

ARLABS Intelligent City Platform

A modular intelligent-operations platform for cities and large operators — bringing every camera, sensor, drone, satellite and dataset onto one live map, with AI analytics, multi-agency coordination and executive intelligence.

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Overview

The ARLABS Intelligent City Platform is a production platform designed, built and run by ARLABS. It brings a full set of operational capabilities into one role-based system, with a web dashboard, mobile apps and analytics on a single modern stack.

- 11 activatable modules on one platform
- AI video, IoT, drone & geospatial analytics
- Multi-agency command-centre coordination
- PDPA-aligned by design — ANPR-default, no facial recognition

AI / ML · computer vision

IoT · sensor & telemetry ingestion

Geospatial & satellite imagery

Drone integration · ONVIF/SDK cameras

The platform in practice

REPRESENTATIVE USE CASE

A city council starts with a command centre and AI CCTV, then adds flood warning, revenue intelligence and drones over time — every agency working from one live operational picture, with no replatforming.

The sections that follow describe each of the 12 modules — what it does, its key features, and a concrete use case showing how it is used day to day.

Modules & features

Module 01

Integrated Operations Command Centre (IOCC)

A single operational view of every camera, sensor, drone and dataset on one map.

KEY FEATURES

- Multi-agency, role-based access
- Live incident dashboard & dispatch

USE CASE

Operators from multiple agencies watch one live map and coordinate incident response from a single console.

Module 02

AI CCTV Analytics & ANPR

Edge-AI analytics across the camera network, day and night.

KEY FEATURES

- Vehicle counting, classification & ANPR
- Trajectory, crowd & anomaly detection

USE CASE

Cameras automatically read plates and flag anomalies, turning raw video into searchable, actionable events.

Module 03

ITIS — Transport Information System

Intelligent traffic monitoring, detection and control.

KEY FEATURES

- Automatic incident detection
- Adaptive signals & Variable Message Signs

USE CASE

A stopped vehicle is detected automatically and drivers are warned via message signs within seconds.

Module 04

Flood, Weather & Maritime Warning

Real-time environmental monitoring and public early warning.

KEY FEATURES

- River/drain water-level IoT telemetry
- Automated alerts & road-closure guidance

USE CASE

Rising river levels trigger automatic public alerts and road-closure guidance before flooding spreads.

Module 05

Watchman — Revenue & Compliance

Geospatial detection of revenue leakage and non-compliance.

KEY FEATURES

- Parcel-level assessment-tax mapping
- Unregistered / unpermitted-build detection

USE CASE

Satellite imagery reveals unregistered extensions and under-assessed properties for revenue recovery.

Module 06

Boardroom — Executive Dashboards

One strategic view of the whole operation for leadership.

KEY FEATURES

- Real-time KPIs across every domain
- Predictive analytics & risk forecasting

USE CASE

Leadership sees one live KPI view across every department, with predictive risk alerts.

Module 07

Smart Parking Management

ANPR-based parking operations and enforcement.

KEY FEATURES

- Occupancy & non-payment detection
- Mobile LPR patrol & compound issuance

USE CASE

ANPR detects unpaid parking and issues compounds under council by-laws automatically.

Module 08

Autonomous Drone Patrol

Scheduled and trigger-based aerial patrols with live AI.

KEY FEATURES

- Auto-dispatch on incidents / anomalies
- Automated docking & charging

USE CASE

A drone auto-launches to an incident, streams aerial AI detection, then returns to dock and recharge.

Module 09

Citizen Engagement App

A direct channel between residents and the command centre.

KEY FEATURES

- Photo + geolocation reporting
- Emergency alerts & sentiment monitoring

USE CASE

A resident reports a pothole with a photo; it lands live on the command-centre map, tracked to resolution.

Module 10

Fishing Point — Blue Economy

Satellite intelligence-as-a-service for coastal communities.

KEY FEATURES

- Fishing-zone & sea-state advisories
- Check-in, monsoon alerts & distress / SAR flag

USE CASE

Fishermen get daily satellite fishing-zone maps and safety advisories, with distress check-in for search-and-rescue.

Module 11

Digital Twin

A live 3D model of the city for planning and showcase.

KEY FEATURES

- Flood visualisation & development control
- 360° landmarks & investor tours

USE CASE

Planners visualise a flood scenario on a true 3D model of the city before it happens.

Module 12

Platform Foundation

The modular base every module runs on.

KEY FEATURES

- Activate modules incrementally
- API / ODBC / file ingestion · PDPA-aligned

USE CASE

A city starts with two modules and adds more over time — no replatforming, all on one base.