

# XIC12

## BLOCKCHAIN FOR SUPPLY CHAIN AND LOGISTICS FORUM

[www.blockchainsupplychain.io](http://www.blockchainsupplychain.io)

HOUSTON, TEXAS

MAY 21-22, 2018

# Insurance and the Blockchain

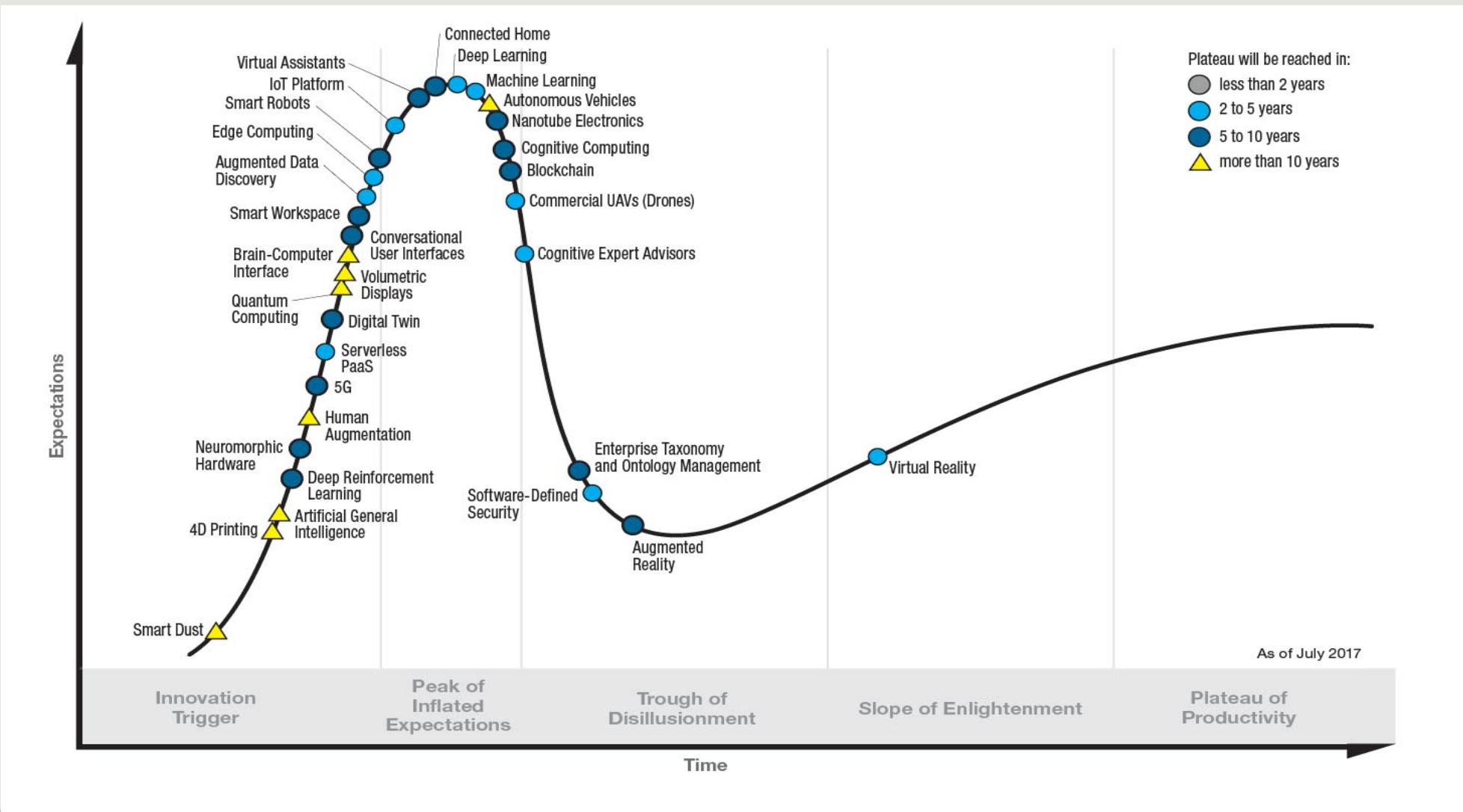


**Amit Daga**  
Executive Partner in Insurance  
Ricoh USA

# SAY BLOCKCHAIN

# ONE MORE TIME!

# Gartner Hype cycle

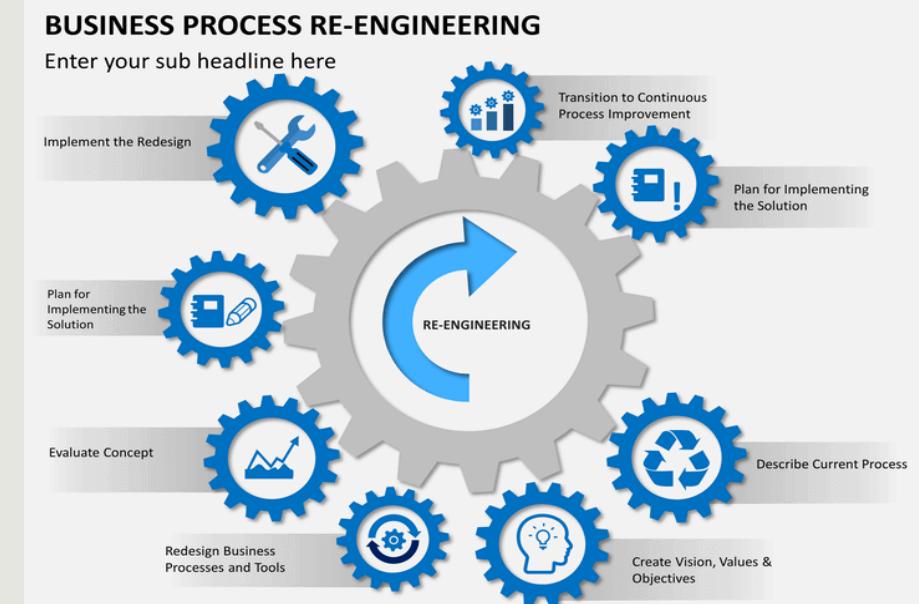


# Why discuss Blockchain now?

- Promising future
- Still in early stages of development
- Network effect will remake winners and losers
- Everyone else is talking about it – fear of missing out  
(FOMO)



**REVOLUTION NOW !**



# Key essence of Blockchain

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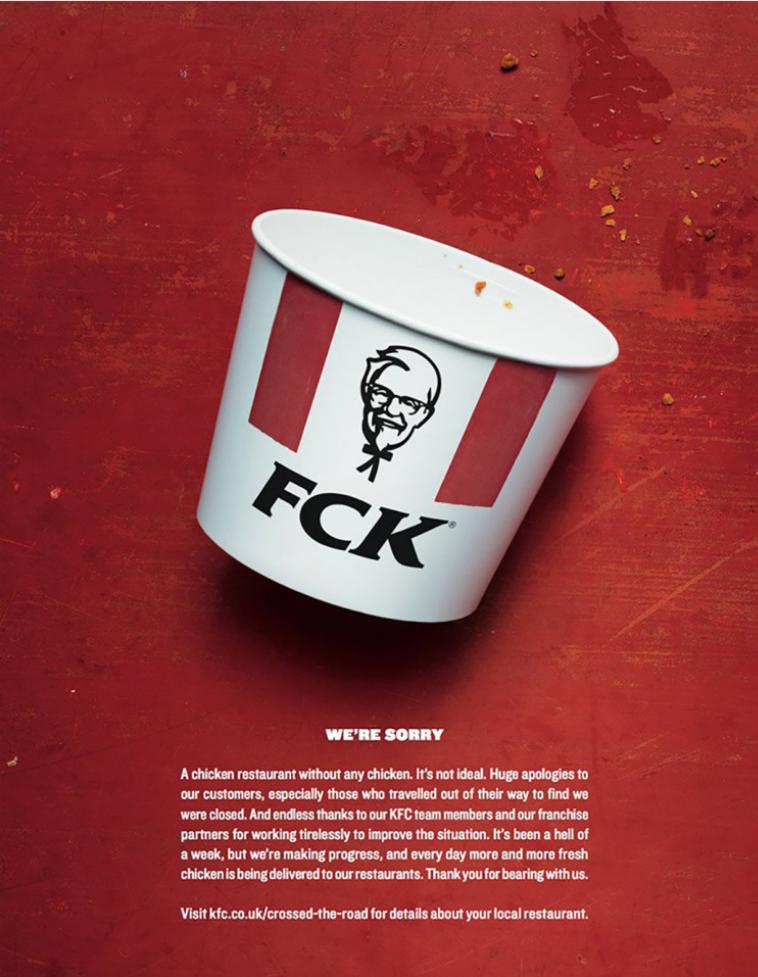
- Blockchain is a form of mutualized recordkeeping in an irrevocable time-stamped ledger.
- The ledger itself can also be programmed to trigger transactions automatically



- Bridges a gap in trust between parties
- Cannot be changed or manipulated retroactively
- Provides transparency
- Promises significant efficiency through lowered administrative costs
- Is starting to open or expand new business models

# KFC runs out of chicken

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A business is only as strong as the chain of suppliers it works with.

Need to recognize and understand the factors that promote strong risk management in the supply chain.

# Supply chain dynamics

Sony PlayStation



Oil tanker stuck in the Suez Canal  
Sales fell 90 per cent in the run up to Christmas

Boeing Dreamliner



Ran out of fasteners. Resorted to buying more at Home Depot.  
Small delays escalated into a revised timeline running into years.

- ❑ In a Zurich survey of over 500 business continuity professionals from 71 countries,
  - ❑ 75% of respondents reported that they did not have full visibility of their supply chain
  - ❑ 15% experienced an annual loss in excess of €1 million
  - ❑ 9% experienced a single event that resulted in a loss in excess of €1 million.
  - ❑ 41% reported customer complaints and 33% experienced an increased cost of work and service outcome impaired
- ❑ PWC showed that a supply chain disruption can result in at least a 10% drop in market value relative to benchmark group.
- ❑ Travelers has 700 risk consultant that make 70,000 visits to customers and potential customers per year.

# Top supply chain disruptions

- Unplanned IT or telecom outages
- Adverse weather events
- Cyber risk
- Outsourcer service failure
- Financial condition of suppliers
- Labor risk through the supply chain



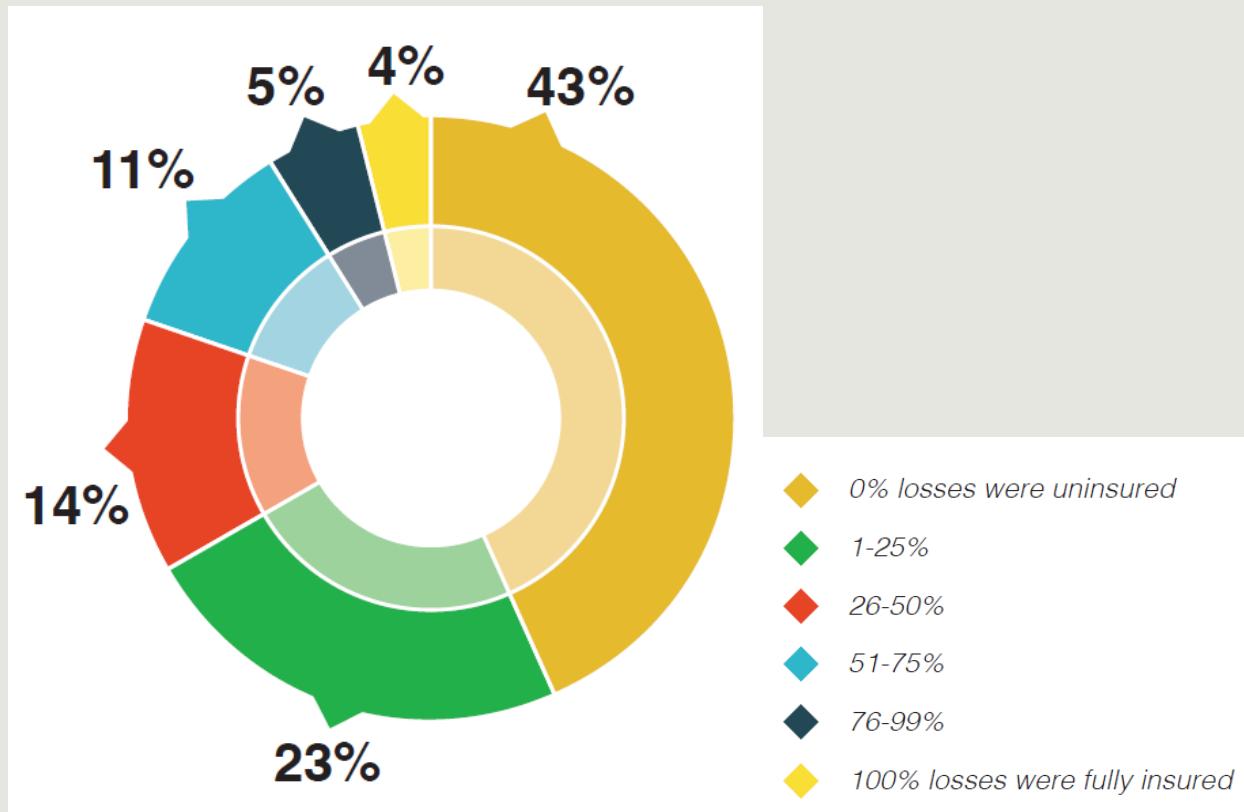
<b>Property</b> <ul style="list-style-type: none"><li>• Global Supply</li><li>• Warehousing</li><li>• Manufacturing</li><li>• Global Customers</li></ul>	<b>Marine</b> <ul style="list-style-type: none"><li>• Logistics</li><li>• Air</li><li>• Ocean</li><li>• Rail</li></ul>	<b>Cyber</b> <ul style="list-style-type: none"><li>• Privacy Breach</li><li>• Security Event</li><li>• Sabotage/Theft</li><li>• Compliance</li><li>• System Denials</li></ul>	<b>Political Risk/ Trade Credit</b> <ul style="list-style-type: none"><li>• Government Action</li><li>• Nationalization</li><li>• Acts of War</li><li>• Payment Default</li></ul>	<b>Casualty</b> <ul style="list-style-type: none"><li>• Product Defect</li><li>• Product Liability</li></ul>	<b>Crisis Management</b> <ul style="list-style-type: none"><li>• Product Recall</li><li>• Reputational Risk</li></ul>

# Insurance Products in Supply Chain

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- Physical loss or damage
- Business disruption
  - Delay in the receipt of products, components, or services from a named supplier or supply chain
- Non-physical damage
  - Pandemic; strike, civil, or military action; regulatory action; political risk;
- Reputational risk insurance
- Regulatory risk insurance
- Quality control risk insurance

# Low adoption of Insurance

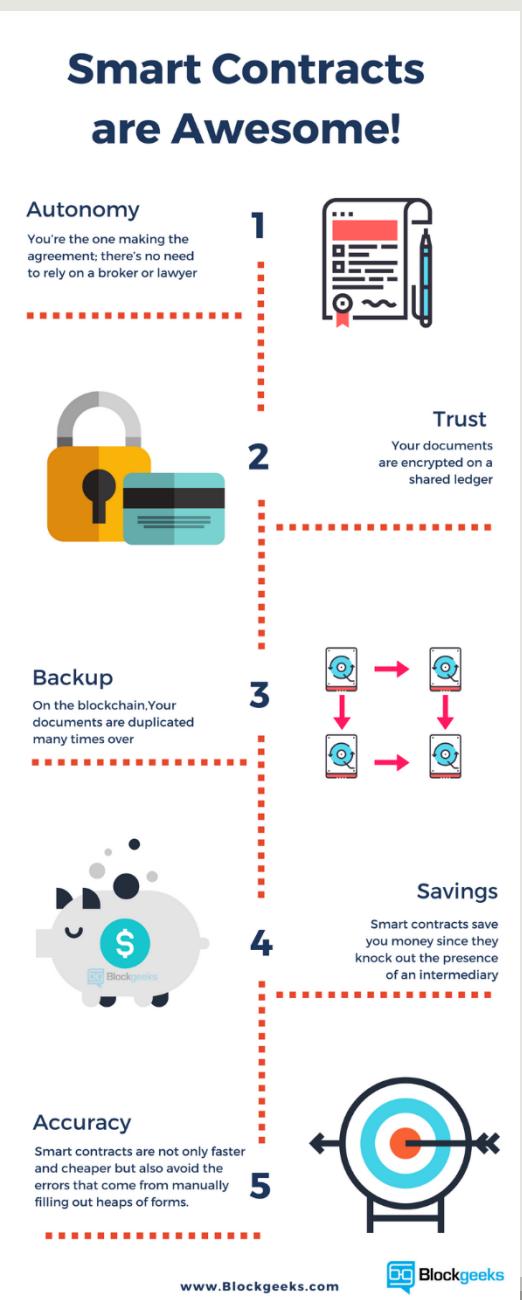


How much of your financial loss was insured?

- ❑ Percentage of organizations whose supply chain losses were entirely uninsured dropped from 56% to 43%.
- ❑ Organizations who are fully insured against supply chain losses also fell from 10% to 4%
- ❑ Small and medium sized enterprises (SMEs) are more likely to be uninsured than large organizations (62% compared to 39%)

# Blockchain in Insurance

- P&C Claim settlement
- Cat swaps and bonds
- Index based livestock Insurance
- Program**
- Flight Insurance policy
- Parametric insurance
- Provenance insurance – diamonds, wine
- Medical claim processing
- Demonstrate proof of insurance
- KYC/AML
- Excess of loss reinsurance



# Blockchain driven Insurance Mitigation

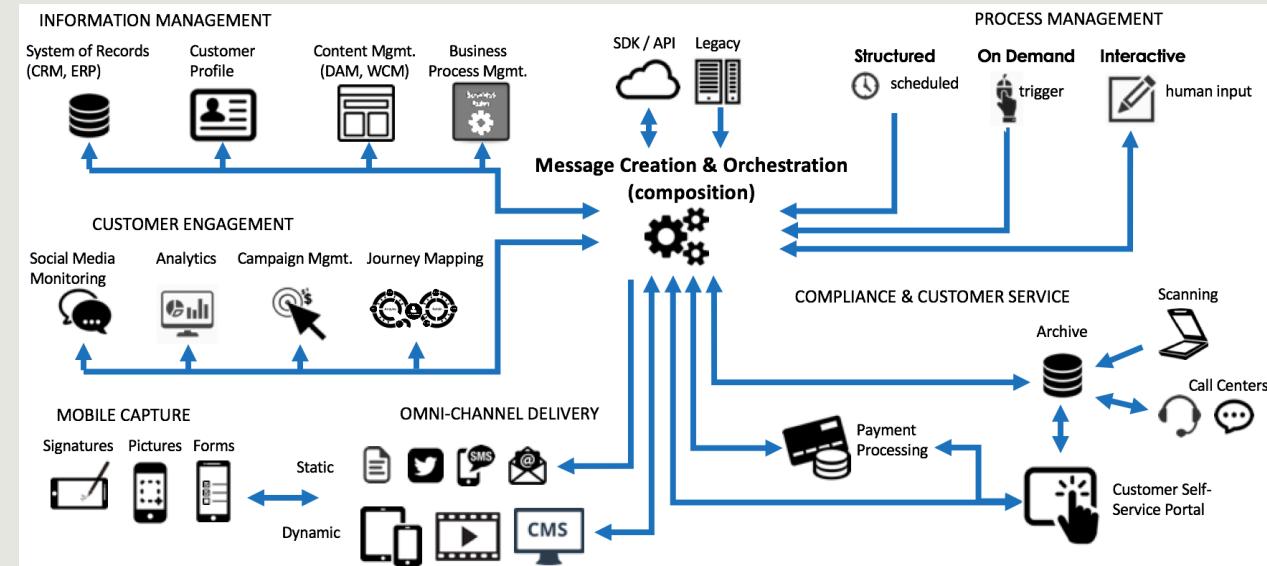
Supply Chain Risk	Blockchain enabled Insurance mitigation	Approach
IT or telecommunications outage	✓	IoT uptime (SLA) tracker + Smart Contracts
Transport network disruption	✓	Time stamps + Smart Contracts
Adverse weather	✓	Trusted Oracle (Weather Channel/IoT Devices) + Smart Contracts
Currency exchange rate volatility	✓	Trusted Oracle (eg. XE.com) + Smart contracts
Insolvency in the supply chain	✓	Blockchain validated proof-of-funds
Product quality incident (e.g. recall)	✓	Trusted Quality Metrics + Smart Contracts
Insure against over/under payment	✓	Instant financial reconciliations
Fraud	✓	Blockchain driven KYC/AML
Reputational Risk	✓	Provenance tracking
Physical loss or Damage	✓	Blockchain enabled P&C Insurance

# Blockchain driven Insurance Mitigation

Supply Chain Risk	Blockchain enabled Insurance mitigation	Approach
Cyber attack and data breach		Blockchain use case to be determined
New laws or regulation		Blockchain use case to be determined
Industrial Dispute		Blockchain use case to be determined
Health & Safety Incident		Blockchain use case to be determined
Civil unrest		Blockchain use case to be determined
Intellectual Property violation		Blockchain use case to be determined

# Ricoh in Blockchain

- ❑ Both Insurance and Supply Chain have workflows heavy in the use of paper
- ❑ Everyday complexities abound
  - ❑ Chain of custody
  - ❑ Version control
  - ❑ Retroactive edits
- ❑ Ricoh seeking to digitize workflows through Blockchain
  - ❑ Embedded documents
  - ❑ Eliminate redundancy
  - ❑ Improved Information Governance



# In Summary

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**Blockchain has the potential to:**

- Simplify obtaining insurance to guard against supply chain risks
- Expand the use of insurance within the supply chain
- Lower supply chain costs through lowered cost of insurance
- Reduce the likelihood of business disruption

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