

DHL and Huawei accelerate inbound-to-manufacturing logistics with Internet of Things solution

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"In leveraging Huawei's and China Mobile's NB-IoT technology, we were able to design and develop this unique solution. Supported by a range of industrial, multimedia IoT protocols and interfaces, it offers connectivity, smart operations and device management functions. Exploring new technologies like NB-IoT is one of many ways we are forging forward with our digitalization journey in China," explains Yin Zou, CEO, DHL Supply Chain Greater China.

Logistics involving inbound-to-manufacturing processes can face time-consuming inefficiencies especially at sites that have high turnover of supply deliveries. These deliveries are crucial to the manufacturing process and major sites have a remarkable

turnover of trucks. Delays can occur when shipments need to be handled at a different dock at the manufacturing site, e.g. when tires arrive at the beginning of the assembly line rather than the end. It is essential trucks are directed to the right locations so docks are used efficiently and shipments are unloaded at the right places.

DHL and Huawei are integrating NB-IoT chipsets for their solution, which use common cellular telecommunications bands such as LTE, allowing for a simple and cost-effective implementation. Vehicle detectors are embedded with these chipsets which do not require any infrastructure investments. Additionally, data are transmitted using existing public base stations which have been upgraded to support NB-IoT. Within each terminal, DHL Supply Chain is now able to automatically collect clear dock availability in real time, which in return provides visibility to the dispatcher and drivers. When a truck arrives, its driver checks in via an app on his mobile, receiving a queue number and an estimated waiting time. The yard management system then automatically screens the docks for their availability, providing each driver with real-time status updates visible via the app. As soon as a dock is free, the driver is notified to proceed accordingly. This way inbound trucks can be

prioritized to the manufacturing site's needs and shipments are unloaded at the most appropriate dock. It is halving the waiting time for drivers from an average waiting time of 40 minutes, significantly reducing the risks of manufacturing delays as materials arrive in time and resources are optimized appropriately.

"By 2025, Internet of Things have the potential to generate up to 1.77 trillion Euros in additional value for the international logistics industry. Together with Huawei, we want to pursue this path in developing cellular-based IoT technology able to connect to multiple devices across long distances. Our

goal is to enable a more integrated logistics value chain through greater connectivity, enhancing the customer experience," adds Dr. Markus Voss, Chief Information Officer & Chief Operating Officer, DHL Supply Chain.

DHL's proof of concept will continue until the end of September and is expected to be enhanced with additional features such as automatic number plate recognition and geofencing. It marks another milestone in a row of strategic IoT projects for DHL, such as the launch of IoT cockpits within smart warehouses across Europe and pilots in Asia.

Source: [Deutsche Post DHL](#)

