IBM Food Trust Expands Blockchain Network to Foster a Safer, More Transparent and Efficient Global Food System
IBM Announces General Availability of IBM Food Trust as Carrefour Joins Major Supermarkets and Consumer Goods Leaders
Momentum Grows Among Users and Third-Party Data Suppliers on the Network

ARMONK, N.Y. and PARIS, Oct. 8, 2018 /[PRNewswire](#)/ -- IBM (NYSE: [IBM](#)) today announced growing adoption of its food supply chain network, IBM Food Trust. The blockchain-based cloud network offers participating retailers, suppliers, growers and food industry providers with data from across the food ecosystem to enable greater traceability, transparency and efficiency.

The network is now generally available after 18 months in testing, during which millions of individual food products have been tracked by retailers and suppliers.

The ecosystem of network participants continues to grow, and today, leading global retailer Carrefour announced they will use the IBM Food Trust blockchain network to strengthen their food excellence actions. As one of the world's leading retailers with more than 12,000 stores in 33 countries, Carrefour stores will initially use the solution to highlight consumers' confidence in a number of Carrefour-branded products. As a commitment of the retailer's Act for Food program, the solution is expected to expand to all Carrefour brands worldwide by 2022.

"Being a founding member of the IBM Food Trust platform is a great opportunity for Carrefour to accelerate and widen the integration of blockchain technology to our products in order to provide our clients with safe and undoubted traceability," said Laurent Vallée, general secretary of Carrefour. "This is a decisive step in the roll-out of Act for Food, our global program of concrete initiatives in favor of the food transition."

Using blockchain for trusted transactions, food can be quickly traced back to its source in as little as a few seconds instead of days or weeks. Unlike traditional databases, the attributes of blockchain and the ability to permission data, enables network members to gain a new level of trusted information. Transactions are endorsed by multiple parties, leading to an immutable single version of the truth.

"The currency of trust today is transparency and achieving it in the area of food safety happens when responsibility is shared," *Bridget van Kralingen,* senior vice president*, IBM* Global Industries, Clients, Platforms and *Blockchain*. "That collaborative approach is how the members of IBM Food Trust have shown blockchain can strengthen transparency and drive meaningful enhancements to food traceability. Ultimately that provides business benefits for participants and a better and safer product for consumers."

A Growing Ecosystem
The members of IBM Food Trust have helped build a powerful global business solution that is interoperable and built on open standards. This is designed to enable organizations in the food industry to run their businesses more effectively and provide safer food at lower costs.

In addition to Carrefour, organizations joining IBM Food Trust include:

- Leading cooperative Topco Associates, LLC, representing 49 members, reaching over 15,000 stores and 65 million weekly customers;

- Retailer-owned cooperative Wakefern, representing 50 member companies and 349 stores;
- Suppliers including BeefChain, Dennick Fruit Source, Scoular and Smithfield.

"Blockchain holds the potential to help us be more transparent and transform how the food industry works by speeding up investigations into contaminated food, authenticating the origin of food, and providing insights about the conditions and pathway the food traveled to identify opportunities to maximize shelf life and reduce losses due to spoilage," said Ed Treacy, Vice President of Supply Chain Efficiencies at the Produce Marketing Association.

These newest participants join a movement that is accelerating among retailers and suppliers. For example, Walmart, an early proponent of blockchain technology, recently announced that it will begin requiring its leafy green suppliers to capture digital, end-to-end traceability event information using IBM Food Trust.

Beyond the goal of making food safer, the IBM Food Trust network and accompanying solutions have expanded to focus on optimizing the food supply. This includes generating insights on product freshness, reducing waste and making the supply chain more collaborative and transparent.

IBM is working with services and technology providers to contribute important supply chain, provenance, testing and sensor data to the blockchain ecosystem. Through a library of IBM Food Trust APIs, hardware, software and technology companies can write transaction data directly onto the blockchain network to provide valuable insights.

- **3M** is working with IBM to enable its food safety diagnostic equipment to communicate with the blockchain network, should a food manufacturer choose to enable this capability.
- **Centricity**, a grower-owned company, makes it easy to collect, protect and share agronomic and compliance data between systems and trading partners, regardless of formats.
- **Trellis Framework** is an open-source food industry standard and API service that enables real-time connections between companies and machines with full automation that scales.
- **Emerson** is leveraging its advanced cold chain technology to provide temperature-related information on in-transit, refrigerated cargo to improve shelf life estimates and food freshness, enabling more actionable data for network members.

"The power of IBM Food Trust is in bringing together not only retailers and suppliers but also the rest of the ecosystem touching our food supply," said Natalie Dyenson, vice president, Food Safety & Quality, Dole. "For example, Dole is working with Centricity, a grower-owned partner, to connect audit data to the blockchain by leveraging the Trellis framework as a standard for the produce industry, using existing formats and processes. By simplifying on-farm and front-office reporting and putting data on the blockchain, IBM Food Trust has helped Dole unlock the value of compliance data across our suppliers and partners in a cost-effective way."

Governance for Shared a Network
IBM Food Trust uses a decentralized model to allow multiple participating members of the food supply chain – from growers to suppliers to retailers – to share food origin details, processing data and shipping information on a permissioned blockchain network. Each node on the blockchain is controlled by a separate entity, and all data on the blockchain is encrypted. The decentralized features of the network enable all parties to work together to ensure the data is trusted.

As one of the largest and most active enterprise blockchain networks in production to date, IBM Food Trust members pioneered a comprehensive governance model for the network to help ensure that the rights and information of all participants will be managed and protected appropriately. The governance model ensures every member abides by the same set of rules. Organizations that upload data continue to own the data, and

the data owner is the only one that can provide permission for data to be seen or shared. Important blockchain network management considerations have been addressed, including data entry, membership, interoperability and security and hardware requirements, while providing a consistent way to standardize data.

General Availability

Available today globally, IBM Food Trust runs on the IBM Cloud and features enterprise-class security, reliability and scalability. The foundation of the technology relies on Hyperledger Fabric, an open source blockchain framework hosted by the Linux Foundation. In addition, the network includes compatibility with the GS1 standard used by much of the food industry to ensure interoperability for traceability systems.

Participants can select from three IBM Food Trust software-as-a-service modules with pricing that is scaled for small, medium and global enterprises, beginning at $100 USD per month. Suppliers can contribute data to the network at no cost.

- Trace – The trace module allows members of a food ecosystem to more securely trace products in seconds to help mitigate cross-contamination, and reduce spread of food-borne illness and unnecessary waste – a process that often takes weeks using other methods.
- Certifications – The certifications module helps verify the provenance of digitized certificates, such as organic or fair trade. It also enables participants across the ecosystem to easily load, manage and share food certifications digitally, speeding up certificate management by up to 30 percent.
- Data entry and access – The data entry and access module allows members to securely upload, access and manage data on the blockchain.

IBM Food Trust is available as a subscription service for members of the food ecosystem to join. For more information on availability, please visit [here](#).

About IBM Blockchain

IBM is recognized as the [leading enterprise blockchain provider](#). The company's research, technical and business experts have broken barriers in transaction processing speeds, developed the most advanced cryptography to secure transactions, and are contributing millions of lines of open source code to advance blockchain for businesses. IBM is the leader in open-source blockchain solutions built for the enterprise. Since 2016, IBM has worked with hundreds of clients across financial services, supply chain, government, retail, digital rights management and healthcare to implement blockchain applications, and operates a number of networks running live and in production. The cloud-based IBM Blockchain Platform delivers the end-to-end capabilities that clients need to quickly activate and successfully develop, operate, govern and secure their own business networks. IBM is an early member of Hyperledger, an open source collaborative effort created to advance cross-industry blockchain technologies. For more information about IBM Blockchain, visit https://www.ibm.com/blockchain/ or follow us on Twitter at @ibmblockchain.

Contact: Hannah Slocum, hslocum@us.ibm.com

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