



# EVOLVING COMMUNICATIONS TECHNOLOGY FOR A CLEAR **COMPETITIVE EDGE**

FINDINGS FROM THE 2021 TRANSPORTATION AND LOGISTICS SURVEY





# ADDRESSING EVOLVING TRANSPORTATION CHALLENGES WITH TECHNOLOGY

The transportation and logistics sector is undergoing an unprecedented level of change, due in large part to the challenges of COVID-19 and the accelerated growth of eCommerce. Companies must deliver greater volume at a faster pace in an environment posing increased risk. That's why reliable communications and connectivity have never been more important.

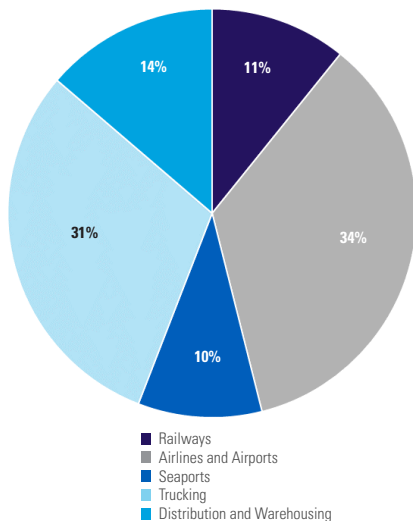
To find out how companies are addressing these challenges and using technology to thrive in an increasingly competitive landscape, Motorola Solutions conducted the 2021 Transportation and Logistics Communications Survey. We queried more than 750 respondents representing a range of

job functions, including information technology, business operations, and logistics management, as well as drivers and operators, engineers, and maintenance workers. Respondents represented a large cross section of transportation and distribution sectors, from trucking and rail, to airlines and airports, to distribution and warehouse facilities.

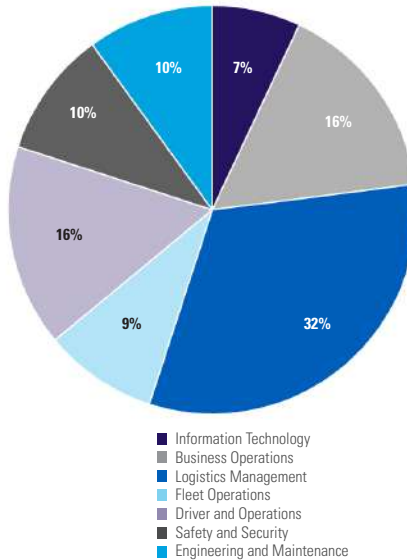
What we found is evidence of an industry-wide shift toward solutions that unify voice, data, video, and analytics to keep supply chain operations moving at peak efficiency, while ensuring the safety of workers, property, and assets.

## 750+ RESPONSES. REPRESENTING A RANGE OF INDUSTRIES AND JOB FUNCTIONS. AT COMPANIES OF ALL SIZES.

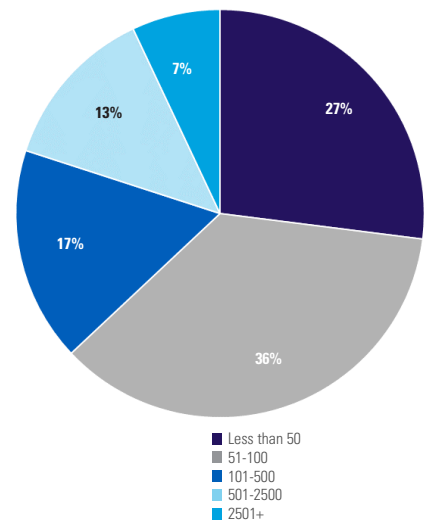
RESPONDENT INDUSTRY SPECIALTY



RESPONDENT JOB FUNCTION



RESPONDENT COMPANY SIZE

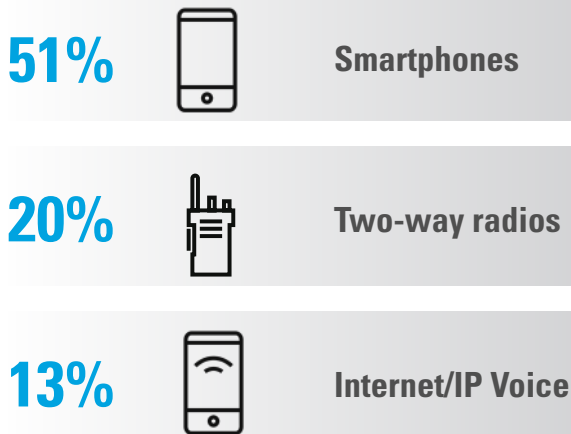


# RISE OF SMARTPHONES HIGHLIGHTS NEED FOR SMARTER DEVICES WITH MORE FUNCTIONALITY

Despite predictions that industry regulations may decrease smartphone use, these devices are now the primary form of voice communication, used by 51% of transportation workers in 2021 compared to 38% in 2019. Two-way radios are still in use by 20% of workers.

This shift reflects the increasing demand across all sectors for next generation devices with 'smart functionality' that enable workers to communicate quickly and easily, while using apps to accomplish dedicated tasks. Transportation workers, however, require both functionality and durability with a specific need for safety. That's why the ideal communications device for this sector may be a type of hybrid device: a rugged two-way radio that offers the features and convenience of a smartphone.

## PRIMARY FORM OF VOICE COMMUNICATIONS



## MOTOTRBO™ ION SMART RADIOS: GO ALL ON

The MOTOTRBO Ion smart radio is the first business-ready rugged communication device with all-on voice and broadband data capabilities. It enables you to stay connected across networks and devices, unify business-critical data and workflows, and ensure the capabilities your workforce needs to be at their best are always on.

[Learn more.](#)





## CONNECTIVITY HAS BECOME KEY COMPETITIVE EDGE

Regardless of their primary communication device, most workers (83%) continue to rely on multiple devices, each for specific purposes, making interconnectivity a critical goal. In fact, 35% are using three or more devices, and another 33% use four or more. So, it's no surprise that 96% of survey respondents said it would be of value to connect multiple devices.

When asked which features would most improve workplace operations, the majority of respondents again prioritized connectivity. Bluetooth connectivity topped the list, followed by text-to-speech and Wi-Fi. That's why transportation and logistics companies are increasingly investing in digital devices and mobile applications that enable instant communications between workers using any device, anytime, from anywhere.

# 83%

**OF TRANSPORTATION WORKERS ARE USING MORE THAN ONE DEVICE TO COMMUNICATE ON THE JOB.**

### MOST DESIRED RADIO FEATURES



**Bluetooth Connectivity**



**Text-to-Speech**



**Wi-Fi Connectivity**



## DEVICE DURABILITY AND RELIABILITY STILL A TOP CHALLENGE

The transportation and logistics sector's rugged work environments make device durability particularly important for safe, efficient operations. Any interruption to instant communication can put workers and productivity at risk. In fact, "device durability/reliability" was listed as the top communications concern in 2021.

Proactive radio maintenance is important to addressing this concern and preventing operational disruptions and downtime. This means staying on top of software and feature updates and fixing any issues before they become emergencies. Maintenance service subscriptions can help transfer the burden of maintenance to a competent third-party. Also among the top three communication challenges was the integration of data applications, further highlighting the difficulty of integrating communications among different devices.

### TOP COMMUNICATION CHALLENGES



Durability/Reliability



Audio Volume and Audio Quality



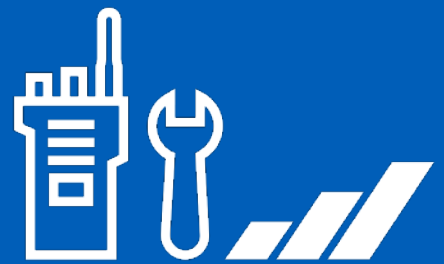
Integration of Data Applications



Keeping Devices Updated

## PROTECT YOUR RADIOS FROM UNEXPECTED DOWNTIME

To keep you safe and connected, your radios and infrastructure need to be kept up-to-date and protected. Essential Services include premium features that ensure continuous security, performance and enhanced functionality of your radios and infrastructure. With Premier Services, you transfer radio operations to our experienced managed services professionals to reduce your risks and maximize radio performance. [Learn More.](#)





## NATIONWIDE COMMUNICATIONS MORE IMPORTANT THAN EVER

COVID-19 has brought many challenges to the transportation and logistics sector. But it also brought new opportunities for growth due to the widespread surge in eCommerce. Mobilizing the supply chain on a larger and faster scale than ever before has also increased the need for nationwide communications.

In 2021, more than 95% of transportation and logistics workers consider nationwide communications important to workplace operations, up from 72% in 2019. Companies are looking for devices that provide employees with instant communications and instant access to colleagues and data no matter where they go.

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### DIGITAL TWO-WAY RADIOS BECOME THE NORM

Nearly half of survey respondents (46%) have already transitioned to digital two-way radios. An additional 23% are using a mix of digital and analog radios. Digital adoption is set to continue to increase, with 34% of those still using analog indicating they will be switching to digital in the next 12 months and another 26% intending to switch within five years.

Digital radios offer better voice quality, stronger coverage, and longer battery life. Yet, the move to digital is about more than just performance. With digital radios, transportation workers can access a range of integrated applications, analytics, and communications capabilities that dramatically improve safety and efficiency, without the distractions of a cell phone.

Nearly half of analog radio users intend to transition to digital in the next 12 months.

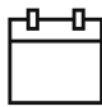
### DIGITAL VS. ANALOG TWO-WAY RADIO USE



**69%**  
of radio users  
are using digital  
radios or a  
mix of analog  
and digital



**25%**  
of radio users  
are using analog  
radios



**60%**  
expect to  
complete the  
transition to  
digital radios  
within 5 years

## WAVE PTX™ FROM MOTOROLA SOLUTIONS EXPANDS NATIONWIDE COMMUNICATIONS

WAVE PTX is a push-to-talk application that instantly connects teams across different devices, networks, and locations. Connecting your professional radio system to WAVE enables you to reach more team members over a wider service area. [Learn more.](#)



# ADVANCING SAFETY AND EFFICIENCY WITH NEXT-GEN TECHNOLOGY

Digital radios offer powerful advancements for the transportation and logistics sector. But this is only the beginning. There are a host of new communications systems and integrations that will improve the industry's ability to enhance efficiency, productivity, and, most importantly, safety.

When asked to name the top priorities for their communications systems, respondents cited protecting staff and customers with safety features as the most important. Yet, they assigned nearly equal importance to a range of other goals – all related to 'smarter,' more reliable communications, including instant voice communications, automatic alerts, and durable and intelligent accessories for devices.

## TOP COMMUNICATIONS TECHNOLOGY PRIORITIES



Protecting staff and customers with safety features



Instant voice communication



Durable and intelligent accessories for communication devices



Automatic alerts



Having a secure device for data applications, voice and streaming video



## REIMAGINING SAFETY AND SECURITY

Whether in the warehouse or on the road, new technology is transforming safety and security across the industry. Companies are finding they can identify and resolve potential threats before they escalate to increase productivity without sacrificing the safety of employees, visitors, property, or assets.

Adoption of these next-gen safety solutions is on the rise. A significant percentage of transportation and logistics companies already have incident management solutions (40%) and access control (43%), with roughly the same percentage indicating they will add these capabilities in the next five years. Another 36% have also integrated video into their safety communications, and 40% plan to do so in the next five years.

Video analytics are currently used by only 9% of respondents, making them a likely growth area in the years ahead. As advances in artificial intelligence and analytics transform video security, they're providing unprecedented visibility and insight using less resources. Additional advances enable integration between video security and communications technology, enabling real-time alerts to unfolding incidents sent directly to the devices your teams use most. Early adopters are detecting threats earlier, minimizing incident response time, preventing incidents, and maximizing the value of other security investments.

## TOP SECURITY CAPABILITIES SLATED FOR ADOPTION IN NEXT 5 YEARS



**Incident Management**



**Access Control**



**Integrated Video and Communications**



## TECHNOLOGY FOR A SAFER WORLD

We believe that safety, efficiency, and productivity are deeply interrelated. That the technologies that make us safer can also make us better at everything we do. We've made that vision real by creating the first ecosystem to unify the technologies that keep us safe on one single platform—voice, video, data, and analytics.

[Learn More.](#)





## REIMAGINING OPERATIONAL EFFICIENCY

When asked which applications would most improve operations and efficiency, respondents cited route planning and optimization, followed by dispatch management, and indoor location tracking. Voice communications remain the cornerstone of a safe and efficient workplace, but these additional features and applications can give transportation and logistics companies an unprecedented edge when it comes to streamlining and improving operations.

### MOST DESIRED APPLICATIONS



Route Planning and Optimization



Dispatch Management



Indoor Location Tracking



## A UNIVERSE OF APPLICATIONS AT YOUR FINGERTIPS

Motorola Solutions digital radios have access to a universe of applications, including many purpose-built for the unique business needs of the transportation and logistics industry. Find applications for dispatch, work orders, ticket management systems, and more. [Learn More.](#)

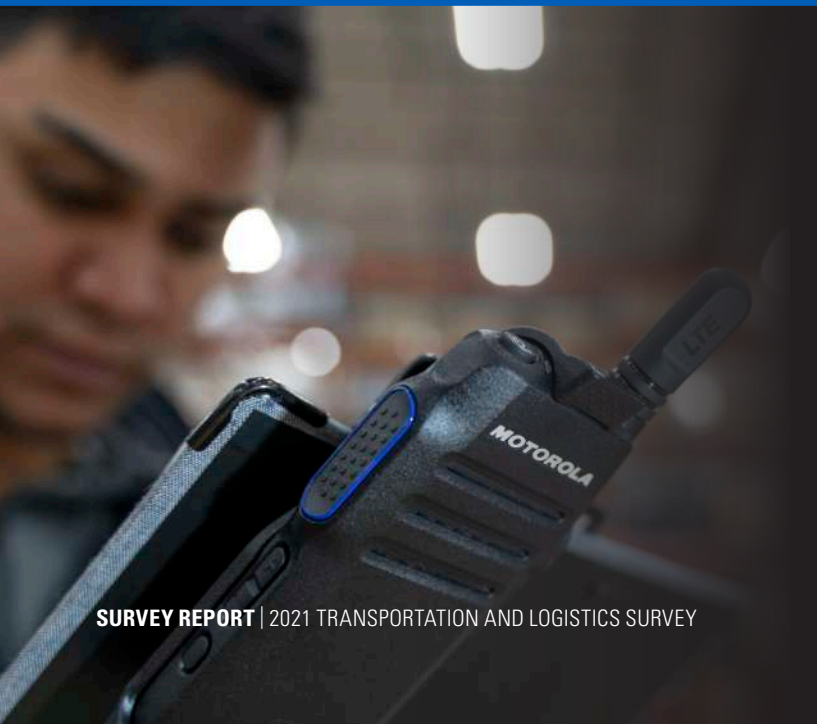


## NETWORK COVERAGE STILL A TOP BARRIER TO THE CONNECTED WORKPLACE

A more connected workplace requires reliable communications and data across every level of operations. Yet, 60% of respondents say that coverage is still their number one network challenge. Nearly all (96%) respondents have experienced connectivity issues, with 64% saying they have trouble getting or staying connected to the network on a daily or weekly basis. That leaves IT focused more on connectivity issues than strategic technology goals that matter most to the business.

**60%**  
of respondents cite coverage as their #1 network challenge

**64%**  
of respondents experience connectivity issues daily or weekly



## BOOST YOUR NETWORK WITH NITRO

Nitro offers enterprise-grade private LTE that outperforms Wi-Fi, while providing unmatched simplicity and control. Nitro is the first fully-managed CBRS platform that combines private LTE data with business-critical voice. Deliver seamless, secure, high-fidelity voice conversations across your campus or across the country with MOTOTRBO voice interoperability, and connect up to two devices to your CBRS-enabled portable two-way radio via Wi-Fi. [Learn more.](#)

# LACK OF RESOURCES HINDERS IMPROVEMENTS TO COMMUNICATIONS TECHNOLOGY

Technology's ability to transform safety and enhance operations holds exciting promise for the transportation and logistics sector. Yet, the majority of survey respondents listed a few common constraints to advancing the adoption of new communications technology, including resources, organizational support, and the burdens of legacy systems.

The key to solving these challenges will be finding ways to do more with less, and technology can play a key role by streamlining operations and boosting productivity while reducing incidents. In addition, a unified communications ecosystem can be implemented over time and structured to take advantage of existing infrastructure, further reducing upfront costs.

## TOP 3 CHALLENGES TO IMPROVING COMMUNICATIONS AND SECURITY TECHNOLOGY



Staffing Challenges



Burdens of Legacy Systems



Organizational Support



## CONNECTIVITY IS KEY TO REMAINING COMPETITIVE

The Motorola Solutions 2021 Transportation and Logistics Survey demonstrates that transportation and logistics companies are currently focused on dual goals: improving efficiency to keep pace with a fast-changing market, while keeping workers and facilities safe amid increased uncertainty and risk. Fortunately, communications technology is also evolving at a rapid pace – providing devices and applications that connect workers anytime, anywhere, helping them work smarter and remain safer than ever before.

Lack of resources and burdensome legacy systems are making it challenging for some companies to adopt the technology they need as quickly as they would like. Yet, this year's survey shows steady progress toward removing these barriers. The majority of companies surveyed are on a path toward greater connectivity, including a shift to digital devices that run on integrated platforms with greater intelligence. Adoption will be critical to remaining competitive in an industry that has seen massive growth and transformation for the past several years. Those forward-looking companies that invest in communications technology today are indeed likely to be the industry leaders of tomorrow.

[Learn more](#) about how Motorola Solutions technology and services keep transportation companies more connected and competitive.



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