

## Use Case Library

### [How Walmart Brought Unprecedented Transparency to the Food Supply Chain with Hyperledger Fabric](#)

Executive Summary written by GBBC

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In 2018, the U.S. Department of Agriculture (USDA) Food Safety and Inspection Service [ordered 125 recalls](#), 97 of which were Class I, which is defined as a recall that “involves a health hazard situation in which there is a reasonable probability that eating the food will cause health problems or death.” The number of recalls has been steadily increasing; between 2005 and 2008 there were never more than 54 recalls in a year. Existing food traceability systems are inefficient, resulting in costly recalls and potentially severe consequences for consumers.

Hyperledger Fabric partnered with global retail corporate Walmart to create a food traceability system using blockchain. Walmart tested the technology in two studies: (1) tracking pork in its Chinese stores; and (2) tracing mangos in its U.S. stores. The two studies were wildly successful. The Chinese Walmart system introduced a certification of authenticity to blockchain, and the U.S. Walmart system reduced mango tracing time from 7 days to 22 seconds.

Since the studies concluded, Walmart has increased their use of the Hyperledger Fabric blockchain system to track produce, meat, poultry, dairy, and multi-ingredient products. The blockchain technology used in the tracking is an open-source, vendor-neutral blockchain. Thus, Walmart’s suppliers and competitors can view Walmart’s food traceability system. Given the success of the system, Walmart added IBM Blockchain onto of the Hyperledger Fabric to create a larger tracking system. In June 2019, Walmart joined [MediLedger](#), a blockchain consortium attempting to improve pharmaceutical tracking; Pfizer, McKesson, AmerisourceBergen, and Cardinal Health are all members of MediLedger.

Hyperledger is a collaborative software development community that creates cross-industry blockchain technology. Within the Hyperledger community, there is Hyperledger Fabric, which partners with Digital Asset and OpenBlockchain to create a well-rounded codebase.