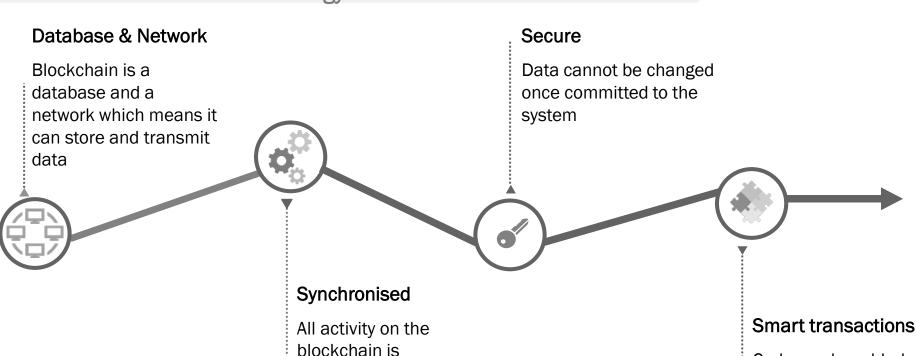


Key attributes of blockchain and distributed Infrastructure

What is Blockchain technology and Distributed Infrastructure?



automatically

reflected across the network

Code can be added to transactions that allows autonomous execution of functions under predefined conditions, known as 'smart contracts'

The value of distributed infrastructure is seen in its attributes

Distributed technology allows distribution of trusted value transfer and execution without requiring intermediaries: **the network is the intermediary**

Characteristics of Distributed Infrastructure





Participating party can be uniquely identified digitally

Provable Transactions



All transactions can be proven to have taken place at particular times

Autonomous Executions



Transactions occur automatically on predefined conditions/smart contracts

Characteristics specific to blockchain technology Immutable Golden Source



One version of data which cannot be altered

Transparent



Visibility into
historical
transactions by
permissioned parties

Rapidly Scalable



Nodes (clients) can rapidly be added

View of competitor financial services investment ecosystem 2010-2016*

Cryptocurrency (Bitcoin)







Risk & Security





Insurance



Payments - E-Commerce































Leading global initiatives and Blockchain providers in payments

Banks are evaluating/experimenting and participating in multiple options for Blockchain use cases in cross border payments

Vendor / Initiative	Level of Blockchain Coverage
R3 CEV	
GPII	
Ripple	
Earthport	
Symbiont	
Tipalti	
Hyperledger	

Implementation Challenges and Considerations

Internal Factors The technology is not the solution, but an enabler Industry wide standardization of protocols

Technical complexity

External Factors

The transparency paradox

Acceptance by regulatory authorities