Office of Innovation and Industrial Relations (OIIR)

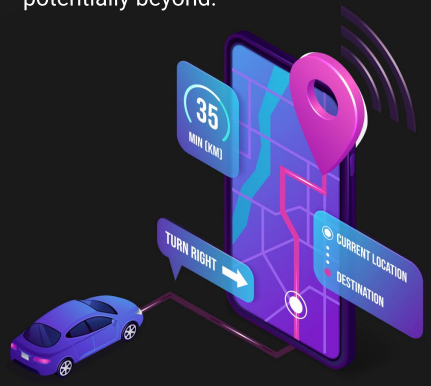
LICENSING & PARTNERING OPPORTUNITY

جامعة حمد بن خليفة
HAMAD BIN KHALIFA UNIVERSITY
عضو في مؤسسة قطر
Member of Qatar Foundation

QARTA: An Affordable, Highly Accurate Traffic-Aware Map Engine

ADDRESSING PROPRIETARY MAPPING TECHNOLOGY

From taxi companies and ride-sharing enterprises to package delivery companies and individual drivers, most all corners of local societies and economies are impacted by real-time traffic mapping capabilities. Currently, the vast majority of this market (more than 90%) is controlled by proprietary software from Google (for its enterprise license for third-party use). Lower cost options would help to increase competition in the local Qatar market and potentially beyond.



AN OPEN-SOURCE SOLUTION

HBKU has developed QARTA – a high-precision map engine based on the open source Google alternative OpenStreetMap (OSM). QARTA enables robust in-traffic operations by exposing a set of API endpoints (similar to Google Maps and similar applications), allowing multiple types of interactions between the map engine and the end user. Tasks from basic traffic monitoring and routing to complex route operations and estimated time of arrival (ETA) predictions are supported. Built on Docker technology and OSRM, this backend service is capable of serving millions of routing requests in real time and performs on par with Google Maps in ETA accuracy at potentially a fraction of th cost.

APPLICATIONS

QARTA can be used by businesses, government organizations, and individuals with needs for in-traffic operations, including:

- Routing/re-routing
- Estimated time of arrival prediction
- Complex route planning
- Address searches
- Origin-Destination matrices
- Traffic monitoring

VALUE PROPOSITIONS

QARTA offers end users a highly accurate and affordable OSM-based street mapping and traffic data solution with several potential benefits:

Accurate: Predicts ETAs with a high degree of precision on par with Google Maps and other similar leading mapping applications

Flexible: Can accommodate other map formats and countries easily thanks to a flexible system architecture

Robust: Includes Qatar Computer Research Institute's proprietary technology to inject traffic data into maps to account for special or unique situations

Scalable: Capable of serving millions of routing requests in real time

Economical: Delivers comparable functionality to leading traffic-aware mapping applications at a potential market price of 1/5 competitors' rates

PATENT STATUS

A copyright exists for this technology.

LICENSING OPPORTUNITIES

Hamad Bin Khalifa University is offering this technology for license.

For more information, please contact: innovation@hbku.edu.qa