



SWIFT, New technologies and ISO 20022

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Agenda

1. **SWIFT & new technologies (DLT, APIs)**
2. **ISO 20022 for DLT & APIs**
3. **ASX as a use case**

SWIFT & new technologies (DLT, APIs)

What is a new technology?



SWIFT & New technologies

DLT



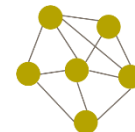
POCs

Industry consortiums
Sandbox for 3rd parties
Platform & Footprint
ISO 2022 for interoperability
Thought leadership

APIs



API consultancy
API support on SWIFTNet
New business models
API documentation
Standardization with ISO 2022
API design tools for developers



Industry requirements



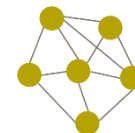
SWIFT Vision

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 can **complement** the DLT technology benefits by leveraging its assets and skills to deliver a **distinctive** DLT platform offer for the benefit of its community.



Explore with the community



Securities Services



NATIONAL
SETTLEMENT
DEPOSITORY
MOSCOW EXCHANGE GROUP



Payments

swiftgpi – Nostro reconciliation PoC

Securities

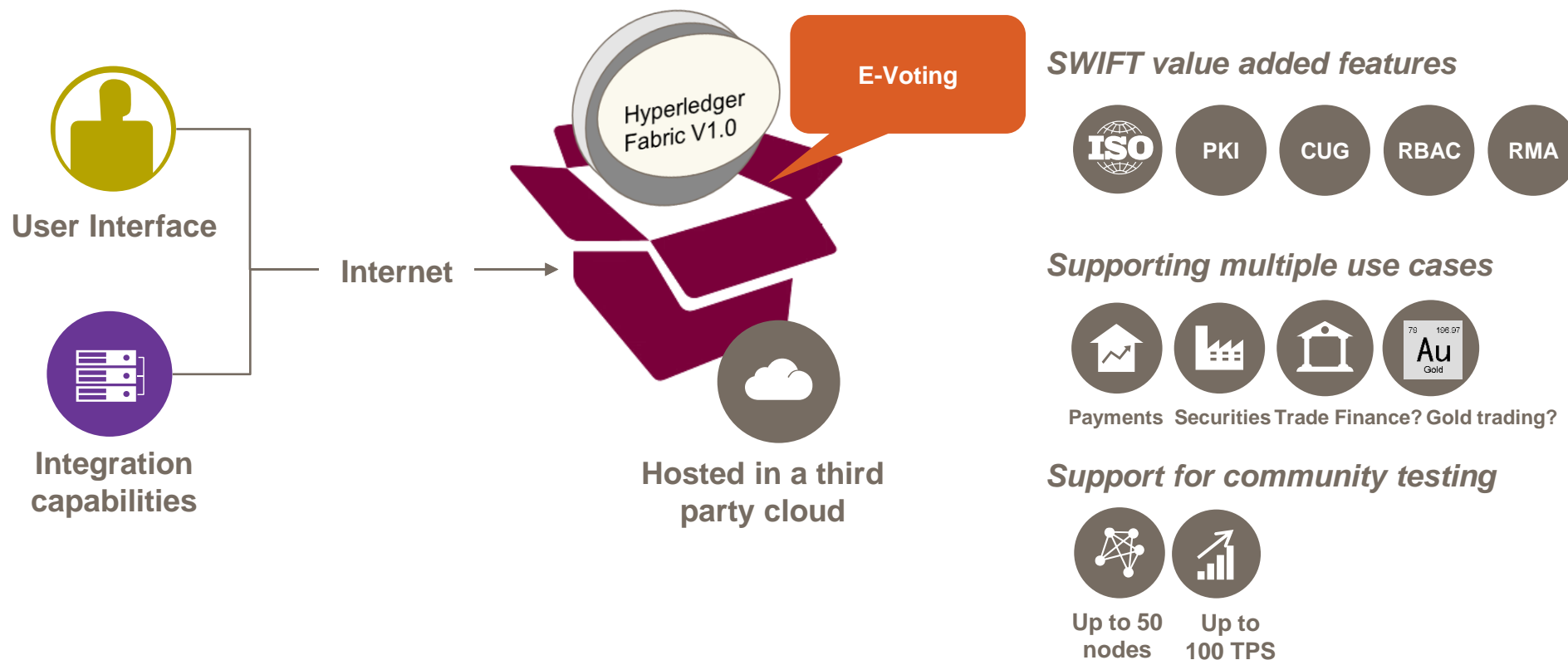
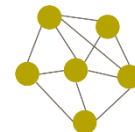
- **CSD Working Group on DLT – Voting & Digital assets**
- **Fundchain**
- **ISSA Blockchain working group**
- **E-Voting POC**

Others

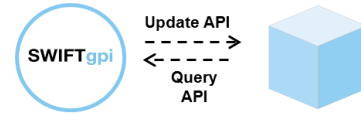
SSI repository



Hosting of service provider's e-voting solution on the SWIFT DLT Sandbox



SWIFT's API Strategy



Drive standardisation

Foster standardization at industry level reusing the ISO20022 repository in XML and JSON



Build the Platform

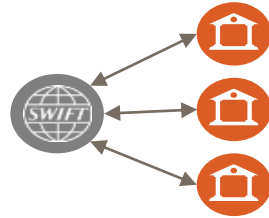
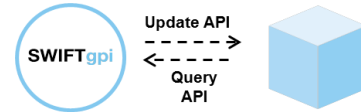
Offer API connectivity for more value added services and support APIs of third parties



Explore new business models

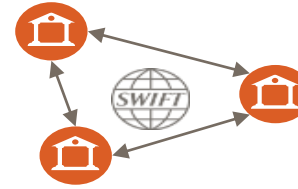
Building an environment for sustainable growth of API offerings

APIs enabled by SWIFT and future opportunities



SWIFT Data services

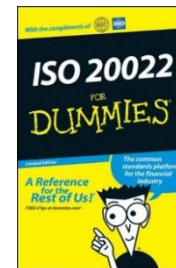
- RefData BIC, LEI, Nat. ID, IBAN, SSI
- AU NPP Addressing database
- GPI V1 tracker APIs
- GPI V2 (stop & recall, rich data, ...)
- BI APIs
- Sanctions Screening



API Support on SWIFTNet

- PSD2 Payment initiation, Account validation, Balance check
- CSD-DLT node integration
- Central Bank cash reporting (BoE & ECB)

ISO 20022 for DLT and APIs



What is ISO 20022?

single standardisation approach (methodology, process, repository)
to be used by all financial standards initiatives

Recipe to create financial standards

Business / Conceptual

- Defines **business meaning** of financial concepts, e.g., 'Credit Transfer'

Logical

- Defines e.g. credit transfer **messages**, to execute the business process

Physical

- Defines physical **syntax**, e.g. XML

Body of content

- Business models

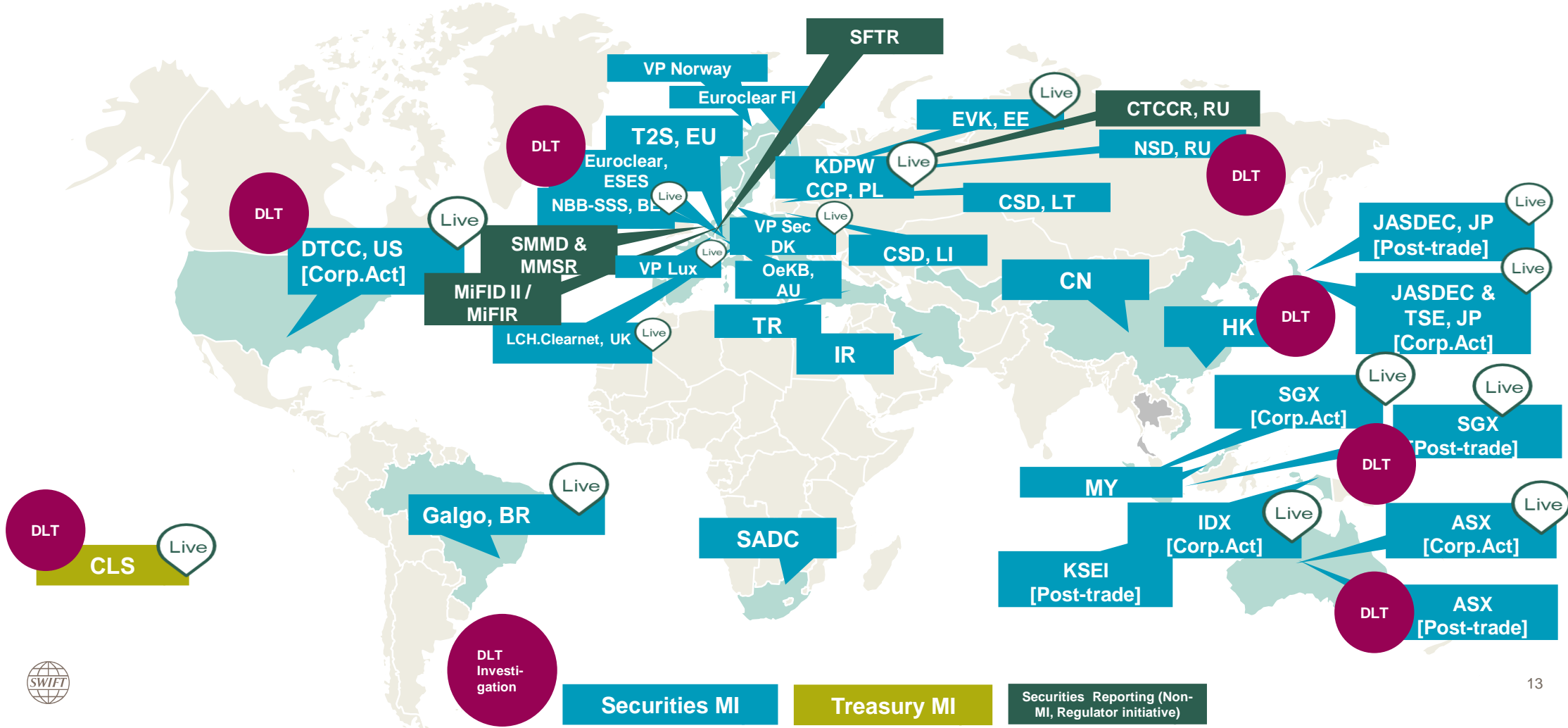
- Data dictionary

- Catalogue of messages



Can be other technologies as well (DLT, APIs...) , reusing dictionary and models !

ISO 20022 adoption and DLT investigation – Securities MI & Treasury MI – From discussion to implementation



ISO 20022 architecture and re-use

Iso 20022 as a messaging standard The logical message layer references the business layer for semantic definitions	Business / Conceptual	Defines financial concepts, e.g., 'Credit Transfer' and business processes	Shared business definitions
	Logical	Defines e.g. credit transfer messages, to serve the business process	
	Physical	Defines physical syntax, e.g. XML	
Standards for API API The logical API implementation re-uses business concepts to ensure interoperability with messaging	Business / Conceptual	Defines financial concepts, e.g., 'Credit Transfer' and business processes	
	Logical	A 'logical' implementation - defines data and behaviour based on new paradigm assumptions	
	Physical	A physical implementation using e.g. Hyperledger, Ethereum JSON	

ISO 20022 for Post Trade Services at ASX



The Drivers

- Renewal of Post-Trade System - CHES
- Adoption of global standards
- Allow for future interoperability
- Facilitate greater innovation and flexibility in delivery and time to market for new services
- Achieve operational efficiencies and reduce costs for ASX and its customers

The solution*

- Adoption of global ISO 20022 standards for messaging
- Connection either through global ISO 20022 messaging, or directly with the distributed ledger
- API channel for non-transactional data
- SWIFT provided support w.r.t:
 - High level gap analysis
 - ISO 20022 adoption roadmap
 - Detailed mapping for 477 specifications
 - New message development
 - ISO 20022 best practices

The benefits

- Adoption of international best market practices and standards
- Alignment with other ISO 20022 market initiatives
- Greater innovation through open standards and flexibility in technology
- Enables future interoperability and openness to competition
- Reduce operational costs for participants



*: Subject to change depending on ASX's public consultation for CHES replacement



Thought leadership



accenture

Position paper

SWIFT on distributed ledger technologies

Delivering an industry-standard platform through community collaboration



Information paper

Distributed Ledgers, Smart Contracts, Business Standards and ISO 20022

September 2016



Information Paper

Business Standards and Emerging Technologies



Interim Report

gpi Nostro Proof of Concept

Can Distributed Ledger Technology finally pave the way for real-time Nostro reconciliation and liquidity optimisation?

