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Volkswagen Says it will be First Automaker to Extensively Use RFID in Daily Supply Chain Operations

Container Tracking Application Leverages Supplier Portal that was already in Place

SCDigest Editorial Staff

Volkswagen, the German automaker, announced last week that it was rolling out an RFID-based tracking system for incoming parts from suppliers after a successful one-year pilot program. With the plans, the company says it will be the first automaker to employ RFID in moving parts through the supply chain.

The system is being rolled out based on RFID software and services from IBM, and tags and readers from Intermec.

The application takes advantage of an existing supplier portal that already connects suppliers with Volkswagen. That system allows the data collected via RFID reads to be linked to specific purchase or delivery orders from VW, addressing one of the challenges of RFID systems between companies – how to connect the RFID tag data with other information to make it meaningful.

Initially, suppliers will use handheld readers to scan RFID container IDs, which are associated with the specific items inside the containers based on the purchase order and what is actually being shipped. Volkswagen will scan the containers when they arrive to automate the receiving process. It will also track empty containers as they move back to suppliers, meaning the system will provide asset tracking benefits in addition to improving receiving processes and supply chain visibility to inbound goods.

At press time, it was not clear what the level of detail would be for the Advance Ship Notice generated by the supplier from the RFID reads. IBM says that additional reader modes (portals, fork truck readers) may be used as suppliers gain experience.

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The pilot program lasted for about a year and involved tracking some 3000 containers. The program will be rolled out to many additional vendors over time that feed Volkswagen's largest factory in Germany. The company expects other factories will adopt the system, and that other RFID applications will be developed, as noted in the graphic on the next page. For example, Volkswagen hopes to bring transportation providers into the process at some point, so that they can also use the RFID tags as the containers are shipped.

A key result of the pilot was identifying the right Intermec tag that would read well on the metal containers.

The system is based on two pieces of technology from IBM:

- A container management software system, which includes an analytic application being used to create a web-based dashboard for container management

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VW's RFID Plans

The orange marked areas are realised
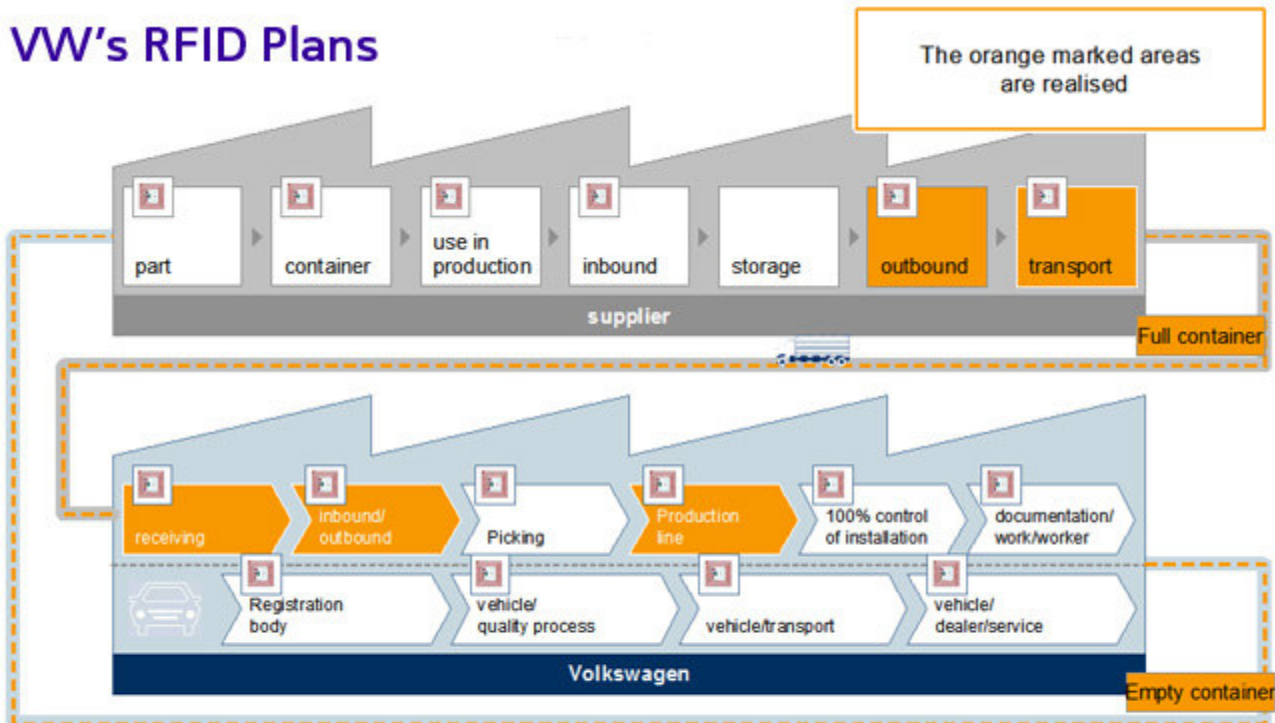
The system will track containers from suppliers into receiving and back again; additional tracking applications are planned

- WebSphere Premises Server software, which acts as the data collection and "middleware" application to push the RFID data into the portal and the container management system

"Our long-term goal is to implement an integrated, paperless production and logistics chain throughout the whole Group," said **Klaus Hardy Mühleck**, Group CIO and head of Group IT at Volkswagen. "The pilot project showed that we can reliably integrate RFID technology into our business processes at a low cost," he said.

Automakers have been looking at RFID for some time. While adoption has been limited, there have been a number of pilots, and Chrysler, as one example, has developed an internal maintenance solution for the carriers used to move large parts (such as the hood of a car) based on RFID identification and handheld computers. That system is live at some of its US plants. But integration with suppliers via RFID in the industry has been limited.