



Watsons Water Digitalizes Warehouse Operation with RFID Technology

watsons water
屈臣氏蒸餾水



Company Profile

Watsons Water is the largest manufacturer of pure distilled water in the world. It started to produce pure distilled water in Hong Kong in 1903, since then it has established itself as the market leader. Watsons Water maintains over 25% market share of the bottled distilled market in Hong Kong, which reflects its huge demand for efficient warehouse operation.

Challenges

Watsons Water wanted to explore how it could improve the efficiency of its warehouse operation and manage the trucks' traffic flow at the loading facility effectively. The company identified the trucks' queuing and loading procedure as the key areas of potentially substantial improvement.

When the delivery trucks arrived at Watsons Water's loading facility, the loading bays may be fully occupied, which caused traffic jam as the drivers had to wait outside the warehouse. The drivers had to rely on their experience to estimate roughly how much time they had to wait in the queue and for the loading to be completed. As the system was manually operated to measure the truck loading activities and that the supply logistics were done by handwriting, human errors occurred often which led to goods mismatching and further delays in the overall loading process.

Challenges

- Manual procedures slow down the operation
- Human errors lead to goods mismatching
- Low visibility of loading order status

Solutions

- RFID-enabled queuing and loading management system
- RFID hardware design and implementation
- System integration connecting multiple components
- Kiosk terminal to access the system

Value Created

- Improved operational efficiency
- Increased loading transactions' accuracy and turn-around time
- System-generated report for informed decisions



“The digital deployment by PCCW Solutions team has transformed our warehouse operations. The RFID and other smart technologies empowered the process automation and efficient operation, enabling us to enhance the productivity and reduce operational costs.”

Richard Li, Senior Information Technology Manager, Watsons Water Ltd.

Solutions

To address this challenge, Watsons Water partnered with PCCW Solutions to digitalize its warehouse operation with RFID technology. PCCW Solutions' team began by conducting thorough user requirement discussions as part of a process to identify the key requirements of the system and define the scope of work. PCCW Solutions helped the client to build the RFID-enabled queuing and loading management system, from hardware installation and software deployment to technical consulting and professional services, with the aim to automate and streamline the warehouse operation processes.

RFID-enabled Queuing and Loading Management System

The digital deployment started with RFID hardware implementation by connecting every truck to the loading facility by RFID technology. All the trucks windshields are now mounted with RFID tags, while the loading bays are installed with RFID antennas to track the exact arrival and departure time of each truck.

Before entering the loading area, the drivers need to register at the kiosk stations by tapping their NFC cards. The electronic signage placed outside the loading area allows drivers to obtain

real-time update of the loading status. In addition, notification generated by the system keeps drivers informed of the estimated waiting time and the assigned loading bay.

The queuing system can automatically determine the sequence of trucks with the information collected from the kiosk stations, allowing the warehouse staff at the back office to view the trucks' queue and arrange the goods for loading prior to the trucks' arrival to the loading bay. To complete the loading, drivers will print out order invoices at the kiosk to confirm the process has been completed. The order information will be sent to the central system, recording the loading and unloading transactions, so the staff can then check the related information such as inventory level from the backend.

The RFID-enabled queuing and loading management system serves as the central control system, integrating the RFID devices, registration kiosk system, loading and unloading activities on a common platform to automate the workflow of Watsons Water's warehouse operation.

Value Created

The automated truck queuing and loading system has created positive business impact. It was notable that the average numbers of trucks loaded per working day, as well as the loading utilization, increased while the average

loading time and queuing time decreased dramatically. This digital deployment automated the queuing process, improved the loading efficiency and accuracy, and overall enabled Watsons Water to have a more robust operation.

The system enabled the collection of real-time data, which not only provides the operation staff with immediate insight to make informed decisions quickly, but also allows Watsons Water's management to monitor and further optimize the operation.

About PCCW Solutions

PCCW Solutions is a leading IT services company in Hong Kong and mainland China. We adopt the latest technology to help clients create business value and success in the ever-changing economic environment. We offer a wide range of services including digital solutions, IT and business process outsourcing, cloud computing, system development and solutions integration, data center hosting and managed services, e-commerce and IoT solutions. PCCW Solutions is committed to meeting customer needs to help them achieve business goals and transform digitally.