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PROPOSAL FOR THE DEVELOPMENT AND IMPLEMENTATION OF CRIME MANAGEMENT SYSTEM ANALYSIS (CMSA)

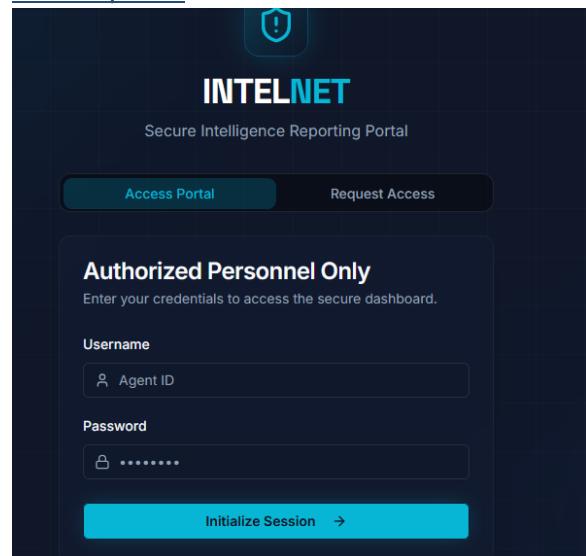
Niru ai hakathon

1. INTRODUCTION

The Kenya continues to face increasing demands in crime prevention, investigation, data management, and strategic deployment of officers. These challenges require a centralized, secure, and data-driven digital solution to enhance efficiency, transparency, and informed decision-making.

This proposal introduces the **Crime Management System Analysis (CMSA)**—a centralized crime management portal designed to streamline crime data collection, analysis, reporting, and inter-station coordination across the Kenya Police Service.

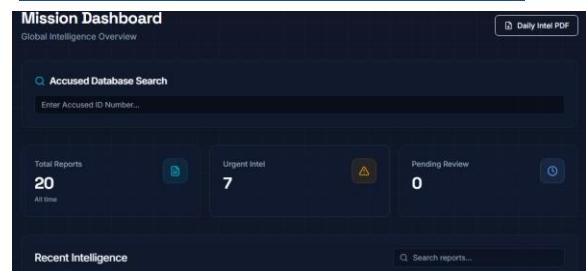
Admin portal



When you log in



Showing statics of crime in admin portal



Appearance of reported cases in admin

2. PROPOSED SYSTEM OVERVIEW

The **Crime Management System Analysis (CMSA)** is a secure web-based portal hosted at the **admin level** with controlled access from users interface and networks intelligence countrywide.

The system will implement **role-based user accounts**, ranging from:

- Sige -level users
- Sub-county and county supervisors
- Regional command
- National administrators HQ

This ensures data integrity, accountability, and controlled access to sensitive information.

The screenshot shows a dark-themed dashboard titled "Recent Intelligence". It lists five recent incidents: "Murder" (Feb 3, 2026 10:40), "terror attack reported" (Feb 1, 2026 20:30), "Theft report" (Jan 30, 2026 14:53), "Bank fraud" (Jan 29, 2026 13:13), and "traffic" (Jan 29, 2026 09:09). Each entry includes a status indicator (e.g., "ABANDONED", "Reviewed") and a "View" button.

Reports projection outlook

The screenshot shows a detailed view of a "terror attack reported" incident. The top bar shows "Status: REVIEWED". The main section displays accused information (Name: ellud ellud, ID Number: 23435686) and location (Location: madera east, Madera, Legal Status: Under Investigation). On the right, there's a "Case Management" sidebar with options to "ALLOCATE INVESTIGATOR" and "CRIME ANALYSIS (MO)".

Incident admin only can add investigator or comment

The screenshot shows a detailed view of a "murder" incident. The top bar shows "Status: REVIEWED". The main section displays accused information (Name: MOHAM DAGKT, ID Number: 2375234) and location (Location: nairobi, Nairobi, Legal Status: Under Investigation). On the right, there's a "Case Management" sidebar and an "ADMIN COMMENT SECTION" where an internal feedback or instructions are listed. A blue "Update Case File" button is at the bottom right.

3. CORE SYSTEM FUNCTIONALITIES

3.1 Crime Case Management

The CMSA will capture and manage:

- Cases under investigation
- Cases taken to court
- Completed cases
- Traffic offences

Each case record will include status updates, timelines, and responsible officers.

3.2 Accused Persons Records Management

- Centralized database of accused persons
- Storage of identification details and offence history
- Ability to track repeat offenders across different police stations

A search engine will allow officers to input:

- National ID number
- Registration or reference number

to instantly check if an individual has **previous convictions or pending cases** in any station nationwide.

3.3 Wanted Persons Module

- A continuously updated list of wanted persons
- Visible across all authorized user portals
- Enhances ease of identification and tracking

4. CRIME DATA ANALYSIS AND REPORTING

The system will generate **automated crime reports**, including:

- Daily crime reports
- Crime distribution by offence type
- Trend analysis and statistical summaries

Reports will support data-driven decision-making and strategic planning.

5. GEOGRAPHICAL CRIME BREAKDOWN

CMSA will enable crime data analysis with breakdowns by:

- County
- Sub-county
- Police station
- Location
- Sub-location

This is user interface from station where you can search person's previous conviction as shown below

The screenshot shows a dark-themed user interface titled 'Mission Dashboard' under 'Field Agent Reporting Console'. At the top right is a blue button labeled '+ New Report'. Below it is a search bar with the placeholder 'Accused Database Search' and a value '2375234'. A section titled 'Criminal History Found:' lists 'MOHAM DAGKT' with 'MURDER + HOMICIDE' and 'TERRORISM + MADERA' under 'under investigation'. At the bottom, there are four status indicators: 'Total Reports 1 All time', 'Urgent Intel 1', and 'Pending Review 0'.

This is crime figure filing page

The screenshot shows a 'Submit Intelligence' form. It includes fields for 'Report Details' (Report Title, Subject or incident name, Crime Category set to 'GVC'), 'Accused Persons' (Person #1 with fields for Full Name, ID Number, Photo (Portrait), Photo URL, County, Place of Offence), and a note to 'Provide accurate and verified information only.'

This will show entering crime data per crime breakdown as shown below

The screenshot shows the same 'Submit Intelligence' form as above, but the 'Crime Category' dropdown is expanded to show a list of categories: GVC, DEFILMENT, TERRORISM, MURDER, MANSLAUGHTER, CYBERCRIME, ASSAULT, ROBBERY, BREAKING, and STEALING. 'GVC' is checked.

Each crime record will include **map references (geospatial tagging)** showing where the offence occurred, supporting:

- Crime hotspot identification
- Better deployment and patrol planning
- Preventive policing strategies

6. OPERATIONAL BENEFITS TO KENYA POLICE SERVICE

The CMSA will:

- Improve efficiency in crime data handling
- Enhance coordination between police stations
- Support intelligent deployment of officers
- Reduce duplication of records
- Strengthen crime prevention through predictive analysis
- Enhance accountability and transparency

7. SYSTEM SECURITY AND DATA PROTECTION

Given the sensitive nature of police data, the system will incorporate:

- Secure authentication and authorization
- Role-based access control
- Audit logs for user activities
- Data encryption and secure hosting at Police HQ Data Center

The system design aligns with modern cybersecurity and digital forensics principles.

The figure below show crime breakdown according to place happened and attachment of any evidence or document as a pdf.

The graph below showing breakdown of cases according to area they happened for easier understanding.



8. CONCLUSION

The Crime Management System Analysis (CMSA) offers a scalable, secure, and data-driven solution that will significantly enhance crime management, analysis, and operational effectiveness within the Kenya security enhanced services.

I respectfully submit this proposal for consideration and possible pilot implementation.

The figure below will be showing crime figure flowing through the day with which will be indicate the one which is most urgent.

