



2020 VISION: How mobile technologies are transforming field operations.

Zebra's 2015 Field Operations Vision Study reports on how forward-looking organizations are increasing their investment in mobility to transform their field operations to more proactive, customer-centric and business-driven systems.



Peering into the future

Field operations are in a state of strategic and tactical transition. Today's organizations must cope with growing pressures ranging from tougher competition to eroding margins to the increasingly difficult task of finding and retaining good employees. They also face a series of formidable business challenges: improving customer

relations, reducing operational costs, maximizing worker productivity and increasing opportunities for revenue and profit growth. In response, field operations will be changing at an ever-increasing pace over the next five years and more.



45% say business will become more complicated in 2020

GROWING PRESSURES

- Increased service and product offerings
- Collaboration and knowledge sharing
- Data sharing

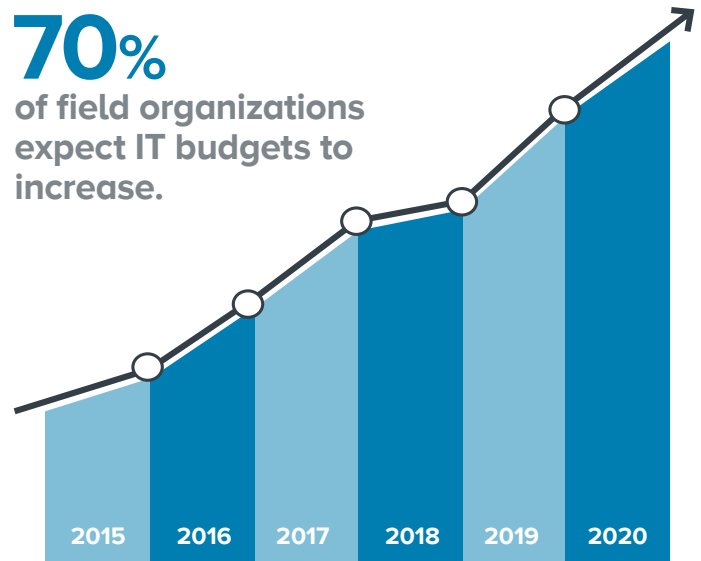


BUSINESS CHALLENGES

- Margin pressures
- Increased competition
- Hiring and holding good employees

Historically, the job of mobile workers has been relatively simple: the repair and maintenance of equipment or the delivery and stocking of products and materials. It's not that simple anymore. Today, mobile operations are also expected to help manage inventory in vehicles, order parts for customers, up-sell and cross-sell products and services, provide overall supply chain visibility and much more.

For most companies, responding to the new realities of field operations involves substantial new investment, especially in mobile technology. According to Zebra's 2015 Field Operations Vision Study, more than 70 percent of field organizations are expecting to increase IT budgets by 2020.



To gain up-to-the-moment insights into evolving technology strategies in the field operations industry, Zebra conducted a comprehensive study examining peer organizations' 2015 operations and previewing planned changes in the next five years and beyond.

Focus on the Customer

Maximizing customer service and creating customer loyalty are essential to sustaining and growing every business. To that end, most field organizations have decided to rededicate themselves to the nurturing and growth of closer, longer-term customer relationships. To help accomplish these objectives, a great many companies are increasing their use of mobility to help enhance customer satisfaction, lower operational costs, generate added revenues and increase profitability.



Mobility and Revenue Generation

According to the study, a majority of field operations organizations have recently undergone—or will soon embark on—a re-engineering of systems to move away from traditional laptop and desktop computers to the increased use of mobile devices. Mobile solution options include handheld computers, smartphones, tablets, wearable technology and other devices and accessories. Many organizations have also started connecting digital assets and sensed equipment to provide real-time monitoring of installed products. Machine-to-machine communications like these are the beginning stages of the fast-growing concept known as the Internet of Things.

These, and other mobility and automation solutions, are critical to empowering workers to maximize their role as a company's first—and sometimes only—customer contact, helping them streamline repair and maintenance service, improve delivery service windows, take maximum advantage of selling opportunities and become true customer service representatives.

EVOLUTION OF THE INDUSTRY

Then



Desktop



Laptop



Smartphone

Now



Handheld
Computer



Tablet



Wearable
Technology



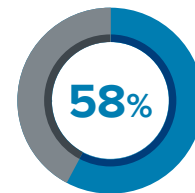
Today's industry trends, tomorrow's business challenges

Some field organizations repair industrial equipment on farms or manufacturing plants. Some fix copiers in offices. Others maintain medical equipment in ERs or clinics. Still others restore service for telephone, cable or utilities customers. No matter what their business, the growing global economy, the ubiquity of Internet communications, the rise of big data and the impact of social media are combining to increase business pressures and create stiff challenges for virtually every field operations organization.

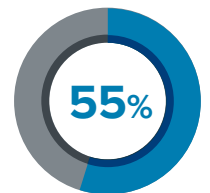
Customers want to know where products come from and when services will be performed, leading to the increased importance of real-time traceability, visibility and communication. At the same time, a quantum increase in available data is pressuring organizations' abilities to collect, analyze and act on this information. Customer feedback via social media and the need to react to it are driving them to make faster changes to products and business processes. Increasing transportation costs are significantly impacting margins.

The 2015 Vision Survey shows that field operations businesses are well aware of these trends, the pressures they place on their operations and the challenges they pose for continued business success in the next five years and well into the future.

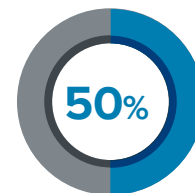
TOP 4 TRENDS IMPACTING FIELD OPERATIONS



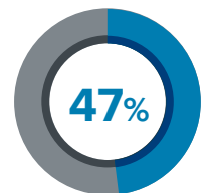
Traceability
demands for
consumer



Increasing amount
of data to collect



Increasing
transportation
costs



Monitor social
media feedback

Field operations mobility 2020 outlook

GREATEST BUSINESS CHALLENGE



32%
Margin Pressure

INCREASED PRESSURES



45%
Business Becoming
More Complicated

NEW SPENDING



70%
Increase IT Budget
for Mobility



58%
Investing in Big Data
& Analytics

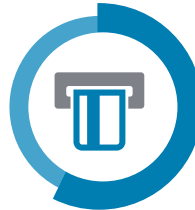


41%
Most Promising ROI:
Wearable Technology

INCREASED SALES

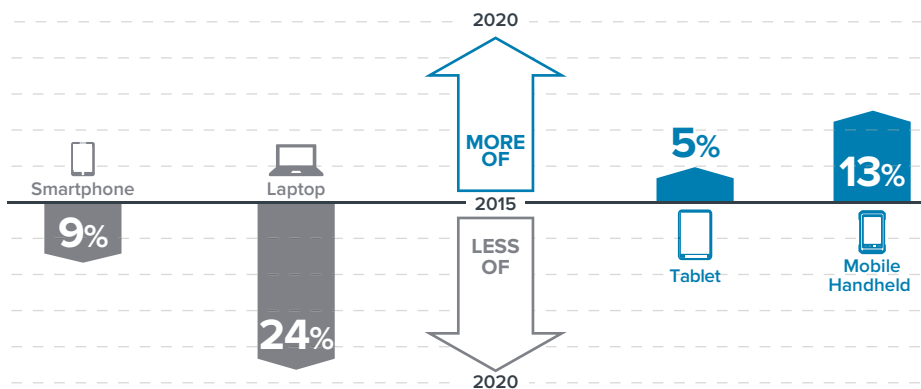


70%
Expect Revenue from
Mobile Workforce to
Increase



Over 50%
Accepting Mobile
Payment

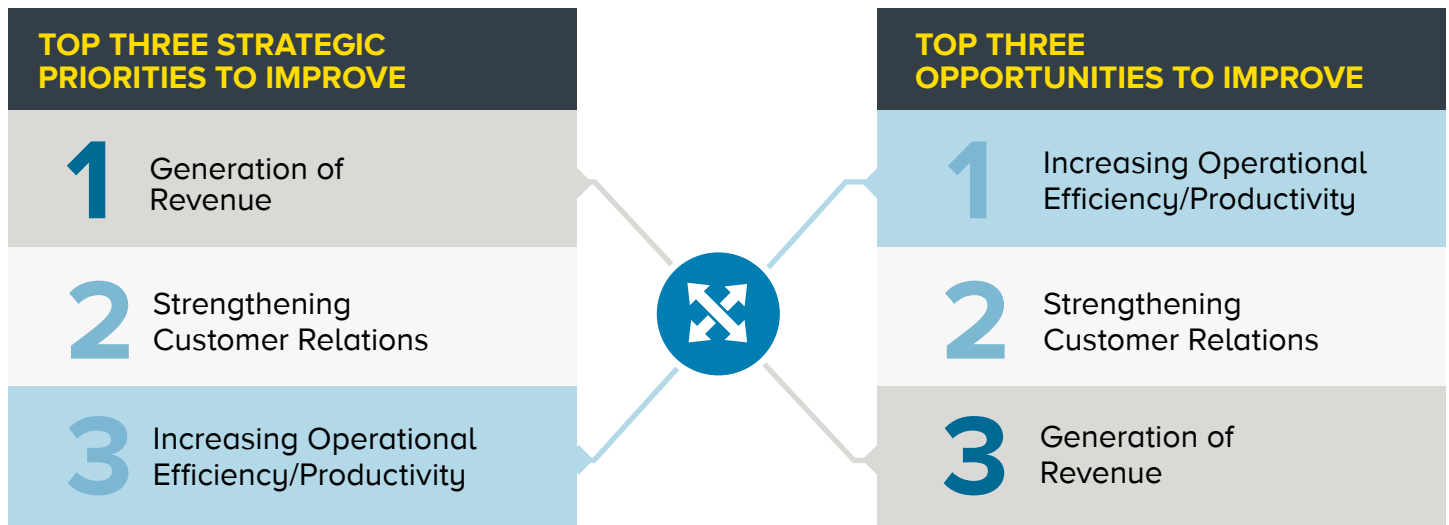
SMALLER, MORE POWERFUL DEVICES



The transformation of field operations strategies

How will organizations respond to the difficult field operations challenges that lie ahead? Today's most progressive companies are addressing industry changes at the strategic level, with a focus on three crucial strategic imperatives. As the survey shows, respondents identified the generation of revenue as the number one strategic priority,

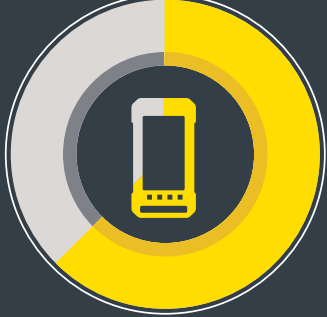
reflecting the overarching goal of strengthening customer relationships and maximizing their value. Also seen as critical are strategies aimed at improving profitability by increasing operational efficiency and productivity, while at the same time, reducing operating costs.



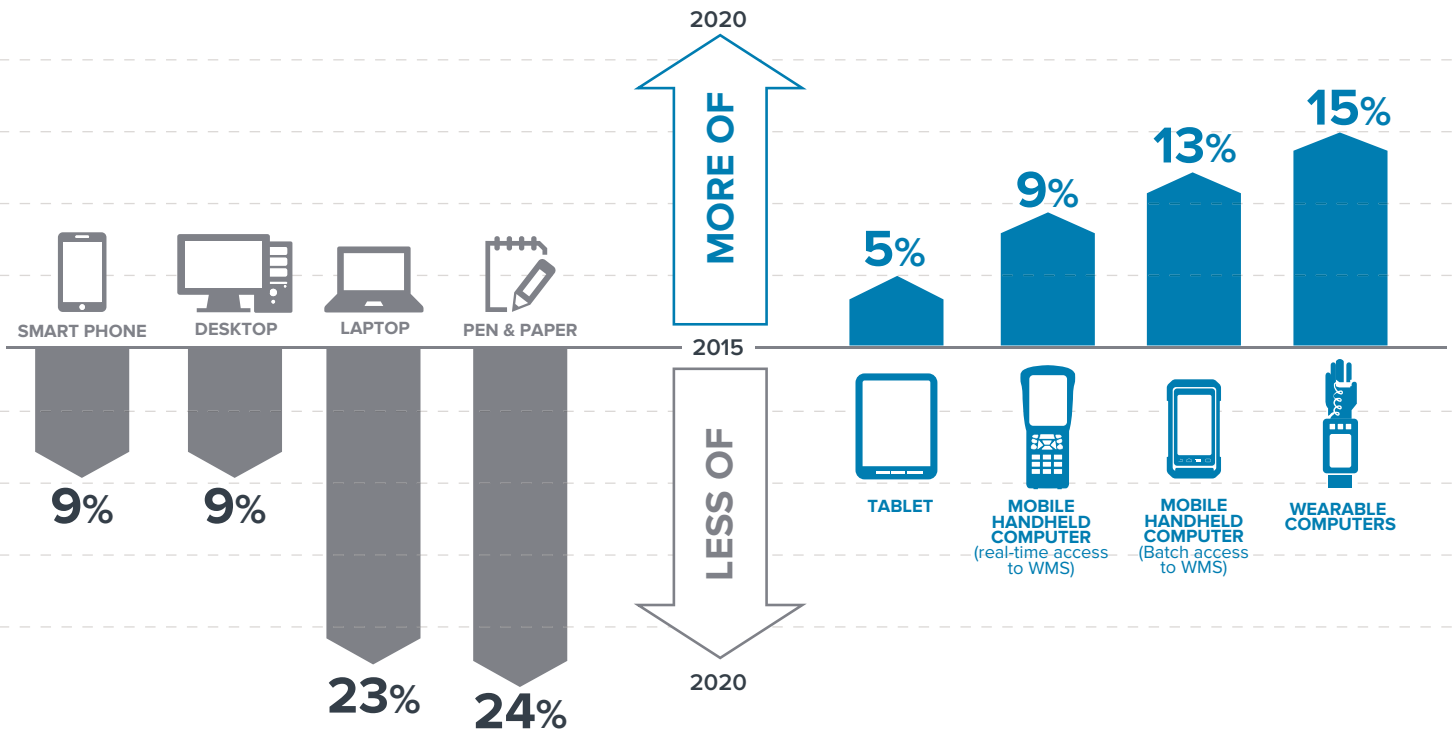
Moving from traditional to transformational tools

In 2015, many field organizations are still managing operations using traditional tools, mainly laptop and desktop computers, and more recently, smartphones. Somewhat surprisingly, some are still relying on extremely outdated pen-and-paper-based management systems; however, change is in the air. The survey showed that more than two-thirds of respondents' companies have either undergone a process re-engineering of their mobile efforts within the past year, or are planning to initiate one soon. The major objectives of this increased emphasis on mobility are strategic and virtually universal: greater profitability, increased customer retention and loyalty and improved operational efficiency and productivity.

Organizations are also transitioning to greater usage of mobile computing solutions that rely less on consumer-grade equipment and more on more powerful, more reliable enterprise-grade handheld computers and other mobile devices. Respondents also reported that while mobile tools management is often accomplished internally, many organizations are opting to use third-party providers to both manage devices and provide insights into service issues and support operations such as implementing a help desk.



OVER 2/3 RESPONDENTS
Have undergone/will undergo re-engineering process of mobility



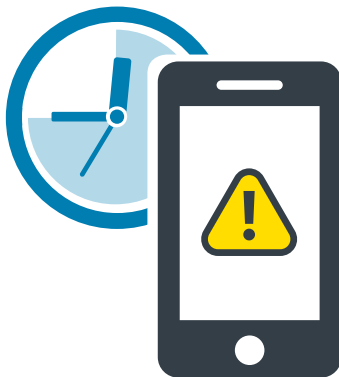
Choosing the best business-critical mobile computers

Field organizations' commitment of more and more resources to mobility solutions reinforces the importance of the mobile computers their representatives use in daily activities. Survey respondents generally agreed that the top qualities they are looking for in mobile computers and other mobile devices are ease of use and reliability. Less than six in ten reported they were confident their current mobile systems will support their future needs.

The need for more rugged enterprise-grade handheld computers in field operations is leading to a decline in the use of consumer-grade smartphones. As many have learned the hard way, smartphones are not built to withstand the rigors of the field and often have reliability issues; that's not good. The fact is, according to one research firm, failure of mobile devices results in up to 140 minutes in lost productivity. In addition, because they are phones and not computers, smartphones are largely incapable of providing sufficient security; they also cannot reliably perform critical field operations tasks such as scanning, printing, credit card reading for mobile point of sale (POS), signature capture and many others.



TIME LOST ON CONSUMER-GRADE MOBILE PHONES



Device failures result in up to **140 minutes in lost productivity***

*Source: VDC Research, Mobility in Manufacturing and Logistics

TOP QUALITIES FOR MOBILE COMPUTERS SELECTION



- 1ST** Ease of use
- 2ND** Reliability of hardware

Only 56%

say current systems will support future needs

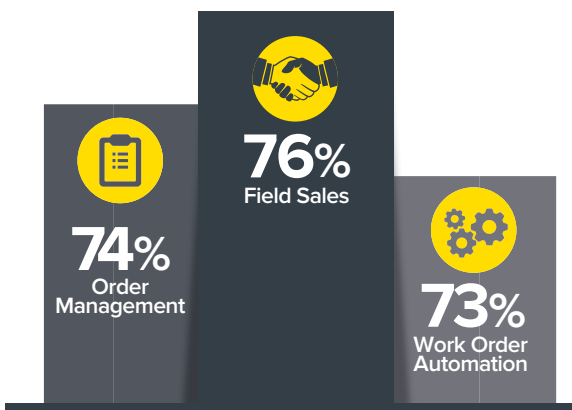


The growing importance of mobile applications

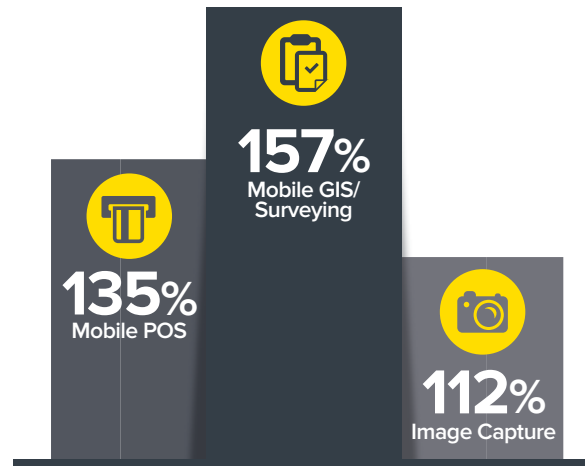
In field operations, applications are as important to mobility as are mobile computers. Experienced field operations professionals recognize that the applications that ride on handheld computers are business critical, empowering field representatives to quickly gather, access and act on

information. Almost half of survey respondents reported providing mobile applications support for field sales activities, followed closely by support for order management, maintenance and repair, and dispatch management and scheduling.

TOP APPS SUPPORTED IN NEXT 5 YEARS



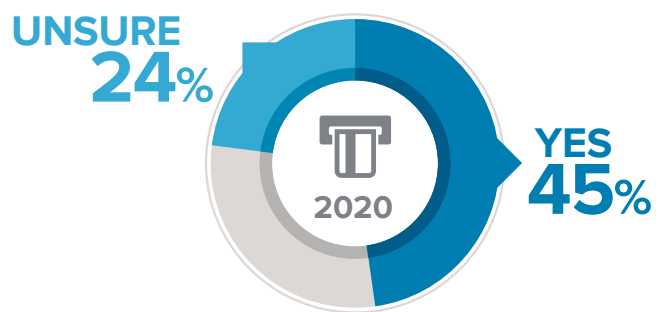
INCREASED PLANS TO SUPPORT

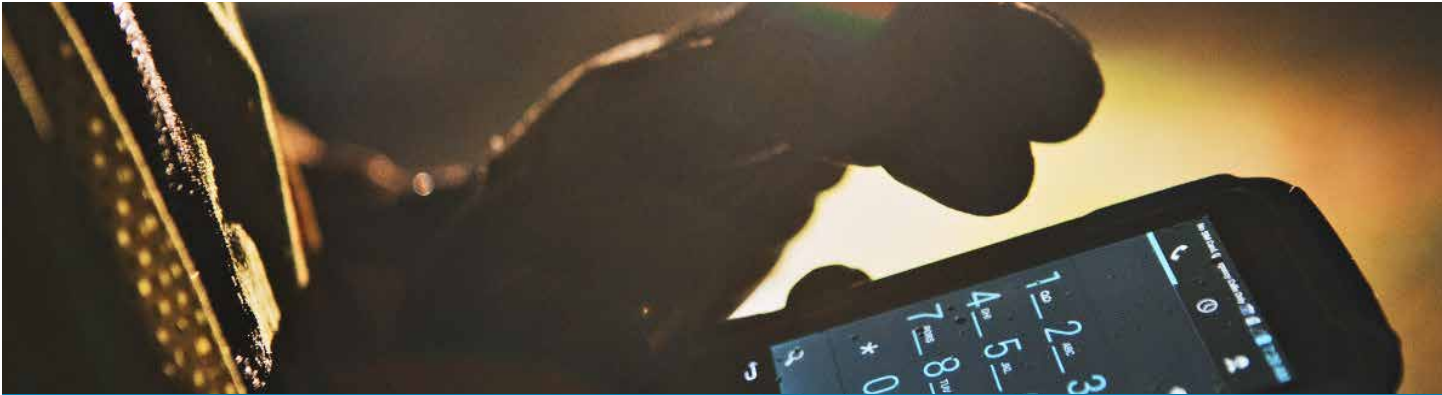


In conjunction with evolving mobility strategies, applications are also crucial to implementing numerous field operational requirements. Three of the most important of these are the extension of enterprise data to the field, providing real-time information that enables representatives to best serve their customers and transforming business processes to deliver innovative new customer service solutions that can lead to greater profitability.

Many other applications were cited as well, one of the most promising of which is mobile POS. In something of a surprise, only about 25 percent of respondents' organizations currently take mobile payments in the field; that's about to change rapidly. Over the next five years, this number is expected to double, reaching 50 percent or even more as field organizations increase the use of mobile applications that can help them increase revenue opportunities.

MOBILE PAYMENTS ACCEPTED IN THE FIELD






Using automation to enhance customer service

Most field organizations are already utilizing automation to help streamline their field operations. Survey respondents report using a variety of automation initiatives to improve worker productivity and strengthen customer relationships. Automation capabilities include interactive repair procedures, access to videos for resolution information, easy-to-use customer portals and end-to-end service management. They also encompass machine-to-machine connectivity and other Internet of Things solutions.


Automation solutions are predicted to expand substantially over the next five years. More than half of respondents indicate that they have automation plans specifically designed to improve revenue growth and customer management. Automation helps ensure that field representatives have the parts they need precisely when they need them and the information they need to answer customer questions quickly and accurately. Automated scheduling and dispatch helps ensure on-time arrival for appointments. The result is improved customer satisfaction and increased retention of valued customers. Survey respondents also reported on their field operation's automation priorities for the future, with customer relationship management, knowledge management and business intelligence ranking highest.

56%
of respondents have automation plans to improve



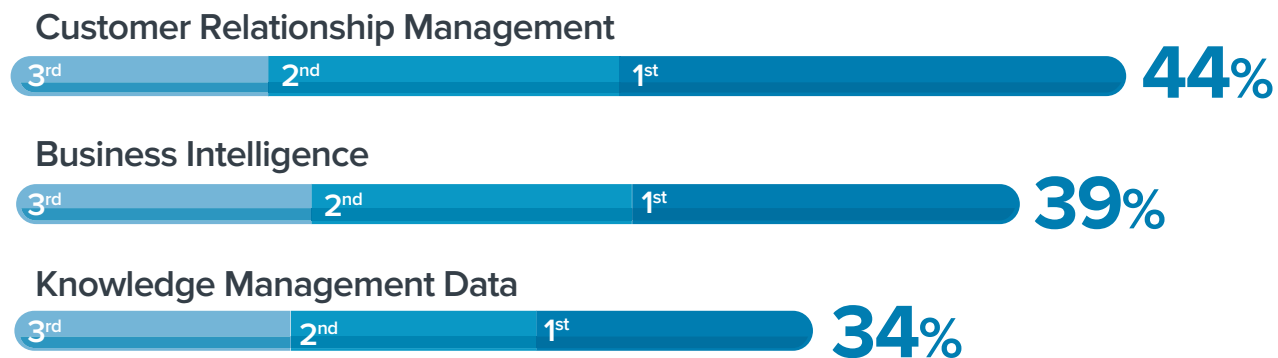
Revenue Growth

&



Customer Management

TOP 3 AUTOMATION PRIORITIES



Investing in the future of field operations

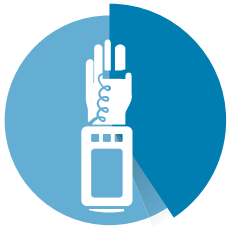
Mobility is the future of field operations. This makes it a major driver of significant increases in IT budgeting and investment. Two-thirds of respondents predicted that their mobility workforces will increase over the next five years.

Accordingly, they expect their IT budgets to increase. Respondents believe the specific technologies that will offer them the best ROI over the next five years are wearable technology, big data, analytics and the Internet of Things.



Over 2/3 respondents predict mobility workforces will increase in 5 years

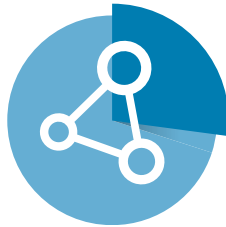
BEST ROI TECHNOLOGIES



41%
WEARABLE
TECHNOLOGY

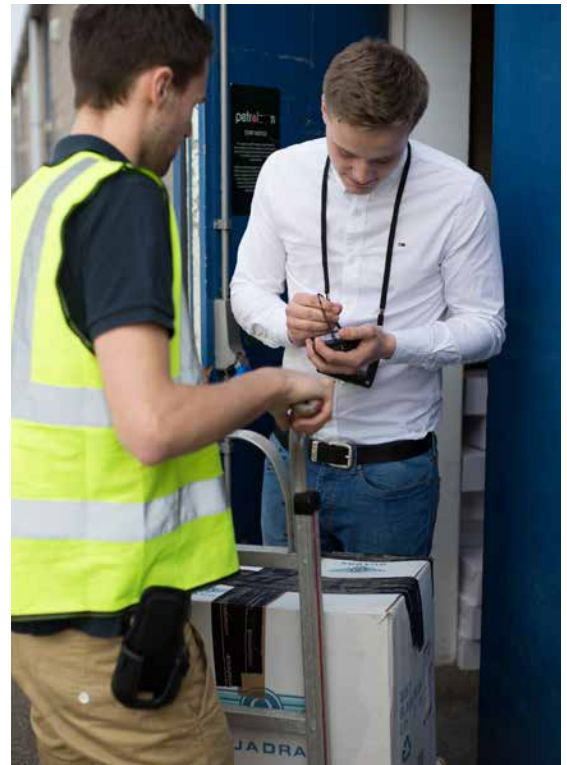


31%
BIG DATA
ANALYTICS



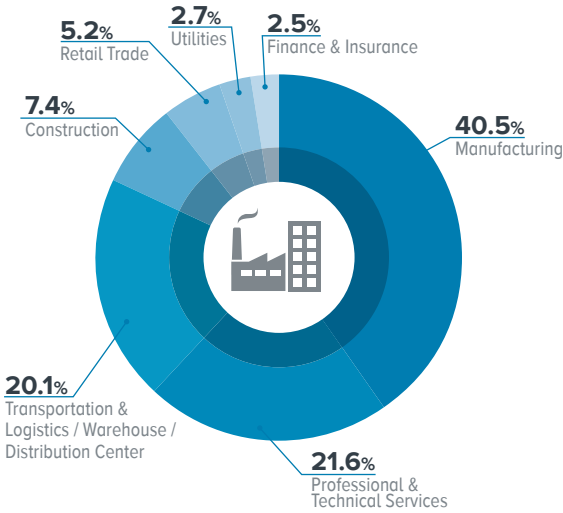
28%
THE INTERNET
OF THINGS

Faced with an overwhelming amount of available data between today and 2020 and beyond, respondents indicated that field operations will also be increasing their investments in analytics and big data solutions, with the objective of providing more actionable information. Bottom line, the industry's growing commitment to mobility will enable more proactive field operations that will enhance both revenues and profitability.

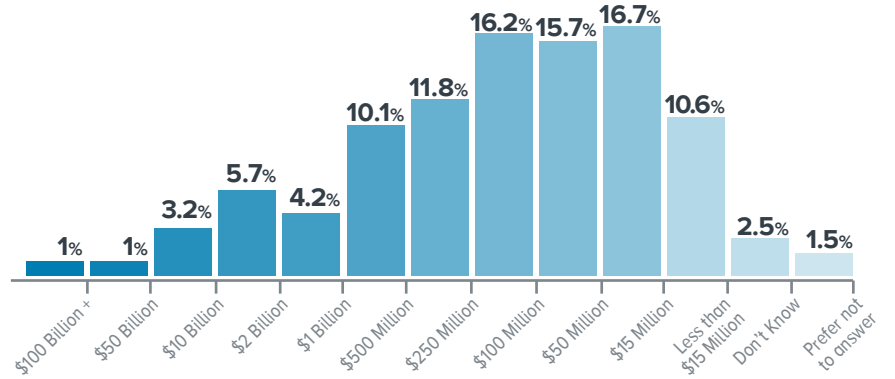


Who responded to the field operations survey?

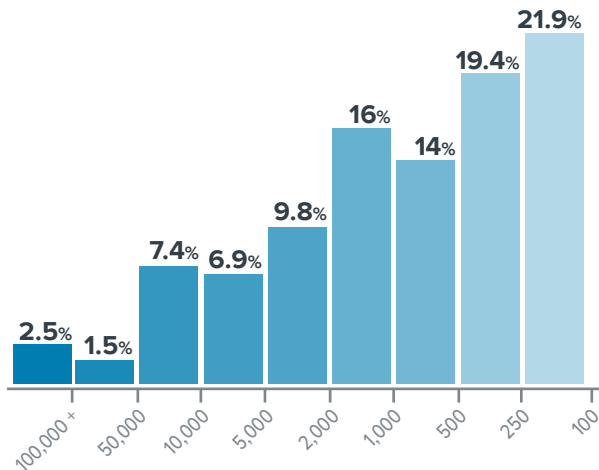
BY INDUSTRY



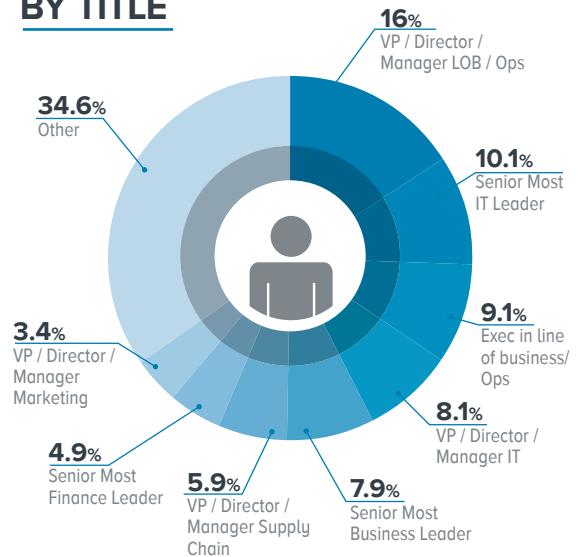
BY ANNUAL REVENUE



BY COMPANY SIZE



BY TITLE



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