MOTOROLA *SOLUTIONS*

COMMUNICATE WITHOUT BOUNDARIES TO BOOST SAFETY AND EFFICIENCY

TAKE YOUR OIL AND GAS WORKPLACE COMMUNICATIONS FURTHER

In the new economy, businesses face challenges that would have been unimaginable just a few decades ago. New competitors, new routes to market, increased customer expectations, and greater scrutiny come with the territory. In a world where everyone carries a computer connected to unlimited information and a high-definition camera in their pocket, it stands to reason that we now find ourselves adrift in an ocean of data.

And yet, the targets for all successful businesses remain the same. Exceed customer expectations. Operate profitably. Invest wisely. Most importantly, empower and protect your most valuable asset – your personnel – since they are the key to achieving all of your other goals.

What if your staff could communicate with each other instantly and securely through push-to-talk (PTT) communications between smartphones, laptops, tablets, radios, landlines, or other connected devices? What if it did not matter where they were in the world, or to what network – LTE, LMR, LAN, WiFi - they were connected? What if they were able to use a rich application ecosystem and the Industrial Internet of Things (IIoT) to extract valuable intelligence from the flood of data, and then share that information instantly with the team members who most need to know? This capability exists today. Take the first step toward a safer, more successful, and more efficient business by taking your communications further with Team Communciations from Motorola Solutions.

> **"Gartner predicts that there will be 6.4 billion connected IoT devices in use worldwide in 2016, and 21 billion units by 2020."**
>
> IndustryWeek Special Research Report, The Internet of Things: Finding the Path To Value, 2015

COMMUNICATE SEAMLESSLY

When an answer is needed, an order is delayed, or a safety situation arises, nothing is faster than push-to-talk. Motorola Team Communications provide the instant group communications needed for high-performing teams. Communicate one-to-one or one-to-many across radios in challenging noise environment, and use the WAVE™ broadband push-to-talk (PTT) application on smartphones, tablets, or laptops to expand the same conversation to wherever network connectivity exists. Employees who do not use a radio can contact those who do, and vice versa, instantly. In an emergency, priority voice and data communications guarantee that critical information is heard by all, bypassing routine conversations. When your team can reach anyone necessary to resolve critical issues – regardless of device, or physical location, deadlines are met, promises are kept, and employee satisfaction improves. Remove the roadblocks and improve outcomes with Team Communications from Motorola Solutions.

COMMUNICATE WITHOUT BOUNDARIES

It used to be easier. You had a team in one location, everyone carried a radio, and when a problem arose it was discussed and quickly resolved.

Today, you still have staff carrying radios, but now there are other critical team members that don't need or want to carry a radio. They use smartphones, or tablets, or laptops as their preferred device. Instead of everyone on the team residing in one location, team members are scattered across the county, the state, the country, or even the world. Technology has provided more operational visibility – GPS locations, alarms, sensors, voice over IP, even video – but this data is often stranded in different corners of the organization. There may even be multiple focal points for dispatching this data, specialized to the needs of a smaller group and the network (LMR, LTE, WiFi or LAN) they use to communicate. These pockets of information lead to delays and frustration when the right decisions must be made faster than ever before to be safe, successful, and efficient.

Tear down the technological walls stranding your personnel and critical data with the power of Motorola Team Communications. Using WAVE Workgroup Communications, network, device, and geographic boundaries are overcome – your team members can connect from their preferred device to other team members, anywhere, any time. Simply push, talk, and succeed.

"50% of all engineers and geophysicists will be eligible for retirement. This sets the stage for the most dramatic demographic shift in the industry's history.

Oilandgasiq.com, The Great Crew Change: An Extinction Level Event in the Making?

COMMUNICATE WITH ADDED INTELLIGENCE

The stream of information flowing through a typical business today can be overwhelming. If key information is not extracted and used to make the business better, then it is simply data piling up in a storage drive somewhere. Are you fully utilizing information from your dispatch application? Video surveillance? GPS tracking? Integrated command and control system? Sensors? Monitors? Alarms?

Within this stream of information is the intelligence that separates the businesses that succeed from those that fail. A more efficient route. A root cause behind seemingly unrelated issues. A pattern of sensor trips indicating a larger issue. An inventory shortage that will impact the business. An alarm warning that someone is in the wrong place at the wrong time.

By connecting every member of the group regardless of device, Team Communications unlocks the potential of your company's data. The critical piece of intelligence needed to make your business safer… more successful… or more efficient can now be communicated – instantly – by the person who knows to the people who need to know.

"As the industry's focus turns to new remote and deep frontiers in the search for hydrocarbons, equipment suppliers will need to ensure that their tools reliably support work tasks conducted in these challenging environments. "

OGP, May 2012 – Safety Performance Indicators – 2011 Data

# TAKE YOUR OIL AND GAS WORKPLACE
COMMUNICATIONS FURTHER

33% [1]
INCREASE IN GLOBAL OIL DEMAND BY 2035

CRUDE OIL PRODUCTION IS INCREASING BY AS MUCH AS
790,000 [2]
BARRELS PER DAY OVER A SINGLE YEAR IN THE US

85% [3]
OF WORKERS COMPLETE THEIR OBJECTIVES USING **MULTIPLE DEVICES**

96% [4]
OF EXECUTIVES SAY **INEFFECTIVE COMMUNICATION** IS THE MAIN SOURCE OF WORKPLACE FAILURES

IMPROVE WORKPLACE SAFETY
WITH UNIFIED TEAM COMMUNICATIONS

20-25% [5]
AVERAGE IMPROVEMENT OF PRODUCTIVITY AND SAFETY IN ORGANIZATIONS WITH **CONNECTED EMPLOYEES**
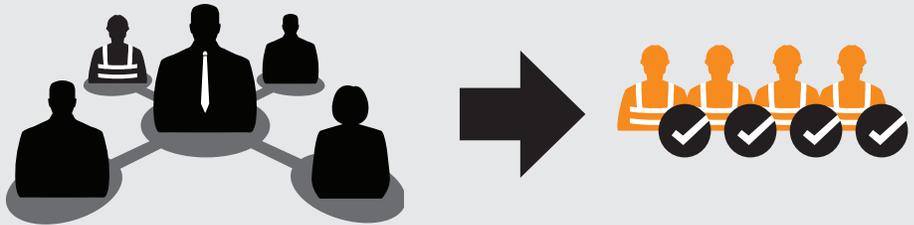
INEFFICIENT COMMUNICATIONS COMPROMISE WORKPLACE SAFETY
PROTECT YOUR EMPLOYEES WITH TEAM COMMUNICATIONS
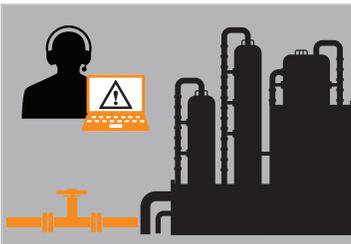
LAPTOP
AGA PIPELINE MONITORING

Command Center receives an alarm that a leak is detected; emergency shutdown engages

RADIO
LAPTOP TO RADIO VIA WAVE PTT

Command Center dispatches the nearest emergency response team to repair the pipeline leak.

MOBILE
LAPTOP TO SMARTPHONE VIA WAVE

Command Center notifies local agencies of the issue; coordinates efforts between the response team and local agencies

LAPTOP
VALVE CONTROL

Once the response team confirms the job is complete, Command Center restores oil flow to the repaired pipeline

LAND MOBILE RADIO · CARRIER NETWORK · WI-FI · LAN · TELEPHONY

- GPS TRACKING
- WAVE PTT
- COMMAND AND CONTROL
- ALARMS AND SENSORS
- WORK ORDER TICKET MANAGEMENT

ANY NETWORK　　**ANY DEVICE**　　**ANY APPLICATION**

ASSURE THE SAFETY AND SECURITY OF YOUR PERSONNEL

Keeping every member of the organization safe is the overriding responsibility of all businesses. Maintaining the security of a facility demands excellent communication under all circumstances. Whether the issue is an injury in the facility, a disgruntled employee growing belligerent in the HR department, or a suspicious package left in the lobby, resolving the situation quickly and safely relies upon instant, clear communications. In the event that local public safety agencies are called, your security team must be able to provide first responders with precise information about the incident and quickly direct them to the correct location.

Team Communications keeps all your employees connected and ensures that critical emergency information is shared with everyone at the push of a button. With specialized radios for hazardous environments and Lone Worker and Man Down alerting, Motorola Solutions provides an additional level of protection for radio users in challenging circumstances.

> "The oil and gas industry has undertaken extensive actions to enhance process safety and recent statistics point to an improving safety trend over the last 10 years."
>
> OGP, June 2013 - Safety Performance Indicators - 2012 Data

> "Mission critical communication tools are essential to enabling real time collaboration and will need to perform optimally in severe environments to meet the exacting safety standards of the oil & gas industry."
>
> OGP, May 2012 – Safety Performance Indicators – 2011 Data

TAKE YOUR COMMUNICATIONS FURTHER WITH MOTOROLA SOLUTIONS TEAM COMMUNICATIONS

Your staff can connect instantly, without boundaries, and with key information at their fingertips. The safety of all team members and the organization overall is enhanced. The intelligence to improve productivity can be shared immediately with the team members who most need to know. A rich ecosystem of applications to streamline workflows and make your business more efficient awaits. Boost your team's satisfaction and your company's bottom line with Team Communications from Motorola Solutions. in challenging circumstances.

SOURCES
1. **33%** - IDC Energy Insights, May 2013 – Reducing Risk in Oil and Gas Operations
2. **790,000** - OGP, June 2013 - Safety Performance Indicators - 2012 Data
3. **85%** - bit.ly/qlik-multiple-devices-report
4. **96%** - http://blog.thinkahead.com/ceos-will-love-enterprise-file-sync-share-efss
5. The McKinsey Global Institute found that productivity improves by **20-25%** in organizations with connected employees. http://www.mckinsey.com/industries/high-tech/our-insights/the-social-economy

Learn more at **www.MotorolaSolutions.com/TeamCommunications**

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