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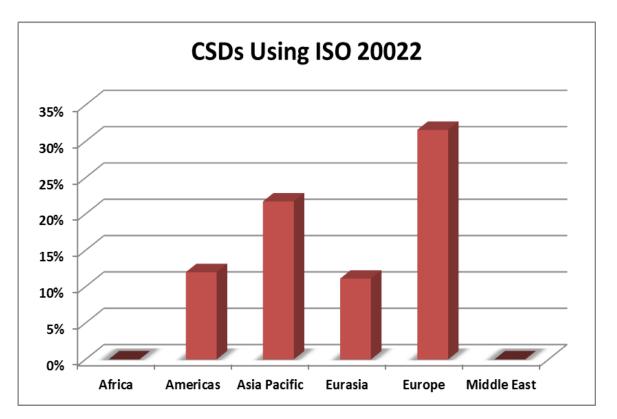
More and more CSDs adopting SWIFT ISO 20022 for settlement transactions, corporate actions or funds transactions.

Benefits

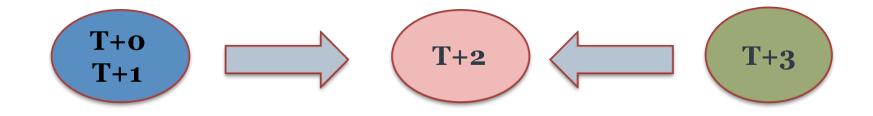
- Unifies existing standards which improves STP within a chain
- Increase possibility for interoperability between infrastructures (e.g. payment systems, other CSDs, T2S)

Challenges

- Operational burden and cost of moving entire community
- Manage co-existence with 15022 standards

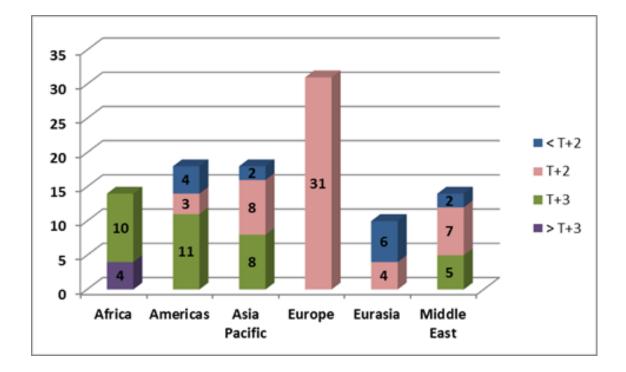


Settlement Cycle

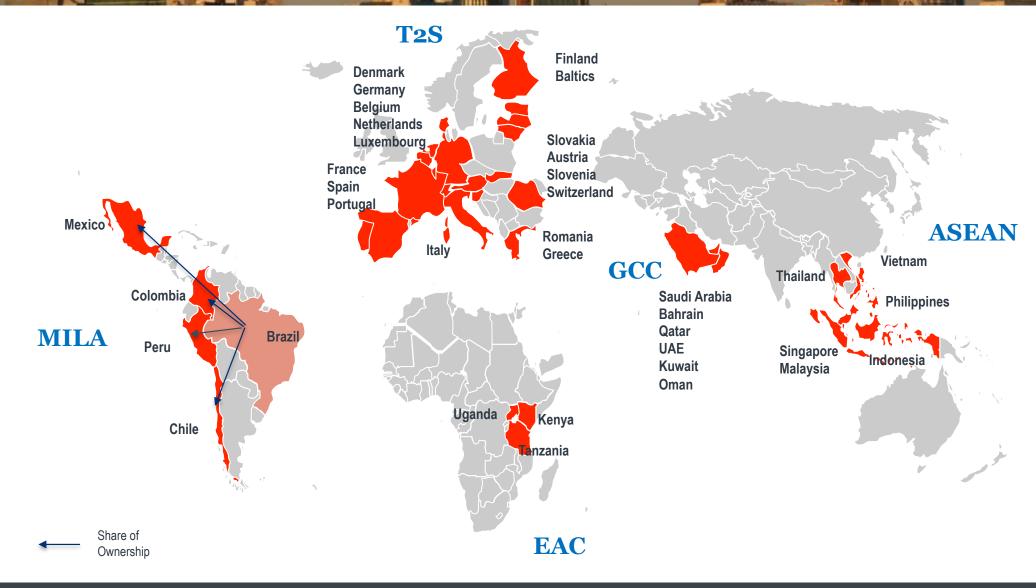


Planned Move to T+2

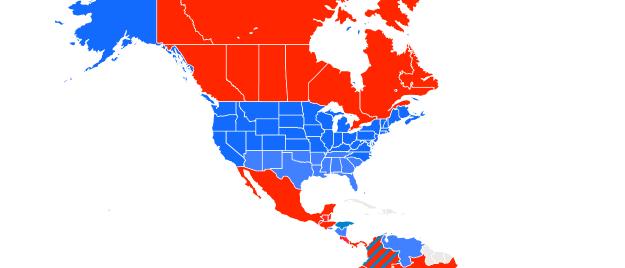
- Saudi Arabia Q2 2017
- Indonesia Q2 2017
- Peru July 2017
- USA , Canada, Mexico Sept 2017
- Thailand Q1 2018
- Japan 2019

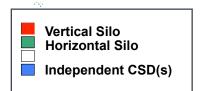


Regional Hubs

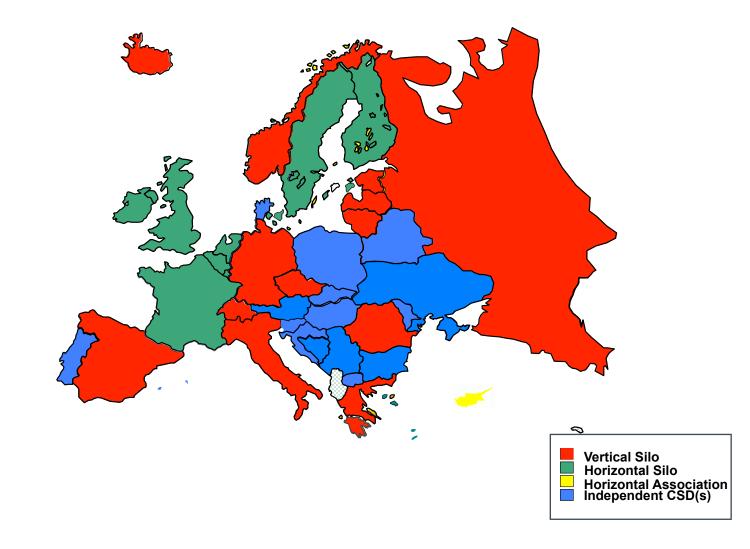












Systems and Blockchain

New core custody and settlement systems in CSDs because of:

- T2S in Europe Finland, Hungary, Baltics, Sweden
- Equator replacement (X-Stream CSD) Indonesia [Bahrain, Bermuda, Cyprus, Egypt, Jordan, Poland, Romania, Saudi, Slovenia]
- Planned replacements Chile, Colombia, Mongolia, Nigeria, Norway, South Africa, Tunisia
- Recent implementations Kenya, Oman, Uruguay



Advantages

- More efficient post-trade processes: faster settlement of transaction, no need for affirmations/confirmations and reconciliations.
- Enhanced reporting and oversight
- Greater resilience and availability
- Reduced costs
- Transparent real-time data

Challenges

- Interoperability (with legacy systems) and standardisation
- Privacy issues related to client data
- DLT may increase complexity rather than simplify financial services and processes in the short term.
- Untested technology

General consensus: immature system for the moment and big revolution for the industry in terms of regulatory changes and operational challenges.



Examples

- DTCC partnered with Digital Asset to develop a project to manage the netting process for U.S. Treasury and Agency repos using DLT.
- SIX Securities Services has developed a distributed ledger technology (DLT) based solution that covers the full bond life cycle from issuance to settlement
- The Monetary Authority of Singapore (MAS) concluded its proof-of-concept project to conduct domestic inter-bank payments using DLT on 9 March 2017
- Deutsche Bundesbank and Deutsche Börse presented a functional prototype for the blockchain technology-based settlement of securities that was jointly developed by the two entities
- The Bank for International Settlement (BIS) has published an analytical framework for distributed ledger technology (DLT) in payment, clearing and settlement.
- NSD Russia tested a voting system

Value Added Services

Capital Market Infrastructure Services

- CCP services (e.g. Singapore, Canada)
- Withholding tax (e.g. Peru, Norway, Israel)
- Shareholder registry and Transfer agency services (Chile, Colombia, Korea)
- OTC Derivatives Trade Repository (Poland, USA, Russia)
- SWIFT Gateway (South Africa, Mexico)
- Pre-Matching (Malaysia, Italy)
- Collateral Management services and partnerships (Brazil, Euroclear, Clearstream, Korea)
- Fund servicing (Norway, Korea, Lebanon)

Value Added Services

Financial Market Infrastructure

- Tax Registry and Accounting (India)
- National Lien System (CETIP Brazil)
- Supervisory activities (South Africa, BM&FBOVESPA/CETIP -Brazil)
- Proxy Voting (Turkey, Taiwan)
- Management of Pension System (Latvia, Estonia)
- Insurance and Pensions services (Korea,
- Trustee Services (Pakistan, Azerbaijan, Lebanon)
- E-KYC (India NSDL/CDSL). E-AML (Taiwan)
- Crowd-funding Repository Korea
- P-Notes Colombia

Value Added Services

Commercial

- Global Custody Services (Panama, CEDEVAL)
- Subcustody (Chile, Italy)
- Software development (Egypt, Brazil)
- Information Services (Brazil, Canada)
- Mortgage Credit Solution (Denmark)



THANK YOU