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Blue-Force Tracking using Commodity Smart Phone Technology

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Business Need:

- Simulate Blue Force Tracking systems, which are unavailable for use in Defence Science and Technology Group trials.
- Enhance situational awareness and permit near real-time analysis of trial events as they unfold.

Solution:

- Conducted an in-depth technology scan and feasibility analysis of existing free and open-source software.
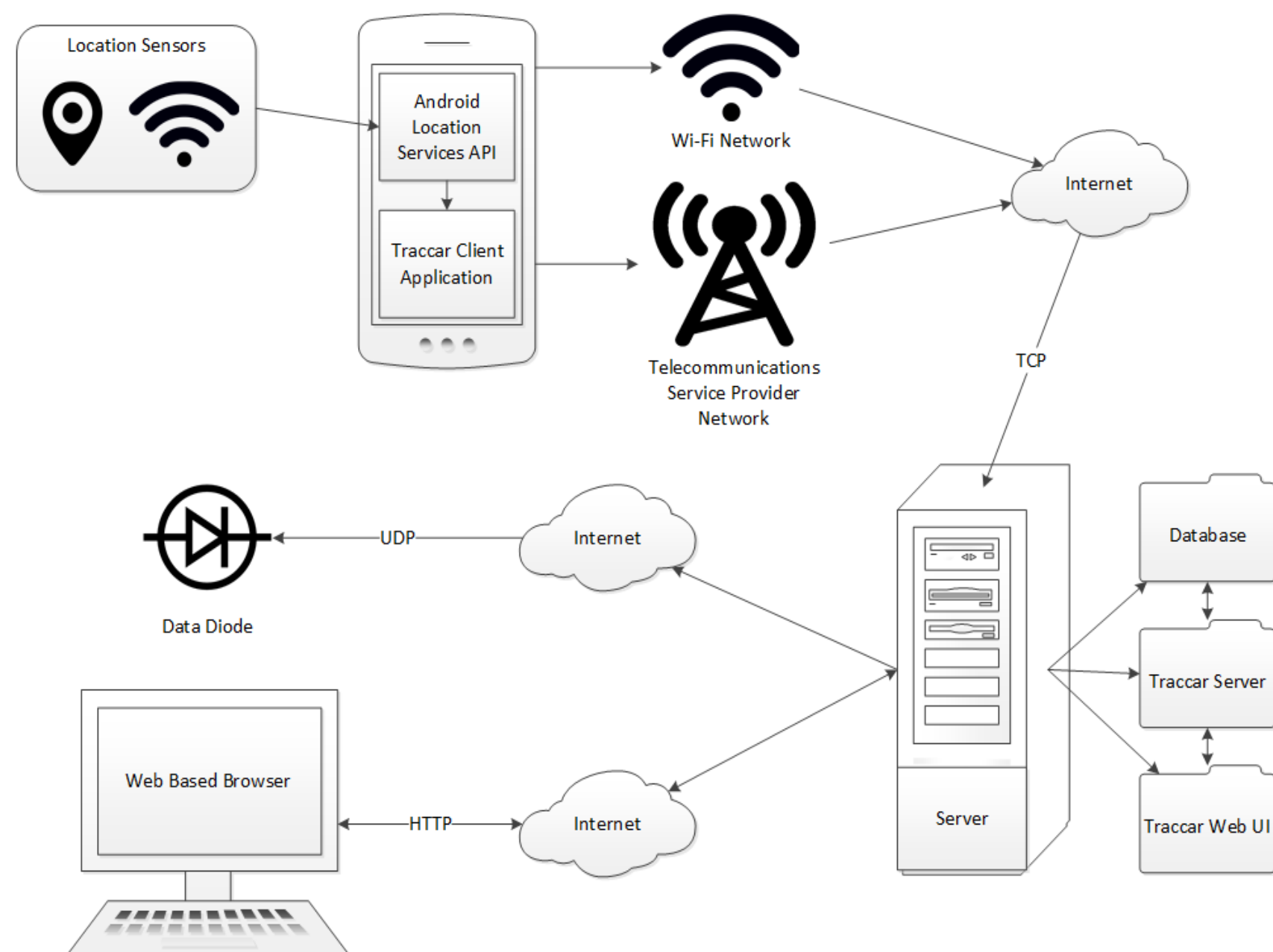- Developed upon Traccar Client, Traccar Server and Traccar Web UI applications.
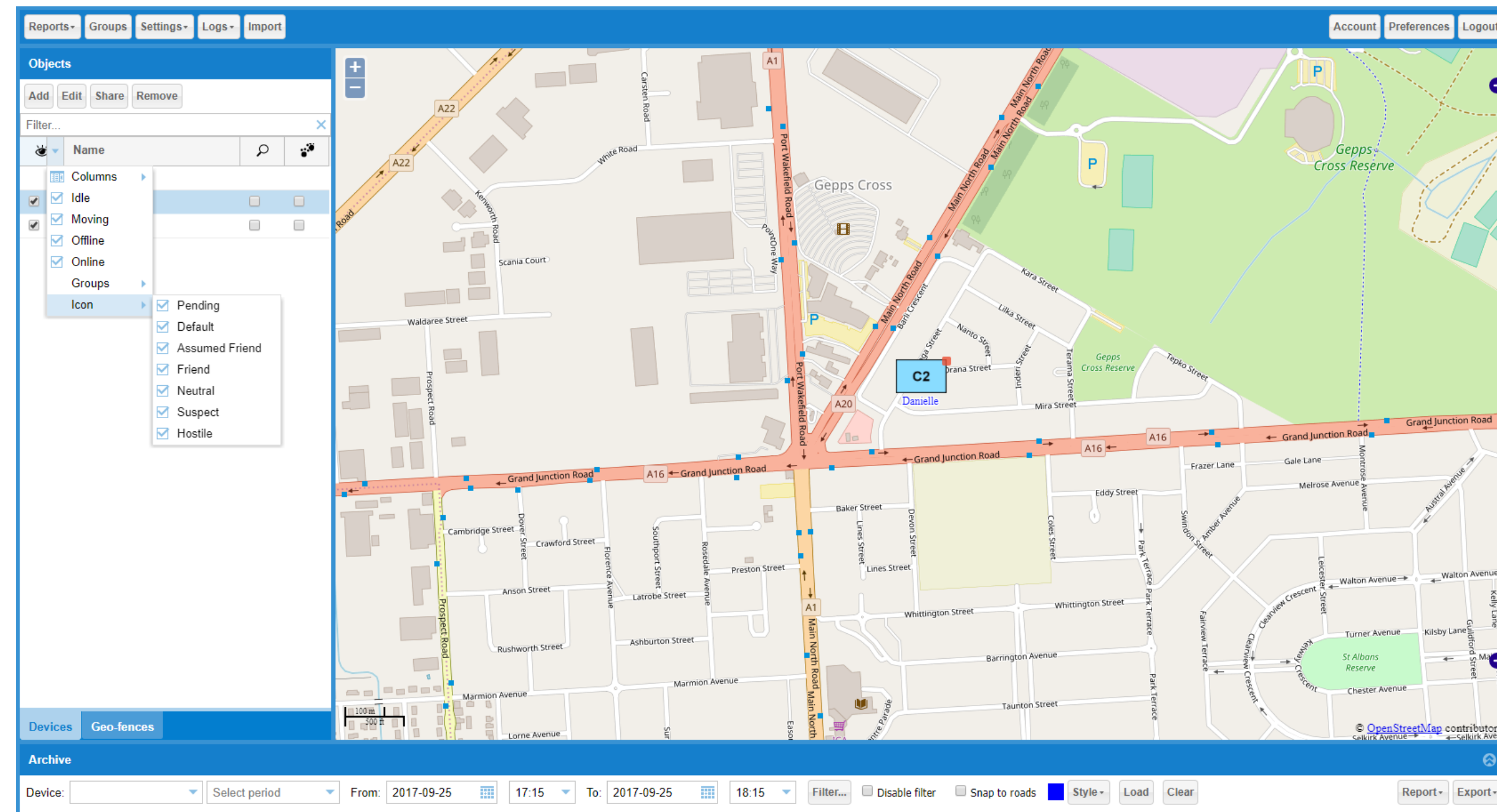

Figure 2: High Level System Architecture

Figure 1: Modified Traccar Web UI

Requirements:

- Simple user experience.
- Extant open standards for serving and visualising information.
- Military symbology.
- A REST service to allow for the request of locations for a given period of time.
- Web-based situational awareness display.
- Location data sent to the server must be collaborated and output as a UDP stream.

Issues:

- Setting up the development environment.
- Fatal error with Nectar Cloud instance.
- GWT no longer compiling required modules.
- Configuring a MySQL database.
- Lack of documentation.

Further Information:

- https://github.com/Danielle-Heinrich/ICT-Project/wiki