

# Digital Supply Chain with Blockchain

Today's supply chains are complex, spanning across multiple ecosystem partners, spread across multiple geographies and managed by multiple stakeholders. Due to these complexities, today's supply chain can lack transparency and it is extremely difficult to track counterfeit parts and manage compliance issues for different countries. Overall, the costs of the supply chains are on the rise. **Oracle's Digital Supply Chain with Blockchain industry solutions** offers a distributed digital ledger with Smart Contracts, which can be used for executing agreements between multiple parties, which can help make transactions more transparent, maintain product provenance at every level, improve supply chain efficiencies and reduce costs.

Oracle Digital Supply Chain with Blockchain industry solutions platform consists of Oracle Blockchain Cloud, Oracle Supply Chain Management (SCM) cloud, Oracle IoT Cloud, Oracle Transportation Management and 3rd party enterprise systems.

## IMPROVE TRANSPARENCY AND TRACEABILITY OF THE SUPPLY CHAIN

Supply chain transparency and traceability are significant challenges for today's distributed supply chains. Integration of Oracle Blockchain with SCM and ERP systems help businesses to share information with the ecosystem partners in a trusted and secured manners. Some of the key benefits include:

**"The intersection of IoT and Blockchain offers new ways of monitoring and enforcing compliance throughout a supply chain" How Blockchain Will Accelerate Business Performance and Power Smart Economy,**  
*Harvard Business Review, October, 2017*

### Key Benefits

- Improve distributed supply chain efficiencies for the businesses
- Increase visibility and control of distributed supply chain
- Reduce high transaction costs
- Track and trace counterfeit parts in the supply chains
- Monitor compliance requirements such as conflict minerals and product country of origins
- Improve process execution across the supply chain through exception based alerts and automation
- Manage compliance requirements for multiple stakeholders in different geographic locations

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- An integrated Blockchain system provides transparency during manufacturing, assembly, transportation and service phases of the supply chain.
- Allows information to be transferred with multiple partners in a trusted and automated way thereby adding an additional layer of security.
- Establishes provenance of products and ensures a far greater level of authenticity, thus enhancing the traceability of the products.
- By Managing ownerships of the products at each level and providing complete traceability of the supply chains, it helps in reducing counterfeit parts.
- Helps in tracking faulty components and reduces the cost of tracking and reporting.
- Blockchain dashboard provides 360 degree views of the distributed supply chain processes with key performance indicators (KPIs) for better planning and control.
- Integration with Oracle Chatbot provides real time supply chain status information to the interested parties.

#### Key Features

- Integration of Blockchain with enterprise systems such as SCM, IoT, ERP, OTM and other 3rd party systems
- Smart Contract Configurator template for easy configuration
- Intelligent Chatbot for supply chain status inquiries
- Blockchain dashboard with KPI based analytics

### MONITOR AND MANAGE EXCEPTIONS PROACTIVELY

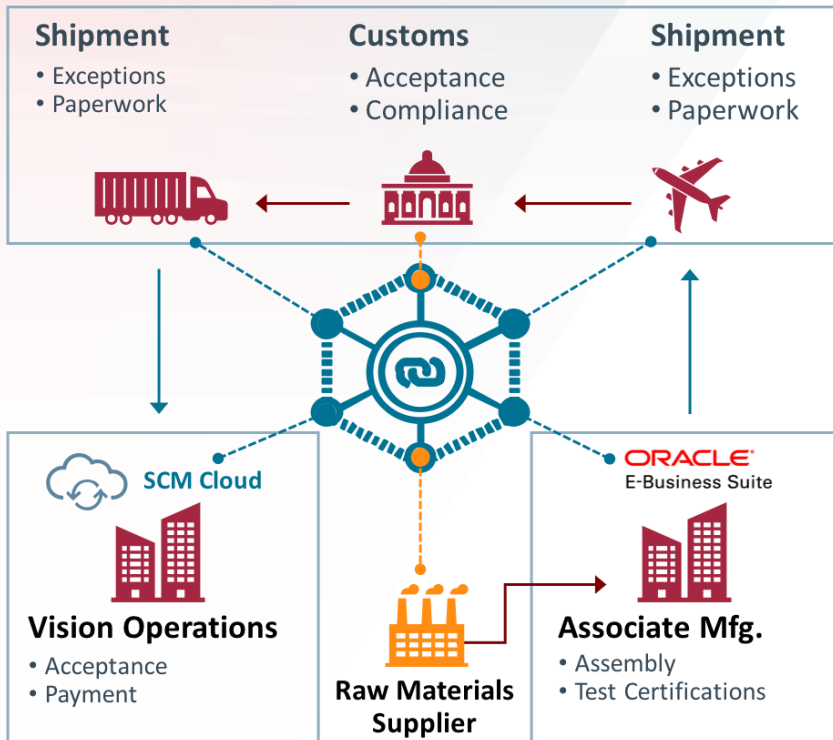
By utilizing Blockchain based Smart Contracts and Oracle IoT solutions, companies can streamline and manage exception handling processes proactively. The companies can introduce new automation processes agreed upon by all parties.

- Smart Contract can manage any exceptions (for example, Sales Order Quantity must match Purchase Order Quantity) during the supply chain execution phase.
- Smart Contract and Oracle IoT cloud can monitor any process parameters and take necessary actions if the thresholds of the parameters are violated. For example, during transportation by 3rd party logistics providers (3PLs), a company can monitor vibration thresholds and can put the Purchase Order (PO) on hold and change the payment terms from net 30 to net 45 days.

### MANAGE COMPLEX COMPLIANCE REQUIREMENTS

Managing compliance issues for multiple stakeholders who are dispersed across multiple geographies can be cumbersome, costly and time consuming.

- Smart Contracts executes supply chain transactions within the framework agreed upon by all parties, makes the contracts more compliant and reduces transaction execution time.
- Smart Contracts can ensure that all the necessary compliance documents are included by a supplier before moving on to the next step of the execution process, thus making supply chain execution more responsive.
- Custom clearance processes can be streamlined to reduce product delivery times.



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## Integrated Cloud Applications & Platform Services

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