CHESS Replacement Technical Committee Minutes

6 June 2024

At its June meeting, the CHESS Replacement Technical Committee was updated on:

AGENDA AND KEY TOPICS DISCUSSED

- Open actions and feedback
- Project status
- Actions from the AFMA Registries Forum
- Working Group updates
- Scope objectives updates
- Release 1 consultation response themes
- Industry engagement and consultation
- Forward work plan

AGREED ACTIONS

There were four new actions raised at the June meeting:

- 1. ASX to revert to the Technical Committee with the project assurance activity schedule when it is available
- 2. Members to revert to the member representing AFMA and / or ASX with input on the SRN enquiry scope objective
- 3. ASX to follow up on member query regarding testing timelines with a bilateral meeting
- 4. ASX to capture industry requirements and use cases for the API solution planned for Holding Balances.

Minutes from the meeting are attached.



Agenda

CHESS Replacement Technical Committee

| 6 June 2024 | Time | 2:00 PM-4:00 PM | |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| cation ASX Sydney Office & Microsoft Teams | | | |
| . Welcome, open actions and feedback | | | |
| 2. Project status | | | |
| 3. Actions from AFMA Registries Forum | | | |
| 4. Working Group updates | | | |
| 5. Scope objectives update | | | |
| . Release 1 Consultation themes | | | |
| 7. Industry engagement and consultation | | | |
| . Observer feedback | | | |
| | ASX Sydney Office & Microsoft Teams me, open actions and feedback it status is from AFMA Registries Forum ing Group updates objectives update se 1 Consultation themes cry engagement and consultation | ASX Sydney Office & Microsoft Teams me, open actions and feedback it status is from AFMA Registries Forum ing Group updates objectives update se 1 Consultation themes cry engagement and consultation | |



Action Items Raised in Meeting:

| Item number# | Action | Due date | Status | Owner |
|----------------|-------------------------------------------------------------------------------------------------------------------------------|--------------|--------|---------|
| 2024 May (1) | Schedule ETF WG | 6 June 2024 | Closed | ASX |
| 2024 April (2) | Schedule ISO Design WG | 6 June 2024 | Closed | ASX |
| 2024 April (3) | Schedule Transaction Basis matching forum | 6 June 2024 | Closed | ASX |
| 2024 June (1) | ASX to revert to the Technical Committee with the assurance activity schedule when it is available. | 10 July 2024 | Open | ASX |
| 2024 June (2) | 2024 June (2) - Members to revert to the member representing AFMA and / or ASX with input on the SRN enquiry scope objective. | 10 July 2024 | Open | Members |
| 2024 June (2) | ASX to follow up on member query regarding testing timelines with a bilateral meeting. | 10 July 2024 | Open | ASX |
| 2024 June (3) | ASX to capture industry requirements and use cases for the API solution planned for Holding Balances | 10 July 2024 | Open | ASX |



CHESS Replacement Technical Committee Members

| Company | Name | Job Title | Apologies |
|------------------------------------|-------------------|-----------------------------------------------------|-----------|
| ASX | Tim Whiteley | Technical Committee Chair and CIO | |
| Independent Chair | Paul Rayson | Business Committee Chair | |
| Clearing and Settlement P | articipants | | |
| ABN AMRO CLEARING | Matthew McMahon | Head of Operations | |
| AUSIEX | Ashish Jha | Director, Solution Delivery Management | |
| MERRILL LYNCH EQUITIES (AUSTRALIA) | Matthew Gwynn | Project Manager Director, Head of Operations | |
| BELL POTTER SECURITIES | Lee Muco | Chief Operating Officer | |
| BNP PARIBAS | Wayne Murphy | Project Manager | |
| CITI | Lyall Herron | Program Manager | |
| СМС | Maral Istanbulian | Technical Business Analyst Team Lead | |
| COMMSEC | Ryan Jones | Crew Technical Lead | Apology |
| COMMSEC | Mick Thompson* | Trading Systems Architect | |
| FINCLEAR SERVICES | Nikki Gleisner | Senior Business Analyst/Client Relationship Manager | |
| GOLDMAN SACHS | Simon Wyss | COO, Australia/ New Zealand Engineering | |
| HSBC | Simon Siluk | Senior Product Manager | |
| J.P. MORGAN | Scott Oakland | Executive Director Product Management | |
| MACQUARIE GROUP | Paul Bragg | Operations Analyst | |
| MORGAN STANLEY WEALTH | Andrew Sime | Executive Director | |
| MORGAN STANLEY SECURITIES | Rebecca Collins | Executive Director | |
| MORGANS | Daniel Spokes | Director, Client Support Services | |
| NAB | Rodd Kingham | Head of Investment Service (Wealth Hub Securities) | |
| UBS | Scott Hanlon | Head of Operations, Executive Director | |
| Third party software vend | ors | | |
| BROADRIDGE | Danielle Gerace | Head of Client Service Australia | |
| COMPUTERSHARE | Leanne Bailey | Senior Business Analyst | |
| FINCLEAR | Craig Gray | Head of Product for Settlement & Clearing systems | |
| FNZ | Nick Clarke | Head of Product Management – Capital Markets | |
| SECURITEASE | David Hinkley | General Manager | |
| AMOs | | | |
| ASX | Jimmy Halstead | Head of Trading Technology Markets, Technology | |



| CBOE | Rylan Uherek | VP – Chief Operating Officer APAC |
|----------------------------|-----------------|-----------------------------------------------|
| NSX | Yemi Oluwi | Head of Market Operations and Technology |
| SYDNEY STOCK EXCHANGE | Rajnish Tiwari | Head Exchange Technology |
| Share Registries | | |
| ADVANCED SHARE REGISTRY | Patrick Gan | IT Manager |
| AUTOMIC GROUP | Sue Julian | Head of Business Operations |
| BOARDROOM | Michael Mullins | Chief Information Officer |
| COMPUTERSHARE | Scott Hudson | General Manager – Market Liaison |
| LINK MARKET SERVICES | Andrew Farrell | Senior Project Manager – CHESS Replacement |
| * - 1 . | | |

^{*} Delegate

Observers

| Company | Name | Job Title | Apologies |
|--------------------------------------------|--------------------|------------------------------------------------------------------------------------------|-----------|
| AUSTRALIAN PAYMENTS NETWORK (AusPayNet) | Luke Wilson | Chief Operating Officer | |
| AFMA | Damian Jeffree | Senior Director of Policy | Apology |
| AIRA | Ian Matheson | Chief Executive Officer | |
| GIA | Simon Pordage | Brand Ambassador for Governance Institute of Australia & Company Secretary for ANZ | Apology |
| SIAA | Judith Fox | CEO | |
| ASIC | Derek Scott | Senior Specialist - Market Infrastructure Markets | |
| | Liang Chen | Analyst - Market Infrastructure (Clearing & Settlement Facilities) | |
| RBA | Elizabeth Kandelas | Manager - Financial Market Infrastructure, Domestic and Payments. | |



ASX Representatives

| Name | Job Title | Apologies |
|----------------------------|----------------------------------------------------------|-----------|
| Clive Triance | Group Executive, Securities & Payments (Project Sponsor) | Apology |
| Steven Hannan | Senior Manager Stakeholder Engagement, Equities | |
| Triona Quinlan | General Manager, Technology Delivery | |
| Chris Boyes | Senior Product Manager, Securities and Payments | |
| Jason Genford | Senior Project Manager | |
| Peter Jessup | Accenture, Release 1 Product Owner (SI Business Lead) | |
| Mark Kaplan | Accenture, SI Executive | |
| Craig Springett | Accenture, SI Delivery Lead | |
| Saravanan Prathap Kumar | TCS, Program Manager | |



AGENDA ITEM 1: Welcome, open actions & feedback

The Chair welcomed members and delegates to the June meeting of the CHESS Replacement Technical Committee (Committee).

The meeting attendance was recorded and is reflected in the tables provided.

The previous minutes from the 08 May 2024 Committee were approved and are now available on the CHESS Replacement website.

The Chair reminded members of their obligations under competition law and encouraged active participation, noting the purpose of the Committee was for stakeholders to provide input and feedback.

An overview of the agenda was provided before the Chair introduced the three open actions from the 08 May meeting:

| Item Number | Action | Discussion |
|----------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 2024 May (1) | Schedule ETF WG | Action addressed through scheduling of an ETF working group in October. Proposed to close and agreed with members. |
| 2024 April (2) | Schedule ISO Design WG | Action addressed below with details to be confirmed following the plan for Release 2. Proposed to close and agreed with members. |
| 2024 April (3) | Schedule Transaction Basis matching forum | Action addressed through scheduling of a Transaction Basis BDWG in November. Proposed to close and agreed with members. |

AGENDA ITEM 2: Project Status Update

The ASX Technology Delivery General Manager provided key updates on the project's delivery, noting that:

- The project status continues to track green.
- The first Consultation Paper on Release 1 has been published, feedback has now been received and ASX is finalising its response.
- ASX is planning to release the response to consultation by the end of June.
- The Proof of Technology Cycle 1 testing has completed successfully processing 100,000 trades.
- Cycle 2 testing has commenced to test up to one million messages with a checkpoint in late June.
- In relation to Release 1:
 - Drop 1 detailed analysis and requirements from ASX have been completed. These requirements have been captured in the TCS Business Requirements Specification document which is used by TCS to commence the build process for Drop 1. Drop 1 is focused on development related to the FIX gateway.
 - ASX will send a team of testers to India over the coming month to assess the Drop 1 build before it is handed over to ASX.
- The CHESS Replacement project has a comprehensive assurance program planned to run for the life of the project
- The assurance program plan has been presented to the regulators, ASX Clearing and Settlement Boards, the Cash Equities Clearing and Settlement Advisory Group, and is in the final stages of being approved by ASX
- Planning for Release 2 has commenced that is supported by industry perspectives through discussions as part of the in the Implementation and Transition Working Group.



The ASX Technology Delivery General Manager also presented current project risks.

Member discussion

The Chair noted an action for ASX to bring a schedule of the assurance activities planned through to the end of Release 1 when it is available.

AGENDA ITEM 3: AFMA Registries Forum Update

3.1 AFMA Registries Forum - 09 May 2024

The AFMA representative provided a verbal update on the most recent AFMA Registries Forum. The AFMA representative noted the forum was well attended by AFMA members and a number of registries, and that there was an outstanding action item related to SRN mismatch issues. The AFMA representative escalated the issue as part of the update to the Technical Committee and noted it as a priority for the forum. It was noted that Committee members with a perspective on the SRN mismatch issue are strongly urged to send through further data to inform the issue. The AFMA representative offered to meet individually with firms to ensure that broad input is achieved as this is a priority for the AFMA Registries forum.

The AFMA representative thanked the registries for providing the matching details used for SRN transfers, which were then circulated to members. The AFMA representative noted the improved understanding of why activities may not progress in the same way through the different registry organisations.

An action was noted for brokers to show how they process transfers and their associated onboarding procedures, which had a limited response compared to the number of brokers in attendance at the forum. The AFMA representative noted that it could be inferred from the lack of input to date to the AFMA Registries Forum, that the SRN issue is not as important as has been previously suggested in the forum.

The AFMA representative noted several positives from the forum, including the active participation of registries through the raising of priority items, especially the phasing out of cheques.

Member discussion

The Chair noted that the Technical Committee has formally recommended that SRN transfer improvements be included in the scope of CHESS Replacement, therefore their support was important to progress the solution. The AFMA representative noted that the registries have indicated their openness to working to a solution, but members need to engage with registries to reach a path forward.

The Chair noted an action for members to contact ASX or the AFMA representative to provide input on the topic to enable forward movement on the issue.

AGENDA ITEM 4: WORKING GROUP UPDATES

4.1 AMO Working Group - 28 May 2024

The Release 1 Product Owner (SI) confirmed the focus of the 28 May 2024 AMO Working Group on the finalisation of the FIX messaging specification based upon a draft schema provided at an earlier meeting. The Release 1 Product Owner noted that there was broad consensus on most proposed changes, and that some further small field updates related to house client segregation were required. The Release 1 Product Owner also noted that once these field changes are finalised, a draft specification will be released shortly after the Technical Committee meeting.

The following further areas were discussed at the working group:

1 Non-ASCII character handling



2 The message flow performance from AMOs across multiple FIX sessions

Member Discussion

The Chair noted that the AMO Working Group appears to be making good progress on the detailed work program.

4.2 Business Design Working Group

a. Upcoming Business Design Working Groups

The ASX Senior Product Manager highlighted that two additional Business Design Working Groups have been added to the forward work program on the topics of ETF's and Transaction Basis and noted that these two groups will be smaller targeted topics for relevant members.

b. Business Design Working Group: Settlement Design - 29 May 2024

The ASX Senior Product Manager provided a summary of the 29 May 2024 Business Design Working Group which focused on Settlement Design, noting that it was a sizeable topic to engage on that required a large amount of participant's time. The ASX Senior Product Manager also expressed appreciation to the working group members for their contributions, which enabled a productive session that covered more than planned.

The ASX Senior Product Manager highlighted the key topics discussed:

- Market trade obligation
- Further topic discussion from the Business Design Working Group on Clearing on 31 Jan 2024
- Transfers and settlement instructions
- The new related features in the TCS BaNCS for MI product that the market will receive when the CHESS Replacement product is released
- Batch settlement process and its similarity to current CHESS
- A proposed approach to automation of payment provider approvals, which was well received by working group members.

Failed net obligation processing (SSP adjustment) was noted as a topic that will be further discussed in the 21 August 2024 Business Design Working Group.

Member discussion

No member feedback recorded.

4.2 Implementation and Transition Working Group - 05 June 2024

The ASX Senior Project Manager and the Release 1 Product Owner provided a summary of the 05 June 2024 Implementation and Transition Working Group (I&TWG) highlighting the key topics discussed:

- Updates to Release 1 scope, including
 - Descoping netting reversal (un-netting),
 - The proposed approaches to deferred settlement transactions.
- The proposed timeline for Release 2, noting that prior to the working group the ASX had proposed two timeline options, a "concurrent" and a "sequential" model
- The project is now focused on the sequential model as a single proposed timeline which will be the basis of future Release 2 discussions with the market
- The Release 2 Go Live is now represented as a range on the proposed Release 2 timeline



- A proposed sequence of feature delivery was represented on the timeline, outlining five iterative drops during the Software Provider build and test phase
- A request from working group members for further clarity on the delivery dates of technical documentation related to each drop, which will be added to the proposed Release 2 timeline.

The ASX Enterprise Architect provided a summary of the I&TWG presentation on 5 June 2024 of ASX's assessment of options for Release 2 implementation, highlighting:

- A summary of ideas previously raised both in the April 2023 Technical Committee on staged implementation and the CHESS Replacement Consultation Paper 1 on Staged Implementation and Release 1, published in March 2024
- Centralised message translation is not a risk mitigation for Release 2 and would incur cost and schedule impacts were it to be implemented
- The results of viability analysis against each of the suggested approaches did not present any clear options for further staging as they relied on either
 - Message translation or data synchronisation between CHESS Replacement system and the current CHESS system; or
 - Participant systems to connect to both the CHESS Replacement system and the current CHESS system at the same time
- The draft conclusion of the analysis is that the single cutover at Release 2 is the option that mitigates cost and timeline risk most
- A discussion on the option for clearing participants to receive ISO 20022 messages for clearing before Release 2 and early access to the CHESS Replacement system UI for Clearing participants.

The ASX Senior Project Manager and the ASX Enterprise Architect noted the options generated a large amount of interest and discussion from members on the topic and that ASX will continue to discuss the topic in depth at the next I&T Working Group.

Member discussion

A Committee member sought confirmation of the date that all code for Release 2 will be released by ASX. The ASX Senior Project Manager confirmed key target dates of the timeline as they relate to both Software Providers and CHESS users, alongside confirmation of when specifications and software functionality drops are targeted to be provided to the market.

Another Committee member sought clarification on timelines related to Software Providers to undertake final regression testing after ASX completes its final testing. The member expressed concern that the proposed timeline for regression testing in Q1 2027 appears to be compressed and may not leave enough time for Software Providers to prepare for accreditation, which may lead to missing the first in-flight migration testing window, and the clients of Software Providers may not be able to commence readiness testing until the Software Providers have completed accreditation and defect resolution.

The ASX Senior Project Manager noted the feedback and took an action to engage in further discussion with the member to capture additional information about the timelines related to test and accreditation. The Chair noted that the timeline is a critical piece of the upcoming Release 2 consultation, and it is important for Committee members to agree on the proposed approach.

The Chair noted also that the current proposed timeline assumes a transition to T+1 by the Australian market would take place following Release 2, but until consultation with the industry on both T+1 and Release 2 was complete, no timelines could be confirmed.

The Chair noted that previous discussions on staged implementation of Release 2 had indicated there would be significant cost impact on both ASX and participants, with limited risk mitigation benefits. The Chair also noted that any migration from CHESS EIS messaging to ISO 20022 messages brings added complexity, as it is a change from a bespoke



ASX message construct to a new message type (albeit standardised), rather than a simpler upgrade of an ISO standard to another. The Chair urged members to ensure that they engage well on any potential staging options to assist ASX in reaching an outcome through the Release 2 Consultation paper process.

AGENDA ITEM 5: Scope objective backlog update

The ASX Senior Product Manager provided the following key updates:

- Noted the earlier update from the Business Design Working Group on Settlement Design that will continue into the August Business Design Working Group
- The removal of the Risk and Default Management scope item as it is not an essential topic for the working groups to cover, but can be revisited at a later date
- Non-batch DvP has been covered earlier than planned due to changes in the working group schedule.

5.1 Holding Balances

The ASX Senior Product Manager updated the Committee on the proposal to decommission the use of holding balance fields in CHESS messages and for these to be replaced by end of day reporting via ISO20022 on an opt-in basis, and real-time holding balances provided via API. The API solution would allow for asynchronous data streaming, or request and response enquiries in specific data use cases.

The ASX Senior Product Manager noted the API solution was not previously in scope as part of the 28 February 2024 BDWG meeting on the topic of Issuer Sponsored Holding. The API solution has since been added as a proposed scope item based on industry feedback received, and would be a topic for ASX to work through with industry stakeholders using the connectivity over ASX Net at a future date to be confirmed.

Member discussion

One member sought clarification on whether the data via API is usable for business decisions or for advisory purposes only. The ASX Enterprise Architect noted that the data is asynchronous and is provided some minutes behind when the holding itself is changed.

Another member also sought clarification whether the holding balance in the proposed approach would accurately reflect the position from a couple of minutes prior. The ASX Enterprise Architect confirmed this and noted that a potential data feed would provide a timestamp indicating the holding balance change.

The Chair noted that further work on use cases with industry is needed and to ensure that the approach delivers what industry requires. An action was noted to set up a further session to capture industry requirements and use cases for the API solution for holding balances

5.2 Account Segregation

The ASX Senior Product Manager provided a summary of the proposed approach for Account Segregation and advised that the information provided in support of Account Segregation is what will be captured in the Consultation Paper on Release 2 and noted the following:

- The Financial Stability Standards (FSS) include specific requirements relating to account segregation and portability
- Specifically, the FSS requires that a CCP should have rules and procedures that enable the segregation of positions of a participant's customers and the collateral provided to the CCP
- Consistent with the requirements of the FSS, ASX's current account segregation and portability arrangements are considered to offer 'materially equivalent' protection of its customer's assets



- ASX provided an overview of the proposed approach to account segregation and portability in the CHESS
 Replacement system in the January 2024 settlement working group and via a number of bilateral meetings
- ASX is seeking to make available position account structures separate to settlement account structures allowing segregated positions on an omnibus or individual client level
- In an incremental future scope opportunity, the CHESS Replacement system could enable the ability for customers to leverage the segregated account structure from a margin and collateral perspective
- These features may be enabled by additional functionality available in the TCS BaNCS for MI product
- ASX is proposing to provide this as an opt-in feature where industry can conduct trials during the industry test phases to support individual participant configurations that can then be implemented.

The ASX Senior Product Manager presented two of the models that ASX will be able to support under Account Segregation.

The first model design is targeted to Clearing Participants and includes the following features:

- The FIX message specification will enable the tagging of trades whether a trade is executed on an agency, principal, or mixed basis
- This model would include the option to include an optional client ID to allocate to a segregated client position
- Mixed trades would be able to be allocated to house, omnibus or individual client trades in post trade, and
- This model could allow future opportunities for participants to collateralise separately at a client level and the ability to net and settle into different settlement accounts.

The second model is targeted to third party clearers and includes the following features:

- The position accounts can be mapped to a single settlement account, allowing either comingling through the settlement process or segregating out into separate settlement accounts
- Some customers have noted these features deliver potential operational benefits.

Member Discussion

No member feedback recorded.

AGENDA ITEM 6: Consultation Paper on Release 1 Response Themes

The ASX Senior Product Manager thanked members for responding to the Release 1 Consultation Paper, noting the paper received 22 responses with 12 noted as confidential, and that the ASX response to feedback on the Consultation Paper is planned to be provided by the end of June in conjunction with briefing the Cash Equities Clearing and Settlement Advisory Group.

The ASX Senior Product Manager provided the following updates on the themes of market feedback:

- There was overall industry consensus for the staged implementation approach to CHESS Replacement.
- Several responses noted the proposed size of Release 2 scope and potential implementation risks associated with the size. These considerations will be captured as part of the analysis for the Consultation Paper on Release 2.
- There was consensus on the overall approach to industry testing, with respondents seeking additional detail around testing activities and documentation
- Varied feedback on industry test duration, including whether test timeframes could be shortened, requirements for a 12 month build and test window that would incorporate potential challenges and constraints associated with an earlier parallel test timing for AMOs



- Respondents sought additional detail on go-live readiness activities and recommended a minimum of three dress rehearsals, transparency in go-live communications, issue resolution and test scenarios for disaster recovery and failure scenarios
- Respondents also provided feedback on T+1 and interoperability considerations.

The ASX Senior Product Manager noted that:

- Feedback related to T+1 will be captured and addressed through the ASX Whitepaper for Considerations for Accelerating Cash Equities Settlement
- Feedback related to interoperability will be addressed initially at the 26 June Business Committee and the proposed approach to interoperability will form part of the Consultation Paper on Release 2
- ASX is scheduling bilateral meetings with each respondent to the Release 1 Consultation Paper to discuss the feedback provided.

AGENDA ITEM 7: Industry Engagement and Consultation

The ASX Senior Product Manager provided the following updates in relation to further market consultation activities:

- Partnership Program consultation on Future Development Incentive Pool milestones has now closed, with feedback being collated and analysed. ASX is planning to respond towards the end of June
- ASX's Whitepaper for Considerations for accelerating cash equities settlement in Australia to T+1 is live in the market with feedback due 18 June
- Consultation Paper on Release 2 is currently being drafted and is scheduled for public release in Q3 2024.

The ASX Senior Product Manager noted that the next Technical Committee meeting

- The next Technical Committee meeting is scheduled for 10 July 2024
- The next Business Committee is scheduled for 26 June 2024.

The ASX Senior Product Manager then summarised the action items as being:

- 2024 June (1) ASX to revert to the Technical Committee with the assurance activity schedule when it is available
- 2024 June (2) Members to revert to the member representing AFMA and / or ASX with input on the SRN enquiry scope objective
- 2024 June (3) ASX to follow up on member query regarding testing timelines with a bilateral meeting
- 2024 June (4) ASX to capture industry requirements and use cases for the API solution planned for Holding Balances.

Member Discussion

No member feedback recorded.



AGENDA ITEM 6: Observer Feedback

The independent meeting observer noted that the video conference technology operated well, that whilst there was some inconsistency between the slides and the discussion, it was quickly remedied and that meeting actions were recorded correctly. The independent observer highlighted that the working group updates demonstrate good progress, but more input from members on the SRN enquiries topic would be welcomed, and that appropriate actions from the Implementation and Transition Working Group were captured. The independent observer also noted that whilst the meeting progressed quickly, it is likely a reflection on the quality and depth of the working group updates limiting the need for additional questions from members, the greater clarity on the project schedule is welcome and has raised potential resourcing challenges for member's organisations that will need to be discussed.

The meeting closed at 3:17 PM

Signed as a correct record of the meeting.

| Julite | 10 July 2024 |
|--------|--------------|
| Chair | Date |