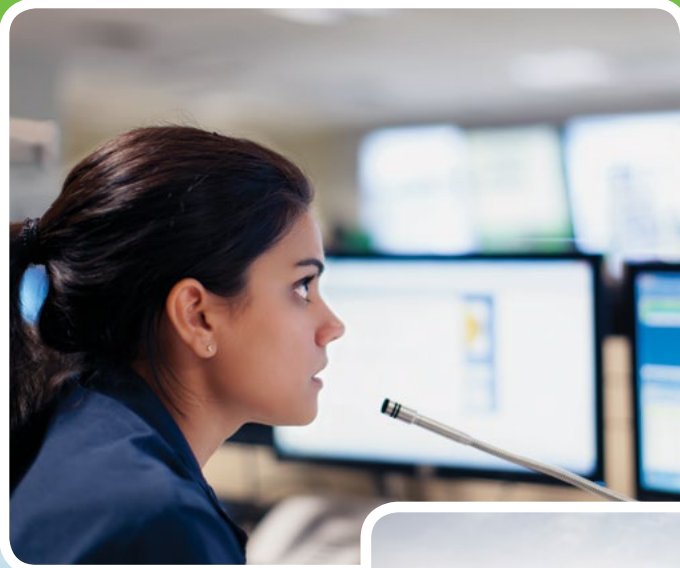# SmartPTT

INTEGRATED SOLUTION FOR MOTOTRBO™

CASE STUDY PORTFOLIO

THE SMART CHOICE
FOR YOUR FUTURE

Integrated Solution for MOTOTRBO™

SmartPTT

✔ Networks of any size and topology

✔ System infrastructure monitoring and control

✔ Bridging for different radio networks

SmartPTT BASIC
- Small local systems
- Dispatch control through base stations

SmartPTT ENTERPRISE
- Large distributed systems
- IP Site Connect
- Capacity Plus
- Linked Capacity Plus
- Connect Plus

STANDARD FEATURES

RADIO DISPATCH

GPS TRACKING

EVENT AND VOICE LOGGING

TEXT AND DATA TRANSFER

OPTIONAL FEATURES

MONITORING

Real-time network infrastructure monitoring with graphical representation of network topology and coverage map analysis

RADIO NETWORK BRIDGING

Communication between subscribers located in different networks

WEB CLIENT

Subscriber control from browser: voice calls, text messages, GPS monitoring, radio check/kill, subscriber registration

TELEPHONE INTERCONNECT

Private and group calls from telephone to radio subscribers and telephone calls to/from the dispatcher consoles

SIMULCAST

Support for unicast configurations that allow utilizing the same frequencies in the whole system and assure easy cooperation for all radio system users

DIRECT IP CONNECTION

☐ Data communications via NAI for Capacity Plus and Linked Capacity Plus

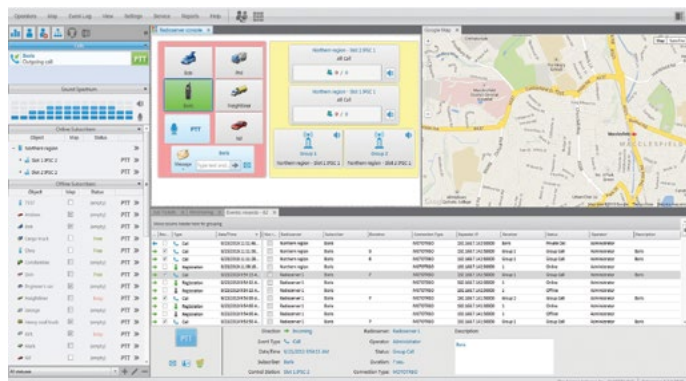☐ No control stations and sound cards for IP Site Connect

SMARTPTT MOBILE

☐ Smartphone operating within SmartPTT network and allowing text message exchange within radio system

☐ GPS tracking of smartphone users

Why SmartPTT?

Integrated Dispatch Control

- All types of voice calls on the dispatch console: private, group, all call
- GPS and indoor tracking
- Emergency calls
- Job ticketing
- Customizable dispatch consoles and touch screen support

Unified Communication Infrastructure

- Radio network bridging – single communication environment for multiple independent radio networks
- Telephone interconnect – voice calls between radio and telephone subscribers
- Analog Select5 and MDC signaling support
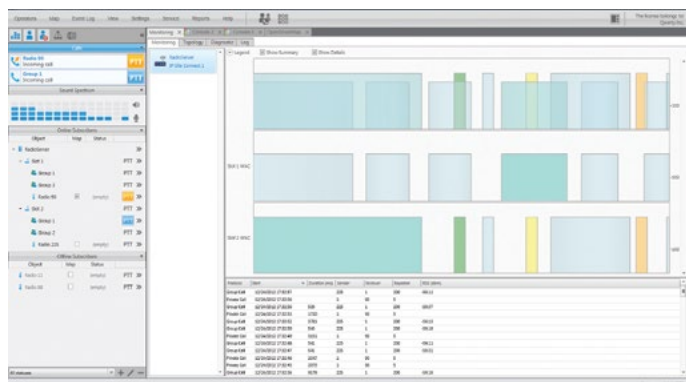
Administration and Monitoring

- In-depth network monitoring, analysis and system data logging
- Coverage map display
- Hardware diagnostics and failures logging
- Remote repeater administration: channel change, power level settings, enabling and disabling

Personnel Safety

- Man Down
- Lone Worker
- Blast Alarms
- Evacuation Voice Messages

Cutting Edge Technology

- Remote command and control centers
- Dispatch operation over brand new Network Application Interface (NAI)
- Direct IP connection to MOTOTRBO repeaters
- Support for simulcast configurations (Radio Activity solutions)

Transportation

SmartPTT Solution for the Largest Logistics Operator in Brazil

SmartPTT-based solution for transportation and logistics is used by one of the largest logistics operators in Brazil - VALE S/A mining.

When Ferrovia Centro-Atlântica, the rail logistic branch of VALE S/A mining, decided to replace their conventional VHF analog radio communication system, they chose the MOTOTRBO platform because of its faster implementation and cost-effectiveness. For the dispatch software of the system, the company discovered an undoubted advantage in SmartPTT software due to its customization possibility and friendly graphic interface for event monitoring and radio network bridging service.

SmartPTT-based solution covers 800 km of railroad and system extension is expected. The solution is applied for dispatch radio communication between several departments, including Maintenance, Operation and Rail Traffic Control. Such features as Digital Voice Dispatch, ARS, and GPS provide voice transmission, locomotive licensing, derailment detection and automatic locomotive path changing.

Company: Ferrovia Centro-Atlântica (FCA)

Location: Divinópolis, Brazil

System description:

- 4 IP Site Connect systems
- 2 repeaters in each site (2 voice channels and 2 data channels)
- 3 dispatchers
- 210 subscribers
- Expected extension: 21 repeaters and 3000 subscribers

Recommended Solutions:

SmartPTT Enterprise

SmartPTT Monitoring

GPS Tracking

SmartPTT Radio Network Bridging

SmartPTT Solution for a Municipality in the Netherlands

Kerkrade municipality made a decision to switch from an analog to a digital radio system to improve safety of its employees due to increasing aggression in the town. MOTOTRBO system was chosen to provide better coverage unlike simple voice communication VHF analogue system that had been utilized by the municipality.

To provide even higher employee safety GPS tracking of the subscribers was required, and SmartPTT software with a number of maps and broad functionality for geofencing and route control fully met organization requirements. Easy-to-use dispatch console interface added to the number of the solution advantages.

Up to 61 municipality employees can now be managed from SmartPTT console and all types of calls and GPS positioning are available for their safe operation.

Company: Kerkrade Municipality

Location: Kerkrade, the Netherlands

System description:

- IP Site Connect
- 1 repeater
- 1 dispatcher
- 61 subscribers
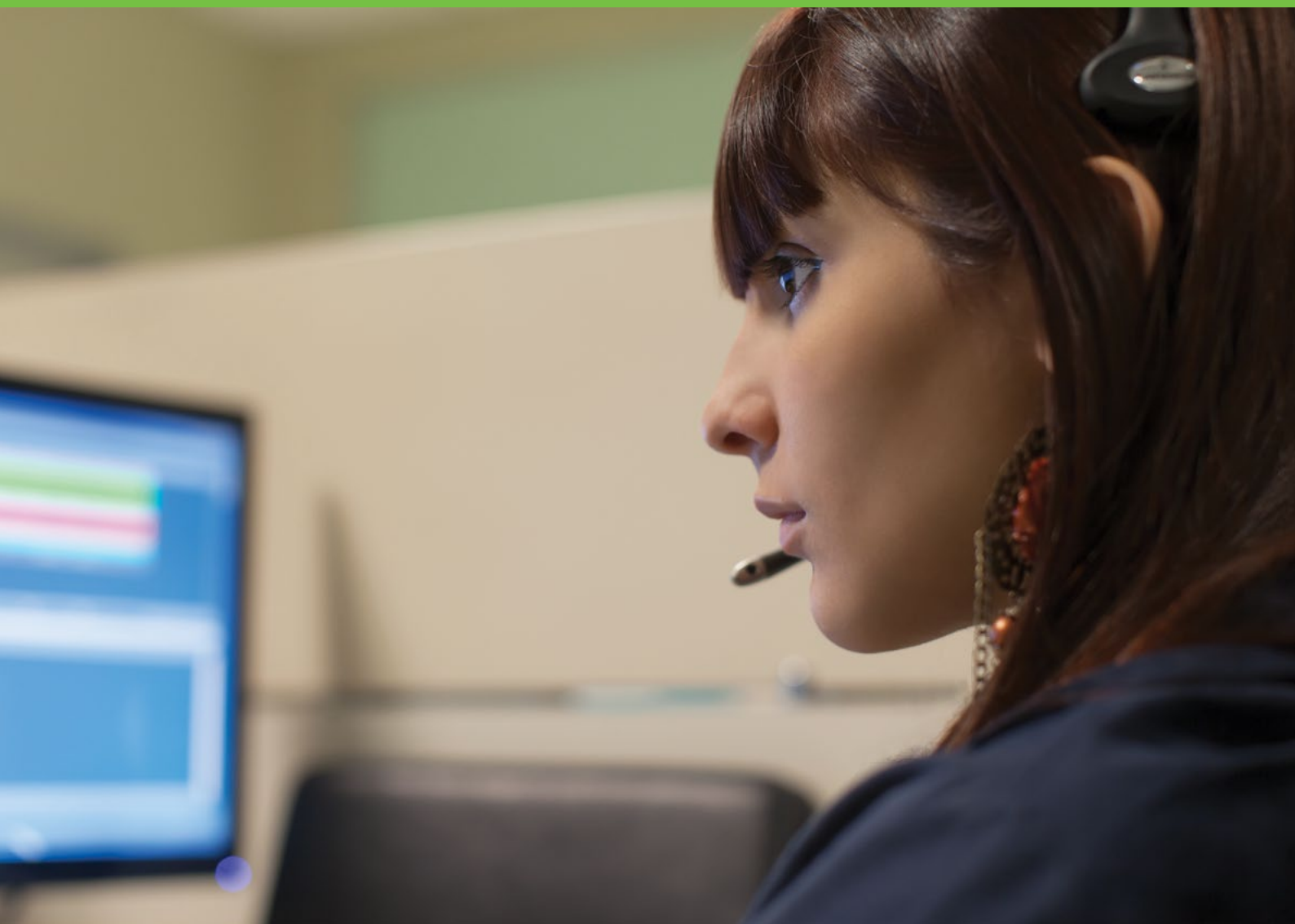
Recommended Solutions:

SmartPTT Enterprise

Radio Dispatch

GPS Tracking

Events and Voice Logging

SmartPTT Solution for the Largest Hydroelectric Power Plant in Brazil

ITAIPU is one of the largest public hydroelectric power plants in Brazil. Previous conventional VHF analog radios did not meet the needs of such a large organization. It was decided to move to the new trunking system that could provide reliable communication for a large number of subscribers.

SmartPTT offered the company the optimal balance of cost and quality of product and services. The main advantage of this system became the ability to route telephone calls automatically to radios, when a user was not at his desk.

Implemented SmartPTT system is intended for interaction of 230 subscribers providing communication between radio and telephone subscribers. Currently it serves 70 employees divided between 12 groups.

Company: ITAIPU Binacional

Location: Foz do Iguaçú, Brazil

System description:

- Capacity Plus
- 6 voice repeaters and 2 data repeaters
- 4 dispatchers
- 230 subscribers

Recommended Solutions:

SmartPTT Enterprise   **Radio Dispatch**   **GPS Tracking**   **SmartPTT Monitoring**

SmartPTT Manufacturing Solution for the World's Largest Single-Line Pulp Mill

Eldorado, the world's largest single-line pulp mill based in Três Lagoas City, Brazil, uses SmartPTT solution for efficient communication between its departments.

Eldorado Celulose E Papel Ltda is a Brazilian company engaged in manufacturing pulp, paper and related products. The company moved from conventional VHF analog radios to MOTOTRBO platform to take advantage of new digital standard allowing implementation of trunking radio system.

SmartPTT software was chosen because it met specific needs of the company including friendly user interface and the ability to track all events in the system. Timely and skilled technical support services ensured fast implementation of the system and remote system monitoring provides easy system maintenance. SmartPTT allowed Eldorado to consolidate its 23 departments supporting not only voice calls to radios but also communication between radio and telephone subscribers. Right now 200 employees are collaborating with the help of SmartPTT and there will be more.

Company: Eldorado Celulose e Papel

Location: Três Lagoas, Brazil

System description:

- Capacity Plus
- 6 voice repeaters and 2 data repeaters
- 1 dispatcher
- 200 subscribers

Recommended Solutions:

SmartPTT Enterprise

Radio Dispatch

SmartPTT Telephone Interconnect

SmartPTT Monitoring

SmartPTT Solution for Highway in Brazil

VIAPAR Company decided to improve operational dispatch communication by shifting to a digital dispatch solution that would offer more opportunities for fleet management by utilizing software solutions.

Due to the nature of the transportation industry, VIAPAR placed high demands on the reliability and usability of communication systems. The system had to combine the functions of voice and data with the ability to track the location in real time, and also have convenient interface for simultaneous management of employees from different departments utilizing various means of communication.

VIAPAR chose SmartPTT because of better technical approach, customization capability and exclusive function required for the system usage: bridging of several radio networks, telephone interconnect, and custom console allowing more efficient fleet management. SmartPTT-based system currently serves 103 subscribers from four different departments (Maintenance, Emergency, Operations and Traffic).

Company: VIAPAR Rodovias S/A

Location: Maringá, Brazil

System description:

- 20 IP Site Connect systems
- 20 master repeaters for voice and data traffic
- 1 radioserver
- 4 dispatchers
- 103 subscribers

Recommended Solutions:

SmartPTT Enterprise

SmartPTT Radio Network Bridging

GPS Tracking

Web Client

SmartPTT Supports Communication of Investigations Police of Chile

Investigations Police of Chile implemented digital radio communications system in its departments to provide operational communication and higher level of protection for the police officers. One of the key demands for the system was the ability to keep a constant log of all events, including recording of all voice calls.

SmartPTT offered an efficient and cost-effective solution meeting the demands of the organization. With its feature of MP3 voice recording and event logging, enhanced by distributed voice and data storage ensuring reliable storage of all information, the SmartPTT system contributed greatly to high security of police actions on the streets.

Company: Investigations Police of Chile

Location: Chile

System description:

- IP Site Connect
- 4 repeaters
- 2 dispatchers
- 90 subscribers

Recommended Solutions:

SmartPTT Enterprise

Radio Dispatch

GPS Tracking

SmartPTT Radio Network Bridging

SmartPTT Solution for Public Department of Traffic Control

STT is the ministry of Guarulhos city government responsible for managing and monitoring traffic, maintaining and signaling county streets. Guarulhos is the second biggest municipality of the state, having 1.3 million inhabitants, and it is part of "Big São Paulo", formed by the conurbation of several cities. With numbers of this magnitude, Guarulhos has a troubled transit. STT plays an important role to organize and supervise city streets, and SmartPTT is an essential tool to keep this gear running in emergency situations such as storms, accidents and events of such kind.

The implementation of SmartPTT and the MOTOTRBO system provided STT with the capability to reduce service time, giving more flexibility to the process.

Tracking the GPS location of 150 subscribers on the Console screen, the dispatcher can choose the nearest employee and in an instant send them to the required place. The dispatcher is also capable of managing workers divided in two different IP Site Connect systems using only one Radioserver, which provides flexibility to the system architecture and easy control of workers in different areas. Event logging and reporting tools provide complete analysis information for department managers to evaluate the actions of their employees.

Company: Secretaria de Transports e Trânsito da cidade de Guarulhos (Ministry of Transports and Traffic of Guarulhos city)

Location: Guarulhos, Brazil

System description:

- 2 IP Site Connect systems
- 6 repeaters
- 1 radioserver
- 3 dispatchers
- 150 subscribers

Recommended Solutions:

SmartPTT Enterprise

Radio Dispatch

GPS Tracking

SmartPTT Radio Network Bridging

Oil and Gas Extraction

Nigerian Oil and Gas Exploration Company Chose SmarPTT

NAOC (NIGERIAN AGIP OIL COMPANY LTD.) is a company based in Lagos, a Joint Venture between Agip and The Nigerian National Petroleum Corporation (NNPC) that is involved in oil and gas exploration and production activities in Nigeria.

The company was looking for a cost-effective solution to arrange communication for the company's 10 field engineers and improve interaction between them and the management. The existing analog radio network didn't meet the company's requirements. A solution combining MOTOTRBO platform and SmartPTT software proved best for this challenge since it offered digital radio communication features - digital dispatch and GPS tracking combined in one dispatch console.

The implemented solution allowed the company's management to benefit from features such as real-time GPS tracking of radio users, subscriber location logging and detailed reports of user movement. Personnel monitoring with extended call functionality throughout the oilfields enhanced the quality of communications.

Company: NIGERIAN AGIP OIL COMPANY LTD.

Location: Nigeria

System description:

- 1 repeater
- 1 SmartPTT radioserver
- 1 dispatcher
- 10 subscribers

Recommended Solutions:

SmartPTT Enterprise

Radio Dispatch

SmartPTT Telephone Interconnect

SmartPTT Monitoring

Oil and Gas Extraction

SmartPTT Dispatch Monitoring Solution Deployed at Siberian Oilfields

Maintaining good communication with work teams and ensuring their personal safety is the key priority of oil industry executives, especially in regions where extreme weather conditions mean having to work in temperatures ranging from -45º C during the winter months to a scorching 35º C in summer.

For this reason, the Mokhtikovskoye and Eguryakhskoye oilfields in the Khanty-Mansiysk region of western Siberia have implemented Motorola's MOTOTRBO™ digital mobile radio with application SmartPTT GPS-based dispatch system. The deployment replaced an analogue two-way radio system and boosted operational communications between management and operating crews while allowing for the monitoring of radio users across a coverage area of some 25km.

Company: OAO MPC Aganneftegazgeologia

Location: Nizhnevartovsk, Russia

System description:
- 3 repeaters
- 3 radioservers
- 3 dispatchers
- 70 subscribers

Recommended Solutions:

SmartPTT Enterprise

Radio Dispatch

SmartPTT Telephone Interconnect

SmartPTT Monitoring

Oil and Gas Transportation

SmartPTT Solution for Oil and Gas Transportation in Nigeria

SmartPTT solution was chosen to support operational communication along Northern Option Pipeline in Nigeria.

The development of Northern Option Pipeline in Nigeria required the implementation of a reliable radio communication system to increase workforce efficiency, productivity and safety. NOPL Total Company opted for MOTOTRBO due to its high reliability and voice quality.

Demand for a dispatch console combining voice dispatch functionality and GPS location tracking lead NOPL Total to SmartPTT. An integrated communications system deployed along the pipeline provided communication and real time positioning of 80 users – pipeline construction and on-field engineers. Seamless communication coupled with constant subscriber location monitoring by SmartPTT contributed greatly to efficient personnel management.

Company: NOPL TOTAL

Location: Nigeria

System description:

- 1 repeater
- 1 radioserver
- 1 dispatcher
- 82 subscribers

Recommended Solutions:

SmartPTT Enterprise

SmartPTT Monitoring

SmartPTT Telephone Interconnect

SmartPTT Radio Network Bridging