Hazard Information

Real time local hazard events

VIANOVA

Overview

Vianova Hazard Information is a data product designed to enhance traffic operations by delivering real-time updates on various hazard events. Leveraging data collected from millions of active connected vehicles, our product provides crucial insights into hazards such as broken down vehicles, slippery roads, heavy rain, fog, and more. With an emphasis on accuracy, timeliness, and reliability, Vianova Hazard Information empowers transportation agencies, fleet operators, and other stakeholders to optimize their operations, ensure road safety, and improve overall efficiency

Key Features

- **Real-time Hazard Detection:** Vianova Hazard Information continuously monitors data streams from connected vehicles to detect and identify various hazard events as they occur in real-time.

- **High Accuracy and Reliability:** Through advanced data processing algorithms and machine learning techniques, Vianova Hazard Information ensures high accuracy in hazard detection, minimizing false positives and providing reliable information for informed decision-making.

- **Customizable Alerts and Notifications:** Users can configure personalized alert settings to receive notifications about specific types of hazards or prioritize critical events based on their operational priorities.

Key Attributes

Dimension	Type (format)	Example	Notes
event_id	string		Unique ID of the event generated as a random function
timestamp	datetime		Date and time at which the event occurred
latitude	float	42.516693	Latitude of the event location
longitude	float	-74.230331	Longitude of the event location
heading	Integer (degrees)	45	The heading of the vehicle travel in degrees
event	string	Refer to Appendix	Type of Hazard event

Coverage

Austria Belgium France Germany Italy Netherlands Spain United Kingdom Sweden Denmark

United States

Data Sources

Europe - <u>30 Million connected vehicles</u> (cars, trucks, vans, buses)
United States - <u>40 Million connected vehicles</u> (cars, trucks, vans)

Characteristics

Latency - 5 min,1 day, 1 month, 3 months
Frequency of Data Collection - 1 min

Delivery

- Vianova Intelligence Platform
- REST API

Use Cases

- **Traffic Management:** Transportation agencies can leverage Vianova Hazard Information to proactively manage traffic flow and mitigate congestion by promptly responding to emerging hazard events.

- **Fleet Operations:** Fleet operators can utilize real-time hazard data to ensure the safety of their drivers and vehicles, optimize delivery schedules, and minimize disruptions caused by adverse road conditions.

- **Public Safety:** By integrating hazard information into public safety applications, emergency responders can gain valuable insights to enhance incident response times and improve overall emergency management effectiveness.

- **Infrastructure Maintenance:** Maintenance crews and road authorities can utilize hazard data to prioritize maintenance activities, allocate resources efficiently, and enhance the overall reliability and safety of road infrastructure.

- **Urban Planning:** Urban planners and policymakers can utilize historical hazard data provided by Vianova Hazard Information to identify recurring hotspots and inform strategic decision-making for infrastructure improvements and urban development projects.

APPENDIX

List of event types available:
- Major Accident
- Minor Accident
- Emergency Break
- Object On Road
- Car Stopped on Road
- Slippery Road
- Fog
- Hail
- Heavy Rain
- Heavy Snow
- Pothole
- Bump