

# SMART SEWAGE TRUCK MONITORING



The smarter way...

...to manage your sewage collection, transport  
and disposal for a safer environment





## SEWAGE TRUCK MONITORING AND TRACKING

Sewage management is playing a key role in ensuring Environmental protection. It's important to make sure that the sewage is properly collected, transported and processed at the Sewage treatment plants. The main challenge in achieving this is the uncontrolled area between the collection and disposal point.

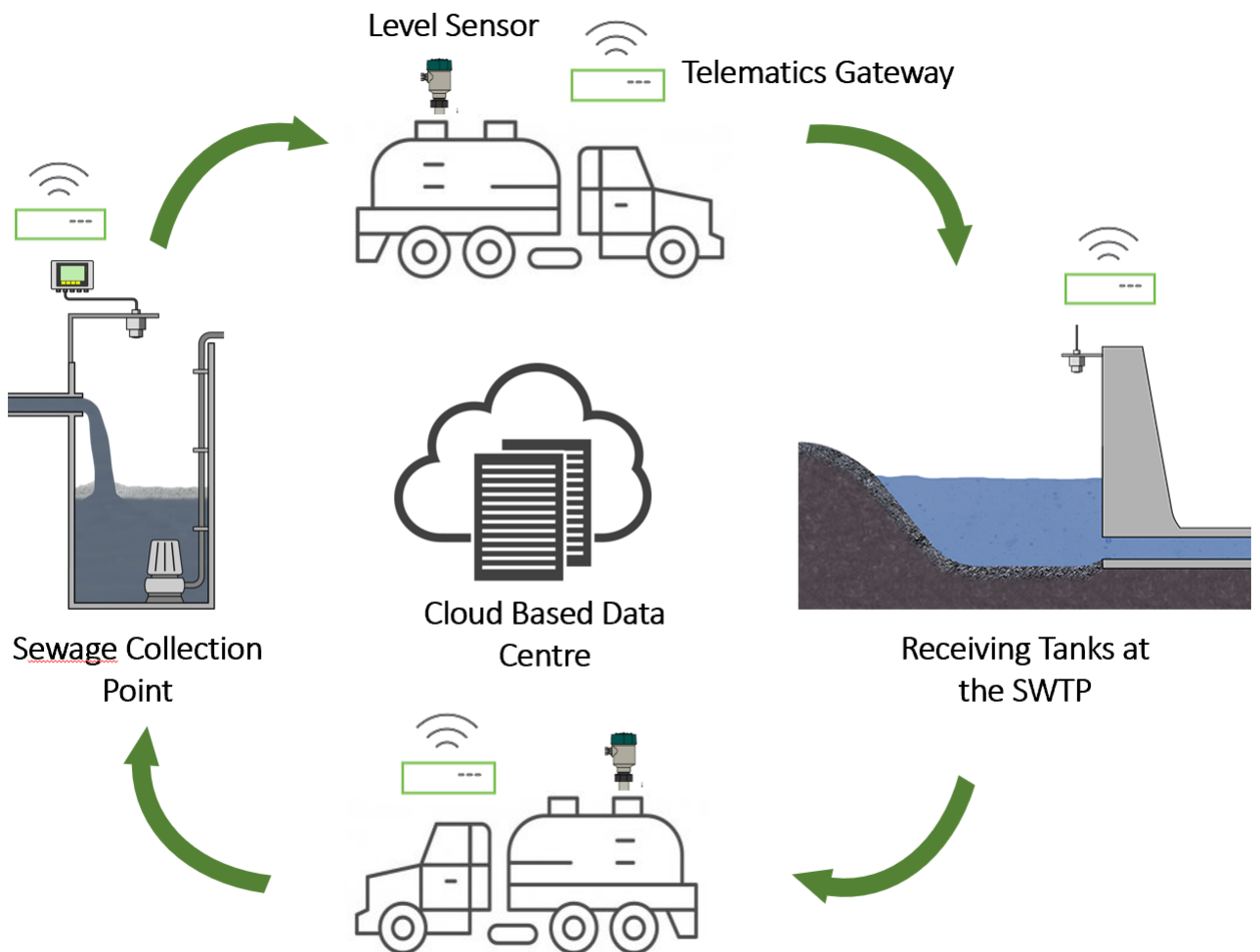
### Key challenges:

- No real time level monitoring at most of the sewage collection tanks causing spillage.
- No real time coordination between the collection unit and the transportation unit.
- No proper level tracking in the tanker trucks causing illegal dumping of the sewage in undesignated areas creating environmental pollution and endangering ground water.

## SOLUTION

The sewage truck monitoring solution is an end to end system which enables real-time monitoring and notification of important information such as truck's route, sewage fill level, illegal dumping, truck axle load, fuel level etc.

## SYSTEM OVERVIEW



## Sewage Truck Monitoring System

## SYSTEM COMPONENTS

### At the collection point

- 1. Non Contact Level Sensor in the collection tanks
- 2. 4G/GPS gateway
- 3. Cloud based data centre.

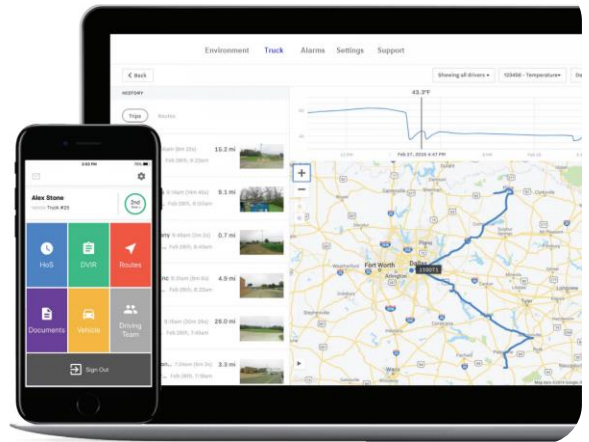
### Sewage Truck

- 4. Non contact level sensor on the truck
- 5. Truck axle load sensor
- 6. 4G/GPS Gateway on the truck
- 7. Cloud based data centre

### Receiving Tanks at the SWTP

- 8. Non-contact level sensor on the tank
- 9. Monitoring & control station.

### Central Cloud Based Data Server



## SYSTEM BENEFITS

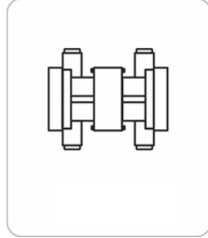
- Truck's GPS position, route, mileage, speed monitoring
- Real time data of filling-level of sewage truck's tank
- Truck axle load alarms on exceeding load per axle
- Monitors places and time of sewage loading and unloading
- Detection and alarming on unloading away from geozone
- Instant and total fuel consumption in "Idling", "Optimal", "Overload" mode of an engine operation
- Monitors Fuel volume in tank, detection of fuel tank fill-up and fuel theft from tank
- Total operating time and split by "Idling", "Optimal", "Overload" modes of an engine operation
- Engine health, DTC, malfunctions in truck's ECUs and components
- Ensured integration to SAP, ORACLE, Dynamics etc through REST API.



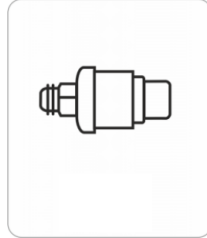
# HARDWARE USED



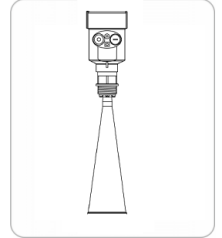
**Fuel Level Sensor**



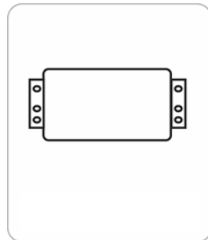
**Flowmeter**



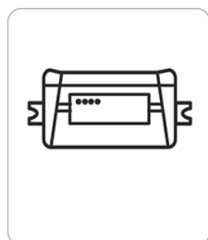
**Axle Load Sensor**



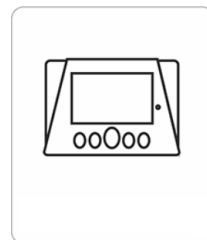
**Radar Level Sensor**



**Digital to Analog Converter**



**Telematics Gateway**



**Display**



**Cloud Server**



Sewage truck monitoring solution by Arrowfinch Technologies allows to unite all the standard vehicle sensors and additional telematics equipment into a single monitoring system. We offer a total consultancy on an optimized solution for the customer and the subsequent implementation with 100% customer satisfaction. We do undertake AMC for the system.

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