

# HOW HONEYWELL OPERATIONAL INTELLIGENCE SUPPORTS YOUR EMPLOYEE INTELLIGENCE



Honeywell

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# INTRODUCTION: THE BIGGER PICTURE OF ASSET MANAGEMENT

**In a business world undergoing rapid change, from technological disruptions and shifting economic conditions to new sustainability expectations and unpredictable supply chain realities, there's one thing that remains consistent. What makes a business tick is its people.**

Workers on the frontline do much more than execute on the essential workflows that keep operations in motion. They bring their knowledge, skills, and past experiences to address customer and coworker questions knowledgeably. They're the people best positioned to spot and solve practical inefficiencies to ensure that the business exceeds expectations in every service it provides.

It's when employee intelligence is empowered to deliver ingenuity and insight to business operations that organizations become true leaders in their market. Accordingly, most major businesses working with logistics and retail operations now seek to empower employees with devices to support their productivity.

These assets promise to supercharge the value of employee intelligence by putting more information and more capabilities right in the hands of workers, no matter their role or where they are located. At their best, employees can turn insight into action without delay, anywhere they happen to be.

But too often, workers must invest real time and effort into keeping the devices up and running, thereby diminishing the devices' overall value. Even as these devices are enhanced in their form, function, user-friendliness, and flexibility, issues from dead batteries to connectivity failures to unexpected breakages can now stop workflows dead in their tracks.

It's nothing new to say that businesses must consider the total cost of ownership for assets when considering their return on investment: most buyers now factor in things like IT support and repair costs when rolling out new solutions. But how many have sight of the bottom-line impact of the productivity lost when these enabling technologies fail to enable workers?

In this whitepaper, we will look at some highlights from a recent pilot rollout of Operational Intelligence with a global retailer. We will explore how Operational Intelligence identifies previously invisible patterns of usage and challenge, how it helps retailers to respond to challenges more effectively – and, ultimately, how Operational Intelligence supports and enhances businesses' all-important employee intelligence.

## HONEYWELL OPERATIONAL INTELLIGENCE

Understanding and acting on the big picture of mobile asset management is where Honeywell Operational Intelligence is most valued. More specifically, Operational Intelligence is a SaaS solution that enables businesses to collect, analyze, and act on mobile asset data on a deeper, more intuitive level, flagging risks and triggering responses before they seriously impact productivity on the shop floor.

# REBOOT FREQUENCY

# 1

Just as enterprise-grade devices are becoming more like the smart consumer devices we carry every day in our personal lives, users tend to bring their own experience to bear as a first port of call when experiencing issues on the job.

And for interruptions which aren't the result of an obvious physical problem, such as network slowdowns and disconnections, the obvious next step is to pause and reboot to see if that fixes the issue.

That's a slow process for a fast-moving environment. In fact, according to data from VDC Research, network and connectivity issues cause an average of 23 minutes of productivity loss per incident.<sup>1</sup> Our pilot rollout of Operational Intelligence automated the work of collecting and analyzing data on reboot events across the 85 onboarded assets at a location.

Doing so discovered that the mobile IT estate was experiencing an average of 38 reboots per day – which, assuming a productivity loss of 23 minutes per incident, equates to a loss in staffing costs of over \$140,000 per year.

From that insight, the Honeywell team could recommend a set of interventions designed to reduce the frequency of reboots, such as automating the reporting of specific devices showing a statistically significant increase in the number of reboots so that they can be assessed for issues. The site itself could also be assessed for particular areas of network and connectivity problems – which can be a particular issue in 'fast roaming' scenarios where workers frequently move between access points in larger facilities as they complete tasks.



1. VDC Research, 'Enterprise Mobility Total Cost of Ownership', p. 15

**Assets are constantly evolving to be more deeply integrated with businesses' wider technology ecosystems, and more widely capable of executing important day-to-day tasks.**

However, even the most cutting-edge asset becomes little more than a paperweight without battery power.

When batteries fail during the working day, whether due to being depleted too quickly or due to failure to charge them properly between shifts, the result is more than just frustration: VDC Research's data suggests that the average downtime from such an event equates to nearly an hour of productivity.<sup>2</sup> On top of that quantified productivity loss, of course, is the potential for damage to the customer experience, as workers find themselves unable to meet key expectations. In the longer term, persistent battery issues can leave workers feeling disempowered to try address the issue as aging asset fleets lose the ability to last through the day.

During our pilot rollout, Operational Intelligence was set to detect and flag batteries that reached a critically low status within an eight-hour shift. By distinguishing between fully-charged batteries and those that start the shift with under 75% charge, the team could analyze different next steps for batteries that are failing and those that aren't being properly plugged in at the end of the day. Operational Intelligence can track individual battery packs, not just the assets they are installed in. Therefore, teams could accurately identify and replace problem units.

From the pilot data, a recommendation was made to proactively replace 32 batteries which were approaching end-of-life, with an estimated saving in terms of productivity loss alone, of almost \$5,000 a year.

## THE LOSS ON PRODUCTIVITY

# 54

**MINUTES OF PRODUCTIVITY  
IS LOST ON AVERAGE FROM  
EACH BATTERY FAILURE**

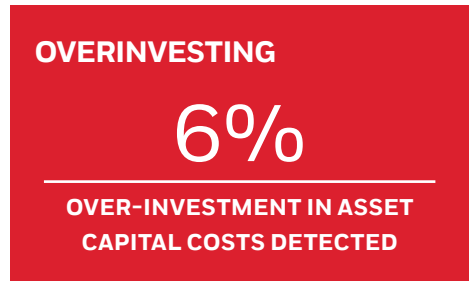
2. VDC Research, 'Enterprise Mobility Total Cost of Ownership', p. 17

**Well-connected and properly-charged assets might be the baseline for properly supporting your employee intelligence, but every technological solution ultimately relies on users using them to their full potential.**

For mobile devices, businesses sometimes find that assets are underused compared to their predictions, particularly where integrating them into the workflow requires changing long-standing habits and on-site culture. Perhaps worse, assets operating in challenging environments like warehouses can often be treated roughly in ways that shorten their operating life. Usability issues are often correlated to low user satisfaction with assets.

Understanding precisely where, how, and why these patterns are happening, can be very difficult. With Operational Intelligence, simple rules-based automations can be implemented that provide real data on the issue. During our pilot with a major retailer, Honeywell found that 6% of devices were left consistently offline over a seven-day period. Whether these assets were lost, unrepaired, or just not needed, an asset over-investment could be recouped through buy-back programs for thousands of dollars.

Assets that were in use were tracked by their internal accelerometers to detect how they were being treated on-site. This revealed that they were being subjected to hard impacts of over 5G tens of times per week – a level at which, historical Honeywell data shows, the failure rate of equipment can double. Eliminating those hard impacts through training and broader improvements could save significantly on repair and replacement costs.



# CONCLUSION: THE TRUE TCO OF ASSET MANAGEMENT

While every business ultimately relies on its employees, it's also true that every business has unique technology needs and challenges to support its employees.

Operational Intelligence has proven to effectively automate the identification of and response to many common asset challenges, Operational Intelligence offers enables estimation savings available if identified problems are eliminated.

For example, businesses running high-pace, round-the-clock, multiple shift operations must consistently recirculate assets as workers start and end their days. However, that pace of turnover makes miscommunication and misplacement an all-too-common event. For our pilot large-scale distribution center operation with 150 locations, eliminating incidents by using Operational Intelligence to automatically track and find unreturned devices save over \$2,000,000 a year.

<b># OF LOCATIONS</b>	<b>150</b>	
<b># OF EMPLOYEES PER LOCATION</b>	<b>20</b>	
<b># OF SHIFTS PER DAY</b>	<b>3</b>	
<b># INCIDENTS PER SHIFT</b>	<b>1</b>	
<b>PRODUCTIVITY COSTS</b>		
Time spent looking for device per incident	10 mins	
Cost of DC employee time per hour	\$15	
Cost of employee time per incident	\$2.50	
	<b>DAILY</b>	<b>ANNUALLY</b>
Total cost of employee time	\$1,125	\$410,625
<b>IT COSTS</b>		
Devices not found per month per location	1	
IT employee time spent per loss incident	30 mins	
Cost of IT employee time per hour	\$25	
Average cost of device	\$600	
	<b>DAILY</b>	<b>ANNUALLY</b>
Total cost of employee time	\$1,875	\$684,375
Total cost of replacement devices	\$2,959	\$1,080,000
<b>TOTAL COST OF LOST DEVICES</b>		
	<b>MONTHLY</b>	<b>ANNUALLY</b>
	\$181,250	\$2,175,000

Another typical situation for businesses that are in the process of rapidly digitalizing their operations is running with a mix of digital and paper solutions – using, for instance, a paper sign-out sheet to track who has which device at any given moment. Lapses in that process may mean that idle devices can't be checked out and broken devices aren't properly identified. Automated, real-time, auditable check out makes accountability the default, again potentially saving millions per year across a large business.

<b># OF LOCATIONS</b>	<b>150</b>	
<b># OF EMPLOYEES PER LOCATION</b>	<b>20</b>	
<b># OF SHIFTS PER DAY</b>	<b>3</b>	
<b># INCIDENTS PER SHIFT</b>	<b>1</b>	
<b>PRODUCTIVITY COSTS</b>		
Time spent looking for device per incident	5 mins	
Cost of DC employee time per hour	\$15	
Cost of employee time per incident	\$1.25	
	<b>DAILY</b>	<b>ANNUALLY</b>
Total cost of employee time	\$563	\$205,313
<b>IT COSTS</b>		
Devices not found per month per location	1	
IT employee time spent per loss incident	30 mins	
Cost of IT employee time per hour	\$25	
Average cost of device	\$600	
	<b>DAILY</b>	<b>ANNUALLY</b>
Total cost of employee time	\$1,875	\$684,375
Total cost of replacement devices	\$2,959	\$1,080,000
<b>TOTAL COST OF DEVICE CHECK OUT LAPSES</b>		
	<b>MONTHLY</b>	<b>ANNUALLY</b>
	\$129,000	\$1,569,500



And in all of this, it's important not to forget the very real consequences of asset management for IT teams, which are typically charged with supporting sites across wide geographic areas while also needing to address higher-value areas such as cybersecurity and process transformation. When responding to individual tickets, as many as half of issues might be related to issues ultimately caused on a network or application level. By automating the process of identifying and proactively responding to this kind of basic problem in a similarly sized business, Operational Intelligence could release over \$1,500,000 worth of staff resource to spend on other areas.

<b># OF LOCATIONS</b>	<b>150</b>	
<b># OF IT EMPLOYEES</b>	<b>10</b>	
<b># OF TICKETS PER DAY</b>	<b>100</b>	
<b>IT COSTS</b>		
IT time per ticket	1 hour	
Cost of IT employee time per hour	\$28	
	<b>DAILY</b>	<b>ANNUALLY</b>
Cost of employee time	\$2,800	\$1,022,000
<b>DC COSTS</b>		
Impact per disruption	1 hour	
Cost of DC employee time per hour	\$15	
	<b>DAILY</b>	<b>ANNUALLY</b>
Cost of employee time	\$1,500	\$547,500
<b>TOTAL COST OF MID-SHIFT BATTERY FAILURES</b>		
	<b>MONTHLY</b>	<b>ANNUALLY</b>
	\$129,000	\$1,569,500

Of course, it's important not to forget the larger scope of smarter asset management practices. Those hours that an IT team could be investing in other areas of work aren't just more valuable to a business – they are also typically more fulfilling, more developmental work that helps to retain high-performing employees. Automating check-out doesn't just give you much-needed oversight of asset usage – it reduces friction in the working day and helps people to show up and deliver. And ensuring that workers have a charged, working asset to hand when they clock on doesn't just save time – it puts every member of staff in the right position to fully focus on what they're best at.

From the technology TCO's impact on your bottom line, to the ways that you evolve and improve the way that your essential workflows function, Honeywell Operational Intelligence delivers a better approach to supporting your business's employee intelligence.

**For more information**

[automation.honeywell.com](https://automation.honeywell.com)

**Honeywell Industrial Automation**

855 S Mint Street  
Charlotte, NC 28202  
800-582-4263  
[www.honeywell.com](https://www.honeywell.com)

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