



INTEGRATED SOLUTION FOR MOTOTRBO™

SmartPTT

RADIO COMMUNICATION SOLUTION
FOR OIL AND GAS INDUSTRY



Does the dispatcher quickly identify the subscriber in distress and their location?

Could the equipment downtime be minimized?

Could the wasted man-hours and fuel as well as wear and tear on vehicles be reduced?

THE SOLUTION IS INSIDE



SmartPTT for Oil and Gas Industry

Worker Safety

SmartPTT has multiple features to manage worker safety. The MOTOTRBO radio can send an emergency signal to the SmartPTT dispatcher if the worker presses the emergency button or if a man-down option board equipped radio detects no movement or a wrong angle for too long. SmartPTT's lone worker feature requires the radio to transmit and/or move (GPS tracking) within a programmable amount of time otherwise an emergency condition will be initiated. A geo-fence can also be created in SmartPTT to notify the dispatcher if a worker enters a hazardous zone.

Emergency Management

When an emergency occurs, the SmartPTT dispatcher can quickly identify the subscriber in distress and their GPS location to reduce response times. The dispatcher can control the response to the emergency, by dispatching response teams to the location of the emergency based upon location information provided by GPS. The voice recording and event log functions of SmartPTT enable managers to analyze the details of the emergency to improve future processes.



Radio System Reliability

SmartPTT system monitoring allows for remote analysis and control of the radio network. If an issue occurs, remote monitoring can identify the exact equipment experiencing problems. This helps discover the problem before it affects work processes, saving time and resources looking for the fault and even giving the chance to resolve the issue remotely without going to the site.

Minimize Equipment Downtime

Using the telemetry inputs/outputs of the Motorola MOTOTRBO radio, when an equipment failure occurs SmartPTT can receive notifications of the failure. SmartPTT can notify the dispatcher and automatically notify maintenance teams via text or voice notification that the failure has occurred. The dispatcher can also create a Job Ticket for the maintenance staff to manage the repair of the failure.



Seamless Communications

In the Oil & Gas industry, many disparate types of communications are used and a solution is needed to integrate these different communications networks, including MOTOTRBO, other two-way radio systems, telephony and cellular. SmartPTT enables interoperability between MOTOTRBO and other two-way radio systems for uninterrupted two-way communications. The telephone interconnect option enables radio subscribers and dispatchers to make and receive telephone calls. The SmartPTT mobile application option allows users outside of the radio network coverage area or off-duty without a radio to use their smartphone or tablet to access the MOTOTRBO radio network.

Operational Cost Efficiencies

Voice Dispatching and Job Ticketing improves coordination of tasks across work teams. Using GPS to dispatch the closest work crews to a job site reduces man-hours wasted traveling to a site, as well as the fuel spent driving and wear and tear on vehicles. The Lone Worker and Man Down (option board required) capabilities coupled with GPS eliminate the need to send two employees to do the job of one employee. By implementing worker safety features insurance companies may offer savings in insurance premiums.

Yarudeyskoye field in 150 km from the closest settlement, Russia

MOTOTRBO and SmartPTT Solution helped the field to come into full production in record time

System description

- MOTOTRBO IP Site Connect and Capacity Plus
- SmartPTT Enterprise and SmartPTT PLUS
- 2 sites, 170 subscribers

Solutions



SmartPTT
Monitoring



Telephone
Interconnect



GPS
Tracking



Challenges

- Absence of any communication systems before the start of the project
- Distance from any settlements eliminates the possibility of a quick problem fix
- Subscribers should be provided with communication from the phase of the object preparation to its launch and operation
- Operational control of construction teams was needed to optimize the work in the conditions of complete absence of means of communication and transport

Benefits

- Providing communication starting from the object preparation till its launch and operation due to the consistent implementation of 2 SmartPTT systems (one for the preparation stage and one for the production stage)
- Redundant channel for the system redundancy
- Efficient operational management of construction teams during preparation of the land and construction of infrastructure facilities
- The production process optimization due to the automation of management processes of operative technical staff
- Yarudeyskoye field came into full production in record time

Oil and Gas Transportation in Nigeria - Northern Option Pipeline

SmartPTT contributed greatly to efficient personnel management

System description

- MOTOTRBO IP Site Connect
- SmartPTT Enterprise
- 1 site, 82 subscribers

Solutions



Radio
Dispatch



Voice
Recording



GPS
Tracking



Challenges

- Not sufficient quality and efficiency of operational communication along Northern Option Pipeline
- Workforce efficiency, productivity and safety needed to be increased
- The dispatch console should combine voice dispatch functionality and GPS location tracking

Benefits

- Reliable radio communication system with good voice quality
- Integrated communications system provided real time positioning of 80 users – pipeline construction and onfield engineers
- Seamless communication coupled with constant subscriber location monitoring by SmartPTT contributed greatly to efficient personnel management

Territorial production enterprise «RITEK Beloyarsk Oil» (LUKOIL), Russia

SmartPTT assists Lukoil employees in conducting pilot industrial works for hard-to-extract hydrocarbon reserves development

System description

- Linked Capacity Plus
- SmartPTT PLUS
- 2 sites
- 4 dispatchers, 40 subscribers

Solutions



Telephone
Interconnect



SmartPTT
Monitoring



Voice
Recording



Challenges

- Higher coordination and efficiency of new technologies' development and testing process aimed at enhanced oil recovery
- Excellent quality of radio communication was the key point
- Recording of all conversations and visual information about the employees' and vehicles' location during pilot industrial works
- System operability monitoring and radio coverage map were mandatory

Benefits

- Dispatching the production process significantly increases the convenience and efficiency of the technical staff work
- Connection to the telephone network via SIP-protocol allows the radio subscribers to receive and make calls to office and mobile phones and quickly contact emergency services
- Increase of the employees' safety during pilot industrial works due to SmartPTT GPS Tracking and Voice Recording features
- Alarm Log & Notifications system in SmartPTT Monitoring allows the dispatcher and the radio network administrator to find out immediately about all the events in the system and to respond promptly in case of any issues with the network



- Two-way radio systems integrator and software developer
- Motorola professional radio application partner
- 21 years in the market
- More than 220 qualified employees
- Customers in over 65 countries worldwide

info@smartptt.com

Europe and Africa, Middle East, Asia,
Australia and New Zealand
Phone/fax: +7 3822 522 511

North and South America
Phone/fax: +1 786 362 5525

www.smartptt.com

www.elcomplus.com

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