Brief Abstract:

Nowadays, Information and Communication Technology developments have great impacts on traditional industries. This speech focuses on the collaboration of food industry and internet of things (IOT) technologies, presenting a Digital Object Architecture (DOA)-based product quality safety information traceability system. The motivation of building a public traceability system is analyzed, and the IOT identifier service, the Handle system, is introduced for its implementation. The Handle System has been selected by China as the core technique in the ''National Food Quality Safety Traceability Platform'' and the ''National Public Service Platform for IoT Identifier Management''. The traceability system’s design idea, system composition, core technology and standardization issues are introduced.

In 2014, six large infant formula enterprises have established connection with this public system, including Yili, the largest dairy manufacturer in China. Until Oct 31th 2014, the number of registered handles for this application is over 80 million, and the number of traceability information items is 31. The system possesses advantages including high public credibility, avoiding duplicated construction of information systems and ability to aid the government's supervision. Through its establishment, the government, the industry, the production enterprises and the public can potentially all participate in and benefit from it, improving food safety and competitiveness of the food industry.