

WIRELESS TANKER TRUCK MONITORING SYSTEM (TTMS)

Hi-G-Tek
Rockville, Maryland

Hi-G-Tek Electronic Tanker Truck Monitoring Solutions

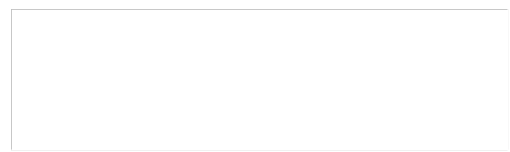
- *Expertise in wireless systems to ensure asset integrity*
- *Patented cargo tracking, sensing, and security technologies*
- *Broad portfolio of seals and wireless security devices*
- *Over a decade of technical and field experience*

- *Hi-G-Tek delivers all hardware, software and services needed to complete system solution*
- *Ongoing System Support*



- *Industry Leading Wireless Tanker Truck Monitoring Solution (TTMS)*
- *TTMS solution is currently used by tanker truck fleets worldwide*

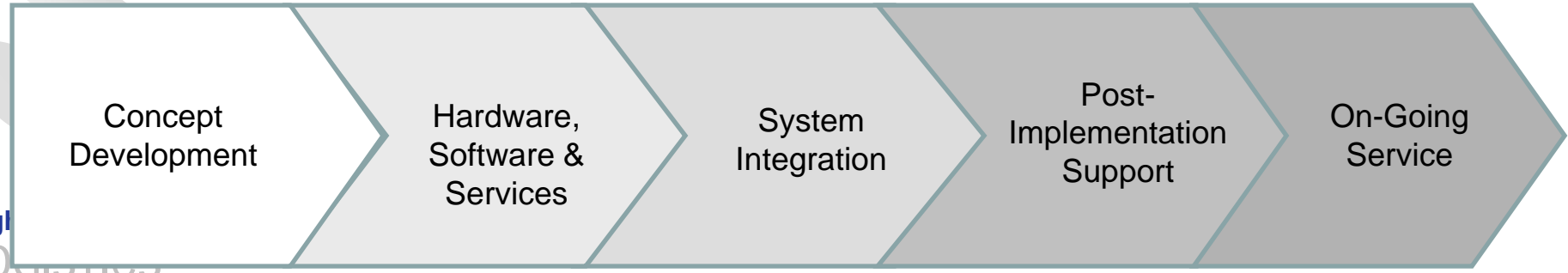
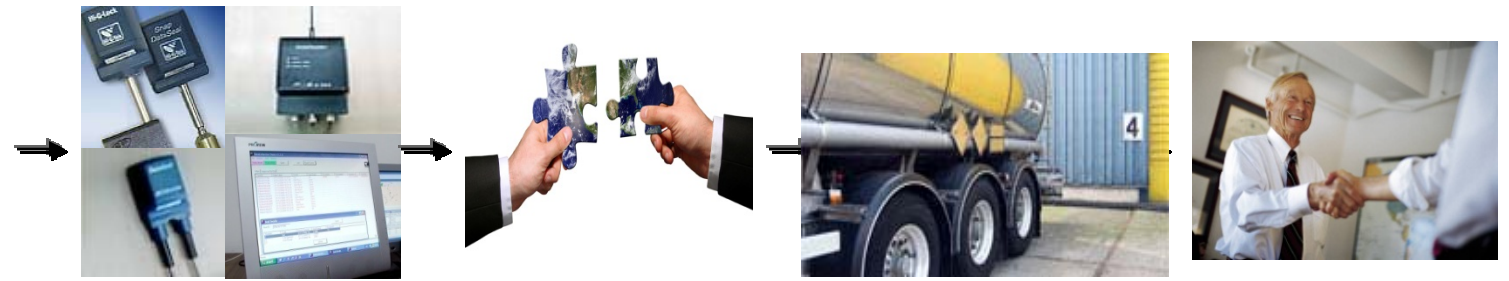
Highly Intelligent
LOGISTICS
Solutions



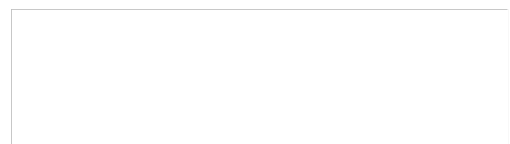
Turn-Key Solutions Provider

Hi-G-Tek Tanker Truck Monitoring System (TTMS) to Secure Tanker Trucks

Ensuring the Integrity of your Tanker Truck and the Assets it is Transporting



High
Logistics
Solutions





Tanker Truck Monitoring System

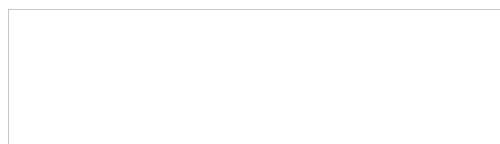
The Hi-G-Tek Tanker Truck Monitoring System (TTMS) is an industry-leading intelligent wireless monitoring system designed to ensure the integrity of fuel tanker trucks and prevent pilferage, tampering and contamination of the fuel being transported.

The TTMS system operates seamlessly and does not require any user intervention from the driver or tanker truck operators.

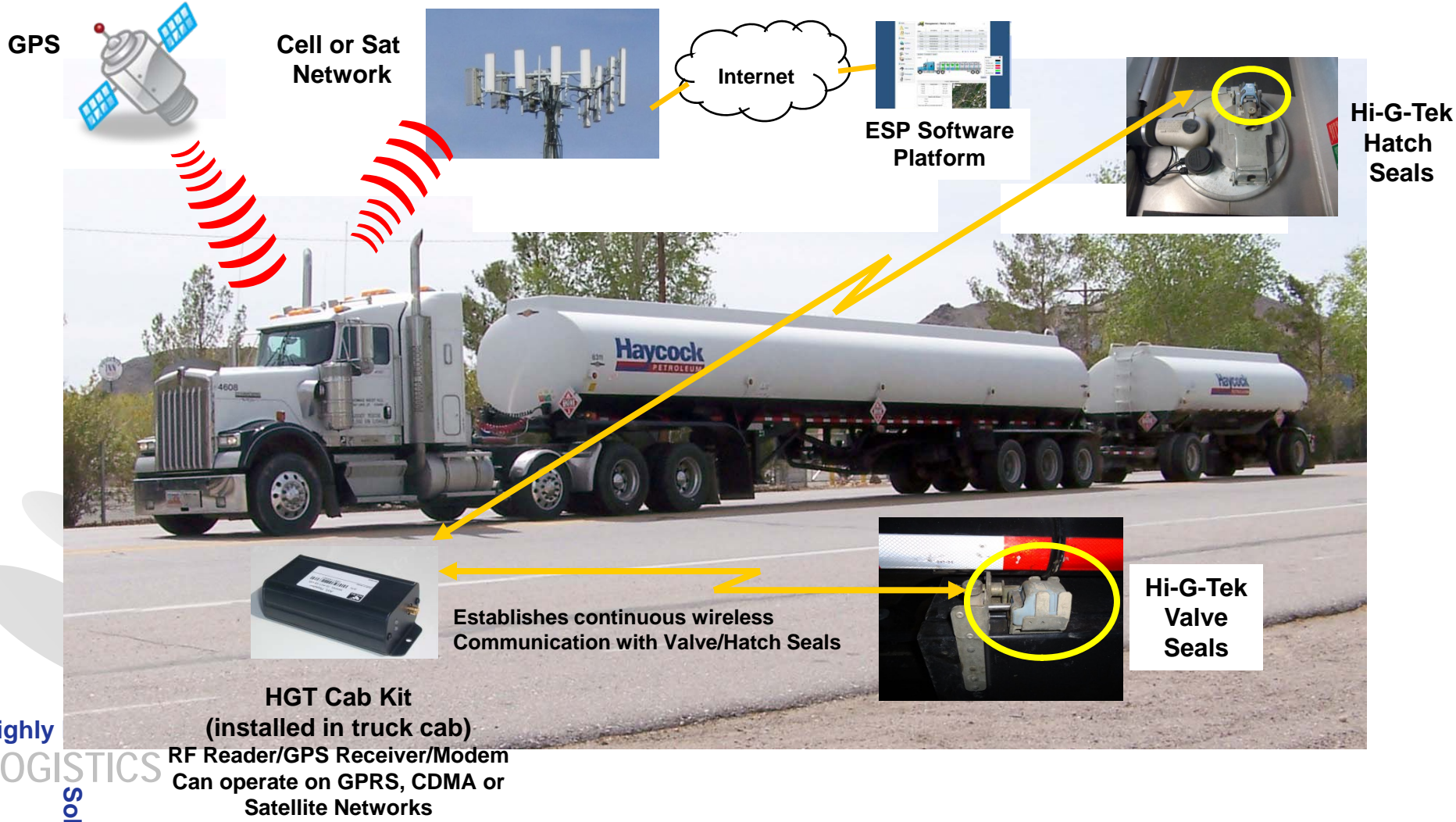
The TTMS solution is based around a family of intelligent wireless seals and a proven enterprise grade software platform that helps fuel tanker truck owners:

- Monitor and report any unauthorized opening of valves or hatches
- Ensure fuel trucks comply with company workflow and operational guidelines
- Ensure tankers stay within approved routes and user defined geo-fences
- Provide full electronic chain of custody and electronic audit trail for each trip
- Real-time reporting of all violations to control center and approved personnel

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Tanker Truck Monitoring System





Tanker Truck Monitoring System Components



Hi-G-Tek Intelligent Wireless Seals are rugged wireless devices with sealed internal batteries which allow for maintenance-free operation with no recharging for 3-5 years. These seals seamlessly record all the open/close/tamper events, store these events internally and send these events in real-time to the Hi-G-Tek ESP software platform via the Hi-G-Tek Cab Kit.



The Hi-G-Tek Cab Kit includes a wireless reader which communicates with and controls the seals. The reader captures open/close/tamper events, writes to the seals and continuously monitors their state of health. The reader is integrated to a mobile or satellite modem for long-range communication to the ESP Software Platform.

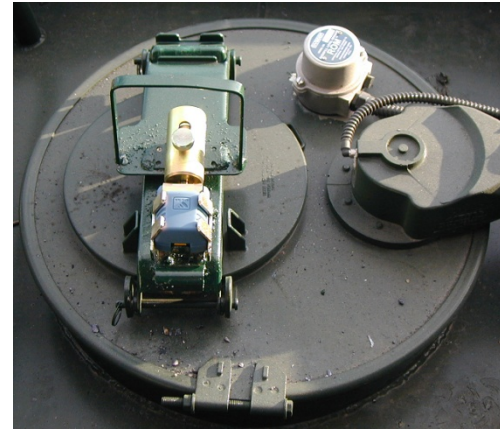


The Hi-G-Tek Enterprise Software Platform (ESP) is a hosted enterprise-grade software service (SaaS) which allows users to monitor all aspects of their workflow. Users can easily create geo-fences, approved routes and different levels of real-time alarms including text message and email notification. All trip records are stored, archived and made available for analysis and playback. The ESP system uses multiple levels of security and can support different user levels and privileges

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TTMS - Electronic Seals Secure Tanker Truck Hatches and Valves

- Hi-G-Tek electronic seals directly secure all valves and hatches ensuring the integrity of the tanker truck
- Enables continuous real-time monitoring of vehicle and fuel at all points along the route
- Seals record open/close/tampering events and issues alerts to Hi-G-Tek software platform via the Hi-G-Tek cab kit
- International certifications to operate in fuel and industrial truck environment
- ***Hi-G-Tek electronic seals can secure any valve or hatch regardless of make / model / design***



Hi-G-Tek Seals Global Certifications



The only wireless seals approved for use on fuel truck valves and hatches

Hi-G-Tek Global Approvals / Certifications		
Certification	Agency	Region
EMC, EMI, RF	FCC Part 15 CE/EN 300, 301	US and Canada EU
Safety	CE/EN 60950, CAN/CSA UL 61010 (TUV) ATEX Grp 2, Cat 1, Zone 0 UL IS, Div 1, Class 1	EU US and Canada EU US and Canada
Environmental	Temperature: SAE J1455 and Mil Std 810 Shock: Mil Std 810 Vibration: SAE J1455 Salt/Fog: Mil Std 810 Pressure Cleaning: SAE J1455	EU, US and Canada

Hi-G-Tek TTMS Installations



Hatch Installation

Hi-G-Tek Electronic Seals Monitor Each Individual Hatch

Hi-G-Tek TTMS Installations



In addition to securing valves Hi-G-Tek seals can detect and report door *open* and *close* and ensure proper operation of pneumatic and other controls.

Valve Installation

Hi-G-Tek Electronic Seals Monitor Access to Hydraulic Controls

Fully Configurable Alarms / Configuration

Details

Additional info	Trip	Trip log	Maintenance events	Alerts
Description :	5379			
Serial number:	5379			
Type:	Rigid & Draw-Bar Trailer			
Company:	Thomas Petroleum			
Amount of alerts:	133			
Last communication time:	2012/11/28 15:39:03			
Last event time:	2012/11/28 15:31:08			
Location:				
Latitude:	40.5008697509766			
Longitude:	-117.105323791504			
Speed (mph):	59.7			
Destination:	Crusher Fuel Bay;			

Amount of tanks:	2
Number of stations in the DN:	1
Delivery note:	0592651
Communication status:	Less than 10 mins ago

1381

V 1

[Legend ...](#)

1521

V 1

[Legend ...](#)

Set
 Interrogation
 Close Trip
 Show On Map

Updated Geo-Mapping

Full Trip Log / Audit Trail

Enterprise Grade SaaS Platform

- Enterprise grade .NET platform
 - Web-based thin client
 - Microsoft SQL Database
 - ERP / 3rd Party System Interfaces
 - Comprehensive reporting / monitoring suite
 - Will adapt to customer workflow and reporting
-
- **Real-Time Alarms and Monitoring**
 - **Real-Time Work Flow Compliance**
 - **Full Trip Logs / Electronic Audit Trails**

Mobile Refueling Applications

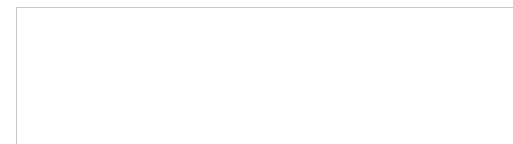
- Experience with Mobile Refueling Trucks
- Real-time Valve / Hatch / PTO Monitoring and Visibility
- Ensures compliance with operational guidelines and work rules
- Logs every trip with full recording of route and events
- Email and SMS alerts to authorized users for any violations



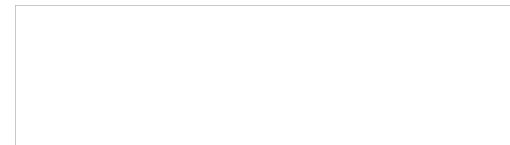
TTMS System Benefits

The Hi-G-Tek Tanker Truck Monitoring System will allow fleet owners to:

- Ensure the integrity of their tanker truck fleets
- Detect and respond to pilferage and tampering of fuel
- Improve driver and user safety by detecting unauthorized tanker truck operation
- Ensure compliance with company work rules and operational guidelines
- Generate real-time alarms and alert authorized personnel to respond
- Maintain full electronic records on all tanker truck trips



Validating Asset Integrity



Thank You

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