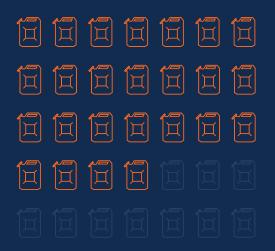# KEEP PROFITS FLOWING:

OPTIMIZING OIL AND GAS MANAGEMENT WITH FUEL AND FLEET MONITORING SOLUTIONS

The oil and gas industry is highly competitive, and subject to strict regulations, volatile financial pressures and considerable safety risks. Oil and gas operators involved in all stages of production, from oilfield construction to transportation to fuel dispensing, are increasingly investing in fuel and fleet monitoring solutions to improve health and occupational safety, meet environmental responsibilities, detect fuel fraud and optimize efficiency.

MITIGATING RISKS TO FUEL GROWTH

// The oil and gas industry is beginning to spring back after several years of unpredictability, oversupply and weak prices. However, with an uncertain outlook, companies are being advised to keep a tight reign on capital expenditure, focus on productivity improvements and invest in technology that can improve competitiveness and future-proof businesses in the eventual transition to a low-carbon world.

Fuel theft
$133 billion

One of the biggest threats to profitability is the issue of stolen, adulterated and fraudulently obtained fuel. **Fuel theft** is responsible for the loss of a staggering **$133 billion a year** in revenues. This problem dents the profits of oil and gas operators, impacts the environment and public health, and supports criminal enterprises.

Accounting for fuel at every stage is critical to tackle fuel fraud and theft, and companies are **seeking more accurate ways to measure and monitor fuel throughout the entire fuel** supply chain. Since refineries sell in kilos and fuel stations sell in liters, technology that is capable of precise measurements and conversions is required to detect wastage and theft. **Automated systems that integrate fuel-related data** with ERP and accounting software are preferable, eliminating the possibility of human error or intentionally false data entry.

4,000
fatal trucks crashes in 2016

$3 mln
average incident cost

Safety risks and environmental obligations will always be a serious concern for oil and gas companies, who deal with dangerous substances every day. In the US alone, there were over 4,000 fatal crashes involving trucks carrying hazardous goods in 2016, with an average incident cost of $3 million. Companies need to ensure that drivers who deliver hazardous cargoes drive safely.

Disasters have also occurred in developing countries when people have tried to collect spilled fuel after fuel tanker crashes, risking accidental ignition and tragic casualties. Being involved in such an incident causes **reputational and financial devastation** for companies. Fuel spills and leaks due to accidents also cause significant **environmental damage** and can incur massive **cleanup costs.**

// To mitigate these risks, oil and gas companies involved in the upstream, midstream and downstream parts of the industry are increasingly interested in sophisticated fuel and fleet management solutions that enable operators to remotely monitor critical indicators such as fuel tank levels, amounts of fuel delivered, GPS locations, idling time, fuel card usage and driver behavior.

1. Biscardini, Giorgio, et al. Oil and Gas Trends 2018-19. Strategy&, PWC, 2018.
2. Yousuf Malik. Oil and fuel theft: the $133 billion a year scandal. Oil & Gas IQ, 6 Nov 2018.
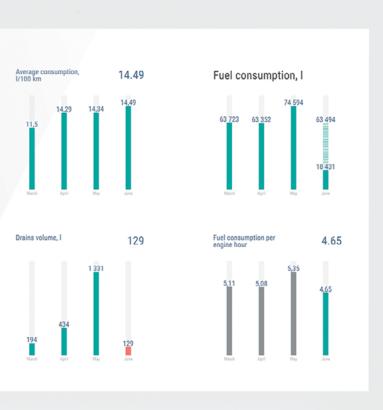3. Number of fatal large truck crashes in the United States from 2001 to 2016. Statista, 2016.
4. Masood, Salman. In Pakistan, a Fuel Tanker Fire Leaves at Least 150 Dead. New York Times, 25 June 2017.

OMNICOMM: SMART OIL & GAS MONITORING SOLUTIONS

OMNICOMM is a leading global provider of complete fuel and fleet management solutions, and developed the digital protocol that is the de facto industry standard in fuel level measurement. Offering **turnkey, best-in-class solutions for oil and gas monitoring and management**, OMNICOMM distributes products to 108 countries on five continents, working with over 3,000 trusted partners to deliver first-class service.

OMNICOMM's complete fuel and fleet monitoring solution for oil and gas companies consists of the SaaS platform OMNICOMM Online, OMNICOMM Profi or OMNICOMM OKO on-board terminal, and the explosion-proof OMNICOMM LLS fuel-level sensor .

OMNICOMM Online

A cloud-based SaaS fuel and fleet management solution that includes instant alerts for specified driver behaviors and vehicle safety issues, dedicated reports for fuel service vehicle monitoring and access to historical and real-time information any time operators are online – including on mobile.

OMNICOMM Profi
on-board terminal

On-board terminals collect data from various sensors and the vehicle's on-board computer and send it to the fleet management system for processing. Constructed for use in medium to heavy vehicles in the most extreme situations, this terminal can also be used in fuel-servicing trucks, reading data from the tank of the vehicle itself and the tank-cistern to monitor fueling of other vehicles.

OMNICOMM OKO
on-board terminal

This terminal adds video surveillance capabilities with panoramic views using up to 4 cameras to the standard OMNICOMM Profi terminal features. The OMNICOMM OKO improves security and incident investigation and encourages better driver behavior. It can also be used to monitor remote sites and locations, such as parts of oil pipelines and storage reservoirs.

OMNICOMM LLS
fuel-level sensors

The industry's most reliable high-precision capacitive fuel-level sensors, including heavy-duty and explosion-proof options. OMNICOMM sensors have the highest possible ingress protection rating, enabling operation in the most extreme conditions. Sensors can be installed in fuel tanks of many different types, from truck engines to small and mid-size static storage tanks (maximum 6 meters height).
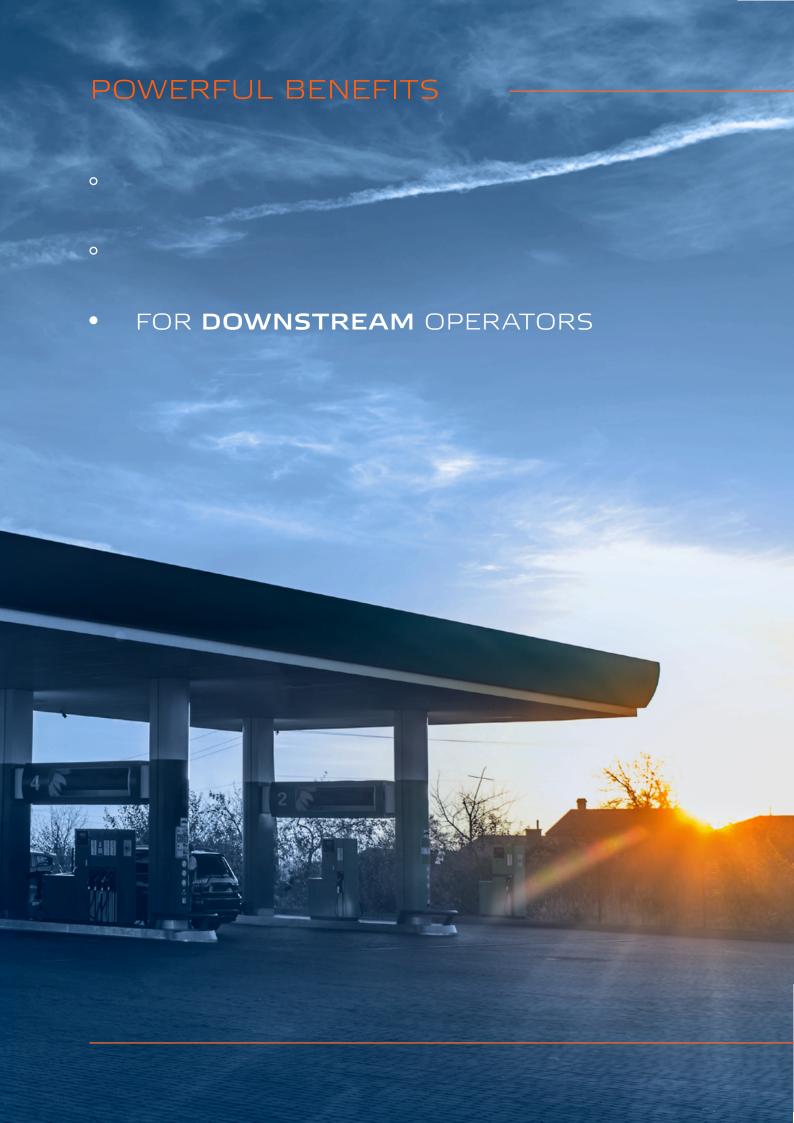
- FOR **UPSTREAM** OPERATORS

  - ○

  - ○

- Monitor vehicles and construction equipment at all stages of oilfield construction, including in extreme conditions and temperatures as low as -60º C.

- Use fleet management software and fuel monitoring to reduce corporate fleet costs and improve efficiency.

- Consolidate data from a wide range of vehicle and tank types, from construction machinery to on-site transportation to static fuel tanks.

- Data can be consolidated and transferred from territories without GSM coverage.

POWERFUL BENEFITS

FOR **MIDSTREAM** OPERATORS

- Monitor fuel levels in a wide range of vehicles, including gasoline trucks, fuel-servicing trucks, and vehicles servicing the premises of oil and gas companies, as well as stationary fuel storage tanks.

- Use the OMNICOMM terminal for two-way communication between driver and dispatcher with a connected voice communication unit and use RFID to identify drivers or fueling stations where this specific vehicle can upload fuel. Block fueling pumps in fuel servicing trucks outside defined geo-fences if required.

- Remotely track driver behavior and vehicle safety parameters such as speed, hard braking and temperature to minimize risks.

- Accurately monitor the acceptance and dispatch of all oil products. Account for all stored oil products and control internal turnover.

- Use tracking and routing to optimize operations and business efficiency. Organize dynamic fuel delivery dispatch to identify potential shortages and send the closest fuel-servicing trucks to where they are needed.

- Use OMNICOMM LLS sensors to detect water accumulating at the bottom of large storage tanks, avoiding a deterioration in fuel quality and malfunctions to vehicles filled from these tanks.

POWERFUL BENEFITS

- ○
- ○

- FOR **DOWNSTREAM** OPERATORS

- Monitor fuel volumes at all times to see when refilling is necessary and detect fuel wastage or theft.

- Control fuel acceptance and leftovers in storage reservoirs at fuel stations with the ability to monitor dispensing from fuel truck to reservoir.

- Generate automatic reports on fuel amounts dispensed to individual users with OMNICOMM Online's reporting function.

- Become an OMNICOMM partner and add OMNICOMM's complete fuel and fleet management solution to fuel card products to offer a more attractive package, with advanced analytics and fuel accounting to detect fuel card misuse and fraud.

- Almost any parameters can be monitored with OMNICOMM solutions, according to the customer's specific requirements. These are just some of the parameters that have been monitored using OMNICOMM equipment in real cases:

  Fuel consumption **/** Fuel levels **/** Fuel density **/** Speed **/** Idling **/**
  Driving direction **/** Coordinates **/** Engine RPMs **/**
  Harsh braking and acceleration **/** Hard maneuvers **/**
  Peep-hole opening **/** Engine temperature **/**
  On-board voltage **/** Tire pressure **/** Seatbelt **/**
  Headlights **/** Equipment working modes **/**
  Vehicle outside geofences

THE **OMNICOMM** EDGE

// From sensors to software, every OMNICOMM component is designed to provide **detailed, actionable data** to help oil and gas operators:

- Accurately monitor fuel levels in a variety of vehicles and tank scenarios
- See exactly where vehicle assets are in real time
- Manage labor and fuel expenditure
- Detect fuel wastage and theft
- Reduce accidents and security incidents
- Plan and optimize routes
- Detect adverse driving events and behavior
- Predict maintenance and repairs
- Comply with environmental regulations
- Maximize efficiency to remain competitive

Suitable for a **wide range of vehicles and commercial assets** at all stages of oil and gas production, transportation and retail.

OMNICOMM's flexible components **integrate smoothly with third-party software and hardware**, and are available as stand-alone products or as a complete fleet management solution.

MODBUS protocol support enables connection to any existing (non-OMNI-COMM) sensors that may be installed, making it possible to collect a wide range of data such as temperature, tire pressure, weight and passenger flow.

The OMNICOMM Online fleet management platform has an **intuitive, user-friendly, customizable interface** with an open API for easy integration with ERP and accounting systems. Connected mobile apps increase service usage and popularity.

High-precision fuel-level sensors measure fuel levels and provide fuel data with extreme precision, offering over 99.2% accuracy.[1]

Premium sensor quality ensures a long product life with exceptionally rare failure incidents for uninterrupted operation. Our sensors work reliably in extreme temperatures, with no deviations caused by external conditions, and come with a five-year warranty.

Highly reliable and durable on-board terminals are unaffected by difficult conditions such as vibration, fluctuations in temperature, humidity, etc.

Developed in-house by specialized R&D telemetry experts, our best-in-class data smoothing/filtration algorithm filters out data 'noise' and delivers **meaningful data.** OMNICOMM Online provides the **most advanced fuel analytics on the market.**

The **Executive Dashboard** presents all the main parameters clearly in a single screen, including mileage, average fuel consumption per 100km and total fuel consumption. See useful stats for the previous three months, reliable forecasts and advanced reporting and analytics, with 30+ pre-loaded reports and the ability to easily create custom reports.

Fully **scalable and flexible** – add vehicles to the system as needed and continue to monitor developments in real time.

OMNICOMM offers **lifetime partner support**, high levels of customer support, and strong technical training resources.

OMNICOMM is a **market-proven expert in fuel management** that works with partners to provide complex solutions that support a wide variety of customers, enabling them to save millions of dollars annually.

---

1. *In a recent project in the Middle East, OMNICOMM engineers fine-tuned the LLS 4 sensor to provide 99.76% accuracy. This is possible in combination with the OMNICOMM Online software.*

REFERENCE CASES

⟠ TRANSNEFT

*Russian transport company & operator
of main oil pipelines in Russia*

Has the world's largest system of oil pipelines –
70,000 km & over 500 pump stations

Transports 93% of oil extracted in Russia

17,656
Units

Fitted 17,656 units in vehicle fleet
with OMNICOMM fuel level sensors
and 3,500 units with OMNICOMM
on-board terminals

Solution paid for itself after
1.5 years of operation

15%
Fuel savings

Fuel costs decreased by 15%

SMP-NEFTEGAZ

*Has produced over 4 million tons
of oil throughout its operations*

Currently engaged in building the Western
Europe – Western China main pipeline

Owns fleet of over 300 vehicles for oil production
and road construction

Replaced fuel flow sensors that used to freeze in
winter with temperature-resistant OMNICOMM
sensors and fitted OMNICOMM transport moni-
toring solutions on all machinery and vehicles

30%
Fuel savings

Fuel savings of 30%, equivalent
to savings of $31,250 per month

Took 4 months to fully pay
off the investment

OMNICOMM
FUELLING YOUR BUSINESS

Global Contacts

OMNICOMM OU

A-A Tiimanni 1, Narva 21004, Estonia, EU

+372 35 69595

Mexico & Central America: +01 800 099 0519

Brazil: +55 (11) 94265 2167

India & South East Asia: +91 888 077 0770

Russia: +7 495 989 6220

For all other countries please use our global contacts.

www.omnicomm-world.com

sales@omnicomm-world.com