CASESTUDY

CEDAR BAY

HEAVEN HILL BRANDS

THE CHALLENGES >>>

By 2010, there were more devices connected to the internet than people in the world. The Internet of Things (IoT) has created the potential to achieve massive savings for businesses and manufacturers and at the same time, Industry 4.0 is tying individual technologies into a cohesive whole, collecting and formatting the massive amounts of data now available.

At Cedar Bay, we are responding to the challenges presented by this exciting future, anticipating trends in production and looking at how Industry 4.0 and IoT will impact upon future manufacturing technology. Factories of the future will connect operations for complete visibility and adopt the process of applying real-time information to optimise productivity. Complete demand chain visibility will be achieved and end-to-end traceability will safeguard quality, reduce risk and assure cost and compliance. This will give better control over product quality and reduce errors, recalls and waste, meeting manufacturing demands in the most cost-effective ways.

CHARIOT DELIVERS:

1) Inbound message broker (reads messages from a variety of sources). This provides customers with the flexibility to connect simply to any device scales, PLCs, machines and other devices.

2) Multiple transmission types (e.g. HTTP, MSMQ, Filedrop).

3) Message identification (e.g. pallet movement, production recording etc.).

4) Translation service of inbound messages to common format for processing.

5) Queuing of messages to concurrent and sequential queues (to stop record locking issues).

6) Processing of the messages via 2 methods: for latest IFS Applications processing through the IOT connector, or for earlier releases processing in IFS through the Cedar Bay server and IFS APIs (Application Programming Interfaces).

7) Transmission of messages to other systems (e.g. for "big data" analysis).

8) Receive return messages from IFS.

9) Report message statuses (completion, error etc.).

10) Admin console to monitor queue status, resubmit messages etc.

All of this, within the framework, has been developed and allows the simple creation of integration processes from any device into IFS.

CHARIOT >>>

Years of experience and an innovative approach to development, has led Cedar Bay to face the often complex challenge of warehouse traceability and data capture needs that can lie beyond what IFS supports as standard. This creative, forward-thinking approach has led to the development of a new product called charIOT, which gives IFS customers the opportunity to connect their business processes to the Industrial Internet of Things (IIoT) and Cedar Bay transactions, via a consistent digital identity.

charIOT provides huge benefits in the integration of IIoT projects: a framework that allows manufacturers to use the latest technologies to make operating decisions automatically, without human interaction. The solution delivers a more connected business, one which provides location awareness, greater traceability and optimised productivity – a generic integration of machine into IFS, which is always a complex and costly operation. Crucially, the Cedar Bay solution enables existing IFS customers who are operating older versions of IFS, to take advantage of IIoT, whilst planning their upgrades to the latest version of IFS Applications. The solution provides a connection layer for IFS Applications where IIoT support is provided, allowing the simple creation of integration processes from any device into IFS.

charIOT allows manufacturers to send messages from machines with automated Cedar Bay transactions. The solution is flexible, allowing for potentially any IFS transaction to be automated. Messages are sent via machine to charIOT, which processes the data and sends a formatted message to Cedar Bay. The solution includes a management dashboard so that messages can be monitored at shop-floor level and key data analysed and anomalies investigated for appropriate action.

Current charIOT transactions include:

- Inventory Move
- Inventory Scrap
- Shipment Delivery
- Shop Order Receipt
- Purchase Order Receipt
- Shipment Reservation
- Material Requisition
- RMA.json (Return material)

THE IMPLEMENTATION >>>

"Cedar Bay has been a great partner for Heaven Hill Brands, their technologies and solutions have kept us moving forward during a boom for our industry" Kevin Andrew, Master Data Inventory Manager

THE RESULTS

The initial pilot phase included the receiving of pallets of glass from trailers which arrive from an off-site consignment location. The movement was performed using the standard Cedar Bay Inventory Move transaction from a handheld device, which gave real-time visibility of all glass-related stock levels and locations and has prevented driving glass inventory level negative. This phase of the project also enabled Heaven Hill to look at the way it managed empty glass and allowed them to introduce other process improvements in this area. A few small, functional changes were made to the Cedar Bay software to incorporate specific HHB requirements. The overall solution design with specific module configurations was fully documented by Cedar Bay.

CONCLUSION

The Cedar Bay implementation proceeded in phases aligned to infrastructure improvement (Wi-Fi, Construction projects etc.), union-related negotiations and user training. As a second phase, HHB designed a new operation for Finished Goods using Cedar Bay integrated with PLC controlled palletizers, in which the palletizer builds a pallet of finished goods and can tell when the pallet is complete. It will then "silently" execute a Shop Order Receipt for the pallet quantity and receive the pallet into an "end of line" location and automatically generate a label. The fork lift truck drivers then move the completed pallets from the "end of line" locations to Finished Goods locations. As a result of this inventory, stock levels are always accurate and the transactions are executed in real time.

How can we help you?

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