Innovations

Modern Manufacturing and Supply Chain Day

Tomorrow's Supply Chain, Today

Denis SENPERE, Inspirage
François BRIANDET, Oracle

March 14th, 2018

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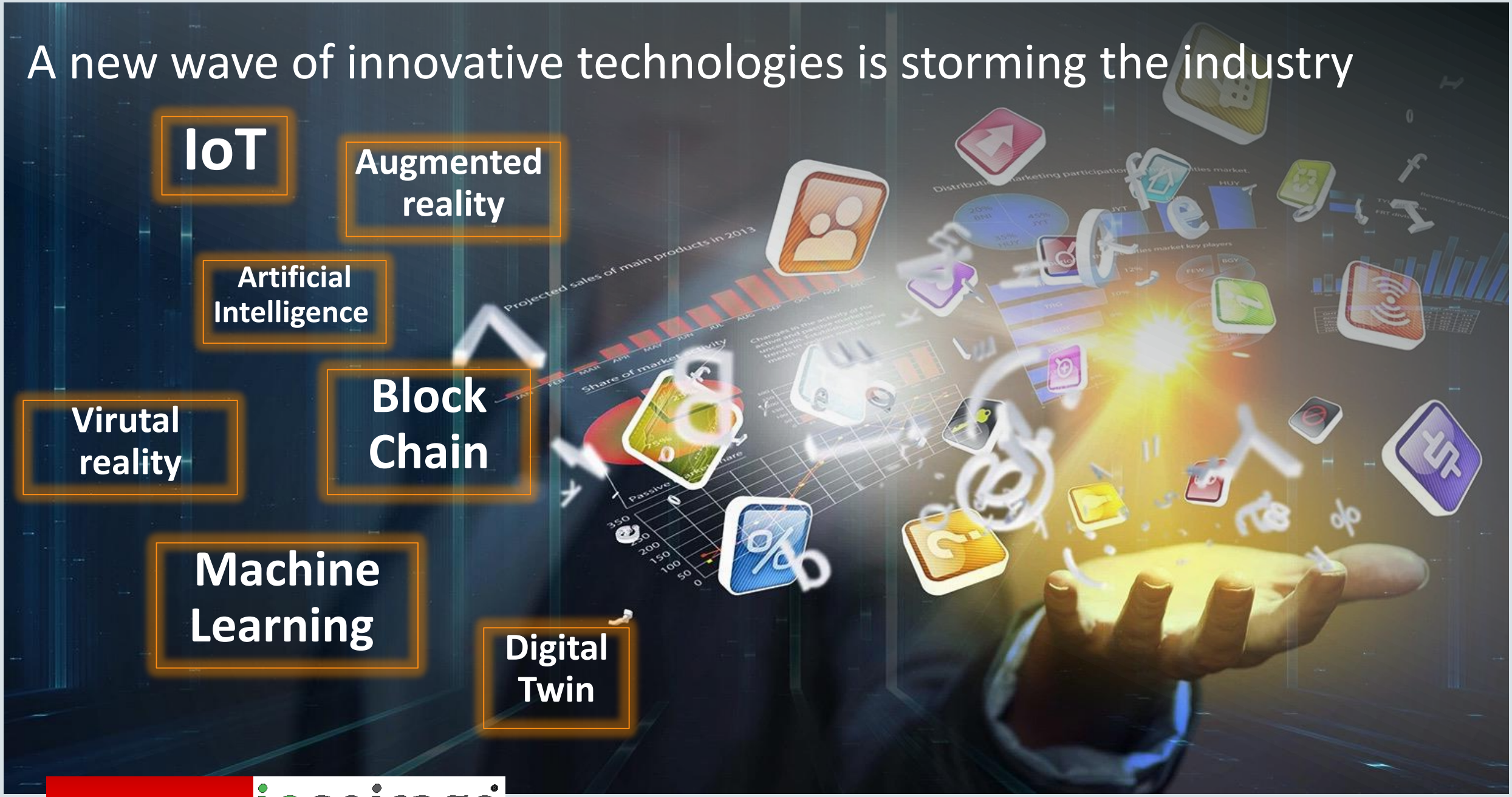
A new wave of innovative technologies is storming the industry



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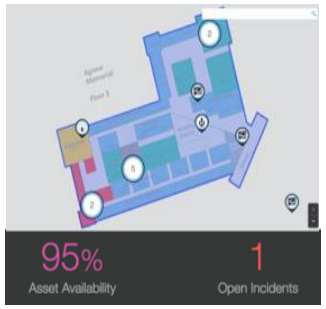
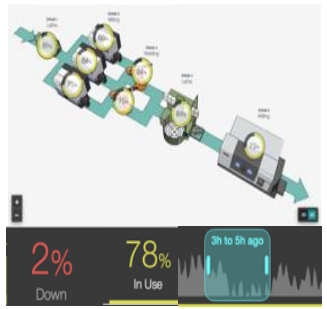
Our Strategy

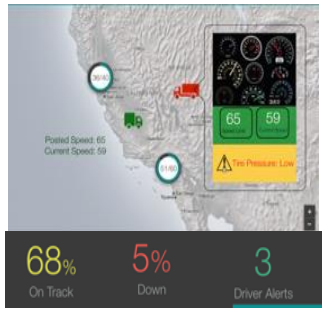
Incorporate appropriately these technologies in our solutions to provide new **added value** to our Supply Chain customers.

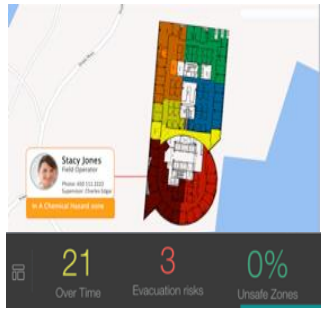
And take advantage of the Cloud model to **allow fast adoption.**

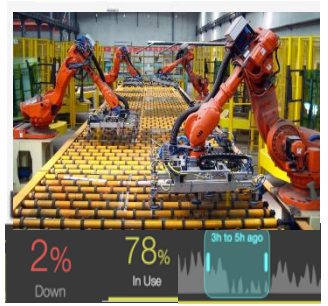
Oracle Cloud: IOT Software-as-a-Service

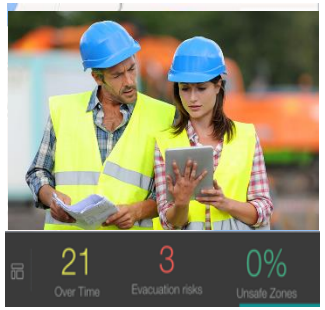












IoT Platform-as-a-Service

CONNECT	ANALYZE	INTEGRATE	LEARN

SMART Devices

Automate **SUPPLY CHAIN**

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Key Messages

We make IoT Easy to drive Business Outcomes

Through easy to consume apps for Asset Monitoring, Production Monitoring, Fleet Monitoring, Connected Worker, Service Monitoring

Through deep integrations with business processes (i.e. IoT*ification*), Digital Thread, and Business User focused features

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Oracle IoT Applications *make IoT signals actionable*

Detect

Track movement
Read temperature
Gauge humidity
Sense vibration

Device Signals

Decide

Determine lateness
Detect overheating
Predict failures
Update parameters

Business Events

Act

Reroute shipments
Replan supply
Dispatch service
Substitute materials

IoT Devices

- **Building Sensors**

- **Equipment**

- **Logistics**

- **Mobile Devices**

IoT Cloud Applications

- **Asset Monitoring**

- **Production Monitoring**

- **Fleet Monitoring**

- **Connected Worker**

SCM Cloud

- **Maintenance**

- **Manufacturing**

- **Transportation Mgmt**

- **Warehouse Mgmt**

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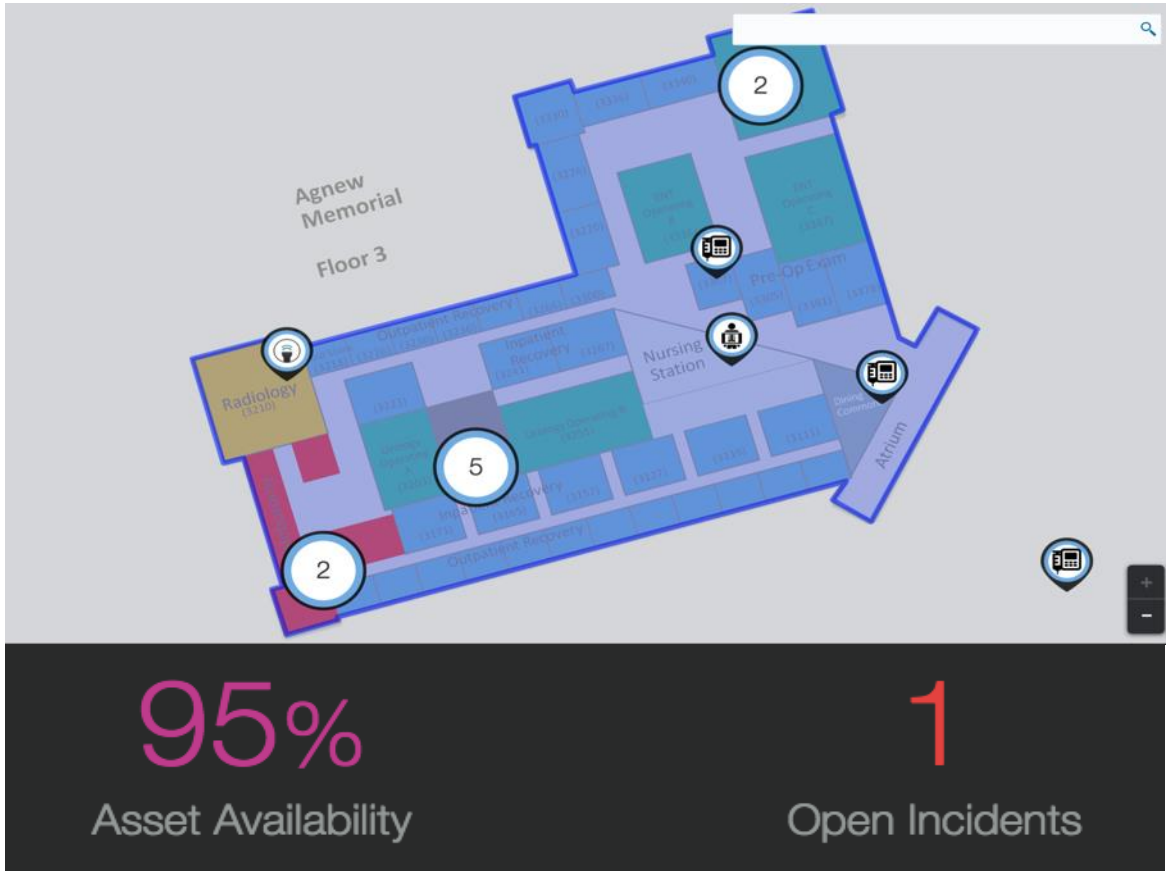
IoT Asset Monitoring Cloud

For monitoring assets, their utilization, availability, and data from connected sensors



Location Tracking

Asset Health

Asset Performance

Utilization

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Tomorrow's Supply Chain, Today

Digital thread :
Assets monitoring and Maintenance

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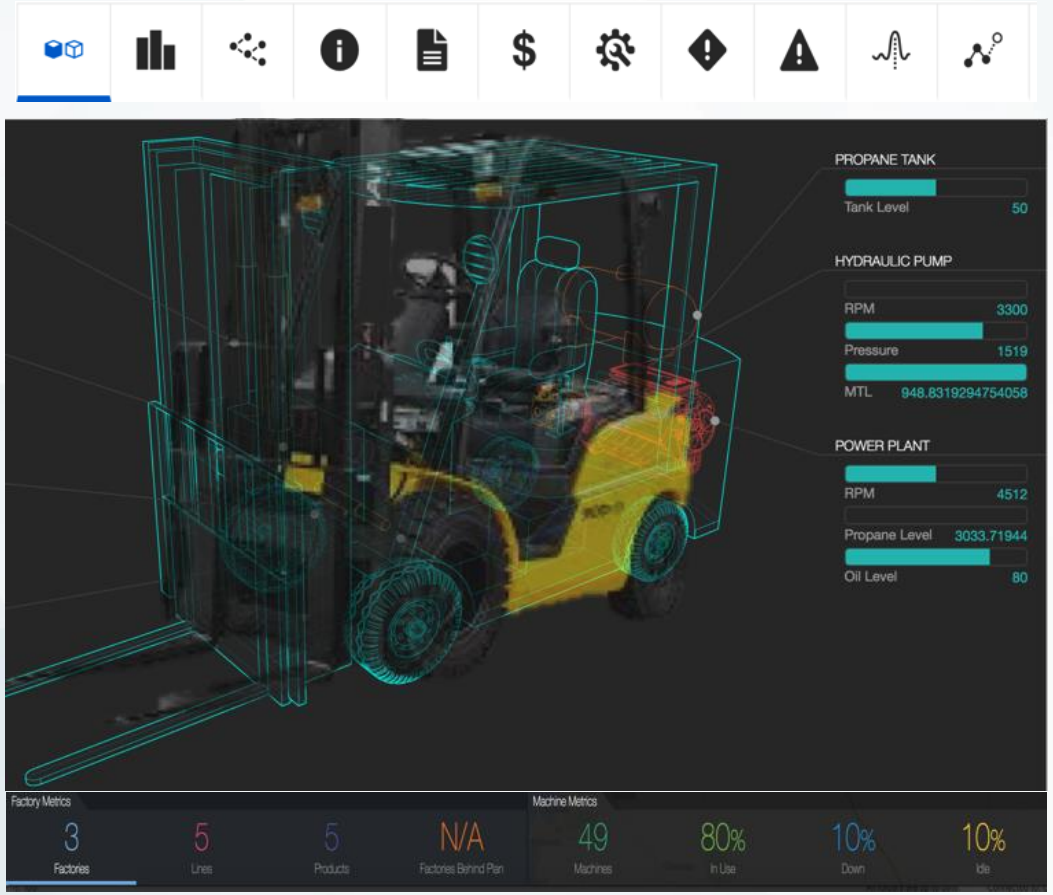
Tendance : Digital Twin enabled Applications



- Visibility and digital interaction model for physical things
- Simulations and what-if analysis
- Current, historical and predictive views
- Business information context

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Digital Twin: Asset Monitoring Preview

Perspectives

Blockchain

The Promise of Blockchain

"$176 billion in added business value by 2025; that total reaches **$3.1 trillion by 2030**."

Gartner

"**10% of the Global GDP** will be stored in blockchain technology by 2027"[1]

"The technology most likely to change the next decade of business is not the social web, big data, the cloud, robotics, or even artificial intelligence. It's the blockchain..."

—Harvard Business Review "The Impact of Blockchain Goes Beyond Financial Services,"

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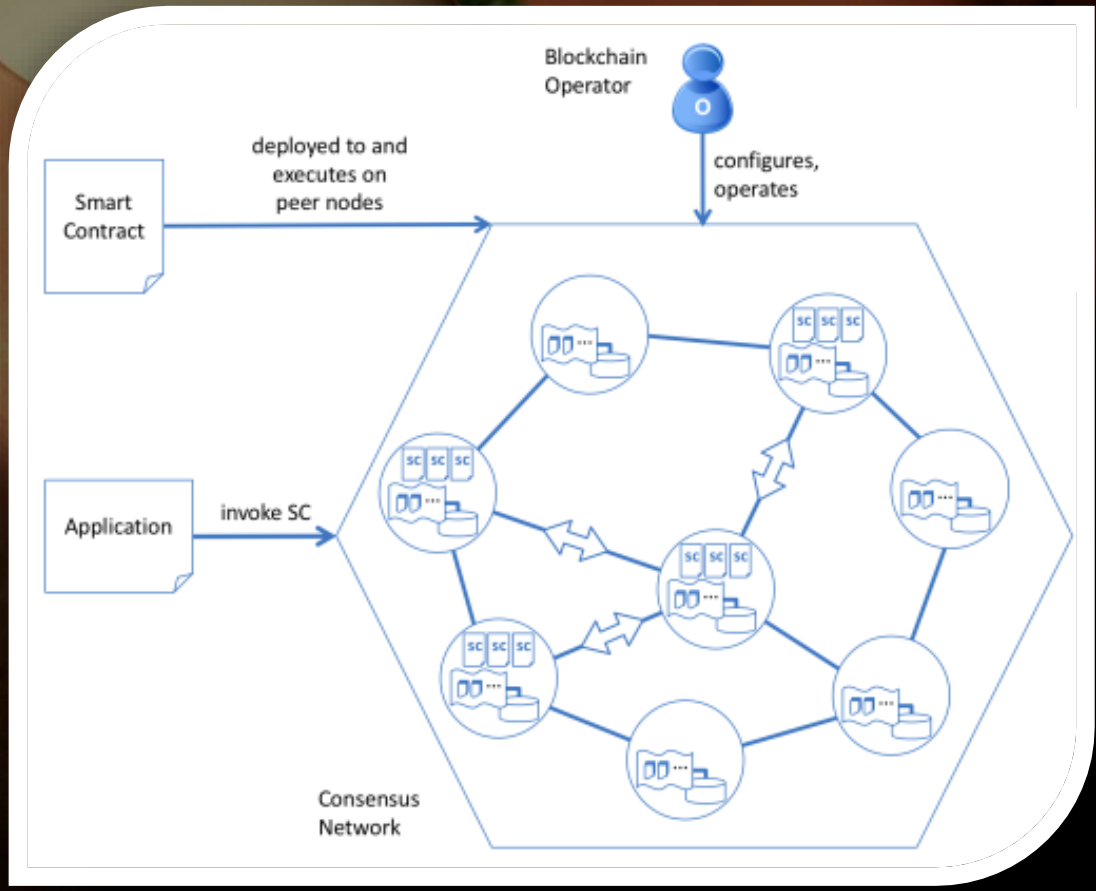
What is Blockchain?

Blockchain is a system:

- That maintains a distributed ledger in a peer-to-peer network
- That allows multiple parties that may not fully trust one another to do business securely
- That reduces the need for third-party intermediaries
- That enables real-time & unalterable records replicated among participants



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Four Key Properties of Blockchains

- Shared & Transparent Data Access
- Immutable/Tamper-evident Ledger
- Validated/Non-Repudiable Transactions
- Confidential Records and Transactions

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Use-Case Industry

Supply Chain
Contract Manufacturing

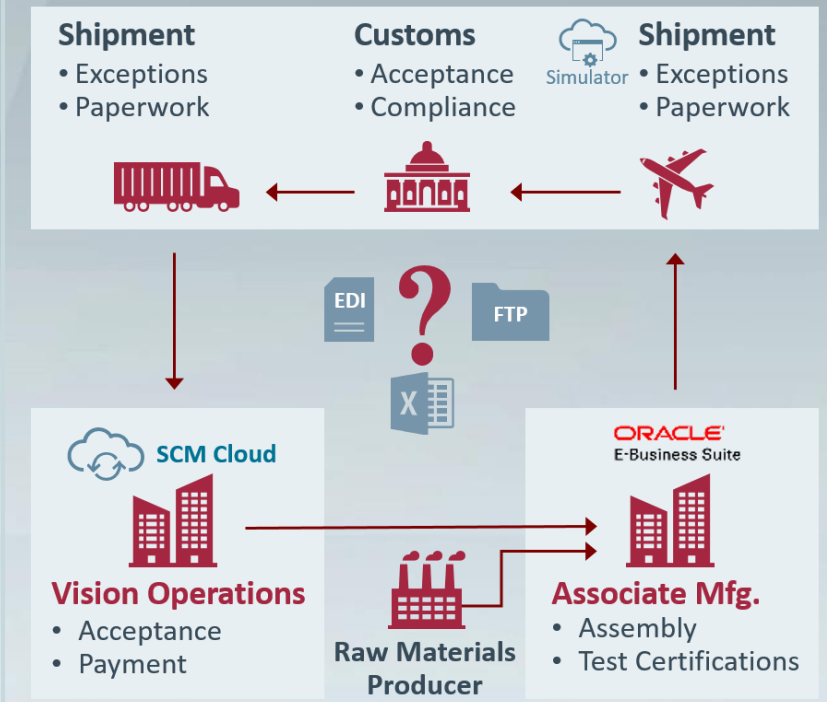
Summary

Keeping track of goods in the supply chain throughout their lifecycle. Improving trust and transparency between suppliers, manufacturers, shippers

ISSUES:

- **Product**
  - Where is it, where was it produced?
- **Content and Specifications**
  - Are there conflict minerals included?
  - Does it meet my specifications and export compliance rules?
- **Financials**
  - When is ownership transferred?
  - Does the invoice match and should I pay it?
- **Exceptions**
  - How to handle them?

BLOCKCHAIN APPLICATION:



RESULTS:

- Save time by accelerating transactions
- Remove costs by reducing overhead and cost intermediaries
- Reduce risk of collusion, tampering, fraud and cyber crime
- Increase trust between parties

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Use-Case Industry

Retail Provenance

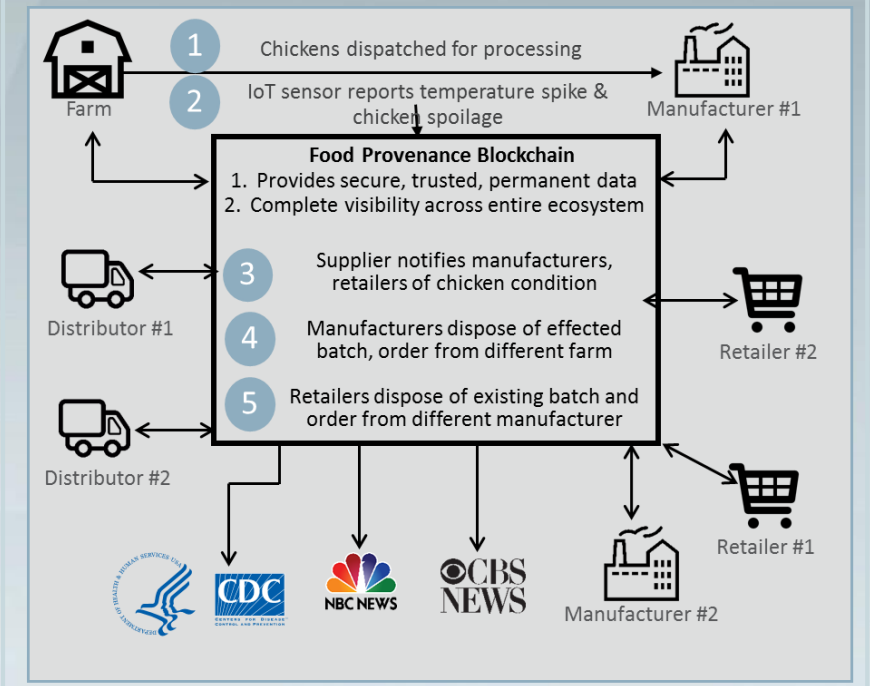
Summary

Keeping track of perishable food in the supply chain throughout its lifecycle. Improving trust and transparency between supplier parties, retailer and end-user.

ISSUES:

- **Product**
  - Where was it sourced? Where is it?
- **Content and Specifications**
  - Is it free range?Or vegetarian fed?
  - Does it meet my specifications and export compliance rules?
- **Financials**
  - When is ownership transferred?
  - Does the invoice match and should I pay it?
- **Exceptions**
  - How to handle spoilage?
  - Theft or Fraud

BLOCKCHAIN APPLICATION:



RESULTS:

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Business Value

- Reduce dependence on transaction intermediaries
- Reduce manual reconciliation
- Reduce transactions fraud
- Automate business processes
- Increase auditability and trust
- Reduce transaction costs

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Oracle Blockchain Cloud Service

Most comprehensive, distributed ledger cloud platform to securely extend your business applications and processes while accelerating transactions across your partner ecosystem

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