



# Drone-in-a-Box

Autonomous 5G & Wi-Fi Drone  
for Mission-Critical Operations

## Leveraging 5G & Wi-Fi connectivity for autonomous surveillance in mission-critical operations

Drone-in-a-Box demonstrates how a 5G / LR Wi-Fi connected autonomous drone can be remotely deployed and piloted by the MCX dispatcher, while providing MCX users with relevant situational awareness.

Integrated into the secured private 5G tactical bubble powered by the Capgemini, the solution enables real-time monitoring and optimized flight control in mission-critical areas. At the same time, it delivers live video streaming and AI-powered image analysis from the field to both MCX-equipped agents and dispatchers in control rooms – even in critical environments.

### Drone-in-a-Box combines:

- Intelligent drone piloting via an MCX application deployed over the private 5G network
- Ultra-low-latency live video streaming
- Edge-based AI video analytics
- AI-enriched alerts delivered to the control room dispatcher

It significantly improves situational awareness, intervention speed and field operator safety, while reducing response times in critical contexts.

## Key features

### Geolocation & fleet management:

- Fleet management capabilities, providing visibility over multiple drones
- Real-time drone positioning for real-time operational visibility
- Search area definition to support targeted surveillance and reconnaissance missions

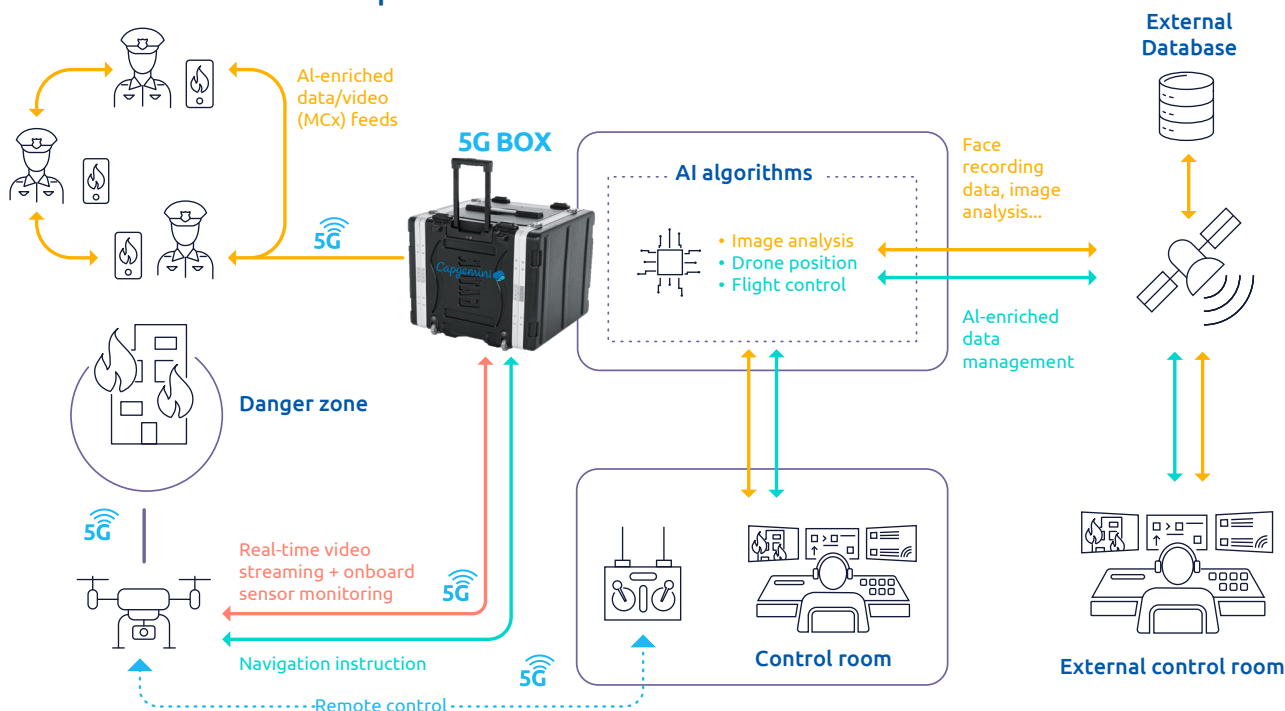
### Intelligent pilot:

- Obstacle avoidance for safe operations in complex environments
- Remote control of drone direction and rotation from the MCX dispatcher
- Automated route generation based on predefined waypoints and the ability to change route mid-flight

### Advanced surveillance & video stream management:

- Targeted video capture, including area focus, angles and zoom
- Live video streaming broadcast to control room dispatchers over the 5G / Wi-Fi connectivity
- Snapshot and video capture transmission to the control room dispatcher for rapid assessment and decision-making

## Solution architecture & operations

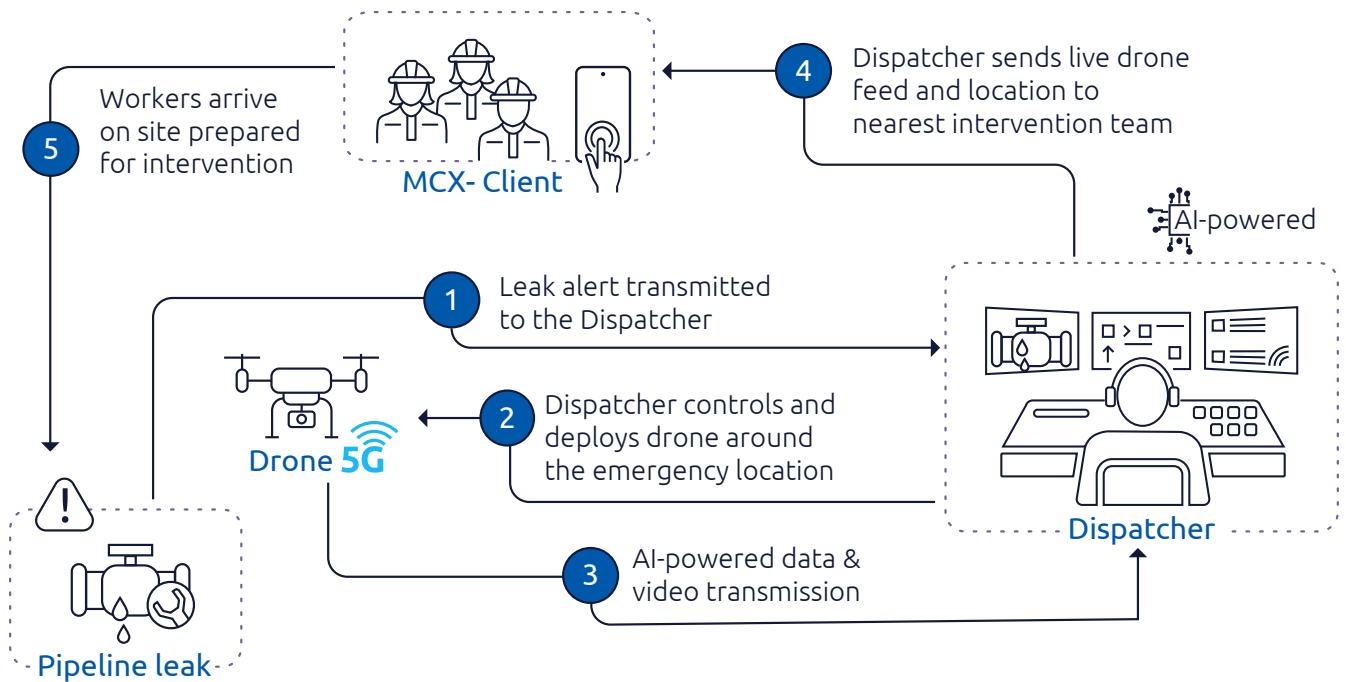


### How it works in practice

Drone-in-a-Box securely transmits live video streams and sensor data to the MCX platform deployed over a private 5G network.

There, edge-based AI analytics process the information in real time to generate actionable insights for field teams and control rooms.

### Sample use case in public safety or industry



## 3 big benefits

- **Efficiency** – centralized drone control fully integrated into the MCX dispatcher from any control room; no dedicated controller needed
- **No reliance on public cloud services** – fully on-premise architecture with drone control, video streaming and AI processing all hosted locally
- **Scalable, coordinated operations** – multiple drones managed from a single interface



## To find out more, get in touch



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