



If you work in manufacturing, your teams will be feeling the pressure right now.

Industry leaps like mass customization and trends like 'just in time' have inflated your customers' expectations and driven up the competition, and as a result, your people are working harder than ever to keep up.

The solution should be simple: invest in smarter machines, hire more people. But it's easier said than done: machines are expensive, skilled manufacturers are scarce, and expanding your operation is a huge, risky undertaking.

So how do you meet growing demands without blowing up your costs (and your payroll)?



#### THE RISE OF 'SMART' MANUFACTURING

Smart Manufacturing is about leveraging information throughout the product lifecycle, with the goal of creating flexible manufacturing processes that respond rapidly to changes in demand. According to Gartner, while it's encouraging that 91% of the participants in a 2018 survey on digitizing manufacturing operations are pursuing a smart manufacturing strategy, it is not a pursuit without hurdles.¹ It requires synchronizing everything (people, method, materials, machines, and information) to drive flow.

1. Gartner, May 7, 2018 "Harvest the Value of Smart Manufacturing in the Supply Chain, Not the Factory"



# KEY DRIVERS OF MANUFACTURING COMPETITIVENESS TODAY:

- 1 Talent
- 2 Cost containment
- **3** Productivity
- 4 Supplier network<sup>2</sup>

https://www2.deloitte.cor



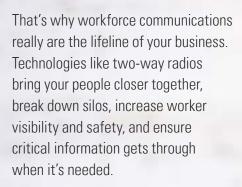


YOUR PEOPLE ARE THE HEART OF YOUR MANUFACTURING OPERATIONS. EVERY DAY YOU RELY ON THEM TO:

- Measure, grade and feed raw materials into your production machinery with precision.
- Operate and monitor your sensitive production-line equipment.
- Assemble products on your production line with the care they deserve.

- Ensure finished goods get fed into the distribution network effectively.
- Keep your plants secure and your people safe.
- Ensure maximum uptime, all the time.

Put together, it's people who keep your plant operations up and running.



They're one of the biggest reasons your people are able to adapt to changing conditions and emerging trends. Which is why empowering your teams with industrial unified communications is one of the smartest moves you could make right now...

# YOUR MACHINES CAN'T DO IT ALONE

#### TWO-WAY RADIOS: STILL THE FIRST CHOICE FOR MANUFACTURERS

45% of manufacturers use two-way radios more than any other plant-communication technology.<sup>3</sup>



#### INTRODUCING MOTOTRBO™

MOTOTRBO™ digital radios enable you to connect teams at any facility. That way, your production and engineering teams can connect directly with their counterparts at other locations.⁴

https://www.motorolasolutions.com/content/dam/msi/docs/solutions/manufacturing, lacr-2017-manufacturing-survey-report.pdf

<sup>4.</sup> https://www.motorolasolutions.com/en\_xl/products/mototrbo-story.htm

Two-way communications have come a long way since the radios you bought a decade ago.

Today's digital systems combine hardware, software, radio and broadband technology to deliver seamless, instant communication and data access across the entire manufacturing plant.

So you can connect your teams seamlessly, and reach everyone and every*thing* in your facility, within seconds.



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It's a cost-effective, quick-to-implement solution for meeting growing demands, while getting more out of your existing workforce and plant.

There are 15 ways to empower your teams with industrial unified communications, and they fall under three core areas of manufacturing:

We'll go through each of them in this guide, so you'll be ready to advance your team communications the second you've finished reading.

Let's go.





RISING CUSTOMER DEMANDS AND EXECUTIVE PRESSURES MEAN YOU'RE NOW EXPECTED TO MANUFACTURE AND DELIVER PRODUCTS FASTER THAN EVER.

But simply 'working faster' can be dangerous without also 'working smarter'. Here's how to work both faster and smarter with industrial unified communications:

### VOICE APPS

Apps like push-to-talk, voice dispatch, IP telephony with data, and comprehensive voice and data give you the freedom to select a specialized device for each employee without the need for central control.

# WORK ORDER TICKET MANAGEMENT

Work-order-ticket-management apps let you manage your teams' workflows via their radios. It means your mobile workers can notify dispatch when jobs are done, so you can track, analyze and improve cycle times.

#### 1000R-LOCATION TRACKING

Indoor-location tracking means your people can locate everyone and everything in your facility within seconds, thanks to Bluetooth-powered iBeacons placed around your facility.

# 04 GPS INTEGRATION

This helps you locate your mobile and portable assets, like the trucks going in and out of your facility. For added visibility, you can combine it with Google Earth and satellite, hybrid and street-level maps.

# PUSH-TO-TALK WORKGROUP COMMUNICATIONS

WAVE eliminates the barriers between communication systems so your teams can collaborate seamlessly, whether they're on smartphones, tablets, PCs or radios. It also gives you worldwide access to plants, offices and even customers, thanks to internetenabled mobile solutions.



UPTIME IN MANUFACTURING IS ABOUT PREVENTING COSTLY STOPPAGES AT THE EARLIEST POSSIBLE OPPORTUNITY, AND PREVENTING DELAYS AT THE CONSUMER END TO ENSURE THE BEST EXPERIENCES.

Here's how industrial unified communications helps you tick both of those boxes:

# 06. NOISE CANCELLATION

Today's digital radios can reduce background noise and automatically adjust volume to match plant noise levels. That way, your team members don't have to wait for quiet times to communicate with one another.

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Fleet management apps let you track your teams' vehicle data, including current location and speed. They also let you monitor route and schedule adherence, fuel consumption, ignition status and a whole bunch of other things, for maximum insight.

### TEXT MESSAGING AND EMAIL

You can even send texts and emails to radios now. And not just from phones — from tablets and even desktop computers. It means your teams can receive equipment and status alerts from a range of sources, and notify technicians from a single interface.

# 09. scada

SCADA Remote Terminal Units integrate seamlessly across your entire radio network, so your teams can leverage your current infrastructure for powerful process automation and more expansive communication capabilities.

# SYSTEM MONITORING

System Monitoring apps let your people check radio network failures, get real-time workflow status alerts by SMS or email, record calls, and analyze any radio congestions. They also offer live diagnostics.



KEEPING YOUR PLANT AND PEOPLE SAFE AND SECURE IS HARD — THERE ARE MORE DEVICES ON THE PLANT FLOOR, MORE CHANNELS TO COMMUNICATE THROUGH, AND MORE PRESSURES TO DELIVER THAN EVER.

To keep up, your workforce communications will need to integrate with up-to-date, smart safety features.

Here's how to make that happen with industrial unified communications:

#### PERSONNEL SAFETY

Today's radios are integrated with features like "man down" and "lone worker." It means radios can call for help when people can't, and initiate emergency alerts if radios are inactive for longer than usual.

#### ALARM MANAGEMENT

Alarm management apps enable your team members to respond rapidly, letting you monitor and remotely operate doors, gates, lights, sprinklers and more.

#### 13 coverage

Today's digital radios provide wider coverage than ever before, including underground areas where cellular networks can't reach.

## 14. DURA

#### **DURABILITY**

The latest digital radios have batteries designed to last a full shift. So your team members can rely on their radios to work whenever they need them.

#### 15 HEAVY-DUTY HEADSETS

Heavy-duty headsets offer protection against noisy environments whilst allowing your people to make and receive radio calls. They also give your people the freedom to use their radios without touching them, so their hands are free to manage other tasks more safely.

People, not machines, are the real heart of your manufacturing operations. It's *people* who adapt to evolving demands and prevailing trends.

And the better-connected they are, the more effective they'll be. That's why it pays to empower your people with industrial unified communications, so they're always doing their best work, even in moments when plant productivity, uptime, safety and security are on the line.

Now – time to get the ball rolling.

Two options: you can check out some of our other material on more specific solutions to your plant's needs, or you can hit us up and get going right away.

It's up to you.





#### WE'RE MOTOROLA SOLUTIONS.

We help ambitious manufacturers keep the communications lifeline unbroken – connecting their people in the moments that matter.

So they can achieve higher profits and consistent results, when productivity, uptime, safety and security are on the line.

We'd love to do the same for you.

Get in touch

https://www.motorolasolutions.com/en\_xl/solutions/manufacturing.html

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