Honeywell

Enhancing the Customer Experience: Connected Devices for Field Service Workflows

WE LIVE AND DO BUSINESS in a highly connected world. That brings clear benefits, such as being able to use real-time data capture and mobile access to applications to create efficiencies, but it also brings potential challenges. The connected customer demands more from retailers, logistics providers and services companies. One bad experience and the customer may leave forever.

As a result, the way companies approach technologies that support after-sales and field service is changing. Technologies such as bar code scanners are no longer just a way to efficiently and accurately capture data—workers in the field need technology that improves the customer experience. That means one-stop service calls that fix problems on the first visit; it means deliveries that meet or beat the arrival time promise; it means accurate, damage-free deliveries, with the ability to upsell customers on the spot; and it means field service that can be proactive, rather than "break/fix" calls or routine maintenance.

The way that technology, including Internet of Things (IoT) technology, gets applied to field and after-sales service carries significant profit ramifications. According to a 2015 report from analyst firm IDC,[1] some leading manufacturers are gaining up to 50% of their profits from after-sales sources, and the trend will continue as connected products become a cornerstone for revenue growth in the coming years.

The IoT is the trend toward smart, connected products that stream real-time data to back-end analytics engines so adverse trends can be detected and addressed. IoT deployments may focus on asset health, optimal equipment performance, or real-time location of vehicles or deliveries. Mobile data collection devices may themselves be IoT-connected, feeding up data useful for workforce management, dwell times at locations and, generally, the performance of a mobile workforce. When paired with insights gained from IoT-connected products installed at customer sites, mobile devices allow companies to know more about the condition of the assets they are servicing for customers, as well performance of the field workforce and the assets it uses, such as delivery vehicles.

Connected devices and quick access to order fulfillment applications can help keep consumers satisfied by ensuring delivery promises hit their time windows. In fact, according to Forrester Research, 73% of consumers say that valuing their time is the most important thing a company can do to provide them with good service.[2]

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"We're taking efforts to better define what is truly required from customer base, to improve scheduling functions, and are reviewing supply chain inefficiencies."
Executive Vice President; Manufacturing, Consumer Goods; $250M - $500M

"We are looking at a CRM collaboration across business functions as well as educating field staff on other revenue sources across several business units."
Executive Vice President; Transportation & Trucking; $250M - $500M

The field workforce imperatives regarding mobile devices can be seen as aligning with two crucial corporate goals: growing the profits of the company, and strengthening the customer experience. This survey, sponsored by Honeywell International and conducted by Peerless Research Group, is intended to provide insight into the mobile device solution needs of after-sales service and field service workforces in this age of connected consumers and IoT-connected products and equipment assets.

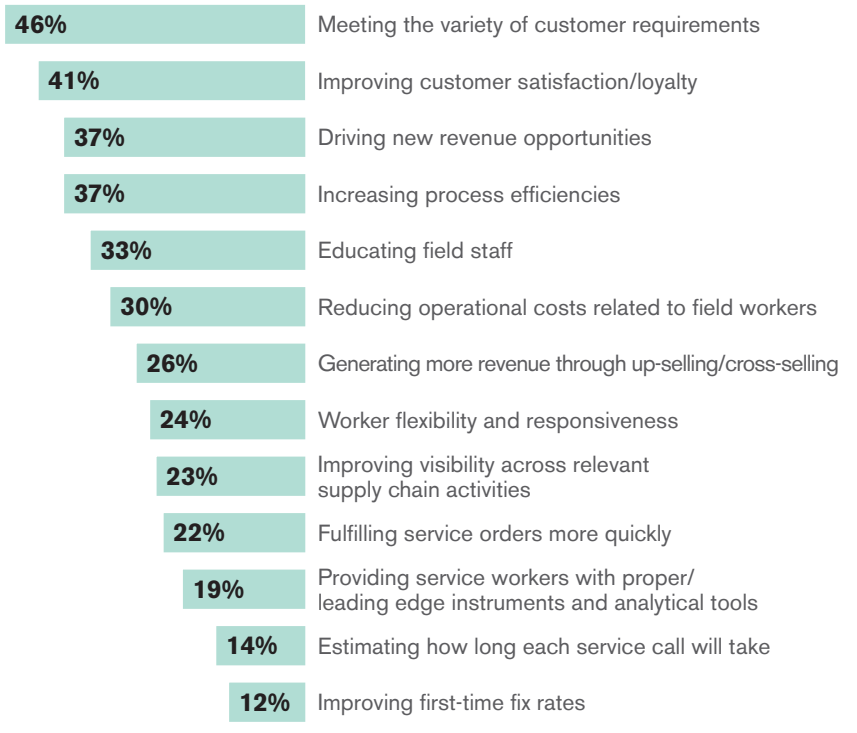
To see how organizations are best managing their field service and sales employees, 324 logistics managers employed with organizations operating a field workforce were asked about the challenges they face in managing a field staff, the tasks and responsibilities their field force is being assigned, mobile devices and technologies being used by field service employees, and their company's adoption and handling of an Internet of Things platform.

The survey found the greatest challenges involved in field service workforce management were around meeting customer requirements, although process efficiencies also ranked highly, as did driving new revenue opportunities. However, when it came to the level of satisfaction with the technology currently in the hands of field work forces, only 12% of respondents were "very satisfied," and just over 40% of respondents were either dissatisfied (8%), or were neither satisfied nor dissatisfied (33%). In short, as important as field workforce processes are to customer satisfaction and profit potential, there is room for improvement when it comes to the devices in the hands of these professionals.

This survey also provides insights on device investment plans. The majority of respondents report they will either maintain their level of investment in mobile device solutions over the next 12 months (46%), or will increase it (48%). Some of the top technology niches that respondents indicate they will be adding during the next 24 months include industrial-grade tablets, mobile bar code printers, wearable computers with ring scanners and radio frequency identification (RFID).

FIGURE 1

Greatest challenges to achieving optimal field workforce efficiencies



Field service workers are the face of a company: What's expected of them?

Quite simply, keeping the customer satisfied is the primary emphasis for field workforce managers. In particular, enabling workers with the proper skill sets to satisfy diverse and unique customer requirements and engendering customer loyalty rank highest as current priorities. Making processes more efficient, generating new revenue opportunities, and employee training are also significant issues. (See Figure 1)

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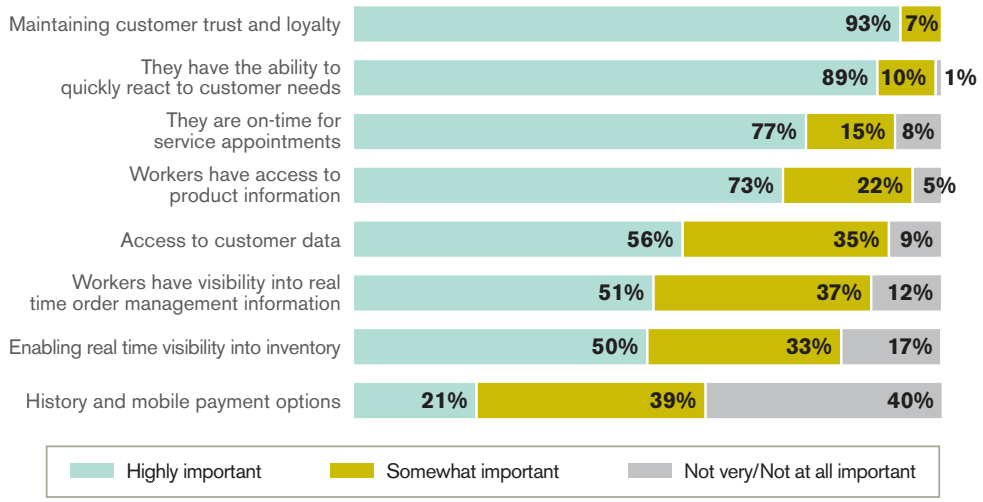
"We make sure our field workers know the plan and execute the plan properly. We make sure communication is happening at each and every step."
VP/Director/Manager, Warehouse/Distribution; Food & Beverage; $100M - $250M

"Our field service team members focus on their area of specialty and it is challenging to open the avenue for additional opportunities."
Vice President, Business Development; Transportation; $50M - $100M

FIGURE 2

Qualities considered important for field workers



Correspondingly, field service workers are expected to be customer-centric. Doing their utmost to gain customers' confidence by being knowledgeable, well-prepared, quick to react to customer requests, and showing up on-time for scheduled appointments are foremost prerequisites. (See Figure 2)

Interestingly, while creating a revenue channel by up-selling and cross-selling solutions was important for some, over one-half of those we surveyed said that field service employees are not being directed to drive new business opportunities through promoting additional products and solutions. (See Figure 3)

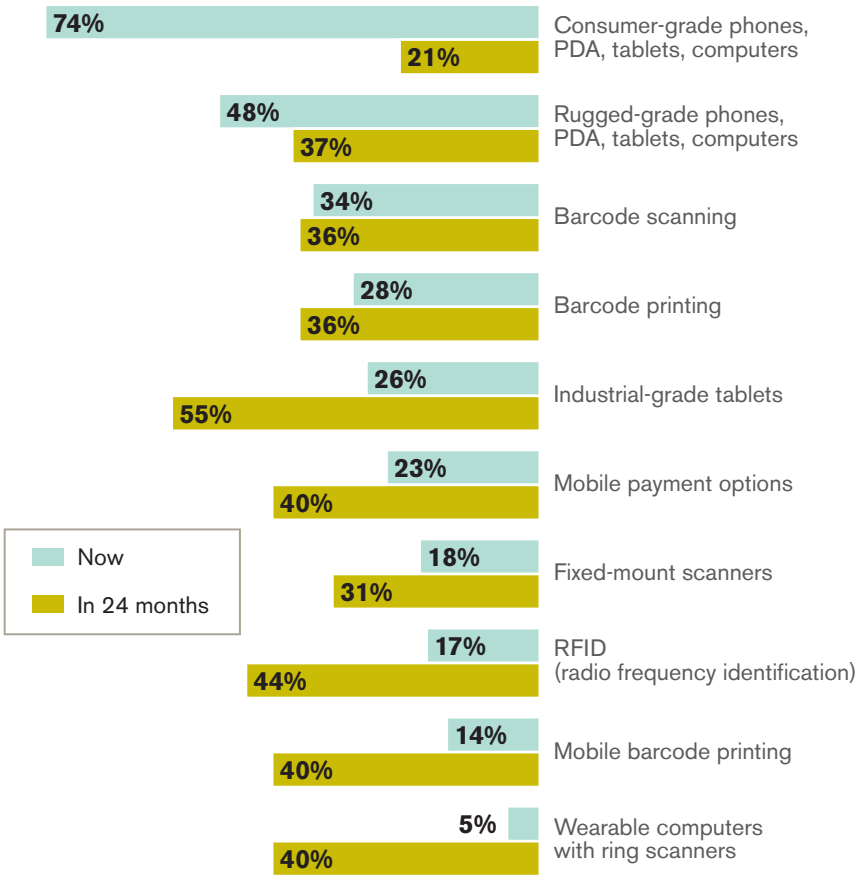
This may be attributed to the efficacy of up-selling programs. Of those running up-selling or cross-selling programs, about three out of four claim their program is only moderately successful. And, while 19% say their program is highly successful, 6% consider it to be a failure at this point.

FIGURE 3

Up-selling or cross selling additional products and solutions is a requirement for field service employees

FIGURE 4

Technologies field workforce currently uses/ will be added in 24 months



Equipping field service workers with proper technology boosts efficiency

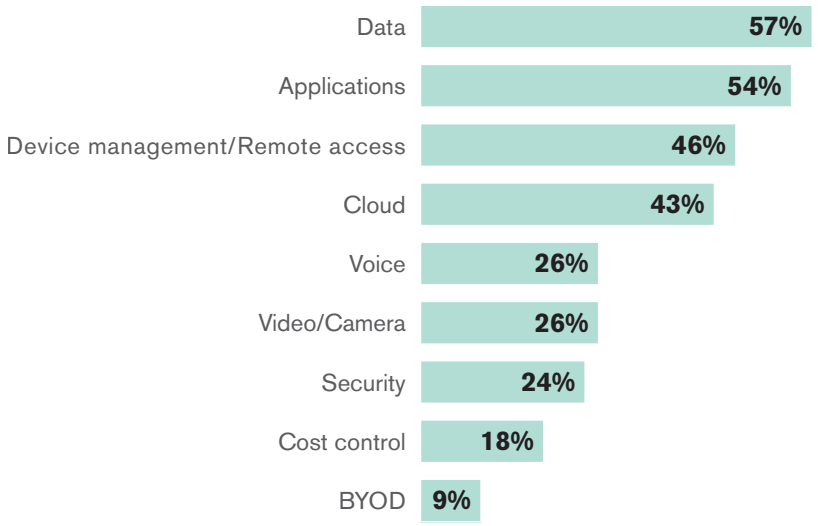
Portable devices such as consumer grade and rugged phones, PDAs and tablets are the most common devices now being used to improve mobile worker productivity. However, industrial grade tablets, RFID, bar coding solutions, and wearable devices are expected to experience greater adoption during the next few years. (See Figure 4)

These devices will largely be used to collect and manage data, run pertinent applications, enable remote connectivity, and for accessing Cloud-based apps. (See Figure 5)

"We use GPS mapping of all potential work sites in a three state region. We provide a field accessible database of all pertinent information. We create project completion reports generated from the field."
President; Automotive Parts; $50M - $100M

FIGURE 5

How companies are/will be employing mobile solutions

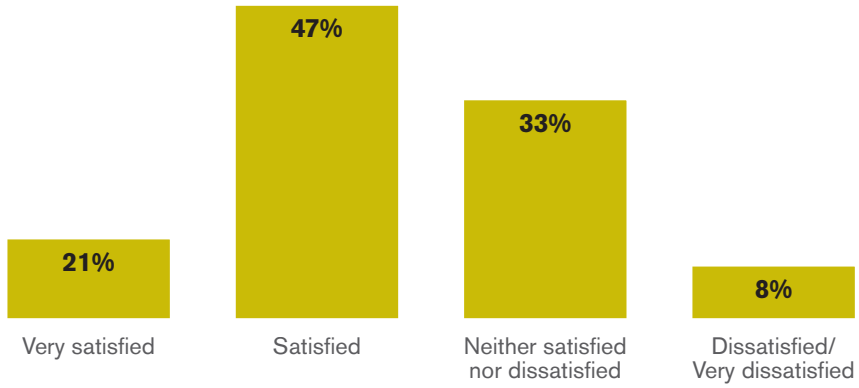


"We are increasing the use of Web-based and mobility devices, training on proper entry of field information in ERP, and providing templates for recording work."
Vice President, Supply Chain Operations; Chemicals; $50M - $100M

"We provide specialized training to address improving customer satisfaction and loyalty, and up-selling. We assign teams to study/map processes to eliminate non-value add items."
Vice President, Supply Chain Operations; Chemicals; <$50M

FIGURE 6

Satisfaction with technology used by field service workers

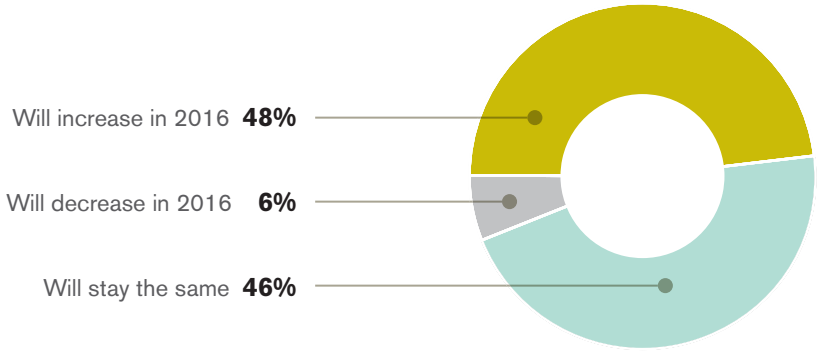


Many managers in our survey largely agreed that the technology they now use is far from perfect for the applications they are running. In addition to those who say they are neither satisfied nor dissatisfied (33%), nearly one in 10 (8%) are fully frustrated with their current equipment. Only slightly more than one out of 10 (12%) state that they are highly satisfied with their technology solutions. (See Figure 6)

As a likely result, nearly all organizations will either increase their spending over the next 12 months or spend as much as they did in 2015 on mobile devices and solutions. (See Figure 7)

FIGURE 7

Organizations' estimated spend on technology in 2016



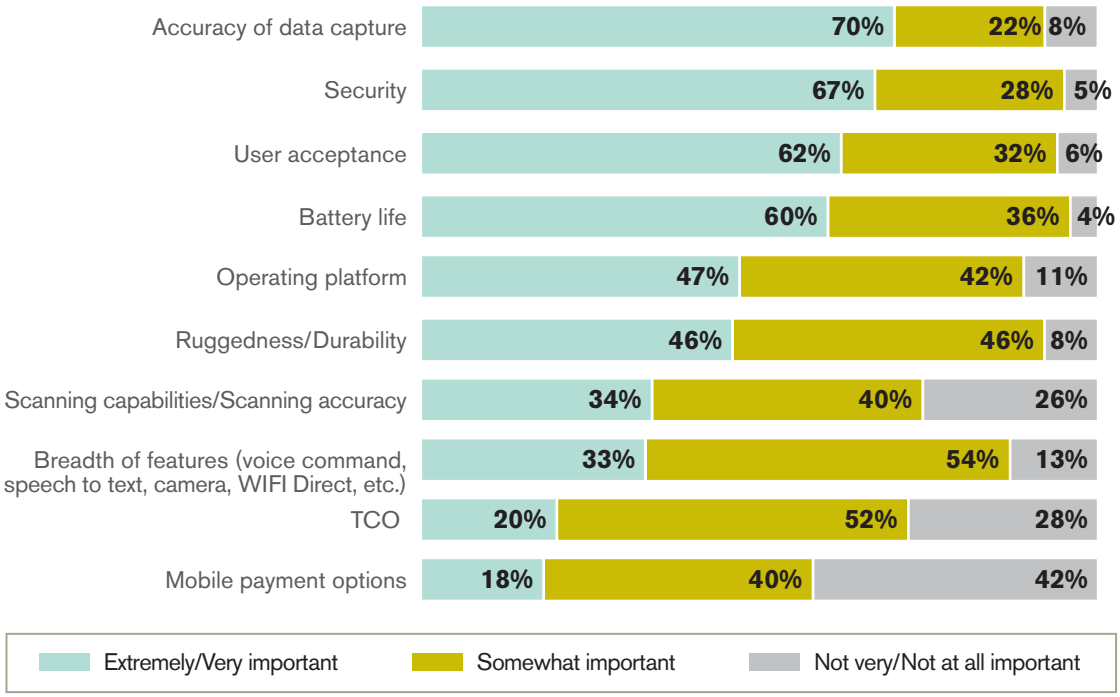
"We run a highly successful program. Our field employees are very knowledgeable and do an excellent job of explaining the value of our products and services."
Marketing Manager; Industrial Machinery; $100M - $250M

"Instrument and field data will be more timely and abundant."
Director, Supply Chain Operations; Chemicals & Pharmaceuticals; <$50M

Data accuracy, security, user acceptance and a long battery life are the product features and factors that decision-makers most strongly take into consideration when evaluating mobile solutions for use by field service workers. (See Figure 8)

FIGURE 8

Characteristics considered important when evaluating devices for field service worker use



"Solutions should not be viewed as a single entity. Helping a client realize process improvement or efficiency, whether our product or not should be the goal. This goal creates partnerships not vendor/supplier transactions."
Director; Computers & Electronics; $50M - $100M

"IoT will give us real-time and historical data at a job site before our techs arrive."
Director; Consulting Services; $250M - $500M

Adoption of an Internet of Things (IoT) Strategy is expanding

While organizations, overall, are split on their plans for adopting an Internet of Things strategy, familiarity with IoT is progressing. Consideration, evaluation and adoption are therefore likely to trend similarly over time. This study shows that slightly less than one out of five (17%) are either now investing or planning an IoT platform, yet more than one-half of those surveyed (59%) either still have no plans or are presently uncertain of an IoT implementation. (See Figure 9)

FIGURE 9

Organizations' adoption for/implementation of an Internet of Things (IoT) strategy

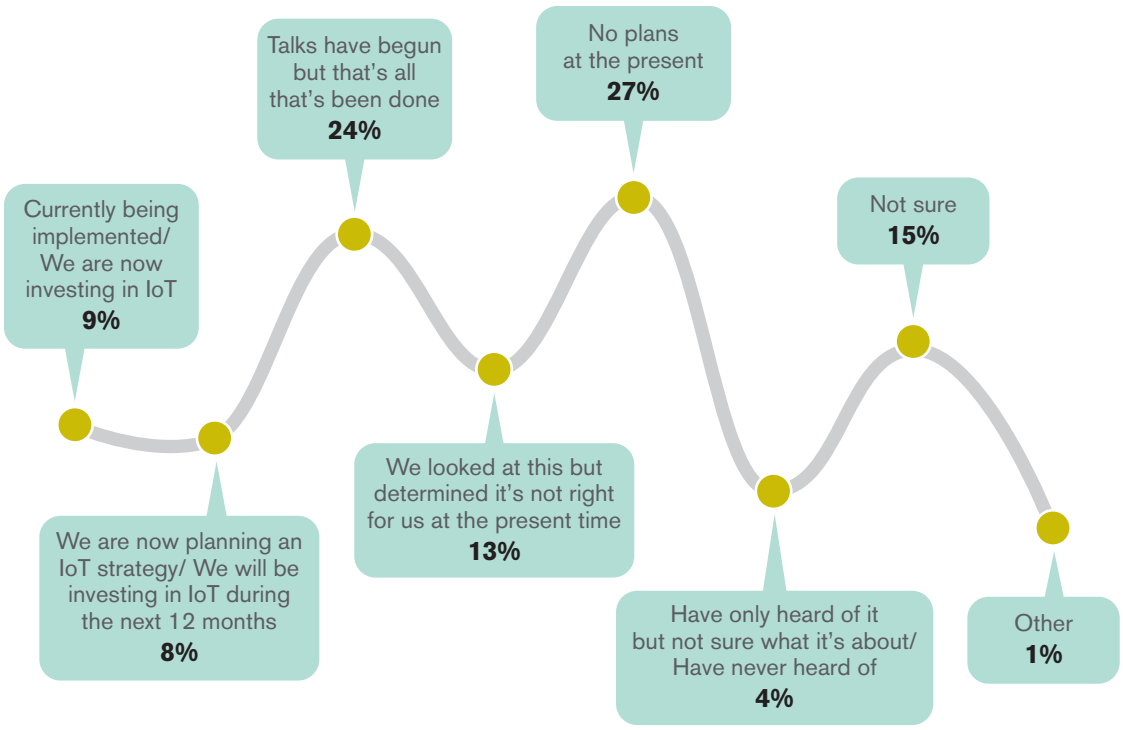
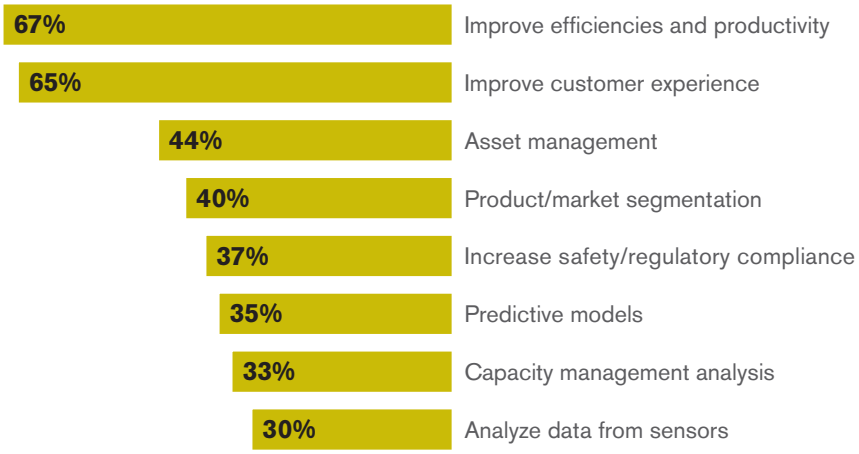


FIGURE 10

Areas in which organizations are/will be applying IoT



"Having connected devices allows for flexibility in service and services offered and how service data is collected and stored."
Vice President, Supply Chain Operations; Pharmaceuticals; $50M - $100M

"If pooling platforms begin providing information to us, our asset control system completely changes, making us much easier to do business with and also making us much more cost competitive."
Director/Manager, Supply Chain Operations; Computers & Electronics; $1B - $2.5B

For those accepting an IoT strategy, the reasons are clear. An Internet of Things platform is foreseen as streamlining and improving process efficiencies throughout their warehouse and business operation, improving customer service by getting product and information out to customers quickly, and optimizing technology through advanced systems integration which would allow for greater visibility into production, inventory and data. (See Figure 10)

Summary: Customer-driven outlook

The survey indicates that organizations see mobile device and IoT technologies as a way to strengthen the customer experience. Meeting customer requirements is seen as the top challenge for field workforces, while "maintaining customer trust" is the leading quality desired from field workforces. And when it comes to the IoT, while only 17% have implemented projects or have deployments in the works, respondents rank "improving customer experience" a very close second to productivity improvements as IoT objectives.

The use of bar coding in logistics, delivery services and field services operations is well established. Accuracy, ruggedness and device security are essential characteristics sought from devices. The survey, however, also revealed interest in driving new revenue opportunities, and giving workers the ability to quickly react to customer demands, both of which are enabled by mobile devices that make it easy for users to access management applications and real-time order fulfillment information. It's also possible that respondents' growing interest in technologies such as RFID and mobile printers is related to meeting customer requirements in areas such as traceability or returns processing.

In this connected age, it seems most leading technology choices tie back to improving the customer experience. That's a change from the past when technology choices for data collection were often centered on process efficiencies.

Excelling at customer service in the connected world is about bridging physical processes such as field service and delivery with systems for order fulfillment, sales and order promising, and workforce management. With the right devices and mobile data capture technologies in the hands of service, delivery, and field sales workforces, companies can better blend the challenges of the physical world with digital systems so that commitments are met, added products and services can be sold, and installed products will perform optimally for customers throughout their entire life-cycles.

Footnotes:
"New IDC Planscape Emphasizes Critical Role of Connected Products in After-Sales Service Transformation." IDC press release, June 29, 2015. http://www.idc.com/getdoc.jsp?containerId=prUS25716315
Forrester's Top Trends for Customer Service in 2016. Blog post, by Kate Legget, Jan. 6, 2016 http://blogs.forrester.com/kate_leggett/16-01-06-forresters_top_trends_for_customer_service_in_2016

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Methodology

This research was conducted by Peerless Research Group on behalf of Logistics Management magazine for Honeywell International Inc. This study was executed in January of 2016, and was administered over the Internet among subscribers to Logistics Management. Respondents were qualified for being employed at a company having field service or sales workers. In total, 324 professionals who are decision-makers for their company's logistics operations participated in the study.

Respondents are predominantly top corporate executives, directors of supply chain operations, managers of logistics, and other operational directors. Four out of 10 reported that they work at a warehouse or DC, while about one out three are located at a manufacturing facility or at their corporate headquarters. A breadth of industries are covered in the study and include manufacturers of industrial machinery, food and beverage, chemicals and pharmaceuticals, computers and electronics, automotives and parts, and energy and gas. Wholesalers, retailers and transportation and trucking services are also included in the study.

About Honeywell and Field Service Solutions

Honeywell Sensing and Productivity Solutions is a global leader in providing mobility solutions for field service operations that improve workforce mobility and visibility. Our mobility products provide real-time access to business-critical applications that allow field workers to provide exceptional customer service. We offer O/S versatility, large multi-touch displays, superior scanning and battery life that provide field service workers more ways to send and receive information. Our mobility solutions allow workers to process payments and other essential customer service needs from any location with ease. To learn more about Honeywell mobility solutions for field service visit http://www.honeywellaidc.com.

Contact Information
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