CHESS Replacement Project

Implementation & transition working group webinar

23 November 2022

ASX

Housekeeping: trouble shooting

- Check your system requirements

- Audio options:

  1. Use your computer's mic and speakers ("Computer audio"). Check that your computer's audio is unmuted

  2. Use a telephone to dial in ("Phone call")

     – Phone number: **+61 2 8355 1054**

     – Access code: **824-261-098**

     – No need to enter an Audio PIN as audience is muted

     – If you are still experiencing audio difficulties, try downloading the GoTo Webinar Application on your smart phone, and enter the Webinar ID: **471-070-307**

  Further information:

https://support.goto.com/webinar/how-to-join-attendees

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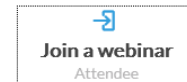
- ⊘ **OS** - Windows 8.1
- ⊘ **Browser** - IE 11
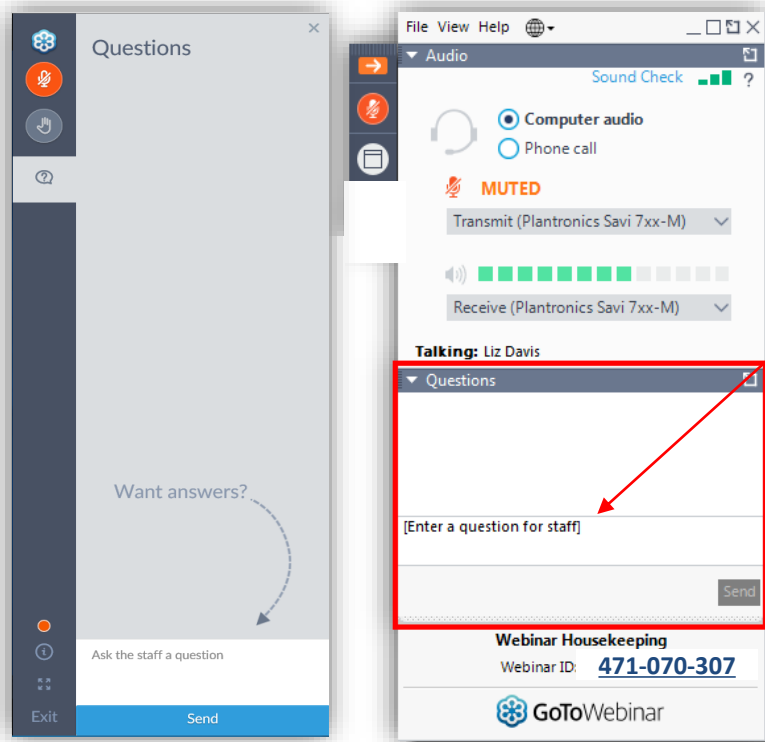- ⊘ **Internet connection** - Strong
- ⊘ **Flash** - Enabled

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Next steps

→] **Join a webinar**
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ⓘ **Learn How**
Join guide

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Housekeeping: how to submit questions

Your Participation

- To submit your text questions and comments use the Questions panel
- Note that your questions will not be seen by other attendees

For more information - refer to the webinar tips published on the ASX CHESS Replacement web page

Agenda

- Market announcement

- Accenture report overview

- ASX perspective

- Q&A

- Next steps

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Presenters and introductions

- Keith Purdie

- Tim Hogben

- Srikant Yennamandra

- Dan Chesterman

- Tim Whiteley

ASX

Market announcement

Market announcement

Key points

- ASX will reassess all aspects of the CHESS replacement project following completion of the independent review conducted by Accenture and its own internal assessment

- The independent report identifies significant challenges with the solution design and its ability to meet ASX's requirements

- We need to revisit the solution design immediately to assess changes required to bring the project to market safely, efficiently and for the long-term

- Current activities on the project have been paused while ASX revisits the solution design

- Current CHESS remains secure and stable, and is performing well. ASX will continue to invest in its capacity and resilience

- A Project Director with extensive technology transformation experience has been appointed for the next phase of the CHESS replacement project

- ASX remains committed to providing the best long-term clearing and settlement solution for the Australian financial market

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Accenture report overview

Accenture Report

Summary of role

- In August 2022, Accenture was appointed to conduct an independent review of the CHESS Replacement Application delivery.

- The Review was conducted for the purpose of bringing external expertise to assess the remaining work required to complete delivery of the CHESS Replacement Application, as well as to identify necessary actions for ASX to communicate a revised timeline to finish the project. The report is available here.

- Taking place over 12 weeks through a collaborative approach with ASX and DA, the Review included the following activities;

  - **Detailed review and analysis of artefacts** related to the CHESS Replacement Application and focus areas.

  - **Stakeholder Workshops and Interviews** to capture additional detail and seek further clarification on focus areas.

  - **Governance Meetings** across workshop group, management and sponsor level inclusive of project RAID tracking.

  - **Findings Hypothesis and Validation**, grouped into common themes and documented.

  - **Detailed recommendations** aligned to overarching themes.

- The findings and recommendations of this report are limited to the CHESS Replacement Application delivery capabilities managed by ASX and DA. This should not be considered a CHESS Replacement Program-wide or ASX organisation-wide assessment.
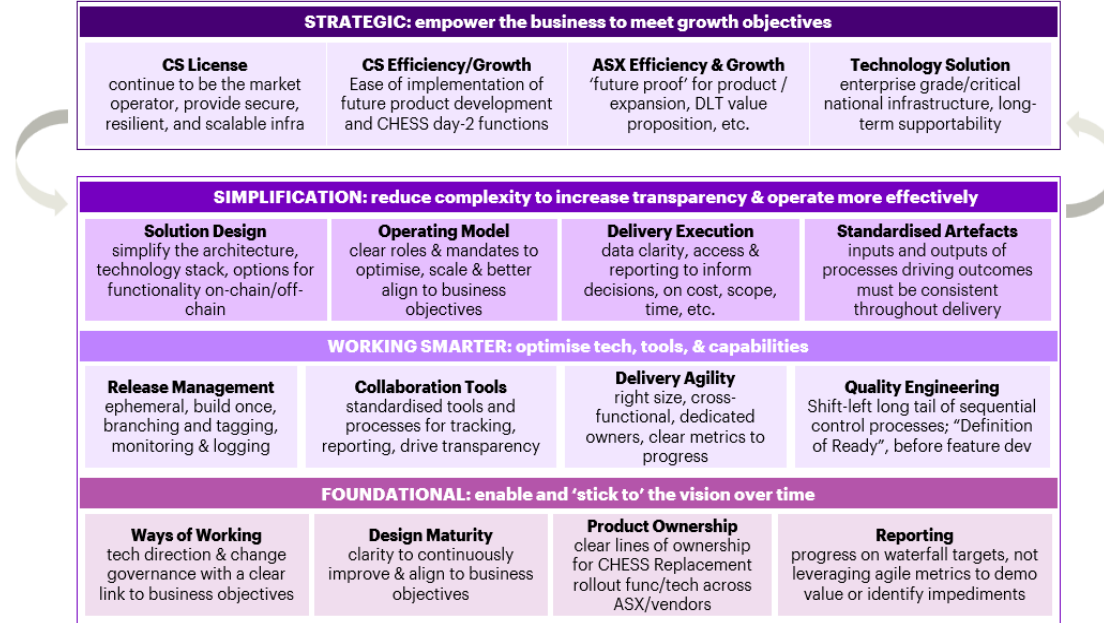
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Accenture Report

Summary of scope

- Accenture reviewed the current solution for the CHESS Replacement Application along with client node and ledger components, supporting architecture, design, current implementation, and a high-level sample code review to examine practices and levels of technical debt post-deployment. Accenture also reviewed the solution in relation to **scalability**, **resiliency**, and **supportability**. This involved:

  1. Review of the six CHESS Replacement Application Core Issues identified by ASX and DA.

  2. The Delivery Assessment consisted of:

     i. The **Solution Review** focused on the solution design and architecture for the CHESS Replacement Application, use of Daml and VMware Blockchain, and a code review to develop a set of recommendations.

     ii. The **Capability Assessment** focused on the maturity of the software delivery lifecycle processes managed by ASX and DA.

     iii. The **draft delivery plan** provided by DA was reviewed to understand the remediation activities required to address the Core Issues for the purpose of planning and timeline discussions. Note, this was a draft plan which was reviewed point-in-time to provide feedback and shouldn't be considered final or complete.

  3. A set of 45 **recommendations** that were grouped to a set of 12 areas of focus across ways of working, software delivery, quality engineering efficiency, and solution design.

1. CHESS REPLACEMENT APPLICATION CORE ISSUES REPORT

Core Issues and Underlying Drivers

2. CHESS REPLACEMENT APPLICATION DELIVERY ASSESSMENT

i. Solution Review Findings

ii. Capability Assessment Findings

iii. Draft Delivery Plan Review Findings

3. CHESS REPLACEMENT APPLICATION RECOMMENDATIONS

Recommendations

Accenture Report

Summary of recommendations

- Accenture has identified 45 recommendations (Figure 10: Delivery Assessment Recommendations Summary and Phasing, p33) through the Solution Review, Capability Assessment, and Draft Delivery Plan Assessments. These recommendations have been aligned to a set of 12 areas of focus (Figure 9: Delivery Assessment Recommendations Theme Alignment, p32) across ways of working, software delivery, quality engineering efficiency, and solution design.

STRATEGIC: empower the business to meet growth objectives			
CS License continue to be the market operator, provide secure, resilient, and scalable infra	**CS Efficiency/Growth** Ease of implementation of future product development and CHESS day-2 functions	**ASX Efficiency & Growth** 'future proof' for product / expansion, DLT value proposition, etc.	**Technology Solution** enterprise grade/critical national infrastructure, long-term supportability

SIMPLIFICATION: reduce complexity to increase transparency & operate more effectively			
Solution Design simplify the architecture, technology stack, options for functionality on-chain/off-chain	**Operating Model** clear roles & mandates to optimise, scale & better align to business objectives	**Delivery Execution** data clarity, access & reporting to inform decisions, on cost, scope, time, etc.	**Standardised Artefacts** inputs and outputs of processes driving outcomes must be consistent throughout delivery

WORKING SMARTER: optimise tech, tools, & capabilities			
Release Management ephemeral, build once, branching and tagging, monitoring & logging	**Collaboration Tools** standardised tools and processes for tracking, reporting, drive transparency	**Delivery Agility** right size, cross-functional, dedicated owners, clear metrics to progress	**Quality Engineering** Shift-left long tail of sequential control processes; "Definition of Ready", before feature dev

FOUNDATIONAL: enable and 'stick to' the vision over time			
Ways of Working tech direction & change governance with a clear link to business objectives	**Design Maturity** clarity to continuously improve & align to business objectives	**Product Ownership** clear lines of ownership for CHESS Replacement rollout func/tech across ASX/vendors	**Reporting** progress on waterfall targets, not leveraging agile metrics to demo value or identify impediments

(Refer to: ASX CHESS Replacement Application Delivery Review, Figure 2: Delivery Assessment Recommendations, p8, p31)

ASX perspective

ASX Perspective

The independent report has raised significant issues, which we acknowledge

- **Application readiness**

  - The report estimates the application software is 63% complete (i.e. delivered and mostly tested) when considering both functional and non-functional requirements

  - The timeline to completion is uncertain, particularly given the complexity of the project and the challenges with the solution that have been identified

- **Complexity in the integrated solution**

  - The report identifies complexity in the integrated solution design, including in the way ASX requirements interact with the application and underlying ledger

  - These complexities contribute to challenges in achieving the necessary supportability, scalability and stability for clearing and settlement

- **Project governance**

  - The report identifies vendor management issues in the way teams from ASX and its delivery partner Digital Asset operate and interact which present challenges in project delivery

  - The report observes a number of inefficiencies in the delivery lifecycle through to testing, with siloed execution and reporting resulting in misaligned views of status on delivery progress, risks and issues

ASX Perspective

Maintaining the stability of existing CHESS

- To date, ASX has undertaken continuous efforts to strengthen current CHESS. We upgraded current CHESS to manage elevated trade capacity post the COVID-19 trading volumes in 2020

- We will continue to invest and have an ongoing progamme of work to ensure the scalability and useful life of current CHESS continues until CHESS can be safely replaced

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ASX Perspective

Implementing enhanced governance

- **Appointment of a highly experienced technology transformation executive**

    - Tim Whiteley has been appointed as Project Director

    - Tim Hogben continues as Project Sponsor

- **New industry forum**

    - Implementation of a new industry forum to provide input on the CHESS replacement project as well as receiving status reports on progress

    - The new forum will complement the existing Business Committee

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ASX Perspective

Industry Test Environments and supporting tools to be deactivated

- **ITE1 – for software providers**

  - Access to ITE1 will be terminated by 9am, **30 November 2022** and relevant customers have been notified

  - Initial accreditation process in ITE1 is no longer required at this time; including for organisations that were already scheduled to perform initial accreditation

- **ITE2 – for CHESS users**

  - Any organisations undertaking onboarding have already been notified that connectivity to ITE2 will be disabled

  - All applicants to ITE2 have been notified that access will be terminated

- **Documentation portal**

  - The portal has already been **deactivated**, further updates will be **paused** whilst ASX understands and evaluates the solution design options for the replacement of CHESS

- **Registration Details tool**

  - CHESS user organisations making use of this tool for remediation of accounts and registration details will be provided with notice that support for the tool will be suspended pending the outcome of the next phase of the project

ASX Perspective

Potential paths forward

- We remain committed to building a contemporary, high-quality system, that's fit for purpose and meets ASX and the market's needs

- Further planning now needs to be undertaken by ASX to understand and evaluate the solution design options and their potential impacts

- The solution design process will consider a number of broad options

- ASX will be mindful of the specifications stakeholders have worked to, including connectivity channels and business processes as well as existing CHESS replacement requirements

- We expect to provide an update on progress at ASX's half-year results presentation in February 2023

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ASX Perspective

Stakeholder engagement activities

- Stakeholder engagement anticipated to commence after ASX's half-year results presentation in February 2023

    - Webinars, working groups and formal consultation as required

- Timing and details for new industry forum to be announced in due course

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Q&A

Next steps

ASX

Next steps

Review and feedback:

- Webinar recording, slides and Q&A will be published on the CHESS Replacement webpage

- Provide feedback by contacting **CHESSReplacement@asx.com.au** – use "I&T webinar" as the subject heading

- Feedback welcome by COB Wednesday, 7 December 2022

No further I&T Working Group meetings

- Future stakeholder engagement will be communicated

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Thank you.

Disclaimer

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