

CHES Replacement Technical Committee Minutes

13 September 2023

At its September meeting, the CHES Replacement Technical Committee was updated on:

AGENDA

- Open actions;
- Member feedback from last meeting;
- Project status and governance;
- Project scope;
- Interface options;
- Other matters, including:
 - Forward work plan; and
 - Observer feedback.

KEY ISSUES DISCUSSED

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

- i. An update on project progress including key workstream activities;
- ii. A discussion of scope recommendation survey results and endorsement of Business Committee proposal; and
- iii. A playback and discussion of interface options survey results.

AGREED ACTIONS

Five new actions were raised at the meeting:

1. Provide more detail on messaging including market comparisons, any high-volume messaging environments and confirm usage of data fields in ISO standard messages.
2. Investigate and make recommendations on how the Technical Committee can collaborate with the Equities Settlement Payments Providers Sub Committee (ESPPSC).
3. Clarify more detail on scope recommendations including next steps.
4. Discuss and review existing 'day 2' and 'out of scope' items that have not been tabled for the current project
5. Investigate options for binary transmission of ISO 20022 for high volume Participants.

Minutes from the meeting are attached.

Agenda

CHES Replacement Technical Committee

Date	13 September 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 and governance

4. Project scope – discussion of scope recommendation survey results and endorsement of Business Committee proposal

5. Interface Options – playback and discussion of survey results

6. Other matters

- a) Forward work plan
 - b) Observer playback
-

Action Items

Item number#	Action	Due date	Status	Owner
2023 June (1)	ASX to include the solution's messaging protocol (e.g. EIS versus ISO messaging) as a TC topic.	13 September 2023	Closed	ASX
2023 August (1)	ASX to provide clarity on the level of customisation of the ISO 20022 base messages leveraged by CHES Replacement (as at pause).	13 September 2023	Closed	ASX
2023 September (1)	Provide more detail on messaging including market comparisons, any high-volume messaging environments and confirm correct usage of data fields in ISO standard messages.	28 September 2023	Open	ASX
2023 September (2)	Investigate and make recommendations on how the Technical Committee can collaborate with the Equities Settlement Payments Providers Sub Committee (ESPPSC).	8 November 2023	Open	ASX
2023 September (3)	Clarify more detail on scope recommendations including next steps.	8 November 2023	Open	ASX
2023 September (4)	Discuss and review existing 'day 2' and 'out of scope' items that have not been tabled for the current project	28 September 2023	Open	ASX
2023 September (5)	Investigate options for binary transmission of ISO 20022 for high volume Participants.	8 November 2023	Open	ASX

CHES Replacement Technical Committee Members

Company	Name	Job Title	Apologies
ASX	Tim Whiteley	Technical Committee Chair and Project Director, CHES Replacement Project	
Clearing and Settlement participants			
ABN AMRO CLEARING	Matthew McMahon	Head of Operations	
AUSIEX	Mark Pace	Head of Solution Design	Apology
Merrill Lynch Equities (Australia)	Matthew Gwynn *Stephen Hacker	Project Manager Director, Head of Operations	
BELL POTTER SECURITIES	Lee Muco	Chief Operating Officer	
BNP PARIBAS	Wayne Murphy	Project Manager	Apology
CITI	Lyall Herron	Program Manager	
CMC	Michael Connaghan	Head of Engineering & Project Delivery, Stockbroking	
COMMSEC	Ryan Jones	Crew Technical Lead	
FINCLEAR SERVICES	Nikki Gleisner	Senior Business Analyst/Client Relationship Manager	
GOLDMAN SACHS	*Kenichi Shirasuna	Securities Settlements Technology	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	*Heather Brandt	Vice President	Rebecca Collins, Executive Director
MORGANS	Daniel Spokes	Director, Client Support Services	
NAB	Rodd Kingham	Head of Investment Service (WealthHub Securities)	
UBS	*Andrew Lockhart	Executive Director, Investment Bank Operations	Scott Hanlon, Head of Operations, Executive Director
Third party software vendors			
BROADRIDGE	Danielle Gerace	Head of Client Service Australia	
COMPUTERSHARE	Leanne Bailey	Senior Business Analyst	
FINCLEAR	Craig Gray	Head of Product for Settlement & Clearing systems	Apology
FNZ	*Sue Schafer	Product Owner	Nick Clarke, Head of Product Management – Capital Markets
SECURITEASE	David Hinkley	General Manager	

AMOs			
ASX	Jimmy Halstead	Head of Trading Technology Markets, Technology	Apology
CBOE	Mike Aikins	Vice President APAC – Operations and Technology	Apology
NSX	Yemi Oluwi	Head of Market Operations and Technology	
SYDNEY STOCK EXCHANGE	Rajnish Tiwari	IT & Operations Manager	
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	*Blanca Valle	Senior Project Manager – CHES Replacement	Chris Wong

* Delegate

Observers

Company	Name	Job Title	Apologies
AusPayNet	Luke Wilson	Chief Operating Officer	
AFMA	Brett Harper	Chief Executive Officer	Apology
	Damian Jeffree	Senior Director of Policy	
ACSA	David Travers	Chief Executive Officer	Apology
AIRA	Ian Matheson	Chief Executive Officer	Apology
GIA	Simon Pordage	Brand Ambassador for Governance Institute of Australia & Company Secretary for ANZ)	
SIAA	Judith Fox	CEO	
ASIC	Dodie Green	Senior Manager, Market Infrastructure	
	Andia Petropoulos	Senior Analyst, Market Infrastructure	Apology
	Bharat Patel	Senior Specialist, Financial Markets Infrastructure	
	Shingi Muvenge	Financial Risk Manager	
RBA	Kylie Stewart	Senior Manager, Domestic and Payments, Financial Market Infrastructure	Apology
	Tatiana Moiseeva	Lead Analyst, Financial Market Infrastructure, Domestic and Payments	Apology
	Elizabeth Kandelas	Manager	Apology
	Rhea Choudhary	Graduate	

EY

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

ASX Management

Name	Job Title	Apologies
Katie McDermott	General Manager, Business Design, CHES Replacement Project	
Steven Hannan	Stakeholder Engagement Senior Manager, Equity Post Trade	
Keith Howie	Software Provider Relationships Manager, Equity Post Trade	
Triona Quinlan	Delivery Lead, CHES Replacement Project	
Chris Boyes	Senior Product Manager, Securities and Payments	
Russell Eyre	Enterprise Architect, CHES Replacement Project	
Priscilla Ferri de Barros	Manager, Messaging Expertise	

AGENDA ITEM 1: Welcome and open actions

The Chair welcomed members and delegates to the eighth CHES Replacement Technical Committee (Committee) meeting.

Jimmy Halstead (ASX Trade) is an apology. Rebecca Collins (Morgan Stanley Securities) was represented by a delegate, Heather Brandt. Scott Hanlon (UBS) was represented by a delegate, Andrew Lockhart. Simon Wyss (Goldman Sachs) was represented by a delegate, Kenichi Shirasuna. Nick Clarke (FNZ) was represented by a delegate, Sue Schafer.

The Chair highlighted changes to Committee membership. The representative for Link (Kelvin Chee), will be represented by Chris Wong, and for the September Committee was represented by a delegate, Blanca Valle. The representative for Merrill Lynch (Monika Arhns) will be represented by Matthew Gwynn, and for the September Committee is joined by delegate Stephen Hacker. The representative for ACSA (David Travers) will change pending the nomination of a representative.

The Chair introduced and thanked the nominated meeting observer for the 13 September 2023 Committee.

The Chair reminded members of their obligations under competition law and provided an overview of the agenda. The Chair continued by reminding members that the purpose of this Committee is for stakeholders to provide input and feedback and encouraged participation and engagement in the session.

The minutes of the previous 21 August Committee were approved and published with supporting materials on the CHES Replacement [website](#).

Two open actions discussed:

Item Number	Action	Discussion
2023 June (1)	ASX to include the solution's messaging protocol (e.g. EIS versus ISO messaging) as a TC topic.	Action closed in meeting via verbal update.
2023 August (1)	ASX to provide clarity on the level of customisation of the ISO 20022 base messages leveraged by CHES Replacement (as at pause).	Action closed in meeting via verbal update.

Action item 2023 June (1)

The 21 August Committee provided an overview to ASX's approach to interface options. This addressed the messaging protocol through a walkthrough of transaction and data interfaces, the rationale for adopting ISO 20022 as well as ASX's ongoing engagement on business and technical design. Subsequent to this, Agenda Item 6 (Interface Options), recorded strong support for the ISO 20022 interface and the leveraging of existing messages from CHES Replacement (as at pause) as a baseline for the project.

Action item 2023 August (1)

The General Manager, Business Design responded to Action item 2023 August (1). This included the following:

- ASX engaged SWIFT in 2016 to map all existing EIS messages to ISO 20022 to ensure the standard was fit for purpose. This uncovered gaps in the ISO 20022 message catalogue for select cash management messages (5) and collateral messages (2). In 2018, a business justification was submitted to the ISO 20022 registration authority to address these gaps, noting the cash management messages have since been used in other markets.
- ASX analysed 496 proprietary CHES EIS messages and, in consultation with the market from 2018 to 2021, mapped 275 EIS messages to 106 ISO 20022 base messages. Of the 106 total messages:
 - 71% (75) were compliant with ISO 20022 standards, requiring no additional customisation or supplementary data.
 - 29% (31) required supplementary information, a majority (15) requiring only a single additional element. This additional element was mostly to add balance information.

Member discussion:

A member representing a participant raised a question related to the recent ISO 20022 messaging review ASX conducted. The member inquired about the presence of certain data fields within the ISO standard message structure. The General Manager, Business Design noted this as an action. The ASX Senior Product Manager, Securities and Payments reiterated industry engagement on Technical Design previously raised at the [21 August Technical Committee](#). This involves the importance of providing feedback on ISO 20022 messaging in the planned technical design working groups.

A member representing a participant suggested performing a comparison with other markets, specifically mentioning T2S. ASX Manager, Messaging Expertise provided insights into ongoing messaging work, including T2S and the data maintenance ASX requires for the approval of its messages. The Chair acknowledged the request for further information on this topic and noted this as an action.

AGENDA ITEM 2: Member feedback from last meeting

The Chair recorded member feedback on the 21 August Committee minutes related to resourcing requirements. This feedback sought to clarify whether any connectivity or testing related activities are expected of participants in 2024. The Chair noted that while ASX could not comment on timelines due to continuous disclosure obligations, ASX continues to work towards the end of the calendar year for the announcement of the solution design. After this, ASX would consult with the industry on the project timeline.

AGENDA ITEM 3: Project status & governance

The ASX Delivery Lead, CHES Replacement Project provided the project update noting the four workstreams addressing the product definition and business case, the solution assessment, sourcing and commercial and testing and implementation are tracking to plan.

Key updates included:

- The CHES replacement project team continue to work towards the Q4 solution decision announcement. This remains subject to various factors including the input of the Advisory Group and regulators.
- Calendar-year Q3 deliverable work is ongoing with the focus of the product definition and business case workstream on baselining scope requirements, noting this activity will be followed by planned market consultation on scope post Q4 solution decision announcement.
- In the solution assessment workstream, the team is iterating on the solution design that will feed into the overall business case and work continues on the project estimates.
- ASX is continuing to progress the sourcing and commercial workstream.
- Regarding the testing and implementation workstream, the internal test strategy deliverable is nearing completion, noting this activity will be followed by market engagement on the industry test strategy.

Member discussion:

Members raised no questions in respect of the update.

AGENDA ITEM 4: Project scope

The ASX General Manager, Business Design opened by acknowledging the significant effort Committee members made to-date on the scope refinement process and provided an update on the timeline for the remaining activities. The ASX General Manager, Business Design continued noting extending the survey's due date allowed for a 93.75% response rate from Committee members.

As part of this Agenda Item, proposed recommendations were discussed ahead of the 28 September Committee. The aim of the 28 September Committee is to endorse the Committee's recommendations before they are formalised in a Business Committee paper (BC Paper) ahead of the 11 October Business Committee, noting the 28 September Committee was brought forward from 4 October to accommodate any additional feedback that needed to be incorporated into this Paper.

The ASX General Manager, Business Design reminded Committee members that discussions on scope have not concluded, noting future consultation on design and detailed discussions are planned post the Q4 solution decision announcement. Additionally, the ASX General Manager, Business Design requested that Committee members align with their respective Business Committee representatives internally within their organisations to help inform them on scope objectives and the proposed recommendations ahead of the 11 October Business Committee.

The ASX Senior Product Manager, Securities and Payments provided an overview of survey participation by cohort and the initial proposed categories of scope objectives based on the responses received. These included:

1. Proceed to CHES Replacement design consultation
2. Proceed to CHES Replacement design consultation (and evaluate the opportunity to make improvements in current CHES)
 - The feasibility of these objectives will also be explored in current CHES.
3. Further consideration
 - These objectives will either be brought back to the Technical Committee, or supporting industry forum, for further discussion.
4. Not supported
 - These objectives have not received sufficient support and will not be brought forward at this time.

Results highlighted a majority of respondents either strongly supported or somewhat supported the proposed scope objectives. Based on these responses, ASX Senior Product Manager, Securities and Payments walked through ASX's initial recommendation for consideration and rationale for each scope objective surveyed. This information was shared previously as part of the Committee pre-reading on 31 August 2023.

Member Discussion

Proposal Categories

A member representing a participant inquired about the timelines for scope objectives classified as further consideration. The member representing a participant continued by requesting clarification noting the potential for change in the current CHES system and the response to member feedback on resourcing support requirements in calendar-year 2024 mentioned as part of Agenda Item 2. The ASX General Manager, Business Design responded that the timing of next steps would depend on the Q4 solution decision and subsequently the market consultation following this announcement as the timeline of CHES Replacement will help inform the market's appetite to run two change programs in parallel.

The Chair reiterated that items 'requiring further consideration' indicated the scope objective required more discussion and analysis before a decision is made on whether to proceed with its recommendation. This is not limited to discussion at the Committee and may be reviewed, for example, as part of the AFMA Registries forum or a separate working group. Additionally, the Chair confirmed that further scope items, including those noted as 'requiring further consideration' could be put forward as recommendations to the Business Committee in the next calendar year after such discussion and analysis is completed.

A member representing a participant questioned whether further consideration indicated scope objectives were considered as day two for CHES Replacement. The Chair disagreed, noting the timing of scope objectives is dependent on detailed planning, which will be subject to market consultation.

Recommendation Process

A member representing an industry association requested clarification on whether the recommendations were subject to the Q4 solution decision and how this would be taken into account. Similarly a member representing a participant questioned when delivery risk would factor into scope recommendations. The Chair and ASX Senior Product Manager, Securities and Payments noted these would form part of the market consultation on design.

A member representing a participant inquired about the impact on T+1 on CHES and CHES Replacement. The Chair noted any impact T+1 would be communicated and assessed through market consultation.

A member representing a participant suggested clarifying next steps where items are subject to further consideration. This may include whether the scope objective is to be discussed at the AFMA registries forum, with the Committee or whether it is with ASX for further analysis. A member representing a participant requested additional clarification in terms of the next step timing. The Chair and ASX Senior Product Manager, Securities and Payments noted this as an action.

A member representing a participant requested clarification on whether ASX had an independent criteria or clear governance on how scope was to be prioritised for CHES Replacement, given certain Committee members felt strongly against certain objectives. The Chair reminded the Committee members that, as a group, the Committee could put forward a recommendation to remove scope. The Chair continued noting that detailed design may impact the recommendation and would help to uncover, and subsequently plan for delivery risk.

A member representing a registry sought clarification whether any items outside of the scope outlined in the [2018 market consultation](#), for example items classified as day two, were no longer considered for CHES Replacement. A member representing an industry association noted the Committee would benefit from having visibility of a list of these scope items. The Chair and General Manager, Business Design noted this as an action.

AGENDA ITEM 6: Interface options – playback and discussion of survey results

The ASX Enterprise Architect opened by thanking the attendees for providing inputs to the interface options survey and providing a recap of ASX's approach to interface options. This involved seeking input on interfaces into CHES replacement, including transaction processing, scheduled and ad-hoc reporting, data streaming, and user interfaces.

The ASX Enterprise Architect continued, summarising key findings from the survey including:

Transaction Processes

- AMQP was the top response (12), followed by 'Other' (6).
- The ledger API interface had three responses with one respondent withholding their preference until the new solution is announced.
- When taking into account first and second preference, AMQP remained the top preference, followed by SWIFT.
- The survey covered 76% of organisations building to ITE1, noting all non-surveyed organisations were building to AMQP in ITE1 (as at Pause).
- The 'Other' category included six responses from five different participants, including:
 - Kafka;
 - IBM MQ;
 - gRPC;
 - REST; and
 - SWIFT / REST Hybrid.

Scheduled and Ad-hoc Reporting

- Message-based reporting was the top response, followed by REST API. This result was mirrored when taking into account first and second preferences.
- There were two 'Other' suggestions, secure FTP and one organisation who noted their dependency on their vendor for reporting access.
- For larger bulk reports, notable suggestions were requesting by REST API but delivering via CSV over sFTP.
- Notably a registry emphasised the importance of guaranteed delivery and timing for specific reports.

Data Streaming

- The top response for data streaming was 'Other', followed by the ledger API.
- Many respondents expressed interest in data streaming, particularly for accounts, holdings, obligations, and transaction/trade status updates.
- The 'other' category included a number of diverse responses including:
 - Kafka;
 - gRPC;
 - Apache Spark or equivalent messaging;
 - 'ODS' style offering (where ASX provides populated database that can be accessed); and
 - Need to wait and see (dependency on solution announcement).

User Interface

- Responses indicated interest in a browser-based user interface as a supplementary means for transacting and a potential BCP option to settle a large value transaction in an emergency.
- There was a request to support a BCP file upload capability.
- Only one user mentioned using it as their primary access channel, noting likely candidates using it as a primary access channel are not part of the Committee.

The ASX Enterprise Architect concluded by reiterating the need to rationalise interface options and subsequently simplify the project and implementation. Noting this, the ASX Enterprise Architect acknowledged the strong support for AMQP as a transaction interface and message-based reporting to support scheduled and ad-hoc reporting. With regard to REST API, the ASX Enterprise Architect stated that the emerging ASX data platform could potentially be leveraged to support API access to data.

Member Discussion

A member representing a participant questioned whether there would be support for the ISO 20022 Binary Format (ASN.1) to assist with performance for higher volume Participants. The ASX Enterprise Architect said that it had not been contemplated but would look into it as there may be tooling to automatically convert between the binary version and the text version.

AGENDA ITEM 7: Other matters

a) Forward work plan

The ASX Senior Manager Stakeholder Engagement, Equity Post Trade discussed the forward work plan and agenda for the next meeting outlining the proposed agenda which includes a project status update and the finalisation of scope recommendations. The next Technical Committee meeting is on September 28, with the last scheduled meeting for the year on November 8. Depending on the progress of the solution announcement by ASX, a virtual or in-person Technical Committee meeting would be organized to discuss and review the outcomes of the announcement. The exact date would be communicated once the solution announcement dates were confirmed.

b) Meeting observations

The appointed independent meeting observer complimented the larger room which was well suited for the number of in-person attendees, noting initial audio challenges had been resolved. Having leveraged the planned two-hour Committee window, the observer continued stating actions from previous Committees were appropriately addressed and the meeting ran efficiently. The observer noted content was presented clearly, was well structured, meaningful to the agenda and supported by a good conversation and feedback. Committee members raised constructive and challenging questions on project scope which were acknowledged and answered well by ASX. Where further detail or clarity was requested, action items were appropriately recorded for future meetings. Similarly, to the August Committee, one improvement area the observer suggested from a meeting hygiene perspective was that Committee members should introduce themselves when speaking, especially for those physically present, as it is not always clear who is speaking to those attending virtually.

The meeting closed at 3.56pm.

Signed as a correct record of the meeting.

A handwritten signature in black ink, appearing to read 'G. White', written over a horizontal line.

8 November 2023

Chair

Date