

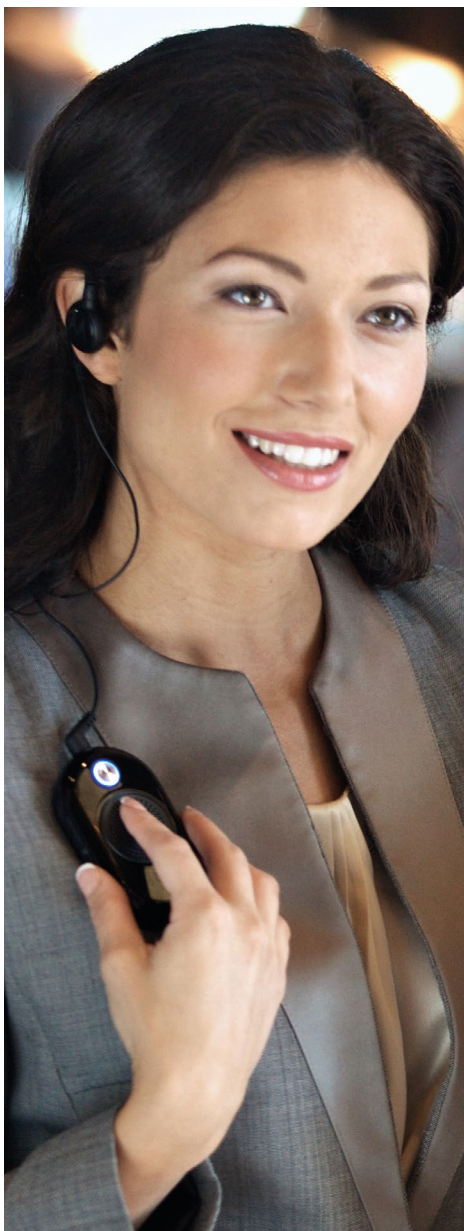


THE ROLE OF COMMUNICATION IN TODAY'S MODERN BUSINESS

YOUR STEP-BY-STEP GUIDE TO BUILDING A SUCCESSFUL COMMUNICATION PLATFORM



MOTOROLA SOLUTIONS



COMMUNICATING SUCCESSFULLY

TODAY'S MOST SUCCESSFUL COMPANIES AND ORGANISATIONS DO ONE THING VERY WELL. THEY COMMUNICATE. WHETHER IT'S PEOPLE CONNECTING WITH PEOPLE, PEOPLE CONNECTING WITH MACHINES OR MACHINES CONNECTING WITH OTHER MACHINES, EVERY PROCESS IS SEAMLESS, WHICH MAKES OPERATIONS EFFICIENT, PRODUCTIVE AND SAFE.

Effective communications is an essential building block for success. But how do you know whether your communications platform is optimised for your business? And if there's room for improvement, what steps can you take to get things working more smoothly?

In this guide, we discuss the importance of building the right communications platform. One that supports your objectives and helps you achieve your goals. We lead you through the criteria you need to consider in evaluating your business so you can define where you are and where you want to be. Then we map out a path to evolve your platform, highlighting in each chapter a different communication technology that's relevant to your business and supportive in achieving the overall business strategy.

“ Ultimately, communications should be seamless and responsive, ready to react to the daily challenges of running a commercial enterprise. One of the most important steps when building the right platform is choosing devices that are designed with the build quality and features required for the tasks at hand. Motorola Solutions is ready to help you evaluate and evolve your communications platform so you can achieve optimum efficiency, productivity and safety across your business.”

Sean Fitzgerald,
Solutions Marketing Manager
Radio Products and Accessories



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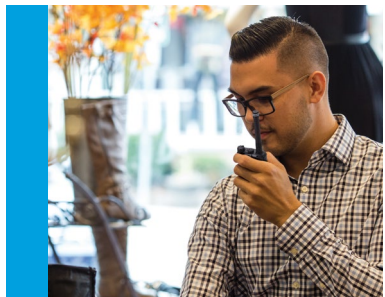
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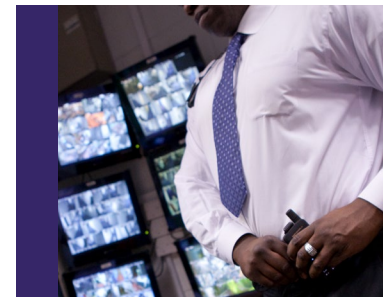
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ACHIEVE YOUR BUSINESS OBJECTIVES THROUGH EFFECTIVE COMMUNICATIONS

EVERY BUSINESS FACES PRESSURES AND CHALLENGES, MORE SO TODAY THAN EVER. WHETHER YOU'RE RUNNING A MANUFACTURING PLANT, TRANSPORT COMPANY, HOTEL, HOSPITAL OR SCHOOL, YOU'LL KNOW HOW TOUGH IT IS TO ACHIEVE BUSINESS OBJECTIVES IN AN UNCERTAIN WORLD WHERE CONDITIONS CAN CHANGE AT A MOMENT'S NOTICE.

So how can you streamline your operation to make sure you're ready to react when spikes in demand or cuts in funding put business activity under strain? In this chapter, we look at the challenges you face and review how optimising communication systems can help support business goals. We invite you to take an honest look at your communications to identify any areas where it may be holding you back. Then we suggest steps which you could take to put things right so expenditure is managed, profit is optimised and your customers, employees, and stakeholders stay happy.

EFFICIENCY, PRODUCTIVITY & SAFETY – THE THREE PILLARS OF SUCCESS

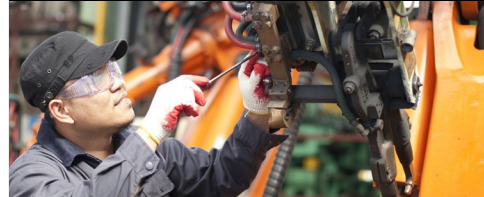
Achieving business objectives is reliant on maximising efficiency, productivity, and safety. Get these right and operations proceed seamlessly, people and assets work to their optimum, and everyone and everything stays protected.

EFFICIENCY



Improving efficiency can generate savings across the business even when costs are rising. One great way to do this is for individuals and teams to work as one, with clear goals – everyone has a defined role, there's no duplication of effort or communication breakdowns.

PRODUCTIVITY



Being productive means you can react rapidly to unexpected interruptions, minimising impact and reducing downtime so deadlines and targets stay on track. Giving people the tools they need to be productive is a positive step that creates a sense of ownership and pride in a workforce.

SAFETY



Underpinning your business are your resources. Are you ready to respond in the moment to an injured worker, security breach or fire – before an incident becomes a crisis? Maintaining safety and security to meet legal regulations is also mandatory business practice that helps you avoid legal action, crippling fines or worse.



EVALUATING YOUR COMMUNICATIONS

Just like business, communication faces its own challenges. For example, how to be effective across known coverage black spots, areas of high noise, hazardous environments, or places where different teams are using different devices. These challenges can be overcome with the right set up. The key is to step back and evaluate where you are and where you want to be. This should include some considerations that will define how your communications network will evolve as business requirements change.

Define Where You Are

Has your organisation grown rapidly since your last communication review? More staff, bigger premises, new systems and networks? If so, you've probably outgrown your platform and may even have spotted the danger signs – unreliable communications across your facilities, inability to access certain data services, lack of capacity. These shortfalls impact on your efficiency, productivity and safety.

Communications can help bring these three key pillars together. Having an effective communications platform creates a working environment that is focused on achieving business objectives. But what makes a communications platform effective? And what do you need to consider to ensure your systems are fit for purpose?

EVOLVING YOUR COMMUNICATIONS

Think about your needs. Here are some pointers that may help you decide how to progress. Once you have considered where you want to be, look at the features and functions that will get you there. These may include:

COST

- Q.** As well as fixing your budget, consider how important predictability is – some solutions come with uncontrollable costs, such as mobile phones where monthly usage fluctuates
- A.** Ensure costs are known and manageable – consider capex, opex or mixed funding models

USAGE

- Q.** Look at what your people are doing and how it impacts on their equipment – some devices are fragile and easily damaged with high repair or replacement costs
- A.** Rugged, waterproof devices protect communications from drops and the elements

SAFETY

- Q.** Especially critical in hazardous environments where workers are isolated, real time monitoring helps you avoid undetected accidents, severe injury and litigation
- A.** Lone Worker, Man Down, location tracking with Bluetooth and GNSS, and extended battery life help keep vulnerable workers safe

NOISE

- Q.** Loud environments such as factories make communicating effectively very difficult – if noise is a factor, consider clear audio solutions that prevent conversations getting lost
- A.** Intelligent Audio and noise cancellation provide clear conversations in the noisiest of environments

SECURITY

- Q.** If you work in a public or highly sensitive environment, implementing a solution with integrated security such as encryption leaves you less prone to damaging attacks
- A.** Encrypted messaging prevents eavesdropping from unauthorised users

COVERAGE

- Q.** If your environment contains known black spots, implementing a solution with indifferent coverage will make communication unreliable and give a low return on investment
- A.** Some higher powered devices feature extended coverage and wider ranges

INTEROPERABILITY

- Q.** Ask yourself how well different teams can communicate – if you have multiple devices in use with no or limited communication between them, it's time to change
- A.** Connected communications is all about unifying teams and linking individuals together, regardless of device – everyone works as one, whether using radios, phones, tablets or PCs

EFFICIENCY

- Q.** Think about whether you are making the most of the technology available to you – would your teams be more efficient with devices that do more?
- A.** Integrated applications help you run and monitor operations seamlessly

PRODUCTIVITY

- Q.** Evaluate the way your staff use their devices - could they be more productive, for example, if they worked hands-free?
- A.** Compatible accessories such as hands-free headsets enhance performance

SUMMARY

NEVER UNDERESTIMATE THE IMPORTANCE OF COMMUNICATIONS

Every business or public sector service is different with its own set of challenges and pressures. Objectives may be unique but there is a common denominator – every organisation is underpinned by efficiency, productivity and safety. These three criteria also underpin the core values of a reliable communications network.

Understanding that communications are critical is an essential first step but how do you move on to find precisely the right solution for your needs? Especially as there's no one device that will suit all. In the next chapter, we look at the different two-way radio solutions you could consider to help create the ideal communications network for your business.

THREE THINGS TO CONSIDER...

- 1.** Is your business being held back because workers can't reach the people that matter when it matters?
- 2.** Does your incident response plan include reliable and effective communications?
- 3.** Are your staff focused on the most immediate, income-generating or target-hitting tasks in an efficient way?



CHOOSING THE BEST COMMUNICATION DEVICES TO DRIVE BUSINESS FORWARD

EVERY BUSINESS IS DIFFERENT – SO IS EVERY COMMUNICATIONS SOLUTION

The challenges facing a multi-site manufacturing facility are very different from those of a transport company, hospital or school. Although their communication platforms are all underpinned by efficiency, productivity and safety, each will require its own individual solution. Even within a particular business, different individuals and teams will also require different solutions based on their specific roles and needs. One size does not fit all.

In the previous chapter, we discussed how communications helps businesses achieve objectives. In the chapters to come we look at specific solutions and the steps you can take to build the right platform for your needs. This chapter focuses specifically on two-way radios and how to decide which devices will work best for you. The starting point is to define your needs by evaluating your business. Here are some questions to consider:

SIZE

Does your business involve **multiple locations**?



And how many **people** do you need to connect?

ENVIRONMENT

Are you an **industrial** enterprise or more **customer-facing** service provider?



HAZARDS

Are there any **dangerous areas** or potentially **explosive materials** on site?



SAFETY

Do staff **work alone** in remote areas? Do you need to track **people** and vehicles?



TASKS

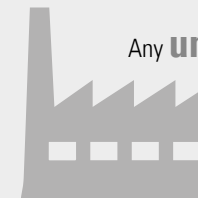
Do you need basic **voice only** communications or do you also want **data capability** to take advantage of productivity applications?



STRUCTURE

Do your staff work **indoors, outdoors** or both?

How many **floors** in your buildings?



Any **underground** areas?

And what are your buildings **constructed** of?

MOTOROLA SOLUTIONS AS YOUR COMMUNICATIONS PARTNER

Evaluating your needs gives you a good starting point to help define the type of radio devices you should consider. But where do you go from there? Motorola Solutions is a trusted provider of two-way radios and with four distinguished device families we ensure the full spectrum of needs is covered. Deciding which family is right for your individual employees creates a firm foundation on which you can build your own unique platform. Remember, there may not be one radio, or even a family of radios, that suits everyone. Let's take a look at the radio families:

UNLICENSED PMR446

OUR MOST SIMPLE SOLUTION - EASY TO USE STRAIGHT OUT OF THE BOX PROVIDING BASIC VOICE COMMUNICATIONS.

- Ready-to-use and license-free – an easy way for business users to stay in touch with colleagues
- Up to 10 kilometres range* for on-site communications with no call charges
- XT600d adds selective calling and texting
- CLP446 and CLK446 models with stylish form factor are ideal for customer-facing tasks



▶ | DISCOVER MORE ABOUT THE UNLICENSED PMR446 FAMILY

* Depending on terrain and conditions

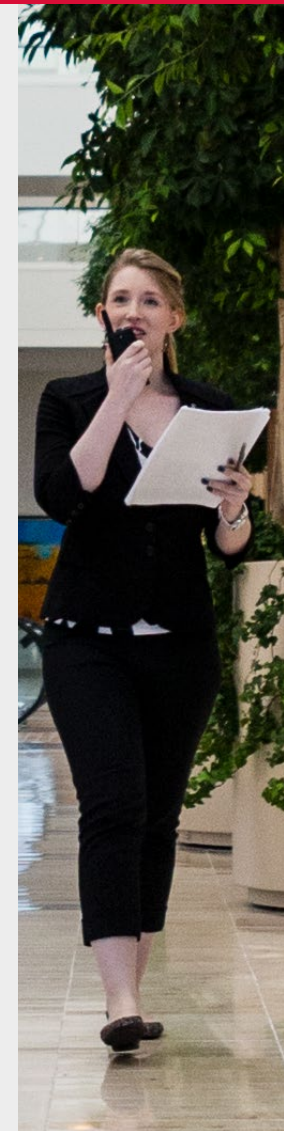
ENTRY COMMERCIAL

COMPACT, LIGHTWEIGHT, COST EFFECTIVE DEVICES THAT ARE IDEAL FOR COMMERCIAL USERS.

- More robust, more reliable – the starting point for secure commercial communications
- Higher powered than unlicensed, these radios give greater range
- Licensed use means there will be less interference from other users
- Tested to MIL standards for high reliability and performance
- IP67 waterproof and dustproof models available – essential for outdoor operations



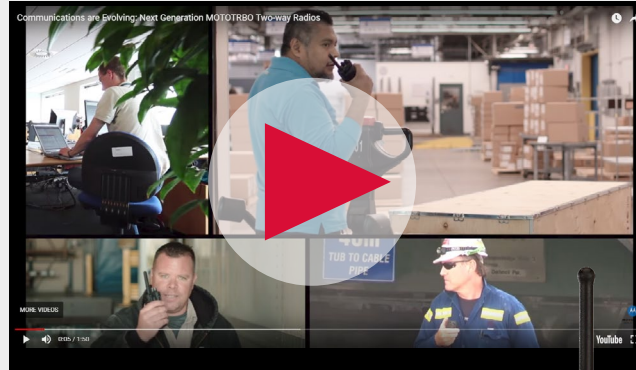
▶ | DISCOVER MORE ABOUT THE ENTRY COMMERCIAL FAMILY



MOTOTRBO™

A LICENSED VOICE AND DATA SOLUTION WITH HIGHER COVERAGE, INTEROPERABILITY AND ADVANCED FEATURES.

- Better coverage and less interference – ideal for industrial environments
- DMR compliant for better basics, advanced features and interoperability
- Wide choice from ultra-thin portables to extra-tough mobiles with industry-leading technology
- Huge diversity and flexibility, allowing you to choose the features you need – see tech panel
- Radios are supported by a choice of systems to help your business grow and evolve with features like IP Site Connect for connecting multiple sites and Capacity Plus for increased call capacity



MOTOTRBO™ TECH PANEL

Powerful audio

Intelligent Audio, background noise cancellation and IMPRES™ Audio allows you to hear and be heard more clearly, even in noisy environments.

Advanced voice and data

Transmit Interrupt breaks into existing calls to ensure high priority messages get through. Devices also allow you to take advantage of text messaging and productivity applications.

Location tracking and Safety

Multi-constellation GNSS provides increased accuracy for location tracking of people and assets. Combined with features such as Lone Worker and Man Down, this significantly boosts safety.

High stamina

IMPRES energy gives longer battery runtimes to cover a full shift and extends the lifetime of your battery to reduce replacement costs.

Instant connectivity

Bluetooth connects devices quickly without the inconvenience of wires that can tangle or get in the way.

Enhanced usability

With programmable buttons and features like voice announcements and text-to-speech, workers can move through tasks faster.

Design choice

From slim and light to rugged and waterproof – match devices to workers and roles.

Migration & Updates

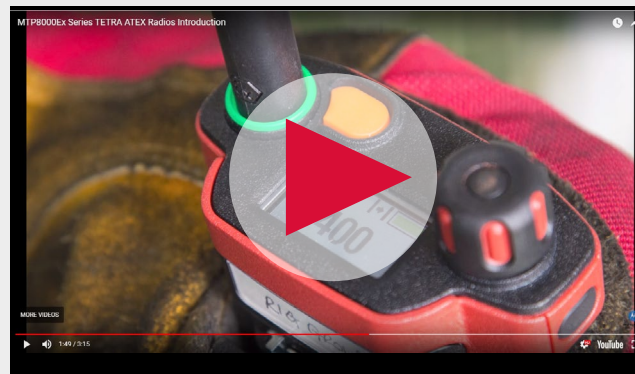
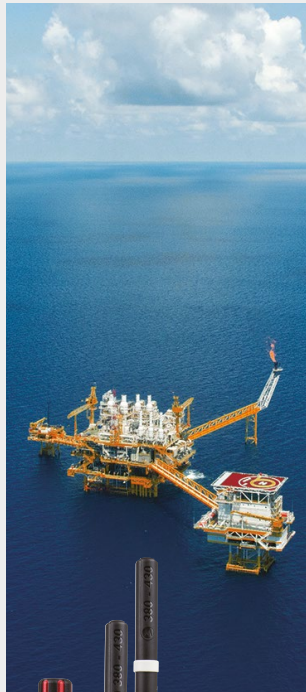
Dual digital/analogue for easy migration and over-the-air programming for remote software updates maximises the time devices are in productive use.

▶ | DISCOVER MORE ABOUT THE MOTOTRBO™ FAMILY

TETRA

THE SOLUTION OF CHOICE FOR PUBLIC SAFETY AND DEMANDING COMMERCIAL ENVIRONMENTS.

- A range of rugged devices that are ideal for mission critical use
- ATEX certification for hazardous and potentially explosive environments
- Key features including loud audio, long battery life and enhanced coverage
- Choice of rugged devices with simple or full keypads and an ATEX option
- Stylish and discrete ST7000 model is ideal for customer-facing roles at airports, hotels and other customer facing roles
- Dedicated accessories for in-vehicle and hands-free use plus multi-unit chargers, remote speaker microphones, earpieces and headsets



▶ | DISCOVER MORE ABOUT THE TETRA FAMILY

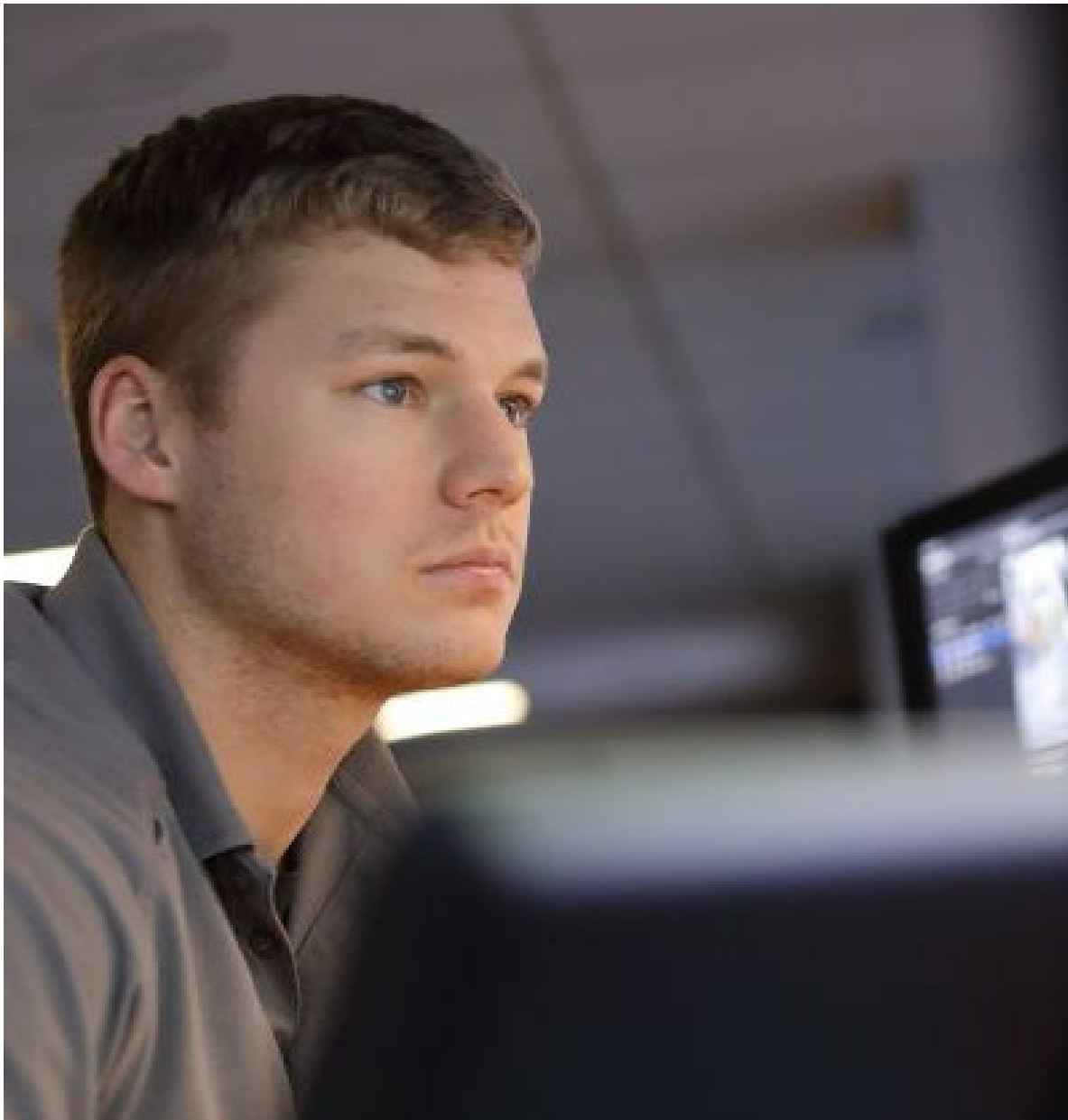
SUMMARY

BUILDING THE PLATFORM THAT'S RIGHT FOR YOU

Taking a look at your business – its size and structure, its working conditions, its people and the roles they play – helps you define your communication requirements. And with our four radio families, you can start mapping out a path that takes your entire communication platform where it needs to be. We can then work with you to develop a solution that supports your specific objectives - so ultimately your business thrives with enhanced efficiency, productivity and safety.

THREE THINGS TO CONSIDER...

1. Is your business being let down by your communication network? For example, is key information not getting through and are operations suffering?
2. Could your business benefit from extending radio communication beyond voice capabilities with productivity enhancing data applications?
3. Are you confident that your workforce is adequately protected when working alone in extreme environments?



UNLOCKING THE POWER OF BUSINESS COMMUNICATIONS WITH DATA APPS

SUPERCHARGING DIGITAL RADIOS WITH DATA

Whatever the business, whoever the user, our extensive range of radios and accessories helps your people tackle challenges head-on. With the right devices in the right hands, everyone can respond and react quickly to every eventuality.

But how can those devices be made even more effective so every task is more productive and safer? In this chapter, we look at integrating data applications into your digital radios to extend their functionality beyond just voice. We identify the benefits of having real-time information at your fingertips and pose the question: is this something you need? Or more specifically, would your people work more effectively if they could receive instant project updates on their devices, access special skills and knowledge at the touch of a button and message colleagues in seconds?

Deciding whether to add data applications to your communication system is an important step. And with a useful overview of our extensive range of applications, available for multiple tasks on MOTOTRBO and TETRA devices, this chapter helps you evaluate whether it's a step worth taking. Without doubt, many organisations are already benefitting from the power of data applications through enhanced productivity, efficiency and safety. So, is it for you? And if so, which specific applications meet your requirements and how do you get started?

EVALUATING YOUR BUSINESS – SPOTTING SHORTFALLS

Every business faces multiple challenges that have to be overcome to run smoothly and seamlessly. Identifying these challenges is a vital starting point. You may recognise, or be a victim of the most common which include:

WORKFORCE SKILLS SHORTAGES

Do all your employees have the necessary knowledge or experience to handle every task efficiently? If not, they'll need to locate and ask colleagues for help or rely on others, all of which takes up time. And if they try to do jobs themselves without the right skills, quality and safety could be compromised.

SLOW REACTION TIMES

We all want to be proactive, or ready to respond in an instant to any unforeseen eventuality. But in a hectic business environment, with no time to assess operations or spot warning signs, it's so easy to be the reverse: reactive or slow to respond. When that happens we waste precious time fighting the fallout.

ORGANISATIONAL DELAYS

The bigger your business and the more sites you operate, the harder it is to keep everything slick and fluid. You need precise planning, organisation, execution and delivery to efficiently manage resources – even the slightest delays can have serious commercial implications.

INADEQUATE SAFETY MEASURES

How well do you protect your employees, clients and guests? Safety is easily compromised but the implications can be disastrous – from injuries that weaken your workforce to tragic fatalities, leading to fines and prosecution that could close your business.

INFORMATION OVERLOAD

Data is great but you can have too much of it. Too many options, too many feeds, too much data that isn't relevant. Information overload bogs you down and makes prioritising important tasks even more difficult, leading to oversights and mistakes.

EVALUATING YOUR COMMUNICATIONS – IDENTIFYING GAPS

Your communications system also faces multiple challenges that need addressing before your people and assets can connect seamlessly. These challenges include:

UNSUITABLE COMMUNICATION DEVICES

Do your devices allow your people to do everything they need to do? If they don't, then an employee may need to carry multiple devices providing different services and information to perform tasks – an expensive and cumbersome option.

UNCOORDINATED CONTROL & MANAGEMENT

Are your systems coordinated? A lack of central control combined with devices that don't talk to each other creates operational inefficiencies. Time delays, information oversights – employees with a poor view of the job at hand and no clear sense of direction are more likely to make flawed decisions.

COMMUNICATION BREAKDOWN & CONFUSION

Cross communication between employees leads to different people doing the same job or nobody doing the job at all. While a duplication of effort is highly inefficient, having tasks left unassigned and overlooked can potentially jeopardise a whole project.

DELAYED EMERGENCY RESPONSE

How quickly can you identify an emergency situation and put in place a rapid response? Delays increase the impact of incidents and injuries with potentially catastrophic consequences. They also extend the time workers are out of action, disrupting the smooth running of your business.

SYSTEMS UNCHECKED & FAILURES UNIDENTIFIED

Are you able to instantly spot a system failure before the problem becomes a crisis? If you rely on manual checks without remote monitoring and automated alerts, chances are failures will go undetected – something that poses a serious threat to your business.



8 WAYS DATA INSIGHTS TACKLE YOUR CHALLENGES

Earlier in this chapter we identified some general business and communication shortfalls that can challenge, or even derail your business. And we've highlighted data applications as a possible solution. But how do you decide which apps are right for you? Or more specifically, having pinpointed the gaps, which apps are most suited to fill them?

The features of data applications can be segregated into eight key areas. Let's take a look at these:

ALARM & TELEMETRY

Challenge: How to react faster to emergencies and spot system failures.

With alarm and telemetry apps, you can instantly receive information from sensors and detection equipment and take action. Automatically deliver alerts to the right people via text messaging and you empower an immediate response during an emergency. Because the alarms are sent to their device, they can be read on the move so there's no need for them to return to base. These apps help you avoid downtime and protect people and assets.

CONTROL ROOM SOLUTIONS

Challenge: Improve central control of your systems and operations.

An integrated control room solution allows centralised management of your data and gives you a complete overview of systems and operations. You can see real-time activity at-a-glance and send critical notifications to staff or equipment. Having all essential data in one place helps you optimise efficiency, productivity and safety.

INTEROPERABILITY

Challenge: Connect all your devices and networks for seamless communication.

If your people use multiple devices, look at WAVE, a powerful Push-to-Talk platform that connects all your disparate devices and networks so everyone can easily communicate between smartphones, radios, computers or landlines. It turns Android and iOS devices into multi-channel PTT handsets, allowing fully secure, real-time voice communications anywhere there's a network connection.

SITUATIONAL AWARENESS

Challenge: Know where everyone is, all the time.

With a complete overview of activity, it's easier to track people and assets and identify problems. Some apps include location tracking using GPS or Bluetooth iBeacons and include lone worker and man down features for greater safety and efficiency. Workers can also benefit from the latest information and communicate instantly with colleagues to gain an up-to-the-minute understanding of what is happening around them – vital when dealing with the safety of staff or members of the public.

DIGITAL MEDIA RECORDING AND MANAGEMENT

Challenge: Capture vital information for faster, more efficient action.

Call recording apps securely and reliably record data from radio messages and talk groups, preserving a vital source of information. Call logs can be used to train new staff, or to define process improvements that can help initiate faster, more efficient future responses. And since call data and voice recordings are preserved, you maintain a clear audit trail for evidential analysis. Data is time stamped, making it easy to find specific recordings.

WORKFORCE EFFICIENCY AND MANAGEMENT

Challenge: Maximise the productivity of your people.

Getting the most out of your workforce is critical. These apps provide a whole range of productivity enhancing features including work ticket management for efficient assignment and re-assignment of jobs, e-mail and SMS messaging, system monitoring and reporting. Work ticket management is especially useful when you are managing a large number of operational tasks across multiple team members.

MESSAGING SOLUTIONS

Challenge: Clear, simple communication between people at all times.

Sometimes, time pressures and environments make communicating by voice challenging. Text messaging opens up radios to a whole new level of communication based on speed and convenience. Users can text relevant updates to multiple people or groups, enabling everyone to stay aware and minimising cross communication.

DEVICE AND SYSTEM MANAGEMENT

Challenge: Identify device and system issues immediately for rapid resolution.

With full control and effective management of your radios and systems, you preserve the security of your business. Automated tasks including monitoring and software upgrades keep systems up to date and operating at optimum performance. They allow you to spot potential problems in your radio fleet and take action before those problems escalate, while preventing unidentified system failures.

APPS IN THE SPOTLIGHT

SMARTPTT PLUS



A control room software application for MOTOTRBO radio networks that includes voice dispatch, texting, job ticketing and event logging. Optional features such as GPS tracking, indoor location, voice recording, interoperability, telephone interconnect and a web client for remote system access can all be added. It's a powerful software solution providing integrated dispatch control over multiple sites and channels.

TRBONET PLUS



A comprehensive control room solution for MOTOTRBO radio systems. TRBONet PLUS is an IP-based dispatch application that enables you to fully control and manage all available resources using voice communication supplemented with text messaging, voice recording, telephone interconnect and other features. This is a very flexible and scalable solution that can grow with your needs.



SUMMARY

VOICE AND DATA, A POWERFUL COMBINATION

Whatever your business or industry, three criteria are paramount: efficiency, productivity and safety. With voice and data communications, so much more is possible. Efficiency is improved as devices and networks connect seamlessly and assignments are managed with precision. Productivity is boosted by centralised control and better situational awareness so you always know how your people, systems and devices are performing. And safety is increased with alarm management, location tracking, man down and lone worker applications.

Our range of apps make us an ideal communication partner for your business. As you can see in our online catalogue, everything is based around the power of customisation, allowing you to choose the portfolio of apps best suited to your own specific challenges.

ONLINE CATALOGUE – EVERY APPLICATION IN ONE PLACE



All the apps from Motorola Solutions and our Application Partners are in our online catalogue [here](#).

It introduces you to a comprehensive choice, which you can filter by region, technology, category and industry to find exactly the right solutions for your needs. When you've found what you're looking for, explore the links for more detailed information. It's an easy way to identify the apps behind the benefits we've just discussed.

▶ | DISCOVER MORE ABOUT OUR ONLINE CATALOGUE

THREE THINGS TO CONSIDER...

1. Is your performance being hampered by a delay in assigning work tasks?
2. Do you have a centralised workforce management system?
3. Are there communication difficulties that are preventing your people from working more efficiently and effectively?



UNIFY YOUR WORKFORCE: ONE TEAM, ONE VOICE, ONE GOAL

EMPOWERING THE WORKFORCE WITH UNIFIED COMMUNICATIONS

In a tough commercial world where competition and customer expectations are sky high, you'll want to get the very best from your workforce. The goal is to generate the productivity, safety and operational efficiency required to provide customers with what they want, when they want.

But how do you do that when your workers are communicating using different devices, networks and data applications across different environments? In this chapter, we explore the concept of unified communications, where everyone in your organisation can share the same real-time flow of information. We identify the benefits of having people and places connected with a unified voice and data platform, then ask the question: how would this transform your operations? If your employees aren't getting the information they need when they need it, or you can't locate the people you need when you need them, unified communications could be a game-changer.

Reviewing your business to decide whether communication barriers exist in your operations is a vital step if you want to maximise productivity. We can help you take that step by looking at the challenges your communication platform may be facing, by identifying possible implications to your business if barriers get in the way and by introducing solutions to any of those issues we may highlight.

TYPICAL CHALLENGES FACING TODAY'S ORGANISATIONS

Throughout the past decade, businesses have faced immense pressure to evolve and survive due to the global economic downturn and the way employees and teams across the workforce operate. To continue to run seamlessly and profitably, you'll need to consistently face these challenges and maybe some new ones, including:

AN INCREASINGLY MOBILE WORKFORCE

Are you finding more of your staff working out in the field in different environments? If so, you'll know how hard it is to keep in touch with everyone and ensure they are supplied with the right information at the right time. Being out of touch is not an option as it compromises safety and productivity.

A MORE THREATENING, LESS SECURE WORLD

From random terror attacks to increasingly sophisticated cyber crime, the world has become a more dangerous and vulnerable place. How do you maintain security in this environment? What can you do to protect your organisation and minimise the implications of a security breach?

SHRINKING BUDGETS, INCREASING EXPECTATIONS

We live in an age of austerity and tight budgets. Today's most successful organisations keep a firm grip on expenditure and are streamlined to deliver maximum productivity from their resources. Is that you? If not, how can you start reforming your operations?

MORE REGULATIONS, MORE RULES

Business is so much more regulated these days – from protecting employees to maintaining assets and meeting social and ethical responsibilities. But satisfying regulations takes time. And avoiding them can be disastrous with crippling fines and prosecution.

A SHORTAGE OF SPECIALISED SKILLS

Do you find it increasingly difficult to source the right people and keep them? Skills have become more specialised while the demand for those skills has increased, making recruitment a real challenge. Employees are also more tuned in to the labour market and ready to move if dissatisfied.

UNCONNECTED COMMUNICATIONS: HOW IT AFFECTS BUSINESS OPERATIONS

In addition to the market forces outlined in the previous section, you may also find that internal forces such as challenging environments put a strain on your communication platform. You may be familiar with some of these issues:

TOO MANY DEVICES, TOO MANY NETWORKS

Is it vital for some of your workers to use radios while others rely more on smartphones, laptops and tablets? If you are running different communication solutions across your organisation like mobile phones, Wi-Fi and digital or analogue two-way radios, how do you all stay in touch? Multiple devices and networks create inefficiencies and potentially disastrous communication breakdowns.

DISCONNECTED TEAMS

When people use different devices and networks, communications are fragmented. Individuals and teams work independently rather than as one seamless unit. You can never be sure who is receiving the right information at the right time and team collaboration is minimised.

INFORMATION BOTTLENECKS

Information is the lifeblood of your organisation and helps you make informed decisions that have the best possible outcome. When information doesn't get through, decisions become flawed and time delays occur. At critical times, these delays can turn incidents into emergencies and emergencies into disasters.

DIFFICULTIES LOCATING PEOPLE

How quickly can you find the people you need when you need them? If you want to make a spontaneous change to a task or respond to an unexpected incident, speed is the key. But physically locating people can waste a lot of time, which compromises productivity. In emergency cases, the implications are even more serious.

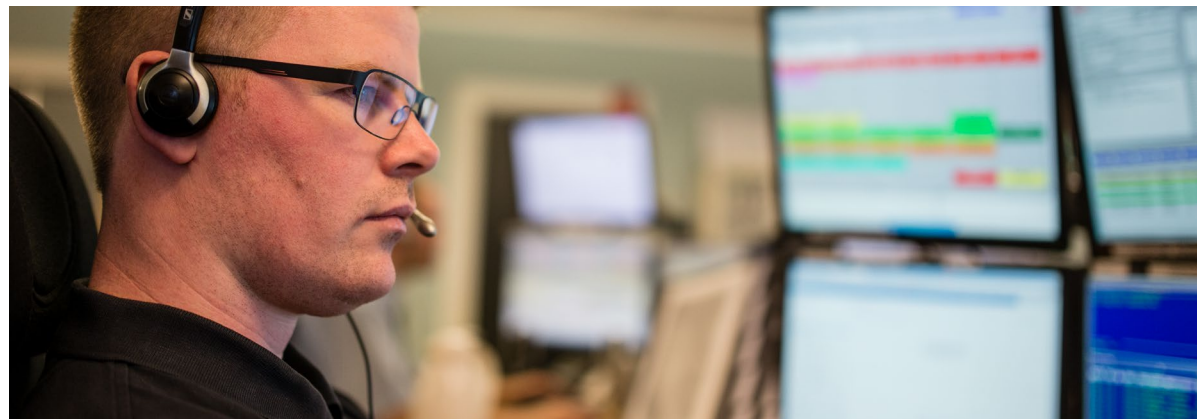
REMOTE AND AGILE WORKFORCE

With an increasingly mobile workforce, it is essential that information and conversations follow employees wherever they are. Employees are restricted if they are tied to a desk or specific location in order to access information and be an active participant in business decisions. It is a common issue for disconnected organisations with workers unable to access and utilise the latest information or join discussions when working from home, at remote sites or on the road.

UNIFIED COMMUNICATIONS: THE POWER OF ONE TEAM

Dealing with these issues is all about eliminating the barriers between devices, networks and locations. It's about connecting people and places with a unified voice and data platform so everyone can be part of the conversation. A platform where information flows freely, between staff members and from staff to customer, with voice communications enhanced using data applications tailored to the environment.

The result is a connected workforce operating in real time as one team, focused on delivering your business goals. With no loss of connectivity and a complete flow of information, people can respond faster and act more decisively in the moment. But how do you eliminate the barriers to make this possible?



EXTEND TWO-WAY RADIO COMMUNICATIONS OVER BROADBAND

WAVE is Motorola Solutions Push-To-Talk (PTT) over Broadband solution that unifies people using radios, smartphones, tablets and laptops so they can communicate seamlessly together. One team, one voice, one goal.

WAVE extends the reach of your radio network, channels and talkgroups to non-radio users. Wireline connections between Motorola Solutions radio networks and the WAVE broadband push-to-talk system enables instantaneous communications between a diversity of team-members. Intuitive mobile and web apps on smartphones, tablets, laptops or desktops enable non-radio users

and radio users to be able to communicate with each other over a variety of talkgroups so everyone can be part of the conversation.

MOBILE APP

With this app, employees can use their smartphones and tablets as PTT radios to communicate securely with colleagues over an existing network wherever they are.

WEB APP

A browser-based app that transforms any internet connected computer into a secure multi-channel workstation so they can monitor, receive and transmit PTT communications.

With an increasing demand for faster, more on-time service, WAVE connects your entire workforce by eliminating the barriers between different radio and broadband networks. As a result, work colleagues can all communicate over PTT, no matter what radio or broadband device they use. So much more than just voice calls becomes possible. For example, unified communications allows individuals to send text messages at the push of a button from a PTT application.

HOW UNIFIED COMMUNICATIONS TRANSFORMS THE WAY YOU WORK

Now let's see how Unified Communications using WAVE can really transform your business. Here are five key benefits:

SELECT THE RIGHT DEVICE FOR THE RIGHT WORKER

Not every device is suitable for every worker in every environment. Radios, for example, are ideal for workers who need consistent signal coverage or work in rugged, noisy locations, while smartphones may be the best choice for management. With WAVE, you have the freedom to give everyone the right device for their role, which makes your workforce more productive and safer, and device investment more financially sound.

COMMUNICATE WITHOUT BOUNDARIES

With WAVE, you can extend your reach by building a system that reaches across both radio and broadband networks. Choose the right device for each worker depending on where and how they work. Increase collaboration between individuals and teams by connecting across disparate networks and technologies. By becoming interoperable and communicating without boundaries, you discover new levels of operational efficiency.

RESOLVE PROBLEMS FAST

With everyone connected and communicating in real-time, issues are addressed at speed. Instructions and information do not go astray and everyone who needs to be involved is aware what everyone else is doing – the perfect groundwork for a swift and effective response.

KEEP EVERYONE SAFE

Unforeseen incidents and breaks in regulations or health and safety standards can be addressed immediately, minimising any threat to staff. One push of a button from a PTT application allows you to communicate issues in an instant – and because everyone is connected, everyone knows immediately about the problem.

BECOME MORE PRODUCTIVE

People need the right information at the right time to do their job. With unified communications, intelligence can be shared in an instant. This enables workers to immediately access the same information and react accordingly. The wider organisational benefit is that you build a workforce equipped to act in unison and driven towards the same goal.

Whatever industry you work in, unified communications enhances efficiency, productivity and safety. Imagine transport managers being able to communicate traffic problems to smartphone-using drivers on the road, or resort managers at a hotel mobilising security teams in seconds to investigate a suspect package. Instant voice communication and data sharing using the immediacy of Broadband Push-to-Talk makes operations seamless, expanding your network and advancing the lifeline of your business.

CUSTOMER STORIES:



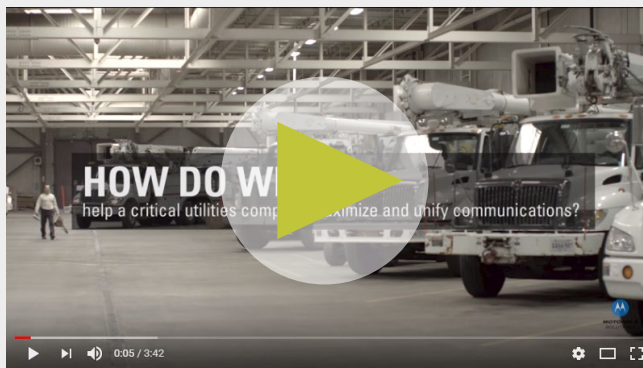
EXTENDING GROUND-TO-AIR RADIO COMMUNICATIONS AT BRITISH AIRWAYS

Having efficient and streamlined communications to support swift aircraft turnaround operations was a vital objective at British Airways. Read how one of the world's leading global carriers turned to WAVE for secure, real-time communications and the positive impact it had.

▶ | [READ THE CASE STUDY](#)

UNIFYING WORKFORCE COMMUNICATIONS WITH CONNEXUS® ENERGY

The largest customer-owned electric cooperative in Minnesota, supplying electricity to nearly 130,000 homes and businesses, Connexus® Energy was looking to replace their aging communications system with future-ready technology. WAVE offered the perfect path, transforming PTT communications from radio-equipped workers to anyone, anywhere, on any device.



▶ | [SEE HOW WAVE HELPED CONNEXUS ENERGY](#)

ELEVATING GUEST SERVICES AT MGM RESORTS

See how MGM Resorts, one of the largest hospitality and entertainment companies in the world, successfully deployed WAVE to extend their MOTOTRBO radio system to broadband networks. Personnel can now communicate virtually anywhere, whether on radios, smartphones, desktops or other devices. The result has been elevated service, improved guest satisfaction and streamlined operations.



▶ | [SEE HOW WAVE HELPED MGM RESORTS](#)

SUMMARY

UNIFIED COMMUNICATIONS, EVERYONE TOGETHER

Unified communications is transforming the way organisations work. And the facts speak for themselves: up to a 42% improvement in productivity, a 43% increase in employee collaboration and a 33% increase in worker flexibility for organisations with connected employees¹. With unified communications, your business is one team with one voice and one goal. Everyone is connected and shares the same real-time flow of information. And because your employees are more efficient and productive, you'll be providing a faster, more responsive service, boosting customer satisfaction.

¹ IDG Enterprise: Unified Communications and Collaboration Survey

THREE THINGS TO CONSIDER...

1. Do your employees have to carry more than one device to stay in touch?
2. Are you losing time and customers because your communication platform has gaps?
3. Does it take longer than necessary to make decisions when multiple people are involved in the process?

TAKE COMMUNICATIONS TO THE MAX WITH ACCESSORIES AND SERVICES

GOING BEYOND RADIOS AND APPLICATIONS

You've made the decision to invest in digital radios. You've chosen the devices and applications you need to optimise the productivity, efficiency and safety of your workforce. You're ready to go. Or are you?

Consider the nature of individual job roles within your business. Do your people need to work hands-free? Are they powered up for extremely long shifts? Is noise in the workplace a critical issue? Ask yourself what the implications would be if your communication network or infrastructure went down? How prepared would you be to get them back up and running with minimal delay?

In this chapter, we profile the accessories available to improve the performance of your radio devices and the service packages designed to protect your investment. It's all about customising your communications system to match your own specific working challenges to improve the way your employees work. It's about having a back-up plan in place, should the unexpected happen. If you find there are still barriers to optimising your operations, accessories and services could be the key you need.

ENHANCING EMPLOYEE PERFORMANCE WITH TWO-WAY RADIO ACCESSORIES

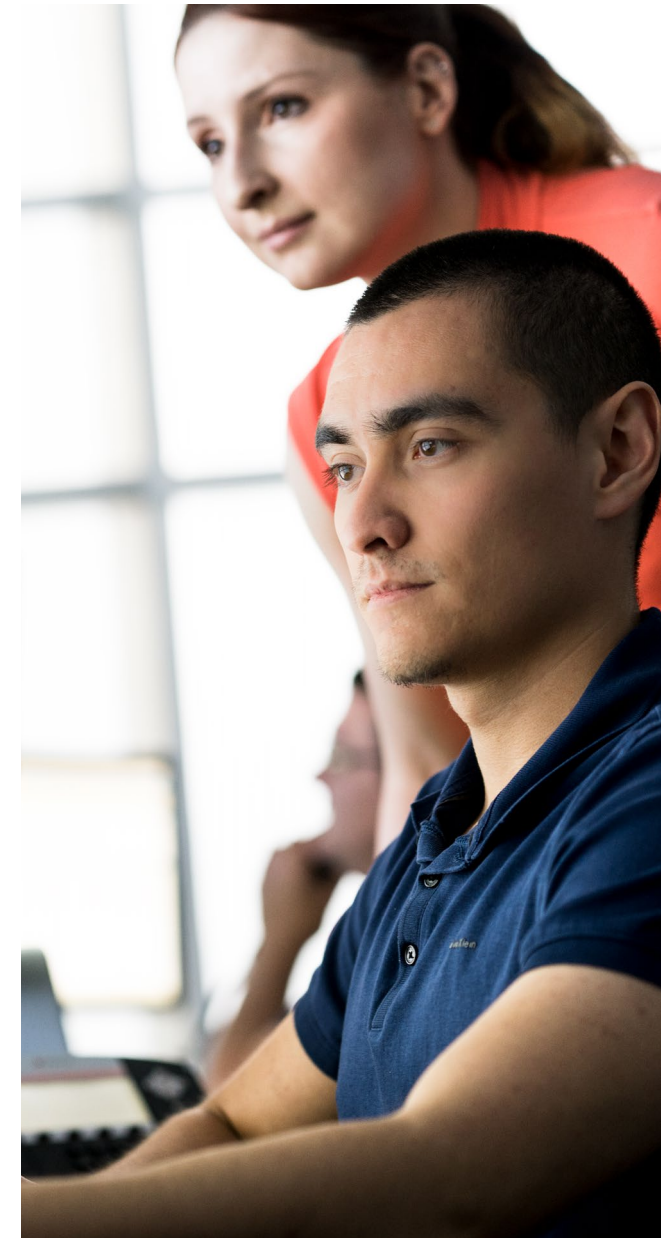
Two-way radios are designed for instantaneous, secure and controlled communications. Pair them with the right accessories and you can significantly boost their performance with a more complete solution that's customised to the user. Imagine how much easier it is for maintenance staff to do their jobs when they can communicate hands-free. Or how much more productive workers can be when their radios are powered to last the full shift.

But how do you decide which accessories are right for your radio users? Motorola Solutions has a vast catalogue of accessories to meet the widest range of user needs and we offer three tiers of solution:

- 1. MagOne™** for those with restricted budgets
- 2. Standard accessories** for everyday use, and
- 3. IMPRES™** accessories for the ultimate in performance

Each tier features the same high quality standards that we apply to our radios and because devices and accessories are tested together as a complete system, you can rely on them to perform when it matters.

The first step is to identify any challenges your employees face when it comes to communicating. Then you have the knowledge needed to move forward and match suitable accessories from our portfolio to overcome these restraints and, ultimately, enhance worker productivity.



HEADSETS AND EARPIECES

Hearing and being heard clearly ensures commands are received and actioned without delay. But how can you guarantee that happens in noisy environments like factories, stadiums and outdoor locations? Earpieces fit in or over the ear and allow the radio user to hear messages while preventing others from eavesdropping or being disturbed by calls. Headsets provide a speaker ear-muff on a headband with a pad for a secure fit and a microphone on a flexible boom, allowing users to make and receive calls. Ultra light and lightweight headsets are ideal for everyday environments but for noisy locations you should consider a medium or heavy duty model. Specialist solutions are also available including temple transducers and tactical headsets that can be worn with head and eye protection, wireless headsets and models designed for ATEX radios.



REMOTE SPEAKER MICROPHONES

For workers who regularly operate machinery, carry equipment or climb ladders, hands-free communication is vital. Using a Remote Speaker Microphone (RSM) allows users to make and receive calls without removing the radio from their belt. The accessory clips to a collar or lapel, making it easy to access and easier to hear calls. A variety of RSMs are available to meet different needs and counter challenging conditions including high wind, crowd noise and industrial machinery. Equipping your teams with RSMs can also help protect your radios as they are removed infrequently so less prone to knocks and falls.



BATTERIES AND CHARGERS

Do your people make a lot of calls, frequently transmit GPS updates or connect to multiple Bluetooth® devices? And work long shifts too? If so, battery power is going to be an issue. Your radios are only as reliable as the battery that powers them so it makes sense to choose products that are proven tough and designed for the job. Motorola Solutions batteries and chargers have been developed as an integral component of our two-way radios for optimum performance. A variety of different sizes, capacities and types are available to ensure you get the power you need to make every moment count.



WIRELESS ACCESSORIES

A maintenance engineer working in a shaft stays in communication with his colleague, even though his radio remains on the surface. A CCTV operator in the control room can move away from their station but still talk to security guards patrolling a shopping centre. How do they do this? Using Bluetooth wireless accessories paired with Motorola Solutions digital two-way radios. Going wire-free gives people more freedom to move around and communicate, without the inconvenience of cables that need to be routed through uniforms before a work shift and can snag on equipment. Wireless headsets, earpieces and RSMs with discreet and covert options can also extend range and boost security.



SUMMARY

GETTING THE MOST FROM YOUR RADIO COMMUNICATIONS

Investing in radios and applications is an excellent way to boost your productivity, efficiency and safety. And to get even more from your investment, adding the right accessories to meet the individual user's work environment can further enhance benefits. Once you've made that investment, you should consider protecting it. If you're looking to get the very most from your hardware and software, even when the unexpected happens and your communications go down, then targeted service and support is the way to go. It can keep your system running at optimal levels day-to-day, and get you up and running again as quickly as possible if there is a system or device failure.

THREE THINGS TO CONSIDER...

1. Do your employees have the accessories they need to optimise their productivity?
2. Could your people work safer with hands-free accessories?
3. How would you keep things running smoothly if your communication system failed?

PROTECTING YOUR INVESTMENT WITH SERVICES

Even with the right radios, apps and accessories, there's always the chance something may go wrong. How ready are you to deal with a network, infrastructure or device failure? What implications does downtime have for your operations? And how quickly can you get systems up and running?

We like to assume things will never go wrong. But if they do, it's good to know you have a service plan in place to protect your hardware and software investment. We offer Managed Services where day-to-day management of your operations are transferred to experienced Motorola Solutions Professionals, or Support Services providing help and advice if you prefer to handle the situation within your organisation.

COMMUNICATION THAT PUTS OUR CUSTOMERS AHEAD

FOR OVER 80 YEARS MOTOROLA SOLUTIONS HAS BEEN PROVIDING BUSINESSES ACROSS THE WORLD WITH CRITICAL COMMUNICATION SOLUTIONS.

DISCOVER HOW COMMERCIAL ORGANISATIONS HAVE BUILT A BRIGHTER FUTURE THROUGH COMMUNICATION, INFORMATION AND COLLABORATION.

UNLICENSED RADIO USER: LARGE EUROPEAN DIY RETAILER



STORE CUSTOMER SERVICE GETS A SPEEDY BOOST

The retailer wanted to improve customer service so that, when a customer approached a staff member with a query, the employee would be able to find the answer instantly. This requires communication devices that enable employees to contact each other easily and speedily.

▶ | [READ THEIR STORY](#)

DMR RADIO USER: FAIRMONT THE PALM, DUBAI HOTEL

HOTEL RECOGNISES BETTER SERVICE, IMPROVED SAFETY AND COST SAVINGS WITH MOTOTRBO

Fairmont The Palm, Dubai needed a communication system that would provide reliable and clear voice communications with the capability to support data services. With the deployment of MOTOTRBO two-way radios employee efficiency has improved and a monthly cost saving of 35% has been identified.



“ Our success depends on attention to detail, exceptional service and quickly responding to our guests’ needs. And the timely and accurate sharing of information between staff is essential in delivering five-star service. The MOTOTRBO system helps us meet these objectives with a reliable and robust communications system. Our staff are using their time more productively and this has increased the efficiency of our entire operation.”

Sherif Hassanin,
Security Manager, Fairmont The Palm, Dubai

▶ | [READ THEIR STORY](#)

TETRA RADIO USER: RHEINBAHN AG AND VIA VERKEHRSGESELLSCHAFT GMBH

PUBLIC TRANSPORT OPERATOR SECURES RELIABLE, SCALABLE COMMUNICATIONS USING DIMETRA SYSTEM

Train, bus and tram providers required an upgrade of their analogue simulcast systems to a state-of-the-art communications platform. Delivering reliable voice and data communications along the entire transport network employees are co-ordinated and passengers are on time.

“ We know we can rely on Motorola Solutions’ DIMETRA IP TETRA system whatever the circumstances. Excellent communications help to keep all our buses and trains running on schedule.”

Reinhard Renja,
Project Manager, Rheinbahn AG

▶ | [READ THEIR STORY](#)

DMR RADIO USER: KTZE-KHORGOS GATEWAY



DRY PORT OPTIMISES LOGISTICS OPERATIONS WITH MOTOTRBO CAPACITY PLUS

Management called for a critical radio communications capable of supporting optimal operations and business communications. MOTOTRBO Capacity Max was the network of choice for their entire 140-hectare dry port, 198-hectare logistics park and 200-hectare industrial zone.

▶ | [READ THEIR STORY](#)

TETRA RADIO USER: GASSCO AS



OIL AND GAS OPERATOR PUTS TRUST IN TETRA AND IMPROVES SAFETY

Gassco needed to expand the functionality of its existing analogue two-way radio system to be able to pinpoint the location of personnel and improve safety. Now automatic alerts are issued to the operations centre should a member of staff be injured.

▶ | [READ THEIR STORY](#)

TALKING TECH: UNDERSTANDING TECHNOLOGY

NEED CLARIFICATION ON SOME OF OUR FEATURES AND TECHNOLOGY? WE'VE PUT TOGETHER A SHORT GLOSSARY OF KEY TERMS TO HELP YOU DECIDE WHICH DEVICES BEST MEETS YOUR NEEDS.

RADIOS DEFINED

Unlicensed PMR446 Radios

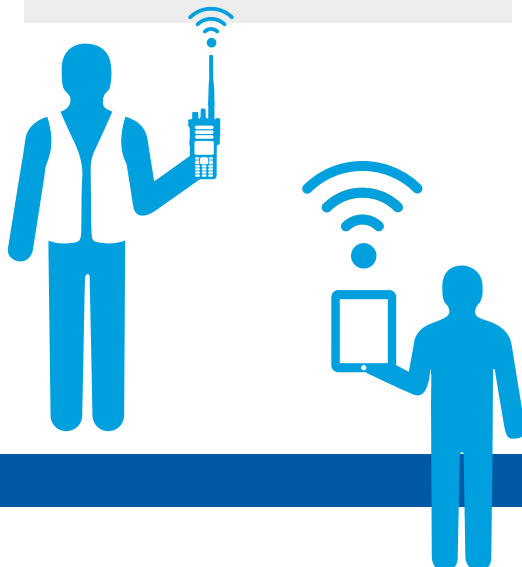
Ready to use straight out of the box radios that tend to be a cheaper option than the licensed alternative. Perfect if you require communication within small parameters.

Licensed Radios - Analogue

The traditional option for business operations that require instantaneous push-to-talk communications. Provide greater coverage, more reliable calling and greater functionality than unlicensed radios.

Licensed Radios - Digital

All the features of analogue but with enhanced benefits that include improved call clarity, longer battery life, wider coverage. Plus digital devices support the option of adding data applications.



STANDARDS DEFINED

MIL Standard

Products bearing the MIL standard have been designed to comply with stringent U.S. Military Standard specifications and procedures (MIL-STD) for high performance and reliability.

ATEX Radios

Designed to provide high quality communications according to the ATEX standard for safe, reliable use in environments containing potentially explosive gas and combustible dust.

IP67

A classification of a product's protection against water and dust. IP67 products can withstand damage from fine dust and immersion in up to 1 metre of water for up to 30 minutes.

DMR

Digital Mobile Radio is a European telecommunications standard developed as a replacement for analogue Professional Mobile Radios.

TETRA

European telecommunications standard providing the ultimate in capacity and capabilities. TETRA systems are used extensively by Emergency services but are also available to business users.

RADIO ENHANCING ADD-ONS

Intelligent Audio

Intelligent Audio detects surrounding noise and automatically adjusts radio volume accordingly.

IMPRES™ Audio

Accessories with IMPRES Audio optimise the performance of radios so voice conversations are clearer, crisper and louder, regardless of noise levels.

IMPRES™ Energy

Batteries, radios and chargers in the IMPRES energy system communicate with each other to maximise device run times and to ensure battery lifetime is extended.

Noise Cancellation

Noisy environments make it difficult to understand what's being said. Devices with noise cancellation cut out background noise, allowing the user's voice to get through.

Transmit Interrupt

Allows supervisors to take control of a busy channel by interrupting an on-going call so critical communications can get through during an emergency.

DATA APPLICATIONS DEFINED

Location tracking

GPS tracking and asset management solutions allow easy tracking of people, vehicles and other assets, both on and off site. Improves field communications, productivity and asset allocation.

Lone Worker

An application that enables periodic checking of personnel operating in isolated areas. Lone Worker provides a safeguard against unforeseen accidents and emergencies.

Man Down

This safety application monitors physical motion of the radio and can automatically call for help when unexpected movement (or lack of movement) is detected.

Text-to-Speech

An ideal feature for drivers and other personnel working hands-free, text-to-speech enables radios to read out text such as messages and work order tickets.



MOTOROLA SOLUTIONS

BUSINESSES AROUND THE WORLD TRUST US TO TRANSFORM THE WAY THEY WORK

Whether you're running a factory, transport company, hotel, hospital or school, Motorola Solutions helps you work more efficiently, productively and safely. Our extensive range of radio devices, applications and accessories provide quality solutions to empower your workforce and unleash the full extent of your business potential.



To see how communications can transform your business, visit www.motorolasolutions.com

LEARN MORE: motorolasolutions.com/business-communication-guide

CALL US: 0800 731 3496 (UK) or +44 207 019 0461 (English outside the UK)

EMAIL US: presales.info@motorolasolutions.com

REQUEST A CALLBACK: motorolasolutions.com/business-communication-guide-callback

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