







# Blockchain Use Cases

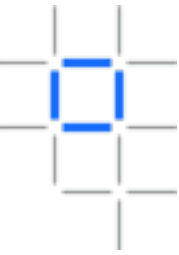
## IBM Blockchain Networks



### Blockchain Explained Series

-  Blockchain Explained
-  IBM Blockchain Platform Explained
-  IBM Blockchain Usage Patterns
-  **Solutions Explained**
-  What's New
-  Labs Explained

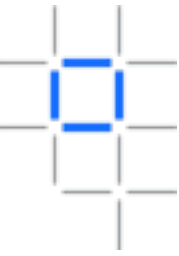
# What makes a good blockchain use case?



- Identifying a good blockchain use-case is not always easy!
- However there should always be:

1. A **business problem** to be solved
  - That cannot be more efficiently solved with other technologies
2. An identifiable **business network**
  - With Participants, Assets and Transactions
3. A need for **trust**
  - Consensus, Immutability, Finality or Provenance

# What makes a good first blockchain use case?

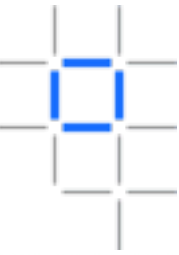


– First use-cases are even more difficult to identify!

1. A **limited scope**, but still solves a real business problem
  - Minimum Viable Product in a few weeks of effort
2. A smaller **business network**
  - Usually without requiring regulators and consortia
3. Allows for **scaling with more participants and scenarios**
  - Consider shadow chains to mitigate risks

**Start small, succeed and grow fast!**

# Good blockchain use-case or bad?



Food  
Provenance

Holiday  
Tracking Tool

Know Your  
Customer

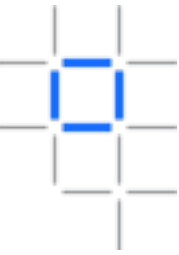
Secure  
Document  
Store

Track Your  
Child

Electronic  
Medical  
Records



# Assessing Business Value




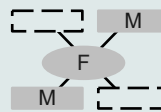
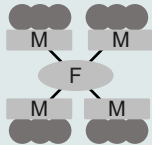
- It can be difficult to accurately quantify investment case for blockchain
- Things to consider:
  - Existing Pain Points
  - Scope – participants, assets, transactions
  - Benefits: baseline, minimum viable ecosystem (MVE) & mature network
  - Blockchain Design Points
  - References

Blockchain Value Design (BVD) activity will help elaborate these items!

# Template – example only (Cross Border Supply Chain)

Problem	90% of goods in global trade are carried by the ocean shipping industry each year. Costs associated with trade documentation processing and administration are estimated to be up to 20% the actual physical transportation costs.
Solution	Manage and track the paper trail of tens of millions of shipping containers across the world by digitizing the supply chain process
Participants	Supplier, couriers (*2), customs (*2) , ports (*2), shipper and retailer ....
Asset & Trust	Need for trust around paperwork associated with a container
Transactions	Supplier prepares to ship, release container to courier, load to ship, clear customs, retailer receipt

Pain Points
<ul style="list-style-type: none"> <li>• Transport remains highly dependant on a flood of paper that is never digitised</li> <li>• Shipping information must pass through many hands, increasing potential for delays in transport.</li> <li>• One shipment can require sign-off from 30 unique organizations and up to 200 communications.</li> <li>• One lost form or late approval could leave the container stuck in port</li> <li>• The entire process can take more than one month..</li> <li>• Fraudulent changes may be made to the Bill of Lading</li> </ul>







Benefits benchmarks - Value Tree		Baseline	Phase 1	Phase 2-3	Blockchain : Design Points	References
KPI's (e.g.)						
New revenue	# new value propositions	-	-	1 to 3	<ul style="list-style-type: none"><li>Find new value propositions to exploit the network effect between members</li></ul>	ANO -1
Improve client experience	Increase in customer satisfaction	-	5%	10%	<ul style="list-style-type: none"><li>Securely and transparently trace the container's path through the supply chain on the blockchain</li><li>Add trust (Immutability and Provenance) around the Bill of Lading and other container paperwork</li></ul>	
	Increase in trade volumes	-	+5%	+15%		
	Cycle times (transit & shipping)	30 days	25 days	10 days		
Reduce transport costs	Waste as % of total shipped	6%	5%	1%	<ul style="list-style-type: none"><li>Automate the transit and shipping process with Smart Contracts reducing cycle times and delays</li><li>No reconciliation or matching of documentation with near instant updates - eliminates the need for audit and verification</li><li>Removes paper and intermediaries</li></ul>	ANO -2
	Fraud and errors as % of total costs	5%	4%	0.5%		
	Documentation admin. as % of total costs	20%	15%	5%		

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Thank you



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