

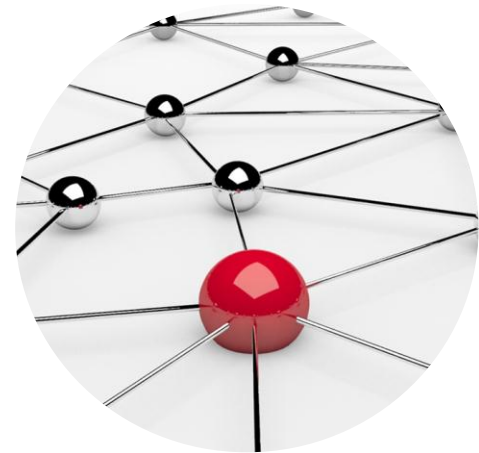


# Central Securities Depository (CSD)

## *SWIFT Offering*

*April 2014*

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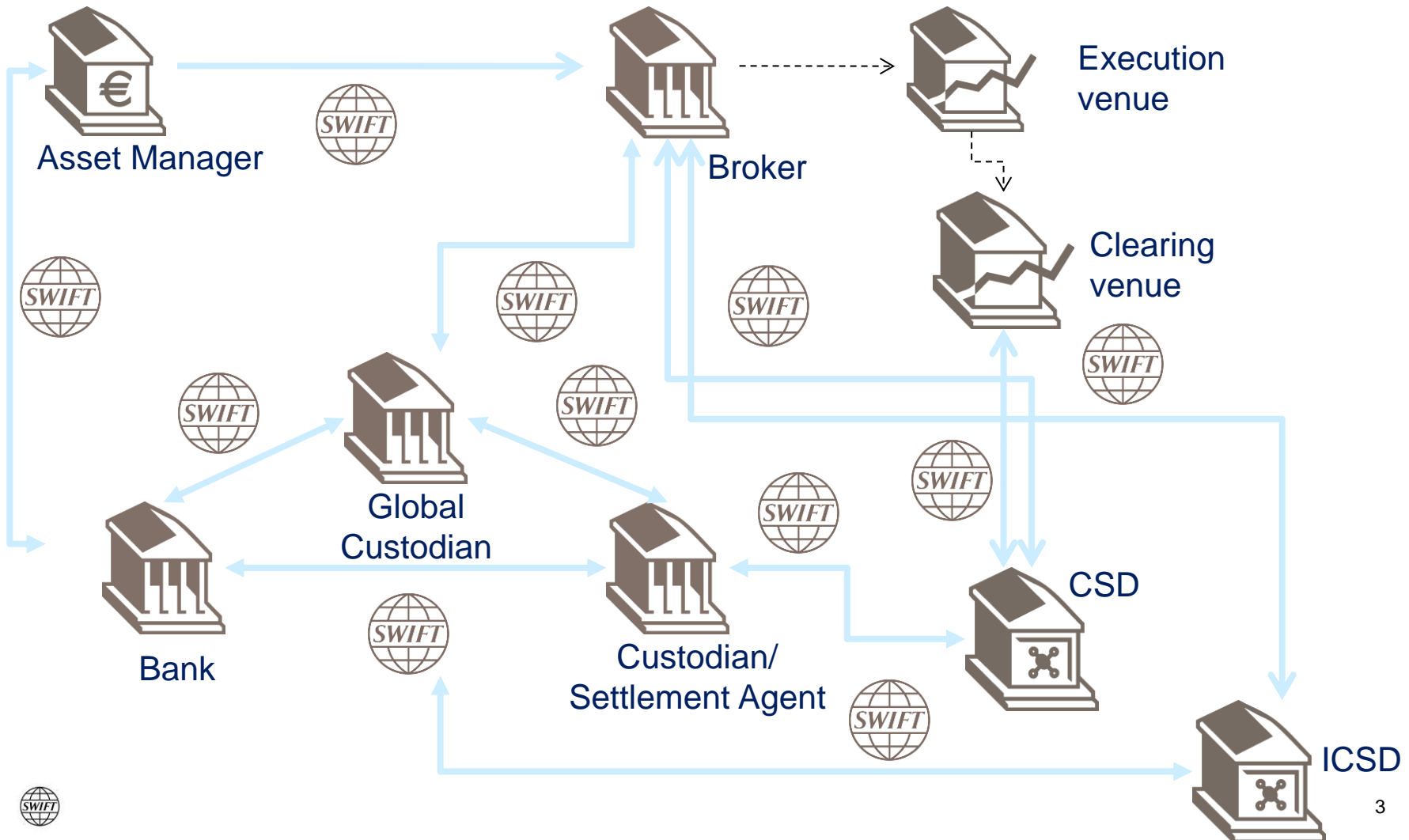


# Agenda

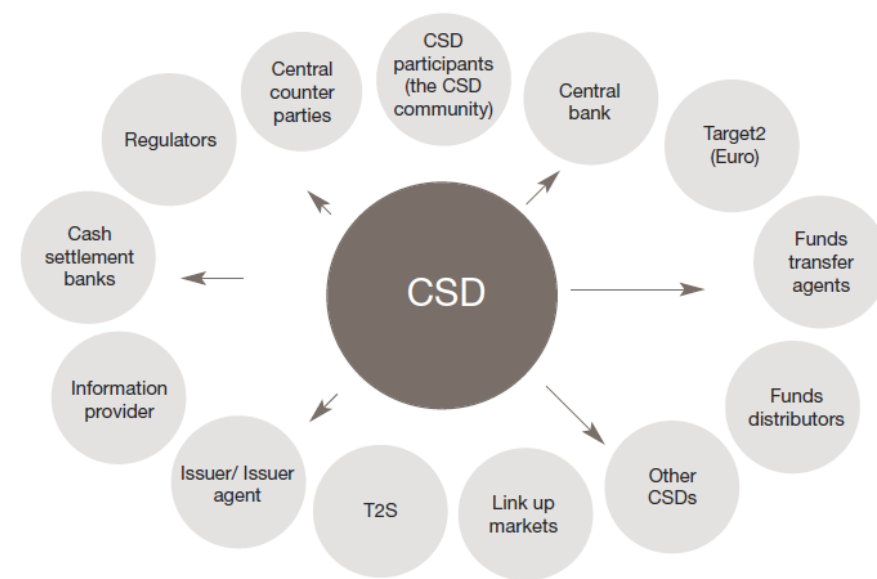
1. SWIFT in Securities markets
2. A CSD today
3. CSD Market over SWIFT
4. Drivers and trends
5. Typical flows
6. SWIFT offering

# SWIFT broadly used in Securities markets

*more than 50% of SWIFT's total traffic is securities messages (2013)*



# A CSD today...



## A KEY ROLE...

to reduce post-trade processing costs, minimise market risks, provide high quality mutualised services

## ... A COMPLEX ENVIRONMENT...

servicing multiple players with various profiles and needs

## ...AND MANY CHALLENGES...

due to commoditisation of core services, growing competitive pressure, increased regulation and regional integration

## ...PUSHING FOR INNOVATION

with CSD climbing up the value chain, developing new capabilities, maximising operational efficiency while keeping risks and costs at acceptable levels

# CSD Market over SWIFT

*High level of CSD reach around the globe*

**70** CSDs &  
**3** (I)CSDs

## North America

Canada  
USA

## Central & Latin America

Brazil  
Chile  
Mexico

## Western Europe

Denmark  
Norway  
Poland  
Sweden  
Switzerland  
United Kingdom

## Eurozone

Austria  
Belgium  
Finland  
France  
Germany  
Greece  
Ireland  
Italy  
Luxemburg  
Netherlands  
Portugal  
Spain

## Middle East

Bahrain  
Israel  
Kuwait  
Lebanon  
Qatar  
Turkey

## Africa

Egypt  
Kenya  
South Africa  
Zimbabwe

## Central & Eastern Europe

Armenia  
Bulgaria  
Croatia  
Czech Republic  
Hungary  
Kazakhstan  
Estonia  
Latvia  
Lithuania  
Romania  
Russian Federation  
Slovakia  
Slovenia  
Ukraine

## Asia Pacific

Australia  
Hong Kong  
India  
Indonesia  
Japan  
Korea  
New Zealand  
Singapore  
Sri Lanka  
Thailand



# Drivers and requirements in the MI space

Regulatory pressure

e.g. increased efficiency and transparency towards regulators (trade reporting)

Business risk mitigation

e.g. increased need for high quality collateral

Operational risk mitigation

e.g. increased resiliency, increased need for compliance data

Business interoperability

e.g. linking to other FMIs (both horizontally and vertically)

Cost efficiency

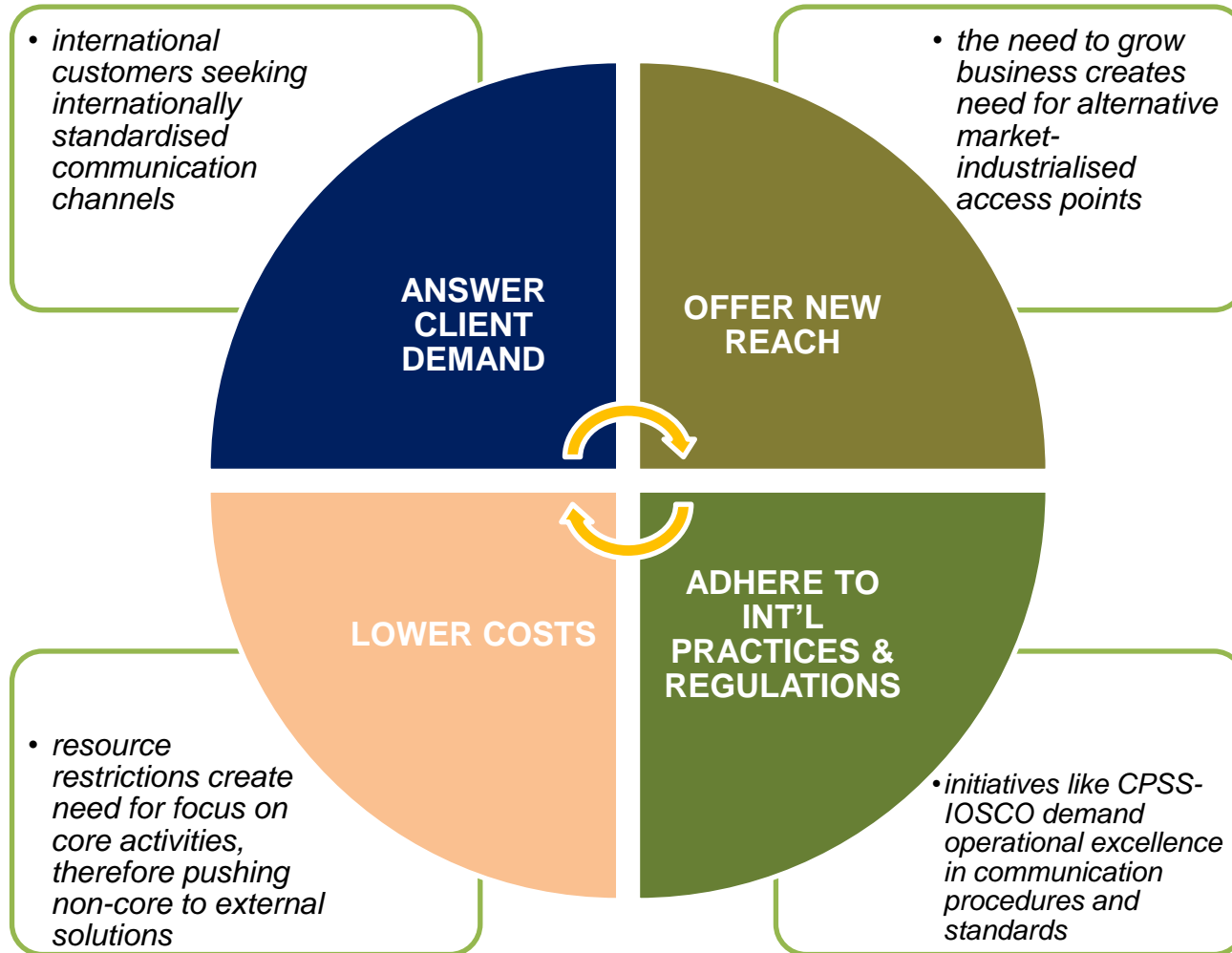
e.g. further standardisation and automation (from proprietary to ISO)

Innovation

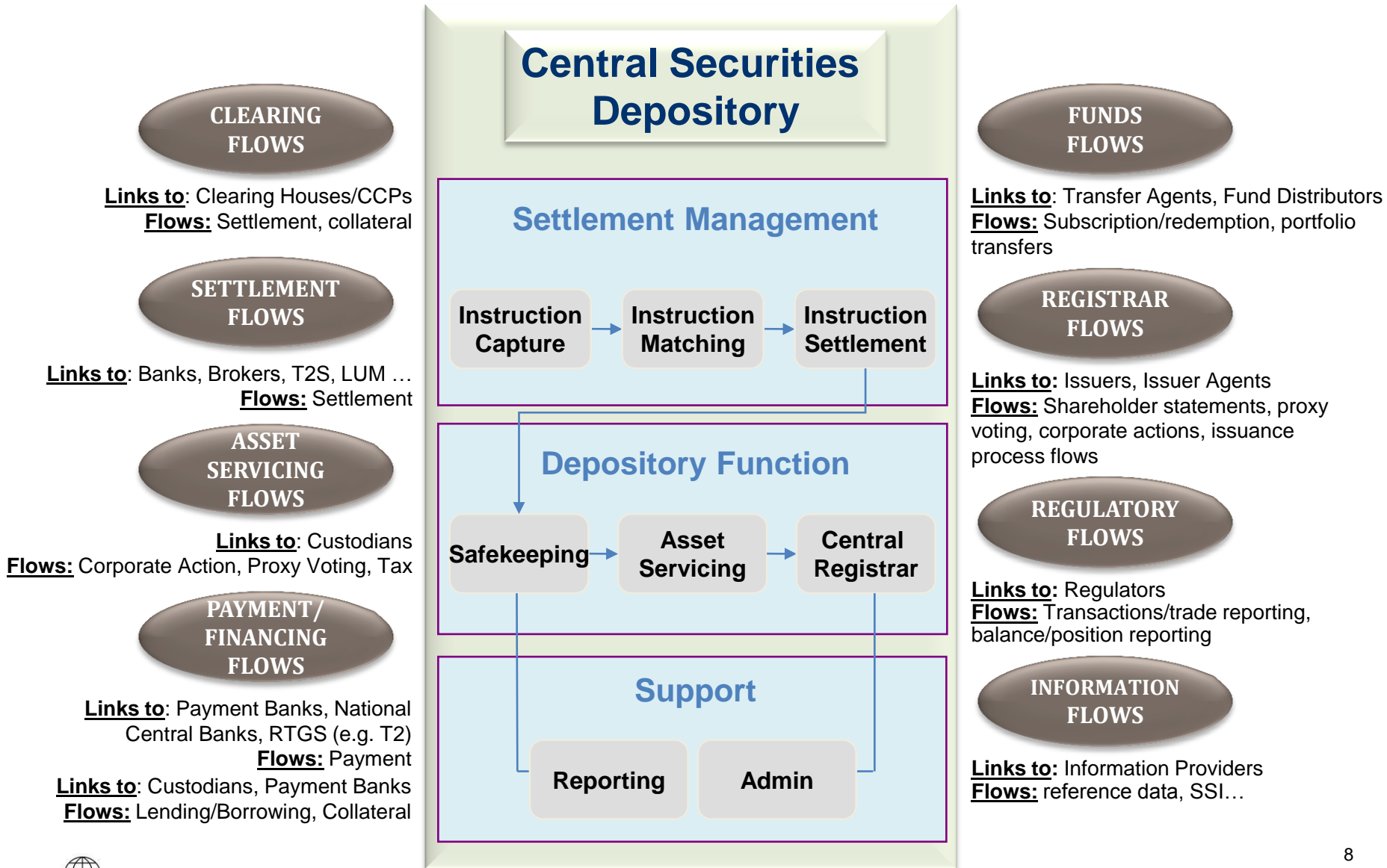
e.g. new services (like U2A, liquidity mgt, collateral), new markets (APAC, Latin Am.)

# Central Securities Depositories needs

*Focus on communication aspects*



# Typical CSD workflows





# SWIFT offering positioning

Flows	FIN/ ISO 15022	ISO 20022	FileAct	InterAct	Browse
Clearing	✓	✓	✓	✓	
Settlement	✓	✓	✓	✓	✓
Asset Servicing	✓	✓	✓	✓	
Payments	✓	✓	✓	✓	
Financing		✓	✓	✓	
Funds		✓	✓	✓	
Registrar	✓	✓	✓	✓	
Regulatory		✓	✓		
Information	✓	✓	✓		

# SWIFT solution toolkit for CSDs

## Securities Market Infrastructure

Messaging	Connectivity	Security	Standards	Applications	Services
Message protocol One-by-one message Query & response File transfer Secure web-access (Browse) Interactive message: Store and Forward or Real-Time	Interfaces (SAA, Lite2...) Integration Platform (IPLA) Messaging Hub (AMH) Messaging Gateway Messaging software Communication software Network options	Access control Closed User Groups Integrity Authentication Confidentiality Non-repudiation Resiliency Service availability Personal Identity (SNL, HSM, PKI)	MT (ISO 15022) MX (ISO 20022) Non-ISO: FpML/Prop... Market practices Validation Business modeling Standards maintenance <b>MyStandards</b> <b>Readiness Portal</b>	Validating Authorising Reporting Sanctions Screening Business Intelligence Addressing (routing) Message enrichment Matching (Accord for Securities)	<b>Consulting:</b> Design Implementation Project Mgmt Integration Testing Training Customer Support Partners Hosting Billing

A comprehensive solution



# In a nutshell

## Technology

- Network: highly-resilient, high availability, worldwide, secure, internet
- Messaging: message/file/browse, authentication, non-repudiation, optional validation
- Interfaces: industrial size to standalone, highly-resilient, high availability, secure
- Security: SWIFTNet PKI (on SWIFTNet) or 3Skey (for other comms solutions)
- Integration: Transformation, enrichment, fully integrated with interface

## Standards

- ISO standards: ISO 15022, ISO 20022
- Other FIN standards: MT for payments, FX, trade
- Tools: MyStandards, Readiness Portal

## Services

- Support: 24/7/365 follow-the-sun support, support centres in all time-zones
- Project management
- Technology support: reviews, implementation & operational
- Standards: consulting
- Business: internal reviews

# Rationale for using SWIFT

## *CSD and community perspectives*

### CSD PERSPECTIVE

- ✓ Client demand
- ✓ Reach (alternative channel)
- ✓ Int'l practices & regulations
- ✓ Standards (ISO)
- ✓ State-of-the-art infrastructure
  - ✓ Resilience
  - ✓ Security
  - ✓ Flexibility
- ✓ Lower cost (focus on core)

### CSD COMMUNITY PERSPECTIVE

- ✓ Lower cost (re-use of resources)
- ✓ Reducing project and operational risks
- ✓ Liability and support
- ✓ Re-usability of infrastructure





# Case Studies of SWIFT Implementation

# DTCC

## *ISO20022 implementation for corporate actions*

“By automating what is now a manual process, DTCC will produce operational efficiencies for its member firms and reduce the risk associated with manual instruction errors.” – Robert Epstein, VP, Asset Services, DTCC

**CA events published up to 11 hours earlier to customers with real-time ISO 20022  
Up to 50% more data elements versus legacy format**

### *The pain points*

- Align CA data with **global standards**
- **End-of-day legacy** batched file formats
- **Inefficient** CA processing with multiple proprietary files
- Documenting, **maintaining multiple standards** (ISO, proprietary)
- Meeting **international participants'** requirements
- Enable clients to manage **entire CA lifecycle** process

### *The adoption drivers*

- **Increase STP** and reduce errors/risk with single, global ISO standard
- **Real-time**, intra-day ISO 20022 msgs
- Increase processing efficiency with **single record** representation
- **Increase connectivity options** particularly for international players
- Introduce configurable browser

### *The role of SWIFT*

- Provided **standards expertise** facilitating ISO20022 implementation
- MyStandards: **multiple standards management** and release maintenance
- Additional SWIFT channel enables **resilience and choice** (re-use of SWIFT for intl. players)
- Provided CA data **distribution channel** to non-DTCC clients



# Clearstream Banking Frankfurt

## *Adding international communication access*

***Opening up to SWIFT, provided CBF with an additional communication channel allowing domestic and international customers to use international standards and technologies used with other counterparts.***

### *The pain points*

- CBF's communication access was considered very proprietary
- Mainly used for domestic players
- Need for international (ISO) standards
- Customers requesting to support SWIFT network/technology

### *The adoption drivers*

- Adopt internationally recognised communication technology
- Support ISO standards
- Answer customer requests for alternative channel
- Expand reach beyond domestic market

### *The role of SWIFT*

- Provider of standardised messaging service
- ISO message standard expertise
- Premium customer support for critical market infrastructures



# JASDEC

## *International infrastructure based on ISO standards*

***Moving away from a complete proprietary communication infrastructure and local standards only usable within the domestic environment, to an international accepted channel based on ISO standards***

### *The pain points*

- Very proprietary communication infrastructure reliant on local technology
- No documentation in English, support only possible for locally-based offices
- Not meeting *international participants'* requirements
- Existing service not in line with international best practices

### *The adoption drivers*

- Need to internationalise the service (domestic country priority)
- Alignment with international best practices for use of messages standards
- Real-time, intra-day ISO 20022 messages
- Increase connectivity options particularly for international players

### *The role of SWIFT*

- Provided standards expertise creating new standards & facilitating ISO20022 implementation
- SWIFT channel enabling resilience and choice (re-use of SWIFT for international players)
- International support in various languages throughout the world





# Euroclear Netherlands

## *Replacing faulty technology*

***Euroclear Netherlands' back-up procedure used to be 'take your bike and bring the disk over'. In 9 months time a legacy file-transfer service was migrated to SWIFT FIN.***

### *The pain points*

- Existing file-transfer service was faulty and had resilience issues
- No proper back-procedures in place
- No real support for non-domestic customers
- GUI-solution running on separate platform

### *The adoption drivers*

- Need for solution with very high availability
- Improve scalability of communication infrastructure
- Open up to non-domestic participants
- Integrate GUI-solution

### *The role of SWIFT*

- Provider of standardised messaging service (FIN)
- Premium customer support for critical market infrastructures
- GUI-solution integrated on SWIFTNet Browse

# Euroclear UK & Ireland (ex-CREST)

## *Outsourcing of communication infrastructure*

**Since 1995, SWIFT has been the provider of choice for communication with the UK & IE CSD, market share is around 65%. The service has been evolving with every technology upgrade to keep in line with the latest communications requirements.**

### *The pain points*

- After failure of the TAURUS project, it was decided to focus on core functionality only and outsource communication infrastructure

### *The adoption drivers*

- Working with domain-specialists in communication
- Keep strong control over cost (project & running)
- Ability to serve small and large customers, domestic and international customers
- Need for long-term archival and hardware encryption

### *The role of SWIFT*

- End-to-end project management
- Messaging, file-transfer and GUI access provider
- First infrastructure-hosting at CSD-side, later moved to SWIFT Ops centres
- Special helpdesk and IT support
- Purpose-build long-term archival and introduction of hardware encryption