# Delivering on Transportation & Logistics Operations Needs. Today and Tomorrow.

**Executive Summary**

As customers' demands constantly evolve, transportation and logistics (T&L) operations are being put under growing pressure to offer more efficient delivery services, while not compromising on customer service. Using the findings from a 2013 research survey conducted among transport and logistics managers around the world, this report explores how a combination of mobile technology implementations for mobile workers, and process re-engineering efforts can elevate operations to the next level. It also highlights how a lack of adoption can hold T&L operations back, preventing them from capitalizing on significant cost-savings.

Additionally, this report focuses on customer communications, and demonstrates how implementing mobile technology can improve accuracy and drive improved customer satisfaction.

## Key Findings from the Research

- Managers are seeking to improve operational efficiency by gaining back mere seconds from each workflow to improve the overall time and cost savings. Having workers take fewer steps over the course of a day, eliminating battery changes mid-shift or using one device for multiple purposes are all areas managers identified as key components to increase efficiency. It is also clear that technology investment will impact productivity when deployed effectively.

- Picking accuracy is of growing importance to managers as visibility increases over the cost to the business through measures such as The Perfect Order Index. Managers believe mis-picks to be an ongoing issue within the workplace and one that could be avoided through new technology and processes.

- Trends such as 'reverse logistics' are growing in popularity as businesses look to manage returned goods within the supply chain as quickly as possible to reduce the impact on the bottom line. And along with this, managers are adopting 'Hardware as a Service' models to ease the burden of peak periods without significant capital expenditure. Adoption of RFID and Voice technology is steadily growing, with the US and Germany quicker on adoption in both instances.

## Research Methodology

The research sampled 375 transport and logistics managers at organizations with more than 500 employees within the UK, France, Germany, US, Australia and New Zealand. The research was commissioned by Intermec by Honeywell and carried out by independent research company Vanson Bourne in April 2013.

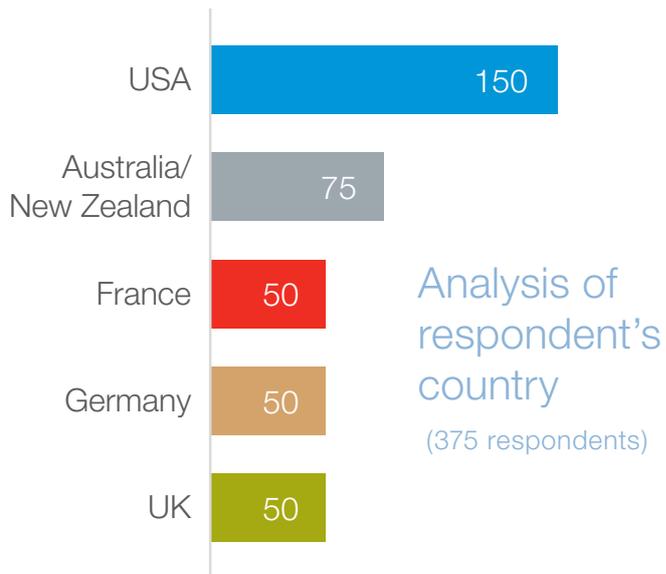The average number of mobile workers employed by organizations surveyed was 3548.

**Analysis of respondent's country**
(375 respondents)

| Country | Respondents |
|---|---|
| USA | 150 |
| Australia/New Zealand | 75 |
| France | 50 |
| Germany | 50 |
| UK | 50 |

Figure 2

"How many employees work in your organization?"

(375 respondents)

**Average 3548 mobile workers**

- 22%
- 21%
- 28%
- 29%

■ 500-999 employees
■ 2000-2999 employees
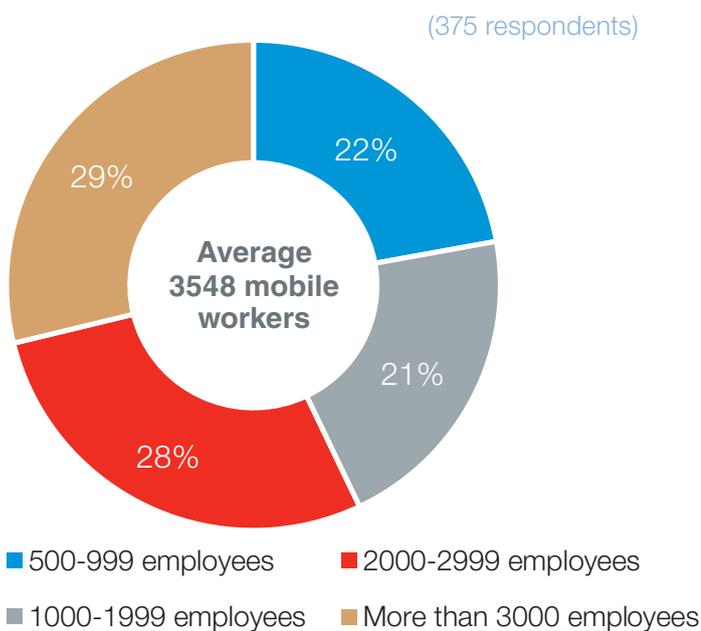■ 1000-1999 employees
■ More than 3000 employees

Figure 1

## Summary Of Research Statistics

### Key Findings

- Transport and logistics operations could save an average of over $459,000 per annum as a result of process re-engineering and the implementation of mobile technology across workflows, but a significant proportion of companies may be missing out on these potential savings.

- Transport and logistics managers have identified operational efficiency as their number one area needing improvement this year, and 44% of operations believe reviewing current workflows and technologies (process re-engineering) is the most effective means of achieving that.

- Key to improving operations is the deployment of mobile, location-based technology, an area where managers believe savings of more than $282,000 can be achieved in the next twelve months.

- However, almost a quarter (23%) of the companies have yet to deploy location-based technology, citing a number of barriers including lack of need and cost, which is preventing them from capitalizing on these benefits.

- Managers see broadband mobile communications such as 4G and LTE as the single biggest future driver of ROI (60%) followed by integrated vehicle telematics (44%) and RFID (38%).

### Automating Processes

- One in three (39%) companies have not initiated re-engineering efforts in the past year, and of these companies, nearly three quarters (72%) have not evaluated their existing processes for at least two years.

- Those who have not deployed new technologies through process re-engineering remain significant. Of those who have not automated processes, nearly 40% cite a lack of business need and 33% attribute cost as the key reasons for not doing so.

- Consequently, the survey finds that 60% of organizations still use paper-based systems to complete tasks associated with pick-up and delivery, and 9% have plans to deploy paper in some form in 2013.

### Demanding Greater Accuracy and Accessibility

- When asked to rank the demands received from their customers, 77% of managers claim that accuracy of service is the biggest pressure point.

- Nearly a quarter (24%) of companies add that improved accessibility of data in back office systems is the area most in need of improvement, followed by an increased amount of detail (23%) and greater accuracy (22%).

**GPS** technology is expected to save companies more than **$282,000** in the next 12 months

## Resistance to Change

In its infancy, logistics involved getting one item from village A to village B. Now, logistics comprises getting thousands of shipments across countries and continents to single, multiple and now thousands of end point destinations. However, the timescales for these delivery services have not necessarily scaled with the distance being traveled. In fact, customers are increasingly demanding more from their T&L providers. The growing demand for same-day deliveries is putting pressure on T&L operations to not only meet these tight timelines, but to continue to offer a consistent level of customer service (while at the same time improving operational efficiency and reducing costs).

According to the survey commissioned by Intermec by Honeywell, T&L operations participating in the report are handling on average 152,000 orders per day. This combined with the fact that 77 percent of organizations agree that their customers are now demanding same-day delivery, makes combining speed and accuracy essential for success. However, a lack of innovation is holding T&L operations back. An unwillingness to deploy mobile technology and undergo process re-engineering efforts could be affecting customer service – and more importantly, organizations' profitability. According to the study, these same T&L operations could be saving on average over $459,000 per annum as a result of process re-engineering and the implementation of mobile technology across workflows. Yet despite that, 60 percent of the organizations still use paper-based systems to complete tasks associated with pick-up and delivery.

# 77%
## of organizations say their customers now demand same-day delivery services

How then can T&L operations best position themselves to meet the evolving needs of the customer? This report highlights how T&L operations can undergo an effective cost-saving initiative and, at the same time, improve operational efficiency through workflow re-engineering and implementing mobile technology into their pick-up and delivery services. It offers best practice insight for T&L operations seeking to capitalize on the benefits this type of process transformation can bring to their operations.

## The Demand for Express Delivery

**92%**
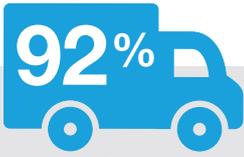
of transportation & logistics managers **struggle to meet same-day** delivery requirements

More than three quarters of organizations say their customers now demand same-day delivery services, and 92 percent of companies claim that meeting these expectations is placing significant challenges on their business. To capitalize on customers' demand for same-day delivery services, T&L operations need to be as adaptable as possible, in order to give customers more control and flexibility over their deliveries.

**"What was the primary goal of the process re-engineering effort?"**
(375 respondents)

- Operational efficiency
- Customer service improvements
- Revenue generation
- Safety improvement
- Regulatory compliance improvements
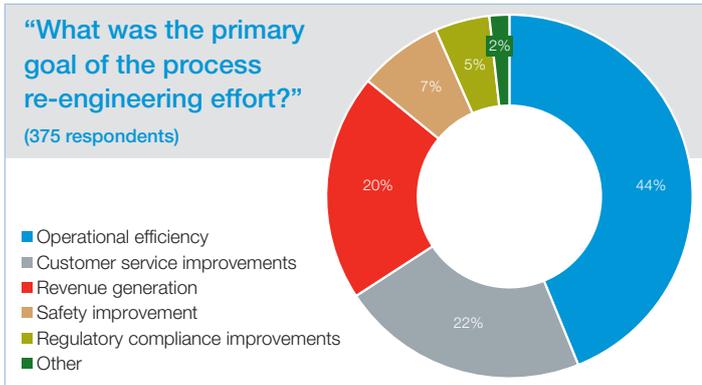- Other

44%
22%
20%
7%
5%
2%

Figure 3

T&L operations do have some awareness of the need to reinvigorate their processes. Operational efficiency was identified as the number-one area needing improvement this year, and 44 percent of companies believe reviewing current workflows and technologies (process re-engineering) is the most effective means of achieving that. What's more, T&L managers ranked operational efficiency and customer service improvements in their top-three concerns when giving direction, or receiving direction from their management team.

This said, an awareness of these issues is not enough if T&L businesses want to keep up with their 'right-here right-now' customers. Process improvements and implementation of workflow technology is not a one-off practice. Organizations need to understand the requirement for regular and ongoing process re-engineering efforts.

The findings of the research suggest the lack of process evaluation is holding back operational progress, and preventing operators from delivering an optimum level of service. The survey reveals that more than one in three (39 percent) companies have not initiated re-engineering efforts in the past year, and of these companies, nearly three quarters (72 percent) have not evaluated their existing processes for at least two years. Without a willingness to orchestrate widespread change and improvement, the customer demands of these organizations will inevitably fall by the wayside.
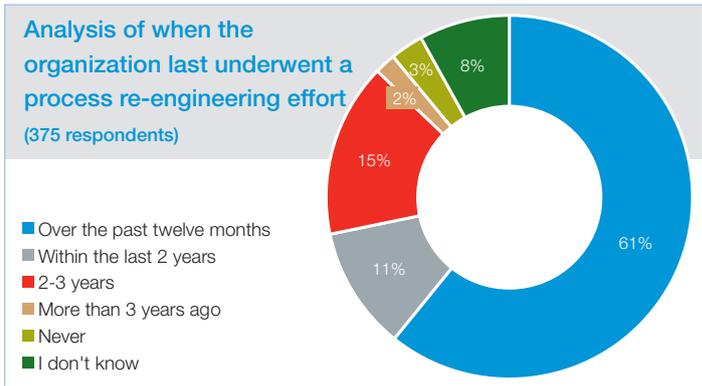
**Analysis of when the organization last underwent a process re-engineering effort**
(375 respondents)

- Over the past twelve months
- Within the last 2 years
- 2-3 years
- More than 3 years ago
- Never
- I don't know

61%
11%
15%
2%
3%
8%

Figure 4

## What Can Re-Engineering Do for Efficiency?

Re-engineering the workflow activities involved in pick-up and delivery services may prove a daunting undertaking for many T&L operations, but not all companies have neglected the need to re-engineer their processes. Sixty-one percent (Figure 4) of organizations have undergone such an effort in the past twelve months, with the most common single goal being to improve operational efficiency (as identified by 44 percent). (Figure 3)

Clearly, this is a worthy objective for a workflow re-engineering endeavour: T&L managers having experienced, or are expecting to experience, a 13.74 percent increase in efficiency as a result. With operational efficiency a number-one priority for T&L managers, workflow re-engineering is critical.

However, as with any business decision, this is not the only driver for improving existing processes. Managers have experienced or expect to experience an average of $459,364 in tangible cost-savings following process re-engineering (combined with technology implementation), delivering benefits in both efficiency and profit.

For those organizations that have not undergone a workflow re-engineering effort in the past twelve months, it has been an average of two years since they last conducted a review. But what's more surprising is that 7 percent of T&L companies have never undertaken a process re-engineering effort – entirely overlooking a multitude of opportunities to improve their operational efficiency and drive cost-savings.

Analysis of time spent on pick-ups and deliveries at present versus what could be saved through automation
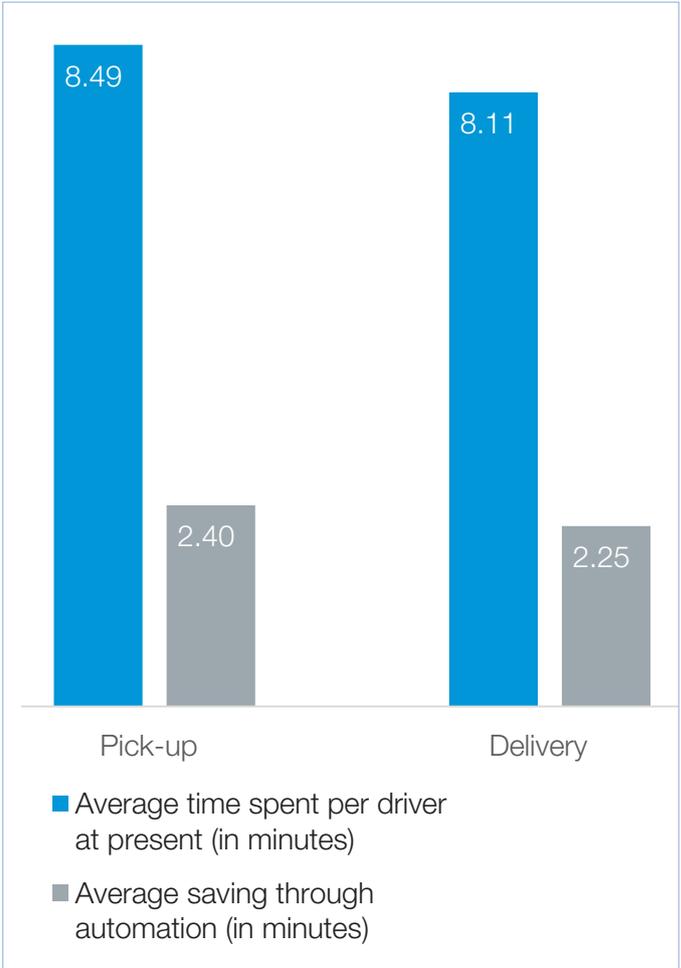
(375 respondents)



Pick-up: 8.49, 2.40
Delivery: 8.11, 2.25

■ Average time spent per driver at present (in minutes)
■ Average saving through automation (in minutes)

Figure 5

## Innovating Through Automation

Process improvement is not merely about spotting where workflows can be made more efficient. For T&L operations in particular it's about understanding how automation can reduce the human effort and intervention required, as well as decrease the number of 'man hours' necessary to carry out processes from start to end. Not surprisingly, automation is generally delivered by adding technology. Speeding up highly repetitive workflow processes by just seconds and eliminating the opportunity for human error can have significant impact on overall operational efficiency and costs.

For example, the average time it takes a driver to complete shipment pick-up related tasks at present is 8 minutes 49 seconds (Figure 5). By introducing automation with mobile computing technology, it is estimated this time can be reduced by an average of 2 minutes 40 seconds. This is a 30 percent decrease in time and the associated operational costs for pick-ups.

> **30%**
> Managers believe **new technology** could cut pick-up and delivery times by approximately **30%** or 2.68 and 2.41 minutes, respectively

According to the survey, organizations believe the pick-up processes can benefit most from being enhanced. The workflows considered most important to improve are: improved accessibility of information in back office systems (24 percent), an increase in the amount of information and detail (23 percent) and improved accuracy of information (22 percent) (Figure 6).

**Analysis of the pick up and delivery area which would most benefit from improvement**
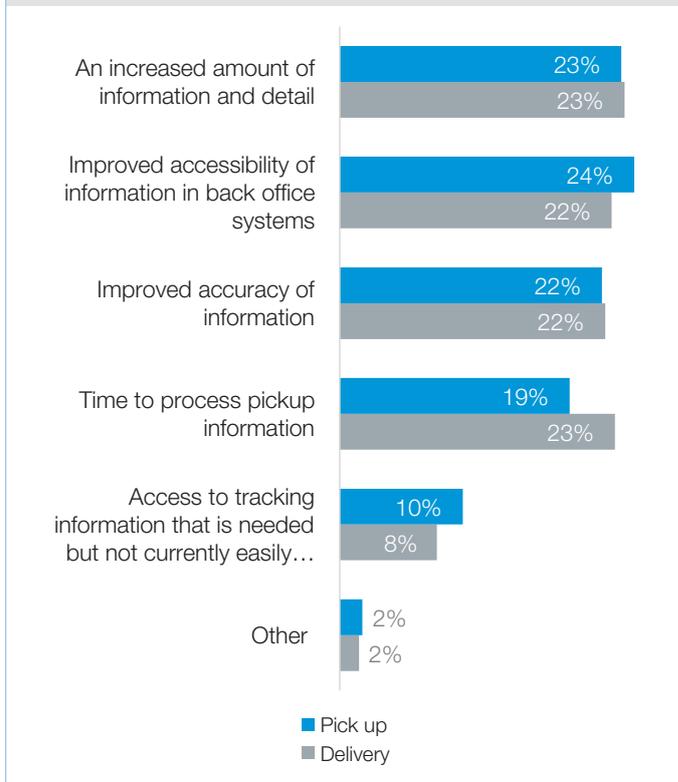**(375 respondents)**



Figure 6

Compared to a pick-up, the delivery of a shipment is a slightly quicker process taking on average 8 minutes 11 seconds. 29.5 percent of that time, or an average of 2 minutes 25 seconds could still be saved through automation. Areas most in need of improvement in the delivery process are an increase in the amount of information and detail (23 percent), the time taken to process delivery information (23 percent), improved access of information in back office systems (22 percent) and improved accuracy of information (22 percent).

## Mobile Technology for a Mobile Industry

Automation and process re-engineering are closely linked to mobile technology implementation for T&L operations. Customer expectations in the industry are growing higher each day, putting increasing pressure on mobile workers to meet tighter deadlines. This makes the ability to reduce pick-up times for mobile workers and reduce call times for back-office workers all the more necessary.

According to the survey, T&L operations around the world believe that arming their mobile workforce with mobile technology could cut both their pick-up times by 30 percent and delivery times by 29 percent – savings which could be crucial in boosting operational efficiency levels and meeting customer demands.

## Keeping on Track with GPS

One key to improving operations is the deployment of mobile, location-based technology. For this reason GPS is currently – and will continue to be – an important area of investment for T&L operations. Most survey respondents feel that customer demand can best be met through automating key processes in the pick-up and delivery areas, and adopting mobile technology for drivers such as GPS, mobile and broadband communications. Companies anticipate that by adopting these technologies, the time taken for each pick-up and delivery can be cut by over two minutes, providing a significant boost to the efficiency of the mobile worker.

Location tracking technology is currently being used by more than three quarters (77 percent) of organizations in their mobile workflows, with navigation (77 percent) and route optimization (72 percent) being the most common implementations. (Figure 7)

As a result of using location tracking technology, these organizations have seen average savings of over $280,000 over the last twelve months. However, almost a quarter (23 percent) of the companies have yet to deploy GPS-based applications, citing a number of barriers including lack of need and cost, which is preventing them from capitalizing on these benefits.
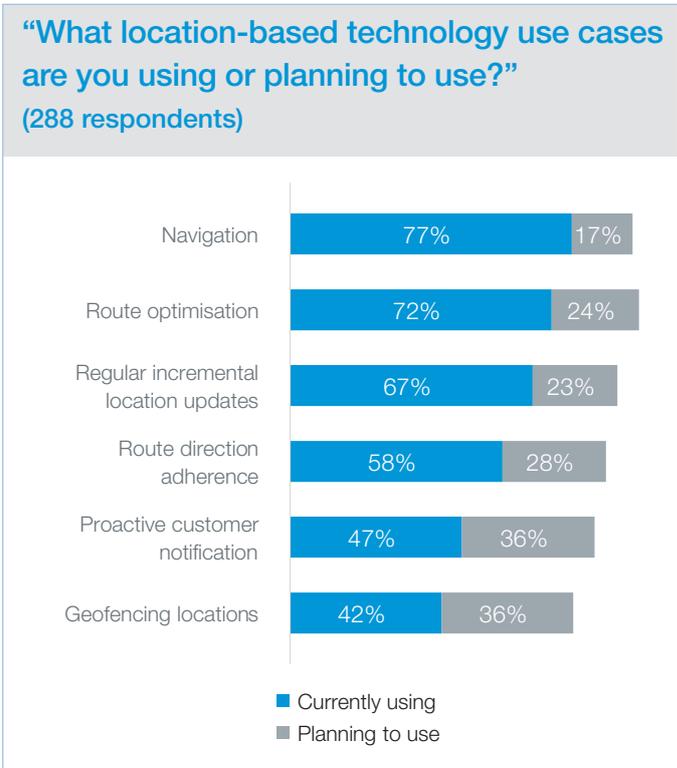
### "What location-based technology use cases are you using or planning to use?"
(288 respondents)

| Use case | Currently using | Planning to use |
|---|---|---|
| Navigation | 77% | 17% |
| Route optimisation | 72% | 24% |
| Regular incremental location updates | 67% | 23% |
| Route direction adherence | 58% | 28% |
| Proactive customer notification | 47% | 36% |
| Geofencing locations | 42% | 36% |

■ Currently using
■ Planning to use

Figure 7

## Future-Thinking: Technology Trends on the Horizon

What are likely to be the future trends for mobile technologies going forward? We forecast the areas which could potentially offer T&L businesses the most for their money:

**60%** The survey respondents believe broadband **mobile communications** (60%), integrated vehicle telematics (44%) and RFID (38%) offer the most promising return on investment to their organization.

**Data Connectivity:** Improved mobile data connectivity offers the biggest potential opportunity for T&L operations, with data communications providing the most promising return on investment. Broadband mobile communications (4G/LTE/LTE Advanced/WiMax/etc) were chosen as the most significant opportunity for ROI by 60 percent, and integrated vehicle telematics by 44 percent. (Figure 8) However, the research shows a sticking point for the implementation of these technologies: while many believe they could offer significant ROI, 57 percent do not currently use Wi-Fi data to communicate with their mobile workers and 26 percent have no plans to deploy integrated vehicle telematics.

**Two-Way Communication:** Almost half (Figure 9) of respondents are looking for increased accuracy or transparency. This suggests that T&L operations

desire to give better access to data and improve the data that is shared with customers. Not only is there a real need to manage how customers place orders, but customers also demand real-time updates through convenient communication channels too. Organizations need to recognize and capitalize on multiple two-way communication channels with their customers, not just a means of placing orders, but as a method of communicating valued information with the company's entire audience. There is a genuine requirement for T&L companies to improve managing all customer and potential customer interactions across multiple channels and platforms.

"Which of the following technologies do you believe offer your organization the most promising return on investment?"
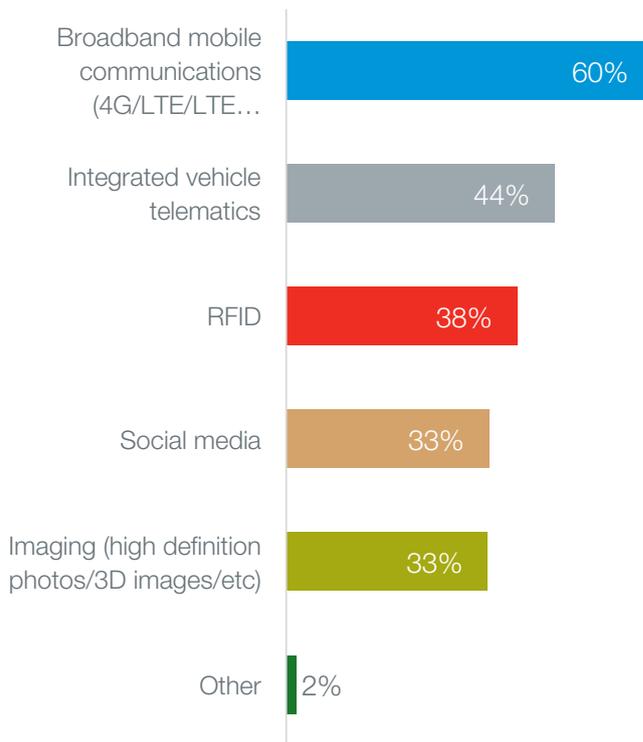
(375 respondents)



| | |
|---|---|
| Broadband mobile communications (4G/LTE/LTE… | 60% |
| Integrated vehicle telematics | 44% |
| RFID | 38% |
| Social media | 33% |
| Imaging (high definition photos/3D images/etc) | 33% |
| Other | 2% |

Figure 8

## The Customer Always Comes First

The need for T&L operations to deliver on time and accurately is as much a strategic issue as it is a demand from customers. Over three-quarters of companies rank complying with SLAs, making deliveries and collections on time, and accuracy of service as some of the biggest areas of business pressure.

Almost half (48%) of operations estimate they receive more than 300 calls per day from customers asking for order status updates, though they believe that more than 20 percent of these calls could be eliminated by having automated proactive shipment status updates. This demonstrates that the efficiency gains from mobile technology and automation could extend to back-office staff as well. By providing proactive shipment updates, a process enabled by location-based and mobile technologies, these same companies believe they could eliminate 24 percent of these calls immediately. This equates to 72 calls per working day, a time saving that could then be used to better serve a wider range of customers. (Figure 10)

Indeed, there is a significant business case for deploying these automated shipment status updates, as around nine in ten T&L operations say that their systems are under pressure due to evolving customer expectations of delivery times (91 percent), that their top priority is improving customer service (90 percent), and that they want to improve operational efficiency (90 percent). The ability to grow better customer service, while at the same time driving further efficiency, is core if T&L operations wish to place themselves competitively.

### Analysis of the top-rated area of pressure that organisations are feeling from their customers
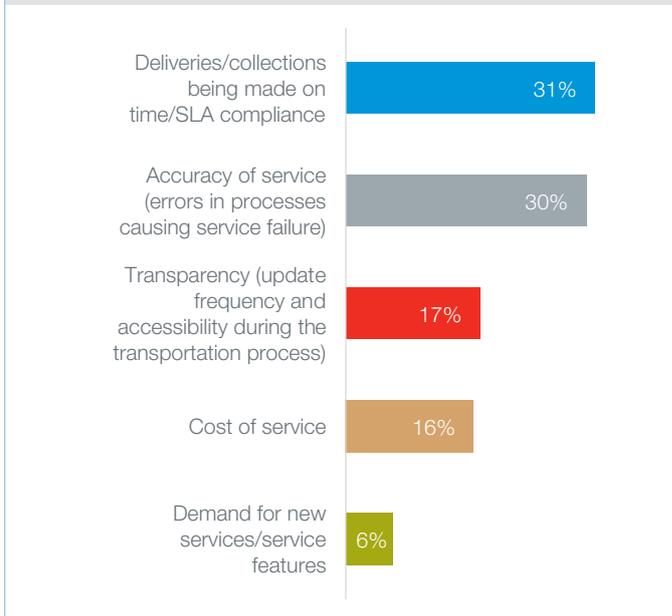**(375 respondents)**



Figure 9

### "Could a portion of your inbound service calls be eliminated by automated proactive shipment status updates?"

(375 respondents)



- Yes – less than 10%
- Yes – between 10% and 15%
- Yes – between 15% and 20%
- Yes – between 20% and 30%
- Yes – between 30% and 40%
- Yes – between 40% and 50%
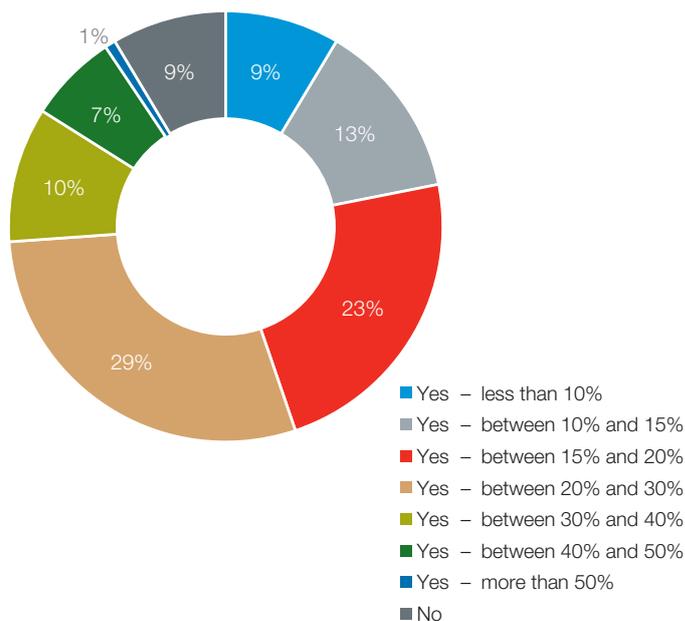- Yes – more than 50%
- No

Figure 10

## Summary

The growing pressure on organizations to become more flexible and efficient is widespread in the T&L industry. Companies are eager to find ways to meet customer demand for same-day deliveries, communicate effectively and efficiently with customers, and maintain/improve high-quality service while reducing operating costs. Implementing mobile computing technologies, including advanced hand-held computing and imaging, GPS-based location capabilities, RFID and mobile printing, is not enough on its own. By targeting the capabilities presented by these mobile technologies with workflow process re-engineering efforts, T&L operations are able to improve their customer offerings, service levels, customer satisfaction and profitability. Ignoring, being inconsistent or slow to review with process change opportunities made available by the myriad advances in mobile computing technologies – as we have seen occurs in many organizations – is not a sustainable path given market and competitive pressures. This report draws a clear link between workflow process re-engineering and improved operational performance and efficiency and suggests that continued evaluation of current processes with the advanced automation capabilities can result in significant gains in customer satisfaction and profits.

Intermec by Honeywell has helped companies in all segments of the T&L industry innovate and improve their operations with technology for more than 40 years. Intermec by Honeywell systems enable companies to accurately track every item throughout their supply chain and improve efficiency, saving immeasurable hours in cross docking, yard management and pick-up and delivery operations. Intermec by Honeywell's mobile computers, fixed and mobile printers, media, RFID systems, bar-code scanners and imagers and Vocollect Voice solutions deliver real-time information exactly where it's needed so companies have complete and timely visibility of their goods at all times. Visit http://www.intermec.com/solutions/transportation for more information about our solutions for different industry segments and work processes and to access additional reports, whitepapers, case studies and videos about logistic and technology topics.

## About Honeywell

Honeywell Scanning & Mobility (HSM) is a leading manufacturer of high-performance image- and laser-based data collection hardware, including rugged mobile computers and bar code scanners, radio frequency identification solutions, voice-enabled workflow and printing solutions. With the broadest product portfolio in the automatic identification and data collection industry, HSM provides data collection hardware for retail, healthcare, distribution centers, direct store delivery, field service and transportation and logistics companies seeking to improve operations and enhance customer service. Additionally, HSM provides advanced software, service and professional solutions that help customers effectively manage data and assets. HSM products are sold worldwide through a network of distributor and reseller partners. For more information on Honeywell Scanning & Mobility, please visit www.honeywellaidc.com

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