

# Focus on **food safety**



## Improving **food safety** across the supply chain

Food recalls are an immense safety problem and a threat to profitability. Last year, Food Safety magazine counted **337 food safety recalls in the US<sup>1</sup>**. Companies surveyed put costs at up to \$30 million per incident<sup>2</sup>, stemming from direct costs plus such indirect costs as penalties, lawsuits, lost sales and brand damage. In addition to the societal and business impact, huge stocks of food are wasted and consumer trust is crushed.

*What's standing in the way of taking food safety concerns off the table?*

## **Not all companies can quickly identify the cause of a food safety incident**



Tracing food across the supply chain takes days, if not weeks, as companies struggle to track a mix of digital and paper-based food data documentation across a complex and growing network of suppliers and distributors.

## **Gaps in supply chain monitoring create vulnerabilities**




Deficiencies in production and monitoring processes expose the food system to vulnerabilities that could be eliminated. In response, some retailers are deploying blockchain for end-to-end traceability and monitoring of food products in the supply chain.<sup>3</sup>

## **Outdated food traceability practices aren't built for the modern era**



Regulators are now requiring state-of-the-art practices and modern technologies to ensure food safety, and blockchain can help bring organizations up to standard.<sup>4</sup> For instance, the Food Safety Modernization Act (FSMA) rule 204 requires that companies provide traceability records digitally within 24 hours of the FDA's request.



## Blockchain for the food system

With a digital food system, network participants have access to tools and data to improve food safety and become a proactive contributor to bettering the food system as a whole. Blockchain technology stores digitized records in a decentralized and immutable manner, promoting trust and transparency which in turn helps to better the food system and ensure safer food.

### Transparency

Know the provenance, real-time location and status of any food product. A transparent food system is an accountable food system.

### End-to-end traceability

If a food safety issue is reported, it is immediately clear who is impacted and who should take action.

### Food confidence

With IBM Food Trust, you have a trusted source for increased supply chain visibility. Additionally, organizations can know which foods have been grown or produced in a certified manner, reducing contamination risks and potentially harmful food fraud along the supply chain.

*“IBM Food Trust achieves new levels of trust and transparency, making food safer and smarter from farm to fork.”*

Scott Gottlieb, former FDA Commissioner

## Improving food safety with IBM Food Trust

IBM Food Trust consists of different purpose-built modules designed to help participants in the food system collaborate.

The **Trace** module allows participants to securely and transparently trace the location and status of individual food products upstream and downstream in seconds to better manage food safety within their supply network.

The **Documents** module helps users securely manage certificates and documents for your organization and share permissioned documents with your partners.

The **Compliance** module allows users to continuously monitor data and address any compliance issues and extract data when required by regulators.

Leveraging blockchain and IoT technology, the **Insights** module can provide unprecedented visibility into how your products are handled as they travel through the supply chain in aggregate.

**IBM Food Trust** creates a secure, shared and permissioned record of transactions. This enables unprecedented visibility during each step of the food supply chain, from grower to processor to distributor to retailer and every transporter along the way.

**Learn more** about FSMA 204(d) in our latest blog, [here](#).

**Learn more** about our Food Trust Solution on [ibm.com/food](https://ibm.com/food).

1. <https://www.foodsafetymagazine.com/enewsletter/a-look-back-at-2019-food-recalls/>
2. <https://www.snackandbakery.com/articles/92105-evaluating-the-real-costs-of-a-food-product-recall>
3. <https://theleadershipnetwork.com/article/how-walmart-used-blockchain-to-increase-supply-chain-transparency>
4. <https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-findings-romaine-lettuce-e-coli-o157h7-outbreak>