Transform supply chain transparency with IBM Blockchain

Understand every detail of every product in your supply chain with a trustworthy, secure and shared record



From raw materials to distribution to after-sale support, understanding the location and flow of products within your supply chain is critical — and not only for maximizing efficiency. Today's consumers demand transparency on where and how products are made. Regulators around the world also require information about supply chains — with penalties for noncompliance.

Beyond the need for information, complex supply chains depend on trust to function properly. But distrust between organizations has historically discouraged them from sharing or relying on shared data. IBM Blockchain can remedy that with a shared, permissioned record of ownership, location and movement of parts and goods. That shared record can increase efficiency, transparency and trust for any business.

Current challenges in supply chain management — and how IBM Blockchain can help:



Visibility and data consolidation



☐ Challenges

Disparate record-keeping and reporting systems can lead to scattered, incomplete and unreliable manifests, bills of lading, certifications and more.

□ Opportunities

With blockchain-stored records, all relevant information can be simultaneously and securely available to sender, receiver, shipper and regulators.

☐ **The result:** IBM and Maersk have announced a joint effort to streamline shipping with an efficient, secure global trade digitization platform based on IBM Blockchain. The new venture will address needs for transparency, simplicity and open standards as goods move across borders and trading zones.

Tracking, transparency and trust





□ Challenges

Supply chain intelligence is knowing more than where goods are at any given moment. To find the source of flawed parts or component failures, being able to trace the origin and provenance of previously shipped goods is critical.

□ Opportunities

With blockchain records that reflect a product's geographic flow and how it was treated, you can examine sources, investigate industry certifications, track restricted or dangerous components, discover storage-condition anomalies and more.

☐ **The result:** A large aircraft manufacturer has adopted IBM Blockchain technology to track the origin, location and status of its components. This unlocks deeper insight into the quality and trustworthiness of each tracked part, providing documentation on certification, installation and inspection.

Real-time issue resolution





□ Challenges

Even the best-planned supply chain can be thrown into chaos by natural disasters, unforeseen shortages, spikes in demand or a litany of smaller issues. With today's elongated supply chains, any delay or faulty delivery can impact production.

□ Opportunities

Delays involving weather, labor disputes or error are inevitable; blockchain-optimized processes help to resolve real-world issues. Knowing that a shipment is incomplete or at risk can instantly trigger remediation actions like supplier substitutions or price adjustments — before a crisis emerges.

☐ **The result:** We're building an AI network that predicts the future instead of reacting to the past. In addition to ensuring food quality, blockchain data could soon feed an AI solution that does everything from tracking inventory and predicting future demand to monitoring freezer conditions and anticipating future repairs or replacements.

Blockchain applications
can help you address a wide range
of supply chain challenges.

• How can we
maintained?
• Can we emp

- How can we ensure that supply chain information is consistent and reliably maintained?
- Can we employ standards-based application programming interfaces (APIs) to simplify data transfer, application and network integration?
- What tools can best help eliminate fraud and error?
- How can we increase consumer and partner trust?

equipped to understand your business processes and transform your supply chain.

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