

SWIFT on distributed ledger technologies

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Intro & Session Objectives

- How Blockchain and distributed ledger technologies (DLTs) could be deployed in the financial industry is the subject of much discussion and R&D
- The objective of these sessions are to share information with the SWIFT community on:
 - The technology assessment of existing DLTs performed by SWIFT with the support of Accenture
 - SWIFT's position on DLTs and what we are concretely doing in that space



SWIFT's technology assessment

- Carried by SWIFT with the support of Accenture
- Demonstrated the potential of DLT and its key strengths
- Assessed existing DLTs against a set of key requirements needed for industry adoption
- Centred on operational matters and on inter-institution use cases



Key strengths of DLTs

 DLTs have the potential to bring new opportunities and efficiencies to the financial industry





Technology assessment of existing DLTs

- DLTs emerged from C2C market
- The financial industry has a different set of requirements to be widely adopted





Conclusions of the technology assessment

- Existing DLTs are currently not mature enough to fulfil the requirements identified
- There are promising developments in each of these requirements
- Significant extra R&D work is needed in all these domains before DLTs can be applied at the scale required by the financial industry

Maturity assessment





Governance models to clearly define the roles and responsibilities of the various parties as well as the business and technical operating rules

Data controls



Controlled data access and availability to preserve data onfidentiality

Compliance



The ability to comply with regulatory requirements (e.g. Sanctions, KYC, etc.)

Standardisation



Standardisation at all levels to guarantee STP, interoperability and backward compatibility

Identity framework



The ability to identify parties involved to ensure accountability and non-repudiation of financial transactions

Security and cyber defence



The ability to detect, prevent and resist cyber attacks, which are growing in number and sophistication

Reliability



Readiness to support mission-critical financial services





Readiness to scale to support services processing hundreds or thousands of transactions per second



Distributed Ledger – SWIFT position

- SWIFT's focus is on building technical, operational and business capabilities with a view to evolving our platform such that DLT-based services could be offered to our 11,000+ members, when the technology matures and firm business use cases emerge.
- Drawing upon its long history of fostering industry collaboration, SWIFT will leverage its unique set of capabilities to deliver a distinctive DLT platform offer for the benefit of its community.





DLTs – SWIFT's ongoing activities



A number of DLT-related PoC are ongoing in SWIFT labs covering the following topics:

- Plug SWIFT PKI and access control mechanisms to build a SWIFT permissioned ledger
- Build a SSI database for OTC markets
- Apply SWIFT standards expertise and ISO 20022 methodology to DLT context



The SWIFT Institute is to publish two academic research papers on DLTs in 2016; the first will focus on: "The Impact and Potential of Blockchain on the Securities Transaction Lifecycle".



An industry challenge was organized in April 2016 to assess impact of a DLT solution on issuance and asset servicing with FinTech starts up and SWIFT members.



SWIFT is engaging with its community to explore potential business use cases in payments (e.g. gpi vision group), Securities (e.g. ISSA blockchain working group) and Trade finance



The SWIFT Standards team is investigating DLTs to understand how existing messaging and reference data standards can be re-used in a DLT context.



SWIFT is both a Founding Member & Board Member of this open source project aimed at advancing DLTs.



DLT update - October 2016



Area

Securities and Standards

What Bond

ISO20022

Value-added features

Why

Thought leadership

Towards a product

Technology

Eris/Tendermint platform.

Smart Contract written in Solidity



Demo



Interested to know more?

SWIFT position paper can be downloaded on swift.com using the following <u>link</u>.



accenture

Position paper

SWIFT on distributed ledger technologies

Delivering an industrystandard platform through community collaboration





www.swift.com