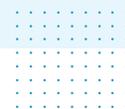# 'TORAY'
Innovation by Chemistry

Digitizing Warehouse and Inventory Movement

About Toray Plastics (America), Inc.

Toray Plastics (America), Inc., founded in 1985, operates three state-of-the-art manufacturing facilities in the eastern United States. The company is a subsidiary of Toray Industries Inc., headquartered in Japan and the world leader in synthetic fibers and textiles, carbon fibers, plastics, chemicals, pharmaceuticals, and high-performance films.

Toray Plastics (America)'s products are used by a variety of converters and manufacturers to make a wide range of finished goods for consumer and industrial applications. With its legacy of environmental, social, and corporate governance (the company launched its sustainability initiative in 2004), Toray is aligned with its parent company's mission to contribute to society through the creation of new value with innovative ideas, technologies, and products. The leadership at Toray values all employees, encourages personal excellence and company-wide collaboration, and prioritizes safety.

The Situation

Toray Plastics (America) wished to modernize an essential part of its manufacturing and logistics operations; key factors were preventing it from making customer deliveries within a specified time frame and budget. As an SAP customer, Toray initially ran its warehouse and inventory internal operations on a legacy SAP environment (4.7c) and then upgraded to ECC6. That system, with its legacy Windows-CE application, did not enable real-time updates to SAP and required employees to enter data manually and perform paperwork.

The programs on the existing devices were predominantly menu-driven, with a CLI-type UI. The use of legacy equipment combined with manual paperwork prevented Toray from making real-time business decisions. More important, manual data entry posed a potential safety issue for forklift drivers who needed access to additional information on a computer in the shipping office; that required operators to exit the forklift and navigate a busy plant floor while other forklifts were operating there. Employee safety is the priority at Toray; distractions in the plant are not acceptable.

The process of looking up sales orders and inventory, pinpointing accurate delivery locations within the warehouse/factory and in other plants, and navigating the logistics of moving material off the belt to its proper destination—forklift, door, truck, and then customer location—had to be streamlined. The leveraging of SAP's development tools or the outsourcing of the development work was not a feasible solution.

There were too many technical challenges to contend with: a legacy system, a lack of real-time integration or onsite infrastructure, nuanced processes at each warehouse, and a limited budget. Toray needed assistance to transition forklift drivers and supervisors efficiently and effectively away from paper and legacy devices.

The Business Challenge

- Lengthy and manual paper processes and scheduled batch interfaces for warehouse and inventory movement, as well as real-time reporting and data synchronization to the system of record, SAP. A lack of real-time visibility into the company's core assets.

- Core ERP (SAP) processes hampered owing to inconsistent integrations and lack of support for existing devices.

- High operational costs that were the result of the extra work required for ensuring data accuracy for company planning and a concern for the safety of employees who might be distracted and have to walk a busy plant floor amid moving equipment.

Pillir's Solution

- The design and building of custom apps with a user-centric, customized experience that tightly integrates to SAP and is based on roles and authorizations.

- The streamlining of multiple SAP modules into single applications. Deployment to multiple locations and users done seamlessly.

- Apps hosted on Pillir's EdgeReady Cloud with no infrastructure or operational overhead required of Toray.

- Training of the Toray team in the use of Pillir's EdgeReady Cloud in order to enable the future development of new application projects.

- The ability of forklift drivers to scan bar codes sales and order inquiry and conduct inventory look-up instantly on an iPad, thereby managing finished-goods pallets as they come off the belt and ensuring material movement internally to the plant as well as to the correct delivery door, truck, and location, along with door management and loading/unloading activities, all while updating the core system of record (SAP) in real time.

Benefits Overview

Streamlined and Efficient Processes

Process, productivity, and safety efficiencies gained, with the achievement of real-time updates into SAP and the enabling of visibility with improved reporting capability, including users having to enter only critical information and their being able to do so without endangering themselves.

Deployed Quickly with Little-To-No Programming

Deployment with no infrastructure investments or people overhead, eliminating operational costs. A significant reduction of maintenance time anticipated for future enhancements and support.

Ensuring Best Practices

Additional pre-built adapters to Microsoft Dynamix along with existing SAP integration, allowing the Toray team to take advantage of the platform for additional in-warehouse-use cases across other locations.

About Pillir

Formerly appsFreedom, Pillir is a low-code, cloud native, PaaS provider that specializes in enabling customers to generate resilient, always-available, self-managing applications that work in any connectivity landscape. Pillir's EdgeReady Cloud provides rapid application development with little-to-no programming and reusable objects; enabling companies to enhance speed to market and innovation. With pre-built integrations for SAP, Oracle, Microsoft Dynamics, Salesforce.com and other legacy systems, customers leverage Pillir to modernize any process or application in weeks, regardless of connectivity, device or back end system. Contact us to explore how Pillir can improve business productivity by enabling teams to build apps quickly on any device and tightly integrate with core business systems that are critical to your operations.