Case Study: Aerospace & Defense

Objectives

- Improve real-time visibility into supply chain & manufacturing systems
- Reduce operation and maintenance costs
- Improve reliability of in-place IT/OT applications
- Decrease project development time

Summary

A large aerospace-defense manufacturer uses RFID to track high value assets within its manufacturing facilities. Each facility has thousands of RFID tag readers and millions of tag reads per day. The manufacturer is required to identify and report process errors, locate assets in real-time, and eliminate downtime due to delayed or exhausted inventory. A solution was needed to intelligently filter streamed RFID data the edge (200TB a second) to reduce the cost of cloud storage and analysis. The aerospace manufacturer also wanted to improve application latency to deliver time-critical insights, secure communications and meet critical customer regulatory obligations.

Solution

SWIM's simple integration with legacy systems and a factory-automation ERP application enabled the aerospace company to quickly improve supply chain visibility. SWIM also delivered a 50x improvement in the operational efficiency of asset tracking and achieved 70% savings in bandwidth, data storage and cloud processing costs. By filtering duplicate tag reads and "noise" data on the edge devices themselves, SWIM required only 1% of the edge compute resources on average and 30% of available memory to process millions of tag events each day. Overall, the customer realized a $2M savings in cloud storage and processing costs. Application latency was also slashed from minutes to less than 100ms. With SWIM's processing and control capabilities on the edge, this manufacturer's automation and control systems now responds immediately, based on real-time edge intelligence, allowing for more efficient critical-component inventory flow and improved fault response times.

Learn More

Learn how SWIM uses edge intelligence to deliver real-time insights from the dark data generated by connected enterprise systems by visiting www.swim.ai