



Smart-Secure Cold Chain - Supply Chain Tracking

Smart secure cold chain asset management



Agenda

1. Cold Chain industry today
2. Challenges of cold chain logistics
3. Introducing Smart Supply Chain Tracking
4. An Azure foundation

Cold Chain: An industry in flux

Massive expansion brings great promise and risks.

1/3rd

of the food grown globally
for human consumption
never reaches the
consumer

\$40 Billion

Annual financial loss due
to Food Fraud.

20-50%

Perishable food loss in
developing countries due
to lack of/ break in cold
chain*

Major Challenges for the Industry

Product waste

Product freshness and quality depends on supply chains being adaptable to any circumstance during end-to-end transportation including air/ship/land.

Food Fraud

Consumer safety might be at risk due to broken cold chain logistics and incomplete monitoring.

Brand protection

When products are improperly packaged, stored, or shipped, damage to them — or, worse yet, to consumers — means potential damage to the companies and their brands.

Automation

Temperature monitoring is manually logged by pallet as opposed to automatically and fails to get integrated in with other monitoring.

Smart Cold Chain - Supply Chain Tracking

Securing the supply chain, enhancing compliance, and minimizing waste with real-time monitoring and alerts.



Reduce waste



Traceability to
prevent food
Fraud

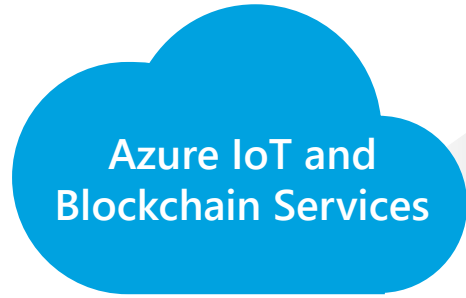


Preserve brand
reputation

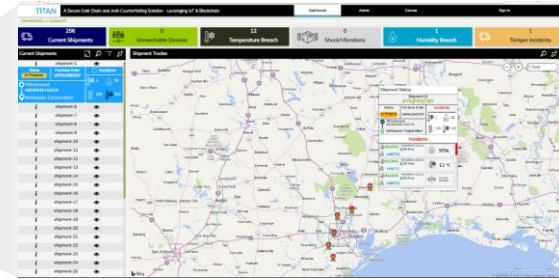
An Overview



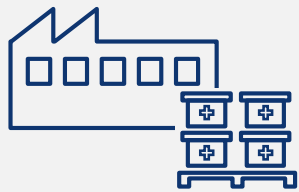
Enabling the shipments with IoT



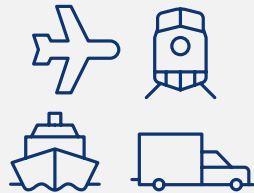
Dashboard



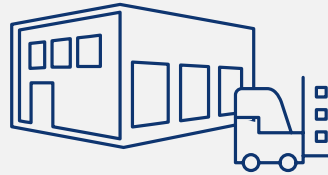
Shipment location and handling status is viewed here



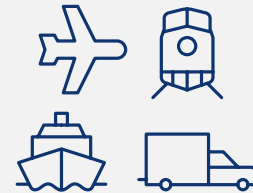
Manufacturer



Transit



Distribution Center

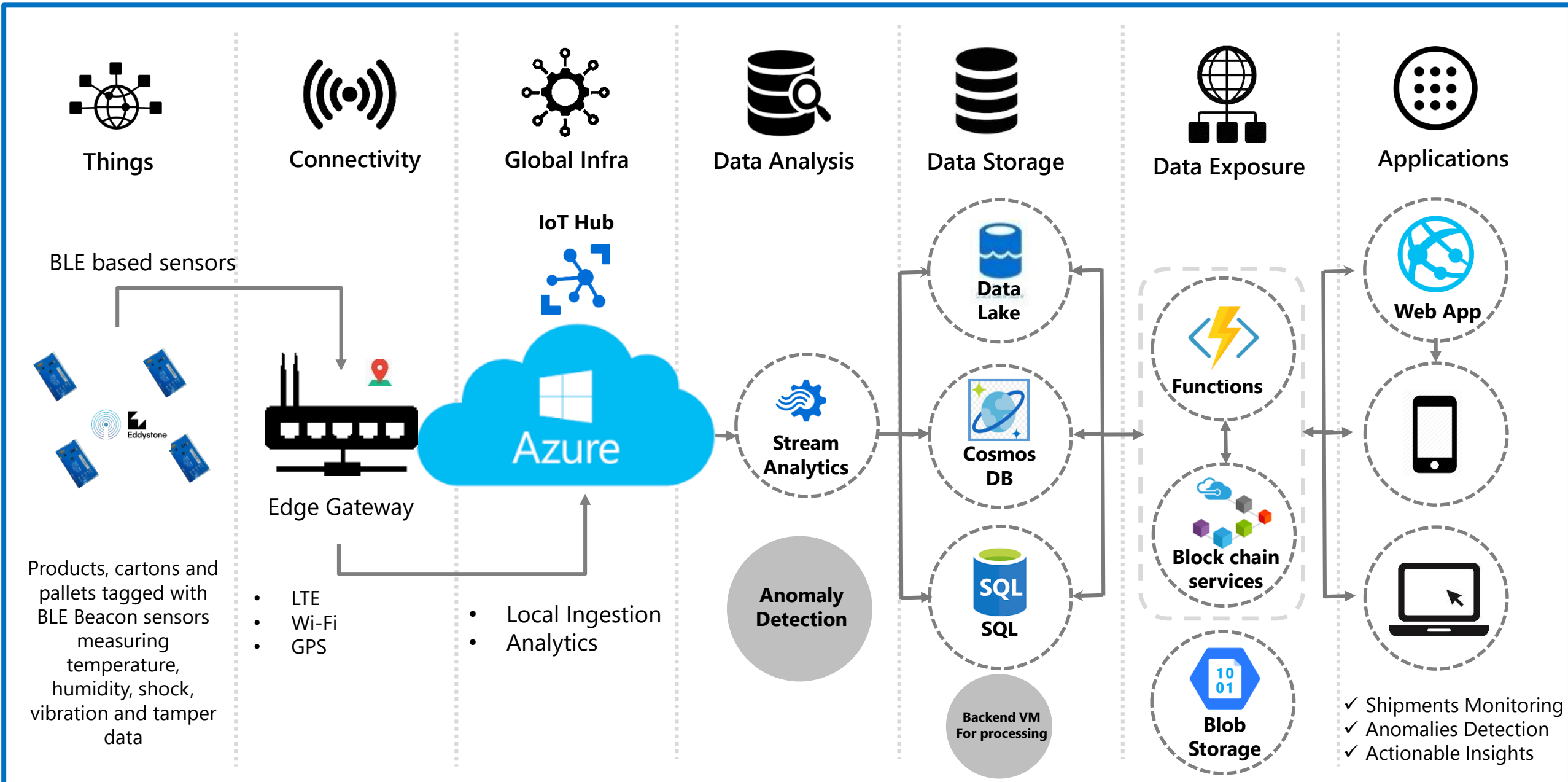


Transit



Retailers

Reference Architecture Design





Reduce waste

Helps minimize product/produce spoilage during cold chain transportation with real time temperature and humidity monitoring.

Detailed insight

Temperatures are monitored each leg of the journey, improving management and actionable insights.

Enhanced visibility

Analytics and alerts within dashboards provide supply chain visibility and anti-counterfeiting support.

Cloud connectivity

Connectivity through the cloud ensures that temperature exceptions and other alerts are communicated in near real-time.





Traceability to prevent food Fraud

Helps improve traceability throughout the entire supply chain and gives quick notifications of issues if they arise.

Prevent Food Fraud

Blockchain-enabled anti-counterfeiting solution enables retailers to prevent food fraud.

Tamper-proof

A tamper-proof solution on product packaging helps track for integrity in real-time from the manufacturing site to the point of dispensation.

Traceability

Enables companies to pin point farms during any out-break of food borne illness





Preserve brand reputation

Makes sure the raw materials are kept at optimal condition during transit and helps protect against counterfeit products entering the system.

Temperature validation

The platform alerts users of any excursion outside of validated range and enables remediation.

Business rules application

Temperature monitoring applies business rules in real-time and flags issues when needed.

Transparency

Origin of the Product, regulatory approvals and alerts are recorded on Blockchain providing transparency.



Smart-Secure Cold Chain - Supply Chain Tracking

Using the intelligent edge to secure the supply chain.



Productivity



Application
innovation



Data and
intelligence



Security and
management



**Ready to bring
better security to
your supply chain?**

