MAXIMISING EFFICIENCY & SAFETY FOR HAZARDOUS CONSTRUCTION SITES

With specialist teams working to strict deadlines in potentially dangerous situations, reliable communications and personnel monitoring is critical for maximising worker safety and efficiency. MOTOTRBO Control Room Solutions keep everyone connected so multiple teams can coordinate operations. Real-time personnel monitoring and automatic alarms provide an immediate response in the event of an emergency.

Motorola Solutions brings you TRBOnet PLUS through cooperation with Neocom Ltd - one of the market leaders for control room solutions.

Exclusively available through Motorola Solutions and supported by our customer service teams, this product offers the most advanced features for radio fleet management, dispatch and voice and data communications. It leverages the enhanced MOTOTRBO wireline network interface which allows dispatchers to interface directly with the system over IP. This improves the system stability, security and reliability but also reduces hardware overheads and can lower maintenance costs. MOTOTRBO Control Room Solutions have undergone stringent quality testing in Motorola Solutions’ labs ensuring they meet the highest standards of quality, solve business critical problems and deliver exceptional customer experiences.

POWERFUL FUNCTIONALITY

TRBOnet PLUS keeps operators in complete control of even the most demanding multi-site systems. Designed with the dispatcher in mind, a wide variety of everyday operations can be automated using defined rules and smart tools such as scheduled text messages, voicemails for offline radios or geofencing. Dispatchers can now monitor the status of users and their location with live updates, while assigning tasks to the most relevant resources, and improving personnel safety with automatic alarms when unplanned events occur.

SIMPLE AND ROBUST

A key benefit of TRBOnet PLUS is the wireline network interface which establishes a direct link between the control room and the radio system. Connectivity is simplified for a more cost-effective and reliable solution architecture. And dispatchers benefit from an enhanced experience with full transparency, recording of all group and individual calls and more communications security from the radio to the application.

MODULAR AND FLEXIBLE

TRBOnet PLUS is modular so you only have to buy the features you need. It can be tailored to individual requirements to ensure optimum performance across a range of industries. It is also easily scalable from small to large systems that are ready to grow with your business as it expands.

TRIED AND TESTED

Developed specifically for MOTOTRBO professional digital two-way radio systems, TRBOnet PLUS has been tested in Motorola’s engineering labs to ensure the highest quality performance and seamless integration into the MOTOTRBO system.

COMMUNICATE WITH ALL TEAMS
MOBILISE THE RIGHT PEOPLE
ENHANCE SAFETY & PRODUCTIVITY
IMPROVE RESPONSE TIMES
STAY IN CONTROL
CONNECT WITH OTHER SYSTEMS
IMPROVE YOUR SYSTEM PERFORMANCE
MAXIMISING EFFICIENCY & SAFETY FOR HAZARDOUS CONSTRUCTION SITES

With specialist teams working to strict deadlines in potentially dangerous situations, reliable communications and personnel monitoring is critical for maximising worker safety and efficiency. MOTOTRBO Control Room Solutions keep everyone connected so multiple teams can coordinate operations. Real-time personnel monitoring and automatic alarms provide an immediate response in the event of an emergency.

MANAGING TRANSPORT SERVICES MORE EFFICIENTLY

Whether you are coordinating ground services for an airport, bus depot or train network, efficiency in the distribution centre is key. Operators need to monitor and be in constant contact with personnel to ensure the safety of workers and the public. Strong audio coverage across a wide area and efficient dispatch management helps ensure the smooth running of services and fast resolution of issues.

ENHANCING SAFETY AND OPERATIONS IN REMOTE MINES

Often located in difficult to access locations where cellular coverage is limited, mining and exploration sites present a unique challenge. To efficiently manage daily operations and ensure worker safety, a reliable voice and data communications infrastructure is required to connect staff at the site with head office. A high performance control room solution enhances dispatch operations, tracks supply vehicles travelling between sites and enables a quicker response to break-downs and emergencies.

OPTIMISING COMMUNICATIONS & EFFICIENCY IN MANUFACTURING

With many specialist teams working on shifts and to strict deadlines, manufacturing demands a strong, reliable communications system. And because working environments can be potentially hazardous, monitoring personnel at all times is critical. An integrated control room solution keeps everyone in touch with reliable inter-group radio coverage while tracking the location of multi-site workers.

KEEPING PERSONNEL SAFE ACROSS OILFIELDS

Maintaining good communication with work teams and ensuring their personal safety is a key priority for oil industry executives, especially in areas of extreme weather. Integrated MOTOTRBO Control Room Solutions boost communications between management and teams with extended call functionality while allowing for the monitoring and management of radio users across vast territories.
COST-EFFECTIVE & EASY TO DEPLOY

TRBOnet PLUS provides integrated fully-featured dispatch control over single and multi-site or multi-channel systems. It supports voice communication and data operations for conventional single site repeater, IP Site Connect, Capacity Plus, Linked Capacity Plus and Connect Plus and Capacity Max systems by direct wireline interface with the MOTOTRBO network.

At the heart of the MOTOTRBO Control Room Solutions is the enhanced wireline network interface. This simplified architecture establishes a direct connection between the control room solution and system. With no additional hardware required, system stability, security and reliability are improved for more effective dispatching, monitoring and records management.

Utilising the wireline network interface, dispatchers can now communicate directly over IP to the system without having to go through control stations. This makes liaising with radios and talkgroups so much quicker, easier and more effective – essential when dealing with emergencies or reassigning workers to maximise productivity.

The simplified architecture also ensures TRBOnet PLUS is more cost-effective with reduced hardware investment, easier deployment and lower maintenance costs.

Redundancy can also be built in to improve system availability.

THE MOTOTRBO WIRELINE NETWORK INTERFACE PROVIDES DIRECT CONNECTIVITY BETWEEN THE CONTROL ROOM SOLUTION AND RADIO SYSTEM

KEY BENEFITS
- Less hardware and maintenance costs
- Better reliability due to reduced points of failure
- Full group and individual call recording
- Less complexity for easy deployment
- Easily integrates into existing on-site IT networks
- Redundancy with multiple clients working from server
- Works over multi-site and multi-channel systems

System using wireline network interface:
- APP CLIENT/SERVER
- IP NETWORK
- MOTOTRBO WIRELINE NETWORK INTERFACE
- RADIO SYSTEM
- RADIOS

System using dedicated control stations and associated gateways:
- APP CLIENT/SERVER
- IP NETWORK
- GATEWAY
- CONTROL STATIONS
- RADIO SYSTEM
- RADIOS
TRBOnet PLUS includes a variety of functional modules for improved fleet management and dispatch. In addition to the comprehensive set of core modules, users can add extra functionality and control with optional modules.

**CORE**

**FLEET ADMINISTRATION**
Efficiently manage fleet operations and remotely control radios. Get live status updates and configure the radio to send online/offline reports to the server.

**EVENT LOGGING**
Log all system events including voice calls, text messages and status changes. Customise rules, filter and group events or generate reports detailing location and radio status.

**VOICE DISPATCH**
Provide communications between the dispatcher and remote radios. Make broadcast, group, private, remote monitor or emergency calls even quicker using programmable shortcuts.

**TELEMETRY**
Monitor and manage remote equipment from the control room. The system supports native MOTOTRBO telemetry with multiple profiles supported for different devices.

**ALARM & LONE WORKER**
Improve the safety of personnel with automatic alarms and lone worker protection. The alarm can also be sent as an automated message, e-mail or SMS.

**FLEET ADMINISTRATION**
Efficiently manage fleet operations and remotely control radios. Get live status updates and configure the radio to send online/offline reports to the server.

**EVENT LOGGING**
Log all system events including voice calls, text messages and status changes. Customise rules, filter and group events or generate reports detailing location and radio status.

**VOICE DISPATCH**
Provide communications between the dispatcher and remote radios. Make broadcast, group, private, remote monitor or emergency calls even quicker using programmable shortcuts.

**TELEMETRY**
Monitor and manage remote equipment from the control room. The system supports native MOTOTRBO telemetry with multiple profiles supported for different devices.

**ALARM & LONE WORKER**
Improve the safety of personnel with automatic alarms and lone worker protection. The alarm can also be sent as an automated message, e-mail or SMS.

**AES ENCRYPTION**
Secure your communications with the industry-standard 256-bit encryption scheme.

**DATA WEB CLIENT**
Empower remote dispatchers to access the system using a web interface.

**IP SYSTEM BRIDGE**
Communicate between radios located on different networks. Interconnect geographically distributed systems and set up permanent and dynamic bridging of voice and data calls.

**RF COVERAGE MONITORING**
Maximise system performance and make sure everyone is connected with RF coverage maps. These provide a graphical representation of network coverage based on the RSSI level of signals received from GPS-enabled MOTOTRBO radios.

**EXTENDED ALARM MANAGEMENT**
Automatically notify your staff of important events, using job tickets, text messages or calls.

**PHONE INTERCONNECT**
Make and receive calls between MOTOTRBO radios and telephones and also allows a dispatcher to make and receive telephone calls through the dispatcher console.

**TEXT MESSAGES & EMAIL**
Easily communicate with other devices when voice communication is not possible. Send broadcast, group or private text messages. Radio users can text back to the dispatcher.

**GPS TRACKING**
Follow workers, vehicles and business assets in real-time to ensure maximum safety and productivity. View routes, set up GeoFencing and log radio movements using a configurable set of rules.

**TRBOnet PLUS FOR MOTOTRBO ™**

**SOLUTION MODULES**

**CORE**

- **VOICE RECORDING**
  Continuously record all calls with playback for analysis, reporting or training purposes. Audio files are stored in MP3 format on the Radio Server and Dispatcher.

- **IP SYSTEM BRIDGE**
  Communicate between radios located on different networks. Interconnect geographically distributed systems and set up permanent and dynamic bridging of voice and data calls.

**OPTIONAL**

- **AES ENCRYPTION**
  Secure your communications with the industry-standard 256-bit encryption scheme.

- **DATA WEB CLIENT**
  Empower remote dispatchers to access the system using a web interface.

- **RF COVERAGE MONITORING**
  Maximise system performance and make sure everyone is connected with RF coverage maps. These provide a graphical representation of network coverage based on the RSSI level of signals received from GPS-enabled MOTOTRBO radios.

- **EXTENDED ALARM MANAGEMENT**
  Automatically notify your staff of important events, using job tickets, text messages or calls.

- **PHONE INTERCONNECT**
  Make and receive calls between MOTOTRBO radios and telephones and also allows a dispatcher to make and receive telephone calls through the dispatcher console.

*Not available for Connect Plus systems
Please note: Features for Capacity Max are to be confirmed.
TRBOnet PLUS

Developed in cooperation with Neocom, a leading edge communications company based in St Petersburg, TRBOnet PLUS is a professional PC-based, wireline client-server dispatch software application exclusively developed for MOTOTRBO™ digital two-way radio systems.

Designed exclusively for MOTOTRBO digital two-way radio systems, this control room solution supports voice communications and data operations in conventional systems, Connect Plus, Linked Capacity Plus, Capacity Plus and IP Site Connect using a direct wireline interface.

With TRBOnet PLUS, operators can monitor audio, data and asset location, as well as provide record management and review events that have taken place. It’s easy to track staff and key assets on a live map, send and receive private text messages to personnel in the field and respond quickly and effectively to emergency situations. Dispatchers can also link multiple agencies or departments with a single touch for even greater flexibility.

The software can be operated over the internet by multiple dispatchers located anywhere using the ‘Remote Dispatch’ function. Detailed reports highlight essential information including audio recordings, texts sent, radio status (on/off) and much more.

Two key advantages of TRBOnet PLUS are its scalability and reliability. Administrators can easily increase the number of users on the radio communication network or its geographical coverage at any time to handle increased demand. And with the simplified wireline network interface, high levels of performance are assured.

*Not available for Connect Plus systems
Please note: Capacity Max features are to confirmed.
TRBONET PLUS FOR MOTOTRBO™
SOLUTION OVERVIEW

TECHNICAL INFORMATION

<table>
<thead>
<tr>
<th>RADIO SERVER PC SPECIFICATION</th>
<th>DISPATCHER PC SPECIFICATION</th>
<th>IP BANDWIDTH</th>
<th>MOTOTRBO HARDWARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Intel Core i5 processor or higher</td>
<td>• Intel Core i3 processor or higher</td>
<td>• Between Server and Repeater: 64 kbps per repeater</td>
<td>• Radio Firmware Version: R01.12.02 or higher</td>
</tr>
<tr>
<td>• Windows 7 / 8 / Server2008 32 or 64 bits</td>
<td>• Windows 7 / 8 Professional 32 or 64 bits</td>
<td>• Between Server and Client: 64 kbps per client per voice channel</td>
<td>• Repeater Firmware Version: R02.30.02 or higher</td>
</tr>
<tr>
<td>• 3 GB RAM</td>
<td>• 3 GB RAM or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 180 GB Hard drive</td>
<td>• 180 GB Hard drive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MS SQL Server 2008 Express Edition or higher</td>
<td>• Sound card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Microphone and Speakers or regular PC Headset</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These are general guidelines, the final system specifications will depend on users’ MOTOTRBO system size and configuration.

LANGUAGE

English

ARCHITECTURE

USER INTERFACE

GPS POSITIONING, LONE WORKER ALARM

QUICK COMMANDS
MORE CONTROL, IMPROVED DISPATCHING AND AUTOMATION OF DAILY TASKS. GET MORE FROM YOUR MOTOTRBO RADIO SYSTEM.

For more information on how to enhance operational efficiency and improve staff safety with MOTOTRBO Control Room Solutions - TRBOnet PLUS and SmartPTT PLUS, visit motorolasolutions.com.au