ASX
CHESS Replacement

**Business Design Working Group –
Data & Connectivity**

27 March 2024

ASX acknowledges the Traditional Owners of Country throughout Australia. We pay our respects to Elders past and present.

ARTWORK BY: Lee Anne Hall, My Country My People

Housekeeping

Troubleshooting

> Please mute yourself when not speaking

> Please use the 'raise hand' feature on MS Teams if you would like to ask a question

> Please introduce yourself when talking for the benefit of all members

> Meeting is being recorded for the purposes of capturing decision and actions

> Dial in details (audio only):

- +61 2 7208 4607

- Phone Conference ID: 985 182 00#

> Presentation materials were distributed before the meeting and will be published on the website

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Important Information
Competition Law Reminder

> Workshop members are reminded to have regard to their obligations under competition law. In particular, please note that the Competition and Consumer Act prohibits a corporation from engaging with one or more persons in a concerted practice that has the purpose, effect or likely effect of substantially lessening competition.

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Agenda

01 – Agenda and Objectives

02 – Recap & Survey Results

03 – Connectivity

04 – Holding Balance Information

05 – Proposed Interfaces

06 – Next Steps

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01 – Detailed Agenda & Objectives

01 – Introduction
Detailed workshop agenda

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
05 – Proposed Interfaces
06 – Next Steps

Topic	Duration
Introduction - Workshop objectives and outputs	15 mins
Recap Survey and Results Playback	15 mins
Connectivity - ISO20022 via AMQP - Swift - User Interface - Message Based Reporting (ISO20022) - API Access	50 mins
Break	15 mins
Holding Balance Information	20 mins
Proposed Interfaces	20 mins
Next Steps	15 mins
Total workshop duration	**2.5 hours**

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01 – Workshop objectives
Key Objectives and outputs

The purpose of the BDWG is to achieve broad consensus on additional scope for CHESS Replacement and to develop the Business Design Document for each objective.

Objectives

- **Collect advice** and expertise to understand industry needs in relation to data and connectivity preferences

- **Identify risks and benefits** in relation to data access and connectivity channels.

- **Agree on any proposed solutions** in the context of Release 2, including any next steps.

Outputs

- Business Design Document that includes:
    - Functional outcomes
    - Process flow (high level)
    - Access channels (e.g. User Interface, ISO20022 messaging)
    - Any non-functional considerations
    - Any other considerations

The outcomes of a BDWG are not a commitment to scope and do not represent the final design of the system. The outcomes of the BDWGs will be used as input in assessing industry requirements and are subject to further consultation, legal and regulatory assessments.

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01 – Workshop principles
Our principles

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
05 – Proposed Interfaces
06 – Next Steps

Connectivity & Data Principles

- Simplify and rationalise the connectivity and data access methods in the system.
- Understand and clarify the purpose of each connectivity channel and data access method.
- Leverage industry investment and work completed in the previous project.
- Evaluate industry best practise and approaches in other markets and C&S systems.
- Minimise the number of technologies used by the new platform.
- Ensure the solutions are scalable, provide pathway for innovation and interoperability
- Leverage the existing capability of the TCS BaNCS platform.
- Avoid increasing risk to the delivery of Release 2 CHESS Replacement.

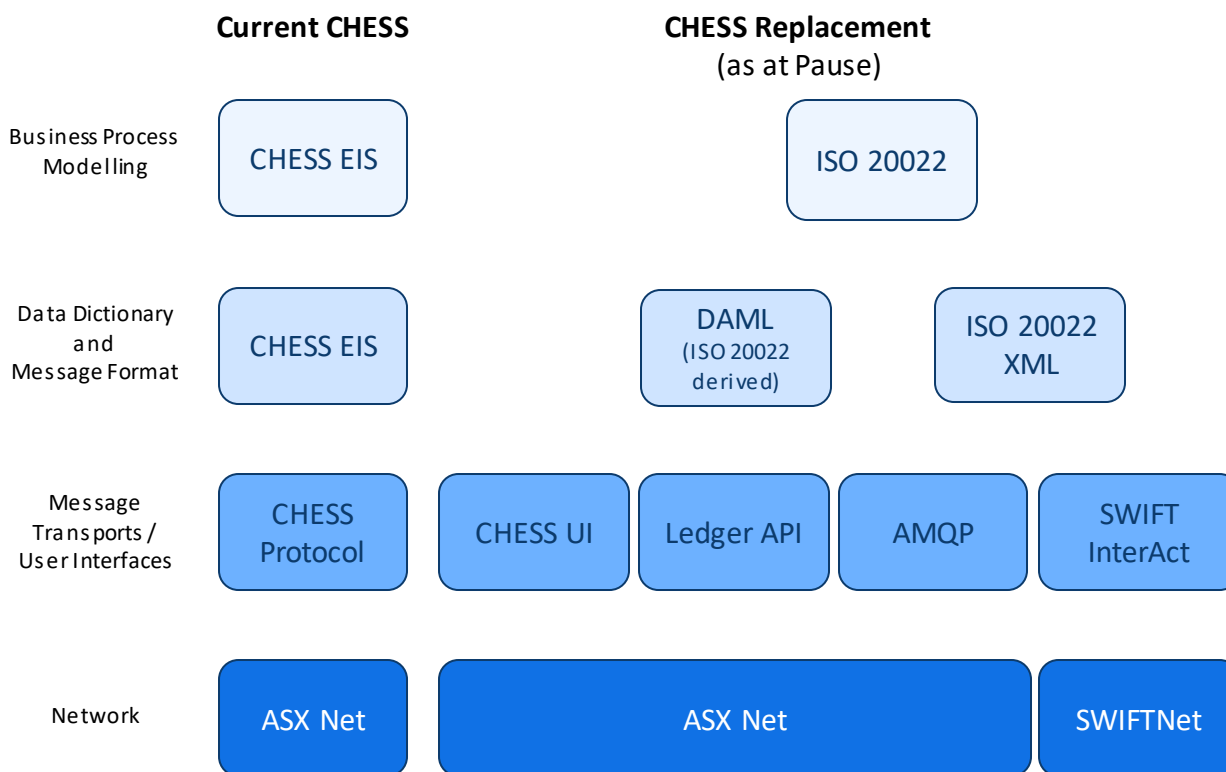Are there any additional principles or considerations?

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02 – Recap & Survey Results Playback

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
05 – Proposed Interfaces
06 – Next Steps

02 – Transaction interface overview

As at CHESS Replacement program pause

Summary:

- Interface layering:

  1. Business Process Modelling;

  2. Data Dictionary and Message Format;

  3. Message Transport; and

  4. Network.

- ISO 20022, an open global standard for financial information and the emerging standard in settlement, was introduced as part of the previous CHESS Replacement project.

- As at the time the previous CHESS Replacement project was paused, there were four message transports and a browser-based user interface offered.
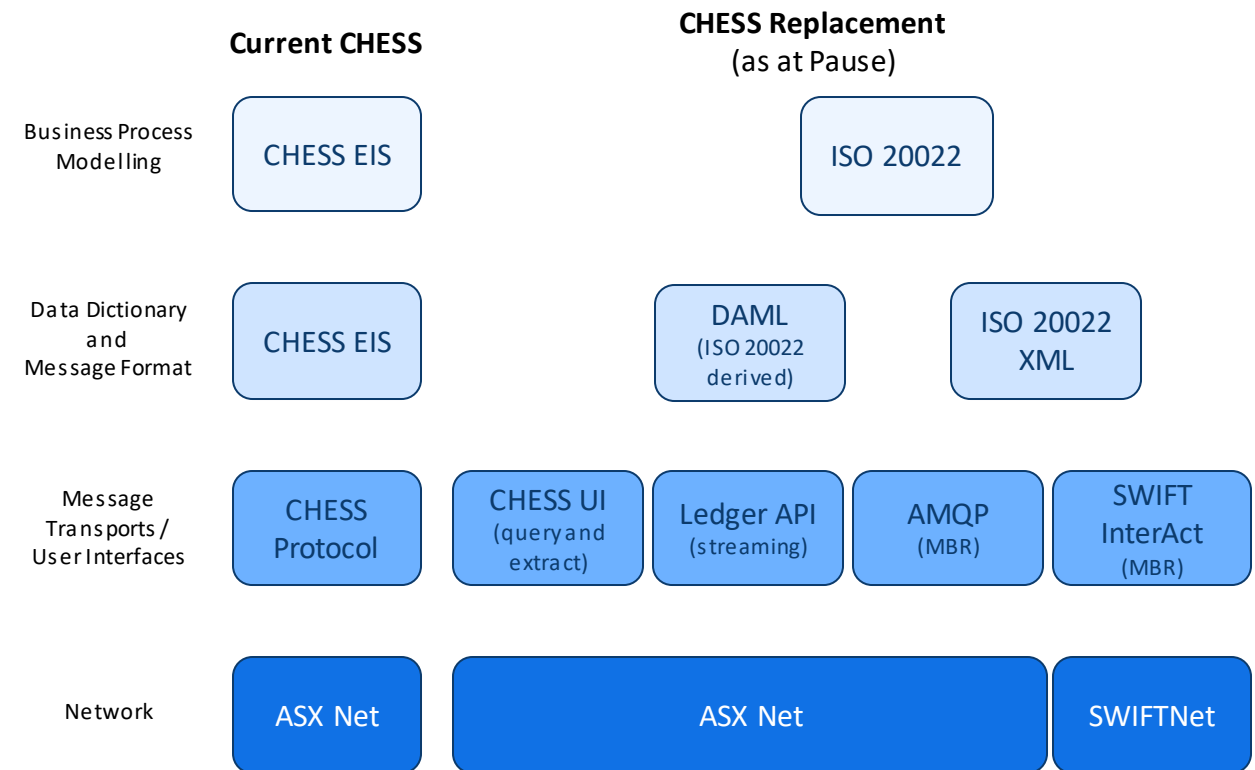
	Current CHESS	CHESS Replacement (as at Pause)			
Business Process Modelling	CHESS EIS	ISO 20022			
Data Dictionary and Message Format	CHESS EIS	DAML (ISO 20022 derived)		ISO 20022 XML	
Message Transports / User Interfaces	CHESS Protocol	CHESS UI	Ledger API	AMQP	SWIFT InterAct
Network	ASX Net	ASX Net			SWIFTNet

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01 – Introduction
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02 – Data interface overview

As at CHESS Replacement program pause

Data available as at the pause of the previous CHESS Replacement program:

- Message based reporting (MBR) was available on all supported transports and the User Interface.

- Ledger API supported streaming of changes to Participant data (such as holdings and obligations)

- CHESS User Interface (UI) enabled the querying and extraction of data in a CSV format.

Current CHESS

CHESS Replacement
(as at Pause)

	Current CHESS	CHESS Replacement (as at Pause)		
Business Process Modelling	CHESS EIS	ISO 20022		
Data Dictionary and Message Format	CHESS EIS	DAML (ISO 20022 derived)	ISO 20022 XML	
Message Transports / User Interfaces	CHESS Protocol	CHESS UI (query and extract)	Ledger API (streaming)	AMQP (MBR) · SWIFT InterAct (MBR)
Network	ASX Net	ASX Net		SWIFTNet

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01 – Introduction
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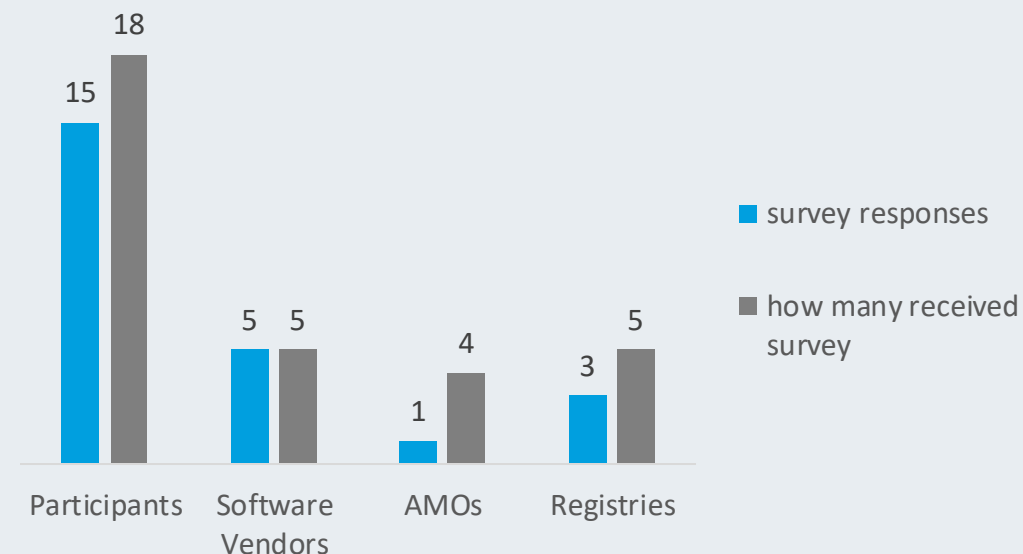06 – Next Steps

02 - Approach to interface options

Industry engagement

Re-cap of 2023 Approach for CHESS Replacement

- We released the interface options survey post the 21 August 2023 Technical Committee meeting.

- The survey asked members to nominate their preferred transaction and data interface option/s including a free-text field to provide rationale and use cases.

- Members had the ability to *skip* nominating a preference where applicable.

- Members could also nominate any *alternative* interface options not listed.

Responses

Topics gauged member preferences on interface options for transaction processing and data access.

- survey responses
- how many received survey

Chart values:
- Participants: 15 (survey responses), 18 (how many received survey)
- Software Vendors: 5, 5
- AMOs: 1, 4
- Registries: 3, 5

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02 - Transaction interfaces

Summary

01 – Introduction
02 – Recap and Survey
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06 – Next Steps

- 12 top ranked responses for AMQP 1.0 transport (noting AMQP 1.0 is also the preferred transport for vendor/in-house build respondents)

- 6 top ranked responses for "Other" (expanded on next slide)

- 3 top ranked responses for Ledger API (with one respondent noting they are reserving judgement until new solution is known)

- Survey covered 76% of organisations that were building to ITE1 (noting all non-surveyed organisations were building to AMQP in ITE1)

1st Ranked Message Transport
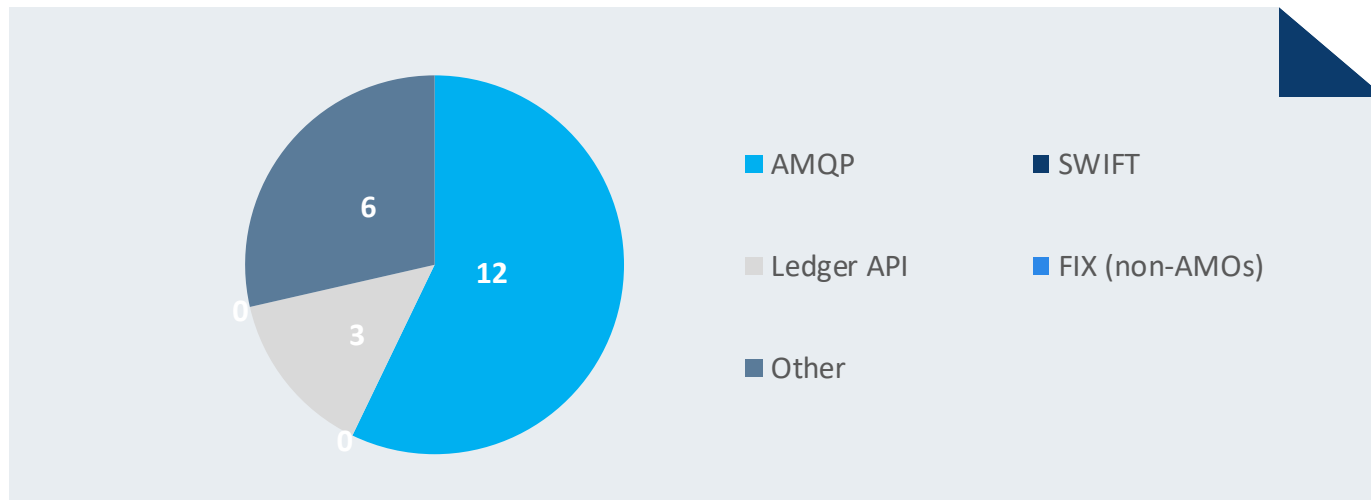
1st and 2nd Ranked Message Transport

Vendors/In-house Builds Only

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01 – Introduction
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03 – Connectivity
04 – Holding Balance
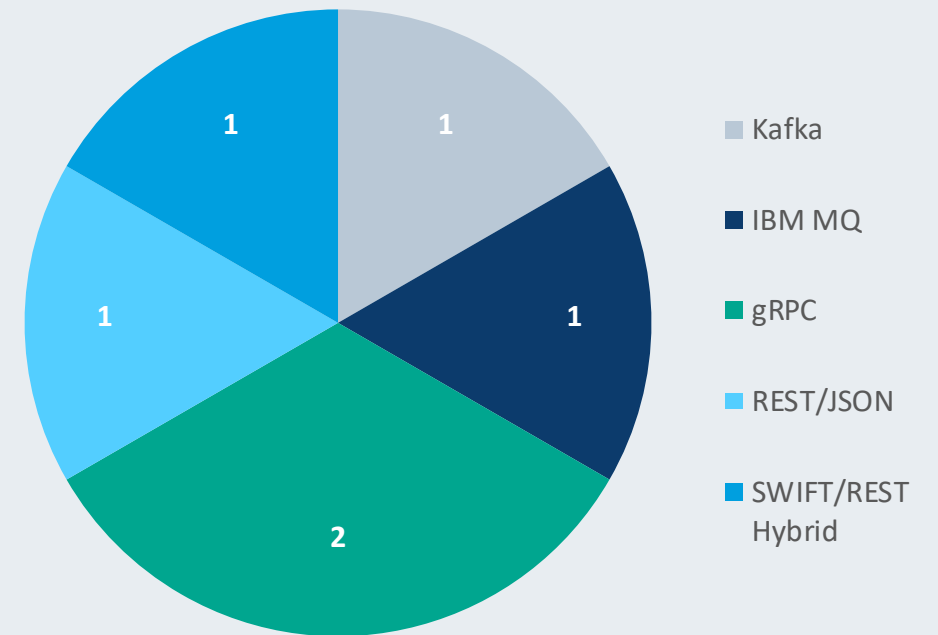05 – Proposed Interfaces
06 – Next Steps
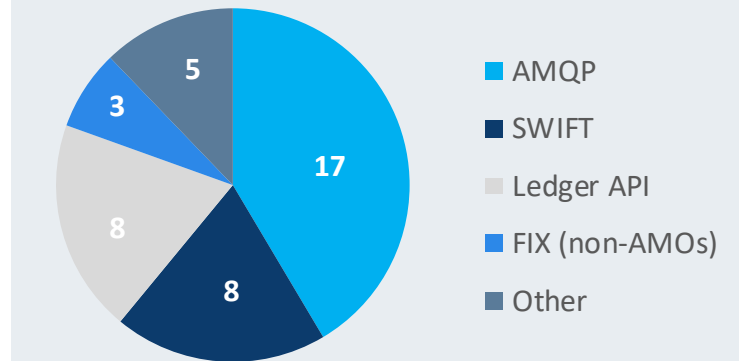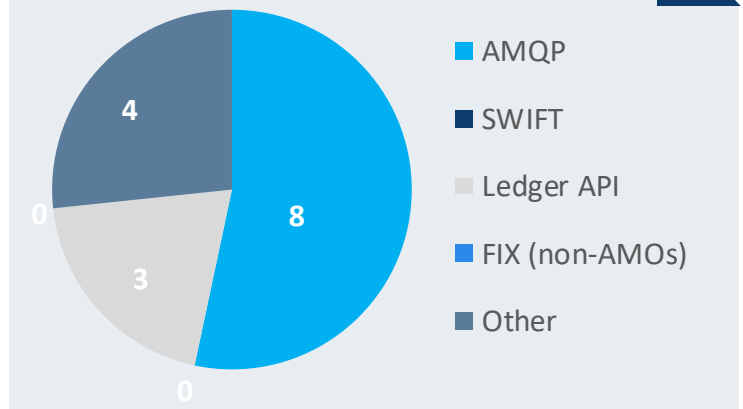
02 - Transaction interfaces

Other – Drill down

Summary

- **Kafka** - "Redesign Ledger API that was built in paused CHESS (remove DAML-LF, define as gRPC messages)."

- **IBM MQ** - <no comment provided>

- **gRPC** - "We are progressively standardising towards gRPC organisation-wide."

- **REST** - "Consider using a concise well designed REST interface, with clean and fit for purpose JSON content rather than a dated, verbose, poorly designed and confusing XML format. Being an international standard does not mean it is a modern sound format."

- **SWIFT/REST Hybrid** - "SWIFT for Standard Messaging whilst allowing for processing of high-volume messaging e.g. market trades and netting (if netting includes market trades) through an API (REST API as a preference, not Ledger API). Would be beneficial for all messaging to be in a SWIFT compatible format, in the recent global standard. Additionally, investigating offerings like Reverse Billing for SWIFT would be beneficial."

Other Proposed Interfaces

Pie chart legend:
- Kafka
- IBM MQ
- gRPC
- REST/JSON
- SWIFT/REST Hybrid

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01 – Introduction
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02 – Scheduled and ad-hoc reports
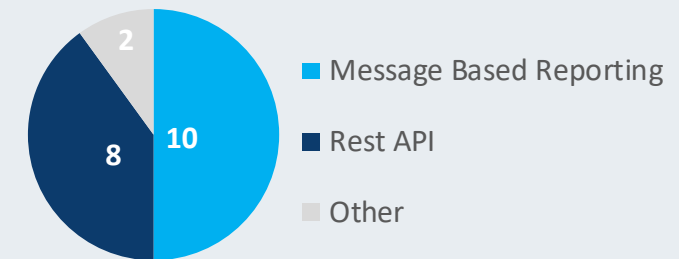
Results playback

Summary

- 10 top ranked responses for message-based reporting - (noting that is also the preferred method for vendor/in-house build respondents)

- 8 top ranked responses for REST API

- 2 top ranked responses for "Other"

    - SFTP - Sterling File Gateway (SFG) STP would be a good option

    - Dependency on vendor (presumably want independent access)

Notable comments:

- "For larger, bulk reports, CSV over SFTP or via REST API might be more suitable."

- "Combination of REST API and SFTP. Trigger via report generation by REST API and consume report via SFTP"

- "EOD Registry reporting results in updates to the register and are therefore critical in nature. Timing and sequencing of these updates is very important."
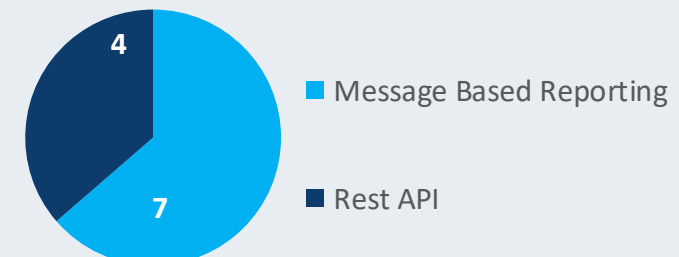
1st Ranked Reporting Interface

Pie chart values: 10, 8, 2
- Message Based Reporting
- Rest API
- Other

1st & 2nd Ranked Reporting Interface

Pie chart values: 21, 16, 4
- Message Based Reporting
- Rest API
- Other

Vendors/In-house Builds Only

Pie chart values: 4, 7
- Message Based Reporting
- Rest API

ASX

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
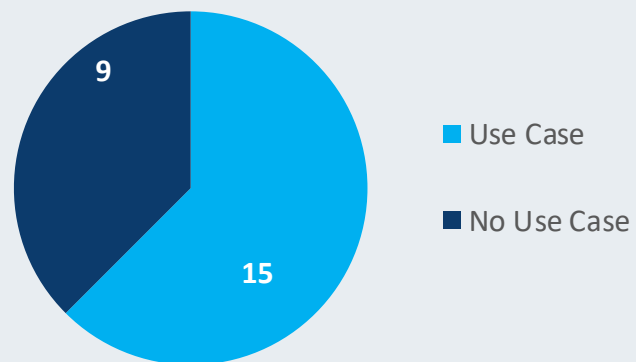05 – Proposed Interfaces
06 – Next Steps
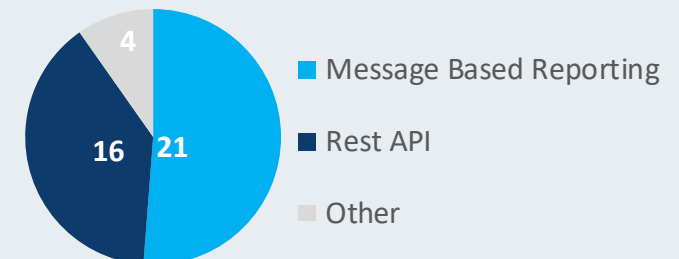
02 - Data streaming
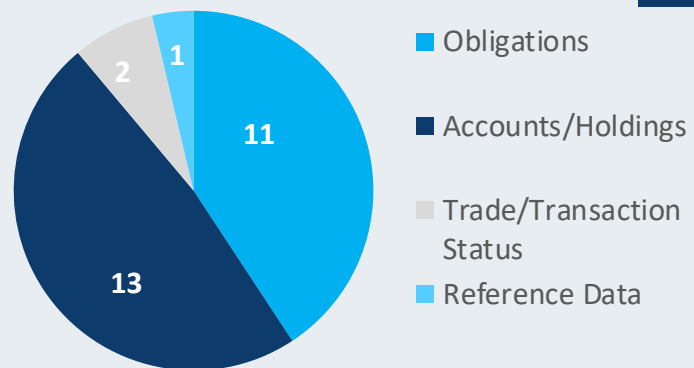## Results playback

Summary

- Majority of respondents have use cases for data streaming

- Accounts/Holdings and Obligations were popular

- 9 top ranked preferences for "Other streaming API" but a lot of diversity proposed within that including Kafka, gRPC, Apache Spark or equivalent, messaging, "ODS style" offering (where ASX provides populated DB that can be accessed), and "need to wait to see solution first"
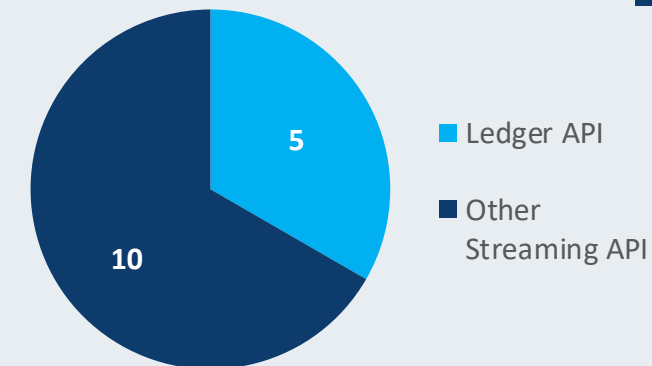
Data Streaming Use Case?

- 9
- 15
- Use Case
- No Use Case

Use Cases

- 2
- 1
- 11
- 13
- Obligations
- Accounts/Holdings
- Trade/Transaction Status
- Reference Data

1st Ranked Streaming Interface

- 9
- 5
- 10
- Ledger API
- Other Streaming API

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01 – Introduction
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02 - User interface
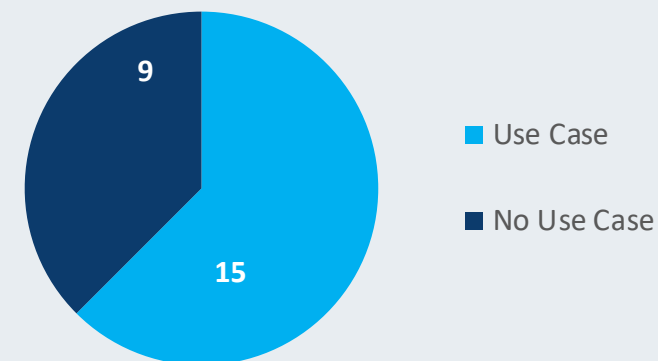## Results playback

Summary

Majority of respondents have use cases for a browser-based CHESS UI

- Ad-hoc query and csv export is the main use case

- Supplementary transaction functionality also seen as useful

- Potential to be used for low volume functions/processes that do not meet cost benefit benchmarks to build into the interfacing application

- Potential to be BCP option to settle large value transaction in an emergency

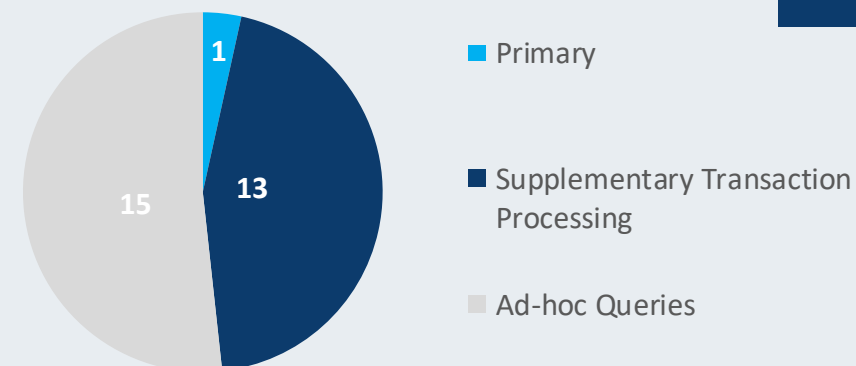- Request to support a BCP file upload capability

More information sought regarding

- Cost structure to access

- What data is available to be queried/exported

Interest in Browser User Interface

9
15

- Use Case
- No Use Case

Use Cases

1
13
15

- Primary
- Supplementary Transaction Processing
- Ad-hoc Queries

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03.1 – Connectivity: ISO20022

03.1 ISO20022
Move from a proprietary to a global standard

01 – Introduction
02 – Recap and Survey
03 – Connectivity
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06 – Next Steps

Our ISO 20022 Journey:

- In 2014, we implemented ISO 20022 format messages for STP corporate actions.

- We engaged SWIFT in 2016 to map all existing EIS messages to ISO 20022 to ensure the standard was fit for purpose.

- We announced the intention to adopt ISO 20022 messaging in a September 2016 consultation paper and, with the support of the market, confirmed its adoption in March 2017.
  (ISO 20022 Technical Committee, 13 December 2016)

- Together we analysed 496 proprietary CHESS EIS messages and, in consultation with the market from 2018 to 2021, mapped 275 EIS messages to 106 ISO 20022 base messages.
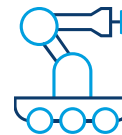
Benefits of ISO 20022 versus EIS Messaging

Standardisation
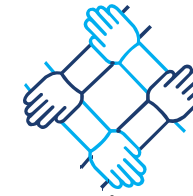
Lower barriers to entry

Futureproofing

Improve automation and efficiency

Enhanced data richness and flexible design
(e.g. nested data and repeating groups)

Regulatory compliance

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ISO20022
Via AMQP Interface

01 – Introduction
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ISO20022 in TCS BaNCS

- TCS BaNCS natively supports both **ISO15022 and ISO20022**.

- TCS has experience in **large scale ISO20022 implementations** in other markets – particularly for a T2S implementation in Europe.

- The TCS BaNCS architecture means that whilst the business processes are ISO15022/20022-compatible, the schemas used can be customised for **each specific market**.

- As a result we plan to keep ISO20022 as the primary business process model & message format standard.

- The existing schemas from the previous project will be leveraged with upgrades possible based on industry and TCS experience and best practice. **This process will be driven in the ISO Working Group.**

AMQP

- is an open, standardised, secure messaging protocol.

- was the top ranked and majority response in the connectivity survey

- is used by other market infrastructures (for example, Eurex Clearing)

- allows some Participants and vendors to leverage AMQP 1.0 development made prior to the pause of the project

The ASX considers AMQP as the most suitable replacement for the existing proprietary CHESS messaging protocol.

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03.2 – Connectivity: SWIFT

03.2 SWIFT
Considerations

ISO20022 via SWIFT

- SWIFT was offered as a connectivity channel in the previous iteration of CHESS Replacement project, however there was low take-up with only one user in ITE1/ITE2.

- Survey results from 2023 indicate that there is low interest and take up for this channel.

- The build and support costs are significant and are very sensitive to forecast take-up and volumes.

- An Alliance Access solution is limited to 40/s per Participant and 100/s across all Participants.

- Alternate and more costly solutions would be required in order to exceed Alliance Access limitations (e.g. MI Channel).

- SWIFT as a connectivity channel increases the build, test and ongoing support complexity of the solution adding to overall project risk, consumption of technology resources and cost of future changes.

> Based on low historical take-up, the survey results, the build sensitivity to forecast/actual users, and the principle of simplifying and rationalising access channels, we are proposing that SWIFT will not be offered as a connectivity channel for CHESS Users.

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03.3 – Connectivity: User Interface

03.3 – User Interface
Availability and Usage

01 – Introduction
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03 – Connectivity
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06 – Next Steps

Availability

- TCS BaNCS MI provides a Digital Frontend out of the box that will be leveraged as part of the CHESS Replacement solution

- The TCS BaNCS Digital Frontend is planned to be available for all major CHESS Users.

- This User Interface can be utilised as a secondary or complementary way to access the system, or it can be used as the primary access channel for those who are not building software.

Usage

- The UI is most suitable to be used for:
  - Low volume use cases (e.g. non-core / edge case flows)
  - Low volume users without back-office integration (e.g. some payment providers)
  - Ad-hoc data queries and reports

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03.3 – User Interface
Capabilities and Use Cases

Key Capabilities of TCS BaNCS MI Digital Frontend

- Browser-based (thin-client) application
- Multiple devices, multi browser, multi-lingual support
- Dashboards for data visualisations – including navigation to screens
- View of completed/pending actions
- Table sorting, filtering and export of data – Excel/CSV/PDF
- Collapsible panels to hide / unhide data
- Eligibility based action indicators
- Compliance to WCAG
- User preferences and personalisation of landing page and dashboards
- Auto-suggestion and auto-fill features
- Secured – HTTPS protocol
- Real time integration
- User management including Enterprise Administrator and role-based access
- Maker/checker four eyes approval workflow

Potential Use Cases for Self-Serve Data via UI

- Obtain a position summary
- Monitor funds obligations during the day
- Query statuses of settlement obligation and transaction history
- Verify of account details and/or holdings in case of reconciliation issues

> What other considerations or use cases should we consider for the User Interface?

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03.3 – User Interface
Examples

03.3 – User Interface

Examples

01 – Introduction
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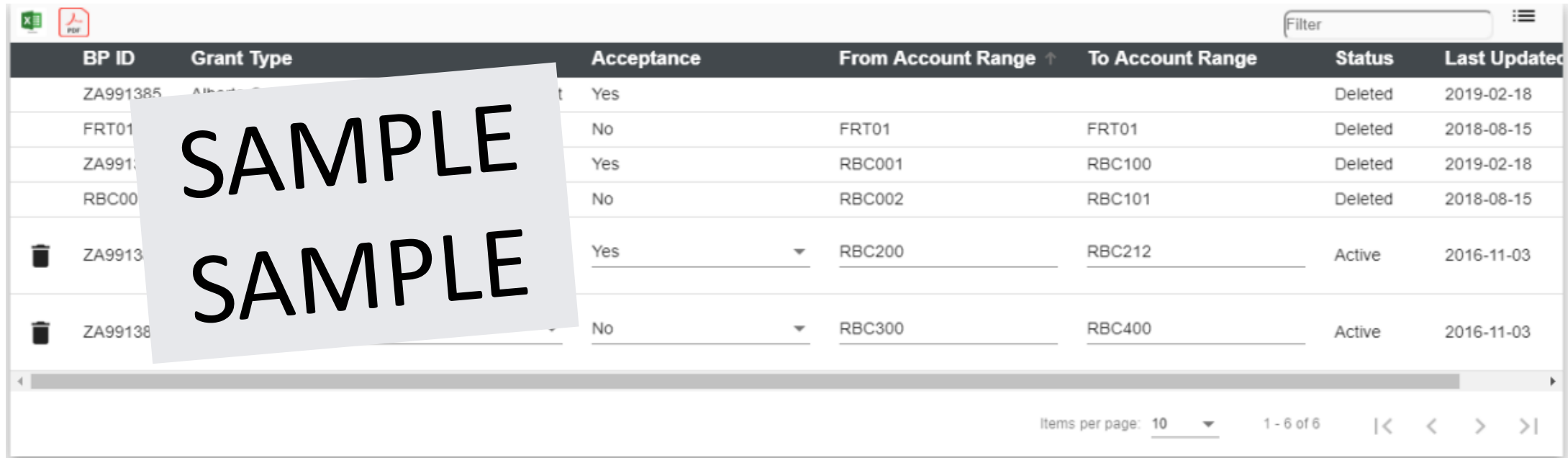06 – Next Steps

Features

- Each row can be modified/deleted based on status (e.g. records in deleted status cannot be modified)
- Sort and Filter can be completed within the current page
- Column selection
- Colum re-arrangement (swapping the order) is not available
- Modification / Deletion of records can on be completed on the current page
- Export option is available only for "All Pages" and not "Current Page"

	BP ID	Grant Type	Acceptance	From Account Range ↑	To Account Range	Status	Last Updated
	ZA991385	Albert...	Yes			Deleted	2019-02-18
	FRT01		No	FRT01	FRT01	Deleted	2018-08-15
	ZA991...		Yes	RBC001	RBC100	Deleted	2019-02-18
	RBC00...		No	RBC002	RBC101	Deleted	2018-08-15
🗑	ZA9913...		Yes	RBC200	RBC212	Active	2016-11-03
🗑	ZA99138...		No	RBC300	RBC400	Active	2016-11-03

Filter

Items per page: 10   1 - 6 of 6 |< < > >|

SAMPLE SAMPLE

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03.3 – User Interface
Examples

01 – Introduction
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Dashboards

- Dashboards can provide real-time or regular summaries of information such as outstanding, actual and projected settlements, including projected funding.

Settlement Transaction Dashboard						
	Projected Settlements		Actual Settlements		Outstanding Settlements	
Transactions/Currency	CAD	USD	CAD	USD	CAD	USD
D=Funds Deposit	0.00	0.00	0.00	0.00	0.00	0.00
E=Entitlements	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	-0.18	0.00	0.00	0.00
	0.00	0.00	6,690.00	0.00	-39,980.34	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
T=Non Exchange Trade	0.00	0.00	0.00	0.00	-488,647,674.12	-2,794,962.80
Y=Exchange Trade	0.00	0.00	6,690.00	0.00	-1,944,848,762.95	473,953.84
Total	0.00	0.00	13,379.82	0.00	-2,433,536,417.41	-2,321,008.96
Available ACV	2,000.00	0.00				
Available Funds	316,764.83	0.00				

SAMPLE

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03.4 – Connectivity:

Message Based (ISO20022) Reporting

03.4 – Message Based Reporting
Availability and Usage

01 – Introduction
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Availability

- Message based reporting is planned to be made available in ISO20022 to all CHESS users as required.
- Reports will typically be pre-defined and run at a scheduled time on a daily basis. Users can opt to subscribe to reports based on the individual business need.

Usage

- Message based reports are designed as "system to system" messages for CHESS users to automate reconciliation in their back-office system.
- Message based reports aren't designed to cater to all ad-hoc queries, and it is preferred that these kinds of queries should be directed to the UI.
- However, ad-hoc request/response use cases can be also considered where they are needed.

> Are there other ways reports are used? What frequencies should reports be available?

Potential Scope of Reporting

Report	Recipient	Purpose	Change
Total Securities Balance	Issuer (Registry)	Registries reconciliation of securities on issue within the CHESS sub-register	No change
Entitled Holding Balance Report (to replace Cum Entitlement Balance Reporting)	Issuer (Registry)	Notification to the Registries of the Entitled Holders	Replacement of the Cum Entitlement Balance Reports with an entitled holder's report. *(to be discussed further in May BDWG)*
Net Holding Movement Report	Issuer (Registry), Sponsoring Participants	End of day reconciliation of transactions for each HIN	To be made available to Participants. Includes starting balance, net movement and final holding balance per HIN.
Account Notification	Issuer (Registry)	Provide information on new holders and changing holders.	Real-time automated generation for new / changing holder records
Net Novated Delivery Position (NNDP)	Clearing Participants	Provide consolidated view of novated positions on a daily basis	New subscription based, daily report
Collateral Holdings Report	Clearing Participant	Daily report to automate reconciliation of Collateral Balances	New subscription report, to replace the ad-hoc HSBL
Bid Offer Positions Report	Bid Offeror	Daily report to automate reconciliation of Bid Offers	New subscription report, to replace the ad-hoc HSBL
Placements Account Information Reporting	Issuer (Registry)	Reporting made available to the Settlement Agent in a placement for the purposes of investor verification (*further discussion required*)	*New – further discussion required*

03.5 – Connectivity: API Access

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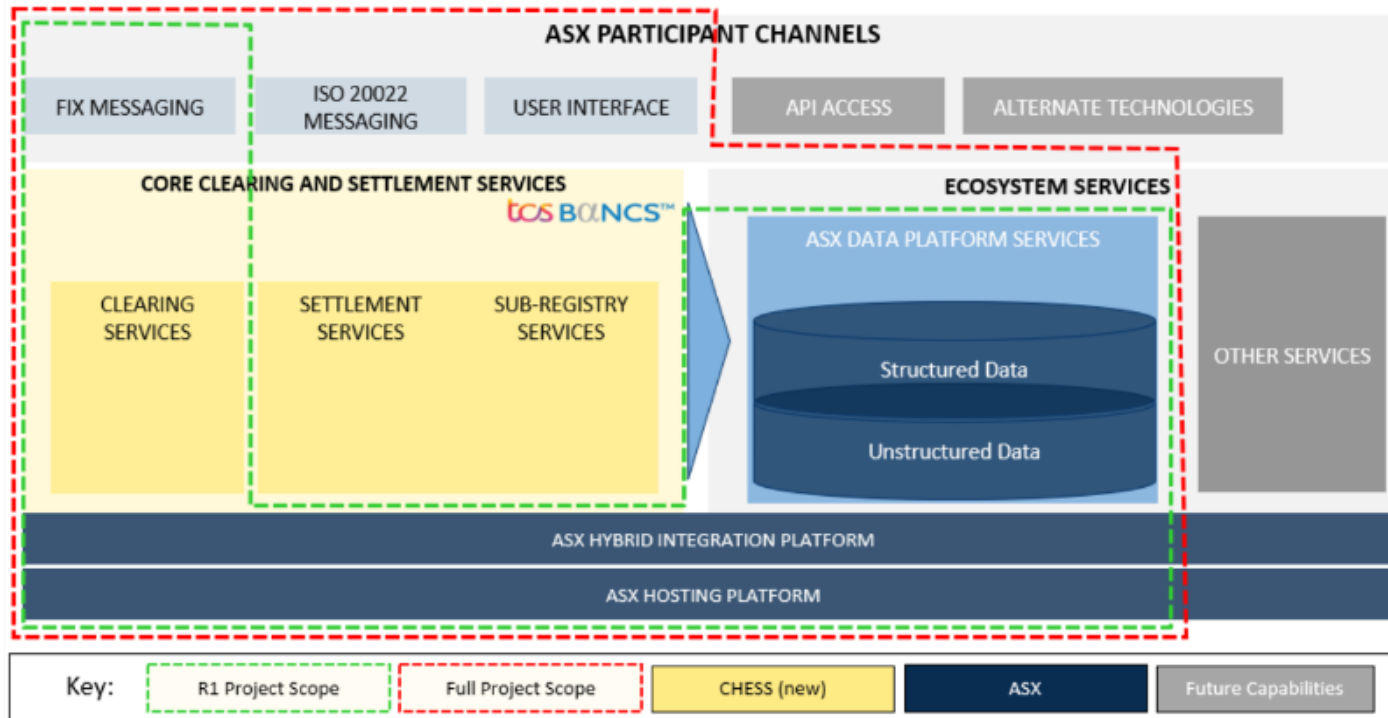# 03.5 Data Platform Services & API Access
Platform Services

Figure 3: CHESS Replacement High-Level Conceptual Architecture

ASX Data Platform Services

- The ASX Data Platform is an ASX initiative that provides a common platform for **internal data use cases**.
- For CHESS Replacement we plan to utilise this platform for **management**, **operational** and **regulatory** reports.

API Access

- This architecture would enable us to offer API access to data in the future, either via the ASX Data Platform or directly from the TCS BaNCS product.
- Currently we haven't planned to offer API access as part of R2, but we would like to better understand the use cases and priority for the industry.

How important is non-ISO20022 API access to your organisation?

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04 – Holding Balance Information

04 – Scope Objectives & Survey

Recap – Continuous Holding Balance

1.6 Continuous Holding Balance Information

Problem

- Participants would like the ability to see not just the available balance, but committed and prospective balances (e.g. committed for sale, expected to receive for a purchase).

- The ability to only retrieve balances through a large series of report requests and then manually aggregating them internally is inefficient and error prone.

- There is no functionality to request scheduled reports on a recurring basis (i.e. set and forget).

Industry Proposed Solution

- Automated reporting of balances instead of having to request this information each day.

- New functionality to enable real time access to balances.

Business Benefits & Risks

Business Outcomes/Benefits

- Improvement in operational efficiency.

- Streamline/eliminate the need for daily reconciliations.

- Better management of corporate events.

Risk/Challenges

- Optional uptake of this feature is preferred

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04 - Previous Survey Playback
## Sub-register and issuer sponsored enhancements

Question

Holding Management

Are you in favour of having greater access (in addition to current message-based reports) to more current CHESS holdings data (e.g. via real-time data API) including record date holdings and/or cum entitlement balances?

Recommendation

Strongly Support	Somewhat Support	Neutral	Not Supportive	Not Relevant/ N/A
46%	**15%**	**31%**	**8%**	**0%**
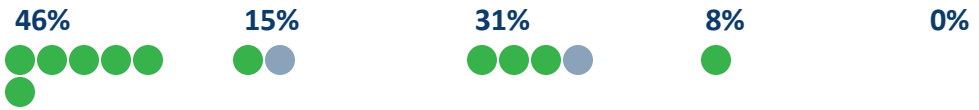
Overall: Strongly Supportive

Insights

C&S Participants
Supportive participants indicated that real time holding balances are critical to successfully operate on CHESS and provide absolute surety. They highlighted the manual reconciliation and aggregation is inefficient and risky. It was also highlighted that this would assist Corporate Actions and T+1.

Neutral customers indicated they had access to such information by using APIs and enhancements and would prefer for this feature to be optional.

Those who were not supportive deemed the feature to not be critical as there is already a process to perform this with CHESS and their vendor system.
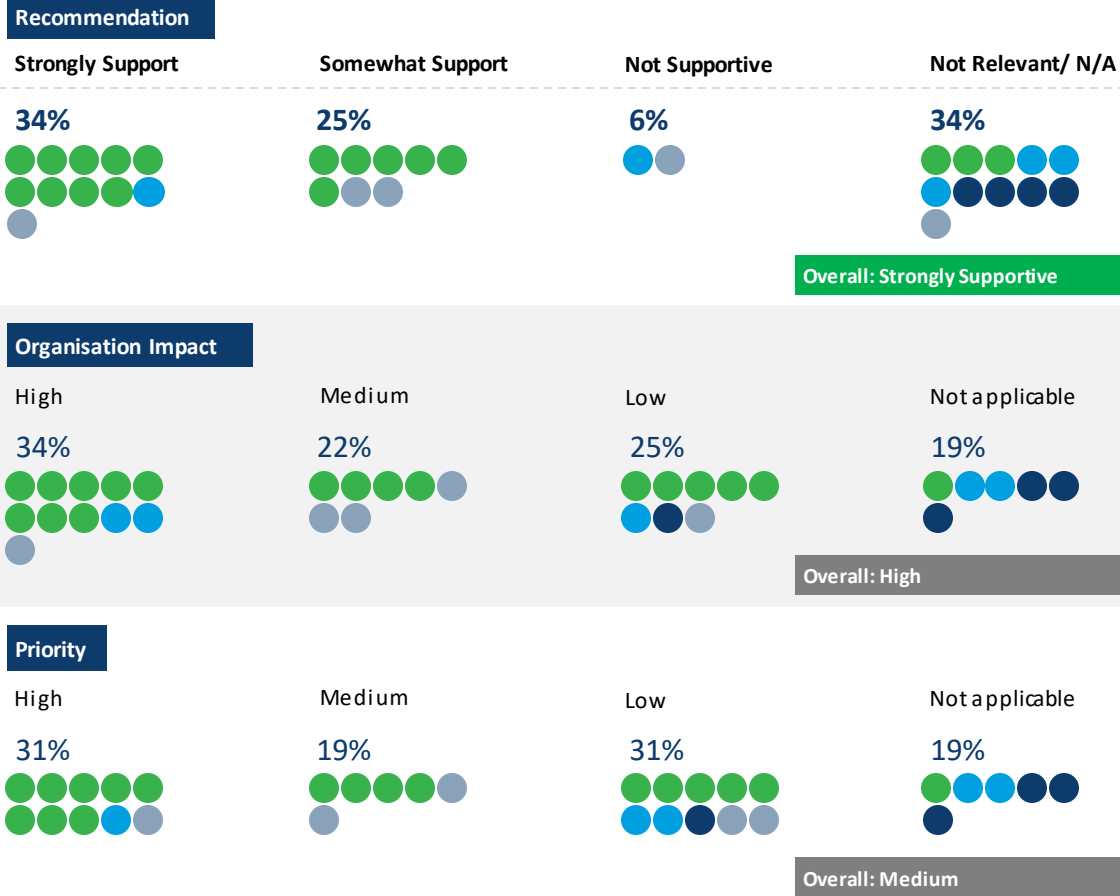
Share Registries
The supportive registries indicated having a continuously updated balance would assist in presenting a truly up to date record of ownership to investors. Further, some of the complexities involved in redemptions for ETFs could be improved with this function.

Key | ● C&S Participant ● Share Registries

ASX

04 - Previous Survey Playback
Continuous Holding Balance

Question 1.6

Continuous Holding Balance
Provide more efficient, reliable and faster access to holding information

Recommendation

Strongly Support	Somewhat Support	Not Supportive	Not Relevant/ N/A
34%	**25%**	**6%**	**34%**

Overall: Strongly Supportive

Organisation Impact

High	Medium	Low	Not applicable
34%	**22%**	**25%**	**19%**

Overall: High

Priority

High	Medium	Low	Not applicable
31%	**19%**	**31%**	**19%**

Overall: Medium

Insights

C&S Participants
Broadly, those who were supportive indicated that a real-time view of holding balances would be advantageous for operations and customers.
Set up of a direct user interface to view holding balances.

Software Providers
Supportive software providers highlighted they supported measures that simplify or streamline systems and processes or improve timeliness or accuracy of data. Some providers did highlight it was not relevant as they already have systems that handle real time holding updates and short position monitoring.

AMOs
All AMOs indicated that it wasn't relevant for them, but did highlight that the scope for the CHESS replacement project should be contained to post trade functions that are currently part of current CHESS.

Share Registries
Share registries that were supportive highlighted that it would be a positive outcome, from an investor POV, for up-to-date information to be able to be disseminated via an online investor information portal. Others indicated they would be interested to bring businesses together to discuss better workflows with the industry.

Key | ● C&S Participant ● Software Providers ● AMO ● Share Registries

ASX

04 - Problem Statement
Current vs proposed State

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
05 – Proposed Interfaces
06 – Next Steps

Holding Balance Information – Current State

- In CHESS all confirmation messages against holdings contain:
  - **Unit Quantity**
  - **New Holding Balance**

- Inclusion of the **New Holding Balance** is problematic as:
  - All messages need to be processed sequentially and sequential order needs to be retained on inbound and outbound messages. This can cause bottleneck issues and inhibit scalability, as was observed as in the previous CHESS Replacement project.
  - It is not part of the ISO20022 standard in most cases requiring supplementary data and is not typically used in other markets.

- CHESS supports the ability to request balances or holding movements on an ad-hoc basis for a single HIN or set of HINs.
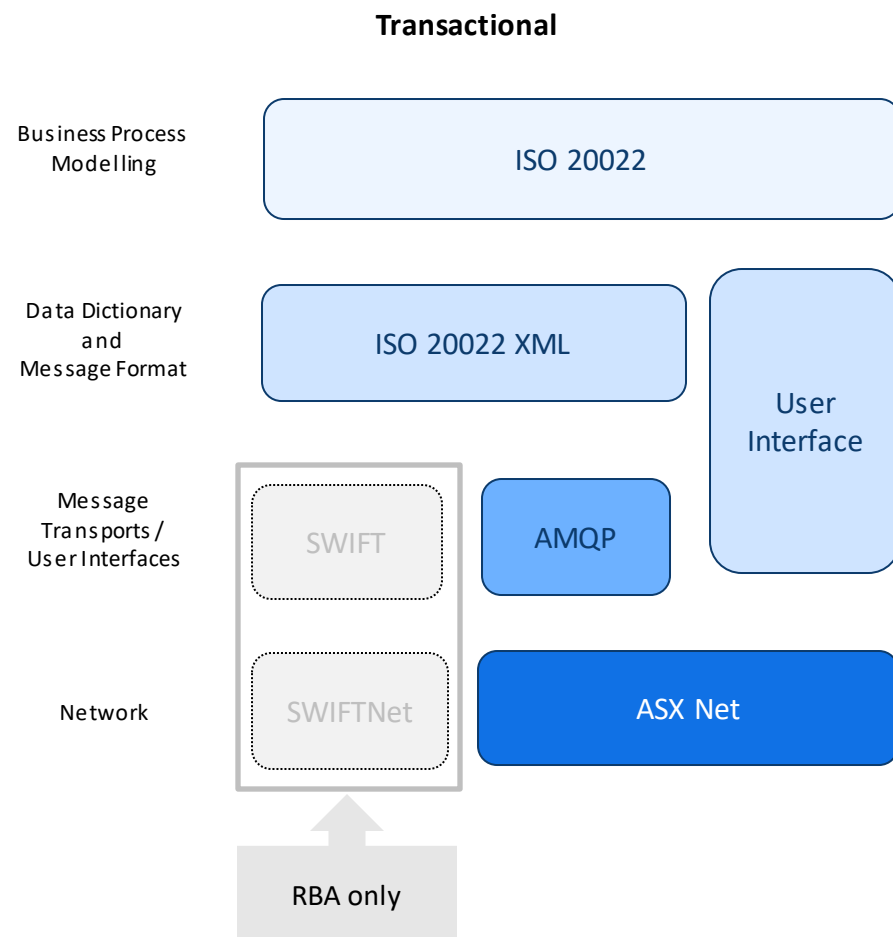
Holding Balance Information – Proposed

- All confirmation messages against holdings will contain:
  - Unit Quantity (increase/decrease)

- This information can be used by back-office systems to update balances as transactions are received.

- Holding movement reporting can be made available to all users, to provide the ability to automatically reconcile HINs subject to a movement.

- Any reconciliation issues can be diagnosed and resolved via ad-hoc enquiry to the User Interface.

- This could be provided at end of day or at other key (e.g. after batch settlement).

- In the future API-based access to Holding Balances could be considered, either via the TCS BaNCS product, or ASX data platform

ASX

05 – Summary: Proposed Interfaces

ASX

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
05 – Proposed Interfaces
06 – Next Steps

05 - Proposed Interfaces - Transactional
ISO20022 and User Interface

Transactional

Business Process Modelling → ISO 20022

Data Dictionary and Message Format → ISO 20022 XML | User Interface

Message Transports / User Interfaces → SWIFT | AMQP | User Interface

Network → SWIFTNet | ASX Net

RBA only

Transactional Interfaces – Proposed

- For transactional interfaces we propose to rationalise to:
    - ISO20022 via AMPQ for primary system-to-system integrations
    - User Interface for low volume users and use cases

- SWIFT would not be offered as a CHESS User connectivity channel, except it will continue to be used for connectivity to the RBA.
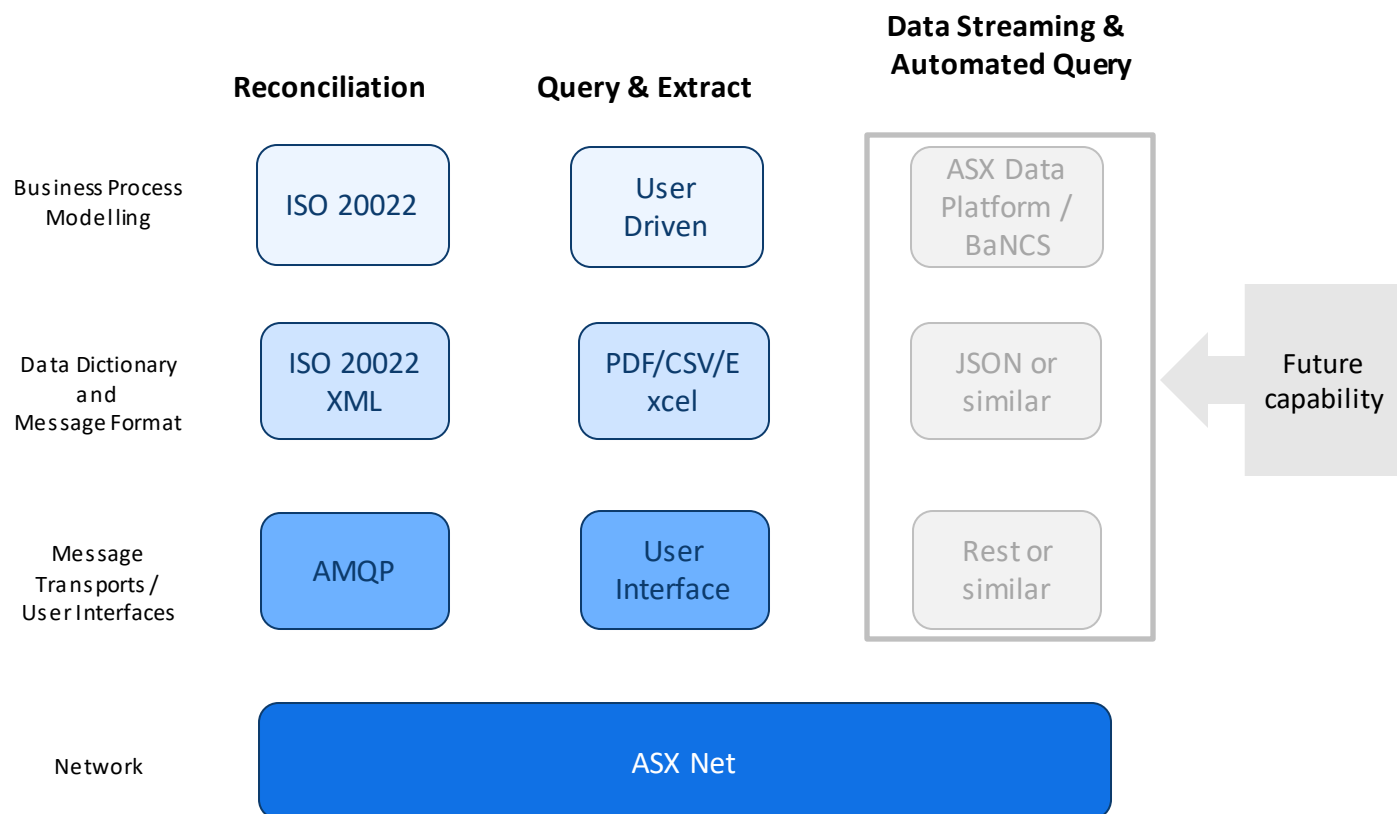
ASX

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
05 – Proposed Interfaces
06 – Next Steps

05 - Proposed Interfaces – Reporting & Reconciliation
ISO20022 and User Interface

Data Streaming & Automated Query

Reconciliation

Query & Extract

Business Process Modelling

| ISO 20022 | User Driven | ASX Data Platform / BaNCS |

Data Dictionary and Message Format

| ISO 20022 XML | PDF/CSV/Excel | JSON or similar |

Future capability

Message Transports / User Interfaces

| AMQP | User Interface | Rest or similar |

Network

ASX Net

Data Access – Proposed

- For data access we propose to rationalise to:
  - ISO20022 via AMPQ for automated system reconciliation
  - User Interface for ad-hoc and history queries
- API based access for system-based query and/or data streaming could be part of the roadmap post-release 2

ASX

06 – Next Steps

06 – Next Steps
Preparation steps to complete

01 – Introduction
02 – Recap and Survey
03 – Connectivity
04 – Holding Balance
05 – Proposed Interfaces
06 – Next Steps

> Review the draft Business Design Document when received in approximately 2 weeks and provide feedback to us within the required timeframe

> Please inform ASX of any changes to your nominated representatives to CHESSReplacement@asx.com.au

> Complete the feedback request that will be shared with you after this workshop

ASX

QUESTIONS?

Disclaimer

ASX

THANK YOU.