



# KDT Aso

Autonomous Operations Platform

Knight Division Tactical

Feature Documentation — February 2026

# Platform Overview



KDT Aso is the central command and control platform for Knight Division Tactical operations. It provides real-time situational awareness, AI-powered staff assistance, secure communications, and comprehensive operational management.

## Features

1. Authentication & Security
2. Voice Interface
3. Map/GIS Display
4. Standing Orders
5. Alert System
6. Sensor Integrations
7. Deployment Packaging
8. Admin Configuration Panel
9. Nigerian Languages (7)
10. Test Suite

**11. Persistent Memory**

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**12. Mobile PWA**

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**13. Document Storage**

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**14. Offline Mode**

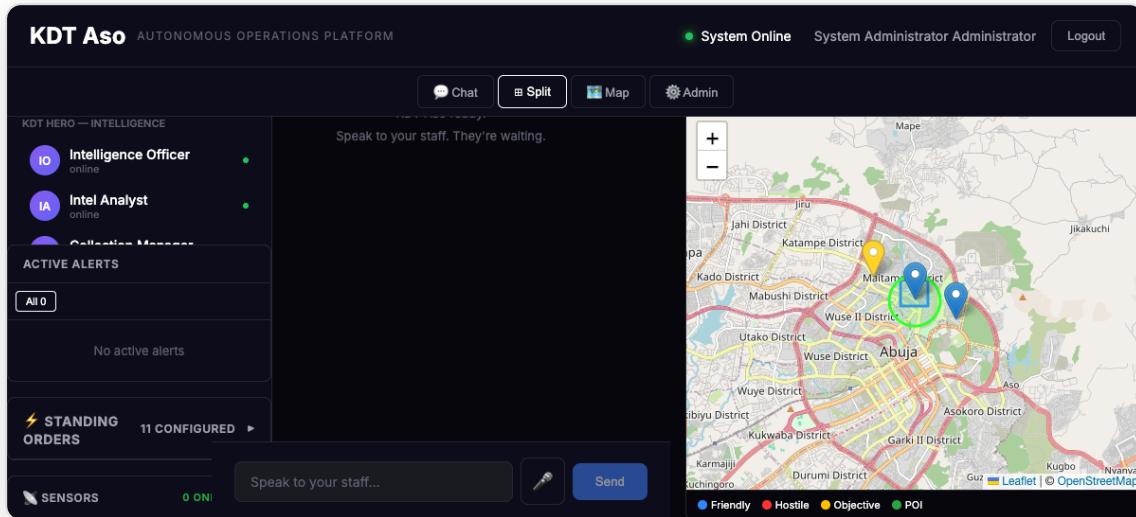
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**15. Backup System**

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**16. End-to-End Encryption**

# Main Dashboard



Split view showing AI staff, alerts, standing orders, chat, and operations map

The main dashboard provides a unified view of all operational data. The split view combines chat with the operations map, while the sidebar shows AI staff status, active alerts, standing orders, and sensor status.

# Core Features

## 1. Authentication & Security

- JWT-based authentication with secure sessions
- Role-based access control (RBAC)
- Protected API routes with middleware
- Session management with HTTP-only cookies

## 2. Voice Interface

- Speech-to-text input for hands-free operation
- Text-to-speech responses (ElevenLabs integration)
- Voice commands for common operations
- Real-time transcription

## 3. Map/GIS Display

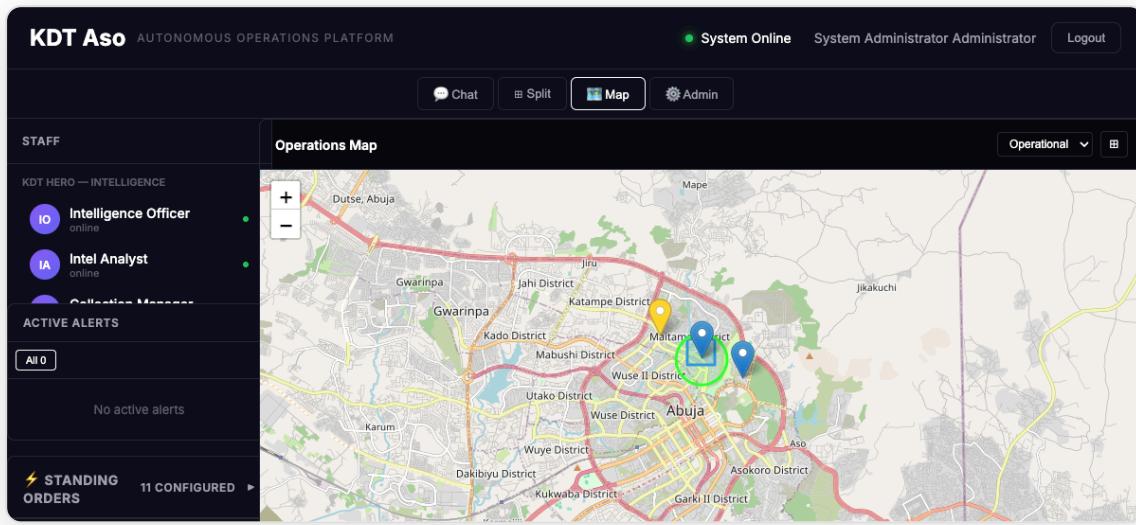
- Interactive Leaflet map with OpenStreetMap tiles
- Marker types: Friendly, Hostile, Objective, POI
- Area of operations overlay
- Multiple map layers (Operational, Intelligence, Logistics)

## 4. Standing Orders

- 11 configurable standing orders

- Time-based triggers (schedules)
- Event-based triggers (conditions)
- Automatic execution by AI agents

# Operations Map



Full-screen operations map centered on Abuja with tactical markers

# Operational Features

## 5. Alert System

- Priority levels: Critical, High, Medium, Low
- Real-time WebSocket notifications
- Alert acknowledgment tracking
- Automated escalation rules

## 6. Sensor Integrations

- Support for multiple sensor types
- RTSP/ONVIF camera integration
- Real-time data streaming
- Sensor status monitoring

## 7. Deployment Packaging

- Docker containerization
- Docker Compose orchestration
- Production-ready Nginx configuration
- Automated build scripts

## 8. Admin Configuration Panel

- User management (add, edit, delete)

- Role management with permissions
- System settings configuration
- Audit log viewing

# Admin Panel

**KDT Aso AUTONOMOUS OPERATIONS PLATFORM**

System Online System Administrator Administrator Logout

Chat Split Map Admin

**Admin Configuration**

Intelligence Officer

**User Management**

USERNAME	NAME	ROLE	STATUS	LAST LOGIN	ACTIONS
admin	Administrator	admin	Inactive	Never	Edit Delete

11 CONFIGURED

STANDING ORDERS

SENSORS

0 ON

Map Leaflet | OpenStreetMap

User management interface with role assignment

**KDT Aso AUTONOMOUS OPERATIONS PLATFORM**

System Online System Administrator Administrator Logout

Chat Split Map Admin

**Admin Configuration**

Intelligence Officer

**System**

System Name: KDT Aso

Timezone: Africa/Lagos (WAT)

Maintenance Mode:

**Security**

Map Leaflet | OpenStreetMap

System settings including timezone and maintenance mode

# Platform Features

## 9. Nigerian Languages

- English (default)
- Hausa — هُوسَ
- Yoruba — Èdè Yorùbá
- Igbo — Asụṣụ Igbo
- Pidgin English
- Fulfulde
- Kanuri

## 10. Test Suite

- Jest testing framework
- API endpoint tests
- Authentication flow tests
- Integration tests

## 11. Persistent Memory

- Agent memory storage and retrieval
- Conversation context preservation
- Operational event logging
- Knowledge base with semantic search

## 12. Mobile PWA

- Progressive Web App manifest
- Install to home screen
- Push notification support
- Responsive mobile design

# Chat Interface

The screenshot shows the KDT Aso Autonomous Operations Platform interface. At the top, there's a navigation bar with the KDT Aso logo, 'AUTONOMOUS OPERATIONS PLATFORM', a 'System Online' status indicator, 'System Administrator' role, and a 'Logout' button. Below the navigation is a header bar with tabs for 'Chat' (which is selected), 'Split', 'Map', and 'Admin'. On the left side, there's a sidebar with sections for 'STAFF', 'ACTIVE ALERTS', 'STANDING ORDERS', and 'SENSORS'. The 'STAFF' section shows 'KDT HERO — INTELLIGENCE' with an 'Intelligence Officer' entry marked as 'online'. The 'ACTIVE ALERTS' section shows 'All 0' and 'No active alerts'. The 'STANDING ORDERS' section shows '11 CONFIGURED'. The 'SENSORS' section shows '0 ONLINE'. The main area of the interface is a chat window titled 'KDT Aso ready.' with the message 'Speak to your staff. They're waiting.' To the right of the chat window is a vertical 'ACTIVITY' column with the message 'Monitoring for activity...'. At the bottom of the interface is a large input field with the placeholder 'Speak to your staff...', a microphone icon, and a blue 'Send' button.

*Chat interface with AI staff selection and activity feed*

# Security & Data Features

## 13. Document Storage

- Categories: Intel, AAR, Mission, SITREP, Personnel, Asset, SOP
- Full-text search
- Document templates
- Version tracking

## 14. Offline Mode

- Service worker caching
- Offline fallback page
- Background sync when online
- IndexedDB for offline data

## 15. Backup System

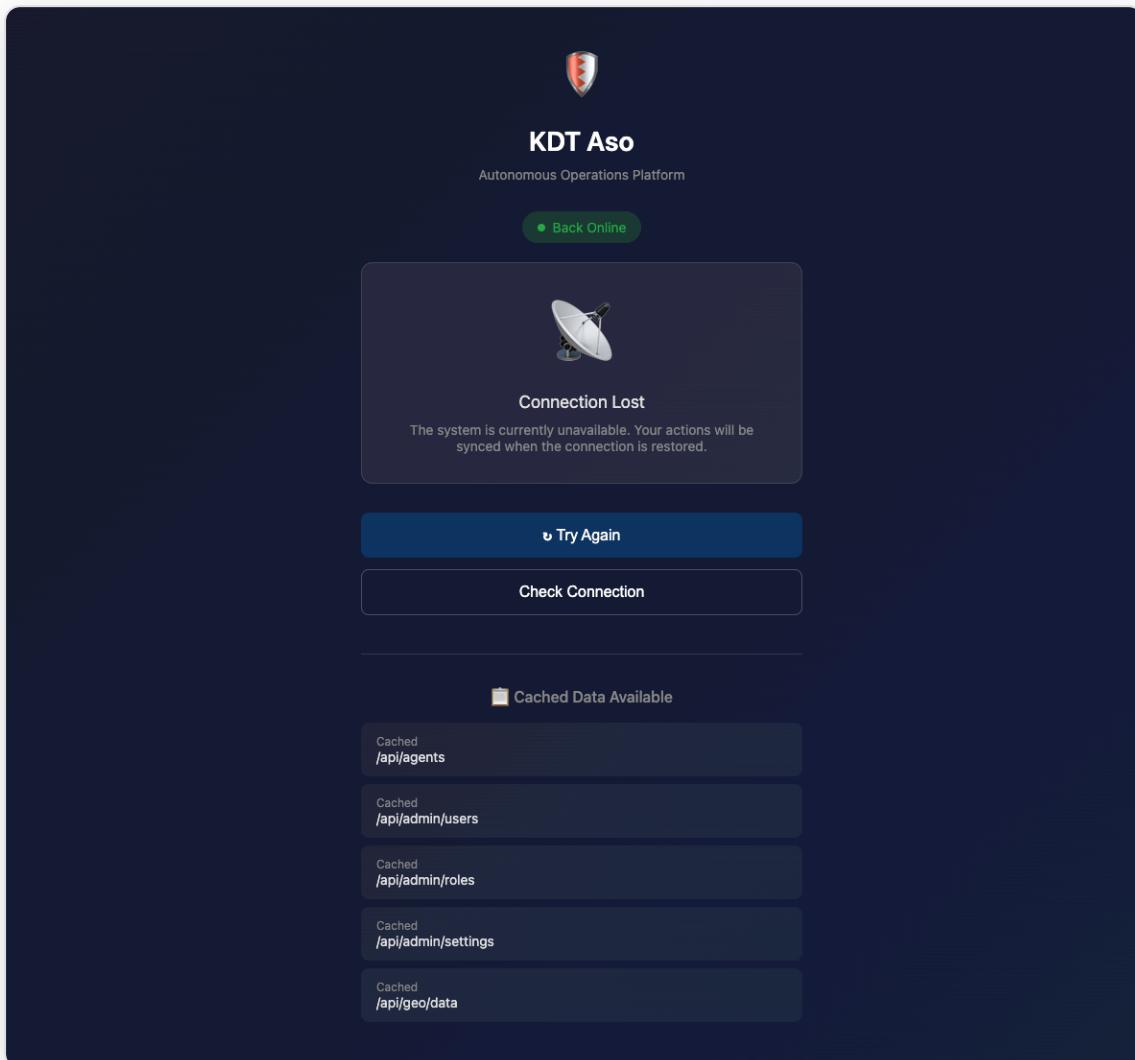
- Automated scheduled backups
- Compressed tar.gz archives
- Checksum verification
- Selective restore options

## 16. End-to-End Encryption

- AES-256-GCM encryption

- Secure key management
- Session key generation
- Message signing & verification

# Offline Mode



*Offline fallback page showing cached data availability*

# Feature Summary

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#	Feature	Status	Added
1	Authentication & Security	<input checked="" type="checkbox"/> Complete	Feb 18
2	Voice Interface	<input checked="" type="checkbox"/> Complete	Feb 18
3	Map/GIS Display	<input checked="" type="checkbox"/> Complete	Feb 18
4	Standing Orders	<input checked="" type="checkbox"/> Complete	Feb 18
5	Alert System	<input checked="" type="checkbox"/> Complete	Feb 19
6	Sensor Integrations	<input checked="" type="checkbox"/> Complete	Feb 19
7	Deployment Packaging	<input checked="" type="checkbox"/> Complete	Feb 20
8	Admin Config Panel	<input checked="" type="checkbox"/> Complete	Feb 20
9	Nigerian Languages (7)	<input checked="" type="checkbox"/> Complete	Feb 20
10	Test Suite	<input checked="" type="checkbox"/> Complete	Feb 20
11	Persistent Memory	<input checked="" type="checkbox"/> Complete	Feb 20
12	Mobile PWA	<input checked="" type="checkbox"/> Complete	Feb 20
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