

# UNIFIED TEAM COMMUNICATIONS: TOMORROW'S DIGITAL PLANT

2017 MANUFACTURING  
COMMUNICATIONS  
SURVEY REPORT



**MOTOROLA**  
SOLUTIONS





# UNIFIED TEAM COMMUNICATIONS: **TOMORROW'S DIGITAL PLANT, TODAY**

The Motorola Solutions 2017 Manufacturing Communications Survey offers an interesting snapshot in time. From the proliferation of multiple communication devices on the job to the need for instant communication across teams, to the features and services manufacturers increasingly demand, the trends it highlights paint a clear picture of manufacturing communications at an inflection point.

---

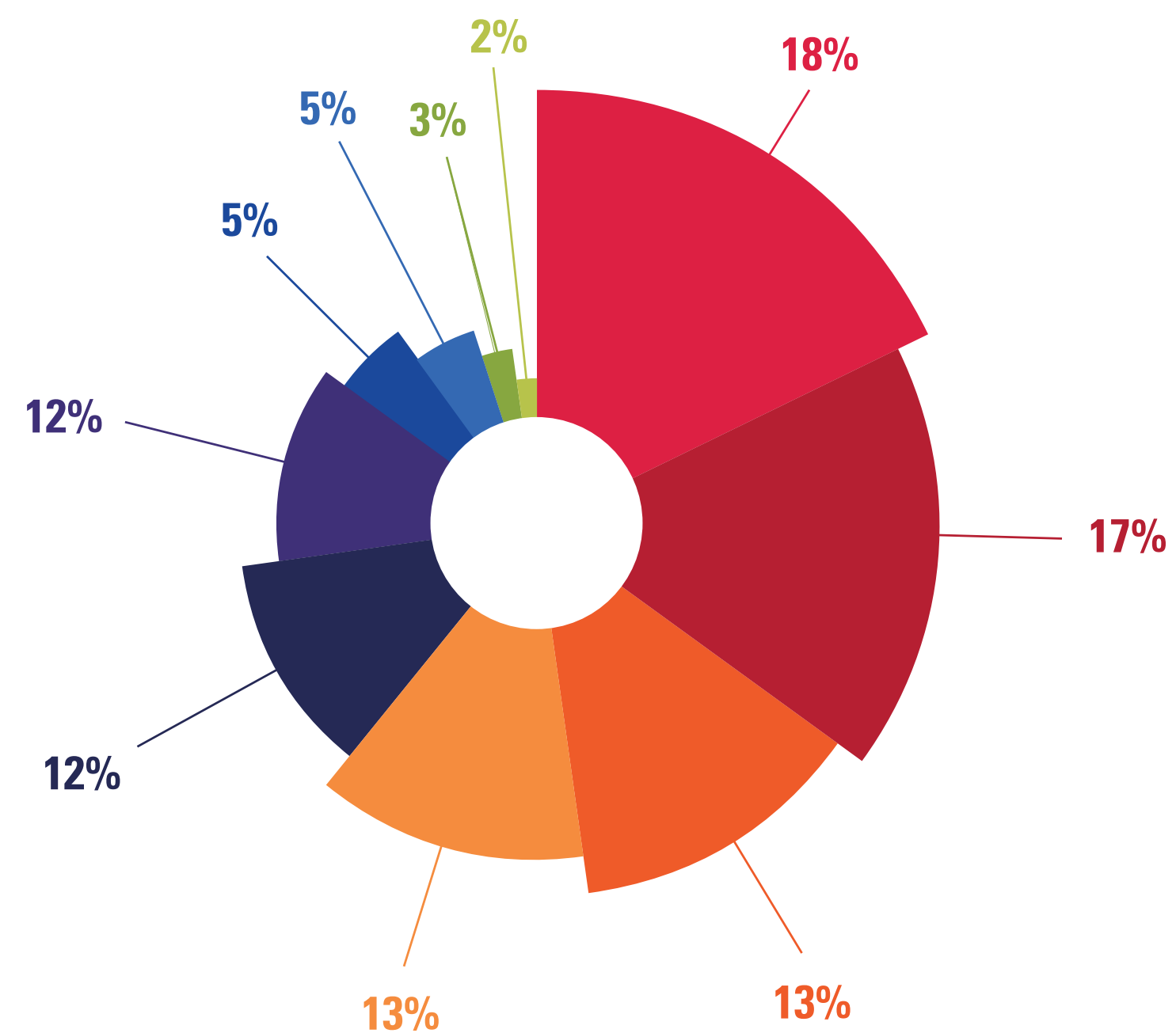
As they transition from legacy communications hardware to modern integrated systems, manufacturers are looking for solutions that provide a tangible return on investment today while helping them future-proof their investments for the advancements of tomorrow.

Those investments start with front line workers. Manufacturers understand that the safety and productivity of front line workers are critical to their success and revenue outlook. Worker downtime can greatly erode profits and with the lack of skilled workers, it's imperative that a manufacturer's workforce stays safe, connected and productive.

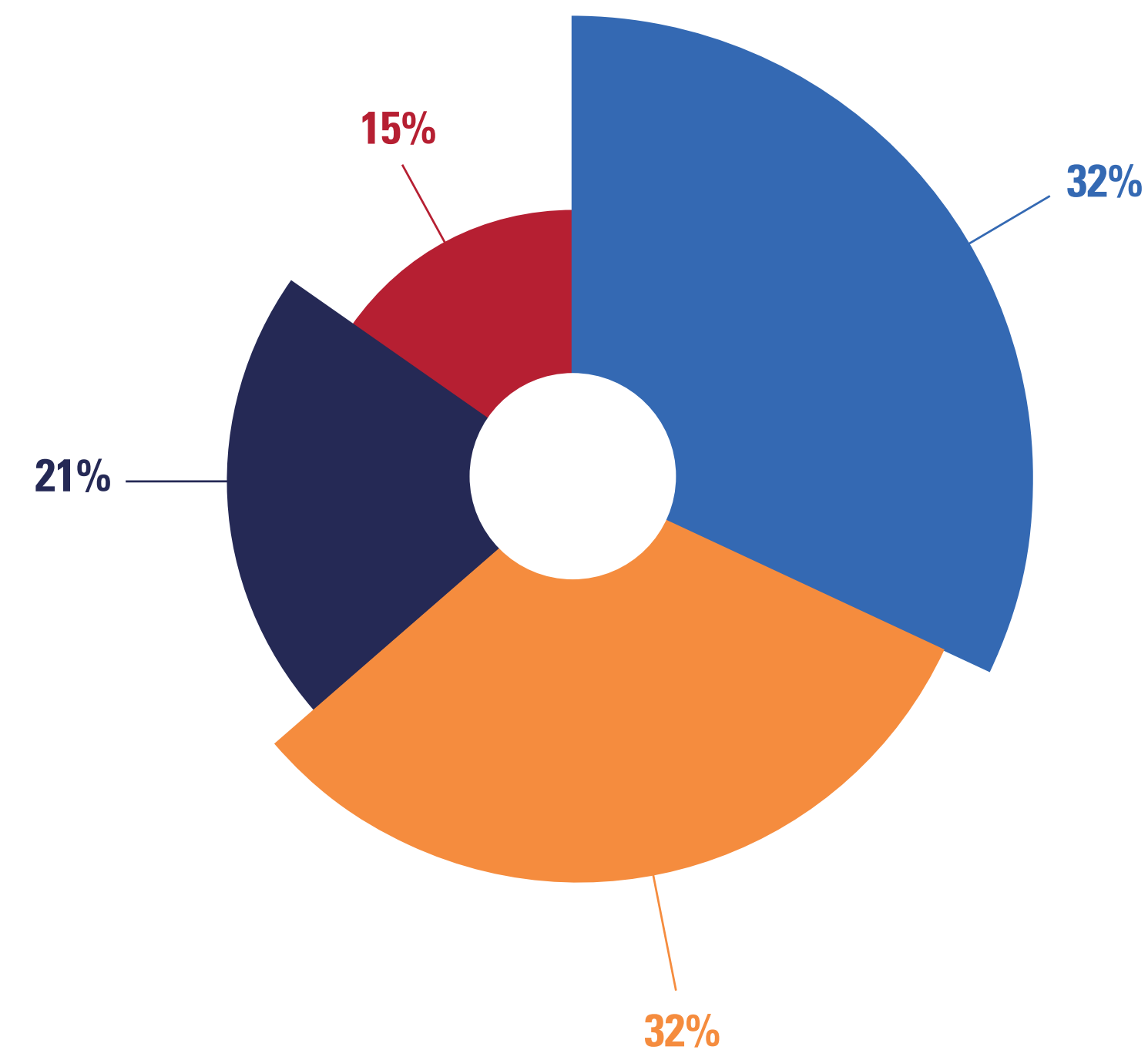
---

This year's survey included 500+ respondents representing a range of positions in manufacturing across 47 states. They include plant management, operations, maintenance, engineering, warehousing and distribution, and quality and safety compliance.

538 RESPONDENTS. FROM 47 STATES. **REPRESENTING A RANGE OF JOB FUNCTIONS.** AT COMPANIES OF ALL SIZES.



OPERATIONS	17%	WAREHOUSING & DISTRIBUTION	5%
PLANT MANAGEMENT	13%	QUALITY/SAFETY/COMPLIANCE	5%
ENGINEERING	13%	PRODUCTION/ASSEMBLY	3%
MAINTENANCE	12%	SECURITY	2%
INFORMATION TECHNOLOGY	12%	OTHER	18%



MORE THAN 500 EMPLOYEES	32%	101-500 EMPLOYEES	21%
LESS THAN 50 EMPLOYEES	32%	51-100 EMPLOYEES	15%

## FINDINGS-AT-A-GLANCE

### TWO-WAY RADIOS ARE STILL THE PRIMARY FORM OF PLANT COMMUNICATIONS...



45%

of manufacturers listed two-way radios as their primary form of plant communications

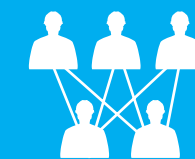
### ...BUT USING MULTIPLE DEVICES TO COMMUNICATE ON THE JOB IS NOW THE NORM



78%

of respondents said most workers within their operation are using multiple devices to communicate with each other

### MANUFACTURERS REGARD THESE AS THE MOST IMPORTANT COMMUNICATION SYSTEM PRIORITIES...



Instant communication

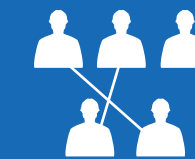


Voice clarity



Safety features

### ...BUT ALSO SAID SOME COMMUNICATION CHALLENGES REMAIN



Resolving problems quickly by instantly connecting the right people

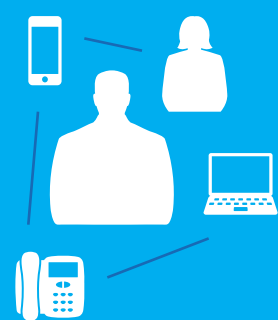


Hearing clearly anywhere, even in noisy plant conditions



Helping to protect workers with safety features

### MANUFACTURERS OVERWHELMINGLY DEMAND SEAMLESS INTEGRATION ACROSS DEVICES AND EMPLOYEES...



71%

of respondents said it was important or very important to seamlessly connect all of their communication devices

### ...PLUS THEY WANT TO LEVERAGE DATA INTELLIGENCE FROM THEIR COMMUNICATION SYSTEM



Text messaging & alerting



Real-time plant floor messaging between people and equipment



GPS location tracking

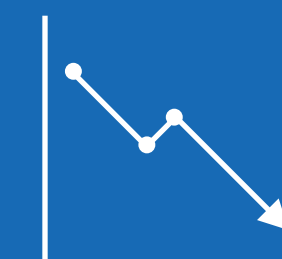
### MANUFACTURERS HAVE UPGRADED OR ARE PLANNING TO UPGRADE TO DIGITAL SOLUTIONS...



49%

of respondents are using digital or a mix of digital and analog radios. A third of analog users plan to switch to digital in the next 2 years.

### ...AND THEY EXPECT BIG BENEFITS FROM THEIR DIGITAL INVESTMENT



57%

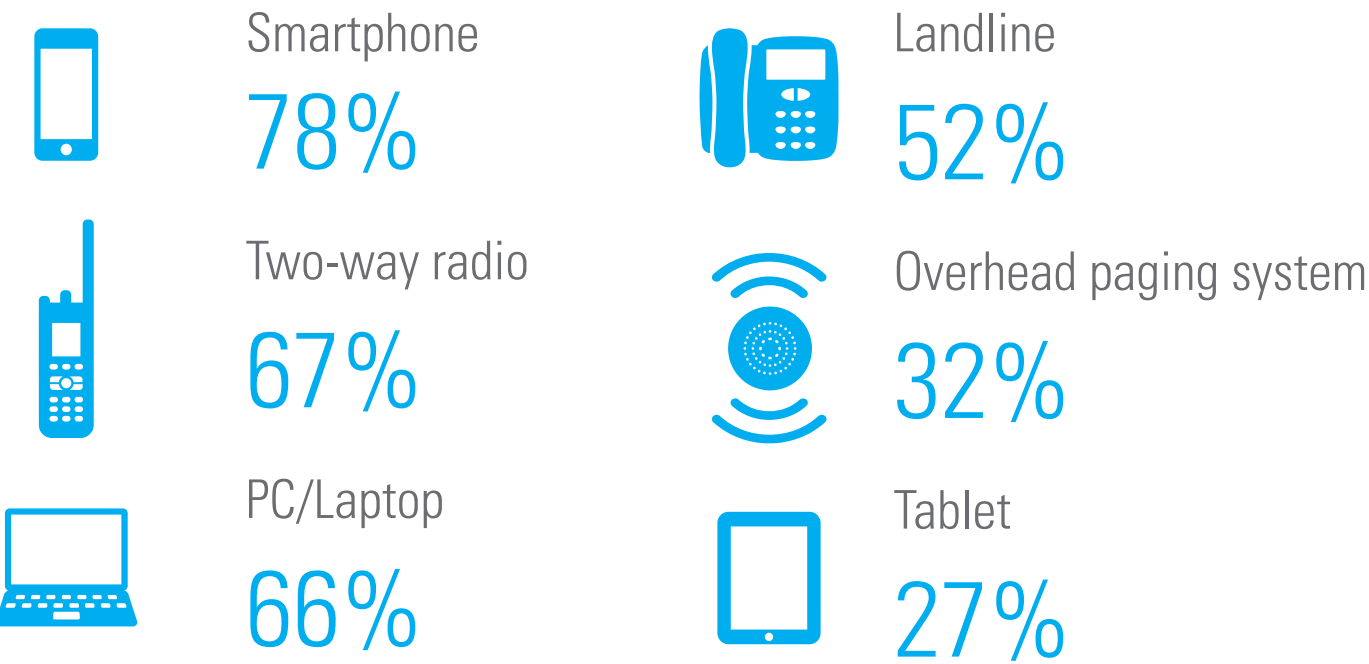
of respondents estimate a 10-30% reduction in overall downtime

# SNAPSHOT: TODAY'S MANUFACTURING COMMUNICATIONS STRUCTURE

Think the hard-working two-way radio is on the decline? Think again. Even with the rise of smartphones, two-way radios are still the main mode of plant communications.

What's more, their use as the primary form of communication in manufacturing is actually growing. At the same time, it's become almost ubiquitous to use multiple devices on the job.

## COMMUNICATION DEVICES IN USE

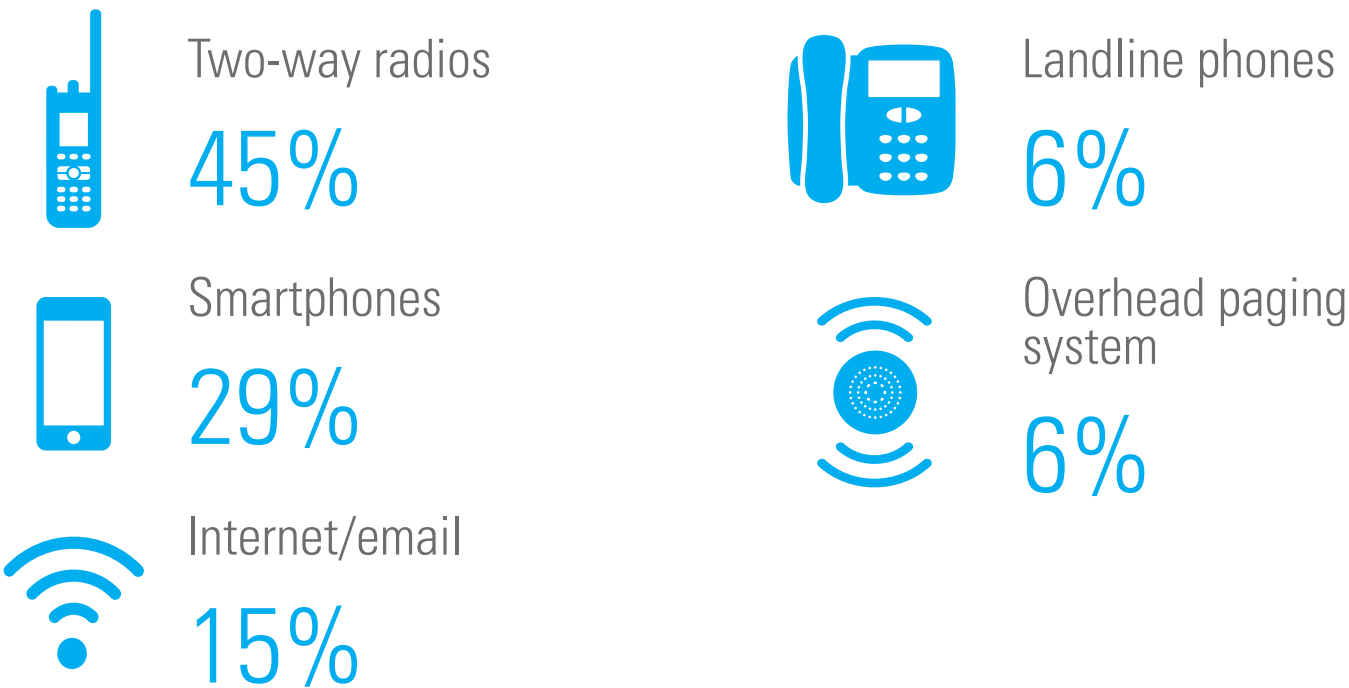


AN OVERWHELMING MAJORITY OF WORKERS ARE USING MULTIPLE DEVICES TO COMMUNICATE WITH EACH OTHER



**13%** SINCE 2015, THE NUMBER OF MANUFACTURERS USING TWO-WAY RADIOS AS THEIR PRIMARY FORM OF COMMUNICATION HAS INCREASED BY 13%.

## PRIMARY FORM OF COMMUNICATIONS



**71%**

say seamlessly connecting all communication devices is important or very important





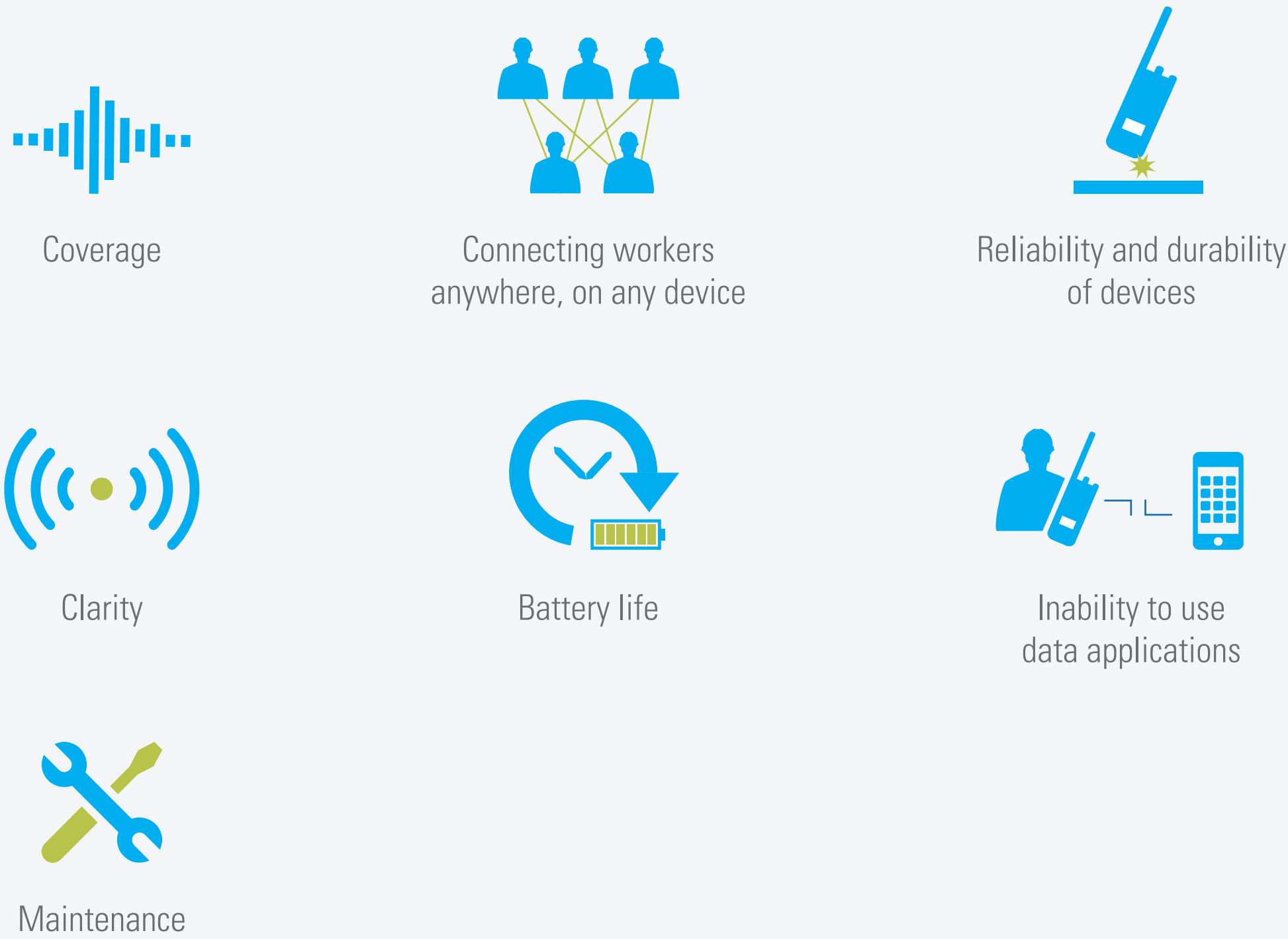
# COMMUNICATION SYSTEM PRIORITIES

MANUFACTURERS INDICATED THE FOLLOWING AS TOP PRIORITIES (VERY IMPORTANT/IMPORTANT) FOR THEIR COMMUNICATION SYSTEM



# COMMUNICATION SYSTEM CHALLENGES

MANUFACTURERS INDICATED THE FOLLOWING AS TOP CHALLENGES WITH THEIR CURRENT COMMUNICATION SYSTEM





# FROM ANALOG TO DIGITAL: A BRIDGE TO THE FUTURE

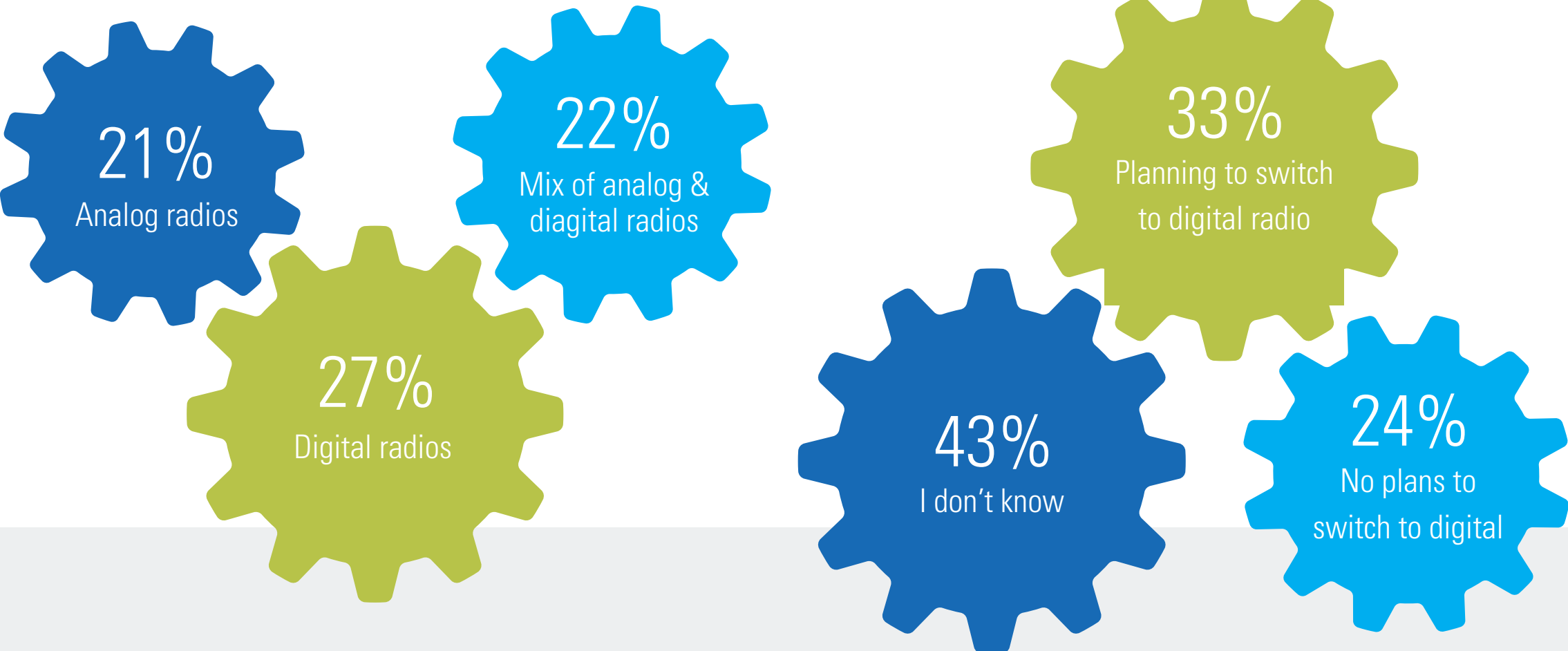
Two-way radios have long been a favorite time-saving tool for manufacturers. Today, digital two-way radios, like the Motorola Solutions MOTOTRBO™, are at the cutting-edge of evolving team communications, combining the best features of smartphones, business productivity tools,

and the reliability and power of push-to-talk (PTT) radios. As more companies make the shift from analog to digital radios, they are seeing more unified workgroup communications and tangible benefits like increased productivity, efficiency and safety.



**NEARLY 50% OF RESPONDENTS ARE CURRENTLY USING DIGITAL RADIOS OR A MIX OF DIGITAL AND ANALOG**

**OF THE REMAINING ANALOG-ONLY RESPONDENTS, A THIRD PLAN TO SWITCH TO DIGITAL WITHIN 2 YEARS**



## DIGITAL RADIOS: SMARTER OPERATIONS AND IMPROVED TEAM COMMUNICATIONS


Two-way radio technology has evolved. The latest generation of digital radio systems such as MOTOTRBO™ continue to deliver the push-to-talk instant communication you expect – but now with data connectivity bringing text messaging, Bluetooth® connectivity, GPS awareness, and Wi-Fi® to the front lines. These solutions provide enhanced communications that improve the real-time flow of information, ideas and decisions that drive efficiencies and improve collaboration across teams.



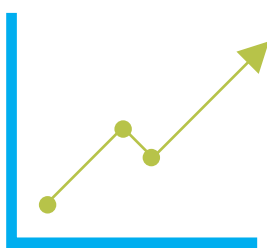
# MAKING THE MOVE TO DIGITAL

DIGITAL TWO-WAY RADIOS OFFER TANGIBLE BENEFITS, TODAY. RESPONDENTS CITED THESE SEVEN BENEFITS OF DIGITAL RADIOS AS THE MOST IMPORTANT

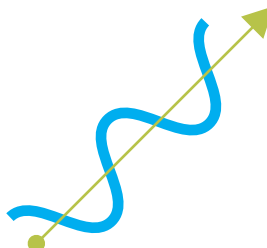
1.




Resolving an emergency quickly
2.




Boosting efficiency
3.




Making decisions faster with real-time data
4.




Improving worker safety
5.



Reducing downtime
6.



Increasing profitability
7.



Automating labor-intensive processes

# MEASURABLE DOWNTIME REDUCTIONS



With MOTOTRBO™ two-way radios you can prioritize communication right when it’s needed. Transmit Interrupt, Man-Down and Lone Worker call for help when personnel can’t. Location-tracking monitors vehicles, assets and personnel in real time so you know where they are virtually at any moment.

Team Communications also opens up a world of efficiency-boosting applications for manufacturing, from work order ticket management to dispatch solutions, and asset management to alarms and GPS. With the Motorola Solutions Application Developer Program, you have access to the largest portfolio of applications for two-way radios in the industry, with new apps updated regularly.

Just as importantly, by upgrading to a digital-based Team Communications platform now, manufacturers can future-proof their communications system for tomorrow’s manufacturing advances such as Industrial Internet of Things, advanced M2M communication, and automation.



# COMMUNICATE INSTANTLY ACROSS TEAMS

Instant communications, without boundaries, with added intelligence. With the Motorola Solutions Team Communications solution, it's now possible. Team Communications powered by the WAVE Work Group Communications application, takes push-to-talk (PTT) beyond the boundaries of radio, allowing plant managers, production supervisors, engineering

workers and other employees who may use smart devices for their work to stay connected to the radio system without the need to carry multiple devices. It extends PTT to smartphones, laptops, tablets and PCs, so employees can collaborate from their network and immediately share business-critical information from applications and the Industrial Internet of Things.

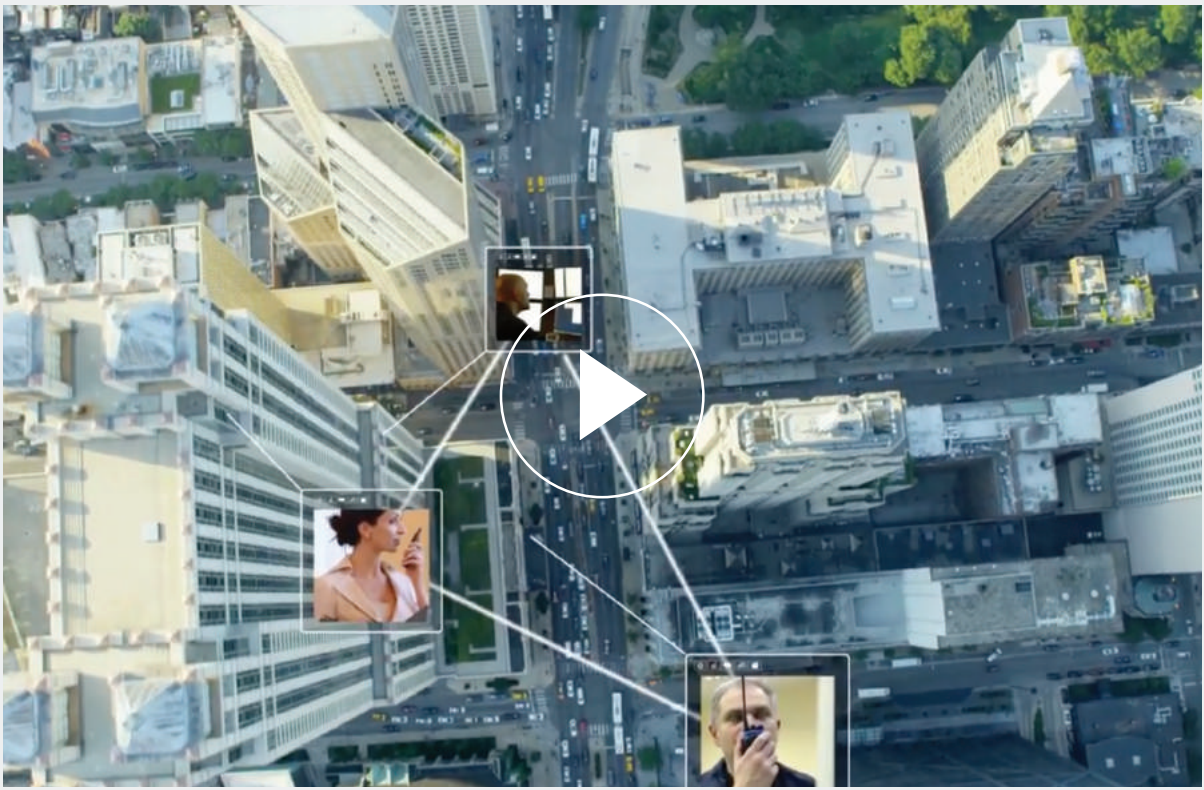


## UNIFIED WORKGROUP COMMUNICATIONS DESIGNED FOR MANUFACTURERS

The power of unified communications is expanding beyond the traditional office space and into the industrial areas where the revenue generation for many enterprises actually takes place.

These industrial employees use different devices on different networks and face far different challenges communicating than office workers. Their preferred collaboration methods – two-way radio, telephone, and even pager to resolve work tickets from dispatch or alarms from equipment – are focused on issue prevention or resolution, and optimized for their workflow and environment.

To learn more, watch the Team Communications video or download a complimentary brief featuring research from analyst firm Gartner.



WATCH VIDEO >



# COMMUNICATE WITHOUT BOUNDARIES

## MANUFACTURERS SAID THE FOLLOWING ARE TOP BENEFITS OF CONNECTING ALL OF THEIR COMMUNICATION DEVICES

1.



Resolve problems with greater speed and efficiency
2.



Seamless, instant team communications from any location or device
3.



Rapid response to emergency situations for worker safety
4.



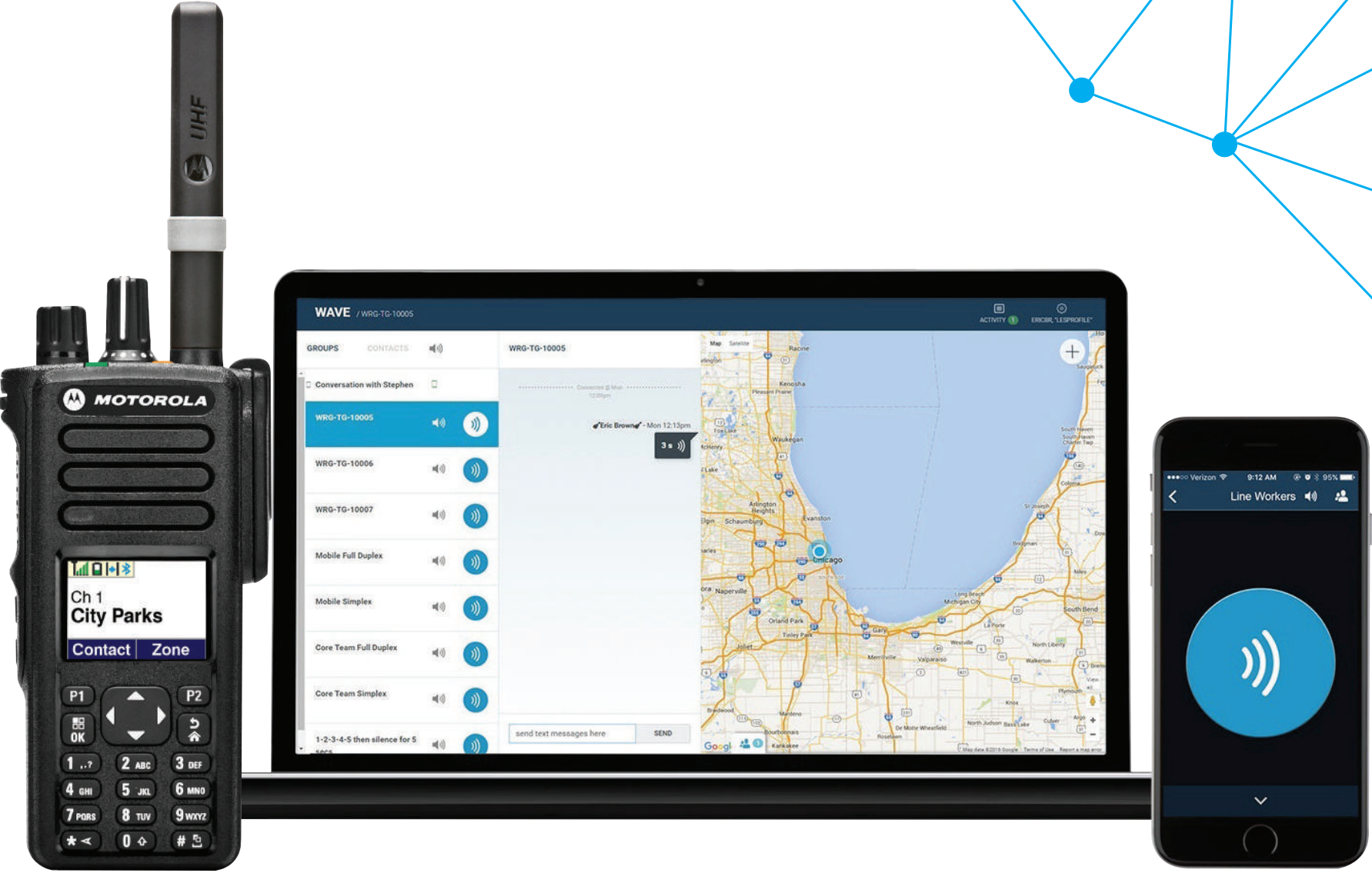
Increase productivity with faster response time
5.



Integrated voice and data for real-time visibility into operations
6.



Merge all devices onto one platform for increased IT security



### YOUR TEAM. YOUR NETWORK. CONNECTED LIKE NEVER BEFORE WITH WAVE™

When emergency decisions must be made, Motorola Team Communications extend your existing radio talk groups to any device, on any network, anywhere they have connectivity, providing instant communications without boundaries to your critical personnel. Motorola Team Communications connects them all: Motorola radios, other manufacturers' radios, mobile devices, laptops, and tablets. Plus, it connects to any network including Motorola LMR, other LMR, 4G, 3G, and WiFi using WAVE.

EXPLORE WAVE™ >



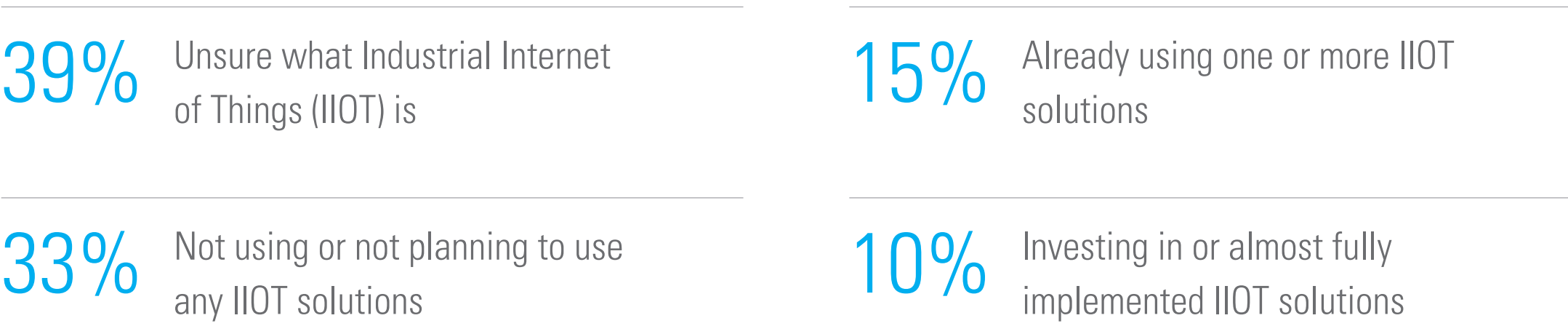
# COMMUNICATE WITH ADDED INTELLIGENCE

## BEYOND VOICE

Manufacturers today clearly want advanced features and services from their communication systems. They also want to be assured that their communication platform is ready and capable of supporting tomorrow’s advances. Respondents cited a range of apps and features on their wish list.



While 25% of respondents are already investing in IIOT solutions, **nearly 40% are unsure about the meaning of the term “Industrial Internet of Things.”**



# INDUSTRIAL INTERNET OF THINGS

The Industrial Internet of Things (IIoT) refers to a network of devices used in industries such as manufacturing, where devices have local intelligence, can automatically communicate with each other, and can send and receive status and command information to and from Internet-connected devices.



**GARTNER, INC. FORECASTS THAT 8.4 BILLION CONNECTED THINGS WILL BE IN USE WORLDWIDE IN 2017, UP 31% FROM 2016, AND WILL REACH 20.4 BILLION BY 2020.**

Source: Forecast Alert: Internet of Things — Endpoints and Associated Services, Worldwide, 2016, Gartner, Inc.

# ENSURE YOUR INVESTMENT FOR YEARS TO COME

RESPONDENTS EXPRESSED THE FOLLOWING SERVICES WOULD IMPROVE THE PERFORMANCE OF THEIR WORKPLACE OPERATIONS



50% Certified technicians who maintain and program the two-way radio fleet, to ensure peak performance

35% Certified technicians who monitor the network and apply software updates

33% Certified technicians who manage and ensure the availability of the push-to-talk application on mobile devices and computers

30% Certified technicians who protect the network from cyber-attacks



## ACHIEVE PEAK PERFORMANCE WITH MANAGED SERVICES

Choose the right level of managed services you need to achieve business-critical system performance. The more you engage Motorola Solutions, the more you transfer the risk to us and achieve peace of mind in maximizing your uptime.

EXPLORE SERVICES >



**AUTOMATION, BIG DATA, AND SMART TECHNOLOGY** offer manufacturers an unprecedented opportunity to drive efficiency, increase safety, and ultimately grow revenue. The key to unlocking that potential starts with the most important asset a manufacturer has: the skilled men and women on the plant floor, in offices and conference rooms, or working remotely. By connecting these teammates with instant voice and powerful data from any network or device, safety, efficiency and productivity can improve. As manufacturers continue the transition to unified workgroup communications solutions, they can build the foundation for even greater advancements tomorrow.

Visit [motorolasolutions.com/manufacturing](https://motorolasolutions.com/manufacturing) and learn how to bring your communications into the future.

**CONNECT WITH MOTOROLA SOLUTIONS**

Twitter | LinkedIn | Facebook

[https://www.motorolasolutions.com/en\\_xl/solutions/manufacturing.html](https://www.motorolasolutions.com/en_xl/solutions/manufacturing.html)

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners.  
© 2017 Motorola Solutions, Inc. All rights reserved.



**Argentina** (Buenos Aires) +54 11 5168 5775  
**Brazil** (São Paulo) +55 11 4230 0151  
**Chile** (Santiago) +56 2 2582 1173  
**Peru** (Lima) +51 1706 8493  
**Uruguay** (Montevideo) +917 477 0577

Peru, Brazil, Bolivia, Paraguay, Chile, Argentina and Uruguay write to:  
**[valeria.garcia1@motorolasolutions.com](mailto:valeria.garcia1@motorolasolutions.com)**

**Colombia** (Bogota) +57 1508 7063  
**Costa Rica** (San Jose) +506 4010 0514  
**Mexico** (Mexico City) +52 55 4160 7913  
**Venezuela** (Caracas) +58 212 720 4391

Mexico, Central America, Countries in the North of South America and the Caribbean, write to:  
**[juan.ochoa@motorolasolutions.com](mailto:juan.ochoa@motorolasolutions.com)**