



The Singapore Exchange (SGX) embraces ISO 20022 for its new Post-Trade System



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Nico Torchetti

Head of Market Services, Equities & Fixed Income

Singapore Exchange is Asia's leading and trusted market infrastructure, operating equity, fixed income and derivatives markets to the highest regulatory standards. As Asia's most international, multi-asset exchange, SGX provides listing, trading, clearing, settlement, depository and data services, with about 40% of listed companies and 90% of listed bonds originating outside of Singapore.

SGX is the world's most liquid offshore market for the benchmark equity indices of China, India, Japan and ASEAN and offers commodities and currency derivatives products. Headquartered in AAA-rated Singapore, SGX is globally recognised for its risk management and clearing capabilities. For more information, please visit www.sgx.com.

Background

In 2012, SGX embarked on a journey to modernise its clearing, settlement and depository systems, moving to real-time message based communication and adopting international standards.

The new post-trade system (PTS) will be implemented in phases with phase 1 focusing on its clearing, settlement and payment APIs and expanding the scope in subsequent phases to include other business areas such as depository, corporate actions, reference data and collateral management.

Phase 1 of the new post-trade system which went live in January 2016 offers a wide range of benefits to SGX's securities clearing members:

API-based connectivity to allow flexibility for members to adopt “best of breed” solutions for their clients
Streamlined operational processes and straight-through-processing capabilities
Adoption of international best practices and standards, namely ISO 20022 for settlement processing.

All SGX's securities clearing members have started to migrate to ISO 20022-based settlement processing between July 2016 and September 2017.

In the Corporate Announcements processing space, SGX first revamped its SGXNews and introduced ISO 20022 for Corporate Announcements dissemination service in March 2014, while ISO 15022 is also available for the service.

Benefits of engaging SWIFT Standards

- Customised and efficient workflow
- Faster time to market
- Facilitation of national market practice group and support in the adoption of best practices
- Information sharing on global and regional trends on industry development
- Quality support in ISO 20022 development
- Build a centre of standards expertise in your organisation
- Engagement with the SGX user community



SGX's ISO 20022 journey: Key drivers and considerations

SGX started its ISO 20022 project in 2012. SWIFT was engaged to conduct a feasibility study and review of the post-trade processes and the deployment of ISO 20022 messages and interfaces across the entire post-trade workflow (clearing, settlement, depository and corporate actions). The aim is to modernise the SGX infrastructures, allow members the choice of how they structure their clearing-settlement-custody business models, how they operate (insourced or outsourced), what applications they prefer and what network they prefer to connect to SGX, e.g. via SWIFT.

One of the key enablers for this ambitious objective was the adoption of international standards and best practices. SGX believed that the key benefit of ISO 20022 is its ability to achieve an end-to-end business model

and transaction cycle across payments, securities, investment funds and specific trade transactions. ISO 20022 also uses structured XML as its underlying syntax, allowing flexibility and making implementation and data consumption easier. In addition, implementing ISO 20022 for its securities settlement would enable greater automation and straight-through-processing, and a consistent messaging standard will help reduce data processing risks.

In evaluating the international standards ISO 15022 and ISO 20022, ISO 20022 was chosen as the messaging standard because of the growing ISO adoption around the world and its extensibility to other business domains and areas. The ISO 20022 standard aligns well with SGX's post-trade strategy and future-proofs SGX's messaging systems, providing a consistent data structure across all its services and customer segments.



We are delighted to have now gone live on API-based infrastructure and ISO 20022 messaging standard for our post-trade modernisation programme. This puts our CCP and CSD in line with global market practices, facilitates greater real time straight-through-processing and deliver improved functionality, performance, flexibility and scalability for our post trade services.

Nico Torchetti

Head of Market Services, Equities & Fixed Income

Aug 2012

Completed post trade business and technical processes review and ISO 20022 feasibility study

21 Aug 2015

Finalised and published SGX ISO 20022 technical specification v4.2 (for testing)

9 Nov 2015

SGX's SWIFT infrastructure for Phase 1 supporting ISO 20022 for settlement and FIXML for clearing messages go live

31 May 2016

Finalised and published SGX ISO 20022 technical specifications v4.3 (for launch)

1 Jul 2016 (go live) - Sep 2017

Phase 1 of PTS

2012

2013

2014

2015

2016

2017

13 Aug 2013

Officially started the new PTS (Phase 1) project

30 Aug 2013

Published SGX ISO 20022 technical specifications v1.0

Milestones for 2017 and beyond

SGX and members to complete PTS Phase 2 (depository system) implementation

Determine the SGX ISO 20022 version update processes

The implementation with SWIFT

SWIFT has been supporting SGX's post trade system renewal project since the beginning by providing specialist consulting services, training and technology to assist SGX in the process.



SWIFT's Standards and the Securities Markets team have been involved in the SGX's ISO 2022 adoption project since our deployment in Singapore in January 2012. The creation of a post-trade blue print, ISO 2022 standards specifications reviews, community trainings, ISO 2022-15022 mapping tables and many other deliverables have kept us busy for the last 4 years. We are glad to be contributing our expertise in the background to this important Singapore market modernisation initiative. And this is only the beginning in APAC with many more securities market infrastructures in the region embarking on the ISO 2022 journey with us.

Alexandre Kech

Head of Securities & FX Markets APAC
at SWIFT

This included a detailed impact assessment and gap analysis review of SGX's business processes and technical applications and flows, outlining a multi-year implementation roadmap for tactical and strategic changes. Additionally, SWIFT provided recommendations to SGX on how to further standardise and automate proprietary or fax based business flows. SGX also worked closely with SWIFT in designing and customising their ISO 2022 specifications for its first phase. Twenty five ISO 2022 messages were documented on MyStandards by SGX covering securities settlement, securities management and cash management. More messages could be developed in the second phase depending on how the project evolves.

Community engagement

In defining a new model for SGX's clearing and settlement system, SGX worked closely with SWIFT, who is also the ISO 2022's Registration Authority and with the Singapore National Market Practice Group (SG NMPG) to develop the SGX technical specifications. Throughout the whole project, SGX has demonstrated a commitment to standardising its post-trade processes through the use of ISO standards. SGX recognises the benefits its participants can derive from such standardisation work and continues to work with SWIFT and the Singapore National Market Practice Group (SG NMPG) in this regard. SGX will continue to engage its participants as it moves towards phase 2.

As a result of these efforts, SGX members now have an option of either SGX's MPLS network or SWIFT to connect to SGX. ISO 2022 trainings were also provided by SWIFT to SGX and its community to help them get familiar with the main principles of the standard and prepare them for implementation.



SWIFT and SGX worked in close collaboration on this project to enable SGX SWIFT infrastructure to support ISO20022 messages and to provide securities users with an agile, future proof settlement platform. SGX securities clearing members have successfully tested ISO 20022 in the context of the new SGX post-trade settlement system, as well as FIXML messages for clearing. ISO 20022 is consistently selected by a large number of securities market infrastructures as the preferred messaging standard in the settlement space that enables and supports new industry initiatives and new solutions.

Simona Catanescu

Account Director for SGX at SWIFT

SGX and MyStandards

The wide scope of SGX's ISO 20022 implementation also means that there were a large number of message specifications. These specifications needed to be documented, shared and reviewed internally, as well as published to the user community for implementation. The related standards management can be quite time and resource intensive and guaranteeing consistency between documentation and implementation can be a challenge. This is why SGX has chosen MyStandards as the single source for documenting their message specifications.

MyStandards is a collaborative web application that centralises consistently defined specifications in an industry repository and offers a set of features to make the best collective use of this structured information. By using MyStandards, SGX was able to share their specifications in a clear and consistent way, enabling its users to easily analyse and consume the information.

Today, SGX is sharing more than 20 Usage Guidelines with their Depository Agents and Trading and Clearing Members. This includes 14 securities settlement messages, 6 securities management messages, as well as 4 payments initiation and 1 cash management messages. Members that are interested in understanding the functionalities and restrictions of the ISO 20022 specifications as defined by SGX can request access via MyStandards.

Benefits of using MyStandards for SGX and its community

- One-stop access to SGX's guidelines: analyse, generate, publish, and download all messages specifications in a central location
- Web based platform: easy to operate and easy to browse
- Consistent and familiar formats (online, PDF, excel): reducing clients' efforts in analysing and implementing SGX's specifications

SGX's commitment to ISO 20022

SGX is fully committed to the usage of ISO 20022 to streamline data communications and transaction processing in different business areas. Moreover, in order to stay aligned with global adoptions of ISO 20022 and best practices when it comes to the usage and maintenance of the messages, SGX has endorsed SWIFT's ISO 20022 Harmonisation Charter.

SWIFT Standards' Harmonisation Charter sets out a series of measures designed to drive harmonisation of the rollout of ISO 20022 along 3 principal axes:

- Sharing of information
- Adherence to market practice, as well as message version and release management
- Publishing information on a common and global platform: MyStandards

As part of this commitment SGX has made information about their ISO 20022 usage visible so that all MyStandards users can now see which ISO 20022 services are offered by SGX, the respective ISO 20022 message types and versions per service, as well as the release timeline.

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About ISO 20022

ISO 20022 is a global and open standard, not controlled by a single interest, open to anyone in the industry who wants to participate, and free for anyone to implement on any network. In addition, it has mature and fully established processes for maintenance, evolution and governance. ISO 20022 is a methodology that can be followed to create financial messaging standards. In addition, ISO 20022 is a body of 'content' — meaning a collection of 'message definitions' and a process of how these can be applied to specific business domains. ISO 20022 brings a range of benefits to the community, including availability of rich and comprehensive information, interoperability and harmonisation, accommodation for both global standards and local usage and it allows for easy data consumption. SWIFT will continue to support FIN MT standards, and is ready to serve communities moving to ISO 20022.

About SWIFT

For more information about SWIFT, visit www.swift.com.

MyStandards:
mystandards.swift.com