

MEETING MINUTES

FORUM: APAC SMPG

DATE AND TIME: 6 OCTOBER 2015, 9AM – 2PM

LOCATION: SINGAPORE EXCHANGE (SGX), 2 SHENTON WAY, #02-02 SGX CENTRE 1, SINGAPORE.
MEETING ROOMS ACADEMY 1 AND 2.

ATTENDEES:

| Name | Institution | Country |
|------------------------|---|-------------|
| Suresh Chinnappa | National Australia Bank | AU |
| Evelyne Piron | SWIFT | BE, SMPG |
| Jacques Littré | SWIFT | BE, SMPG |
| Janice Chapman | SWIFT | BE, SMPG |
| Li Ming Young Ricky | Bank of China (Hong Kong) | HK |
| Vicky Yiu | HSBC Hong Kong | HK |
| Hiroaki Okumura | The Bank of Tokyo-Mitsubishi UFJ Ltd. | JP |
| Rei Kanechiku | Japan Securities Depository Center, Inc. (JASDEC) | JP |
| Yusuke Kobayashi | Japan Securities Depository Center, Inc. (JASDEC) | JP |
| Mieko Morioka | SWIFT | JP |
| Charles Boniver | Co-Chair of SMPG IF WG. RBC I&TS. | LU |
| Christine Strandberg | SEB | SE, SMPG |
| Rudy Ingkiriwang | Citibank | SG |
| Phoebe Chng | Clearstream Banking | SG |
| Cindy Seow | DBS Bank Ltd | SG |
| Renny Koh | DBS Bank Ltd | SG |
| Cherine Yeo | Deutsche Bank | SG |
| Kuek Shi-Hui | Deutsche Bank AG Singapore Branch | SG |
| Lau Chee-Kin | Deutsche Bank AG Singapore Branch | SG |
| Serene Choi | Deutsche Bank AG Singapore Branch | SG |
| Paul Marchant | DTCC (Omgeo) | SG |
| Ganesh Iyer | HSBC Institutional Trust Services (Singapore) Limited | SG |
| Tony Lewis | HSBC Institutional Trust Services (Singapore) Limited | SG |
| Lai Kok Leong | SGX | SG |
| Shimona Wong | SGX | SG |
| Anthony Sim | Standard Chartered Bank | SG |

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|----------------|---------------------------------------|-------------|
| Chueh Jyi-Chen | Standard Chartered Bank | SG |
| Garry Chan | Standard Chartered Bank | SG |
| Harry Rana | SunGard | SG |
| Alexandre Kech | SWIFT | SG |
| Cindy Foo | SWIFT | SG |
| Karla Mc Kenna | Citibank | US, SMPG |
| Le Sy Hoang | Standard Chartered Bank Vietnam (Ltd) | VN |
| Trung Kien Chu | Vietnam Securities Depository | VN |

| AGENDA |
|---|
| <ol style="list-style-type: none"> 1) Opening remarks and updates on SMPG and RMPG 2) Market Infrastructure Initiatives in APAC: SGX's Experience/Journey in the Implementation of ISO 20022 3) Funds in APAC 4) Market Infrastructure Initiatives in APAC: Moving from Proprietary to ISO 15022 Standards by VSD 5) Offshore RMB Market and Shanghai-Hong Kong Stock Connect Updates 6) SWIFT MyStandards and NMPG – Usage, best practices and how to accelerate adoption 7) APAC RMPG Discussion: <ul style="list-style-type: none"> ➤ Round-the-room updates by participants ➤ AOB |

| MINUTES |
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| <p>1) <u>Opening remarks and updates on SMPG and RMPG</u></p> <p>Cindy Foo kick-started the meeting by going through the agenda with the participants at the APAC RMPG (the 'Group') Physical Meeting 2015.</p> <p>Karla Mc Kenna, the SMPG Chair presented on the Global SMPG and its updates, in summary as follows:</p> <p>(i) SMPG membership</p> <p>The SMPG members consist of representatives from National Market Practice Groups (NMPGs) globally, Market Infrastructures and affiliated organisations.</p> <p>There have been activities in the African region in the recent years where Kenya and Mauritius have established their NMPG. Next on the list are Nigeria and Ghana which are expected to set up their NMPG next year.</p> <p>(ii) SMPG role</p> |

The SMPG focuses on harmonising market practices across countries. There is bi-directional communication between SMPG and NMPGs resulting in a free exchange of information. The ultimate goal is to achieve standardization in market practices and message formats globally. SMPG will also continue to promote Straight-Through-Processing (STP).

(iii) SMPG governance

The organisation structure and by-laws of the SMPG were shared with the Group. The Steering Committee comprises of a Chair, Vice-Chair and 6 Regional Directors (2 from each region of EMEA, APAC and US). SWIFT are the facilitators of SMPG since the start of the group. Within the local NMPGs, there is ideally a well-balanced mixture of players from the Securities market comprising of brokers/dealers, investment managers, custodians, CSDs, regulators and vendors.

The SMPG has revised the by-laws of the group over the years and the recent changes are largely related to the changed roles of market infrastructures due to the adoption of ISO standards like ISO 20022.

(iv) Key success factors for NMPGs

The success factors for NMPGs were shared with the group along with the challenges faced eg. bringing the members together for and maintaining regular meetings, maintaining enough participation from members etc.

(v) Highlights of SMPG WG work items

All 3 of the SMPG WGs – Settlement and Reconciliation (SnR), Corporation Actions (CA) and Investment Funds (IF) have provided a summary of their respective achievements and discussion topics. Increasing complicated topics are being discussed within the SnR WG eg. collateral matters. IF WG is the newest WG among the three and the only one established after the start of ISO 20022. Therefore, the IF WG's market practices are only published in ISO 20022. The CA WG continues to harmonize data elements used in the CA space and messaging. The group also continues in their work to identify CA events in the global market space.

(vi) SMPG – the future

SMPG will continue to promote STP which is the core of the group, to extend their reach into other regions and countries so as to achieve a truly global representation. The group will continue to try to harmonise standards and also factor in new challenges including the focus on data and information, regulation and to remain relevant and useful for the community.

Next, Cindy, the APAC RMPG facilitator provided a refresher on the background of the Group by explaining its purpose and organisation structure. Moving on, the accomplishments of the Group were shared with the meeting participants which are summarised as follows:

- Since its establishment in June 2012, the Group has been holding regular bi-monthly calls and yearly physical meetings
- The Group has published its by-laws on the www.smpg.info website
- The Global IPO Market Practice (MP) and Global Depository Receipts (DR) MP which first originated from APAC have expanded into global market practices which were reviewed and discussed for several rounds at previous SMPG meetings. Both MP documents are now officially published on the SMPG website. The IPO MP first originated from IN while the DR MP originated from KR.
- Another APAC MP is currently work in progress. It is the Thailand Asset Conversion MP which was created with the objective to achieve standardisation in the messaging practice surrounding the instruction and completion of a conversion between local and foreign assets with a focus on the key

players involved – Custodian and Investor. The Group has been working with the TH Custodian Club members on this MP.

- Over the past years, the Group has discussed many interesting and useful topics. Examples include Cybersecurity and Cyber Risk from the Financial Services Perspective which was presented by Rebecca Turner Lentchner from ASIFMA and sharing of information/experience on the ISO 20022 implementation journey. The latter was a request raised by a Group member at the APAC RMPG Physical Meeting in 2014 and also set as an objective of the Group for 2015. The objective was met with presentations by JASDEC and ASX on their ISO 20022 implementation experience as well as by SGX at the physical meeting this year.
- A recap was provided on the Group's yearly physical meetings held to date since its establishment and it was highlighted that the physical meetings do not necessarily have to be held in a SWIFT office but the Group welcomes members to volunteer to host the meeting. By 'hosting' the meeting, the Group only needs a meeting venue (room) with a capacity big enough to accommodate its members. The APAC RMPG would also like to express thanks and appreciation to SGX for hosting this year's physical meeting. For the physical meeting next year, the Group looks towards members from VN, AU and JP etc to be the host.
- Following the establishment of APAC RMPG, the APAC CA WG has also been launched.
- One of the Group's objectives is to raise the level of participation by APAC at the Global SMPG meetings where APAC members are encouraged to attend the global meetings especially when they are held in APAC. The accomplishment of this object is evident from the increased registration and attendance by APAC participants in the second SMPG meeting this year which was held in SG.
- The accomplishments from APAC NMPGs' perspective were also shared where many NMPGs are now stable and active and have published or working to publish their SnR and CA MPs on the SMPG website and MyStandards.
- The Group continues its work towards establishing NMPGs in ID, TH and PH next with tentative plans to set up the NMPGs next year.

The presentation concluded with a heat map representation of the current status of NMPGs in APAC region.

The presentation slides on updates on SMPG and RMPG will be available together with these meeting minutes and posted on www.smpg.info in APAC RMPG folder.

2) Market Infrastructure Initiatives in APAC: SGX's Experience/Journey in the Implementation of ISO 20022

Lai Kok Leong, Vice President, Head of Depository and Settlement Post-Trade at SGX presented a case study about SGX's journey in ISO 20022 implementation. The presentation slides will be available together with these meeting minutes and posted on www.smpg.info in APAC RMPG folder.

A summary of the presentation and discussions is as follows:

- SGX was set up in 1973
- There are 2 separate entities under SGX – the Stock Exchange and CSD (CDP). The clearing house and the depository are housed together as 1 entity.
- A historical background of SGX was shared – SGX operated from 1980s to 2010s under closed environment architecture from brokers to SGX which worked well in the past. However, the closed framework does not work well for international members and when SGX was trying to open up to

foreign investors.

- As a result, SGX embarked on a modernization program to be able to support different operating models and platforms, have a clear delineation of clearing house and CSD services, modernizing the communications protocol and adoption of international standards
- Timeline of the project spans from 2012 – 2017 and milestones along the timeline were shared. At the beginning, insurance of “coexistence” was sought to extend the shelf life of the existing system (as part of a stabilisation policy) in preparation for the migration. A whole SGX’s post trade processes review and the feasibility of ISO 20022 deployment was completed together with SWIFT on August 2012. The first ISO 20022 specifications were published in August 2013 and they were finalised in August 2015. Members will go live on phase 1 project from July 2016 – March 2017. SGX will embark on phase 2 project next. The need and importance of standardising market practices as well as data is emphasised.
- The list of ISO 20022 messages used by SGX, rationale behind the choice of ISO 20022 and key considerations in its implementation were shared.
- Among future tasks, SGX is looking at rolling out incremental service improvements eg. for CA.
- Jyi Chen (SCB) added that SGX is using MyStandards to publish its specifications. Kok Leong explained that MyStandards is a very useful tool which can help to validate the conformance of the specifications to the base standard messages and data elements. Alexandre Kech (SWIFT) supplemented that besides conformance to the base messages, SWIFT Standards also helped to advise SGX to apply the standard best market practices.
- Jacques Littre (SWIFT) pointed out that the current list of SGX ISO 20022 messages does not include CA messages. Kok Leong explained that these are still under discussion with the SG NMPG CA WG.

3) Funds in APAC

Alexandre Kech, Head of Securities Markets, APAC at SWIFT presented on Funds in APAC from an operations point of view and shared some trends in the funds industry in APAC. The presentation slides will be available together with these meeting minutes and posted on www.smpg.info in APAC RMPG folder.

The key points of the presentation and discussions are as follows:

- Common funds flows occur between the Transfer Agent (TA) and distributor, sometimes with the CSD in the middle. APAC markets with such a flow are KSD (KR), HKMA (HK) and TDCC (TW). ID is also looking at having such a flow.
- CSDs are expanding their role in the funds world
- Funds migration (from ISO 15022 to ISO 20022) status were shared
- Funds processes in APAC region is still quite manual which will not be sustainable in future as business grows with the funds passporting initiative. As a result, trends in automation and standardization are observed to be taking place.
- Among the fund passporting programs in APAC, the PRC-HK Mutual Recognition is noted to be the most advanced and developed. The ASEAN fund passporting initiative is currently not active.
- Collaboration between CSDs is needed for cross-border funds flows
- Current funds platforms which are live in APAC are TW, HK, KR, AU and CN. Markets which are

implementing or in the exploration stage are VN, ID, SG and MY.

- KR (KSD) is launching a new funds group in November. SWIFT will act as advisers providing ISO 20022 expertise. The group will conduct a study and develop and harmonize an operational framework for funds processing in APAC. Market players who have agreed to participate in the group are Bursa MY, IN, IRN, CN, HK, JP, KR, ID, SG, TW and TH.
- Ganesh (HSBC) questioned if SMPG will be part of the new funds group. Alex informed that the answer is no because the group's participation at the current stage is only by CSDs and limited parties as advisers.
- The group may be looking at using ISO 20022 as a common neutral language in the funds framework

4) Market Infrastructure Initiatives in APAC: Moving from Proprietary to ISO 15022 Standards by VSD

Trung Kien Chu from IT division at VSD presented on VSD's move from proprietary standards to ISO 15022 standards. The presentation slides will be available together with these meeting minutes and posted on www.smpg.info in APAC RMPG folder.

A summary of the key points of the presentation and discussions is as follows:

- An introduction to VSD - VSD is the only CSD in VN
- VSD is now participating in a number of industry groups eg ACG, ABMF
- The proprietary formats which were used by VSD were local and not public to depository members (DM)
- In the proprietary environment, DMs connect to VSD via leased line
- There were many disadvantages with the proprietary environment and message formats. Hence, VSD began working with vendors and SWIFT to develop the solution of adopting ISO 15022 message standards (core to core business).
- In the new solution, the VSD terminal will be eliminated and there will only be the VSD Gateway Client
- The new solution brings many benefits
- Phase 1 of using ISO 15022 message format started on 1st July 2015
- VSD chaired the fourth VN NMPG in August 2015 where it sought feedback from market participants on the adoption of ISO 15022 standards
- Some of VSD's future development plans are: issuing online trading code for foreign investors, e-voting, developing derivatives products and CCP. In addition, VSD plans to work with software vendors and counterparts in Securities market in APAC to gather more information about transforming to ISO 20022 standards.
- Jyi-Chen asked if the Gateway new solution offers real-time capability and Kien affirms that it is on real-time basis.
- Janice Chapman (SWIFT) asked if VSD is dealing in Investment Funds business. VSD acts as a Transfer Agent in VN and deals in Open Ended Funds and ETFs in the market.
- Harry Rana (Sunguard) enquired the rationale for VSD's choice to move to ISO 15022 instead of ISO

20022. Kien explains that many of their DMs especially the foreign banks have already implemented ISO 15022 and a lot of effort would be required (including for system change) if VSD chooses to adopt ISO 20022 now. Therefore, ISO 15022 was selected for the initial phase and VSD will introduce ISO 20022 in the future.

- Rei (JASDEC) commented that the implementation of ISO 15022 in VN seemed to be completed in a fairly short span of time. Kien explained that VSD has started working with SWIFT prior to that where the latter has already provided VSD with some recommendations. Alex added that VSD's implementation is in a phased approach with DMs migrating to the new solution progressively.

5) Offshore RMB Market and Shanghai-Hong Kong Stock Connect Updates

Ricky Li, Strategic Planner from Economics and Strategic Planning Department of Bank of China (Hong Kong) Limited provided updates on the Offshore RMB Market and Shanghai-Hong Kong Stock Connect (SHHKSC). The presentation slides will be available together with these meeting minutes and posted on www.smpg.info in APAC RMPG folder.

A summary of the key points of the presentation and discussions is as follows:

- RMB is getting increasingly popular around the globe and is getting widely used in trade and investment activities
- China continues to accelerate regulatory reforms towards RMB internationalization
- According to SWIFT's RMB tracker, RMB is now ranked fourth as an international payments currency.
- There has been an extension of RQFII quota over the years. More than half of the quota in SG has been used up.
- PBOC has recently appointed 15 more RMB clearing banks globally, making a total of 19 RMB clearing banks at the moment
- PBOC revamped the RMB fixing mechanism of the central parity rate in August 2015
- There are relaxed restrictions for interbank bond market access. Financing through Repo transactions is allowed but the amount of Repo cannot exceed the amount of outstanding bond.
- RMB is now the 7th largest reserve currency in the world
- SHHKSC program allows investors in HK and overseas regions to trade in the SH A shares market while investors from mainland China can trade in shares listed on the HK stock exchange.
- The SHHKSC operated very smoothly, showing that the operational mechanism and risk management measures were effective
- Ganesh asked for views about extending the Stock Connect to markets outside of China and HK. Ricky explained that despite recent discussions between Shanghai and London about similar arrangement, it would be different from SHHKSC due to a number of reasons including time zone difference.
- Charles Boniver (Co-Chair of SMPG IF WG) enquired if the Mutual Funds Recognition will have an impact on the RMB and its usage. It is seen that it will have a positive impact on the usage of RMB. However, there remains a lot of work to promote the Mutual Funds Recognition program.
- Paul Marchant (DTCC/Omgeo) asked for opinion as to when the RMB will become a fully convertible currency. No timeline is available but China is doing a lot of work to drive this.

- It was agreed among many of the meeting participants that CNH will not become a standard ISO currency

6) SWIFT MyStandards and NMPG – Usage, best practices and how to accelerate adoption

Evelyne Piron (SMPG facilitator of the SnR WG) and Janice Chapman (SMPG facilitator of the IF WG), both from SWIFT, provided an overview on MyStandards and the usage by NMPGs. There was also a live demonstration on the usage of MyStandards and MyStandards Usage Guideline Editor. The presentation slides will be available together with these meeting minutes and posted on www.smpg.info in APAC RMPG folder.

A summary of additional key points of the presentation and discussions is as follows:

- MyStandards Usage Guideline Editor Best Practices document is available for download from MyStandards application
- By using the Editor for review of the MP guideline and recording at NMPG meetings help to improve the efficiency of the work
- It is helpful to use the 'Commenting' functionality on MyStandards to gather feedback on the MP guideline
- Usage of MyStandards and access to the MP guideline is free to SMPG and NMPGs

7) APAC RMPG Discussion: Round-the-room updates by participants

Participants at the meeting provided the below updates on their respective markets in APAC:

- JP - Hiroaki Okumura from The Bank of Tokyo-Mitsubishi UFJ Ltd is the new JP Regional Director of SMPG with effect from October 2015. Rei updated that BOJ will implement the new BOJNet system using ISO 20022. The new system can operate long hours until midnight. JP market is also looking at shortening its securities settlement cycle from T+3 to T+2. However, the target live date for this change has not been decided yet.

JP NMPG is in the midst of arranging for country voting for SnR and CA for SR 2016.

- AU – Suresh Chinnappa from National Australia Bank will propose using MyStandards to the AU NMPG for documenting its MP. ASX is driving the shortening of settlement cycle in AU to T+2 which will go live in March 2016. There are 2 aspects to this initiative, which are Equities by ASX and Bonds by AustraClear. NZ will also be implementing T+2 for both Equities and Bonds together at the same time in March 2016.

CHESS is reviewing its whole process and has decided on using ISO 20022. However, there is no fixed timeline at the moment.

There is increased use of MT 564 for CA events in AU market. There are also discussions through the AU NMPG to replace the usage of the unstructured proprietary MT 598 message by AustraClear with MT 548.

- VN – Le Sy Hoang from Standard Chartered Bank Vietnam Ltd informed that the VN NMPG members comprises of VSD, the regulator, custodians, brokers, dealers and IT vendors. The NMPG is sub-divided into 3 groups – (i) SnR WG headed by VSD, (ii) CA WG headed by SCB and (iii) Market Access WG headed by HSBC. VSD is the current Chair of the group.

Main discussion topics of the group are on market challenges from operations perspective. The members agree that the NMPG is a good platform for voicing out their challenges and discussing on MPs. Specific topics discussed or to be discussed include changes in CA, shortening of settlement cycle and the new mechanism for voting in VN.

- SG – Tony Lewis from HSBC and the Chair of the SG NMPG began by emphasising that NMPG is important in driving changes in the market. The NMPG recently had 1 meeting on Funds. The group has been working on phase 1 of the PTS project, looking at T+2 settlement cycle, the identification of the Place of Trade, publishing CA events on EIG and will be publishing them on MyStandards next. The SG CA WG would be looking at e-Voting next. The group has also been discussing on ways to improve the proxy voting process in SG.
- KR – Mieko Morioka, SWIFT facilitator of the KR NMPG informed that the NMPG is chaired by KSD. The next meeting is on 28 October where the group will work on the finalisation of the country voting for SnR messages. The KR CA WG will continue to work on the publication of CA MPs on EIG.
- TH – Cindy updated that SWIFT recently met with the TH Custodian Club representatives on 30 September to discuss the TH Asset Conversion MP and to continue discussions about setting up a TH NMPG. There was an agreement by the TH Custodian Club representatives to have SWIFT lead the NMPG. The points for consideration for the NMPG's discussion are e-Proxy Voting, the disclosure of voting results, relaxation of required document for proxy voting, turnaround transactions and the TH Asset Conversion MP. There are tentative plans to launch the kick off meeting in Q1 2016.

Next Meeting

On Tuesday 28/01/2016 at 14:30SGT

Webex details had been sent along with the meeting invite. Detailed agenda will be sent nearer to date.