

SWIFT Innovation Initiatives 「国際送金高度化の動き」

Conference on Retail Payments

武井祐二 SWIFT Japan

2016年5月12日

アジェンダ

- ・ 資金決済システムの動向、変革とSWIFTの取り組み
- SWIFT の試みの実例
 - リアルタイム・リテール決済システムの変革
 - 決済イノベーションによるコルレスバンキング業務の活性化
- 日本の資金決済システムの将来への思慮



資金決済を進化させるテーマとSWIFTの取り組み





資金決済市場におけるイノベーション

テーマ..

.. テーマに対応するSWIFT の提案・施作



Digital Payments

Data Analytics

Distributed Processing / Blockchain

Cyber Security

Enabling Service Scalability with APIs

- Real Time Retail Payments Systems
- Addressing & Overlays
- Global Payments Innovation Initiative
- FinTech Engagement
- Business Intelligence
- Compliance
- ISO 20022
- Innotribe
- Other Innovation Initiatives...



アジェンダ

- ・ 資金決済システムの動向、変革とSWIFTの取り組み
- SWIFT の試みの実例
 - リアルタイム・リテール決済システムの変革
 - 決済イノベーションによるコルレスバンキング業務の活性化
- 日本の資金決済システムの将来への思慮



リテール決済の直面する現実

...... 簡便..... 時間・場所を選ばない... 即時性...... 安全性

High growth of mobile and Internet technology **Competition from agile new** Threat from cybercrime entrants Retail **Payments** Impact of increased **Emergence of new** regulation technologies **High customer expectations**



リアルタイム・リテール決済システムの主要機能

24 x 7

Instantaneous 即時性 Irrevocability 最終性 Certainty 確実性

24x7: payments can be sent and received all times of the day, every day of the year

Instantaneous: good funds must be available on the beneficiary's account in, typically, less than a minute

Irrevocability: once payments are processed, they can't be recalled

Certainty: payments sent to a beneficiary bank are individually explicitly confirmed (to both payer and payee) or rejected

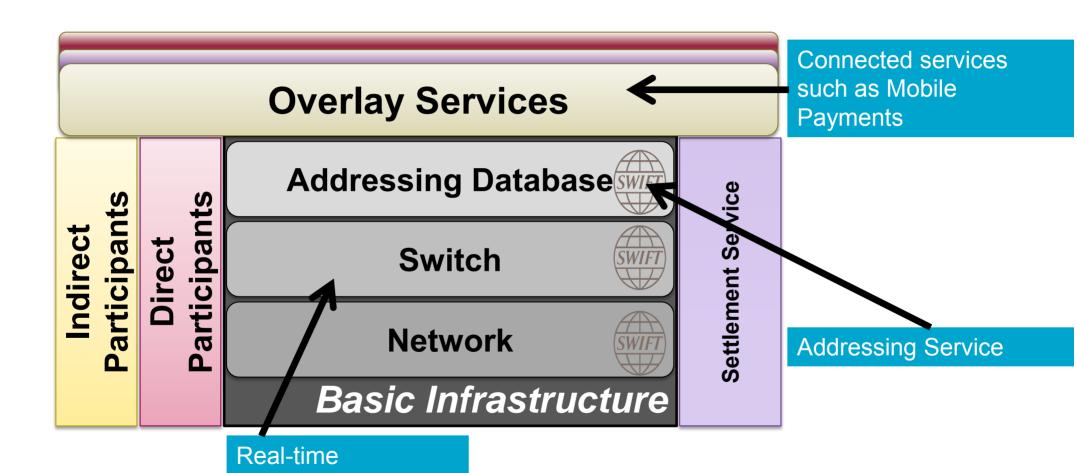


リアルタイム決済に求められる変革は"速さ"だけではない

Open Access	Simpler Addressing	API to Anything	Intelligent Messaging
 Inclusive - extended participant ecosystem Regional/global interoperability Extensive use of Digital Channels, esp. Mobile 	 Reduced friction for customer Centralized Addressing across banks Alias/Proxies instead of account numbers 	 Addressing and Overlay Services integration Consumed by Corporates, SMEs, Govt. organizations 	 Transfer of information, not simply value Information rich ISO 20022



ケース・スタディ - New Payments Platform (NPP) Australia





24/7

NPP Australia: The basic infrastructure is run as a utility to cater for future volume growth whilst overlays foster competition, innovation, and commercialisation

NPP

Basic Infrastructure

基本機能

Overlay Services

付加価値サービス

- Cooperation
- Operating as utility
- Long term utilisation offering real-time payments
- Resilient
- No constant innovation required
- Aim to grow volume and scalable
- Commercialisation
- Competition to differentiate services
- Innovation for the end customers
- Value added services



アジェンダ

- ・ 資金決済システムの動向、変革とSWIFTの取り組み
- SWIFT の試みの実例
 - リアルタイム・リテール決済システムの変革
 - 決済イノベーションによるコルレスバンキング業務の活性化
- 日本の資金決済システムの将来への思慮



コルレスバンキングモデルが直面している課題



Customers and regulators push for better payments service



End customers increasingly demanding



Domestic payments going real-time



Banks rationalize their correspondent banking networks



Regulatory intensity and increasing costs



Network rationalization



Digital innovators offer new disruptive solutions



Disintermediation



Enhanced value proposition



目的:事業法人顧客のクロスボーダー決済における満足度を大幅に向上

"Before"

Traditional correspondent banking

- 1. Slow, can take multiple days
- 2. Expensive, multiple deducts
- 3. Secure and compliant
- 4. No transparency and predictability on cost and time
- 5. Convenient and ubiquitous
- 6. Open and inclusive (global reach)

"After"



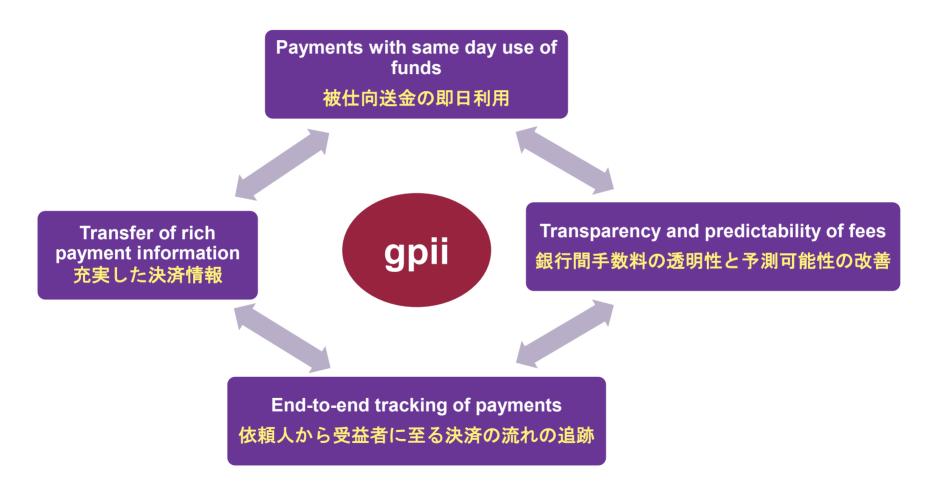
- -1. Fast(er) (start with "same day")
- 2. Higher efficiency & less intermediaries
- 3. Secure and compliant
- 4. Transparent and predictable, with payments tracking
- 5. Convenient and ubiquitous
- 6. Open and inclusive (global reach)

The objective is to first fix these key pain points

Note regarding prices: it will be at the discretion of each gpii member to decide the pricing strategy vis-à-vis its customers, including other financial institutions



gpii aims to provide faster, transparent, predictable B2B cross border payments through a set of mutual business rules サービスレベル合意書(SLA)によるより高度な協力体制を構築





Gpii 参加行

- ABN AMRO Bank
- Australia and New Zealand Banking Group
- Banco Bilbao Vizcaya Argentaria
- Bank of America Merrill Lynch
- Bank of China
- Bank of New York Mellon
- Bank of the Philippine Islands (BPI)
- 三菱東京UFJ銀行
- Banco Santander
- Bangkok Bank
- Barclays
- **BNP** Paribas
- Citibank
- Commerzbank
- Credit Suisse
- **CTBC**
- Danske Bank
- DBS Bank
- Deutsche Bank
- Ecobank
- FirstRand Bank
- HSBC
- Industrial and Commercial Bank of China
- ING Bank
- Intesa Sanpaolo
- Invested
- JPMorgan Chase

initiative banks

Channelling payments into 189 countries

Representing 67% of all SWIFT cross-border payments



Regional representation of gpii banks

- KBC Bank
- KEB Hana Bank
- Lloyds Banking Group
- Maybank
- みずほ銀行
- National Australia Bank
- Natixis
- Nordea Bank
- · Oversea-Chinese Banking Corporation
- Raiffeisen Bank International
- RBC Royal Bank
- りそな銀行
- Royal Bank of Scotland
- Sberbank
- SEB
- Société Générale
- Standard Bank
- · Standard Chartered
- 三井住友銀行
- Tadhamon International Islamic Bank
- TD Bank
- UBS
- UniCredit
- United Overseas Bank
- · Wells Fargo.



アジェンダ

- ・ 資金決済システムの動向、変革とSWIFTの取り組み
- SWIFT の試みの実例
 - リアルタイム・リテール決済システムの変革
 - 決済イノベーションによるコルレスバンキング業務の活性化
- ・ 日本の資金決済システムの将来への思慮



日本の資金決済システムの将来への思慮

For review:

- · Consider an open, single platform and innovation-oriented architecture in future
- オープン、シングルプラットホーム、改革志向のアーキテクチャー
- Provide cross-border connectivity models for Japan Payment Systems
- ・ クロス・ボーダーシステム・ネットワークとリンク
- Globalise Japan messaging standards, ie. Harmonise local Japanese standards with global standards
- 日本メッセージングフォーマットとグローバルスタンダードとの融合
- Continuing enhancement in understanding of FinTech in the Japan marketplace as well as influence of Fintech developments in the global marketplace
- 日本における継続的なFinTechの検討とグローバルなマーケットでのFintech進展による影響

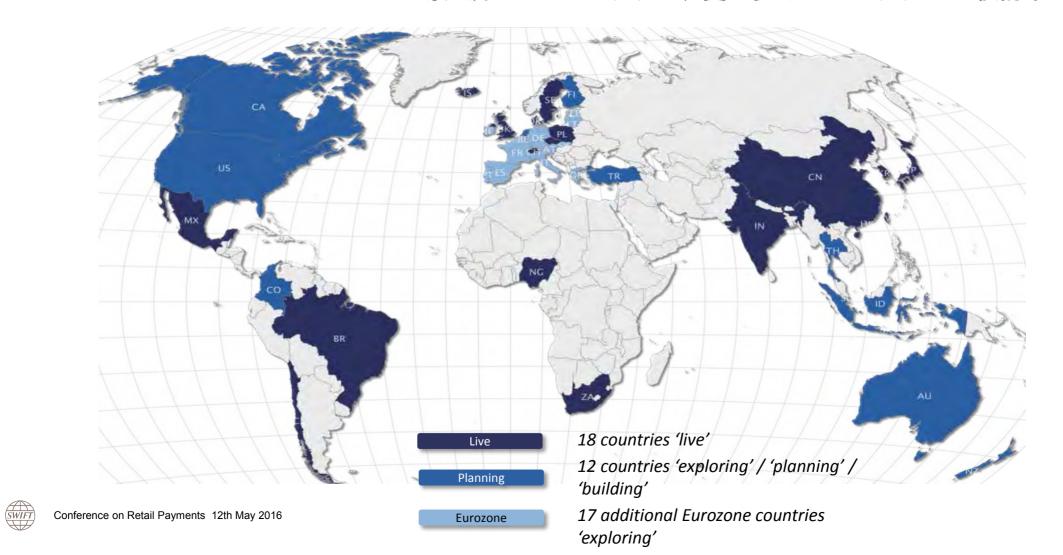






資料

リアルタイム・リテール決済システム (RT-RPS) の導入状況 導入済み-18 マーケット、更に多くのマーケットが 検討中





主なRT-RPS導入事例



Canadian payment modernisation



US Faster Payments Task Force and a US Secure Payments Task Force



US domestic initiative





UK domestic initiative



CO

iberpay.

Spanish domestic

initiative



Need for at least one solution for the Eurozone according to ERPB





French domestic and paneuropean initiative



Defining SEPA SCT Inst scheme on request of ERPB



RFP for Eurozone system to be live by 2018





Japanese domestic initiative



Thailand Mobile Instant payments in review



Singapore domestic initiative, central addressing service in review





NPP Australia: 付加価値サービス(Overlay Services)の可能性

Account-to-Account Gap

Mobile convenience service
Ubiquitous POS
Emergency Payments

Business Workflows
Conditional Payments
Property Transfer

Possible Overlay Services

Data Rich Use of ISO Messages

Electronic invoicing and remittances

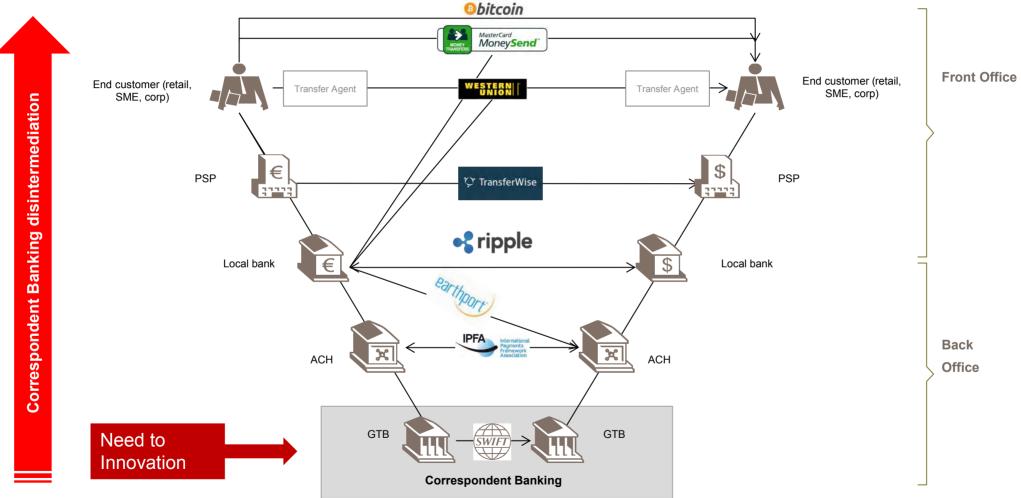
Data rich payments

Participant services
Fraud monitoring





資金決済システム





The global payments innovation initiative

Delivering a new standard in cross-border payments

- Proactively respond to evolving customer needs for more speed, transparency and predictability of time and cost in cross-border payments
- New multilateral rulebook, initially focused on business-to-business payments
- Building on the foundation that banks provide in security, resiliency and compliance
- Delivering real-world innovation: building on existing platform, embrace new technologies along a strategic roadmap
- Global reach, collaborative industry-wide initiative, organised by SWIFT
- Open model, participation based on operational quality
 - ✓ Fast

✓ Secure

✓ Real-world innovation

✓ Transparent

✓ Resilient

✓ Global reach

✓ Predictable

✓ Compliant

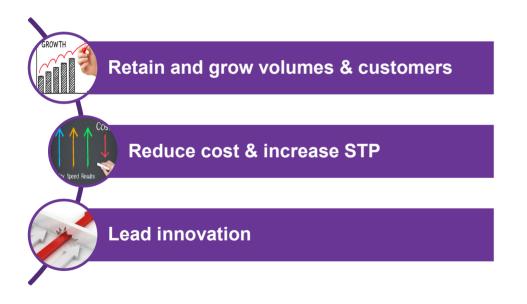
✓ Open model





Gpii による銀行と事業法人顧客の利点・成果

Benefits for a bank



Benefits for a corporate





Gpii スケジュール

Promote

Identify drivers
Define principles
Announce initiative

Promote
Pilot
Prepare for go live



Gpii - プレス・リリース



Delivering a new standard in cross-border payments

Brussels, 10 December 2015 - SWIFT announces a global payments innovation initiative to dramatically improve the customer experience in correspondent banking by increasing the speed, transparency and predictability of cross-border payments.

Designed in collaboration with the industry, the initiative will initially focus on a business-tobusiness payments service supported by participating banks in early 2016.

The new service will help corporates grow their international business, improve supplier



45 leading banks sign up to SWIFT's global payments innovation initiative

Major banks around the world take action to dramatically improve customer experience in cross-border payments.

Brussels, 21 January 2016 – SWIFT announces that 45 leading banks have signed up to its payments innovation initiative, announced at the end of December 2015.

The 45 participating firms include major transaction banks from Europe, Asia Pacific, Africa at Americas. More banks are expected to join this initiative in the coming months.

Christian Sarafidis, Chief Marketing Officer at SWIFT, said: "Such strong participation from banks all around the world is proof of the importance of this global payments innovation initiative of their commitment to offering greater speed, transparency and predictability in cross-t

The vision of the global payments innovation initiative is to enhance cross-border transaction leveraging SWIFT's proven messaging platform and global reach. Together with the industry, S has created a new service level agreement (SLA) rulebook, providing an opportunity for collaboration between banks. In its first phase, the new service will focus on business-to-busy payments. Designed to help corporates grow their international business, improve su relationships, and achieve greater treasury efficiencies, the initiative will enable corporates to re an enhanced payments service directly from their banks with the following key features:

- . Same day use of funds
- · Transparency and predictability of fees
- · End-to-end payments tracking
- · Transfer of rich payment information.

Wim Raymaekers, Head of Correspondent Banking at SWIFT, said: "Designed for the corp reasurer, this initiative will enable banks to dramatically improve their customers' cross-tpayments experience. Leveraging SWIFT's global community and the innovative application proven technology, the new service should find rapid adoption and make a hugely positive imputhe global payments landscape."

The pilot of the new initiative will start from early 2016. Following the corporate cross-b payments pilot programme, SWIFT aims to incorporate additional innovations and deploy technologies to its global payments innovation initiative. SWIFT will work together with the inc to define additional service level agreements that will cater for other client groups, further red the costs and frictions arising from compliance, liquidity and processing efficiency considers involved in cross-border payments.

For more information or to join this initiative, visit swift.com/qpi



SWIFT kicks off pilot for global payments innovation initiative

21 banks piloting SWIFT's new initiative to improve cross-border payments

Brussels, 5 April 2016 – SWIFT announces today that 21 banks have started the pilot for its global payments innovation initiative, intended to improve the customer experience in correspondent banking by increasing the speed, transparency and predictability of cross-border payments.

The pilot is planned to run through to December, the first results of which will be shared at Sibos 2016 in Geneva this September. The banks participating in the pilot include: ANZ, Bank of America Merill Lynch, Bank of China, Bank of New York Mellon, Bank of Tokyo-Mitsubishi UFJ, Barclays, BNP Paribas, Citit, Danske Bank, DBS, ICBC, ING Bank, Intesa Sanpaolo, JPMorgan Chaswillcusho, Nordea, Royal Bank of Canada, SMBC, Standard Chartered, Uniforedit, and Wells Fargo.

Wim Raymaekers, Global Head of the Banking Market and project lead for this initiative at SWIFT says, 'The tight knit group of leading banks will help to spearhead the testing through the pilot land beyond. Their commitment is testament to the initiative and our joint ambition to significantly improve the cross-border payments experience for corporate customers. As we progress, we aim to incorporate additional innovations and deploy new technologies to this global payments innovation initiative, and define additional service level agreements that will cater for other client groups, further reducing the costs and frictions arising from compliance, liquidity and processing efficiency considerations involved in cross-border payments."

Following our earlier announcement in January 2015, 51 banks are now signed up to the initiative to work together to create a new service level agreement (SLA) rulebook for cross-border payments, providing an opportunity for smart collaboration between banks. The banks that have recently joined the initiative are Standard Bank, Investec, Resona Bank, Tadhamon International Islamic Bank, Kasikornbank, and the Bank of the Philippine Islands (BPI).

In response to requests from the banks, SWIFT is offering an on-boarding process in parallel to the pilot, to ensure that all banks signed up for the initiative can prepare for live operations. The service is planned to go live for all participating banks in 2017.

In its first phase, the new service will focus on business-to-business payments. Designed to help corporates grow their international business, improve supplier relationships, and achieve greater treasury efficiencies; the initiative will enable corporates to receive an enhanced payments service directly from their banks, with the following key features:

- . Same day use of funds
- · Transparency and predictability of fees
- · End-to-end payments tracking
- . Transfer of rich payment information





SWIFT on distributed ledger technologies



- 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
- Demonstrated the potential of DLT and its key strengths
- Assessed existing DLTs against a set of key requirements needed for industry adoption
- Focused 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



Information propagation — Efficient means of keeping a full network up to date with latest information

Simplified reconciliation — Local access to complete and verified data easing reconciliation processes

Full traceability — Participants are able to trace information flows back through the entire chain

Trusted disseminated system — Ability to trust authenticity of data on the ledger without recourse to a central body

High resiliency — Operates seamlessly and removes dependency on a central infrastructure for service availability



Technology assessment of existing DLTs

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





Applying DLTs in the financial services industry: requirements



Strong governance – Governance models with clearly defined roles and responsibilities of parties, business and operating rules.

Data Controls – Controlled data access and availability to preserve data confidentiality.

Compliance with regulatory requirements – Ability to comply with regulatory requirements (e.g. Sanctions, KYC, etc.).

Standardisation – Standardisation at all levels to guarantee straight-through processing (STP), interoperability and backward compatibility.

Identity framework – Ability to identify parties involved to ensure accountability and non-repudiation of financial transactions.

Security and cyber defense – Ability to detect, prevent and resist cyberattacks growing in number and sophistication.

Reliability – Readiness to support mission-critical financial services.

Scalability – Readiness to scale to support services which process hundreds or thousands of transactions per second.

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





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

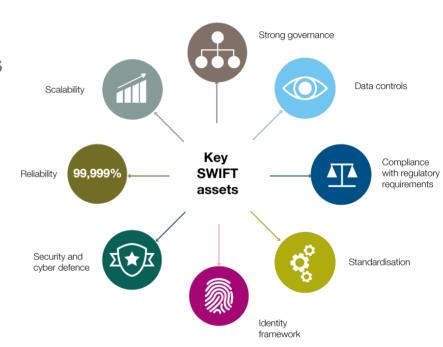


Distributed Ledger – SWIFT position





- 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**.
- SWIFT have been delivering solutions to the financial services industry for 40+ years, building out industry trusted infrastructure and services
- We will leverage our unique set of assets and capabilities around strong governance, deep standards expertise, operational efficiency, security, reliability, and reach 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. gpii 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.

