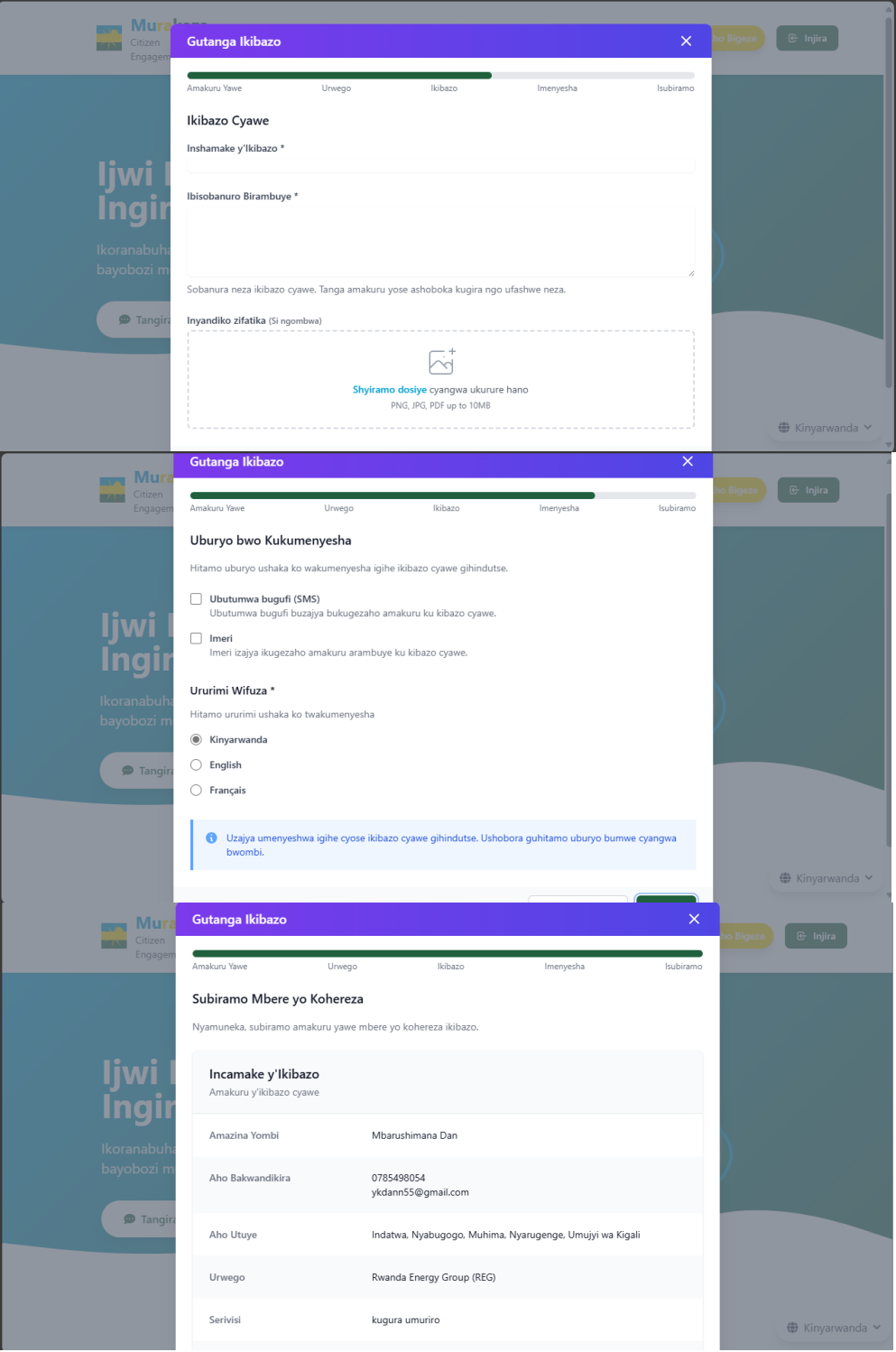
Citizen Actions & Engagement Flow

The **Citizen Complaints and Engagement System** is built to ensure an easy and transparent process for citizens to report issues and receive updates. Here's how citizens interact with the platform:

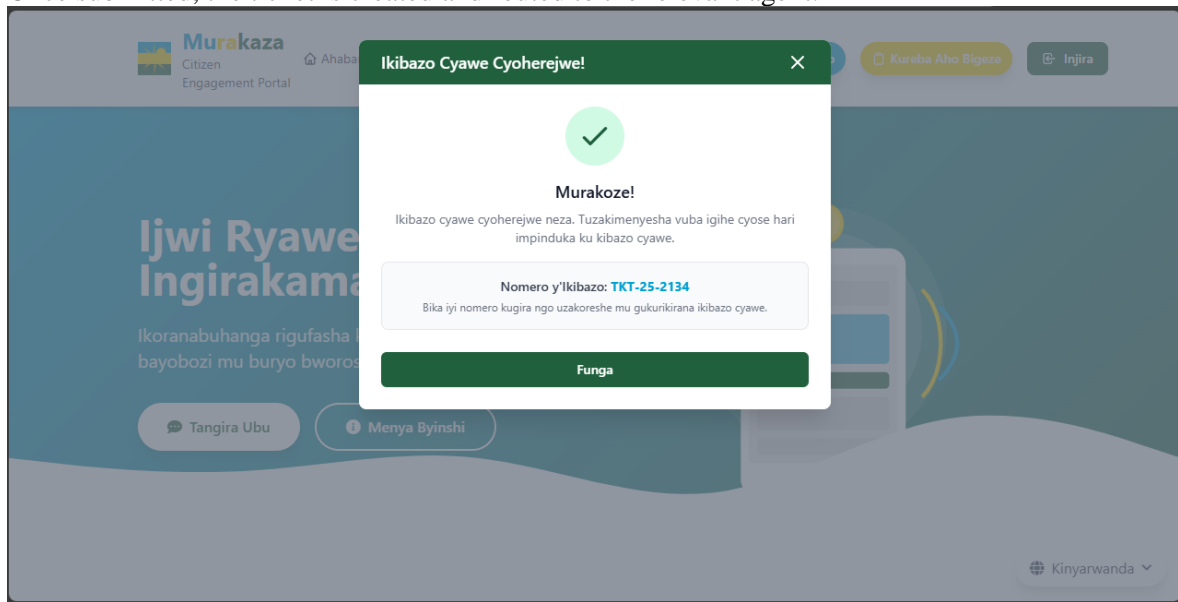
1. Submit a Complaint ("Ohereza Ikibazo")

- Citizens click on the **“Ohereza Ikibazo”** (Submit Complaint) button on the platform.
- A **modal form** opens where they fill out required details



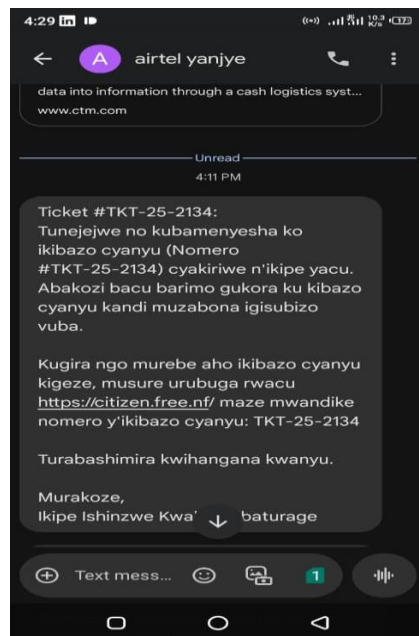


- Once submitted, the ticket is created and routed to the relevant agent.

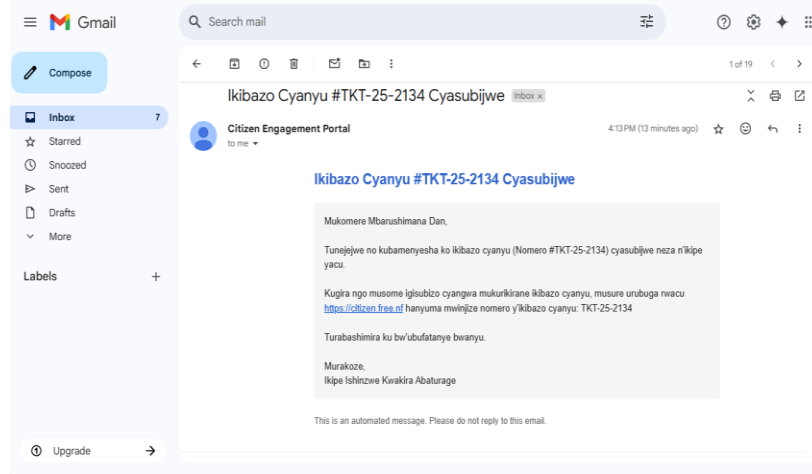


2. Notification System

- Citizens receive **real-time notifications** through their **selected delivery method** (SMS or email):
 - When the ticket is received and assigned to an agent.

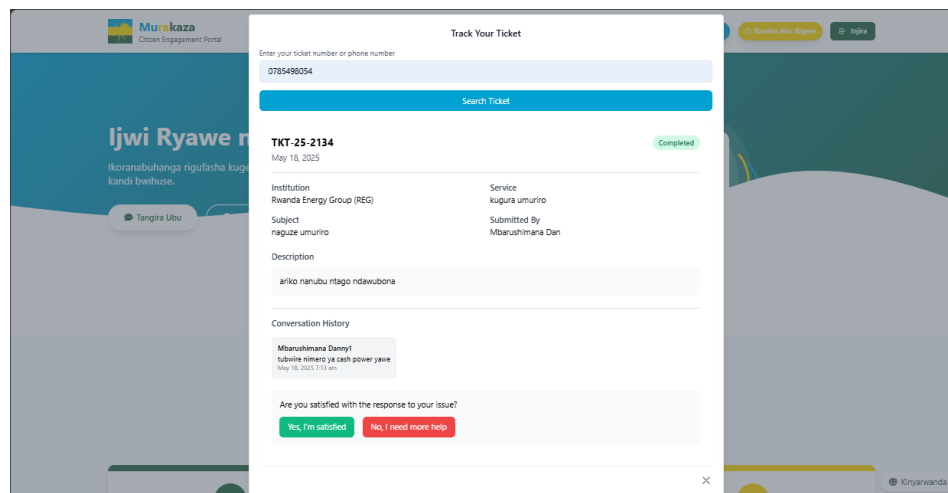


- Every time a response is added to their ticket by an agent.



3. Track Complaint Status ("Kureba Aho Bigeze")

- Citizens can check the progress of their complaint by:
 - Clicking on the **"Kureba Aho Bigeze"** (Track Status) button.



- Entering their **ticket number** or **phone number**.
- The system shows:
 - Ticket details
 - Current status (New, Ongoing, or Completed)
 - All responses from agents

✓ 4. Feedback & Follow-Up

- Once the ticket is marked as resolved, citizens are asked:
 - **"Are you satisfied?"** (Options: Yes / No)
- If **"No"** is selected:
 - A **chat interface** is opened, allowing the citizen to continue the conversation or ask further questions.

Mbarushimana Danny1
May 18, 2025 7:13 AM

tubwire nimeru ya cash power yawe

Mbarushimana Dan
May 18, 2025 7:16 AM

12345678909876

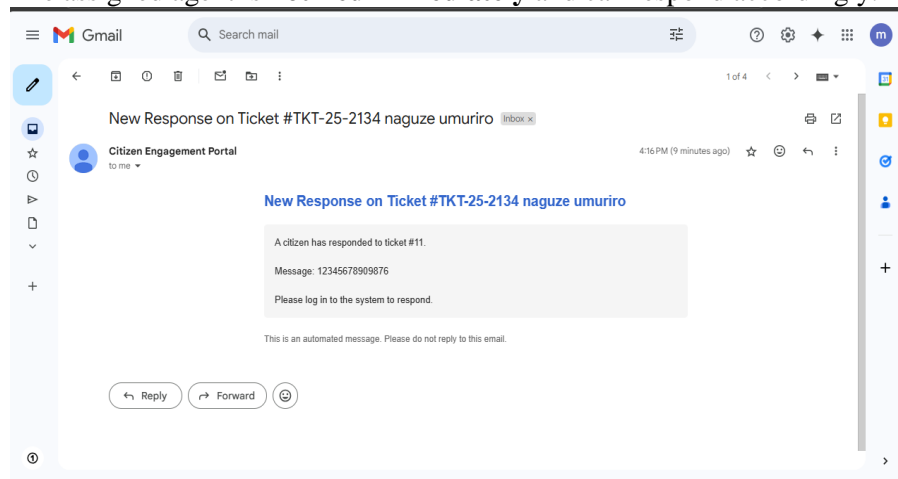
Add Response

Your Response

☐ Mark ticket as completed

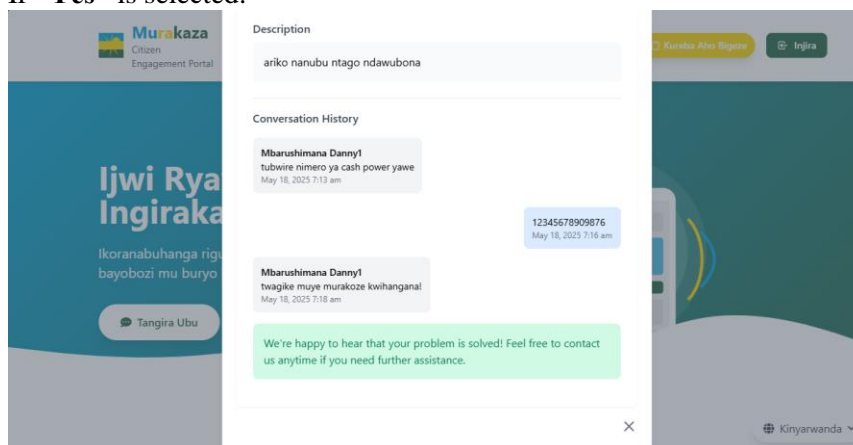
Submit Response

- The assigned agent is **notified immediately** and can respond accordingly.



This interactive flow ensures that citizens feel **heard, supported, and continuously engaged** throughout the resolution process.

- If “Yes” is selected:

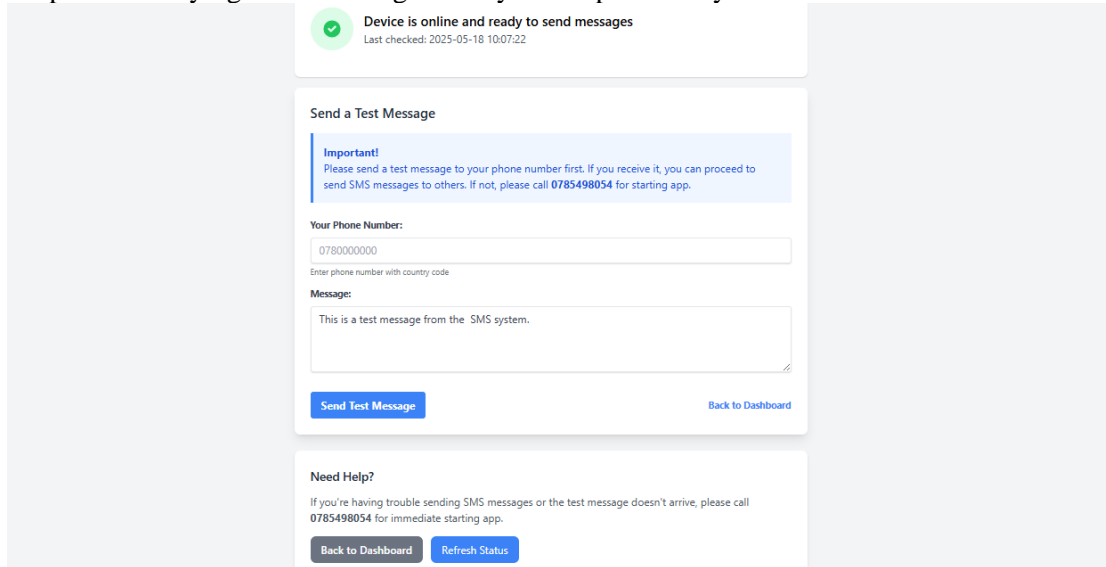


Additional Communication & Future Enhancements

To ensure maximum accessibility and reliability, the system integrates current best practices and plans for future development, including:

SMS Delivery Assurance

- A **test mechanism** has been implemented to **verify that SMS notifications are successfully delivered** to citizens.
- This ensures that citizens receive critical updates even without active internet connections.
- Helps in identifying and resolving delivery issues proactively.



The screenshot displays a mobile application interface for SMS delivery assurance. At the top, a green status bar indicates 'Device is online and ready to send messages' with a last check time of '2025-05-18 10:07:22'. Below this is a 'Send a Test Message' section. It features an 'Important!' notice advising users to send a test message first. A form for 'Your Phone Number' is shown with the example '0780000000' and a prompt to 'Enter phone number with country code'. A 'Message' field contains the text 'This is a test message from the SMS system.' Below the form are two buttons: 'Send Test Message' and 'Back to Dashboard'. At the bottom, a 'Need Help?' section provides contact information for assistance and includes 'Back to Dashboard' and 'Refresh Status' buttons.

Planned USSD Integration (*Future Enhancement*)

- Recognizing that many citizens may lack consistent internet access, we plan to integrate **USSD support**.
- This feature will allow users to **submit complaints, track tickets, and receive updates via simple USSD codes** on any mobile device — no smartphone or internet required.
- It will further expand the system's reach to **rural and underserved areas**.

Scheduled Video Communication (*Future Enhancement*)

- We aim to add a feature that allows **citizens to schedule video calls** with agents or institution representatives when needed.
- This will enable more personalized support, especially for complex or sensitive issues.

These enhancements ensure the system remains **inclusive, scalable, and adaptable** to the evolving needs of both citizens and institutions.