CHESS Replacement Technical Committee Minutes

12 April 2023

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

AGENDA

- Member feedback from last meeting
- Approach to the project scope
- Project status & governance – RFI update, solution decision framework
- Project scope – industry feedback and engagement plan
- Testing approach
- Cutover and implementation approach – industry feedback on a staged implementation
- Forward work plan.

KEY ISSUES DISCUSSED

Key points from the discussion about the CHESS Replacement project included:

i. An update on project progress including an update on the recent vendor software RFI

ii. Details of the solution decision framework

iii. Context and drivers for CHESS to be replaced

iv. The market engagement process and next steps to exploring stakeholder feedback on scope

v. Feedback sought on learnings from previous phase as input into the industry test strategy and approach

vi. A summary of market feedback on staged implementation options.

AGREED ACTIONS

Three new actions were raised at the meeting:

1. Request for market feedback on previous experiences and future expectations of industry testing by 28 April 2023.
2. ASX to review the SGX implementation approach.
3. ASX to clarify the potential roles of centralised message translation in the implementation approach.

Minutes from the meeting are attached.

Agenda

CHESS Replacement Technical Committee

Date	12 April 2023	**Time**	2:00pm-4:00pm
Location	ASX offices – Level 1, 20 Bridge Street, Sydney/MS Teams		

1. **Welcome and open actions**

2. **Member feedback from last meeting**

3. **Project status & governance** – RFI update, solution decision framework

4. **Project scope** – Industry feedback and engagement plan

5. **Testing approach**

6. **Cutover and implementation approach** – Industry feedback on staged implementation

7. **Other matters**

   a) Forward work plan

   b) AOB

   c) Next meeting – 10 May 2023

Action Items

Item number#	Action	Due date	Status	Owner
2023 Mar (1)	Members to provide input and feedback on project scope by 22 March 2023.	12 April 2023	Closed	Members
2023 Mar (2)	Members to provide input and feedback on opportunities for a staged implementation by 22 March 2023.	12 April 2023	Closed	Members
2023 Mar (3)	ASX to provide more detail on the RFI questions.	12 April 2023	Closed	ASX
2023 Mar (4)	ASX to provide more granularity to the redesign phase plan.	12 April 2023	Closed	ASX
2023 Mar (5)	ASX to review DTCC's recent 'Ion' implementation for lessons learnt.	12 April 2023	Closed	ASX
2023 Apr (1)	Members to provide feedback on industry testing by 28 April 2023.	28 April 2023	Open	Members
2023 Apr (2)	ASX to review the SGX implementation approach.	10 May 2023	Open	ASX
2023 Apr (3)	ASX to clarify the potential roles of centralised message translation in the implementation approach.	10 May 2023	Open	ASX

CHESS Replacement Technical Committee Members

Company	Name	Job Title	Apologies
ASX	Tim Whiteley	Technical Committee Chair and Project Director, CHESS Replacement Project	
ASX	Val Mathews	Business Committee Chair and Chief Customer and Operating Officer	
Clearing and Settlement participants			
ABN AMRO CLEARING	Matthew McMahon	Head of Operations	
AUSIEX	Mark Pace	Head of Solution Design	
BANK OF AMERICA	Monika Ahrns	Project Manager	
BELL POTTER SECURITIES	Lee Muco	Chief Operating Officer	
BNP PARIBAS	Mark Wootton	Head of Custody Product Aust & NZ	
CITI	Lyall Herron	Program Manager	
CMC	Danny Ng	Senior Project Manager	
COMMSEC	Ryan Jones	Crew Technical Lead	
CREDIT SUISSE	Andrew Norval	Managing Director, Head of Operations	Apology
FINCLEAR SERVICES	Nikki Gleisner	Senior Business Analyst/Client Relationship Manager	
GOLDMAN SACHS	Simon Wyss	COO, Australia/ New Zealand Engineering	
HSBC	*Asri Asat	Operations Manager	Simon Siluk, Senior Product Manager
J.P. MORGAN	Scott Oakland	Executive Director Product Management	
MACQUARIE GROUP	James Indge	Cash Equities Business Manager	
MORGAN STANLEY	Rebecca Collins	Executive Director	
MORGANS	Daniel Spokes	Director, Client Support Services	
NAB	*Anita Mead	Head of Business Management, Self-Directed Wealth	Rodd Kingham, Head of Investment Service (WealthHub Securities)
UBS	Scott Hanlon	Head of Operations, Executive Director	
Third party software vendors			
BROADRIDGE	Mabel Chow	Product Manager	
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	
NRI	Diptesh Chakraborty	Data Engineering Analyst	
SECURITEASE	David Hinkley	General Manager	
AMOs			
ASX	Jimmy Halstead	Head of Trading Technology Markets, Technology	

CBOE	Mike Aikins	Vice President APAC – Operations and Technology	
NSX	Chan Arambewela	Chief Operating Officer	
SYDNEY STOCK EXCHANGE	Rajnish Tiwari	IT & Operations Manager	
Share registries			
AUTOMIC GROUP	Sue Julian	Head of Business Operations	
BOARDROOM	* Martin Jones	General Manager Corporate Governance & Director	Michael Mullins, Chief Information Officer
COMPUTERSHARE	Scott Hudson	General Manager – Market Liaison	
LINK MARKET SERVICES	Kelvin Chee	Senior Project Manager – CHESS Replacement	

* Delegate

Observers

Company	Name	Job Title	Apologies
AusPayNet	Luke Wilson	Chief Operating officer	
AFMA	Brett Harper	Chief Executive Officer	
	Damian Jeffree	Senior Director of Policy	
ACSA	David Travers	Chief Executive Officer	
AIRA	Ian Matheson	Chief Executive Officer	
GIA	*Catherine Maxwell	General Manager, Policy and Advocacy	Megan Motto, Chief Executive Officer
SIAA	Judith Fox	CEO	
ASIC	Nathan Bourne	Senior Executive Leader, Market Infrastructure	
	Dodie Green	Senior Manager, Market Infrastructure	
	Bharat Patel		
	Andia Petropoulos	Senior Analyst, Market Infrastructure	Apology
RBA	Kylie Stewart	Senior Manager, Domestic and Payments, Financial Market Infrastructure	
	Elizabeth Kandelas	Manager, Financial Market Infrastructure, Domestic and Payments	
	Tatiana Moiseeva	Lead Analyst, Financial Market Infrastructure, Domestic and Payments	
	Gordana Bloom	Senior Analyst, Financial Market Infrastructure, Domestic and Payments	Apology

EY

Name	Job Title	Apologies
Felicity Potter	Partner, Financial Services	Apology
Corinne De Rosa	Director, Financial Services	

ASX Management

Name	Job Title	Apologies
Tim Hogben	Group Executive, Securities and Payments	
Katie McDermott	General Manager, Business Design, CHESS Replacement Project	Apology
Jason Genford	CHESS Replacement Project Manager	
Aaron Smith	CHESS Test Director, Quality Engineering & Testing	
Triona Quinlan	Delivery Lead, CHESS Replacement Project	
Russell Eyre	Enterprise Architect, CHESS Replacement Project	
Keith Purdie	Senior Manager, Equity Post Trade, Securities and Payments	
Chris Boyes	Senior Product Manager, Securities and Payments	Apology

AGENDA ITEM 1: Welcome and open actions

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

Andia Petropoulos (ASIC), Andrew Norval (Credit Suisse), Damian Jeffree (AFMA), Gordana Bloom (RBA) were apologies. Megan Motto (GIA), was represented by a delegate, Catherine Maxwell. Michael Mullins (BoardRoom), was represented by Martin Jones. Rodd Kingham (NAB), was represented by Anita Mead. Simon Siluk (HSBC), was represented by Asri Asat. Jimmy Halstead has replaced Jamie Crank as ASX's AMO representative.

The Chair introduced and thanked the member from Citi in advance for acting as the 12 April 2023 meeting observer.

The Chair reminded members of their obligations under competition law and provided an overview of the agenda. The Chair reiterated that this forum will provide the opportunity for stakeholder input and feedback on a broad range of matters relating to the project and encouraged active engagement in the session. The Chair continued by introducing open actions and addressing their respective follow-up action from the March 2023 Technical Committee, including:

Item Number	Action	Discussion
2023 Feb (5)	ASX to propose plan for workshops to scope requirements.	Action closed in the meeting. Committee updated on the proposed engagement roadmap for scope workshops in the meeting. (Refer to Agenda item 4).
2023 Mar (1)	TC members to provide input and feedback on project scope by 22 March 2023.	Action closed in the meeting. Member feedback was presented back to the Committee in the meeting and shared in papers before the meeting. (Refer to Agenda item 4).
2023 Mar (2)	Members to provide input and feedback on opportunities for a staged implementation by 22 March 2023.	Action closed in the meeting. Member feedback was presented back to the Committee. (Refer to Agenda item 6).
2023 Mar (3)	ASX to provide an update on the RFI process.	Action closed in the meeting. A breakdown of activity and timeline was provided in relation to the RFI process. (See Agenda item 3).
2023 Mar (4)	ASX to provide more granularity to the redesign plan.	Action closed in the meeting. The Committee was provided with an update on the redesign plan. (Refer to Agenda item 3)
2023 Mar (5)	ASX to review DTCC's recent 'ION' implementation for lessons learnt.	Action closed in the meeting. The ASX Enterprise Architect, CHESS Replacement Project provided a verbal update noting Project ION went live with a 'parallel production' environment, processing an average of 100K bilateral equity transactions per day, a small percentage of the volume for that transaction type. In this parallel mode, transactions in ION are being routed to the existing DTCC system for settlement, before the results are pushed back to ION.

The minutes of previous meetings on 22 February 2023 and 8 March 2023 were approved and would be published with supporting materials on the Committee website.

AGENDA ITEM 2: Member feedback from last meeting

The Chair provided a summary and key themes of member feedback after the first two Committee meetings, following the pulse survey which captured the Committee perspectives on the overall effectiveness of the CHESS Replacement Technical Committee Forum.

- There were 20 responses from a cross-section of participants, share registries, AMOs, third party software providers and industry associations

- Enhance the efficiency of meetings, by distributing materials 48 hours to 1 week in advance

- Mixed feedback received on the size of the Committee – some requested the opportunity to extend the invitation within their organisation, others suggested membership is too large to extend membership (particularly with observers, suggestion to provide offline feedback to reduce size)

- There was acknowledgement of the challenges to align priorities across diverse stakeholder perspectives - thus calls for smaller focus groups on specific issues such as scope to mitigate this, and allow cohort-specific deep dives where relevant

- Helpful observations were provided regarding virtual and in-person meeting logistics (better identification of those in-person and online attendees when speaking in the meeting)

- Maximise time spent discussing key agenda topics by minimising time spent on administration matters.

1.1. ASX response to pulse survey feedback

- ASX to engage stakeholders on proposed changes; scope refinement sessions to be hosted in May and June. Business canvases will act as the key input feeding into the decision/approval process on any scope changes

- ASX will endeavour to circulate presentation materials one week prior to meetings and meeting minutes two weeks post the previous Committee meeting

- ASX will host deep dive sessions to allow for smaller groups and specialist industry input. These will provide new opportunities for member participation (Refer to Agenda Item 4 for engagement approach)

- ASX to look at making improvements to meeting hygiene and virtual facilitation

- ASX will look to conduct the next pulse survey at the end of CY Q2.

Member discussion:

Members raised no questions in respect of the update.

AGENDA ITEM 3: Project status & governance – RFI update, solution decision framework

Referring to March 2023 meeting requests for more granularity on the redesign plan, the ASX Delivery Lead, CHESS Replacement Project presented an updated plan, including details on both completed and upcoming activities.

1.2. Project status and governance

Key updates on status included:

- Product Definition & Business Case: In CY Q1, this stream was focused on the business requirements for both the RFI and RFP process and solution decision framework. In CY Q2, the focus will be to refine and finalise the scope and business requirements, through which Committee members will be involved

- Solution Assessment: In CY Q1, the stream developed the solution design framework (see Agenda Item 4) and completed the current state evaluation, inclusive of the evaluation of Digital Asset solution and ASX components for known issues and remediation. In CY Q2, the focus will be on identifying a refined set of

solution options to be passed through the solution decision framework, to determine a preferred solution option

- Sourcing and Commercial: In CY Q1 market scans completed and vendor RFI responses received. For CY Q2, ASX will be focused on issuing the RFP and commence work to define scope for a solution integrator to partner with ASX in the delivery phase of the project

- Testing and Implementation: In CY Q1 implementation options were reviewed by Committee members and feedback was received. In CY Q2, ASX will perform an impact assessment based on member feedback, alongside an internal impact assessment regarding implementation possibilities. In CY Q2 work will continue on the Test Strategy and will incorporate market feedback on industry testing.

Key updates on risks included:

- Commercial vendors' processes: this may impact the timeline for a Q4 announcement on a solution design. This risk will continue to be closely monitored during the commercial process.

Member discussion:

A member requested clarification on interdependencies between work streams for missing key milestone dates. The ASX Delivery Lead, CHESS Replacement confirmed that there are interdependencies, as outlined in the key risks. For example, any delays around the RFP responses or contract finalisations could potentially impact the completion of the business case.

A member questioned how work stream activities will be managed in parallel to scope refinement workshops, and the risk to the timeline for the decision making process. The ASX Delivery Lead, CHESS Replacement stated from a scope perspective, there was no major risk posed by the current decision making framework to the project design plan at this stage. However, a risk to the timeline could materialise depending on the level of scope change recommended from the workshops. Subsequent to this process, suggested changes can be managed through a change request process.

1.3.   Solution decision framework

The ASX CHESS Replacement Project Manager, updated the Committee on the solution decision framework. The solution decision framework provides ASX with a consistent and measurable process to assess potential solution options and respond to key considerations across multiple areas of consideration, whilst identifying risks associated with each solution option. The framework is aligned to the ISO 25010 product quality standards, and included additional categories to ensure full coverage across all CHESS Replacement project objectives.

The required inputs to be considered by the framework include:

- CHESS Replacement project objective measures
- CHESS architecture assessment
- Assurance actions
- Risk assessment
- Vendor assessment.

Member discussion:

Members raised no questions in respect of the update.

AGENDA ITEM 4: Project scope – industry feedback and engagement plan

1.4.   Industry feedback

The ASX Group Executive, Securities and Payments provided an update in response to stakeholder feedback on the drivers for replacing existing CHESS. It was noted ASX have undertaken to provide evidence on the reliability,

supportability, resiliency and continuity of the current CHESS system in a special report. This includes the support and maintenance of existing CHESS to 2032.

The feedback on scope from members highlighted some concerns about diverting resources to replace a well-functioning and supported CHESS. The ASX Group Executive, Securities and Payments acknowledged this while reiterating the following reasons as to the rationale for replacing CHESS:

- Continue to comply with clearing and settlement (C&S) license obligations
- Meet the needs of the market including lowering risk, enabling new ways of working and providing for global standards e.g. ISO and FIX
- Reduce the difficulty of supporting legacy architecture that has grown in complexity over many years.
- Provide for long term scalability
- Further enhance cyber security controls by adopting contemporary technologies
- Potential talent scarcity and limited capabilities in 10-20 years to support legacy technologies.

ASX Group Executive, Securities and Payments also provided a summary on stakeholder sentiment regarding the CHESS Replacement scope. This illustrated the variety of stakeholder views from reducing, maintaining and increasing the current project scope.

1.5. Scope

The ASX Senior Manager, Equity Post Trade provided a summary on member's feedback on scope.

Key points included:

- Some items will be managed outside of CHESS replacement, such as T+1. (See Appendix A for other out of scope items)

- Some items will managed when revisiting design aspects in the next phase of the project once the target solution has been confirmed e.g. changes to netting and settlement workflows. (See Appendix A for further examples)

- Scope items to be revisited as part of CHESS replacement in this phase of the project include:

    a. Settlement improvement and enhancements, such as improvements to bilateral matching

    b. Sub-register and issuer sponsored enhancements and process improvements, this includes capturing additional investor data, or registry lock on holdings

    c. Corporate action processing efficiencies (including dividend claims)

- Scope items previously identified as out of scope are to remain out of scope.

1.6. Engagement plan

The ASX Senior Manager, Equity Post Trade, Securities and Payments explained the engagement plan for scope refinement. Members will have the opportunity to comment on all scope refinement ideas through a short survey across three categories:

1. Sub-register ad issuer sponsored enhancements and process improvements

2. Settlement improvements and enhancements

3. Corporate action processing efficiencies.

Additional key points included:

- Scope refinement sessions will be held for each category

- Attendees may be Committee members, or a nominated representative with the appropriate domain knowledge, or subject matter expertise

- The workshops build out the 'value proposition' for each scope item (Business Canvas)

- ASX are proposing an independent moderator to facilitate discussions

- The business canvas output from these sessions will be presented back at the following Technical Committee, and endorsement sought on actions or recommendations. Approval will then be sought from the Business Committee

- Any scope changes will be brought before the ASX Clearing and ASX Settlement Boards for approval.

Member discussion:

A member asked if the rationale for replacing CHESS has changed over time. The ASX Group Executive, Securities and Payments responded that the primacy of the clearing and settlement licenses has always been a priority while considering the diverse range of industry needs.

A member asked if there is a preferred coding language to replace COBOL. The Chair responded that ASX are looking for a future-focused technology, and are focused on selecting a flexible architecture that will ensure the durability and flexibility of the system.

A member agreed and voiced support of replacing the current system, however asked for clarification on what was the current, day one scope for the new replacement project. The Chair answered, the baseline scope for the new CHESS replacement scope was based on industry consultations and is the current CHESS functionality plus the features previously shared with this Committee. This baseline is now being revisited, as technology and requirements have changed over time. ASX is also open to any additional feedback on scope, to take into consideration as part of the 'scope refinement sessions.'

A member asked if Committee member's response to feedback was understood to be the current scope for day one go live (i.e. current CHESS functionality plus the features previously shared with this Committee). A member confirmed their feedback was provided based on the scope as outlined for day one CHESS replacement. Another member agreed that they responded to the content from the one pager provide while understanding that everything was on the table for discussion. The Chair validated that there is an ongoing, open invitation to provide feedback on scope. The ASX Delivery Lead, CHESS Replacement Project stated, change requests are expected, thus scope can always be modified as appropriate after formalisation of the baseline.

A member requested clarification that ASX is one of the AMOs represented as a respondent to scope feedback. The Chair confirmed that ASX Trade was represented on the slide illustrating member feedback.

A member asked if they were able to send attendees who are not a Committee delegate to the scope workshops. The ASX Senior Manager, Equity Post Trade confirmed that a new delegate, or a nominated representative with the appropriate domain knowledge, may be sent on behalf of the organisations to the focus groups.

A member recommended for the scope to explicitly recognise the specific interoperability requirements in the architecture, provided the new solution is designed to adapt to the expanding and future direction of the market. Another member agreed with this statement. The Chair responded that the extensibility, componentisation and future industry direction are part of the architecture considerations and solution decision framework.

AGENDA ITEM 5: Testing approach

The CHESS Test Director, Quality Engineering & Testing presented the high level view of the approach to developing the test strategy. Members were notified of a request for feedback on previous phases of industry testing. Multiple inputs and considerations influencing the test strategy were highlighted. ASX will refer to past learnings to formulate the CHESS replacement test strategy. Over the past twelve to eighteen months, ASX have made efforts to uplift testing, quality engineering and testing standards, and these improvements align to the ISO 29119 standards. The test strategy takes into account various sources of feedback, including the recommendations from independent reviews. The testing guiding principles will help ASX to address those findings and actions from the previous CHESS Replacement project.

Key points from the presentation included:

- The first objective is to create a robust and meaningful test strategy
- All aspects of the testing process must be reviewed prior to their input into the test strategy. Examples include: achieve the appropriate amount of test coverage early in the process, manage defects, improve reporting and identify the environments and data
- ASX have recently conducted a post-implementation review (PIR) against the industry testing in the previous phases of the project. The lessons will be compiled into categories, and suggestions for improvement will be reviewed as ASX develop the test strategy
- ASX are requesting market feedback to the following questions: What went well? What could be improved? Opportunities for the future? What is important to you?
- The definitions for a parallel run and parallel test were included to enable consistent communication in the Technical Committee moving forward.

The Chair added that staging the implementation, rather than a single cutover approach, will enable testing ahead of the cutover. The testing options will be dependent on the final implementation plan, which ASX will collaborate with stakeholders on.

Member discussion:

A member asked what the Singapore Stock Exchange (SGX) used for their previous project. The CHESS Test Director, Quality Engineering & Testing took the question away as an action.

Regarding the implications of the varying types of parallel tests and/or runs for ASX's system, a member voiced concerns over factoring in the number of participants and the impact on their testing and certainty. The CHESS Test Director, Quality Engineering & Testing replied ASX have commenced the formulation of options regarding what can be tested in isolation verses in a larger environment where it will impact user's testing.

A member noted the current consultations on market management and twice a year BCP testing and requested for ASX to consider other testing requirements for market participants due to the limited resources within organisations. The ASX Group Executive, Securities and Payments agreed it was important to plan ahead so customers can participate in testing across the calendar year.

A member asked if the considerations from the feedback will form part of the new solution RFP, acknowledging the impact vendor issues had on testing in the previous replacement project. The ASX CHESS Test Director, Quality Engineering & Testing answered that ASX have asked for each vendors testing approach as part of the RFI. This included requests for examples of previous implementations, exact uses of parallel testing and parallel runs and the vendors' preferred method of implementation. ASX has reviewed these responses ahead of issuing the RFP.

A member asked what the security testing considerations are within the new solution. The ASX CHESS Test Director, Quality Engineering & Testing clarified that the security is included in the test strategy, including security performance testing. As the project progresses, ASX will share the security expectations. Security testing concerns will also be included in the RFP.

AGENDA ITEM 6: Feedback on opportunities for staged implementation

The ASX Enterprise Architect, CHESS Replacement Project updated the Committee on the feedback of the implementation opportunities presented at the March Committee. The summary of feedback included the following key points:

- There were comments to the prematurity of transition discussions prior to a formalised solution
- Nine responses provided alternatives to the clearing and settlement transitions
- Feedback on the clearing migration opportunities was overall supportive, or conditionally supportive
- Those that expressed conditionally supportive views on clearing migration were in regard to compatibility between EIS and the ISO messaging

- Opportunities for clearing will be considered eligible for further analysis. It was noted that, even if clearers were shielded from this transition stage via backwards compatibility there would still be a significant reduction in risk as AMOs and could transition onto the target state scalable clearing facility which represents 90% or more of daytime transaction activity.

1.7. Pass-through messages

Pass-through messages will be an opportunity for a set of transactions that will not change the state of the CHESS system. CHESS would act as a message-switch for sending messages, typically from participants to registries. The opportunity will involve additional validation on those low-risk messages sent. Summarised feedback and key points include:

Pass-through messages are where CHESS acts as a message-switch for sending messages, typically from participants to registries. Since these do not update the state of the system they are lower risk than other ISO 20022 transactions so if supported in an initial stage then that might be risk reducing. Summarised feedback and key points include:

- ASX propose utilising the additional validation of messages as an introduction to ISO messaging in production
- Feedback was mixed, consisting of supportive, conditionally supportive or strongly opposed
- This opportunity will not be reviewed until there is a clear view of the solution.

1.8. Second settlement batch

There was more feedback on the second settlement batch opportunity, and double the number of unsupportive responses compared to the unsupportive feedback on pass-through messaging. Those who were unsupportive were strongly unsupportive, only two entities were fully supportive, and a majority of responders were conditionally supportive, subject to vendor support of the option. Key points included:

- There was a recommendation to utilise new HINs in the new system over existing ones, however, ASX would prefer the use of new HINs to be optional, not mandatory
- There were comments suggesting netting the payments together, rather than keeping separate, would introduce additional complexity in the model and require a single margin settlement from both systems.
- It was noted that supportive and unsupportive feedback sometimes came from within the same stakeholder group
- The feedback shows the diversity of opinions, hence this opportunity will not be ruled out completely, and there might be a possibility to offer a limited pilot.

1.9. Alternate

Regarding alternate suggestions, there were nine comments that can be categorised into four themes.

1. Centralised message translation
   - There were three member requests for this feature
   - There are two options for broad use of centralised message translation, as put forward in the 2022 information paper on an assessment of implementation options for cutover:
     - ASX could offer compatibility and like-for-like transition in targeted situations, such as clearing backwards compatibility
     - Another potential option is for payment providers who have a fairly similar messaging interface to CHESS
   - Beyond those two limited scenarios, ASX would need to offer the capability for all 450-odd CHESS messages. Since the target state for some of those workflows is not like-for-like with current CHESS, it would introduce significant complexity into the translation service. This is recognised in SWIFTs ISO 20022 migration paper, which recommends an interim like-for-like messaging stage
   - CHESS system interfaces would be required to support like-for-like XML messaging first, essentially "CHESS-ML", not our target ISO state. Only after all users have transitioned to "CHESS-ML" will a cutover to the target state be possible. That is where we would then be able to introduce alignment to ISO 20022 and associated target state business processes, which would still ultimately require a

single cutover. It was acknowledged that there is a role for message translation in the implementation approach, but that a targeted usage of translation was more appropriate when the target state is not like-for-like.

2. Transition by function
    This is an extension of the 'pass-through' opportunity concept. That has received mixed feedback and opportunity will not be analysed further until there is a clear view of the solution.

3. Transition by participant
    This could work if there was support for centralised message translation. Transitions could occur participant by participant. However, the options suggested do not all rely on centralised message translation. One model put forward was a 'bridged' transition. A participant would transition to the new system and messages would be sent between current and new CHESS to keep them in synch during the transition.

4. Pure technical replacement with no change in interface
    Refer agenda item 4 for the rationale on why ASX is not currently considering a pure technical replacement.

ASX is continuing to investigate options for how we can transition and will come back to the Technical Committee with firmer proposals once the solution becomes clearer.

Member discussion:

A member requested a breakdown of the implementation feedback in relation to the market cohorts. The ASX Enterprise Architect, CHESS Replacement Project provided a verbal breakdown. Registries did not comment on clearing. Participants not directly impacted by clearing agreed that transitioning clearing first or separately was conceptually ideal, and viewed the transition as de-risking the clearing process. The participants that responded were assumed to be primarily clearing participants. AMOs did not provide feedback on clearing. The feedback on clearing was overall conditionally supportive. There were some members who requested to receive the ISO messages in parallel with EIS messages, also a potential possibility. Overall, the feedback highlighted the desire for a compatible interface for this migration stage.

Two members asked if it was an option to potentially transfer to a functional feature, maintaining limited scope and like-for-like. The Chair responded that a replacement system with the ability to act like-for-like, translating and cutting over to the ISO standard does not reduce risk. There will likely be risk of defects in the translation, followed by ISO related cutover risk. This extends the change over period, increases workload for participants and includes two cutover risks, first for translation and second for ISO.

A member asked if extra work for a centralised message translation was validated by participants. The Chair responded, ASX will not achieve a like-for-like replacement system, as the replacement will be an entirely new system, with different operations and messages to reflect the business process. There are more specific scenarios such as clearing where a centralised message translation may be an option for the discreet number of messages. This will only work with a small, manageable number of messages. Risk is increased if it is implemented across the board. ASX's goal is to ensure the market operates everyday through the transition period.

A member noted their view that, from a messaging perspective, participants will experience a higher workload regarding the front load for a cutover, examples being converting messages and system interfaces. Referencing the SGX approach of using a translation tool that allowed participants to on-board ISO messaging as a group and utilise the translation tool in their end state system. It was suggested that a message translation in the back end would allow participants to opt into message types, in keeping with the ASX requirement to develop a flexible system. It was noted that the end state system in the SGX example was developed for their phase two. ASX took the action to review the SGX implementation approach.

In response to the Chair's statement towards the centralised message system a member noted their understanding of the Chair's suggestion to transition clearers and payment providers in isolation, to de-risk the go-live, noting there will be one or more groups that will implement ISO as a big bang as a result. The member stated support for testing the cutover on a small scale, increase that environment and make that the target state for people to transition to, giving

users the opportunity to remove issues that might occur during a single cutover implementation. The Chair noted the members concern, stating one of the challenges for settlement is that there is little support for running two systems concurrently. ASX will review a pilot approach, however there is a risk everyone will be impacted should a small part of the market be running solely on the new system before the transition of the remainder.

A member requested clarification on the discussion of this work as to whether it was being done in isolation of the possible requirement to fold ISO into current CHESS. The ASX Group Executive, Securities and Payments confirmed that the discussion is looking at both systems together. The current thinking supporting current CHESS has however been done in isolation of the project. The Reserve Bank of Australia (RBA) has requested ASX to explore the feasibility of select enhancements that were due to be delivered in CHESS replacement, to be considered as part of the current CHESS roadmap.

AGENDA ITEM 7: Other matters

a)   Forward work plan

The ASX Senior Manager, Equity Post Trade, Securities and Payments provided an update on the forward work plan.

ASX presented agenda topics for the next meeting, and requested members communicate what topics they would like to discuss in future meetings.

Calendar invitations have been sent for the next meeting on 10 May 2023. Invites for the first scope refinement workshop will be sent before the 10 May Technical Committee meeting.

b)   AOB

The appointed independent meeting observer noted the technical difficulties experienced in the meeting for those online and in person, recommending issues be fixed prior the next meeting. The observer explained that the meeting governance was succinct, and there were valuable discussion points in relation to scope and implementation. The pre-reading was beneficial to the attendees, given the depth and diversity of content presented and in conclusion offered it was a well-executed meeting.

c)   Next meeting – 10 May 2023

The next Committee on 10 May 2023 will discuss feedback on industry testing, how ASX plan to run the first scope refinement sessions, update on action items, in addition to the standing agenda items of project status updates, risks and issues.

The meeting closed at 4.00pm.

Signed as a correct record of the meeting.

_____   ___10 May 2023_____

Chair   Date