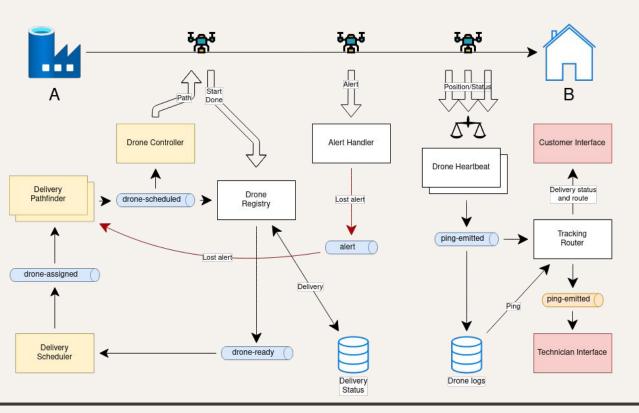


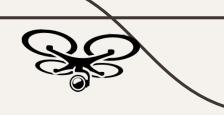
AL2 - Team E Presentation

V1: planning and graphical tracking of the delivery paths

Quentin Larose, Enzo Briziarelli, João Brilhante, Charly Ducrocq, Ludovic Marti

Previously

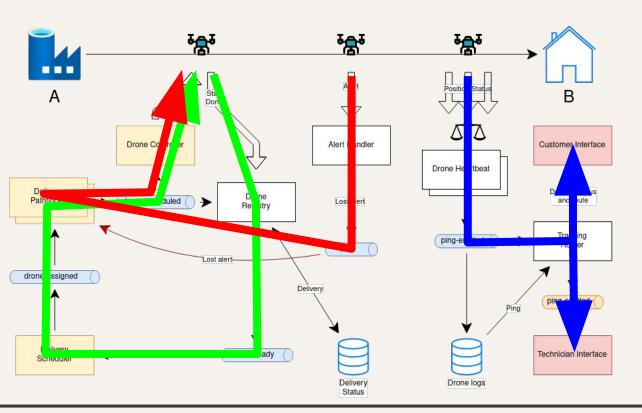




- Resilience
- Performance
- Scalability

Microservices architecture using **Kafka**

Previously





- The drone is ready
 - The drone registry register it
 - The drone controller gives it its path
- The drone is lost and raises an alert
 - The drone registry gives it its new path
- The drone ping the server every 10s
 - The tracking router forward the position to the front.

New features



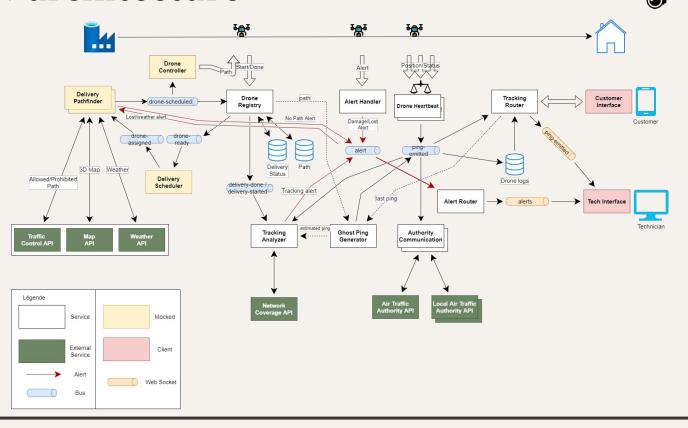


Real-time tracking of "critical" deliveries, even if they need to cross areas partially covered by the network (poor network coverage/quality)

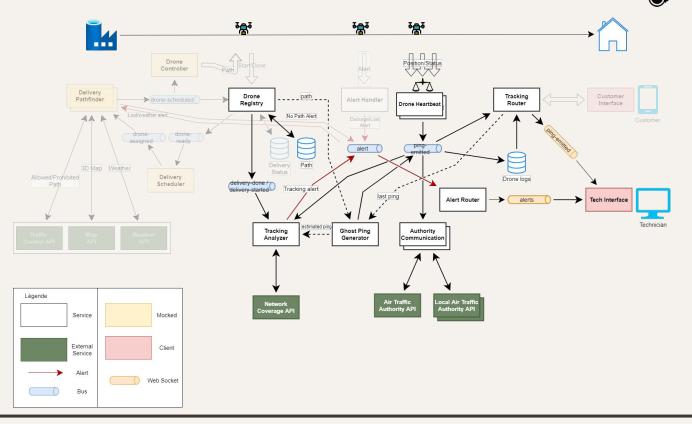


Real-time feedback of the tracking needs to be provided to an external air-management authority for all urban areas.

New architecture

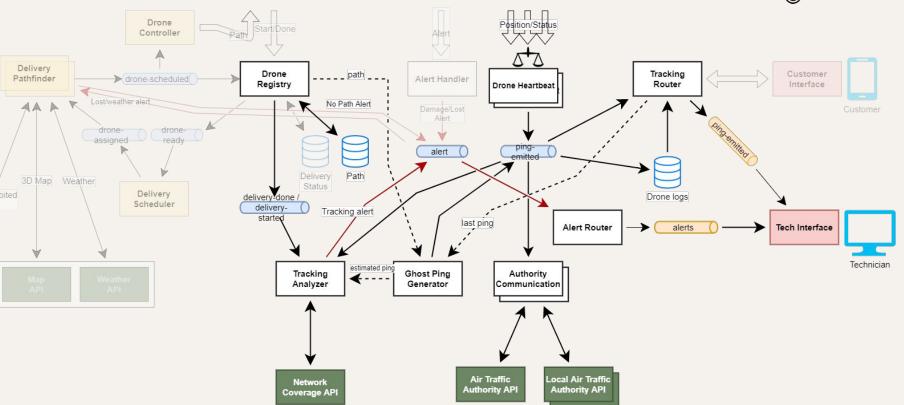


Introduced features



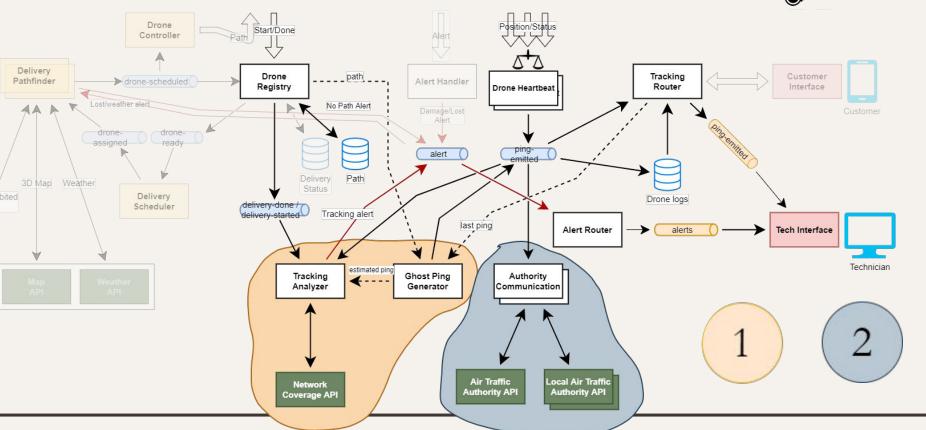
Introduced features





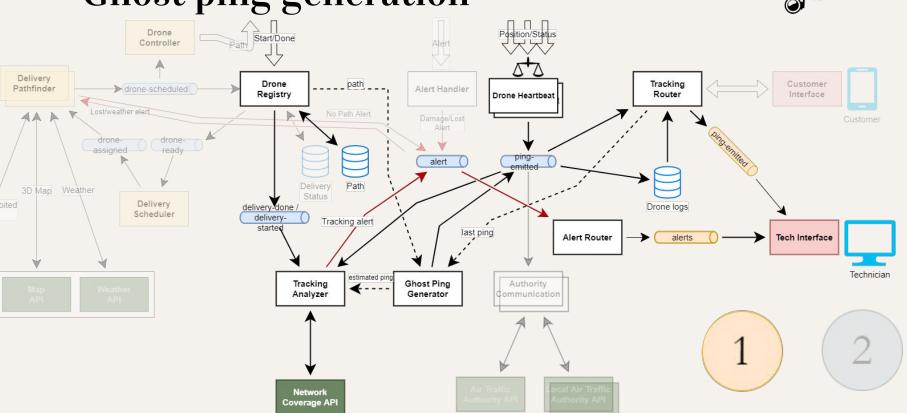
Introduced features





Ghost ping generation

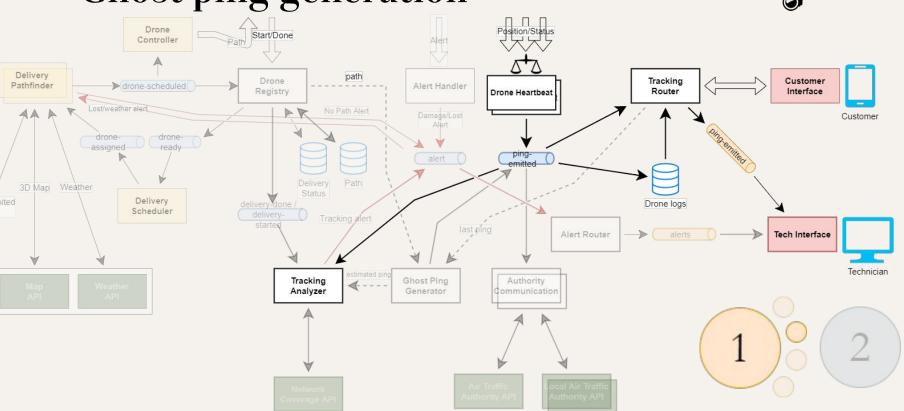




Ghost ping generation Start/Done Drone Controller Delivery Drone path Customer Pathfinder ➤ drone-scheduled Alert Handler Registry Router Interface Drone Heartbeat Lost/weather alert 3D Map Weather Status Delivery delivery-done / Scheduler delivery-started Tracking alert Alert Router Tech Interface Tracking Ghost Ping Authority Analyzer Generator Communication

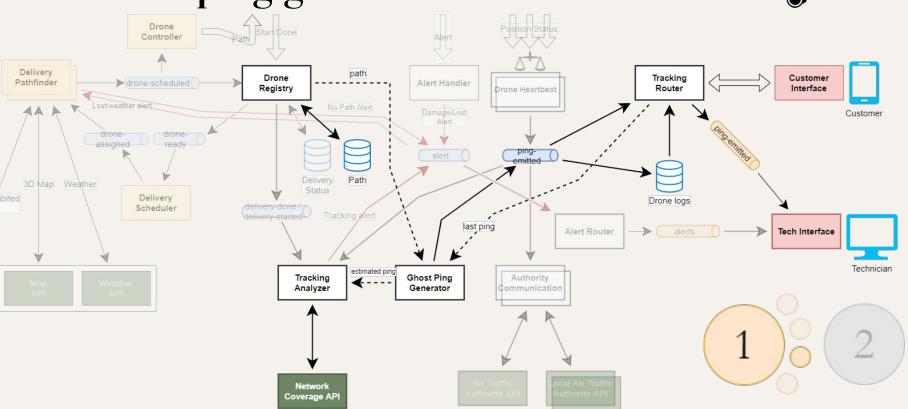
Ghost ping generation





Ghost ping generation





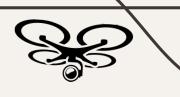
Ghost ping generation Start/Done Drone Controller Delivery Drone Customer Pathfinder ➤ drone-scheduled Alert Handler Registry Router Interface Drone Heartbeat Lost/weather alert alert 3D Map Weather Delivery Scheduler Tracking alert Alert Router alerts Tech Interface Technician Tracking Ghost Ping Authority Analyzer Generator

External authority services Drone Controller Delivery Drone Customer Pathfinder ➤ drone-scheduled Alert Handler Registry Router Interface **Drone Heartbeat** Lost/weather alert 3D Map Weather Delivery Scheduler Alert Router Tech Interface Tracking Ghost Ping Authority Analyzer Generator Communication Air Traffic Local Air Traffic **Authority API Authority API**



Demonstration

Team organization



Friday:

- Next week goals
- Task distribution

Tuesday:

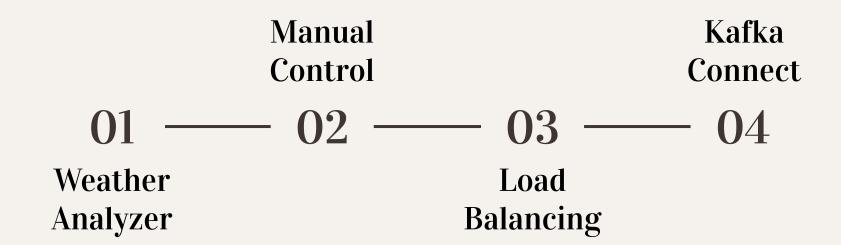
- Review architecture
- Weekly status

All week long:

- Sprint development
- Frequent meetings

Future developments







Thanks

Do you have questions?

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