

# Bell and Howell Drives Innovation & Business Transformation with IIoT-enabled Service Offerings



Bell and Howell delivers innovative service and technology solutions that enrich customer communications and fulfillment for the largest finance, industrial and public sector enterprises across the globe.

The company helps its customers streamline high-volume, high-integrity production of customer communications and product fulfillment, track delivery throughout the supply chain, maximize postal discounts and monetize every customer touchpoint. Among the most sophisticated in the world for production workflow, automation and industrial mechatronics, Bell and Howell is focused on innovation and delivering next-generation, smart solutions to drive enhanced success for its customers.

## The Challenge

Bell and Howell was facing increasing demand from its customers and OEM service partners to optimize its service capabilities and provide enhanced service levels at a lower cost. These customers expect Bell and Howell to deliver flexible offerings that reduce response times for service requests, minimize costs, monitor and analyze real-time data and enable remote monitoring and service capabilities. To meet these expectations, Bell and Howell was motivated to explore new technologies that would enable the company to efficiently deliver more value throughout the customer lifecycle.

Adding to the challenge, Bell and Howell has over 30,000 industrial assets installed in the field that they needed visibility into but lacked connectivity. As an "IIoT," or, internet of people and things, service company, Bell and Howell had a service network in place that connected their technicians to the call center via a handheld device. However, the process in which machine data was analyzed and delivered to inform technicians of equipment issues needed to be streamlined in real-time for more proactive and efficient service. When machines

experienced a technical issue, it required a multiple step process that took on average two and a half hours to complete: calls from customers would come into the call center addressing the issue, a service ticket would be manually created by the call center, then the system would notify the next available technician to troubleshoot and resolve the issue, most of the times on-site.

## The Approach

To provide optimal service for its OEM partners, Bell and Howell knew it needed an Industrial Internet of Things (IIoT) platform that could connect to its heritage assets, conduct automated data aggregation and analysis, and produce actionable reports that would enable more efficient, convenient, and predictive machine maintenance and real-time repairs.

Bell and Howell evaluated four IIoT solution vendors based on machine connectivity and analytics. However, Bell and Howell wanted to partner with a trusted IIoT leader that had expert knowledge and background in technologies like CAD, PLM, and advanced analytics to keep up with product complexity and the pace of innovation. For fast, demonstrable results, it was important to choose a provider with a proven track record for fast return on investment and a ready, purpose-built IIoT platform to enable agile development of solutions.



After weighing the options, Bell and Howell decided on PTC's ThingWorx Industrial Innovation Platform to serve as the foundation of its IoT-enabled offering. The end-to-end technology platform enables closed-loop product life cycle management, whereby data can be tracked, managed and controlled at any time, place or phase throughout its entire lifecycle. With ThingWorx Analytics, Bell and Howell can proactively identify the service needs of connected machines and fix potential problems before they happen. This automated, real-time information reduces equipment downtime, increases first-time fixes, and improves overall performance.



**For the first time, we can identify and solve problems before the customer knows they exist, adding tremendous value to service operations. Seeing the value ThingWorx has brought to our service offerings and the additional benefits uncovered, we are currently working towards deploying ThingWorx across our full product line to deliver more actionable, analytics-based offerings to our customers."**

Dr. Haroon Abbu  
Vice President Data Analytics, Bell and Howell

### The Solution

Since choosing PTC's ThingWorx Industrial Innovation Platform, Bell and Howell has been able to enhance the installation, service, support, and remote monitoring of its customers' operations and assets. Leveraging these capabilities, Bell and Howell now handles 60 percent of machine maintenance remotely. This has not only reduced costs from decreased dispatches and travel, it has also made the technicians in the field more efficient by reducing troubleshooting time by a full hour per ticket. With the connected technologies in place, Bell and Howell has achieved a first time fix rate of over 92%.

One of the first customer products using Bell and Howell's ThingWorx-built IIoT-enabled services is the Cleveron PackRobot. Currently deployed by one of the world's largest retailers, PackRobot is an automated parcel delivery system making online

orders available for customer pick-up in seconds. There are currently 600 PackRobots deployed, and that number is projected to grow exponentially by the end of 2019. With the functionality provided by ThingWorx, Bell and Howell is technically equipped to efficiently service these machines.

### Next Steps

Bell and Howell now has the ability to utilize some of its native connectors (such as its renowned JETvision and other machine controls) to retrofit its more than 30,000 industrial assets with sensors and connect them to the IIoT. The organization has reduced the rate at which they need to hire new technicians, in-turn saving costs, time and resources.

As part of Bell and Howell's product roadmap, the organization will apply ThingWorx across all products and services to not only deliver proactive service and predictive maintenance, but to also leverage the previously untapped value of IIoT data through ThingWorx Analytics. Recently, Bell and Howell launched a new Insights-as-a-Service solution built on the ThingWorx IIoT platform, BH Analytics 360, to transform data into actionable, analytics-based insights enabling customers to reduce downtime, optimize operations and drive smart-decision making, while creating new revenue streams for the company.

With ThingWorx as the foundation of its service offering, Bell and Howell is fully equipped to improve customer service and deliver the highest quality and more robust IIoT-enabled solutions for all of its customers.

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J10716-LiveWorks CaseStudy-EN-0018