



Serverless GPS

Kid's alerting and tracking system

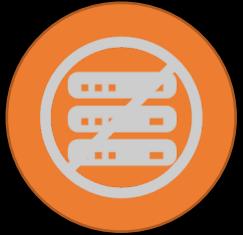
By: Daniel M. Bernao
(dbernao@)

What do I want to achieve:

- Create a non-expensive system that helps **track** my kids in public spaces like public parks, shopping centres.
- The system must **alert** me if the distance between me and them is bigger than X (configurable) meters.
- The system must be used for other applications: tracking health patients, schools , pets, fleets, etc..



Design Requirements for the solution:



Serverless (No GPS server to maintain).



Multi-device (ingest GPS signal from mobile, IoT or GPS-GPRS devices and formats (NMEA,etc..))



Use **Open Data** for maps browsing.

How it Works, the guts:

1

Ingest data from my mobile GPS and my kid's GPS device. (Or IoT device)

2

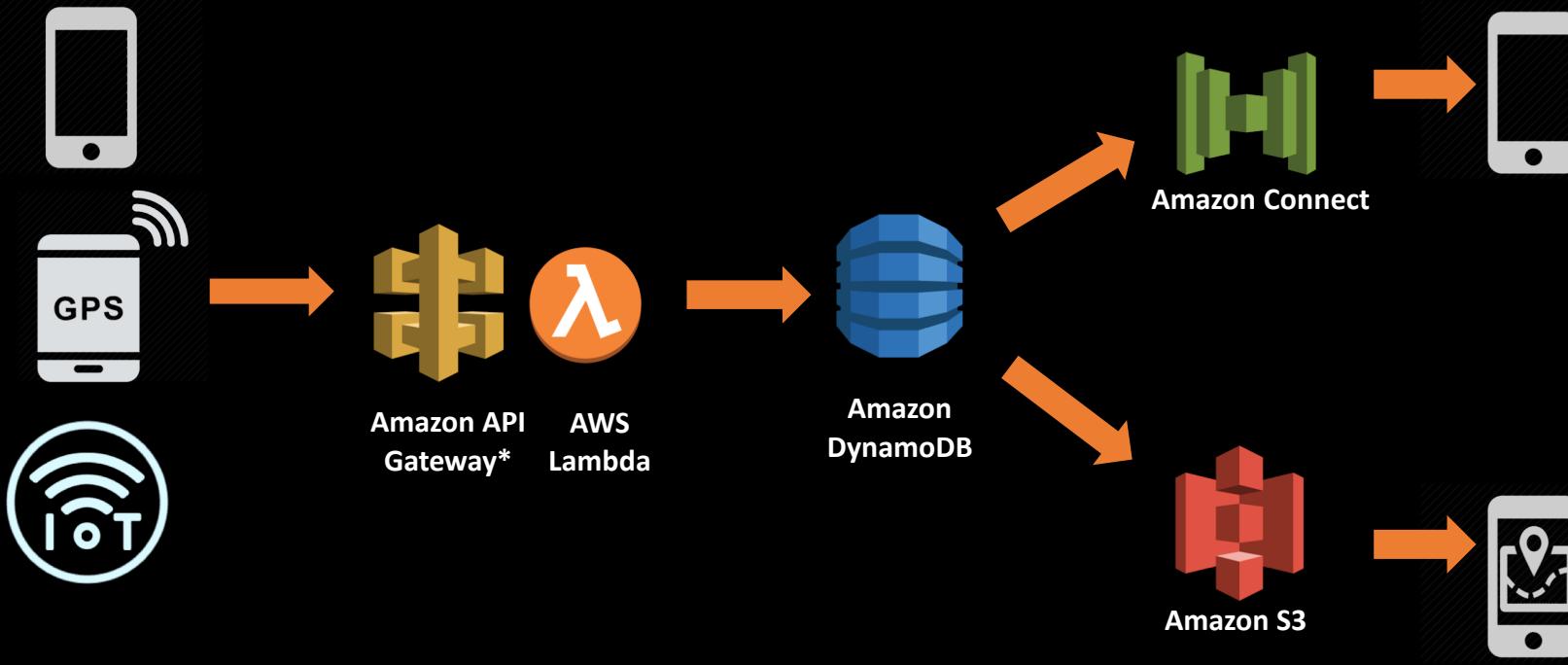
Location Data Stored In DynamoDB through API Gateway. No GPS Server

4

If distance between me and my kids > 20 meters (configurable) I receive a call

3

Real time map browsing of position and distance between me and the kids (static web page in S3)



A few other use cases:

- Mental disorders: (e.g.: Alzheimer patients), care takers alerted if patients go too far from their home or other point of reference.
- Special needs kids Tracking: Kids travelling outdoors with school, teachers can track they don't get too far from the group during the activity.
- Seniors tracking: Senior people living alone. Tracking their walks and detecting possible issues.
- Of course, affordable fleet tracking or pet tracking (no GPS, scalable) for commercial applications.

